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Alpha Numeric By Product

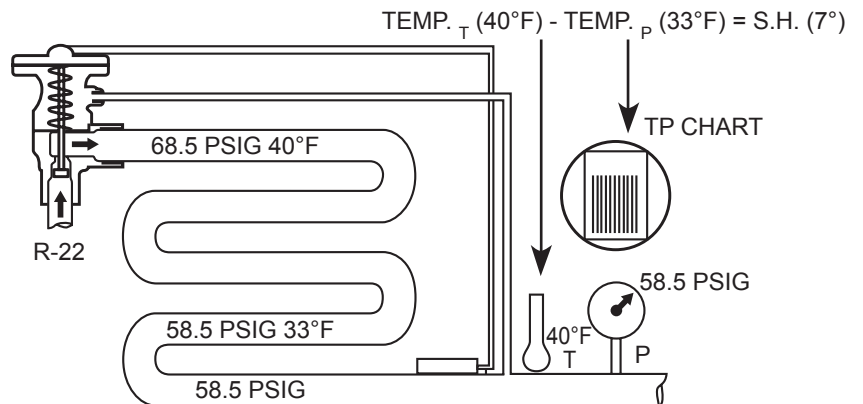
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Reference Sheet

<p>1 psi = 6.895 kPa</p> <p>1 Atm = 14.7 psi</p> <p>1 Bar = 14.5 psia</p> <p>1 In = 2.54 cm / 25.4 mm</p> <p>1 BTU = .252 kcal</p> <p>1 Ton = 12,000 BTUH</p> <p>1 Ton = 3.517 kWh</p> <p>1 Lb = .4536 kg</p>	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: right;">°F</td> <td style="text-align: left;">°C</td> </tr> <tr> <td style="text-align: right;">-40</td> <td style="text-align: left;">= -40</td> </tr> <tr> <td style="text-align: right;">-20</td> <td style="text-align: left;">= -29</td> </tr> <tr> <td style="text-align: right;">0</td> <td style="text-align: left;">= -18</td> </tr> <tr> <td style="text-align: right;">+20</td> <td style="text-align: left;">= -7</td> </tr> <tr> <td style="text-align: right;">+40</td> <td style="text-align: left;">= +4</td> </tr> <tr> <td style="text-align: right;">+70</td> <td style="text-align: left;">= +21</td> </tr> <tr> <td style="text-align: right;">+100</td> <td style="text-align: left;">= +38</td> </tr> <tr> <td style="text-align: right;">+120</td> <td style="text-align: left;">= +49</td> </tr> <tr> <td style="text-align: right;">+140</td> <td style="text-align: left;">= +60</td> </tr> </table>	°F	°C	-40	= -40	-20	= -29	0	= -18	+20	= -7	+40	= +4	+70	= +21	+100	= +38	+120	= +49	+140	= +60
°F	°C																				
-40	= -40																				
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+20	= -7																				
+40	= +4																				
+70	= +21																				
+100	= +38																				
+120	= +49																				
+140	= +60																				

MEASURING OPERATING SUPERHEAT

1. Determine suction pressure with accurate gauge at evaporator outlet. On close coupled installations, suction pressure may be read at compressor suction connection.
2. From refrigerant pressure - temperature tables, determine saturation temperature at observed suction pressure.
3. Measure temperature of suction gas at TXV remote bulb location.
4. Subtract saturation temperature read from tables in step No. 2 from temperature measured in step No. 3. Difference is superheat of suction gas.



TXV SUPERHEAT ADJUSTMENT							
Valve Family	Total Turns	Degrees of SH Per Turn					
		R-22		R-134a	R-404A/507A		R-410A
		+20°F	-20°F	+20°F	+20°F	-20°F	+40°F
TCLE	32	0.8	1.5	1.0	0.5	1.0	N/A
HF	10	2.2	4.2	3.8	1.8	3.2	N/A
A	8	3.0	5.0	4.5	2.0	4.0	2
TRAE	10	2.2	4.2	3.8	1.8	3.2	N/A

Turn adjustment clockwise to increase superheat, counterclockwise to decrease superheat. To return to approximate original factory setting, turn adjustment stem counterclockwise until the spring is completely unloaded (reaches stop or starts to "ratchet"). Then, turn it back in one half of the "Total Turns" shown on the chart.

Thermal Expansion Valve Quick Select Guide

Application	Nominal Capacity (R-22)	Valve Family	Adjustable Superheat	Internal Check	Style			Connections		Configuration		Port		Page
					Hermetic	Replaceable Power Element	Field Serviceable	SAE	ODF	Angle	Straight	Conventional	Balanced	
Air Conditioning and Refrigeration	1/4 to 5	AA	X		X				X		X	X		2
	1/4 to 5	AN			X				X	X	X	X		2
	1/4 to 5	AAC	X	X	X				X		X	X		3
	1/4 to 5	ANC		X	X				X	X	X	X		3
	1/4 to 5	AFA	X		X			X		X		X		11
	1/3 to 5	TI	X				X	X		X		X		32
	1/2 to 6	BA	X		X				X		X		X	5
	1/2 to 6	BN			X				X	X	X		X	5
	1/4 to 5 1/2	HFK	X				X	X	X	X	X		X	13
	1/4 to 5 1/2	HF	X				X	X	X	X	X		X	13
	8 to 20	HF EXT	X				X		X	X	X		X	13
	8 to 20	TF	X				X		X		X		X	31
	1/2 to 12	TL					X	X	X	X	X	X		29
	1/2 to 12	TCL	X				X	X	X	X	X	X		25
	11 and 14	TJL	X				X		X	X	X	X		25
	14 and 18	TJR	X				X		X	X	X		X	25
	22 to 45	TER	X				X		X	X	X		X	25
	55	TIR	X				X		X	X	X		X	25
	70 and 85	THR	X				X		X	X	X		X	25
	100	TMR	X				X		X	X	X		X	25
10 to 40	TRAE+	X				X		X		X		X	22	
50 to 70	TRAE	X			X			X		X		X	23	
Constant Pressure	1/2 to 5	ACP			X				X		X	X		42
Electrically Driven	1 to 20	ESVB			X				X	X				38
	1/4 to 4	EX2			X				X	X				40
Ultra-Low Temp	3/4 to 8	ZZ	X				X	X	X	X	X	X		33
De-Superheating		LA	X		X				X		X	X		37
		LCL	X				X	X	X	X	X	X		35

Charge Code Selector

Applications	Operating Ranges										
R-134a/R-12 Domestic Refrigerators and Freezers, Ice Makers, Dehumidifiers, Transport Refrigeration, Medium Temperature Supermarket Equipment, Medium Temperature Commercial Equipment	MC/FC										
	MZ/FZ										
	MW15/FW15 (MOP)										
	MW35/FW35 (MOP)										
	MW55										
R-22 Residential Air Conditioners & Heat Pumps, Commercial and Industrial Chillers, Medium Temperature Supermarket Equipment, Commercial Air Handlers	HCA/HAA AIR COND. & HEAT PUMP										
	HW/HW100										
	HC										
	HW65 (MOP)										
	HZ										
R-404A/R-507/R-502 Low Temperature Cases, Ice Makers, Commercial Air Handlers, Conditioners, Soft Ice Cream Machines, Environmental Chambers	SC/RC										
	SZ/RZ										
	SW45/RW45 (MOP)										
R-410A	ZW195										

Thermal Expansion Valves
 Solenoid Valves
 Coils
 Industrial Solenoid Valves
 Shut Off Valves
 System Protectors
 Storage Devices
 Oil Controls
 Pressure Regulators
 Temperature Pressure Controls
 Competitive Cross Reference

A-Series Thermal Expansion Valve

The A-series is used for heat pump, air conditioning, food services and commercial applications.



Features

- Stainless steel power element eliminates corrosion and prevents valve failure
- Hermetic, leak-free construction
- Compact size allows installation in limited spaces
- Mass spectrometer tested to ensure less than 0.10 oz/year external leakage rate

Options

- ZW195 charge available for R-410A systems
- Adjustable or non-adjustable superheat
- SAE or ODF connections standard – Chatteff or Aeroquip are available
- External or internal equalizer
- Internal check valve allows reverse flow for heat pump applications, eliminating the need for external piping and external check valve
- Bleed type pressure equalization to accommodate PSC type compressors
- Pressure limiting charges (MOP) available – consult factory

Specifications

Maximum working pressure: 700 psig
 UL/CUL file number: SA 5312

Nomenclature example: AACEB 2 HC 30 IN 3/8 x 1/2 ODF ANG

A	A	C	E	B	2	H	C	30 IN	3/8 x 1/2	ODF	ANG
Valve Series Hermetic Design	Superheat Adjustment A = Adjustable N = Non-Adjustable	Internal Check Valve (optional) Reverse Flow Bypass Application	Equalizer E=External (Omit for Internal)	Bleed Hole (optional) (Omit for no bleed hole)	Capacity Nominal Rating in Tons (See nominal capacity table below)	Refrigerant Code +F = R-12 • H = R-22 +M = R-134a • N = R-407C *P = R-507 *R = R-502 *S = R-404A Z = R-410A	Charge Code C = medium temp CA = heat pump W(MOP) = press. limiting Z = low temp AA = wide range	Capillary Tube Length 30 IN & 5 FT (std) (others available)	Inlet x Outlet Connection Sizes 1/4 x 3/8 3/8 x 1/2 1/2 x 5/8 5/8 x 7/8	Connection Type SAE=flare ODF = solder Chatteff (optional) Aeroquip (optional)	Configuration S/T = straight-thru ANG = 90° angle

+ = R-12 and R-134a are interchangeable refrigerant charges
 * = R-507, R-502 and R-404A are interchangeable refrigerant charges
 • = R-22 and R-407C are interchangeable refrigerant charges

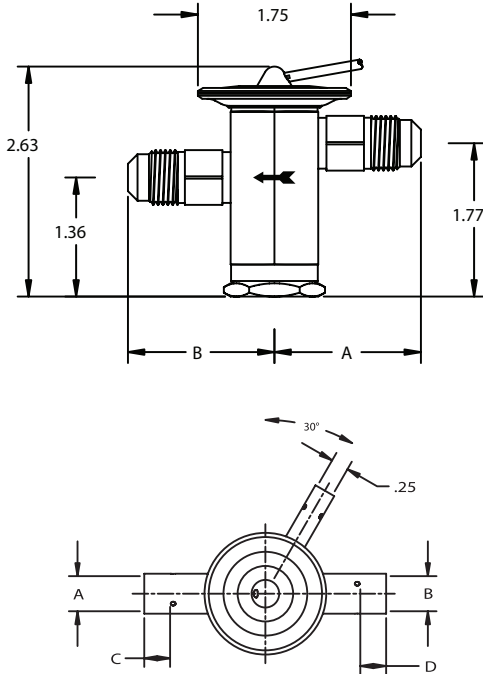
AA/AN Series – Nominal* Capacity Table in Tons (kW)

R-12	R-134a	R-22	R-410A	R-502	R-507/R-404A	R-407C
-	1/8 (0.4)	1/5 (0.7)	-	-	1/8 (0.4)	1/5
1/8 (0.4)	1/4 (0.9)	1/4 (0.9)	1/4 (0.9)	1/8 (0.4)	1/4 (0.9)	1/4 (0.9)
1/4 (0.9)	1/2 (1.8)	1/2 (1.8)	1/2 (1.8)	1/4 (0.9)	1/2 (1.8)	1/2 (1.8)
1/2 (1.8)	3/4 (2.7)	1 (3.5)	1 (3.5)	1/2 (1.8)	3/4	1 (3.5)
1 (3.5)	1 (3.5)	1½ (5.3)	1½ (5.3)	1 (3.5)	1 (3.5)	1¼ (4.4)
-	1½ (5.3)	2 (7.0)	2 (7.0)	-	1¼ (4.4)	2 (7.0)
1½ (5.3)	2 (7.0)	2½ (8.8)	3 (11.0)	1½ (5.3)	2 (7.0)	2½ (8.8)
2 (7.0)	2½ (9.0)	3 (11.0)	4 (14.0)	2 (7.0)	2½ (8.0)	3¼ (11.5)
2½ (9.0)	3 (11.0)	4 (14.0)	5 (17.0)	2½ (8.8)	2½ (8.8)	4 (14.0)
3 (11.0)	4 (14.0)	5 (17.0)	-	3 (11.0)	3½ (12.0)	5¼ (19.0)

All capacities shown are at 100°F condensing, 40°F evaporator temperature.
 *See Extended Capacity Tables for ratings at a wide range of conditions per ARI standard 750.

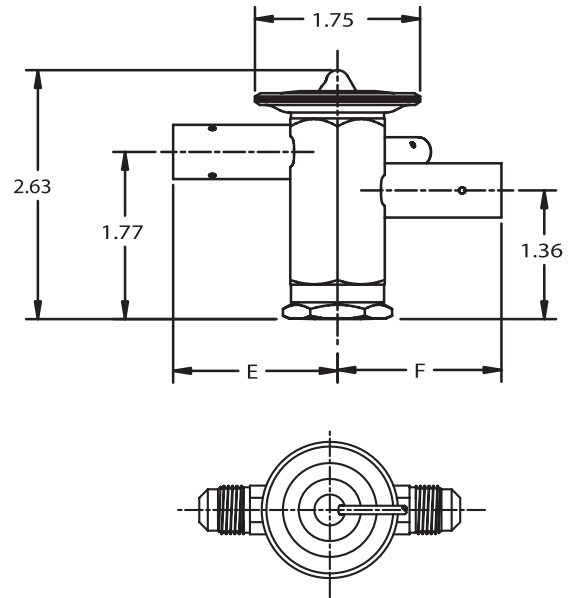
ANCE SAE Dimensional Data

Connection Size		A	B
Inlet	Outlet		
3/8 SAE	3/8 SAE	1.67	1.67
1/2 SAE	1/2 SAE	1.75	1.75



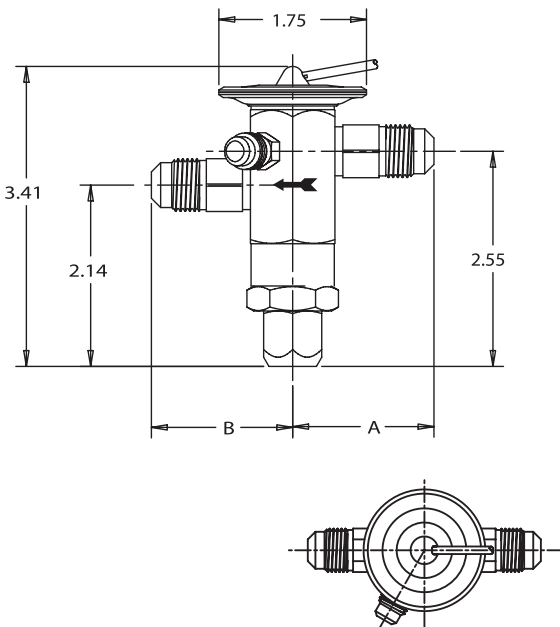
ANCE ODF Dimensional Data

Connection Size		A± .002	B± .002	C MIN	D MIN	E	F
Inlet	Outlet						
1/4 ODF	3/8 ODF	0.25	0.38	0.32	0.32	1.70	1.73
3/8 ODF	3/8 ODF	0.38	0.38	0.32	0.32	1.70	1.73
3/8 ODF	1/2 ODF	0.38	0.50	0.32	0.38	1.73	1.73
1/2 ODF	1/2 ODF	0.50	0.50	0.38	0.38	1.73	1.73
1/2 ODF	5/8 ODF	0.63	0.61	0.38	0.50	1.75	1.75



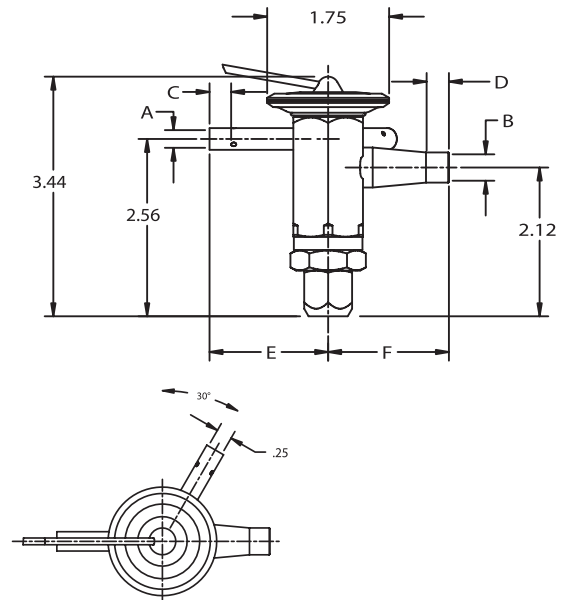
AACE SAE Dimensional Data

Connection Size		A	B
Inlet	Outlet		
3/8 SAE	3/8 SAE	1.67	1.67
1/2 SAE	1/2 SAE	1.75	1.75



AACE ODF Dimensional Data

Connection Size		A± .002	B± .002	C MIN	D MIN	E	F
Inlet	Outlet						
1/4 ODF	3/8 ODF	0.25	0.38	0.32	0.32	1.70	1.73
3/8 ODF	3/8 ODF	0.38	0.38	0.32	0.32	1.70	1.73
3/8 ODF	1/2 ODF	0.38	0.50	0.32	0.38	1.73	1.73
1/2 ODF	1/2 ODF	0.50	0.50	0.38	0.38	1.73	1.73
1/2 ODF	5/8 ODF	0.63	0.61	0.38	0.50	1.75	1.75



Ordering Information for A-Series Valves

Without Internal Check Valve

Refrigerant	Series	Tons*	Charge	Connections	Cap Tube	PCN	
R-410A	AAE	3	ZW195	3/8 X 3/8 ODF S/T	30 IN	064595	
			ZW195	3/8 X 1/2 ODF S/T	30 IN	065579	
		5	ZW195	CHATLEFF	30 IN	015776	
			ZW195	1/2 X 5/8 ODF S/T	30 IN	065580	
			ZW195	CHATLEFF	30 IN	015794	
R-134a R-12	AA	1/4	MC	1/4 X 1/2 ODF S/T	5 FT	065623	
		1/2	MC	1/4 X 3/8 SAE S/T	30 IN	058985	
			MC	1/4 X 1/2 ODF S/T	5 FT	065624	
	AAE	1/2	MZ	1/4 X 3/8 SAE S/T	30 IN	058986	
		1/2	MC	1/4 X 1/2 ODF S/T	5 FT	065630	
		1	MC	3/8 X 1/2 ODF S/T	5 FT	065631	
R-22 R-407C	AA	1/4	HC	1/4 X 3/8 ODF S/T	5 FT	056315	
			HC	1/4 X 1/2 ODF S/T	5 FT	055932	
		1/2	HC	1/4 X 1/2 ODF S/T	5 FT	065626	
			HC	3/8 X 3/8 ODF S/T	30 IN	056547	
			HC	3/8 X 1/2 SAE S/T	5 FT	057828	
			HC	1/4 X 1/2 ODF S/T	5 FT	065632	
			HC	3/8 X 1/2 ODF S/T	5 FT	065633	
			HC	3/8 X 1/2 SAE ST	5 FT	057987	
	1	HC	1/4 X 3/8 ODF ST	30 IN	059582		
		HC	1/4 X 1/2 ODF S/T	5 FT	065634		
		HC	3/8 X 1/2 ODF S/T	5 FT	065635		
		HC	3/8 X 1/2 ODF S/T	5 FT	064424		
	2	HC	3/8 X 1/2 ODF S/T	5 FT	064425		
		HCA	3/8 X 1/2 ODF S/T	30 IN	049632		
	2-1/2	HAA	3/8 X 1/2 ODF S/T	30 IN	063648		
		HAA	CHATLEFF	30 IN	013938		
		HCA	3/8 X 1/2 ODF S/T	30 IN	049633		
		HC	3/8 X 1/2 ODF S/T	5 FT	062376		
	AAE	3	HC	3/8 X 1/2 SAE S/T	5 FT	056686	
			HCA	3/8 X 1/2 ODF S/T	30 IN	049634	
			HCA	1/2 X 5/8 ODF S/T	30 IN	060643	
			HC	1/2 X 5/8 ODF S/T	5 FT	061960	
		4	HCA	3/8 X 1/2 ODF S/T	30 IN	049638	
			HCA	1/2 X 1/2 ODF S/T	30 IN	061247	
			HAA	3/8 X 1/2 ODF S/T	30 IN	063649	
			HAA	CHATLEFF	30 IN	013939	
	5	HC	1/2 X 5/8 ODF S/T	5 FT	059565		
		HC	5/8 X 7/8 ODF S/T	30 IN	061805		
		HCA	3/8 X 1/2 ODF S/T	30 IN	054024		
		HCA	1/2 X 5/8 ODF S/T	30 IN	059683		
		HW100	3/8 X 5/8 ODF S/T	5 FT	062088		
		3	HCA	3/8 X 1/2 ODF S/T	30 IN	059603	
	AAEB	4	HCA	1/2 X 1/2 ODF S/T	30 IN	059605	
		5	HCA	1/2 X 1/2 ODF S/T	30 IN	059607	
	5	HCA	1/2 X 5/8 SAE S/T	30 IN	061243		
		SC	1/4 X 1/2 ODF S/T	30 IN	063503		
	R-404A R-507 R-502	AA	1/4	SW45	1/4 X 3/8 ODF S/T	5 FT	065676
				SZ	1/4 X 3/8 ODF S/T	5 FT	065675
				SC	1/4 X 1/2 ODF S/T	30 IN	063504
			1/2	SW 45	1/4 X 1/2 ODF S/T	5 FT	065685
SZ				1/4 X 1/2 ODF S/T	5 FT	065682	
SZ				3/8 X 1/2 ODF S/T	30 IN	063925	
AAE		3/4	SW45	3/8 X 1/2 ODF S/T	30 FT	065686	
			SZ	3/8 X 1/2 ODF S/T	30 IN	065149	
			SW45	1/4 X 1/2 ODF S/T	5 FT	065636	
		1/2	SW45	3/8 X 1/2 ODF S/T	5 FT	065688	
			SZ	3/8 X 1/2 ODF S/T	5 FT	065687	
			SW45	3/8 X 1/2 ODF S/T	5 FT	065637	
1	SZ	3/8 X 1/2 ODF S/T	5 FT	065183			
	SW45	3/8 X 1/2 ODF S/T	5 FT	065698			
	SZ	3/8 X 1/2 ODF S/T	5 FT	065697			
	SC	3/8 X 1/2 ODF S/T	30 IN	065330			
2	SW45	3/8 X 1/2 ODF S/T	5 FT	065690			
	SZ	3/8 X 1/2 ODF S/T	5 FT	065689			
	SW45	1/2 X 5/8 ODF S/T	5 FT	065148			
2-1/2	SZ	1/2 X 5/8 ODF S/T	5 FT	065691			
	3	SW45	3/8 X 1/2 ODF S/T	5 FT	065693		
SZ	3/8 X 1/2 ODF S/T	5 FT	065692				

With Internal Check Valve

Refrigerant	Series	Tons*	Charge	Connections	Cap Tube	PCN	
R-410A	AAE	1-1/2	ZW195	3/8 X 1/2 ODF S/T	5 FT	065871	
			ZW195	CHATLEFF	30 IN	016432	
		2	ZW195	3/8 X 1/2 ODF S/T	5 FT	065872	
			ZW195	CHATLEFF	30 IN	016615	
		3	ZW195	3/8 X 1/2 ODF S/T	5 FT	065873	
			ZW195	CHATLEFF	30 IN	015795	
		4	ZW195	3/8 X 1/2 ODF S/T	5 FT	065874	
			ZW195	CHATLEFF	30 IN	016433	
			ZW195	1/2 X 5/8 ODF S/T	5 FT	065875	
		AAE	ZW195	CHATLEFF	30 IN	015796	
	AAE		1-1/2	ZW195	3/8 X 1/2 ODF S/T	30 IN	065946
				ZW195	3/8 X 1/2 ODF S/T	30 IN	065942
			3	ZW195	3/8 X 1/2 ODF S/T	30 IN	065943
				ZW195	3/8 X 1/2 ODF S/T	30 IN	065944
		ZW195		3/8 X 1/2 ODF S/T	30 IN	065945	
R-22 R-407C	AAE	1-1/2	HCA	3/8 X 1/2 ODF S/T	5 FT	058923	
			HCA	1/2 X 5/8 ODF S/T	5 FT	065796	
		2	HCA	3/8 X 1/2 ODF S/T	5 FT	065865	
			HAA	3/8 X 1/2 ODF S/T	30 IN	064102	
		2-1/2	HAA	CHATLEFF	30 IN	014091	
			HCA	3/8 X 1/2 ODF S/T	5 FT	065868	
		3	HCA	1/2 X 5/8 ODF S/T	5 FT	065797	
			HCA	3/8 X 1/2 ODF S/T	5 FT	065869	
			HAA	3/8 X 1/2 ODF S/T	30 IN	064103	
		AAE	5	HAA	CHATLEFF	30 IN	014092
	HCA			1/2 X 5/8 ODF S/T	5 FT	065870	
	1-1/2		HCA	3/8 X 1/2 ODF S/T	30 IN	065842	
			HCA	3/8 X 1/2 ODF S/T	30 IN	065959	
			HCA	3/8 X 1/2 ODF S/T	30 IN	065941	
	4	HCA	3/8 X 5/8 ODF S/T	30 IN	065844		

* For interchangeable refrigerant charges R-134a/R-12, R-404A/R-507/R-502, and R-22/R-407C, the tons of capacity shown in the table are for the first (primary) refrigerant listed. Consult the Nominal Capacity Table for determining the tons of capacity for the secondary refrigerants listed.

Example: A 1/4 ton R-12 valve is required. What R-134a ton valve should be selected?

Solution: From the Nominal Capacity Table, a 1/2 ton R-134a valve is equivalent to a 1/4 ton R-12 valve.

BA/BN Thermal Expansion Valve

The BA/BN series is a balanced ported valve. Typical applications include: refrigerated cases, coolers, freezers, ice machines and air conditioning systems. BA/BN valves operate over widely varying operating conditions.



Features

- Stainless steel power element eliminates corrosion and prevents valve failure
- Hermetic, leak-free construction
- Compact size allows installation in limited spaces
- Bi-Flow capability allows one valve to control the superheat in both cooling and heating modes for heat pump applications
- Balanced port construction compensates for changes in operating pressures due to varying ambients, gas defrost, heat reclaim, or widely varying evaporator loads

Options

- ZW195 charge available for R-410A systems
- External or internal equalizer
- Bleed type pressure equalization available to accommodate PSC type compressors
- SAE or ODF connections standard – Chatteff or Aeroquip are available
- Adjustable or non-adjustable superheat

Specifications

- Maximum working pressure: 700 psig

Nomenclature example: BAEB 1/2 HCA 5 FT 3/8 x 1/2 ODF S/T

B	A	E	B	1/2	H	CA	5 FT	3/8 x 1/2	ODF	S/T
Valve Series Hermetic Balanced Port Design	Superheat Adjustment A = Adjustable N = Non-Adjustable	Equalizer E=External (Omit for Internal)	Bleed Hole (optional) (Omit for no bleed hole)	Capacity Nominal Rating in Tons (See nominal capacity table below)	Refrigerant Code +F = R-12 •H = R-22 +M = R-134a •N = R-407C *P = R-507 *R = R-502 *S = R-404A Z = R-410A	Charge Code C = medium temp CA = heat pump W(MOP) = press. limiting Z = low temp	Capillary Tube Length 30 IN & 5 FT (std) (others available)	Inlet x Outlet Connection Sizes 1/4 x 3/8 3/8 x 1/2 1/2 x 5/8 5/8 x 7/8	Connection Type SAE=flare ODF = solder	Configuration S/T = straight-thru ANG = 90° angle

+ = R-12 and R-134a are interchangeable refrigerant charges

* = R-507, R-502 and R-404A are interchangeable refrigerant charges

• = R-22 and R-407C are interchangeable refrigerant charges

BA/BN Series – Nominal* Capacity Table in Tons (kW)

R-12	R-134a	R-22/R-407C	R-410A	R-502/R-404A/R-507
1/4 (0.9)	1/2 (1.8)	1/2 (1.8)	1/2 (1.8)	1/4 (0.9)
1/2 (1.8)	3/4	1 (3.5)	1 (3.5)	1/2 (1.8)
1 (3.5)	1 (3.5)	1½ (5.3)	1½ (5.3)	1 (3.5)
1¼ (4.4)	1½ (5.3)	2 (7.0)	2 (7.0)	1¼ (4.4)
1½ (5.3)	2 (7.0)	1½ (5.3)	1½ (5.3)	1½ (5.3)
2 (7.0)	2¼ (8.0)	3 (11.0)	3½ (12.0)	2 (7.0)
2½ (9.0)	3 (11.0)	4 (14.0)	4½ (16.0)	2½ (9.0)
3 (11.0)	3½ (12.0)	5 (17.0)	6 (21.0)	3 (11.0)
3½ (12.0)	3½ (12.0)	6 (21.0)	7½ (26.0)	4 (14.0)

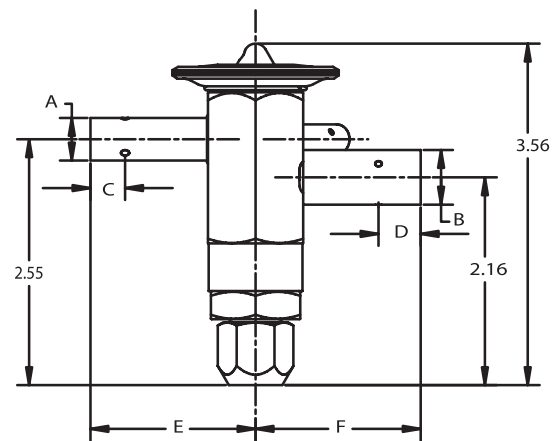
All capacities shown are at 100°F condensing, 40°F evaporator temperature.

*See Extended Capacity Tables for ratings at a wide range of conditions per ARI standard 750

BA/BN Dimensional Data (in)

BAE							
Connection Size		A	B	C MIN	D MIN	E	F
Inlet	Outlet						
1/4 ODF	3/8 ODF	0.25	0.38	0.31	0.32	1.70	1.73
3/8 ODF	3/8 ODF	0.38	0.38	0.32	0.32	1.73	1.73
3/8 ODF	1/2 ODF	0.38	0.50	0.32	0.41	1.73	1.73
1/2 ODF	1/2 ODF	0.50	0.50	0.41	0.41	1.73	1.73
1/2 ODF	5/8 ODF	0.50	0.63	0.41	0.50	1.73	1.75
5/8 ODF	5/8 ODF	0.63	0.61	0.50	0.50	1.75	1.75
5/8 ODF	7/8 ODF	0.63	0.88	0.50	0.62	1.75	1.73

BA(E) Dimensional Diagram

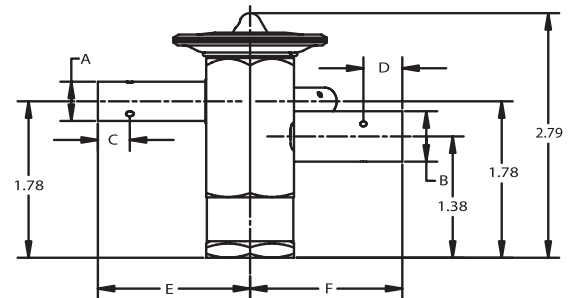


ODF CONNECTIONS
STRAIGHT-THRU CONFIGURATION ONLY

BN(E) Dimensional Data (in)

Connection Size		A	B	C MIN	D MIN	E	F
Inlet	Outlet						
1/4 ODF	3/8 ODF	0.25	0.38	0.31	0.32	1.70	1.73
3/8 ODF	3/8 ODF	0.38	0.38	0.32	0.32	1.73	1.73
3/8 ODF	1/2 ODF	0.38	0.50	0.32	0.41	1.73	1.73
1/2 ODF	1/2 ODF	0.50	0.50	0.41	0.41	1.73	1.73
1/2 ODF	5/8 ODF	0.50	0.63	0.41	0.50	1.73	1.75
5/8 ODF	5/8 ODF	0.63	0.61	0.50	0.50	1.75	1.75
5/8 ODF	7/8 ODF	0.63	0.88	0.50	0.62	1.75	1.73

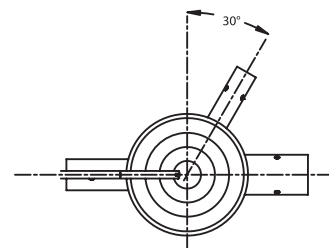
BN(E) Dimensional Diagram



ODF CONNECTIONS
STRAIGHT-THRU CONFIGURATION ONLY

Remote Bulb Tubing Length 30" or 5' Standard

BA(E) & BN(E) Remote Bulb Dimensions		
Refrigerant Charge	Length	Diameter
HCA, HAA	2.31	0.75
MC, MZ, MW (MOP), RW (MOP)	2.09	0.50
RC, SC, SZ, SW (MOP),		
PC, PZ, PW (MOP)		



TOP VIEW SHOWING
EXTERNAL EQUALIZER LOCATION

Ordering Information for B-Series Valves

Refrigerant	Series	Tons*	Charge	Connections	Cap Tube	PCN
R-410A	BAE	1-1/2	ZW195	3/8 X 1/2 ODF S/T	5 FT	065876
		2	ZW195	3/8 X 1/2 ODF S/T	5 FT	065877
		3	ZW195	3/8 X 1/2 ODF S/T	5 FT	065878
		4-1/2	ZW195	3/8 X 1/2 ODF S/T	5 FT	065880
		6	ZW195	1/2 X 3/8 ODF S/T	5 FT	065586
	BAEB	1-1/2	ZW195	3/8 X 1/2 ODF S/T	5 FT	065336
		2	ZW195	3/8 X 1/2 ODF S/T	5 FT	065337
		3	ZW195	3/8 X 1/2 ODF S/T	5 FT	065338
		4-1/2	ZW195	3/8 X 1/2 ODF S/T	5 FT	065339
		6	ZW195	3/8 X 1/2 ODF S/T	5 FT	065340
R-134a R-12	BAE	3/4	MC	3/8 X 1/2 ODF S/T	30 IN	062754
		1	MC	3/8 X 1/2 ODF S/T	30 IN	061967
		1-1/2	MC	3/8 X 1/2 ODF S/T	30 IN	063129
		2	MC	3/8 X 1/2 ODF S/T	30 IN	062830
		3	MC	3/8 X 1/2 ODF S/T	30 IN	063201
R-22 R-407C	BAE	1	HCA	3/8 X 1/2 ODF S/T	30 IN	063200
		1-1/2	HCA	3/8 X 1/2 ODF S/T	30 IN	061954
		2	HW100	3/8 X 1/2 ODF S/T	30 IN	062831
			HCA	3/8 X 1/2 ODF S/T	30 IN	061955
		2-1/2	HCA	1/2 X 1/2 ODF S/T	5 FT	063018
			HCA	3/8 X 1/2 ODF S/T	30 IN	061956
		3	HCA	1/2 X 5/8 ODF S/T	30 IN	061962
			HW100	3/8 X 1/2 ODF S/T	30 IN	062616
			HCA	3/8 X 1/2 ODF S/T	30 IN	061957
		4	HCA	1/2 X 5/8 ODF S/T	5 FT	063019
			HW100	3/8 X 1/2 ODF S/T	30 IN	062372
			HCA	3/8 X 1/2 ODF S/T	30 IN	061958
		5	HCA	1/2 X 5/8 ODF S/T	30 IN	061963
			HCA	5/8 X 5/8 ODF S/T	5 FT	063020
			HW100	3/8 X 1/2 ODF S/T	30 IN	062373
			HCA	3/8 X 1/2 ODF S/T	5 FT	062839
		6	HCA	1/2 X 1/2 ODF S/T	5 FT	062852
			HCA	1/2 X 5/8 ODF S/T	5 FT	061964
			HCA	5/8 X 5/8 ODF S/T	5 FT	062838
			HW100	3/8 X 1/2 ODF S/T	30 IN	062374
	BNE	3	HCA	1/2 X 1/2 ODF S/T	5 FT	062853
		4	HCA	1/2 X 5/8 ODF S/T	5 FT	062736
			HCA	3/8 X 1/2 ODF S/T	5 FT	064166
		5	HCA	1/2 X 1/2 ODF S/T	5 FT	062289
			HCA	3/8 X 3/8 ODF S/T	30 IN	063132
		HCA	3/8 X 1/2 ODF S/T	30 IN	061971	
	BAEB	1-1/2	HCA	1/2 X 1/2 ODF S/T	5 FT	062290
		2	HCA	1/2 X 5/8 ODF S/T	5 FT	065226
			HCA	3/8 X 1/2 ODF S/T	30 IN	062789
		3	HCA	3/8 X 1/2 ODF S/T	30 IN	062789
			HCA	1/2 X 1/2 ODF S/T	30 IN	063006
		4	HCA	3/8 X 1/2 ODF S/T	30 IN	062790
			HCA	1/2 X 1/2 ODF S/T	30 IN	061968
		5	HCA	1/2 X 1/2 ODF S/T	30 IN	063015
			HCA	1/2 X 5/8 ODF S/T	5 FT	063348
		6	HCA	3/8 X 1/2 ODF S/T	30 IN	063939
			HCA	1/2 X 1/2 ODF S/T	5 FT	063010
		HCA	HCA	3/8 X 1/2 ODF S/T	5 FT	061980
	HCA		1/2 X 1/2 ODF S/T	30 IN	063128	
	HCA	HCA	1/2 X 1/2 ODF S/T	30 IN	063940	
HCA		1/2 X 5/8 ODF S/T	5 FT	064805		
HCA	HCA	5/8 X 5/8 ODF S/T	5 FT	065977		

* For interchangeable refrigerant charges R-134a/R-12, R-404A/R-507/R-502, and R-22/R-407C, the tons of capacity shown in the table are for the first (primary) refrigerant listed. Consult the Nominal Capacity Table for determining the tons of capacity for the secondary refrigerants listed.

Example: A 1/4 ton R-12 valve is required. What R-134a ton valve should be selected?

Solution: From the Nominal Capacity Table, a 1/2 ton R-134a valve is equivalent to a 1/4 ton R-12 valve.

Thermal Expansion Valves
 Solenoid Valves
 Coils
 Industrial Solenoid Valves
 Shut Off Valves
 System Protectors
 Storage Devices
 Oil Controls
 Pressure Regulators
 Temperature Pressure Controls
 Competitive Cross Reference

B Series with Strainer Thermal Expansion Valve

The B-series with strainer series is a balanced ported valve. Typical applications include: refrigerated cases, coolers, freezers, ice machines and air conditioning systems that operate over widely varying operating conditions. This valve series also features a removable inlet strainer.



Features

- Stainless steel power element eliminates corrosion and prevents valve failure
- Removable inlet strainer assembly
- Balanced port design compensates for changes in operating pressures due to varying ambients or widely varying evaporator loads
- Hermetic, leak-free construction
- Solid copper ODF connections, angle style only

Options

- Adjustable and non-adjustable configurations
- Ratings from 1/2 to 6 tons

Specifications

- Maximum Working Pressure: 450 psig

Nomenclature example: BAESB 1/2 HC 5 FT 3/8 x 1/2 ODF

B	A	E	S	B	1/2	H	CA	5 FT	3/8 x 1/2	ODF
Valve Series Hermetic Balanced Port Design	Superheat Adjustment A = Adjustable N = Non-Adjustable	Equalizer E=External (Omit for Internal)	Strainer Removable Inlet Screen	Bleed Hole (optional) (Omit for no bleed hole)	Capacity Nominal Rating in Tons (See nominal capacity table below)	Refrigerant Code +F = R-12 • H = R-22 +M = R-134a • N = R-407C *P = R-507 *R = R-502 *S = R-404A	Charge Code C = medium temp CA = heat pump W(MOP) = press. limiting Z = low temp	Capillary Tube Length 30 IN & 5 FT (std) (others available)	Inlet x Outlet Connection Sizes 1/4 x 3/8 3/8 x 1/2 1/2 x 5/8 5/8 x 7/8	Connection Type ODF = solder

+ = R-12 and R-134a are interchangeable refrigerant charges
 * = R-507, R-502 and R-404A are interchangeable refrigerant charges
 • = R-22 and R-407C are interchangeable refrigerant charges

B Series with Strainer – Nominal* Capacity Table in Tons (kW)

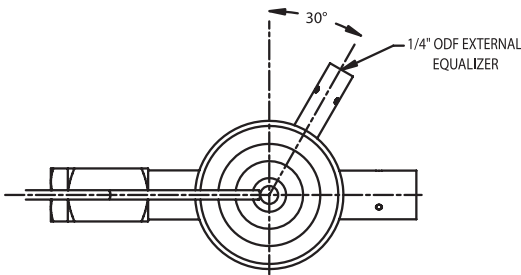
R-12	R-134a	R-22/R-407C	R-502/R-507/R-404A
1/4 (0.9)	1/2 (1.8)	1/2 (1.8)	1/4 (0.9)
1/2 (1.8)	3/4	1 (3.5)	1/2 (1.8)
1 (3.5)	1 (3.5)	1½ (5.3)	1 (3.5)
1¼ (4.4)	1½ (5.3)	2 (7.0)	1¼ (4.4)
1½ (5.3)	2 (7.0)	2½ (9.0)	1½ (5.3)
2 (7.0)	2¾ (8.0)	3 (11.0)	2 (7.0)
2½ (9.0)	3 (11.0)	4 (14.0)	2½ (9.0)
3 (11.0)	3½ (12.0)	5 (17.0)	3 (11.0)
3½ (12.0)	4¼ (15.0)	6 (21.0)	4 (14.0)

All capacities shown are at 100°F condensing, 40°F evaporator temperature.
 *See Extended Capacity Tables for ratings at a wide range of conditions per ARI standard 750.

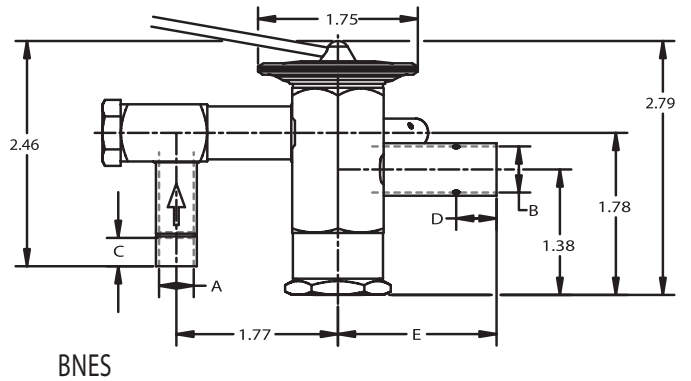
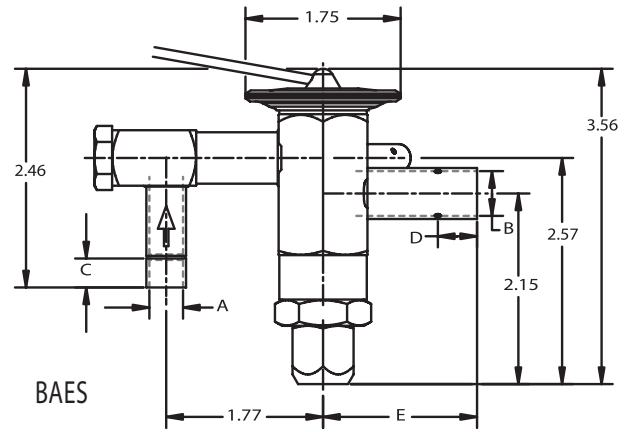
BAES/BNES Dimensional Data (in)

ODF Connections, Angle Style Only

Connection Size		A	B	C MIN	D MIN	E
Inlet	Outlet					
1/4 ODF	3/8 ODF	0.25	0.38	0.31	0.32	1.73
1/4 ODF	1/2 ODF	0.25	0.50	0.31	0.41	1.73
1/4 ODF	5/8 ODF	0.25	0.63	0.31	0.50	1.75
3/8 ODF	3/8 ODF	0.38	0.38	0.32	0.32	1.73
3/8 ODF	1/2 ODF	0.38	0.50	0.32	0.41	1.73
3/8 ODF	5/8 ODF	0.38	0.63	0.32	0.50	1.75
3/8 ODF	7/8 ODF	0.38	0.88	0.32	0.62	1.73
1/2 ODF	1/2 ODF	0.50	0.50	0.41	0.41	1.73
1/2 ODF	5/8 ODF	0.50	0.63	0.41	0.50	1.75
1/2 ODF	7/8 ODF	0.50	0.88	0.41	0.62	1.73



ODF
Top View
Showing External Equalizer Location



Remote Bulb Tubing Length 30" or 5' Standard

BAES & BNES Remote Bulb Dimensions		
Refrigerant Charge	Diameter	Length
HCA, NCA, HAA	0.75	2.38
MC, MZ, MW (MOP), RW (MOP) RC, SC, SZ, SW (MOP), PC, PZ, PW (MOP)	0.50	2.13

Ordering Information for BAES Valves

Refrigerant	Series	Tons*	Charge	Connections	Cap Tube	PCN
R-134a R-12	BAES	1/2	MC	3/8 X 1/2 ODF ANG	30 IN	064244
		3/4	MC	3/8 X 1/2 ODF ANG	30 IN	064245
		1	MC	3/8 X 1/2 ODF ANG	30 IN	064246
		1-1/2	MC	3/8 X 1/2 ODF ANG	30 IN	064247
		2	MC	3/8 X 1/2 ODF ANG	30 IN	064248
		3	MC	3/8 X 1/2 ODF ANG	30 IN	064250
R-22 R-407C	BAES	1/2	HC	3/8 X 1/2 ODF ANG	30 IN	064235
		1	HC	3/8 X 1/2 ODF ANG	30 IN	064236
		1-1/2	HC	3/8 X 1/2 ODF ANG	30 IN	064237
		2	HC	3/8 X 1/2 ODF ANG	30 IN	064238
		2-1/2	HC	3/8 X 1/2 ODF ANG	30 IN	064239
		3	HC	3/8 X 1/2 ODF ANG	30 IN	064240
		4	HC	3/8 X 1/2 ODF ANG	30 IN	064241
		5	HC	3/8 X 1/2 ODF ANG	30 IN	064242
R-404A R-507 R-502	BAES	1/4	SC	3/8 X 1/2 ODF ANG	30 IN	064137
			SZ	3/8 X 1/2 ODF ANG	30 IN	064295
		1/2	SC	3/8 X 1/2 ODF ANG	30 IN	064138
			SZ	3/8 X 1/2 ODF ANG	30 IN	064144
		1	SC	3/8 X 1/2 ODF ANG	30 IN	064139
			SZ	3/8 X 1/2 ODF ANG	30 IN	064145
		1-1/4	SC	3/8 X 1/2 ODF ANG	30 IN	064140
			SZ	3/8 X 1/2 ODF ANG	30 IN	064146
		1-1/2	SC	3/8 X 1/2 ODF ANG	30 IN	064141
			SZ	3/8 X 1/2 ODF ANG	30 IN	064273
		2	SC	3/8 X 1/2 ODF ANG	30 IN	064142
			SZ	3/8 X 1/2 ODF ANG	30 IN	064537
		2-1/2	SC	3/8 X 1/2 ODF ANG	30 IN	064280
			SZ	3/8 X 1/2 ODF ANG	30 IN	064434
		3	SC	3/8 X 1/2 ODF ANG	30 IN	064281
			SZ	3/8 X 1/2 ODF ANG	30 IN	064538
		4	SC	3/8 X 1/2 ODF ANG	30 IN	064460
			SZ	3/8 X 1/2 ODF ANG	30 IN	064780

* For interchangeable refrigerant charges R-134a/R-12, R-404A/R-507/R-502, and R-22/R-407C, the tons of capacity shown in the table are for the first (primary) refrigerant listed. Consult the Nominal Capacity Table for determining the tons of capacity for the secondary refrigerants listed.

Example: A 1/4 ton R-12 valve is required. What R-134a ton valve should be selected?

Solution: From the Nominal Capacity Table, a 1/2 ton R-134a valve is equivalent to a 1/4 ton R-12 valve.

AFA(E) Thermal Expansion Valve

The AFA series is designed for air conditioning and commercial refrigeration applications requiring angle configuration SAE connections. The AFA is ideal for those applications requiring compact size combined with stable and accurate control over wide load and evaporator temperature ranges.



Features

- Stainless steel power element eliminates corrosion and prevents valve failure
- External superheat adjustment
- Replaceable inlet strainer
- SAE connections only
- Wrench flats on inlet and outlet

Options

- External or internal equalizer

Specifications

- Maximum working pressure: 700 psig
- UL/CUL file number: SA 5312

Nomenclature example: AFAE 1/2 HC 5 FT 3/8 x 1/2 SAE ANG

AF	A	E	1/2	H	C	5 FT	3/8 x 1/2	SAE	ANG
Valve Series Hermetic Design, Flare Connections	Superheat Adjustment A = Adjustable	Equalizer E=External (Omit for Internal)	Capacity Nominal Rating in Tons (See nominal capacity table below)	Refrigerant Code +F = R-12 • H = R-22 +M = R-134a • N = R-407C *P = R-507 *R = R-502 *S = R-404A Z = R-410A	Charge Code C = medium temp CA = heat pump W(MOP) = press. limiting Z = low temp AA = wide range	Capillary Tube Length 30 IN & 5 FT (std) (others available)	Inlet x Outlet Connection Sizes 1/4 x 3/8 3/8 x 1/2	Connection Type SAE=flare	Configuration ANG = 90° angle

+ = R-12 and R-134a are interchangeable refrigerant charges, * = R-507, R-502 and R-404A are interchangeable refrigerant charges, • = R-22 and R-407C are interchangeable refrigerant charges

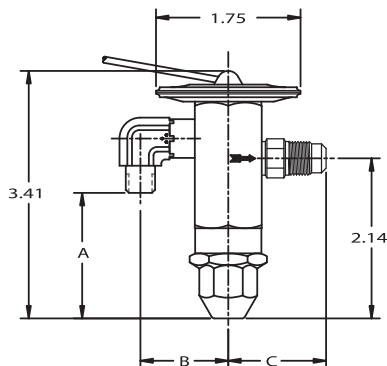
AFA Series – Nominal* Capacity Table in Tons (kW)

R-12	R-134a	R-22	R-502	R-507/R-404A	R-407C
–	1/8 (0.4)	1/5 (0.7)	–	1/8 (0.4)	1/5 (0.7)
1/8 (0.4)	1/4 (0.9)	1/4 (0.9)	1/8 (0.4)	1/4 (0.9)	1/4 (0.9)
1/4 (0.9)	1/2 (1.8)	1/2 (1.8)	1/4 (0.9)	1/2 (1.8)	1/2 (1.8)
1/2 (1.8)	3/4 (2.7)	1 (3.5)	1/2 (1.8)	3/4 (2.7)	1 (3.5)
1 (3.5)	1 (3.5)	1½ (5.3)	1 (3.5)	1 (3.5)	1¼ (4.4)
–	1½ (5.3)	2 (7.0)	–	1¼ (4.4)	2 (7.0)
1½ (5.3)	2 (7.0)	2½ (9.0)	1½ (5.3)	2 (7.0)	2½ (9.0)
2 (7.0)	2½ (9.0)	3 (11.0)	2 (7.0)	2½ (8.0)	3¼ (11.5)
–	3 (11.0)	–	–	2½ (9.0)	4 (14.0)
3 (11.0)	4 (14.0)	5 (17.0)	3 (11.0)	3½ (12.0)	5¼ (19.0)

All capacities shown are at 100°F condensing, 40°F evaporator temperature.

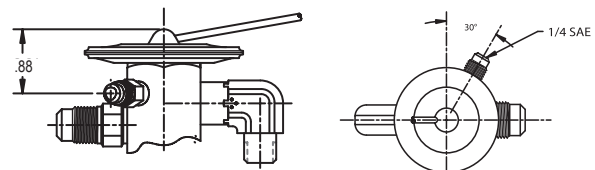
*See Extended Capacity Tables for ratings at a wide range of conditions per ARI standard 750.

Dimensional Data



Remote Bulb Tubing Length 30" or 5' Standard

AFA(E) Connections (in)				
Inlet	Outlet	A	B	C
1/4 SAE elbow	3/8 SAE	1.56	1.31	1.64
	1/2 SAE			1.35
	5/8 SAE			1.98
3/8 SAE elbow	3/8 – 1/2 SAE	1.47	1.31	1.73
	3/8 SAE			1.34
	1/2 SAE			1.36
	5/8 SAE			1.98
	3/8 – 1/2 SAE			1.73



Ordering Information for AFA Series Valves

AFA SERIES – Internally Equalized

Refrigerant	Series	Tons*	Charge	Connections	Cap Tube	PCN	
R-12	AFA	1/4	FC	1/4 X 3/8 SAE	5 FT	047753	
			FC	1/4 X 3/8 SAE	30 IN	057047	
			FC	3/8 X 3/8 SAE	5 FT	054258	
		1/2	FC	1/4 X 3/8 SAE	5 FT	047752	
			FC	1/4 X 3/8 SAE	30 IN	057028	
			FC	3/8 X 3/8 SAE	5 FT	054226	
			FC	3/8 X 3/8 SAE	30 IN	057027	
			1	FC	3/8 X 3/8 SAE	5 FT	047758
				FC	3/8 X 3/8 SAE	30 IN	057029
R-134a R-12	AFA	1/4	MC	1/4 X 3/8 SAE	5 FT	058536	
			MC	1/4 x 1/2 SAE	30 IN	057607	
		1/2	MC	1/4 x 1/2 SAE	30 IN	057606	
			MC	3/8 X 1/2 SAE	30 IN	059625	
R-22 R-407C	AFA	1/4	HC	1/4 x 1/2 SAE	30 IN	057261	
			HZ	1/4 X 3/8-1/2 SAE	30 IN	059575	
		1/2	HC	1/4 X 1/2 SAE	30 IN	057260	
			1	HC	3/8 X 1/2 SAE	5 FT	054231
		HZ		3/8 X 3/8-1/2 SAE	5 FT	057555	
		1-1/2		HC	3/8 X 1/2 SAE	5 FT	054232
		2	HC	3/8 X 1/2 SAE	5 FT	054233	
R-404A R-507 R-502	AFA	1/4	SC	1/4 x 1/2 SAE	5 FT	064072	

AFAE SERIES - Externally Equalized

Refrigerant	Series	Tons*	Charge	Connections	Cap Tube	PCN
R-134a R-12	AFAE	1/4	MC	3/8 X 3/8 SAE	30 IN	063898
		1/2	MC	1/4 X 3/8 SAE	30 IN	057853
			MC	3/8 X 3/8 SAE	30 IN	061904
		1	MC	3/8 X 1/2 SAE	30 IN	057613
		1-1/2	MC	3/8 X 3/8 SAE	30 IN	060865
		2	MC	3/8 X 3/8 SAE	30 IN	061906
		3	MC	3/8 X 3/8 SAE	30 IN	061908
R-22 R-407C	AFAE	1/2	HC	1/4 X 3/8 SAE	5 FT	054243
		1	HC	3/8 X 1/2 SAE	5 FT	054246
			HC	3/8 X 1/2 SAE	5 FT	054247
		1-1/2	HZ	3/8 X 1/2 SAE	5 FT	057950
			HZ	3/8 X 3/8 SAE	5 FT	057951
		2	HC	3/8 X 1/2 SAE	5 FT	054249
			HZ	3/8 X 3/8 SAE	5 FT	057556
			3	HC	3/8 X 1/2 SAE	5 FT
		HZ		3/8 X 3/8 SAE	5 FT	058484
R-404A R-507 R-502	AFAE	1	SC	3/8 X 3/8 SAE	30 IN	061912
			SZ	3/8 X 3/8 SAE	5 FT	063464
		1-1/2	SC	3/8 X 3/8 SAE	30 IN	063702
			SZ	3/8 X 3/8 SAE	5 FT	063465
		2	SC	3/8 X 3/8 SAE	30 IN	061914
			SZ	3/8 X 3/8 SAE	5 FT	061646

* For interchangeable refrigerant charges R-134a/R-12, R-404A/R-507/R-502, and R-22/R-407C, the tons of capacity shown in the table are for the first (primary) refrigerant listed. Consult the Nominal Capacity Table for determining the tons of capacity for the secondary refrigerants listed.

Example: A 1/4 ton R-12 valve is required. What R-134a ton valve should be selected?

Solution: From the Nominal Capacity Table, a 1/2 ton R-134a valve is equivalent to a 1/4 ton R-12 valve.

HF/HFK Thermal Expansion Valve

Features

- Stainless steel power element eliminates corrosion and prevents valve failure
- Two body sizes provide capacities from 1/4 to 20 tons
- Balanced port construction compensates for changes in operating pressures due to varying ambients or widely varying evaporator loads
- Large, replaceable power element



Standard Body – HF & HFK

- Bi-Flow capability up to 5-1/2 tons R-22 allows one valve to control the superheat in both cooling and heating modes for package unit heat pump applications
- Interchangeable bodies, cages, and power elements provide maximum flexibility
- The HF is offered several ways:
 - *Pre-packaged HFK service kits* – Include a mix of bodies and power elements with a complete set of cages to serve the most applications with a minimum of parts
 - *Individual components* – Bodies, cages, & power elements may be ordered separately
 - *Finished valves* – Assembled valves ready for immediate installation

NOTE: If the HF body is stamped HFK, then the cage is replaceable.

Options

- ODF or SAE connections
- Straight-through or angle flow configurations
- Removable inlet strainer (ODF only)
- Internal or external equalizer

Specifications

- Maximum working pressure: 450 psig

Extended Body – HF

- Capacity range from 8 to 20 tons (R-22)
- Finished valve only

Nomenclature example: HFESC 2 HC 5 FT 3/8 x 1/2 ODF S/T

HF	N	E	S	C	B	2	H	C	5 FT	3/8 x 1/2	ODF	S/T
Valve Series Balanced Port Design	Superheat Adjustment N = Non-Adjustable Omit for Adjustable	Equalizer E=External (Omit for Internal)	Connection Type S = Solder (Omit for SAE Flare)	Removable Inlet Strainer (optional) C = Inlet Strainer (ODF only)	Bleed Hole (optional) (Omit for no bleed hole)	Capacity Nominal Rating in Tons (See nominal capacity table below)	Refrigerant Code +F = R-12 • H = R-22 +M = R-134a • N = R-407C * P = R-507 * R = R-502 * S = R-404A	Charge Code C = medium temp CA = heat pump W(MOP) = press. limiting Z = low temp AA = wide range	Capillary Tube Length 5 FT (std) others available	Inlet x Outlet Connection Sizes 1/4 x 3/8 3/8 x 1/2	Connection Type SAE = flare ODF = solder	Configuration ANG = 90° angle S/T = straight-thru

+ = R-12 and R-134a are interchangeable refrigerant charges

* = R-507, R-502 and R-404A are interchangeable refrigerant charges

• = R-22 and R-407C are interchangeable refrigerant charges

HF Series-Nominal* Capacity Tables in Tons (kW)

Standard Body HF

R-12	R-134a	R-22/R-407C	R-502/R-404A/ R-507
1/8 (0.4)	1/4 (0.9)	1/4 (0.9)	1/8 (0.4)
1/4 (0.9)	1/2 (1.8)	1/2 (1.8)	1/4 (0.9)
1/2 (1.8)	3/4 (2.7)	1 (3.5)	1/2 (1.8)
1 (3.5)	1 (3.5)	1 1/2 (5.3)	1 (3.5)
–	1 1/2 (5.3)	2 (7.0)	–
1 1/2 (5.3)	1 3/4 (6.2)	2 1/2 (8.8)	1 1/2 (5.3)
2 (7.0)	2 1/2 (8.8)	3 (11.0)	2 (7.0)
3 1/2 (12.0)	4 (14.0)	5 1/2 (20.0)	3 1/2 (12.0)

Extended Body HF

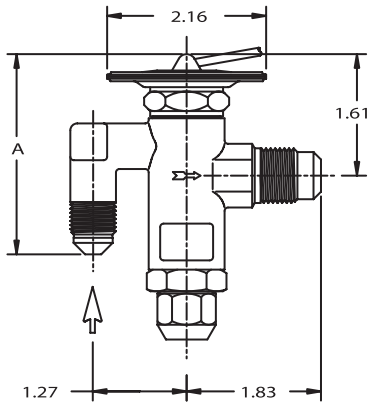
R-12	R-134a	R-22/R-407C	R-502/R-404A/ R-507
5 (17.0)	6(21.0)	8 (28.0)	5 (17.0)
6 (21.0)	7 1/2 (27.0)	10 (35.0)	7 (27.0)
9 (32.0)	11 (39.0)	15 (53.0)	10 (35.0)
12 (42.0)	14 (50.0)	20 (70.0)	13 (46.0)

All capacities shown are at 100°F condensing, 40°F evaporator temperature.

*See Extended Capacity Tables for ratings at a wide range of conditions per ARI standard 750.

Dimensional Data

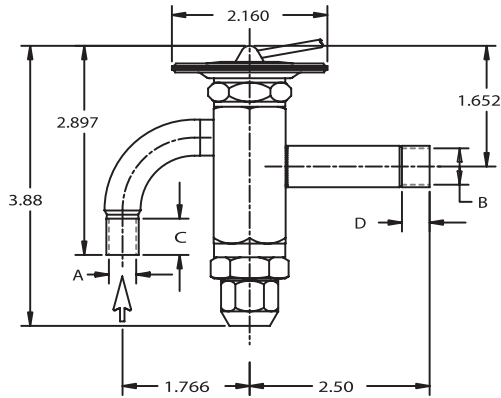
Standard Body HF 1/4 thru 5 1/2 tons R-22



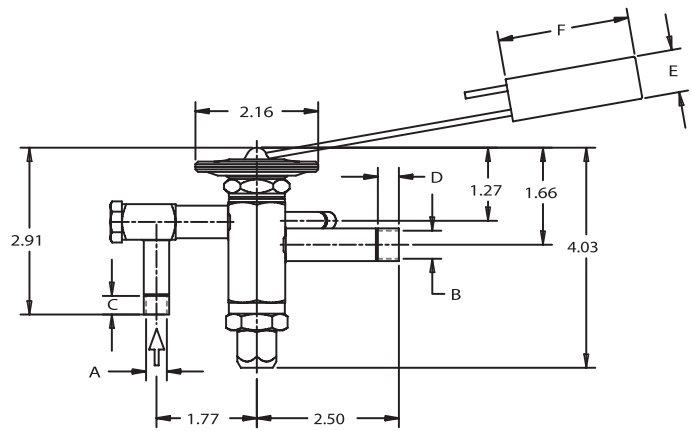
SAE

HF SAE

Connection Size		A	B	C
Inlet	Outlet			
1/4 SAE	1/2 SAE	3.11	1.27	1.83
3/8 SAE	1/2 SAE	2.72		



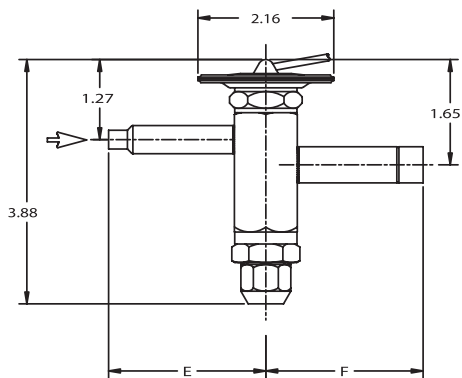
ODF



ODF

w/optional strainer
at inlet

Extended Body HF 8, 10, 15 & 20 ton R-22



ODF

HF ODF

Connection Size		A± .002	B± .002	C MIN	D MIN	E	F
Inlet	Outlet						
1/4 ODF	3/8 ODF	0.25	0.38	0.31	0.31	2.50	2.50
3/8 ODF	1/2 ODF	0.25	0.50	0.31	0.37		
3/8 ODF	1/2 ODF	0.38	0.50	0.37	0.37		

Ordering Information

Use the following tables to order individual components.

Body Selection Table

PCN	Description	Type	Connections (Inlet x Outlet)
064881	KT-20298-1	HFK	1/4 x 1/2 SAE Ang Inlet
064882	KT-20298-2	HFK	3/8 x 1/2 SAE Ang Inlet
064883	KT-20298-3	HFKE	1/4 x 1/2 SAE Ang Inlet
064884	KT-20298-4	HFKE	3/8 x 1/2 SAE Ang Inlet
064885	KT-20298-5	HFKSC	3/8 x 1/2 ODF Ang Inlet w/ Strainer
064886	KT-20298-6	HFKESC	3/8 x 1/2 ODF Ang Inlet w/ Strainer
064887	KT-20298-7	HFKS	3/8 x 1/2 ODF S/T
064888	KT-20298-8	HFKS	3/8 x 5/8 ODF S/T
064889	KT-20298-9	HFKS	1/2 x 5/8 ODF S/T
064890	KT-20298-10	HFKS	1/2 x 7/8 ODF S/T
064891	KT-20298-11	HFKES	3/8 x 1/2 ODF S/T
064892	KT-20298-12	HFKES	3/8 x 5/8 ODF S/T
064895	KT-20298-13	HFKES	1/2 x 5/8 ODF S/T
064896	KT-20298-14	HFKES	1/2 x 7/8 ODF S/T

Power Element Table

PCN	Description	System Refrigerant(s)	Application
053769	X26300-FW15-1	R-12/R-134a	Low Temp MOP
054798	X26300-FW35-1	R-12/R-134a	Low Temp MOP
063869	X26300-FW55-1	R-12/R-134a	Low Temp MOP
053766	X26300-FZ-1	R-12/R-134a	Low Temp
053763	X26300-FC-1	R-12/R-134a	Medium Temp
058074	X26300-MC-1	R-134a	Medium Temp
053767	X26300-HZ-1	R-22/R-407C	Low Temp
057834	X26300-HCA-1	R-22/R-407C	Heat Pump
057764	X26300-HW100-1	R-22/R-407C	AC MOP
053764	X26300-HC-1	R-22/R-407C	A/C Med. Temp
058085	X26300-SW45-1	R-404/ R-507/ R-502	Low Temp MOP
058082	X26300-SZ-1	R-404/ R-507/ R-502	Low Temp
058083	X26300-SC-1	R-404/ R-507/ R-502	Medium Temp

Cage Nominal* Capacity Table

PCN	Description ¹	Cage Code	R-12	R-22	R-134a	R-404	R-507	R-502	R-407C
064868	KT-20299-0	0	1/8	1/4	1/4	1/8	1/8	1/8	1/4
064869	KT-20299-1	1	1/4	1/2	1/2	1/4	1/4	1/4	1/2
064870	KT-20299-2	2	1/2	1	3/4	1/2	1/2	1/2	1
064871	KT-20299-3	3	1	1 1/2	1	1	1	1	1 1/2
064872	KT-20299-4	4	1 1/4	2	1 1/2	1 1/4	1 1/4	1 1/4	2
064873	KT-20299-5	5	1 1/2	2 1/2	1 3/4	1 1/2	1 1/2	1 1/2	2 1/2
064874	KT-20299-6	6	2	3	2 1/2	2	2	2	3
064875	KT-20299-7	7	3 1/2	5 1/2	4	3 1/2	3 1/2	3 1/2	5 1/2

¹ Cage Kit includes Cage, Insertion Tool and ID Clips.
 *All capacities shown are at 100°F condensing, 40°F evaporator temperature.
 See Extended Capacity Tables for ratings at a wide range of conditions per ARI standard 750.

Cage Kit (PCN 064879)

Item	Qty
Size 0 Cage (1/4 ton R-22)	2
Size 1 Cage (1/2 ton R-22)	2
Size 2 Cage (1 ton R-22)	2
Size 3 Cage (1 1/2 ton R-22)	2
Size 4 Cage (2 ton R-22)	2
Size 5 Cage (2 1/2 ton R-22)	2
Size 6 Cage (3 ton R-22)	2
Size 7 Cage (5 1/2 ton R-22)	2
Insertion Tool	1
Oil Bottle	1
Cage ID Tags	16

Replacement Parts – SAE Inlet

PCN	Part Number	Description
027385	X-11176-1	Filter Screen
058707	27676-1	Seal Cap

Replacement Parts- HFSC & HFESC Only

PCN	Kit Number	Description
057686	KT-20264	Includes seal cap, gasket o-ring, screen, spring

HFK Accessories

PCN	Description
064880	Service Box
064897	Cage Box (Empty)
064898	Insertion Tool
064899	Oil Bottle
065203	Cage Gasket Kit (12 sets)

Ordering Information



HFK Pre-Packaged Kits

The HFK is a pre-packaged kit consisting of a mix of popular bodies and power elements with a complete selection of cages. These kits provide great flexibility allowing valves to be assembled as needed for each application. Three kits are provided as shown below, along with the cage kit which is included in each pre-packaged kit. In addition, custom kits can be assembled by stocking an empty kit case with desired components.

SAE/ODF Kit (PCN 065135)

Item	Qty
HFK 3/8 x 1/2 SAE ANG	1
HFKE 3/8 x 1/2 SAE ANG	1
HFKS 3/8 x 1/2 ODF S/T	1
HFKES 3/8 x 1/2 ODF S/T	1
Cage Kit (PCN 064879)	1
Insertion Tool (PCN 065219)	1
Service Box (PCN 064880)	1
FC Power Element	1
FZ Power Element	1
HC Power Element	1
HZ Power Element	1
SC Power Element	1
SW45 Power Element	1

SAE Kit (PCN 064876)

Item	Qty
HFK 1/4 X 1/2 Body	1
HFK 3/8 X 1/2 Body	1
HFKE 3/8 X 1/2 Body	2
FC Power Element	2
HC Power Element	1
HZ Power Element	1
SZ Power Element	2
Cage Kit (PCN 064879)	1

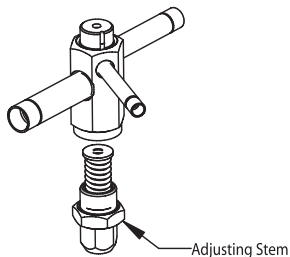
ODF Kit (PCN 064877)

Item	Qty
HFKSC 3/8 X 1/2 Body	1
HFKES 3/8 X 1/2 Body	1
HFKESC 3/8 X 1/2 Body	2
FC Power Element	2
HC Power Element	1
HZ Power Element	1
SZ Power Element	2
Cage Kit (PCN 064879)	1

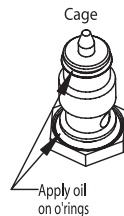
Cage Kit (PCN 064879)

Item	Qty
Size 0 Cage (1/4 ton R-22)	2
Size 1 Cage (1/2 ton R-22)	2
Size 2 Cage (1 ton R-22)	2
Size 3 Cage (1 1/2 ton R-22)	2
Size 4 Cage (2 ton R-22)	2
Size 5 Cage (2 1/2 ton R-22)	2
Size 6 Cage (3 ton R-22)	2
Size 7 Cage (5 1/2 ton R-22)	2
Insertion Tool	1
Oil Bottle	1
Cage ID Tags	16

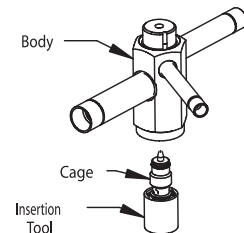
HFK Assembly Procedure (see 6 assembly steps & diagrams below)



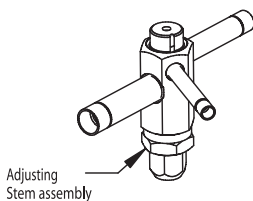
1. Remove adjusting stem assembly from body with 15/16" wrench.



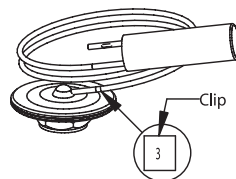
2. Lubricate both o-rings on cage.



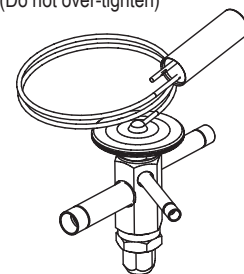
3. Insert cage into body with driver and insertion tool and hand tighten. (Do not over-tighten)



4. Replace adjustment stem assembly to body and hand tighten. Use the 15/16" wrench to tighten adjustment stem assembly 60° or one wrench flat. (300-360 inch lbs. - Do not over-tighten)



5. Attach cage identification clip on power element cap tube.



6. Screw power element to top of valve body and hand tighten. Use the 1" wrench to tighten power element 60° or one wrench flat. (300-360 inch lbs. - Do not over-tighten)

Ordering Information for HF Series Valves

Use the following tables to order factory assembled valves.

HF Series – Internally Equalized

Refrigerant	Series	Tons*	Charge	Connections	Cap Tube	PCN		
R-12	HF	1/4	FC	1/4 X 1/2 SAE ANG	5 FT	009811		
			FC	3/8 X 1/2 SAE ANG	5 FT	054134		
		1/2	FC	1/4 X 1/2 SAE ANG	5 FT	009810		
			FC	3/8 X 1/2 ODF ANG	5 FT	056063		
			FC	3/8 X 1/2 ODF S/T	5 FT	056013		
			FC	3/8 X 1/2 SAE	5 FT	054966		
			FC	3/8 X 1/2 SAE ANG	5 FT	054892		
		1	FC	3/8 X 1/2 ODF S/T	5 FT	056119		
			FC	3/8 X 1/2 SAE ANG	5 FT	057619		
		1-1/2	FC	3/8 X 1/2 SAE ANG	5 FT	054914		
2	FC	3/8 X 1/2 SAE	5 FT	053060				
R-134a R-12	HF	1/4	MC	3/8 X 1/2 ODF ANG	5 FT	058545		
			MC	3/8 X 1/2 SAE ANG	5 FT	057618		
		1/2	MC	3/8 X 1/2 ODF S/T	5 FT	058100		
			MC	3/8 X 1/2 SAE ANG	5 FT	057620		
		1	MC	3/8 X 1/2 ODF S/T	5 FT	065641		
R-22 R-407C	HF	1/4	HC	1/4 X 1/2 SAE ANG	5 FT	058430		
			HC	3/8 X 1/2 ODF ANG	5 FT	055493		
			HC	3/8 X 1/2 ODF S/T	5 FT	055633		
			HC	3/8 X 1/2 SAE	5 FT	054921		
			HZ	1/4 X 1/2 SAE ANG	5 FT	059653		
		1/2	HZ	3/8 X 1/2 ODF S/T	5 FT	056169		
			HC	1/4 X 1/2 SAE ANG	5 FT	009812		
			HC	3/8 X 1/2 ODF ANG	5 FT	054723		
			HC	3/8 X 1/2 ODF S/T	5 FT	054136		
			HC	3/8 X 1/2 SAE	5 FT	054135		
		1	HZ	3/8 X 1/2 SAE	5 FT	054364		
			HC	3/8 X 1/2 ODF ANG	5 FT	055702		
			HC	3/8 X 1/2 ODF S/T	5 FT	055928		
			HC	3/8 X 1/2 SAE	5 FT	054927		
			HZ	3/8 X 1/2 SAE	5 FT	054928		
		1-1/2	HC	3/8 X 1/2 ODF ANG	5 FT	055969		
			HC	3/8 X 1/2 ODF S/T	5 FT	056018		
			HC	3/8 X 1/2 SAE	5 FT	054933		
		2	HC	3/8 X 1/2 SAE	5 FT	054939		
			HZ	3/8 X 1/2 SAE ANG	5 FT	054940		
		2-1/2	HC	3/8 X 1/2 SAE	5 FT	054947		
			HC	3/8 X 1/2 SAE	5 FT	053316		
		3	HC	3/8 X 1/2 SAE	5 FT	053915		
			HC	3/8 X 1/2 ODF S/T	5 FT	053915		
		R-404A R-507 R-502	HF	1	SC	3/8 X 1/2 ODF S/T	5 FT	065643
		R-502	HF	1/4	RC	1/4 X 1/2 SAE ANG	5 FT	059304
					RC	3/8 X 1/2 ODF ANG	5 FT	055490
					RC	3/8 X 1/2 SAE	5 FT	054137
RZ	1/4 X 3/8 ODF S/T				5 FT	055792		
RZ	3/8 X 1/2 ODF S/T				5 FT	056228		
1/2	RZ			3/8 X 1/2 SAE	5 FT	054369		
	RC			3/8 X 1/2 SAE	5 FT	054964		
	RZ			3/8 X 1/2 ODF ANG	5 FT	055874		
	RZ			3/8 X 1/2 ODF S/T	5 FT	056008		
1	RZ			3/8 X 1/2 SAE	5 FT	054965		
	RC			3/8 X 1/2 SAE	5 FT	054976		
	RC			3/8 X 1/2 SAE ANG	5 FT	054905		
	RZ			3/8 X 1/2 ODF ANG	5 FT	055785		
1-1/2	RZ			3/8 X 1/2 SAE	5 FT	054977		
	RC			3/8 X 1/2 SAE	5 FT	054984		
2	RZ			3/8 X 1/2 SAE	5 FT	054986		
	RC			3/8 X 1/2 SAE	5 FT	053061		
3-1/2	RC			3/8 X 1/2 SAE	5 FT	055936		

Ordering Information for HF Series Valves (continued)

HF Series – Externally Equalized (continued)

Refrigerant	Series	Tons*	Charge	Connections	Cap Tube	PCN		
R-12	HFE	1/4	FC	3/8 X 1/2 SAE ANG	5 FT	054360		
			FC	1/4 X 1/2 SAE ANG	5 FT	009955		
		1/2	FC	3/8 X 1/2 ODF ANG	5 FT	056021		
			FC	3/8 X 1/2 ODF S/T	5 FT	056331		
		1	FC	3/8 X 1/2 SAE ANG	5 FT	054895		
			FC	3/8 X 1/2 ODF ANG	5 FT	055993		
			FC	3/8 X 1/2 ODF S/T	5 FT	056151		
		1-1/2	FC	3/8 X 1/2 SAE ANG	5 FT	054909		
			FC	3/8 X 1/2 ODF ANG	5 FT	055994		
		2	FC	3/8 X 1/2 SAE ANG	5 FT	054917		
			FC	3/8 X 1/2 ODF S/T	5 FT	053266		
		3-1/2	FC	3/8 X 1/2 SAE ANG	5 FT	053069		
			FC	3/8 X 1/2 ODF ANG	5 FT	054138		
		R-134a R-12	HFE	1/2	MC	3/8 X 1/2 ODF S/T	5 FT	065645
MC	3/8 X 1/2 SAE ANG				5 FT	057616		
3/4	MC			3/8 X 1/2 ODF ANG	5 FT	057784		
	MC			3/8 X 1/2 ODF S/T	5 FT	059422		
1	MC			3/8 X 1/2 ODF ANG	5 FT	058546		
	MC			3/8 X 1/2 ODF S/T	5 FT	065646		
1-1/2	MC			3/8 X 1/2 SAE ANG	5 FT	057617		
	MC			3/8 X 1/2 ODF ANG	5 FT	057895		
1-3/4	MC			3/8 X 1/2 ODF S/T	5 FT	065647		
	MC			3/8 X 1/2 SAE	5 FT	058152		
4	MC			3/8 X 1/2 SAE ANG	5 FT	057896		
	MC			3/8 X 1/2 ODF ANG	5 FT	057897		
6	MC			5/8 X 7/8 ODF S/T	5 FT	057903		
	MC			5/8 X 7/8 ODF S/T	5 FT	057906		
11	MC			7/8 X 1 1/8 ODF S/T	5 FT	058681		
	MC			7/8 X 1 3/8 ODF S/T	5 FT	064000		
R-22 R-407C	HFE			1/4	HC	3/8 X 1/2 ODF S/T	5 FT	055927
					HC	3/8 X 1/2 SAE	5 FT	054924
		HZ	3/8 X 1/2 SAE		5 FT	054925		
		1/2	HC	1/4 X 1/2 SAE ANG	5 FT	059079		
			HC	3/8 X 1/2 ODF ANG	5 FT	054838		
			HC	3/8 X 1/2 ODF S/T	5 FT	055827		
			HC	3/8 X 1/2 SAE	5 FT	054361		
			HZ	3/8 X 1/2 ODF S/T	5 FT	055889		
			HZ	3/8 X 1/2 SAE	5 FT	054365		
		1	HC	3/8 X 1/2 ODF ANG	5 FT	055494		
			HC	3/8 X 1/2 ODF S/T	5 FT	055708		
			HC	3/8 X 1/2 SAE	5 FT	054930		
			HW 35	3/8 X 1/2 SAE	5 FT	054932		
			HZ	3/8 X 1/2 SAE	5 FT	054931		
		1-1/2	HC	3/8 X 1/2 ODF ANG	5 FT	055495		
			HC	3/8 X 1/2 ODF S/T	5 FT	055863		
			HC	3/8 X 1/2 SAE	5 FT	054936		
			HZ	3/8 X 1/2 ODF S/T	5 FT	055870		
			HZ	3/8 X 1/2 SAE	5 FT	054937		
		2	HC	3/8 X 1/2 ODF S/T	5 FT	055706		
			HC	3/8 X 1/2 SAE	5 FT	054942		
			HC	3/8 X 1/2 SAE ANG	5 FT	054946		
		2-1/2	HZ	3/8 X 1/2 SAE	5 FT	054943		
			HC	3/8 X 1/2 ODF ANG	5 FT	056042		
			HC	3/8 X 1/2 ODF S/T	5 FT	055931		
		3	HC	3/8 X 1/2 SAE	5 FT	054950		
			HC	3/8 X 1/2 ODF ANG	5 FT	054756		
			HC	3/8 X 1/2 ODF S/T	5 FT	053916		
			HC	3/8 X 1/2 SAE	5 FT	053317		
			HC	1/2 X 5/8 ODF ANG	5 FT	064761		
HCA	3/8 X 1/2 ODF S/T		5 FT	058648				
HCA	1/2 X 5/8 ODF ANG		5 FT	061730				
HZ	3/8 X 1/2 ODF S/T		5 FT	055924				
HZ	3/8 X 1/2 SAE	5 FT	053191					

Ordering Information for HF Series Valves (continued)

HF Series – Externally Equalized (continued)

Refrigerant	Series	Tons*	Charge	Connections	Cap Tube	PCN
R-22 R-407C	HFE	5-1/2	HC	3/8 X 1/2 ODF S/T	5 FT	054141
			HC	3/8 X 1/2 SAE	5 FT	054140
			HC	1/2 X 5/8 ODF ANG	5 FT	054778
			HC	1/2 X 7/8 ODF S/T	5 FT	055187
			HC	5/8 X 7/8 ODF S/T	5 FT	054779
			HCA	3/8 X 1/2 ODF S/T	5 FT	065649
			HCA	1/2 X 5/8 ODF ANG	5 FT	057378
			HZ	3/8 X 1/2 ODF S/T	5 FT	054780
		8	HZ	3/8 X 1/2 SAE	5 FT	054777
			HC	1/2 X 5/8 ODF S/T	5 FT	057312
			HC	5/8 X 1 1/8 ODF ST	5 FT	057313
			HCA	1/2 X 7/8 ODF S/T	5 FT	056818
			HCA	5/8 X 1 1/8 ODF ST	5 FT	056819
			HC	1/2 X 5/8 ODF S/T	5 FT	057315
			HC	5/8 X 7/8 ODF S/T	5 FT	057256
			HC	7/8 X 1 1/8 ODF S/T	5 FT	057316
		10	HCA	5/8 X 7/8 ODF S/T	5 FT	056820
			HCA	5/8 X 1 1/8 ODF S/T	5 FT	056821
			HC	5/8 X 1 1/8 ODF S/T	5 FT	062737
			HC	5/8 X 7/8 ODF S/T	5 FT	057317
		12	HC	7/8 X 1 1/8 ODF S/T	5 FT	057318
			HCA	5/8 X 1 1/8 ODF S/T	5 FT	056824
			HCA	5/8 X 7/8 ODF S/T	5 FT	056823
			HCA	7/8 X 1 1/8 ODF S/T	5 FT	056825
15	HC	7/8 X 1 1/8 ODF S/T	5 FT	062055		
	HCA	7/8 X 1 1/8 ODF S/T	5 FT	058490		
	HC	5/8 X 7/8 ODF S/T	5 FT	065734		
	SZ	3/8 X 1/2 ODF S/T	5 FT	065733		
R-404A R-507 R-502	HFE	1/4	SC	3/8 X 1/2 ODF ANG	5 FT	058976
			SW 45	3/8 X 1/2 ODF S/T	5 FT	065736
		1/2	SZ	3/8 X 1/2 ODF ANG	5 FT	058995
			SZ	3/8 X 1/2 ODF S/T	5 FT	065735
			SC	3/8 X 1/2 ODF S/T	5 FT	065650
		1	SW 45	3/8 X 1/2 ODF ANG	5 FT	059086
			SW 45	3/8 X 1/2 ODF S/T	5 FT	065651
			SZ	3/8 X 1/2 ODF S/T	5 FT	064289
		1-1/4	SC	3/8 X 1/2 ODF ANG	5 FT	058977
			SW 45	3/8 X 1/2 ODF S/T	5 FT	057976
			SZ	3/8 X 1/2 ODF S/T	5 FT	065737
		1-1/2	SC	3/8 X 1/2 ODF S/T	5 FT	057974
SW 45	3/8 X 1/2 ODF S/T		5 FT	065738		
SZ	3/8 X 1/2 ODF S/T		5 FT	064290		
2	SC	3/8 X 1/2 ODF S/T	5 FT	057958		
	SW 45	3/8 X 1/2 ODF S/T	5 FT	065740		
	SZ	3/8 X 1/2 ODF S/T	5 FT	065739		
3-1/2	SC	3/8 X 1/2 ODF S/T	5 FT	065652		
	SC	5/8 X 7/8 ODF S/T	5 FT	062151		
	SZ	1/2 X 5/8 ODF S/T	5 FT	061694		
5	SW 45	5/8 X 7/8 ODF S/T	5 FT	064170		
	SZ	5/8 X 7/8 ODF S/T	5 FT	058451		
7	SZ	5/8 X 7/8 ODF S/T	5 FT	064291		
	SW 45	5/8 X 7/8 ODF S/T	5 FT	064195		
10	SZ	5/8 X 7/8 ODF S/T	5 FT	062828		
	RC	3/8 X 1/2 SAE	5 FT	054366		
R-502	HFE	1/4	RC	3/8 X 1/2 ODF ANG	5 FT	055092
			RZ	3/8 X 1/2 ODF ANG	5 FT	055491
			RZ	3/8 X 1/2 SAE	5 FT	054370
			RC	3/8 X 1/2 ODF ANG	5 FT	055992
		1/2	RC	3/8 X 1/2 ODF S/T	5 FT	056022
			RC	3/8 X 1/2 SAE	5 FT	054967
			RW 45	3/8 X 1/2 ODF ANG	5 FT	055996
			RW 45	3/8 X 1/2 SAE	5 FT	054969
			RZ	3/8 X 1/2 ODF ANG	5 FT	055497
			RZ	3/8 X 1/2 ODF S/T	5 FT	056024
			RZ	3/8 X 1/2 SAE	5 FT	054968

Thermal Expansion Valves
 Solenoid Valves
 Coils
 Industrial Solenoid Valves
 Shut Off Valves
 System Protectors
 Storage Devices
 Oil Controls
 Pressure Regulators
 Temperature Pressure Controls
 Competitive Cross Reference

Ordering Information for HF Series Valves (continued)

HF Series – Externally Equalized (continued)

Refrigerant	Series	Tons*	Charge	Connections	Cap Tube	PCN		
R-502	HFE	1	RC	3/8 X 1/2 ODF ANG	5 FT	054983		
			RC	3/8 X 1/2 ODF S/T	5 FT	056029		
			RC	3/8 X 1/2 SAE	5 FT	054979		
			RW 45	3/8 X 1/2 SAE	5 FT	054981		
			RZ	3/8 X 1/2 ODF ANG	5 FT	055496		
			RZ	3/8 X 1/2 ODF S/T	5 FT	056225		
		1-1/2	RZ	3/8 X 1/2 SAE	5 FT	054980		
			RC	3/8 X 1/2 ODF ANG	5 FT	055657		
			RC	3/8 X 1/2 ODF S/T	5 FT	056031		
			RC	3/8 X 1/2 SAE	5 FT	054988		
			RW 45	3/8 X 1/2 ODF ANG	5 FT	055991		
			RW 45	3/8 X 1/2 ODF S/T	5 FT	056032		
		2	RW 45	3/8 X 1/2 SAE	5 FT	054990		
			RZ	3/8 X 1/2 ODF ANG	5 FT	055498		
			RZ	3/8 X 1/2 SAE	5 FT	054989		
			RC	3/8 X 1/2 ODF ANG	5 FT	054768		
			RC	3/8 X 1/2 ODF S/T	5 FT	053270		
			RC	3/8 X 1/2 SAE	5 FT	053070		
		3-1/2	RW 45	3/8 X 1/2 SAE	5 FT	054992		
			RZ	3/8 X 1/2 ODF S/T	5 FT	053271		
			RZ	3/8 X 1/2 ODF ANG	5 FT	054844		
			RZ	3/8 X 1/2 SAE	5 FT	053071		
			RC	3/8 X 1/2 ODF ANG	5 FT	054783		
			RC	3/8 X 1/2 ODF S/T	5 FT	054143		
		5	RC	3/8 X 1/2 SAE	5 FT	054142		
			RW 45	3/8 X 1/2 ODF ANG	5 FT	058907		
			RZ	3/8 X 1/2 ODF ANG	5 FT	054785		
			RZ	3/8 X 1/2 ODF S/T	5 FT	054784		
			RZ	3/8 X 1/2 SAE	5 FT	054145		
			RC	3/8 X 1/2 ODF S/T	5 FT	058875		
		7	RC	5/8 X 7/8 ODF S/T	5 FT	058608		
			RW 45	5/8 X 7/8 ODF S/T	5 FT	058305		
			RZ	1/2 X 5/8 ODF ANG	5 FT	061196		
		10	RC	5/8 X 7/8 ODF S/T	5 FT	058607		
			RW 45	5/8 X 7/8 ODF S/T	5 FT	059291		
					RC	5/8 X 7/8 ODF S/T	5 FT	058808

* For interchangeable refrigerant charges R-134a/R-12, R-404A/R-507/R-502, and R-22/R-407C, the tons of capacity shown in the table are for the first (primary) refrigerant listed. Consult the Nominal Capacity Table for determining the tons of capacity for the secondary refrigerants listed.
Example: A 1/4 ton R-12 valve is required. What R-134a ton valve should be selected?
Solution: From the Nominal Capacity Table, a 1/2 ton R-134a valve is equivalent to a 1/4 ton R-12 valve.

Ordering Information for HF Series Valves (continued)

HFESC Series – Externally Equalized (continued)

Refrigerant	Series	Tons*	Charge	Connections	Cap Tube	PCN
R-12	HFESC	1/2	FC	3/8 X 1/2 ODF ANG	5 FT	057397
		1	FC	3/8 X 1/2 ODF ANG	5 FT	057398
		1-1/2	FC	3/8 X 1/2 ODF ANG	5 FT	057399
R-134a R-12	HFESC	1/4	MC	3/8 X 1/2 ODF ANG	5 FT	057572
		1/2	MC	3/8 X 1/2 ODF ANG	5 FT	058069
		1	MC	3/8 X 1/2 ODF ANG	5 FT	057570
		1-1/2	MC	3/8 X 1/2 ODF ANG	5 FT	057568
R-22 R-407C	HFESC	1/4	HC	3/8 X 1/2 ODF ANG	5 FT	057409
			HZ	3/8 X 1/2 ODF ANG	5 FT	057428
		1/2	HC	3/8 X 1/2 ODF ANG	5 FT	057291
			HZ	3/8 X 1/2 ODF ANG	5 FT	057429
		1	HC	3/8 X 1/2 ODF ANG	5 FT	057410
			HZ	3/8 X 1/2 ODF ANG	5 FT	057430
		1-1/2	HC	3/8 X 1/2 ODF ANG	5 FT	057292
			HZ	3/8 X 1/2 ODF ANG	5 FT	057321
		2	HZ	3/8 X 1/2 ODF ANG	5 FT	057433
			HC	3/8 X 1/2 ODF ANG	5 FT	057294
		2-1/2	HC	3/8 X 1/2 ODF ANG	5 FT	057411
			HZ	3/8 X 1/2 ODF ANG	5 FT	057434
		3	HC	3/8 X 1/2 ODF ANG	5 FT	057412
			HZ	3/8 X 1/2 ODF ANG	5 FT	057748
5-1/2	HC	3/8 X 1/2 ODF ANG	5 FT	057781		
8	HC	3/8 X 1/2 ODF ANG	5 FT	058609		
R-502	HFESC	1/4	RC	3/8 X 1/2 ODF ANG	5 FT	057436
			RZ	3/8 X 1/2 ODF ANG	5 FT	057454
		1/2	RC	3/8 X 1/2 ODF ANG	5 FT	057437
			RZ	3/8 X 1/2 ODF ANG	5 FT	057455
		1	RC	3/8 X 1/2 ODF ANG	5 FT	057438
			RW 45	3/8 X 1/2 ODF ANG	5 FT	057446
		1-1/2	RZ	3/8 X 1/2 ODF ANG	5 FT	057456
			RC	3/8 X 1/2 ODF ANG	5 FT	057439
		2	RW 45	3/8 X 1/2 ODF ANG	5 FT	057448
			RZ	3/8 X 1/2 ODF ANG	5 FT	057322
		2-1/2	RC	3/8 X 1/2 ODF ANG	5 FT	057440
			RZ	3/8 X 1/2 ODF ANG	5 FT	057457
		5	RC	3/8 X 1/2 ODF ANG	5 FT	057441
			RZ	3/8 X 1/2 ODF ANG	5 FT	057458
5	RC	3/8 X 1/2 ODF ANG	5 FT	058595		
	RZ	3/8 X 1/2 ODF ANG	5 FT	059654		

HFSC Series – Internally Equalized

Refrigerant	Series	Tons*	Charge	Connections	Cap Tube	PCN
R-134a R-12	HFSC	1/4	MC	3/8 X 1/2 ODF ANG	5 FT	057573
		1/2	MC	3/8 X 1/2 ODF ANG	5 FT	058067
R-22 R-407C	HFSC	1/4	HC	3/8 X 1/2 ODF ANG	5 FT	057467
			HZ	3/8 X 1/2 ODF ANG	5 FT	057293
		1/2	HC	3/8 X 1/2 ODF ANG	5 FT	057482
			HZ	3/8 X 1/2 ODF ANG	5 FT	057468
R-404A R-507 R-502	HFSC	1	HC	3/8 X 1/2 ODF ANG	5 FT	057470
		1/8	SC	3/8 X 1/2 ODF ANG	5 FT	058248
			SC	3/8 X 1/2 ODF ANG	5 FT	058249
		1/4	SC	3/8 X 1/2 ODF ANG	5 FT	058250
SC	3/8 X 1/2 ODF ANG		5 FT	058252		
R-502	HFSC	1/4	RC	3/8 X 1/2 ODF ANG	5 FT	057487
			RZ	3/8 X 1/2 ODF ANG	5 FT	057484
		1/2	RC	3/8 X 1/2 ODF ANG	5 FT	057488
			RZ	3/8 X 1/2 ODF ANG	5 FT	057485
1	RC	3/8 X 1/2 ODF ANG	5 FT	057489		
	RZ	3/8 X 1/2 ODF ANG	5 FT	057486		

* For interchangeable refrigerant charges R-134a/R-12, R-404A/R-507/R-502, and R-22/R-407C, the tons of capacity shown in the table are for the first (primary) refrigerant listed. Consult the Nominal Capacity Table for determining the tons of capacity for the secondary refrigerants listed.

Example: A 1/4 ton R-12 valve is required. What R-134a ton valve should be selected?

Solution: From the Nominal Capacity Table, a 1/2 ton R-134a valve is equivalent to a 1/4 ton R-12 valve.

TRAE+ Thermal Expansion Valve

The TRAE Plus series is a large capacity valve designed for refrigeration, air conditioning, heat pump, and chiller applications.



Features

- Stainless steel power element eliminates corrosion and prevents valve failure
- Suitable for Bi-Flow applications
- Replaceable power element and cage assembly for full serviceability
- Double balanced port design improves operation and stability over wide loads and evaporator temperature ranges
- Square body with straight-thru connections
- Solid copper connections
- External superheat adjustment
- Large diaphragm provides superior stability
- Permanent inlet strainer

Options

- Cages (For available cage kits, see page 24.)

Specifications

- Maximum working pressure: 450 psig
- Torque Power Assembly: 375 - 425 in. lb.

Nomenclature example: TRAE+ 30 HC 10 FT 7/8 x 1 1/8 ODF S/T

TRA	E	+	30	H	C	10 FT	7/8 x 1 1/8	ODF	S/T
Valve Series Double Balanced Port Design	Equalizer E=External 1/4"SAE	Replaceable Components Cage and Power Assembly	Capacity Nominal Rating in Tons (See nominal capacity table below)	Refrigerant Code +F = R-12 +H = R-22 +M = R-134a +N = R-407C *P = R-507 *R = R-502 *S = R-404A	Charge Code C = medium temp CA = heat pump W(MOP) = press. limiting Z = low temp	Capillary Tube Length 10 FT (std) (others available)	Inlet x Outlet Connection Sizes 5/8 x 7/8 7/8 x 1 1/8 1 1/8 x 1 1/8	Connection Type ODF = solder (Only)	Configuration S/T = straight-thru (Only)

+ = R-12 and R-134a are interchangeable refrigerant charges
 * = R-507, R-502 and R-404A are interchangeable refrigerant charges
 • = R-22 and R-407C are interchangeable refrigerant charges

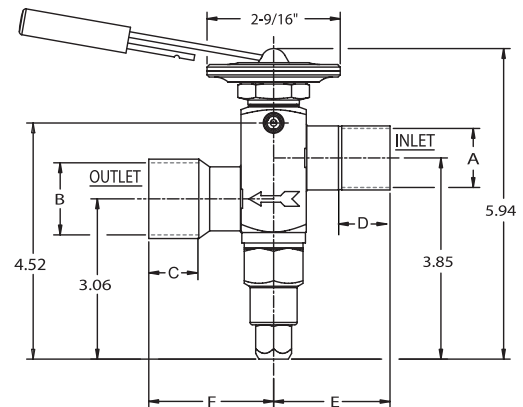
TRAE+ Series – Nominal* Capacity Table in Tons (kW)

R-12	R-134a	R-22/R-407C	R-507/R-404A/ R-502
7 1/2 (27)	9 (32)	10 (35)	8 (28)
10 (35)	13 (46)	15 (53)	12 (42)
12 (42)	14 (50)	20 (71)	14 (50)
18 (64)	22 (78)	30 (106)	20 (71)
25 (88)	30 (106)	40 (142)	30 (106)

All capacities shown are at 100°F condensing, 40°F evaporator temperature.
 *See Extended Capacity Tables for ratings at a wide range of conditions per ARI standard 750.

TRAE+ Dimensional Data (in)

TRAE Valve Type	Nominal Inlet (B)	Sizes (ODF) Inlet (E)	Inlet		Inlet	
			A	C	D	F
TRAE+ 10-40 Tons	5/8	7/8	1.57	0.50	2.09	0.75
	5/8	1-1/8	1.57	0.50	2.21	0.91
	7/8	7/8	2.09	0.75	2.09	0.75
	7/8	1-3/8	2.09	0.75	2.21	0.91
	7/8	1-3/8	2.09	0.75	2.39	0.97
	1-1/8	1-1/8	2.21	0.91	2.21	0.97
1-1/8	1-3/8	2.21	0.91	2.39	0.97	



TRAE Thermal Expansion Valve

The TRAE series is a large capacity valve for chiller, heat pump, refrigeration, and air conditioning applications.



Features

- Suitable for Bi-Flow applications
- External superheat adjustment
- Integral body with straight-thru connections
- Balanced port design improves valve operation and stability over wide loads and evaporator temperature range
- Solid copper connections
- Large diaphragm provides superior stability

Specifications

- Maximum Working Pressure: 450 psig

Nomenclature example: TRAE 50 HC 10 FT 7/8 x 1¹/₈ ODF S/T

TRA	E	50	H	C	10 FT	7/8 x 1 ¹ / ₈	ODF	S/T
Valve Series Hermetic Balanced Port Design	Equalizer E=External 1/4"SAE	Capacity Nominal Rating in Tons (See nominal capacity table below)	Refrigerant Code +F = R-12 • H = R-22 +M = R-134a • N = R-407C *P = R-507 *R = R-502 *S = R-404A	Charge Code C = medium temp CA = heat pump W(MOP) = press. limiting Z = low temp	Capillary Tube Length 10 FT (std) (others available)	Inlet x Outlet Connection Sizes 1/4 x 3/8 3/8 x 1/2	Connection Type ODF = solder (Only)	Configuration S/T = straight-thru (Only)

+ = R-12 and R-134a are interchangeable refrigerant charges

* = R-507, R-502 and R-404A are interchangeable refrigerant charges

• = R-22 and R-407C are interchangeable refrigerant charges

TRAE Series – Nominal* Capacity Table in Tons (kW)

R-12	R-134a	R-22/R-407C	R-507/R-404A/R-502
30 (106)	40 (142)	50 (177)	35 (124)
35 (124)	45 (159)	60 (212)	40 (142)
40 (142)	50 (177)	70 (248)	50 (177)

All capacities shown are at 100°F condensing, 40°F evaporator temperature.

*See Extended Capacity Tables for ratings at a wide range of conditions per ARI standard 750.

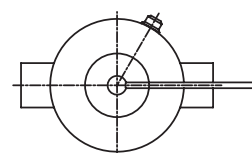
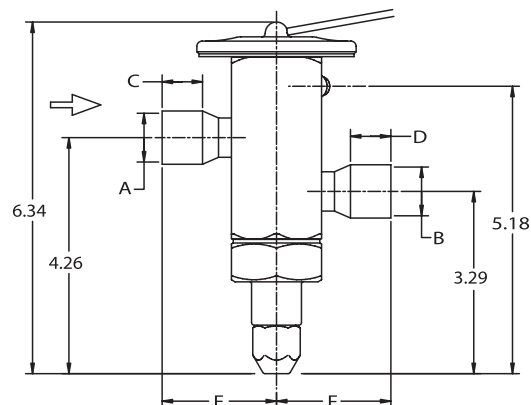
Dimensional Data (in)

Remote Bulb Tubing Length 10' Standard

Connection Size		A	B	C MIN	D MIN	E	F
Inlet	Outlet						
7/8 ODF	7/8 ODF	0.88	0.88	0.75	0.75	2.09	2.09
7/8 ODF	1-1/8 ODF	0.88	1.13	0.75	0.91	2.90	2.21
7/8 ODF	1-3/8 ODF	0.88	1.38	0.75	0.97	2.90	2.39
1-1/8 ODF	1-1/8 ODF	1.13	1.13	0.91	0.91	2.21	2.21
1-1/8 ODF	1-3/8 ODF	1.13	1.38	0.91	0.97	2.21	2.39
1-3/8 ODF	1-3/8 ODF	1.38	1.38	0.91	0.97	2.39	2.39

Remote Bulb Table

Remote Bulb Tubing Length	Bulb Length
5, 10, 15 ft.	4-7/8
20, 30 ft.	
40, 50 ft.	6-3/16



Ordering Information for TRAE/TRAE+ Series Valves

Refrigerant	Series	Tons*	Charge	Connections	Cap Tube	PCN		
R-22 R-407C	TRAE+	10	HC	5/8 X 7/8 ODF S/T	5 FT	062718		
			HCA	5/8 X 7/8 ODF S/T	10 FT	063138		
			HCA	7/8 X 1-1/8 ODF S/T	10 FT	063554		
		15	HC	7/8 X 1-1/8 ODF S/T	15 FT	063100	062721	
			HCA	5/8 X 7/8 ODF S/T	10 FT	063510	062722	
			HCA	7/8 X 1-1/8 ODF S/T	10 FT	063141	062722	
			HCA	7/8 X 1-3/8 ODF S/T	10 FT	063141	063141	
			HW100	5/8 X 7/8 ODF S/T	10 FT	063103	063103	
			20	HC	7/8 X 1-3/8 ODF S/T	10 FT	063650	063650
				HCA	7/8 X 1-1/8 ODF S/T	10 FT	062725	062725
				HCA	1 1/8 X 1-1/8 ODF S/T	10 FT	064581	064581
		HW90		7/8 X 1-1/8 ODF S/T	15 FT	064018	064018	
		HC		7/8 X 1-1/8 ODF S/T	10 FT	062724	062724	
		30	HC	7/8 X 1-1/8 ODF S/T	10 FT	062727	062727	
			HC	1-1/8 X 1-3/8 ODF S/T	10 FT	062728	062728	
			HCA	1-1/8 X 1-3/8 ODF S/T	10 FT	062730	062730	
			HW100	7/8 X 1-3/8 ODF S/T	5 FT	063425	063425	
		40	HC	1-1/8 X 1-3/8 ODF S/T	10 FT	062733	062733	
			HC	1-1/8 X 1-3/8 ODF S/T	15 FT	063153	063153	
			HCA	1-1/8 X 1-3/8 ODF S/T	10 FT	062734	062734	
		TRAE	50	HC	1-1/8 X 1-3/8 ODF S/T	10 FT	061700	061700
			60	HC	1-1/8 X 1-3/8 ODF S/T	10 FT	061865	061865
			70	HC	1-1/8 X 1-3/8 ODF S/T	10 FT	061866	061866

(+) Replaceable Power Assembly

Cage Replacement Kits for TRAE+ Series Valves

Cage kits are cross referenced by capacity and tonnage in the table below. Each cage kit consists of a replacement cage and cage removal wrench. In addition, the cage removal wrench (KT-20294) can be ordered as a separate item.

PCN	TRAE+ KIT	Nominal Capacity - Tons		
		R-22	R-12/R-134a	R-507/R-404A/ R-502
063387	KT-20289 CAGE KIT	10	9	8
063388	KT-20290 CAGE KIT	15	13	12
063389	KT-20291 CAGE KIT	20	14	14
063390	KT-20292 CAGE KIT	30	22	20
063391	KT-20293 CAGE KIT	40	30	30
063392	KT-20294 CAGE WRENCH KIT	All tonnages		

Replacement Parts

Description	Part Number	PCN
Power Assembly	X-28458 HCA-2	063414
	X-28458 HW100-2	063416
	X-28458 SW45-2	065298
Seal Nut	27676-1	058707

T-Series Take-A-Part Thermal Expansion Valve

The T-series Take-A-Part valves, with adjustable superheat and replaceable, interchangeable components are ideal for original equipment and field replacements in air conditioning, heat pump, and refrigeration applications.



Features

- Take-A-Part construction for easy field service
- External superheat adjustment
- Bi-Flow capability
- Stainless steel power assembly up to 18 ton

Options

- Interchangeable, replaceable cages
- Interchangeable body flanges
- Interchangeable power assemblies
- 1/4 to 100 tons capacity

Specifications

- Maximum working pressure: 450 psig
- Torque Bolts: 300 in. lb.

Nomenclature example: TCLEB 5 HC 5 FT 3/8 x 1/2 SAE ANG

TCL	E	B	5	H	C	5 FT	3/8 x 1/2	SAE	ANG
Valve Series Take-A-Part Adjustable	Equalizer E=External (Omit for Internal)	Bleed Hole (optional) B=Bleed Hole (Omit for no bleed hole)	Capacity Nominal Rating in Tons (See Cage Assembly Interchangeability Tables)	Refrigerant Code +F = R-12 • H = R-22 +M = R-134a • N = R-407C *P = R-507 *R = R-502 *S = R404A	Charge Code C = medium temp CA = heat pump W(MOP) = press. limiting Z = low temp	Capillary Tube Length Various lengths are available	Inlet x Outlet Connection Sizes Various sizes are available (valve is also available less flange)	Connection Type SAE=flare ODF=solder	Configuration ANG = 90° angle S/T=straight-thru

+ = R-12 and R-134a are interchangeable refrigerant charges
 * = R-507, R-502 and R-404A are interchangeable refrigerant charges
 • = R-22 and R-407C are interchangeable refrigerant charges

Single Outlet "T" Series Body Flanges with Bleed Hole for Use with PSC Compressors

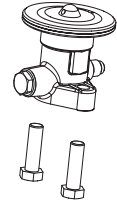
Valve Type			Bleed Hole Diameter ¹ for % Capacity Bypass											
R-12/R-134a	R-22/R-407C	R-507/R-502/ R-404A	10%		15%		20%		25%		30%		40%	
			Dia. (In)	Drill Size	Dia. (In)	Drill Size	Dia. (In)	Drill Size	Dia. (In)	Drill Size	Dia. (In)	Drill Size	Dia. (In)	Drill Size
TCL1/4F	TCL1/2H	TCL1/2R	–	–	0.02	1/64	0.02	77	0.02	76	0.02	74	0.03	72
TCL1/2F	TCL1H	TCL1/2R	0.02	77	0.02	75	0.02	73	0.03	71	0.03	69	0.04	65
TCL1F	TCL2H	TCL1R	0.03	71	0.03	1/32	0.04	64	0.04	60	0.05	56	0.05	55
TCL2F	TCL3H	TCL2R	0.03	70	0.04	65	0.04	60	0.04	57	0.05	3/4	0.06	54
TCL3F	TCL5H	TCL3R	0.04	65	0.04	57	0.05	55	0.06	54	0.06	1/16	0.07	50
TCL4F	TCL7-1/2H	TCL4-1/2R	0.04	57	0.05	55	0.06	53	0.07	51	0.08	48	0.09	44
TCL6-1/2F	TCL10H	TCL7R	0.05	55	0.06	53	0.07	50	0.08	47	0.09	44	0.10	39
TCL7-1/2F	TCL12H	TCL8R	0.05	55	0.06	53	0.07	50	0.08	47	0.09	44	0.10	39

¹Bleed hole sizes shown above are based on a percent of full effective port area of the valve. This does not necessarily indicate the percent of valve capacity that will be bypassed. The hole sizes shown above should be used for reference only. Normal industry practice is to equalize systems 3 to 5 minutes.

T-Series Take-A-Part Valve Small Capacity 1/2 to 18 tons

(R-22 Nominal - Bi Flow)

Superheat Plug
X28124-1 (ODM)
(PCN: 058336)



Step 1: Select Cage from Capacity Table



Externally Adjustable Cage Assembly

Step 3: Select Power Assembly

Capscrews

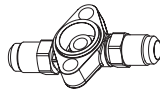
Valve Type	Nominal Capacity - Tons						Cage Assembly ¹	
	R-12	R-134a	R-22	R-404A R-507	R-502	R-407C	Description	PCN
TCL TCLE	1/4	1/4	1/2	1/4	1/4	1/2	X22440B1A	037034
	1/4	1/4	1/2	1/4	1/4	1/2	X22440B1B	037035
	1/2	3/4	1	1/2	1/2	1	X22440B2A	037036
	1/2	3/4	1	1/2	1/2	1	X22440B2B	037037
	1	1-1/2	2	1	1	2	X22440B3A	037038
	1	1-1/2	2	1	1	2	X22440B3B	037039
	2	2-1/2	3	2	2	3	X22440B4A	037040
	2	2-1/2	3	2	2	3	X22440B4B	037041
	3	3-1/2	5	3	3	5	X22440B5B	037043
	4	5-1/2	7-1/2	4-1/2	4-1/2	7-1/2	X22440B6B	037045
TJLE	7	9	11	7	7	11	XC724B4B	093343
	8	11	14	9	9	14	XC724B5B	038699
	8	11	14	9	9	14	X11873B4B	088837
TJR	11	13	18	12	12	18	X11873B5B	089058

¹ Gaskets included on cage.

Gasket strip X13455-1 (PCN: 027579) replaces all older T-Series Gasket kits.



Angle, ODF



Straight-Thru, SAE

Step 2: Select Flange

Valve Type	Flow	Size & Style Connections		Body Flange Part	
		Inlet	Outlet	Number	PCN
TCL TCLE	Angle	3/8 SAE	1/2 SAE	C500-4	056932
		3/8 SAE	5/8 SAE	C500-5	057153
		1/2 SAE	4/8 SAE	C500-6	056294
		1/4 ODF	3/8 ODF	C501-1	045401
		3/8 ODF	1/2 ODF	C501-4	065527
		3/8 OFD	5/8 ODF	C501-5	065748
		1/2 ODF	5/8 ODF	C501-7	065861
		5/8 ODF or 7/8 ODM	7/8 ODF or 1-1/8 ODM	A576	027764
	Straight-Thru	3/8 SAE	1/2 SAE	X6669-4	051176
		3/8 SAE	5/8 SAE	X6669-1	050563
		1/2 SAE	1/2 SAE	X6669-5	083378
		1/2 SAE	5/8 SAE	X6669-2	050842
		3/8 ODF	1/2 ODF	9761-5	027769
		3/8 ODF	5/8 ODF	9761-3	027771
		1/2 ODF	1/2 ODF	9761-6	027766
		1/2 ODF	5/8 ODF	9761-4	027268
1/2 ODF		7/8 ODF	9761-2	027770	
5/8 ODF		5/8 ODF	X6346-16	044733	
5/8 ODF	7/8 ODF	X6346-17	044846		
5/8 ODF	1-1/8 ODF	X6346-18	094038		
7/8 ODF	1-1/8 ODF	X6346-34	071757		
TJLE	Angle	5/8 ODF or 7/8 ODM	7/8 ODF or 1-1/8 ODM	B504	044984
		5/8 ODF	1-1/8 ODF	X6347-2	094289
	Straight-Thru	7/8 ODF	1-1/8 ODF	X6347-6	057210
		7/8 ODF	1-3/8 ODF	X6347-7	057323
TJR ²	Angle	5/8 ODF or 1-1/8 ODM	7/8 ODF or 1-1/8 ODM	10331	029411
	Straight-Thru	7/8 ODF or 1-1/8 ODM	7/8 ODF or 1-1/8 ODM	10332	032988

² TJR is balanced ported. TJR flange includes extended length capscrews.

Refrigerant	Equalizer Type	Cap Tube Length	Application		Power ⁵ Assembly	PCN	
			Temp. Range	MOP ⁴ (psi)			
R-12	Internal	5 FT	-20 to +50	NONE	XB-1019FC1A	052951	
	1/4 SAE	5 FT	-20 to +50	NONE	XB-1019FC1B	049881	
	Internal	10 FT	-20 to +50	NONE	XB-1019FC2A	032374	
	1/4 SAE	10 FT	-20 to +50	NONE	XB-1019FC2B	052954	
	1/4 SAE	15 FT	-20 to +50	NONE	XB-1019FC3B	058569	
	1/4 SAE	5 FT	-50 to +50	35	XB-1019FW351B	079346	
	1/4 SAE	5 FT	-50 to +50	55	XB-1019FW551B	057432	
	1/4 SAE	10 FT	-50 to +50	55	XB-1019FW552B	050981	
	1/4 SAE	5 FT	-50 to 0	15	XB-1019FW151B	077063	
	R-22	Internal	5 FT	-20 to +50	NONE	XB-1019HC1A	062078
		1/4 SAE	5 FT	-20 to +50	NONE	XB-1019HC1B	053416
		1/4 SAE	10 FT	-20 to +50	NONE	XB-1019HC2B	054390
1/4 SAE		5 FT	-20 to +50	NONE	XB-1019HCA1B	056039	
1/4 SAE		5 FT	-50 to +5	35	XB-1019HW351B	089975	
1/4 SAE		5 FT	-50 to +20	55	XB-1019HW551B	039152	
1/4 SAE		5 FT	-50 to +30	65	XB-1019HW651B	089445	
1/4 SAE		5 FT	-50 to +50	100	XB-1019HW1001B	062437	
1/4 SAE		20 FT	-10 to +50	NONE	XB-1019HW4B	055703	
1/4 SAE		10 FT	-50 to +50	100	XB-1019HW1002B	062658	
1/4 SAE		5 FT	-50 to +10	NONE	XB-1019HZ1B	040568	
1/4 SAE		10 FT	-50 to +10	NONE	XB-1019HZ2B	054105	
R-407C	1/4 SAE	5 FT	-20 to +50	NONE	XB-1019NC1B	064837	
	1/4 SAE	5 FT	-20 to +50	100	XB-1019NW1001B	063069	
R-507	1/4 SAE	5 FT	-20 to +50	NONE	XB-1019PC1B	061949	
	1/4 SAE	5 FT	-50 to 0	40	XB-1019PW401B	064200	
R-134a	1/4 SAE	5 FT	-50 to +10	NONE	XB-1019PZ1B	061951	
	1/4 SAE	5 FT	-20 to +50	NONE	XB-1019MC1B	057878	
R-502	1/4 SAE	10 FT	-20 to +50	NONE	XB-1019MC2B	059548	
	1/4 SAE	5 FT	-50 to +50	55	XB-1019MW551B	057370	
	1/4 SAE	5 FT	-50 to +10	NONE	XB-1019MZ1B	061946	
	1/4 SAE	5 FT	-20 to +50	NONE	XB-1019RC1B	052955	
	1/4 SAE	10 FT	-20 to +50	NONE	XB-1019RC2B	054415	
	1/4 SAE	5 FT	-50 to +20	15	XB-1019RW151B	070346	
R-404A	1/4 SAE	5 FT	-50 to +5	35	XB-1019RW351B	063644	
	1/4 SAE	5 FT	-50 to +5	45	XB-1019RW451B	055881	
	1/4 SAE	10 FT	-50 to +5	45	XB-1910RW452B	055704	
	1/4 SAE	5 FT	-50 to +25	65	XB-1019RW651B	063114	
	1/4 SAE	5 FT	-50 to +10	NONE	XB-1019RZ1B	046474	
	1/4 SAE	10 FT	-50 to +10	NONE	XB-1019RZ2B	047358	
Misc.	1/4 SAE	5 FT	-20 to +50	NONE	XB-1019SC-1B	059189	
	1/4 SAE	5 FT	-50 to 0	40	XB-1019SW401B	059130	
	1/4 SAE	5 FT	-50 to +25	65	XB-1019SW651B	063541	
	1/4 SAE	10 FT	-50 to +10	NONE	XB-1019SZ2B	061948	
	Internal	5 FT			NONE	XB-1019A-1A	037389
	1/4 SAE	5 FT			NONE	XB-1019A-1B	034803
Liquid Injection	1/4 SAE	5 FT			NONE	XB-1019B-1B	032207
	1/4 SAE	5 FT			NONE	XB-1019C-1B	035162
	1/4 SAE	5 FT			NONE	XB-1019CW-1B	084768

³ Capscrews included with Power Assembly

⁴ Maximum Operating Pressure Limit to prevent motor overload

⁵ Power Assembly final character: A=Internally Equalized, B=Externally Equalized

NOTE: Nominal capacities shown here are based on 40°F evaporator temperature and 100°F vapor-free liquid refrigerant entering the valve. R-12 and R-134a rated at 60 PSID. All other refrigerants rated at 100 PSID.

T-Series Take-A-Part Valve Large Capacity 22 to 100 tons

(R22 Nominal – Balanced Ported and Bi Flow)

Step 1: Select Cage from Capacity Table



Externally Adjustable
Double Ported
Cage Assembly

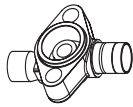
Valve Type	Nominal Capacity - Tons						Cage Assembly ¹	
	R-12	R-134a	R-22	R-404A R-507	R-502	R-407C	Description	PCN
TER	13	16	22	14	14	22	X9117B6B	077896
	15	19	26	16	16	26	X9117B7B	078117
	20	25	35	21	21	35	X9117B8B	071155
	25	31	45	27	27	45	X9117B9B	029429
TIR	35	45	55	37	37	55	X9166B10B	070738
	35	45	55	37	37	55	X9144B10B	071238
THR	45	55	70	48	48	70	X9144B11B	020846
	55	68	85	60	60	85	X9144B13B	021067
	55	68	100	60	--	100	X9144B14B	065123

¹ Gaskets included on cage.
Gasket strip X13455-1 (PCN: 027579) replaces all older T-Series Gasket kits.

Step 2: Select Flange



Angle, ODF



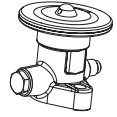
Straight-Thru, ODF

Valve Type	Style	Size & Style Connections		Body Flange Part	
		Inlet	Outlet	Number	PCN
TER ²	ANGLE	7/8 ODF or 1-1/8 ODM	7/8 ODF or 1-1/8 ODM	9153	027919
	STRAIGHT- THRU	7/8 ODF or 1-1/8 ODM	7/8 ODF or 1-1/8 ODM	9152	027918
TIR	ANGLE	7/8 ODF or 1-1/8 ODM	7/8 ODF or 1-1/8 ODM	9151	027926
	STRAIGHT- THRU	7/8 ODF or 1-1/8 ODM	7/8 ODF or 1-1/8 ODM	9150	028849
THR	ANGLE	1-1/8 ODM	1-1/8 ODM	9149	028030
	STRAIGHT- THRU	1-1/8 ODM	1-1/8 ODM	9148	028032
TMR ²	ANGLE	1-1/8 ODM	1-1/8 ODM	9149-1	065124
	STRAIGHT- THRU	1-1/8 ODM	1-1/8 ODM	9148-1	065125

² TER-TMR Flange includes extended length capscrews.

Step 3: Select Power Assembly

Superheat Plug
X28124-1 (ODM)
(PCN: 058336)



Capscrews



TER-TIR-THR-TMR Power Assemblies ³						
Refrigerant	Equalizer Type	Cap Tube Length	Application		Power Assembly	PCN
			Temp. Range	MOP ⁴ (psi)		
R-12	1/4 SAE	10 FT	-20 to +40	NONE	XC-726FC2B	052957
	1/4 SAE	10 FT	-50 to +50	55	XC-726FW552B	035000
R-22	1/4 SAE	10 FT	-20 to +50	NONE	XC-726HC2B	056421
	1/4 SAE	10 FT	-50 to +50	35	XC-726HW352B	024511
	1/4 SAE	10 FT	-50 to +30	65	XC-726HW652B	025011
	1/4 SAE	10FT	-20 to +50	NONE	XC-726HCA2B	059333
	1/4 SAE	10 FT	-50 to +50	100	XC-726HW1002B	036750
	1/4 SAE	10 FT	-50 to +10	NONE	XC-726HZ2B	040569
R-134A	1/4 SAE	10 FT	-20 to +50	NONE	XC-726MC2B	057235
	1/4 SAE	10 FT	-50 to +50	55	XC-726MW552B	057372
	1/4 SAE	10 FT	-50 to +10	NONE	XC-726MZ2B	063075
R-502	1/4 SAE	10 FT	-20 to +50	NONE	XC-726RC2B	052958
	1/4 SAE	10 FT	-50 to +20	15	XC-726RW152B	023351
	1/4 SAE	10 FT	-50 to +50	35	XC-726RW352B	070866
	1/4 SAE	10 FT	-50 to +25	65	XC-726RW652B	071421
R-404A	1/4 SAE	10 FT	-50 to +10	NONE	XC-726RZ2B	046692
	1/4 SAE	10 FT	-20 to +50	NONE	XC-726SC2B	062303
	1/4 SAE	10 FT	-50 to +10	40	XC-726SW402B	063127
	1/4 SAE	10 FT	-50 to +25	65	XC-726SW652B	061692
R-404A	1/4 SAE	10 FT	-50 to +10	NONE	XC-726SZ2B	063974

³ Capscrews included with Power Assembly

⁴ Maximum Operating Pressure Limit to prevent motor overload

NOTE: Nominal capacities shown here are based on 40°F evaporator temperature and 100°F vapor-free liquid refrigerant entering the valve. R-12 and R-134a rated at 60 PSID. All other refrigerants rated at 100 PSID.

Ordering Information for T-Series Valves

Valves less flange – (VLF)

TCLE, TJLE & TJRE

SAE External 5 FT. Cap Tube Length

Valve Description					
R-12	PCN	R-22	PCN	R-502	PCN
TCLE 1/2 FC	054413	TCLE 1 HC	062884	TCLE 1/2 RC	--
TCLE 1 FC	052940	TCLE 2 HC	061724	TCLE 1 RC	--
TCLE 2 FC	052941	TCLE 3 HC	054395	TCLE 2 RC	061215
TCLE 3 FC	052942	TCLE 5 HC	054399	TCLE 3 RC	055501
TCLE 4 FC	052943	TCLE 7-1/2 HC	054401	TCLE 4-1/2 RC	--
--	--	TCLE 7-1/2 HW100	054079	--	--
TCLE 6-1/2 FC	052944	TCLE 10 HC	054404	TCLE 7 RC	--
--	--	TCLE 10 HW100	059076	--	--
TCLE 7-1/2 FC	052945	TCLE 12 HC	060854	TCLE 8 RC	063501
--	--	TJLE 11 HC	060855	TJLE 7 RC*	--
TJLE 8 FC	055104	TJLE 14 HC	060856	TJLE 9 RC*	--
TJRE 8 FC	--	TJRE 14 HC	060857	TJLE 9 RC	--
TJRE 11 FC	055105	TJRE 18 HC	060858	TJRE 12 RC	--

TCLE/TJLE/TJRE

Rapid Response Power Assemblies

Description	PCN
X-8019 FWS 1B	031654
X-8019 HWS 1B	055652
X-8019 HWS 2B	055873
X-8019 RWS 1A	032131
X-8019 RWS 2B	042426

Nomenclature Cross-Reference

Refrigerant	New	Old
R-12	TJLE7	TJLE800
	TJLE8	TJLE1100
R-22	TJLE11	TJLE1400
	TJLE14	TJLE1800
R-502	TJLE7	TJLE900
	TJLE9	TJLE1200

TER, TIR & THR

10 FT. Cap Tube Length

Valve Description					
R-12	PCN	R-22	PCN	R-502	PCN
--	--	TER 22 HC	061673	TER 14 RC	060788
--	--	TER 22 HW100	058582	--	--
--	--	TER 26 HC	061674	TER 16 RC	--
TER 20 FC	055109	TER 35 HC	061675	TER 21 RC	--
--	--	TER 35 HW100	058038	--	--
TER 25 FC	055111	TER 45 HC	061676	TER 27 RC	--
TIR 35 FC	--	TIR 55 HC	061677	TIR 37 RC	--
THR 45 FC	--	THR 75 HC	064961	THR 48 RC	--
--	--	THR 100 HC	062036	THR 60 RC	--
--	--	THR 100 HW100	052912	--	--

TER/TIR/THR

Rapid Response Power Assemblies

Description	PCN
X-7726 FWS 2B	035083
X-7726 HWS 2B	093565
X-7726 RWS 2B	036616

Replacement Cap Screw Kits

PCN	Description	Contains Screw #	Pcs. Per Pkg.
054569	KT-30021	PS-286-5	10
054570	KT-30022	PS-168-5	10
054571	KT-30023	PS-259	10
054572	KT-30024	PS-370	10
054573	KT-30025	PS-514-5	10
054574	KT-30026	PS-517-5	10

TLE Thermal Expansion Valve

The TLE series is designed for air conditioning, heat pumps, transportation and commercial refrigeration. Take-A-Part construction improves serviceability with replaceable/interchangeable parts. TLE valves do not have an external superheat adjustment.

Features

- Stainless steel power element eliminates corrosion and prevents valve failure
- Non-adjustable superheat to maintain factory setting
- Bi-Flow capability for heat pump applications (external equalizer required)
- Take-A-Part construction for easy field service

Options

- Interchangeable capacity cages, power assemblies and flanges



Specifications

- Maximum working pressure: 450 psig
- Capscrew Torque: 300 in. lbs.

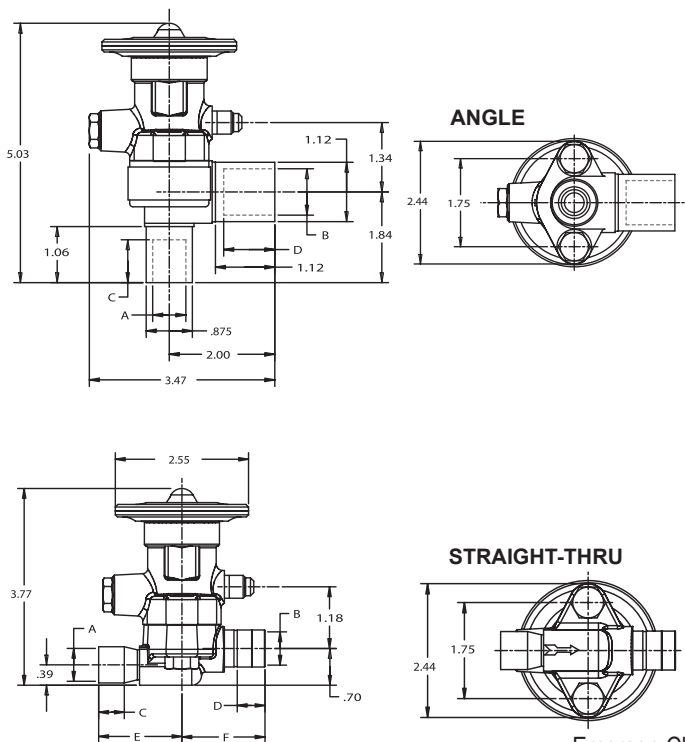
Nomenclature example: TLEB 5 HCA 5 FT 3/8 x 1/2 ODF S/T

TL	E	B	5	H	C	5 FT	3/8 x 1/2	ODF	S/T
Valve Series* Take-A-Part	Equalizer E=External 1/4" SAE Standard 1/4" ODF Available (Omit for Internal)	Bleed Hole (optional) B=Bleed Hole (Omit for no bleed hole)	Capacity Nominal Rating in Tons (See Cage Capacity Table)	Refrigerant Code +F = R-12 • H = R-22 +M = R-134a • N = R-407C *P = R-507 *R = R-502 *S = R-404A	Charge Code C = medium temp CA = heat pump W(MOP) = press. limiting Z = low temp	Capillary Tube Length 5FT (std) (others available)	Inlet x Outlet Connection Sizes Various sizes are available (valve is available also less flange)	Connection Type SAE=flare ODF=solder	Configuration ANG = 90° angle S/T = straight-thru

+ = R-12 and R-134a are interchangeable refrigerant charges

* = R-507, R-502 and R-404A are interchangeable refrigerant charges

• = R-22 and R-407C are interchangeable refrigerant charges



Dimensional Data (in)

TLE Angle

Connection Size		A	B	C	D
Inlet	Outlet			MIN	MIN
ODF:ODM 5/8:7/8	ODF:ODM 7/8:1-1/8	0.63	0.88	0.81	1.00

TLE Straight Thru

Connection Size		A	B	C	D	E	F
Inlet	Outlet			MIN	MIN		
5/8 ODF	1-1/8 ODF	0.63	1.13	0.53	0.91	1.63	2.50
7/8 ODF	1-1/8 ODF	0.88	1.13	0.75	0.91	1.94	2.50
7/8 ODF	1-3/8 ODF	0.88	1.38	0.75	0.97	1.94	2.69

Allow 2-1/8" above valve for removal of power assembly.

Ordering Information for TL(E) Series Valves

Valve Less Flange (VLF)

Valve Less Flange ¹	PCN	Equalizer Type	Refrigerant
TLE 1/2 HW	--	1/4 SAE External	R-22
TLE 1 HW	--		
TLE 2 HW	--		
TLE 3 HW	041734		
TLE 5 HW	054793		
TLE 7-1/2 HW	054794		
TLE 10 HW	055125		
TLE 12 HW	054795		

¹ Also available with "HCA" charge for heat pump and air conditioning applications.

Cage Capacities in Tons

PCN	Description	R-12	R-134A	R-22/R-407C	R-404/R-507/ R-502
041556	X-22517 B3B	1	1-1/2	2	1
041560	X-22517 B4A	2	2-1/2	3	2
041562	X-22517 B5B	3	3-1/2	5	3
041566	X-22517 B7B	6-1/2	7-1/2	10	7

Flanges

PCN	Description	Connections
027770	9761-2	1/2 X 7/8 ODF S/T
027771	9761-3	3/8 X 5/8 ODF S/T
027268	9761-4	1/2 X 5/8 ODF S/T
027769	9761-5	3/8 X 1/2 ODF S/T
027766	9761-6	1/2 X 1/2 ODF S/T
027764	A-576	5/8 X 7/8 ODF ANG
056932	C-500-4	3/8 X 1/2 SAE ANG
057153	C-500-5	3/8 X 5/8 SAE ANG
056294	C-500-6	1/2 X 5/8 SAE ANG
045401	C-501-1	1/4 X 3/8 ODF ANG
065527	C-501-4	3/8 X 1/2 ODF ANG
065748	C-504-5	3/8 X 5/8 ODF ANG
065861	C-504-7	1/2 X 5/8 ODF ANG
044733	X-6346-16	5/8 X 5/8 ODF S/T
044846	X-6346-17	5/8 X 7/8 ODF S/T
094038	X-6346-18	5/8 X 1-1/8 ODF S/T
071757	X-6346-34	7/8 X 1-1/8 ODF S/T
050563	X-6669-1	3/8 X 5/8 SAE S/T
050842	X-6669-2	1/2 X 5/8 SAE S/T
051176	X-6669-4	3/8 X 1/2 SAE S/T
083378	X-6669-5	1/2 X 1/2 SAE S/T

Replacement Power Assemblies

PCN	Description
083765	XB1033 FW25-1B
061760	XB1033 HW-1B
077201	XB1033 HW-15A
089748	XB1033 HW-75B
095534	XB1033 HW100-15B
095813	XB1033 HW100-1B

Power Assembly Nomenclature

Description
XB-1033 XXX-YZ
xxx = charge code y = cap tube length code z = internal (A) or external (B) equalizer

TFE Thermal Expansion Valve

The TFE series is designed for large tonnage heat pump, air conditioning, and commercial refrigeration applications.



Features

- Stainless steel power element eliminates corrosion and prevents valve failure
- Replaceable power element
- External superheat adjustment
- ODF connections
- Balanced port construction compensates for changes in operating pressures due to varying ambients, or widely varying evaporator loads
- Bi-Flow capability for heat pump applications
- External equalizer

Specifications

- Maximum working pressure: 450 psig

TFE Nominal* Capacity Table in Tons

R-134a	R-22/R-407C	R-502, R-404a/R-507
6	8	5
8	10	7
10	12	9
15	20	14

*See Extended Capacity Tables for ratings at a wide range of conditions per ARI standard 750

Nomenclature example: TFES 10 HCA 5/8 x 7/8 ODF S/T

TF	E	S	10	H	CA	5/8 x 7/8	ODF	S/T
Valve Series Balanced Port, Replaceable Power Assembly	Equalizer E=External 1/2" ODF	Connection Type S = solder (Only)	Capacity Nominal Rating in Tons (See nominal capacity table below)	Refrigerant Code • H = R-22 M = R-134a • N = R-407C *P = R-507 *R = R-502 *S = R-404A	Charge Code C = medium temp CA = heat pump	Inlet x Outlet Connection Sizes (See ordering information table below)	Connection Type ODF=solder	Configuration S/T = Straight- thru

* = R-507, R-502 and R-404A are interchangeable refrigerant charges, • = R-22 and R-407C are interchangeable refrigerant charges

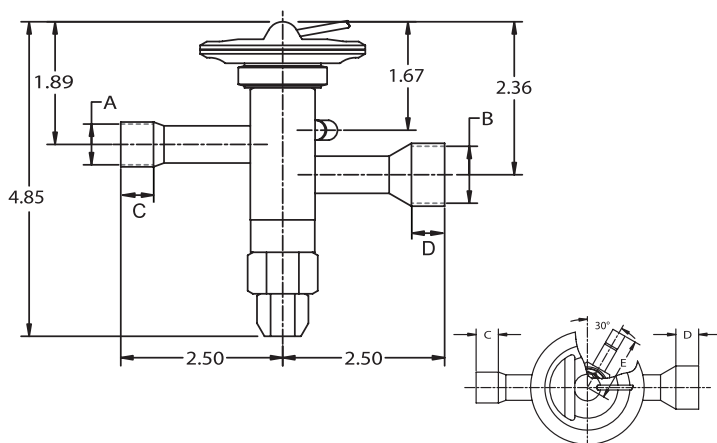
Ordering Information

Valve Series	Capacity Tons* (R-22 Nominal)	Connections	PCN HCA Charge (R-22 Heat Pump)
TFES	8	1/2 X 5/8 ODF S/T 6A	061710
		5/8 X 5/8 ODF S/T 6A	061611
		5/8 X 7/8 ODF S/T 6A ODF EE	061608
		5/8 X 7/8 ODF S/T 6A SAE EE	062370
	10	1/2 X 7/8 ODF S/T 6A	062124
		5/8 X 7/8 ODF S/T 6A	062347
		5/8 X 7/8 ODF S/T 6A ODF EE	061610
	12	5/8 X 7/8 ODF S/T 6A SAE EE	062371
		5/8 X 7/8 ODF S/T 6A	061609
	20	5/8 X 7/8 ODF S/T 12A	062460
5/8 X 7/8 ODF S/T 6A		064493	

Inlet/Outlet Fittings Dimensional Data (in)

Connections		Inlet		Outlet		Equalizer	
Inlet	Outlet	A	B	C MIN	D MIN.	1/4 ODF	SAE
1/4 ODF	3/8 ODF	0.25	0.38	0.31	0.31	1.70	1.65
	1/2 ODF	0.25	0.50		0.37		
	5/8 ODF	0.25	0.63		0.50		
3/8 ODF	3/8 ODF	0.38	0.38		0.31		
	1/2 ODF	0.38	0.50		0.37		
	5/8 ODF	0.38	0.63		0.50		
1/2 ODF	7/8 ODF	0.38	0.88	0.76			
	1/2 ODF	0.50	0.50	0.37	0.37		
	5/8 ODF	0.50	0.63	0.37	0.50		
5/8 ODF	7/8 ODF	0.50	0.88	0.37	0.76		
	5/8 ODF	0.63	0.63	0.50	0.50		
	1-1/8 ODF	0.63	1.13	0.50	0.91		
7/8 ODF	7/8 ODF	0.88	0.88	0.76	0.76		
	1-1/8 ODF	0.88	1.13	0.76	0.91		

Dimensional Data (in)



Remote Bulb

Charge	Tubing Length (Ft)	F	G
C,A,Z	2, 2-1/2, 5	3.06	0.63
	10	3.56	
	15, 20, 30	4.81	
	40, 50	6.19	0.76
CA, AA	2-1/2, 5, 10	2.31	

Replacement Parts

	Description	PCN
Power Assembly	X-28458 HCA-2	063414
	X-28458 HW100-2	063416
	X-28458 SW45-2	065298
Seal Nut	27676-1	058707

TI Thermal Expansion Valve w/Interchangeable Cartridges

The TI series has interchangeable cages capable of changing valve capacity in the field.



Features

- Stainless steel power element eliminates corrosion and prevents valve failure
- Wrench flats on inlet and outlet
- Forged brass valve body
- Inlet strainer assembly

Options

- Interchangeable capacity cages

Specifications

- Inlet connection size: 3/8" SAE, Outlet 1/2" SAE
- Maximum working pressure: 450 psig
- Maximum bulb temperature: 165°F

Nomenclature example: TIE4 HW

TI	E	4	H	W
Valve Series	Equalizer	Orifice Size	Refrigerant Code	Charge Code
	E=External (Omit for internal)	Valves sold less cage (Select proper cage from interchangeability table below)	<ul style="list-style-type: none"> • H = R-22 • M = R-134a • N = R-407C • *P = R-507 • *S = R-404A 	W = medium temp W(MOP) = press. limiting

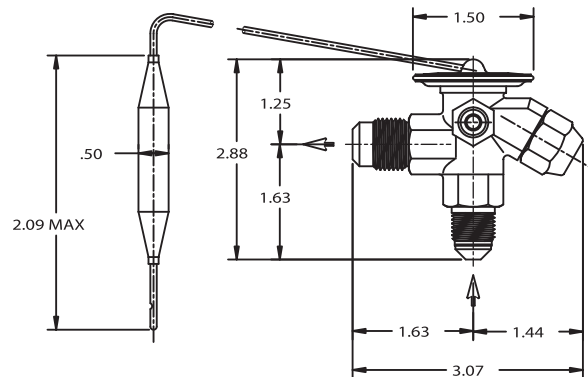
* = R-507 and R-404a are interchangeable refrigerant charges
• = R-22 and R-407C are interchangeable refrigerant charges

Interchangeable Cages

Cage Size	Type	PCN	Nominal Capacity (kW)		
			R-134a	R-22/R-407C	R-404A/R-507
00	TIO-00X	065087	0.03	0.05	0.04
0	TIO-000	065088	0.08	1.30	1.00
1	TIO-001	065090	1.90	3.20	2.30
2	TIO-002	065091	3.10	5.30	3.90
3	TIO-003	065092	5.00	8.50	6.20
4	TIO-004	065093	8.30	13.90	10.10
5	TIO-005	065094	10.10	16.90	12.30
6	TIO-006	065095	11.70	19.50	14.20

NOTE: Nominal capacities shown on pages at the end of this section are based on European standards of +38°C condensing temperature, +4°C evaporating temperature and 1°K liquid subcooling at the inlet of the expansion valve. This methodology varies from the rest of the capacity tables in this catalog.

Dimensional Data (in)



TI(E) Series – Valve bodies, Flare type

Evaporating Temp Range °F	Refrigerant						
	Equalizer Type	R-134a		R-22/R-407C		R-404A/R-507	
		Valve	PCN	Valve	PCN	Valve	PCN
-10 to +40	internal	TI-MW	065016	TI-HW	065020	TI-SW	065028
	external	TIE-MW	065017	TIE-HW	065021	TIE-SW	065031

ZZ Thermal Expansion Valve for Ultra Low Temps

The ZZ series is designed for ultra low temperature applications such as environmental test chambers and other applications where the desired evaporator temperature is below -40°F.



Features

- Take-A-Part construction for easy field service
- Improved internal construction extends valve life
- External equalizer standard
- Exclusive cage bellows eliminates friction at low temperatures
- External superheat adjustment

Specifications

- Maximum working pressure: 450 psig

Options

- Interchangeable cages, power assemblies, and flanges for maximum flexibility

Nomenclature example: ZZC 6 B G125 10 FT 3/8 x 5/8 ODF ANG

ZZC	6	B	G125	10 FT	3/8 x 5/8	ODF	ANG
Valve Series Ultra Low Temperature Take-A-Part	Capacity (nominal @ -40°F) Tons	Refrigerant Code B = R-13/R-23 H = R-22 R = R-502	Charge Code Z = low temp G(MOP) = press.limiting	Capillary Tube Length 10 FT (std)	Inlet x Outlet Connection Sizes	Connection Type SAE = flare ODF=solder	Configuration ANG = 90° angle S/T = straight-thru

R-13/R-23 Valve Type	R-22 Valve Type	Standard Connections
ZZC 1BG	ZZC 3/4HZ	3/8 ODF x 5/8 ODF
ZZC 2-1/2BG	ZZC 1-1/2HZ	
ZZC 4BG	ZZC 2-1/2HZ	
ZZC 6BG	ZZC 4HZ	1/2 ODF x 5/8 ODF
ZZC 9BG	ZZC 6HZ	
ZZC 13BG	ZZC 8HZ	
ZZ ER 20BG		7/8 ODF x 1-1/8 ODM

NOTE: Nominal capacities shown here are based upon the following conditions:

Refrigerant	Evaporator Temperature	Liquid Temperature at Valve Inlet	Pressure Drop Across Valve
R-23	-40°F	0°F	150 psig
R-22	-40°F	20°F	150 psig

Ordering Information for ZZ-Series

Cage Assemblies & Gaskets

Valve	Description	PCN
ZZC1BG, ZZC3/4RHW, ZZC3/4RW	X10110-B1B	021288
ZZC2-1/2BG, ZZC1-1/2HW, ZZC1-1/2RW	X10110-B2B	020871
ZZC4BG, ZZC2-1/2HW, ZZC2-1/2RW	X10110-B3B	096091
ZZC6BG, ZZC4HW, ZZC3-1/2RW	X10110-B4B	096312
ZZC9BG, ZZC6HW, ZZC5RW	X10110-B5B	096425
ZZC13BG, ZZC8HW, ZZC8RW	X10110-B6B	096646
ZZER6BG, ZZER4HW, ZZC3-1/2RW	X10059-B4B	045362
ZZER9BG, ZZER6HW, ZZER5RW	X10059-B5B	033697
ZZER20BG, ZZER12HW, ZZER11RW	X10059-B6B	030071
ZZER21BG, ZZER13HW, ZZER13RW	X10059-B7B	025100
ZZER29BG, ZZER18HW, ZZER18RW	X10059-B8B	025101
ZZIR48BG, ZZIR30HW, ZZIR29RW	X10060-B10B	025090
ZZJR16BG, ZZJR10HW, ZZJR9RW	X10111-B5B	089306

Flanges

PCN	Description	Connections
027770	9761-2	1/2 X 7/8 ODF S/T
027771	9761-3	3/8 X 5/8 ODF S/T
027268	9761-4	1/2 X 5/8 ODF S/T
027769	9761-5	3/8 X 1/2 ODF S/T
027766	9761-6	1/2 X 1/2 ODF S/T
027764	A-576	5/8 X 7/8 ODF ANG
056932	C-500-4	3/8 X 1/2 SAE ANG
057153	C-500-5	3/8 X 5/8 SAE ANG
056294	C-500-6	1/2 X 5/8 SAE ANG
045401	C-501-1	1/4 X 3/8 ODF ANG
065527	C-501-4	3/8 X 1/2 ODF ANG
065748	C-501-5	3/8 X 5/8 ODF ANG
065861	C-501-7	1/2 X 5/8 ODF ANG
044733	X-6346-16	5/8 X 5/8 ODF S/T
044846	X-6346-17	5/8 X 7/8 ODF S/T
094038	X-6346-18	5/8 X 1-1/8 ODF S/T
071757	X-6346-34	7/8 X 1-1/8 ODF S/T
050563	X-6669-1	3/8 X 5/8 SAE S/T
050842	X-6669-2	1/2 X 5/8 SAE S/T
051176	X-6669-4	3/8 X 1/2 SAE S/T
083378	X-6669-5	1/2 X 1/2 SAE S/T

Power Assemblies

PCN	Description
094594	XC-726 BG 30-2B 10FT. SAE EE
039130	XC-726 BG 125-2B 10 FT. SAE EE
024511	XC-726 HW 35-2B 10 FT. SAE EE
025011	XC-726 HW 65-2B 10 FT. SAE EE
023357	XC-726 HW 85-3B 15 FT. SAE EE
036750	XC-726 HW 100-2B 10FT. SAE EE
040569	XC-726 HZ-2B 10FT. SAE EE

Replacement Power Assembly consists of: power assembly, and bulb clamps

Replacement Gasket Set

PCN	Description
027579	X-13455-1

Gasket Set includes necessary body flange gasket & seat gasket

LCL Take-A-Part DeSuperheating Expansion Valve

Application

The LCL Take-A-Part series is a desuperheating (Liquid Injection) valve used in conjunction with hot gas bypass to prevent excessive suction line superheat. LCL valves can be used for interstage cooling in compound systems.

Features

- Stainless steel power element eliminates corrosion and prevents valve failure
- Take-A-Part construction for easy field service

Options

- Interchangeable, replaceable cages for versatility
- External superheat adjustment
- Interchangeable body flanges
- Interchangeable power assemblies



Specifications

- Maximum working pressure: 450 psig

Nomenclature example: LCLE 2 B 5 FT 3/8 x 1/2 ODF S/T

LCL	E	2	B	5 FT	3/8 x 1/2	ODF	S/T
Valve Series De-Superheating Liquid Injection Take-A-Part	Equalizer E=External (Omit for Internal)	Capacity Nominal NOTE: This is not system capacity (See hot gas bypass charts for valve sizing)	Refrigerant Code (See hot gas bypass charts for valve selection)	Capillary Tube Length 5FT (std) (others available)	Inlet x Outlet Connection Sizes (see table below)	Connection Type SAE = flare ODF=solder	Configuration ANG = 90° angle S/T = straight-thru

LCL Power Assemblies

PCN	Description
037389	XB-1019A-1A
034803	XB-1019A-1B
032207	XB-1019B-1B
035162	XB-1019C-1B

Replacement Valve Guide

If have:	Replace with:
LA(E)S 1/2	LCL 1
LA(E)S 1	LCL 2
LA(E)S 2	LCL 3
LA(E)S 3	LCL 4
LA(E)S 5	LCL 6
LCL 5	LCL 6
LCL 5	LCLE 6
LCL 8	LCL 9
LCL 8	LCLE 9

Note: Valve sizes LCL5, LCL8, LCLE5 and LCLE8 are OBSOLETE.

Ordering Information

Description	Equalizer Type	PCN By Charge			Connections	
		Select From Table Below				
		A	B	C		
LCL 1	Internal	022018	022017	--	Same as TCL & TCLE	
LCL 2		022005	021996	045527		
LCL 3		055093	021987	--		
LCL 4		--	--	--		
LCL 6		047759	--	--		
LCL 7		--	--	--		
LCL 9		--	--	--		
LCL 10		--	--	--		
LCLE 1		1/4" SAE External	055096	--		--
LCLE 2			022003	021997		--
LCLE 3	021991		021985	--		
LCLE 4	--		061054	055097		
LCLE 6	--		--	--		
LCLE 7	--		--	--		
LCLE 9	--		--	--		
LCLE 10	--		--	--		
LJLE 11	--		--	--	Same as TJLE	
LJLE 12	--		--	--		

NOTE: Add charge suffix symbol "A", "B", or "C" based on the following table.
Example: LCLE4-A

LCL (LA) Charge Codes

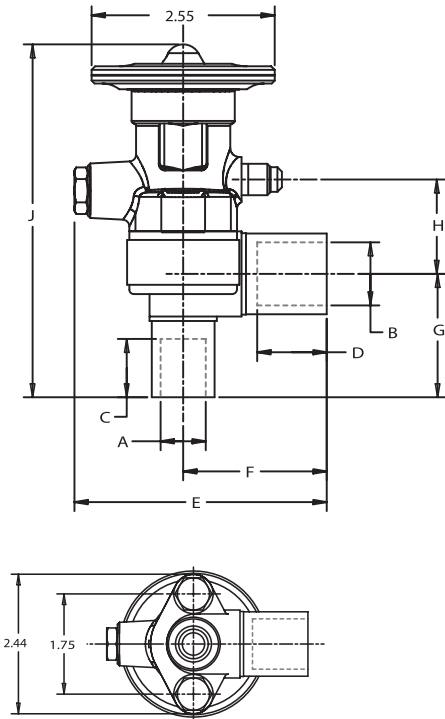
Saturated Suction	Refrigerant					
	R-134A		R-22		R-404A/R-507	
	Required Suction Gas		Required Suction Gas		Required Suction Gas	
TEMP.	45°F	65°F	45°F	65°F	45°F	65°F
40°F	--	B (GL)	--	A (CL)	--	--
30°F	B (GL)	B (GL)	--	A (CL)	--	A (CL)
20°F	B (GL)	C (UL)	A (CL)	B (GL)	--	A (CL)
10°F	B (GL)	C (UL)	B (GL)	B (GL)	A (CL)	B (GL)
0°F	C (UL)	C (UL)	B (GL)	B (GL)	A (CL)	B (GL)
-10°F	C (UL)	C (UL)	B (GL)	C (UL)	B (GL)	B (GL)
-20°F	C (UL)	C (UL)	B (GL)	C (UL)	B (GL)	C (UL)
-30°F	C (UL)	C (UL)	C (UL)	C (UL)	B (GL)	C (UL)
-40°F	C (UL)	C (UL)	C (UL)	C (UL)	B (GL)	C (UL)

() Denotes LA Series valve charge code.

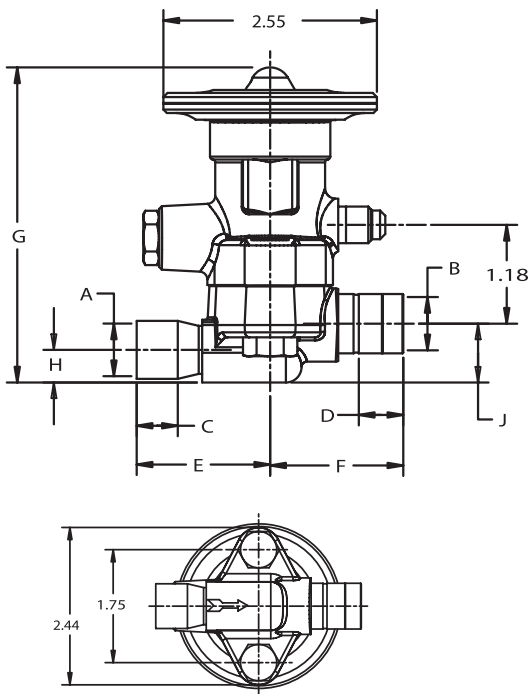
LCL DeSuperheating Expansion Valves

Dimensional Data

Angle



Straight-Thru



LCL(E) Dimensional Data (in)

LCL Angle

Connection Size		A	B	C	D	E	F	G	H	J
Inlet	Outlet			MIN.	MIN.					
3/8 SAE	1/2 SAE					3.06	1.50	1.13	1.20	4.14
3/8 SAE	5/8 SAE					3.19	1.63	1.13	1.20	4.14
1/2 SAE	5/8 SAE					3.19	1.63	1.38	1.20	4.39
1/4 ODF	3/8 ODF	0.25	0.38	0.31	0.31	2.91	1.34	0.94	1.20	3.95
3/8 ODF	1/2 ODF	0.38	0.50	0.31	0.38	3.03	1.47	1.06	1.20	4.11
3/8 ODF	5/8 ODF	0.38	0.63	0.31	0.50	3.16	1.59	1.06	1.20	4.11
1/2 ODF	5/8 ODF	0.50	0.63	0.38	0.50	3.16	1.59	1.90	1.20	4.20
5/8 ODF	7/8 ODF	0.63	0.88	0.50	0.75	3.56	2.00	1.69	1.20	4.83

LCL Straight Thru

3/8 SAE	1/2 SAE					1.78	1.98	3.70	0.38	0.69
3/8 SAE	5/8 SAE					1.78	2.16	3.70	0.38	0.69
1/2 SAE	1/2 SAE					1.97	1.56	3.70	0.38	0.69
3/8 ODF	1/2 ODF	0.38	0.50	0.31	0.38	1.41	1.58	3.69	0.38	0.69
3/8 ODF	5/8 ODF	0.38	0.63	0.31	0.50	1.41	1.63	3.69	0.36	0.67
1/2 ODF	1/2 ODF	0.50	0.50	0.38	0.38	1.41	1.56	3.70	0.38	0.69
1/2 ODF	5/8 ODF	0.50	0.63	0.38	0.50	1.59	1.63	3.69	0.36	0.67
5/8 ODF	5/8 ODF	0.63	0.63	0.50	0.50	1.59	1.63	3.70	0.38	0.69
5/8 ODF	7/8 ODF	0.63	0.88	0.50	0.75	1.59	1.94	3.70	0.38	0.69
5/8 ODF	1-1/8 ODF	0.88	1.13	0.50	0.91	1.59	2.38	3.70	0.38	0.69
7/8 ODF	1-1/8 ODF	0.88	1.13	0.75	0.91	1.94	2.38	3.81	0.38	0.69

Allow 2-1/8" above valve for removal of power assembly.

Remote Bulb Dimensions

Capillary Tubing Length (Ft)	Standard Remote Bulb	
	Diameter	Length
5	5/8	3-1/16
10		3-9/16
15 or 20		4-13/16

LA(E) DeSuperheating Expansion Valve

Application

The LA(E) series is a desuperheating (Liquid Injection) valve used in conjunction with hot gas bypass to prevent excessive suction line superheat. LA(E) valves can be used for interstage cooling in compound systems.



Features

- Stainless steel power element eliminates corrosion and prevents valve failure
- May operate at superheat settings in excess of 20°F allowing the valve to perform in desuperheating applications

Options

- External superheat adjustment
- SAE or ODF connections
- External or internal equalizer
- Wrench flats on inlets and outlets (SAE only)
- Replaceable inlet strainer (SAE only)

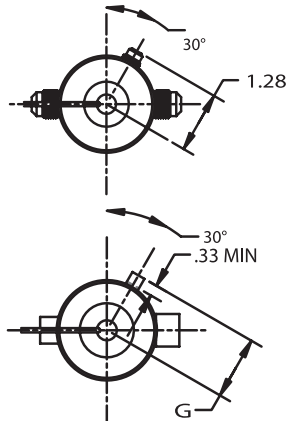
Specifications

- Maximum working pressure: 450 psig

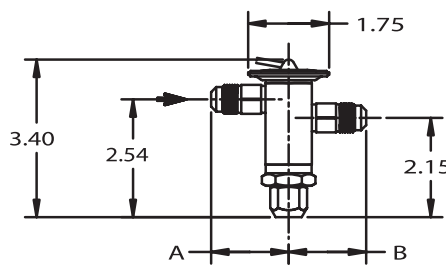
Nomenclature example: LAES 2 CL 5 FT 3/8 x 1/2 ODF S/T

LA	E	S	2	C	L	5 FT	3/8 x 1/2	ODF	S/T
Valve Series De-Superheating Liquid Injection	Equalizer E=External (Omit for Internal)	Connection Type S = solder (Omit for flare)	Capacity NOTE: This is not system capacity (See hot gas bypass charts for valve sizing)	Refrigerant Code (See hot gas bypass charts for valve selection)	Charge Code L = liquid injection (See hot gas bypass charts for valve selection)	Capillary Tube Length 5FT (std) (others available)	Inlet x Outlet Connection Sizes (See tables below)	Connection Type ODF=solder SAE=flare	Configuration S/T = straight-thru (Only)

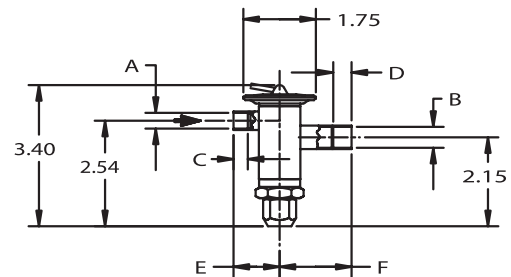
Dimensional Data (in)



SAE Connections



ODF Connections



External Equalizer Fitting

Type	I.D.	G	Socket Depth
1/4 SAE	-	1.28	-
1/4 ODF	0.25	1.41	0.33

SAE

Connection Size		A MIN	B MIN
Inlet	Outlet		
1/4 SAE	3/8 SAE	1.50	1.64
3/8 SAE	3/8 SAE	1.64	1.64
3/8 SAE	1/2 SAE	1.64	1.72
1/4 SAE	1/2 SAE	1.50	1.72
1/4 SAE	5/8 SAE	1.50	1.98
3/8 SAE	5/8 SAE	1.64	1.98

ODF

Connection Size		A	B	C MIN	D MIN	E	F	G Equalizer	
Inlet	Outlet							1/4 ODF	SAE
1/4 ODF	3/8 ODF	0.25	0.38	0.32	0.32	1.70	1.73	1.28	1.41
3/8 ODF	1/2 ODF	0.38	0.50	0.32	0.38	1.73	1.73		
1/2 ODF	5/8 ODF	0.50	0.63	0.38	0.50	1.73	1.73		
1/4 ODF	3/8 ODF	0.25	0.38	0.32	0.32	1.70	1.73		
3/8 ODF	3/8 ODF	0.38	0.38	0.32	0.32	1.73	1.73		
3/8 ODF	1/2 ODF	0.38	0.50	0.32	0.38	1.73	1.73		
1/2 ODF	1/2 ODF	0.50	0.50	0.38	0.38	1.73	1.73		
1/2 ODF	5/8 ODF	0.50	0.63	0.38	0.50	1.73	1.75		
3/8 ODF	5/8 ODF	0.38	0.63	0.32	0.38	1.73	1.75		
1/2 ODF	7/8 ODF	0.50	0.88	0.38	0.75	1.73	1.73		

ESVB Bi-Flow Stepper Expansion Valve

The ESVB is a direct driven expansion valve that uses a stepper motor to actuate the valve pin. The stepper motor uses a voltage pulse to move the valve either open or closed, one step for each pulse. The ESVB has the ability to be interfaced with a variety of control electronics. The ESVB is useful in a variety of applications ranging from case control to subcooler applications, truck/trailer refrigeration, and heat pump/air conditioning applications.



Note: Side connection is the recommended inlet.

Features

- Hermetic, leak-free construction
- Bi-Flow capability allows one valve to control the superheat in both cooling and heating modes for heat pump applications
- Stepper motor moves in discrete “steps” allowing for precise digital control
- Voltage is required only when moving the valve increasing energy efficiency
- Removeable external connector for easy replacement
- Contains internal strainer in both the inlet and outlet connections to protect the valve from contamination in both forward and reverse flow modes
- Solenoid-tight shut off eliminates the need for both a traditional TXV and a solenoid valve in the liquid line
- Stainless steel housing minimizes corrosion over the life of the valve
- 2-phase bi-polar, linear actuating stepper motor, direct drive
- Two motors available 24 volt or 12 volt alternating square wave (see stepper sequence table)

Specifications

- MOPD: 300 psid, either flow direction
- Maximum working pressure: 500 psi
- Operating temperatures: Ambient -40°F to 150°F
Refrigerant -40°F to 140°F
- Motor drive voltage (12VDC or 24VDC) must be within +10% and -15% thru step
- UL/CUL file number: MP604

Motor Specifications

Feature	ESVB-1, -4	ESVB-10, -20
Coil Resistance (± 10%)	84 Ω at 25°C (12V) 336 Ω at 25°C (24V)	29 Ω at 25°C (12V) 116 Ω at 25°C (24V)
Inductance (± 20%)	55 mH per winding	52 mH per winding
Step Rate (± 20%)	50 steps/second	50 steps/second
# steps from full open to full closed	384 steps	800 steps
Hysteresis (steps)	0	0
Linear Travel/Step	.001 inch	.001 inch
Power Input (nominal)	1.7 watts per phase (3.4 watts total)	5 watts per phase (10 watts total)

Nomenclature example: ESVB 1 24V 3/8 x 3/8 ODF ANG NC

ESVB	1	24	3/8 x 3/8	ODF	ANG	NC
BiPolar Stepper Driven	Nominal Capacity 1 4 10 20	Motor Voltage 12V or 24V ¹	Side Fitting Size x Bottom Fitting Size	Fitting Type ODF	Body ANG = Angle Style	Connector NC = No Connector (Must order connector separately)

¹CPC EINSTEIN requires 12V.

Ordering Information

PCN	Description
064791	ESVB 1 12V 3/8 X 3/8 ODF ANG NC
064753	ESVB 1 12V 3/8 X 1/2 ODF ANG NC BK
064792	ESVB 1 24V 3/8 x 3/8 ODF ANG NC
064752	ESVB 1 24V 3/8 X 1/2 ODF ANG NC BK
064793	ESVB 4 12V 3/8 X 3/8 ODF ANG NC
064755	ESVB 4 12V 3/8 X 1/2 ODF ANG NC BK
064794	ESVB 4 24V 3/8 x 3/8 ODF ANG NC
064754	ESVB 4 24V 3/8 X 1/2 ODF ANG NC
064795	ESVB 10 12V 1/2 x 1/2 ODF ANG NC
064796	ESVB 10 24V 1/2 x 1/2 ODF ANG NC
064797	ESVB 20 12V 7/8 X 1-3/8 ODF ANG NC
064798	ESVB 20 24V 7/8 X 1-3/8 ODF ANG NC
062093	EXTERNAL CONNECTOR, 4-WIRE, 5 FT.
062094	EXTERNAL CONNECTOR, 4-WIRE, 22 FT.

ESVB-Nominal* Capacity Ranges in Tons

Valve	R-12 @ 60 psi ▲ P	R-134a @ 60 psi ▲ P	R-22 @ 100 psi ▲ P
ESVB-1	0.41	0.51	0.70
ESVB-4	2.00	2.45	3.36
ESVB-10	6.00	7.38	10.08
ESVB-20	13.00	16.00	21.86
Valve	R-407C @ 100 psi ▲ P	R-404A/R-507 @ 100 psi ▲ P	R-502 @ 100 psi ▲ P
ESVB-1	0.67	0.50	0.45
ESVB-4	3.19	2.43	2.17
ESVB-10	9.60	7.29	6.52
ESVB-20	20.82	15.83	14.14

*All capacities shown are at 100°F Condensing, 40°F Evaporator Temperature, with a solid column of liquid at the valve inlet, with the ESVB-1 and -4 @ 250 steps open and the ESVB-10 and -20 @ 650 steps open. For capacities at other than nominal conditions, see extended capacity tables.

ESVB Series Bi-Flow Expansion Valves


The ESVB is approved for use with all CFC, HCFC, and HFC refrigerants, except R-123, R-406A, R-410A, and those listed in ASHRAE standard 34 as A2, A3, B2, and B3.

ESVB Operation

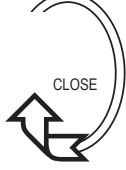
The ESVB is a direct driven expansion valve that uses a stepper motor to control the opening and closing of the valve. Table 1 contains step sequence for driving the valve. This four step sequence is then repeated as necessary for the valve to open the appropriate number of steps. **WARNING: The shaft of the valve can only change position if power is applied to it. Upon loss of power, valve will not move.**

Table 1

Step	Stepper Sequence			
	Phase A		Phase B	
	Red	Blue	Black	White
1	+	-	-	+
2	-	+	-	+
3	-	+	+	-
4	+	-	+	-

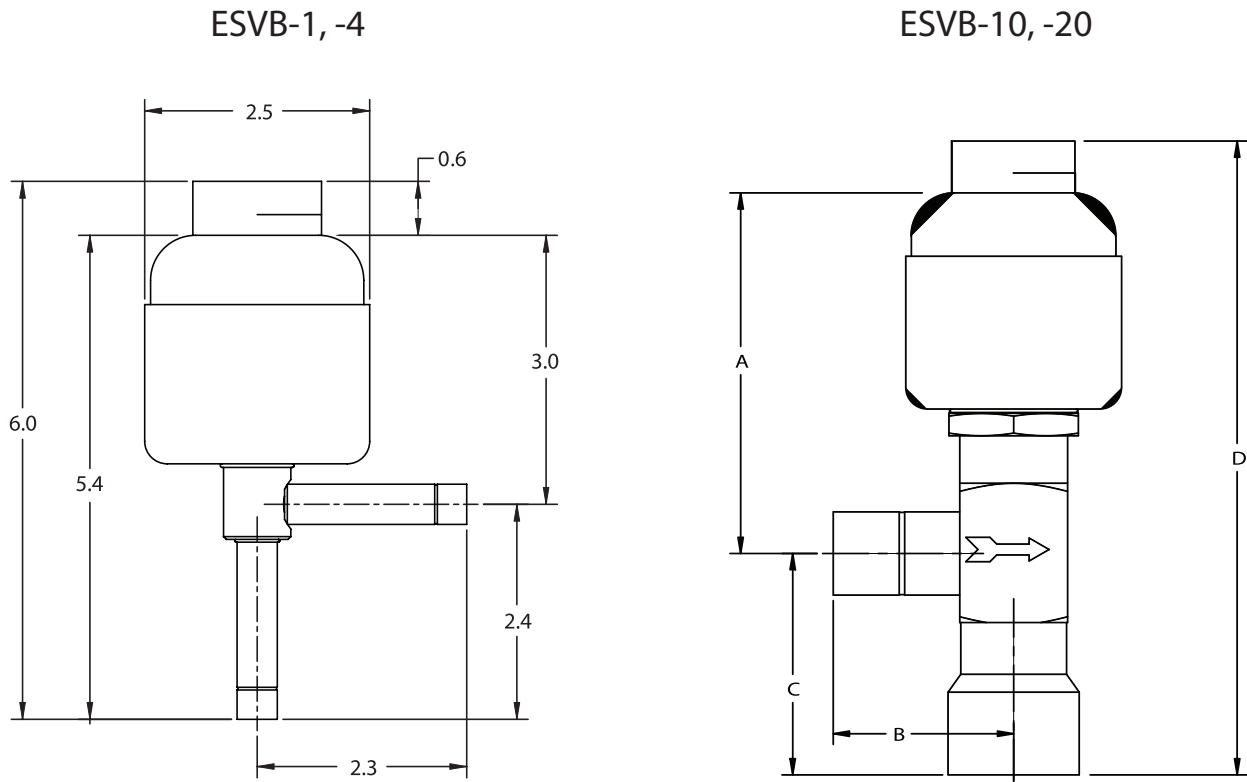


OPEN



CLOSE

ESVB Dimensional Data (in)



Valve	A	B	C	D
ESVB-10	4.20	2.60	2.70	6.90
ESVB-20	4.20	2.10	2.50	6.70

CONVERTING ESV SYSTEM TO ESVB SYSTEM

The ESV valve is a unipolar 5-wire motor that was first introduced in the field. Since then Flow Controls has switched to an ESVB bipolar 4-wire motor. For a system in the field that has the ESV valve, uses CPC controls and needs a replacement valve, the ESVB valve can be used. To accommodate this conversion the field wire from the valve to the controller must be modified.

1. First remove the ESV and replace with the ESVB.
2. Make the following changes either near the controller or the valve, whichever is easier.
 - a. Cut and cap off the yellow wire.
 - b. Cut and switch the blue and red wires with each other.
 See Figures 1 and 2 at right.

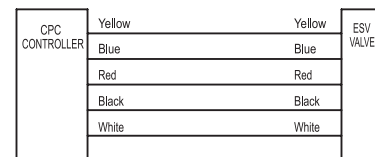


Figure 1 (ESV system)

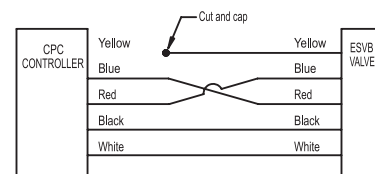


Figure 2 (ESVB system)

EX2 Pulse Modulated Electric Expansion Valve

The EX2 is an electrically driven expansion valve designed for use with R-12, R-22, R-134a, R-404A, R-407C, and R-502.



Features

- Pulse width modulation provides very precise temperature control
- Dampened plunger reduces noise and effects of “water hammer”
- Shut off function eliminates the necessity of a separate solenoid valve

Options

- One valve body can be combined with 6 orifices to make 6 capacity ranges up to 2.7 tons R-22.

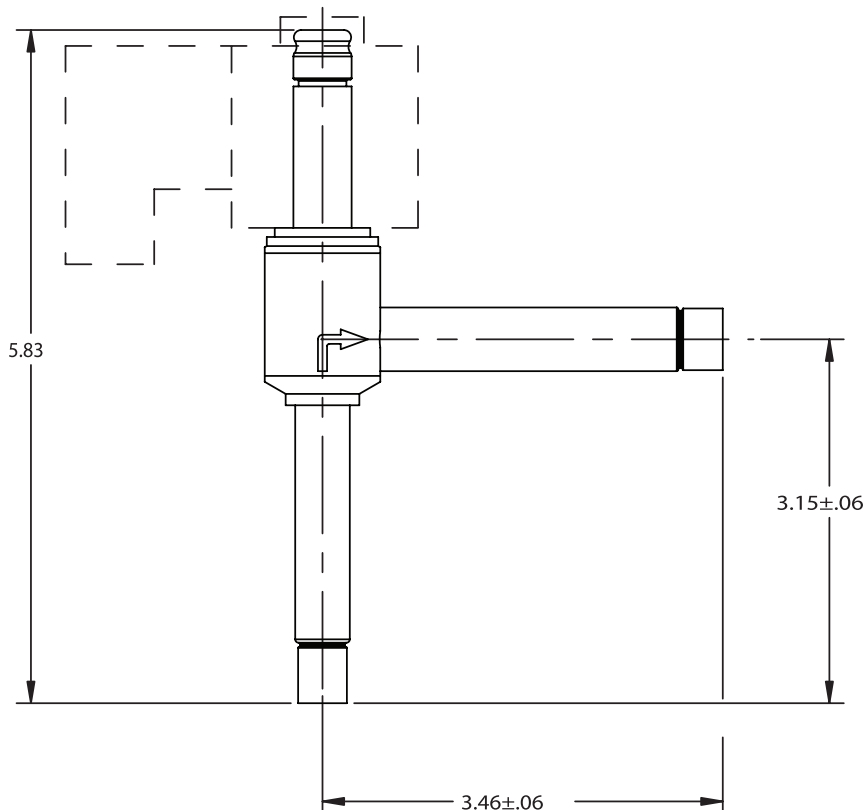
Specifications

- Designed for 15 year life or 80 million cycles at 15 sec. duty cycle
- Maximum Working Pressure: 400 psig MOPD, 500 psig
- ASC2X Coils: 24V/60Hz, 120V/60Hz
- UL/CUL file number: MP604

Nomenclature example: EX2 1/4 x 3/8 EXO-001 ASC2X 120V

EX2	1/4	3/8	EXO-001	ASC2X 120V
Valve Series	Inlet Connection	Outlet Connection	Orifice	Coil

Dimensional Data



Thermal Expansion Valves
Solenoid Valves
Coils
Industrial Solenoid Valves
Shut Off Valves
System Protectors
Storage Devices
Oil Controls
Pressure Regulators
Temperature Pressure Controls
Competitive Cross Reference

Ordering Information

Device	Description	PCN
Electronic Expansion Valve	EX2 3/8 x 1/2	064497
24V/60Hz Coil	ASC2X 24/60	064503
120V/60Hz Coil	ASC2X 120/60	064504

The liquid capacity table below quotes capacities at 100% duty cycle (i.e. the valve is open continuously). However, it is recommended to operate the valve at partial load (50-80%) to allow for system load fluctuations. The valve operates with a 6 second pulse width cycle. Partial capacity can be calculated by proportioning the actual pulse time relative to 6 seconds (i.e. 3 second pulse width cycle time = 50% valve capacity).

Liquid Capacity Table in Tons @ 100% Duty Cycle

PCN	Orifice #	R-22/R-407C Tons(kW)	R-502 Tons(kW)	R-12 Tons(kW)	R-134a Tons(kW)
064570	EXO-00X	0.23(.8)	0.15(.5)	0.15(.5)	0.18(.6)
064569	EXO-000	0.40(1.4)	0.26(.9)	0.40(1.4)	0.50(1.8)
064499	EXO-001	0.81(2.8)	0.53(1.9)	0.50(1.8)	0.62(2.2)
064500	EXO-002	1.10(3.9)	0.72(2.5)	0.74(2.6)	0.85(3.0)
064501	EXO-003	2.00(7.0)	1.30(4.6)	1.3(4.6)	1.5(5.3)
064502	EXO-004	2.70(9.6)	1.76(6.0)	1.8(6.4)	2.1(7.4)

Nominal capacities shown in this table are based on 40°F evaporating temperature, 100°F condensing temperature and 100 psig pressure drop across the valve.

ACP(E) Automatic Expansion Valve

The ACP is designed for small cooling units where the heat load is reasonably constant. The ACP is ideal for room air conditioners, domestic refrigerators, drink dispensers, food dispensers, ice cream cabinets, bottle coolers, home freezers, ice cube makers, ice cream freezers, and milk coolers.



Features

- Friction-free floating design
- Can be used as a small capacity hot gas bypass valve (see page 191)
- Fully adjustable from 0-80 psig (factory setting 40 psig)
- Wrench flats on inlets and outlets

Options

- Internal or external equalizer
- SAE or ODF connections
- Adjustable or non-adjustable

Specifications

- Maximum working pressure: 450 psig
- Maximum working temperature: 300°F
- UL/CUL file number: SA5312

Nomenclature example: ACPE 6 SAE EE 1/4 x 3/8 ODF ANG

ACP	E	6	SAE EE	1/4 x 3/8	ODF	ANG
Valve Series	Equalizer E=External (optional)	Port Size (diameter) see table below	External Equalizer Type	Inlet x Outlet Connection Sizes	Connection Type ODF or SAE	Body Style ANG = Angle S/T = Straight-thru

Ordering Information

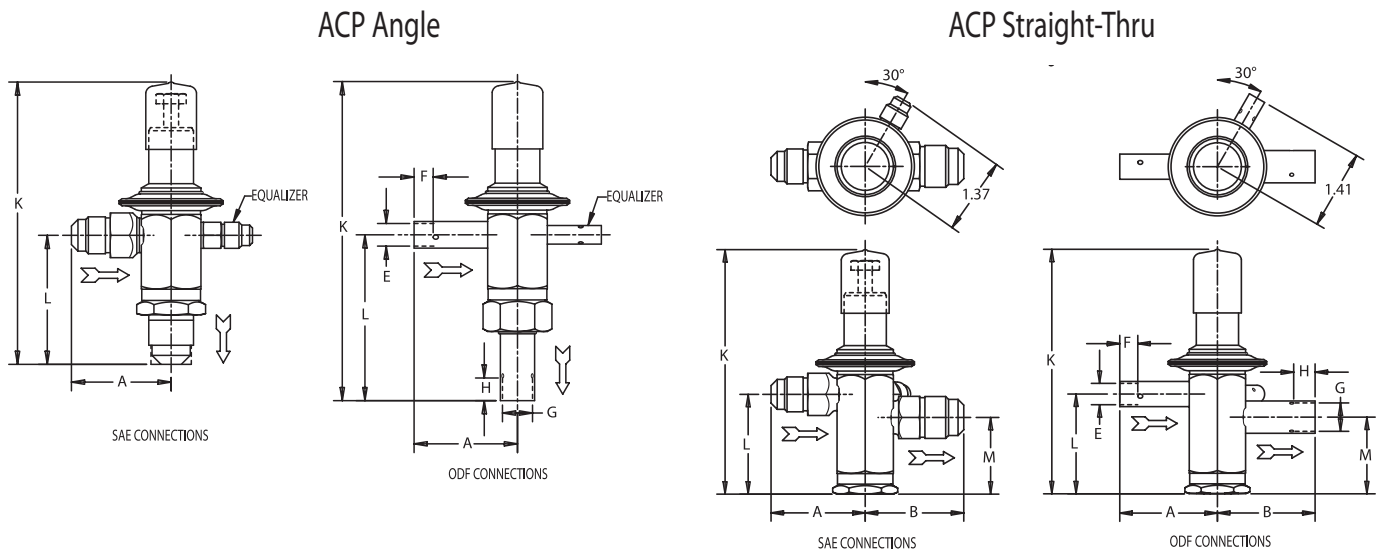
PCN	Description	PCN	Description
046838	ACP 1 IE 1/4 x 3/8-1/2 SAE ANG	049204	ACP 5 IE 3/8 X 3/8-1/2 SAE ANG
057233	ACP 1 IE 1/4 x 3/8 ODF S/T	047653	ACP 6 IE 1/4 x 3/8 SAE ANG
047680	ACP 1 IE 1/4 x 3/8 ODF ANG	047654	ACP 7 IE 3/8 x 1/2 ODF ANG
056240	ACP 1 IE 1/4 X 3/8 SAE ANG	047285	ACP 7 IE 3/8 x 3/8-1/2 SAE ANG
046839	ACP 2 IE 1/4 X 3/8 SAE ANG	047655	ACP 8 IE 3/8 x 1/2 ODF ANG
047651	ACP 2 IE 1/4 x 3/8 ODF ANG	047657	ACP 9 IE 3/8 X 1/2 ODF ANG
047283	ACP 3 IE 1/4 X 3/8 ODF ANG	057209	ACP 9 IE 3/8 X 3/8 ODF ANG
046840	ACP 3 IE 1/4 x 3/8 SAE ANG	057771	ACP 9 IE 1/2 x 5/8 ODF ANG
047105	ACP 4 IE 1/4 x 3/8 ODF ANG	052773	ACP 9 IE 1/4 X 3/8 ODF ANG
047101	ACP 4 IE 1/4 X 3/8 SAE ANG	047658	ACP 9 IE 3/8 x 3/8-1/2 SAE ANG
047284	ACP 5 IE 1/4 x 3/8 ODF ANG	047280	ACPE 1 SAE EE 1/4 x 3/8 SAE S/T
047332	ACP 5 IE 1/4 X 3/8 SAE ANG	047790	ACPE 7 SAE EE 3/8 x 1/2 ODF ANG
053374	ACP 5 IE 3/8 x 3/8 ODF ANG	048657	ACPE 9 SAE EE 3/8 x 1/2 ODF S/T
		058674	ACPE 9 SAE EE 1/2 x 5/8 ODF S/T

ACP(E)- Nominal* Capacity Table in Tons

Valve	Port Diameter (in)	R-12/R-134a	R-407C/R-22	R-502/R-404A/R-507
		Pressure Drop Across Valve – PSI		
		60	100	100
ACP(E)1	0.05	0.31	0.44	0.29
ACP(E)2	0.06	0.41	0.57	0.38
ACP(E)3	0.10	0.65	0.91	0.61
ACP(E)4	0.11	0.90	1.30	0.87
ACP(E)5	0.13	1.40	1.96	1.31
ACP(E)6	0.14	1.90	2.67	1.78
ACP(E)7	0.17	2.30	3.28	2.19
ACP(E)8	0.20	2.70	3.75	2.50
ACP(E)9	0.23	3.80	5.32	3.55

*All capacities shown are at 100°F Condensing, 40°F Evaporator Temperature, with a solid column of liquid at the valve inlet.

ACP Dimensional Data



Dimensional Data (in)

ACP(E) Valve Type	Inlet	Outlet	A	B	E DIA.	F MIN.	G DIA.	H MIN.	K	L	
Angle SAE	1/4	3/8	1.50	-	-	-	-	-	4.50	2.13	
	3/8	3/8 - 1/2	1.64								
	1/2		1.72								
	1/4	5/8	1.50						4.61	2.23	
	3/8		1.64								
	1/2		1.72								
Angle ODF	1/4	3/8	1.25	-	0.25	0.32	0.37	0.32	4.55	2.17	
	3/8		0.37		0.32	0.50					0.38
	1/2	5/8	1.19		0.50		0.38	0.62	0.50	4.73	
	5/8		1.38								
	1/4	1/2	1.25		0.25	0.32	0.50	0.38	4.55	2.17	
	3/8		1.19								
	1/4		1.25								
	3/8		1.19								
	1/4		1/2								1.25
	1/2		7/8								1.19

ACP(E) Valve Type	Inlet	Outlet	A	B	E DIA.	F MIN.	G DIA.	H MIN.	K	L	M
Straight-Thru SAE	1/4	3/8	1.50	1.64	-	-	-	-	4.25	1.88	1.48
	3/8	1/2	1.64								
	1/2		1.72								
	1/4	5/8	1.50	1.98							
	3/8		1.64								
	1/2		1.72								
Straight-Thru ODF	1/4	3/8	1.25	1.19	0.25	0.32	0.37	0.32	4.25	1.88	1.48
	3/8		0.37		0.32	0.50					
	1/2	5/8	1.19		0.50		0.38	0.62	0.50		
	5/8		1.38								
	1/4	1/2	1.25		0.25	0.32	0.50	0.38	4.55	2.17	
	3/8		1.19								
	1/4		1.25								
	3/8		1.19								
	1/4		1/2								1.25
	1/2		7/8								1.19

R-12 Conventional Valves (Tons)- A Series and T Series

Valve Type	Nominal Rating	Evaporator Temperature																	
		50°F						40°F						20°F					
		Pressure Drop Across Valve (PSI)						Pressure Drop Across Valve (PSI)						Pressure Drop Across Valve (PSI)					
	60	80	100	125	150	175	60	80	100	125	150	175	60	80	100	125	150	175	
AA/AN/AAC/ANC	1/8	0.20	0.23	0.26	0.29	0.32	0.34	0.20	0.23	0.26	0.29	0.32	0.34	0.19	0.22	0.25	0.27	0.30	0.32
AA/AN/AAC/ANC/AFA	1/4	0.35	0.40	0.45	0.51	0.55	0.60	0.34	0.39	0.44	0.49	0.54	0.58	0.33	0.38	0.43	0.48	0.52	0.56
AA/AN/AAC/ANC/AFA	1/2	0.56	0.65	0.72	0.81	0.89	0.96	0.55	0.64	0.71	0.79	0.87	0.94	0.53	0.61	0.68	0.76	0.84	0.91
AA/AN/AAC/ANC/AFA	1	0.80	0.92	1.03	1.15	1.26	1.37	0.79	0.91	1.02	1.14	1.25	1.35	0.76	0.88	0.98	1.10	1.20	1.30
AA/AN/AAC/ANC/AFA	1-1/2	1.66	1.92	2.14	2.40	2.62	2.83	1.63	1.88	2.10	2.35	2.58	2.78	1.56	1.80	2.01	2.25	2.47	2.66
AA/AN/AAC/ANC/AFA	2	2.04	2.36	2.63	2.94	3.23	3.48	2.00	2.31	2.58	2.89	3.16	3.42	1.92	2.22	2.48	2.77	3.04	3.28
AA/AN/AAC/ANC	2-1/2	2.42	2.79	3.12	3.49	3.83	4.13	2.37	2.74	3.06	3.42	3.75	4.05	2.28	2.63	2.94	3.29	3.60	3.89
AA/AN/AAC/ANC/AFA	3	3.31	3.82	4.27	4.78	5.23	5.65	3.24	3.74	4.18	4.68	5.12	5.53	3.11	3.59	4.01	4.49	4.92	5.31
TCLE	1/4	0.30	0.35	0.39	0.43	0.47	0.51	0.30	0.35	0.39	0.43	0.47	0.51	0.28	0.32	0.36	0.40	0.44	0.48
TCLE	1/2	0.57	0.66	0.74	0.82	0.90	0.97	0.56	0.65	0.72	0.81	0.89	0.96	0.53	0.61	0.68	0.76	0.84	0.91
TCLE	1	1.15	1.33	1.48	1.66	1.82	1.96	1.13	1.30	1.46	1.63	1.79	1.93	1.08	1.25	1.39	1.56	1.71	1.84
TCLE	2	2.12	2.45	2.74	3.06	3.35	3.62	2.08	2.40	2.69	3.00	3.29	3.55	1.99	2.30	2.57	2.87	3.15	3.40
TCLE	3	3.09	3.57	3.99	4.46	4.89	5.28	3.03	3.50	3.91	4.37	4.79	5.17	2.90	3.35	3.74	4.19	4.59	4.95
TCLE	4	4.48	5.17	5.78	6.47	7.08	7.65	4.39	5.07	5.67	6.34	6.94	7.50	4.21	4.86	5.44	6.08	6.66	7.19
TCLE	6-1/2	6.17	7.12	7.97	8.91	9.76	10.54	6.05	6.99	7.81	8.73	9.57	10.33	5.80	6.70	7.49	8.37	9.17	9.91
TCLE	7-1/2	7.44	8.59	9.60	10.74	11.76	12.71	7.30	8.43	9.42	10.54	11.54	12.47	7.00	8.08	9.04	10.10	11.07	11.95
TJL	7	6.59	7.61	8.51	9.51	10.42	11.25	6.47	7.47	8.35	9.34	10.23	11.05	6.20	7.16	8.00	8.95	9.80	10.59
TJL	8	8.41	9.71	10.86	12.14	13.30	14.36	8.25	9.53	10.65	11.91	13.04	14.09	7.91	9.13	10.21	11.42	12.51	13.51

Valve Type	Nominal Rating	Evaporator Temperature																	
		0°F					-20°F					-40°F							
		Pressure Drop Across Valve (PSI)					Pressure Drop Across Valve (PSI)					Pressure Drop Across Valve (PSI)							
	60	80	100	125	150	175	80	100	125	150	175	200	80	100	125	150	175	200	
AA/AN/AAC/ANC	1/8	0.17	0.20	0.22	0.25	0.27	0.29	0.13	0.15	0.16	0.18	0.19	0.21	0.08	0.09	0.10	0.11	0.12	0.13
AA/AN/AAC/ANC/AFA	1/4	0.29	0.33	0.37	0.42	0.46	0.50	0.23	0.26	0.29	0.31	0.34	0.36	0.15	0.17	0.19	0.21	0.22	0.24
AA/AN/AAC/ANC/AFA	1/2	0.47	0.54	0.61	0.68	0.74	0.80	0.37	0.41	0.46	0.51	0.55	0.59	0.24	0.27	0.30	0.33	0.35	0.38
AA/AN/AAC/ANC/AFA	1	0.67	0.77	0.86	0.97	1.06	1.14	0.53	0.59	0.66	0.73	0.78	0.84	0.34	0.38	0.43	0.47	0.50	0.54
AA/AN/AAC/ANC/AFA	1-1/2	1.39	1.61	1.79	2.01	2.20	2.37	1.09	1.22	1.36	1.49	1.61	1.72	0.71	0.79	0.89	0.97	1.05	1.12
AA/AN/AAC/ANC/AFA	2	1.70	1.96	2.19	2.45	2.69	2.90	1.33	1.49	1.66	1.82	1.97	2.10	0.87	0.97	1.09	1.19	1.29	1.38
AA/AN/AAC/ANC	2-1/2	2.02	2.33	2.61	2.92	3.19	3.45	1.58	1.77	1.98	2.16	2.34	2.50	1.03	1.15	1.29	1.41	1.52	1.63
AA/AN/AAC/ANC/AFA	3	2.76	3.19	3.56	3.98	4.36	4.71	2.16	2.41	2.70	2.96	3.19	3.42	1.40	1.57	1.75	1.92	2.07	2.21
TCLE	1/4	0.25	0.29	0.32	0.36	0.40	0.43	0.20	0.22	0.25	0.27	0.30	0.32	0.13	0.15	0.16	0.18	0.19	0.21
TCLE	1/2	0.47	0.54	0.61	0.68	0.74	0.80	0.37	0.41	0.46	0.51	0.55	0.59	0.24	0.27	0.30	0.33	0.35	0.38
TCLE	1	0.96	1.11	1.24	1.39	1.52	1.64	0.75	0.84	0.94	1.03	1.11	1.19	0.49	0.55	0.61	0.67	0.72	0.77
TCLE	2	1.76	2.03	2.27	2.54	2.78	3.01	1.38	1.54	1.73	1.89	2.04	2.18	0.90	1.01	1.13	1.23	1.33	1.42
TCLE	3	2.57	2.97	3.32	3.71	4.06	4.39	2.01	2.25	2.51	2.75	2.97	3.18	1.31	1.46	1.64	1.79	1.94	2.07
TCLE	4	3.73	4.31	4.82	5.38	5.90	6.37	2.92	3.26	3.65	4.00	4.32	4.62	1.90	2.12	2.38	2.60	2.81	3.00
TCLE	6-1/2	5.14	5.94	6.64	7.42	8.13	8.78	4.03	4.51	5.04	5.52	5.96	6.37	2.62	2.93	3.28	3.59	3.88	4.14
TCLE	7-1/2	6.20	7.16	8.00	8.95	9.80	10.59	4.86	5.43	6.08	6.65	7.19	7.68	3.16	3.53	3.95	4.33	4.67	5.00
TJL	7	5.49	6.34	7.09	7.92	8.68	9.38	4.30	4.81	5.38	5.89	6.36	6.80	2.80	3.13	3.50	3.83	4.14	4.43
TJL	8	7.00	8.08	9.04	10.10	11.07	11.95	5.49	6.14	6.86	7.52	8.12	8.68	3.57	3.99	4.46	4.89	5.28	5.64

Refrigerant Liquid Temperature Valve Capacity Multiplier Correction Factors

	Refrigerant Liquid Temperature °F															
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	
R-12 Correction Factor	1.60	1.54	1.48	1.42	1.36	1.30	1.24	1.18	1.12	1.06	1.00	.94	.88	.82	.75	
R-134a Correction Factor	1.70	1.63	1.56	1.49	1.42	1.36	1.29	1.21	1.14	1.07	1.00	.93	.85	.78	.71	
R-22 Correction Factor	1.56	1.51	1.45	1.40	1.34	1.29	1.23	1.17	1.12	1.06	1.00	.94	.88	.82	.76	
R-404A/R-507 Correction Factor	2.00	1.90	1.80	1.70	1.60	1.50	1.40	1.30	1.20	1.10	1.00	.90	.80	.70	.50	

These factors include corrections for liquid refrigerant density and net refrigerating effect and are based on an average evaporator temperature of 0°F. However, they may be used for any evaporator temperature from -40°F to +40°F since the variation in the actual factors across this range is insignificant.

R-22 Conventional Valves (Tons)- A Series and T Series

Valve Type	Nominal Rating	Evaporator Temperature																	
		50°F						40°F						20°F					
		Pressure Drop Across Valve (PSI)						Pressure Drop Across Valve (PSI)						Pressure Drop Across Valve (PSI)					
		60	80	100	125	150	175	60	80	100	125	150	175	60	80	100	125	150	175
AA/AN/AFA	1/5	0.15	0.17	0.19	0.22	0.24	0.26	0.15	0.17	0.19	0.21	0.23	0.25	0.14	0.16	0.18	0.20	0.22	0.24
AA/AN/AAC/ANC	1/4	0.26	0.30	0.34	0.38	0.41	0.44	0.26	0.30	0.33	0.37	0.40	0.44	0.25	0.29	0.32	0.36	0.40	0.43
AA/AN/AAC/ANC/AFA	1/2	0.46	0.53	0.59	0.66	0.73	0.79	0.45	0.52	0.58	0.65	0.71	0.77	0.44	0.51	0.57	0.64	0.70	0.75
AA/AN/AAC/ANC/AFA	1	0.73	0.84	0.94	1.05	1.15	1.25	0.72	0.83	0.93	1.04	1.14	1.23	0.70	0.81	0.90	1.01	1.11	1.20
AA/AN/AAC/ANC/AFA	1-1/2	1.05	1.21	1.36	1.52	1.66	1.79	1.03	1.19	1.33	1.49	1.63	1.76	1.01	1.17	1.30	1.46	1.60	1.72
AA/AN/AAC/ANC/AFA	2	1.54	1.78	1.99	2.22	2.43	2.63	1.52	1.75	1.96	2.19	2.40	2.59	1.48	1.71	1.91	2.14	2.34	2.53
AA/AN/AAC/ANC/AFA	2-1/2	2.16	2.49	2.79	3.12	3.42	3.69	2.13	2.46	2.75	3.07	3.37	3.64	2.08	2.40	2.69	3.00	3.29	3.55
AA/AN/AAC/ANC/AFA	3	2.65	3.06	3.42	3.82	4.19	4.53	2.61	3.01	3.37	3.77	4.13	4.46	2.55	2.94	3.29	3.68	4.03	4.35
AA/AN/AAC/ANC	4	3.14	3.63	4.05	4.53	4.96	5.36	3.10	3.58	4.00	4.47	4.90	5.29	3.03	3.50	3.91	4.37	4.79	5.17
AA/AN/AAC/ANC/AFA	5	4.30	4.97	5.55	6.21	6.80	7.34	4.24	4.89	5.47	6.12	6.70	7.24	4.14	4.78	5.34	5.98	6.55	7.07
TCLE	1/2	0.39	0.45	0.50	0.56	0.62	0.67	0.39	0.45	0.50	0.56	0.61	0.66	0.38	0.44	0.49	0.55	0.60	0.65
TCLE	1	0.74	0.85	0.96	1.07	1.17	1.26	0.73	0.84	0.94	1.05	1.15	1.24	0.71	0.82	0.92	1.02	1.12	1.21
TCLE	2	1.49	1.72	1.92	2.15	2.36	2.54	1.47	1.70	1.90	2.12	2.33	2.51	1.44	1.66	1.86	2.08	2.28	2.46
TCLE	3	2.75	3.18	3.55	3.97	4.35	4.70	2.71	3.13	3.50	3.91	4.29	4.63	2.65	3.06	3.42	3.82	4.19	4.53
TCLE	5	4.01	4.63	5.18	5.79	6.34	6.85	3.95	4.56	5.10	5.70	6.25	6.75	3.86	4.46	4.98	5.57	6.10	6.59
TCLE	7-1/2	5.82	6.72	7.51	8.40	9.20	9.94	5.75	6.64	7.42	8.30	9.09	9.82	5.60	6.47	7.23	8.08	8.85	9.56
TCLE	10	8.02	9.26	10.35	11.58	12.68	13.70	7.92	9.15	10.23	11.44	12.53	13.53	7.72	8.91	9.97	11.14	12.21	13.18
TCLE	12	9.67	11.17	12.48	13.96	15.29	16.51	9.55	11.03	12.33	13.79	15.10	16.31	9.31	10.75	12.02	13.44	14.72	15.90
TJL	11	8.57	9.90	11.06	12.37	13.55	14.64	8.47	9.78	10.93	12.22	13.39	14.46	8.25	9.53	10.65	11.91	13.04	14.09
TJL	14	10.92	12.61	14.10	15.76	17.27	18.65	10.80	12.47	13.94	15.59	17.07	18.44	10.52	12.15	13.58	15.18	16.63	17.97

Valve Type	Nominal Rating	Evaporator Temperature																	
		0°F						-20°F						-40°F					
		Pressure Drop Across Valve (PSI)						Pressure Drop Across Valve (PSI)						Pressure Drop Across Valve (PSI)					
		60	80	100	125	150	175	80	100	125	150	175	200	80	100	125	150	175	200
AA/AN/AFA	1/5	0.13	0.15	0.17	0.19	0.21	0.22	0.10	0.11	0.13	0.14	0.15	0.16	0.07	0.08	0.09	0.10	0.10	0.11
AA/AN/AAC/ANC	1/4	0.23	0.27	0.30	0.33	0.36	0.39	0.18	0.20	0.23	0.25	0.27	0.28	0.12	0.13	0.15	0.16	0.18	0.19
AA/AN/AAC/ANC/AFA	1/2	0.40	0.46	0.52	0.58	0.63	0.68	0.32	0.36	0.40	0.44	0.47	0.51	0.21	0.23	0.26	0.29	0.31	0.33
AA/AN/AAC/ANC/AFA	1	0.64	0.74	0.83	0.92	1.01	1.09	0.51	0.57	0.64	0.70	0.75	0.81	0.34	0.38	0.43	0.47	0.50	0.54
AA/AN/AAC/ANC/AFA	1-1/2	0.91	1.05	1.17	1.31	1.44	1.55	0.73	0.82	0.91	1.00	1.08	1.15	0.48	0.54	0.60	0.66	0.71	0.76
AA/AN/AAC/ANC/AFA	2	1.35	1.56	1.74	1.95	2.13	2.31	1.07	1.20	1.34	1.47	1.58	1.69	0.71	0.79	0.89	0.97	1.05	1.12
AA/AN/AAC/ANC/AFA	2-1/2	1.89	2.18	2.44	2.73	2.99	3.23	1.51	1.69	1.89	2.07	2.23	2.39	0.99	1.11	1.24	1.36	1.46	1.57
AA/AN/AAC/ANC/AFA	3	2.31	2.67	2.98	3.33	3.65	3.95	1.85	2.07	2.31	2.53	2.74	2.93	1.22	1.36	1.53	1.67	1.80	1.93
AA/AN/AAC/ANC	4	2.75	3.18	3.55	3.97	4.35	4.70	2.19	2.45	2.74	3.00	3.24	3.46	1.44	1.61	1.80	1.97	2.13	2.28
AA/AN/AAC/ANC/AFA	5	3.75	4.33	4.84	5.41	5.93	6.40	3.00	3.35	3.75	4.11	4.44	4.74	1.97	2.20	2.46	2.70	2.91	3.11
TCLE	1/2	0.34	0.39	0.44	0.49	0.54	0.58	0.27	0.30	0.34	0.37	0.40	0.43	0.18	0.20	0.23	0.25	0.27	0.28
TCLE	1	0.65	0.75	0.84	0.94	1.03	1.11	0.52	0.58	0.65	0.71	0.77	0.82	0.34	0.38	0.43	0.47	0.50	0.54
TCLE	2	1.30	1.50	1.68	1.88	2.06	2.22	1.04	1.16	1.30	1.42	1.54	1.64	0.69	0.77	0.86	0.94	1.02	1.09
TCLE	3	2.40	2.77	3.10	3.46	3.79	4.10	1.92	2.15	2.40	2.63	2.84	3.04	1.26	1.41	1.58	1.73	1.86	1.99
TCLE	5	3.50	4.04	4.52	5.05	5.53	5.98	2.79	3.12	3.49	3.82	4.13	4.41	1.84	2.06	2.30	2.52	2.72	2.91
TCLE	7-1/2	5.08	5.87	6.56	7.33	8.03	8.68	4.05	4.53	5.06	5.55	5.99	6.40	2.67	2.99	3.34	3.66	3.95	4.22
TCLE	10	7.00	8.08	9.04	10.10	11.07	11.95	5.59	6.25	6.99	7.65	8.27	8.84	3.68	4.11	4.60	5.04	5.44	5.82
TCLE	12	8.44	9.75	10.90	12.18	13.34	14.41	6.74	7.54	8.43	9.23	9.97	10.66	4.44	4.96	5.55	6.08	6.57	7.02
TJL	11	7.48	8.64	9.66	10.80	11.83	12.77	5.97	6.67	7.46	8.17	8.83	9.44	3.93	4.39	4.91	5.38	5.81	6.21
TJL	14	9.54	11.02	12.32	13.77	15.08	16.29	7.62	8.52	9.53	10.43	11.27	12.05	5.02	5.61	6.28	6.87	7.42	7.94

Refrigerant Liquid Temperature Valve Capacity Multiplier Correction Factors

	Refrigerant Liquid Temperature °F															
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	
R-12 Correction Factor	1.60	1.54	1.48	1.42	1.36	1.30	1.24	1.18	1.12	1.06	1.00	.94	.88	.82	.75	
R-134a Correction Factor	1.70	1.63	1.56	1.49	1.42	1.36	1.29	1.21	1.14	1.07	1.00	.93	.85	.78	.71	
R-22 Correction Factor	1.56	1.51	1.45	1.40	1.34	1.29	1.23	1.17	1.12	1.06	1.00	.94	.88	.82	.76	
R-404A/R-507 Correction Factor	2.00	1.90	1.80	1.70	1.60	1.50	1.40	1.30	1.20	1.10	1.00	.90	.80	.70	.50	

These factors include corrections for liquid refrigerant density and net refrigerating effect and are based on an average evaporator temperature of 0°F. However, they may be used for any evaporator temperature from -40°F to +40°F since the variation in the actual factors across this range is insignificant.

Thermal Expansion Valves
 Solenoid Valves
 Coils
 Industrial Solenoid Valves
 Shut Off Valves
 System Protectors
 Storage Devices
 Controls
 Pressure Regulators
 Temperature Pressure Controls
 Competitive Cross Reference

R-134a Conventional Valves (Tons)- A Series and T Series

Valve Type	Nominal Rating	Evaporator Temperature																	
		50°F						40°F					20°F						
		Pressure Drop Across Valve (PSI)						Pressure Drop Across Valve (PSI)					Pressure Drop Across Valve (PSI)						
	60	80	100	125	150	175	60	80	100	125	150	175	60	80	100	125	150	175	
AA/AN/AFA	1/8	0.14	0.16	0.18	0.20	0.22	0.24	0.14	0.16	0.18	0.20	0.22	0.24	0.13	0.15	0.17	0.19	0.21	0.22
AA/AN/AAC/ANC	1/4	0.25	0.29	0.32	0.36	0.40	0.43	0.24	0.28	0.31	0.35	0.38	0.41	0.23	0.27	0.30	0.33	0.36	0.39
AA/AN/AAC/ANC/AFA	1/2	0.43	0.50	0.56	0.62	0.68	0.73	0.43	0.50	0.56	0.62	0.68	0.73	0.41	0.47	0.53	0.59	0.65	0.70
AA/AN/AAC/ANC/AFA	3/4	0.70	0.81	0.90	1.01	1.11	1.20	0.68	0.79	0.88	0.98	1.08	1.16	0.65	0.75	0.84	0.94	1.03	1.11
AA/AN/AAC/ANC/AFA	1	1.00	1.15	1.29	1.44	1.58	1.71	0.98	1.13	1.27	1.41	1.55	1.67	0.93	1.07	1.20	1.34	1.47	1.59
AA/AN/AAC/ANC/AFA	1-1/2	1.47	1.70	1.90	2.12	2.32	2.51	1.44	1.66	1.86	2.08	2.28	2.46	1.38	1.59	1.78	1.99	2.18	2.36
AA/AN/AAC/ANC/AFA	2	2.06	2.38	2.66	2.97	3.26	3.52	2.02	2.33	2.61	2.92	3.19	3.45	1.93	2.23	2.49	2.79	3.05	3.30
AA/AN/AAC/ANC/AFA	2-1/2	2.53	2.92	3.27	3.65	4.00	4.32	2.47	2.85	3.19	3.57	3.91	4.22	2.37	2.74	3.06	3.42	3.75	4.05
AA/AN/AAC/ANC	3	3.00	3.46	3.87	4.33	4.74	5.12	2.94	3.39	3.80	4.24	4.65	5.02	2.81	3.24	3.63	4.06	4.44	4.80
AA/AN/AAC/ANC/AFA	4	4.10	4.73	5.29	5.92	6.48	7.00	4.02	4.64	5.19	5.80	6.36	6.87	3.84	4.43	4.96	5.54	6.07	6.56
TCLE	1/4	0.37	0.43	0.48	0.53	0.59	0.63	0.37	0.43	0.48	0.53	0.59	0.63	0.35	0.40	0.45	0.51	0.55	0.60
TCLE	3/4	0.70	0.81	0.90	1.01	1.11	1.20	0.69	0.80	0.89	1.00	1.09	1.18	0.66	0.76	0.85	0.95	1.04	1.13
TCLE	1-1/2	1.42	1.64	1.83	2.05	2.25	2.43	1.39	1.61	1.79	2.01	2.20	2.37	1.33	1.54	1.72	1.92	2.10	2.27
TCLE	2-1/2	2.62	3.03	3.38	3.78	4.14	4.47	2.57	2.97	3.32	3.71	4.06	4.39	2.46	2.84	3.18	3.55	3.89	4.20
TCLE	3-1/2	3.82	4.41	4.93	5.51	6.04	6.52	3.74	4.32	4.83	5.40	5.91	6.39	3.58	4.13	4.62	5.17	5.66	6.11
TCLE	5-1/2	5.55	6.41	7.17	8.01	8.78	9.48	5.43	6.27	7.01	7.84	8.59	9.27	5.20	6.00	6.71	7.51	8.22	8.88
TCLE	7-1/2	7.65	8.83	9.88	11.04	12.10	13.06	7.49	8.65	9.67	10.81	11.84	12.79	7.16	8.27	9.24	10.33	11.32	12.23
TCLE	9	9.22	10.65	11.90	13.31	14.58	15.75	9.03	10.43	11.66	13.03	14.28	15.42	8.64	9.98	11.15	12.47	13.66	14.76
TJL	9	8.17	9.43	10.55	11.79	12.92	13.95	8.00	9.24	10.33	11.55	12.65	13.66	7.65	8.83	9.88	11.04	12.10	13.06
TJL	11	10.42	12.03	13.45	15.04	16.48	17.80	10.20	11.78	13.17	14.72	16.13	17.42	9.76	11.27	12.60	14.09	15.43	16.67

Valve Type	Nominal Rating	Evaporator Temperature																	
		0°F						-20°F					-40°F						
		Pressure Drop Across Valve (PSI)						Pressure Drop Across Valve (PSI)					Pressure Drop Across Valve (PSI)						
	60	80	100	125	150	175	80	100	125	150	175	200	80	100	125	150	175	200	
AA/AN/AFA	1/8	0.11	0.13	0.14	0.16	0.17	0.19	0.08	0.09	0.10	0.11	0.12	0.13	0.05	0.06	0.06	0.07	0.07	0.08
AA/AN/AAC/ANC	1/4	0.19	0.22	0.25	0.27	0.30	0.32	0.14	0.16	0.18	0.19	0.21	0.22	0.09	0.10	0.11	0.12	0.13	0.14
AA/AN/AAC/ANC/AFA	1/2	0.34	0.39	0.44	0.49	0.54	0.58	0.25	0.28	0.31	0.34	0.37	0.40	0.15	0.17	0.19	0.21	0.22	0.24
AA/AN/AAC/ANC/AFA	3/4	0.54	0.62	0.70	0.78	0.85	0.92	0.40	0.45	0.50	0.55	0.59	0.63	0.25	0.28	0.31	0.34	0.37	0.40
AA/AN/AAC/ANC/AFA	1	0.77	0.89	0.99	1.11	1.22	1.32	0.57	0.64	0.71	0.78	0.84	0.90	0.35	0.39	0.44	0.48	0.52	0.55
AA/AN/AAC/ANC/AFA	1-1/2	1.13	1.30	1.46	1.63	1.79	1.93	0.85	0.95	1.06	1.16	1.26	1.34	0.52	0.58	0.65	0.71	0.77	0.82
AA/AN/AAC/ANC/AFA	2	1.59	1.84	2.05	2.29	2.51	2.72	1.19	1.33	1.49	1.63	1.76	1.88	0.73	0.82	0.91	1.00	1.08	1.15
AA/AN/AAC/ANC/AFA	2-1/2	1.95	2.25	2.52	2.81	3.08	3.33	1.45	1.62	1.81	1.99	2.14	2.29	0.89	1.00	1.11	1.22	1.32	1.41
AA/AN/AAC/ANC	3	2.31	2.67	2.98	3.33	3.65	3.95	1.72	1.92	2.15	2.36	2.54	2.72	1.06	1.19	1.33	1.45	1.57	1.68
AA/AN/AAC/ANC/AFA	4	3.16	3.65	4.08	4.56	5.00	5.40	2.36	2.64	2.95	3.23	3.49	3.73	1.45	1.62	1.81	1.99	2.14	2.29
TCLE	1/4	0.29	0.33	0.37	0.42	0.46	0.50	0.22	0.25	0.28	0.30	0.33	0.35	0.13	0.15	0.16	0.18	0.19	0.21
TCLE	3/4	0.54	0.62	0.70	0.78	0.85	0.92	0.41	0.46	0.51	0.56	0.61	0.65	0.25	0.28	0.31	0.34	0.37	0.40
TCLE	1-1/2	1.10	1.27	1.42	1.59	1.74	1.88	0.82	0.92	1.03	1.12	1.21	1.30	0.50	0.56	0.63	0.68	0.74	0.79
TCLE	2-1/2	2.02	2.33	2.61	2.92	3.19	3.45	1.51	1.69	1.89	2.07	2.23	2.39	0.93	1.04	1.16	1.27	1.38	1.47
TCLE	3-1/2	2.95	3.41	3.81	4.26	4.66	5.04	2.20	2.46	2.75	3.01	3.25	3.48	1.35	1.51	1.69	1.85	2.00	2.13
TCLE	5-1/2	4.28	4.94	5.53	6.18	6.77	7.31	3.19	3.57	3.99	4.37	4.72	5.04	1.96	2.19	2.45	2.68	2.90	3.10
TCLE	7-1/2	5.90	6.81	7.62	8.52	9.33	10.08	4.40	4.92	5.50	6.02	6.51	6.96	2.70	3.02	3.38	3.70	3.99	4.27
TCLE	9	7.11	8.21	9.18	10.26	11.24	12.14	5.30	5.93	6.63	7.26	7.84	8.38	3.26	3.64	4.08	4.46	4.82	5.15
TJL	9	6.30	7.27	8.13	9.09	9.96	10.76	4.70	5.25	5.88	6.44	6.95	7.43	2.89	3.23	3.61	3.96	4.27	4.57
TJL	11	8.03	9.27	10.37	11.59	12.70	13.71	5.99	6.70	7.49	8.20	8.86	9.47	3.68	4.11	4.60	5.04	5.44	5.82

Refrigerant Liquid Temperature Valve Capacity Multiplier Correction Factors

	Refrigerant Liquid Temperature °F														
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140
R-12 Correction Factor	1.60	1.54	1.48	1.42	1.36	1.30	1.24	1.18	1.12	1.06	1.00	.94	.88	.82	.75
R-134a Correction Factor	1.70	1.63	1.56	1.49	1.42	1.36	1.29	1.21	1.14	1.07	1.00	.93	.85	.78	.71
R-22 Correction Factor	1.56	1.51	1.45	1.40	1.34	1.29	1.23	1.17	1.12	1.06	1.00	.94	.88	.82	.76
R-404A/R-507 Correction Factor	2.00	1.90	1.80	1.70	1.60	1.50	1.40	1.30	1.20	1.10	1.00	.90	.80	.70	.50

These factors include corrections for liquid refrigerant density and net refrigerating effect and are based on an average evaporator temperature of 0°F. However, they may be used for any evaporator temperature from -40°F to +40°F since the variation in the actual factors across this range is insignificant.

R-404A/R-507 Conventional Valves (Tons)– A Series and T Series

Valve Type	Nominal Rating	Evaporator Temperature																	
		50°F						40°F						20°F					
		Pressure Drop Across Valve (PSI)						Pressure Drop Across Valve (PSI)						Pressure Drop Across Valve (PSI)					
		60	80	100	125	150	175	60	80	100	125	150	175	60	80	100	125	150	175
AA/AN/AFA	1/8	0.11	0.13	0.14	0.16	0.17	0.19	0.11	0.13	0.14	0.16	0.17	0.19	0.10	0.12	0.13	0.14	0.16	0.17
AA/AN/AAC/ANC	1/4	0.19	0.22	0.25	0.27	0.30	0.32	0.19	0.22	0.25	0.27	0.30	0.32	0.18	0.21	0.23	0.26	0.28	0.31
AA/AN/AAC/ANC/AFA	1/2	0.33	0.38	0.43	0.48	0.52	0.56	0.33	0.38	0.43	0.48	0.52	0.56	0.31	0.36	0.40	0.45	0.49	0.53
AA/AN/AAC/ANC/AFA	3/4	0.54	0.62	0.70	0.78	0.85	0.92	0.52	0.60	0.67	0.75	0.82	0.89	0.50	0.58	0.65	0.72	0.79	0.85
AA/AN/AAC/ANC/AFA	1	0.77	0.89	0.99	1.11	1.22	1.32	0.75	0.87	0.97	1.08	1.19	1.28	0.71	0.82	0.92	1.02	1.12	1.21
AA/AN/AAC/ANC/AFA	1-1/4	1.13	1.30	1.46	1.63	1.79	1.93	1.10	1.27	1.42	1.59	1.74	1.88	1.05	1.21	1.36	1.52	1.66	1.79
AA/AN/AAC/ANC/AFA	2	1.58	1.82	2.04	2.28	2.50	2.70	1.55	1.79	2.00	2.24	2.45	2.65	1.47	1.70	1.90	2.12	2.32	2.51
AA/AN/AAC/ANC/AFA	2-1/4	1.94	2.24	2.50	2.80	3.07	3.31	1.89	2.18	2.44	2.73	2.99	3.23	1.80	2.08	2.32	2.60	2.85	3.07
AA/AN/AAC/ANC	2-1/2	2.30	2.66	2.97	3.32	3.64	3.93	2.25	2.60	2.90	3.25	3.56	3.84	2.14	2.47	2.76	3.09	3.38	3.65
AA/AN/AAC/ANC/AFA	3-1/2	3.15	3.64	4.07	4.55	4.98	5.38	3.08	3.56	3.98	4.45	4.87	5.26	2.92	3.37	3.77	4.21	4.62	4.99
TCLE	1/4	0.29	0.33	0.37	0.42	0.46	0.50	0.28	0.32	0.36	0.40	0.44	0.48	0.27	0.31	0.35	0.39	0.43	0.46
TCLE	1/2	0.54	0.62	0.70	0.78	0.85	0.92	0.53	0.61	0.68	0.76	0.84	0.91	0.50	0.58	0.65	0.72	0.79	0.85
TCLE	1	1.09	1.26	1.41	1.57	1.72	1.86	1.07	1.24	1.38	1.54	1.69	1.83	1.01	1.17	1.30	1.46	1.60	1.72
TCLE	2	2.01	2.32	2.59	2.90	3.18	3.43	1.97	2.27	2.54	2.84	3.11	3.36	1.87	2.16	2.41	2.70	2.96	3.19
TCLE	3	2.94	3.39	3.80	4.24	4.65	5.02	2.87	3.31	3.71	4.14	4.54	4.90	2.72	3.14	3.51	3.93	4.30	4.65
TCLE	4-1/2	4.26	4.92	5.50	6.15	6.74	7.28	4.16	4.80	5.37	6.00	6.58	7.10	3.95	4.56	5.10	5.70	6.25	6.75
TCLE	7	5.87	6.78	7.58	8.47	9.28	10.02	5.73	6.62	7.40	8.27	9.06	9.79	5.45	6.29	7.04	7.87	8.62	9.31
TCLE	8	7.08	8.18	9.14	10.22	11.19	12.09	6.91	7.98	8.92	9.97	10.93	11.80	6.57	7.59	8.48	9.48	10.39	11.22
TJL	7	6.27	7.24	8.09	9.05	9.91	10.71	6.13	7.08	7.91	8.85	9.69	10.47	5.82	6.72	7.51	8.40	9.20	9.94
TJL	9	8.00	9.24	10.33	11.55	12.65	13.66	7.81	9.02	10.08	11.27	12.35	13.34	7.42	8.57	9.58	10.71	11.73	12.67

Valve Type	Nominal Rating	Evaporator Temperature																	
		0°F						-20°F						-40°F					
		Pressure Drop Across Valve (PSI)						Pressure Drop Across Valve (PSI)						Pressure Drop Across Valve (PSI)					
		60	80	100	125	150	175	80	100	125	150	175	200	80	100	125	150	175	200
AA/AN/AFA	1/8	0.09	0.10	0.12	0.13	0.14	0.15	0.07	0.08	0.09	0.10	0.10	0.11	0.05	0.06	0.06	0.07	0.07	0.08
AA/AN/AAC/ANC	1/4	0.16	0.18	0.21	0.23	0.25	0.27	0.12	0.13	0.15	0.16	0.18	0.19	0.08	0.09	0.10	0.11	0.12	0.13
AA/AN/AAC/ANC/AFA	1/2	0.28	0.32	0.36	0.40	0.44	0.48	0.22	0.25	0.28	0.30	0.33	0.35	0.14	0.16	0.18	0.19	0.21	0.22
AA/AN/AAC/ANC/AFA	3/4	0.44	0.51	0.57	0.64	0.70	0.75	0.35	0.39	0.44	0.48	0.52	0.55	0.23	0.26	0.29	0.31	0.34	0.36
AA/AN/AAC/ANC/AFA	1	0.63	0.73	0.81	0.91	1.00	1.08	0.50	0.56	0.63	0.68	0.74	0.79	0.32	0.36	0.40	0.44	0.47	0.51
AA/AN/AAC/ANC/AFA	1-1/4	0.93	1.07	1.20	1.34	1.47	1.59	0.73	0.82	0.91	1.00	1.08	1.15	0.48	0.54	0.60	0.66	0.71	0.76
AA/AN/AAC/ANC/AFA	2	1.31	1.51	1.69	1.89	2.07	2.24	1.03	1.15	1.29	1.41	1.52	1.63	0.67	0.75	0.84	0.92	0.99	1.06
AA/AN/AAC/ANC/AFA	2-1/4	1.61	1.86	2.08	2.32	2.55	2.75	1.26	1.41	1.58	1.73	1.86	1.99	0.82	0.92	1.03	1.12	1.21	1.30
AA/AN/AAC/ANC	2-1/2	1.91	2.21	2.47	2.76	3.02	3.26	1.50	1.68	1.88	2.05	2.22	2.37	0.98	1.10	1.23	1.34	1.45	1.55
AA/AN/AAC/ANC/AFA	3-1/2	2.61	3.01	3.37	3.77	4.13	4.46	2.04	2.28	2.55	2.79	3.02	3.23	1.34	1.50	1.68	1.83	1.98	2.12
TCLE	1/4	0.24	0.28	0.31	0.35	0.38	0.41	0.19	0.21	0.24	0.26	0.28	0.30	0.12	0.13	0.15	0.16	0.18	0.19
TCLE	1/2	0.45	0.52	0.58	0.65	0.71	0.77	0.35	0.39	0.44	0.48	0.52	0.55	0.23	0.26	0.29	0.31	0.34	0.36
TCLE	1	0.91	1.05	1.17	1.31	1.44	1.55	0.71	0.79	0.89	0.97	1.05	1.12	0.46	0.51	0.58	0.63	0.68	0.73
TCLE	2	1.67	1.93	2.16	2.41	2.64	2.85	1.31	1.46	1.64	1.79	1.94	2.07	0.86	0.96	1.08	1.18	1.27	1.36
TCLE	3	2.43	2.81	3.14	3.51	3.84	4.15	1.91	2.14	2.39	2.62	2.82	3.02	1.25	1.40	1.56	1.71	1.85	1.98
TCLE	4-1/2	3.53	4.08	4.56	5.10	5.58	6.03	2.77	3.10	3.46	3.79	4.10	4.38	1.81	2.02	2.26	2.48	2.68	2.86
TCLE	7	4.86	5.61	6.27	7.01	7.68	8.30	3.81	4.26	4.76	5.22	5.64	6.02	2.49	2.78	3.11	3.41	3.68	3.94
TCLE	8	5.86	6.77	7.57	8.46	9.27	10.01	4.60	5.14	5.75	6.30	6.80	7.27	3.01	3.37	3.76	4.12	4.45	4.76
TJL	7	5.19	5.99	6.70	7.49	8.21	8.86	4.07	4.55	5.09	5.57	6.02	6.44	2.66	2.97	3.33	3.64	3.93	4.21
TJL	9	6.62	7.64	8.55	9.56	10.47	11.31	5.20	5.81	6.50	7.12	7.69	8.22	3.40	3.80	4.25	4.66	5.03	5.38

Refrigerant Liquid Temperature Valve Capacity Multiplier Correction Factors

	Refrigerant Liquid Temperature °F														
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140
R-12 Correction Factor	1.60	1.54	1.48	1.42	1.36	1.30	1.24	1.18	1.12	1.06	1.00	.94	.88	.82	.75
R-134a Correction Factor	1.70	1.63	1.56	1.49	1.42	1.36	1.29	1.21	1.14	1.07	1.00	.93	.85	.78	.71
R-22 Correction Factor	1.56	1.51	1.45	1.40	1.34	1.29	1.23	1.17	1.12	1.06	1.00	.94	.88	.82	.76
R-404A/R-507 Correction Factor	2.00	1.90	1.80	1.70	1.60	1.50	1.40	1.30	1.20	1.10	1.00	.90	.80	.70	.50

These factors include corrections for liquid refrigerant density and net refrigerating effect and are based on an average evaporator temperature of 0°F. However, they may be used for any evaporator temperature from -40°F to +40°F since the variation in the actual factors across this range is insignificant.

Thermal Expansion Valves
Solenoid Valves
Coils
Industrial Solenoid Valves
Shut Off Valves
System Protectors
Storage Devices
Controls
Oil
Pressure Regulators
Temperature Pressure Controls
Competitive Cross Reference

R-407C Conventional Valves (Tons)- A Series and T Series

Valve Type	Nominal Rating	Evaporator Temperature																	
		50°F					40°F					20°F							
		Pressure Drop Across Valve (PSI)					Pressure Drop Across Valve (PSI)					Pressure Drop Across Valve (PSI)							
		60	80	100	125	150	175	60	80	100	125	150	175	60	80	100	125	150	175
AA/AN/AFA	1/5	0.14	0.16	0.18	0.20	0.22	0.24	0.14	0.16	0.18	0.20	0.22	0.24	0.14	0.16	0.18	0.20	0.22	0.24
AA/AN/AAC/ANC	1/4	0.25	0.29	0.32	0.36	0.40	0.43	0.24	0.28	0.31	0.35	0.38	0.41	0.23	0.27	0.30	0.33	0.36	0.39
AA/AN/AAC/ANC/AFA	1/2	0.44	0.51	0.57	0.64	0.70	0.75	0.43	0.50	0.56	0.62	0.68	0.73	0.41	0.47	0.53	0.59	0.65	0.70
AA/AN/AAC/ANC/AFA	1	0.70	0.81	0.90	1.01	1.11	1.20	0.69	0.80	0.89	1.00	1.09	1.18	0.66	0.76	0.85	0.95	1.04	1.13
AA/AN/AAC/ANC/AFA	1-1/4	1.00	1.15	1.29	1.44	1.58	1.71	0.98	1.13	1.27	1.41	1.55	1.67	0.95	1.10	1.23	1.37	1.50	1.62
AA/AN/AAC/ANC/AFA	2	1.48	1.71	1.91	2.14	2.34	2.53	1.45	1.67	1.87	2.09	2.29	2.48	1.39	1.61	1.79	2.01	2.20	2.37
AA/AN/AAC/ANC/AFA	2-1/2	2.07	2.39	2.67	2.99	3.27	3.54	2.04	2.36	2.63	2.94	3.23	3.48	1.95	2.25	2.52	2.81	3.08	3.33
AA/AN/AAC/ANC/AFA	3-1/4	2.54	2.93	3.28	3.67	4.02	4.34	2.49	2.88	3.21	3.59	3.94	4.25	2.39	2.76	3.09	3.45	3.78	4.08
AA/AN/AAC/ANC	4	3.02	3.49	3.90	4.36	4.78	5.16	2.96	3.42	3.82	4.27	4.68	5.06	2.84	3.28	3.67	4.10	4.49	4.85
AA/AN/AAC/ANC/AFA	5-1/4	4.12	4.76	5.32	5.95	6.51	7.04	4.05	4.68	5.23	5.85	6.40	6.92	3.89	4.49	5.02	5.61	6.15	6.64
TCLE	1/2	0.38	0.44	0.49	0.55	0.60	0.65	0.37	0.43	0.48	0.53	0.59	0.63	0.36	0.42	0.46	0.52	0.57	0.61
TCLE	1	0.71	0.82	0.92	1.02	1.12	1.21	0.70	0.81	0.90	1.01	1.11	1.20	0.67	0.77	0.86	0.97	1.06	1.14
TCLE	2	1.43	1.65	1.85	2.06	2.26	2.44	1.41	1.63	1.82	2.04	2.23	2.41	1.35	1.56	1.74	1.95	2.13	2.31
TCLE	3	2.64	3.05	3.41	3.81	4.17	4.51	2.59	2.99	3.34	3.74	4.10	4.42	2.49	2.88	3.21	3.59	3.94	4.25
TCLE	5	3.85	4.45	4.97	5.56	6.09	6.58	3.77	4.35	4.87	5.44	5.96	6.44	3.62	4.18	4.67	5.23	5.72	6.18
TCLE	7-1/2	5.58	6.44	7.20	8.05	8.82	9.53	5.48	6.33	7.07	7.91	8.66	9.36	5.26	6.07	6.79	7.59	8.32	8.98
TCLE	10	7.69	8.88	9.93	11.10	12.16	13.13	7.55	8.72	9.75	10.90	11.94	12.89	7.25	8.37	9.36	10.46	11.46	12.38
TCLE	12	9.27	10.70	11.97	13.38	14.66	15.83	9.10	10.51	11.75	13.13	14.39	15.54	8.74	10.09	11.28	12.62	13.82	14.93
TJL	11	8.22	9.49	10.61	11.86	13.00	14.04	8.07	9.32	10.42	11.65	12.76	13.78	7.75	8.95	10.01	11.19	12.25	13.24
TJL	14	10.48	12.10	13.53	15.13	16.57	17.90	10.29	11.88	13.28	14.85	16.27	17.57	9.88	11.41	12.76	14.26	15.62	16.87

Valve Type	Nominal Rating	Evaporator Temperature																	
		0°F				-20°F				-40°F									
		Pressure Drop Across Valve (PSI)				Pressure Drop Across Valve (PSI)				Pressure Drop Across Valve (PSI)									
		60	80	100	125	150	175	80	100	125	150	175	200	80	100	125	150	175	200
AA/AN/AFA	1/5	0.11	0.13	0.14	0.16	0.17	0.19	0.09	0.10	0.11	0.12	0.13	0.14	0.05	0.06	0.06	0.07	0.07	0.08
AA/AN/AAC/ANC	1/4	0.20	0.23	0.26	0.29	0.32	0.34	0.15	0.17	0.19	0.21	0.22	0.24	0.09	0.10	0.11	0.12	0.13	0.14
AA/AN/AAC/ANC/AFA	1/2	0.35	0.40	0.45	0.51	0.55	0.60	0.26	0.29	0.33	0.36	0.38	0.41	0.17	0.19	0.21	0.23	0.25	0.27
AA/AN/AAC/ANC/AFA	1	0.56	0.65	0.72	0.81	0.89	0.96	0.42	0.47	0.53	0.58	0.62	0.66	0.27	0.30	0.34	0.37	0.40	0.43
AA/AN/AAC/ANC/AFA	1-1/4	0.80	0.92	1.03	1.15	1.26	1.37	0.61	0.68	0.76	0.84	0.90	0.96	0.38	0.42	0.48	0.52	0.56	0.60
AA/AN/AAC/ANC/AFA	2	1.18	1.36	1.52	1.70	1.87	2.02	0.90	1.01	1.13	1.23	1.33	1.42	0.56	0.63	0.70	0.77	0.83	0.89
AA/AN/AAC/ANC/AFA	2-1/2	1.65	1.91	2.13	2.38	2.61	2.82	1.26	1.41	1.58	1.73	1.86	1.99	0.79	0.88	0.99	1.08	1.17	1.25
AA/AN/AAC/ANC/AFA	3-1/4	2.02	2.33	2.61	2.92	3.19	3.45	1.54	1.72	1.93	2.11	2.28	2.43	0.97	1.08	1.21	1.33	1.43	1.53
AA/AN/AAC/ANC	4	2.40	2.77	3.10	3.46	3.79	4.10	1.83	2.05	2.29	2.51	2.71	2.89	1.15	1.29	1.44	1.57	1.70	1.82
AA/AN/AAC/ANC/AFA	5-1/4	3.28	3.79	4.23	4.73	5.19	5.60	2.50	2.80	3.13	3.42	3.70	3.95	1.57	1.76	1.96	2.15	2.32	2.48
TCLE	1/2	0.30	0.35	0.39	0.43	0.47	0.51	0.23	0.26	0.29	0.31	0.34	0.36	0.14	0.16	0.18	0.19	0.21	0.22
TCLE	1	0.56	0.65	0.72	0.81	0.89	0.96	0.43	0.48	0.54	0.59	0.64	0.68	0.27	0.30	0.34	0.37	0.40	0.43
TCLE	2	1.14	1.32	1.47	1.65	1.80	1.95	0.87	0.97	1.09	1.19	1.29	1.38	0.55	0.61	0.69	0.75	0.81	0.87
TCLE	3	2.10	2.42	2.71	3.03	3.32	3.59	1.60	1.79	2.00	2.19	2.37	2.53	1.01	1.13	1.26	1.38	1.49	1.60
TCLE	5	3.06	3.53	3.95	4.42	4.84	5.23	2.33	2.61	2.91	3.19	3.45	3.68	1.47	1.64	1.84	2.01	2.17	2.32
TCLE	7-1/2	4.44	5.13	5.73	6.41	7.02	7.58	3.38	3.78	4.23	4.63	5.00	5.34	2.13	2.38	2.66	2.92	3.15	3.37
TCLE	10	6.12	7.07	7.90	8.83	9.68	10.45	4.66	5.21	5.83	6.38	6.89	7.37	2.93	3.28	3.66	4.01	4.33	4.63
TCLE	12	7.38	8.52	9.53	10.65	11.67	12.60	5.62	6.28	7.03	7.70	8.31	8.89	3.54	3.96	4.43	4.85	5.24	5.60
TJL	11	6.54	7.55	8.44	9.44	10.34	11.17	4.98	5.57	6.23	6.82	7.37	7.87	3.13	3.50	3.91	4.29	4.63	4.95
TJL	14	8.34	9.63	10.77	12.04	13.19	14.24	6.35	7.10	7.94	8.70	9.39	10.04	4.00	4.47	5.00	5.48	5.92	6.32

Refrigerant Liquid Temperature Valve Capacity Multiplier Correction Factors

	Refrigerant Liquid Temperature °F														
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140
R-12 Correction Factor	1.60	1.54	1.48	1.42	1.36	1.30	1.24	1.18	1.12	1.06	1.00	.94	.88	.82	.75
R-134a Correction Factor	1.70	1.63	1.56	1.49	1.42	1.36	1.29	1.21	1.14	1.07	1.00	.93	.85	.78	.71
R-22 Correction Factor	1.56	1.51	1.45	1.40	1.34	1.29	1.23	1.17	1.12	1.06	1.00	.94	.88	.82	.76
R-404A/R-507 Correction Factor	2.00	1.90	1.80	1.70	1.60	1.50	1.40	1.30	1.20	1.10	1.00	.90	.80	.70	.50

These factors include corrections for liquid refrigerant density and net refrigerating effect and are based on an average evaporator temperature of 0°F. However, they may be used for any evaporator temperature from -40°F to +40°F since the variation in the actual factors across this range is insignificant.

R-410A Conventional Valves (Tons)- A Series

Valve Type	Nominal Rating	Evaporator Temperature																	
		50°F						40°F						20°F					
		Pressure Drop Across Valve (PSI)						Pressure Drop Across Valve (PSI)						Pressure Drop Across Valve (PSI)					
		110	140	160	210	245	285	110	140	160	210	245	285	110	140	160	210	245	285
AA/AN/AAC/ANC	1/4	0.34	0.38	0.41	0.47	0.51	0.55	0.34	0.38	0.41	0.47	0.51	0.55	0.33	0.37	0.40	0.46	0.49	0.53
AA/AN/AAC/ANC/AFA	1/2	0.60	0.68	0.72	0.83	0.90	0.97	0.59	0.67	0.71	0.82	0.88	0.95	0.58	0.65	0.70	0.80	0.87	0.93
AA/AN/AAC/ANC/AFA	1	0.96	1.08	1.16	1.33	1.43	1.55	0.95	1.07	1.15	1.31	1.42	1.53	0.93	1.05	1.12	1.28	1.39	1.50
AA/AN/AAC/ANC/AFA	1-1/2	1.38	1.56	1.66	1.91	2.06	2.22	1.36	1.53	1.64	1.88	2.03	2.19	1.33	1.50	1.60	1.84	1.98	2.14
AA/AN/AAC/ANC/AFA	2	2.03	2.29	2.45	2.80	3.03	3.27	2.01	2.27	2.42	2.78	3.00	3.24	1.96	2.21	2.36	2.71	2.93	3.15
AA/AN/AAC/ANC/AFA	3	2.85	3.22	3.44	3.94	4.25	4.59	2.82	3.18	3.40	3.90	4.21	4.54	2.74	3.09	3.30	3.79	4.09	4.41
AA/AN/AAC/ANC/AFA	4	3.49	3.94	4.21	4.82	5.21	5.62	3.45	3.89	4.16	4.77	5.15	5.55	3.36	3.79	4.05	4.64	5.01	5.41
AA/AN/AAC/ANC	5	4.14	4.67	4.99	5.72	6.18	6.66	4.10	4.63	4.94	5.66	6.12	6.60	3.99	4.50	4.81	5.51	5.95	6.42

Valve Type	Nominal Rating	Evaporator Temperature																	
		0°F						-20°F						-40°F					
		Pressure Drop Across Valve (PSI)						Pressure Drop Across Valve (PSI)						Pressure Drop Across Valve (PSI)					
		140	160	210	245	285	330	140	160	210	245	285	330	140	160	210	245	285	330
AA/AN/AAC/ANC	1/4	0.34	0.36	0.42	0.45	0.49	0.52	0.24	0.26	0.29	0.32	0.34	0.37	0.16	0.17	0.20	0.21	0.23	0.25
AA/AN/AAC/ANC/AFA	1/2	0.60	0.64	0.73	0.79	0.86	0.92	0.41	0.44	0.50	0.54	0.58	0.63	0.27	0.29	0.33	0.36	0.39	0.41
AA/AN/AAC/ANC/AFA	1	0.95	1.02	1.16	1.26	1.36	1.46	0.66	0.71	0.81	0.87	0.94	1.01	0.44	0.47	0.54	0.58	0.63	0.68
AA/AN/AAC/ANC/AFA	1-1/2	1.36	1.45	1.67	1.80	1.94	2.09	0.95	1.02	1.16	1.26	1.36	1.46	0.63	0.67	0.77	0.83	0.90	0.97
AA/AN/AAC/ANC/AFA	2	2.01	2.15	2.46	2.66	2.87	3.09	1.40	1.50	1.71	1.85	2.00	2.15	0.93	0.99	1.14	1.23	1.33	1.43
AA/AN/AAC/ANC/AFA	3	2.82	3.01	3.45	3.73	4.02	4.33	1.96	2.10	2.40	2.59	2.80	3.01	1.30	1.39	1.59	1.72	1.85	2.00
AA/AN/AAC/ANC/AFA	4	3.46	3.70	4.24	4.58	4.94	5.31	2.40	2.57	2.94	3.17	3.42	3.68	1.60	1.71	1.96	2.12	2.28	2.46
AA/AN/AAC/ANC	5	4.10	4.38	5.02	5.42	5.85	6.29	2.85	3.05	3.49	3.77	4.07	4.38	1.89	2.02	2.31	2.50	2.70	2.90

Refrigerant Liquid Temperature Valve Capacity Multiplier Correction Factors

	Refrigerant Liquid Temperature °F														
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140
R-12 Correction Factor	1.60	1.54	1.48	1.42	1.36	1.30	1.24	1.18	1.12	1.06	1.00	.94	.88	.82	.75
R-134a Correction Factor	1.70	1.63	1.56	1.49	1.42	1.36	1.29	1.21	1.14	1.07	1.00	.93	.85	.78	.71
R-22 Correction Factor	1.56	1.51	1.45	1.40	1.34	1.29	1.23	1.17	1.12	1.06	1.00	.94	.88	.82	.76
R-404A/R-507 Correction Factor	2.00	1.90	1.80	1.70	1.60	1.50	1.40	1.30	1.20	1.10	1.00	.90	.80	.70	.50

These factors include corrections for liquid refrigerant density and net refrigerating effect and are based on an average evaporator temperature of 0°F. However, they may be used for any evaporator temperature from -40°F to +40°F since the variation in the actual factors across this range is insignificant.

Thermal Expansion Valves
Solenoid Valves
Coils
Industrial Solenoid Valves
Shut Off Valves
System Protectors
Storage Devices
Oil Controls
Pressure Regulators
Temperature Pressure Controls
Competitive Cross Reference

R-502 Conventional Valves (Tons)– A Series and T Series

20°F	Nominal Rating	Evaporator Temperature																	
		50°F							40°F										
		Pressure Drop Across Valve (PSI)							Pressure Drop Across Valve (PSI)										
Valve Type	60	80	100	125	150	175	60	80	100	125	150	175	60	80	100	125	150	175	
AA/AN/AAC/ANC	1/8	0.17	0.20	0.22	0.25	0.27	0.29	0.17	0.20	0.22	0.25	0.27	0.29	0.16	0.18	0.21	0.23	0.25	0.27
AA/AN/AAC/ANC/AFA	1/4	0.30	0.35	0.39	0.43	0.47	0.51	0.29	0.33	0.37	0.42	0.46	0.50	0.28	0.32	0.36	0.40	0.44	0.48
AA/AN/AAC/ANC/AFA	1/2	0.48	0.55	0.62	0.69	0.76	0.82	0.47	0.54	0.61	0.68	0.74	0.80	0.45	0.52	0.58	0.65	0.71	0.77
AA/AN/AAC/ANC/AFA	1	0.68	0.79	0.88	0.98	1.08	1.16	0.67	0.77	0.86	0.97	1.06	1.14	0.64	0.74	0.83	0.92	1.01	1.09
AA/AN/AAC/ANC/AFA	1-1/2	1.41	1.63	1.82	2.04	2.23	2.41	1.38	1.59	1.78	1.99	2.18	2.36	1.32	1.52	1.70	1.91	2.09	2.25
AA/AN/AAC/ANC/AFA	2	1.73	2.00	2.23	2.50	2.74	2.95	1.69	1.95	2.18	2.44	2.67	2.89	1.62	1.87	2.09	2.34	2.56	2.77
AA/AN/AAC/ANC	2-1/2	2.05	2.37	2.65	2.96	3.24	3.50	2.01	2.32	2.59	2.90	3.18	3.43	1.92	2.22	2.48	2.77	3.04	3.28
AA/AN/AAC/ANC/AFA	3	2.81	3.24	3.63	4.06	4.44	4.80	2.75	3.18	3.55	3.97	4.35	4.70	2.62	3.03	3.38	3.78	4.14	4.47
TCLE	1/4	0.26	0.30	0.34	0.38	0.41	0.44	0.25	0.29	0.32	0.36	0.40	0.43	0.24	0.28	0.31	0.35	0.38	0.41
TCLE	1/2	0.48	0.55	0.62	0.69	0.76	0.82	0.47	0.54	0.61	0.68	0.74	0.80	0.45	0.52	0.58	0.65	0.71	0.77
TCLE	1	0.97	1.12	1.25	1.40	1.53	1.66	0.95	1.10	1.23	1.37	1.50	1.62	0.91	1.05	1.17	1.31	1.44	1.55
TCLE	2	1.80	2.08	2.32	2.60	2.85	3.07	1.76	2.03	2.27	2.54	2.78	3.01	1.68	1.94	2.17	2.42	2.66	2.87
TCLE	3	2.62	3.03	3.38	3.78	4.14	4.47	2.56	2.96	3.30	3.70	4.05	4.37	2.44	2.82	3.15	3.52	3.86	4.17
TCLE	4-1/2	3.80	4.39	4.91	5.48	6.01	6.49	3.72	4.30	4.80	5.37	5.88	6.35	3.55	4.10	4.58	5.12	5.61	6.06
TCLE	7	5.23	6.04	6.75	7.55	8.27	8.93	5.12	5.91	6.61	7.39	8.10	8.74	4.89	5.65	6.31	7.06	7.73	8.35
TCLE	8	6.31	7.29	8.15	9.11	9.98	10.78	6.18	7.14	7.98	8.92	9.77	10.55	5.90	6.81	7.62	8.52	9.33	10.08
TJL	7	5.59	6.45	7.22	8.07	8.84	9.55	5.47	6.32	7.06	7.90	8.65	9.34	5.22	6.03	6.74	7.53	8.25	8.91
TJL	9	7.13	8.23	9.20	10.29	11.27	12.18	6.98	8.06	9.01	10.07	11.04	11.92	6.66	7.69	8.60	9.61	10.53	11.37

Valve Type	Nominal Rating	Evaporator Temperature																	
		0°F					-20°F					-40°F							
		Pressure Drop Across Valve (PSI)					Pressure Drop Across Valve (PSI)					Pressure Drop Across Valve (PSI)							
60	80	100	125	150	80	100	125	150	175	200	80	100	125	150	175	200			
AA/AN/AAC/ANC	1/8	0.15	0.17	0.19	0.22	0.24	0.26	0.11	0.12	0.14	0.15	0.16	0.17	0.07	0.08	0.09	0.10	0.10	0.11
AA/AN/AAC/ANC/AFA	1/4	0.26	0.30	0.34	0.38	0.41	0.44	0.20	0.22	0.25	0.27	0.30	0.32	0.13	0.15	0.16	0.18	0.19	0.21
AA/AN/AAC/ANC/AFA	1/2	0.41	0.47	0.53	0.59	0.65	0.70	0.32	0.36	0.40	0.44	0.47	0.51	0.21	0.23	0.26	0.29	0.31	0.33
AA/AN/AAC/ANC/AFA	1	0.59	0.68	0.76	0.85	0.93	1.01	0.46	0.51	0.58	0.63	0.68	0.73	0.29	0.32	0.36	0.40	0.43	0.46
AA/AN/AAC/ANC/AFA	1-1/2	1.21	1.40	1.56	1.75	1.91	2.07	0.96	1.07	1.20	1.31	1.42	1.52	0.61	0.68	0.76	0.84	0.90	0.96
AA/AN/AAC/ANC/AFA	2	1.49	1.72	1.92	2.15	2.36	2.54	1.17	1.31	1.46	1.60	1.73	1.85	0.75	0.84	0.94	1.03	1.11	1.19
AA/AN/AAC/ANC	2-1/2	1.76	2.03	2.27	2.54	2.78	3.01	1.39	1.55	1.74	1.90	2.06	2.20	0.89	1.00	1.11	1.22	1.32	1.41
AA/AN/AAC/ANC/AFA	3	2.41	2.78	3.11	3.48	3.81	4.12	1.90	2.12	2.38	2.60	2.81	3.00	1.21	1.35	1.51	1.66	1.79	1.91
TCLE	1/4	0.22	0.25	0.28	0.32	0.35	0.38	0.17	0.19	0.21	0.23	0.25	0.27	0.11	0.12	0.14	0.15	0.16	0.17
TCLE	1/2	0.41	0.47	0.53	0.59	0.65	0.70	0.33	0.37	0.41	0.45	0.49	0.52	0.21	0.23	0.26	0.29	0.31	0.33
TCLE	1	0.84	0.97	1.08	1.21	1.33	1.43	0.66	0.74	0.83	0.90	0.98	1.04	0.42	0.47	0.53	0.58	0.62	0.66
TCLE	2	1.54	1.78	1.99	2.22	2.43	2.63	1.22	1.36	1.53	1.67	1.80	1.93	0.78	0.87	0.98	1.07	1.15	1.23
TCLE	3	2.25	2.60	2.90	3.25	3.56	3.84	1.78	1.99	2.23	2.44	2.63	2.81	1.13	1.26	1.41	1.55	1.67	1.79
TCLE	4-1/2	3.26	3.76	4.21	4.71	5.15	5.57	2.58	2.88	3.23	3.53	3.82	4.08	1.64	1.83	2.05	2.25	2.43	2.59
TCLE	7	4.50	5.20	5.81	6.50	7.12	7.69	3.55	3.97	4.44	4.86	5.25	5.61	2.26	2.53	2.83	3.09	3.34	3.57
TCLE	8	5.42	6.26	7.00	7.82	8.57	9.26	4.28	4.79	5.35	5.86	6.33	6.77	2.73	3.05	3.41	3.74	4.04	4.32
TJL	7	4.81	5.55	6.21	6.94	7.61	8.21	3.80	4.25	4.75	5.20	5.62	6.01	2.42	2.71	3.03	3.31	3.58	3.83
TJL	9	6.13	7.08	7.91	8.85	9.69	10.47	4.84	5.41	6.05	6.63	7.16	7.65	3.08	3.44	3.85	4.22	4.56	4.87

Refrigerant Liquid Temperature Valve Capacity Multiplier Correction Factors

	Refrigerant Liquid Temperature °F														
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140
R-12 Correction Factor	1.60	1.54	1.48	1.42	1.36	1.30	1.24	1.18	1.12	1.06	1.00	.94	.88	.82	.75
R-134a Correction Factor	1.70	1.63	1.56	1.49	1.42	1.36	1.29	1.21	1.14	1.07	1.00	.93	.85	.78	.71
R-22 Correction Factor	1.56	1.51	1.45	1.40	1.34	1.29	1.23	1.17	1.12	1.06	1.00	.94	.88	.82	.76
R-404A/R-507 Correction Factor	2.00	1.90	1.80	1.70	1.60	1.50	1.40	1.30	1.20	1.10	1.00	.90	.80	.70	.50

These factors include corrections for liquid refrigerant density and net refrigerating effect and are based on an average evaporator temperature of 0°F. However, they may be used for any evaporator temperature from -40°F to +40°F since the variation in the actual factors across this range is insignificant.

R-12 Balanced Ported Valves (Tons)– B, HF, TFE, TRAE and T Series

Valve Type	Nominal Rating	Evaporator Temperature																	
		50°F						40°F						20°F					
		Pressure Drop Across Valve (PSI)						Pressure Drop Across Valve (PSI)						Pressure Drop Across Valve (PSI)					
	60	80	100	125	150	175	60	80	100	125	150	175	60	80	100	125	150	175	
BA/BN	1/4	0.30	0.35	0.39	0.43	0.47	0.51	0.30	0.35	0.39	0.43	0.47	0.51	0.28	0.32	0.36	0.40	0.44	0.48
BA/BN	1/2	0.57	0.66	0.74	0.82	0.90	0.97	0.56	0.65	0.72	0.81	0.89	0.96	0.54	0.62	0.70	0.78	0.85	0.92
BA/BN	1	0.90	1.04	1.16	1.30	1.42	1.54	0.88	1.02	1.14	1.27	1.39	1.50	0.84	0.97	1.08	1.21	1.33	1.43
BA/BN	1-1/4	1.20	1.39	1.55	1.73	1.90	2.05	1.17	1.35	1.51	1.69	1.85	2.00	1.13	1.30	1.46	1.63	1.79	1.93
BA/BN	1-1/2	1.51	1.74	1.95	2.18	2.39	2.58	1.48	1.71	1.91	2.14	2.34	2.53	1.42	1.64	1.83	2.05	2.25	2.43
BA/BN	2	1.83	2.11	2.36	2.64	2.89	3.13	1.80	2.08	2.32	2.60	2.85	3.07	1.72	1.99	2.22	2.48	2.72	2.94
BA/BN	2-1/2	2.37	2.74	3.06	3.42	3.75	4.05	2.33	2.69	3.01	3.36	3.68	3.98	2.23	2.57	2.88	3.22	3.53	3.81
BA/BN	3	3.00	3.46	3.87	4.33	4.74	5.12	2.94	3.39	3.80	4.24	4.65	5.02	2.82	3.26	3.64	4.07	4.46	4.82
BA/BN	3-1/2	3.73	4.31	4.82	5.38	5.90	6.37	3.66	4.23	4.73	5.28	5.79	6.25	3.51	4.05	4.53	5.07	5.55	5.99
HF	1/8	0.17	0.20	0.22	0.25	0.27	0.29	0.17	0.20	0.22	0.25	0.27	0.29	0.16	0.18	0.21	0.23	0.25	0.27
HF	1/4	0.32	0.37	0.41	0.46	0.51	0.55	0.31	0.36	0.40	0.45	0.49	0.53	0.30	0.35	0.39	0.43	0.47	0.51
HF	1/2	0.57	0.66	0.74	0.82	0.90	0.97	0.56	0.65	0.72	0.81	0.89	0.96	0.54	0.62	0.70	0.78	0.85	0.92
HF	1	0.88	1.02	1.14	1.27	1.39	1.50	0.86	0.99	1.11	1.24	1.36	1.47	0.82	0.95	1.06	1.18	1.30	1.40
HF	1-1/4	1.18	1.36	1.52	1.70	1.87	2.02	1.16	1.34	1.50	1.67	1.83	1.98	1.11	1.28	1.43	1.60	1.76	1.90
HF	1-1/2	1.51	1.74	1.95	2.18	2.39	2.58	1.48	1.71	1.91	2.14	2.34	2.53	1.42	1.64	1.83	2.05	2.25	2.43
HF	2	2.00	2.31	2.58	2.89	3.16	3.42	1.96	2.26	2.53	2.83	3.10	3.35	1.88	2.17	2.43	2.71	2.97	3.21
HF	3-1/2	3.55	4.10	4.58	5.12	5.61	6.06	3.48	4.02	4.49	5.02	5.50	5.94	3.34	3.86	4.31	4.82	5.28	5.70
HF	5	4.94	5.70	6.38	7.13	7.81	8.44	4.85	5.60	6.26	7.00	7.67	8.28	4.65	5.37	6.00	6.71	7.35	7.94
HF	6	6.26	7.23	8.08	9.04	9.90	10.69	6.13	7.08	7.91	8.85	9.69	10.47	5.88	6.79	7.59	8.49	9.30	10.04
HF	9	9.28	10.72	11.98	13.39	14.67	15.85	9.10	10.51	11.75	13.13	14.39	15.54	8.73	10.08	11.27	12.60	13.80	14.91
HF	12	12.22	14.11	15.78	17.64	19.32	20.87	11.98	13.83	15.47	17.29	18.94	20.46	11.49	13.27	14.83	16.58	18.17	19.62
TRAE+	7-1/2	7.14	8.24	9.22	10.31	11.29	12.19	7.00	8.08	9.04	10.10	11.07	11.95	6.71	7.75	8.66	9.69	10.61	11.46
TRAE+	10	10.41	12.02	13.44	15.03	16.46	17.78	10.20	11.78	13.17	14.72	16.13	17.42	9.78	11.29	12.63	14.12	15.46	16.70
TRAE+	12	11.62	13.42	15.00	16.77	18.37	19.84	11.39	13.15	14.70	16.44	18.01	19.45	10.92	12.61	14.10	15.76	17.27	18.65
TRAE+	18	17.61	20.33	22.73	25.42	27.84	30.07	17.26	19.93	22.28	24.91	27.29	29.48	16.55	19.11	21.37	23.89	26.17	28.26
TRAE+	25	24.20	27.94	31.24	34.93	38.26	41.33	23.73	27.40	30.64	34.25	37.52	40.53	22.75	26.27	29.37	32.84	35.97	38.85
TRAE	30	32.67	37.72	42.18	47.16	51.66	55.79	32.03	36.99	41.35	46.23	50.64	54.70	30.72	35.47	39.66	44.34	48.57	52.46
TRAE	35	35.64	41.15	46.01	51.44	56.35	60.87	34.94	40.35	45.11	50.43	55.24	59.67	33.51	38.69	43.26	48.37	52.98	57.23
TRAE	40	42.41	48.97	54.75	61.21	67.06	72.43	41.58	48.01	53.68	60.02	65.74	71.01	39.88	46.05	51.48	57.56	63.06	68.11
TJR	8	8.89	10.27	11.48	12.83	14.06	15.18	8.72	10.07	11.26	12.59	13.79	14.89	8.36	9.65	10.79	12.07	13.22	14.28
TJR	11	10.65	12.30	13.75	15.37	16.84	18.19	10.44	12.06	13.48	15.07	16.51	17.83	10.01	11.56	12.92	14.45	15.83	17.10
TER	13	13.31	15.37	17.18	19.21	21.04	22.73	13.05	15.07	16.85	18.84	20.63	22.29	12.51	14.45	16.15	18.06	19.78	21.36
TER	15	15.73	18.16	20.31	22.70	24.87	26.86	15.42	17.81	19.91	22.26	24.38	26.33	14.79	17.08	19.09	21.35	23.39	25.26
TER	20	21.18	24.46	27.34	30.57	33.49	36.17	20.76	23.97	26.80	29.96	32.82	35.45	19.91	22.99	25.70	28.74	31.48	34.00
TER	25	27.23	31.44	35.15	39.30	43.05	46.50	26.69	30.82	34.46	38.52	42.20	45.58	25.60	29.56	33.05	36.95	40.48	43.72
TIR	35	31.29	36.13	40.40	45.16	49.47	53.44	23.63	27.29	30.51	34.11	37.36	40.36	31.29	36.13	40.40	45.16	49.47	53.44
THR	45	42.35	48.90	54.67	61.13	66.96	72.33	41.52	47.94	53.60	59.93	65.65	70.91	39.82	45.98	51.41	57.48	62.96	68.01
THR	55	51.43	59.39	66.40	74.23	81.32	87.83	50.42	58.22	65.09	72.78	79.72	86.11	48.35	55.83	62.42	69.79	76.45	82.57
TMR	55	60.50	69.86	78.11	87.32	95.66	103.32	59.32	68.50	76.58	85.62	93.79	101.31	56.89	65.69	73.44	82.11	89.95	97.16

Refrigerant Liquid Temperature Valve Capacity Multiplier Correction Factors

	Refrigerant Liquid Temperature °F														
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140
R-12 Correction Factor	1.60	1.54	1.48	1.42	1.36	1.30	1.24	1.18	1.12	1.06	1.00	.94	.88	.82	.75
R-134a Correction Factor	1.70	1.63	1.56	1.49	1.42	1.36	1.29	1.21	1.14	1.07	1.00	.93	.85	.78	.71
R-22 Correction Factor	1.56	1.51	1.45	1.40	1.34	1.29	1.23	1.17	1.12	1.06	1.00	.94	.88	.82	.76
R-404A/R-507 Correction	2.00	1.90	1.80	1.70	1.60	1.50	1.40	1.30	1.20	1.10	1.00	.90	.80	.70	.50

These factors include corrections for liquid refrigerant density and net refrigerating effect and are based on an average evaporator temperature of 0°F. However, they may be used for any evaporator temperature from -40°F to +40°F since the variation in the actual factors across this range is insignificant.

Thermal Expansion Valves
Solenoid Valves
Coils
Industrial Solenoid Valves
Shut Off Valves
System Protectors
Storage Devices
Oil Controls
Pressure Regulators
Temperature Pressure Controls
Competitive Cross Reference

R-12 Balanced Ported Valves (Tons)– B, HF, TFE, TRAE and T Series (cont.)

Valve Type	Nominal Rating	Evaporator Temperature																	
		0°F						-20°F						-40°F					
		Pressure Drop Across Valve (PSI)						Pressure Drop Across Valve (PSI)						Pressure Drop Across Valve (PSI)					
		60	80	100	125	150	175	80	100	125	150	175	200	80	100	125	150	175	200
BA/BN	1/4	0.25	0.29	0.32	0.36	0.40	0.43	0.20	0.22	0.25	0.27	0.30	0.32	0.13	0.15	0.16	0.18	0.19	0.21
BA/BN	1/2	0.48	0.55	0.62	0.69	0.76	0.82	0.38	0.42	0.48	0.52	0.56	0.60	0.24	0.27	0.30	0.33	0.35	0.38
BA/BN	1	0.75	0.87	0.97	1.08	1.19	1.28	0.58	0.65	0.73	0.79	0.86	0.92	0.38	0.42	0.48	0.52	0.56	0.60
BA/BN	1-1/4	1.00	1.15	1.29	1.44	1.58	1.71	0.78	0.87	0.98	1.07	1.15	1.23	0.51	0.57	0.64	0.70	0.75	0.81
BA/BN	1-1/2	1.26	1.45	1.63	1.82	1.99	2.15	0.99	1.11	1.24	1.36	1.46	1.57	0.64	0.72	0.80	0.88	0.95	1.01
BA/BN	2	1.53	1.77	1.98	2.21	2.42	2.61	1.20	1.34	1.50	1.64	1.77	1.90	0.78	0.87	0.98	1.07	1.15	1.23
BA/BN	2-1/2	1.98	2.29	2.56	2.86	3.13	3.38	1.55	1.73	1.94	2.12	2.29	2.45	1.01	1.13	1.26	1.38	1.49	1.60
BA/BN	3	2.50	2.89	3.23	3.61	3.95	4.27	1.96	2.19	2.45	2.68	2.90	3.10	1.27	1.42	1.59	1.74	1.88	2.01
BA/BN	3-1/2	3.11	3.59	4.01	4.49	4.92	5.31	2.44	2.73	3.05	3.34	3.61	3.86	1.58	1.77	1.98	2.16	2.34	2.50
HF	1/8	0.14	0.16	0.18	0.20	0.22	0.24	0.11	0.12	0.14	0.15	0.16	0.17	0.07	0.08	0.09	0.10	0.10	0.11
HF	1/4	0.27	0.31	0.35	0.39	0.43	0.46	0.21	0.23	0.26	0.29	0.31	0.33	0.14	0.16	0.18	0.19	0.21	0.22
HF	1/2	0.48	0.55	0.62	0.69	0.76	0.82	0.38	0.42	0.48	0.52	0.56	0.60	0.24	0.27	0.30	0.33	0.35	0.38
HF	1	0.73	0.84	0.94	1.05	1.15	1.25	0.57	0.64	0.71	0.78	0.84	0.90	0.37	0.41	0.46	0.51	0.55	0.59
HF	1-1/4	0.98	1.13	1.27	1.41	1.55	1.67	0.77	0.86	0.96	1.05	1.14	1.22	0.50	0.56	0.63	0.68	0.74	0.79
HF	1-1/2	1.26	1.45	1.63	1.82	1.99	2.15	0.99	1.11	1.24	1.36	1.46	1.57	0.64	0.72	0.80	0.88	0.95	1.01
HF	2	1.66	1.92	2.14	2.40	2.62	2.83	1.30	1.45	1.63	1.78	1.92	2.06	0.85	0.95	1.06	1.16	1.26	1.34
HF	3-1/2	2.96	3.42	3.82	4.27	4.68	5.06	2.32	2.59	2.90	3.18	3.43	3.67	1.51	1.69	1.89	2.07	2.23	2.39
HF	5	4.12	4.76	5.32	5.95	6.51	7.04	3.23	3.61	4.04	4.42	4.78	5.11	2.10	2.35	2.63	2.88	3.11	3.32
HF	6	5.21	6.02	6.73	7.52	8.24	8.90	4.08	4.56	5.10	5.59	6.03	6.45	2.66	2.97	3.33	3.64	3.93	4.21
HF	9	7.73	8.93	9.98	11.16	12.22	13.20	6.06	6.78	7.58	8.30	8.96	9.58	3.94	4.41	4.93	5.40	5.83	6.23
HF	12	10.17	11.74	13.13	14.68	16.08	17.37	7.97	8.91	9.96	10.91	11.79	12.60	5.18	5.79	6.48	7.09	7.66	8.19
TRAE+	7-1/2	5.95	6.87	7.68	8.59	9.41	10.16	4.66	5.21	5.83	6.38	6.89	7.37	3.03	3.39	3.79	4.15	4.48	4.79
TRAE+	10	8.67	10.01	11.19	12.51	13.71	14.81	6.79	7.59	8.49	9.30	10.04	10.74	4.42	4.94	5.53	6.05	6.54	6.99
TRAE+	12	9.67	11.17	12.48	13.96	15.29	16.51	7.58	8.47	9.48	10.38	11.21	11.99	4.93	5.51	6.16	6.75	7.29	7.80
TRAE+	18	14.66	16.93	18.93	21.16	23.18	25.04	11.49	12.85	14.36	15.73	16.99	18.17	7.47	8.35	9.34	10.23	11.05	11.81
TRAE+	25	20.15	23.27	26.01	29.08	31.86	34.41	15.80	17.66	19.75	21.64	23.37	24.98	10.27	11.48	12.84	14.06	15.19	16.24
TRAE	30	27.21	31.42	35.13	39.27	43.02	46.47	21.33	23.85	26.66	29.21	31.55	33.73	13.87	15.51	17.34	18.99	20.51	21.93
TRAE	35	29.68	34.27	38.32	42.84	46.93	50.69	23.26	26.01	29.08	31.85	34.40	36.78	15.13	16.92	18.91	20.72	22.38	23.92
TRAE	40	35.32	40.78	45.60	50.98	55.85	60.32	27.68	30.95	34.60	37.90	40.94	43.77	18.00	20.12	22.50	24.65	26.62	28.46
TJR	8	7.41	8.56	9.57	10.70	11.72	12.65	5.81	6.50	7.26	7.96	8.59	9.19	3.77	4.21	4.71	5.16	5.58	5.96
TJR	11	8.87	10.24	11.45	12.80	14.02	15.15	6.95	7.77	8.69	9.52	10.28	10.99	4.52	5.05	5.65	6.19	6.69	7.15
TER	13	11.08	12.79	14.30	15.99	17.52	18.92	8.69	9.72	10.86	11.90	12.85	13.74	5.65	6.32	7.06	7.74	8.36	8.93
TER	15	13.10	15.13	16.91	18.91	20.71	22.37	10.27	11.48	12.84	14.06	15.19	16.24	6.68	7.47	8.35	9.15	9.88	10.56
TER	20	17.64	20.37	22.77	25.46	27.89	30.13	13.82	15.45	17.28	18.92	20.44	21.85	8.99	10.05	11.24	12.31	13.30	14.21
TER	25	22.67	26.18	29.27	32.72	35.84	38.72	17.77	19.87	22.21	24.33	26.28	28.10	11.56	12.92	14.45	15.83	17.10	18.28
TIR	35	27.71	32.00	35.77	40.00	43.81	47.32	21.72	24.28	27.15	29.74	32.12	34.34	14.12	15.79	17.65	19.33	20.88	22.33
THR	45	35.27	40.73	45.53	50.91	55.77	60.23	27.64	30.90	34.55	37.85	40.88	43.70	17.98	20.10	22.48	24.62	26.59	28.43
THR	55	42.83	49.46	55.29	61.82	67.72	73.15	33.57	37.53	41.96	45.97	49.65	53.08	21.83	24.41	27.29	29.89	32.29	34.52
TMR	55	50.39	58.19	65.05	72.73	79.67	86.06	39.49	44.15	49.36	54.07	58.41	62.44	25.68	28.71	32.10	35.16	37.98	40.60

Refrigerant Liquid Temperature Valve Capacity Multiplier Correction Factors

	Refrigerant Liquid Temperature °F														
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140
R-12 Correction Factor	1.60	1.54	1.48	1.42	1.36	1.30	1.24	1.18	1.12	1.06	1.00	.94	.88	.82	.75
R-134a Correction Factor	1.70	1.63	1.56	1.49	1.42	1.36	1.29	1.21	1.14	1.07	1.00	.93	.85	.78	.71
R-22 Correction Factor	1.56	1.51	1.45	1.40	1.34	1.29	1.23	1.17	1.12	1.06	1.00	.94	.88	.82	.76
R-404A/R-507 Correction Factor	2.00	1.90	1.80	1.70	1.60	1.50	1.40	1.30	1.20	1.10	1.00	.90	.80	.70	.50

These factors include corrections for liquid refrigerant density and net refrigerating effect and are based on an average evaporator temperature of 0°F. However, they may be used for any evaporator temperature from -40°F to +40°F since the variation in the actual factors across this range is insignificant.

R-22 Balanced Ported Valves (Tons)– B, HF, TFE, TRAE and T Series

Valve Type	Nominal Rating	EVaporator Temperature																	
		50°F					40°F					20°F							
		Pressure Drop Across Valve (PSI)					Pressure Drop Across Valve (PSI)					Pressure Drop Across Valve (PSI)							
		60	80	100	125	150	175	60	80	100	125	150	175	60	80	100	125	150	175
BA/BN	1/2	0.39	0.45	0.50	0.56	0.62	0.67	0.39	0.45	0.50	0.56	0.61	0.66	0.38	0.44	0.49	0.55	0.60	0.65
BA/BN	1	0.75	0.87	0.97	1.08	1.19	1.28	0.74	0.85	0.95	1.06	1.16	1.26	0.72	0.83	0.93	1.04	1.14	1.23
BA/BN	1-1/2	1.16	1.34	1.50	1.67	1.83	1.98	1.15	1.32	1.48	1.65	1.81	1.96	1.12	1.29	1.45	1.62	1.77	1.91
BA/BN	2	1.56	1.80	2.01	2.25	2.47	2.66	1.53	1.77	1.98	2.21	2.42	2.62	1.50	1.73	1.94	2.17	2.37	2.56
BA/BN	2-1/2	1.96	2.26	2.53	2.83	3.10	3.35	1.94	2.24	2.50	2.80	3.06	3.31	1.89	2.18	2.44	2.73	2.99	3.23
BA/BN	3	2.38	2.75	3.07	3.44	3.76	4.06	2.35	2.71	3.03	3.39	3.71	4.01	2.29	2.64	2.96	3.31	3.62	3.91
BA/BN	4	3.08	3.56	3.98	4.45	4.87	5.26	3.04	3.51	3.92	4.38	4.80	5.19	2.97	3.43	3.83	4.29	4.70	5.07
BA/BN	5	3.90	4.50	5.03	5.63	6.17	6.66	3.85	4.45	4.97	5.56	6.09	6.57	3.75	4.33	4.84	5.41	5.93	6.40
BA/BN	6	4.85	5.60	6.26	7.00	7.67	8.28	4.78	5.52	6.17	6.90	7.56	8.16	4.67	5.39	6.03	6.74	7.38	7.98
HF	1/4	0.22	0.25	0.28	0.32	0.35	0.38	0.22	0.25	0.28	0.31	0.34	0.37	0.21	0.24	0.27	0.30	0.33	0.36
HF	1/2	0.42	0.48	0.54	0.61	0.66	0.72	0.41	0.47	0.53	0.59	0.65	0.70	0.40	0.46	0.52	0.58	0.63	0.68
HF	1	0.75	0.87	0.97	1.08	1.19	1.28	0.74	0.85	0.95	1.06	1.16	1.26	0.72	0.83	0.93	1.04	1.14	1.23
HF	1-1/2	1.14	1.32	1.47	1.65	1.80	1.95	1.12	1.30	1.45	1.62	1.78	1.92	1.10	1.27	1.42	1.59	1.74	1.88
HF	2	1.53	1.77	1.98	2.21	2.42	2.61	1.52	1.75	1.96	2.19	2.40	2.59	1.48	1.71	1.91	2.14	2.34	2.53
HF	2-1/2	1.96	2.26	2.53	2.83	3.10	3.35	1.94	2.25	2.51	2.81	3.07	3.32	1.89	2.18	2.44	2.73	2.99	3.23
HF	3	2.59	2.99	3.34	3.74	4.10	4.42	2.56	2.96	3.31	3.70	4.05	4.38	2.50	2.89	3.23	3.61	3.95	4.27
HF	5-1/2	4.61	5.32	5.95	6.65	7.29	7.87	4.56	5.27	5.89	6.59	7.21	7.79	4.44	5.13	5.73	6.41	7.02	7.58
HF	8	6.42	7.41	8.29	9.27	10.15	10.96	6.34	7.33	8.19	9.16	10.03	10.83	6.18	7.14	7.98	8.92	9.77	10.55
HF	10	8.13	9.39	10.50	11.73	12.85	13.88	8.06	9.30	10.40	11.63	12.74	13.76	7.83	9.04	10.11	11.30	12.38	13.37
HF	15	12.05	13.91	15.56	17.39	19.05	20.58	11.91	13.77	15.40	17.22	18.86	20.37	11.61	13.41	14.99	16.76	18.36	19.83
HF	20	15.87	18.33	20.49	22.91	25.09	27.10	15.68	18.07	20.20	22.58	24.74	26.72	15.28	17.64	19.73	22.05	24.16	26.10
TFE	8	6.30	7.27	8.13	9.09	9.96	10.76	6.23	7.19	8.04	8.99	9.85	10.64	6.07	7.01	7.84	8.76	9.60	10.37
TFE	10	8.63	9.97	11.14	12.46	13.65	14.74	8.53	9.85	11.01	12.31	13.48	14.56	8.31	9.60	10.73	11.99	13.14	14.19
TFE	12	10.71	12.37	13.83	15.46	16.93	18.29	10.59	12.23	13.67	15.28	16.74	18.08	10.32	11.92	13.32	14.90	16.32	17.62
TFE	20	16.35	18.88	21.11	23.60	25.85	27.92	16.17	18.67	20.87	23.33	25.56	27.61	15.75	18.19	20.33	22.73	24.90	26.90
TRAE+	10	9.27	10.70	11.97	13.38	14.66	15.83	9.16	10.58	11.83	13.23	14.49	15.65	8.93	10.31	11.53	12.89	14.12	15.25
TRAE+	15	13.52	15.61	17.45	19.51	21.38	23.09	13.36	15.43	17.25	19.29	21.13	22.82	13.02	15.03	16.81	18.79	20.59	22.24
TRAE+	20	15.09	17.42	19.48	21.78	23.86	25.77	14.91	17.22	19.25	21.52	23.58	25.47	14.53	16.78	18.76	20.97	22.97	24.81
TRAE+	30	22.87	26.41	29.53	33.01	36.16	39.06	22.60	26.10	29.18	32.62	35.74	38.60	22.02	25.43	28.43	31.78	34.82	37.61
TRAE+	40	31.43	36.29	40.58	45.37	49.70	53.68	31.07	35.88	40.11	44.84	49.12	53.06	30.27	34.95	39.08	43.69	47.86	51.70
TRAE	50	42.43	48.99	54.78	61.24	67.09	72.46	41.94	48.42	54.14	60.53	66.31	71.62	40.87	47.19	52.76	58.99	64.62	69.80
TRAE	60	46.28	53.44	59.75	66.80	73.18	79.04	45.75	52.82	59.06	66.03	72.33	78.13	44.58	51.48	57.55	64.35	70.49	76.13
TRAE	70	55.09	63.61	71.12	79.52	87.10	94.08	54.45	62.87	70.29	78.59	86.09	92.98	53.06	61.27	68.50	76.59	83.90	90.62
TJR	14	11.55	13.34	14.91	16.67	18.26	19.73	11.42	13.18	14.74	16.48	18.05	19.50	11.13	12.85	14.37	16.06	17.60	19.01
TJR	18	13.83	15.97	17.85	19.96	21.87	23.62	13.67	15.79	17.65	19.73	21.62	23.35	13.32	15.38	17.20	19.23	21.06	22.75
TER	22	17.29	19.96	22.32	24.96	27.34	29.53	17.09	19.73	22.06	24.66	27.02	29.18	16.65	19.23	21.50	24.03	26.33	28.44
TER	26	20.43	23.59	26.38	29.49	32.30	34.89	20.19	23.32	26.07	29.15	31.93	34.49	19.68	22.72	25.41	28.41	31.12	33.61
TER	35	27.50	31.75	35.50	39.69	43.48	46.97	27.18	31.39	35.09	39.23	42.98	46.42	26.49	30.59	34.20	38.24	41.88	45.24
TER	45	35.36	40.83	45.65	51.04	55.91	60.39	34.95	40.36	45.12	50.45	55.26	59.69	34.06	39.33	43.97	49.16	53.85	58.17
TIR	55	43.22	49.91	55.80	62.38	68.34	73.81	42.72	49.33	55.15	61.66	67.54	72.96	41.63	48.07	53.74	60.09	65.82	71.10
THR	75	55.01	63.52	71.02	79.40	86.98	93.95	54.37	62.78	70.19	78.47	85.96	92.85	52.98	61.18	68.40	76.47	83.77	90.48
THR	85	66.79	77.12	86.23	96.40	105.60	114.07	66.02	76.23	85.23	95.29	104.39	112.75	64.33	74.28	83.05	92.85	101.71	109.86
TMR	100	78.58	90.74	101.45	113.42	124.25	134.20	77.67	89.68	100.27	112.11	122.81	132.64	75.69	87.40	97.72	109.25	119.68	129.27

Refrigerant Liquid Temperature Valve Capacity Multiplier Correction Factors

	Refrigerant Liquid Temperature °F														
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140
R-12 Correction Factor	1.60	1.54	1.48	1.42	1.36	1.30	1.24	1.18	1.12	1.06	1.00	.94	.88	.82	.75
R-134a Correction Factor	1.70	1.63	1.56	1.49	1.42	1.36	1.29	1.21	1.14	1.07	1.00	.93	.85	.78	.71
R-22 Correction Factor	1.56	1.51	1.45	1.40	1.34	1.29	1.23	1.17	1.12	1.06	1.00	.94	.88	.82	.76
R-404A/R-507 Correction Factor	2.00	1.90	1.80	1.70	1.60	1.50	1.40	1.30	1.20	1.10	1.00	.90	.80	.70	.50

These factors include corrections for liquid refrigerant density and net refrigerating effect and are based on an average evaporator temperature of 0°F. However, they may be used for any evaporator temperature from -40°F to +40°F since the variation in the actual factors across this range is insignificant.

Thermal Expansion Valves
Solenoid Valves
Coils
Industrial Solenoid Valves
Shut Off Valves
System Protectors
Storage Devices
Oil Controls
Pressure Regulators
Temperature Pressure Controls
Competitive Cross Reference

R-22 Balanced Ported Valves (Tons)– B, HF, TFE, TRAE and T Series (cont.)

Valve Type	Nominal Rating	Evaporator Temperature																	
		0°F						-20°F						-40°F					
		Pressure Drop Across Valve (PSI)						Pressure Drop Across Valve (PSI)						Pressure Drop Across Valve (PSI)					
		60	80	100	125	150	175	80	100	125	150	175	200	80	100	125	150	175	200
BA/BN	1/2	0.34	0.39	0.44	0.49	0.54	0.58	0.27	0.30	0.34	0.37	0.40	0.43	0.18	0.20	0.23	0.25	0.27	0.28
BA/BN	1	0.65	0.75	0.84	0.94	1.03	1.11	0.52	0.58	0.65	0.71	0.77	0.82	0.34	0.38	0.43	0.47	0.50	0.54
BA/BN	1-1/2	1.02	1.18	1.32	1.47	1.61	1.74	0.81	0.91	1.01	1.11	1.20	1.28	0.53	0.59	0.66	0.73	0.78	0.84
BA/BN	2	1.36	1.57	1.76	1.96	2.15	2.32	1.08	1.21	1.35	1.48	1.60	1.71	0.71	0.79	0.89	0.97	1.05	1.12
BA/BN	2-1/2	1.72	1.99	2.22	2.48	2.72	2.94	1.37	1.53	1.71	1.88	2.03	2.17	0.90	1.01	1.13	1.23	1.33	1.42
BA/BN	3	2.08	2.40	2.69	3.00	3.29	3.55	1.66	1.86	2.08	2.27	2.46	2.62	1.09	1.22	1.36	1.49	1.61	1.72
BA/BN	4	2.69	3.11	3.47	3.88	4.25	4.59	2.15	2.40	2.69	2.94	3.18	3.40	1.41	1.58	1.76	1.93	2.09	2.23
BA/BN	5	3.40	3.93	4.39	4.91	5.38	5.81	2.72	3.04	3.40	3.72	4.02	4.30	1.79	2.00	2.24	2.45	2.65	2.83
BA/BN	6	4.23	4.88	5.46	6.11	6.69	7.22	3.38	3.78	4.23	4.63	5.00	5.34	2.23	2.49	2.79	3.05	3.30	3.53
HF	1/4	0.19	0.22	0.25	0.27	0.30	0.32	0.15	0.17	0.19	0.21	0.22	0.24	0.10	0.11	0.13	0.14	0.15	0.16
HF	1/2	0.36	0.42	0.46	0.52	0.57	0.61	0.29	0.32	0.36	0.40	0.43	0.46	0.19	0.21	0.24	0.26	0.28	0.30
HF	1	0.65	0.75	0.84	0.94	1.03	1.11	0.52	0.58	0.65	0.71	0.77	0.82	0.34	0.38	0.43	0.47	0.50	0.54
HF	1-1/2	1.00	1.15	1.29	1.44	1.58	1.71	0.79	0.88	0.99	1.08	1.17	1.25	0.52	0.58	0.65	0.71	0.77	0.82
HF	2	1.34	1.55	1.73	1.93	2.12	2.29	1.07	1.20	1.34	1.47	1.58	1.69	0.70	0.78	0.88	0.96	1.04	1.11
HF	2-1/2	1.72	1.99	2.22	2.48	2.72	2.94	1.37	1.53	1.71	1.88	2.03	2.17	0.90	1.01	1.13	1.23	1.33	1.42
HF	3	2.26	2.61	2.92	3.26	3.57	3.86	1.81	2.02	2.26	2.48	2.68	2.86	1.19	1.33	1.49	1.63	1.76	1.88
HF	5-1/2	4.03	4.65	5.20	5.82	6.37	6.88	3.22	3.60	4.03	4.41	4.76	5.09	2.12	2.37	2.65	2.90	3.14	3.35
HF	8	5.61	6.48	7.24	8.10	8.87	9.58	4.48	5.01	5.60	6.13	6.63	7.08	2.95	3.30	3.69	4.04	4.36	4.66
HF	10	7.10	8.20	9.17	10.25	11.23	12.13	5.67	6.34	7.09	7.76	8.39	8.97	3.73	4.17	4.66	5.11	5.52	5.90
HF	15	10.53	12.16	13.59	15.20	16.65	17.98	8.40	9.39	10.50	11.50	12.42	13.28	5.53	6.18	6.91	7.57	8.18	8.74
HF	20	13.86	16.00	17.89	20.01	21.91	23.67	11.06	12.37	13.83	15.14	16.36	17.49	7.28	8.14	9.10	9.97	10.77	11.51
TFE	8	5.50	6.35	7.10	7.94	8.70	9.39	4.39	4.91	5.49	6.01	6.49	6.94	2.89	3.23	3.61	3.96	4.27	4.57
TFE	10	7.54	8.71	9.73	10.88	11.92	12.88	6.02	6.73	7.53	8.24	8.90	9.52	3.96	4.43	4.95	5.42	5.86	6.26
TFE	12	9.35	10.80	12.07	13.50	14.78	15.97	7.47	8.35	9.34	10.23	11.05	11.81	4.92	5.50	6.15	6.74	7.28	7.78
TFE	20	14.28	16.49	18.44	20.61	22.58	24.39	11.40	12.75	14.25	15.61	16.86	18.02	7.51	8.40	9.39	10.28	11.11	11.87
TRAE+	10	8.10	9.35	10.46	11.69	12.81	13.83	6.47	7.23	8.09	8.86	9.57	10.23	4.26	4.76	5.33	5.83	6.30	6.74
TRAE+	15	11.80	13.63	15.23	17.03	18.66	20.15	9.42	10.53	11.78	12.90	13.93	14.89	6.21	6.94	7.76	8.50	9.18	9.82
TRAE+	20	13.18	15.22	17.02	19.02	20.84	22.51	10.52	11.76	13.15	14.41	15.56	16.63	6.93	7.75	8.66	9.49	10.25	10.96
TRAE+	30	19.97	23.06	25.78	28.82	31.58	34.11	15.94	17.82	19.93	21.83	23.58	25.20	10.50	11.74	13.13	14.38	15.53	16.60
TRAE+	40	27.45	31.70	35.44	39.62	43.40	46.88	21.92	24.51	27.40	30.02	32.42	34.66	14.43	16.13	18.04	19.76	21.34	22.82
TRAE	50	37.06	42.79	47.84	53.49	58.60	63.29	29.59	33.08	36.99	40.52	43.76	46.79	19.48	21.78	24.35	26.67	28.81	30.80
TRAE	60	40.42	46.67	52.18	58.34	63.91	69.03	32.27	36.08	40.34	44.19	47.73	51.02	21.25	23.76	26.56	29.10	31.43	33.60
TRAE	70	48.11	55.55	62.11	69.44	76.07	82.16	38.41	42.94	48.01	52.60	56.81	60.73	25.29	28.28	31.61	34.63	37.40	39.99
TJR	14	10.09	11.65	13.03	14.56	15.95	17.23	8.05	9.00	10.06	11.02	11.91	12.73	5.30	5.93	6.63	7.26	7.84	8.38
TJR	18	12.08	13.95	15.60	17.44	19.10	20.63	9.64	10.78	12.05	13.20	14.26	15.24	6.35	7.10	7.94	8.70	9.39	10.04
TER	22	15.10	17.44	19.49	21.79	23.88	25.79	12.05	13.47	15.06	16.50	17.82	19.05	7.94	8.88	9.93	10.87	11.74	12.55
TER	26	17.84	20.60	23.03	25.75	28.21	30.47	14.25	15.93	17.81	19.51	21.08	22.53	9.38	10.49	11.73	12.84	13.87	14.83
TER	35	24.02	27.74	31.01	34.67	37.98	41.02	19.18	21.44	23.98	26.26	28.37	30.33	12.63	14.12	15.79	17.29	18.68	19.97
TER	45	30.88	35.66	39.87	44.57	48.83	52.74	24.66	27.57	30.83	33.77	36.47	38.99	16.24	18.16	20.30	22.24	24.02	25.68
TIR	55	37.75	43.59	48.74	54.49	59.69	64.47	30.13	33.69	37.66	41.26	44.56	47.64	19.84	22.18	24.80	27.17	29.34	31.37
THR	75	48.04	55.47	62.02	69.34	75.96	82.04	38.35	42.88	47.94	52.51	56.72	60.64	25.26	28.24	31.58	34.59	37.36	39.94
THR	85	58.33	67.35	75.30	84.19	92.23	99.62	46.57	52.07	58.21	63.77	68.88	73.63	30.67	34.29	38.34	42.00	45.36	48.49
TMR	100	68.63	79.25	88.60	99.06	108.51	117.21	54.79	61.26	68.49	75.02	81.04	86.63	36.08	40.34	45.10	49.40	53.36	57.05

Refrigerant Liquid Temperature Valve Capacity Multiplier Correction Factors

	Refrigerant Liquid Temperature °F														
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140
R-12 Correction Factor	1.60	1.54	1.48	1.42	1.36	1.30	1.24	1.18	1.12	1.06	1.00	.94	.88	.82	.75
R-134a Correction Factor	1.70	1.63	1.56	1.49	1.42	1.36	1.29	1.21	1.14	1.07	1.00	.93	.85	.78	.71
R-22 Correction Factor	1.56	1.51	1.45	1.40	1.34	1.29	1.23	1.17	1.12	1.06	1.00	.94	.88	.82	.76
R-404A/R-507 Correction Factor	2.00	1.90	1.80	1.70	1.60	1.50	1.40	1.30	1.20	1.10	1.00	.90	.80	.70	.50

These factors include corrections for liquid refrigerant density and net refrigerating effect and are based on an average evaporator temperature of 0°F. However, they may be used for any evaporator temperature from -40°F to +40°F since the variation in the actual factors across this range is insignificant.

R-134a Balanced Ported Valves (Tons)– B, HF, TFE, TRAE and T Series

Valve Type	Nominal Rating	Evaporator Temperature																	
		50°F						40°F						20°F					
		Pressure Drop Across Valve (PSI)						Pressure Drop Across Valve (PSI)						Pressure Drop Across Valve (PSI)					
		60	80	100	125	150	175	60	80	100	125	150	175	60	80	100	125	150	175
BA/BN	1/2	0.37	0.43	0.48	0.53	0.59	0.63	0.37	0.43	0.48	0.53	0.59	0.63	0.35	0.40	0.45	0.51	0.55	0.60
BA/BN	3/4	0.71	0.82	0.92	1.02	1.12	1.21	0.70	0.81	0.90	1.01	1.11	1.20	0.67	0.77	0.86	0.97	1.06	1.14
BA/BN	1	1.11	1.28	1.43	1.60	1.76	1.90	1.09	1.26	1.41	1.57	1.72	1.86	1.04	1.20	1.34	1.50	1.64	1.78
BA/BN	1-1/2	1.48	1.71	1.91	2.14	2.34	2.53	1.45	1.67	1.87	2.09	2.29	2.48	1.39	1.61	1.79	2.01	2.20	2.37
BA/BN	2	1.87	2.16	2.41	2.70	2.96	3.19	1.84	2.12	2.38	2.66	2.91	3.14	1.76	2.03	2.27	2.54	2.78	3.01
BA/BN	2-1/4	2.27	2.62	2.93	3.28	3.59	3.88	2.22	2.56	2.87	3.20	3.51	3.79	2.13	2.46	2.75	3.07	3.37	3.64
BA/BN	3	2.94	3.39	3.80	4.24	4.65	5.02	2.88	3.33	3.72	4.16	4.55	4.92	2.75	3.18	3.55	3.97	4.35	4.70
BA/BN	3-1/2	3.72	4.30	4.80	5.37	5.88	6.35	3.64	4.20	4.70	5.25	5.76	6.22	3.48	4.02	4.49	5.02	5.50	5.94
BA/BN	4-1/4	4.62	5.33	5.96	6.67	7.30	7.89	4.53	5.23	5.85	6.54	7.16	7.74	4.33	5.00	5.59	6.25	6.85	7.39
HF	1/4	0.21	0.24	0.27	0.30	0.33	0.36	0.21	0.24	0.27	0.30	0.33	0.36	0.20	0.23	0.26	0.29	0.32	0.34
HF	1/2	0.40	0.46	0.52	0.58	0.63	0.68	0.39	0.45	0.50	0.56	0.62	0.67	0.37	0.43	0.48	0.53	0.59	0.63
HF	3/4	0.71	0.82	0.92	1.02	1.12	1.21	0.70	0.81	0.90	1.01	1.11	1.20	0.67	0.77	0.86	0.97	1.06	1.14
HF	1	1.09	1.26	1.41	1.57	1.72	1.86	1.06	1.22	1.37	1.53	1.68	1.81	1.02	1.18	1.32	1.47	1.61	1.74
HF	1-1/2	1.46	1.69	1.88	2.11	2.31	2.49	1.43	1.65	1.85	2.06	2.26	2.44	1.37	1.58	1.77	1.98	2.17	2.34
HF	1-3/4	1.87	2.16	2.41	2.70	2.96	3.19	1.84	2.12	2.38	2.66	2.91	3.14	1.76	2.03	2.27	2.54	2.78	3.01
HF	2-1/2	2.47	2.85	3.19	3.57	3.91	4.22	2.42	2.79	3.12	3.49	3.83	4.13	2.32	2.68	3.00	3.35	3.67	3.96
HF	4	4.40	5.08	5.68	6.35	6.96	7.51	4.31	4.98	5.56	6.22	6.81	7.36	4.12	4.76	5.32	5.95	6.51	7.04
HF	6	6.12	7.07	7.90	8.83	9.68	10.45	6.00	6.93	7.75	8.66	9.49	10.25	5.74	6.63	7.41	8.28	9.08	9.80
HF	7-1/2	7.75	8.95	10.01	11.19	12.25	13.24	7.59	8.76	9.80	10.96	12.00	12.96	7.26	8.38	9.37	10.48	11.48	12.40
HF	11	11.50	13.28	14.85	16.60	18.18	19.64	11.26	13.00	14.54	16.25	17.80	19.23	10.77	12.44	13.90	15.55	17.03	18.39
HF	14	15.13	17.47	19.53	21.84	23.92	25.84	14.82	17.11	19.13	21.39	23.43	25.31	14.18	16.37	18.31	20.47	22.42	24.22
TFE	6	6.01	6.94	7.76	8.67	9.50	10.26	5.89	6.80	7.60	8.50	9.31	10.06	5.63	6.50	7.27	8.13	8.90	9.62
TFE	8	8.23	9.50	10.62	11.88	13.01	14.06	8.06	9.31	10.41	11.63	12.74	13.77	7.71	8.90	9.95	11.13	12.19	13.17
TFE	10	10.22	11.80	13.19	14.75	16.16	17.45	10.01	11.56	12.92	14.45	15.83	17.10	9.57	11.05	12.35	13.81	15.13	16.34
TFE	15	15.60	18.01	20.14	22.52	24.67	26.64	15.28	17.64	19.73	22.05	24.16	26.10	14.61	16.87	18.86	21.09	23.10	24.95
TRAE+	9	8.84	10.21	11.41	12.76	13.98	15.10	8.66	10.00	11.18	12.50	13.69	14.79	8.29	9.57	10.70	11.97	13.11	14.16
TRAE+	13	12.89	14.88	16.64	18.61	20.38	22.01	12.63	14.58	16.31	18.23	19.97	21.57	12.08	13.95	15.60	17.44	19.10	20.63
TRAE+	14	14.39	16.62	18.58	20.77	22.75	24.58	14.09	16.27	18.19	20.34	22.28	24.06	13.48	15.57	17.40	19.46	21.31	23.02
TRAE+	22	21.81	25.18	28.16	31.48	34.48	37.25	21.36	24.66	27.58	30.83	33.77	36.48	20.43	23.59	26.38	29.49	32.30	34.89
TRAE+	30	29.98	34.62	38.70	43.27	47.40	51.20	29.36	33.90	37.90	42.38	46.42	50.14	28.09	32.44	36.26	40.54	44.41	47.97
TRAE	40	40.48	46.74	52.26	58.43	64.00	69.13	39.64	45.77	51.18	57.22	62.68	67.70	37.92	43.79	48.95	54.73	59.96	64.76
TRAE	45	44.15	50.98	57.00	63.73	69.81	75.40	43.24	49.93	55.82	62.41	68.37	73.85	41.36	47.76	53.40	59.70	65.40	70.64
TRAE	50	52.54	60.67	67.83	75.83	83.07	89.73	51.46	59.42	66.43	74.28	81.37	87.88	49.22	56.83	63.54	71.04	77.82	84.06
TJR	11	11.02	12.72	14.23	15.91	17.42	18.82	10.79	12.46	13.93	15.57	17.06	18.43	10.32	11.92	13.32	14.90	16.32	17.62
TJR	13	13.19	15.23	17.03	19.04	20.86	22.53	12.92	14.92	16.68	18.65	20.43	22.07	12.36	14.27	15.96	17.84	19.54	21.11
TER	16	16.49	19.04	21.29	23.80	26.07	28.16	16.15	18.65	20.85	23.31	25.54	27.58	15.45	17.84	19.95	22.30	24.43	26.39
TER	19	19.49	22.51	25.16	28.13	30.82	33.29	19.09	22.04	24.65	27.55	30.18	32.60	18.26	21.08	23.57	26.36	28.87	31.18
TER	25	26.23	30.29	33.86	37.86	41.47	44.80	25.69	29.66	33.17	37.08	40.62	43.87	24.58	28.38	31.73	35.48	38.86	41.98
TER	31	33.73	38.95	43.55	48.69	53.33	57.60	33.03	38.14	42.64	47.67	52.23	56.41	31.60	36.49	40.80	45.61	49.96	53.97
TIR	45	41.23	47.61	53.23	59.51	65.19	70.41	40.37	46.62	52.12	58.27	63.83	68.94	38.62	44.59	49.86	55.74	61.06	65.96
THR	55	52.47	60.59	67.74	75.73	82.96	89.61	51.38	59.33	66.33	74.16	81.24	87.75	49.15	56.75	63.45	70.94	77.71	83.94
THR	68	63.71	73.57	82.25	91.96	100.73	108.81	62.40	72.05	80.56	90.07	98.66	106.57	59.69	68.92	77.06	86.16	94.38	101.94
TMR	68	74.95	86.54	96.76	108.18	118.51	128.00	73.41	84.77	94.77	105.96	116.07	125.37	70.22	81.08	90.65	101.35	111.03	119.92

Refrigerant Liquid Temperature Valve Capacity Multiplier Correction Factors

	Refrigerant Liquid Temperature °F														
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140
R-12 Correction Factor	1.60	1.54	1.48	1.42	1.36	1.30	1.24	1.18	1.12	1.06	1.00	.94	.88	.82	.75
R-134a Correction Factor	1.70	1.63	1.56	1.49	1.42	1.36	1.29	1.21	1.14	1.07	1.00	.93	.85	.78	.71
R-22 Correction Factor	1.56	1.51	1.45	1.40	1.34	1.29	1.23	1.17	1.12	1.06	1.00	.94	.88	.82	.76
R-404A/R-507 Correction Factor	2.00	1.90	1.80	1.70	1.60	1.50	1.40	1.30	1.20	1.10	1.00	.90	.80	.70	.50

These factors include corrections for liquid refrigerant density and net refrigerating effect and are based on an average evaporator temperature of 0°F. However, they may be used for any evaporator temperature from -40°F to +40°F since the variation in the actual factors across this range is insignificant.

Thermal Expansion Valves
Solenoid Valves
Coils
Industrial Solenoid Valves
Shut Off Valves
System Protectors
Storage Devices
Oil Controls
Pressure Regulators
Temperature Pressure Controls
Competitive Cross Reference

R-134a Balanced Ported Valves (Tons)– B, HF, TFE, TRAE and T Series (cont.)

Valve Type	Nominal Rating	Evaporator Temperature																	
		0°F						-20°F						-40°F					
		Pressure Drop Across Valve (PSI)						Pressure Drop Across Valve (PSI)						Pressure Drop Across Valve (PSI)					
		60	80	100	125	150	175	80	100	125	150	175	200	80	100	125	150	175	200
BA/BN	1/2	0.29	0.33	0.37	0.42	0.46	0.50	0.22	0.25	0.28	0.30	0.33	0.35	0.13	0.15	0.16	0.18	0.19	0.21
BA/BN	3/4	0.55	0.64	0.71	0.79	0.87	0.94	0.41	0.46	0.51	0.56	0.61	0.65	0.25	0.28	0.31	0.34	0.37	0.40
BA/BN	1	0.86	0.99	1.11	1.24	1.36	1.47	0.64	0.72	0.80	0.88	0.95	1.01	0.39	0.44	0.49	0.53	0.58	0.62
BA/BN	1-1/2	1.14	1.32	1.47	1.65	1.80	1.95	0.85	0.95	1.06	1.16	1.26	1.34	0.52	0.58	0.65	0.71	0.77	0.82
BA/BN	2	1.44	1.66	1.86	2.08	2.28	2.46	1.08	1.21	1.35	1.48	1.60	1.71	0.66	0.74	0.83	0.90	0.98	1.04
BA/BN	2-1/4	1.75	2.02	2.26	2.53	2.77	2.99	1.31	1.46	1.64	1.79	1.94	2.07	0.80	0.89	1.00	1.10	1.18	1.26
BA/BN	3	2.27	2.62	2.93	3.28	3.59	3.88	1.69	1.89	2.11	2.31	2.50	2.67	1.04	1.16	1.30	1.42	1.54	1.64
BA/BN	3-1/2	2.87	3.31	3.71	4.14	4.54	4.90	2.14	2.39	2.68	2.93	3.17	3.38	1.31	1.46	1.64	1.79	1.94	2.07
BA/BN	4-1/4	3.57	4.12	4.61	5.15	5.64	6.10	2.66	2.97	3.33	3.64	3.93	4.21	1.63	1.82	2.04	2.23	2.41	2.58
HF	1/4	0.16	0.18	0.21	0.23	0.25	0.27	0.12	0.13	0.15	0.16	0.18	0.19	0.07	0.08	0.09	0.10	0.10	0.11
HF	1/2	0.31	0.36	0.40	0.45	0.49	0.53	0.23	0.26	0.29	0.31	0.34	0.36	0.14	0.16	0.18	0.19	0.21	0.22
HF	3/4	0.55	0.64	0.71	0.79	0.87	0.94	0.41	0.46	0.51	0.56	0.61	0.65	0.25	0.28	0.31	0.34	0.37	0.40
HF	1	0.84	0.97	1.08	1.21	1.33	1.43	0.63	0.70	0.79	0.86	0.93	1.00	0.38	0.42	0.48	0.52	0.56	0.60
HF	1-1/2	1.13	1.30	1.46	1.63	1.79	1.93	0.84	0.94	1.05	1.15	1.24	1.33	0.52	0.58	0.65	0.71	0.77	0.82
HF	1-3/4	1.44	1.66	1.86	2.08	2.28	2.46	1.08	1.21	1.35	1.48	1.60	1.71	0.66	0.74	0.83	0.90	0.98	1.04
HF	2-1/2	1.91	2.21	2.47	2.76	3.02	3.26	1.42	1.59	1.78	1.94	2.10	2.25	0.87	0.97	1.09	1.19	1.29	1.38
HF	4	3.39	3.91	4.38	4.89	5.36	5.79	2.53	2.83	3.16	3.46	3.74	4.00	1.55	1.73	1.94	2.12	2.29	2.45
HF	6	4.72	5.45	6.09	6.81	7.46	8.06	3.52	3.94	4.40	4.82	5.21	5.57	2.16	2.41	2.70	2.96	3.19	3.42
HF	7-1/2	5.98	6.91	7.72	8.63	9.46	10.21	4.46	4.99	5.58	6.11	6.60	7.05	2.74	3.06	3.43	3.75	4.05	4.33
HF	11	8.87	10.24	11.45	12.80	14.02	15.15	6.62	7.40	8.28	9.06	9.79	10.47	4.06	4.54	5.08	5.56	6.00	6.42
HF	14	11.67	13.48	15.07	16.84	18.45	19.93	8.71	9.74	10.89	11.93	12.88	13.77	5.34	5.97	6.68	7.31	7.90	8.44
TFE	6	4.64	5.36	5.99	6.70	7.34	7.92	3.46	3.87	4.33	4.74	5.12	5.47	2.12	2.37	2.65	2.90	3.14	3.35
TFE	8	6.35	7.33	8.20	9.17	10.04	10.84	4.74	5.30	5.93	6.49	7.01	7.49	2.91	3.25	3.64	3.98	4.30	4.60
TFE	10	7.88	9.10	10.17	11.37	12.46	13.46	5.88	6.57	7.35	8.05	8.70	9.30	3.61	4.04	4.51	4.94	5.34	5.71
TFE	15	12.03	13.89	15.53	17.36	19.02	20.55	8.97	10.03	11.21	12.28	13.27	14.18	5.51	6.16	6.89	7.54	8.15	8.71
TRAE+	9	6.82	7.88	8.80	9.84	10.78	11.65	5.09	5.69	6.36	6.97	7.53	8.05	3.12	3.49	3.90	4.27	4.61	4.93
TRAE+	13	9.94	11.48	12.83	14.35	15.72	16.98	7.42	8.30	9.28	10.16	10.97	11.73	4.55	5.09	5.69	6.23	6.73	7.19
TRAE+	14	11.1	12.82	14.33	16.02	17.55	18.96	8.28	9.26	10.35	11.34	12.25	13.09	5.08	5.68	6.35	6.96	7.51	8.03
TRAE+	22	16.82	19.42	21.71	24.28	26.59	28.73	12.55	14.03	15.69	17.18	18.56	19.84	7.70	8.61	9.63	10.54	11.39	12.17
TRAE+	30	23.12	26.70	29.85	33.37	36.56	39.48	17.25	19.29	21.56	23.62	25.51	27.27	10.59	11.84	13.24	14.50	15.66	16.74
TRAE	40	31.21	36.04	40.29	45.05	49.35	53.30	23.29	26.04	29.11	31.89	34.45	36.82	14.29	15.98	17.86	19.57	21.14	22.59
TRAE	45	34.04	39.31	43.95	49.13	53.82	58.13	25.40	28.40	31.75	34.78	37.57	40.16	15.59	17.43	19.49	21.35	23.06	24.65
TRAE	50	40.52	46.79	52.31	58.49	64.07	69.20	30.23	33.80	37.79	41.39	44.71	47.80	18.55	20.74	23.19	25.40	27.44	29.33
TJR	11	8.50	9.81	10.97	12.27	13.44	14.52	6.34	7.09	7.93	8.68	9.38	10.02	3.89	4.35	4.86	5.33	5.75	6.15
TJR	13	10.17	11.74	13.13	14.68	16.08	17.37	7.59	8.49	9.49	10.39	11.23	12.00	4.66	5.21	5.83	6.38	6.89	7.37
TER	16	12.72	14.69	16.42	18.36	20.11	21.72	9.49	10.61	11.86	12.99	14.04	15.01	5.82	6.51	7.28	7.97	8.61	9.20
TER	19	15.03	17.36	19.40	21.69	23.76	25.67	11.21	12.53	14.01	15.35	16.58	17.72	6.88	7.69	8.60	9.42	10.18	10.88
TER	25	20.23	23.36	26.12	29.20	31.99	34.55	15.09	16.87	18.86	20.66	22.32	23.86	9.26	10.35	11.58	12.68	13.70	14.64
TER	31	26.01	30.03	33.58	37.54	41.13	44.42	19.41	21.70	24.26	26.58	28.71	30.69	11.91	13.32	14.89	16.31	17.62	18.83
TIR	45	31.79	36.71	41.04	45.88	50.26	54.29	23.72	26.52	29.65	32.48	35.08	37.50	14.56	16.28	18.20	19.94	21.53	23.02
THR	55	40.46	46.72	52.23	58.40	63.97	69.10	30.19	33.75	37.74	41.34	44.65	47.73	18.53	20.72	23.16	25.37	27.41	29.30
THR	68	49.13	56.73	63.43	70.91	77.68	83.91	36.66	40.99	45.83	50.20	54.22	57.96	22.50	25.16	28.13	30.81	33.28	35.58
TMR	68	57.80	66.74	74.62	83.43	91.39	98.71	43.12	48.21	53.90	59.04	63.78	68.18	26.47	29.59	33.09	36.25	39.15	41.85

Refrigerant Liquid Temperature Valve Capacity Multiplier Correction Factors

	Refrigerant Liquid Temperature °F														
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140
R-12 Correction Factor	1.60	1.54	1.48	1.42	1.36	1.30	1.24	1.18	1.12	1.06	1.00	.94	.88	.82	.75
R-134a Correction Factor	1.70	1.63	1.56	1.49	1.42	1.36	1.29	1.21	1.14	1.07	1.00	.93	.85	.78	.71
R-22 Correction Factor	1.56	1.51	1.45	1.40	1.34	1.29	1.23	1.17	1.12	1.06	1.00	.94	.88	.82	.76
R-404A/R-507 Correction Factor	2.00	1.90	1.80	1.70	1.60	1.50	1.40	1.30	1.20	1.10	1.00	.90	.80	.70	.50

These factors include corrections for liquid refrigerant density and net refrigerating effect and are based on an average evaporator temperature of 0°F. However, they may be used for any evaporator temperature from -40°F to +40°F since the variation in the actual factors across this range is insignificant.

R-404A/R-507 Balanced Ported Valves (Tons)– B, HF, TFE, TRAE and T Series

Valve Type	Nominal Rating	Evaporator Temperature																	
		50°F					40°F					20°F							
		Pressure Drop Across Valve (PSI)					Pressure Drop Across Valve (PSI)					Pressure Drop Across Valve (PSI)							
		60	80	100	125	150	175	60	80	100	125	150	175	60	80	100	125	150	175
BA/BN	1/4	0.29	0.33	0.37	0.42	0.46	0.50	0.28	0.32	0.36	0.40	0.44	0.48	0.27	0.31	0.35	0.39	0.43	0.46
BA/BN	1/2	0.55	0.64	0.71	0.79	0.87	0.94	0.53	0.61	0.68	0.76	0.84	0.91	0.51	0.59	0.66	0.74	0.81	0.87
BA/BN	1	0.85	0.98	1.10	1.23	1.34	1.45	0.83	0.96	1.07	1.20	1.31	1.42	0.79	0.91	1.02	1.14	1.25	1.35
BA/BN	1-1/4	1.14	1.32	1.47	1.65	1.80	1.95	1.11	1.28	1.43	1.60	1.76	1.90	1.06	1.22	1.37	1.53	1.68	1.81
BA/BN	1-1/2	1.44	1.66	1.86	2.08	2.28	2.46	1.41	1.63	1.82	2.04	2.23	2.41	1.34	1.55	1.73	1.93	2.12	2.29
BA/BN	2	1.74	2.01	2.25	2.51	2.75	2.97	1.70	1.96	2.19	2.45	2.69	2.90	1.62	1.87	2.09	2.34	2.56	2.77
BA/BN	2-1/2	2.26	2.61	2.92	3.26	3.57	3.86	2.20	2.54	2.84	3.18	3.48	3.76	2.09	2.41	2.70	3.02	3.30	3.57
BA/BN	3	2.85	3.29	3.68	4.11	4.51	4.87	2.79	3.22	3.60	4.03	4.41	4.76	2.65	3.06	3.42	3.82	4.19	4.53
BA/BN	4	3.55	4.10	4.58	5.12	5.61	6.06	3.47	4.01	4.48	5.01	5.49	5.93	3.29	3.80	4.25	4.75	5.20	5.62
HF	1/8	0.16	0.18	0.21	0.23	0.25	0.27	0.16	0.18	0.21	0.23	0.25	0.27	0.15	0.17	0.19	0.22	0.24	0.26
HF	1/4	0.31	0.36	0.40	0.45	0.49	0.53	0.30	0.35	0.39	0.43	0.47	0.51	0.28	0.32	0.36	0.40	0.44	0.48
HF	1/2	0.55	0.64	0.71	0.79	0.87	0.94	0.53	0.61	0.68	0.76	0.84	0.91	0.51	0.59	0.66	0.74	0.81	0.87
HF	1	0.83	0.96	1.07	1.20	1.31	1.42	0.82	0.95	1.06	1.18	1.30	1.40	0.77	0.89	0.99	1.11	1.22	1.32
HF	1-1/4	1.12	1.29	1.45	1.62	1.77	1.91	1.10	1.27	1.42	1.59	1.74	1.88	1.04	1.20	1.34	1.50	1.64	1.78
HF	1-1/2	1.44	1.66	1.86	2.08	2.28	2.46	1.41	1.63	1.82	2.04	2.23	2.41	1.34	1.55	1.73	1.93	2.12	2.29
HF	2	1.90	2.19	2.45	2.74	3.00	3.24	1.86	2.15	2.40	2.68	2.94	3.18	1.76	2.03	2.27	2.54	2.78	3.01
HF	3-1/2	3.38	3.90	4.36	4.88	5.34	5.77	3.30	3.81	4.26	4.76	5.22	5.64	3.13	3.61	4.04	4.52	4.95	5.35
HF	5	4.70	5.43	6.07	6.78	7.43	8.03	4.59	5.30	5.93	6.63	7.26	7.84	4.36	5.03	5.63	6.29	6.89	7.45
HF	7	5.95	6.87	7.68	8.59	9.41	10.16	5.81	6.71	7.50	8.39	9.19	9.92	5.52	6.37	7.13	7.97	8.73	9.43
HF	10	8.83	10.20	11.40	12.75	13.96	15.08	8.62	9.95	11.13	12.44	13.63	14.72	8.19	9.46	10.57	11.82	12.95	13.99
HF	13	11.62	13.42	15.00	16.77	18.37	19.84	11.35	13.11	14.65	16.38	17.95	19.38	10.78	12.45	13.92	15.56	17.04	18.41
TFE	5	4.62	5.33	5.96	6.67	7.30	7.89	4.51	5.21	5.82	6.51	7.13	7.70	4.28	4.94	5.53	6.18	6.77	7.31
TFE	7	6.32	7.30	8.16	9.12	9.99	10.79	6.17	7.12	7.97	8.91	9.76	10.54	5.86	6.77	7.57	8.46	9.27	10.01
TFE	9	7.84	9.05	10.12	11.32	12.40	13.39	7.66	8.85	9.89	11.06	12.11	13.08	7.28	8.41	9.40	10.51	11.51	12.43
TFE	14	11.98	13.83	15.47	17.29	18.94	20.46	11.70	13.51	15.10	16.89	18.50	19.98	11.11	12.83	14.34	16.04	17.57	18.97
TRAE+	8	6.79	7.84	8.77	9.80	10.74	11.60	6.63	7.66	8.56	9.57	10.48	11.32	6.30	7.27	8.13	9.09	9.96	10.76
TRAE+	12	9.90	11.43	12.78	14.29	15.65	16.91	9.67	11.17	12.48	13.96	15.29	16.51	9.19	10.61	11.86	13.26	14.53	15.69
TRAE+	14	11.05	12.76	14.27	15.95	17.47	18.87	10.79	12.46	13.93	15.57	17.06	18.43	10.25	11.84	13.23	14.79	16.21	17.51
TRAE+	20	16.75	19.34	21.62	24.18	26.48	28.61	16.36	18.89	21.12	23.61	25.87	27.94	15.54	17.94	20.06	22.43	24.57	26.54
TRAE+	30	23.02	26.58	29.72	33.23	36.40	39.31	22.49	25.97	29.03	32.46	35.56	38.41	21.36	24.66	27.58	30.83	33.77	36.48
TRAE	35	31.08	35.89	40.12	44.86	49.14	53.08	30.36	35.06	39.19	43.82	48.00	51.85	28.84	33.30	37.23	41.63	45.60	49.25
TRAE	40	33.90	39.14	43.76	48.93	53.60	57.90	33.11	38.23	42.74	47.79	52.35	56.55	31.45	36.32	40.60	45.39	49.73	53.71
TRAE	50	40.34	46.58	52.08	58.23	63.78	68.89	39.41	45.51	50.88	56.88	62.31	67.31	37.44	43.23	48.33	54.04	59.20	63.94
TJR	9	8.46	9.77	10.92	12.21	13.38	14.45	8.26	9.54	10.66	11.92	13.06	14.11	7.85	9.06	10.13	11.33	12.41	13.41
TJR	12	10.13	11.70	13.08	14.62	16.02	17.30	9.89	11.42	12.77	14.27	15.64	16.89	9.40	10.85	12.14	13.57	14.86	16.05
TER	14	12.66	14.62	16.34	18.27	20.02	21.62	12.37	14.28	15.97	17.85	19.56	21.13	11.75	13.57	15.17	16.96	18.58	20.07
TER	16	14.96	17.27	19.31	21.59	23.65	25.55	14.62	16.88	18.87	21.10	23.12	24.97	13.88	16.03	17.92	20.03	21.95	23.70
TER	21	20.14	23.26	26.00	29.07	31.84	34.40	19.68	22.72	25.41	28.41	31.12	33.61	18.69	21.58	24.13	26.98	29.55	31.92
TER	27	25.90	29.91	33.44	37.38	40.95	44.23	25.30	29.21	32.66	36.52	40.00	43.21	24.03	27.75	31.02	34.68	37.99	41.04
TIR	37	31.65	36.55	40.86	45.68	50.04	54.05	30.92	35.70	39.92	44.63	48.89	52.81	29.37	33.91	37.92	42.39	46.44	50.16
THR	48	40.29	46.52	52.01	58.15	63.70	68.81	39.35	45.44	50.80	56.80	62.22	67.20	37.38	43.16	48.26	53.95	59.10	63.84
THR	60	48.92	56.49	63.16	70.61	77.35	83.55	47.78	55.17	61.68	68.96	75.55	81.60	45.39	52.41	58.60	65.51	71.77	77.52
TMR	60	57.55	66.45	74.30	83.07	90.99	98.29	56.22	64.92	72.58	81.15	88.89	96.01	53.40	61.66	68.94	77.08	84.43	91.20

Refrigerant Liquid Temperature Valve Capacity Multiplier Correction Factors

	Refrigerant Liquid Temperature °F														
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140
R-12 Correction Factor	1.60	1.54	1.48	1.42	1.36	1.30	1.24	1.18	1.12	1.06	1.00	.94	.88	.82	.75
R-134a Correction Factor	1.70	1.63	1.56	1.49	1.42	1.36	1.29	1.21	1.14	1.07	1.00	.93	.85	.78	.71
R-22 Correction Factor	1.56	1.51	1.45	1.40	1.34	1.29	1.23	1.17	1.12	1.06	1.00	.94	.88	.82	.76
R-404A/R-507 Correction Factor	2.00	1.90	1.80	1.70	1.60	1.50	1.40	1.30	1.20	1.10	1.00	.90	.80	.70	.50

These factors include corrections for liquid refrigerant density and net refrigerating effect and are based on an average evaporator temperature of 0°F. However, they may be used for any evaporator temperature from -40°F to +40°F since the variation in the actual factors across this range is insignificant.

Thermal Expansion Valves
Solenoid Valves
Coils
Industrial Solenoid Valves
Shut Off Valves
System Protectors
Storage Devices
Oil Controls
Pressure Regulators
Temperature Pressure Controls
Competitive Cross Reference

R-404A/R-507 Balanced Ported Valves (Tons)– B, HF, TFE, TRAE and T Series (cont.)

Valve Type	Nominal Rating	Evaporator Temperature																	
		0°F						-20°F						-40°F					
		Pressure Drop Across Valve (PSI)						Pressure Drop Across Valve (PSI)						Pressure Drop Across Valve (PSI)					
		60	80	100	125	150	175	80	100	125	150	175	200	80	100	125	150	175	200
BA/BN	1/4	0.24	0.28	0.31	0.35	0.38	0.41	0.19	0.21	0.24	0.26	0.28	0.30	0.12	0.13	0.15	0.16	0.18	0.19
BA/BN	1/2	0.45	0.52	0.58	0.65	0.71	0.77	0.36	0.40	0.45	0.49	0.53	0.57	0.23	0.26	0.29	0.31	0.34	0.36
BA/BN	1	0.71	0.82	0.92	1.02	1.12	1.21	0.55	0.61	0.69	0.75	0.81	0.87	0.36	0.40	0.45	0.49	0.53	0.57
BA/BN	1-1/4	0.94	1.09	1.21	1.36	1.49	1.61	0.74	0.83	0.93	1.01	1.09	1.17	0.48	0.54	0.60	0.66	0.71	0.76
BA/BN	1-1/2	1.19	1.37	1.54	1.72	1.88	2.03	0.93	1.04	1.16	1.27	1.38	1.47	0.61	0.68	0.76	0.84	0.90	0.96
BA/BN	2	1.44	1.66	1.86	2.08	2.28	2.46	1.13	1.26	1.41	1.55	1.67	1.79	0.74	0.83	0.93	1.01	1.09	1.17
BA/BN	2-1/2	1.87	2.16	2.41	2.70	2.96	3.19	1.47	1.64	1.84	2.01	2.17	2.32	0.96	1.07	1.20	1.31	1.42	1.52
BA/BN	3	2.36	2.73	3.05	3.41	3.73	4.03	1.85	2.07	2.31	2.53	2.74	2.93	1.21	1.35	1.51	1.66	1.79	1.91
BA/BN	4	2.94	3.39	3.80	4.24	4.65	5.02	2.31	2.58	2.89	3.16	3.42	3.65	1.51	1.69	1.89	2.07	2.23	2.39
HF	1/8	0.13	0.15	0.17	0.19	0.21	0.22	0.10	0.11	0.13	0.14	0.15	0.16	0.07	0.08	0.09	0.10	0.10	0.11
HF	1/4	0.25	0.29	0.32	0.36	0.40	0.43	0.20	0.22	0.25	0.27	0.30	0.32	0.13	0.15	0.16	0.18	0.19	0.21
HF	1/2	0.45	0.52	0.58	0.65	0.71	0.77	0.36	0.40	0.45	0.49	0.53	0.57	0.23	0.26	0.29	0.31	0.34	0.36
HF	1	0.69	0.80	0.89	1.00	1.09	1.18	0.54	0.60	0.68	0.74	0.80	0.85	0.35	0.39	0.44	0.48	0.52	0.55
HF	1-1/4	0.93	1.07	1.20	1.34	1.47	1.59	0.73	0.82	0.91	1.00	1.08	1.15	0.48	0.54	0.60	0.66	0.71	0.76
HF	1-1/2	1.19	1.37	1.54	1.72	1.88	2.03	0.93	1.04	1.16	1.27	1.38	1.47	0.61	0.68	0.76	0.84	0.90	0.96
HF	2	1.57	1.81	2.03	2.27	2.48	2.68	1.23	1.38	1.54	1.68	1.82	1.94	0.81	0.91	1.01	1.11	1.20	1.28
HF	3-1/2	2.80	3.23	3.61	4.04	4.43	4.78	2.19	2.45	2.74	3.00	3.24	3.46	1.43	1.60	1.79	1.96	2.11	2.26
HF	5	3.89	4.49	5.02	5.61	6.15	6.64	3.05	3.41	3.81	4.18	4.51	4.82	2.00	2.24	2.50	2.74	2.96	3.16
HF	7	4.93	5.69	6.36	7.12	7.80	8.42	3.87	4.33	4.84	5.30	5.72	6.12	2.53	2.83	3.16	3.46	3.74	4.00
HF	10	7.31	8.44	9.44	10.55	11.56	12.48	5.73	6.41	7.16	7.85	8.47	9.06	3.75	4.19	4.69	5.13	5.55	5.93
HF	13	9.62	11.11	12.42	13.89	15.21	16.43	7.55	8.44	9.44	10.34	11.17	11.94	4.93	5.51	6.16	6.75	7.29	7.80
TFE	5	3.82	4.41	4.93	5.51	6.04	6.52	3.00	3.35	3.75	4.11	4.44	4.74	1.96	2.19	2.45	2.68	2.90	3.10
TFE	7	5.23	6.04	6.75	7.55	8.27	8.93	4.10	4.58	5.13	5.61	6.06	6.48	2.68	3.00	3.35	3.67	3.96	4.24
TFE	9	6.50	7.51	8.39	9.38	10.28	11.10	5.10	5.70	6.38	6.98	7.54	8.06	3.33	3.72	4.16	4.56	4.93	5.27
TFE	14	9.92	11.45	12.81	14.32	15.68	16.94	7.78	8.70	9.73	10.65	11.51	12.30	5.08	5.68	6.35	6.96	7.51	8.03
TRAE+	8	5.62	6.49	7.26	8.11	8.89	9.60	4.41	4.93	5.51	6.04	6.52	6.97	2.88	3.22	3.60	3.94	4.26	4.55
TRAE+	12	8.20	9.47	10.59	11.84	12.97	14.00	6.43	7.19	8.04	8.80	9.51	10.17	4.20	4.70	5.25	5.75	6.21	6.64
TRAE+	14	9.15	10.57	11.81	13.21	14.47	15.63	7.18	8.03	8.98	9.83	10.62	11.35	4.69	5.24	5.86	6.42	6.94	7.42
TRAE+	20	13.87	16.02	17.91	20.02	21.93	23.69	10.88	12.16	13.60	14.90	16.09	17.20	7.11	7.95	8.89	9.74	10.52	11.24
TRAE+	30	19.06	22.01	24.61	27.51	30.14	32.55	14.95	16.71	18.69	20.47	22.11	23.64	9.77	10.92	12.21	13.38	14.45	15.45
TRAE	35	25.73	29.71	33.22	37.14	40.68	43.94	20.19	22.57	25.24	27.65	29.86	31.92	13.19	14.75	16.49	18.06	19.51	20.86
TRAE	40	28.07	32.41	36.24	40.52	44.38	47.94	22.02	24.62	27.53	30.15	32.57	34.82	14.39	16.09	17.99	19.70	21.28	22.75
TRAE	50	33.41	38.58	43.13	48.22	52.83	57.06	26.20	29.29	32.75	35.88	38.75	41.43	17.13	19.15	21.41	23.46	25.34	27.08
TJR	9	7.01	8.09	9.05	10.12	11.08	11.97	5.50	6.15	6.88	7.53	8.13	8.70	3.59	4.01	4.49	4.92	5.31	5.68
TJR	12	8.39	9.69	10.83	12.11	13.27	14.33	6.58	7.36	8.23	9.01	9.73	10.40	4.30	4.81	5.38	5.89	6.36	6.80
TER	14	10.48	12.10	13.53	15.13	16.57	17.90	8.22	9.19	10.28	11.26	12.16	13.00	5.30	5.93	6.63	7.26	7.84	8.38
TER	16	12.39	14.31	16.00	17.88	19.59	21.16	9.72	10.87	12.15	13.31	14.38	15.37	6.35	7.10	7.94	8.70	9.39	10.04
TER	21	16.68	19.26	21.53	24.08	26.37	28.49	13.08	14.62	16.35	17.91	19.35	20.68	8.55	9.56	10.69	11.71	12.65	13.52
TER	27	21.45	24.77	27.69	30.96	33.92	36.63	16.82	18.81	21.03	23.03	24.88	26.59	11.00	12.30	13.75	15.06	16.27	17.39
TIR	37	26.21	30.26	33.84	37.83	41.44	44.76	20.56	22.99	25.70	28.15	30.41	32.51	13.44	15.03	16.80	18.40	19.88	21.25
THR	48	33.36	38.52	43.07	48.15	52.75	56.97	26.17	29.26	32.71	35.83	38.71	41.38	17.10	19.12	21.38	23.42	25.29	27.04
THR	60	40.51	46.78	52.30	58.47	64.05	69.18	31.77	35.52	39.71	43.50	46.99	50.23	20.77	23.22	25.96	28.44	30.72	32.84
TMR	60	47.66	55.03	61.53	68.79	75.36	81.39	37.38	41.79	46.73	51.18	55.29	59.10	24.43	27.31	30.54	33.45	36.13	38.63

Refrigerant Liquid Temperature Valve Capacity Multiplier Correction Factors

	Refrigerant Liquid Temperature °F														
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140
R-12 Correction Factor	1.60	1.54	1.48	1.42	1.36	1.30	1.24	1.18	1.12	1.06	1.00	.94	.88	.82	.75
R-134a Correction Factor	1.70	1.63	1.56	1.49	1.42	1.36	1.29	1.21	1.14	1.07	1.00	.93	.85	.78	.71
R-22 Correction Factor	1.56	1.51	1.45	1.40	1.34	1.29	1.23	1.17	1.12	1.06	1.00	.94	.88	.82	.76
R-404A/R-507 Correction Factor	2.00	1.90	1.80	1.70	1.60	1.50	1.40	1.30	1.20	1.10	1.00	.90	.80	.70	.50

These factors include corrections for liquid refrigerant density and net refrigerating effect and are based on an average evaporator temperature of 0°F. However, they may be used for any evaporator temperature from -40°F to +40°F since the variation in the actual factors across this range is insignificant.

R-407C Balanced Ported Valves (Tons)– B, HF, TFE, TRAE and T Series

Valve Type	Nominal Rating	Evaporator Temperature																	
		50°F					40°F					20°F							
		Pressure Drop Across Valve (PSI)					Pressure Drop Across Valve (PSI)					Pressure Drop Across Valve (PSI)							
		60	80	100	125	150	175	60	80	100	125	150	175	60	80	100	125	150	175
BA/BN	1/2	0.38	0.44	0.49	0.55	0.60	0.65	0.37	0.43	0.48	0.53	0.59	0.63	0.36	0.42	0.46	0.52	0.57	0.61
BA/BN	1	0.72	0.83	0.93	1.04	1.14	1.23	0.70	0.81	0.90	1.01	1.11	1.20	0.68	0.79	0.88	0.98	1.08	1.16
BA/BN	1-1/2	1.12	1.29	1.45	1.62	1.77	1.91	1.10	1.27	1.42	1.59	1.74	1.88	1.05	1.21	1.36	1.52	1.66	1.79
BA/BN	2	1.49	1.72	1.92	2.15	2.36	2.54	1.47	1.70	1.90	2.12	2.32	2.51	1.41	1.63	1.82	2.04	2.23	2.41
BA/BN	2-1/2	1.88	2.17	2.43	2.71	2.97	3.21	1.85	2.14	2.39	2.67	2.93	3.16	1.78	2.06	2.30	2.57	2.81	3.04
BA/BN	3	2.28	2.63	2.94	3.29	3.60	3.89	2.24	2.59	2.89	3.23	3.54	3.83	2.15	2.48	2.78	3.10	3.40	3.67
BA/BN	4	2.96	3.42	3.82	4.27	4.68	5.06	2.90	3.35	3.74	4.19	4.59	4.95	2.79	3.22	3.60	4.03	4.41	4.76
BA/BN	5	3.74	4.32	4.83	5.40	5.91	6.39	3.67	4.24	4.74	5.30	5.80	6.27	3.52	4.06	4.54	5.08	5.57	6.01
BA/BN	6	4.65	5.37	6.00	6.71	7.35	7.94	4.57	5.28	5.90	6.60	7.23	7.80	4.38	5.06	5.65	6.32	6.93	7.48
HF	1/4	0.21	0.24	0.27	0.30	0.33	0.36	0.21	0.24	0.27	0.30	0.33	0.36	0.20	0.23	0.26	0.29	0.32	0.34
HF	1/2	0.40	0.46	0.52	0.58	0.63	0.68	0.39	0.45	0.50	0.56	0.62	0.67	0.38	0.44	0.49	0.55	0.60	0.65
HF	1	0.72	0.83	0.93	1.04	1.14	1.23	0.70	0.81	0.90	1.01	1.11	1.20	0.68	0.79	0.88	0.98	1.08	1.16
HF	1-1/2	1.09	1.26	1.41	1.57	1.72	1.86	1.07	1.24	1.38	1.54	1.69	1.83	1.03	1.19	1.33	1.49	1.63	1.76
HF	2	1.47	1.70	1.90	2.12	2.32	2.51	1.44	1.66	1.86	2.08	2.28	2.46	1.39	1.61	1.79	2.01	2.20	2.37
HF	2-1/2	1.88	2.17	2.43	2.71	2.97	3.21	1.85	2.14	2.39	2.67	2.93	3.16	1.78	2.06	2.30	2.57	2.81	3.04
HF	3	2.49	2.88	3.21	3.59	3.94	4.25	2.44	2.82	3.15	3.52	3.86	4.17	2.35	2.71	3.03	3.39	3.72	4.01
HF	5-1/2	4.43	5.12	5.72	6.39	7.00	7.57	4.34	5.01	5.60	6.26	6.86	7.41	4.17	4.82	5.38	6.02	6.59	7.12
HF	8	6.16	7.11	7.95	8.89	9.74	10.52	6.05	6.99	7.81	8.73	9.57	10.33	5.81	6.71	7.50	8.39	9.19	9.92
HF	10	7.80	9.01	10.07	11.26	12.33	13.32	7.65	8.83	9.88	11.04	12.10	13.06	7.35	8.49	9.49	10.61	11.62	12.55
HF	15	11.57	13.36	14.94	16.70	18.29	19.76	11.35	13.11	14.65	16.38	17.95	19.38	10.90	12.59	14.07	15.73	17.23	18.62
HF	20	15.22	17.57	19.65	21.97	24.06	25.99	14.94	17.25	19.29	21.56	23.62	25.51	14.35	16.57	18.53	20.71	22.69	24.51
TFE	8	6.05	6.99	7.81	8.73	9.57	10.33	5.94	6.86	7.67	8.57	9.39	10.14	5.70	6.58	7.36	8.23	9.01	9.73
TFE	10	8.28	9.56	10.69	11.95	13.09	14.14	8.13	9.39	10.50	11.73	12.85	13.88	7.80	9.01	10.07	11.26	12.33	13.32
TFE	12	10.28	11.87	13.27	14.84	16.25	17.56	10.09	11.65	13.03	14.56	15.95	17.23	9.69	11.19	12.51	13.99	15.32	16.55
TFE	20	15.69	18.12	20.26	22.65	24.81	26.80	15.40	17.78	19.88	22.23	24.35	26.30	14.79	17.08	19.09	21.35	23.39	25.26
TRAE+	10	8.90	10.28	11.49	12.85	14.07	15.20	8.73	10.08	11.27	12.60	13.80	14.91	8.39	9.69	10.83	12.11	13.27	14.33
TRAE+	15	12.97	14.98	16.74	18.72	20.51	22.15	12.73	14.70	16.43	18.37	20.13	21.74	12.22	14.11	15.78	17.64	19.32	20.87
TRAE+	20	14.48	16.72	18.69	20.90	22.89	24.73	14.21	16.41	18.35	20.51	22.47	24.27	13.64	15.75	17.61	19.69	21.57	23.29
TRAE+	30	21.94	25.33	28.32	31.67	34.69	37.47	21.45	24.77	27.69	30.96	33.92	36.63	20.68	23.88	26.70	29.85	32.70	35.32
TRAE+	40	30.16	34.83	38.94	43.53	47.69	51.51	29.60	34.18	38.21	42.72	46.80	50.55	28.43	32.83	36.70	41.04	44.95	48.55
TRAE	50	40.71	47.01	52.56	58.76	64.37	69.53	39.97	46.15	51.60	57.69	63.20	68.26	38.37	44.31	49.54	55.38	60.67	65.53
TRAE	60	44.41	51.28	57.33	64.10	70.22	75.84	43.59	50.33	56.27	62.92	68.92	74.44	41.86	48.34	54.04	60.42	66.19	71.49
TRAE	70	52.85	61.03	68.23	76.28	83.56	90.26	51.88	59.91	66.98	74.88	82.03	88.60	49.82	57.53	64.32	71.91	78.77	85.08
TJR	14	11.08	12.79	14.30	15.99	17.52	18.92	10.88	12.56	14.05	15.70	17.20	18.58	10.45	12.07	13.49	15.08	16.52	17.85
TJR	18	13.27	15.32	17.13	19.15	20.98	22.66	13.03	15.05	16.82	18.81	20.60	22.25	12.51	14.45	16.15	18.06	19.78	21.36
TER	22	16.59	19.16	21.42	23.95	26.23	28.33	16.28	18.80	21.02	23.50	25.74	27.80	15.63	18.05	20.18	22.56	24.71	26.69
TER	26	19.60	22.63	25.30	28.29	30.99	33.47	19.24	22.22	24.84	27.77	30.42	32.86	18.48	21.34	23.86	26.67	29.22	31.56
TER	35	26.39	30.47	34.07	38.09	41.73	45.07	25.90	29.91	33.44	37.38	40.95	44.23	24.87	28.72	32.11	35.90	39.32	42.47
TER	45	33.93	39.18	43.80	48.97	53.65	57.95	33.30	38.45	42.99	48.06	52.65	56.87	31.98	36.93	41.29	46.16	50.56	54.62
TIR	55	41.47	47.89	53.54	59.86	65.57	70.82	40.71	47.01	52.56	58.76	64.37	69.53	39.08	45.13	50.45	56.41	61.79	66.74
THR	75	52.78	60.95	68.14	76.18	83.45	90.14	51.81	59.83	66.89	74.78	81.92	88.48	49.74	57.43	64.21	71.79	78.65	84.95
THR	100	64.08	73.99	82.73	92.49	101.32	109.44	62.91	72.64	81.22	90.80	99.47	107.44	60.40	69.74	77.98	87.18	95.50	103.15
TMR	100	75.39	87.05	97.33	108.82	119.20	128.75	74.01	85.46	95.55	106.82	117.02	126.40	71.06	82.05	91.74	102.57	112.36	121.36

Refrigerant Liquid Temperature Valve Capacity Multiplier Correction Factors

	Refrigerant Liquid Temperature °F															
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	
R-12 Correction Factor	1.60	1.54	1.48	1.42	1.36	1.30	1.24	1.18	1.12	1.06	1.00	.94	.88	.82	.75	
R-134a Correction Factor	1.70	1.63	1.56	1.49	1.42	1.36	1.29	1.21	1.14	1.07	1.00	.93	.85	.78	.71	
R-22 Correction Factor	1.56	1.51	1.45	1.40	1.34	1.29	1.23	1.17	1.12	1.06	1.00	.94	.88	.82	.76	
R-404A/R-507 Correction Factor	2.00	1.90	1.80	1.70	1.60	1.50	1.40	1.30	1.20	1.10	1.00	.90	.80	.70	.50	

These factors include corrections for liquid refrigerant density and net refrigerating effect and are based on an average evaporator temperature of 0°F. However, they may be used for any evaporator temperature from -40°F to +40°F since the variation in the actual factors across this range is insignificant.

Thermal Expansion Valves
Solenoid Valves
Coils
Industrial Solenoid Valves
Shut Off Valves
System Protectors
Storage Devices
Oil Controls
Pressure Regulators
Temperature Pressure Controls
Competitive Cross Reference

R-407C Balanced Ported Valves (Tons)– B, HF, TFE, TRAE and T Series (cont.)

Valve Type	Nominal Rating	Evaporator Temperature																	
		0°F						-20°F						-40°F					
		Pressure Drop Across Valve (PSI)						Pressure Drop Across Valve (PSI)						Pressure Drop Across Valve (PSI)					
		60	80	100	125	150	175	80	100	125	150	175	200	80	100	125	150	175	200
BA/BN	1/2	0.30	0.35	0.39	0.43	0.47	0.51	0.23	0.26	0.29	0.31	0.34	0.36	0.14	0.16	0.18	0.19	0.21	0.22
BA/BN	1	0.57	0.66	0.74	0.82	0.90	0.97	0.43	0.48	0.54	0.59	0.64	0.68	0.27	0.30	0.34	0.37	0.40	0.43
BA/BN	1-1/2	0.89	1.03	1.15	1.28	1.41	1.52	0.68	0.76	0.85	0.93	1.01	1.08	0.43	0.48	0.54	0.59	0.64	0.68
BA/BN	2	1.19	1.37	1.54	1.72	1.88	2.03	0.90	1.01	1.13	1.23	1.33	1.42	0.57	0.64	0.71	0.78	0.84	0.90
BA/BN	2-1/2	1.50	1.73	1.94	2.17	2.37	2.56	1.14	1.27	1.43	1.56	1.69	1.80	0.72	0.80	0.90	0.99	1.06	1.14
BA/BN	3	1.82	2.10	2.35	2.63	2.88	3.11	1.38	1.54	1.73	1.89	2.04	2.18	0.87	0.97	1.09	1.19	1.29	1.38
BA/BN	4	2.35	2.71	3.03	3.39	3.72	4.01	1.79	2.00	2.24	2.45	2.65	2.83	1.13	1.26	1.41	1.55	1.67	1.79
BA/BN	5	2.98	3.44	3.85	4.30	4.71	5.09	2.27	2.54	2.84	3.11	3.36	3.59	1.43	1.60	1.79	1.96	2.11	2.26
BA/BN	6	3.70	4.27	4.78	5.34	5.85	6.32	2.82	3.15	3.53	3.86	4.17	4.46	1.77	1.98	2.21	2.42	2.62	2.80
HF	1/4	0.17	0.20	0.22	0.25	0.27	0.29	0.13	0.15	0.16	0.18	0.19	0.21	0.08	0.09	0.10	0.11	0.12	0.13
HF	1/2	0.32	0.37	0.41	0.46	0.51	0.55	0.24	0.27	0.30	0.33	0.35	0.38	0.15	0.17	0.19	0.21	0.22	0.24
HF	1	0.57	0.66	0.74	0.82	0.90	0.97	0.43	0.48	0.54	0.59	0.64	0.68	0.27	0.30	0.34	0.37	0.40	0.43
HF	1-1/2	0.87	1.00	1.12	1.26	1.38	1.49	0.66	0.74	0.83	0.90	0.98	1.04	0.42	0.47	0.53	0.58	0.62	0.66
HF	2	1.17	1.35	1.51	1.69	1.85	2.00	0.89	1.00	1.11	1.22	1.32	1.41	0.56	0.63	0.70	0.77	0.83	0.89
HF	2-1/2	1.50	1.73	1.94	2.17	2.37	2.56	1.14	1.27	1.43	1.56	1.69	1.80	0.72	0.80	0.90	0.99	1.06	1.14
HF	3	1.98	2.29	2.56	2.86	3.13	3.38	1.51	1.69	1.89	2.07	2.23	2.39	0.95	1.06	1.19	1.30	1.41	1.50
HF	5-1/2	3.52	4.06	4.54	5.08	5.57	6.01	2.68	3.00	3.35	3.67	3.96	4.24	1.69	1.89	2.11	2.31	2.50	2.67
HF	8	4.90	5.66	6.33	7.07	7.75	8.37	3.73	4.17	4.66	5.11	5.52	5.90	2.35	2.63	2.94	3.22	3.48	3.72
HF	10	6.20	7.16	8.00	8.95	9.80	10.59	4.72	5.28	5.90	6.46	6.98	7.46	2.97	3.32	3.71	4.07	4.39	4.70
HF	15	9.20	10.62	11.88	13.28	14.55	15.71	7.01	7.84	8.76	9.60	10.37	11.08	4.41	4.93	5.51	6.04	6.52	6.97
HF	20	12.11	13.98	15.63	17.48	19.15	20.68	9.22	10.31	11.53	12.63	13.64	14.58	5.81	6.50	7.26	7.96	8.59	9.19
TFE	8	4.81	5.55	6.21	6.94	7.61	8.21	3.66	4.09	4.58	5.01	5.41	5.79	2.31	2.58	2.89	3.16	3.42	3.65
TFE	10	6.59	7.61	8.51	9.51	10.42	11.25	5.02	5.61	6.28	6.87	7.42	7.94	3.16	3.53	3.95	4.33	4.67	5.00
TFE	12	8.18	9.45	10.56	11.81	12.93	13.97	6.23	6.97	7.79	8.53	9.21	9.85	3.92	4.38	4.90	5.37	5.80	6.20
TFE	20	12.49	14.42	16.12	18.03	19.75	21.33	9.51	10.63	11.89	13.02	14.07	15.04	5.98	6.69	7.48	8.19	8.84	9.46
TRAE+	10	7.08	8.18	9.14	10.22	11.19	12.09	5.39	6.03	6.74	7.38	7.97	8.52	3.39	3.79	4.24	4.64	5.01	5.36
TRAE+	15	10.32	11.92	13.32	14.90	16.32	17.62	7.86	8.79	9.83	10.76	11.63	12.43	4.95	5.53	6.19	6.78	7.32	7.83
TRAE+	20	11.52	13.30	14.87	16.63	18.21	19.67	8.77	9.81	10.96	12.01	12.97	13.87	5.52	6.17	6.90	7.56	8.16	8.73
TRAE+	30	17.46	20.16	22.54	25.20	27.61	29.82	13.30	14.87	16.63	18.21	19.67	21.03	8.37	9.36	10.46	11.46	12.38	13.23
TRAE+	40	24.00	27.71	30.98	34.64	37.95	40.99	18.28	20.44	22.85	25.03	27.04	28.90	11.50	12.86	14.38	15.75	17.01	18.18
TRAE	50	32.40	37.41	41.83	46.77	51.23	55.33	24.67	27.58	30.84	33.78	36.49	39.01	15.53	17.36	19.41	21.27	22.97	24.56
TRAE	60	35.34	40.81	45.62	51.01	55.88	60.35	26.91	30.09	33.64	36.85	39.80	42.55	16.94	18.94	21.18	23.20	25.05	26.78
TRAE	70	42.06	48.57	54.30	60.71	66.50	71.83	32.03	35.81	40.04	43.86	47.37	50.64	20.16	22.54	25.20	27.61	29.82	31.88
TJR	14	8.82	10.18	11.39	12.73	13.95	15.06	6.72	7.51	8.40	9.20	9.94	10.63	4.23	4.73	5.29	5.79	6.26	6.69
TJR	18	10.56	12.19	13.63	15.24	16.70	18.03	8.04	8.99	10.05	11.01	11.89	12.71	5.06	5.66	6.33	6.93	7.48	8.00
TER	22	13.20	15.24	17.04	19.05	20.87	22.54	10.05	11.24	12.56	13.76	14.86	15.89	6.33	7.08	7.91	8.67	9.36	10.01
TER	26	15.60	18.01	20.14	22.52	24.67	26.64	11.88	13.28	14.85	16.27	17.57	18.78	7.48	8.36	9.35	10.24	11.06	11.83
TER	35	21.00	24.25	27.11	30.31	33.20	35.86	15.99	17.88	19.99	21.90	23.65	25.28	10.06	11.25	12.58	13.78	14.88	15.91
TER	45	27.00	31.18	34.86	38.97	42.69	46.11	20.56	22.99	25.70	28.15	30.41	32.51	12.94	14.47	16.18	17.72	19.14	20.46
TIR	55	33.00	38.11	42.60	47.63	52.18	56.36	25.13	28.10	31.41	34.41	37.17	39.73	15.82	17.69	19.78	21.66	23.40	25.01
THR	75	42.00	48.50	54.22	60.62	66.41	71.73	31.98	35.75	39.98	43.79	47.30	50.56	20.13	22.51	25.16	27.56	29.77	31.83
THR	100	51.00	58.89	65.84	73.61	80.64	87.10	38.84	43.42	48.55	53.18	57.45	61.41	24.44	27.32	30.55	33.47	36.15	38.64
TMR	100	60.00	69.28	77.46	86.60	94.87	102.47	45.69	51.08	57.11	62.56	67.58	72.24	28.76	32.15	35.95	39.38	42.54	45.47

Refrigerant Liquid Temperature Valve Capacity Multiplier Correction Factors

	Refrigerant Liquid Temperature °F														
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140
R-12 Correction Factor	1.60	1.54	1.48	1.42	1.36	1.30	1.24	1.18	1.12	1.06	1.00	.94	.88	.82	.75
R-134a Correction Factor	1.70	1.63	1.56	1.49	1.42	1.36	1.29	1.21	1.14	1.07	1.00	.93	.85	.78	.71
R-22 Correction Factor	1.56	1.51	1.45	1.40	1.34	1.29	1.23	1.17	1.12	1.06	1.00	.94	.88	.82	.76
R-404A/R-507 Correction Factor	2.00	1.90	1.80	1.70	1.60	1.50	1.40	1.30	1.20	1.10	1.00	.90	.80	.70	.50

These factors include corrections for liquid refrigerant density and net refrigerating effect and are based on an average evaporator temperature of 0°F. However, they may be used for any evaporator temperature from -40°F to +40°F since the variation in the actual factors across this range is insignificant.

R-502 Balanced Ported Valves (Tons)– B, HF, TFE, TRAE and T Series

Valve Type	Nominal Rating	Evaporator Temperature																	
		50°F						40°F						20°F					
		Pressure Drop Across Valve (PSI)						Pressure Drop Across Valve (PSI)						Pressure Drop Across Valve (PSI)					
	60	80	100	125	150	175	60	80	100	125	150	175	60	80	100	125	150	175	
BA/BN	1/4	0.26	0.30	0.34	0.38	0.41	0.44	0.25	0.29	0.32	0.36	0.40	0.43	0.24	0.28	0.31	0.35	0.38	0.41
BA/BN	1/2	0.49	0.57	0.63	0.71	0.77	0.84	0.48	0.55	0.62	0.69	0.76	0.82	0.46	0.53	0.59	0.66	0.73	0.79
BA/BN	1	0.76	0.88	0.98	1.10	1.20	1.30	0.74	0.85	0.96	1.07	1.17	1.26	0.71	0.82	0.92	1.02	1.12	1.21
BA/BN	1-1/4	1.02	1.18	1.32	1.47	1.61	1.74	0.99	1.14	1.28	1.43	1.57	1.69	0.95	1.10	1.23	1.37	1.50	1.62
BA/BN	1-1/2	1.28	1.48	1.65	1.85	2.02	2.19	1.26	1.45	1.63	1.82	1.99	2.15	1.20	1.39	1.55	1.73	1.90	2.05
BA/BN	2	1.55	1.79	2.00	2.24	2.45	2.65	1.52	1.76	1.96	2.19	2.40	2.60	1.45	1.67	1.87	2.09	2.29	2.48
BA/BN	2-1/2	2.01	2.32	2.59	2.90	3.18	3.43	1.97	2.27	2.54	2.84	3.11	3.36	1.88	2.17	2.43	2.71	2.97	3.21
BA/BN	3	2.54	2.93	3.28	3.67	4.02	4.34	2.49	2.88	3.21	3.59	3.94	4.25	2.38	2.75	3.07	3.44	3.76	4.06
BA/BN	4	3.17	3.66	4.09	4.58	5.01	5.41	3.10	3.58	4.00	4.47	4.90	5.29	2.96	3.42	3.82	4.27	4.68	5.06
HF	1/8	0.14	0.16	0.18	0.20	0.22	0.24	0.14	0.16	0.18	0.20	0.22	0.24	0.13	0.15	0.17	0.19	0.21	0.22
HF	1/4	0.27	0.31	0.35	0.39	0.43	0.46	0.27	0.31	0.35	0.39	0.43	0.46	0.25	0.29	0.32	0.36	0.40	0.43
HF	1/2	0.49	0.57	0.63	0.71	0.77	0.84	0.48	0.55	0.62	0.69	0.76	0.82	0.46	0.53	0.59	0.66	0.73	0.79
HF	1	0.74	0.85	0.96	1.07	1.17	1.26	0.73	0.84	0.94	1.05	1.15	1.25	0.70	0.81	0.90	1.01	1.11	1.20
HF	1-1/4	1.00	1.15	1.29	1.44	1.58	1.71	0.98	1.13	1.27	1.41	1.55	1.67	0.93	1.07	1.20	1.34	1.47	1.59
HF	1-1/2	1.28	1.48	1.65	1.85	2.02	2.19	1.26	1.45	1.63	1.82	1.99	2.15	1.20	1.39	1.55	1.73	1.90	2.05
HF	2	1.69	1.95	2.18	2.44	2.67	2.89	1.66	1.92	2.14	2.40	2.62	2.83	1.58	1.82	2.04	2.28	2.50	2.70
HF	3-1/2	3.01	3.48	3.89	4.34	4.76	5.14	2.95	3.41	3.81	4.26	4.66	5.04	2.81	3.24	3.63	4.06	4.44	4.80
HF	5	4.19	4.84	5.41	6.05	6.62	7.16	4.10	4.73	5.29	5.92	6.48	7.00	3.92	4.53	5.06	5.66	6.20	6.69
HF	7	5.30	6.12	6.84	7.65	8.38	9.05	5.19	5.99	6.70	7.49	8.21	8.86	4.96	5.73	6.40	7.16	7.84	8.47
HF	10	7.87	9.09	10.16	11.36	12.44	13.44	7.70	8.89	9.94	11.11	12.17	13.15	7.35	8.49	9.49	10.61	11.62	12.55
HF	13	10.36	11.96	13.37	14.95	16.38	17.69	10.14	11.71	13.09	14.64	16.03	17.32	9.68	11.18	12.50	13.97	15.31	16.53
TFE	5	4.11	4.75	5.31	5.93	6.50	7.02	4.03	4.65	5.20	5.82	6.37	6.88	3.84	4.43	4.96	5.54	6.07	6.56
TFE	7	5.63	6.50	7.27	8.13	8.90	9.62	5.51	6.36	7.11	7.95	8.71	9.41	5.26	6.07	6.79	7.59	8.32	8.98
TFE	9	6.99	8.07	9.02	10.09	11.05	11.94	6.85	7.91	8.84	9.89	10.83	11.70	6.53	7.54	8.43	9.43	10.32	11.15
TFE	14	10.68	12.33	13.79	15.42	16.89	18.24	10.45	12.07	13.49	15.08	16.52	17.85	9.97	11.51	12.87	14.39	15.76	17.03
TRAE+	8	6.05	6.99	7.81	8.73	9.57	10.33	5.93	6.85	7.66	8.56	9.38	10.13	5.66	6.54	7.31	8.17	8.95	9.67
TRAE+	12	8.82	10.18	11.39	12.73	13.95	15.06	8.64	9.98	11.15	12.47	13.66	14.76	8.24	9.51	10.64	11.89	13.03	14.07
TRAE+	14	9.85	11.37	12.72	14.22	15.57	16.82	9.64	11.13	12.45	13.91	15.24	16.46	9.20	10.62	11.88	13.28	14.55	15.71
TRAE+	20	14.93	17.24	19.27	21.55	23.61	25.50	14.61	16.87	18.86	21.09	23.10	24.95	13.95	16.11	18.01	20.14	22.06	23.82
TRAE+	30	20.52	23.69	26.49	29.62	32.44	35.04	20.09	23.20	25.94	29.00	31.77	34.31	19.17	22.14	24.75	27.67	30.31	32.74
TRAE	35	27.70	31.99	35.76	39.98	43.80	47.31	27.12	31.32	35.01	39.14	42.88	46.32	25.88	29.88	33.41	37.35	40.92	44.20
TRAE	40	30.22	34.90	39.01	43.62	47.78	51.61	29.58	34.16	38.19	42.70	46.77	50.52	28.23	32.60	36.44	40.75	44.64	48.21
TRAE	50	35.96	41.52	46.42	51.90	56.86	61.41	35.21	40.66	45.46	50.82	55.67	60.13	35.21	40.66	45.46	50.82	55.67	60.13
TJR	9	7.54	8.71	9.73	10.88	11.92	12.88	7.38	8.52	9.53	10.65	11.67	12.60	3.26	7.05	4.21	4.71	5.15	5.57
TJR	12	9.03	10.43	11.66	13.03	14.28	15.42	8.84	10.21	11.41	12.76	13.98	15.10	3.90	8.44	5.03	5.63	6.17	6.66
TER	14	11.29	13.04	14.58	16.30	17.85	19.28	11.05	12.76	14.27	15.95	17.47	18.87	4.88	10.55	6.30	7.04	7.72	8.33
TER	16	13.34	15.40	17.22	19.25	21.09	22.78	13.06	15.08	16.86	18.85	20.65	22.30	5.76	12.46	7.44	8.31	9.11	9.84
TER	21	17.96	20.74	23.19	25.92	28.40	30.67	17.58	20.30	22.70	25.37	27.80	30.02	7.76	16.78	10.02	11.20	12.27	13.25
TER	27	23.09	26.66	29.81	33.33	36.51	39.43	22.60	26.10	29.18	32.62	35.73	38.60	9.97	21.57	12.87	14.39	15.76	17.03
TIR	37	28.22	32.59	36.43	40.73	44.62	48.19	27.62	31.89	35.66	39.87	43.67	47.17	12.19	26.36	15.74	17.59	19.27	20.82
THR	48	35.91	41.47	46.36	51.83	56.78	61.33	35.15	40.59	45.38	50.73	55.58	60.03	15.52	33.55	20.04	22.40	24.54	26.51
THR	60	43.61	50.36	56.30	62.95	68.95	74.48	42.69	49.29	55.11	61.62	67.50	72.91	18.84	40.74	24.32	27.19	29.79	32.18
TMR	60	51.30	59.24	66.23	74.05	81.11	87.61	50.22	57.99	64.83	72.49	79.40	85.77	22.17	47.93	28.62	32.00	35.05	37.86

Refrigerant Liquid Temperature Valve Capacity Multiplier Correction Factors

	Refrigerant Liquid Temperature °F															
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	
R-12 Correction Factor	1.60	1.54	1.48	1.42	1.36	1.30	1.24	1.18	1.12	1.06	1.00	.94	.88	.82	.75	
R-134a Correction Factor	1.70	1.63	1.56	1.49	1.42	1.36	1.29	1.21	1.14	1.07	1.00	.93	.85	.78	.71	
R-22 Correction Factor	1.56	1.51	1.45	1.40	1.34	1.29	1.23	1.17	1.12	1.06	1.00	.94	.88	.82	.76	
R-404A/R-507 Correction Factor	2.00	1.90	1.80	1.70	1.60	1.50	1.40	1.30	1.20	1.10	1.00	.90	.80	.70	.50	

These factors include corrections for liquid refrigerant density and net refrigerating effect and are based on an average evaporator temperature of 0°F. However, they may be used for any evaporator temperature from -40°F to +40°F since the variation in the actual factors across this range is insignificant.

Thermal Expansion Valves
Solenoid Valves
Coils
Industrial Solenoid Valves
Shut Off Valves
System Protectors
Storage Devices
Oil Controls
Pressure Regulators
Temperature Pressure Controls
Competitive Cross Reference

R-502 Balanced Ported Valves (Tons)– B, HF, TFE, TRAE and T Series (cont.)

Valve Type	Nominal Rating	Evaporator Temperature																	
		0°F						-20°F						-40°F					
		Pressure Drop Across Valve (PSI)						Pressure Drop Across Valve (PSI)						Pressure Drop Across Valve (PSI)					
		60	80	100	125	150	175	80	100	125	150	175	200	80	100	125	150	175	200
BA/BN	1/4	0.22	0.25	0.28	0.32	0.35	0.38	0.17	0.19	0.21	0.23	0.25	0.27	0.11	0.12	0.14	0.15	0.16	0.17
BA/BN	1/2	0.42	0.48	0.54	0.61	0.66	0.72	0.33	0.37	0.41	0.45	0.49	0.52	0.21	0.23	0.26	0.29	0.31	0.33
BA/BN	1	0.65	0.75	0.84	0.94	1.03	1.11	0.52	0.58	0.65	0.71	0.77	0.82	0.33	0.37	0.41	0.45	0.49	0.52
BA/BN	1-1/4	0.87	1.00	1.12	1.26	1.38	1.49	0.69	0.77	0.86	0.94	1.02	1.09	0.44	0.49	0.55	0.60	0.65	0.70
BA/BN	1-1/2	1.10	1.27	1.42	1.59	1.74	1.88	0.87	0.97	1.09	1.19	1.29	1.38	0.55	0.61	0.69	0.75	0.81	0.87
BA/BN	2	1.34	1.55	1.73	1.93	2.12	2.29	1.05	1.17	1.31	1.44	1.55	1.66	0.67	0.75	0.84	0.92	0.99	1.06
BA/BN	2-1/2	1.73	2.00	2.23	2.50	2.74	2.95	1.36	1.52	1.70	1.86	2.01	2.15	0.87	0.97	1.09	1.19	1.29	1.38
BA/BN	3	2.19	2.53	2.83	3.16	3.46	3.74	1.73	1.93	2.16	2.37	2.56	2.74	1.10	1.23	1.38	1.51	1.63	1.74
BA/BN	4	2.72	3.14	3.51	3.93	4.30	4.65	2.15	2.40	2.69	2.94	3.18	3.40	1.37	1.53	1.71	1.88	2.03	2.17
HF	1/8	0.12	0.14	0.15	0.17	0.19	0.20	0.10	0.11	0.13	0.14	0.15	0.16	0.06	0.07	0.08	0.08	0.09	0.09
HF	1/4	0.23	0.27	0.30	0.33	0.36	0.39	0.18	0.20	0.23	0.25	0.27	0.28	0.12	0.13	0.15	0.16	0.18	0.19
HF	1/2	0.42	0.48	0.54	0.61	0.66	0.72	0.33	0.37	0.41	0.45	0.49	0.52	0.21	0.23	0.26	0.29	0.31	0.33
HF	1	0.64	0.74	0.83	0.92	1.01	1.09	0.50	0.56	0.63	0.68	0.74	0.79	0.32	0.36	0.40	0.44	0.47	0.51
HF	1-1/4	0.86	0.99	1.11	1.24	1.36	1.47	0.68	0.76	0.85	0.93	1.01	1.08	0.43	0.48	0.54	0.59	0.64	0.68
HF	1-1/2	1.10	1.27	1.42	1.59	1.74	1.88	0.87	0.97	1.09	1.19	1.29	1.38	0.55	0.61	0.69	0.75	0.81	0.87
HF	2	1.46	1.69	1.88	2.11	2.31	2.49	1.15	1.29	1.44	1.57	1.70	1.82	0.73	0.82	0.91	1.00	1.08	1.15
HF	3-1/2	2.59	2.99	3.34	3.74	4.10	4.42	1.65	1.84	2.06	2.26	2.44	2.61	1.30	1.45	1.63	1.78	1.92	2.06
HF	5	3.60	4.16	4.65	5.20	5.69	6.15	2.84	3.18	3.55	3.89	4.20	4.49	1.81	2.02	2.26	2.48	2.68	2.86
HF	7	4.56	5.27	5.89	6.58	7.21	7.79	3.60	4.02	4.50	4.93	5.32	5.69	2.29	2.56	2.86	3.14	3.39	3.62
HF	10	6.76	7.81	8.73	9.76	10.69	11.54	5.34	5.97	6.68	7.31	7.90	8.44	3.40	3.80	4.25	4.66	5.03	5.38
HF	13	8.90	10.28	11.49	12.85	14.07	15.20	7.03	7.86	8.79	9.63	10.40	11.12	4.48	5.01	5.60	6.13	6.63	7.08
TFE	5	3.54	4.09	4.57	5.11	5.60	6.05	2.79	3.12	3.49	3.82	4.13	4.41	1.78	1.99	2.23	2.44	2.63	2.81
TFE	7	4.84	5.59	6.25	6.99	7.65	8.27	3.82	4.27	4.78	5.23	5.65	6.04	2.43	2.72	3.04	3.33	3.59	3.84
TFE	9	6.01	6.94	7.76	8.67	9.50	10.26	4.75	5.31	5.94	6.50	7.03	7.51	3.02	3.38	3.78	4.14	4.47	4.78
TFE	14	9.18	10.60	11.85	13.25	14.51	15.68	7.25	8.11	9.06	9.93	10.72	11.46	4.61	5.15	5.76	6.31	6.82	7.29
TRAE+	8	5.20	6.00	6.71	7.51	8.22	8.88	4.11	4.60	5.14	5.63	6.08	6.50	2.62	2.93	3.28	3.59	3.88	4.14
TRAE+	12	7.58	8.75	9.79	10.94	11.99	12.95	5.99	6.70	7.49	8.20	8.86	9.47	3.81	4.26	4.76	5.22	5.64	6.02
TRAE+	14	8.47	9.78	10.93	12.23	13.39	14.47	6.69	7.48	8.36	9.16	9.89	10.58	4.26	4.76	5.33	5.83	6.30	6.74
TRAE+	20	12.83	14.81	16.56	18.52	20.29	21.91	10.13	11.33	12.66	13.87	14.98	16.02	6.45	7.21	8.06	8.83	9.54	10.20
TRAE+	30	17.64	20.37	22.77	25.46	27.89	30.13	13.93	15.57	17.41	19.07	20.60	22.03	8.87	9.92	11.09	12.15	13.12	14.02
TRAE	35	23.81	27.49	30.74	34.37	37.65	40.66	18.80	21.02	23.50	25.74	27.81	29.73	11.97	13.38	14.96	16.39	17.70	18.93
TRAE	40	25.97	29.99	33.53	37.48	41.06	44.35	20.51	22.93	25.64	28.08	30.33	32.43	13.06	14.60	16.33	17.88	19.32	20.65
TRAE	50	30.91	35.69	39.90	44.61	48.87	52.79	24.41	27.29	30.51	33.42	36.10	38.60	15.54	17.37	19.43	21.28	22.98	24.57
TJR	9	6.48	7.48	8.37	9.35	10.25	11.07	5.12	5.72	6.40	7.01	7.57	8.10	3.26	3.64	4.08	4.46	4.82	5.15
TJR	12	7.76	8.96	10.02	11.20	12.27	13.25	6.13	6.85	7.66	8.39	9.07	9.69	3.90	4.36	4.88	5.34	5.77	6.17
TER	14	9.70	11.20	12.52	14.00	15.34	16.57	7.66	8.56	9.58	10.49	11.33	12.11	4.88	5.46	6.10	6.68	7.22	7.72
TER	16	11.47	13.24	14.81	16.56	18.14	19.59	9.05	10.12	11.31	12.39	13.39	14.31	5.76	6.44	7.20	7.89	8.52	9.11
TER	21	15.43	17.82	19.92	22.27	24.40	26.35	12.19	13.63	15.24	16.69	18.03	19.27	7.76	8.68	9.70	10.63	11.48	12.27
TER	27	19.84	22.91	25.61	28.64	31.37	33.88	15.67	17.52	19.59	21.46	23.18	24.78	9.97	11.15	12.46	13.65	14.75	15.76
TIR	37	24.25	28.00	31.31	35.00	38.34	41.41	19.15	21.41	23.94	26.22	28.32	30.28	12.19	13.63	15.24	16.69	18.03	19.27
THR	48	30.87	35.65	39.85	44.56	48.81	52.72	24.37	27.25	30.46	33.37	36.04	38.53	15.52	17.35	19.40	21.25	22.95	24.54
THR	60	37.48	43.28	48.39	54.10	59.26	64.01	29.60	33.09	37.00	40.53	43.78	46.80	18.84	21.06	23.55	25.80	27.86	29.79
TMR	60	44.10	50.92	56.93	63.65	69.73	75.32	34.82	38.93	43.53	47.68	51.50	55.06	22.17	24.79	27.71	30.36	32.79	35.05

Refrigerant Liquid Temperature Valve Capacity Multiplier Correction Factors

	Refrigerant Liquid Temperature °F														
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140
R-12 Correction Factor	1.60	1.54	1.48	1.42	1.36	1.30	1.24	1.18	1.12	1.06	1.00	.94	.88	.82	.75
R-134a Correction Factor	1.70	1.63	1.56	1.49	1.42	1.36	1.29	1.21	1.14	1.07	1.00	.93	.85	.78	.71
R-22 Correction Factor	1.56	1.51	1.45	1.40	1.34	1.29	1.23	1.17	1.12	1.06	1.00	.94	.88	.82	.76
R-404A/R-507 Correction Factor	2.00	1.90	1.80	1.70	1.60	1.50	1.40	1.30	1.20	1.10	1.00	.90	.80	.70	.50

These factors include corrections for liquid refrigerant density and net refrigerating effect and are based on an average evaporator temperature of 0°F. However, they may be used for any evaporator temperature from -40°F to +40°F since the variation in the actual factors across this range is insignificant.

R-12 Electric Valves (Tons)– E Series

Capacities are for EX2 @ 100% duty cycle, ESVB-1 and -4 @ 250 steps open, ESVB-10 and -20 @ 650 steps open

Valve Type	Nominal Rating	Evaporator Temperature																	
		50°F						40°F						20°F					
		Pressure Drop Across Valve (PSI)						Pressure Drop Across Valve (PSI)						Pressure Drop Across Valve (PSI)					
		60	80	100	125	150	175	60	80	100	125	150	175	60	80	100	125	150	175
EX2-00X	0.23	0.14	0.27	0.30	0.33	0.36	0.39	0.14	0.16	0.18	0.20	0.22	0.24	0.13	0.15	0.17	0.19	0.21	0.22
EX2-000	0.4	0.24	0.46	0.52	0.58	0.63	0.68	0.24	0.28	0.31	0.35	0.38	0.41	0.23	0.27	0.30	0.33	0.36	0.39
EX2-001	0.81	0.49	0.94	1.05	1.17	1.28	1.38	0.48	0.55	0.62	0.69	0.76	0.82	0.46	0.53	0.59	0.66	0.73	0.79
EX2-002	1.1	0.67	1.27	1.42	1.59	1.74	1.88	0.65	0.75	0.84	0.94	1.03	1.11	0.63	0.73	0.81	0.91	1.00	1.08
EX2-003	2.0	1.21	2.31	2.58	2.89	3.16	3.42	1.19	1.37	1.54	1.72	1.88	2.03	1.14	1.32	1.47	1.65	1.80	1.95
EX2-004	2.7	1.63	3.12	3.49	3.90	4.27	4.61	1.60	1.85	2.07	2.31	2.53	2.73	1.54	1.78	1.99	2.22	2.43	2.63
EX2-M00	4.3	2.60	4.97	5.55	6.21	6.80	7.34	2.55	2.94	3.29	3.68	4.03	4.35	2.45	2.83	3.16	3.54	3.87	4.18
ESVB-1	1	0.42	1.15	1.29	1.44	1.58	1.71	0.41	0.47	0.53	0.59	0.65	0.70	0.40	0.46	0.52	0.58	0.63	0.68
ESVB-4	4	2.02	4.62	5.16	5.77	6.32	6.83	1.98	2.29	2.56	2.86	3.13	3.38	1.90	2.19	2.45	2.74	3.00	3.24
ESVB-10	10	6.08	11.55	12.91	14.43	15.81	17.08	5.96	6.88	7.69	8.60	9.42	10.18	5.72	6.60	7.38	8.26	9.04	9.77
ESVB-20	20	13.19	23.09	25.82	28.87	31.62	34.16	12.93	14.93	16.69	18.66	20.44	22.08	12.40	14.32	16.01	17.90	19.61	21.18
Valve Type	Nominal Rating	Evaporator Temperature																	
		0°F						-20°F						-40°F					
		Pressure Drop Across Valve (PSI)						Pressure Drop Across Valve (PSI)						Pressure Drop Across Valve (PSI)					
		60	80	100	125	150	175	80	100	125	150	175	200	80	100	125	150	175	200
EX2-00X	0.23	0.13	0.27	0.30	0.33	0.36	0.39	0.14	0.16	0.18	0.20	0.22	0.24	0.11	0.13	0.14	0.16	0.17	0.19
EX2-000	0.4	0.22	0.46	0.52	0.58	0.63	0.68	0.24	0.28	0.31	0.35	0.38	0.41	0.20	0.23	0.26	0.29	0.32	0.34
EX2-001	0.81	0.44	0.94	1.05	1.17	1.28	1.38	0.48	0.55	0.62	0.69	0.76	0.82	0.40	0.46	0.52	0.58	0.63	0.68
EX2-002	1.1	0.60	1.27	1.42	1.59	1.74	1.88	0.66	0.76	0.85	0.95	1.04	1.13	0.54	0.62	0.70	0.78	0.85	0.92
EX2-003	2.0	1.09	2.31	2.58	2.89	3.16	3.42	1.20	1.39	1.55	1.73	1.90	2.05	0.98	1.13	1.27	1.41	1.55	1.67
EX2-004	2.7	1.47	3.12	3.49	3.90	4.27	4.61	1.40	1.62	1.81	2.02	2.21	2.39	1.33	1.54	1.72	1.92	2.10	2.27
EX2-M00	4.3	2.34	4.97	5.55	6.21	6.80	7.34	2.57	2.97	3.32	3.71	4.06	4.39	2.12	2.45	2.74	3.06	3.35	3.62
ESVB-1	1	0.38	1.15	1.29	1.44	1.58	1.71	0.42	0.48	0.54	0.61	0.66	0.72	0.34	0.39	0.44	0.49	0.54	0.58
ESVB-4	4	1.82	4.62	5.16	5.77	6.32	6.83	2.00	2.31	2.58	2.89	3.16	3.42	1.64	1.89	2.12	2.37	2.59	2.80
ESVB-10	10	5.47	11.55	12.91	14.43	15.81	17.08	5.21	6.02	6.73	7.52	8.24	8.90	4.95	5.72	6.39	7.14	7.83	8.45
ESVB-20	20	11.85	23.09	25.82	28.87	31.62	34.16	13.04	15.06	16.83	18.82	20.62	22.27	10.73	12.39	13.85	15.49	16.97	18.32

R-22 Electric Valves (Tons)– E Series

Capacities are for EX2 @ 100% duty cycle, ESVB-1 and -4 @ 250 steps open, ESVB-10 and -20 @ 650 steps open

Valve Type	Nominal Rating	Evaporator Temperature																	
		50°F						40°F						20°F					
		Pressure Drop Across Valve (PSI)						Pressure Drop Across Valve (PSI)						Pressure Drop Across Valve (PSI)					
		60	80	100	125	150	175	60	80	100	125	150	175	60	80	100	125	150	175
EX2-00X	0.23	0.18	0.21	0.23	0.26	0.28	0.31	0.18	0.21	0.23	0.26	0.28	0.31	0.17	0.20	0.22	0.25	0.27	0.29
EX2-000	0.4	0.31	0.36	0.40	0.45	0.49	0.53	0.31	0.36	0.40	0.45	0.49	0.53	0.30	0.35	0.39	0.43	0.47	0.51
EX2-001	0.81	0.64	0.74	0.83	0.92	1.01	1.09	0.63	0.73	0.81	0.91	1.00	1.08	0.61	0.70	0.79	0.88	0.96	1.04
EX2-002	1.1	0.86	0.99	1.11	1.24	1.36	1.47	0.85	0.98	1.10	1.23	1.34	1.45	0.83	0.96	1.07	1.20	1.31	1.42
EX2-003	2.0	1.57	1.81	2.03	2.27	2.48	2.68	1.55	1.79	2.00	2.24	2.45	2.65	1.51	1.74	1.95	2.18	2.39	2.58
EX2-004	2.7	2.12	2.45	2.74	3.06	3.35	3.62	2.10	2.42	2.71	3.03	3.32	3.59	2.04	2.36	2.63	2.94	3.23	3.48
EX2-M00	4.3	3.38	3.90	4.36	4.88	5.34	5.77	3.34	3.86	4.31	4.82	5.28	5.70	3.25	3.75	4.20	4.69	5.14	5.55
ESVB-1	1	0.55	0.64	0.71	0.79	0.87	0.94	0.54	0.62	0.70	0.78	0.85	0.92	0.53	0.61	0.68	0.76	0.84	0.91
ESVB-4	4	2.63	3.04	3.40	3.80	4.16	4.49	2.60	3.00	3.36	3.75	4.11	4.44	2.53	2.92	3.27	3.65	4.00	4.32
ESVB-10	10	7.90	9.12	10.20	11.40	12.49	13.49	7.81	9.02	10.08	11.27	12.35	13.34	7.61	8.79	9.82	10.98	12.03	13.00
ESVB-20	20	17.13	19.78	22.11	24.73	27.08	29.26	16.93	19.55	21.86	24.44	26.77	28.91	16.50	19.05	21.30	23.82	26.09	28.18
Valve Type	Nominal Rating	Evaporator Temperature																	
		0°F						-20°F						-40°F					
		Pressure Drop Across Valve (PSI)						Pressure Drop Across Valve (PSI)						Pressure Drop Across Valve (PSI)					
		60	80	100	125	150	175	80	100	125	150	175	200	80	100	125	150	175	200
EX2-00X	0.23	0.17	0.20	0.22	0.25	0.27	0.29	0.19	0.21	0.24	0.26	0.28	0.30	0.18	0.20	0.23	0.25	0.27	0.28
EX2-000	0.4	0.29	0.33	0.37	0.42	0.46	0.50	0.33	0.37	0.41	0.45	0.49	0.52	0.32	0.36	0.40	0.44	0.47	0.51
EX2-001	0.81	0.60	0.69	0.77	0.87	0.95	1.02	0.67	0.75	0.84	0.92	0.99	1.06	0.64	0.72	0.80	0.88	0.95	1.01
EX2-002	1.1	0.81	0.94	1.05	1.17	1.28	1.38	0.90	1.01	1.13	1.23	1.33	1.42	0.87	0.97	1.09	1.19	1.29	1.38
EX2-003	2.0	1.47	1.70	1.90	2.12	2.32	2.51	1.64	1.83	2.05	2.25	2.43	2.59	1.59	1.78	1.99	2.18	2.35	2.51
EX2-004	2.7	1.99	2.30	2.57	2.87	3.15	3.40	2.22	2.48	2.78	3.04	3.28	3.51	2.14	2.39	2.68	2.93	3.17	3.38
EX2-M00	4.3	3.16	3.65	4.08	4.56	5.00	5.40	3.54	3.96	4.43	4.85	5.24	5.60	3.42	3.82	4.28	4.68	5.06	5.41
ESVB-1	1	0.51	0.59	0.66	0.74	0.81	0.87	0.57	0.64	0.71	0.78	0.84	0.90	0.55	0.61	0.69	0.75	0.81	0.87
ESVB-4	4	2.46	2.84	3.18	3.55	3.89	4.20	2.75	3.07	3.44	3.77	4.07	4.35	2.66	2.97	3.33	3.64	3.93	4.21
ESVB-10	10	7.39	8.53	9.54	10.67	11.68	12.62	8.27	9.25	10.34	11.32	12.23	13.08	7.98	8.92	9.98	10.93	11.80	12.62
ESVB-20	20	16.03	18.51	20.69	23.14	25.35	27.38	17.93	20.05	22.41	24.55	26.52	28.35	17.31	19.35	21.64	23.70	25.60	27.37

Thermal Expansion Valves
Solenoid Valves
Coils
Industrial Solenoid Valves
Shut Off Valves
System Protectors
Storage Devices
Oil Controls
Pressure Regulators
Temperature Controls
Competitive Cross Reference

R-134a Electric Valves (Tons)– E Series

Capacities are for EX2 @ 100% duty cycle, ESVB-1 and -4 @ 250 steps open, ESVB-10 and -20 @ 650 steps open

Valve Type	Nominal Rating	Evaporator Temperature																	
		50°F						40°F					20°F						
		Pressure Drop Across Valve (PSI)						Pressure Drop Across Valve (PSI)					Pressure Drop Across Valve (PSI)						
		60	80	100	125	150	175	60	80	100	125	150	175	60	80	100	125	150	175
EX2-00X	0.23	0.17	0.20	0.22	0.25	0.27	0.29	0.17	0.20	0.22	0.25	0.27	0.29	0.16	0.18	0.21	0.23	0.25	0.27
EX2-000	0.4	0.30	0.35	0.39	0.43	0.47	0.51	0.29	0.33	0.37	0.42	0.46	0.50	0.28	0.32	0.36	0.40	0.44	0.48
EX2-001	0.81	0.61	0.70	0.79	0.88	0.96	1.04	0.59	0.68	0.76	0.85	0.93	1.01	0.57	0.66	0.74	0.82	0.90	0.97
EX2-002	1.1	0.82	0.95	1.06	1.18	1.30	1.40	0.81	0.94	1.05	1.17	1.28	1.38	0.77	0.89	0.99	1.11	1.22	1.32
EX2-003	2.0	1.55	1.79	2.00	2.24	2.45	2.65	1.52	1.76	1.96	2.19	2.40	2.60	1.47	1.70	1.90	2.12	2.32	2.51
EX2-004	2.7	2.02	2.33	2.61	2.92	3.19	3.45	1.98	2.29	2.56	2.86	3.13	3.38	1.90	2.19	2.45	2.74	3.00	3.24
EX2-M00	4.3	3.22	3.72	4.16	4.65	5.09	5.50	3.16	3.65	4.08	4.56	5.00	5.40	3.02	3.49	3.90	4.36	4.78	5.16
ESVB -1	1	0.52	0.60	0.67	0.75	0.82	0.89	0.51	0.59	0.66	0.74	0.81	0.87	0.49	0.57	0.63	0.71	0.77	0.84
ESVB-4	4	2.51	2.90	3.24	3.62	3.97	4.29	2.45	2.83	3.16	3.54	3.87	4.18	2.35	2.71	3.03	3.39	3.72	4.01
ESVB-10	10	7.54	8.71	9.73	10.88	11.92	12.88	7.38	8.52	9.53	10.65	11.67	12.60	7.06	8.15	9.11	10.19	11.16	12.06
ESVB-20	20	16.34	18.87	21.09	23.58	25.84	27.91	16.00	18.48	20.66	23.09	25.30	27.33	15.31	17.68	19.77	22.10	24.21	26.15
Valve Type	Nominal Rating	Evaporator Temperature																	
		0°F						-20°F					-40°F						
		Pressure Drop Across Valve (PSI)						Pressure Drop Across Valve (PSI)					Pressure Drop Across Valve (PSI)						
		60	80	100	125	150	175	80	100	125	150	175	200	80	100	125	150	175	200
EX2-00X	0.23	0.15	0.17	0.19	0.22	0.24	0.26	0.17	0.19	0.21	0.23	0.25	0.27	0.16	0.18	0.20	0.22	0.24	0.25
EX2-000	0.4	0.27	0.31	0.35	0.39	0.43	0.46	0.29	0.32	0.36	0.40	0.43	0.46	0.28	0.31	0.35	0.38	0.41	0.44
EX2-001	0.81	0.54	0.62	0.70	0.78	0.85	0.92	0.59	0.66	0.74	0.81	0.87	0.93	0.56	0.63	0.70	0.77	0.83	0.89
EX2-002	1.1	0.74	0.85	0.96	1.07	1.17	1.26	0.81	0.91	1.01	1.11	1.20	1.28	0.76	0.85	0.95	1.04	1.12	1.20
EX2-003	2.0	1.41	1.63	1.82	2.04	2.23	2.41	1.56	1.74	1.95	2.14	2.31	2.47	1.49	1.67	1.86	2.04	2.20	2.36
EX2-004	2.7	1.81	2.09	2.34	2.61	2.86	3.09	1.98	2.21	2.48	2.71	2.93	3.13	1.88	2.10	2.35	2.57	2.78	2.97
EX2-M00	4.3	2.88	3.33	3.72	4.16	4.55	4.92	3.16	3.53	3.95	4.33	4.67	5.00	2.99	3.34	3.74	4.09	4.42	4.73
ESVB -1	1	0.47	0.54	0.61	0.68	0.74	0.80	0.51	0.57	0.64	0.70	0.75	0.81	0.48	0.54	0.60	0.66	0.71	0.76
ESVB-4	4	2.24	2.59	2.89	3.23	3.54	3.83	2.45	2.74	3.06	3.35	3.62	3.87	2.32	2.59	2.90	3.18	3.43	3.67
ESVB-10	10	6.73	7.77	8.69	9.71	10.64	11.49	7.38	8.25	9.23	10.11	10.92	11.67	6.98	7.80	8.73	9.56	10.32	11.04
ESVB-20	20	14.59	16.85	18.84	21.06	23.07	24.92	16.00	17.89	20.00	21.91	23.66	25.30	15.14	16.93	18.93	20.73	22.39	23.94

R-404A/R-507 Electric Valves (Tons)– E Series

Capacities are for EX2 @ 100% duty cycle, ESVB-1 and -4 @ 250 steps open, ESVB-10 and -20 @ 650 steps open

Valve Type	Nominal Rating	Evaporator Temperature																	
		50°F						40°F					20°F						
		Pressure Drop Across Valve (PSI)						Pressure Drop Across Valve (PSI)					Pressure Drop Across Valve (PSI)						
		60	80	100	125	150	175	60	80	100	125	150	175	60	80	100	125	150	175
EX2-00X	0.23	0.13	0.15	0.17	0.19	0.21	0.22	0.13	0.15	0.17	0.19	0.21	0.22	0.12	0.14	0.15	0.17	0.19	0.20
EX2-000	0.4	0.23	0.27	0.30	0.33	0.36	0.39	0.22	0.25	0.28	0.32	0.35	0.38	0.21	0.24	0.27	0.30	0.33	0.36
EX2-001	0.81	0.47	0.54	0.61	0.68	0.74	0.80	0.46	0.53	0.59	0.66	0.73	0.79	0.43	0.50	0.56	0.62	0.68	0.73
EX2-002	1.1	0.63	0.73	0.81	0.91	1.00	1.08	0.62	0.72	0.80	0.89	0.98	1.06	0.59	0.68	0.76	0.85	0.93	1.01
EX2-003	2.0	1.15	1.33	1.48	1.66	1.82	1.96	1.12	1.29	1.45	1.62	1.77	1.91	1.07	1.24	1.38	1.54	1.69	1.83
EX2-004	2.7	1.55	1.79	2.00	2.24	2.45	2.65	1.52	1.76	1.96	2.19	2.40	2.60	1.44	1.66	1.86	2.08	2.28	2.46
EX2-M00	4.3	2.47	2.85	3.19	3.57	3.91	4.22	2.42	2.79	3.12	3.49	3.83	4.13	2.30	2.66	2.97	3.32	3.64	3.93
ESVB -1	1	0.40	0.46	0.52	0.58	0.63	0.68	0.39	0.45	0.50	0.56	0.62	0.67	0.37	0.43	0.48	0.53	0.59	0.63
ESVB-4	4	1.92	2.22	2.48	2.77	3.04	3.28	1.88	2.17	2.43	2.71	2.97	3.21	1.79	2.07	2.31	2.58	2.83	3.06
ESVB-10	10	5.79	6.69	7.47	8.36	9.15	9.89	5.65	6.52	7.29	8.16	8.93	9.65	5.37	6.20	6.93	7.75	8.49	9.17
ESVB-20	20	12.55	14.49	16.20	18.11	19.84	21.43	12.26	14.16	15.83	17.70	19.38	20.94	11.64	13.44	15.03	16.80	18.40	19.88
Valve Type	Nominal Rating	Evaporator Temperature																	
		0°F						-20°F					-40°F						
		Pressure Drop Across Valve (PSI)						Pressure Drop Across Valve (PSI)					Pressure Drop Across Valve (PSI)						
		60	80	100	125	150	175	80	100	125	150	175	200	80	100	125	150	175	200
EX2-00X	0.23	0.12	0.14	0.15	0.17	0.19	0.20	0.13	0.15	0.16	0.18	0.19	0.21	0.12	0.13	0.15	0.16	0.18	0.19
EX2-000	0.4	0.20	0.23	0.26	0.29	0.32	0.34	0.22	0.25	0.28	0.30	0.33	0.35	0.20	0.22	0.25	0.27	0.30	0.32
EX2-001	0.81	0.41	0.47	0.53	0.59	0.65	0.70	0.44	0.49	0.55	0.60	0.65	0.70	0.41	0.46	0.51	0.56	0.61	0.65
EX2-002	1.1	0.55	0.64	0.71	0.79	0.87	0.94	0.60	0.67	0.75	0.82	0.89	0.95	0.56	0.63	0.70	0.77	0.83	0.89
EX2-003	2.0	1.01	1.17	1.30	1.46	1.60	1.72	1.09	1.22	1.36	1.49	1.61	1.72	1.02	1.14	1.28	1.40	1.51	1.61
EX2-004	2.7	1.36	1.57	1.76	1.96	2.15	2.32	1.48	1.65	1.85	2.03	2.19	2.34	1.38	1.54	1.73	1.89	2.04	2.18
EX2-M00	4.3	2.17	2.51	2.80	3.13	3.43	3.71	2.35	2.63	2.94	3.22	3.48	3.72	2.19	2.45	2.74	3.00	3.24	3.46
ESVB -1	1	0.35	0.40	0.45	0.51	0.55	0.60	0.38	0.42	0.48	0.52	0.56	0.60	0.36	0.40	0.45	0.49	0.53	0.57
ESVB-4	4	1.69	1.95	2.18	2.44	2.67	2.89	1.83	2.05	2.29	2.51	2.71	2.89	1.70	1.90	2.13	2.33	2.51	2.69
ESVB-10	10	5.07	5.85	6.55	7.32	8.02	8.66	5.49	6.14	6.86	7.52	8.12	8.68	5.12	5.72	6.40	7.01	7.57	8.10
ESVB-20	20	10.99	12.69	14.19	15.86	17.38	18.77	11.91	13.32	14.89	16.31	17.62	18.83	11.11	12.42	13.89	15.21	16.43	17.57

R-407C Electric Valves (Tons)– E Series

Capacities are for EX2 @ 100% duty cycle, ESVB-1 and -4 @ 250 steps open, ESVB-10 and -20 @ 650 steps open

Valve Type	Nominal Rating	Evaporator Temperature																	
		50°F						40°F						20°F					
		Pressure Drop Across Valve (PSI)						Pressure Drop Across Valve (PSI)						Pressure Drop Across Valve (PSI)					
		60	80	100	125	150	175	60	80	100	125	150	175	60	80	100	125	150	175
EX2-00X	0.23	0.17	0.20	0.22	0.25	0.27	0.29	0.17	0.20	0.22	0.25	0.27	0.29	0.16	0.18	0.21	0.23	0.25	0.27
EX2-000	0.4	0.30	0.35	0.39	0.43	0.47	0.51	0.30	0.35	0.39	0.43	0.47	0.51	0.28	0.32	0.36	0.40	0.44	0.48
EX2-001	.81	0.61	0.70	0.79	0.88	0.96	1.04	0.60	0.69	0.77	0.87	0.95	1.02	0.58	0.67	0.75	0.84	0.92	0.99
EX2-002	1.1	0.83	0.96	1.07	1.20	1.31	1.42	0.81	0.94	1.05	1.17	1.28	1.38	0.78	0.90	1.01	1.13	1.23	1.33
EX2-003	2.0	1.51	1.74	1.95	2.18	2.39	2.58	1.48	1.71	1.91	2.14	2.34	2.53	1.42	1.64	1.83	2.05	2.25	2.43
EX2-004	2.7	2.04	2.36	2.63	2.94	3.23	3.48	2.00	2.31	2.58	2.89	3.16	3.42	1.92	2.22	2.48	2.77	3.04	3.28
EX2-M00	4.3	3.24	3.74	4.18	4.68	5.12	5.53	3.18	3.67	4.11	4.59	5.03	5.43	3.06	3.53	3.95	4.42	4.84	5.23
ESVB -1	1	0.53	0.61	0.68	0.76	0.84	0.91	0.52	0.60	0.67	0.75	0.82	0.89	0.50	0.58	0.65	0.72	0.79	0.85
ESVB-4	4	2.52	2.91	3.25	3.64	3.98	4.30	2.47	2.85	3.19	3.57	3.91	4.22	2.38	2.75	3.07	3.44	3.76	4.06
ESVB-10	10	7.58	8.75	9.79	10.94	11.99	12.95	7.44	8.59	9.60	10.74	11.76	12.71	7.14	8.24	9.22	10.31	11.29	12.19
ESVB-20	20	16.44	18.98	21.22	23.73	25.99	28.08	16.13	18.63	20.82	23.28	25.50	27.55	15.49	17.89	20.00	22.36	24.49	26.45

Valve Type	Nominal Rating	Evaporator Temperature																	
		0°F						-20°F						-40°F					
		Pressure Drop Across Valve (PSI)						Pressure Drop Across Valve (PSI)						Pressure Drop Across Valve (PSI)					
		60	80	100	125	150	175	80	100	125	150	175	200	80	100	125	150	175	200
EX2-00X	0.23	0.16	0.18	0.21	0.23	0.25	0.27	0.17	0.19	0.21	0.23	0.25	0.27	0.16	0.18	0.20	0.22	0.24	0.25
EX2-000	0.4	0.27	0.31	0.35	0.39	0.43	0.46	0.30	0.34	0.38	0.41	0.44	0.47	0.28	0.31	0.35	0.38	0.41	0.44
EX2-001	.81	0.55	0.64	0.71	0.79	0.87	0.94	0.60	0.67	0.75	0.82	0.89	0.95	0.57	0.64	0.71	0.78	0.84	0.90
EX2-002	1.1	0.75	0.87	0.97	1.08	1.19	1.28	0.82	0.92	1.03	1.12	1.21	1.30	0.78	0.87	0.98	1.07	1.15	1.23
EX2-003	2.0	1.36	1.57	1.76	1.96	2.15	2.32	1.49	1.67	1.86	2.04	2.20	2.36	1.42	1.59	1.78	1.94	2.10	2.25
EX2-004	2.7	1.83	2.11	2.36	2.64	2.89	3.13	2.02	2.26	2.53	2.77	2.99	3.19	1.91	2.14	2.39	2.62	2.82	3.02
EX2-M00	4.3	2.92	3.37	3.77	4.21	4.62	4.99	3.21	3.59	4.01	4.40	4.75	5.08	3.05	3.41	3.81	4.18	4.51	4.82
ESVB -1	1	0.47	0.54	0.61	0.68	0.74	0.80	0.52	0.58	0.65	0.71	0.77	0.82	0.49	0.55	0.61	0.67	0.72	0.77
ESVB-4	4	2.27	2.62	2.93	3.28	3.59	3.88	2.50	2.80	3.13	3.42	3.70	3.95	2.37	2.65	2.96	3.25	3.51	3.75
ESVB-10	10	6.83	7.89	8.82	9.86	10.80	11.66	7.51	8.40	9.39	10.28	11.11	11.87	7.12	7.96	8.90	9.75	10.53	11.26
ESVB-20	20	14.81	17.10	19.12	21.38	23.42	25.29	16.28	18.20	20.35	22.29	24.08	25.74	15.44	17.26	19.30	21.14	22.84	24.41

R-502 Electric Valves (Tons)– E Series

Capacities are for EX2 @ 100% duty cycle, ESVB-1 and -4 @ 250 steps open, ESVB-10 and -20 @ 650 steps open

Valve Type	Nominal Rating	Evaporator Temperature																	
		50°F						40°F						20°F					
		Pressure Drop Across Valve (PSI)						Pressure Drop Across Valve (PSI)						Pressure Drop Across Valve (PSI)					
		60	80	100	125	150	175	60	80	100	125	150	175	60	80	100	125	150	175
EX2-000	0.4	0.21	0.24	0.27	0.30	0.33	0.36	0.20	0.23	0.26	0.29	0.32	0.34	0.19	0.22	0.25	0.27	0.30	0.32
EX2-001	.81	0.42	0.48	0.54	0.61	0.66	0.72	0.41	0.47	0.53	0.59	0.65	0.70	0.39	0.45	0.50	0.56	0.62	0.67
EX2-002	1.1	0.56	0.65	0.72	0.81	0.89	0.96	0.55	0.64	0.71	0.79	0.87	0.94	0.53	0.61	0.68	0.76	0.84	0.91
EX2-003	2.0	1.03	1.19	1.33	1.49	1.63	1.76	1.00	1.15	1.29	1.44	1.58	1.71	0.96	1.11	1.24	1.39	1.52	1.64
EX2-004	2.7	1.39	1.61	1.79	2.01	2.20	2.37	1.36	1.57	1.76	1.96	2.15	2.32	1.29	1.49	1.67	1.86	2.04	2.20
EX2-M00	4.3	2.21	2.55	2.85	3.19	3.49	3.77	2.16	2.49	2.79	3.12	3.42	3.69	2.06	2.38	2.66	2.97	3.26	3.52
ESVB -1	1	0.36	0.42	0.46	0.52	0.57	0.61	0.35	0.40	0.45	0.51	0.55	0.60	0.33	0.38	0.43	0.48	0.52	0.56
ESVB-4	4	1.72	1.99	2.22	2.48	2.72	2.94	1.68	1.94	2.17	2.42	2.66	2.87	1.60	1.85	2.07	2.31	2.53	2.73
ESVB-10	10	5.16	5.96	6.66	7.45	8.16	8.81	4.82	5.57	6.22	6.96	7.62	8.23	4.82	5.57	6.22	6.96	7.62	8.23
ESVB-20	20	11.18	12.91	14.43	16.14	17.68	19.09	10.95	12.64	14.14	15.80	17.31	18.70	10.45	12.07	13.49	15.08	16.52	17.85

Valve Type	Nominal Rating	Evaporator Temperature																	
		0°F						-20°F						-40°F					
		Pressure Drop Across Valve (PSI)						Pressure Drop Across Valve (PSI)						Pressure Drop Across Valve (PSI)					
		60	80	100	125	150	175	80	100	125	150	175	200	80	100	125	150	175	200
EX2-000	0.4	0.18	0.21	0.23	0.26	0.28	0.31	0.20	0.22	0.25	0.27	0.30	0.32	0.19	0.21	0.24	0.26	0.28	0.30
EX2-001	.81	0.37	0.43	0.48	0.53	0.59	0.63	0.40	0.45	0.50	0.55	0.59	0.63	0.38	0.42	0.48	0.52	0.56	0.60
EX2-002	1.1	0.50	0.58	0.65	0.72	0.79	0.85	0.55	0.61	0.69	0.75	0.81	0.87	0.51	0.57	0.64	0.70	0.75	0.81
EX2-003	2.0	0.91	1.05	1.17	1.31	1.44	1.55	0.99	1.11	1.24	1.36	1.46	1.57	0.93	1.04	1.16	1.27	1.38	1.47
EX2-004	2.7	1.23	1.42	1.59	1.78	1.94	2.10	1.34	1.50	1.68	1.83	1.98	2.12	1.26	1.41	1.58	1.73	1.86	1.99
EX2-M00	4.3	1.96	2.26	2.53	2.83	3.10	3.35	2.13	2.38	2.66	2.92	3.15	3.37	2.00	2.24	2.50	2.74	2.96	3.16
ESVB -1	1	0.32	0.37	0.41	0.46	0.51	0.55	0.35	0.39	0.44	0.48	0.52	0.55	0.32	0.36	0.40	0.44	0.47	0.51
ESVB-4	4	1.52	1.76	1.96	2.19	2.40	2.60	1.66	1.86	2.08	2.27	2.46	2.62	1.56	1.74	1.95	2.14	2.31	2.47
ESVB-10	10	4.57	5.28	5.90	6.60	7.23	7.80	4.99	5.58	6.24	6.83	7.38	7.89	4.68	5.23	5.85	6.41	6.92	7.40
ESVB-20	20	9.92	11.45	12.81	14.32	15.68	16.94	10.81	12.09	13.51	14.80	15.99	17.09	10.15	11.35	12.69	13.90	15.01	16.05

Expansion Valves
Thermal Valves
Solenoid Valves
Coils
Industrial Solenoid Valves
Shut Off Valves
System Protectors
Storage Devices
Controls
Pressure Regulators
Temperature Controls
Competitive Cross Reference

R-12 Conventional Valves (kWatts)- A Series, T Series & TI Series

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		10°C					0°C					-10°C							
		PRESSURE DROP ACROSS VALVE (kPa)					PRESSURE DROP ACROSS VALVE (kPa)					PRESSURE DROP ACROSS VALVE (kPa)							
		400	600	700	800	1000	1100	400	600	700	800	1000	1100	400	600	700	800	1000	1100
AA/AN/AAC/ANC	1/8	0.71	0.87	0.94	1.00	1.12	1.17	0.71	0.87	0.94	1.00	1.12	1.17	0.67	0.82	0.89	0.95	1.06	1.12
AA/AN/AAC/ANC/AFA	1/4	1.24	1.52	1.64	1.75	1.96	2.05	1.20	1.47	1.59	1.70	1.90	2.00	1.17	1.43	1.55	1.65	1.85	1.94
AA/AN/AAC/ANC/AFA	1/2	1.98	2.43	2.62	2.80	3.13	3.29	1.95	2.38	2.58	2.75	3.08	3.23	1.88	2.30	2.48	2.65	2.97	3.11
AA/AN/AAC/ANC/AFA	1	2.83	3.47	3.75	4.01	4.48	4.70	2.80	3.43	3.70	3.95	4.42	4.64	2.69	3.30	3.56	3.80	4.25	4.46
AA/AN/AAC/ANC/AFA	1-1/2	5.88	7.20	7.77	8.31	9.29	9.74	5.77	7.07	7.63	8.16	9.12	9.57	5.52	6.76	7.31	7.81	8.73	9.16
AA/AN/AAC/ANC/AFA	2	7.22	8.84	9.55	10.21	11.42	11.98	7.08	8.67	9.37	10.01	11.19	11.74	6.80	8.32	8.99	9.61	10.75	11.27
AA/AN/AAC/ANC	2-1/2	8.57	10.49	11.33	12.12	13.55	14.21	8.39	10.28	11.10	11.86	13.27	13.91	8.07	9.89	10.68	11.41	12.76	13.38
AA/AN/AAC/ANC/AFA	3	11.72	14.35	15.50	16.57	18.53	19.43	11.47	14.05	15.17	16.22	18.14	19.02	11.01	13.48	14.56	15.57	17.41	18.26
TCLE	1/4	1.06	1.30	1.40	1.50	1.68	1.76	1.06	1.30	1.40	1.50	1.68	1.76	0.99	1.21	1.31	1.40	1.57	1.64
TCLE	1/2	2.02	2.47	2.67	2.85	3.19	3.35	1.98	2.43	2.62	2.80	3.13	3.29	1.88	2.30	2.48	2.65	2.97	3.11
TCLE	1	4.07	4.99	5.39	5.76	6.44	6.75	4.00	4.90	5.29	5.66	6.32	6.63	3.82	4.68	5.06	5.41	6.05	6.34
TCLE	2	7.50	9.19	9.93	10.61	11.87	12.45	7.36	9.02	9.74	10.41	11.64	12.21	7.04	8.63	9.32	9.96	11.14	11.68
TCLE	3	10.94	13.40	14.47	15.47	17.30	18.14	10.73	13.14	14.19	15.17	16.96	17.79	10.27	12.57	13.58	14.52	16.23	17.02
TCLE	4	15.86	19.42	20.98	22.43	25.08	26.30	15.54	19.03	20.56	21.98	24.57	25.77	14.90	18.25	19.72	21.08	23.56	24.71
TCLE	6-1/2	21.84	26.75	28.89	30.89	34.53	36.22	21.42	26.23	28.33	30.29	33.86	35.52	20.53	25.15	27.16	29.04	32.46	34.05
TCLE	7-1/2	26.34	32.26	34.84	37.25	41.64	43.68	25.84	31.65	34.19	36.55	40.86	42.85	24.78	30.35	32.78	35.04	39.18	41.09
TJL	7	23.33	28.57	30.86	32.99	36.89	38.69	22.90	28.05	30.30	32.39	36.21	37.98	21.95	26.88	29.03	31.04	34.70	36.40
TJL	8	29.77	36.46	39.38	42.10	47.07	49.37	29.21	35.77	38.63	41.30	46.18	48.43	28.00	34.29	37.04	39.60	44.27	46.44

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		-20°C					-30°C					-40°C							
		PRESSURE DROP ACROSS VALVE (kPa)					PRESSURE DROP ACROSS VALVE (kPa)					PRESSURE DROP ACROSS VALVE (kPa)							
		400	600	700	800	1000	1100	600	700	800	1000	1100	1200	600	700	800	1000	1100	1200
AA/AN/AAC/ANC	1/8	0.60	0.74	0.80	0.85	0.95	1.00	0.46	0.50	0.53	0.59	0.62	0.65	0.28	0.31	0.33	0.37	0.38	0.40
AA/AN/AAC/ANC/AFA	1/4	1.03	1.26	1.36	1.45	1.62	1.70	0.81	0.88	0.94	1.05	1.10	1.15	0.53	0.57	0.61	0.69	0.72	0.75
AA/AN/AAC/ANC/AFA	1/2	1.66	2.04	2.20	2.35	2.63	2.76	1.31	1.41	1.51	1.69	1.77	1.85	0.85	0.92	0.98	1.10	1.15	1.20
AA/AN/AAC/ANC/AFA	1	2.37	2.90	3.14	3.35	3.75	3.93	1.88	2.03	2.17	2.42	2.54	2.65	1.20	1.30	1.39	1.55	1.63	1.70
AA/AN/AAC/ANC/AFA	1-1/2	4.92	6.03	6.51	6.96	7.78	8.16	3.86	4.17	4.46	4.98	5.22	5.46	2.51	2.71	2.90	3.24	3.40	3.55
AA/AN/AAC/ANC/AFA	2	6.02	7.37	7.96	8.51	9.52	9.98	4.71	5.09	5.44	6.08	6.37	6.66	3.08	3.33	3.56	3.98	4.17	4.36
AA/AN/AAC/ANC	2-1/2	7.15	8.76	9.46	10.11	11.31	11.86	5.59	6.04	6.46	7.22	7.57	7.91	3.65	3.94	4.21	4.71	4.94	5.16
AA/AN/AAC/ANC/AFA	3	9.77	11.97	12.93	13.82	15.45	16.20	7.65	8.26	8.83	9.87	10.35	10.81	4.96	5.35	5.72	6.40	6.71	7.01
TCLE	1/4	0.89	1.08	1.17	1.25	1.40	1.47	0.71	0.76	0.82	0.91	0.96	1.00	0.46	0.50	0.53	0.59	0.62	0.65
TCLE	1/2	1.66	2.04	2.20	2.35	2.63	2.76	1.31	1.41	1.51	1.69	1.77	1.85	0.85	0.92	0.98	1.10	1.15	1.20
TCLE	1	3.40	4.16	4.50	4.81	5.37	5.64	2.66	2.87	3.07	3.43	3.59	3.75	1.73	1.87	2.00	2.24	2.35	2.45
TCLE	2	6.23	7.63	8.24	8.81	9.85	10.33	4.89	5.28	5.64	6.31	6.61	6.91	3.19	3.44	3.68	4.11	4.31	4.51
TCLE	3	9.10	11.14	12.04	12.87	14.38	15.09	7.12	7.69	8.22	9.19	9.63	10.06	4.64	5.01	5.35	5.99	6.28	6.56
TCLE	4	13.20	16.17	17.47	18.67	20.88	21.90	10.34	11.17	11.94	13.34	14.00	14.62	6.73	7.26	7.77	8.68	9.11	9.51
TCLE	6-1/2	18.20	22.28	24.07	25.73	28.77	30.17	14.27	15.41	16.47	18.42	19.32	20.18	9.27	10.02	10.71	11.97	12.56	13.12
TCLE	7-1/2	21.95	26.88	29.03	31.04	34.70	36.40	17.20	18.58	19.87	22.21	23.29	24.33	11.19	12.08	12.92	14.44	15.15	15.82
TJL	7	19.43	23.80	25.71	27.48	30.73	32.23	15.22	16.44	17.58	19.65	20.61	21.53	9.91	10.71	11.45	12.80	13.42	14.02
TJL	8	24.78	30.35	32.78	35.04	39.18	41.09	19.43	20.99	22.44	25.09	26.31	27.48	12.64	13.65	14.59	16.32	17.11	17.87

Refrigerant Liquid Temperature Correction Factors

	Refrigerant Liquid Temperature °F														
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140
R-12 Correction Factor	1.60	1.54	1.48	1.42	1.36	1.30	1.24	1.18	1.12	1.06	1.00	.94	.88	.82	.75
R-134a Correction Factor	1.70	1.63	1.56	1.49	1.42	1.36	1.29	1.21	1.14	1.07	1.00	.93	.85	.78	.71
R-22 Correction Factor	1.56	1.51	1.45	1.40	1.34	1.29	1.23	1.17	1.12	1.06	1.00	.94	.88	.82	.76
R-404A/R-507 Correction	2.00	1.90	1.80	1.70	1.60	1.50	1.40	1.30	1.20	1.10	1.00	.90	.80	.70	.50

These factors include corrections for liquid refrigerant density and net refrigerating effect and are based on an average evaporator temperature of 0°F. However, they may be used for any evaporator temperature from -40°F to +40°F since the variation in the actual factors across this range is insignificant.

R-22 Conventional Valves (kWatts)– A Series, T Series & TI Series

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		10°C						0°C						-10°C					
		PRESSURE DROP ACROSS VALVE (kPa)						PRESSURE DROP ACROSS VALVE (kPa)						PRESSURE DROP ACROSS VALVE (kPa)					
		400	600	700	800	1000	1100	400	600	700	800	1000	1100	400	600	700	800	1000	1100
AA/AN/AFA	1/5	0.53	0.65	0.70	0.75	0.84	0.88	0.52	0.64	0.69	0.74	0.82	0.86	0.50	0.61	0.66	0.70	0.78	0.82
AA/AN/AAC/ANC	1/4	0.92	1.13	1.22	1.30	1.46	1.53	0.90	1.11	1.20	1.28	1.43	1.50	0.89	1.08	1.17	1.25	1.40	1.47
AA/AN/AAC/ANC/AFA	1/2	1.63	1.99	2.15	2.30	2.57	2.70	1.59	1.95	2.10	2.25	2.51	2.64	1.56	1.91	2.06	2.20	2.46	2.58
AA/AN/AAC/ANC/AFA	1	2.58	3.16	3.42	3.65	4.09	4.29	2.55	3.12	3.37	3.61	4.03	4.23	2.48	3.03	3.28	3.50	3.92	4.11
AA/AN/AAC/ANC/AFA	1-1/2	3.72	4.55	4.92	5.26	5.88	6.16	3.65	4.47	4.82	5.16	5.77	6.05	3.58	4.38	4.73	5.06	5.65	5.93
AA/AN/AAC/ANC/AFA	2	5.45	6.68	7.21	7.71	8.62	9.04	5.37	6.58	7.11	7.60	8.50	8.91	5.24	6.42	6.93	7.41	8.28	8.69
AA/AN/AAC/ANC/AFA	2-1/2	7.65	9.36	10.12	10.81	12.09	12.68	7.54	9.24	9.98	10.66	11.92	12.50	7.36	9.02	9.74	10.41	11.64	12.21
AA/AN/AAC/ANC/AFA	3	9.38	11.49	12.41	13.27	14.83	15.56	9.24	11.32	12.22	13.07	14.61	15.32	9.03	11.06	11.94	12.77	14.27	14.97
AA/AN/AAC/ANC	4	11.12	13.61	14.70	15.72	17.58	18.43	10.97	13.43	14.51	15.51	17.34	18.19	10.73	13.14	14.19	15.17	16.96	17.79
AA/AN/AAC/ANC/AFA	5	15.22	18.64	20.14	21.53	24.07	25.24	15.00	18.37	19.84	21.21	23.72	24.87	14.66	17.95	19.39	20.73	23.17	24.30
TCLE	1/2	1.38	1.69	1.83	1.95	2.18	2.29	1.37	1.68	1.81	1.94	2.17	2.27	1.35	1.65	1.78	1.90	2.13	2.23
TCLE	1	2.62	3.21	3.47	3.70	4.14	4.34	2.58	3.16	3.41	3.65	4.08	4.27	2.51	3.08	3.32	3.55	3.97	4.17
TCLE	2	5.27	6.46	6.98	7.46	8.34	8.75	5.21	6.38	6.89	7.37	8.24	8.64	5.10	6.24	6.74	7.21	8.06	8.45
TCLE	3	9.74	11.92	12.88	13.77	15.39	16.14	9.60	11.75	12.70	13.57	15.17	15.92	9.38	11.49	12.41	13.27	14.83	15.56
TCLE	5	14.20	17.39	18.78	20.08	22.44	23.54	13.98	17.13	18.50	19.78	22.11	23.19	13.66	16.74	18.08	19.32	21.61	22.66
TCLE	7-1/2	20.60	25.23	27.25	29.14	32.58	34.17	20.35	24.92	26.92	28.77	32.17	33.74	19.82	24.28	26.22	28.04	31.34	32.87
TCLE	10	28.39	34.77	37.56	40.15	44.89	47.08	28.05	34.36	37.11	39.67	44.35	46.52	27.33	33.47	36.15	38.65	43.21	45.32
TCLE	12	34.23	41.93	45.28	48.41	54.13	56.77	33.81	41.41	44.73	47.81	53.46	56.07	32.96	40.36	43.60	46.61	52.11	54.65
TJL	11	30.34	37.16	40.13	42.90	47.97	50.31	29.97	36.71	39.65	42.39	47.39	49.70	29.21	35.77	38.63	41.30	46.18	48.43
TJL	14	38.66	47.34	51.14	54.67	61.12	64.11	38.22	46.82	50.57	54.06	60.44	63.39	37.24	45.61	49.26	52.67	58.88	61.76

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		-20°C				-30°C				-40°C									
		PRESSURE DROP ACROSS VALVE (kPa)				PRESSURE DROP ACROSS VALVE (kPa)				PRESSURE DROP ACROSS VALVE (kPa)									
		400	600	700	800	1000	1100	600	700	800	1000	1100	1200	600	700	800	1000	1100	1200
AA/AN/AFA	1/5	0.46	0.56	0.61	0.65	0.73	0.76	0.35	0.38	0.41	0.46	0.48	0.50	0.25	0.27	0.29	0.32	0.34	0.35
AA/AN/AAC/ANC	1/4	0.81	1.00	1.08	1.15	1.29	1.35	0.64	0.69	0.74	0.82	0.86	0.90	0.42	0.46	0.49	0.55	0.58	0.60
AA/AN/AAC/ANC/AFA	1/2	1.42	1.73	1.87	2.00	2.24	2.35	1.13	1.22	1.31	1.46	1.53	1.60	0.74	0.80	0.86	0.96	1.01	1.05
AA/AN/AAC/ANC/AFA	1	2.27	2.77	3.00	3.20	3.58	3.76	1.81	1.95	2.08	2.33	2.44	2.55	1.20	1.30	1.39	1.55	1.63	1.70
AA/AN/AAC/ANC/AFA	1-1/2	3.22	3.95	4.26	4.56	5.09	5.34	2.58	2.79	2.98	3.34	3.50	3.65	1.70	1.84	1.96	2.19	2.30	2.40
AA/AN/AAC/ANC/AFA	2	4.78	5.85	6.32	6.76	7.56	7.93	3.79	4.09	4.37	4.89	5.13	5.36	2.51	2.71	2.90	3.24	3.40	3.55
AA/AN/AAC/ANC/AFA	2-1/2	6.69	8.19	8.85	9.46	10.58	11.10	5.35	5.77	6.17	6.90	7.24	7.56	3.50	3.79	4.05	4.52	4.75	4.96
AA/AN/AAC/ANC/AFA	3	8.18	10.02	10.82	11.56	12.93	13.56	6.55	7.07	7.56	8.45	8.87	9.26	4.32	4.66	4.99	5.58	5.85	6.11
AA/AN/AAC/ANC	4	9.74	11.92	12.88	13.77	15.39	16.14	7.75	8.37	8.95	10.01	10.50	10.96	5.10	5.51	5.89	6.58	6.90	7.21
AA/AN/AAC/ANC/AFA	5	13.28	16.26	17.56	18.77	20.99	22.01	10.62	11.47	12.26	13.71	14.38	15.02	6.97	7.53	8.05	9.00	9.44	9.86
TCLE	1/2	1.20	1.47	1.59	1.70	1.90	2.00	0.96	1.03	1.10	1.23	1.29	1.35	0.64	0.69	0.74	0.82	0.86	0.90
TCLE	1	2.30	2.82	3.04	3.25	3.64	3.82	1.84	1.99	2.13	2.38	2.49	2.60	1.20	1.30	1.39	1.55	1.63	1.70
TCLE	2	4.60	5.64	6.09	6.51	7.28	7.63	3.68	3.98	4.25	4.75	4.98	5.21	2.44	2.64	2.82	3.15	3.31	3.45
TCLE	3	8.50	10.41	11.24	12.02	13.43	14.09	6.80	7.34	7.85	8.77	9.20	9.61	4.46	4.82	5.15	5.76	6.04	6.31
TCLE	5	12.39	15.17	16.39	17.52	19.59	20.55	9.88	10.67	11.40	12.75	13.37	13.97	6.51	7.04	7.52	8.41	8.82	9.21
TCLE	7-1/2	17.98	22.02	23.79	25.43	28.43	29.82	14.34	15.49	16.55	18.51	19.41	20.28	9.45	10.21	10.91	12.20	12.80	13.37
TCLE	10	24.78	30.35	32.78	35.04	39.18	41.09	19.79	21.37	22.85	25.55	26.79	27.99	13.03	14.07	15.04	16.82	17.64	18.42
TCLE	12	29.88	36.59	39.52	42.25	47.24	49.55	23.86	25.77	27.55	30.80	32.31	33.74	15.72	16.98	18.15	20.29	21.28	22.23
TJL	11	26.48	32.43	35.03	37.45	41.87	43.91	21.13	22.83	24.40	27.28	28.62	29.89	13.91	15.03	16.06	17.96	18.84	19.67
TJL	14	33.77	41.36	44.68	47.76	53.40	56.00	26.97	29.14	31.15	34.82	36.52	38.15	17.77	19.19	20.52	22.94	24.06	25.13

Refrigerant Liquid Temperature Correction Factors

	Refrigerant Liquid Temperature °F															
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	
R-12 Correction Factor	1.60	1.54	1.48	1.42	1.36	1.30	1.24	1.18	1.12	1.06	1.00	.94	.88	.82	.75	
R-134a Correction Factor	1.70	1.63	1.56	1.49	1.42	1.36	1.29	1.21	1.14	1.07	1.00	.93	.85	.78	.71	
R-22 Correction Factor	1.56	1.51	1.45	1.40	1.34	1.29	1.23	1.17	1.12	1.06	1.00	.94	.88	.82	.76	
R-404A/R-507 Correction	2.00	1.90	1.80	1.70	1.60	1.50	1.40	1.30	1.20	1.10	1.00	.90	.80	.70	.50	

These factors include corrections for liquid refrigerant density and net refrigerating effect and are based on an average evaporator temperature of 0°F. However, they may be used for any evaporator temperature from -40°F to +40°F since the variation in the actual factors across this range is insignificant.

Thermal Expansion Valves
Solenoid Valves
Coils
Industrial Solenoid Valves
Shut Off Valves
System Protectors
Storage Devices
Controls
Oil
Pressure Regulators
Temperature Pressure Controls
Competitive Cross Reference

R-134a Conventional Valves (kWatts)– A Series, T Series & TI Series

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		10°C					0°C					-10°C							
		PRESSURE DROP ACROSS VALVE (kPa)					PRESSURE DROP ACROSS VALVE (kPa)					PRESSURE DROP ACROSS VALVE (kPa)							
		400	600	700	800	1000	1100	400	600	700	800	1000	1100	400	600	700	800	1000	1100
AA/AN/AFA	1/8	0.50	0.61	0.66	0.70	0.78	0.82	0.50	0.61	0.66	0.70	0.78	0.82	0.46	0.56	0.61	0.65	0.73	0.76
AA/AN/AAC/ANC	1/4	0.89	1.08	1.17	1.25	1.40	1.47	0.85	1.04	1.12	1.20	1.34	1.41	0.81	1.00	1.08	1.15	1.29	1.35
AA/AN/AAC/ANC/AFA	1/2	1.52	1.86	2.01	2.15	2.41	2.52	1.52	1.86	2.01	2.15	2.41	2.52	1.45	1.78	1.92	2.05	2.29	2.41
AA/AN/AAC/ANC/AFA	3/4	2.48	3.03	3.28	3.50	3.92	4.11	2.41	2.95	3.18	3.40	3.81	3.99	2.30	2.82	3.04	3.25	3.64	3.82
AA/AN/AAC/ANC/AFA	1	3.54	4.34	4.68	5.01	5.60	5.87	3.47	4.25	4.59	4.91	5.49	5.75	3.29	4.03	4.36	4.66	5.21	5.46
AA/AN/AAC/ANC/AFA	1-1/2	5.20	6.37	6.88	7.36	8.23	8.63	5.10	6.24	6.74	7.21	8.06	8.45	4.89	5.98	6.46	6.91	7.72	8.10
AA/AN/AAC/ANC/AFA	2	7.29	8.93	9.65	10.31	11.53	12.09	7.15	8.76	9.46	10.11	11.31	11.86	6.83	8.37	9.04	9.66	10.80	11.33
AA/AN/AAC/ANC/AFA	2-1/2	8.96	10.97	11.85	12.67	14.16	14.85	8.74	10.71	11.57	12.37	13.83	14.50	8.39	10.28	11.10	11.86	13.27	13.91
AA/AN/AAC/ANC	3	10.62	13.01	14.05	15.02	16.79	17.61	10.41	12.75	13.77	14.72	16.46	17.26	9.95	12.18	13.16	14.07	15.73	16.50
AA/AN/AAC/ANC/AFA	4	14.51	17.78	19.20	20.53	22.95	24.07	14.23	17.43	18.83	20.13	22.50	23.60	13.59	16.65	17.98	19.22	21.49	22.54
TCLE	1/4	1.31	1.60	1.73	1.85	2.07	2.17	1.31	1.60	1.73	1.85	2.07	2.17	1.24	1.52	1.64	1.75	1.96	2.05
TCLE	3/4	2.48	3.03	3.28	3.50	3.92	4.11	2.44	2.99	3.23	3.45	3.86	4.05	2.34	2.86	3.09	3.30	3.69	3.87
TCLE	1-1/2	5.03	6.16	6.65	7.11	7.95	8.34	4.92	6.03	6.51	6.96	7.78	8.16	4.71	5.77	6.23	6.66	7.44	7.81
TCLE	2-1/2	9.27	11.36	12.27	13.12	14.66	15.38	9.10	11.14	12.04	12.87	14.38	15.09	8.71	10.67	11.52	12.32	13.77	14.44
TCLE	3-1/2	13.52	16.56	17.89	19.12	21.38	22.43	13.24	16.22	17.51	18.72	20.93	21.96	12.67	15.52	16.77	17.92	20.04	21.02
TCLE	5-1/2	19.65	24.06	25.99	27.79	31.06	32.58	19.22	23.54	25.43	27.18	30.39	31.88	18.41	22.55	24.35	26.03	29.11	30.53
TCLE	7-1/2	27.08	33.17	35.82	38.30	42.82	44.91	26.51	32.47	35.08	37.50	41.92	43.97	25.35	31.04	33.53	35.85	40.08	42.03
TCLE	9	32.64	39.97	43.18	46.16	51.61	54.13	31.97	39.15	42.29	45.21	50.54	53.01	30.59	37.46	40.46	43.25	48.36	50.72
TJL	9	28.92	35.42	38.26	40.90	45.73	47.96	28.32	34.68	37.46	40.05	44.78	46.96	27.08	33.17	35.82	38.30	42.82	44.91
TJL	11	36.89	45.18	48.80	52.17	58.32	61.17	36.11	44.22	47.77	51.06	57.09	59.88	34.55	42.32	45.71	48.86	54.63	57.30

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		-20°C					-30°C					-40°C							
		PRESSURE DROP ACROSS VALVE (kPa)					PRESSURE DROP ACROSS VALVE (kPa)					PRESSURE DROP ACROSS VALVE (kPa)							
		400	600	700	800	1000	1100	600	700	800	1000	1100	1200	600	700	800	1000	1100	1200
AA/AN/AFA	1/8	0.39	0.48	0.52	0.55	0.62	0.65	0.28	0.31	0.33	0.37	0.38	0.40	0.18	0.19	0.20	0.23	0.24	0.25
AA/AN/AAC/ANC	1/4	0.67	0.82	0.89	0.95	1.06	1.12	0.50	0.54	0.57	0.64	0.67	0.70	0.32	0.34	0.37	0.41	0.43	0.45
AA/AN/AAC/ANC/AFA	1/2	1.20	1.47	1.59	1.70	1.90	2.00	0.89	0.96	1.02	1.14	1.20	1.25	0.53	0.57	0.61	0.69	0.72	0.75
AA/AN/AAC/ANC/AFA	3/4	1.91	2.34	2.53	2.70	3.02	3.17	1.42	1.53	1.64	1.83	1.92	2.00	0.89	0.96	1.02	1.14	1.20	1.25
AA/AN/AAC/ANC/AFA	1	2.73	3.34	3.61	3.85	4.31	4.52	2.02	2.18	2.33	2.60	2.73	2.85	1.24	1.34	1.43	1.60	1.68	1.75
AA/AN/AAC/ANC/AFA	1-1/2	4.00	4.90	5.29	5.66	6.32	6.63	3.01	3.25	3.47	3.88	4.07	4.26	1.84	1.99	2.13	2.38	2.49	2.60
AA/AN/AAC/ANC/AFA	2	5.63	6.89	7.45	7.96	8.90	9.33	4.21	4.55	4.86	5.44	5.70	5.96	2.58	2.79	2.98	3.34	3.50	3.65
AA/AN/AAC/ANC/AFA	2-1/2	6.90	8.45	9.13	9.76	10.91	11.45	5.13	5.54	5.93	6.63	6.95	7.26	3.15	3.40	3.64	4.07	4.27	4.46
AA/AN/AAC/ANC	3	8.18	10.02	10.82	11.56	12.93	13.56	6.09	6.58	7.03	7.86	8.24	8.61	3.75	4.05	4.33	4.84	5.08	5.31
AA/AN/AAC/ANC/AFA	4	11.19	13.70	14.80	15.82	17.69	18.55	8.35	9.02	9.65	10.79	11.31	11.81	5.13	5.54	5.93	6.63	6.95	7.26
TCLE	1/4	1.03	1.26	1.36	1.45	1.62	1.70	0.78	0.84	0.90	1.01	1.05	1.10	0.46	0.50	0.53	0.59	0.62	0.65
TCLE	3/4	1.91	2.34	2.53	2.70	3.02	3.17	1.45	1.57	1.68	1.87	1.97	2.05	0.89	0.96	1.02	1.14	1.20	1.25
TCLE	1-1/2	3.89	4.77	5.15	5.51	6.16	6.46	2.90	3.14	3.35	3.75	3.93	4.11	1.77	1.91	2.04	2.29	2.40	2.50
TCLE	2-1/2	7.15	8.76	9.46	10.11	11.31	11.86	5.35	5.77	6.17	6.90	7.24	7.56	3.29	3.56	3.80	4.25	4.46	4.66
TCLE	3-1/2	10.44	12.79	13.81	14.77	16.51	17.32	7.79	8.41	8.99	10.05	10.55	11.01	4.78	5.16	5.52	6.17	6.47	6.76
TCLE	5-1/2	15.15	18.56	20.04	21.43	23.96	25.13	11.29	12.20	13.04	14.58	15.29	15.97	6.94	7.49	8.01	8.96	9.39	9.81
TCLE	7-1/2	20.89	25.58	27.63	29.54	33.02	34.64	15.58	16.82	17.99	20.11	21.09	22.03	9.56	10.32	11.04	12.34	12.94	13.52
TCLE	9	25.17	30.83	33.30	35.59	39.80	41.74	18.76	20.27	21.66	24.22	25.40	26.53	11.54	12.47	13.33	14.90	15.63	16.32
TJL	9	22.30	27.31	29.50	31.54	35.26	36.98	16.64	17.97	19.21	21.48	22.53	23.53	10.23	11.05	11.81	13.21	13.85	14.47
TJL	11	28.43	34.81	37.60	40.20	44.95	47.14	21.20	22.90	24.48	27.38	28.71	29.99	13.03	14.07	15.04	16.82	17.64	18.42

Refrigerant Liquid Temperature Correction Factors

	Refrigerant Liquid Temperature °F															
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	
R-12 Correction Factor	1.60	1.54	1.48	1.42	1.36	1.30	1.24	1.18	1.12	1.06	1.00	.94	.88	.82	.75	
R-134a Correction Factor	1.70	1.63	1.56	1.49	1.42	1.36	1.29	1.21	1.14	1.07	1.00	.93	.85	.78	.71	
R-22 Correction Factor	1.56	1.51	1.45	1.40	1.34	1.29	1.23	1.17	1.12	1.06	1.00	.94	.88	.82	.76	
R-404A/R-507 Correction	2.00	1.90	1.80	1.70	1.60	1.50	1.40	1.30	1.20	1.10	1.00	.90	.80	.70	.50	

These factors include corrections for liquid refrigerant density and net refrigerating effect and are based on an average evaporator temperature of 0°F. However, they may be used for any evaporator temperature from -40°F to +40°F since the variation in the actual factors across this range is insignificant.

R-404A/R-507 Conventional Valves (kWatts)– A Series, T Series & TI Series

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		10°C						0°C						-10°C					
		PRESSURE DROP ACROSS VALVE (kPa)						PRESSURE DROP ACROSS VALVE (kPa)						PRESSURE DROP ACROSS VALVE (kPa)					
		400	600	700	800	1000	1100	400	600	700	800	1000	1100	400	600	700	800	1000	1100
AA/AN/AFA	1/8	0.39	0.48	0.52	0.55	0.62	0.65	0.39	0.48	0.52	0.55	0.62	0.65	0.35	0.43	0.47	0.50	0.56	0.59
AA/AN/AAC/ANC	1/4	0.67	0.82	0.89	0.95	1.06	1.12	0.67	0.82	0.89	0.95	1.06	1.12	0.64	0.78	0.84	0.90	1.01	1.06
AA/AN/AAC/ANC/AFA	1/2	1.17	1.43	1.55	1.65	1.85	1.94	1.17	1.43	1.55	1.65	1.85	1.94	1.10	1.34	1.45	1.55	1.74	1.82
AA/AN/AAC/ANC/AFA	3/4	1.91	2.34	2.53	2.70	3.02	3.17	1.84	2.25	2.44	2.60	2.91	3.05	1.77	2.17	2.34	2.50	2.80	2.94
AA/AN/AAC/ANC/AFA	1	2.73	3.34	3.61	3.85	4.31	4.52	2.66	3.25	3.51	3.75	4.20	4.40	2.51	3.08	3.32	3.55	3.97	4.17
AA/AN/AAC/ANC/AFA	1-1/2	4.00	4.90	5.29	5.66	6.32	6.63	3.89	4.77	5.15	5.51	6.16	6.46	3.72	4.55	4.92	5.26	5.88	6.16
AA/AN/AAC/ANC/AFA	2	5.59	6.85	7.40	7.91	8.84	9.28	5.49	6.72	7.26	7.76	8.68	9.10	5.20	6.37	6.88	7.36	8.23	8.63
AA/AN/AAC/ANC/AFA	2-1/2	6.87	8.41	9.08	9.71	10.86	11.39	6.69	8.19	8.85	9.46	10.58	11.10	6.37	7.80	8.43	9.01	10.08	10.57
AA/AN/AAC/ANC	3	8.14	9.97	10.77	11.51	12.87	13.50	7.97	9.76	10.54	11.26	12.59	13.21	7.58	9.28	10.02	10.71	11.98	12.56
AA/AN/AAC/ANC/AFA	4	11.15	13.66	14.75	15.77	17.63	18.49	10.90	13.35	14.42	15.42	17.24	18.08	10.34	12.66	13.67	14.62	16.34	17.14
TCLE	1/4	1.03	1.26	1.36	1.45	1.62	1.70	0.99	1.21	1.31	1.40	1.57	1.64	0.96	1.17	1.26	1.35	1.51	1.59
TCLE	3/4	1.91	2.34	2.53	2.70	3.02	3.17	1.88	2.30	2.48	2.65	2.97	3.11	1.77	2.17	2.34	2.50	2.80	2.94
TCLE	1-1/2	3.86	4.73	5.10	5.46	6.10	6.40	3.79	4.64	5.01	5.36	5.99	6.28	3.58	4.38	4.73	5.06	5.65	5.93
TCLE	2-1/2	7.12	8.71	9.41	10.06	11.25	11.80	6.97	8.54	9.23	9.86	11.03	11.56	6.62	8.11	8.76	9.36	10.47	10.98
TCLE	3-1/2	10.41	12.75	13.77	14.72	16.46	17.26	10.16	12.44	13.44	14.37	16.06	16.85	9.63	11.79	12.74	13.62	15.22	15.97
TCLE	5-1/2	15.08	18.47	19.95	21.33	23.84	25.01	14.73	18.04	19.48	20.83	23.28	24.42	13.98	17.13	18.50	19.77	22.11	23.19
TCLE	7-1/2	20.78	25.45	27.49	29.39	32.86	34.46	20.28	24.84	26.83	28.69	32.07	33.64	19.29	23.63	25.52	27.28	30.50	31.99
TCLE	9	25.06	30.70	33.16	35.44	39.63	41.56	24.46	29.96	32.36	34.59	38.68	40.56	23.26	28.48	30.77	32.89	36.77	38.57
TJL	9	22.20	27.18	29.36	31.39	35.09	36.81	21.70	26.58	28.71	30.69	34.31	35.99	20.60	25.23	27.25	29.14	32.58	34.17
TJL	11	28.32	34.68	37.46	40.05	44.78	46.96	27.65	33.86	36.57	39.10	43.71	45.85	26.27	32.17	34.75	37.15	41.53	43.56

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		-20°C						-30°C						-40°C					
		PRESSURE DROP ACROSS VALVE (kPa)						PRESSURE DROP ACROSS VALVE (kPa)						PRESSURE DROP ACROSS VALVE (kPa)					
		400	600	700	800	1000	1100	600	700	800	1000	1100	1200	600	700	800	1000	1100	1200
AA/AN/AFA	1/8	0.32	0.39	0.42	0.45	0.50	0.53	0.25	0.30	0.33	0.35	0.39	0.41	0.18	0.22	0.23	0.25	0.28	0.29
AA/AN/AAC/ANC	1/4	0.57	0.69	0.75	0.80	0.90	0.94	0.42	0.52	0.56	0.60	0.67	0.70	0.28	0.35	0.37	0.40	0.45	0.47
AA/AN/AAC/ANC/AFA	1/2	0.99	1.21	1.31	1.40	1.57	1.64	0.78	0.95	1.03	1.10	1.23	1.29	0.50	0.61	0.66	0.70	0.78	0.82
AA/AN/AAC/ANC/AFA	3/4	1.56	1.91	2.06	2.20	2.46	2.58	1.24	1.52	1.64	1.75	1.96	2.05	0.81	1.00	1.08	1.15	1.29	1.35
AA/AN/AAC/ANC/AFA	1	2.23	2.73	2.95	3.15	3.53	3.70	1.77	2.17	2.34	2.50	2.80	2.94	1.13	1.39	1.50	1.60	1.79	1.88
AA/AN/AAC/ANC/AFA	1-1/2	3.29	4.03	4.36	4.66	5.21	5.46	2.58	3.16	3.42	3.65	4.09	4.29	1.70	2.08	2.25	2.40	2.69	2.82
AA/AN/AAC/ANC/AFA	2	4.64	5.68	6.13	6.56	7.33	7.69	3.65	4.47	4.82	5.16	5.77	6.05	2.37	2.90	3.14	3.35	3.75	3.93
AA/AN/AAC/ANC/AFA	2-1/2	5.70	6.98	7.54	8.06	9.01	9.45	4.46	5.46	5.90	6.31	7.05	7.40	2.90	3.56	3.84	4.11	4.59	4.81
AA/AN/AAC/ANC	3	6.76	8.28	8.94	9.56	10.69	11.21	5.31	6.50	7.02	7.51	8.40	8.81	3.47	4.25	4.59	4.91	5.49	5.75
AA/AN/AAC/ANC/AFA	4	9.24	11.32	12.22	13.07	14.61	15.32	7.22	8.84	9.55	10.21	11.42	11.98	4.74	5.81	6.28	6.71	7.50	7.87
TCLE	1/4	0.85	1.04	1.12	1.20	1.34	1.41	0.67	0.82	0.89	0.95	1.06	1.12	0.42	0.52	0.56	0.60	0.67	0.70
TCLE	3/4	1.59	1.95	2.11	2.25	2.52	2.64	1.24	1.52	1.64	1.75	1.96	2.05	0.81	1.00	1.08	1.15	1.29	1.35
TCLE	1-1/2	3.22	3.95	4.26	4.56	5.09	5.34	2.51	3.08	3.32	3.55	3.97	4.17	1.63	1.99	2.15	2.30	2.57	2.70
TCLE	2-1/2	5.91	7.24	7.82	8.36	9.35	9.80	4.64	5.68	6.13	6.56	7.33	7.69	3.04	3.73	4.03	4.31	4.81	5.05
TCLE	3-1/2	8.60	10.54	11.38	12.17	13.60	14.27	6.76	8.28	8.94	9.56	10.69	11.21	4.43	5.42	5.85	6.26	7.00	7.34
TCLE	5-1/2	12.50	15.30	16.53	17.67	19.76	20.72	9.81	12.01	12.97	13.87	15.50	16.26	6.41	7.85	8.48	9.06	10.13	10.63
TCLE	7-1/2	17.20	21.07	22.76	24.33	27.20	28.53	13.49	16.52	17.84	19.07	21.33	22.37	8.81	10.80	11.66	12.47	13.94	14.62
TCLE	9	20.74	25.41	27.44	29.34	32.80	34.40	16.28	19.94	21.54	23.03	25.75	27.00	10.66	13.05	14.10	15.07	16.85	17.67
TJL	9	18.37	22.50	24.30	25.98	29.05	30.47	14.41	17.65	19.06	20.38	22.78	23.89	9.42	11.53	12.46	13.32	14.89	15.62
TJL	11	23.43	28.70	31.00	33.14	37.05	38.86	18.41	22.55	24.35	26.03	29.11	30.53	12.04	14.74	15.92	17.02	19.03	19.96

Refrigerant Liquid Temperature Correction Factors

	Refrigerant Liquid Temperature °F														
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140
R-12 Correction Factor	1.60	1.54	1.48	1.42	1.36	1.30	1.24	1.18	1.12	1.06	1.00	.94	.88	.82	.75
R-134a Correction Factor	1.70	1.63	1.56	1.49	1.42	1.36	1.29	1.21	1.14	1.07	1.00	.93	.85	.78	.71
R-22 Correction Factor	1.56	1.51	1.45	1.40	1.34	1.29	1.23	1.17	1.12	1.06	1.00	.94	.88	.82	.76
R-404A/R-507 Correction	2.00	1.90	1.80	1.70	1.60	1.50	1.40	1.30	1.20	1.10	1.00	.90	.80	.70	.50

These factors include corrections for liquid refrigerant density and net refrigerating effect and are based on an average evaporator temperature of 0°F. However, they may be used for any evaporator temperature from -40°F to +40°F since the variation in the actual factors across this range is insignificant.

Thermal Expansion Valves
Solenoid Valves
Coils
Industrial Solenoid Valves
Shut Off Valves
System Protectors
Storage Devices
Oil Controls
Pressure Regulators
Temperature Pressure Controls
Competitive Cross Reference

R-407C Conventional Valves (kWatts)– A Series, T Series & TI Series

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		10°C					0°C					-10°C							
		PRESSURE DROP ACROSS VALVE (kPa)					PRESSURE DROP ACROSS VALVE (kPa)					PRESSURE DROP ACROSS VALVE (kPa)							
		400	600	700	800	1000	1100	400	600	700	800	1000	1100	400	600	700	800	1000	1100
AA/AN/AFA	1/8	0.50	0.61	0.66	0.70	0.78	0.82	0.50	0.61	0.66	0.70	0.78	0.82	0.50	0.61	0.66	0.70	0.78	0.82
AA/AN/AAC/ANC	1/4	0.89	1.08	1.17	1.25	1.40	1.47	0.85	1.04	1.12	1.20	1.34	1.41	0.81	1.00	1.08	1.15	1.29	1.35
AA/AN/AAC/ANC/AFA	1/2	1.56	1.91	2.06	2.20	2.46	2.58	1.52	1.86	2.01	2.15	2.41	2.52	1.45	1.78	1.92	2.05	2.29	2.41
AA/AN/AAC/ANC/AFA	3/4	2.48	3.03	3.28	3.50	3.92	4.11	2.44	2.99	3.23	3.45	3.86	4.05	2.34	2.86	3.09	3.30	3.69	3.87
AA/AN/AAC/ANC/AFA	1	3.54	4.34	4.68	5.01	5.60	5.87	3.47	4.25	4.59	4.91	5.49	5.75	3.36	4.12	4.45	4.76	5.32	5.58
AA/AN/AAC/ANC/AFA	1-1/2	5.24	6.42	6.93	7.41	8.28	8.69	5.13	6.29	6.79	7.26	8.12	8.51	4.92	6.03	6.51	6.96	7.78	8.16
AA/AN/AAC/ANC/AFA	2	7.33	8.97	9.69	10.36	11.59	12.15	7.22	8.84	9.55	10.21	11.42	11.98	6.90	8.45	9.13	9.76	10.91	11.45
AA/AN/AAC/ANC/AFA	2-1/2	8.99	11.01	11.89	12.72	14.22	14.91	8.81	10.80	11.66	12.47	13.94	14.62	8.46	10.36	11.19	11.97	13.38	14.03
AA/AN/AAC/ANC	3	10.69	13.09	14.14	15.12	16.90	17.73	10.48	12.83	13.86	14.82	16.57	17.38	10.05	12.31	13.30	14.22	15.90	16.67
AA/AN/AAC/ANC/AFA	4	14.58	17.86	19.29	20.63	23.06	24.19	14.34	17.56	18.97	20.28	22.67	23.78	13.77	16.87	18.22	19.47	21.77	22.84
TCLE	1/4	1.35	1.65	1.78	1.90	2.13	2.23	1.31	1.60	1.73	1.85	2.07	2.17	1.27	1.56	1.69	1.80	2.02	2.11
TCLE	3/4	2.51	3.08	3.32	3.55	3.97	4.17	2.48	3.03	3.28	3.50	3.92	4.11	2.37	2.90	3.14	3.35	3.75	3.93
TCLE	1-1/2	5.06	6.20	6.70	7.16	8.00	8.39	4.99	6.11	6.60	7.06	7.89	8.28	4.78	5.85	6.32	6.76	7.56	7.93
TCLE	2-1/2	9.35	11.45	12.36	13.22	14.78	15.50	9.17	11.23	12.13	12.97	14.50	15.20	8.81	10.80	11.66	12.47	13.94	14.62
TCLE	3-1/2	13.63	16.69	18.03	19.27	21.55	22.60	13.35	16.35	17.65	18.87	21.10	22.13	12.81	15.69	16.95	18.12	20.26	21.25
TCLE	5-1/2	19.75	24.19	26.13	27.94	31.23	32.76	19.40	23.76	25.66	27.43	30.67	32.17	18.62	22.81	24.63	26.33	29.44	30.88
TCLE	7-1/2	27.22	33.34	36.01	38.50	43.04	45.14	26.73	32.73	35.36	37.80	42.26	44.32	25.67	31.43	33.95	36.30	40.58	42.56
TCLE	9	32.82	40.19	43.41	46.41	51.89	54.42	32.21	39.45	42.62	45.56	50.93	53.42	30.94	37.89	40.93	43.76	48.92	51.31
TJL	9	29.10	35.64	38.49	41.15	46.01	48.25	28.57	34.99	37.79	40.40	45.17	47.37	27.44	33.60	36.29	38.80	43.38	45.50
TJL	11	37.10	45.44	49.08	52.47	58.66	61.52	36.43	44.61	48.19	51.51	57.60	60.41	34.98	42.84	46.27	49.46	55.30	58.00

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		-20°C					-30°C					-40°C							
		PRESSURE DROP ACROSS VALVE (kPa)					PRESSURE DROP ACROSS VALVE (kPa)					PRESSURE DROP ACROSS VALVE (kPa)							
		400	600	700	800	1000	1100	600	700	800	1000	1100	1200	600	700	800	1000	1100	1200
AA/AN/AFA	1/8	0.39	0.48	0.52	0.55	0.62	0.65	0.32	0.39	0.42	0.45	0.50	0.53	0.18	0.22	0.23	0.25	0.28	0.29
AA/AN/AAC/ANC	1/4	0.71	0.87	0.94	1.00	1.12	1.17	0.53	0.65	0.70	0.75	0.84	0.88	0.32	0.39	0.42	0.45	0.50	0.53
AA/AN/AAC/ANC/AFA	1/2	1.24	1.52	1.64	1.75	1.96	2.05	0.92	1.13	1.22	1.30	1.46	1.53	0.60	0.74	0.80	0.85	0.95	1.00
AA/AN/AAC/ANC/AFA	3/4	1.98	2.43	2.62	2.80	3.13	3.29	1.49	1.82	1.97	2.10	2.35	2.47	0.96	1.17	1.26	1.35	1.51	1.59
AA/AN/AAC/ANC/AFA	1	2.83	3.47	3.75	4.01	4.48	4.70	2.16	2.64	2.86	3.05	3.41	3.58	1.35	1.65	1.78	1.90	2.13	2.23
AA/AN/AAC/ANC/AFA	1-1/2	4.18	5.12	5.53	5.91	6.60	6.93	3.19	3.90	4.21	4.51	5.04	5.28	1.98	2.43	2.62	2.80	3.13	3.29
AA/AN/AAC/ANC/AFA	2	5.84	7.15	7.73	8.26	9.24	9.69	4.46	5.46	5.90	6.31	7.05	7.40	2.80	3.43	3.70	3.95	4.42	4.64
AA/AN/AAC/ANC/AFA	2-1/2	7.15	8.76	9.46	10.11	11.31	11.86	5.45	6.68	7.21	7.71	8.62	9.04	3.43	4.21	4.54	4.86	5.43	5.69
AA/AN/AAC/ANC	3	8.50	10.41	11.24	12.02	13.43	14.09	6.48	7.93	8.57	9.16	10.24	10.74	4.07	4.99	5.39	5.76	6.44	6.75
AA/AN/AAC/ANC/AFA	4	11.61	14.22	15.36	16.42	18.36	19.25	8.85	10.84	11.71	12.52	13.99	14.68	5.56	6.81	7.35	7.86	8.79	9.22
TCLE	1/4	1.06	1.30	1.40	1.50	1.68	1.76	0.81	1.00	1.08	1.15	1.29	1.35	0.50	0.61	0.66	0.70	0.78	0.82
TCLE	3/4	1.98	2.43	2.62	2.80	3.13	3.29	1.52	1.86	2.01	2.15	2.41	2.52	0.96	1.17	1.26	1.35	1.51	1.59
TCLE	1-1/2	4.04	4.94	5.34	5.71	6.38	6.69	3.08	3.77	4.07	4.36	4.87	5.11	1.95	2.38	2.58	2.75	3.08	3.23
TCLE	2-1/2	7.43	9.10	9.83	10.51	11.75	12.33	5.66	6.94	7.49	8.01	8.96	9.39	3.58	4.38	4.73	5.06	5.65	5.93
TCLE	3-1/2	10.83	13.27	14.33	15.32	17.13	17.96	8.25	10.10	10.91	11.66	13.04	13.68	5.20	6.37	6.88	7.36	8.23	8.63
TCLE	5-1/2	15.72	19.25	20.79	22.23	24.85	26.06	11.97	14.65	15.83	16.92	18.92	19.84	7.54	9.23	9.97	10.66	11.92	12.50
TCLE	7-1/2	21.66	26.53	28.66	30.64	34.26	35.93	16.50	20.20	21.82	23.33	26.08	27.36	10.37	12.70	13.72	14.67	16.40	17.20
TCLE	9	26.13	32.00	34.56	36.95	41.31	43.32	19.89	24.37	26.32	28.14	31.46	32.99	12.53	15.35	16.58	17.72	19.81	20.78
TJL	9	23.15	28.35	30.63	32.74	36.61	38.39	17.63	21.59	23.32	24.93	27.87	29.23	11.08	13.57	14.66	15.67	17.52	18.37
TJL	11	29.52	36.16	39.06	41.75	46.68	48.96	22.48	27.53	29.74	31.79	35.54	37.28	14.16	17.34	18.73	20.03	22.39	23.48

Refrigerant Liquid Temperature Correction Factors

	Refrigerant Liquid Temperature °F															
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	
R-12 Correction Factor	1.60	1.54	1.48	1.42	1.36	1.30	1.24	1.18	1.12	1.06	1.00	.94	.88	.82	.75	
R-134a Correction Factor	1.70	1.63	1.56	1.49	1.42	1.36	1.29	1.21	1.14	1.07	1.00	.93	.85	.78	.71	
R-22 Correction Factor	1.56	1.51	1.45	1.40	1.34	1.29	1.23	1.17	1.12	1.06	1.00	.94	.88	.82	.76	
R-404A/R-507 Correction	2.00	1.90	1.80	1.70	1.60	1.50	1.40	1.30	1.20	1.10	1.00	.90	.80	.70	.50	

These factors include corrections for liquid refrigerant density and net refrigerating effect and are based on an average evaporator temperature of 0°F. However, they may be used for any evaporator temperature from -40°F to +40°F since the variation in the actual factors across this range is insignificant.

R-410A Conventional Valves (kWatts)– A Series

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		10°C						0°C						-10°C					
		PRESSURE DROP ACROSS VALVE (kPa)						PRESSURE DROP ACROSS VALVE (kPa)						PRESSURE DROP ACROSS VALVE (kPa)					
		750	1000	1100	1450	1700	2000	750	1000	1100	1450	1700	2000	750	1000	1100	1450	1700	2000
AA/AN/AAC/ANC	1/4	1.20	1.39	1.46	1.67	1.81	1.97	1.20	1.39	1.46	1.67	1.81	1.97	1.17	1.35	1.41	1.62	1.76	1.91
AA/AN/AAC/ANC/AFA	1/2	2.12	2.45	2.57	2.95	3.20	3.47	2.09	2.41	2.53	2.90	3.14	3.41	2.05	2.37	2.49	2.85	3.09	3.35
AA/AN/AAC/ANC/AFA	1	3.40	3.92	4.12	4.73	5.12	5.55	3.36	3.88	4.07	4.68	5.06	5.49	3.29	3.80	3.99	4.58	4.96	5.38
AA/AN/AAC/ANC/AFA	1-1/2	4.89	5.64	5.92	6.79	7.35	7.98	4.81	5.56	5.83	6.69	7.25	7.86	4.71	5.44	5.70	6.55	7.09	7.69
AA/AN/AAC/ANC/AFA	2	7.19	8.30	8.70	9.99	10.82	11.74	7.12	8.22	8.62	9.89	10.71	11.62	6.94	8.01	8.40	9.65	10.45	11.33
AA/AN/AAC/ANC/AFA	3	10.09	11.65	12.22	14.03	15.19	16.48	9.98	11.53	12.09	13.88	15.03	16.30	9.70	11.20	11.75	13.49	14.60	15.84
AA/AN/AAC/ANC/AFA	4	12.35	14.27	14.96	17.18	18.60	20.17	12.21	14.10	14.79	16.98	18.39	19.94	11.89	13.73	14.40	16.54	17.91	19.42
AA/AN/AAC/ANC	5	14.66	16.92	17.75	20.38	22.06	23.93	14.51	16.76	17.58	20.18	21.85	23.70	14.12	16.31	17.11	19.64	21.27	23.07

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		-20°C						-30°C						-40°C					
		PRESSURE DROP ACROSS VALVE (kPa)						PRESSURE DROP ACROSS VALVE (kPa)						PRESSURE DROP ACROSS VALVE (kPa)					
		1000	1100	1450	1700	2000	2300	1000	1100	1450	1700	2000	2300	1000	1100	1450	1700	2000	2300
AA/AN/AAC/ANC	1/4	1.20	1.26	1.45	1.57	1.70	1.83	0.85	0.89	1.02	1.11	1.20	1.29	0.57	0.59	0.68	0.74	0.80	0.86
AA/AN/AAC/ANC/AFA	1/2	2.12	2.23	2.56	2.77	3.00	3.22	1.45	1.52	1.75	1.89	2.05	2.20	0.96	1.00	1.15	1.25	1.35	1.45
AA/AN/AAC/ANC/AFA	1	3.36	3.53	4.05	4.38	4.76	5.10	2.34	2.45	2.81	3.05	3.30	3.54	1.56	1.63	1.88	2.03	2.20	2.36
AA/AN/AAC/ANC/AFA	1-1/2	4.81	5.05	5.80	6.28	6.81	7.30	3.36	3.53	4.05	4.38	4.76	5.10	2.23	2.34	2.69	2.91	3.15	3.38
AA/AN/AAC/ANC/AFA	2	7.12	7.46	8.57	9.28	10.06	10.79	4.96	5.20	5.97	6.46	7.01	7.52	3.29	3.45	3.96	4.29	4.66	4.99
AA/AN/AAC/ANC/AFA	3	9.98	10.47	12.02	13.02	14.12	15.14	6.94	7.28	8.35	9.05	9.81	10.52	4.60	4.83	5.54	6.00	6.51	6.98
AA/AN/AAC/ANC/AFA	4	12.25	12.85	14.75	15.97	17.32	18.58	8.50	8.91	10.23	11.08	12.02	12.88	5.66	5.94	6.82	7.38	8.01	8.59
AA/AN/AAC/ANC	5	14.51	15.22	17.48	18.92	20.53	22.01	10.09	10.58	12.15	13.15	14.27	15.30	6.69	7.02	8.06	8.72	9.46	10.15

Refrigerant Liquid Temperature Correction Factors

	Refrigerant Liquid Temperature °F														
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140
R-12 Correction Factor	1.60	1.54	1.48	1.42	1.36	1.30	1.24	1.18	1.12	1.06	1.00	.94	.88	.82	.75
R-134a Correction Factor	1.70	1.63	1.56	1.49	1.42	1.36	1.29	1.21	1.14	1.07	1.00	.93	.85	.78	.71
R-22 Correction Factor	1.56	1.51	1.45	1.40	1.34	1.29	1.23	1.17	1.12	1.06	1.00	.94	.88	.82	.76
R-404A/R-507 Correction	2.00	1.90	1.80	1.70	1.60	1.50	1.40	1.30	1.20	1.10	1.00	.90	.80	.70	.50

These factors include corrections for liquid refrigerant density and net refrigerating effect and are based on an average evaporator temperature of 0°F. However, they may be used for any evaporator temperature from -40°F to +40°F since the variation in the actual factors across this range is insignificant.

R-502 Conventional Valves (kWatts)– A Series, T Series & TI Series

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		10°C					0°C					-10°C							
		PRESSURE DROP ACROSS VALVE (kPa)					PRESSURE DROP ACROSS VALVE (kPa)					PRESSURE DROP ACROSS VALVE (kPa)							
		400	600	700	800	1000	1100	400	600	700	800	1000	1100	400	600	700	800	1000	1100
AA/AN/AAC/ANC	1/4	0.60	0.74	0.80	0.85	0.95	1.00	0.60	0.74	0.80	0.85	0.95	1.00	0.57	0.69	0.75	0.80	0.90	0.94
AA/AN/AAC/ANC/AFA	1/2	1.06	1.30	1.40	1.50	1.68	1.76	1.03	1.26	1.36	1.45	1.62	1.70	0.99	1.21	1.31	1.40	1.57	1.64
AA/AN/AAC/ANC/AFA	3/4	1.70	2.08	2.25	2.40	2.69	2.82	1.66	2.04	2.20	2.35	2.63	2.76	1.59	1.95	2.11	2.25	2.52	2.64
AA/AN/AAC/ANC/AFA	1	2.41	2.95	3.18	3.40	3.81	3.99	2.37	2.90	3.14	3.35	3.75	3.93	2.27	2.77	3.00	3.20	3.58	3.76
AA/AN/AAC/ANC/AFA	2	4.99	6.11	6.60	7.06	7.89	8.28	4.89	5.98	6.46	6.91	7.72	8.10	4.67	5.72	6.18	6.61	7.39	7.75
AA/AN/AAC/ANC/AFA	2-1/2	6.12	7.50	8.10	8.66	9.68	10.16	5.98	7.33	7.91	8.46	9.46	9.92	5.73	7.02	7.59	8.11	9.07	9.51
AA/AN/AAC/ANC	3	7.26	8.89	9.60	10.26	11.47	12.03	7.12	8.71	9.41	10.06	11.25	11.80	6.80	8.32	8.99	9.61	10.75	11.27
AA/AN/AAC/ANC/AFA	4	9.95	12.18	13.16	14.07	15.73	16.50	9.74	11.92	12.88	13.77	15.39	16.14	9.27	11.36	12.27	13.12	14.66	15.38
TCLE	1/4	0.92	1.13	1.22	1.30	1.46	1.53	0.89	1.08	1.17	1.25	1.40	1.47	0.85	1.04	1.12	1.20	1.34	1.41
TCLE	3/4	1.70	2.08	2.25	2.40	2.69	2.82	1.66	2.04	2.20	2.35	2.63	2.76	1.59	1.95	2.11	2.25	2.52	2.64
TCLE	1-1/2	3.43	4.21	4.54	4.86	5.43	5.69	3.36	4.12	4.45	4.76	5.32	5.58	3.22	3.95	4.26	4.56	5.09	5.34
TCLE	2-1/2	6.37	7.80	8.43	9.01	10.08	10.57	6.23	7.63	8.24	8.81	9.85	10.33	5.95	7.28	7.87	8.41	9.40	9.86
TCLE	3-1/2	9.27	11.36	12.27	13.12	14.66	15.38	9.06	11.10	11.99	12.82	14.33	15.03	8.64	10.58	11.43	12.22	13.66	14.32
TCLE	5-1/2	13.45	16.48	17.80	19.02	21.27	22.31	13.17	16.13	17.42	18.62	20.82	21.84	12.57	15.39	16.62	17.77	19.87	20.84
TCLE	7-1/2	18.51	22.68	24.49	26.18	29.27	30.70	18.12	22.20	23.98	25.63	28.66	30.06	17.31	21.20	22.90	24.48	27.37	28.71
TCLE	9	22.34	27.36	29.55	31.59	35.32	37.04	21.88	26.79	28.94	30.94	34.59	36.28	20.89	25.58	27.63	29.54	33.02	34.64
TJL	9	19.79	24.24	26.18	27.99	31.29	32.82	19.36	23.72	25.62	27.38	30.62	32.11	18.48	22.63	24.45	26.13	29.22	30.64
TJL	11	25.24	30.91	33.39	35.70	39.91	41.86	24.71	30.26	32.69	34.94	39.07	40.98	23.58	28.88	31.19	33.34	37.28	39.10

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		-20°C					-30°C					-40°C							
		PRESSURE DROP ACROSS VALVE (kPa)					PRESSURE DROP ACROSS VALVE (kPa)					PRESSURE DROP ACROSS VALVE (kPa)							
		400	600	700	800	1000	1100	600	700	800	1000	1100	1200	600	700	800	1000	1100	1200
AA/AN/AAC/ANC	1/4	0.53	0.65	0.70	0.75	0.84	0.88	0.39	0.42	0.45	0.50	0.53	0.55	0.25	0.27	0.29	0.32	0.34	0.35
AA/AN/AAC/ANC/AFA	1/2	0.92	1.13	1.22	1.30	1.46	1.53	0.71	0.76	0.82	0.91	0.96	1.00	0.46	0.50	0.53	0.59	0.62	0.65
AA/AN/AAC/ANC/AFA	3/4	1.45	1.78	1.92	2.05	2.29	2.41	1.13	1.22	1.31	1.46	1.53	1.60	0.74	0.80	0.86	0.96	1.01	1.05
AA/AN/AAC/ANC/AFA	1	2.09	2.56	2.76	2.95	3.30	3.46	1.63	1.76	1.88	2.10	2.20	2.30	1.03	1.11	1.19	1.33	1.39	1.45
AA/AN/AAC/ANC/AFA	2	4.28	5.25	5.67	6.06	6.77	7.10	3.40	3.67	3.92	4.39	4.60	4.81	2.16	2.33	2.49	2.79	2.92	3.05
AA/AN/AAC/ANC/AFA	2-1/2	5.27	6.46	6.98	7.46	8.34	8.75	4.14	4.47	4.78	5.35	5.61	5.86	2.66	2.87	3.07	3.43	3.59	3.75
AA/AN/AAC/ANC	3	6.23	7.63	8.24	8.81	9.85	10.33	4.92	5.31	5.68	6.35	6.66	6.96	3.15	3.40	3.64	4.07	4.27	4.46
AA/AN/AAC/ANC/AFA	4	8.53	10.45	11.29	12.07	13.49	14.15	6.73	7.26	7.77	8.68	9.11	9.51	4.28	4.63	4.95	5.53	5.80	6.06
TCLE	1/4	0.78	0.95	1.03	1.10	1.23	1.29	0.60	0.65	0.69	0.78	0.81	0.85	0.39	0.42	0.45	0.50	0.53	0.55
TCLE	3/4	1.45	1.78	1.92	2.05	2.29	2.41	1.17	1.26	1.35	1.51	1.58	1.65	0.74	0.80	0.86	0.96	1.01	1.05
TCLE	1-1/2	2.97	3.64	3.93	4.21	4.70	4.93	2.34	2.52	2.70	3.02	3.16	3.30	1.49	1.61	1.72	1.92	2.01	2.10
TCLE	2-1/2	5.45	6.68	7.21	7.71	8.62	9.04	4.32	4.66	4.99	5.58	5.85	6.11	2.76	2.98	3.19	3.56	3.74	3.90
TCLE	3-1/2	7.97	9.76	10.54	11.26	12.59	13.21	6.30	6.81	7.28	8.13	8.53	8.91	4.00	4.32	4.62	5.16	5.42	5.66
TCLE	5-1/2	11.54	14.13	15.27	16.32	18.25	19.14	9.13	9.86	10.55	11.79	12.37	12.92	5.81	6.27	6.70	7.49	7.86	8.21
TCLE	7-1/2	15.93	19.51	21.07	22.53	25.19	26.42	12.57	13.57	14.51	16.22	17.02	17.77	8.00	8.64	9.24	10.33	10.83	11.31
TCLE	9	19.19	23.50	25.38	27.13	30.34	31.82	15.15	16.37	17.50	19.56	20.51	21.43	9.66	10.44	11.16	12.48	13.09	13.67
TJL	9	17.03	20.85	22.53	24.08	26.92	28.24	13.45	14.53	15.53	17.37	18.21	19.02	8.57	9.25	9.89	11.06	11.60	12.12
TJL	11	21.70	26.58	28.71	30.69	34.31	35.99	17.13	18.51	19.78	22.12	23.20	24.23	10.90	11.78	12.59	14.08	14.76	15.42

Refrigerant Liquid Temperature Correction Factors

	Refrigerant Liquid Temperature °F															
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	
R-12 Correction Factor	1.60	1.54	1.48	1.42	1.36	1.30	1.24	1.18	1.12	1.06	1.00	.94	.88	.82	.75	
R-134a Correction Factor	1.70	1.63	1.56	1.49	1.42	1.36	1.29	1.21	1.14	1.07	1.00	.93	.85	.78	.71	
R-22 Correction Factor	1.56	1.51	1.45	1.40	1.34	1.29	1.23	1.17	1.12	1.06	1.00	.94	.88	.82	.76	
R-404A/R-507 Correction	2.00	1.90	1.80	1.70	1.60	1.50	1.40	1.30	1.20	1.10	1.00	.90	.80	.70	.50	

These factors include corrections for liquid refrigerant density and net refrigerating effect and are based on an average evaporator temperature of 0°F. However, they may be used for any evaporator temperature from -40°F to +40°F since the variation in the actual factors across this range is insignificant.

R-12 Balanced Ported Valves (kWatts)– B, HF, TFE, TRAE and T Series

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		10°C					0°C					-10°C							
		PRESSURE DROP ACROSS VALVE (kPa)						PRESSURE DROP ACROSS VALVE (kPa)						PRESSURE DROP ACROSS VALVE (kPa)					
	400	600	700	800	1000	1100	400	600	700	800	1000	1100	400	600	700	800	1000	1100	
BA/BN	1/4	1.06	1.30	1.40	1.50	1.68	1.76	1.06	1.30	1.40	1.50	1.68	1.76	0.99	1.21	1.31	1.40	1.57	1.64
BA/BN	1/2	2.02	2.47	2.67	2.85	3.19	3.35	1.98	2.43	2.62	2.80	3.13	3.29	1.91	2.34	2.53	2.70	3.02	3.17
BA/BN	1	3.19	3.90	4.21	4.51	5.04	5.28	3.12	3.82	4.12	4.41	4.93	5.17	2.97	3.64	3.93	4.21	4.70	4.93
BA/BN	1-1/4	4.25	5.20	5.62	6.01	6.72	7.04	4.14	5.07	5.48	5.86	6.55	6.87	4.00	4.90	5.29	5.66	6.32	6.63
BA/BN	1-1/2	5.35	6.55	7.07	7.56	8.45	8.86	5.24	6.42	6.93	7.41	8.28	8.69	5.03	6.16	6.65	7.11	7.95	8.34
BA/BN	2	6.48	7.93	8.57	9.16	10.24	10.74	6.37	7.80	8.43	9.01	10.08	10.57	6.09	7.46	8.05	8.61	9.63	10.10
BA/BN	2-1/2	8.39	10.28	11.10	11.86	13.27	13.91	8.25	10.10	10.91	11.66	13.04	13.68	7.89	9.67	10.44	11.16	12.48	13.09
BA/BN	3	10.62	13.01	14.05	15.02	16.79	17.61	10.41	12.75	13.77	14.72	16.46	17.26	9.98	12.23	13.21	14.12	15.78	16.55
BA/BN	3-1/2	13.20	16.17	17.47	18.67	20.88	21.90	12.96	15.87	17.14	18.32	20.49	21.49	12.43	15.22	16.44	17.57	19.65	20.61
HF/HN	1/8	0.60	0.74	0.80	0.85	0.95	1.00	0.60	0.74	0.80	0.85	0.95	1.00	0.57	0.69	0.75	0.80	0.90	0.94
HF/HN	1/4	1.13	1.39	1.50	1.60	1.79	1.88	1.10	1.34	1.45	1.55	1.74	1.82	1.06	1.30	1.40	1.50	1.68	1.76
HF/HN	1/2	2.02	2.47	2.67	2.85	3.19	3.35	1.98	2.43	2.62	2.80	3.13	3.29	1.91	2.34	2.53	2.70	3.02	3.17
HF/HN	1	3.12	3.82	4.12	4.41	4.93	5.17	3.04	3.73	4.03	4.31	4.81	5.05	2.90	3.56	3.84	4.11	4.59	4.81
HF/HN	1-1/4	4.18	5.12	5.53	5.91	6.60	6.93	4.11	5.03	5.43	5.81	6.49	6.81	3.93	4.81	5.20	5.56	6.21	6.52
HF/HN	1-1/2	5.35	6.55	7.07	7.56	8.45	8.86	5.24	6.42	6.93	7.41	8.28	8.69	5.03	6.16	6.65	7.11	7.95	8.34
HF/HN	2	7.08	8.67	9.37	10.01	11.19	11.74	6.94	8.50	9.18	9.81	10.97	11.51	6.66	8.15	8.80	9.41	10.52	11.04
HF/HN	3-1/2	12.57	15.39	16.62	17.77	19.87	20.84	12.32	15.09	16.30	17.42	19.48	20.43	11.82	14.48	15.64	16.72	18.69	19.61
HF/HN	5	17.49	21.42	23.13	24.73	27.65	29.00	17.17	21.03	22.71	24.28	27.15	28.47	16.46	20.16	21.78	23.28	26.03	27.30
HF/HN	6	22.16	27.14	29.32	31.34	35.04	36.75	21.70	26.58	28.71	30.69	34.31	35.99	20.82	25.49	27.54	29.44	32.91	34.52
HF/HN	9	32.85	40.23	43.46	46.46	51.94	54.48	32.21	39.45	42.62	45.56	50.93	53.42	30.90	37.85	40.88	43.71	48.86	51.25
HF/HN	12	43.26	52.98	57.23	61.18	68.40	71.74	42.41	51.94	56.10	59.98	67.05	70.33	40.67	49.82	53.81	57.52	64.31	67.45
TFE	5	17.17	21.03	22.71	24.28	27.15	28.47	16.85	20.64	22.29	23.83	26.64	27.94	16.14	19.77	21.35	22.83	25.52	26.77
TFE	7	23.51	28.79	31.09	33.24	37.17	38.98	23.05	28.22	30.49	32.59	36.44	38.22	22.13	27.10	29.27	31.29	34.98	36.69
TFE	8	29.21	35.77	38.63	41.30	46.18	48.43	28.64	35.07	37.89	40.50	45.28	47.49	27.44	33.60	36.29	38.80	43.38	45.50
TFE	12	44.57	54.59	58.96	63.03	70.47	73.91	43.68	53.50	57.79	61.78	69.07	72.44	41.91	51.33	55.45	59.27	66.27	69.51
TRAE+	7-1/2	25.28	30.96	33.44	35.75	39.96	41.91	24.78	30.35	32.78	35.04	39.18	41.09	23.75	29.09	31.42	33.59	37.56	39.39
TRAE+	10	36.85	45.13	48.75	52.12	58.27	61.11	36.11	44.22	47.77	51.06	57.09	59.88	34.62	42.40	45.80	48.96	54.74	57.41
TRAE+	12	41.13	50.38	54.42	58.17	65.04	68.21	40.32	49.38	53.34	57.02	63.75	66.86	38.66	47.34	51.14	54.67	61.12	64.11
TRAE+	18	62.34	76.35	82.47	88.16	98.57	103.38	61.10	74.83	80.83	86.41	96.61	101.32	58.59	71.75	77.50	82.85	92.63	97.16
TRAE+	25	85.67	104.92	113.33	121.15	135.45	142.06	84.00	102.88	111.13	118.80	132.82	139.31	80.54	98.63	106.54	113.89	127.34	133.55
TRAE	30	115.65	141.64	152.99	163.56	182.86	191.79	113.39	138.87	150.00	160.35	179.28	188.03	108.75	133.19	143.86	153.79	171.95	180.34
TRAE	35	126.17	154.52	166.90	178.43	199.49	209.22	123.69	151.49	163.62	174.92	195.57	205.11	118.63	145.29	156.93	167.76	187.56	196.72
TRAE	40	150.13	183.87	198.61	212.32	237.38	248.96	147.19	180.27	194.72	208.16	232.73	244.09	141.18	172.90	186.76	199.65	223.22	234.11
TJR	8	31.47	38.54	41.63	44.51	49.76	52.19	30.87	37.81	40.84	43.66	48.81	51.19	29.59	36.25	39.15	41.85	46.79	49.08
TJR	11	37.70	46.17	49.87	53.32	59.61	62.52	36.96	45.26	48.89	52.27	58.44	61.29	35.44	43.40	46.88	50.11	56.03	58.76
TER	13	47.12	57.71	62.33	66.63	74.50	78.14	46.20	56.58	61.11	65.33	73.04	76.61	44.29	54.24	58.58	62.63	70.02	73.44
TER	15	55.68	68.20	73.66	78.75	88.04	92.34	54.59	66.85	72.21	77.20	86.31	90.52	52.36	64.12	69.26	74.04	82.78	86.82
TER	20	74.98	91.83	99.19	106.03	118.55	124.34	73.49	90.01	97.22	103.93	116.20	121.87	70.48	86.32	93.24	99.68	111.44	116.88
TER	25	96.39	118.06	127.52	136.32	152.41	159.85	94.48	115.72	124.99	133.62	149.39	156.68	90.62	110.99	119.88	128.16	143.29	150.28
TIR	35	110.77	135.66	146.53	156.65	175.14	183.69	83.65	102.45	110.66	118.30	132.26	138.72	110.77	135.66	146.53	156.65	175.14	183.69
THR	45	149.92	183.61	198.32	212.02	237.04	248.61	146.98	180.01	194.44	207.86	232.40	243.74	140.96	172.64	186.48	199.35	222.88	233.76
THR	55	182.06	222.98	240.85	257.47	287.87	301.92	178.49	218.60	236.12	252.42	282.21	295.99	171.16	209.63	226.42	242.06	270.63	283.84
TMR	55	214.17	262.30	283.32	302.88	338.63	355.16	209.99	257.19	277.79	296.97	332.03	348.23	201.39	246.65	266.41	284.81	318.43	333.97

Refrigerant Liquid Temperature Correction Factors

	Refrigerant Liquid Temperature °F														
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140
R-12 Correction Factor	1.60	1.54	1.48	1.42	1.36	1.30	1.24	1.18	1.12	1.06	1.00	.94	.88	.82	.75
R-134a Correction Factor	1.70	1.63	1.56	1.49	1.42	1.36	1.29	1.21	1.14	1.07	1.00	.93	.85	.78	.71
R-22 Correction Factor	1.56	1.51	1.45	1.40	1.34	1.29	1.23	1.17	1.12	1.06	1.00	.94	.88	.82	.76
R-404A/R-507 Correction	2.00	1.90	1.80	1.70	1.60	1.50	1.40	1.30	1.20	1.10	1.00	.90	.80	.70	.50

These factors include corrections for liquid refrigerant density and net refrigerating effect and are based on an average evaporator temperature of 0°F. However, they may be used for any evaporator temperature from -40°F to +40°F since the variation in the actual factors across this range is insignificant.

Thermal Expansion Valves
Solenoid Valves
Coils
Industrial Solenoid Valves
Shut Off Valves
System Protectors
Storage Devices
Oil Controls
Pressure Regulators
Temperature Pressure Controls
Competitive Cross Reference

R-12 Balanced Ported Valves (kWatts)– B, HF, TFE, TRAE and T Series

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		-20°C					-30°C-40°C					PRESSURE DROP ACROSS VALVE (kPa)							
		400	600	700	800	1000	1100	600	700	800	1000	1100	1200	600	700	800	1000	1100	1200
BA/BN	1/4	0.89	1.08	1.17	1.25	1.40	1.47	0.71	0.76	0.82	0.91	0.96	1.00	0.46	0.50	0.53	0.59	0.62	0.65
BA/BN	1/2	1.70	2.08	2.25	2.40	2.69	2.82	1.35	1.45	1.55	1.74	1.82	1.90	0.85	0.92	0.98	1.10	1.15	1.20
BA/BN	1	2.66	3.25	3.51	3.75	4.20	4.40	2.05	2.22	2.37	2.65	2.78	2.90	1.35	1.45	1.55	1.74	1.82	1.90
BA/BN	1-1/4	3.54	4.34	4.68	5.01	5.60	5.87	2.76	2.98	3.19	3.56	3.74	3.90	1.81	1.95	2.08	2.33	2.44	2.55
BA/BN	1-1/2	4.46	5.46	5.90	6.31	7.05	7.40	3.50	3.79	4.05	4.52	4.75	4.96	2.27	2.45	2.62	2.92	3.07	3.20
BA/BN	2	5.42	6.63	7.16	7.66	8.56	8.98	4.25	4.59	4.91	5.48	5.75	6.01	2.76	2.98	3.19	3.56	3.74	3.90
BA/BN	2-1/2	7.01	8.58	9.27	9.91	11.08	11.62	5.49	5.93	6.34	7.08	7.43	7.76	3.58	3.86	4.13	4.62	4.84	5.06
BA/BN	3	8.85	10.84	11.71	12.52	13.99	14.68	6.94	7.49	8.01	8.96	9.39	9.81	4.50	4.86	5.19	5.80	6.09	6.36
BA/BN	3-1/2	11.01	13.48	14.56	15.57	17.41	18.26	8.64	9.33	9.97	11.15	11.70	12.22	5.59	6.04	6.46	7.22	7.57	7.91
HF/HN	1/8	0.50	0.61	0.66	0.70	0.78	0.82	0.39	0.42	0.45	0.50	0.53	0.55	0.25	0.27	0.29	0.32	0.34	0.35
HF/HN	1/4	0.96	1.17	1.26	1.35	1.51	1.59	0.74	0.80	0.86	0.96	1.01	1.05	0.50	0.54	0.57	0.64	0.67	0.70
HF/HN	1/2	1.70	2.08	2.25	2.40	2.69	2.82	1.35	1.45	1.55	1.74	1.82	1.90	0.85	0.92	0.98	1.10	1.15	1.20
HF/HN	1	2.58	3.16	3.42	3.65	4.09	4.29	2.02	2.18	2.33	2.60	2.73	2.85	1.31	1.41	1.51	1.69	1.77	1.85
HF/HN	1-1/4	3.47	4.25	4.59	4.91	5.49	5.75	2.73	2.94	3.15	3.52	3.69	3.85	1.77	1.91	2.04	2.29	2.40	2.50
HF/HN	1-1/2	4.46	5.46	5.90	6.31	7.05	7.40	3.50	3.79	4.05	4.52	4.75	4.96	2.27	2.45	2.62	2.92	3.07	3.20
HF/HN	2	5.88	7.20	7.77	8.31	9.29	9.74	4.60	4.97	5.31	5.94	6.23	6.51	3.01	3.25	3.47	3.88	4.07	4.26
HF/HN	3-1/2	10.48	12.83	13.86	14.82	16.57	17.38	8.21	8.87	9.48	10.60	11.12	11.61	5.35	5.77	6.17	6.90	7.24	7.56
HF/HN	5	14.58	17.86	19.29	20.63	23.06	24.19	11.43	12.35	13.20	14.76	15.48	16.17	7.43	8.03	8.58	9.60	10.07	10.51
HF/HN	6	18.44	22.59	24.40	26.08	29.16	30.58	14.44	15.60	16.68	18.65	19.56	20.43	9.42	10.17	10.87	12.16	12.75	13.32
HF/HN	9	27.36	33.51	36.20	38.70	43.27	45.38	21.45	23.17	24.77	27.69	29.05	30.34	13.95	15.07	16.11	18.01	18.89	19.72
HF/HN	12	36.00	44.09	47.63	50.91	56.92	59.70	28.21	30.47	32.58	36.42	38.20	39.90	18.34	19.81	21.17	23.67	24.83	25.93
TFE	5	14.30	17.52	18.92	20.23	22.61	23.72	11.22	12.12	12.96	14.49	15.19	15.87	7.29	7.88	8.42	9.41	9.87	10.31
TFE	7	19.58	23.98	25.90	27.68	30.95	32.46	15.36	16.59	17.74	19.83	20.80	21.73	9.98	10.78	11.53	12.89	13.52	14.12
TFE	8	24.32	29.79	32.17	34.39	38.45	40.33	19.05	20.57	21.99	24.59	25.79	26.93	12.39	13.38	14.31	16.00	16.78	17.52
TFE	12	37.13	45.48	49.12	52.52	58.71	61.58	29.10	31.43	33.60	37.57	39.40	41.15	18.90	20.42	21.83	24.40	25.60	26.73
TRAE+	7-1/2	21.06	25.80	27.86	29.79	33.30	34.93	16.50	17.82	19.05	21.30	22.34	23.33	10.73	11.59	12.39	13.85	14.52	15.17
TRAE+	10	30.69	37.59	40.60	43.40	48.53	50.90	24.04	25.96	27.76	31.03	32.55	33.99	15.65	16.90	18.07	20.20	21.19	22.13
TRAE+	12	34.23	41.93	45.28	48.41	54.13	56.77	26.83	28.98	30.98	34.64	36.33	37.95	17.45	18.85	20.15	22.53	23.63	24.68
TRAE+	18	51.90	63.56	68.65	73.39	82.06	86.06	40.67	43.93	46.97	52.51	55.07	57.52	26.44	28.56	30.53	34.14	35.81	37.40
TRAE+	25	71.33	87.36	94.36	100.88	112.78	118.29	55.93	60.41	64.58	72.21	75.73	79.10	36.36	39.27	41.98	46.94	49.23	51.41
TRAE	30	96.32	117.97	127.42	136.22	152.30	159.73	75.51	81.56	87.19	97.48	102.24	106.78	49.10	53.03	56.70	63.39	66.48	69.44
TRAE	35	105.07	128.68	138.99	148.59	166.13	174.23	82.34	88.94	95.08	106.30	111.49	116.45	53.56	57.85	61.85	69.15	72.52	75.75
TRAE	40	125.03	153.13	165.40	176.82	197.69	207.34	97.99	105.84	113.15	126.50	132.68	138.57	63.72	68.83	73.58	82.26	86.28	90.11
TJR	8	26.23	32.13	34.70	37.10	41.48	43.50	20.57	22.22	23.75	26.55	27.85	29.09	13.35	14.42	15.41	17.23	18.07	18.87
TJR	11	31.40	38.46	41.54	44.41	49.65	52.07	24.60	26.57	28.41	31.76	33.31	34.79	16.00	17.28	18.48	20.66	21.67	22.63
TER	13	39.22	48.04	51.89	55.47	62.02	65.04	30.76	33.23	35.52	39.71	41.65	43.50	20.00	21.60	23.10	25.82	27.08	28.29
TER	15	46.37	56.80	61.35	65.58	73.32	76.90	36.36	39.27	41.98	46.94	49.23	51.41	23.65	25.54	27.31	30.53	32.02	33.44
TER	20	62.45	76.48	82.61	88.31	98.74	103.55	48.92	52.84	56.49	63.16	66.24	69.19	31.82	34.37	36.75	41.09	43.09	45.01
TER	25	80.25	98.29	106.16	113.49	126.89	133.08	62.91	67.95	72.64	81.21	85.17	88.96	40.92	44.20	47.25	52.83	55.41	57.87
TIR	35	98.09	120.14	129.77	138.73	155.10	162.67	76.89	83.05	88.78	99.26	104.11	108.74	49.98	53.99	57.72	64.53	67.68	70.69
THR	45	124.86	152.92	165.17	176.57	197.41	207.05	97.85	105.69	112.98	126.32	132.48	138.37	63.65	68.75	73.50	82.17	86.18	90.01
THR	55	151.62	185.69	200.57	214.42	239.73	251.43	118.84	128.36	137.22	153.42	160.91	168.06	77.28	83.47	89.23	99.77	104.64	109.29
TMR	55	178.38	218.47	235.98	252.27	282.04	295.81	139.79	151.00	161.42	180.47	189.28	197.70	90.91	98.19	104.97	117.36	123.09	128.56

Refrigerant Liquid Temperature Correction Factors

	Refrigerant Liquid Temperature °F														
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140
R-12 Correction Factor	1.60	1.54	1.48	1.42	1.36	1.30	1.24	1.18	1.12	1.06	1.00	.94	.88	.82	.75
R-134a Correction Factor	1.70	1.63	1.56	1.49	1.42	1.36	1.29	1.21	1.14	1.07	1.00	.93	.85	.78	.71
R-22 Correction Factor	1.56	1.51	1.45	1.40	1.34	1.29	1.23	1.17	1.12	1.06	1.00	.94	.88	.82	.76
R-404A/R-507 Correction	2.00	1.90	1.80	1.70	1.60	1.50	1.40	1.30	1.20	1.10	1.00	.90	.80	.70	.50

These factors include corrections for liquid refrigerant density and net refrigerating effect and are based on an average evaporator temperature of 0°F. However, they may be used for any evaporator temperature from -40°F to +40°F since the variation in the actual factors across this range is insignificant.

R-22 Balanced Ported Valves (kWatts)– B, HF, TFE, TRAE and T Series

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		10°C					0°C					-10°C							
		PRESSURE DROP ACROSS VALVE (kPa)						PRESSURE DROP ACROSS VALVE (kPa)						PRESSURE DROP ACROSS VALVE (kPa)					
	400	600	700	800	1000	1100	400	600	700	800	1000	1100	400	600	700	800	1000	1100	
BA/BN	1/2	1.38	1.69	1.83	1.95	2.18	2.29	1.37	1.68	1.81	1.94	2.17	2.27	1.35	1.65	1.78	1.90	2.13	2.23
BA/BN	1	2.66	3.25	3.51	3.75	4.20	4.40	2.60	3.19	3.45	3.68	4.12	4.32	2.55	3.12	3.37	3.60	4.03	4.23
BA/BN	1-1/2	4.11	5.03	5.43	5.81	6.49	6.81	4.06	4.97	5.37	5.74	6.42	6.73	3.96	4.86	5.24	5.61	6.27	6.57
BA/BN	2	5.52	6.76	7.31	7.81	8.73	9.16	5.43	6.65	7.18	7.68	8.58	9.00	5.31	6.50	7.02	7.51	8.40	8.81
BA/BN	2-1/2	6.94	8.50	9.18	9.81	10.97	11.51	6.86	8.40	9.07	9.69	10.84	11.37	6.69	8.19	8.85	9.46	10.58	11.10
BA/BN	3	8.43	10.32	11.15	11.92	13.32	13.97	8.31	10.18	10.99	11.75	13.14	13.78	8.11	9.93	10.72	11.46	12.82	13.44
BA/BN	4	10.90	13.35	14.42	15.42	17.24	18.08	10.75	13.16	14.22	15.20	17.00	17.83	10.51	12.88	13.91	14.87	16.62	17.44
BA/BN	5	13.81	16.91	18.26	19.52	21.83	22.89	13.63	16.69	18.03	19.27	21.55	22.60	13.28	16.26	17.56	18.77	20.99	22.01
BA/BN	6	17.17	21.03	22.71	24.28	27.15	28.47	16.92	20.72	22.38	23.93	26.75	28.06	16.53	20.25	21.87	23.38	26.14	27.41
HF/HN	1/4	0.78	0.95	1.03	1.10	1.23	1.29	0.77	0.94	1.02	1.09	1.21	1.27	0.74	0.91	0.98	1.05	1.18	1.23
HF/HN	1/2	1.49	1.82	1.97	2.10	2.35	2.47	1.45	1.78	1.92	2.06	2.30	2.41	1.42	1.73	1.87	2.00	2.24	2.35
HF/HN	1	2.66	3.25	3.51	3.75	4.20	4.40	2.60	3.19	3.45	3.68	4.12	4.32	2.55	3.12	3.37	3.60	4.03	4.23
HF/HN	1-1/2	4.04	4.94	5.34	5.71	6.38	6.69	3.98	4.87	5.26	5.62	6.29	6.59	3.89	4.77	5.15	5.51	6.16	6.46
HF/HN	2	5.42	6.63	7.16	7.66	8.56	8.98	5.37	6.58	7.11	7.60	8.50	8.91	5.24	6.42	6.93	7.41	8.28	8.69
HF/HN	2-1/2	6.94	8.50	9.18	9.81	10.97	11.51	6.88	8.43	9.10	9.73	10.88	11.41	6.69	8.19	8.85	9.46	10.58	11.10
HF/HN	3	9.17	11.23	12.13	12.97	14.50	15.20	9.08	11.12	12.01	12.84	14.35	15.05	8.85	10.84	11.71	12.52	13.99	14.68
HF/HN	5-1/2	16.32	19.99	21.59	23.08	25.80	27.06	16.15	19.78	21.37	22.84	25.54	26.78	15.72	19.25	20.79	22.23	24.85	26.06
HF/HN	8	22.73	27.83	30.06	32.14	35.93	37.69	22.46	27.50	29.71	31.76	35.51	37.24	21.88	26.79	28.94	30.94	34.59	36.28
HF/HN	10	28.78	35.25	38.07	40.70	45.51	47.73	28.52	34.93	37.73	40.33	45.09	47.29	27.72	33.95	36.67	39.20	43.83	45.97
HF/HN	15	42.83	52.46	56.66	60.58	67.73	71.03	42.23	51.72	55.86	59.72	66.77	70.03	41.10	50.34	54.37	58.12	64.98	68.16
HF/HN	20	56.29	68.94	74.46	79.60	89.00	93.34	55.39	67.84	73.27	78.33	87.58	91.85	54.09	66.25	71.56	76.50	85.53	89.70
TFE	8	22.30	27.31	29.50	31.54	35.26	36.98	22.05	27.00	29.16	31.18	34.86	36.56	21.49	26.32	28.43	30.39	33.98	35.63
TFE	10	30.55	37.42	40.41	43.20	48.30	50.66	30.19	36.98	39.94	42.70	47.73	50.06	29.42	36.03	38.92	41.60	46.51	48.78
TFE	12	37.91	46.43	50.15	53.62	59.95	62.87	37.48	45.91	49.59	53.01	59.27	62.16	36.53	44.74	48.33	51.67	57.76	60.58
TFE	20	57.88	70.89	76.57	81.85	91.51	95.98	57.23	70.09	75.70	80.93	90.48	94.90	54.98	67.33	72.73	77.75	86.93	91.17
TRAE+	10	32.82	40.19	43.41	46.41	51.89	54.42	32.44	39.73	42.91	45.88	51.29	53.79	31.61	38.72	41.82	44.71	49.98	52.42
TRAE+	15	47.86	58.62	63.31	67.69	75.67	79.37	47.30	57.93	62.57	66.89	74.79	78.44	46.09	56.45	60.97	65.18	72.88	76.43
TRAE+	20	53.42	65.42	70.67	75.55	84.46	88.58	52.78	64.65	69.83	74.65	83.46	87.53	51.44	63.00	68.04	72.74	81.33	85.30
TRAE+	30	80.96	99.16	107.10	114.49	128.01	134.26	80.01	98.00	105.85	113.16	126.51	132.69	77.95	95.47	103.12	110.24	123.25	129.27
TRAE+	40	111.26	136.27	147.19	157.35	175.92	184.51	109.98	134.70	145.50	155.54	173.90	182.39	107.16	131.24	141.75	151.54	169.43	177.70
TRAE	50	150.20	183.96	198.70	212.42	237.49	249.08	148.46	181.82	196.39	209.95	234.73	246.19	144.68	177.20	191.39	204.61	228.76	239.92
TRAE	60	163.83	200.65	216.73	231.69	259.04	271.68	161.95	198.34	214.24	229.03	256.06	268.56	157.81	193.28	208.77	223.18	249.52	261.70
TRAE	70	195.02	238.85	257.99	275.80	308.35	323.40	192.74	236.06	254.97	272.58	304.75	319.62	187.83	230.05	248.48	265.64	296.99	311.48
TJR	14	40.89	50.08	54.09	57.82	64.65	67.80	36.14	44.26	47.81	51.11	57.14	59.93	39.40	48.26	52.12	55.72	62.30	65.34
TJR	18	48.96	59.96	64.77	69.24	77.41	81.19	48.40	59.27	64.02	68.44	76.52	80.26	47.15	57.75	62.38	66.68	74.56	78.19
TER	22	61.21	74.96	80.97	86.56	96.78	101.50	60.49	74.08	80.02	85.55	95.64	100.31	58.94	72.19	77.97	83.36	93.19	97.74
TER	26	72.32	88.58	95.67	102.28	114.35	119.93	63.95	78.32	84.59	90.43	101.11	106.04	69.67	85.32	92.16	98.52	110.15	115.53
TER	35	97.35	119.23	128.78	137.67	153.92	161.44	96.22	117.84	127.29	136.07	152.14	159.56	93.77	114.85	124.05	132.62	148.27	155.51
TER	45	125.17	153.31	165.59	177.02	197.92	207.58	123.72	151.53	163.67	174.97	195.62	205.17	120.57	147.67	159.50	170.52	190.64	199.95
TIR	55	153.00	187.38	202.40	216.37	241.91	253.72	151.23	185.21	200.05	213.86	239.11	250.78	147.37	180.49	194.95	208.41	233.01	244.39
THR	70	194.74	238.50	257.61	275.40	307.90	322.93	192.47	235.72	254.61	272.19	304.32	319.17	187.55	229.70	248.10	265.23	296.54	311.02
THR	85	236.44	289.57	312.78	334.37	373.84	392.09	233.71	286.23	309.17	330.51	369.52	387.56	227.73	278.91	301.26	322.06	360.07	377.64
TMR	100	278.17	340.69	367.99	393.40	439.83	461.30	274.95	336.74	363.72	388.83	434.73	455.95	267.94	328.16	354.45	378.93	423.65	444.33

Refrigerant Liquid Temperature Correction Factors

	Refrigerant Liquid Temperature °F														
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140
R-12 Correction Factor	1.60	1.54	1.48	1.42	1.36	1.30	1.24	1.18	1.12	1.06	1.00	.94	.88	.82	.75
R-134a Correction Factor	1.70	1.63	1.56	1.49	1.42	1.36	1.29	1.21	1.14	1.07	1.00	.93	.85	.78	.71
R-22 Correction Factor	1.56	1.51	1.45	1.40	1.34	1.29	1.23	1.17	1.12	1.06	1.00	.94	.88	.82	.76
R-404A/R-507 Correction	2.00	1.90	1.80	1.70	1.60	1.50	1.40	1.30	1.20	1.10	1.00	.90	.80	.70	.50

These factors include corrections for liquid refrigerant density and net refrigerating effect and are based on an average evaporator temperature of 0°F. However, they may be used for any evaporator temperature from -40°F to +40°F since the variation in the actual factors across this range is insignificant.

Thermal Expansion Valves
Solenoid Valves
Coils
Industrial Solenoid Valves
Shut Off Valves
System Protectors
Storage Devices
Oil Controls
Pressure Regulators
Temperature Pressure Controls
Competitive Cross Reference

R-22 Balanced Ported Valves (kWatts)– B, HF, TFE, TRAE and T Series

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		-20°C					-30°C					-40°C							
		PRESSURE DROP ACROSS VALVE (kPa)					PRESSURE DROP ACROSS VALVE (kPa)					PRESSURE DROP ACROSS VALVE (kPa)							
		400	600	700	800	1000	1100	600	700	800	1000	1100	1200	600	700	800	1000	1100	1200
BA/BN	1/2	1.20	1.47	1.59	1.70	1.90	2.00	0.96	1.03	1.10	1.23	1.29	1.35	0.64	0.69	0.74	0.82	0.86	0.90
BA/BN	1	2.30	2.82	3.04	3.25	3.64	3.82	1.84	1.99	2.13	2.38	2.49	2.60	1.20	1.30	1.39	1.55	1.63	1.70
BA/BN	1-1/2	3.61	4.42	4.78	5.11	5.71	5.99	2.87	3.10	3.31	3.70	3.88	4.06	1.88	2.03	2.17	2.42	2.54	2.65
BA/BN	2	4.81	5.90	6.37	6.81	7.61	7.98	3.82	4.13	4.41	4.94	5.18	5.41	2.51	2.71	2.90	3.24	3.40	3.55
BA/BN	2-1/2	6.09	7.46	8.05	8.61	9.63	10.10	4.85	5.24	5.60	6.26	6.57	6.86	3.19	3.44	3.68	4.11	4.31	4.51
BA/BN	3	7.36	9.02	9.74	10.41	11.64	12.21	5.88	6.35	6.79	7.59	7.96	8.31	3.86	4.17	4.46	4.98	5.22	5.46
BA/BN	4	9.52	11.66	12.60	13.47	15.06	15.79	7.61	8.22	8.79	9.83	10.31	10.76	4.99	5.39	5.76	6.44	6.76	7.06
BA/BN	5	12.04	14.74	15.92	17.02	19.03	19.96	9.63	10.40	11.12	12.43	13.04	13.62	6.34	6.84	7.32	8.18	8.58	8.96
BA/BN	6	14.97	18.34	19.81	21.18	23.68	24.83	11.97	12.92	13.82	15.45	16.20	16.92	7.89	8.53	9.12	10.19	10.69	11.16
HF/HN	1/4	0.67	0.82	0.89	0.95	1.06	1.12	0.53	0.57	0.61	0.69	0.72	0.75	0.35	0.38	0.41	0.46	0.48	0.50
HF/HN	1/2	1.27	1.56	1.69	1.80	2.02	2.11	1.03	1.11	1.19	1.33	1.39	1.45	0.67	0.73	0.78	0.87	0.91	0.95
HF/HN	1	2.30	2.82	3.04	3.25	3.64	3.82	1.84	1.99	2.13	2.38	2.49	2.60	1.20	1.30	1.39	1.55	1.63	1.70
HF/HN	1-1/2	3.54	4.34	4.68	5.01	5.60	5.87	2.80	3.02	3.23	3.61	3.79	3.95	1.84	1.99	2.13	2.38	2.49	2.60
HF/HN	2	4.74	5.81	6.28	6.71	7.50	7.87	3.79	4.09	4.37	4.89	5.13	5.36	2.48	2.68	2.86	3.20	3.36	3.50
HF/HN	2-1/2	6.09	7.46	8.05	8.61	9.63	10.10	4.21	4.55	4.86	5.44	5.70	5.96	3.19	3.44	3.68	4.11	4.31	4.51
HF/HN	3	8.00	9.80	10.58	11.31	12.65	13.27	6.41	6.92	7.40	8.27	8.68	9.06	4.21	4.55	4.86	5.44	5.70	5.96
HF/HN	5-1/2	14.27	17.47	18.87	20.18	22.56	23.66	11.40	12.31	13.16	14.72	15.43	16.12	7.50	8.11	8.67	9.69	10.16	10.61
HF/HN	8	19.86	24.32	26.27	28.09	31.40	32.93	15.86	17.13	18.31	20.47	21.47	22.43	10.44	11.28	12.06	13.48	14.14	14.77
HF/HN	10	25.13	30.78	33.25	35.54	39.74	41.68	20.07	21.68	23.18	25.91	27.18	28.39	13.20	14.26	15.25	17.05	17.88	18.67
HF/HN	15	37.17	45.52	49.17	52.57	58.77	61.64	29.74	32.12	34.34	38.39	40.26	42.05	19.58	21.14	22.60	25.27	26.51	27.68
HF/HN	20	49.21	60.26	65.09	69.59	77.80	81.60	39.15	42.29	45.21	50.55	53.01	55.37	25.77	27.84	29.76	33.27	34.89	36.45
TFE	8	19.47	23.85	25.76	27.53	30.78	32.29	15.54	16.79	17.94	20.06	21.04	21.98	10.23	11.05	11.81	13.21	13.85	14.47
TFE	10	26.69	32.69	35.31	37.75	42.20	44.26	21.31	23.02	24.61	27.51	28.85	30.14	14.02	15.14	16.19	18.10	18.98	19.83
TFE	12	33.10	40.54	43.79	46.81	52.33	54.89	26.44	28.56	30.53	34.14	35.81	37.40	17.42	18.81	20.11	22.48	23.58	24.63
TFE	20	50.55	61.91	66.87	71.49	79.93	83.83	40.36	43.59	46.60	52.10	54.64	57.07	26.59	28.72	30.70	34.32	36.00	37.60
TRAE+	10	28.67	35.12	37.93	40.55	45.34	47.55	22.90	24.74	26.45	29.57	31.01	32.39	15.08	16.29	17.41	19.47	20.42	21.33
TRAE+	15	41.77	51.16	55.26	59.07	66.05	69.27	33.35	36.02	38.51	43.05	45.15	47.16	21.98	23.74	25.38	28.38	29.77	31.09
TRAE+	20	46.66	57.14	61.72	65.98	73.77	77.37	37.24	40.22	43.00	48.08	50.42	52.67	24.53	26.50	28.33	31.67	33.22	34.69
TRAE+	30	70.69	86.58	93.52	99.98	111.78	117.23	56.43	60.95	65.16	72.85	76.40	79.80	37.17	40.15	42.92	47.99	50.33	52.57
TRAE+	40	97.17	119.01	128.55	137.42	153.64	161.14	77.60	83.81	89.60	100.18	105.07	109.74	51.08	55.18	58.98	65.95	69.17	72.24
TRAE	50	131.19	160.68	173.55	185.53	207.43	217.56	104.75	113.14	120.95	135.23	141.83	148.14	68.96	74.48	79.63	89.03	93.37	97.52
TRAE	60	143.09	175.24	189.29	202.36	226.24	237.28	114.24	123.39	131.91	147.48	154.68	161.55	75.23	81.25	86.86	97.12	101.86	106.38
TRAE	70	170.31	208.59	225.30	240.85	269.28	282.43	135.97	146.87	157.01	175.54	184.11	192.29	89.53	96.70	103.38	115.58	121.22	126.61
TJR	14	35.72	43.75	47.25	50.51	56.48	59.23	28.50	30.78	32.91	36.79	38.59	40.30	18.76	20.27	21.66	24.22	25.40	26.53
TJR	18	42.76	52.37	56.57	60.48	67.61	70.91	34.13	36.86	39.40	44.06	46.21	48.26	22.48	24.28	25.96	29.02	30.44	31.79
TER	22	53.45	65.47	70.71	75.60	84.52	88.64	42.66	46.07	49.26	55.07	57.76	60.33	28.11	30.36	32.46	36.29	38.06	39.75
TER	26	63.15	77.35	83.54	89.31	99.85	104.73	50.45	54.49	58.25	65.12	68.30	71.34	33.21	35.87	38.34	42.87	44.96	46.96
TER	35	85.03	104.14	112.49	120.25	134.45	141.01	67.90	73.34	78.40	87.65	91.93	96.02	44.71	48.29	51.63	57.72	60.54	63.23
TER	45	109.32	133.88	144.61	154.60	172.84	181.28	87.30	94.29	100.80	112.70	118.20	123.46	57.49	62.10	66.38	74.22	77.84	81.30
TIR	55	133.64	163.67	176.78	188.99	211.30	221.61	106.66	115.21	123.16	137.70	144.42	150.84	70.23	75.86	81.10	90.67	95.10	99.33
THR	70	170.06	208.28	224.97	240.50	268.89	282.02	135.76	146.64	156.76	175.26	183.82	191.99	89.42	96.59	103.25	115.44	121.08	126.46
THR	100	206.49	252.90	273.16	292.02	326.49	342.42	164.86	178.07	190.36	212.83	223.22	233.14	108.57	117.27	125.37	140.17	147.01	153.54
TMR	100	242.95	297.55	321.39	343.58	384.14	402.89	193.96	209.50	223.96	250.40	262.62	274.30	127.72	137.96	147.48	164.89	172.94	180.63

Refrigerant Liquid Temperature Correction Factors

	Refrigerant Liquid Temperature °F															
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	
R-12 Correction Factor	1.60	1.54	1.48	1.42	1.36	1.30	1.24	1.18	1.12	1.06	1.00	.94	.88	.82	.75	
R-134a Correction Factor	1.70	1.63	1.56	1.49	1.42	1.36	1.29	1.21	1.14	1.07	1.00	.93	.85	.78	.71	
R-22 Correction Factor	1.56	1.51	1.45	1.40	1.34	1.29	1.23	1.17	1.12	1.06	1.00	.94	.88	.82	.76	
R-404A/R-507 Correction	2.00	1.90	1.80	1.70	1.60	1.50	1.40	1.30	1.20	1.10	1.00	.90	.80	.70	.50	

These factors include corrections for liquid refrigerant density and net refrigerating effect and are based on an average evaporator temperature of 0°F. However, they may be used for any evaporator temperature from -40°F to +40°F since the variation in the actual factors across this range is insignificant.

R-134a Balanced Ported Valves (kWatts)– B, HF, TFE, TRAE and T Series

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		10°C					0°C					-10°C							
		PRESSURE DROP ACROSS VALVE (kPa)					PRESSURE DROP ACROSS VALVE (kPa)					PRESSURE DROP ACROSS VALVE (kPa)							
	400	600	700	800	1000	1100	400	600	700	800	1000	1100	400	600	700	800	1000	1100	
BA/BN	1/2	1.31	1.60	1.73	1.85	2.07	2.17	1.31	1.60	1.73	1.85	2.07	2.17	1.24	1.52	1.64	1.75	1.96	2.05
BA/BN	3/4	2.51	3.08	3.32	3.55	3.97	4.17	2.48	3.03	3.28	3.50	3.92	4.11	2.37	2.90	3.14	3.35	3.75	3.93
BA/BN	1	3.93	4.81	5.20	5.56	6.21	6.52	3.86	4.73	5.10	5.46	6.10	6.40	3.68	4.51	4.87	5.21	5.82	6.11
BA/BN	1-1/2	5.24	6.42	6.93	7.41	8.28	8.69	5.13	6.29	6.79	7.26	8.12	8.51	4.92	6.03	6.51	6.96	7.78	8.16
BA/BN	2	6.62	8.11	8.76	9.36	10.47	10.98	6.51	7.98	8.62	9.21	10.30	10.80	6.23	7.63	8.24	8.81	9.85	10.33
BA/BN	2-1/4	8.04	9.84	10.63	11.36	12.71	13.33	7.86	9.63	10.40	11.11	12.43	13.03	7.54	9.23	9.97	10.66	11.92	12.50
BA/BN	3	10.41	12.75	13.77	14.72	16.46	17.26	10.20	12.49	13.49	14.42	16.12	16.91	9.74	11.92	12.88	13.77	15.39	16.14
BA/BN	3-1/2	13.17	16.13	17.42	18.62	20.82	21.84	12.89	15.78	17.05	18.22	20.37	21.37	12.32	15.09	16.30	17.42	19.48	20.43
BA/BN	4-1/4	16.35	20.03	21.64	23.13	25.86	27.12	16.04	19.64	21.21	22.68	25.36	26.59	15.33	18.77	20.28	21.68	24.24	25.42
HF/HN	1/4	0.74	0.91	0.98	1.05	1.18	1.23	0.74	0.91	0.98	1.05	1.18	1.23	0.71	0.87	0.94	1.00	1.12	1.17
HF/HN	1/2	1.42	1.73	1.87	2.00	2.24	2.35	1.38	1.69	1.83	1.95	2.18	2.29	1.31	1.60	1.73	1.85	2.07	2.17
HF/HN	3/4	2.51	3.08	3.32	3.55	3.97	4.17	2.48	3.03	3.28	3.50	3.92	4.11	2.37	2.90	3.14	3.35	3.75	3.93
HF/HN	1	3.86	4.73	5.10	5.46	6.10	6.40	3.75	4.60	4.96	5.31	5.93	6.22	3.61	4.42	4.78	5.11	5.71	5.99
HF/HN	1-1/2	5.17	6.33	6.84	7.31	8.17	8.57	5.06	6.20	6.70	7.16	8.00	8.39	4.85	5.94	6.42	6.86	7.67	8.04
HF/HN	1-3/4	6.62	8.11	8.76	9.36	10.47	10.98	6.51	7.98	8.62	9.21	10.30	10.80	6.23	7.63	8.24	8.81	9.85	10.33
HF/HN	2-1/2	8.74	10.71	11.57	12.37	13.83	14.50	8.57	10.49	11.33	12.12	13.55	14.21	8.21	10.06	10.86	11.61	12.99	13.62
HF/HN	4	15.58	19.08	20.61	22.03	24.63	25.83	15.26	18.69	20.18	21.58	24.12	25.30	14.58	17.86	19.29	20.63	23.06	24.19
HF/HN	6	21.66	26.53	28.66	30.64	34.26	35.93	21.24	26.01	28.10	30.04	33.58	35.22	20.32	24.89	26.88	28.74	32.13	33.70
HF/HN	7-1/2	27.44	33.60	36.29	38.80	43.38	45.50	26.87	32.91	35.54	38.00	42.48	44.56	25.70	31.48	34.00	36.35	40.64	42.62
HF/HN	11	40.71	49.86	53.85	57.57	64.37	67.51	39.86	48.82	52.73	56.37	63.02	66.10	38.13	46.69	50.44	53.92	60.28	63.22
HF/HN	14	53.56	65.60	70.85	75.75	84.69	88.82	52.46	64.25	69.40	74.19	82.95	87.00	50.20	61.48	66.40	70.99	79.37	83.24
TFE	6	21.28	26.06	28.14	30.09	33.64	35.28	20.85	25.54	27.58	29.49	32.97	34.58	19.93	24.41	26.37	28.19	31.51	33.05
TFE	8	29.13	35.68	38.54	41.20	46.07	48.31	28.53	34.94	37.74	40.35	45.11	47.32	27.29	33.43	36.11	38.60	43.15	45.26
TFE	10	36.18	44.31	47.86	51.16	57.20	60.00	35.44	43.40	46.88	50.11	56.03	58.76	33.88	41.49	44.82	47.91	53.57	56.18
TFE	15	55.22	67.64	73.05	78.10	87.32	91.58	54.09	66.25	71.56	76.50	85.53	89.70	51.72	63.34	68.42	73.14	81.78	85.77
TRAE+	9	31.29	38.33	41.40	44.26	49.48	51.89	30.66	37.55	40.55	43.35	48.47	50.84	29.35	35.94	38.82	41.50	46.40	48.67
TRAE+	13	45.63	55.89	60.36	64.53	72.15	75.67	44.71	54.76	59.15	63.23	70.69	74.14	42.76	52.37	56.57	60.48	67.61	70.91
TRAE+	14	50.94	62.39	67.39	72.04	80.54	84.48	49.88	61.09	65.98	70.54	78.86	82.71	47.72	58.44	63.13	67.49	75.45	79.13
TRAE+	22	77.21	94.56	102.14	109.19	122.08	128.03	75.61	92.61	100.03	106.93	119.56	125.39	72.32	88.58	95.67	102.28	114.35	119.93
TRAE+	30	106.13	129.98	140.40	150.09	167.80	176.00	103.93	127.29	137.49	146.99	164.33	172.36	99.44	121.79	131.54	140.63	157.23	164.90
TRAE	40	143.30	175.50	189.57	202.66	226.58	237.63	140.33	171.86	185.63	198.45	221.87	232.70	134.24	164.41	177.58	189.84	212.25	222.61
TRAE	45	156.29	191.42	206.75	221.03	247.12	259.18	153.07	187.47	202.49	216.47	242.02	253.84	146.41	179.32	193.69	207.06	231.50	242.80
TRAE	50	185.99	227.79	246.04	263.03	294.08	308.43	182.17	223.11	240.99	257.63	288.03	302.09	174.24	213.40	230.50	246.41	275.50	288.94
TJR	11	39.01	47.78	51.61	55.17	61.68	64.69	38.20	46.78	50.53	54.02	60.39	63.34	36.53	44.74	48.33	51.67	57.76	60.58
TJR	13	46.69	57.19	61.77	66.03	73.83	77.43	45.74	56.02	60.50	64.68	72.32	75.85	43.75	53.59	57.88	61.88	69.18	72.56
TER	16	58.37	71.49	77.22	82.55	92.30	96.80	57.17	70.02	75.63	80.85	90.40	94.81	54.69	66.98	72.35	77.35	86.48	90.70
TER	19	68.99	84.50	91.27	97.57	109.09	114.41	67.58	82.77	89.40	95.57	106.85	112.07	64.64	79.17	85.51	91.42	102.21	107.19
TER	25	92.85	113.72	122.83	131.32	146.82	153.98	90.94	111.38	120.31	128.61	143.79	150.81	87.01	106.57	115.11	123.06	137.58	144.30
TER	31	119.40	146.24	157.96	168.86	188.79	198.01	116.93	143.20	154.68	165.36	184.88	193.90	111.86	137.00	147.98	158.20	176.87	185.51
TIR	45	145.95	178.76	193.08	206.41	230.77	242.04	142.91	175.03	189.05	202.10	225.96	236.99	136.71	167.44	180.86	193.34	216.17	226.72
THR	55	185.74	227.49	245.72	262.68	293.69	308.02	181.89	222.76	240.61	257.22	287.59	301.62	173.99	213.09	230.17	246.06	275.10	288.53
THR	68	225.53	276.22	298.35	318.95	356.60	374.00	220.90	270.54	292.22	312.39	349.27	366.31	211.30	258.79	279.53	298.83	334.10	350.41
TMR	68	265.32	324.95	350.99	375.22	419.51	439.99	259.87	318.28	343.78	367.51	410.89	430.95	248.58	304.45	328.84	351.54	393.04	412.22

Refrigerant Liquid Temperature Correction Factors

	Refrigerant Liquid Temperature °F														
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140
R-12 Correction Factor	1.60	1.54	1.48	1.42	1.36	1.30	1.24	1.18	1.12	1.06	1.00	.94	.88	.82	.75
R-134a Correction Factor	1.70	1.63	1.56	1.49	1.42	1.36	1.29	1.21	1.14	1.07	1.00	.93	.85	.78	.71
R-22 Correction Factor	1.56	1.51	1.45	1.40	1.34	1.29	1.23	1.17	1.12	1.06	1.00	.94	.88	.82	.76
R-404A/R-507 Correction	2.00	1.90	1.80	1.70	1.60	1.50	1.40	1.30	1.20	1.10	1.00	.90	.80	.70	.50

These factors include corrections for liquid refrigerant density and net refrigerating effect and are based on an average evaporator temperature of 0°F. However, they may be used for any evaporator temperature from -40°F to +40°F since the variation in the actual factors across this range is insignificant.

Thermal Expansion Valves
Solenoid Valves
Coils
Industrial Solenoid Valves
Shut Off Valves
System Protectors
Storage Devices
Oil Controls
Pressure Regulators
Temperature Pressure Controls
Competitive Cross Reference

R-134a Balanced Ported Valves (kWatts)– B, HF, TFE, TRAE and T Series

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		-20°C					-30°C					-40°C							
		PRESSURE DROP ACROSS VALVE (kPa)					PRESSURE DROP ACROSS VALVE (kPa)					PRESSURE DROP ACROSS VALVE (kPa)							
		400	600	700	800	1000	1100	600	700	800	1000	1100	1200	600	700	800	1000	1100	1200
BA/BN	1/2	1.03	1.26	1.36	1.45	1.62	1.70	0.78	0.84	0.90	1.01	1.05	1.10	0.46	0.50	0.53	0.59	0.62	0.65
BA/BN	3/4	1.95	2.38	2.58	2.75	3.08	3.23	1.45	1.57	1.68	1.87	1.97	2.05	0.89	0.96	1.02	1.14	1.20	1.25
BA/BN	1	3.04	3.73	4.03	4.31	4.81	5.05	2.27	2.45	2.62	2.92	3.07	3.20	1.38	1.49	1.59	1.78	1.87	1.95
BA/BN	1-1/2	4.04	4.94	5.34	5.71	6.38	6.69	3.01	3.25	3.47	3.88	4.07	4.26	1.84	1.99	2.13	2.38	2.49	2.60
BA/BN	2	5.10	6.24	6.74	7.21	8.06	8.45	3.82	4.13	4.41	4.94	5.18	5.41	2.34	2.52	2.70	3.02	3.16	3.30
BA/BN	2-1/4	6.20	7.59	8.20	8.76	9.80	10.27	4.64	5.01	5.35	5.99	6.28	6.56	2.83	3.06	3.27	3.66	3.83	4.01
BA/BN	3	8.04	9.84	10.63	11.36	12.71	13.33	5.98	6.46	6.91	7.72	8.10	8.46	3.68	3.98	4.25	4.75	4.98	5.21
BA/BN	3-1/2	10.16	12.44	13.44	14.37	16.06	16.85	7.58	8.18	8.75	9.78	10.26	10.71	4.64	5.01	5.35	5.99	6.28	6.56
BA/BN	4-1/4	12.64	15.48	16.72	17.87	19.98	20.96	9.42	10.17	10.87	12.16	12.75	13.32	5.77	6.23	6.66	7.45	7.81	8.16
HF/HN	1/4	0.57	0.69	0.75	0.80	0.90	0.94	0.42	0.46	0.49	0.55	0.58	0.60	0.25	0.27	0.29	0.32	0.34	0.35
HF/HN	1/2	1.10	1.34	1.45	1.55	1.74	1.82	0.81	0.88	0.94	1.05	1.10	1.15	0.50	0.54	0.57	0.64	0.67	0.70
HF/HN	3/4	1.95	2.38	2.58	2.75	3.08	3.23	1.45	1.57	1.68	1.87	1.97	2.05	0.89	0.96	1.02	1.14	1.20	1.25
HF/HN	1	2.97	3.64	3.93	4.21	4.70	4.93	2.23	2.41	2.58	2.88	3.02	3.15	1.35	1.45	1.55	1.74	1.82	1.90
HF/HN	1-1/2	4.00	4.90	5.29	5.66	6.32	6.63	2.97	3.21	3.43	3.84	4.03	4.21	1.84	1.99	2.13	2.38	2.49	2.60
HF/HN	1-3/4	5.10	6.24	6.74	7.21	8.06	8.45	3.82	4.13	4.41	4.94	5.18	5.41	2.34	2.52	2.70	3.02	3.16	3.30
HF/HN	2-1/2	6.76	8.28	8.94	9.56	10.69	11.21	5.03	5.43	5.80	6.49	6.81	7.11	3.08	3.33	3.56	3.98	4.17	4.36
HF/HN	4	12.00	14.70	15.88	16.97	18.97	19.90	8.96	9.67	10.34	11.56	12.13	12.67	5.49	5.93	6.34	7.08	7.43	7.76
HF/HN	6	16.71	20.46	22.10	23.63	26.42	27.71	12.46	13.46	14.39	16.09	16.87	17.62	7.65	8.26	8.83	9.87	10.35	10.81
HF/HN	7-1/2	21.17	25.93	28.00	29.94	33.47	35.11	15.79	17.05	18.23	20.38	21.38	22.33	9.70	10.48	11.20	12.52	13.13	13.72
HF/HN	11	31.40	38.46	41.54	44.41	49.65	52.07	23.43	25.31	27.06	30.25	31.73	33.14	14.37	15.52	16.60	18.55	19.46	20.33
HF/HN	14	41.31	50.60	54.65	58.42	65.32	68.51	30.83	33.30	35.60	39.81	41.75	43.61	18.90	20.42	21.83	24.40	25.60	26.73
TFE	6	16.43	20.12	21.73	23.23	25.97	27.24	12.25	13.23	14.14	15.81	16.58	17.32	7.50	8.11	8.67	9.69	10.16	10.61
TFE	8	22.48	27.53	29.74	31.79	35.54	37.28	16.78	18.12	19.38	21.66	22.72	23.73	10.30	11.13	11.90	13.30	13.95	14.57
TFE	10	27.90	34.16	36.90	39.45	44.11	46.26	20.82	22.48	24.04	26.87	28.18	29.44	12.78	13.80	14.76	16.50	17.30	18.07
TFE	15	42.59	52.16	56.34	60.23	67.33	70.62	31.75	34.30	36.67	40.99	42.99	44.91	19.51	21.07	22.52	25.18	26.41	27.58
TRAE+	9	24.14	29.57	31.94	34.14	38.17	40.04	18.02	19.46	20.81	23.26	24.40	25.48	11.04	11.93	12.75	14.26	14.95	15.62
TRAE+	13	35.19	43.10	46.55	49.76	55.64	58.35	26.27	28.37	30.33	33.91	35.57	37.15	16.11	17.40	18.60	20.79	21.81	22.78
TRAE+	14	39.29	48.13	51.98	55.57	62.13	65.16	29.31	31.66	33.85	37.84	39.69	41.45	17.98	19.42	20.77	23.22	24.35	25.43
TRAE+	22	59.54	72.92	78.77	84.21	94.15	98.74	44.43	47.99	51.30	57.36	60.15	62.83	27.26	29.44	31.47	35.19	36.91	38.55
TRAE+	30	81.84	100.24	108.27	115.75	129.41	135.72	61.07	65.96	70.51	78.83	82.68	86.36	37.49	40.49	43.29	48.40	50.76	53.02
TRAE+	40	110.48	135.31	146.16	156.25	174.69	183.22	82.45	89.05	95.20	106.44	111.63	116.60	50.59	54.64	58.41	65.31	68.49	71.54
TRAE	45	120.50	147.58	159.41	170.41	190.53	199.83	89.92	97.12	103.83	116.08	121.75	127.16	55.19	59.61	63.73	71.25	74.73	78.05
TRAE	50	143.44	175.68	189.75	202.86	226.80	237.87	107.01	115.59	123.57	138.15	144.90	151.34	65.67	70.93	75.83	84.78	88.91	92.87
TJR	11	30.09	36.85	39.81	42.55	47.58	49.90	22.44	24.24	25.92	28.97	30.39	31.74	13.77	14.87	15.90	17.78	18.65	19.47
TJR	13	36.00	44.09	47.63	50.91	56.92	59.70	26.87	29.02	31.03	34.69	36.38	38.00	16.50	17.82	19.05	21.30	22.34	23.33
TER	16	45.03	55.15	59.57	63.68	71.20	74.67	33.59	36.29	38.79	43.37	45.49	47.51	20.60	22.25	23.79	26.60	27.90	29.14
TER	19	53.21	65.16	70.39	75.24	84.13	88.23	39.68	42.86	45.82	51.23	53.73	56.12	24.36	26.31	28.12	31.44	32.98	34.44
TER	25	71.61	87.71	94.74	101.28	113.23	118.76	53.42	57.70	61.68	68.96	72.33	75.55	32.78	35.41	37.85	42.32	44.38	46.36
TER	31	92.08	112.77	121.80	130.21	145.58	152.69	68.71	74.22	79.34	88.71	93.04	97.17	42.16	45.54	48.68	54.43	57.09	59.63
TIR	45	112.54	137.83	148.87	159.15	177.94	186.62	83.97	90.70	96.96	108.40	113.69	118.75	51.54	55.67	59.52	66.54	69.79	72.89
THR	55	143.23	175.42	189.47	202.56	226.46	237.52	106.87	115.44	123.41	137.97	144.71	151.14	65.60	70.85	75.74	84.68	88.82	92.77
THR	68	173.92	213.01	230.07	245.96	274.99	288.41	129.78	140.17	149.85	167.54	175.72	183.53	79.65	86.03	91.97	102.83	107.85	112.64

Refrigerant Liquid Temperature Correction Factors

	Refrigerant Liquid Temperature °F														
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140
R-12 Correction Factor	1.60	1.54	1.48	1.42	1.36	1.30	1.24	1.18	1.12	1.06	1.00	.94	.88	.82	.75
R-134a Correction Factor	1.70	1.63	1.56	1.49	1.42	1.36	1.29	1.21	1.14	1.07	1.00	.93	.85	.78	.71
R-22 Correction Factor	1.56	1.51	1.45	1.40	1.34	1.29	1.23	1.17	1.12	1.06	1.00	.94	.88	.82	.76
R-404A/R-507 Correction	2.00	1.90	1.80	1.70	1.60	1.50	1.40	1.30	1.20	1.10	1.00	.90	.80	.70	.50

These factors include corrections for liquid refrigerant density and net refrigerating effect and are based on an average evaporator temperature of 0°F. However, they may be used for any evaporator temperature from -40°F to +40°F since the variation in the actual factors across this range is insignificant.

R-404A/R-507 Balanced Ported Valves (kWatts)– B, HF, TFE, TRAE and T Series

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		10°C					0°C					-10°C							
		PRESSURE DROP ACROSS VALVE (kPa)					PRESSURE DROP ACROSS VALVE (kPa)					PRESSURE DROP ACROSS VALVE (kPa)							
		400	600	700	800	1000	1100	400	600	700	800	1000	1100	400	600	700	800	1000	1100
BA/BN	1/2	1.03	1.26	1.36	1.45	1.62	1.70	0.99	1.21	1.31	1.40	1.57	1.64	0.96	1.17	1.26	1.35	1.51	1.59
BA/BN	3/4	1.95	2.38	2.58	2.75	3.08	3.23	1.88	2.30	2.48	2.65	2.97	3.11	1.81	2.21	2.39	2.55	2.85	2.99
BA/BN	1	3.01	3.69	3.98	4.26	4.76	4.99	2.94	3.60	3.89	4.16	4.65	4.87	2.80	3.43	3.70	3.95	4.42	4.64
BA/BN	1-1/2	4.04	4.94	5.34	5.71	6.38	6.69	3.93	4.81	5.20	5.56	6.21	6.52	3.75	4.60	4.96	5.31	5.93	6.22
BA/BN	2	5.10	6.24	6.74	7.21	8.06	8.45	4.99	6.11	6.60	7.06	7.89	8.28	4.74	5.81	6.28	6.71	7.50	7.87
BA/BN	2-1/4	6.16	7.54	8.15	8.71	9.74	10.21	6.02	7.37	7.96	8.51	9.52	9.98	5.73	7.02	7.59	8.11	9.07	9.51
BA/BN	3	8.00	9.80	10.58	11.31	12.65	13.27	7.79	9.54	10.30	11.01	12.31	12.91	7.40	9.06	9.79	10.46	11.70	12.27
BA/BN	3-1/2	10.09	12.36	13.35	14.27	15.95	16.73	9.88	12.10	13.07	13.97	15.62	16.38	9.38	11.49	12.41	13.27	14.83	15.56
BA/BN	4-1/4	12.57	15.39	16.62	17.77	19.87	20.84	12.28	15.04	16.25	17.37	19.42	20.37	11.65	14.26	15.41	16.47	18.41	19.31
HF/HN	1/4	0.57	0.69	0.75	0.80	0.90	0.94	0.57	0.69	0.75	0.80	0.90	0.94	0.53	0.65	0.70	0.75	0.84	0.88
HF/HN	1/2	1.10	1.34	1.45	1.55	1.74	1.82	1.06	1.30	1.40	1.50	1.68	1.76	0.99	1.21	1.31	1.40	1.57	1.64
HF/HN	3/4	1.95	2.38	2.58	2.75	3.08	3.23	1.88	2.30	2.48	2.65	2.97	3.11	1.81	2.21	2.39	2.55	2.85	2.99
HF/HN	1	2.94	3.60	3.89	4.16	4.65	4.87	2.90	3.56	3.84	4.11	4.59	4.81	2.73	3.34	3.61	3.85	4.31	4.52
HF/HN	1-1/2	3.96	4.86	5.24	5.61	6.27	6.57	3.89	4.77	5.15	5.51	6.16	6.46	3.68	4.51	4.87	5.21	5.82	6.11
HF/HN	1-3/4	5.10	6.24	6.74	7.21	8.06	8.45	4.99	6.11	6.60	7.06	7.89	8.28	4.74	5.81	6.28	6.71	7.50	7.87
HF/HN	2-1/2	6.73	8.24	8.90	9.51	10.63	11.15	6.58	8.06	8.71	9.31	10.41	10.92	6.23	7.63	8.24	8.81	9.85	10.33
HF/HN	4	11.97	14.65	15.83	16.92	18.92	19.84	11.68	14.31	15.45	16.52	18.47	19.37	11.08	13.57	14.66	15.67	17.52	18.37
HF/HN	6	16.64	20.38	22.01	23.53	26.31	27.59	16.25	19.90	21.49	22.98	25.69	26.95	15.43	18.90	20.42	21.83	24.40	25.60
HF/HN	7-1/2	21.06	25.80	27.86	29.79	33.30	34.93	20.57	25.19	27.21	29.09	32.52	34.11	19.54	23.93	25.85	27.63	30.90	32.40
HF/HN	11	31.26	38.28	41.35	44.21	49.42	51.84	30.51	37.37	40.37	43.15	48.25	50.60	28.99	35.51	38.35	41.00	45.84	48.08
HF/HN	14	41.13	50.38	54.42	58.17	65.04	68.21	40.18	49.21	53.15	56.82	63.53	66.63	38.16	46.74	50.48	53.97	60.34	63.28
TFE	6	16.35	20.03	21.64	23.13	25.86	27.12	15.97	19.55	21.12	22.58	25.24	26.48	15.15	18.56	20.04	21.43	23.96	25.13
TFE	8	22.37	27.40	29.60	31.64	35.37	37.10	21.84	26.75	28.89	30.89	34.53	36.22	20.74	25.41	27.44	29.34	32.80	34.40
TFE	10	27.75	33.99	36.71	39.25	43.88	46.02	27.12	33.21	35.87	38.35	42.87	44.97	25.77	31.56	34.09	36.45	40.75	42.74
TFE	15	42.41	51.94	56.10	59.98	67.05	70.33	41.42	50.73	54.79	58.57	65.49	68.68	39.33	48.17	52.03	55.62	62.19	65.22
TRAE+	9	24.04	29.44	31.80	33.99	38.01	39.86	23.47	28.75	31.05	33.19	37.11	38.92	22.30	27.31	29.50	31.54	35.26	36.98
TRAE+	13	35.05	42.92	46.36	49.56	55.41	58.12	34.23	41.93	45.28	48.41	54.13	56.77	32.53	39.84	43.04	46.01	51.44	53.95
TRAE+	14	39.12	47.91	51.75	55.32	61.85	64.87	38.20	46.78	50.53	54.02	60.39	63.34	36.29	44.44	48.00	51.31	57.37	60.17
TRAE+	22	59.30	72.62	78.44	83.86	93.75	98.33	57.91	70.93	76.61	81.90	91.57	96.04	55.01	67.38	72.77	77.80	86.98	91.23
TRAE+	30	81.49	99.81	107.80	115.25	128.85	135.14	79.61	97.51	105.32	112.59	125.88	132.03	75.61	92.61	100.03	106.93	119.56	125.39
TRAE	40	110.02	134.75	145.55	155.60	173.96	182.45	107.47	131.63	142.18	151.99	169.93	178.23	102.09	125.04	135.06	144.38	161.42	169.30
TRAE	45	120.01	146.98	158.75	169.71	189.75	199.01	117.21	143.55	155.05	165.76	185.32	194.37	111.33	136.35	147.28	157.45	176.03	184.62
TRAE	50	142.80	174.90	188.91	201.95	225.79	236.81	139.51	170.87	184.56	197.30	220.59	231.35	132.54	162.32	175.33	187.44	209.56	219.79
TJR	11	29.95	36.68	39.62	42.35	47.35	49.66	29.24	35.81	38.68	41.35	46.23	48.49	27.79	34.03	36.76	39.30	43.94	46.08
TJR	13	35.86	43.92	47.44	50.71	56.70	59.47	35.01	42.88	46.31	49.51	55.36	58.06	33.28	40.75	44.02	47.06	52.61	55.18
TER	16	44.82	54.89	59.29	63.38	70.86	74.32	43.79	53.63	57.93	61.93	69.24	72.62	41.60	50.94	55.03	58.82	65.77	68.98
TER	19	52.96	64.86	70.06	74.89	83.73	87.82	51.75	63.39	68.47	73.19	81.83	85.83	49.14	60.18	65.00	69.49	77.69	81.48
TER	25	71.30	87.32	94.32	100.83	112.73	118.23	69.67	85.32	92.16	98.52	110.15	115.53	66.16	81.03	87.52	93.57	104.61	109.72
TER	31	91.69	112.29	121.29	129.66	144.97	152.04	89.56	109.69	118.48	126.66	141.61	148.52	85.07	104.18	112.53	120.30	134.50	141.07
TIR	45	112.04	137.22	148.22	158.45	177.15	185.80	109.46	134.06	144.80	154.80	173.07	181.51	103.97	127.34	137.54	147.04	164.39	172.41
THR	55	142.63	174.68	188.68	201.70	225.51	236.52	139.30	170.61	184.28	197.00	220.25	231.00	132.33	162.06	175.05	187.14	209.22	219.44
THR	68	173.18	212.10	229.09	244.91	273.82	287.18	169.14	207.15	223.75	239.20	267.44	280.49	160.68	196.79	212.56	227.24	254.06	266.46
TMR	68	203.73	249.51	269.51	288.11	322.12	337.84	199.02	243.75	263.28	281.46	314.68	330.04	189.04	231.52	250.07	267.34	298.89	313.48

Refrigerant Liquid Temperature Correction Factors

	Refrigerant Liquid Temperature °F														
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140
R-12 Correction Factor	1.60	1.54	1.48	1.42	1.36	1.30	1.24	1.18	1.12	1.06	1.00	.94	.88	.82	.75
R-134a Correction Factor	1.70	1.63	1.56	1.49	1.42	1.36	1.29	1.21	1.14	1.07	1.00	.93	.85	.78	.71
R-22 Correction Factor	1.56	1.51	1.45	1.40	1.34	1.29	1.23	1.17	1.12	1.06	1.00	.94	.88	.82	.76
R-404A/R-507 Correction	2.00	1.90	1.80	1.70	1.60	1.50	1.40	1.30	1.20	1.10	1.00	.90	.80	.70	.50

These factors include corrections for liquid refrigerant density and net refrigerating effect and are based on an average evaporator temperature of 0°F. However, they may be used for any evaporator temperature from -40°F to +40°F since the variation in the actual factors across this range is insignificant.

Thermal Expansion Valves
Solenoid Valves
Coils
Industrial Solenoid Valves
Shut Off Valves
System Protectors
Storage Devices
Oil Controls
Pressure Regulators
Temperature Pressure Controls
Competitive Cross Reference

R-404A/R-507 Balanced Ported Valves (kWatts)– B, HF, TFE, TRAE and T Series

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		-20°C					-30°C					-40°C							
		PRESSURE DROP ACROSS VALVE (kPa)					PRESSURE DROP ACROSS VALVE (kPa)					PRESSURE DROP ACROSS VALVE (kPa)							
		400	600	700	800	1000	1100	600	700	800	1000	1100	1200	600	700	800	1000	1100	1200
BA/BN	1/2	0.85	0.98	1.10	1.23	1.34	1.45	0.67	0.73	0.78	0.87	0.91	0.95	0.42	0.46	0.49	0.55	0.58	0.60
BA/BN	3/4	1.59	1.84	2.06	2.30	2.52	2.72	1.27	1.38	1.47	1.65	1.73	1.80	0.81	0.88	0.94	1.05	1.10	1.15
BA/BN	1	2.51	2.90	3.24	3.63	3.97	4.29	1.95	2.10	2.25	2.51	2.64	2.75	1.27	1.38	1.47	1.65	1.73	1.80
BA/BN	1-1/2	3.33	3.84	4.30	4.80	5.26	5.68	2.62	2.83	3.02	3.38	3.55	3.70	1.70	1.84	1.96	2.19	2.30	2.40
BA/BN	2	4.21	4.86	5.44	6.08	6.66	7.19	3.29	3.56	3.80	4.25	4.46	4.66	2.16	2.33	2.49	2.79	2.92	3.05
BA/BN	2-1/4	5.10	5.89	6.58	7.36	8.06	8.71	4.00	4.32	4.62	5.16	5.42	5.66	2.62	2.83	3.02	3.38	3.55	3.70
BA/BN	3	6.62	7.64	8.55	9.55	10.47	11.31	5.20	5.62	6.01	6.72	7.05	7.36	3.40	3.67	3.92	4.39	4.60	4.81
BA/BN	3-1/2	8.35	9.65	10.79	12.06	13.21	14.27	6.55	7.07	7.56	8.45	8.87	9.26	4.28	4.63	4.95	5.53	5.80	6.06
BA/BN	4-1/4	10.41	12.02	13.44	15.02	16.46	17.77	8.18	8.83	9.44	10.56	11.07	11.56	5.35	5.77	6.17	6.90	7.24	7.56
HF/BN	1/4	0.46	0.53	0.59	0.66	0.73	0.79	0.35	0.38	0.41	0.46	0.48	0.50	0.25	0.27	0.29	0.32	0.34	0.35
HF/BN	1/2	0.89	1.02	1.14	1.28	1.40	1.51	0.71	0.76	0.82	0.91	0.96	1.00	0.46	0.50	0.53	0.59	0.62	0.65
HF/BN	3/4	1.59	1.84	2.06	2.30	2.52	2.72	1.27	1.38	1.47	1.65	1.73	1.80	0.81	0.88	0.94	1.05	1.10	1.15
HF/BN	1	2.44	2.82	3.15	3.53	3.86	4.17	1.91	2.06	2.21	2.47	2.59	2.70	1.24	1.34	1.43	1.60	1.68	1.75
HF/BN	1-1/2	3.29	3.80	4.25	4.75	5.21	5.62	2.58	2.79	2.98	3.34	3.50	3.65	1.70	1.84	1.96	2.19	2.30	2.40
HF/BN	1-3/4	4.21	4.86	5.44	6.08	6.66	7.19	3.29	3.56	3.80	4.25	4.46	4.66	2.16	2.33	2.49	2.79	2.92	3.05
HF/BN	2-1/2	5.56	6.42	7.18	8.02	8.79	9.49	4.35	4.70	5.03	5.62	5.90	6.16	2.87	3.10	3.31	3.70	3.88	4.06
HF/BN	4	9.91	11.45	12.80	14.31	15.67	16.93	7.75	8.37	8.95	10.01	10.50	10.96	5.06	5.47	5.85	6.54	6.85	7.16
HF/BN	6	13.77	15.90	17.78	19.88	21.77	23.52	10.80	11.66	12.47	13.94	14.62	15.27	7.08	7.65	8.18	9.14	9.59	10.01
HF/BN	7-1/2	17.45	20.15	22.53	25.19	27.59	29.81	13.70	14.80	15.82	17.69	18.55	19.37	8.96	9.67	10.34	11.56	12.13	12.67
HF/BN	11	25.88	29.88	33.41	37.35	40.92	44.19	20.28	21.91	23.42	26.19	27.46	28.69	13.28	14.34	15.33	17.14	17.97	18.77
HF/BN	14	34.05	39.32	43.96	49.15	53.85	58.16	26.73	28.87	30.86	34.50	36.19	37.80	17.45	18.85	20.15	22.53	23.63	24.68
TFE	6	13.52	15.61	17.46	19.52	21.38	23.09	10.62	11.47	12.26	13.71	14.38	15.02	6.94	7.49	8.01	8.96	9.39	9.81
TFE	8	18.51	21.38	23.90	26.72	29.27	31.62	14.51	15.68	16.76	18.74	19.65	20.53	9.49	10.25	10.95	12.25	12.85	13.42
TFE	10	23.01	26.57	29.71	33.21	36.38	39.30	18.05	19.50	20.85	23.31	24.45	25.53	11.79	12.73	13.61	15.22	15.96	16.67
TFE	15	35.12	40.55	45.34	50.69	55.52	59.97	27.54	29.75	31.80	35.56	37.29	38.95	17.98	19.42	20.77	23.22	24.35	25.43
TRAE+	9	19.89	22.97	25.68	28.72	31.46	33.98	15.61	16.86	18.03	20.15	21.14	22.08	10.20	11.01	11.77	13.16	13.80	14.42
TRAE+	13	29.03	33.52	37.47	41.90	45.90	49.57	22.76	24.59	26.28	29.39	30.82	32.19	14.87	16.06	17.17	19.19	20.13	21.03
TRAE+	14	32.39	37.40	41.82	46.75	51.21	55.32	25.42	27.45	29.35	32.81	34.42	35.95	16.60	17.93	19.17	21.43	22.48	23.48
TRAE+	22	49.10	56.70	63.39	70.87	77.63	83.85	38.52	41.60	44.47	49.72	52.15	54.47	25.17	27.19	29.06	32.49	34.08	35.59
TRAE+	30	67.47	77.91	87.11	97.39	106.68	115.23	52.92	57.16	61.11	68.32	71.66	74.84	34.59	37.36	39.94	44.65	46.83	48.91
TRAE+	40	91.08	105.17	117.59	131.47	144.02	155.56	71.47	77.20	82.53	92.27	96.77	101.08	46.69	50.43	53.92	60.28	63.22	66.03
TRAE	45	99.37	114.74	128.28	143.43	157.11	169.70	77.95	84.20	90.01	100.63	105.55	110.24	50.94	55.02	58.82	65.76	68.97	72.04
TRAE	50	118.27	136.57	152.69	170.71	187.00	201.99	92.75	100.18	107.10	119.74	125.58	131.17	60.64	65.50	70.02	78.29	82.11	85.76
TJR	11	24.82	28.65	32.04	35.82	39.24	42.38	19.47	21.03	22.48	25.14	26.36	27.53	12.71	13.73	14.67	16.41	17.21	17.97
TJR	13	29.70	34.30	38.34	42.87	46.96	50.72	23.29	25.16	26.90	30.07	31.54	32.94	15.22	16.44	17.58	19.65	20.61	21.53
TJR	16	37.10	42.84	47.89	53.55	58.66	63.36	29.10	31.43	33.60	37.57	39.40	41.15	18.76	20.27	21.66	24.22	25.40	26.53
TER	19	43.86	50.65	56.62	63.31	69.35	74.91	34.41	37.17	39.73	44.42	46.59	48.66	22.48	24.28	25.96	29.02	30.44	31.79
TER	25	59.05	68.18	76.23	85.23	93.36	100.84	46.30	50.01	53.47	59.78	62.69	65.48	30.27	32.69	34.95	39.07	40.98	42.80
TER	31	75.93	87.68	98.03	109.60	120.06	129.68	59.54	64.31	68.75	76.87	80.62	84.21	38.94	42.06	44.96	50.27	52.73	55.07
TIR	45	94.20	108.77	121.61	135.97	148.94	160.88	72.78	78.61	84.04	93.96	98.55	102.93	47.58	51.39	54.94	61.42	64.42	67.28
THR	55	118.09	136.36	152.46	170.45	186.72	201.68	92.64	100.06	106.97	119.60	125.44	131.02	60.53	65.38	69.90	78.15	81.96	85.61
THR	68	143.41	165.59	185.14	206.99	226.74	244.91	112.47	121.48	129.86	145.19	152.28	159.05	73.53	79.42	84.90	94.92	99.55	103.98
TMR	68	168.72	194.82	217.81	243.52	266.76	288.14	132.33	142.93	152.80	170.83	179.17	187.14	86.48	93.41	99.86	111.65	117.10	122.30

Refrigerant Liquid Temperature Correction Factors

	Refrigerant Liquid Temperature °F														
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140
R-12 Correction Factor	1.60	1.54	1.48	1.42	1.36	1.30	1.24	1.18	1.12	1.06	1.00	.94	.88	.82	.75
R-134a Correction Factor	1.70	1.63	1.56	1.49	1.42	1.36	1.29	1.21	1.14	1.07	1.00	.93	.85	.78	.71
R-22 Correction Factor	1.56	1.51	1.45	1.40	1.34	1.29	1.23	1.17	1.12	1.06	1.00	.94	.88	.82	.76
R-404A/R-507 Correction	2.00	1.90	1.80	1.70	1.60	1.50	1.40	1.30	1.20	1.10	1.00	.90	.80	.70	.50

These factors include corrections for liquid refrigerant density and net refrigerating effect and are based on an average evaporator temperature of 0°F. However, they may be used for any evaporator temperature from -40°F to +40°F since the variation in the actual factors across this range is insignificant.

R-407C Balanced Ported Valves (kWatts)– B, HF, TFE, TRAE and T Series

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		10°C					0°C					-10°C							
		PRESSURE DROP ACROSS VALVE (kPa)					PRESSURE DROP ACROSS VALVE (kPa)					PRESSURE DROP ACROSS VALVE (kPa)							
		400	600	700	800	1000	1100	400	600	700	800	1000	1100	400	600	700	800	1000	1100
BA/BN	1/2	1.35	1.65	1.78	1.90	2.13	2.23	1.31	1.60	1.73	1.85	2.07	2.17	1.27	1.56	1.69	1.80	2.02	2.11
BA/BN	3/4	2.55	3.12	3.37	3.60	4.03	4.23	2.48	3.03	3.28	3.50	3.92	4.11	2.41	2.95	3.18	3.40	3.81	3.99
BA/BN	1	3.96	4.86	5.24	5.61	6.27	6.57	3.89	4.77	5.15	5.51	6.16	6.46	3.72	4.55	4.92	5.26	5.88	6.16
BA/BN	1-1/2	5.27	6.46	6.98	7.46	8.34	8.75	5.20	6.37	6.88	7.36	8.23	8.63	4.99	6.11	6.60	7.06	7.89	8.28
BA/BN	2	6.66	8.15	8.80	9.41	10.52	11.04	6.55	8.02	8.66	9.26	10.35	10.86	6.30	7.72	8.34	8.91	9.96	10.45
BA/BN	2-1/4	8.07	9.89	10.68	11.41	12.76	13.38	7.93	9.71	10.49	11.21	12.54	13.15	7.61	9.32	10.07	10.76	12.03	12.62
BA/BN	3	10.48	12.83	13.86	14.82	16.57	17.38	10.27	12.57	13.58	14.52	16.23	17.02	9.88	12.10	13.07	13.97	15.62	16.38
BA/BN	3-1/2	13.24	16.22	17.51	18.72	20.93	21.96	12.99	15.91	17.19	18.37	20.54	21.54	12.46	15.26	16.48	17.62	19.70	20.66
BA/BN	4-1/4	16.46	20.16	21.78	23.28	26.03	27.30	16.18	19.81	21.40	22.88	25.58	26.83	15.51	18.99	20.51	21.93	24.52	25.71
HF/HN	1/4	0.74	0.91	0.98	1.05	1.18	1.23	0.74	0.91	0.98	1.05	1.18	1.23	0.71	0.87	0.94	1.00	1.12	1.17
HF/HN	1/2	1.42	1.73	1.87	2.00	2.24	2.35	1.38	1.69	1.83	1.95	2.18	2.29	1.35	1.65	1.78	1.90	2.13	2.23
HF/HN	3/4	2.55	3.12	3.37	3.60	4.03	4.23	2.48	3.03	3.28	3.50	3.92	4.11	2.41	2.95	3.18	3.40	3.81	3.99
HF/HN	1	3.86	4.73	5.10	5.46	6.10	6.40	3.79	4.64	5.01	5.36	5.99	6.28	3.65	4.47	4.82	5.16	5.77	6.05
HF/HN	1-1/2	5.20	6.37	6.88	7.36	8.23	8.63	5.10	6.24	6.74	7.21	8.06	8.45	4.92	6.03	6.51	6.96	7.78	8.16
HF/HN	1-3/4	6.66	8.15	8.80	9.41	10.52	11.04	6.55	8.02	8.66	9.26	10.35	10.86	6.30	7.72	8.34	8.91	9.96	10.45
HF/HN	2-1/2	8.81	10.80	11.66	12.47	13.94	14.62	8.64	10.58	11.43	12.22	13.66	14.32	8.32	10.19	11.01	11.76	13.15	13.80
HF/HN	4	15.68	19.21	20.75	22.18	24.80	26.01	15.36	18.82	20.32	21.73	24.29	25.48	14.76	18.08	19.53	20.88	23.34	24.48
HF/HN	6	21.81	26.71	28.85	30.84	34.48	36.16	21.42	26.23	28.33	30.29	33.86	35.52	20.57	25.19	27.21	29.09	32.52	34.11
HF/HN	7-1/2	27.61	33.82	36.53	39.05	43.66	45.79	27.08	33.17	35.82	38.30	42.82	44.91	26.02	31.87	34.42	36.80	41.14	43.15
HF/HN	11	40.96	50.16	54.18	57.92	64.76	67.92	40.18	49.21	53.15	56.82	63.53	66.63	38.59	47.26	51.04	54.57	61.01	63.99
HF/HN	14	53.88	65.99	71.27	76.20	85.19	89.35	52.89	64.77	69.96	74.79	83.62	87.70	50.80	62.22	67.20	71.84	80.32	84.24
TFE	6	21.42	26.23	28.33	30.29	33.86	35.52	21.03	25.75	27.82	29.74	33.25	34.87	20.18	24.71	26.69	28.54	31.90	33.46
TFE	8	29.31	35.90	38.78	41.45	46.35	48.61	28.78	35.25	38.07	40.70	45.51	47.73	27.61	33.82	36.53	39.05	43.66	45.79
TFE	10	36.39	44.57	48.14	51.46	57.54	60.35	35.72	43.75	47.25	50.51	56.48	59.23	34.30	42.01	45.38	48.51	54.24	56.88
TFE	15	55.54	68.03	73.48	78.55	87.82	92.11	54.52	66.77	72.12	77.10	86.20	90.40	52.36	64.12	69.26	74.04	82.78	86.82
TRAE+	9	31.51	38.59	41.68	44.56	49.82	52.25	30.90	37.85	40.88	43.71	48.86	51.25	29.70	36.38	39.29	42.00	46.96	49.25
TRAE+	13	45.91	56.23	60.74	64.93	72.60	76.14	45.06	55.19	59.61	63.73	71.25	74.73	43.26	52.98	57.23	61.18	68.40	71.74
TRAE+	14	51.26	62.78	67.81	72.49	81.05	85.00	50.30	61.61	66.55	71.14	79.54	83.42	48.29	59.14	63.88	68.29	76.35	80.07
TRAE+	22	77.67	95.12	102.74	109.84	122.80	128.80	75.93	93.00	100.45	107.39	120.06	125.92	73.21	89.66	96.84	103.53	115.75	121.40
TRAE+	30	106.77	130.76	141.24	150.99	168.81	177.05	104.78	128.33	138.62	148.19	165.68	173.76	100.64	123.26	133.14	142.33	159.13	166.90
TRAE	40	144.11	176.50	190.64	203.81	227.86	238.99	141.49	173.29	187.18	200.10	223.72	234.64	135.83	166.36	179.69	192.09	214.77	225.25
TRAE	45	157.21	192.54	207.97	222.33	248.57	260.71	154.31	188.99	204.13	218.23	243.98	255.89	148.18	181.49	196.03	209.56	234.30	245.74
TRAE	50	187.09	229.14	247.50	264.58	295.81	310.25	183.66	224.93	242.95	259.73	290.38	304.56	176.36	216.00	233.31	249.41	278.85	292.46
TJR	11	39.22	48.04	51.89	55.47	62.02	65.04	38.52	47.17	50.95	54.47	60.90	63.87	36.99	45.31	48.94	52.32	58.49	61.35
TJR	13	46.13	56.49	61.02	65.23	72.93	76.49	46.13	56.49	61.02	65.23	72.93	76.49	44.29	54.24	58.58	62.63	70.02	73.44
TER	16	58.73	71.93	77.69	83.05	92.86	97.39	57.63	70.58	76.24	81.50	91.12	95.57	55.33	67.77	73.19	78.25	87.48	91.75
TER	19	69.38	84.98	91.79	98.12	109.71	115.06	68.11	83.42	90.10	96.32	107.69	112.95	65.42	80.12	86.54	92.52	103.44	108.49
TER	25	93.42	114.42	123.58	132.12	147.71	154.92	91.69	112.29	121.29	129.66	144.97	152.04	88.04	107.83	116.47	124.51	139.20	146.00
TER	31	120.11	147.11	158.89	169.86	189.91	199.18	117.88	144.38	155.94	166.71	186.39	195.49	113.21	138.65	149.76	160.10	179.00	187.74
TIR	45	146.80	179.80	194.20	207.61	232.12	243.45	144.11	176.50	190.64	203.81	227.86	238.99	138.34	169.44	183.01	195.65	218.74	229.42
THR	55	186.84	228.83	247.17	264.23	295.42	309.84	183.41	224.63	242.63	259.38	289.99	304.15	176.08	215.65	232.93	249.01	278.41	291.99
THR	68	226.84	277.83	300.09	320.80	358.67	376.18	222.70	272.75	294.61	314.95	352.12	369.31	213.82	261.87	282.85	302.38	338.07	354.57
TMR	68	266.88	326.86	353.05	377.43	421.98	442.57	262.00	320.88	346.59	370.52	414.25	434.47	251.55	308.09	332.77	355.75	397.74	417.15

Refrigerant Liquid Temperature Correction Factors

	Refrigerant Liquid Temperature °F														
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140
R-12 Correction Factor	1.60	1.54	1.48	1.42	1.36	1.30	1.24	1.18	1.12	1.06	1.00	.94	.88	.82	.75
R-134a Correction Factor	1.70	1.63	1.56	1.49	1.42	1.36	1.29	1.21	1.14	1.07	1.00	.93	.85	.78	.71
R-22 Correction Factor	1.56	1.51	1.45	1.40	1.34	1.29	1.23	1.17	1.12	1.06	1.00	.94	.88	.82	.76
R-404A/R-507 Correction	2.00	1.90	1.80	1.70	1.60	1.50	1.40	1.30	1.20	1.10	1.00	.90	.80	.70	.50

These factors include corrections for liquid refrigerant density and net refrigerating effect and are based on an average evaporator temperature of 0°F. However, they may be used for any evaporator temperature from -40°F to +40°F since the variation in the actual factors across this range is insignificant.

Thermal Expansion Valves
Solenoid Valves
Coils
Industrial Solenoid Valves
Shut Off Valves
System Protectors
Storage Devices
Oil Controls
Pressure Regulators
Temperature Pressure Controls
Competitive Cross Reference

R-407C Balanced Ported Valves (kWatts)– B, HF, TFE, TRAE and T Series

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		-20°C					-30°C					-40°C							
		PRESSURE DROP ACROSS VALVE (kPa)					PRESSURE DROP ACROSS VALVE (kPa)					PRESSURE DROP ACROSS VALVE (kPa)							
		400	600	700	800	1000	1100	600	700	800	1000	1100	1200	600	700	800	1000	1100	1200
BA/BN	1/2	1.06	1.30	1.40	1.50	1.68	1.76	0.81	0.88	0.94	1.05	1.10	1.15	0.50	0.54	0.57	0.64	0.67	0.70
BA/BN	3/4	2.02	2.47	2.67	2.85	3.19	3.35	1.52	1.64	1.76	1.97	2.06	2.15	0.96	1.03	1.10	1.23	1.29	1.35
BA/BN	1	3.15	3.86	4.17	4.46	4.98	5.22	2.41	2.60	2.78	3.11	3.26	3.40	1.52	1.64	1.76	1.97	2.06	2.15
BA/BN	1-1/2	4.21	5.16	5.57	5.96	6.66	6.99	3.19	3.44	3.68	4.11	4.31	4.51	2.02	2.18	2.33	2.60	2.73	2.8
BA/BN	2	5.31	6.50	7.02	7.51	8.40	8.81	4.04	4.36	4.66	5.21	5.46	5.71	2.55	2.75	2.94	3.29	3.45	3.60
BA/BN	2-1/4	6.44	7.89	8.52	9.11	10.19	10.68	4.89	5.28	5.64	6.31	6.61	6.91	3.08	3.33	3.56	3.98	4.17	4.36
BA/BN	3	8.32	10.19	11.01	11.76	13.15	13.80	6.34	6.84	7.32	8.18	8.58	8.96	4.00	4.32	4.62	5.16	5.42	5.66
BA/BN	3-1/2	10.55	12.92	13.96	14.92	16.68	17.49	8.04	8.68	9.28	10.37	10.88	11.36	5.06	5.47	5.85	6.54	6.85	7.16
BA/BN	4-1/4	13.10	16.04	17.33	18.52	20.71	21.72	9.98	10.78	11.53	12.89	13.52	14.12	6.27	6.77	7.24	8.09	8.48	8.86
HF/HN	1/4	0.60	0.74	0.80	0.85	0.95	1.00	0.46	0.50	0.53	0.59	0.62	0.65	0.28	0.31	0.33	0.37	0.38	0.40
HF/HN	1/2	1.13	1.39	1.50	1.60	1.79	1.88	0.85	0.92	0.98	1.10	1.15	1.20	0.53	0.57	0.61	0.69	0.72	0.75
HF/HN	3/4	2.02	2.47	2.67	2.85	3.19	3.35	1.52	1.64	1.76	1.97	2.06	2.15	0.96	1.03	1.10	1.23	1.29	1.35
HF/HN	1	3.08	3.77	4.07	4.36	4.87	5.11	2.34	2.52	2.70	3.02	3.16	3.30	1.49	1.61	1.72	1.92	2.01	2.10
HF/HN	1-1/2	4.14	5.07	5.48	5.86	6.55	6.87	3.15	3.40	3.64	4.07	4.27	4.46	1.98	2.14	2.29	2.56	2.68	2.80
HF/HN	1-3/4	5.31	6.50	7.02	7.51	8.40	8.81	4.04	4.36	4.66	5.21	5.46	5.71	2.55	2.75	2.94	3.29	3.45	3.60
HF/HN	2-1/2	7.01	8.58	9.27	9.91	11.08	11.62	5.35	5.77	6.17	6.90	7.24	7.56	3.36	3.63	3.88	4.34	4.55	4.76
HF/HN	4	12.46	15.26	16.48	17.62	19.70	20.66	9.49	10.25	10.95	12.25	12.85	13.42	5.98	6.46	6.91	7.72	8.10	8.46
HF/HN	6	17.35	21.24	22.95	24.53	27.43	28.77	13.20	14.26	15.25	17.05	17.88	18.67	8.32	8.99	9.61	10.74	11.26	11.76
HF/HN	7-1/2	21.95	26.88	29.03	31.04	34.70	36.40	16.71	18.05	19.29	21.57	22.62	23.63	10.51	11.36	12.14	13.57	14.24	14.87
HF/HN	11	32.57	39.89	43.08	46.06	51.49	54.01	24.82	26.80	28.65	32.04	33.60	35.09	15.61	16.86	18.03	20.15	21.14	22.08
HF/HN	14	42.87	52.50	56.71	60.63	67.78	71.09	32.64	35.25	37.69	42.14	44.19	46.16	20.57	22.22	23.75	26.55	27.85	29.09
TFE	6	17.03	20.85	22.53	24.08	26.92	28.24	12.96	13.99	14.96	16.73	17.54	18.32	8.18	8.83	9.44	10.56	11.07	11.56
TFE	8	23.33	28.57	30.86	32.99	36.89	38.69	17.77	19.19	20.52	22.94	24.06	25.13	11.19	12.08	12.92	14.44	15.15	15.82
TFE	10	28.96	35.47	38.31	40.95	45.79	48.02	22.05	23.82	25.47	28.47	29.86	31.19	13.88	14.99	16.02	17.91	18.79	19.62
TFE	15	44.21	54.15	58.49	62.53	69.91	73.32	33.67	36.36	38.87	43.46	45.58	47.61	21.17	22.87	24.44	27.33	28.66	29.94
TRAE+	9	25.06	30.70	33.16	35.44	39.63	41.56	19.08	20.61	22.03	24.63	25.84	26.98	12.00	12.96	13.86	15.49	16.25	16.97
TRAE+	13	36.53	44.74	48.33	51.67	57.76	60.58	27.82	30.05	32.13	35.92	37.67	39.35	17.52	18.93	20.23	22.62	23.73	24.78
TRAE+	14	40.78	49.95	53.95	57.67	64.48	67.63	31.05	33.53	35.85	40.08	42.04	43.91	19.54	21.11	22.56	25.23	26.46	27.63
TRAE+	22	61.81	75.70	81.76	87.41	97.73	102.50	47.08	50.85	54.37	60.78	63.75	66.58	29.63	32.00	34.21	38.25	40.12	41.90
TRAE+	30	84.96	104.05	112.39	120.15	134.33	140.89	64.71	69.90	74.72	83.54	87.62	91.52	40.71	43.97	47.01	52.56	55.12	57.57
TRAE	40	114.70	140.47	151.73	162.20	181.35	190.20	87.33	94.33	100.84	112.74	118.25	123.51	54.98	59.38	63.48	70.97	74.44	77.75
TRAE	45	125.10	153.22	165.50	176.92	197.81	207.46	95.26	102.89	110.00	122.98	128.98	134.72	59.97	64.77	69.24	77.42	81.20	84.81
TRAE	50	148.89	182.36	196.97	210.57	235.42	246.91	113.39	122.47	130.93	146.38	153.53	160.35	71.37	77.08	82.41	92.13	96.63	100.93
TJR	11	31.22	38.24	41.30	44.16	49.37	51.78	23.79	25.69	27.47	30.71	32.21	33.64	14.97	16.17	17.29	19.33	20.28	21.18
TJR	13	37.38	45.78	49.45	52.87	59.11	61.99	28.46	30.74	32.86	36.74	38.54	40.25	17.91	19.35	20.68	23.12	24.25	25.33
TER	16	46.73	57.23	61.82	66.08	73.88	77.49	35.58	38.43	41.08	45.93	48.17	50.31	22.41	24.20	25.87	28.93	30.34	31.69
TER	19	55.22	67.64	73.05	78.10	87.32	91.58	42.06	45.42	48.56	54.29	56.94	59.48	26.48	28.60	30.58	34.18	35.85	37.45
TER	25	74.34	91.05	98.34	105.13	117.54	123.28	56.60	61.14	65.36	73.08	76.64	80.05	35.61	38.47	41.12	45.98	48.22	50.36
TER	31	95.58	117.06	126.44	135.17	151.13	158.50	72.78	78.61	84.04	93.96	98.55	102.93	45.81	49.48	52.89	59.14	62.02	64.78
TIR	45	116.82	143.07	154.54	165.21	184.71	193.72	88.96	96.09	102.72	114.85	120.45	125.81	56.00	60.49	64.67	72.30	75.83	79.20
THR	55	148.68	182.10	196.69	210.27	235.08	246.56	113.21	122.28	130.72	146.15	153.29	160.10	71.26	76.97	82.28	92.00	96.49	100.78
THR	68	180.54	221.12	238.83	255.32	285.46	299.39	137.49	148.51	158.76	177.50	186.17	194.45	86.52	93.45	99.90	111.69	117.15	122.35
TMR	68	212.40	260.14	280.98	300.38	335.83	352.23	161.74	174.70	186.76	208.81	219.00	228.74	101.81	109.97	117.56	131.44	137.85	143.98

Refrigerant Liquid Temperature Correction Factors

	Refrigerant Liquid Temperature °F														
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140
R-12 Correction Factor	1.60	1.54	1.48	1.42	1.36	1.30	1.24	1.18	1.12	1.06	1.00	.94	.88	.82	.75
R-134a Correction Factor	1.70	1.63	1.56	1.49	1.42	1.36	1.29	1.21	1.14	1.07	1.00	.93	.85	.78	.71
R-22 Correction Factor	1.56	1.51	1.45	1.40	1.34	1.29	1.23	1.17	1.12	1.06	1.00	.94	.88	.82	.76
R-404A/R507 Correction	2.00	1.90	1.80	1.70	1.60	1.50	1.40	1.30	1.20	1.10	1.00	.90	.80	.70	.50

These factors include corrections for liquid refrigerant density and net refrigerating effect and are based on an average evaporator temperature of 0°F. However, they may be used for any evaporator temperature from -40°F to +40°F since the variation in the actual factors across this range is insignificant.

R-410A Balanced Ported Valves (kWatts)– B Series

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		10°C						0°C						-10°C					
		PRESSURE DROP ACROSS VALVE (kPa)						PRESSURE DROP ACROSS VALVE (kPa)						PRESSURE DROP ACROSS VALVE (kPa)					
		750	1000	1100	1450	1700	2000	750	1000	1100	1450	1700	2000	750	1000	1100	1450	1700	2000
BA/BN	1/2	1.84	2.13	2.23	2.56	2.77	3.01	1.81	2.08	2.19	2.51	2.72	2.95	1.77	2.04	2.14	2.46	2.66	2.89
BA/BN	1	3.47	4.01	4.20	4.82	5.22	5.67	3.43	3.97	4.16	4.77	5.17	5.61	3.36	3.88	4.07	4.68	5.06	5.49
BA/BN	1-1/2	5.42	6.25	6.56	7.53	8.15	8.84	5.38	6.21	6.52	7.48	8.10	8.79	5.24	6.05	6.34	7.28	7.89	8.56
BA/BN	2	7.26	8.38	8.79	10.09	10.93	11.85	7.19	8.30	8.70	9.99	10.82	11.74	7.01	8.09	8.49	9.75	10.55	11.45
BA/BN	3	9.17	10.59	11.10	12.75	13.80	14.97	9.06	10.46	10.98	12.60	13.64	14.80	8.81	10.18	10.68	12.26	13.27	14.39
BA/BN	3-1/2	11.12	12.84	13.46	15.46	16.74	18.15	10.97	12.67	13.29	15.26	16.52	17.92	10.69	12.34	12.95	14.86	16.10	17.46
BA/BN	4-1/2	14.37	16.60	17.41	19.98	21.64	23.47	14.02	16.19	16.98	19.49	21.11	22.89	13.84	15.98	16.76	19.25	20.84	22.60
BA/BN	6	18.16	20.97	21.99	25.25	27.34	29.66	17.98	20.77	21.78	25.00	27.07	29.37	17.52	20.23	21.22	24.36	26.38	28.61
BA/BN	7-1/2	22.51	26.00	27.27	31.31	33.90	36.77	22.37	25.83	27.09	31.11	33.68	36.53	21.77	25.14	26.37	30.27	32.78	35.55

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		-20°C						-30°C						-40°C					
		PRESSURE DROP ACROSS VALVE (kPa)						PRESSURE DROP ACROSS VALVE (kPa)						PRESSURE DROP ACROSS VALVE (kPa)					
		1000	1100	1450	1700	2000	2300	1000	1100	1450	1700	2000	2300	1000	1100	1450	1700	2000	2300
BA/BN	1/2	1.81	1.89	2.17	2.35	2.55	2.74	1.27	1.34	1.53	1.66	1.80	1.93	0.85	0.89	1.02	1.11	1.20	1.29
BA/BN	1	3.43	3.60	4.13	4.48	4.86	5.21	2.41	2.52	2.90	3.14	3.40	3.65	1.59	1.67	1.92	2.08	2.25	2.42
BA/BN	1-1/2	5.38	5.64	6.48	7.02	7.61	8.16	3.72	3.90	4.48	4.85	5.26	5.64	2.48	2.60	2.98	3.23	3.50	3.76
BA/BN	2	7.19	7.54	8.65	9.37	10.16	10.90	4.99	5.24	6.01	6.51	7.06	7.57	3.33	3.49	4.01	4.34	4.71	5.05
BA/BN	3	9.06	9.50	10.91	11.82	12.82	13.74	6.30	6.61	7.59	8.22	8.91	9.56	4.18	4.38	5.03	5.45	5.91	6.34
BA/BN	3-1/2	11.01	11.55	13.26	14.35	15.57	16.70	7.65	8.02	9.21	9.97	10.81	11.60	5.10	5.35	6.14	6.65	7.21	7.73
BA/BN	4-1/2	14.23	14.93	17.14	18.55	20.13	21.58	9.88	10.36	11.89	12.88	13.97	14.98	6.58	6.91	7.93	8.59	9.31	9.99
BA/BN	6	18.02	18.90	21.70	23.49	25.48	27.33	12.50	13.11	15.05	16.29	17.67	18.95	8.32	8.73	10.02	10.85	11.76	12.62
BA/BN	7-1/2	22.41	23.50	26.98	29.22	31.69	33.98	15.54	16.30	18.71	20.26	21.98	23.57	10.34	10.84	12.45	13.48	14.62	15.68

Refrigerant Liquid Temperature Correction Factors

	Refrigerant Liquid Temperature °F														
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140
R-12 Correction Factor	1.60	1.54	1.48	1.42	1.36	1.30	1.24	1.18	1.12	1.06	1.00	.94	.88	.82	.75
R-134a Correction Factor	1.70	1.63	1.56	1.49	1.42	1.36	1.29	1.21	1.14	1.07	1.00	.93	.85	.78	.71
R-22 Correction Factor	1.56	1.51	1.45	1.40	1.34	1.29	1.23	1.17	1.12	1.06	1.00	.94	.88	.82	.76
R-404A/R-507 Correction	2.00	1.90	1.80	1.70	1.60	1.50	1.40	1.30	1.20	1.10	1.00	.90	.80	.70	.50

These factors include corrections for liquid refrigerant density and net refrigerating effect and are based on an average evaporator temperature of 0°F. However, they may be used for any evaporator temperature from -40°F to +40°F since the variation in the actual factors across this range is insignificant.

R-502 Balanced Ported Valves (kWatts)– B, HF, TFE, TRAE and T Series

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		10°C					0°C					-10°C							
		PRESSURE DROP ACROSS VALVE (kPa)						PRESSURE DROP ACROSS VALVE (kPa)						PRESSURE DROP ACROSS VALVE (kPa)					
		400	600	700	800	1000	1100	400	600	700	800	1000	1100	400	600	700	800	1000	1100
BA/BN	1/2	0.92	1.13	1.22	1.30	1.46	1.53	0.89	1.08	1.17	1.25	1.40	1.47	0.85	1.04	1.12	1.20	1.34	1.41
BA/BN	3/4	1.73	2.12	2.29	2.45	2.74	2.88	1.70	2.08	2.25	2.40	2.69	2.82	1.63	1.99	2.15	2.30	2.57	2.70
BA/BN	1	2.69	3.30	3.56	3.80	4.25	4.46	2.62	3.21	3.47	3.70	4.14	4.34	2.51	3.08	3.32	3.55	3.97	4.17
BA/BN	1-1/2	3.61	4.42	4.78	5.11	5.71	5.99	3.50	4.29	4.64	4.96	5.54	5.81	3.36	4.12	4.45	4.76	5.32	5.58
BA/BN	2	4.53	5.55	5.99	6.41	7.16	7.51	4.46	5.46	5.90	6.31	7.05	7.40	4.25	5.20	5.62	6.01	6.72	7.04
BA/BN	2-1/4	5.49	6.72	7.26	7.76	8.68	9.10	5.38	6.59	7.12	7.61	8.51	8.92	5.13	6.29	6.79	7.26	8.12	8.51
BA/BN	3	7.12	8.71	9.41	10.06	11.25	11.80	6.97	8.54	9.23	9.86	11.03	11.56	6.66	8.15	8.80	9.41	10.52	11.04
BA/BN	3-1/2	8.99	11.01	11.89	12.72	14.22	14.91	8.81	10.80	11.66	12.47	13.94	14.62	8.43	10.32	11.15	11.92	13.32	13.97
BA/BN	4-1/4	11.22	13.74	14.85	15.87	17.74	18.61	10.97	13.44	14.52	15.52	17.35	18.20	10.48	12.83	13.86	14.82	16.57	17.38
HF/HN	1/4	0.50	0.61	0.66	0.70	0.78	0.82	0.50	0.61	0.66	0.70	0.78	0.82	0.46	0.56	0.61	0.65	0.73	0.76
HF/HN	1/2	0.96	1.17	1.26	1.35	1.51	1.59	0.96	1.17	1.26	1.35	1.51	1.59	0.89	1.08	1.17	1.25	1.40	1.47
HF/HN	3/4	1.73	2.12	2.29	2.45	2.74	2.88	1.70	2.08	2.25	2.40	2.69	2.82	1.63	1.99	2.15	2.30	2.57	2.70
HF/HN	1	2.62	3.21	3.47	3.70	4.14	4.34	2.58	3.16	3.42	3.65	4.09	4.29	2.48	3.03	3.28	3.50	3.92	4.11
HF/HN	1-1/2	3.54	4.34	4.68	5.01	5.60	5.87	3.47	4.25	4.59	4.91	5.49	5.75	3.29	4.03	4.36	4.66	5.21	5.46
HF/HN	1-3/4	4.53	5.55	5.99	6.41	7.16	7.51	4.46	5.46	5.90	6.31	7.05	7.40	4.25	5.20	5.62	6.01	6.72	7.04
HF/HN	2-1/2	5.98	7.33	7.91	8.46	9.46	9.92	5.88	7.20	7.77	8.31	9.29	9.74	5.59	6.85	7.40	7.91	8.84	9.28
HF/HN	4	10.66	13.05	14.10	15.07	16.85	17.67	10.44	12.79	13.81	14.77	16.51	17.32	9.95	12.18	13.16	14.07	15.73	16.50
HF/HN	6	14.83	18.17	19.62	20.98	23.45	24.60	14.51	17.78	19.20	20.53	22.95	24.07	13.88	17.00	18.36	19.62	21.94	23.01
HF/HN	7-1/2	18.76	22.98	24.82	26.53	29.67	31.11	18.37	22.50	24.30	25.98	29.05	30.47	17.56	21.50	23.23	24.83	27.76	29.12
HF/HN	11	27.86	34.12	36.86	39.40	44.05	46.20	27.26	33.38	36.06	38.55	43.10	45.20	26.02	31.87	34.42	36.80	41.14	43.15
HF/HN	14	36.67	44.92	48.52	51.87	57.99	60.82	35.90	43.96	47.49	50.76	56.76	59.53	34.27	41.97	45.33	48.46	54.18	56.83
TFE	6	14.55	17.82	19.25	20.58	23.00	24.13	14.27	17.47	18.87	20.18	22.56	23.66	13.59	16.65	17.98	19.22	21.49	22.54
TFE	8	19.93	24.41	26.37	28.19	31.51	33.05	19.51	23.89	25.80	27.58	30.84	32.35	18.62	22.81	24.63	26.33	29.44	30.88
TFE	10	24.74	30.31	32.73	34.99	39.12	41.03	24.25	29.70	32.08	34.29	38.34	40.21	23.12	28.31	30.58	32.69	36.55	38.33
TFE	15	37.81	46.30	50.01	53.47	59.78	62.70	36.99	45.31	48.94	52.32	58.49	61.35	35.29	43.23	46.69	49.91	55.80	58.53
TRAE+	9	21.42	26.23	28.33	30.29	33.86	35.52	20.99	25.71	27.77	29.69	33.19	34.81	20.04	24.54	26.51	28.34	31.68	33.23
TRAE+	13	31.22	38.24	41.30	44.16	49.37	51.78	30.59	37.46	40.46	43.25	48.36	50.72	29.17	35.73	38.59	41.25	46.12	48.37
TRAE+	14	34.87	42.71	46.13	49.31	55.13	57.82	34.13	41.80	45.14	48.26	53.96	56.59	32.57	39.89	43.08	46.06	51.49	54.01
TRAE+	22	52.85	64.73	69.92	74.74	83.57	87.65	51.72	63.34	68.42	73.14	81.78	85.77	49.38	60.48	65.33	69.84	78.08	81.89
TRAE+	30	72.64	88.97	96.09	102.73	114.86	120.46	71.12	87.10	94.08	100.58	112.45	117.94	67.86	83.11	89.77	95.97	107.30	112.54
TRAE	40	98.06	120.10	129.72	138.67	155.04	162.61	96.00	117.58	127.00	135.77	151.80	159.21	91.62	112.21	121.20	129.56	144.86	151.93
TRAE	45	106.98	131.02	141.52	151.29	169.15	177.40	104.71	128.25	138.52	148.09	165.57	173.65	99.93	122.39	132.20	141.33	158.01	165.72
TRAE	50	127.30	155.91	168.40	180.03	201.28	211.10	124.64	152.66	164.89	176.27	197.08	206.70	124.64	152.66	164.89	176.27	197.08	206.70
TJR	11	26.69	32.69	35.31	37.75	42.20	44.26	26.13	32.00	34.56	36.95	41.31	43.32	11.54	14.13	15.27	16.32	18.25	19.14
TJR	13	31.97	39.15	42.29	45.21	50.54	53.01	31.29	38.33	41.40	44.26	49.48	51.89	13.81	16.91	18.26	19.52	21.83	22.89
TER	16	39.97	48.95	52.87	56.52	63.19	66.28	39.12	47.91	51.75	55.32	61.85	64.87	17.28	21.16	22.85	24.43	27.31	28.65
TER	19	47.22	57.84	62.47	66.78	74.67	78.31	46.23	56.62	61.16	65.38	73.10	76.67	20.39	24.97	26.97	28.84	32.24	33.81
TER	25	63.58	77.87	84.11	89.91	100.53	105.43	62.23	76.22	82.33	88.01	98.40	103.20	27.47	33.64	36.34	38.85	43.43	45.55
TER	31	81.74	100.11	108.13	115.60	129.24	135.55	80.00	97.98	105.84	113.14	126.50	132.67	35.29	43.23	46.69	49.91	55.80	58.53
TIR	45	99.90	122.35	132.15	141.28	157.95	165.66	97.77	119.75	129.34	138.27	154.60	162.14	43.15	52.85	57.09	61.03	68.23	71.56
THR	55	127.12	155.69	168.17	179.78	201.00	210.81	124.43	152.40	164.61	175.97	196.74	206.35	54.94	67.29	72.68	77.70	86.87	91.11
THR	68	154.38	189.08	204.22	218.33	244.10	256.01	151.12	185.09	199.92	213.72	238.95	250.61	66.69	81.68	88.23	94.32	105.45	110.60
TMR	60	181.60	222.42	240.24	256.82	287.14	301.15	177.78	217.73	235.18	251.42	281.09	294.81	78.48	96.12	103.82	110.99	124.09	130.15

Refrigerant Liquid Temperature Correction Factors

	Refrigerant Liquid Temperature °F														
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140
R-12 Correction Factor	1.60	1.54	1.48	1.42	1.36	1.30	1.24	1.18	1.12	1.06	1.00	.94	.88	.82	.75
R-134a Correction Factor	1.70	1.63	1.56	1.49	1.42	1.36	1.29	1.21	1.14	1.07	1.00	.93	.85	.78	.71
R-22 Correction Factor	1.56	1.51	1.45	1.40	1.34	1.29	1.23	1.17	1.12	1.06	1.00	.94	.88	.82	.76
R-404A/R-507 Correction	2.00	1.90	1.80	1.70	1.60	1.50	1.40	1.30	1.20	1.10	1.00	.90	.80	.70	.50

These factors include corrections for liquid refrigerant density and net refrigerating effect and are based on an average evaporator temperature of 0°F. However, they may be used for any evaporator temperature from -40°F to +40°F since the variation in the actual factors across this range is insignificant.

R-502 Balanced Ported Valves (kWatts)– B, HF, TFE, TRAE and T Series

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		-20°C					-30°C					-40°C							
		PRESSURE DROP ACROSS VALVE (kPa)					PRESSURE DROP ACROSS VALVE (kPa)					PRESSURE DROP ACROSS VALVE (kPa)							
		400	600	700	800	1000	1100	600	700	800	1000	1100	1200	600	700	800	1000	1100	1200
BA/BN	1/2	0.78	0.95	1.03	1.10	1.23	1.29	0.60	0.65	0.69	0.78	0.81	0.85	0.39	0.42	0.45	0.50	0.53	0.55
BA/BN	3/4	1.49	1.82	1.97	2.10	2.35	2.47	1.17	1.26	1.35	1.51	1.58	1.65	0.74	0.80	0.86	0.96	1.01	1.05
BA/BN	1	2.30	2.82	3.04	3.25	3.64	3.82	1.84	1.99	2.13	2.38	2.49	2.60	1.17	1.26	1.35	1.51	1.58	1.65
BA/BN	1-1/2	3.08	3.77	4.07	4.36	4.87	5.11	2.44	2.64	2.82	3.15	3.31	3.45	1.56	1.68	1.80	2.01	2.11	2.20
BA/BN	2	3.89	4.77	5.15	5.51	6.16	6.46	3.08	3.33	3.56	3.98	4.17	4.36	1.95	2.10	2.25	2.51	2.64	2.75
BA/BN	2-1/4	4.74	5.81	6.28	6.71	7.50	7.87	3.72	4.01	4.29	4.80	5.03	5.26	2.37	2.56	2.74	3.06	3.21	3.35
BA/BN	3	6.12	7.50	8.10	8.66	9.68	10.16	4.81	5.20	5.56	6.22	6.52	6.81	3.08	3.33	3.56	3.98	4.17	4.36
BA/BN	3-1/2	7.75	9.49	10.26	10.96	12.26	12.86	6.12	6.61	7.07	7.91	8.29	8.66	3.89	4.21	4.50	5.03	5.27	5.51
BA/BN	4-1/4	9.63	11.79	12.74	13.62	15.22	15.97	7.61	8.22	8.79	9.83	10.31	10.76	4.85	5.24	5.60	6.26	6.57	6.86
HF/HN	1/4	0.42	0.52	0.56	0.60	0.67	0.70	0.35	0.38	0.41	0.46	0.48	0.50	0.21	0.23	0.25	0.27	0.29	0.30
HF/HN	1/2	0.81	1.00	1.08	1.15	1.29	1.35	0.64	0.69	0.74	0.82	0.86	0.90	0.42	0.46	0.49	0.55	0.58	0.60
HF/HN	3/4	1.49	1.82	1.97	2.10	2.35	2.47	1.17	1.26	1.35	1.51	1.58	1.65	0.74	0.80	0.86	0.96	1.01	1.05
HF/HN	1	2.27	2.77	3.00	3.20	3.58	3.76	1.77	1.91	2.04	2.29	2.40	2.50	1.13	1.22	1.31	1.46	1.53	1.60
HF/HN	1-1/2	3.04	3.73	4.03	4.31	4.81	5.05	2.41	2.60	2.78	3.11	3.26	3.40	1.52	1.64	1.76	1.97	2.06	2.15
HF/HN	1-3/4	3.89	4.77	5.15	5.51	6.16	6.46	3.08	3.33	3.56	3.98	4.17	4.36	1.95	2.10	2.25	2.51	2.64	2.75
HF/HN	2-1/2	5.17	6.33	6.84	7.31	8.17	8.57	4.07	4.40	4.70	5.26	5.51	5.76	2.58	2.79	2.98	3.34	3.50	3.65
HF/HN	4	9.17	11.23	12.13	12.97	14.50	15.20	5.84	6.31	6.74	7.54	7.91	8.26	4.60	4.97	5.31	5.94	6.23	6.51
HF/HN	6	12.74	15.61	16.86	18.02	20.15	21.13	10.05	10.86	11.61	12.98	13.61	14.22	6.41	6.92	7.40	8.27	8.68	9.06
HF/HN	7-1/2	16.14	19.77	21.35	22.83	25.52	26.77	12.74	13.77	14.72	16.45	17.26	18.02	8.11	8.76	9.36	10.47	10.98	11.46
HF/HN	11	23.93	29.31	31.66	33.84	37.84	39.68	18.90	20.42	21.83	24.40	25.60	26.73	12.04	13.00	13.90	15.54	16.30	17.02
HF/HN	14	31.51	38.59	41.68	44.56	49.82	52.25	24.89	26.88	28.74	32.13	33.70	35.19	15.86	17.13	18.31	20.47	21.47	22.43
TFE	6	12.53	15.35	16.58	17.72	19.81	20.78	9.88	10.67	11.40	12.75	13.37	13.97	6.30	6.81	7.28	8.13	8.53	8.91
TFE	8	17.13	20.98	22.67	24.23	27.09	28.41	13.52	14.61	15.61	17.46	18.31	19.12	8.60	9.29	9.93	11.11	11.65	12.17
TFE	10	21.28	26.06	28.14	30.09	33.64	35.28	16.82	18.16	19.42	21.71	22.77	23.78	10.69	11.55	12.34	13.80	14.48	15.12
TFE	15	32.50	39.80	42.99	45.96	51.38	53.89	25.67	27.72	29.64	33.13	34.75	36.30	16.32	17.63	18.84	21.07	22.10	23.08
TRAE+	9	18.41	22.55	24.35	26.03	29.11	30.53	14.55	15.72	16.80	18.78	19.70	20.58	9.27	10.02	10.71	11.97	12.56	13.12
TRAE+	13	26.83	32.86	35.50	37.95	42.43	44.50	21.20	22.90	24.48	27.38	28.71	29.99	13.49	14.57	15.57	17.41	18.26	19.07
TRAE+	14	29.98	36.72	39.66	42.40	47.41	49.72	23.68	25.58	27.35	30.57	32.07	33.49	15.08	16.29	17.41	19.47	20.42	21.33
TRAE+	22	45.42	55.63	60.08	64.23	71.81	75.32	35.86	38.73	41.41	46.30	48.55	50.71	22.83	24.66	26.37	29.48	30.92	32.29
TRAE+	30	62.45	76.48	82.61	88.31	98.74	103.55	49.31	53.26	56.94	63.66	66.77	69.74	31.40	33.92	36.26	40.54	42.52	44.41
TRAE	40	84.29	103.23	111.50	119.20	133.27	139.77	66.55	71.88	76.85	85.92	90.11	94.12	42.37	45.77	48.93	54.70	57.37	59.93
TRAE	45	91.93	112.60	121.62	130.01	145.36	152.45	72.61	78.42	83.84	93.73	98.31	102.68	46.23	49.94	53.38	59.69	62.60	65.38
TRAE	50	109.42	134.01	144.75	154.75	173.01	181.45	86.41	93.33	99.78	111.56	117.00	122.20	55.01	59.42	63.52	71.02	74.49	77.80
TJR	11	22.94	28.09	30.35	32.44	36.27	38.04	18.12	19.58	20.93	23.40	24.54	25.63	11.54	12.47	13.33	14.90	15.63	16.32
TJR	13	27.47	33.64	36.34	38.85	43.43	45.55	21.70	23.44	25.06	28.01	29.38	30.69	13.81	14.91	15.94	17.82	18.69	19.52
TER	16	34.34	42.06	45.42	48.56	54.29	56.94	27.12	29.29	31.31	35.01	36.72	38.35	17.28	18.66	19.95	22.30	23.39	24.43
TER	19	40.60	49.73	53.71	57.42	64.20	67.33	32.04	34.60	36.99	41.36	43.38	45.31	20.39	22.02	23.54	26.32	27.61	28.84
TER	25	54.62	66.90	72.26	77.25	86.37	90.58	43.15	46.61	49.83	55.71	58.43	61.03	27.47	29.67	31.72	35.46	37.20	38.85
TER	31	70.23	86.02	92.91	99.33	111.05	116.47	55.47	59.92	64.05	71.61	75.11	78.45	35.29	38.12	40.75	45.56	47.79	49.91
TIR	45	85.85	105.14	113.56	121.40	135.73	142.36	67.79	73.22	78.28	87.52	91.79	95.87	43.15	46.61	49.83	55.71	58.43	61.03
THR	55	109.28	133.84	144.56	154.54	172.79	181.22	86.27	93.18	99.62	111.37	116.81	122.00	54.94	59.34	63.44	70.93	74.39	77.70
THR	68	132.68	162.50	175.52	187.64	209.78	220.02	104.78	113.18	120.99	135.28	141.88	148.19	66.69	72.04	77.01	86.10	90.30	94.32
TMR	60	156.11	191.20	206.52	220.78	246.84	258.89	123.26	133.14	142.33	159.13	166.90	174.32	78.48	84.77	90.62	101.32	106.26	110.99

Refrigerant Liquid Temperature Correction Factors

	Refrigerant Liquid Temperature °F														
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140
R-12 Correction Factor	1.60	1.54	1.48	1.42	1.36	1.30	1.24	1.18	1.12	1.06	1.00	.94	.88	.82	.75
R-134a Correction Factor	1.70	1.63	1.56	1.49	1.42	1.36	1.29	1.21	1.14	1.07	1.00	.93	.85	.78	.71
R-22 Correction Factor	1.56	1.51	1.45	1.40	1.34	1.29	1.23	1.17	1.12	1.06	1.00	.94	.88	.82	.76
R-404A/R-507 Correction	2.00	1.90	1.80	1.70	1.60	1.50	1.40	1.30	1.20	1.10	1.00	.90	.80	.70	.50

These factors include corrections for liquid refrigerant density and net refrigerating effect and are based on an average evaporator temperature of 0°F. However, they may be used for any evaporator temperature from -40°F to +40°F since the variation in the actual factors across this range is insignificant.

Thermal Expansion Valves
Solenoid Valves
Coils
Industrial Solenoid Valves
Shut Off Valves
System Protectors
Storage Devices
Oil Controls
Pressure Regulators
Temperature Pressure Controls
Competitive Cross Reference

R-12 Electric Valves (kWatts)– E Series

Capacities are for EX2 @ 100% duty cycle, ESVB-1 and -4 @ 250 steps open, ESVB-10 and -20 @ 650 sateps open

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		10°C					0°C					-10°C							
		PRESSURE DROP ACROSS VALVE (kPa)						PRESSURE DROP ACROSS VALVE (kPa)						PRESSURE DROP ACROSS VALVE (kPa)					
		400	600	700	800	1000	1100	400	600	700	800	1000	1100	400	600	700	800	1000	1100
EX2-00X	0.23	0.50	0.61	0.66	0.70	0.78	0.82	0.50	0.61	0.66	0.70	0.78	0.82	0.46	0.56	0.61	0.65	0.73	0.76
EX2-000	0.4	0.85	1.04	1.12	1.20	1.34	1.41	0.85	1.04	1.12	1.20	1.34	1.41	0.81	1.00	1.08	1.15	1.29	1.35
EX2-001	.81	1.73	2.12	2.29	2.45	2.74	2.88	1.70	2.08	2.25	2.40	2.69	2.82	1.63	1.99	2.15	2.30	2.57	2.70
EX2-002	1.1	2.37	2.90	3.14	3.35	3.75	3.93	2.30	2.82	3.04	3.25	3.64	3.82	2.23	2.73	2.95	3.15	3.53	3.70
EX2-003	2.0	4.28	5.25	5.67	6.06	6.77	7.10	4.21	5.16	5.57	5.96	6.66	6.99	4.04	4.94	5.34	5.71	6.38	6.69
EX2-004	2.7	5.77	7.07	7.63	8.16	9.12	9.57	5.66	6.94	7.49	8.01	8.96	9.39	5.45	6.68	7.21	7.71	8.62	9.04
EX2-M00	4.3	9.20	11.27	12.18	13.02	14.55	15.26	9.03	11.06	11.94	12.77	14.27	14.97	8.67	10.62	11.47	12.27	13.71	14.38
ESVB -1	1	1.49	1.82	1.97	2.10	2.35	2.47	1.45	1.78	1.92	2.05	2.29	2.41	1.42	1.73	1.87	2.00	2.24	2.35
ESVB-4	4	7.15	8.76	9.46	10.11	11.31	11.86	7.01	8.58	9.27	9.91	11.08	11.62	6.73	8.24	8.90	9.51	10.63	11.15
ESVB-10	10	21.52	26.36	28.47	30.44	34.03	35.69	21.10	25.84	27.91	29.84	33.36	34.99	20.25	24.80	26.79	28.64	32.02	33.58
ESVB-20	20	46.69	57.19	61.77	66.03	73.83	77.43	45.77	56.06	60.55	64.73	72.37	75.90	43.90	53.76	58.07	62.08	69.41	72.79
Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		-20°C					-30°C					-40°C							
		PRESSURE DROP ACROSS VALVE (kPa)						PRESSURE DROP ACROSS VALVE (kPa)						PRESSURE DROP ACROSS VALVE (kPa)					
		400	600	700	800	1000	1100	600	700	800	1000	1100	1200	600	700	800	1000	1100	1200
EX2-00X	0.23	0.46	0.56	0.61	0.65	0.73	0.76	0.50	0.61	0.66	0.70	0.78	0.82	0.39	0.48	0.52	0.55	0.62	0.65
EX2-000	0.4	0.78	0.95	1.03	1.10	1.23	1.29	0.85	1.04	1.12	1.20	1.34	1.41	0.71	0.87	0.94	1.00	1.12	1.17
EX2-001	.81	1.56	1.91	2.06	2.20	2.46	2.58	1.70	2.08	2.25	2.40	2.69	2.82	1.42	1.73	1.87	2.00	2.24	2.35
EX2-002	1.1	2.12	2.60	2.81	3.00	3.36	3.52	2.34	2.86	3.09	3.30	3.69	3.87	1.91	2.34	2.53	2.70	3.02	3.17
EX2-003	2.0	3.86	4.73	5.10	5.46	6.10	6.40	4.25	5.20	5.62	6.01	6.72	7.04	3.47	4.25	4.59	4.91	5.49	5.75
EX2-004	2.7	5.20	6.37	6.88	7.36	8.23	8.63	4.96	6.07	6.56	7.01	7.84	8.22	4.71	5.77	6.23	6.66	7.44	7.81
EX2-M00	4.3	8.28	10.15	10.96	11.71	13.10	13.74	9.10	11.14	12.04	12.87	14.38	15.09	7.50	9.19	9.93	10.61	11.87	12.45
ESVB -1	1	1.35	1.65	1.78	1.90	2.13	2.23	1.49	1.82	1.97	2.10	2.35	2.47	1.20	1.47	1.59	1.70	1.90	2.00
ESVB-4	4	6.44	7.89	8.52	9.11	10.19	10.68	7.08	8.67	9.37	10.01	11.19	11.74	5.81	7.11	7.68	8.21	9.18	9.63
ESVB-10	10	19.36	23.72	25.62	27.38	30.62	32.11	18.44	22.59	24.40	26.08	29.16	30.58	17.52	21.46	23.18	24.78	27.71	29.06
ESVB-20	20	41.95	51.38	55.49	59.32	66.33	69.56	46.16	56.54	61.07	65.28	72.99	76.55	37.98	46.52	50.25	53.72	60.06	62.99

R-22 Electric Valves (kWatts)– E Series

Capacities are for EX2 @ 100% duty cycle, ESVB-1 and -4 @ 250 steps open, ESVB-10 and -20 @ 650 steps open

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		10°C					0°C					-10°C							
		PRESSURE DROP ACROSS VALVE (kPa)						PRESSURE DROP ACROSS VALVE (kPa)						PRESSURE DROP ACROSS VALVE (kPa)					
		400	600	700	800	1000	1100	400	600	700	800	1000	1100	400	600	700	800	1000	1100
EX2-00X	0.23	0.64	0.78	0.84	0.90	1.01	1.06	0.64	0.78	0.84	0.90	1.01	1.06	0.60	0.74	0.80	0.85	0.95	1.00
EX2-000	0.4	1.10	1.34	1.45	1.55	1.74	1.82	1.10	1.34	1.45	1.55	1.74	1.82	1.06	1.30	1.40	1.50	1.68	1.76
EX2-001	.81	2.27	2.77	3.00	3.20	3.58	3.76	2.23	2.73	2.95	3.15	3.53	3.70	2.16	2.64	2.86	3.05	3.41	3.58
EX2-002	1.1	3.04	3.73	4.03	4.31	4.81	5.05	3.01	3.69	3.98	4.26	4.76	4.99	2.94	3.60	3.89	4.16	4.65	4.87
EX2-003	2.0	5.56	6.81	7.35	7.86	8.79	9.22	5.49	6.72	7.26	7.76	8.68	9.10	5.35	6.55	7.07	7.56	8.45	8.86
EX2-004	2.7	7.50	9.19	9.93	10.61	11.87	12.45	7.43	9.10	9.83	10.51	11.75	12.33	7.22	8.84	9.55	10.21	11.42	11.98
EX2-M00	4.3	11.97	14.65	15.83	16.92	18.92	19.84	11.82	14.48	15.64	16.72	18.69	19.61	11.51	14.09	15.22	16.27	18.19	19.08
ESVB -1	1	1.95	2.38	2.58	2.75	3.08	3.23	1.91	2.34	2.53	2.70	3.02	3.17	1.88	2.30	2.48	2.65	2.97	3.11
ESVB-4	4	9.31	11.40	12.32	13.17	14.72	15.44	9.20	11.27	12.18	13.02	14.55	15.26	8.96	10.97	11.85	12.67	14.16	14.85
ESVB-10	10	27.97	34.25	37.00	39.55	44.22	46.38	27.65	33.86	36.57	39.10	43.71	45.85	26.94	32.99	35.64	38.10	42.59	44.67
ESVB-20	20	60.64	74.27	80.22	85.76	95.88	100.56	59.93	73.40	79.28	84.76	94.76	99.39	58.41	71.54	77.27	82.60	92.35	96.86
Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		-20°C					-30°C					-40°C							
		PRESSURE DROP ACROSS VALVE (kPa)						PRESSURE DROP ACROSS VALVE (kPa)						PRESSURE DROP ACROSS VALVE (kPa)					
		400	600	700	800	1000	1100	600	700	800	1000	1100	1200	600	700	800	1000	1100	1200
EX2-00X	0.23	0.60	0.74	0.80	0.85	0.95	1.00	0.67	0.73	0.78	0.87	0.91	0.95	0.64	0.69	0.74	0.82	0.86	0.90
EX2-000	0.4	1.03	1.26	1.36	1.45	1.62	1.70	1.17	1.26	1.35	1.51	1.58	1.65	1.13	1.22	1.31	1.46	1.53	1.60
EX2-001	.81	2.12	2.60	2.81	3.00	3.36	3.52	2.37	2.56	2.74	3.06	3.21	3.35	2.27	2.45	2.62	2.92	3.07	3.20
EX2-002	1.1	2.87	3.51	3.79	4.06	4.53	4.76	3.19	3.44	3.68	4.11	4.31	4.51	3.08	3.33	3.56	3.98	4.17	4.36
EX2-003	2.0	5.20	6.37	6.88	7.36	8.23	8.63	5.81	6.27	6.70	7.49	7.86	8.21	5.63	6.08	6.50	7.27	7.62	7.96
EX2-004	2.7	7.04	8.63	9.32	9.96	11.14	11.68	7.86	8.49	9.07	10.15	10.64	11.11	7.58	8.18	8.75	9.78	10.26	10.71
EX2-M00	4.3	11.19	13.70	14.80	15.82	17.69	18.55	12.53	13.54	14.47	16.18	16.97	17.72	12.11	13.08	13.98	15.63	16.39	17.12
ESVB -1	1	1.81	2.21	2.39	2.55	2.85	2.99	2.02	2.18	2.33	2.60	2.73	2.85	1.95	2.10	2.25	2.51	2.64	2.75
ESVB-4	4	8.71	10.67	11.52	12.32	13.77	14.44	9.74	10.52	11.24	12.57	13.18	13.77	9.42	10.17	10.87	12.16	12.75	13.32
ESVB-10	10	26.16	32.04	34.61	37.00	41.36	43.38	29.28	31.62	33.80	37.79	39.64	41.40	28.25	30.51	32.62	36.47	38.25	39.95
ESVB-20	20	56.75	69.50	75.07	80.25	89.72	94.10	63.47	68.56	73.29	81.94	85.94	89.76	61.28	66.19	70.76	79.11	82.97	86.66

R-134a Electric Valves (kWatts)– E Series

Capacities are for EX2 @ 100% duty cycle, ESVB-1 and -4 @ 250 steps open, ESVB-10 and -20 @ 650 steps open

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		10°C						0°C						-10°C					
		PRESSURE DROP ACROSS VALVE (kPa)						PRESSURE DROP ACROSS VALVE (kPa)						PRESSURE DROP ACROSS VALVE (kPa)					
		400	600	700	800	1000	1100	400	600	700	800	1000	1100	400	600	700	800	1000	1100
EX2-00X	0.23	0.60	0.74	0.80	0.85	0.95	1.00	0.60	0.74	0.80	0.85	0.95	1.00	0.57	0.69	0.75	0.80	0.90	0.94
EX2-000	0.4	1.06	1.30	1.40	1.50	1.68	1.76	1.03	1.26	1.36	1.45	1.62	1.70	0.99	1.21	1.31	1.40	1.57	1.64
EX2-001	.81	2.16	2.64	2.86	3.05	3.41	3.58	2.09	2.56	2.76	2.95	3.30	3.46	2.02	2.47	2.67	2.85	3.19	3.35
EX2-002	1.1	2.90	3.56	3.84	4.11	4.59	4.81	2.87	3.51	3.79	4.06	4.53	4.76	2.73	3.34	3.61	3.85	4.31	4.52
EX2-003	2.0	5.49	6.72	7.26	7.76	8.68	9.10	5.38	6.59	7.12	7.61	8.51	8.92	5.20	6.37	6.88	7.36	8.23	8.63
EX2-004	2.7	7.15	8.76	9.46	10.11	11.31	11.86	7.01	8.58	9.27	9.91	11.08	11.62	6.73	8.24	8.90	9.51	10.63	11.15
EX2-M00	4.3	11.40	13.96	15.08	16.12	18.02	18.90	11.19	13.70	14.80	15.82	17.69	18.55	10.69	13.09	14.14	15.12	16.90	17.73
ESVB -1	1	1.84	2.25	2.44	2.60	2.91	3.05	1.81	2.21	2.39	2.55	2.85	2.99	1.73	2.12	2.29	2.45	2.74	2.88
ESVB-4	4	8.89	10.88	11.75	12.57	14.05	14.73	8.67	10.62	11.47	12.27	13.71	14.38	8.32	10.19	11.01	11.76	13.15	13.80
ESVB-10	10	26.69	32.69	35.31	37.75	42.20	44.26	26.13	32.00	34.56	36.95	41.31	43.32	24.99	30.61	33.06	35.34	39.52	41.45
ESVB-20	20	57.84	70.84	76.52	81.80	91.46	95.92	56.64	69.37	74.93	80.10	89.56	93.93	54.20	66.38	71.70	76.65	85.69	89.88
Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		-20°C						-30°C						-40°C					
		PRESSURE DROP ACROSS VALVE (kPa)						PRESSURE DROP ACROSS VALVE (kPa)						PRESSURE DROP ACROSS VALVE (kPa)					
		400	600	700	800	1000	1100	600	700	800	1000	1100	1200	600	700	800	1000	1100	1200
EX2-00X	0.23	0.53	0.65	0.70	0.75	0.84	0.88	0.60	0.65	0.69	0.78	0.81	0.85	0.57	0.61	0.65	0.73	0.77	0.80
EX2-000	0.4	0.96	1.17	1.26	1.35	1.51	1.59	1.03	1.11	1.19	1.33	1.39	1.45	0.99	1.07	1.14	1.28	1.34	1.40
EX2-001	.81	1.91	2.34	2.53	2.70	3.02	3.17	2.09	2.26	2.41	2.70	2.83	2.95	1.98	2.14	2.29	2.56	2.68	2.80
EX2-002	1.1	2.62	3.21	3.47	3.70	4.14	4.34	2.87	3.10	3.31	3.70	3.88	4.06	2.69	2.91	3.11	3.47	3.64	3.80
EX2-003	2.0	4.99	6.11	6.60	7.06	7.89	8.28	5.52	5.96	6.38	7.13	7.48	7.81	5.27	5.70	6.09	6.81	7.14	7.46
EX2-004	2.7	6.41	7.85	8.48	9.06	10.13	10.63	7.01	7.57	8.09	9.05	9.49	9.91	6.66	7.19	7.68	8.59	9.01	9.41
EX2-M00	4.3	10.20	12.49	13.49	14.42	16.12	16.91	11.19	12.08	12.92	14.44	15.15	15.82	10.58	11.43	12.22	13.66	14.33	14.97
ESVB -1	1	1.66	2.04	2.20	2.35	2.63	2.76	1.81	1.95	2.08	2.33	2.44	2.55	1.70	1.84	1.96	2.19	2.30	2.40
ESVB-4	4	7.93	9.71	10.49	11.21	12.54	13.15	8.67	9.37	10.01	11.20	11.74	12.27	8.21	8.87	9.48	10.60	11.12	11.61
ESVB-10	10	23.22	28.44	30.72	32.84	36.72	38.51	26.13	28.22	30.17	33.73	35.37	36.95	24.71	26.69	28.53	31.90	33.46	34.94
ESVB-20	20	51.65	63.26	68.32	73.04	81.66	85.65	56.64	61.18	65.40	73.12	76.69	80.10	53.60	57.89	61.89	69.19	72.57	75.80

R-404A/R-507 Electric Valves (kWatts)– E Series

Capacities are for EX2 @ 100% duty cycle, ESVB-1 and -4 @ 250 steps open, ESVB-10 and -20 @ 650 steps open

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		10°C						0°C						-10°C					
		PRESSURE DROP ACROSS VALVE (kPa)						PRESSURE DROP ACROSS VALVE (kPa)						PRESSURE DROP ACROSS VALVE (kPa)					
		400	600	700	800	1000	1100	400	600	700	800	1000	1100	400	600	700	800	1000	1100
EX2-00X	0.23	0.46	0.56	0.61	0.65	0.73	0.76	0.46	0.56	0.61	0.65	0.73	0.76	0.42	0.52	0.56	0.60	0.67	0.70
EX2-000	0.4	0.81	1.00	1.08	1.15	1.29	1.35	0.78	0.95	1.03	1.10	1.23	1.29	0.74	0.91	0.98	1.05	1.18	1.23
EX2-001	.81	1.66	2.04	2.20	2.35	2.63	2.76	1.63	1.99	2.15	2.30	2.57	2.70	1.52	1.86	2.01	2.15	2.41	2.52
EX2-002	1.1	2.23	2.73	2.95	3.15	3.53	3.70	2.19	2.69	2.90	3.10	3.47	3.64	2.09	2.56	2.76	2.95	3.30	3.46
EX2-003	2.0	4.07	4.99	5.39	5.76	6.44	6.75	3.96	4.86	5.24	5.61	6.27	6.57	3.79	4.64	5.01	5.36	5.99	6.28
EX2-004	2.7	5.49	6.72	7.26	7.76	8.68	9.10	5.38	6.59	7.12	7.61	8.51	8.92	5.10	6.24	6.74	7.21	8.06	8.45
EX2-M00	4.3	8.74	10.71	11.57	12.37	13.83	14.50	8.57	10.49	11.33	12.12	13.55	14.21	8.14	9.97	10.77	11.51	12.87	13.50
ESVB -1	1	1.42	1.73	1.87	2.00	2.24	2.35	1.38	1.69	1.83	1.95	2.18	2.29	1.31	1.60	1.73	1.85	2.07	2.17
ESVB-4	4	6.80	8.32	8.99	9.61	10.75	11.27	6.66	8.15	8.80	9.41	10.52	11.04	6.34	7.76	8.38	8.96	10.02	10.51
ESVB-10	10	20.50	25.10	27.11	28.99	32.41	33.99	20.00	24.50	26.46	28.29	31.62	33.17	19.01	23.28	25.15	26.88	30.06	31.52
ESVB-20	20	44.43	54.41	58.77	62.83	70.25	73.67	43.40	53.15	57.41	61.38	68.62	71.97	41.21	50.47	54.51	58.27	65.15	68.33
Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		-20°C						-30°C						-40°C					
		PRESSURE DROP ACROSS VALVE (kPa)						PRESSURE DROP ACROSS VALVE (kPa)						PRESSURE DROP ACROSS VALVE (kPa)					
		400	600	700	800	1000	1100	600	700	800	1000	1100	1200	600	700	800	1000	1100	1200
EX2-00X	0.23	0.42	0.52	0.56	0.60	0.67	0.70	0.46	0.50	0.53	0.59	0.62	0.65	0.42	0.46	0.49	0.55	0.58	0.60
EX2-000	0.4	0.71	0.87	0.94	1.00	1.12	1.17	0.78	0.84	0.90	1.01	1.05	1.10	0.71	0.76	0.82	0.91	0.96	1.00
EX2-001	.81	1.45	1.78	1.92	2.05	2.29	2.41	1.56	1.68	1.80	2.01	2.11	2.20	1.45	1.57	1.68	1.87	1.97	2.05
EX2-002	1.1	1.95	2.38	2.58	2.75	3.08	3.23	2.12	2.29	2.45	2.74	2.88	3.00	1.98	2.14	2.29	2.56	2.68	2.80
EX2-003	2.0	3.58	4.38	4.73	5.06	5.65	5.93	3.86	4.17	4.46	4.98	5.22	5.46	3.61	3.90	4.17	4.66	4.89	5.11
EX2-004	2.7	4.81	5.90	6.37	6.81	7.61	7.98	5.24	5.66	6.05	6.76	7.09	7.41	4.89	5.28	5.64	6.31	6.61	6.91
EX2-M00	4.3	7.68	9.41	10.16	10.86	12.15	12.74	8.32	8.99	9.61	10.74	11.26	11.76	7.75	8.37	8.95	10.01	10.50	10.96
ESVB -1	1	1.24	1.52	1.64	1.75	1.96	2.05	1.35	1.45	1.55	1.74	1.82	1.90	1.27	1.38	1.47	1.65	1.73	1.80
ESVB-4	4	5.98	7.33	7.91	8.46	9.46	9.92	6.48	7.00	7.48	8.36	8.77	9.16	6.02	6.50	6.95	7.77	8.15	8.51
ESVB-10	10	17.95	21.98	23.74	25.38	28.38	29.76	19.43	20.99	22.44	25.09	26.31	27.48	18.12	19.58	20.93	23.40	24.54	25.63
ESVB-20	20	38.90	47.65	51.47	55.02	61.51	64.52	42.16	45.54	48.68	54.43	57.09	59.63	39.33	42.48	45.41	50.77	53.25	55.62

Thermal Expansion Valves
Solenoid Valves
Coils
Industrial Solenoid Valves
Shut Off Valves
System Protectors
Storage Devices
Oil Controls
Pressure Regulators
Temperature Pressure Controls
Competitive Cross Reference

R-407C Electric Valves (kWatts)– E Series

Capacities are for EX2 @ 100% duty cycle, ESVB-1 and -4 @ 250 steps open, ESVB-10 and -20 @ 650 steps open

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		10°C						0°C						-10°C					
		PRESSURE DROP ACROSS VALVE (kPa)						PRESSURE DROP ACROSS VALVE (kPa)						PRESSURE DROP ACROSS VALVE (kPa)					
		400	600	700	800	1000	1100	400	600	700	800	1000	1100	400	600	700	800	1000	1100
EX2-00X	0.23	0.60	0.74	0.80	0.85	0.95	1.00	0.60	0.74	0.80	0.85	0.95	1.00	0.57	0.69	0.75	0.80	0.90	0.94
EX2-000	0.4	1.06	1.30	1.40	1.50	1.68	1.76	1.06	1.30	1.40	1.50	1.68	1.76	0.99	1.21	1.31	1.40	1.57	1.64
EX2-001	.81	2.16	2.64	2.86	3.05	3.41	3.58	2.12	2.60	2.81	3.00	3.36	3.52	2.05	2.51	2.72	2.90	3.25	3.40
EX2-002	1.1	2.94	3.60	3.89	4.16	4.65	4.87	2.87	3.51	3.79	4.06	4.53	4.76	2.76	3.38	3.65	3.90	4.37	4.58
EX2-003	2.0	5.35	6.55	7.07	7.56	8.45	8.86	5.24	6.42	6.93	7.41	8.28	8.69	5.03	6.16	6.65	7.11	7.95	8.34
EX2-004	2.7	7.22	8.84	9.55	10.21	11.42	11.98	7.08	8.67	9.37	10.01	11.19	11.74	6.80	8.32	8.99	9.61	10.75	11.27
EX2-M00	4.3	11.47	14.05	15.17	16.22	18.14	19.02	11.26	13.79	14.89	15.92	17.80	18.67	10.83	13.27	14.33	15.32	17.13	17.96
ESVB-1	1	1.88	2.30	2.48	2.65	2.97	3.11	1.84	2.25	2.44	2.60	2.91	3.05	1.77	2.17	2.34	2.50	2.80	2.94
ESVB-4	4	8.92	10.93	11.80	12.62	14.11	14.79	8.74	10.71	11.57	12.37	13.83	14.50	8.43	10.32	11.15	11.92	13.32	13.97
ESVB-10	10	26.83	32.86	35.50	37.95	42.43	44.50	26.34	32.26	34.84	37.25	41.64	43.68	25.28	30.96	33.44	35.75	39.96	41.91
ESVB-20	20	58.20	71.28	76.99	82.30	92.02	96.51	57.10	69.93	75.54	80.75	90.28	94.69	54.83	67.16	72.54	77.55	86.70	90.93

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		-20°C				-30°C				-40°C									
		PRESSURE DROP ACROSS VALVE (kPa)				PRESSURE DROP ACROSS VALVE (kPa)				PRESSURE DROP ACROSS VALVE (kPa)									
		400	600	700	800	1000	1100	600	700	800	1000	1100	1200	600	700	800	1000	1100	1200
EX2-00X	0.23	0.57	0.69	0.75	0.80	0.90	0.94	0.60	0.65	0.69	0.78	0.81	0.85	0.57	0.61	0.65	0.73	0.77	0.80
EX2-000	0.4	0.96	1.17	1.26	1.35	1.51	1.59	1.06	1.15	1.23	1.37	1.44	1.50	0.99	1.07	1.14	1.28	1.34	1.40
EX2-001	.81	1.95	2.38	2.58	2.75	3.08	3.23	2.12	2.29	2.45	2.74	2.88	3.00	2.02	2.18	2.33	2.60	2.73	2.85
EX2-002	1.1	2.66	3.25	3.51	3.75	4.20	4.40	2.90	3.14	3.35	3.75	3.93	4.11	2.76	2.98	3.19	3.56	3.74	3.90
EX2-003	2.0	4.81	5.90	6.37	6.81	7.61	7.98	5.27	5.70	6.09	6.81	7.14	7.46	5.03	5.43	5.80	6.49	6.81	7.11
EX2-004	2.7	6.48	7.93	8.57	9.16	10.24	10.74	7.15	7.72	8.26	9.23	9.68	10.11	6.76	7.30	7.81	8.73	9.15	9.56
EX2-M00	4.3	10.34	12.66	13.67	14.62	16.34	17.14	11.36	12.27	13.12	14.67	15.39	16.07	10.80	11.66	12.47	13.94	14.62	15.27
ESVB-1	1	1.66	2.04	2.20	2.35	2.63	2.76	1.84	1.99	2.13	2.38	2.49	2.60	1.73	1.87	2.00	2.24	2.35	2.45
ESVB-4	4	8.04	9.84	10.63	11.36	12.71	13.33	8.85	9.56	10.22	11.43	11.98	12.52	8.39	9.06	9.69	10.83	11.36	11.86
ESVB-10	10	24.18	29.61	31.98	34.19	38.23	40.10	26.59	28.72	30.70	34.32	36.00	37.60	25.20	27.22	29.10	32.54	34.13	35.64
ESVB-20	20	52.43	64.21	69.35	74.14	82.89	86.94	57.63	62.25	66.55	74.40	78.03	81.50	54.66	59.04	63.11	70.56	74.01	77.30

R-502 Electric Valves (kWatts)– E Series

Capacities are for EX2 @ 100% duty cycle, ESVB-1 and -4 @ 250 steps open, ESVB-10 and -20 @ 650 steps open

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		10°C						0°C						-10°C					
		PRESSURE DROP ACROSS VALVE (kPa)						PRESSURE DROP ACROSS VALVE (kPa)						PRESSURE DROP ACROSS VALVE (kPa)					
		400	600	700	800	1000	1100	400	600	700	800	1000	1100	400	600	700	800	1000	1100
EX2-00X	0.23	0.42	0.52	0.56	0.60	0.67	0.70	0.42	0.52	0.56	0.60	0.67	0.70	0.39	0.48	0.52	0.55	0.62	0.65
EX2-000	0.4	0.74	0.91	0.98	1.05	1.18	1.23	0.71	0.87	0.94	1.00	1.12	1.17	0.67	0.82	0.89	0.95	1.06	1.12
EX2-001	.81	1.49	1.82	1.97	2.10	2.35	2.47	1.45	1.78	1.92	2.05	2.29	2.41	1.38	1.69	1.83	1.95	2.18	2.29
EX2-002	1.1	1.98	2.43	2.62	2.80	3.13	3.29	1.95	2.38	2.58	2.75	3.08	3.23	1.88	2.30	2.48	2.65	2.97	3.11
EX2-003	2.0	3.65	4.47	4.82	5.16	5.77	6.05	3.54	4.34	4.68	5.01	5.60	5.87	3.40	4.16	4.50	4.81	5.37	5.64
EX2-004	2.7	4.92	6.03	6.51	6.96	7.78	8.16	4.81	5.90	6.37	6.81	7.61	7.98	4.57	5.59	6.04	6.46	7.22	7.57
EX2-M00	4.3	7.82	9.58	10.35	11.06	12.37	12.97	7.65	9.36	10.12	10.81	12.09	12.68	7.29	8.93	9.65	10.31	11.53	12.09
ESVB-1	1	1.27	1.56	1.69	1.80	2.02	2.11	1.24	1.52	1.64	1.75	1.96	2.05	1.17	1.43	1.55	1.65	1.85	1.94
ESVB-4	4	6.09	7.46	8.05	8.61	9.63	10.10	5.95	7.28	7.87	8.41	9.40	9.86	5.66	6.94	7.49	8.01	8.96	9.39
ESVB-10	10	18.27	22.37	24.16	25.83	28.88	30.29	17.06	20.90	22.57	24.13	26.98	28.30	17.06	20.90	22.57	24.13	26.98	28.30
ESVB-20	20	39.58	48.47	52.36	55.97	62.58	65.63	38.76	47.47	51.28	54.82	61.29	64.28	36.99	45.31	48.94	52.32	58.49	61.35

Valve Type	Nominal Rating	EVAPORATOR TEMPERATURE																	
		-20°C				-30°C				-40°C									
		PRESSURE DROP ACROSS VALVE (kPa)				PRESSURE DROP ACROSS VALVE (kPa)				PRESSURE DROP ACROSS VALVE (kPa)									
		400	600	700	800	1000	1100	600	700	800	1000	1100	1200	600	700	800	1000	1100	1200
EX2-00X	0.23	0.35	0.43	0.47	0.50	0.56	0.59	0.39	0.42	0.45	0.50	0.53	0.55	0.39	0.42	0.45	0.50	0.53	0.55
EX2-000	0.4	0.64	0.78	0.84	0.90	1.01	1.06	0.71	0.76	0.82	0.91	0.96	1.00	0.67	0.73	0.78	0.87	0.91	0.95
EX2-001	.81	1.31	1.60	1.73	1.85	2.07	2.17	1.42	1.53	1.64	1.83	1.92	2.00	1.35	1.45	1.55	1.74	1.82	1.90
EX2-002	1.1	1.77	2.17	2.34	2.50	2.80	2.94	1.95	2.10	2.25	2.51	2.64	2.75	1.81	1.95	2.08	2.33	2.44	2.55
EX2-003	2.0	3.22	3.95	4.26	4.56	5.09	5.34	3.50	3.79	4.05	4.52	4.75	4.96	3.29	3.56	3.80	4.25	4.46	4.66
EX2-004	2.7	4.35	5.33	5.76	6.16	6.88	7.22	4.74	5.12	5.48	6.12	6.42	6.71	4.46	4.82	5.15	5.76	6.04	6.31
EX2-M00	4.3	6.94	8.50	9.18	9.81	10.97	11.51	7.54	8.14	8.71	9.73	10.21	10.66	7.08	7.65	8.18	9.14	9.59	10.01
ESVB-1	1	1.13	1.39	1.50	1.60	1.79	1.88	1.24	1.34	1.43	1.60	1.68	1.75	1.13	1.22	1.31	1.46	1.53	1.60
ESVB-4	4	5.38	6.59	7.12	7.61	8.51	8.92	5.88	6.35	6.79	7.59	7.96	8.31	5.52	5.96	6.38	7.13	7.48	7.81
ESVB-10	10	16.18	19.81	21.40	22.88	25.58	26.83	17.66	19.08	20.40	22.80	23.92	24.98	16.57	17.89	19.13	21.39	22.43	23.43
ESVB-20	20	35.12	43.01	46.46	49.66	55.52	58.23	38.27	41.33	44.19	49.40	51.81	54.12	35.93	38.81	41.49	46.39	48.65	50.81

Solenoid Valve Quick Select Guide

Refrigeration Applications

Application	Feature	Valve	Nominal Liquid Capacity R-22 (in tons)*	Page
Liquid Line Discharge Gas Suction Line	Two Way, Normally Closed Solenoid Valve	50RB	.54	90
		100RB2	1.3	91
		200RB2	3.1	93
		200RB3	4.8	
		200RB4	5.6	
		200RB5	8.2	
		200RB6	10.0	
		200RB7	15.6	
		200RB9	30.5	96
		200RB12	34.9	
		240RA8	15.6	
		240RA9 (5/8)	23.3	
	240RA9 (1-1/8)	30.5		
	240RA12	34.9		
	240RA16	58.0	98	
	240RA20	95.4		
	500RB2	3.1		
	500RB3	4.8		
	500RB4	5.6		
	500RB5	8.2		
	500RB6	10.0	100	
	500RB7	15.6		
	540RA8	15.6		
	540RA9 (5/8)	23.3		
540RA9 (1-1/8)	30.5			
540RA12	34.9			
540RA16	58.0	100		
540RA20	95.4			

* 3 psi pressure drop per ARI Standard 760.

Specialty Applications

Page	Valve	Application
102	710/713RA	Pressure Differential – Liquid Line
104	702RA	Direct Acting – Three Way
105	207CB	Low Pressure Water Solenoid (Dump Valve)
107	703RC	Unloader Valve

50RB Solenoid Valves

Thermal Expansion Valves

Solenoid Valves

Coils

Industrial Solenoid Valves

Shut Off Valves

System Protectors

Storage Devices

Oil Controls

Pressure Regulators

Temperature Pressure Controls

Competitive Cross Reference

The 50RB is a direct-acting, 2-way, normally closed valve. 50RB valves are used for liquid or discharge gas refrigerant service.



Features

- Long-life molded coils
- Extended ends for easy installation (standard)
- Screw-on coil
- 100 mesh inlet screen standard

Options

- Connection sizes to fit your system
- Straight-thru or right angle design
- Replace with RMF coil

Specifications

- PTFE seat material
- 30" leads
- Maximum fluid temperature: 250°F
- Maximum working pressure: 500 psig
- MOPD: 300 psig
- UL/CUL file number: MH25894

NOTE: Mounting enclosing tube more than 90° off vertical up position is not recommended.

Nomenclature example: 50RB 4T22 SML 120/50-60

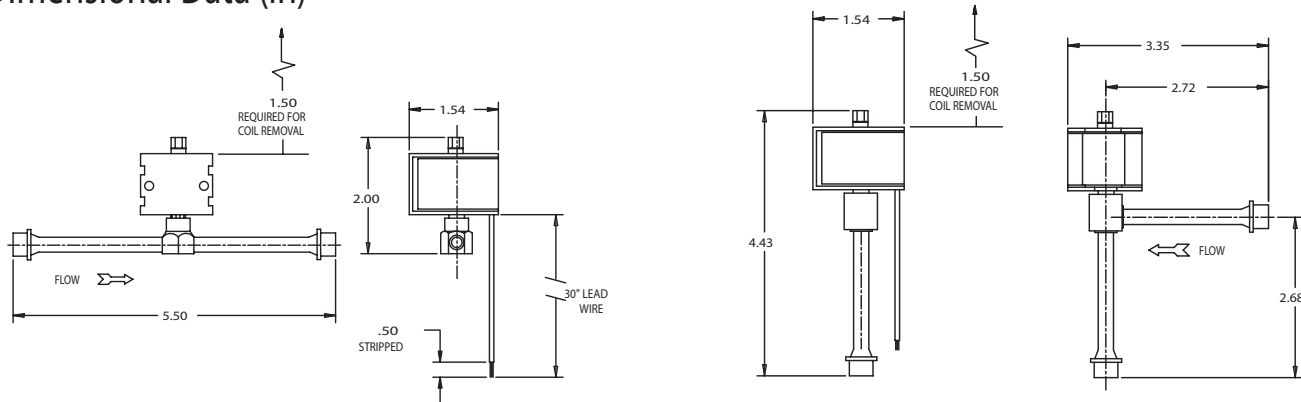
50R	B	4	T	2	2	SML	120/50-60
Basic Valve Type	Design Series	Port Size (in 1/64")	Connection Type T = ODF straight thru B = ODF right angle	Inlet Connection Size (in 1/8")	Outlet Connection Size (in 1/8")	Coil (RMF as replacement)	Coil Voltages

Ordering Information and Nominal* Liquid Capacity Table – Tons (kW)

PCN	DESCRIPTION	CONNECTION SIZE	COIL VOLTAGE/HZ	R-12	R-134a	R-22	R-407C	R-404A/R-507	R-502
063452	50RB 4 B 2 2 SML	1/4" ODF	120/50-60	1/4 (1.5)	0.5 (1.8)	.54 (1.9)	.51 (1.8)	.34 (1.2)	.35 (1.2)
063511	50RB 4 B 2 2 SML		220/50-60						
063585	50RB 4 B 2 2 SML		24/50-60						
063587	50RB 4 T 2 2 SML		24/50-60						
063454	50RB 4 T 2 2 SML		120/50-60						
063513	50RB 4 T 2 2 SML		220/50-60						

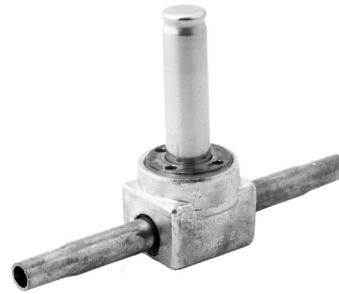
Capacities based on 100°F liquid and 40°F saturated evaporator per ARI standard 760-87.
*See Extended Capacity Tables for ratings at a wide range of conditions.

Dimensional Data (in)



100RB Solenoid Valves

The 100RB is a direct-acting, 2-way, normally closed valve. 100 RB valves are used for liquid or discharge gas refrigerant service.



Features

- One coil fits all valve sizes
- Extended ends for easy installation (standard)
- Long-life molded coils
- PTFE O-ring for superior external sealing

Options

- SAE or ODF connection sizes in 1/4" and 3/8", 1/4" NPTF

Specifications

- Maximum fluid temperature: 250°F
- Maximum working pressure: 500 psig
- MOPD: 300 psig
- UL/CUL file number: MP 604

NOTE: Mounting enclosing tube more than off vertical up position is not recommended.

Nomenclature example: 100RB 2F2 VLC

100R	B	2	F	2	VLC
Valve Series	Design Series	Port Size (in 1/16")	Connection Type F = SAE S = ODF P = NPTF	Connection Size (in 1/8")	Coil*

*NOTE: Valves are shipped without the solenoid coils (VLC = Valve Less Coil). For available coil assemblies, see page 114.

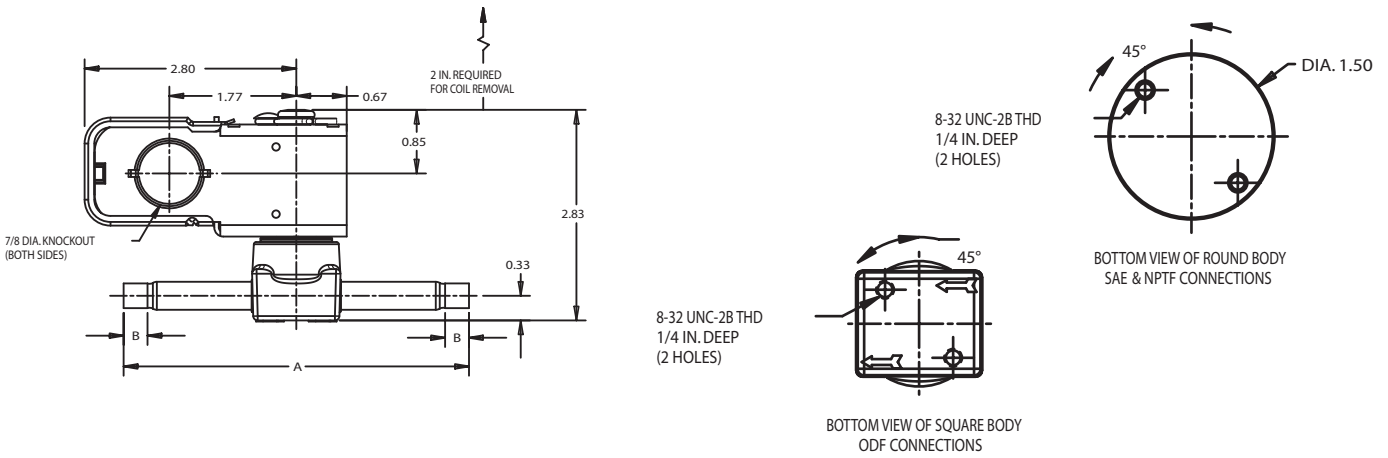
Ordering Information and Nominal* Liquid Capacity Table – Tons (kW)

PCN	Product Description	Connection Size	R-12	R-134a	R-22	R-407C	R-404A/R-507	R-502
047503	100RB 2S2 VLC	1/4" ODF						
047504	100RB 2S3 VLC	3/8" ODF						
047505	100RB 2S4 VLC	1/2" ODF						
047500	100RB 2F2 VLC	1/4" SAE	1.0 (3.5)	1.2 (4.2)	1.27 (4.5)	1.21 (4.3)	.85 (3.0)	.83 (2.9)
047501	100RB 2F3 VLC	3/8" SAE						
047502	100RB 2P2 VLC	1/4" NPTF						

Capacities based on 100°F liquid and 40°F saturated evaporator per ARI standard 760-87.

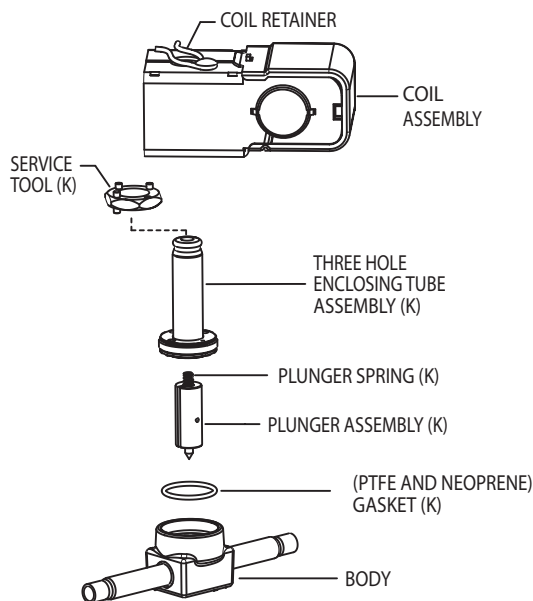
*See Extended Capacity Tables for ratings at a wide range of conditions.

100RB Dimensional Data (in)



VALVE	CONNECTION SIZE	A	B
100RB 2S2 VLC	1/4 ODF	4.63	0.31
100RB 2S3 VLC	3/8 ODF	4.63	0.31
100RB 2S4 VLC	1/2 ODF	4.63	0.38
100RB 2F2 VLC	1/4 SAE	3.10	-
100RB 2F3 VLC	3/8 SAE	3.47	-
100RB 2P2 VLC	1/4 NPTF	1.56	-

100RB Exploded View & Parts Kit Data



Valve Repair Kit

"K" indicates part is supplied in valve repair kit **KS30112** (PCN 049191)
 Note: Universal (2/3 hole) spanner wrench X11981-1 (PCN 027451) included in complete valve kit.

Coil Assembly

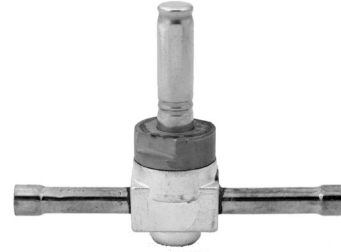
For available coil assemblies, see page 114.

Parts Kit

KG-10041 PCN: 054812
 (Contains 12 pieces each of PTFE and neoprene O-rings.)

200RB Solenoid Valves

The 200RB is a pilot-operated, 2-way, normally closed valve. 200RB valves are used for liquid, discharge, or suction gas refrigerant service.



Features

- One coil fits all valve sizes
- Extended ends for easy installation (standard)
- Long-life molded coils
- PTFE O-ring for superior external sealing

Options

- Can be converted for bi-flow applications
- Available in 8 orifice sizes
- Manual stem or mounting stud
- Bi-Flow operation-conversion either factory assembled or with kit

Specifications

- Maximum fluid temperature: 250°F
- Maximum working pressure: 500 psig
- MOPD: 300 psig
- UL/CUL file number: MP604

NOTE: Mounting enclosing tube more than 90° off vertical up position is not recommended.

Nomenclature example: 200RB 4T3M VLC

200R	B	4	T	3	M	VLC
Valve Series	Design Series	Port Size (in 1/16")	Connection Type F = SAE S = ODF P = NPTF T = Copper Extended Ends	Connection Size (In 1/8")	M = manual stem T = mounting stud (optional)	Coil*

*NOTE: Valves are shipped without the solenoid coils (VLC = Valve Less Coil). For available coil assemblies, see page 114.

Ordering Information and Nominal* Liquid Capacity Table – Tons (kW)

PCN			Description	Connection Size	R-12	R-134a	R-22	R-407C	R-404A/R-507	R-502
Standard Valve	Mounting Stud ¹	Manual Stem ²								
053104	--	N/A	200RB 2 F 2	1/4 SAE	2.4 (8.7)	2.9 (10.4)	3.1 (11.0)	2.9 (10.3)	2.1 (7.4)	2.0 (7.1)
062611	--	N/A	200RB 2 F 3	3/8 SAE						
053105	053236	N/A	200RB 2 T 2	1/4 ODF						
053106	054170	N/A	200RB 2 T 3	3/8 ODF	3.7 (13.0)	4.4 (15.6)	4.8 (17.0)	4.5 (16.0)	3.2 (11.3)	3.1 (11.0)
052725	--	--	200RB 3 F 2	1/4 SAE						
052726	056438	--	200RB 3 F 3	3/8 SAE						
052727	055855	--	200RB 3 F 4	1/2 SAE	4.4 (15.6)	5.3 (18.6)	5.6 (19.8)	5.3 (18.8)	3.7 (13.1)	3.6 (10.6)
049608	--	--	200RB 3 T 2	1/4 ODF						
049609	049585	065620	200RB 3 T 3	3/8 ODF						
049692	--	065621	200RB 3 T 4	1/2 ODF	6.5 (23.0)	6.4 (22.7)	8.2 (29.0)	7.8 (27.6)	5.4 (19.1)	5.3 (18.8)
047506	047508	047507	200RB 4 F 3	3/8 SAE						
059728	047510	047509	200RB 4 P 3	3/8 NPTF						
047511	047513	047512	200RB 4 S 3	3/8 ODF X 1/2 ODM	6.4 (22.7)	7.8 (27.7)	10.0 (35.4)	9.5 (33.6)	6.5 (23.0)	6.5 (23.0)
047516	047515	047514	200RB 4 S 4	1/2 ODF X 5/8 ODM						
047517	049162	049186	200RB 4 T 3	3/8 ODF						
047518	049163	049187	200RB 4 T 4	1/2 ODF	12.2 (43.4)	14.8 (52.5)	15.6 (55.2)	14.8 (52.4)	10.3 (36.5)	10.1 (35.8)
058950	058045	056518	200RB 4 T 5	5/8 ODF						
047519	047521	047520	200RB 5 F 4	1/2 SAE						
059729	047523	047522	200RB 5 F 5	5/8 ODF	6.4 (22.7)	7.8 (27.7)	10.0 (35.4)	9.5 (33.6)	6.5 (23.0)	6.5 (23.0)
047524	047526	047525	200RB 5 S 4	1/2 ODF X 5/8 ODM						
049201	047528	047527	200RB 5 S 5	5/8 ODF						
061227	054323	--	200RB 5 T 3	3/8 ODF	18.2 (65.6)	22.0 (78.0)	23.3 (92.5)	22.2 (78.6)	15.3 (54.2)	15.1 (53.0)
057206	049164	049188	200RB 5 T 4	1/2 ODF						
059730	049165	049189	200RB 5 T 5	5/8 ODF						
059731	047531	047530	200RB 6 F 4	1/2 SAE	24.0 (85.0)	28.9 (102.3)	30.5 (108.0)	29.0 (103.0)	20.1 (71.1)	19.8 (70.1)
059732	047534	047533	200RB 6 F 5	5/8 SAE						
059733	047536	047535	200RB 6 P 3	3/8 NPTF						
047537	047539	047538	200RB 6 S 4	1/2 ODF X 5/8 ODM	27.6 (97.6)	33.2 (117.5)	34.9 (124.0)	33.2 (128.0)	23.0 (81.4)	22.7 (80.4)
047540	047542	047541	200RB 6 S 5	5/8 ODF						
047544	047546	047545	200RB 6 T 4	1/2 ODF						
056766	047548	047547	200RB 6 T 5	5/8 ODF	12.2 (43.4)	14.8 (52.5)	15.6 (55.2)	14.8 (52.4)	10.3 (36.5)	10.1 (35.8)
064037	--	--	200RB 7 S 5	5/8 ODF X 7/8 ODM						
064062	--	--	200RB 7 T 4	1/2 ODF						
064063	064562	064267	200RB 7 T 5	5/8 ODF	18.2 (65.6)	22.0 (78.0)	23.3 (92.5)	22.2 (78.6)	15.3 (54.2)	15.1 (53.0)
064282	064284	064283	200RB 7 T 7	7/8 ODF						
064762	064764	064763	200RB 9 T 5	5/8 ODF						
064645	064766	064765	200RB 9 T 7	7/8 ODF	24.0 (85.0)	28.9 (102.3)	30.5 (108.0)	29.0 (103.0)	20.1 (71.1)	19.8 (70.1)
064767	064769	064768	200RB 9 T 9	1 1/8 ODF						
064818	064820	064819	200RB 12 T 7	7/8 ODF						
064821	064823	064822	200RB 12 T 9	1 1/8 ODF	27.6 (97.6)	33.2 (117.5)	34.9 (124.0)	33.2 (128.0)	23.0 (81.4)	22.7 (80.4)

¹ Add "T" to the end of description for Mounting Stud

² Add "M" to the end of the description for Manual Stem

*Capacities based on 100°F liquid and 40°F saturated evaporator per ARI standard 760-87.

² See Extended Capacity Tables for ratings at a wide range of conditions.

Thermal Expansion Valves
 Solenoid Valves
 Coils
 Industrial Solenoid Valves
 Shut Off Valves
 System Protectors
 Oil Controls
 Pressure Regulators
 Temperature Pressure Controls
 Competitive Cross Reference

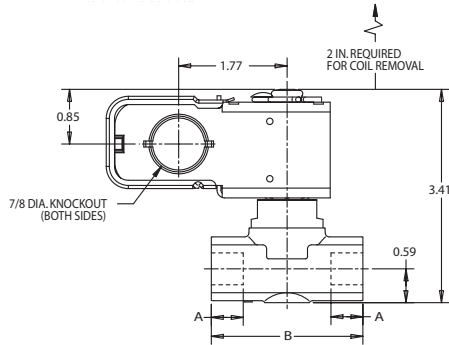
Ordering Information and Nominal Liquid Capacity Table for 200RB Bi-Flow Solenoids - Tons (kW)

PCN			Description	Connection Size	R-12	R-134a	R-22	R-407C	R-404A/R-507	R-502
Standard Valve	Mounting Stud	Manual Stem								
009689	--	--	200RB GS-1925 3 T 3	3/8 ODF	3.7 (13.0)	4.4 (15.6)	4.8 (17.0)	4.5 (16.0)	3.2 (11.3)	3.1 (11.0)
009690	--	--	200RB GS-1926 4 T 3	3/8 ODF	4.4 (15.6)	5.3 (18.6)	5.6 (19.8)	5.3 (18.8)	3.7 (13.1)	3.6 (12.7)
009692	--	--	200RB GS-1928 5 T 4	1/2 ODF	6.5 (23.0)	7.8 (27.7)	8.2 (29.0)	7.8 (27.6)	5.4 (19.1)	5.3 (18.8)
009693	--	--	200RB GS-1929 5 T 5	5/8 ODF	7.8 (27.7)	9.4 (33.4)	10.0 (35.4)	9.5 (33.6)	6.5 (23.0)	6.5 (23.0)
009694	--	--	200RB GS-1930 6 T 5	5/8 ODF	7.8 (27.7)	9.4 (33.4)	10.0 (35.4)	9.5 (33.6)	6.5 (23.0)	6.5 (23.0)

200RB Without Extended Ends

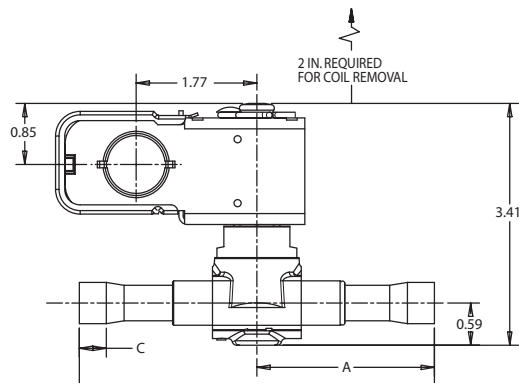
Valve	Port Size	Conn. Size & Style	A	B
200RB 4P2	1/4	1/4 NPTF	0.50	2.37
200RB 4P3		3/8 NPTF		
200RB 4S3		3/8 ODF x 1/2 ODM		
200RB 4S4		1/2 ODF x 5/8 ODM		
200RB 4F3	5/16	3/8 SAE (male flare)	0.56	2.37
200RB 5P3		3/8 NPTF		
200RB 5S4		1/2 ODF x 5/8 ODM		
200RB 5S5		5/8 ODF		
200RB 5F4	3/8	1/2 SAE (male flare)	0.56	2.37
200RB 5F5		5/8 SAE (male flare)		
200RB 6P3		3/8 NPTF		
200RB 6S4		1/2 ODF x 5/8 ODM		
200RB 6S5	3/8	5/8 ODF	0.56	2.37
200RB 6F4		1/2 SAE (male flare)		
200RB 6F5		5/8 SAE (male flare)		

200RB2-6 Dimensional Data (in)

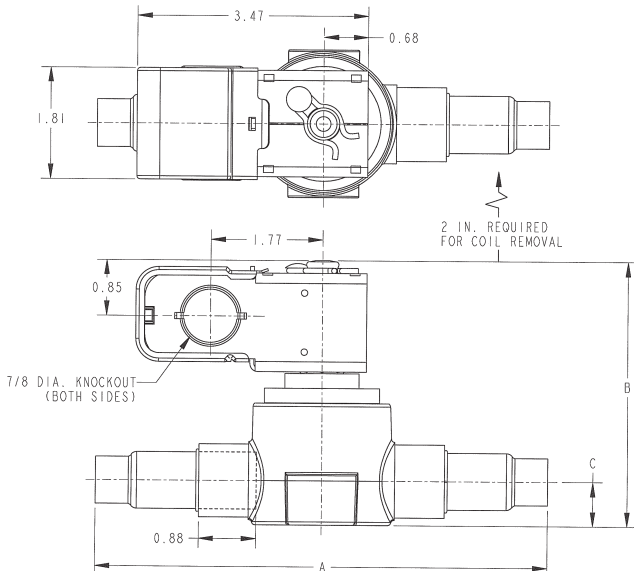


200RB With Extended Ends

Valve	Port Size	Conn. Size & Style	A	B	C
200RB 2T2	1/8	1/4 ODF	2.42	4.62	0.25
200RB 2T3		3/8 ODF			0.31
200RB 3T2	3/16	1/4 ODF	2.50	5.00	0.25
200RB 3T3		3/8 ODF			0.31
200RB 3T4	1/4	1/2 ODF	2.31	4.62	0.38
200RB 4T4		5/8 ODF			0.50
200RB 4T5	5/16	3/8 ODF	2.50	5.00	0.31
200RB 5T4		1/2 ODF			0.38
200RB 5T5	3/8	5/8 ODF	2.31	4.62	0.50
200RB 6T3		3/8 ODF			0.31
200RB 6T4	3/8	1/2 ODF	2.50	5.00	0.38
200RB 6T5		5/8 ODF			0.50

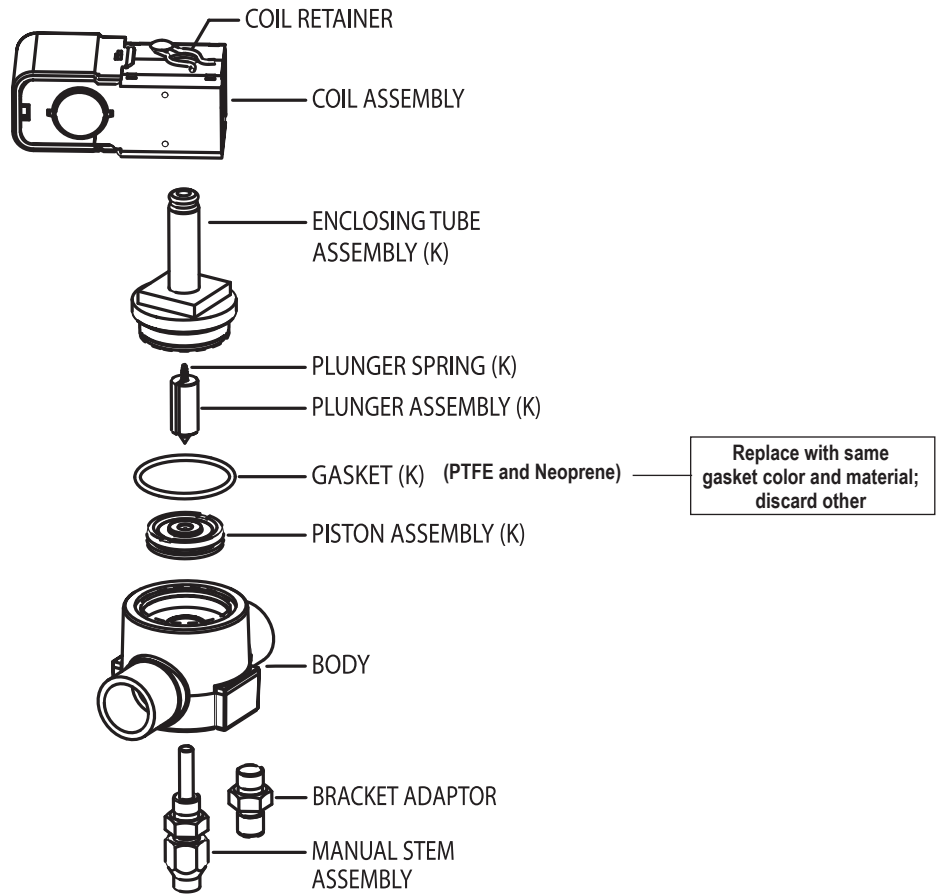


200RB7, 9 and 12 Dimensional Data (in)



VALVE	Port Size	Conn. Size & Style	A	B	C
200RB7S5	7/16	5/8 ODF x 7/8 ODM	2.98	3.69	0.53
200RB7T5		5/8 ODF x 5/8 ODF	6.88		
200RB7T7		7/8 ODF x 7/8 ODF	7.13		
200RB9T5	9/16	5/8 ODF x 5/8 ODF	6.88	4.05	0.68
200RB9T6		3/4 ODF x 3/4 ODF	7.38		
200RB9T7		7/8 ODF x 7/8 ODF	7.13		
200RB9T9	3/4	1 1/8 ODF x 1 1/8 ODF	8.50	4.05	0.68
200RB12T7		7/8 ODF x 7/8 ODF	7.50		
200RB12T9		1 1/8 ODF x 1 1/8 ODF	8.50		

200RB Exploded View & Parts Kit Data



Valve Repair Kit
 "K" indicates part is supplied in valve repair kit
KS30115.(PCN 049194)

Gasket Kit
 Gasket Kit **KG10025** (PCN 049190)
 (contains 12 pieces - each of
 PTFE and neoprene O-rings)

Coil Assembly
 For available coil assemblies, see page 114.

200RB Valve Kits

Valve	Complete Kit	PCN	Manual Opening Kit	PCN	Bi-Flow Kit	PCN	Gasket Kit	PCN
200RB2	KS30115	049194	N/A	N/A	KS30293	056431	KG10025	049190
200RB3	KS30115	049194	KS30377	065695	KS30293	056431	KG10025	049190
200RB4	KS30115	049194	KS30117	053959	KS30293	056431	KG10025	049190
200RB5	KS30115	049194	KS30117	053959	KS30293	056431	KG10025	049190
200RB6	KS30115	049194	KS30117	053959	KS30293	056431	KG10025	049190
200RB7	KS30354	064263	KS30361	064831	N/A	N/A	KG00002	064262
200RB9	KS30362	064825	KS30364	064832	N/A	N/A	KG00003	064930
200RB12	KS30365	064826	KS30364	064832	N/A	N/A	KG00004	064833

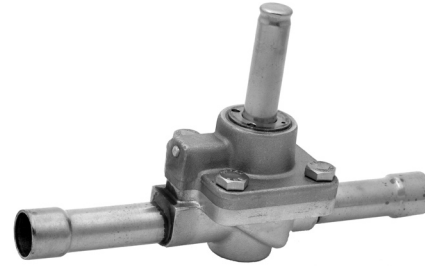
200RB Bi-Flow Conversion

Standard 200RB uni-directional valves can be converted to Bi-Flow operation by replacing the internal parts with the components in kit KS30293 (PCN 056431). Unlike the standard valve which permits flow in one direction only when energized, the Bi-Flow version allows the valve to flow in either direction, depending on differential pressures, when energized. If the valve is not energized when flowing in the reverse direction, valve "flutter" will occur. Also, with the valve de-energized, a higher downstream pressure than upstream (back-flow) will force the valve open.

NOTE: A 200RB7, 200RB9 and 200RB12 cannot be converted to a Bi-Flow valve.

240RA Solenoid Valves

The 240RA is a 2-way, normally closed diaphragm valve. 240RA valves are used for liquid, suction, and hot gas service.



Features

- One coil fits all valve sizes
- Can be brazed into the line without disassembly
- Reinforced PTFE diaphragm with woven fiberglass for high temperature applications
- Extended ends for easy installation (standard)
- Long-life molded coils
- Mounting stud models can be field converted to manual stem

Specifications

- Maximum fluid temperature: 250°F
- Maximum working pressure: 500 psig
- MOPD: 300 psig
- UL/CUL file number: MP604

Options

- Manual stem or mounting stud

NOTE: Mounting enclosing tube more than 90° off vertical up position is not recommended.

Nomenclature example: 240RA 8T5M VLC

240R	A**	8	T	5	M	VLC
Valve Series	Design Series	Port Size (in 1/16")	Connection Type T = copper extended ends	Connection Size (in 1/8")	M = manual stem T = mounting stud (optional)	Coil*

* NOTE: Valves are shipped without the solenoid coils (VLC = Valve Less Coil). For available coil assemblies, see page 114.

**NOTE: Letter "H" is no longer used since all 240RA valves now contain the high temperature diaphragm for hot gas.

Ordering Information and Nominal* Liquid Capacity Table – Tons (kW)

PCN			Description	Connection Size	R-12	R-134a	R-22	R-407C	R-404A/R-507	R-502
Standard Valve	Mounting Stud ¹	Manual Stem ²								
060374	040846	040845	240RA 8 T 5	5/8 ODF	12.2 (43.4)	14.8 (52.5)	15.6 (55.2)	14.8 (52.4)	10.3 (36.5)	10.1 (35.0)
060375	044860	045753	240RA 8 T 7	7/8 ODF						
060376	040848	040847	240RA 9 T 5	5/8 ODF	18.2 (64.6)	22.0 (78.0)	23.3 (82.5)	22.1 (78.2)	15.3 (54.2)	15.1 (53.5)
060377	043205	043204	240RA 9 T 7	7/8 ODF						
060378	044861	045752	240RA 9 T 9	1 1/8 ODF	24.0 (85.0)	28.9 (102.3)	30.5 (108.0)	29.0 (103.0)	21.0 (71.1)	19.8 (70.1)
060379	040850	040849	240RA 12 T 7	7/8 ODF						
060380	043959	045549	240RA 12 T 9	1 1/8 ODF	27.6 (97.6)	33.2 (117.5)	34.9 (124.0)	33.2 (118.0)	23.0 (81.4)	22.7 (80.4)
060381	042549	042548	240RA 16 T 9	1 1/8 ODF						
060382	044428	044788	240RA 16 T 11	1 3/8 ODF	37.3 (132.0)	55.1 (195.1)	58.0 (205.0)	55.2 (195.0)	38.3 (135.0)	37.3 (133.0)
060383	047761	046636	240RA 20 T 11	1 3/8 ODF						
060384	047747	046637	240RA 20 T 13	1 5/8 ODF	58.8 (208.0)	86.8 (307.4)	95.4 (338.0)	90.8 (321.0)	65.7 (230.0)	62.0 (219.0)
060385	054297	046638	240RA 20 T 17	2 1/8 ODF						

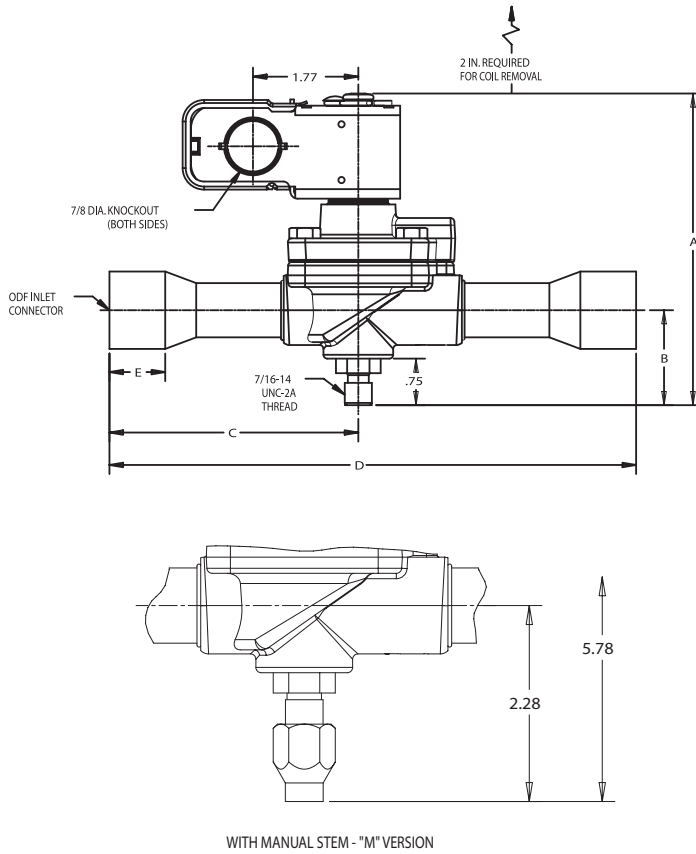
¹ Add "T" to the end of description for Mounting Stud

² Add "M" to the end of the description for Manual Stem

Capacities based on 100°F liquid and 40°F saturated evaporator per ARI standard 760-87.

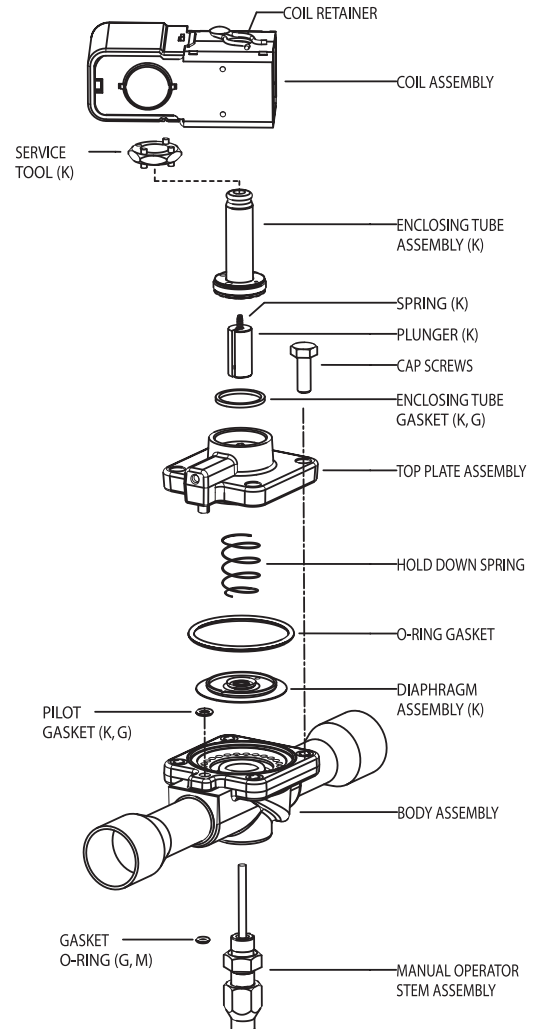
*See Extended Capacity Tables for ratings at a wide range of conditions.

240RA Dimensional Data (in)



Valve	Port Size	Conn. Size	A	B	C	D	E
240RA8T5T	1/2	5/8 ODF	4.80	1.34	3.28	6.88	0.50
240RA8T5M			5.28	1.83			
240RA8T7T			4.80	1.34			
240RA8T7M	9/16	7/8 ODF	5.28	1.83	3.41	7.13	0.75
240RA9T5T			5.08	1.50	3.20	6.88	0.50
240RA9T5M			5.56	2.08	3.33	7.13	0.75
240RA9T7T	5.08	1.50					
240RA9T7M	5.56	2.08					
240RA9T9T	3/4	1-1/8 ODF	5.08	1.50	4.02	8.50	0.91
240RA9T9M			5.56	2.08			
240RA12T7T			5.08	1.50	3.52	7.50	0.75
240RA12T7M	5.56	2.08					
240RA12T9T	5.08	1.50					
240RA12T9M	1	1-1/8 ODF	5.56	2.08	4.02	8.50	0.91
240RA16T9T			5.34	1.66	4.13	9.06	0.97
240RA16T9M			5.80	2.23			
240RA16T11T	5.34	1.66					
240RA16T11M	1-1/4	1-3/8 ODF	5.80	2.23	5.13	11.06	0.97
240RA20T11T			5.45	1.31	5.11	10.81	1.09
240RA20T11M			6.47	2.33			
240RA20T13T	5.45	1.31					
240RA20T13M	2-1/8 ODF	2-1/8 ODF	6.47	2.33	5.89	12.38	1.09
240RA20T17T			5.45	1.31	6.58	13.75	1.34
240RA20T17M			6.47	2.33			

240RA Exploded View & Parts Kit Data



240RA Valve Kits

Valve	Complete Kit	PCN	Manual Opener Kit	PCN
240RA8	KS30321	060626	KS30066	044657
240RA9	KS30322	060627	KS30067	044658
240RA12	KS30323	060628	KS30067	044658
240RA16	KS30324	060629	KS30068	044491
240RA20	KS30325	060630	KS30098	047723

Gasket Kit for all 240RA valves is KG10028 (PCN 054356)

Valve Repair Kit

"K" indicates part is supplied in complete valve repair kit.

Manual Stem Kit

"M" indicates part is supplied in manual stem kit.

Gasket Kit

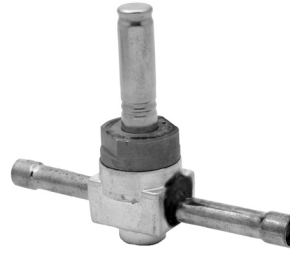
"G" indicates gasket is supplied in gasket kit.
Note: Spanner wrench (X11981-1 service tool) included in complete valve kit.

Coil Assembly

For available coil assemblies, see page 114.

500RB Solenoid Valves

The 500RB is a pilot-operated, 2-way, normally open valve. 500RB valves are used for liquid or discharge gas refrigerant service.



Features

- One coil fits all valve sizes
- Extended ends for easy installation
- Can be positioned in remote locations
- Long-life molded coils
- Low pressure differential required for full opening
- PTFE O-ring for superior external sealing

Specifications

- Maximum fluid temperature: 250°F
- Maximum working pressure: 500 psig
- MOPD: 275 psig
- UL/CUL file number: MP604

NOTE: Mounting enclosing tube more than 90° off vertical up position is not recommended.

NOTE: This valve requires a DM, MM or ASC-Type coil assembly. ASC-Type Coil requires snap cap and cable assembly X28616-1.

Options

- Connection types: SAE, ODF, NPTF and ODF inlet with ODM outlet

Nomenclature example: 500RB 4T3 VLC

500R	B	4	T	3	VLC
Valve Series	Design Series	Port Size (in 1/16")	Connection Type F = SAE T = ODF (copper extended fittings) P = NPTF S = ODF inlet/ODM outlet	Connection Size (in 1/8")	Coil*

* NOTE: Valves are shipped without the solenoid coils (VLC = Valve Less Coil). For available coil assemblies, see page 114.

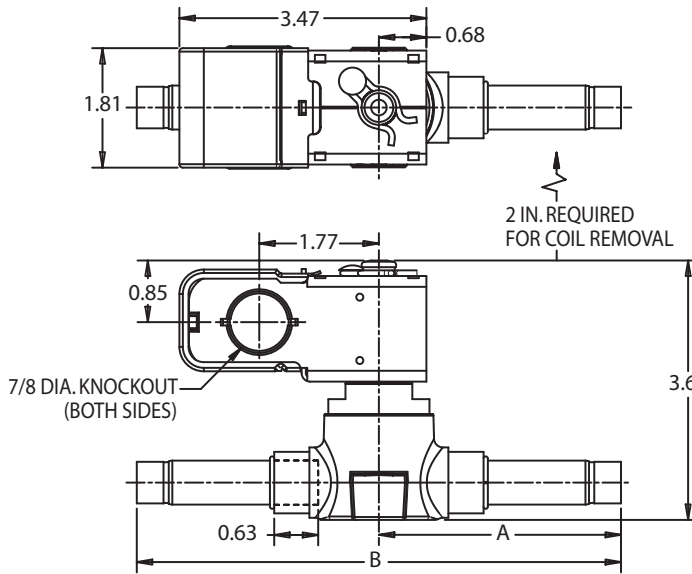
Ordering Information and Nominal* Liquid Capacity Table – Tons (kW)

PCN	Description	Connection Size	R-12	R-134a	R-22	R-407C	R-404A/R-507	R-502						
063274	500RB 2 F 2	1/4 SAE	2.4 (8.7)	2.9 (10.4)	3.1 (11.0)	2.9 (10.3)	2.1 (7.4)	2.0 (7.1)						
063276	500RB 2 F 3	3/8 SAE												
063278	500RB 2 T 2	1/4 ODF												
063280	500RB 2 T 3	3/8 ODF	3.7 (13.0)	4.4 (15.6)	4.8 (17.0)	4.5 (16.0)	3.2 (11.3)	3.1 (11.0)						
063282	500RB 3 F 2	1/4 SAE												
063284	500RB 3 F 3	3/8 SAE												
063286	500RB 3 F 4	1/2 SAE												
063288	500RB 3 T 2	1/4 ODF												
063290	500RB 3 T 3	3/8 ODF												
063292	500RB 3 T 4	1/2 ODF	4.4 (15.6)	5.3 (18.6)	5.6 (19.8)	5.3 (18.8)	3.7 (13.1)	3.6 (12.7)						
063294	500RB 4 F 3	3/8 SAE												
063296	500RB 4 P 2	1/4 NPTF												
063298	500RB 4 P 3	3/8 NPTF												
063300	500RB 4 S 3	3/8 ODF x 1/2 ODM												
063302	500RB 4 S 4	1/2 ODF x 5/8 ODM												
063304	500RB 4 T 2	1/4 ODF												
063306	500RB 4 T 3	3/8 ODF												
063308	500RB 4 T 4	1/2 ODF												
063310	500RB 4 T 5	5/8 ODF												
063312	500RB 5 F 4	1/2 SAE	6.5 (23.0)	7.8 (27.7)	8.2 (29.0)	7.8 (27.6)	5.4 (19.1)	5.3 (18.8)						
063314	500RB 5 F 5	5/8 SAE												
063316	500RB 5 P 3	3/8 NPTF												
063318	500RB 5 S 4	1/2 ODF x 5/8 ODM												
063320	500RB 5 S 5	5/8 ODF												
063322	500RB 5 T 3	3/8 ODF												
063323	500RB 5 T 4	1/2 ODF												
063325	500RB 5 T 5	5/8 ODF												
063327	500RB 6 F 4	1/2 SAE							7.8 (27.7)	9.4 (33.4)	10.0 (35.4)	9.5 (33.6)	6.5 (23.0)	6.5 (23.0)
063329	500RB 6 F 5	5/8 SAE												
063331	500RB 6 P 3	3/8 NPTF												
063333	500RB 6 S 4	1/2 ODF x 5/8 ODM												
063335	500RB 6 S 5	5/8 ODF												
063337	500RB 6 T 3	3/8 ODF												
063339	500RB 6 T 4	1/2 ODF												
063341	500RB 6 T 5	5/8 ODF												
064038	500RB 7 S 5	5/8 ODF x 7/8 ODM	12.2 (43.4)	14.8 (52.5)	15.6 (55.2)	14.8 (52.4)	10.3 (36.5)	10.1 (35.8)						
064064	500RB 7 T 4	1/2 ODF												
064065	500RB 7 T 5	5/8 ODF												

Capacities based on 100°F liquid and 40°F saturated evaporator per ARI standard 760-87.

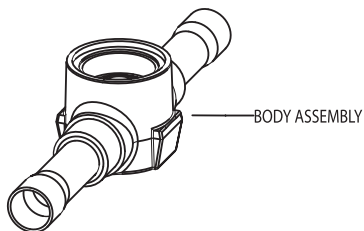
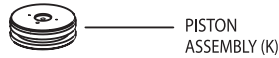
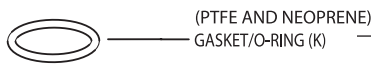
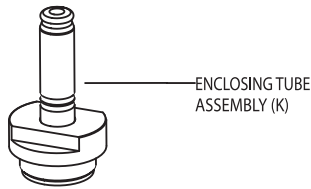
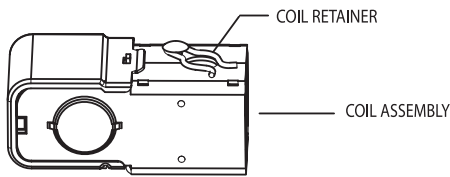
*See Extended Capacity Tables for ratings at a wide range of conditions.

500RB Dimensional Data (in)



*NOTE: Drawing indicates extended copper tube version.

500RB Exploded View & Parts Kit Data



500RB Without Extended Ends

Valve	Port Size	Conn. Size & Style	A	B
500RB 4P2	1/4	1/4 NPTF	-	2.37
500RB 4P3		3/8 NPTF	-	2.37
500RB 4S3		3/8 ODF X 1/2 ODM	0.50	2.37
500RB 4S4		1/2 ODF X 5/8 ODM	0.56	2.37
500RB 4F3	5/16	3/8 SAE (male flare)	-	3.12
500RB 5P3		3/8 NPTF	-	2.37
500RB 5S4		1/2 ODF X 5/8 ODM	0.56	2.37
500RB 5S5		5/8 ODF	-	2.37
500RB 5F4	3/8	1/2 SAE (male flare)	-	3.50
500RB 5F5		5/8 SAE (male flare)	-	3.75
500RB 6P3		3/8 NPTF	-	2.37
500RB 6S4	7/16	1/2 ODF X 5/8 ODM	0.56	2.37
500RB 6S5		5/8 ODF	-	2.37
500RB 6F4		1/2 SAE (male flare)	-	3.50
500RB 6F5		5/8 SAE (male flare)	-	3.75
500RB 7S5		5/8 ODF X 7/8 ODM	0.63	2.98

500RB With Extended Ends

Valve	Port Size	Conn. Size & Style	A	B
500RB 2T2	1/8	1/4 ODF	2.42	4.67
500RB 2T3		3/8 ODF		
500RB 3T2	3/16	1/4 ODF		
500RB 3T3		3/8 ODF		
500RB 3T4		1/2 ODF		
500RB 4T4	1/4	1/2 ODF	2.50	5.00
500RB 4T5		5/8 ODF	3.25	6.50
500RB 5T3	5/16	3/8 ODF	2.31	4.63
500RB 5T4		1/2 ODF	2.50	5.00
500RB 5T5		5/8 ODF	3.25	6.50
500RB 6T3	3/8	3/8 ODF	2.31	4.63
500RB 6T4		1/2 ODF	2.50	5.00
500RB 6T5		5/8 ODF	3.25	6.50
500RB 7T5	7/16	5/8 ODF X 5/8 ODF	-	6.88

Replace with same gasket color and material; discard other

Valve Repair Kit

"K" indicates part is supplied in valve repair kit KS30353

Gasket Kit

Gasket Kit **KG10025 - PCN 049190**
(contains 12 pieces - each of PTFE and Neoprene O-rings).

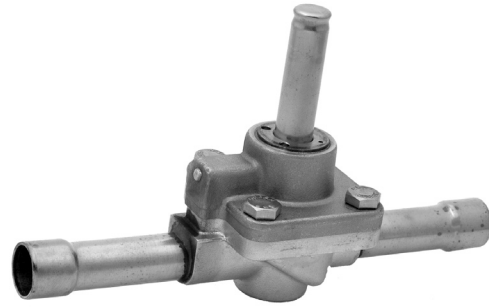
Coil Assembly

DM, MM or ASC-Type style only

Use MagMax style coil for operation on DC voltage.
No other DC coil may be used.

540RA Solenoid Valves

The 540RA is a 2-way, normally open diaphragm valve. 540RA valves are used for liquid, suction and hot gas service.



Features

- Can be brazed into the line without disassembly
- Reinforced PTFE diaphragm with woven fiberglass
- Extended ends for easy installation
- Long-life molded coils
- Low pressure differential required for full opening

Specifications

- Maximum fluid temperature: 250°F
- Maximum working pressure: 500 psig
- MOPD: 250 psig
- UL/CUL file number: MP604

NOTE: Mounting enclosing tube more than 90° off vertical up position is not recommended.

NOTE: This valve requires a DM, MM or ASC-Type coil assembly. ASC-Type Coil requires snap cap and cable assembly X28616-1.

Nomenclature example: 540RA 8T5 VLC

540R	A	8	T	5	VLC
Valve Series	Design Series	Port Size (in 1/16")	Connection Type T = copper extended ends	Connection Size (in 1/8")	Coil*

* NOTE: Valves are shipped without the solenoid coils (VLC = Valve Less Coil). For available coil assemblies, see page 114.

Ordering Information and Nominal* Liquid Capacity Table – Tons (kW)

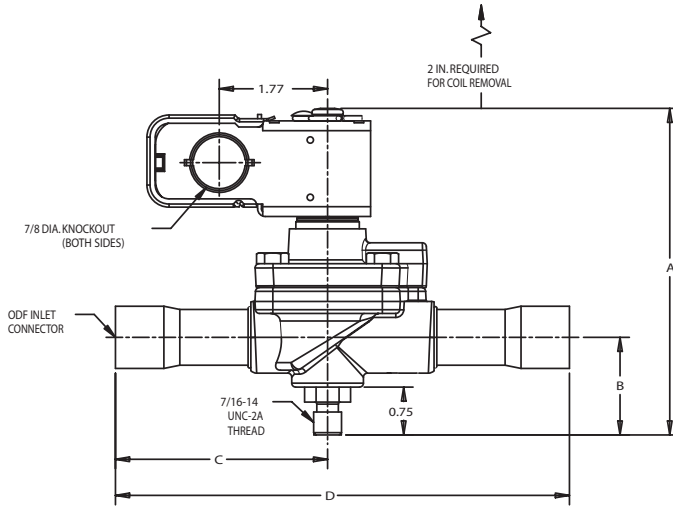
PCN		Description	Connection Size	R-12	R-134a	R-22	R-407C	R-404A/R-507	R-502
Standard Valve	Mounting Stud ¹								
060391	058573	540RA 8 T 4	1/2 ODF	12.2 (43.4)	14.8 (52.5)	15.6 (55.2)	14.8 (52.4)	10.3 (36.5)	10.1 (35.6)
060392	046265	540RA 8 T 5	5/8 ODF						
060393	046989	540RA 8 T 7	7/8 ODF						
060394	046266	540RA 9 T 5	5/8 ODF	18.2 (64.6)	22.0 (78.0)	23.3 (82.5)	22.1 (78.2)	15.3 (54.2)	15.1 (53.4)
060395	046268	540RA 9 T 7	7/8 ODF	24.0 (85.0)	28.9 (102.3)	30.5 (108.0)	29.0 (103.0)	20.1 (71.1)	19.8 (70.1)
060396	047497	540RA 9 T 9	1 1/8 ODF						
060397	046269	540RA 12 T 7	7/8 ODF	27.6 (97.6)	33.2 (117.5)	34.9 (123.0)	33.2 (118.0)	23.0 (81.0)	22.7 (80.0)
060398	047498	540RA 12 T 9	1 1/8 ODF						
060399	046270	540RA 16 T 9	1 1/8 ODF	37.3 (132.0)	55.1 (195.1)	58.0 (205.0)	55.2 (195.0)	38.3 (136.0)	37.7 (133.0)
060400	047214	540RA 16 T 11	1 3/8 ODF						
060401	047953	540RA 20 T 11	1 3/8 ODF	58.8 (208.0)	86.8 (307.4)	95.4 (338.0)	90.8 (321.0)	65.7 (233.0)	62.0 (219.0)
060402	047954	540RA 20 T 13	1 5/8 ODF						
060403	047955	540RA 20 T 17	2 1/8 ODF						

¹ Add "T" to the end of description for Mounting Stud

Capacities based on 100°F liquid and 40°F saturated evaporator per ARI standard 760-87.

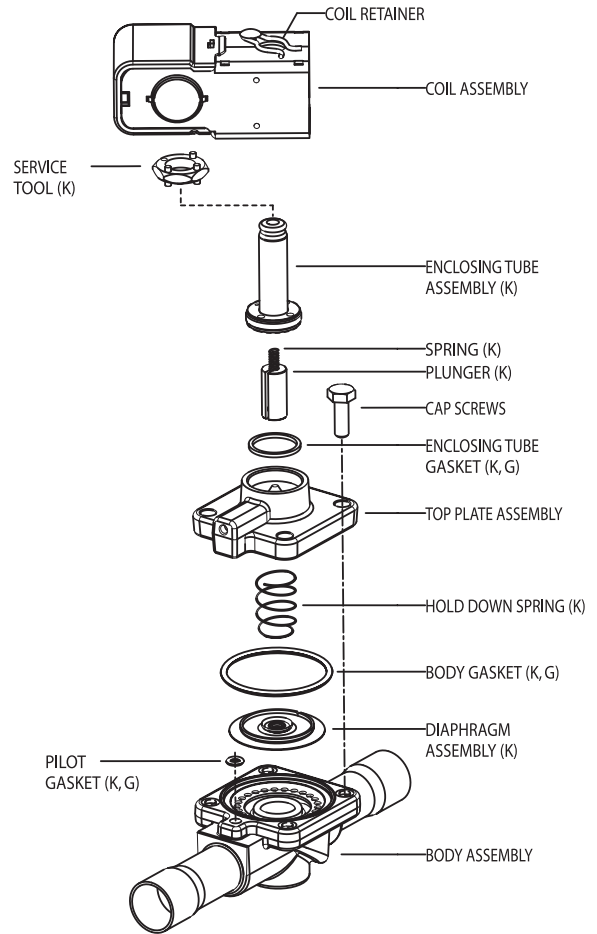
*See Extended Capacity Tables for ratings at a wide range of conditions.

540RA Dimensional Data (in)



Valve	Port Size	Conn. Size	A	B	C	D
540RA8T5-T	1/2	5/8ODF	4.80	1.34	3.28	6.88
540RA8T7-T		7/8ODF			3.41	7.13
540RA9T5-T	9/16	5/8ODF	5.08	1.50	3.20	6.88
540RA9T7-T		7/8ODF			3.33	7.13
540RA9T9-T	3/4	1 1/8ODF	5.34	1.66	4.02	8.50
540RA12T7-T		7/8ODF			3.52	7.50
540RA12T9-T	1	1 1/8ODF	5.45	1.31	4.02	8.50
540RA16T9-T		7/8ODF			4.25	9.06
540RA16T11-T	1-1/4	1 3/8ODF	5.34	1.66	5.25	11.06
540RA20T11-T		1 3/8ODF			5.11	10.81
540RA20T13-T	1-1/4	1 5/8ODF	5.45	1.31	5.89	12.38
540RA20T17-T		2 1/8ODF			6.58	13.75

540RA Exploded View & Parts Kit Data



540RA Valve Kits

Valve	Kit #	PCN
540RA8	KS30328	060633
540RA9	KS30329	060634
540RA12	KS30330	060635
540RA16	KS30331	060636
540RA20	KS30332	060637

Gasket Kit for all 540RA valves is KG10028 (PCN 054356)

Valve Repair Kit

"K" indicates part is supplied in complete valve repair kit.

Gasket Kit

"G" indicates gasket is supplied in gasket kit.

Note: Spanner wrench (X11981-1 service tool) used to remove and replace enclosing tube collar, is included in complete valve kit.

Coil Assembly

For available coil assemblies, see page 114.

710/713RA Solenoid Valves

The 710/713RA are 2-way, diaphragm valves. The 710RA is a normally closed valve. The 713RA is a normally open valve. These valves are used for liquid pressure differential control for gas defrost.



Model	Solenoid	Operation
710	De-Energized	Differential Mode
	Energized	Full Open
713	De-Energized	Full Open
	Energized	Differential Mode

Features

- Differential adjustable from 8-40 psi
- Angle style construction eliminates the need for an elbow fitting at the liquid header
- Long-life molded coils
- These valves eliminate the need for an external check valve and the associated piping needed on supermarket racks with gas defrost
- Can be brazed into the line without disassembly

Specifications

- Maximum fluid temperature: 250°F
- Maximum working pressure: 500 psig
- MOPD (710): 300 psig
- MOPD (713): 250 psig
- UL/CUL file number: MP604

NOTE: Mounting enclosing tube more than 90° off vertical up position is not recommended.

NOTE: All valves require AM coil except 710RA24 valves which require either an AMCN/AMGN or ASC2 coil.

Nomenclature example: 710RA 16T11 VLC

710R	A	16	T	11	VLC
Valve Series	Design Series	Port Size (in 1/16")	Connection Type T = copper entended ends	Connection Size (in 1/8")	Coil*

* NOTE: Valves are shipped without the solenoid coils (VLC = Valve Less Coil). For available coil assemblies, see page 114.

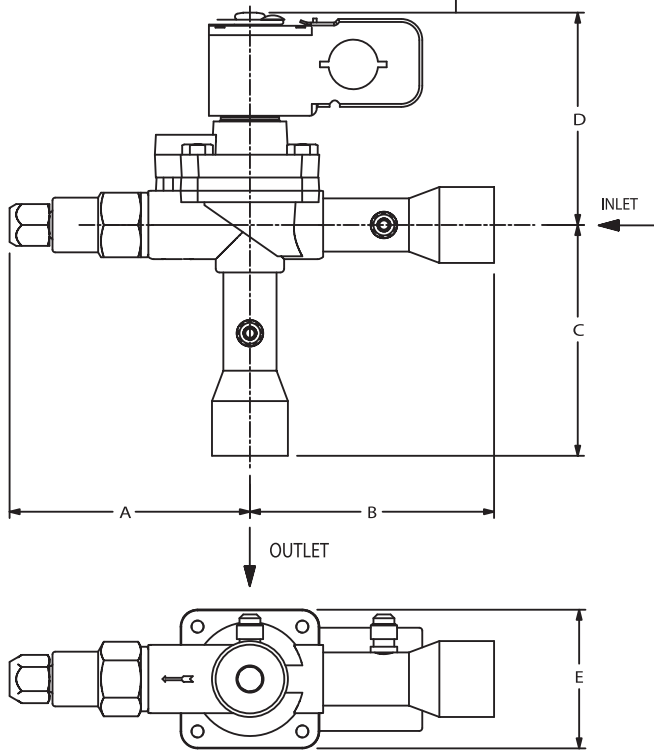
Ordering Information and Nominal* Liquid Capacity Table - Tons (kW)

PCN	Description	Connection Size	R-12	R-134a	R-22	R-407C	R-404A/R-507	R-502
053215	710RA 12 T 9 VLC	1 1/8 ODF	25.3 (89.6)	3.4 (107.6)	32.9 (116)	31.3 (111.0)	21.9 (77.5)	21.4 (75.8)
052825	710RA 16 T 9 VLC	1 1/8 ODF	34.9 (123.5)	42.0 (148.7)	45.4 (161.0)	43.2 (153.0)	30.3 (107.0)	29.5 (104.0)
052915	710RA 16 T 11 VLC	1 3/8 ODF						
048411	710RA 16 T 11-13 VLC	1 3/8 x 1 5/8 ODF						
049901	710RA 20 T 13 VLC	1 5/8 ODF	53.1 (188.0)	64.0 (226.6)	69.6 (246.0)	66.3 (235.0)	46.5 (165.0)	45.2 (160.0)
054153	710RA 24 T 17 VLC	2 1/8 ODF	76.4 (270.5)	92.0 (325.7)	100.0 (354.0)	95.2 (230.0)	66.7 (236.0)	65.0 (230.0)
053099	713RA 16 T 11 VLC	1 3/8 ODF	34.9 (123.5)	42.0 (148.7)	45.4 (161.0)	43.2 (153.0)	30.3 (107.0)	29.5 (104.0)
053220	713RA 20 T 13	1 5/8 x 1 5/8 ODF	53.1 (188.0)	64.0 (226.6)	69.6 (246.0)	66.3 (235.0)	46.5 (165.0)	45.2 (160.0)

Capacities based on 100°F liquid and 40°F saturated evaporator per ARI standard 760-87.

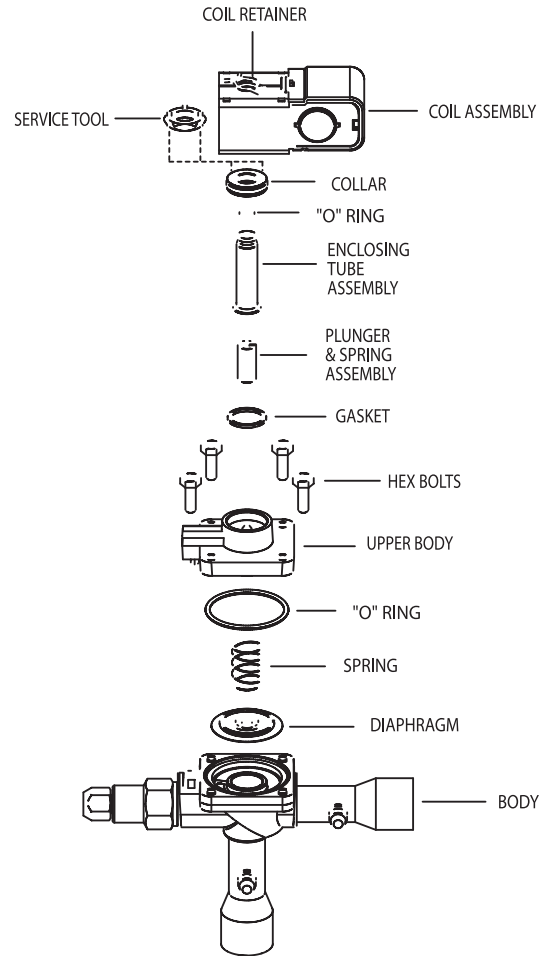
*See Extended Capacity Tables for ratings at a wide range of conditions.

710/713RA Dimensional Data (in)



Valve	Conn. Size	A	B	C	D	E
710/713RA12T9	1-1/8 ODF (1.13)	3.92	4.01	3.56	3.48	2.28
710/713RA12T11	1-3/8 ODF (1.38)		5.29	4.84		
710/713RA16T9	1-1/8 ODF (1.13)	4.56	4.23	3.39	3.73	3.38
710/713RA16T11	1-3/8 ODF (1.38)		5.23	4.39		
710/713RA16T11-13	1-3/8 x 1-5/8 ODF (1.38 x 1.63)			4.38		
710/713RA20T11	1-3/8 (1.38)	4.62	5.09	4.26	4.14	4.06
710RA20T13	1-5/8 (1.63)		5.59	4.76		
710RA24T17	2-1/8 (2.13)	4.59	6.56	5.73	5.46	

710RA Exploded View & Parts Kit Data

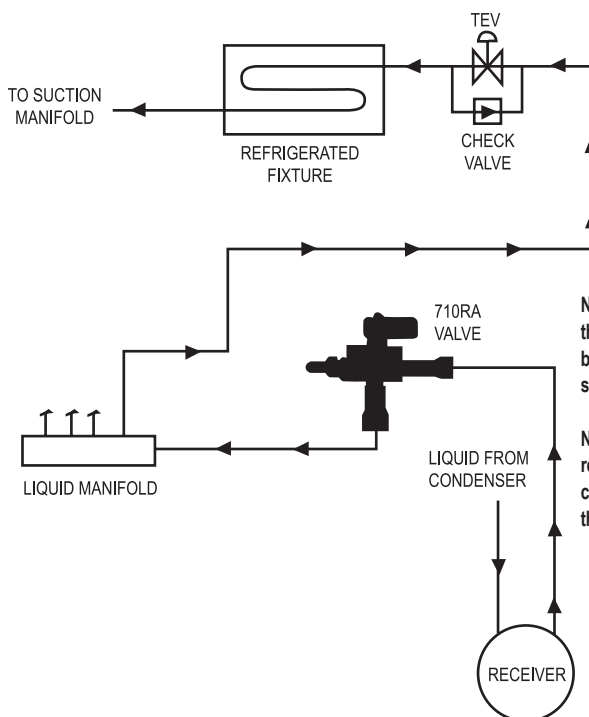


710RA Valve Kits

Valve	Kit #	PCN
710RA12	KS30154	053564
710RA16	KS30155	053565
710RA20	KS30156	053566
710RA24	KS30279	054994
Gasket Kit for all 710RA valves is KG10028		(PCN 054356)

Typical Application

Liquid Pressure Differential Control for Hot Gas Defrost



NOTE: The 710RA and the 713RA valves can not be used as pump-down solenoid valves.

NOTE: The 710RA24 requires a pilot connection between the valve and suction line.

Valve Repair Kit

"K" indicates part is supplied in valve repair kit.

Gasket Kit

"G" indicates part is supplied in gasket kit
KG10028 [PCN-054356].

Note: Spanner wrench (X11981-1 [PCN-027451] service tool) included in complete valve kit.

Coil Assembly

For available coil assemblies, see page 114.

702RA Solenoid Valves

The 702RA is a direct-acting, 3-way, normally open valve. 702RA valves are compatible with all CFC, HCFC and HFC refrigerants. These valves are used in conjunction with externally equalized expansion valves to provide positive shut-off.



Features

- 3-way pilot
- High capacity, less pressure drop, higher system efficiency
- Rugged internal construction with bar stock brass body
- Long-life molded coils
- Rulon seat disc
- Space-saving coil design
- Operates in coil position

Nomenclature example: 702RA 01 VLC

702R	A	01	VLC
Valve Series	Design Series	Port Size (in 1/16")	Coil*

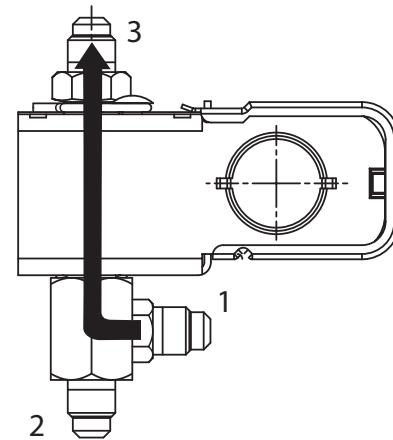
* NOTE: Valves are shipped without the solenoid coils (VLC = Valve Less Coil). For available coil assemblies, see page 114.

Specifications

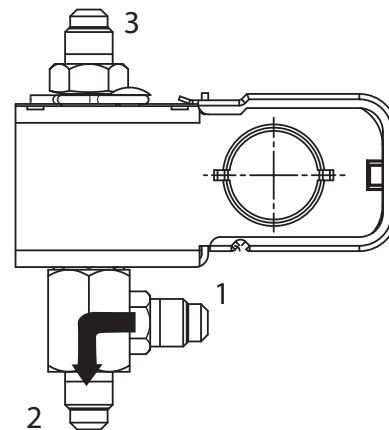
- Maximum fluid temperature: 250° F
- Maximum working pressure: 500 psig
- MOPD: 300 psi

NOTE: 702RA valves require coil type AMGN or ASC-2.

Flow Directional Diagrams

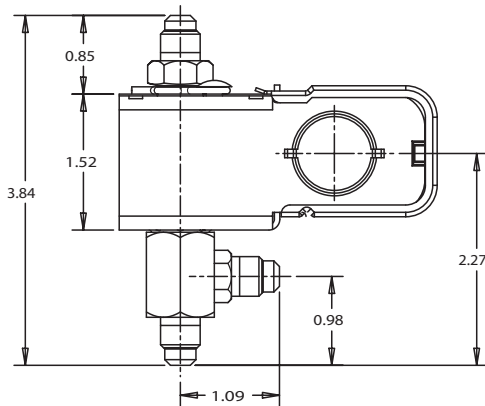


Coil De-Energized



Coil Energized

Dimensional Data (in)



Ordering Information

PCN	Valve	Connection Size	Port Size	Service	Coil Type
029781	702RA01	1/4 SAE MALE FLARE	1/16	Common Refrigerants	AMGN or ASC2

Thermal Expansion Valves
 Solenoid Valves
 Coils
 Industrial Solenoid Valves
 Shut Off Valves
 System Protectors
 Storage Devices
 Oil Controls
 Pressure Regulators
 Temperature Pressure Controls
 Competitive Cross Reference

207CB Solenoid Valves

The 207CB is designed to meet the rugged requirements of ice machine applications. 207CB valves utilize the static pressure of water to periodically drain the ice maker's sump (water dump valve).

Features

- Mounting bracket standard
- Direct acting
- Repair kits

Options

- Three coil orientations (135°, 180°, 225°) 180° is standard
- Four mounting bracket configurations (0°, 90°, 180° and 270°) 0° is standard

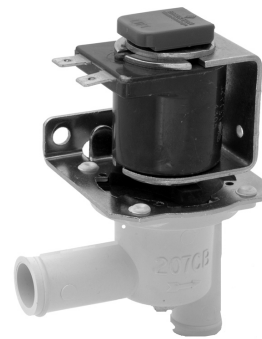
Nomenclature example: 207CB

2	07	C	B
Two-Way Valve	Product Group	Normally Closed	Design Series

* NOTE: Valves are shipped without the solenoid coils (VLC = Valve Less Coil). For available coil assemblies, see page 114.

Ordering Information

PCN	Description
062403	207CB EBS 120/50-60 (1-3)
062404	207CB EBS 208-240/50-60 (1-3)
056520	Coil Retainer
056803	207CB EBS 208-240/50-60 (2-3)
056827	207CB EBS 120/50-60 (2-3)
065985	207CB EBS 120/50-60 (3-3)
065986	207CB EBS 208-240/50-60 (3-3)
065987	207CB EBS 120/50-60 (4-3)
065988	207CB EBS 208-240/50-60 (4-3)

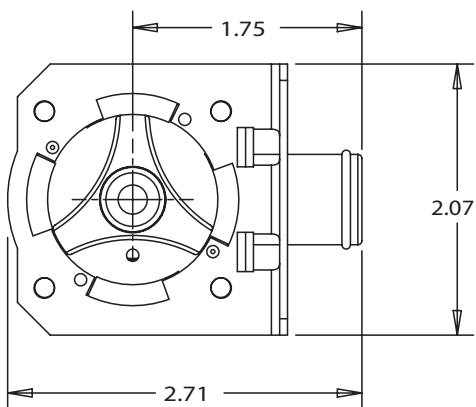


Specifications

- Maximum working pressure: 5 psig
- MOPD: 3 psid
- Flow rating: 5.3 GPM @ 3 psid
- Operating medium: Water
- Maximum fluid temperature: 90°F
- Connections: 11/16" x 5/8"
- Adjustable mrracket: In 90° increments
- National Sanitation Foundation Approved: Meets standard 51
- Weight: 1/4 lb
- Rated for 50% duty at 8 minute cycles

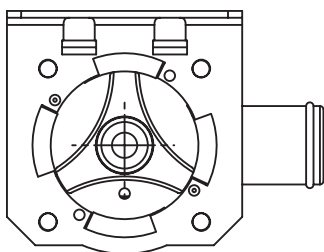
NOTE: The 207 Valve is designed for use with EBS Coil Only.

207CB Dimensional Data (in)

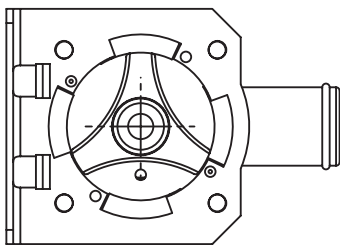


Mounting Bracket

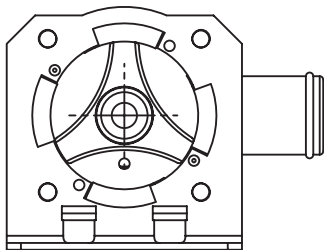
The 207CB's mounting bracket is available in 4 configurations (0°, 90°, 180° and 270°). The standard configuration is 0° (shown here).



Mounting Bracket 90° configuration

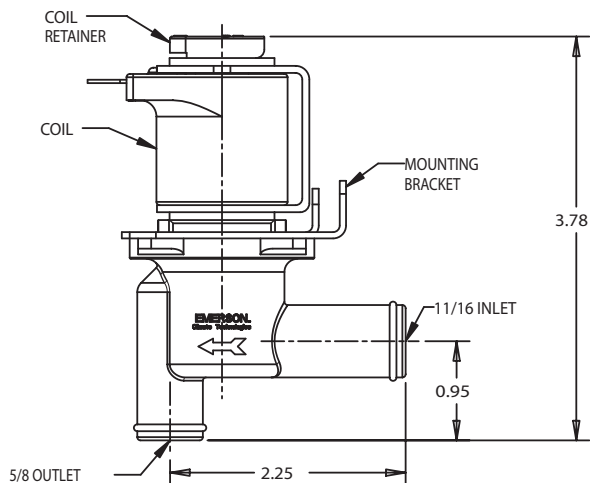


Mounting Bracket 180° configuration

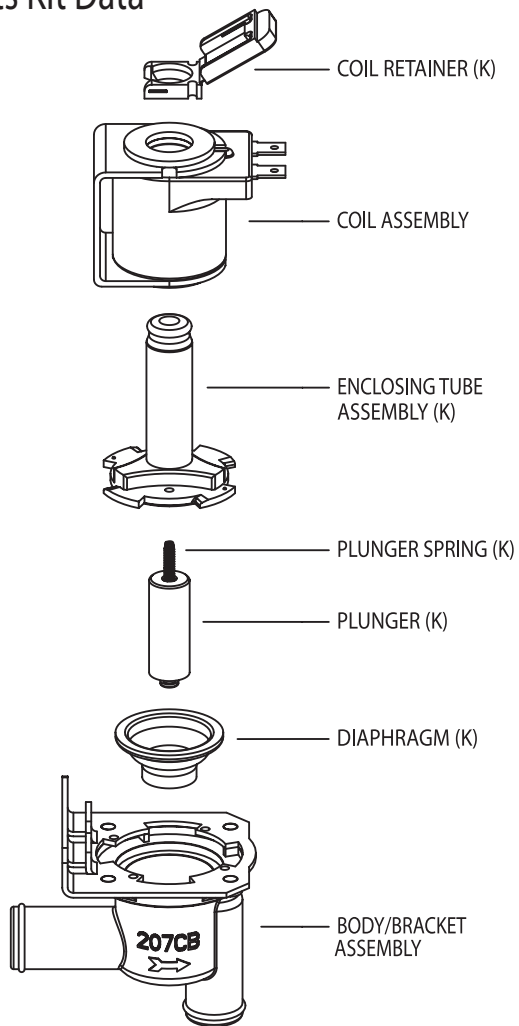


Mounting Bracket 270° configuration

Dimensional Diagram



207CB Exploded View & Parts Kit Data



Repair Parts Kit

K-1292 (PCN-056617) includes:
same as K-1289 less the coil retainer and
enclosing tube assembly.

703RC Unloader Valve

The 703RC is a 3-way unloader valve. 703RC valves are electrically operated for compressor unloading.

Features

- Stainless steel and brass construction
- OEM drop-in replacement

Specifications

- Maximum working pressure: 500 psig
- MOPD: 300 psig
- Drop-in replacement for Copeland Brand Products part number 510-0212-00 (For use on Copeland® brand products 4D, 6D or 8D Compressors)

Nomenclature example: 703RC VLC

703RC	VLC
Valve Series	Coil*

* NOTE: Valves are shipped without the solenoid coils (VLC = Valve Less Coil). For available coil assemblies, see page 114.

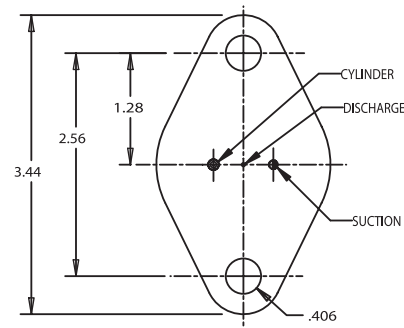
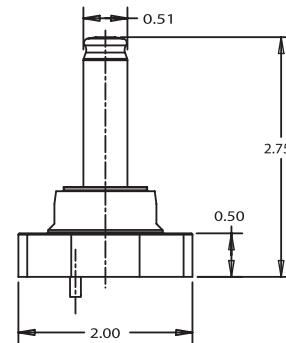
Ordering Information

PCN	Description
065131	703RC-001 AMC 120/50-60
065132	703RC-001 AMC 208-240/50-60
065126	703RC-001 VLC

NOTE: Body gasket not included. Consult compressor manufacturer for body gasket information.



Dimensional Data (in)



Solenoid Suction Gas Capacities

Thermal
Expansion Valves

Solenoid
Valves

Coils

Industrial
Solenoid Valves

Shut Off
Valves

System
Protectors

Storage
Devices

Oil
Controls

Pressure
Regulators

Temperature
Pressure Controls

Competitive Cross
Reference

Tons					
SUCTION GAS CAPACITIES @ 2 PSI PRESSURE DROP					
VALVE SERIES	Evaporator Temperature - F				
	40	20	0	-20	-40
R-12					
200RB 2	0.3	0.3	0.3	0.2	0.1
200RB 3	0.4	0.5	0.4	0.3	0.2
200RB 4	0.4	0.5	0.4	0.3	0.2
200RB 5	0.7	0.9	0.7	0.5	0.3
200RB 6	0.6	0.7	0.6	0.4	0.3
200RB 7	0.9	1.0	0.8	0.6	0.4
200RB 9	2.5	3.1	2.3	1.7	1.0
200RB 12	2.3	2.8	2.2	1.6	1.0
240/540RA8	1.0	0.8	0.6	0.5	0.4
240/540RA9T5	1.3	1.1	0.9	0.7	0.5
240/540RA9T5	1.6	1.3	1.0	0.8	0.6
240/540RA12	2.0	1.6	1.2	1.0	0.7
240/540RA16	3.9	3.2	2.5	1.9	1.5
240/540RA20	5.5	4.5	3.5	2.7	2.1
R-22/R407C					
200RB 2	0.4	0.3	0.2	0.2	0.2
200RB 3	0.5	0.4	0.4	0.3	0.2
200RB 4	0.5	0.4	0.4	0.3	0.3
200RB 5	1.0	0.8	0.7	0.5	0.4
200RB 6	0.9	0.7	0.6	0.4	0.4
200RB 7	1.2	1.0	0.8	0.6	0.5
200RB 9	3.5	2.9	2.3	1.8	1.3
200RB 12	3.2	2.6	2.1	1.7	1.7
240/540RA8	1.5	1.2	1.0	0.8	0.6
240/540RA9T5	2.0	1.6	1.3	1.0	0.8
240/540RA9	2.4	2.0	1.6	1.2	1.0
240/540RA12	2.9	2.4	1.9	1.5	1.2
240/540RA16	5.8	4.7	3.8	3.0	2.3
240/540RA20	8.2	6.7	5.4	4.2	3.3
R-502					
200RB 2	0.3	0.2	0.2	0.2	0.1
200RB 3	0.4	0.4	0.3	0.2	0.2
200RB 4	0.4	0.4	0.3	0.2	0.2
200RB 5	0.8	0.7	0.5	0.4	0.3
200RB 6	0.7	0.6	0.4	0.3	0.3
200RB 7	1.0	0.8	0.6	0.5	0.4
200RB 9	2.8	2.3	1.8	1.4	1.0
200RB 12	2.6	2.1	1.7	1.3	1.3
240/540RA8	1.2	1.0	0.8	0.6	0.4
240/540RA9T5	1.6	1.3	1.0	0.8	0.6
240/540RA9	1.9	1.5	1.2	0.9	0.7
240/540RA12	2.3	1.9	1.4	1.1	0.8
240/540RA16	4.6	3.7	2.9	2.3	1.7
240/540RA20	6.5	5.2	4.1	3.2	2.4
R-134a					
200RB 2	0.3	0.2	0.2	0.1	0.1
200RB 3	0.4	0.3	0.3	0.2	0.1
200RB 4	0.4	0.3	0.4	0.3	0.2
200RB 5	0.8	0.6	0.4	0.3	0.2
200RB 6	0.7	0.5	0.5	0.4	0.3
200RB 7	0.9	0.4	0.6	0.4	0.3
200RB 9	2.7	2.1	1.6	1.2	0.8
200RB 12	2.5	2.0	2.1	1.5	1.0
240/540RA8	0.8	0.6	0.5	0.4	0.3
240/540RA9T5	1.4	1.1	0.8	0.6	0.4
240/540RA9	1.7	1.4	1.1	0.8	0.5
240/540RA12	1.9	1.5	1.2	0.9	0.6
240/540RA16	3.2	2.5	1.9	1.4	1.0
240/540RA20	4.4	3.5	2.7	2.0	1.6
R-404A/R-507					
200RB 2	0.3	0.3	0.2	0.2	0.1
200RB 3	0.5	0.4	0.3	0.2	0.2
200RB 4	0.5	0.4	0.3	0.2	0.2
200RB 5	0.9	0.7	0.5	0.4	0.3
200RB 6	0.7	0.6	0.4	0.3	0.3
200RB 7	1.0	0.8	0.6	0.5	0.4
200RB 9	2.9	2.3	1.8	1.4	1.0
200RB 12	2.7	2.2	1.7	1.3	1.3
240/540RA8	0.9	0.7	0.5	0.4	0.3
240/540RA9T5	1.5	1.2	0.9	0.7	0.5
240/540RA9	1.9	1.5	1.2	0.9	0.6
240/540RA12	2.2	1.8	1.4	1.0	0.8
240/540RA16	3.4	2.7	2.1	1.6	1.2
240/540RA20	4.8	3.8	2.9	2.2	1.6

Kilowatts					
SUCTION GAS CAPACITIES @ 14.0 kPa PRESSURE DROP					
VALVE SERIES	Evaporator Temperature - C				
	4	-7	-18	-29	-40
R-12					
200RB 2	0.9	1.1	0.9	0.6	0.4
200RB 3	1.4	1.7	1.3	0.9	0.6
200RB 4	1.4	1.7	1.3	0.9	0.6
200RB 5	2.6	3.1	2.4	1.8	1.1
200RB 6	2.1	2.6	2.0	1.5	0.9
200RB 7	3.0	3.7	2.8	2.1	1.2
200RB 9	8.9	10.7	8.2	6.1	3.7
200RB 12	8.2	9.8	7.6	5.6	3.4
240/540RA8	3.5	2.8	2.1	1.8	1.4
240/540RA9T5	4.6	3.9	3.2	2.5	1.8
240/540RA9T5	5.6	4.6	3.5	2.8	2.1
240/540RA12	7.0	5.6	4.2	3.5	2.5
240/540RA16	13.7	11.3	8.8	6.7	5.3
240/540RA20	19.3	15.8	12.3	9.5	7.4
R-22/R407C					
200RB 2	1.3	1.1	0.8	0.7	0.5
200RB 3	1.9	1.5	1.2	1.0	0.7
200RB 4	1.9	1.5	1.2	1.0	0.9
200RB 5	3.6	2.9	2.3	1.8	1.3
200RB 6	3.0	2.4	2.0	1.5	1.5
200RB 7	4.2	3.4	2.8	2.2	1.7
200RB 9	12.4	10.1	8.1	6.4	4.6
200RB 12	11.4	9.3	7.5	5.9	6.0
240/540RA8	5.3	4.2	3.5	2.8	2.1
240/540RA9T5	7.0	5.6	4.6	3.5	2.8
240/540RA9T5	8.4	7.0	5.6	4.2	3.5
240/540RA12	10.2	8.4	6.7	5.3	4.2
240/540RA16	20.4	16.5	13.4	10.5	8.1
240/540RA20	28.8	23.6	19.0	14.8	11.6
R-502					
200RB 2	1.1	0.8	0.7	0.5	0.4
200RB 3	1.5	1.2	1.0	0.7	0.6
200RB 4	1.5	1.2	1.0	0.7	0.8
200RB 5	2.8	2.3	1.8	1.4	0.9
200RB 6	2.4	1.9	1.5	1.2	1.1
200RB 7	3.4	2.7	2.1	1.7	1.3
200RB 9	9.9	8.0	6.3	4.9	3.5
200RB 12	9.1	7.3	5.8	4.5	4.6
240/540RA8	4.2	3.5	2.8	2.1	1.4
240/540RA9T5	5.6	4.6	3.5	2.8	2.1
240/540RA9	6.7	5.3	4.2	3.2	2.2
240/540RA12	8.1	6.7	5.1	3.9	2.8
240/540RA16	16.2	13.0	10.2	8.1	6.0
240/540RA20	22.9	18.3	14.4	11.3	8.4
R-134a					
200RB 2	1.0	0.8	0.6	0.5	0.3
200RB 3	1.5	1.2	0.9	0.6	0.4
200RB 4	1.5	1.2	1.3	0.9	0.6
200RB 5	2.7	2.1	1.5	1.1	0.7
200RB 6	2.3	1.8	1.8	1.3	0.9
200RB 7	3.2	1.5	2.0	1.4	1.0
200RB 9	9.5	7.5	5.6	4.0	2.7
200RB 12	8.8	6.9	7.2	5.3	3.6
240/540RA8	2.8	2.1	1.8	1.4	1.1
240/540RA9T5	4.9	3.9	2.8	2.1	1.4
240/540RA9	6.0	4.9	3.9	2.8	1.8
240/540RA12	6.7	5.3	4.2	3.2	2.1
240/540RA16	11.3	8.8	6.7	4.9	3.5
240/540RA20	15.5	12.3	9.5	7.0	5.6
R-404A/R-507					
200RB 2	1.1	0.9	0.7	0.5	0.4
200RB 3	1.6	1.3	1.0	0.7	0.5
200RB 4	1.6	1.3	1.0	0.7	0.8
200RB 5	3.0	2.4	1.8	1.4	0.9
200RB 6	2.5	2.0	1.5	1.2	1.1
200RB 7	3.5	2.8	2.2	1.7	1.2
200RB 9	10.3	8.2	6.4	4.9	3.5
200RB 12	9.5	7.6	5.9	4.5	4.5
240/540RA8	3.2	2.5	1.8	1.4	1.1
240/540RA9T5	5.3	4.2	3.2	2.5	1.8
240/540RA9	6.7	5.3	4.2	3.2	2.1
240/540RA12	7.7	6.3	4.9	3.5	2.8
240/540RA16	12.0	9.5	7.4	5.6	4.2
240/540RA20	16.9	13.4	10.2	7.7	5.6

Solenoid Liquid Capacities

Tons				
LIQUID CAPACITIES				
Pressure Drop Across Valve - psi				
VALVE SERIES	2	3	4	5
R-12				
50RB	0.34	0.42	0.48	0.54
100RB	0.8	1	1.16	1.2
200RB2	2.0	2.4	2.8	3.2
200RB3	3.0	3.7	4.2	4.7
200/500RB4	3.6	4.4	5.1	5.7
200/500RB5	5.3	6.5	7.5	8.4
200/500RB6	6.4	7.8	9.1	10.1
200/500RB7	10.0	12.2	14.1	15.8
200RB9 (5/8)	14.9	18.2	21.1	23.6
200RB9 (7/8, 1 1/2)	19.6	24.0	27.7	31.0
200RB12	22.5	27.6	31.8	35.6
240/540RA8	10.0	12.2	14.1	15.8
240/540RA9T (5/8)	14.9	18.2	21.1	23.6
240/540RA9T (7/8, 1 1/2)	19.6	24.0	27.7	31.0
240/540RA12	22.5	27.6	31.8	35.6
240/540RA16	10.0	12.2	14.1	15.8
240/540RA20	14.9	18.2	21.1	23.6
R-22				
50RB	0.44	0.54	0.62	0.69
100RB	1.04	1.27	1.47	1.64
200RB2	2.5	3.1	3.6	4.0
200RB3	3.9	4.8	5.5	6.2
200/500RB4	4.6	5.6	6.5	7.2
200/500RB5	6.7	8.2	9.5	10.6
200/500RB6	8.2	10.0	11.5	12.9
200/500RB7	12.7	15.6	18.0	20.1
200RB9 (5/8)	19.0	23.3	26.9	30.1
200RB9 (7/8, 1 1/8)	24.9	30.5	35.2	39.4
200RB12	28.5	34.9	40.3	45.1
240/540RA8	12.7	15.6	18.0	20.1
240/540RA9T (5/8)	19.0	23.3	26.9	30.1
240/540RA9T (7/8, 1 1/8)	24.9	30.5	35.2	39.4
240/540RA12	28.5	34.9	40.3	45.1
240/540RA16	47.4	58.0	67.0	74.9
240/540RA20	77.9	95.4	110.2	123.2
R-502				
50RB	0.3	0.35	0.4	0.5
100RB	0.7	0.83	1.0	1.1
200RB2	1.6	2.0	2.3	2.6
200RB3	2.5	3.1	3.6	4.0
200/500RB4	2.9	3.6	4.2	4.6
200/500RB5	4.3	5.3	6.1	6.8
200/500RB6	5.3	6.5	7.5	8.4
200/500RB7	8.2	10.1	11.7	13.0
200RB9 (5/8)	12.3	15.1	17.4	19.5
200RB9 (7/8, 1 1/8)	16.2	19.8	22.9	25.6
200RB12	18.5	22.7	26.2	29.3
240/540RA8	8.2	10.1	11.7	13.0
240/540RA9T (5/8)	12.3	15.1	17.4	19.5
240/540RA9T (7/8, 1 1/8)	16.2	19.8	22.9	25.6
240/540RA12	18.5	22.7	26.2	29.3
240/540RA16	30.8	37.7	43.5	48.7
240/540RA20	50.6	62.0	71.6	80.0

All liquid capacities are based on 40°F Evaporator Temperature and 100°F Liquid Temperature.

Kilowatts				
LIQUID CAPACITIES				
Pressure Drop Across Valve - kpa				
VALVE SERIES	136	205	272	340
R-12				
50RB	1.2	1.5	1.7	1.9
100RB	2.8	3.5	4.1	4.2
200RB2	7.1	8.7	10.0	11.2
200RB3	10.6	13.0	15.0	16.8
200/500RB4	12.7	15.6	18.0	20.2
200/500RB5	18.8	23.0	26.5	29.7
200/500RB6	22.7	27.7	32.0	35.8
200/500RB7	35.4	43.4	50.1	56.0
200RB9 (5/8)	52.7	64.6	74.6	83.4
200RB9 (7/8, 1 1/2)	69.4	85.0	98.1	109.7
200RB12	79.7	97.6	112.6	125.9
240/540RA8	35.4	43.4	50.1	56.0
240/540RA9T (5/8)	52.7	64.6	74.6	83.4
240/540RA9T (7/8, 1 1/2)	69.4	85.0	98.1	109.7
240/540RA12	79.7	97.6	112.6	125.9
240/540RA16	132.0	161.7	186.7	208.8
240/540RA20	208.2	254.9	294.4	329.1
R-22				
50RB	1.6	1.9	2.2	2.4
100RB	3.7	4.5	5.2	5.8
200RB2	9.0	11.0	12.7	14.2
200RB3	13.9	17.0	19.6	21.9
200/500RB4	16.2	19.8	22.9	25.6
200/500RB5	23.7	29.0	33.5	35.7
200/500RB6	28.9	35.4	40.9	45.7
200/500RB7	45.1	55.2	63.8	71.3
200RB9 (5/8)	67.3	82.5	95.2	106.5
200RB9 (7/8, 1 1/8)	88.2	108.0	124.7	139.4
200RB12	100.9	123.5	142.7	159.5
240/540RA8	45.1	55.2	63.8	71.3
240/540RA9T (5/8)	67.3	82.5	95.2	106.5
240/540RA9T (7/8, 1 1/8)	88.2	108.0	124.7	139.4
240/540RA12	100.9	123.5	142.7	159.5
240/540RA16	167.6	205.3	237.1	265.1
240/540RA20	275.7	337.7	390.0	436.0
R-502				
50RB	1.0	1.2	1.4	1.6
100RB	2.4	2.9	3.4	3.8
200RB2	5.8	7.1	8.2	9.1
200RB3	9.0	11.0	12.7	14.2
200/500RB4	10.4	12.7	14.7	16.5
200/500RB5	15.3	18.8	21.7	24.2
200/500RB6	18.8	23.0	26.6	29.7
200/500RB7	29.2	35.8	41.3	46.2
200RB9 (5/8)	43.6	53.5	61.7	69.0
200RB9 (7/8, 1 1/8)	57.2	70.1	80.9	90.5
200RB12	65.6	80.4	92.8	103.7
240/540RA8	29.2	35.8	41.3	46.2
240/540RA9T (5/8)	43.6	53.5	61.7	69.0
240/540RA9T (7/8, 1 1/8)	57.2	70.1	80.9	90.5
240/540RA12	65.6	80.4	92.8	103.7
240/540RA16	109.0	133.5	154.1	172.3
240/540RA20	179.2	219.5	253.4	283.3

Solenoid Liquid Capacities

Thermal
Expansion Valves

Solenoid
Valves

Coils

Industrial
Solenoid Valves

Shut Off
Valves

System
Protectors

Storage
Devices

Oil
Controls

Pressure
Regulators

Temperature
Pressure Controls

Competitive Cross
Reference

Tons				
LIQUID CAPACITIES				
Pressure Drop Across Valve - psi				
VALVE SERIES	2	3	4	5
R-134a				
50RB	0.41	0.5	0.6	0.6
100RB	0.96	1.2	1.4	1.5
200RB2	2.4	2.9	3.4	3.8
200RB3	3.6	4.4	5.1	5.7
200/500RB4	4.3	5.3	6.1	6.8
200/500RB5	6.4	7.8	9.1	10.1
200/500RB6	7.7	9.4	10.9	12.2
200/500RB7	12.1	14.8	17.1	19.1
200RB9 (5/8)	18.0	22.0	25.5	28.5
200RB9 (7/8, 1 1/8)	23.6	28.9	33.4	37.3
200RB12	27.1	33.2	38.3	42.8
240/540RA8	12.1	14.8	17.1	19.1
240/540RA9T (5/8)	18.0	22.0	25.5	28.5
240/540RA9T (7/8, 1 1/8)	23.6	28.9	33.4	37.3
240/540RA12	27.1	33.2	38.3	42.8
240/540RA16	45.0	55.1	63.6	71.2
240/540RA20	70.9	86.8	100.3	112.1
R-404A/R-507				
50RB	0.3	0.34	0.4	0.4
100RB	0.7	0.85	1.0	1.1
200RB2	1.7	2.1	2.4	2.7
200RB3	2.6	3.2	3.7	4.1
200/500RB4	3.0	3.7	4.3	4.8
200/500RB5	4.4	5.4	6.2	7.0
200/500RB6	5.3	6.5	7.5	8.4
200/500RB7	8.4	10.3	11.9	13.3
200RB9 (5/8)	12.5	15.3	17.7	19.8
200RB9 (7/8, 1 1/2)	16.4	20.1	23.2	25.9
200RB12	18.8	23.0	26.6	29.7
240/540RA8	8.4	10.3	11.9	13.3
240/540RA9T (5/8)	12.5	15.3	17.7	19.8
240/540RA9T (7/8, 1 1/2)	16.4	20.1	23.2	25.9
240/540RA12	18.8	23.0	26.6	29.7
240/540RA16	31.3	38.3	44.2	49.4
240/540RA20	53.6	65.7	75.9	84.8
R-407C				
50RB	0.4	0.51	0.6	0.7
100RB	1.0	1.21	1.4	1.6
200RB2	2.4	2.9	3.3	3.7
200RB3	3.7	4.5	5.2	5.8
200/500RB4	4.3	5.3	6.1	6.8
200/500RB5	6.4	7.8	9.0	10.1
200/500RB6	7.8	9.5	11.0	12.3
200/500RB7	12.1	14.8	17.1	19.1
200RB9 (5/8)	18.1	22.2	25.6	28.7
200RB9 (7/8, 1 1/2)	23.7	29.0	33.5	37.4
200RB12	27.1	33.2	38.3	42.9
240/540RA8	12.1	14.8	17.1	19.1
240/540RA9T (5/8)	18.0	22.1	25.5	28.5
240/540RA9T (7/8, 1 1/2)	23.7	29.0	33.5	37.4
240/540RA12	27.1	33.2	38.3	42.9
240/540RA16	45.1	55.2	63.7	71.3
240/540RA20	74.1	90.8	104.8	117.2

Kilowatts				
LIQUID CAPACITIES				
Pressure Drop Across Valve - kpa				
VALVE SERIES	136	205	272	340
R-134a				
50RB	1.5	1.8	2.1	2.3
100RB	3.4	4.2	4.8	5.4
200RB2	8.5	10.4	12.0	13.4
200RB3	12.7	15.6	18.0	20.2
200/500RB4	15.2	18.6	21.5	24.1
200/500RB5	22.7	27.7	32.0	35.8
200/500RB6	27.3	33.4	38.5	43.1
200/500RB7	42.8	52.5	60.6	67.7
200RB9 (5/8)	63.7	78.0	90.1	100.8
200RB9 (7/8, 1 1/8)	83.5	102.3	118.1	132.1
200RB12	95.9	117.5	135.7	151.7
240/540RA8	42.8	52.5	60.6	67.7
240/540RA9T (5/8)	63.7	78.0	90.1	100.8
240/540RA9T (7/8, 1 1/8)	83.5	102.3	118.1	132.1
240/540RA12	95.9	117.5	135.7	151.7
240/540RA16	159.3	195.1	225.3	251.9
240/540RA20	251.0	307.4	354.9	396.8
R-404A/R-507				
50RB	1.0	1.2	1.4	1.6
100RB	2.5	3.0	3.5	3.9
200RB2	6.1	7.4	8.6	9.6
200RB3	9.2	11.3	13.1	14.6
200/500RB4	10.7	13.1	15.1	16.9
200/500RB5	15.6	19.1	22.1	24.7
200/500RB6	18.8	23.0	26.6	29.7
200/500RB7	29.8	36.5	42.1	47.1
200RB9 (5/8)	44.2	54.2	62.5	69.9
200RB9 (7/8, 1 1/2)	58.1	71.2	82.2	91.9
200RB12	66.5	81.4	94.0	105.1
240/540RA8	29.8	36.5	42.1	47.1
240/540RA9T (5/8)	44.2	54.2	62.5	69.9
240/540RA9T (7/8, 1 1/2)	58.1	71.2	82.2	91.9
240/540RA12	66.5	81.4	94.0	105.1
240/540RA16	110.7	135.6	156.6	175.0
240/540RA20	189.9	232.6	268.6	300.3
R-407C				
50RB	1.5	1.8	2.1	2.3
100RB	3.5	4.3	4.9	5.5
200RB2	8.4	10.3	11.9	13.3
200RB3	13.0	15.9	18.4	20.6
200/500RB4	15.3	18.8	21.7	24.2
200/500RB5	22.5	27.6	31.9	35.6
200/500RB6	27.5	33.6	38.8	43.4
200/500RB7	42.8	52.4	60.5	67.6
200RB9 (5/8)	64.2	78.6	90.7	101.5
200RB9 (7/8, 1 1/2)	83.8	102.7	118.5	132.5
200RB12	96.0	117.5	135.7	151.7
240/540RA8	42.8	52.4	60.5	67.6
240/540RA9T (5/8)	64.2	78.6	90.7	101.5
240/540RA9T (7/8, 1 1/2)	83.8	102.7	118.5	132.5
240/540RA12	96.0	117.5	135.7	151.7
240/540RA16	159.5	195.4	225.6	252.3
240/540RA20	262.4	321.4	371.2	415.0

Solenoid Liquid Capacities

Tons				
LIQUID CAPACITIES				
Pressure Drop Across Valve - psi				
VALVE SERIES	1	2	3	4
R-12				
710RA/713RA12	13.1	19.7	25.3	33.2
710RA/713RA16	19.9	24.9	34.9	44.8
710RA/713RA20	27.7	43.2	53.1	68.9
710RA24	44.0	62.3	76.4	99.6
R-22				
710RA/713RA12	17.2	25.8	32.9	43.6
710RA/713RA16	25.7	36.8	45.4	58.3
710RA/713RA20	36.3	56.7	69.6	89.8
710RA24	56.7	80.8	100.0	133.3
R-502				
710RA/713RA12	11.8	16.8	21.4	28.3
710RA/713RA16	16.7	23.9	29.5	37.9
710RA/713RA20	23.8	36.8	45.2	58.4
710RA24	36.8	52.5	65.0	86.6
R-134a				
710RA/713RA12	15.8	23.8	3.4	40.0
710RA/713RA16	24.0	30.0	42.0	54.0
710RA/713RA20	33.4	52.0	64.0	83.0
710RA24	53.0	75.0	92.0	120.0
R-404A/R-507				
710RA/713RA12	11.5	17.2	21.9	29.1
710RA/713RA16	17.2	24.6	30.3	38.9
710RA/713RA20	24.3	37.9	46.5	60.0
710RA24	38.3	54.2	66.7	87.5
R-407C				
710RA/713RA12	16.4	24.5	31.3	41.5
710RA/713RA16	24.4	35.0	43.2	55.5
710RA/713RA20	34.5	54.0	66.3	58.4
710RA24	54.0	76.9	95.2	126.9

Kilowatts				
LIQUID CAPACITIES				
Pressure Drop Across Valve - kpa				
VALVE SERIES	68	136	205	272
R-12				
710RA/713RA12	46.4	69.7	89.6	117.5
710RA/713RA16	70.4	88.1	123.5	158.6
710RA/713RA20	98.1	152.9	188.0	243.9
710RA24	155.8	220.5	270.5	352.6
R-22				
710RA/713RA12	60.9	91.3	116.5	154.3
710RA/713RA16	91.0	130.3	160.7	206.4
710RA/713RA20	128.5	200.7	246.4	317.9
710RA24	200.7	286.0	354.0	471.9
R-502				
710RA/713RA12	41.8	59.5	75.8	100.2
710RA/713RA16	59.1	84.6	104.4	134.2
710RA/713RA20	84.3	130.3	160.0	206.7
710RA24	130.3	185.9	230.1	306.6
R-134a				
710RA/713RA12	55.9	84.3	107.6	141.6
710RA/713RA16	85.0	106.2	148.7	191.2
710RA/713RA20	118.2	184.1	226.6	293.8
710RA24	187.6	265.5	325.7	424.8
R-404A/R-507				
710RA/713RA12	40.7	60.9	77.5	103.0
710RA/713RA16	60.9	87.1	107.3	137.7
710RA/713RA20	86.0	134.2	164.6	212.4
710RA24	135.6	191.9	236.1	309.8
R-407C				
710RA/713RA12	58.1	86.7	110.8	146.9
710RA/713RA16	86.4	123.9	152.9	196.5
710RA/713RA20	122.1	191.2	234.7	206.7
710RA24	191.2	272.2	337.0	449.2

Solenoid Discharge Gas Capacities

Tons						
DISCHARGE GAS CAPACITIES						
Pressure Drop Across Valve - psi						
VALVE SERIES	2	5	10	25	50	100
R-12						
100RB	0.1	0.2	0.3	0.5	0.5	0.5
200/500RB2	0.4	0.6	0.8	1.3	1.5	1.3
200/500RB3	0.5	0.8	1.2	1.7	2.0	1.6
200/500RB4	0.7	1.1	1.5	2.2	2.9	3.3
200/500RB5	1.0	1.6	2.2	3.2	4.1	4.3
200/500RB6	1.1	1.7	2.4	3.5	4.6	5.4
200/500RB7	1.5	2.4	3.3	5.2	6.6	7.2
200RB9 (5/8)	2.5	4.0	5.6	8.3	10.4	11.2
200RB9 (7/8, 1 1/2)	3.2	5.0	7.1	10.1	12.1	11.1
200RB12	3.5	5.5	7.8	11.7	14.0	12.4
240/540RA8	1.5	2.4	3.3	5.2	6.6	7.2
240/540RA9T5	2.5	4.0	5.6	8.3	10.4	11.2
240/540RA9	3.2	5.0	7.1	10.1	12.1	11.1
240/540RA12	3.5	5.5	7.8	11.7	14.0	12.4
240/540RA16	5.8	9.1	12.9	18.9	23.6	24.3
240/540RA20	8.1	12.8	18.1	28.2	34.4	33.1
R-22						
100RB	0.2	0.3	0.4	0.6	0.8	1.0
200/500RB2	0.5	0.9	1.2	1.9	2.5	2.8
200/500RB3	0.8	1.2	1.7	2.6	3.4	3.4
200/500RB4	1.0	1.6	2.2	3.4	4.5	5.7
200/500RB5	1.4	2.3	3.2	4.9	6.5	7.9
200/500RB6	1.6	2.5	3.5	5.3	7.1	9.1
200/500RB7	2.1	3.4	4.8	7.8	10.4	12.8
200RB9 (5/8)	3.6	5.7	8.1	12.5	16.6	20.4
200RB9 (7/8, 1 1/2)	4.6	7.2	10.2	15.4	20.0	23.1
200RB12	5.1	8.0	11.3	18.1	23.4	26.6
240/540RA8	2.1	3.4	4.8	7.8	10.4	12.8
240/540RA9T5	3.6	5.7	8.1	12.5	16.6	20.4
240/540RA9	4.6	7.2	10.2	15.4	20.0	23.1
240/540RA12	5.1	8.0	11.3	18.1	23.4	26.6
240/540RA16	8.3	13.2	18.7	28.6	37.8	45.6
240/540RA20	11.7	18.4	26.1	43.0	56.1	66.0
R-502						
100RB	0.2	0.2	0.3	0.5	0.7	0.8
200/500RB2	0.4	0.7	1.0	1.5	2.0	2.3
200/500RB3	0.6	1.0	1.4	2.1	2.7	3.0
200/500RB4	0.8	1.3	1.8	2.7	3.6	4.6
200/500RB5	1.1	1.8	2.6	3.9	5.2	6.4
200/500RB6	1.2	2.0	2.8	4.2	5.7	7.3
200/500RB7	1.7	2.7	3.8	6.2	8.3	10.4
200RB9 (5/8)	2.9	4.5	6.4	10.0	13.3	16.5
200RB9 (7/8, 1 1/2)	3.6	5.7	8.1	12.3	16.1	18.8
200RB12	4.0	6.4	9.0	14.4	18.7	21.7
240/540RA8	1.7	2.7	3.8	6.2	8.3	10.4
240/540RA9T5	2.9	4.5	6.4	10.0	13.3	16.5
240/540RA9	3.6	5.7	8.1	12.3	16.1	18.8
240/540RA12	4.0	6.4	9.0	14.4	18.7	21.7
240/540RA16	6.6	10.5	14.8	22.8	30.2	37.0
240/540RA20	9.3	14.6	20.7	34.3	45.0	53.7

Kilowatts						
DISCHARGE GAS CAPACITIES						
Pressure Drop Across Valve - kpa						
VALVE SERIES	138	345	690	1725	3450	6900
R-12						
100RB	0.5	0.7	1.0	1.6	1.8	1.8
200/500RB2	1.3	2.1	3.0	4.4	5.3	4.7
200/500RB3	1.9	3.0	4.2	6.0	7.0	5.6
200/500RB4	2.4	3.9	5.5	7.9	10.3	11.8
200/500RB5	3.5	5.6	7.9	11.5	14.4	15.1
200/500RB6	3.8	6.1	8.6	12.5	16.2	18.9
200/500RB7	5.2	8.3	11.8	18.3	23.3	25.5
200RB9 (5/8)	8.9	14.0	19.8	29.3	37.0	39.6
200RB9 (7/8, 1 1/2)	11.2	17.7	25.1	35.6	42.9	39.3
200RB12	12.4	19.6	27.8	41.6	49.5	43.9
240/540RA8	5.2	8.3	11.8	18.3	23.3	25.5
240/540RA9T5	8.9	14.0	19.8	29.3	37.0	39.6
240/540RA9	11.2	17.7	25.1	35.6	42.9	39.3
240/540RA12	12.4	19.6	27.8	41.6	49.5	43.9
240/540RA16	20.4	32.3	45.7	66.9	83.4	86.0
240/540RA20	28.6	45.2	63.9	99.8	121.7	117.1
R-22						
100RB	0.6	1.0	1.5	2.3	2.9	3.4
200/500RB2	1.9	3.0	4.3	6.8	8.7	10.0
200/500RB3	2.7	4.3	6.1	9.3	11.9	13.1
200/500RB4	3.5	5.6	7.9	11.9	16.0	20.2
200/500RB5	5.1	8.0	11.4	17.3	22.9	27.9
200/500RB6	5.6	8.8	12.4	18.7	25.2	32.1
200/500RB7	7.6	12.0	17.0	27.5	36.7	45.5
200RB9 (5/8)	12.8	20.2	28.6	44.2	58.7	72.0
200RB9 (7/8, 1 1/2)	16.2	25.6	36.2	54.7	70.8	81.8
200RB12	17.9	28.4	40.1	63.9	82.8	94.1
240/540RA8	7.6	12.0	17.0	27.5	36.7	45.5
240/540RA9T5	12.8	20.2	28.6	44.2	58.7	72.0
240/540RA9	16.2	25.6	36.2	54.7	70.8	81.8
240/540RA12	17.9	28.4	40.1	63.9	82.8	94.1
240/540RA16	29.5	46.7	66.0	101.4	133.7	161.6
240/540RA20	41.3	65.3	92.3	152.2	198.6	233.5
R-502						
100RB	0.5	0.8	1.2	1.8	2.4	2.8
200/500RB2	1.5	2.4	3.4	5.4	7.0	8.2
200/500RB3	2.2	3.4	4.8	7.4	9.6	10.8
200/500RB4	2.8	4.4	6.2	9.5	12.7	16.3
200/500RB5	4.0	6.4	9.0	13.8	18.3	22.6
200/500RB6	4.4	7.0	9.8	14.9	20.1	25.8
200/500RB7	6.0	9.7	13.5	21.9	29.3	36.7
200RB9 (5/8)	10.2	16.0	22.7	35.2	46.9	58.3
200RB9 (7/8, 1 1/2)	12.9	20.3	28.7	43.6	56.9	66.7
200RB12	14.2	22.5	31.8	51.0	66.2	76.9
240/540RA8	6.0	9.5	13.5	21.9	29.3	36.7
240/540RA9T5	10.2	16.0	22.7	35.2	46.9	58.3
240/540RA9	12.9	20.3	28.7	43.6	56.9	66.7
240/540RA12	14.2	22.5	31.8	51.0	66.2	76.9
240/540RA16	23.4	37.1	52.4	80.8	107.0	130.9
240/540RA20	32.8	51.8	73.3	121.4	159.3	190.0

Solenoid Discharge Gas Capacities

Tons						
DISCHARGE GAS CAPACITIES						
Pressure Drop Across Valve - psi						
VALVE SERIES	2	5	10	25	50	100
R-134a						
100RB	0.2	0.2	0.3	0.5	0.6	0.6
200/500RB2	0.5	0.7	1.0	1.5	1.8	1.7
200/500RB3	0.6	1.0	1.4	2.1	2.4	2.1
200/500RB4	0.8	1.3	1.8	2.7	3.5	4.1
200/500RB5	1.2	1.9	2.6	3.9	4.9	5.3
200/500RB6	1.3	2.1	2.9	4.3	5.6	6.6
200/500RB7	1.8	2.8	4.0	6.2	8.0	8.9
200RB9 (5/8)	3.0	4.7	6.7	10.0	12.7	13.9
200RB9 (7/8, 1 1/2)	3.8	6.0	8.5	12.2	14.8	14.2
200RB12	4.2	6.6	9.4	14.2	17.1	15.9
240/540RA8	1.8	2.8	4.0	6.2	8.0	8.9
240/540RA9T5	3.0	4.7	6.7	10.0	12.7	13.9
240/540RA9	3.8	6.0	8.5	12.2	14.8	14.2
240/540RA12	4.2	6.6	9.4	14.2	17.1	15.9
240/540RA16	6.9	10.9	15.4	22.8	28.6	30.4
240/540RA20	9.7	15.3	21.6	34.0	41.9	41.9
R-404A/R-507						
100RB	0.2	0.3	0.4	0.6	0.7	0.9
200/500RB2	0.5	0.7	1.0	1.7	2.2	2.5
200/500RB3	0.7	1.0	1.5	2.3	2.9	3.4
200/500RB4	0.9	1.3	1.9	2.9	3.9	5.0
200/500RB5	1.2	1.9	2.7	4.2	5.6	7.0
200/500RB6	1.3	2.1	3.0	4.5	6.1	7.9
200/500RB7	1.8	2.9	4.1	5.7	8.9	11.3
200RB9 (5/8)	3.1	4.9	6.9	10.7	14.3	17.9
200RB9 (7/8, 1 1/2)	3.9	6.2	8.7	13.3	17.4	20.2
200RB12	4.3	6.8	9.6	15.5	20.3	23.9
240/540RA8	1.8	2.9	4.1	6.7	8.9	11.3
240/540RA9T5	3.1	4.9	6.9	10.7	14.3	17.9
240/540RA9	3.9	6.2	8.7	13.3	17.4	20.2
240/540RA12	4.3	6.8	9.6	15.5	20.3	23.9
240/540RA16	4.3	6.8	9.6	14.8	19.3	22.7
240/540RA20	9.9	15.7	22.2	36.9	48.7	58.9
R-407C						
100RB	0.2	0.3	0.4	0.6	0.8	1.0
200/500RB2	0.5	0.9	1.2	1.9	2.5	2.9
200/500RB3	0.8	1.2	1.7	2.6	3.4	3.8
200/500RB4	1.0	1.6	2.2	3.3	4.5	5.7
200/500RB5	1.4	2.2	3.2	4.9	6.5	8.0
200/500RB6	1.5	2.4	3.5	5.2	7.1	9.1
200/500RB7	2.1	3.3	4.7	7.7	10.3	13.0
200RB9 (5/8)	3.6	5.6	8.0	12.4	16.5	20.6
200RB9 (7/8, 1 1/2)	4.5	7.1	10.1	15.3	20.0	22.5
200RB12	6.0	9.5	13.4	21.2	29.6	37.1
240/540RA8	2.1	3.3	4.7	7.7	10.3	13.0
240/540RA9T5	3.6	5.6	8.0	12.4	16.5	20.6
240/540RA9	4.5	7.1	10.1	15.3	20.0	22.5
240/540RA12	6.0	9.5	13.4	21.2	29.6	37.1
240/540RA16	8.2	13.0	18.4	28.4	37.7	46.2
240/540RA20	11.5	18.2	25.7	42.7	56.1	67.2

Kilowatts						
DISCHARGE GAS CAPACITIES						
Pressure Drop Across Valve - kpa						
VALVE SERIES	138	345	690	1725	3450	6900
R-134a						
100RB	0.5	0.8	1.2	1.8	2.2	2.1
200/500RB2	1.6	2.5	3.6	5.3	6.4	6.0
200/500RB3	2.3	3.5	5.0	7.3	8.6	7.3
200/500RB4	2.9	4.6	6.5	9.6	12.4	14.5
200/500RB5	4.2	6.7	9.2	13.8	17.5	18.9
200/500RB6	4.6	7.3	10.3	15.0	19.7	23.3
200/500RB7	6.3	9.9	14.1	22.0	28.2	31.5
200RB9 (5/8)	3.0	4.7	6.7	10.0	12.7	13.9
200RB9 (7/8, 1 1/2)	3.8	6.0	8.5	12.2	14.8	14.2
200RB12	4.2	6.6	9.4	14.2	17.1	15.9
240/540RA8	6.3	9.9	14.1	22.0	28.2	31.5
240/540RA9T5	10.6	16.7	23.7	35.3	44.9	49.2
240/540RA9	13.4	21.2	30.0	43.1	52.4	50.1
240/540RA12	14.8	23.5	33.2	50.2	60.6	56.4
240/540RA16	24.4	38.7	54.7	80.6	101.4	107.6
240/540RA20	34.2	54.1	76.4	120.4	148.4	148.3
R-404A/R-507						
100RB	0.6	0.9	1.2	1.9	2.5	3.0
200/500RB2	1.6	2.6	3.6	5.8	7.6	9.0
200/500RB3	2.3	3.6	5.2	8.0	10.4	11.9
200/500RB4	3.0	4.7	6.7	10.2	13.7	17.7
200/500RB5	4.3	6.8	9.7	14.8	19.8	24.7
200/500RB6	4.7	7.5	10.5	16.0	21.7	28.0
200/500RB7	6.4	10.2	14.4	23.6	31.6	40.0
200RB9 (5/8)	10.9	17.2	24.3	37.8	50.7	63.5
200RB9 (7/8, 1 1/2)	13.8	21.8	30.8	46.9	61.6	71.4
200RB12	15.3	24.1	34.1	54.9	71.7	84.6
240/540RA8	6.4	10.2	14.4	23.6	31.6	40.0
240/540RA9T5	10.9	17.2	24.3	37.8	50.7	63.5
240/540RA9	13.8	21.8	30.8	46.9	61.6	71.4
240/540RA12	15.3	24.1	34.1	54.9	71.7	84.6
240/540RA16	15.3	24.1	34.1	52.5	68.4	80.2
240/540RA20	35.1	55.5	78.5	130.6	172.3	208.3
R-407C						
100RB	0.6	1.0	1.5	2.3	2.9	3.5
200/500RB2	1.9	3.0	4.2	6.7	8.7	10.2
200/500RB3	2.7	4.2	6.0	9.2	11.9	13.5
200/500RB4	3.5	5.5	7.8	11.8	15.9	20.3
200/500RB5	5.0	7.9	11.2	17.2	22.9	28.2
200/500RB6	5.5	8.6	12.2	18.5	25.0	32.2
200/500RB7	7.5	11.8	16.7	27.3	36.5	45.8
200RB9 (5/8)	12.6	19.9	28.2	43.8	58.4	72.7
200RB (7/8, 1 1/2)	16.0	25.2	35.7	54.3	70.8	79.5
200RB12	21.2	33.6	47.5	75.1	104.6	131.3
240/540RA8	7.5	11.8	16.7	27.3	36.5	45.8
240/540RA9T5	12.6	19.9	28.2	43.8	58.4	72.7
240/540RA9	16.0	25.2	35.7	54.3	70.8	79.5
240/540RA12	21.2	33.6	47.5	75.1	104.6	131.3
240/540RA16	29.1	46.0	65.1	100.5	133.3	163.7
240/540RA20	40.7	64.4	91.0	151.0	198.4	237.7

Coils for Solenoid Valves

Features

- Compact designs
- Coil windings are insulated to provide shock and vibration protection
- ASC2 is designed to provide weather protection
- Interchangeable housings

ASC2 – DIN



ASC2 female connector X-28616 - 18" in length (PCN 059261).

MMG – Special DC



Voltage Options

- 24V 50/60 Hz
- 120V 50/60 Hz (standard)
- 208-220/208-240V 50/60 Hz
- 480V 50/60 Hz
- 120-240V 50/60 Hz
- 12V D.C. (MM Series recommended)
- 24V D.C. (MM Series recommended)

AMC - 1/2" Conduit



AMG - Junction Box



AMS - Open Frame



Nomenclature

Coil Code

A	M	G
Series	Insulation	Enclosure
A = 12 Watt B = 15 Watt C = 18 Watt D = 7 Watt	B or G = Class B M = Class F H = Class H	C = Conduit Connection E = Explosion Proof F = Open Frame Leads G = Junction Box L = Grommet 18" Leads S = Spade Connection

MAGMAX Coil (Type Mm): For Use On DC Applications Only

Voltage	Amperes		Holding
	Inrush	Holding	Watts
12VDC	4.0	0.4	4
24VDC	2.5	0.4	4

AM Coil For: 702RA

Nominal Voltage and Frequency	Applied Voltage and Frequency	Amperes		VA Holding	Watts Max.	Coil Insulation
		Inrush	Holding			
24-50/60	24/50	1.70	1.00	24	17/12	Class F Molded
24-50/60	24/60	1.41	0.64	15		
120-50/60	120/50	0.38	0.24	29		
120-50/60	120/60	0.32	0.16	19		
208-220/50 208-240/60	208/50	0.17	0.10	21		
208-220/50 208-240/60	208/60	0.15	0.06	13		
208-220/50 208-240/60	220/50	0.20	0.14	33		
208-220/50 208-240/60	240/60	0.22	0.09	22		
480-50/60	480/50	0.10	0.07	33		
480-50/60	480/60	0.09	0.04	22		

See the MM (MAGMAX) Series Coil for DC Applications

AM/EM Coil For: 204CD, 214CA, 211CA, 222CB, 210CA

Nominal Voltage and Frequency	Applied Voltage and Frequency	121		201		211		231		241	
		Inrush	Holding	Inrush	Holding	Inrush	Holding	Inrush	Holding	Inrush	Holding
24/60	24/60	1.23	0.61	1.17	0.61	0.92	0.61	1.00	0.74	0.92	0.61
120/60	120/60	0.23	0.14	0.22	0.14	0.17	0.14	0.19	0.16	0.17	0.14
240/60	240/60	0.13	0.08	0.12	0.08	0.10	0.08	0.11	0.08	0.10	0.08
480/60	480/60	0.06	0.04	0.05	0.04	0.05	0.04	0.05	0.04	0.05	0.04

See the MM (MAGMAX) Series Coil for DC Applications

Solenoid Coil Prefix Selection Table

1) Select Prefix 2) Select Voltage 3) Select PCN (see page 116)

Valve Type	J-Box	Conduit	Leads	Spades	Molded-DIN With Connector
50RB	-	-	SML*	-	-
100RB	AMG	AMC	AMF	AMS	ASC2
200RB	AMG	AMC	AMF	AMS	ASC2
222CB (Steam)	AHG	AHC	-	-	-
401	AMG	AMC	AMF	AMS	ASC2
500RB	DMG	AMC	DMF	DMS	-
540RA	AMG	AMC	AMF	DMS	ASC2
3031	AMG	AMC	AMF	AMS	ASC2
222CB (Water)	AMG	AMC	AMF	AMS	ASC2
Special DC Application	MMG	-	MMF	-	-

* SML is OEM - RMF is Wholesale replacement

Note - All coils NEMA1 except ASC2 NEMA2

AM Coil For: 100RB, 240RA, 710/713RA, EPRB(S)

Nominal Voltage and Frequency	Applied Voltage and Frequency	Amperes		VA	Watts Max.	Coil Insulation
		Inrush	Holding	Holding		
24-50/60	24/50	1.20	.96	23	17/12	Class F Molded
24-50/60	24/60	1.0	.74	18		
120-50/60	120/50	.25	.21	25		
120-50/60	120/60	.19	.16	19		
208-220/50 208-240/60	208/50	.14	.08	17		
208-220/50 208-240/60	208/60	.12	.06	12		
208-220/50 208-240/60	220/50	.16	.10	24		
208-220/50 208-240/60	240/60	.13	.08	19		
480-50/60	480/50	.06	.05	24		
480-50/60	480/60	.05	.04	19		

See the MM (MAGMAX) Series Coil for DC Applications

AM Coil For: 200RB, 540RA

Nominal Voltage and Frequency	Applied Voltage and Frequency	Amperes		VA	Watts Max.	Coil Insulation
		Inrush	Holding	Holding		
24-50/60	24/50	2.00	.96	23	17/12	Class F Molded
24-50/60	24/60	1.6	.74	18		
120-50/60	120/50	.45	.21	25		
120-50/60	120/60	.36	.16	19		
208-220/50 208-240/60	208/50	.19	.08	17		
208-220/50 208-240/60	208/60	.15	.06	12		
208-220/50 208-240/60	220/50	.24	.10	24		
208-220/50 208-240/60	240/60	.19	.08	19		
480-50/60	480/50	.11	.05	24		
480-50/60	480/60	.09	.04	19		

See the MM (MAGMAX) Series Coil for DC Applications

ASC2 Coil For: 200RB, 540RA

Nominal Voltage and Frequency	Applied Voltage and Frequency	Amperes		VA	Watts Max.	Coil Insulation
		Inrush	Holding	Holding		
24-50/60	24/50	2.18	1.07	26	12	Class F Molded
24-50/60	24/60	1.90	.81	19		
120-50/60	120/50	.43	.21	25		
120-50/60	120/60	.38	.16	19		
240-50/60	240/50	.24	.12	30		
240-50/60	240/60	.21	.09	22		

DM Coil For: 500RB

Nominal Voltage and Frequency	Applied Voltage and Frequency	Amperes		VA	Watts Max.	Coil Insulation
		Inrush	Holding	Holding		
24-50/60	24/50	1.80	.71	17	10	Class F Molded
24-50/60	24/60	1.56	.52	12		
120-50/60	120/50	.36	.14	17		
120-50/60	120/60	.31	.10	12		
240-50/60	240/50	.19	.08	19		
240-50/60	240/60	.17	.06	14		

ASC2 Coil For: 100RB, 240RA, 710/713RA, EPRB(S)

Nominal Voltage and Frequency	Applied Voltage and Frequency	Amperes		VA	Watts Max.	Coil Insulation
		Inrush	Holding	Holding		
24-50/60	24/50	1.67	1.10	26	12	Class F Molded
24-50/60	24/60	1.41	.83	20		
120-50/60	120/50	.31	.22	26		
120-50/60	120/60	.26	.16	20		
240-50/60	240/50	.17	.13	31		
240-50/60	240/60	.15	.10	23		

DM Coil For: 100RB, 240RA, 710/713RA, EPRB(S)

Nominal Voltage and Frequency	Applied Voltage and Frequency	Amperes		VA	Watts Max.	Coil Insulation
		Inrush	Holding	Holding		
24-50/60	24/50	1.21	.72	17	10	Class F Molded
24-50/60	24/60	1.02	.52	13		
120-50/60	120/50	.24	.14	17		
120-50/60	120/60	.20	.10	12		
240-50/60	240/50	.13	.08	20		
240-50/60	240/60	.11	.06	14		

RMS/RMF Coils For: 50RB

Nominal Voltage and Frequency	Applied Voltage and Frequency	Amperes		VA	Watts Max.	Coil Insulation
		Inrush	Holding	Holding		
24-50/60	24/50	.87	.50	12	7	Class F Molded
24-50/60	24/60	.90	.40	10		
120-50/60	120/50	.19	.19	22		
120-50/60	120/60	.17	.09	10		
208-50/60	208/60	.08	.03	7		
220-50/60	220/50	.10	.05	11		
240-50/60	240/50	.11	.06	14		
240-50/60	240/60	.10	.04	11		

Expansion Valves
Solenoid Valves
Coils
Industrial Solenoid Valves
Shut Off Valves
System Protectors
Storage Devices
Oil Controls
Pressure Regulators
Temperature Pressure Controls
Competitive Cross Reference

Ordering Information for Coils

AMG - Junction Box



6" Leads

AMC - 1/2" Conduit



18" Leads

AMS - Open Frame



18" Leads or
1.4" Spades

Voltage/ Frequency	Description	PCN	Description	PCN	Description	PCN
24V 50/60 Hz	AHG 24V 50/60 Hz	057669	AMC 24V 50/60 Hz	057631	AMF 24V 50/60 Hz	057539
	AMG 24V 50/60 Hz	057341	AHC 24V 50/60 Hz	057736	AMF 24V 50/60 Hz	057538
	DMG 24V 50/60 Hz	055129	--	--	RMF 24V 50/60 Hz	065677
	--	--	--	--	AMS 24V 50/60 Hz	057603
120V 50/60 Hz	AHG 120V 50/60 Hz	057673	AMC 120V 50/60 Hz	057598	RMF 120V 50/60 Hz	065678
	AMG 120V 50/60 Hz	057331	AHC 120V 50/60 Hz	057743	AMS 120V 50/60 Hz	057349
	DMG 120V 50-60 Hz	054762	--	--	RMS 120V 50/60 Hz	065204
208-220/208-240 50/60 Hz	AHG 208-220/208-240 50/60 Hz	057671	AHC 208-220/208-240 50/60 Hz	057741	AMF 208-220/208-240 50/60 Hz	057540
	AHG 208-220/208-240 50/60 Hz	057342	AMC 208-220/208-240 50/60 Hz	057594	RMF 208-220/208-240 50/60 Hz	065679
	DMG 208-220/208-240 50/60 Hz	054764	--	--	AMS 208-220/208-240 50/60 Hz	057531
	--	--	--	--	RMS 208-220/208-240 50/60 Hz	065681
480V 50/60 Hz	AMG 480V 50/60 Hz	057527	--	--	DMS 208-220/208-240 50/60 Hz	062013
120-240V 50/60 Hz	AMG 120-240V 50/60 Hz	057343	AMC 120-240V 50/60 Hz	057730	AMF 480V 50/60 Hz	057534
277V 60 Hz	AMG 12V DC	057521	AMC 12V DC	057596	AMF 120-240V 50/60 Hz	062410
	--	--	--	--	AMF 277V 50/60 Hz	057533
12V DC	AMG 24V DC	057523	AMC 24V DC	057633	AMS 277V 50/60 Hz	057714
24V DC	--	--	--	--	--	--

ASC2 - DIN



MMG - Special DC



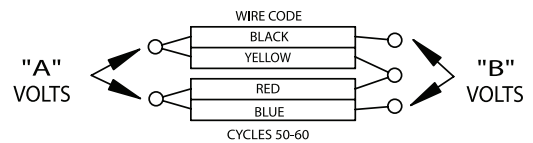
Voltage/Frequency	Description	PCN	Description	PCN
24V 50/60 Hz	ASC2 24/50-60	062792	--	--
24V 50/60 Hz	ASC2L 24/50-60	063542	--	--
120V 50/60 Hz	ASC2 120/50-60	062462	--	--
120V 50/60 Hz	ASC2 GS-2562-1	015384	--	--
208-220/208-240 50-60 Hz	ASC2 208-240/50-60	062463	--	--
208-220/208-240 50-60 Hz	ASC2 GS-2562-2	015383	--	--
12V	--	--	MMG 12V DC	063524
12V	--	--	MMF 12V DC	062972
24V	ASC2 24V DC	064375	MMG 24V DC	063526

AM style DC coils should not be used for direct replacements on OEM equipment. The use of this coil on new applications may result in the valve not opening. New applications should use the MM coil because of the significant increase in opening power of the MM coil over the standard AM style DC coil.

Coil Enclosure Options

Options	Code
Junction Box	G
Conduit - 18" Leads	C
Open Frame - 18" Leads	F
Open Frame - Spades	S

Dual Voltage Wiring Diagram



A	B
120	240
240	480

Industrial Solenoid Valves

Our Industrial Solenoid Valves are approved for use with the fluids utilized in secondary loops such as Ethylene and Propylene Glycol and Tyfoxit. The recommended seat material is Buna-N.

In addition to air, water and steam, the following is a listing of secondary loop fluids that are compatible with our valves:

Fluid Name	Manufacturer
Ethylene & Propylene Glycol	Various
Tyfoxit	Spauschus Associates (Distributor)
Siltherm XLT	DOW
HFE	3M
Dowfrost	Dow
Pekasol	Unknown
Dynalene	Dynalene

These valves referenced above are as follows:

202CB	211CA
203CA	214CA
204CD	222CB
210CA	314UB

When ordering valves for the above stated application, be sure to mention the Elastomer Code "B" which designates Buna-N.

Nomenclature example: 222CB 1/2 B 1/2 B

2	22	C	B	1/2	B	1/2	B
Valve Type 2 = 2 Way 3 = 3 Way	Product Group Two digits to Define Group	Form of Flow C = Normally Closed O = Normally Open U = Universal	Design Series Letter will be advanced to identify product changes	Pipe N.P.T. 1/8" thru 2" GS indicates non-standard	Body Material B = Brass S = Stainless Steel T = Stainless Steel with Silver Shading Band	Body Orifice 3/65" thru 2"	Elastomer Code B = Buna-N

202CB Industrial Solenoids

The 202CB is a direct-acting, normally closed valve for control of air, water, and steam applications.



Features

- Superior life with stainless steel enclosing tube
- Repair kits available

Options

- Brass or stainless steel bodies
- Optional Voltages: 12 or 24 VDC & 120-240, 480 & 240-480/50-60 Hz

Specifications

- 1/8" NPT Solenoid Valve
- Watts: 12 A.C., 15 D.C.
- VA Inrush: 28
- VA Holding: 19
- Maximum working pressure: 500 psi (1000 psi - 3/64" Orifice Only)
- Weight: 1 lb
- Standard Voltages: 24, 120, 208-240/50-60 Hz
- UL/CUL file number: MP604

Ordering Information*

Pipe Size	Orifice Size	M.O.P.D ²		Cv	Max. AC Fluid Temp. ¹	Recommended Coils			Description	PCN	Elastomer
		AC	DC			Size	Insulation	Enclosure			
Brass General Purpose											
1/8	3/64	950	500	0.05	180°F	A 12 Watts AC 15 Watts DC	M Class F Molded	G Junction Box	202CB1/8B3/64B		BUNA-N
	1/16	500	500	0.12					202CB1/8B1/16B		
	3/32	300	125	0.22					202CB1/8B3/32B		
	1/8	150	75	0.34					202CB1/8B1/8B	030113	
	5/32	100	40	0.48				202CB1/8B5/32B	030114		
Stainless Steel General Purpose											
1/8	3/64	950	500	0.05	180°F	A 12 Watts AC 15 Watts DC	M Class F Molded	G Junction Box	202CB1/8S3/64B		BUNA-N
	1/16	500	500	0.12					202CB1/8S1/16B	064756	
	3/32	300	125	0.22					202CB1/8S3/32B		
	1/8	150	75	0.34					202CB1/8S1/8B		
	5/32	100	40	0.48				202CB1/8S5/32B			
Brass Steam											
1/8	1/16	150	-	0.12	400°F	A 12 Watts	H Class H Molded	G Junction Box	202CB1/8B1/16T		PTFE w/Ethylene Propylene Gaskets
	3/32	150	-	0.22					202CB1/8B3/32T	030122	
	1/8	150	-	0.34					202CB1/8B1/8T	030123	
	5/32	100	-	0.48					202CB1/8B5/32T		
1/8	1/8	150	-	0.34	400°F	A 12 Watts	H Class H Molded	G Junction Box	202CB1/8B1/8P	030118	Ethylene Prop.
1/8	5/32	100	-	0.48	400°F	A 12 Watts	H Class H Molded	G Junction Box	202CB1/8B5/32V	056954	Ethylene Prop.

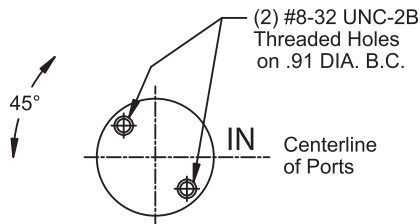
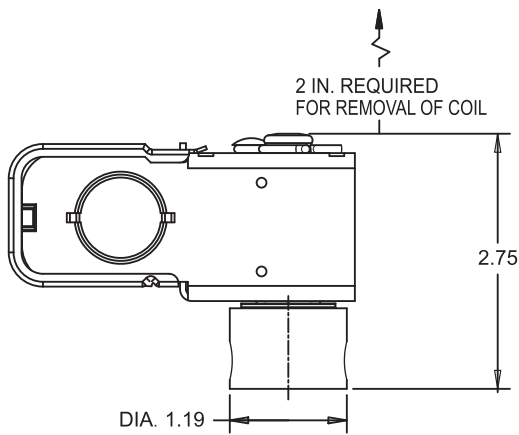
¹With an ambient temperature of 77°F.

²Maximum Operating Pressure Differential.

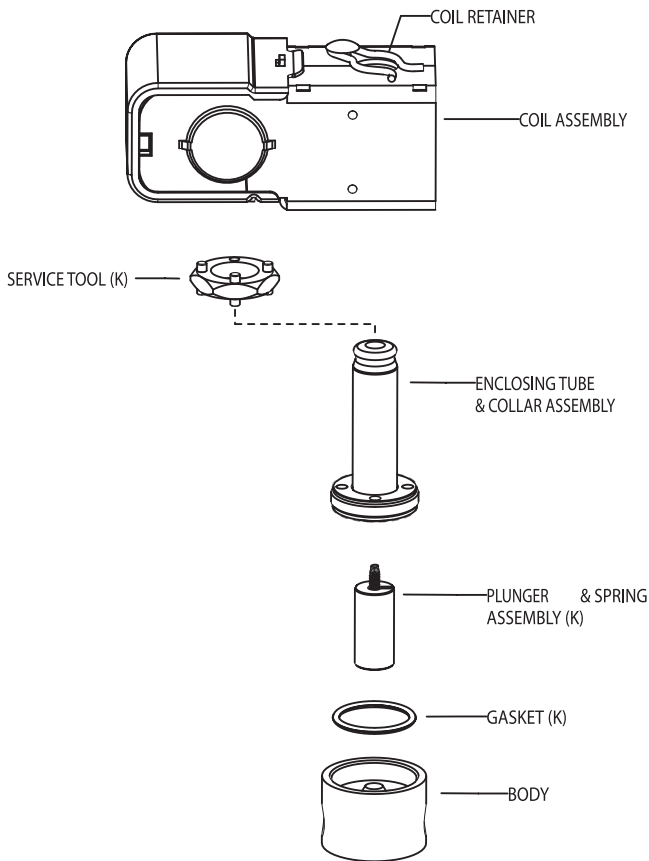
*VLC - For available coil assemblies, see page 114.

Thermal Expansion Valves
 Solenoid Valves
 Coils
 Industrial Solenoid Valves
 Shut Off Valves
 System Protectors
 Storage Devices
 Oil Controls
 Pressure Regulators
 Temperature Pressure Controls
 Competitive Cross Reference

202CB Dimensional Data (in)



202CB Exploded View



Valve Repair Kit

"K" indicates part is supplied in valve repair kit.

Coil Assembly

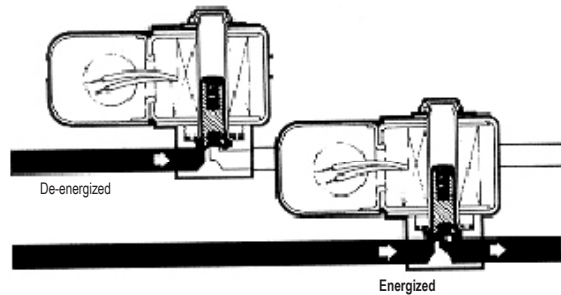
For available coil assemblies, see page 114.

202CB Valve Options

Options	To Order
Manual Override (not for steam) Minimum order qty. 100	Add suffix "M" to catalog number.
Adjustable Metering (not for steam) 500 psi SWP for All orifice sizes.	Add suffix "A" to catalog number.
Silver Shading Band (on stainless steel valves)	Change body material code. Example: Change standard 202CB1/8S to non-standard 202CB1/8T (silver shading band)

202CB Valve Repair Kits

Seat Material	Kit #	PCN
Buna-N	K-1063	021103
Viton	K-1065	032955
Rulon	K-1068	032396
Ethylene Propylene	K-1064	021104



203CA Industrial Solenoids

The 203CA is a direct-acting, 2-way normally closed valve for air, water and steam applications.



Features

- Superior life with stainless steel enclosing tubes
- Forged brass body with large wrench flats
- Repair kits available

Options

- Optional Voltages: 120-240, 480 & 240-480/50-60 Hz

Specifications

- 3/8" NPT Solenoid Valve
- Watts: 12 A.C.
- VA Inrush: 37 for 5/32 & 1/8 orifices
47 for 1/4 + orifices
- VA Holding: 19
- Maximum working pressure: 500 psi
- Weight: 1 lb. 4 oz.
- Standard Voltages: 24, 120, 208-240/50-60 Hz
- UL/CUL file number: MP604

Ordering Information*

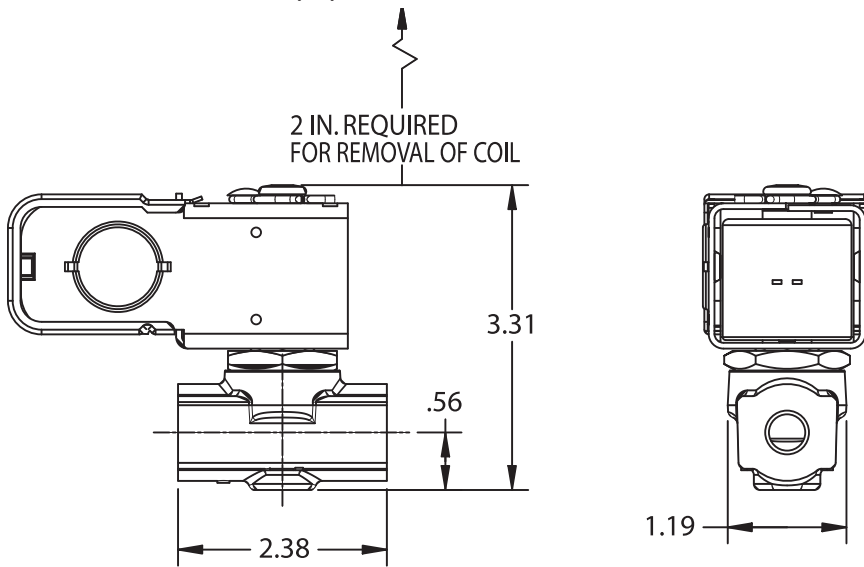
Pipe Size	Orifice Size	M.O.P.D ²	Cv	Max. AC Fluid Temp. ¹	Recommended Coils			Description	PCN	Elastomer
		AC			Size	Insulation	Enclosure			
Brass General Purpose										
3/8	1/8	125	0.3	180°F	A 12 Watts AC	M Class F Molded	G Junction Box	203CA3/8B1/8B		BUNA-N
	5/32	75	0.5					203CA3/8B5/32B		
	1/4	25	1.0					203CA3/8B1/4B	030603	
	5/16	15	1.5					203CA3/8B5/16B		
	3/8	10	1.7					203CA3/8B3/8B	030605	
Stainless Steel General Purpose										
3/8	1/4	15	1.0	250°F	A 12 Watts AC	M Class F Molded	G Junction Box	203CA3/8B1/4P		Ethylene Propylene Gaskets
	5/16	15	1.5					203CA3/8B5/16P		
	3/8	10	1.7					203CA3/8B3/8P	030614	

¹With an ambient temperature of 77°F.

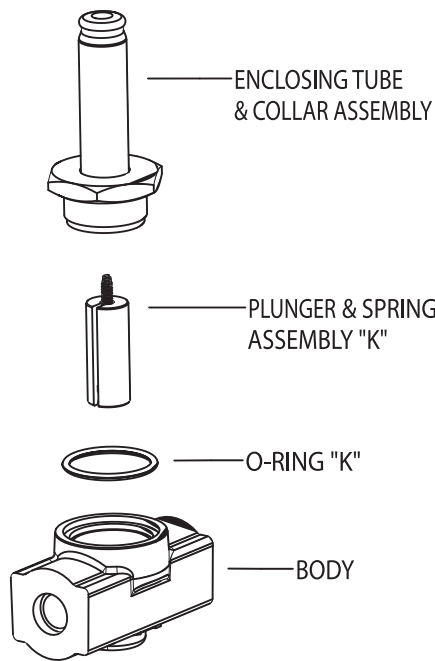
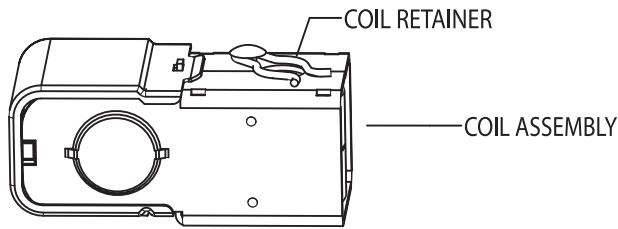
²Maximum Operating Pressure Differential.

*VLC - For available coil assemblies, see page 114.

203CA Dimensional Data (in)



203CA Exploded View



203CA Valve Repair Kits

Orifice Size	Seat Material	Kit #	PCN
1/8, 3/32	Buna-N	K-1108	034483
1/4, 5/16, 3/8	Buna-N	K-1104	021108
	Ethylene Propylene	K-1106	040598

Valve Repair Kit
 "K" indicates part is supplied in valve repair kit.
Coil Assembly
 For available coil assemblies, see page 114.

204CD Industrial Solenoids

The 204CD is a direct-acting unidirectional, normally closed valve for air, water and steam applications.



Features

- Superior life with stainless steel enclosing tubes
- Repair kits available

Specifications

- 1/4" NPT Solenoid Valve
- Watts: 12 A.C., 15 D.C.
- VA Inrush: 31
- VA Holding: 19
- Maximum working pressure: 500 psi (1000 psi - 3/64" Orifice Only)
- Weight: 1 lb. 3 oz.
- Standard Voltages: 24, 120, 208-240/50-60 Hz
- UL/CUL file number: MP604

Options

- Brass or stainless steel bodies
- Optional Voltages: 12 or 24 VDC & 120-240, 480 & 240-480/50-60 Hz

Ordering Information*

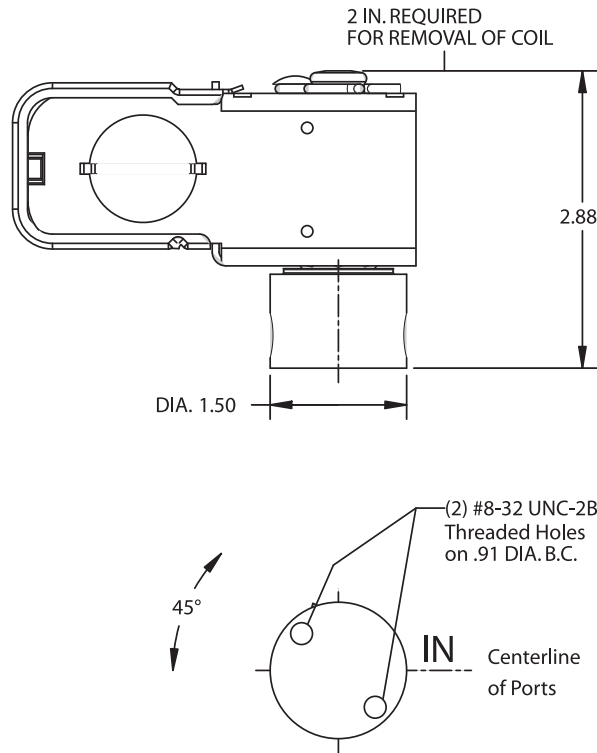
Pipe Size	Orifice Size	M.O.P.D ²		Cv	Max. AC Fluid Temp. ¹	Recommended Coils			Description	PCN	Elastomer
		AC	DC			Size	Insulation	Enclosure			
Brass General Purpose											
1/4	3/64	950	500	0.05	180°F	A 12 Watts AC 15 Watts DC	M Class F Molded	G Junction Box	204CD1/4B3/64B	030731	BUNA-N
	1/16	500	500	0.12					204CD1/4B1/16B		
	3/32	300	125	0.22					204CD1/4B3/32B	030733	
	1/8	150	75	0.34					204CD1/4B1/8B	056110	
	5/32	100	40	0.48					204CD1/4B5/32B	030735	
	3/16	60	30	0.56					204CD1/4B3/16B	030736	
1/4	20	10	0.70	204CD1/4B1/4B	030737						
Stainless Steel General Purpose											
1/4	3/64	950	500	0.05	180°F	A 12 Watts AC 15 Watts DC	M Class F Molded	G Junction Box	204CD1/4S3/64B		BUNA-N
	1/16	500	500	0.12					204CD1/4S1/16B		
	3/32	300	125	0.22					204CD1/4S3/32B	030870	
	1/8	150	75	0.34					204CD1/4S1/8B	030871	
	5/32	100	40	0.48					204CD1/4S5/32B		
	3/16	60	30	0.56					204CD1/4S3/16B		
1/4	20	10	0.70	204CD1/4S1/4B	030874						
Brass Steam											
1/4	3/64	150	-	0.05	400°F	A 12 Watts AC A	H Class H Molded M	G Junction Box G	204CD1/4B3/64T		PTFE w/Ethylene Propylene Gaskets
	1/16	150	-	0.12					204CD1/4B1/16T		
	3/32	150	-	0.22					204CD1/4B3/32T	030748	
	1/8	150	-	0.34					204CD1/4B1/8T	030749	
	5/32	100	-	0.48					204CD1/4B5/32T	030750	
	3/16	60	-	0.56					204CD1/4B3/16T		
1/4	20	-	0.70	250°F				204CD1/4B1/4P		E.P. Seat	
Stainless Steel Steam											
1/4	3/64	150	-	0.05	400°F	A 12 Watts AC A	H Class H Molded M	G Junction Box G	204CD1/4S3/64T	030883	PTFE w/Ethylene Propylene Gaskets
	1/16	150	-	0.12					204CD1/4S1/16T		
	3/32	150	-	0.22					204CD1/4S3/32T		
	1/8	150	-	0.34					204CD1/4S1/8T	030886	
	5/32	100	-	0.48					204CD1/4S5/32T		
	3/16	60	-	0.56					204CD1/4S3/16T	030888	
1/4	20	-	0.70	250°F				204CD1/4S1/4P		E.P. Seat	
Stainless Steel Steam											
1/4	5/32	100	-	0.48	400°F	A 12 Watts	H Class H Molded	G Junction Box	204CD1/4S5/3P	053492	E.P. Seat
Brass Steam											
1/4	5/32	100	-	0.48	400°F	A 12 Watts	H Class H Molded	G Junction Box	204CD 1/4 B 5/32 P	064682	E.P. Seat

¹With an ambient temperature of 77°F.

²Maximum Operating Pressure Differential.

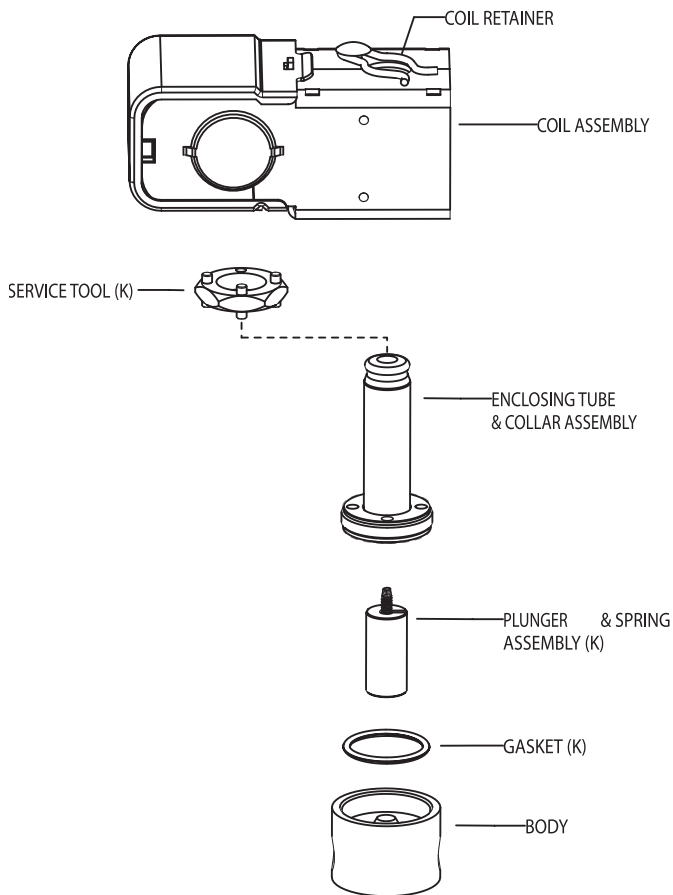
*VLC - For available coil assemblies, see page 114.

204CD Dimensional Data (in)



204C Valve Options	
Options	To Order
Manual Override (not for steam) Minimum order qty. 100	Add suffix "M" to catalog number.
Adjustable Metering (not for steam) 500 psi SWP for All orifice sizes.	Add suffix "A" to catalog number.
Silver Shading Band (on stainless steel valves)	Change body material code. Example: Change standard 204CD1/4S to non-standard 204CD1/4T (silver shading band)

204CD Exploded View



204C Valve Kit Repairs

Seat Material	Kit #	PCN
Buna-N	K-1072	021105
Viton	K-1074	021106
Rulon	K-1077	021107
Ethylene Propylene	K-1076	032154
Buna-N (1/4 orifice only)	K-1162	039145

Valve Repair Kit

"K" indicates part is supplied in valve repair kit.

Coil Assembly

For available coil assemblies, see page 114.

210CA/211CA Industrial Solenoids

The 210CA/211CA is a 2-way normally closed valve used in air, water and steam applications. The 210CA valve is pilot-operated and the 211CA valve is direct-acting.



Features

- Unique captive diaphragm and seal
- Superior life with stainless steel enclosing tube
- Repair kits available

Options

- Optional Voltages: 12 or 24 VDC & 120-240, 480 & 240-480/50-60 Hz

Specifications

- Watts: 12 A.C.
- VA Inrush: 31
- VA Holding: 19
- Maximum working pressure: 300 psi (250 psi on 1" 210C only)
- Weight: 1 lb. 3 oz.
- Standard Voltages: 24, 120, 208-240/50-60 Hz
- Diaphragm Operated Solenoid Valve:
210CA - from 5 to 150 psi. 3/8" to 1" NPT
211CA - from 0 to 100 psi. 3/8" to 3/4" NPT
- UL/CUL file number: MP604

210CA Ordering Information*

Pipe Size	Orifice Size	M.O.P.D		Cv	Max. AC Fluid Temp. ¹	Recommended Coils			Description	PCN	Elastomer
		AC				Size	Insulation	Enclosure			
Brass General Purpose											
3/8	5/8	150		2.8	180°F	A 12 Watts AC	M Class F Molded	G Junction Box	210CA3/8B5/8B	030619	BUNA-N
1/2	5/8	150		3.6					210CA1/2B5/8B	030620	
3/4	3/4	125		5.5					210CA3/4B3/4B	030621	
1	1	125		13					210CA1B1B	038629	
Brass-Hot Water (210°F) or Steam (TO 250°)											
3/8	5/8	100 ²	15 ³	2.8	250°F	A 12 Watts AC	M Class F Molded	G Junction Box	210CA3/8B5/8P		Ethylene Propylene
1/2	5/8	100 ²	15 ³	3.6					210CA1/2B5/8P	030623	
3/4	3/4	100 ²	15 ³	5.5					210CA3/4B348P	030624	

211CA Ordering Information*

Pipe Size	Orifice Size	M.O.P.D		Cv	Max. AC Fluid Temp. ¹	Recommended Coils			Description	PCN	Elastomer
		AC				Size	Insulation	Enclosure			
Brass General Purpose											
3/8	5/8	100		2.8	180°F	A 12 Watts AC	M Class F Molded	G Junction Box	211CA3/8B5/8B	030625	BUNA-N
1/2	5/8	100		3.6					211CA1/2B5/8B	030626	
3/4	3/4	100		5.5					211CA3/4B3/4B	030627	
Brass-Hot Water (210°F) or Steam (TO 250°)											
3/8	5/8	100 ²	15 ³	2.8	250°F	A 12 Watts AC	M Class F Molded	G Junction Box	211CA3/8B5/8P	032303	Ethylene Propylene
1/2	5/8	100 ²	15 ³	3.6					211CA1/2B5/8P	032304	
3/4	3/4	100 ²	15 ³	5.5					211CA3/4B348P	032305	

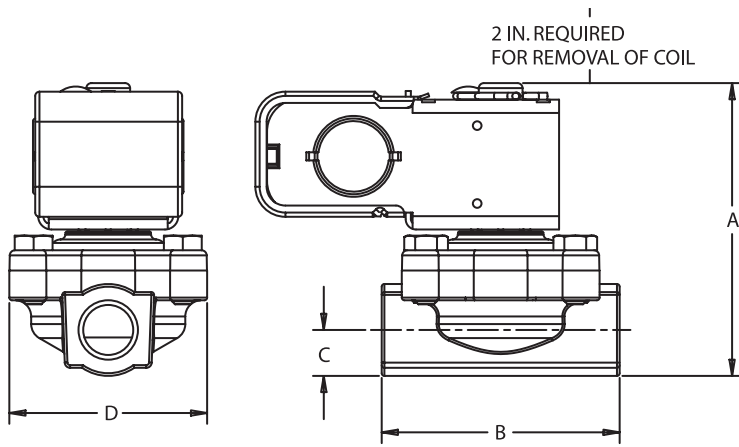
¹With an ambient temperature of 77°F.

²MOPD-Hot Water

³MOPD-Steam

*VLC - For available coil assemblies, see page 114.

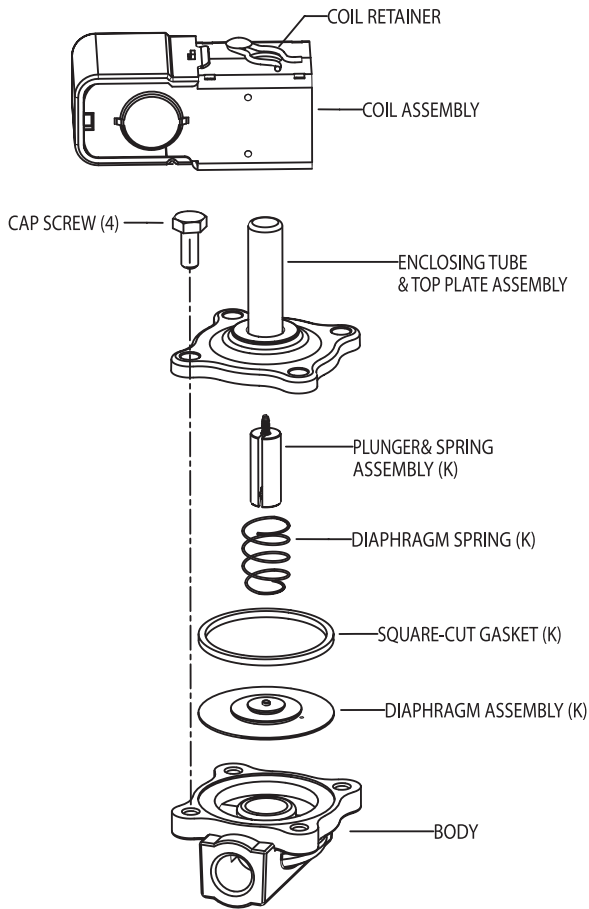
210CA/211CA Dimensional Data (in)



Pipe Size	A	B	C	D
3/8	3.56	2.75	0.53	2.29
1/2				
3/4	3.83	2.81	0.66	4.31
1*	4.55	4.16	0.84	

* 1" Pipe available on 210C valve only.

210CA/211CA Exploded View



210CA Valve Repair Kits

Seat Material	Connection Size					
	3/8 & 1/2	PCN	3/4	PCN	1	PCN
Buna-N	K-1155	028964	K-1231	045072	K-1177	038934
Ethylene Propylene	K-1156	029856	K-1232	045083		

211CA Valve Repair Kits

Seat Material	Kit #	PCN
Buna-N	K-1157	034357
Ethylene Propylene	K-1158	039879

Valve Repair Kit

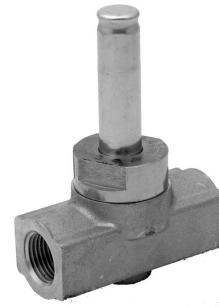
"K" indicates part is supplied in valve repair kit.

Coil Assembly

For available coil assemblies, see page 114.

214CB Industrial Solenoids

The 214CB is a 2-way normally closed valve for air, water, and steam applications.



Features

- Superior life with stainless steel enclosing tube
- Forged brass body with large wrench flats
- PTFE O-ring for superior external leakage
- Repair kits available

Options

- Optional Voltages: 480, 120-240 & 240-480/50-60 Hz

Specifications

- 1/4" & 3/8" NPT Solenoids
- Watts: 12 @ 60Hz
- VA Inrush: 44
- VA Holding: 22
- Maximum working pressure: 350 psi
- Weight: 1 lb. 4 oz.
- Standard Voltages: 24, 120, 208-240/50-60 Hz
- Pilot Operated: 2 to 200 P.S.I.
- UL/CUL file number: MP604

Ordering Information*

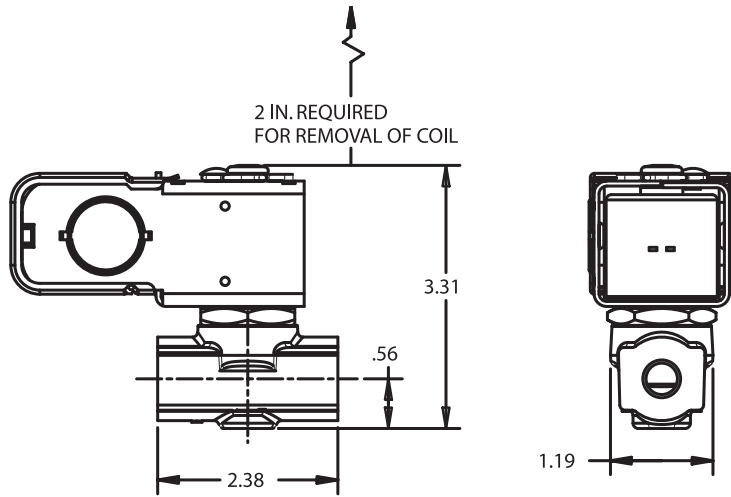
Pipe Size	Orifice Size	M.O.P.D ²	Cv	Max. AC Fluid Temp. ¹	Recommended Coils			Description	PCN	Elastomer
		AC			Size	Insulation	Enclosure			
Brass General Purpose										
1/4	1/4	200	1.2	180°F	A 12 Watts @ 60 Hz	M Class F Molded	G Junction Box	214CB1/4B1/4B	030540	BUNA-N
	5/16	200	1.6					214CB1/4B5/16B	030541	
	3/8	200	2.2					214CB1/4B3/8B		
3/8	1/4	200	1.2					214CB3/8B1/4B		
	5/16	200	1.6					214CB3/8B5/16B		
	3/8	200	2.2					214CB3/8B3/8B	030545	
3/8	3/8	200	2.2	400°F	Same As Above			214CB 3/8B3/8P	030557	EP Seat

¹With an ambient temperature of 77°F.

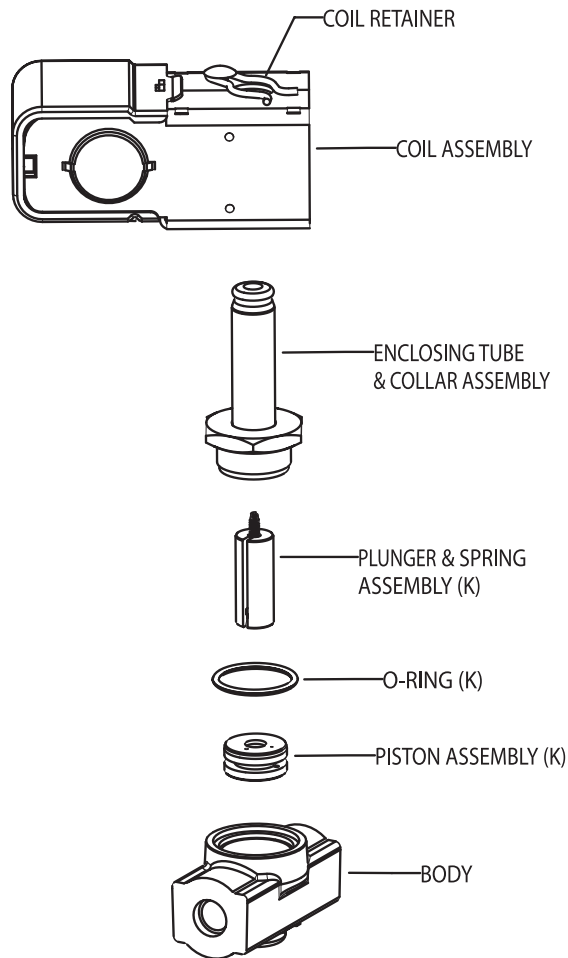
²Maximum Operating Pressure Differential.

*VLC - For available coil assemblies, see page 114.

214CB Dimensional Data (in)



214CB Exploded View



214C Valve Options	
Options	To Order
Manual Override	Add suffix "M" to catalog number.

214CB Valve Repair Kits

Seat Material	Kit #	PCN
Buna-N	K-1112	035074
Ethylene Propylene	K-1113	041334

Valve Repair Kit

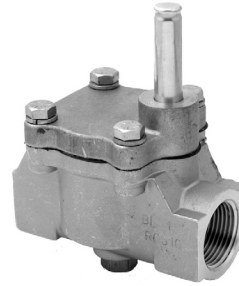
Valve Repair "K" indicates part is supplied in valve repair kit.

Coil Assemblies

For available coil assemblies, see page 114.

222CB Industrial Solenoids

The 222CB is a 2-way normally closed valve for air, water, and steam applications.



Features

- Forged brass body with large wrench flats
- Repair kits available

Options

- Optional Voltages: 480, 120-240 & 240-480/50-60 Hz

Specifications

- 3/8" & 1 1/2" NPT Solenoids
- Rulon Seat Material
- Watts: 12 @ 60Hz
- VA Inrush: 38
- VA Holding: 19
- Maximum working pressure: 300 psi
- Minimum Operating Pressure Differential : 5 psi
- Standard Voltages: 24, 120, 208-240/50-60 Hz
- UL/CUL file number: MP604

• Weights:	Pipe Size	
	3/8, 1/2	1 lb. 8 oz.
	3/4	3 lbs.
	1	4 lbs. 4 oz.
	1-1/4	6 lbs. 2 oz.
	1-1/2	8 lbs. 6 oz.

Ordering Information*

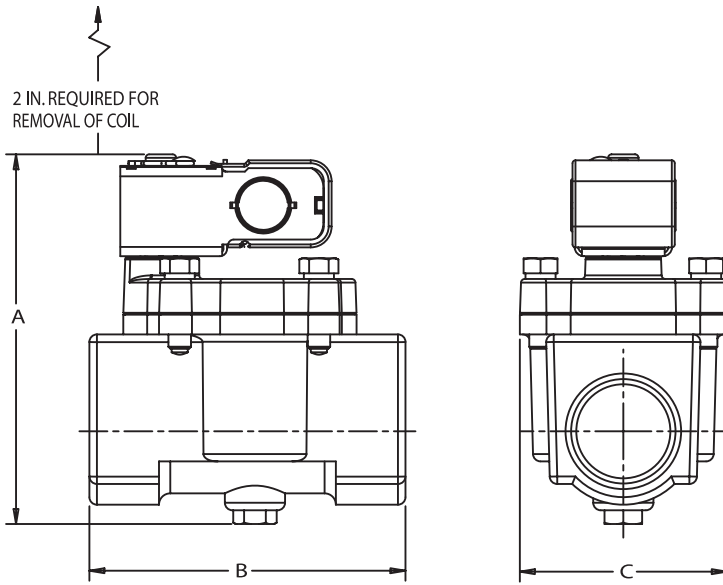
Pipe Size	Orifice Size	M.O.P.D ²	Cv	Max. AC Fluid Temp. ¹	Recommended Coils			Description	PCN	Elastomer	
		AC			Size	Insulation	Enclosure				
Brass General Purpose											
3/8	1/2	250	3.5	180°F	A 12 Watts @ 60 Hz	M Class F Molded	G Junction Box	222CB3/8B1/2B	039917	BUNA-N	
1/2	1/2		3.5					222CB1/2B1/2B			
3/4	3/4		7.0					222CB3/4B3/4B			028192
1	1		13.0					222CB1B1B			039931
1-1/4	1-1/4		16.0					222CB1-1/4B1-1/4B			039918
1-1/2	1-1/2		25.0					222CB1-1/2B1-1/2B			038879
Brass Steam											
3/8	1/2	150	3.5	400°F	A 12 Watts @ 60 Hz	H Class F Molded	G Junction Box	222CB3/8B1/2T	041518	Rulon with Ethylene Propylene Gaskets	
1/2	1/2		3.5					222CB1/2B1/2T	037958		
3/4	3/4		7.0					222CB3/4B3/4T	039930		
1	1		13.0					222CB1B1T	039834		
1-1/4	1-1/4		16.0					222CB1-1/4B1-1/4T	040532		
1-1/2	1-1/2		25.0					222CB1-1/2B1-1/2T	040582		
Brass Steam											
3/4	3/4	150	7.0	400°F	Same As Above			222CB- 3/4 B-3/4 P	041314	Ethylene Prop.	

¹With an ambient temperature of 77°F.

²Maximum Operating Pressure Differential.

*VLC - For available coil assemblies, see page 114.

222CB Dimensional Data (in)



Orifice Size	A*	B	C
1/2	4.59	2.47	1.63
3/4	4.91	3.25	2.06
1	5.38	4.06	2.63
1 1/4	5.66	4.56	3.00
1 1/2	6.16	5.25	3.44

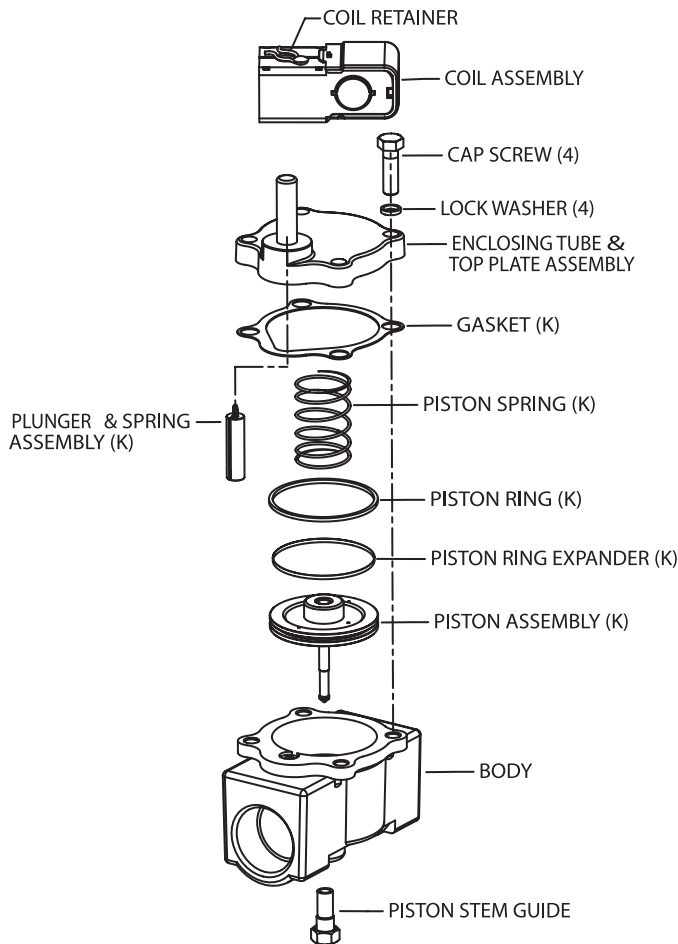
* Add 0.97 for Manual Override

222CB Valve Options	
Options	To Order
Manual Override (not for steam) Field Installed	Add suffix "M" to catalog number.

222CB Valve Repair Kits

Seat Material	Orifice Size - NPT									
	3/8 & 1/2	PCN	3/4	PCN	1	PCN	1-1/4	PCN	1-1/2	PCN
Buna-N	K-1116	030765	K-1120	037558	K-1124	028955	K-1128	031349	K-1132	028956
Rulon	K-1118	029235	K-1122	021109	K-1126	034178	K-1130	034047	K-1134	032334
Ethylene Propylene			K-1121	040680						

222CB Exploded View



Valve Repair Kit

"K" indicates part is supplied in valve repair kit.

Coil Assembly

For available coil assemblies, see page 114.

Thermal Expansion Valves
Solenoid Valves
Coils
Industrial Solenoid Valves
Shut Off Valves
System Protectors
Storage Devices
Oil Controls
Pressure Regulators
Temperature Pressure Controls
Competitive Cross Reference

314UB Industrial Solenoids

The 314UB is a direct-acting, 3-way universal valve for air and water applications.

Features

- Rugged industrial construction
- Both seat discs are spring loaded
- Superior life with stainless steel enclosing tube

Options

- Brass or stainless steel bodies
- Optional Voltages: 480, 120-240 & 240-480/50-60 Hz



Specifications

- 1/4" NPT Solenoids
- Watts: 12 @ 60Hz
- VA Inrush: 36
- VA Holding: 24
- Maximum working pressure: 500 psi
- Weight: 1 lb.
- Standard Voltages: 24, 120, 208-240/50-60 Hz
- UL/CUL file number: MP604

NOTE: 314U valves require an AMGN, EM or ASC-Type coil.

Ordering Information*

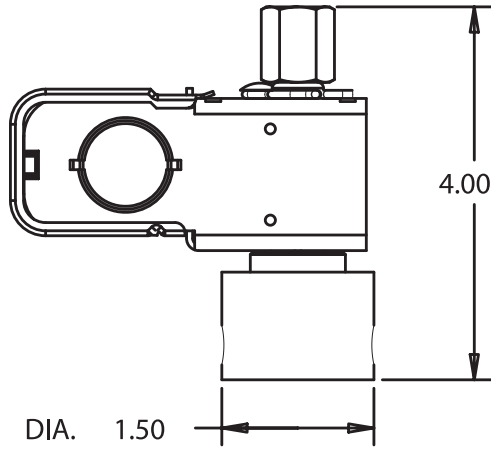
Pipe Size	Orifice Size	M.O.P.D ²			Max. AC Fluid Temp. ¹	Recommended Coils			Description	PCN	Elastomer
		AC	Port 2	Port 3		Size	Insulation	Enclosure			
Brass General Purpose											
1/4	3/64	125	.05	.06	180°F	A	M	GN	314UB1/4B3/64B3/64B	030722	BUNA-N
	3/32	40	.22	.17		12 Watts @ 60 Hz	Class F Molded	Junction Box	314UB1/4B3/32B3/32B	030719	
Stainless Steel General Purpose											
1/4	3/64	125	.05	.06	180°F	A	M	GN	314UB1/4S3/64B3/64B	030725	BUNA-N
						12 Watts @ 60 Hz	Class F Molded	Junction Box			

¹With an ambient temperature of 77°F.

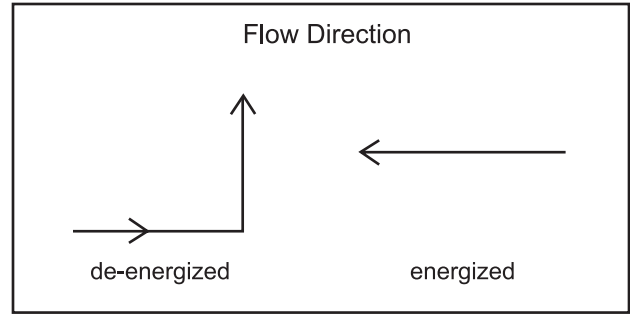
²Maximum Operating Pressure Differential.

*VLC - For available coil assemblies, see page 114.

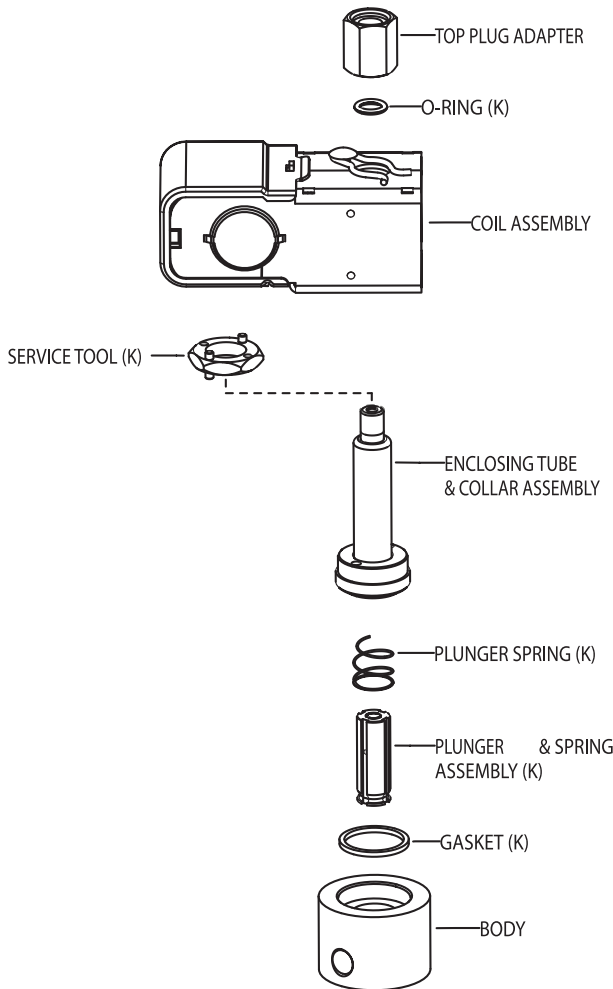
314UB Dimensional Data (in)



314UB Valve Options	
Options	To Order
Silver Shading Band (on stainless steel valves)	Change body material code. Example: Change standard 314UB1/8S to non-standard 314UB1/bT (silver shading band)



314UB Exploded View



314UB Valve Repair Kits

Seat Material	Kit #	PCN
Buna-N	K-1093	037054

314UB Valve Repair Kits

Kit #	PCN
K-1083	028957

Valve Repair Kit

"K" indicates part is supplied in valve repair kit.

Coil Assembly

For available coil assemblies, see page 114.

Industrial Solenoids Old to New Cross Reference

Old Model	Old PCN	New Model	New PCN
121WB5CP02	030038	204CD 1/4B 5/32 B VLC	030735
121WB03P02	040412	204CD 1/4B 3/16 B VLC	030736
121WB04P02	040337	204CD 1/4B 1/4 B VLC	030737
121SB5CP02	040300	204CD 1/4B 5/32 T VLC	030750
201WB04P02	091876	214CB 1/4B 1/4 B VLC	030540
201WB05P02	040758	214CB 3/8B 5/16 B VLC	064854
201WB06P02	065610	214CB 3/8B 3/8 B VLC	030545
231WB08P04	030051	222CB 1/2 B 1/2 B VLC	039917
231WB12P06	039987	222CB 3/4 B 3/4 B VLC	028192
231WB16P08	034211	222CB 1 B 1 B VLC	039931
231WB20P10	040283	222CB 1-1/4 B 1-1/4 B VLC	039918
231WB24P12	040021	222CB 1-1/2 B 1-1/2 B VLC	038879
231SB08P04	034171	222CB 1/2 B 1/2 T VLC	037958
231SB12P06	040069	222CB 3/4 B 3/4 T VLC	039930
231SB16P08	030048	222CB 1 B 1 T VLC	039834
231SB20P10	040365	222CB 1-1/4 B 1-1/4 T VLC	040532
231SB24P12	040366	222CB 1-1/2 B 1-1/2 T VLC	040582
241WA10P03	035073	210CA 3/8 B 5/8 B VLC	030619
241WA10P04	035023	210CA 1/2 B 5/8 B VLC	030620
241WA12P06	035022	210CA 3/4 B 3/4 B VLC	030621
241WA16P08	038857	210CA 1 B 1 B VLC	038629

ACK Check Valves

The ACK check valve is a normally closed magnetic check valve that prevents reverse refrigerant flow in liquid lines and compressor discharge lines.



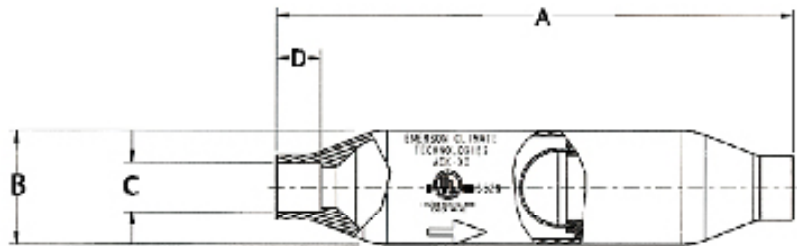
Features

- Copper Connection Sizes 1/4" through 2-5/8"
- Hermetic Spun Copper Design
- Near Zero Internal Leak Rate
- Magnetic Checking Action
- Built-In 30 Mesh Stainless Steel Strainer
- Can Be Installed In Any Position

Specifications

- UL/CUL File number: SA 5312

Dimensional Data



Nomenclature example: ACK-4

ACK	4
Check Valve Series	Copper ODF Connection Size (in 1/16")

Ordering Information and Dimensional Data (in)

PCN	Description	Connection Size	A	B	C	D	Opening Pressure (oz/sq in)	Opening Pressure (psig)	MWP (psig)	Burst Pressure (psig)	Leak Rate CIM @ 60 psi	Nominal Tons R-22 Suction 40°F @ 1 psi	Nominal Tons R-22 Liquid 40°F @ 1 psi	Cv
064985	ACK-4	1/4 ODF	4.00	0.88	0.254 ± 0.002	0.19	1.20	0.80	800	4000	0.015	0.40	2.60	0.9
064986	ACK-6	3/8 ODF			0.379 ± 0.002	0.40	1.30	0.08				0.60	3.10	1.0
064987	ACK-8	1/2 ODF	5.00	1.13	0.504 ± 0.002	0.31	3.50	0.22	640	3400	0.034	1.20	9.40	3.1
064988	ACK-10	5/8 ODF			0.629 ± 0.002	0.50						1.40	13	3.6
064989	ACK-12	3/4 ODF	7.00	1.63	0.754 ± 0.002	0.63	3.80	0.24	560	2800	0.074	3.30	27	8.0
064990	ACK-14	7/8 ODF			0.879 ± 0.003	0.42						3.70	29	9.2
064991	ACK-18	1-1/8 ODF	8.38	2.13	1.130 ± 0.003	0.94	6.80	0.43	400	2000	0.122	6	51	15.4
064992	ACK-22	1-3/8 ODF	9.38	2.63	1.380 ± 0.003	1.04	10.20	0.64	440	2200	0.172	9.50	79	23.8
064993	ACK-26	1-5/8 ODF	10.50	3.13	1.630 ± 0.003	1.07	11.40	0.71	420	2100	0.272	17	102	24.2
064994	ACK-34	2-1/8 ODF	12.00	3.63	2.130 ± 0.003	1.34	18.10	1.13	400	2000	0.386	30	213	38.7
064995	ACK-42	2-5/8 ODF	13.00	4.13	2.630 ± 0.003	1.50	23.00	1.44	380	1900	0.512	50	375	71.7

Cross Reference (Identical Lay-In)

Emerson	A-1 Components	Superior
ACK-4	MS-4	900M-4S
ACK-6	MS-6	900M-6S
ACK-8	MS-8	900M-8S
ACK-10	MS-10	900M-10S
ACK-12	MS-12	900M-12S
ACK-14	MS-14	900M-14S
ACK-18	MS-18	N/A
ACK-22	MS-22	N/A
ACK-26	MS-26	N/A
ACK-34	MS-34	N/A
ACK-42	MS-42	N/A

ABV Refrigeration Ball Valve

The ABV isolates suction, discharge, and liquid line pipework during maintenance shutdown periods.



Features

- Forged brass body
- Hermetic design
- Compatible with new refrigerants/lubricants
- Full internal ports through 2 1/8"
- Bi-directional flow characteristics
- Valve stem cap retained by strap attached to main body
- Integrated access port available on all sizes

Specifications

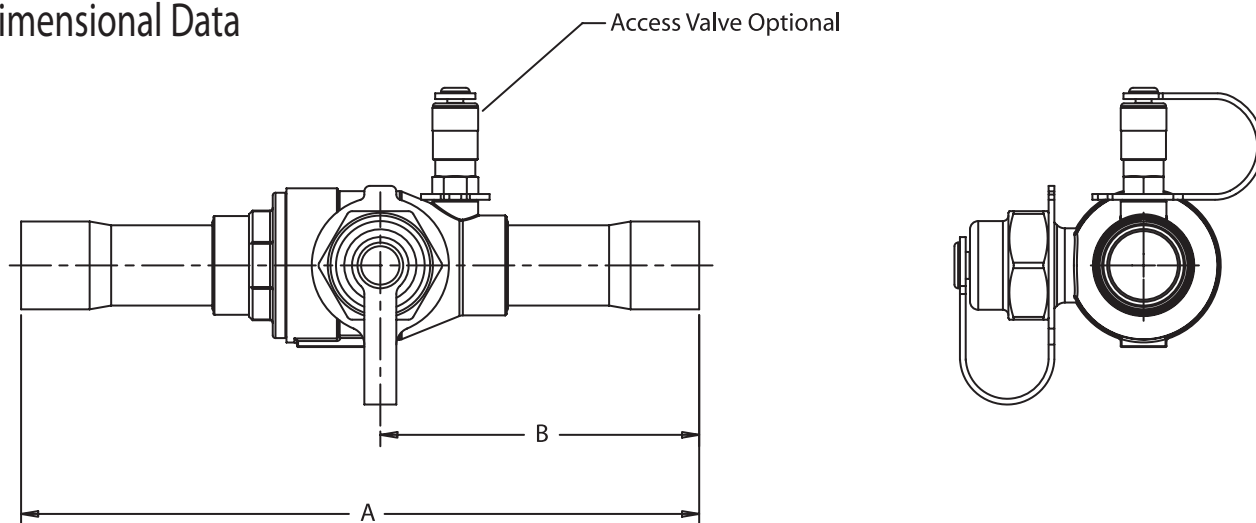
- Body: Forged Brass
- Extensive Stubs: 100% Copper Connections
- Maximum Working Pressure: 500 psig
- Not for use with R-123
- Fluid temperature range: +300°F to -40°F
- UL/CUL file number: SA 5312

Nomenclature

example: ABV 5A

A	BV	5	A
Series	Ball Valve	Connection Size (in 1/8")	Access Valve (optional)

Dimensional Data



Selection & Ordering Information

PCN without Access Valve	PCN with Access Valve	Valve	Port Size	Connection Size	Dimensions (in)	
					A	B
064383	064384	ABV2	1/2	1/4 ODF	5.47	2.55
062104	062114	ABV3	1/2	3/8 ODF	5.47	2.55
062105	062115	ABV4	1/2	1/2 ODF	6.35	2.97
062106	062116	ABV5	1/2	5/8 ODF	6.35	2.97
064385	064386	ABV6	3/4	3/4 ODF	7.42	3.49
062107	062117	ABV7	3/4	7/8 ODF	7.42	3.49
062108	062118	ABV9	1	1 1/8 ODF	9.11	4.47
062109	062119	ABV11	1 1/4	1 3/8 ODF	9.97	4.84
062110	061220	ABV13	1 1/2	1 5/8 ODF	10.98	5.38
062111	062121	ABV17	2	2 1/8 ODF	11.72	5.77
062112	062122	ABV21	2	2 5/8 ODF	11.72	5.77
062113	062123	ABV25	2	3 1/8 ODF	11.81	5.82

System Protector Quick Select Guide

Hermetic Filter-Driers

Type	Filter Drier	Page	Recommended Use	Function
Liquid	EK	138	CFC, HCFC, HFC	Premium Universal Replacement
Liquid	ADK	141	CFC, HCFC, HFC	High Acid and Water Removal
Liquid	BOK-HH	145	CFC, HCFC, HFC	Burnout Cleanup with Charcoal
Liquid	BFK	143	CFC, HCFC, HFC	Bi-Flow Heat Pump
Suction	SFD	157	CFC, HCFC, HFC	Suction Line Filter-Drier
Suction	CSFD	158	CFC, HCFC, HFC	Compact Suction Line Filter-Drier
Suction	ASD	156	CFC, HCFC, HFC	Premium Suction Line Filter-Drier
Suction	ASK-HH	159	CFC, HCFC, HFC	Burnout Cleanup with Charcoal
Suction	ASF	160	CFC, HCFC, HFC	Filter Only

Take-A-Part Filter-Driers

Type	Filter Drier	Page	Liquid	Suction
Take-A-Part	STAS	149	X	X
Take-A-Part	ADKS	151	X	X
Take-A-Part	BTAS	154		X

Replaceable Cores/Filters for Take-A-Part Shells

Type	Core/Filter	Page	Recommended use	Function
Core	D-42/48	153	CFC, HCFC	High Acid Removal
Core	H-42/48/100		CFC, HCFC	High Acid and Water Removal
Core	W-42/48/100HH		CFC, HCFC, HFC	Burnout Cleanup w/Charcoal
Core	UK-48/100		CFC, HCFC, HFC	Premium Universal Replacement
Filter	F-48/100		CFC, HCFC, HFC	Filter Only
Core	RH-48		Reclaim Use Only	High Acid and Water Removal
Core	RW-48		Reclaim Use Only	Burnout Cleanup

Recommended System Tonnage

Take A-Part Liquid Line Filter-Driers in Tons*

Description	Refrigeration, Low Temp. & Commercial Installations			Air Conditioning	
				Field Replacement & Field Installations	
	R-12/R-134a	R-22	R-404A/R-507A	R-12/R-134a	R-22/R-407C/R-410A ⁺
STAS 485T	8	10	8	8	10
STAS 487T	10	13	10	10	12 1/2
STAS 489T	10	15	10	10	15
STAS 4811T	13	20	13	13	20
STAS 967T	20	25	15	20	25
STAS 969T	25	30	20	25	30
STAS 9611T	30	35	25	30	35
STAS 9613T	35	40	30	35	40
A-TD-9625S-V	40	45	35	40	45
STAS 1449T	30	40	30	30	40
STAS 14411T	40	50	35	40	50
STAS 14413T	45	55	40	45	55
STAS 14417T	60	50	45	50	60
STAS 19211T	50	70	45	50	70
STAS 19213T	60	80	55	60	80
STAS 19217T	65	85	60	65	85
ADKS 30013T	50	65	45	50	65
ADKS 30017T	60	80	50	60	80
ADKS 40017T	65	85	55	65	85
ADKS 40021T	75	100	65	75	100

* For kW, multiply tons by 3.5

+ Consult product catalog pages for R-410A suitability.

Recommended System Tonnage

Hermetic Liquid Line Filter-Driers (EK, ADK, BFK, BOK)

(Recommended Capacities at 2 psi drop (See catalog page showing ARI data for capacity at 1 psi drop.)

Description	Refrigeration Low Temp. & Commercial Installations			Air Conditioning Field Replacement & Field Installations		
	R-12/R-134a	R-22	R-404A/R-507	R-12/R-134a	R-22/R-407C/R-410A	
032	1/2	1/2	1/2	1	1-1/2	
032S						
033						
033S						
052	3/4	3/4				
052S						
053	1-1/2	2	1-1/2	3	4	
053S						
082						
082S	1	1	3/4	1-1/2	2	
0825S						
0825S						
083	2	3	2	4	5	
083S						
084		4			5	7-1/2
084S						
162	1-1/2	2	1	1-1/2	2	
162S						
1625S						
163	3	5	3	4	5	
163S						
164				7-1/2		7-1/2
164S						
165						
165S		4		5	4	4
303						
303S	7-1/2			7-1/2		10
304						
304S	7-1/2	10	5	10	15	
305						
305S				18	24	
307S						
309S	4	5	5	20	26	
413						
414				7-1/2		7-1/2
414S						
415	7-1/2	7-1/2	7-1/2	12	18	
415S						
417S				10	10	10
419S						
419S	20	25	15			
757S						
759S	22	30	20	25	34	

EK Liquid Line Filter-Drier

The EK Liquid Line Filter-Drier is a premium compacted bead filter-drier with a fine 20 micron fine outlet pad for maximum filtration. The EK is a premium universal replacement liquid line filter-drier for CFC, HCFC and HFC refrigerants including R-12, R-134a, R-22, R-404A, R-407C, R-410A, R-500, R-502, and R-507.



Features

- Filtration first for more effective use of surface area of desiccant
- High moisture and acid removal capacity
- Solid copper connections
- Corrosion resistant epoxy powder paint finish
- Copeland® brand products approved for POE Oils
- Shock resistant steel shell construction

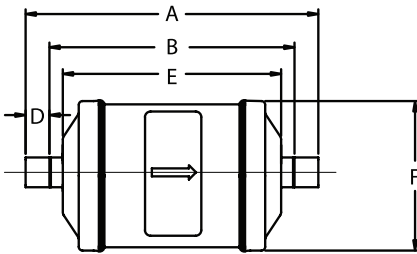
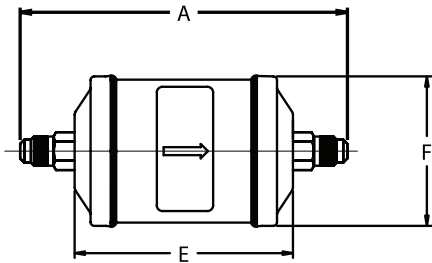
Specifications

- Desiccant blend - optimized for high water capacity and acid capacity
- Filtration: 20 microns
- Maximum working pressure: 680 psig
- UL/CUL file number: SA 3124

Nomenclature example: EK-083S

EK	08	3	S
Drier Series	Unit Size (in cu. in.)	Connection Size (in 1/8")	S = ODF connections (omit for SAE)

Dimensional Data



Ordering Information

PCN	Description	Dimensions (in)					Weight (lbs)
		A	B	D	E	F	
060009	EK 032	4.38	-	-	2.56	1.63	0.50
060012	EK 032S	3.88	3.13	0.38			
060011	EK 032FM	3.50	-	-			
060010	EK 032MF	3.50	-	-			
060013	EK 033	4.69	-	-	3.00	0.88	
060014	EK 033S	4.06	3.19	0.44			
047601	EK 052	4.81	-	-			
057013	EK 052MF	4.50	-	-			
047602	EK 052S	4.44	3.69	0.38	3.81	2.63	1.25
047603	EK 053	5.13	-	-			
047604	EK 053S	4.50	3.63	0.44			
047605	EK 082	5.63	-	-			
047606	EK 082S	5.25	4.50	0.38	4.75	1.25	
049551	EK 0825S	5.38	4.38	0.50			
056906	EK 083MF	5.94	-	-			
047607	EK 083	5.31	4.44	0.44			
047608	EK 083S	5.31	4.44	0.44	7.50	3.06	3.75
047609	EK 084	6.19	-	-			
047610	EK 084S	5.38	4.38	0.50			
047611	EK162	6.56	-	-			
047612	EK 162S	6.19	5.44	0.38	7.63	3.69	4.75
056045	EK 1625S	5.94	5.31	0.31			
047613	EK 163	6.88	-	-			
047614	EK 163S	6.25	5.44	0.44			
047615	EK 164	7.06	-	-	13.06	7.50	
047616	EK 164S	6.31	5.31	0.50			
047617	EK 165	7.50	-	-			
047618	EK 165S	6.56	5.31	0.63			
047619	EK 167S	7.50	5.63	0.75	7.50	3.06	3.75
048210	EK 303	9.63	-	-			
048211	EK 303S	9.00	8.13	0.44			
048212	EK 304	9.88	-	-			
048213	EK 304S	9.13	8.13	0.50	7.50	3.06	3.75
048214	EK 305	10.31	-	-			
048215	EK 305S	9.31	8.06	0.63			
048216	EK 306S	9.69	8.44	0.75			
048217	EK 307S	9.88	8.38	0.75	7.63	3.69	4.75
048218	EK 309S	10.25	8.44	0.94			
048219	EK 413	9.75	-	-			
048220	EK 414	10.00	-	-			
048221	EK 414S	9.25	8.25	0.50	7.63	3.69	4.75
048222	EK 415	10.44	-	-			
048223	EK 415S	9.44	8.19	0.63			
048224	EK 417S	10.00	8.50	0.75			
048225	EK 419S	10.94	-	-	13.06	7.50	
048228	EK 757S	15.44	13.94	-			
048229	EK 759S	15.75	13.88	0.94			

¹Does not include weld bead

Contractor's Choice EK Filter Drier

The Contractor's Choice EK filter drier is designed for foodservice and residential air conditioning applications.

Features

- Extended solid copper connections
- Dual access valves for faster and easier system diagnosis
- Incorporates all the internal features of the premium EK

Ordering Information

PCN	Description
063908	EK 032S VV
065966	EK 052S VV
065963	EK 053S VV
065964	EK 083S VV
065965	EK 163S VV



Specifications

- Desiccant blend - optimized for high water capacity and acid capacity
- Filtration: 20 microns
- Maximum working pressure: 680 psig
- UL/CUL file number: SA 3124

EK Cap Tube Filter Drier

The EK Cap Tube filter drier is designed for foodservice refrigeration systems.

Features

- Schrader valve on the inlet side acts as a maintenance and charging port
- Outlet is designed to accept capillary tubing without the need for crimping
- Extended solid copper 1/4 ODF connection inlet by cap tube
- Incorporates all the internal features of the premium EK

Ordering Information

PCN	Description
063208	EK 032 SV CAP (3 cubic inch)
065846	EK 052 SV CAP (5 cubic inch)



Specifications

- Desiccant blend - optimized for high water capacity and acid capacity
- Filtration: 20 microns
- Maximum working pressure: 680 psig
- UL/CUL file number: SA 3124

EK Capacity Tables

Description	Connections Inlet/Outlet	Flow Capacity Tons @ 1 psi ΔP ^{1,4} (For kW, multiply tons by 3.5)						Water Capacity ² Drops of Water ³																			
		R-12		R-134a		R-22/R-410A		R-407C		R-404A/R-507		R-502		R-12		R-134a		R-22		R-407C		R-410A		R-404A/507		R-502	
		75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F
EK 03 2 FM	1/4 Fem/1/4 Male SAE	1.6	2.0	2.2	2.1	1.4	1.4	47	41	40	37	40	33	33	25	21	19	38	37	42	37						
EK 03 2 MF	1/4 Male/1/4 Fem SAE	1.6	2.0	2.2	2.1	1.4	1.4																				
EK 03 2	1/4 SAE	1.6	2.0	2.2	2.1	1.4	1.4																				
EK 03 2 S	1/4 ODF	2.2	2.7	2.9	2.9	2.0	1.9																				
EK 032 SV	1/4 ODF	2.2	2.7	2.9	2.9	2.0	1.9																				
EK 03 3	3/8 SAE	2.5	3.0	3.3	3.2	2.2	2.1																				
EK 03 3 S	3/8 ODF	2.5	3.0	3.3	3.2	2.2	2.1																				
EK 05 2 FM	1/4 Fem/1/4 Male SAE	1.7	2.1	2.3	2.2	1.5	1.5																				
EK 05 2 MF	1/4 Male/1/4 Fem SAE	1.7	2.1	2.3	2.2	1.5	1.5																				
EK 05 2	1/4 SAE	1.7	2.1	2.3	2.2	1.5	1.5																				
EK 05 2 S	1/4 ODF	2.7	3.3	3.6	3.5	2.4	2.3	133	119	116	106	114	97	95	75	64	58	109	106	120	107						
EK 05 3 MF	3/8 Male/3/8 Fem SAE	2.9	3.5	3.8	3.7	2.5	2.5																				
EK 05 3	3/8 SAE	2.9	3.5	3.8	3.7	2.5	2.5																				
EK 05 3 S	3/8 ODF	3.6	4.4	4.8	4.7	3.2	3.1																				
EK 08 2 FM	1/4 Fem/1/4 Male SAE	1.9	2.3	2.5	2.4	1.7	1.6																				
EK 08 2 MF	1/4 Male/1/4 Fem SAE	1.9	2.3	2.5	2.4	1.7	1.6																				
EK 08 2	1/4 SAE	1.9	2.3	2.5	2.4	1.7	1.6																				
EK 08 2 S	1/4 ODF	2.5	3.1	3.4	3.3	2.2	2.2																				
EK 08 25 S	5/16 ODF	2.9	3.5	3.8	3.7	2.5	2.5																				
EK 08 3 MF	3/8 Male/3/8 Fem SAE	3.3	4.0	4.3	4.3	2.9	2.8																				274
EK 08 3	3/8 SAE	3.3	4.0	4.3	4.3	2.9	2.8																				
EK 08 3 S	3/8 ODF	3.7	4.5	4.9	4.8	3.3	3.2																				
EK 08 4	1/2 SAE	5.5	6.7	7.3	7.1	4.9	4.7																				
EK 08 4 S	1/2 ODF	5.8	7.1	7.7	7.5	5.1	5.0																				
EK 16 2 MF	1/4 Male/1/4 Fem SAE	1.9	2.3	2.5	2.4	1.7	1.6																				
EK 16 2	1/4 SAE	1.9	2.3	2.5	2.4	1.7	1.6																				
EK 16 2 S	1/4 ODF	2.5	3.1	3.4	3.3	2.2	2.2																				
EK 16 25 S	5/16 ODF	2.5	3.1	3.4	3.3	2.2	2.2																				
EK 16 3	3/8 SAE	3.2	3.9	4.2	4.1	2.8	2.7	347	301	371	341	368	313	305	240	206	186	350	340	306	272						
EK 16 3 S	3/8 ODF	3.6	4.4	4.8	4.7	3.2	3.1																				
EK 16 4 S	1/2 ODF	7.0	8.5	9.2	9.0	6.2	6.0																				
EK 16 5	5/8 SAE	8.0	9.7	10.5	10.3	7.0	6.8																				
EK 16 5 S	5/8 ODF	8.3	10.1	10.9	10.7	7.3	7.1																				
EK 16 7 S	7/8 ODF	12.7	15.5	16.8	16.5	11.2	10.9																				
EK 30 3	3/8 SAE	3.5	4.3	4.7	4.6	3.1	3.0																				
EK 30 3 S	3/8 ODF	5.2	6.3	6.8	6.7	4.6	4.4																				
EK 30 4	1/2 SAE	6.6	8.1	8.8	8.6	5.9	5.7																				
EK 30 4 S	1/2 ODF	8.2	10.0	10.8	10.6	7.2	7.0																				601
EK 30 5	5/8 SAE	8.7	10.6	11.5	11.3	7.7	7.5																				
EK 30 6 S	3/4 ODF	12.1	14.8	16.0	15.7	10.7	10.4																				
EK 30 7 S	7/8 ODF	13.8	16.8	18.2	17.9	12.2	11.8																				
EK 30 9 S	1 1/8 ODF	16.1	19.6	21.2	20.8	14.2	13.8																				
EK 41 3	3/8 SAE	3.5	4.3	4.7	4.6	3.1	3.0																				
EK 41 4	1/2 SAE	8.5	10.4	11.3	11.1	7.5	7.3																				
EK 41 4 S	1/2 ODF	8.9	10.8	11.7	11.5	7.8	7.6																				
EK 41 5	5/8 SAE	9.8	12.0	13.0	12.8	8.7	8.5																				
EK 41 7 S	7/8 ODF	16.6	20.3	22.0	21.6	14.7	14.3	1104	971	938	854	919	785	765	607	715	465	876	850	991	884						
EK 41 9 S	1 1/8 ODF	22.7	27.7	30.0	29.4	20.1	19.5																				
EK 75 7 S	7/8 ODF	18.2	22.2	24.1	23.6	16.1	15.6																				
EK 75 9 S	1 1/8 ODF	26.8	32.7	35.4	34.8	23.7	23.0																				

¹ All ratings in accordance with ARI Standard 710-04. 86°F liquid refrigerant temperature 5°F saturated vapor temperature
 3.1 lbs./min./ton for R-134a
 2.9 lbs./min./ton for R-22 and R-407C
 4.0 lbs./min./ton for R-404A/507 and R-12
 4.4 lbs./min./ton for R-502
 2.7 lbs./min./ton for R-410A

² Water Capacities are based on: Equilibrium Point Dryness (EPD) of:
 50 parts per million for R-134a, R404-A/507, R-410A and R-407C
 60 parts per million for R-22
 15 parts per million for R-12
 30 parts per million for R-502

³ 20 drops of water = 1 gram = 1 cc

⁴ For 2 PSI ΔP , Multiply values by 1.4

Liquid Refrigerant Holding Capacity-Ounces

Unit Size	R-12		R-134a		R-22		R-407C		R-410A		R-404A/R-507		R-502	
	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F
03	2.9	2.6	2.6	2.3	2.6	2.3	2.5	2.1	2.3	1.9	2.3	1.9	2.7	2.3
05	6.5	5.9	6.0	5.4	5.9	5.3	5.6	4.9	5.3	4.4	5.2	4.4	6.0	5.3
08	8.3	7.6	7.6	6.9	7.5	6.8	7.2	6.3	6.7	5.7	6.6	5.6	7.7	6.8
16	10.2	9.4	9.4	8.6	9.3	8.4	8.9	7.8	8.3	7.0	8.2	6.9	9.5	8.4
30	28.7	26.3	26.4	23.9	26.1	23.5	24.9	21.9	23.3	19.6	22.9	19.4	26.7	23.4
41	40.0	36.4	36.9	33.1	36.4	32.5	34.7	30.3	32.5	27.2	31.9	26.8	37.2	32.4
75	72.4	66.3	66.7	60.3	65.8	59.2	62.8	55.2	58.7	49.5	57.7	48.9	67.2	59.0

ADK Core Style Liquid Line Filter-Drier

The ADK is a solid core liquid line filter-drier ideal for use with CFC, HCFC, and HFC refrigerants.



Features

- Solid copper connections
- High moisture and acid removal capacity
- Corrosion resistant epoxy powder paint finish
- Copeland® brand products approved for POE oils

Nomenclature example: ADK 083S

ADK	08	3	S
Series	Unit Size (in cu. in.)	Connection Size (in 1/8")	S = ODF connections (omit for SAE)

Specifications

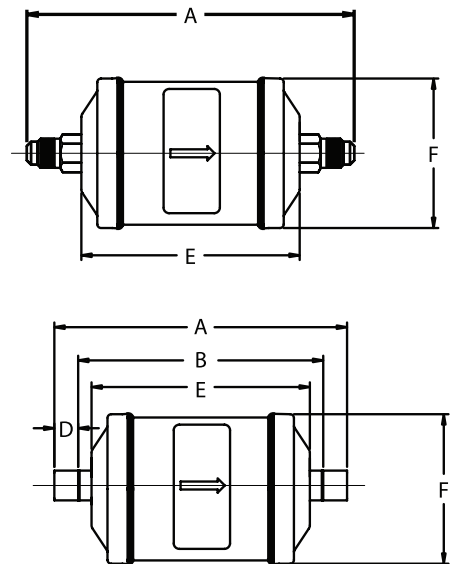
- Desiccant Blend: optimized for high water capacity and acid capacity
- Filtration: 40 microns
- Maximum working pressure: 680 psig
- UL/CUL file number: SA 3124

Ordering Information

PCN	Description	Connection Size	Dimensions (in)					Weight (lbs)
			A	B	D	E	F ¹	
059874	ADK-032	1/4 SAE	4.38			2.56	1.75	0.50
052451	ADK-032S	1/4 ODF	3.88	3.13	0.38			
023157	ADK-033	3/8 SAE	4.69					
053172	ADK-033S	3/8 ODF	4.06	3.25	0.44	3.00	2.63	1.00
060125	ADK-052	1/4 SAE	4.88					
060126	ADK-052S	1/4 ODF	4.44	3.69	0.38			
060127	ADK-053	3/8 SAE	5.13			3.81	2.63	1.25
060128	ADK-053S	3/8 ODF	4.50	3.69	0.44			
060129	ADK-082	1/4 SAE	5.63					
060130	ADK-082S	1/4 ODF	5.00	4.31	0.38	4.75	2.63	1.75
060131	ADK-083	3/8 SAE	5.94					
060132	ADK-083S	3/8 ODF	5.38	4.06	0.63			
060133	ADK-084	1/2 SAE	6.19			7.50	3.13	3.50
060134	ADK-084S	1/2 ODF	5.38	4.06	0.75			
059838	ADK-162S	1/4 ODF	6.94	5.25	0.25			
059820	ADK-162	1/4 SAE	6.56			7.63	3.69	4.75
059839	ADK-163	3/8 SAE	6.75					
060795	ADK-163S	3/8 ODF	6.25	5.00	0.63			
059840	ADK-164	1/2 SAE	7.13			13.13	3.69	7.75
059841	ADK-164S	1/2 ODF	6.38	5.00	0.75			
059842	ADK-165	5/8 SAE	7.56					
059843	ADK-165S	5/8 ODF	6.56	5.13	0.63	7.50	3.13	3.50
060172	ADK-303	3/8 SAE	9.63					
058507	ADK-303S	5/8 ODF	8.94	8.13	0.44			
060173	ADK-304	1/2 SAE	9.81			7.63	3.69	4.75
060176	ADK-304S	1/2 ODF	9.06	8.06	0.50			
060174	ADK-305	5/8 SAE	10.31					
060177	ADK-305S	5/8 ODF	9.25	8.00	0.63	13.13	3.69	7.75
060178	ADK-307S	7/8 ODF	9.88	8.38	0.75			
060179	ADK-309S	1-1/8 ODF	10.19	8.38	0.94			
060182	ADK-413	3/8 SAE	9.75			7.63	3.69	4.75
060183	ADK-414	1/2 SAE	10.00					
060185	ADK-414S	1/2 ODF	9.19	8.19	0.50			
060184	ADK-415	5/8 SAE	10.44			13.13	3.69	7.75
060186	ADK-415S	5/8 ODF	9.44	8.19	0.63			
060187	ADK-417S	7/8 ODF	10.00	8.50	0.75			
060188	ADK-419S	1-1/8 ODF	10.38	8.50	0.94	13.13	3.69	7.75
060190	ADK-757S	7/8 ODF	15.50	14.94	0.75			
060191	ADK-759S	1-1/8 ODF	15.88	14.17	0.94			

¹ Does not include weld bead

Dimensional Data



ADK Capacity Tables

Description	Connection	Flow Capacity Tons @ 1 psi ΔP ^{1, 4} (For kW, multiply tons by 3.5)							Water Capacity ² Drops of Water ³												
		R-12		R-134a		R-22		R-407C	R-410A		R-404A/507		R-502								
		75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F								
ADK 032	1/4 SAE	1.6	1.9	2.1	2.1	2.0	1.4	1.3	70	74	68	69	63	57	46	47	36	76	72	71	63
ADK 032S	1/4 ODF	1.9	2.3	2.5	2.5	2.4	1.7	1.6													
ADK 033	3/8 SAE	2.2	2.7	2.9	2.9	2.9	2.0	1.9													
ADK 033S	3/8 ODF	2.5	3.0	3.3	3.3	3.2	2.2	2.1	185	195	180	180	130	150	120	125	95	200	190	185	165
ADK 052	1/4 SAE	1.6	2.0	2.2	2.2	2.1	1.4	1.4													
ADK 052S	1/4 ODF	2.4	2.9	3.1	3.1	3.1	2.1	2.0													
ADK 053	3/8 SAE	3.0	3.7	4.0	4.0	3.9	2.7	2.6													
ADK 53S	3/8 ODF	3.7	4.5	4.9	4.9	4.8	3.3	3.2	250	265	245	250	225	205	165	170	130	275	260	255	230
ADK 082	1/4 SAE	1.6	2.0	2.2	2.2	2.1	1.4	1.4													
ADK 082S	1/4 ODF	2.5	3.1	3.4	3.4	3.3	2.2	2.2													
ADK 083	3/8 SAE	3.5	4.3	4.7	4.7	4.6	3.1	3.0													
ADK 083S	3/8 ODF	3.4	4.2	4.6	4.6	4.5	3.0	3.0													
ADK 084	1/2 SAE	5.5	6.7	7.3	7.3	7.1	4.9	4.7													
ADK 084S	1/2 ODF	5.7	7.0	7.6	7.6	7.4	5.1	4.9													
ADK 162	1/4 SAE	1.6	2.0	2.2	2.2	2.1	1.4	1.4	365	390	360	265	330	300	240	250	190	400	380	375	335
ADK 163	1/4 SAE	3.6	4.4	4.8	4.8	4.7	3.2	3.1													
ADK 163S	1/4 ODF	4.0	4.9	5.3	5.3	5.2	3.6	3.5													
ADK 164	1/2 SAE	6.8	8.3	9.0	9.0	8.8	6.0	5.8													
ADK 164S	1/2 ODF	7.1	8.6	9.3	9.3	9.1	6.2	6.1													
ADK 165	5/8 SAE	9.7	11.8	12.8	12.8	12.5	8.6	8.3													
ADK 165S	5/8 ODF	10.7	13.1	14.2	14.2	13.9	9.5	9.2													
ADK 167S	7/8 ODF	13.1	16.0	17.3	17.3	17.0	11.8	11.3													
ADK 303	3/8 SAE	3.9	4.7	5.1	5.1	5.0	3.4	3.3	820	865	800	810	740	675	540	555	420	895	845	835	745
ADK 304	1/2 SAE	7.1	8.6	9.3	9.3	9.1	6.2	6.1													
ADK 304S	1/2 ODF	7.2	8.8	9.5	9.5	9.4	6.4	6.2													
ADK 305	5/8 SAE	11.3	13.8	15.0	15.0	14.7	10.0	9.7													
ADK 305S	4/8 ODF	11.9	14.5	15.7	15.7	15.4	10.5	10.2													
ADK 306S	3/4 ODF	13.0	15.8	17.1	17.1	16.8	11.5	11.1													
ADK 307S	7/8 ODF	14.3	17.4	18.9	18.9	18.5	12.6	12.3													
ADK 309S	1 1/8 ODF	20.4	24.9	27.0	27.0	26.5	18.0	17.5													
ADK 413	3/8 SAE	3.9	4.7	5.1	5.1	5.0	3.4	3.3	1120	1210	1100	1140	1010	945	740	780	580	1260	1156	1170	1020
ADK 414	1/2 SAE	8.0	9.8	10.6	10.6	10.4	7.1	6.9													
ADK 414S	1/2 ODF	8.8	10.7	11.6	11.6	11.4	7.8	7.5													
ADK 415	5/8 SAE	12.8	15.6	16.9	16.9	16.6	11.3	11.0													
ADK 415S	5/8 ODF	13.5	16.5	17.9	17.9	17.5	12.0	11.6													
ADK 417S	7/8 ODF	16.6	20.3	22.0	22.0	21.7	14.7	14.3													
ADK 419S	1 1/8 ODF	20.7	25.2	27.3	27.3	26.8	18.3	17.7													
ADK 757S	7/8 ODF	28.0	34.2	37.1	37.1	36.3	24.8	24.1													
ADK 759S	1 1/8 ODF	30.6	37.3	40.4	40.4	39.6	27.0	26.3													

¹ All ratings in accordance with ARI Standard 710-04. 86°F liquid refrigerant temperature
 5°F saturated vapor temperature
 3.1 lbs./min./ton for R-134a
 2.9 lbs./min./ton for R-22 and R-407C
 4.0 lbs./min./ton for R-404A/507 and R-12
 4.4 lbs./min./ton for R-502
 2.7 lbs./min./ton for R-410A

² Water Capacities are based on:
 Equilibrium Point Dryness (EPD) of:
 50 parts per million for R-134a, R404-A/507,
 R-410A and R-407C
 60 parts per million for R-22
 15 parts per million for R-12
 30 parts per million for R-502

³ 20 drops of water = 1 gram = 1 cc

⁴ For 2 PSI ΔP , Multiply values by 1.4

Liquid Refrigerant Holding Capacity-Ounces

Unit Size	R-12		R-134a		R-22		R-407C		R-410A		R-404A/507		R-502	
	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F
03	2.4	2.2	2.2	2.0	2.2	2.0	2.1	1.9	2.0	1.7	1.9	1.7	2.2	2.0
05	5.9	6.0	5.5	5.5	5.4	5.4	5.2	5.0	4.8	4.5	4.7	4.5	5.5	5.4
08	8.0	7.4	7.4	6.7	7.3	6.6	7.0	6.2	6.5	5.5	6.4	5.5	7.5	6.6
16	14.5	12.5	13.4	11.4	13.2	11.2	12.6	10.4	11.7	9.4	11.6	9.3	13.5	11.2
30	21.8	19.9	20.1	18.1	19.8	17.8	18.9	16.6	17.4	14.9	17.4	14.7	20.2	17.7
41	29.3	26.8	26.9	24.4	26.6	23.9	25.4	22.3	23.7	20.0	23.3	19.7	27.2	23.8
75	52.8	48.3	48.6	43.9	48.0	43.1	45.8	40.2	42.8	36.0	42.1	35.6	49.1	43.0

BFK Liquid Line Bi-Directional Filter-Drier

The BFK is a solid core, bi-directional, liquid line filter-drier for heat pump applications for use with CFC, HCFC, and HFC refrigerants.

Features

- Available 5 to 30 cu. in. size
- Internal check valves allow flow and filtration in either direction, eliminates need for external check valves
- High moisture and acid removal capacity
- Corrosion resistant epoxy powder paint finish
- Copeland® brand products approved for POE oils

Nomenclature example: BFK 165S

BFK	16	5	S
Series	Unit Size (in cu. in.)	Connection Size (in 1/8")	S = ODF connections (omit for SAE)

Ordering Information

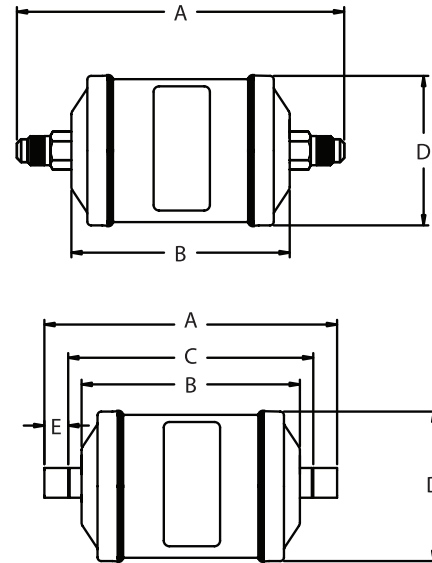
PCN	Description	Connection Size	Dimensions (in)					Weight (lbs)
			A	B	C	D	E	
062300	BFK-052	1/4 SAE	4.82	3.00	3.69	2.62	1.00	0.38
062425	BFK-052S	1/4 ODF	4.44					
062254	BFK-053	3/8 SAE	5.13					
062255	BFK-053S	3/8 ODF	4.48	3.82	4.52	2.62	1.00	0.40
058584	BFK-082S	1/4 ODF	5.27					
058597	BFK-0825S	5/16 ODF	5.02					
043321	BFK-083	3/8 SAE	5.94	3.82	4.48	2.62	1.00	0.40
043323	BFK-083S	3/8 ODF	5.29					
043325	BFK-084	1/2 SAE	6.16					
043327	BFK-084S	1/2 ODF	5.38	4.38	2.62	1.00	0.50	
043728	BFK085	5/8 SAE	6.62					
043730	BFK-085S	5/8 ODF	5.60					
043330	BFK-163	3/8 SAE	6.74	4.61	5.17	3.15	2.00	0.40
043333	BFK-163S	3/8 ODF	6.08					
043335	BFK-164	1/2 SAE	6.96					
043337	BFK-164S	1/2 ODF	6.17					
043732	BFK-165	5/8 SAE	7.41	7.5	5.49	3.15	3.75	0.63
043734	BFK-165S	5/8 ODF	6.39					
058589	BFK-167S	7/8 ODF	6.99					
063076	BFK303	3/8 SAE	9.63	7.5	5.49	3.15	3.75	0.40
063077	BFK-303S	3/8 ODF	8.97					
063078	BFK-304	1/2 SAE	9.84					
063079	BFK-304S	1/2 ODF	9.02	7.5	5.49	3.15	3.75	0.50
063080	BFK-305	5/8 SAE	10.31					
063081	BFK-305S	5/8 ODF	9.31					
063082	BFK-306	3/4 SAE	10.61	7.5	5.49	3.15	3.75	0.63
063083	BFK-306S	3/4 ODF	9.72					
063084	BFK-307S	7/8 ODF	9.91					
063451	BFK-309S	1 1/8 ODF	10.22	7.5	5.49	3.15	3.75	0.75



Specifications

- Desiccant Blend: optimized for high water capacity and acid capacity
- Filtration: 40 microns
- Maximum working pressure: 680 psig
- UL/CUL file number: SA 3124

Dimensional Data



BFK Capacity Tables

Description	Connection	Flow Capacity Tons @ 1 psi $\Delta P^{1,4}$ (For kW, multiply tons by 3.5)			Water Capacity ² Drops Of Water ³					
					R-22		R-407C		R-410A	
		R-22	R-410A	R-407C	75°F	125°F	75°F	125°F	75°F	125°F
BFK-05 2	1/4 SAE	1.6	1.6	1.6	73	66	58	42	39	35
BFK-05 2S	1/4 ODF	2.2	2.2	2.2						
BFK-05 3S	3/8 ODF	4.0	4.0	3.9						
BFK-08 3	3/8 SAE	4.5	4.5	4.4	159	144	106	79	85	75
BFK-08 3S	3/8 ODF	5.1	5.1	5.0						
BFK-08 4	1/2 SAE	6.4	6.4	6.3						
BFK-08 4S	1/2 ODF	6.7	6.7	6.6						
BFK-08 5S	5/8 ODF	8.1	8.1	7.9						
BFK-16 3	3/8 SAE	4.6	4.6	4.5	323	294	237	179	178	160
BFK-16 3S	3/8 ODF	5.2	5.2	5.1						
BFK-16 4	1/2 SAE	7.7	7.7	7.6						
BFK-16 4S	1/2 ODF	8.1	8.1	7.9						
BFK-16 5	5/8 SAE	8.3	8.3	8.1						
BFK-16 5S	5/8 ODF	8.7	8.7	8.5	585	532	452	345	415	293
BFK-30 3S	3/8 ODF	5.8	5.8	5.7						
BFK-30 4	1/2 SAE	7.6	7.6	7.5						
BFK-30 4S	1/2 ODF	9.7	9.7	9.5						
BFK-30 5	5/8 SAE	10.3	10.3	10.1						
BFK-30 5S	5/8 ODF	14.2	14.2	13.9						
BFK-30 6S	3/4 ODF	16.0	16.0	15.7						
BFK-30 7S	7/8 ODF	16.7	16.7	16.4						

¹ All ratings in accordance with ARI Standard 710-04. 86°F liquid refrigerant temperature
 5°F saturated vapor temperature
 3.1 lbs./min./ton for R-134a
 2.9 lbs./min./ton for R-22 and R-407C
 4.0 lbs./min./ton for R-404A/507 and R-12
 4.4 lbs./min./ton for R-502
 2.7 lbs./min./ton for R-410A

² Water Capacities are based on:
 Equilibrium Point Dryness (EPD) of:
 50 parts per million for R-134a, R404-A/507,
 R-410A and R-407C
 60 parts per million for R-22
 15 parts per million for R-12
 30 parts per million for R-502

³ 20 drops of water = 1 gram = 1 cc

⁴ For 2 PSI ΔP , Multiply values by 1.4

Liquid Refrigerant Holding Capacity-Ounces

Unit Size	R-22		R-407C		R-410A	
	75°F	125°F	75°F	125°F	75°F	125°F
05	4.6	4.2	4.4	3.9	4.1	3.5
08	7.7	6.9	7.3	6.4	6.9	5.8
16	14.2	12.7	13.5	11.8	12.6	10.6
30	21.0	18.7	20.0	17.4	19.6	16.5

BOK-HH Liquid Line Burnout Filter-Drier

The BOK-HH is a liquid line filter-drier for burnout clean-up and wax removal. The BOK-HH incorporates an activated carbon blended solid core for the effective clean-up of systems following a severe burnout.

Features

- Designed for maximum effectiveness in the clean-up of systems following a severe burnout
- Corrosion resistant epoxy powder paint finish
- Activated carbon blend for soluble contaminant and wax removal
- Solid copper connections

Nomenclature example: BOK 305S-HH

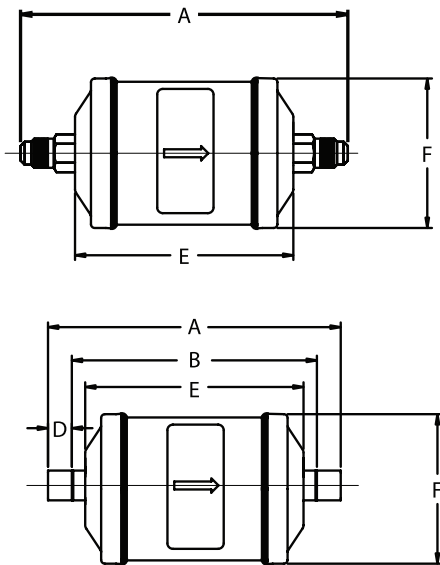
BOK	30	5	S	HH
Series	Unit Size (in cu. in.)	Connection Size (in 1/8")	S = ODF connections (omit for SAE)	Activated carbon Blend



Specifications

- Filtration: 40 microns
- Maximum working pressure: 680 psig
- UL/CUL file number: SA 3124

Dimensional Data



Ordering Information

PCN	Description	Connection Size	Dimensions (in)					Weight (lbs)	
			A	B	D	E	F ¹		
060223	BOK-082-HH	1/4 SAE	5.63	--	--	3.94	2.94	1.00	
060224	BOK-083-HH	3/8 SAE	5.94	--	--				
060240	BOK-162-HH	1/4 SAE	6.44	--	--				
064592	BOK-162S-HH	1/4 ODF	6.03	5.29	0.38	4.63	3.13		2.00
060241	BOK-163-HH	3/8 SAE	6.75	--	--	3.94	2.94		
060242	BOK-163S-HH	3/8 ODF	6.13	5.25	0.94	4.63	2.88		
060228	BOK-164-HH	1/2 SAE	6.94	--	--				
060229	BOK-164S-HH	1/2 ODF	6.19	5.16	0.50				
060230	BOK-165-HH	5/8 SAE	7.44	--	--	7.50	3.06	3.75	
060231	BOK-165S-HH	5/8 ODF	6.38	5.13	0.63				
060232	BOK-303-HH	3/8 SAE	9.63	--	--				
060233	BOK-304-HH	1/2 SAE	9.88	--	--				
060234	BOK-304S-HH	1/2 ODF	9.13	8.13	0.50				
060235	BOK-305-HH	5/8 SAE	10.31	--	--				
060236	BOK-305S-HH	5/8 ODF	9.31	8.06	0.63	7.63	3.69	4.75	
060237	BOK-414-HH	1/2 SAE	10.00	--	--				
060238	BOK-415-HH	5/8 SAE	9.25	8.25	0.50				
060239	BOK-417S-HH	7/8 ODF	10.44	--	--				
064593	BOK-415S-HH	5/8 ODF	9.25	8.25	0.50				

¹ Does not include weld bead

Liquid Refrigerant Holding Capacity - Ounces

Unit Size	R-12		R-134a		R-22		R-407C		R-410A		R-404A/507		R-502	
	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F
08	7.3	6.6	6.7	6.0	6.6	5.9	6.3	5.5	5.9	4.9	5.8	4.9	6.7	5.9
16	13.9	12.7	12.8	11.5	12.6	11.3	12.0	10.5	11.2	9.4	11.1	9.3	12.9	11.3
30	21.8	19.9	20.1	18.1	19.8	17.8	18.9	16.6	11.7	14.9	17.4	14.7	20.2	17.7
41	29.3	26.8	26.9	24.4	26.6	23.9	25.4	22.3	23.7	20.0	23.3	19.7	27.2	23.8

BOK-HH Capacity Tables

Description	Connections	Flow Capacity ^{1,4} Tons @ 1 psi ΔP (For kW, multiply tons by 3.5)							Water Capacity ² Drops Of Water ³													
									R-12		R-134a		R-22		R-407C		R-410A		R-404A/R-507		R-502	
		R-12	R-134a	R-22	R-410A	R-407C	R-404A/R-507	R-502	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F
BOK 08 2-HH	1/4 SAE	1.2	1.5	1.6	1.6	1.6	1.1	1.0	180	118	88	71	78	59	74	45	66	38	93	71	109	79
BOK 08 3-HH	3/8 SAE	3.2	3.9	4.2	4.2	4.1	2.8	2.7														
BOK 16 2-HH	1/4 SAE	1.2	1.5	1.6	1.6	1.6	1.1	1.0														
BOK 16 3-HH	3/8 SAE	3.6	4.3	4.7	4.7	4.6	3.1	3.1	209	143	171	141	153	117	91	56	77	41	182	141	135	100
BOK 16 3S-HH	3/8 ODF	4.8	5.8	6.3	6.3	6.2	4.2	4.1														
BOK 16 4-HH	1/4 SAE	7.0	8.6	9.3	9.3	9.1	6.2	6.0														
BOK 16 4S-HH	1/4 ODF	8.4	10.2	11.1	11.1	10.9	7.4	7.2														
BOK 16 5-HH	5/8 SAE	10.5	12.8	13.9	13.9	13.6	9.3	9.0														
BOK 16 5S-HH	5/8 ODF	10.5	12.8	13.9	13.9	13.6	9.3	9.0														
BOK 30 3-HH	3/8 SAE	3.6	4.3	4.7	4.7	4.6	3.1	3.1														
BOK 30 4-HH	1/2 SAE	8.1	9.9	10.7	10.7	10.5	7.2	7.0														
BOK 30 4S-HH	1/2 ODF	8.9	10.8	11.7	11.7	11.5	7.8	7.6														
BOK 30 5-HH	5/8 SAE	11.1	13.5	14.6	14.6	14.3	9.8	9.5														
BOK 30 5S-HH	5/8 ODF	12.0	14.6	15.8	15.8	15.5	10.6	10.3	552	367	300	245	267	204	234	146	160	94	318	247	342	249
BOK 41 4-HH	1/4 SAE	8.4	10.2	11.1	11.1	10.9	7.4	7.2														
BOK 41 5-HH	5/8 SAE	13.4	16.3	17.7	17.7	17.4	11.8	11.5														
BOK 41 5S-HH	5/8 ODF	13.4	16.3	17.7	17.7	21.1	14.4	14.0														
BOK 41 7S-HH	7/8 ODF	16.3	19.8	21.5	21.5	21.1	14.4	14.0														

¹ All ratings in accordance with ARI Standard 710-04. 86°F liquid refrigerant temperature
 5°F saturated vapor temperature
 3.1 lbs./min./ton for R-134a
 2.9 lbs./min./ton for R-22 and R-407C
 4.0 lbs./min./ton for R-404A/507 and R-12
 4.4 lbs./min./ton for R-502
 2.7 lbs./min./ton for R-410A

² Water Capacities are based on:
 Equilibrium Point Dryness (EPD) of:
 50 parts per million for R-134a, R404-A/507,
 R-410A and R-407C
 60 parts per million for R-22
 15 parts per million for R-12
 30 parts per million for R-502

³ 20 drops of water = 1 gram = 1 cc

⁴ For 2 PSI ΔP, Multiply values by 1.4

ALF Liquid Filter

The ALF is a liquid line refrigerant filter for recovery, recycle and reclaim usage. The ALF is also used for protecting solenoid and expansion valve parts from debris.

Features

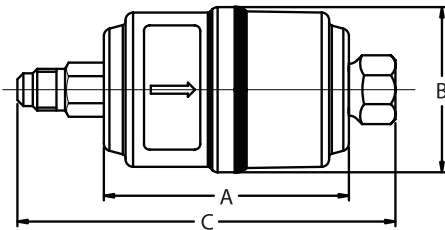
- Filtering media that maximizes removal of finer particles
- Corrosion resistant epoxy powder paint finish



Nomenclature example: ALF 033S

ALF	03	3	S
Series	Unit Size	Connection Size Inlet (in 1/8")	Connection Style S = ODF Omit for SAE

Dimensional Data



Recovery, Recycle and Reclaim Refrigerant Flow Capacity (lbs./min. liquid)		
R-134A	R-22/R-410A	R-404A/R-507
7.6	8.0	8.0

Specifications

- Filtration: 40 microns
- Maximum working pressure: 680 psig
- UL/CUL file number: SA 3124

Ordering Information

PCN	Description	Dimensions (in)			
		Connection Size Inlet/Outlet	A	B ¹	C
058500	ALF-032	1/4 SAE	2.56	1.63	4.38
056618	ALF-032S	1/4 ODF			3.88
057193	ALF-032MF	1/4 SAE Male In 1/4 SAE Female Out	2.56	1.63	4.00
057140	ALF-033S	3/8 ODF			4.13
056645	ALF-034S	1/2 ODF			4.88
064777	ALF-052	1/4 SAE	3.00	2.63	4.88
064778	ALF-052MF	1/4 SAE Male In 1/4 SAE Female Out			4.38

¹ Does not include weld bead

Spun Copper Liquid Line Filter-Drier

The CU series is a high capacity spun copper solid core filter-drier ideal for superior corrosion resistance in ocean going vessels and coastal applications.



Features

- All copper construction for extreme corrosion resistance
- 100% molecular sieve solid core drier
- For use with CFC, HCFC and HFC refrigerants

Nomenclature example: CU 163S

CU	16	3	S
Series	Unit Size	Connection Size (in 1/8")	ODF

Specifications

- Maximum working pressure: 500 psig
- Filtration: 40 microns
- UL/CUL file number: SA 7175

Ordering Information and Capacity Tables

PCN	Description	Connection	Flow Capacity Tons @ 1 psi ΔP ¹⁴ (For kW, multiply tons by 3.5)						Water Capacity ² Drops of Water ³											
			R-12		R-134a		R-22		R-407C		R-404A/R-507		R-502							
			75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F						
064388	CU 03 2 S	1/4 ODF	1.4	1.7	1.8	1.8	1.2	1.2	96	87	93	87	87	81	72	57	96	93	90	81
064389	CU 03 3 S	3/8 ODF	2.1	2.6	2.8	2.7	1.9	1.8												
064390	CU 05 2 S	1/4 ODF	1.5	1.8	2.0	2.0	1.3	1.3	112	101	108	101	101	93	82	63	112	108	104	93
064391	CU 05 3 S	3/8 ODF	2.1	2.6	2.8	2.7	1.9	1.8												
064392	CU 08 2 S	1/4 ODF	1.6	1.9	2.1	2.1	1.4	1.4	212	191	205	191	191	177	156	122	212	205	198	177
064393	CU 08 3 S	3/8 ODF	2.9	3.5	3.8	3.7	2.5	2.5												
064394	CU 08 4 S	1/2 ODF	3.5	4.2	4.6	4.5	3.1	3.0												
064395	CU 16 3 S	3/8 ODF	3.3	4.0	4.3	4.2	2.9	2.8												
064396	CU 16 4 S	1/2 ODF	3.9	4.7	5.1	5.0	3.4	3.3	287	257	277	257	257	237	207	158	287	277	267	237
064397	CU 16 5 S	5/8 ODF	4.4	5.4	5.8	5.7	3.9	3.8												

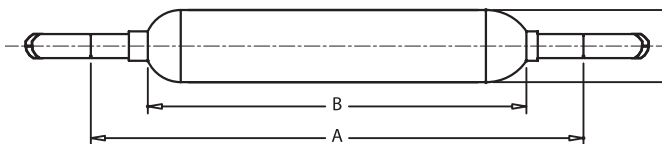
¹ All ratings in accordance with ARI Standard 710-04. 86°F liquid refrigerant temperature
5°F saturated vapor temperature
3.1 lbs./min./ton for R-134a
2.9 lbs./min./ton for R-22 and R-407C
4.0 lbs./min./ton for R-404A/507 and R-12
4.4 lbs./min./ton for R-502
2.7 lbs./min./ton for R-410A

² Water Capacities are based on:
Equilibrium Point Dryness (EPD) of:
50 parts per million for R-134a, R404-A/507,
R-410A and R-407C
60 parts per million for R-22
15 parts per million for R-12
30 parts per million for R-502

³ 20 drops of water = 1 gram = 1 cc

⁴ For 2 PSI ΔP , Multiply values by 1.4

Dimensional Data (in)



Description	Overall Length (A)	Lay-In Dimension (B)	Diameter
CU 03	3.94	3.25	1.63
CU 05	5.19	4.50	1.63
CU 08	6.06	5.38	2.00
CU 16	6.63	6.00	2.00

STAS Steel Liquid and Suction Filter-Drier

The STAS is a replaceable core filter-drier for CFC, HCFC, and HFC refrigerants for use in large commercial air conditioning and refrigerant systems.



Features

- Slotted cover/unique internal hardware for hassle-free installation
- Full flow fittings for low pressure drop
- Corrosion resistant epoxy powder paint finish
- Sturdy steel shells for long life
- Solid copper connections
- 100 mesh outlet screen

Nomenclature example: STAS 489T

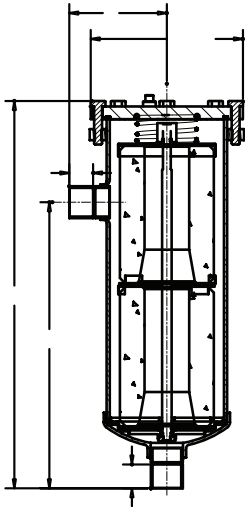
STAS	48	9	T
Steel Take-A-Part Series	Unit Size (in cu. in.)	Connection Size (in 1/8")	System Service T = Liquid Line Service SV = Suction Line Service

Specifications

- Filtration (with core): 40 microns
- Maximum working pressure: 500 psig T (Liquid Line)
*except as noted below
- UL/CUL file number: SA7175

STAS Models are shipped without filter or filter-drier cores.
For available filter or filter-drier cores, see page 153.

Dimensional Data



Ordering Information

PCN	Description	Connection Size	Number Of 48 in ³ Cores	Desiccant Volume (Cu. In.)	Dimensions (in)					
					A	B	C	D		
053001	STAS-485T**	1/5/8 ODF	1	48	9.94	6.00	3.78	0.63		
053003	STAS-487T**	1/7/8 ODF			9.69	6.25	3.75	0.78		
053005	STAS-489T**	1/1 1/8 ODF			9.75	6.31	3.84	0.94		
053007	STAS-4811T**	1/1 3/8 ODF			9.84	6.44	3.97	0.94		
053043	STAS-4813S-V ¹	1 5/8 ODF			9.88	6.02	4.03	1.13		
053044	STAS-4817S-V ¹	2 1/8 ODF			10.06	6.56	4.56	1.34		
053045	STAS-4821S-V ¹	2 5/8 ODF			10.44	7.03	4.75	1.04		
053375	STAS-4813T	1 5/8 ODF			9.88	6.50	4.03	1.13		
053938	STAS-4811SV	1 3/8 ODF			9.84	6.44	3.97	0.94		
053010	STAS-967T**	1/7/8 ODF			2	96	15.19	11.72	3.75	0.78
053012	STAS-969T**	1/1 1/8 ODF	15.22	11.78			3.84	0.94		
053014	STAS-9611T**	1/1 3/8 ODF	15.31	11.91			3.97	1.03		
053017	STAS-9613T**	1/1 5/8 ODF	15.38	11.97			4.03	1.13		
053018	STAS-9617T**	1/2 1/8 ODF	15.56	12.03			4.56	1.34		
053047	STAS-9617S-V ¹	2 1/8 ODF	15.56	12.03			4.56	1.34		
053048	STAS-9621S-V ¹	2 5/8 ODF	15.94	12.50			4.75	1.50		
059739	A-TD-9625S-V ¹	3 1/8 ODF	15.69	10.31			4.63	1.75		
053020	STAS-1449T	1 1/8 ODF	3	144			21.25	17.38	3.84	0.94
053022	STAS-14411T	1 3/8 ODF					21.34	17.53	3.97	1.03
053024	STAS-14413T	1 5/8 ODF			21.38	17.59	4.03	1.13		
053025	STAS-14417T	2 1/8 ODF			21.56	17.63	4.56	1.34		
053028	STAS-19211T	1 3/8 ODF			26.91	23.00	3.97	1.03		
053030	STAS-19213T	1 5/8 ODF	4	192	26.94	23.17	4.03	1.13		
053031	STAS-19217T	2 1/8 ODF			27.13	23.13	4.56	1.34		
056213	STAS-1927/5T	7/8 X 5/8			26.50	6.00	3.69	7/8 x 5/8		

** 680 psig maximum working pressure

¹"SV" style include stainless steel bolts and access valve.

NOTE: "T" style can be used for suction by removing pipe plug and installing X-11562-2.

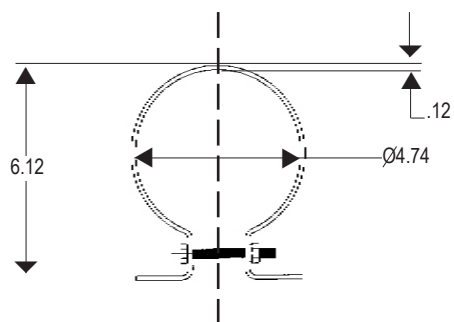
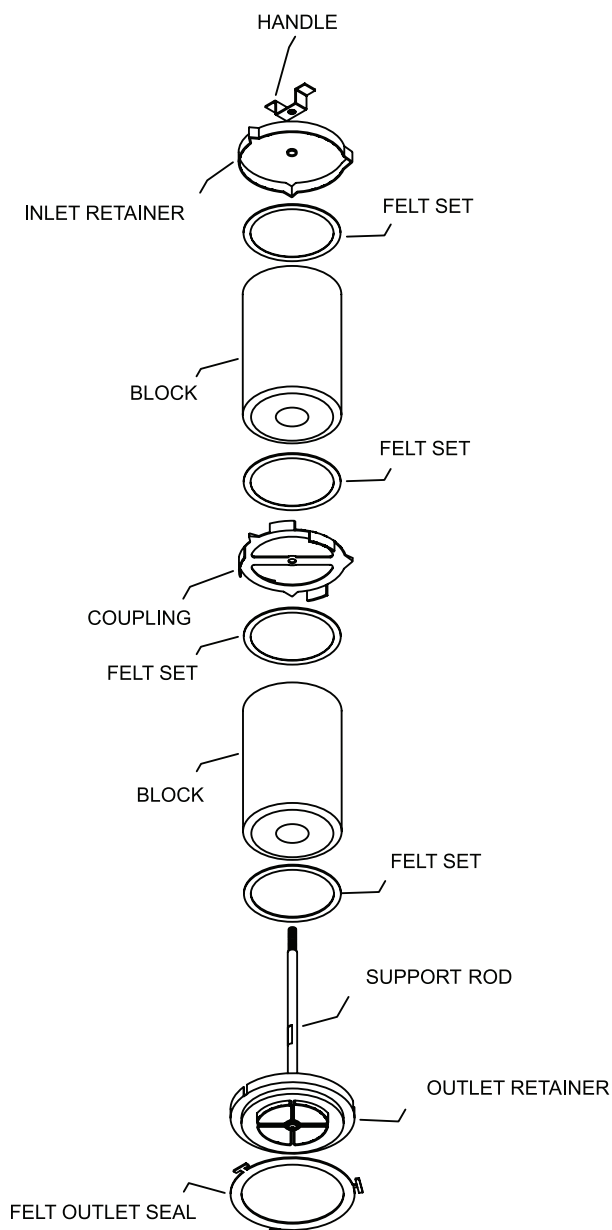
Description	Connections	Liquid Flow Capacity Tons @ psi ΔP ^{1,2,3}					
		R-12	R-134a	R-22	R-407C	R-404A/507	R-502
STAS-485T	5/8 ODF	15	19	21	20	14	13
STAS-487T	7/8 ODF	28	35	38	37	25	24
STAS-489T	1 1/8 ODF	40	48	53	51	35	34
STAS-4811T	1 3/8 ODF	46	56	61	59	40	39
STAS-4813T	1 5/8 ODF	64	78	85	83	56	55
STAS-967T	7/8 ODF	31	37	41	40	27	26
STAS-969T	1 1/8 ODF	47	58	63	61	42	40
STAS-9611T	1 3/8 ODF	59	72	79	77	52	51
STAS-9613T	1 5/8 ODF	64	78	85	83	56	55
STAS-1449T	1 1/8 ODF	46	56	61	59	40	39
STAS-14411T	1 3/8 ODF	66	81	88	86	58	57
STAS-14413T	1 5/8 ODF	73	89	97	95	64	63
STAS-14417T	2 1/8 ODF	84	103	112	109	74	72
STAS-19211T	1 3/8 ODF	71	86	94	92	62	61
STAS-19213T	1 5/8 ODF	77	95	103	101	68	66
STAS-19217T	2 1/8 ODF	87	106	115	112	76	74

¹ All ratings in accordance with ARI Standard 710-04. 86°F liquid refrigerant temperature
5°F saturated vapor temperature
3.1 lbs./min./ton for R-134a
2.9 lbs./min./ton for R-22 and R-407C
4.0 lbs./min./ton for R-404A/507 and R-12
4.4 lbs./min./ton for R-502
² For 2 PSI ΔP , Multiply values by 1.4
³ For kW, multiply by 3.5

Replacement Parts For STAS

Flange Cover Assembly	Description	PCN
All STAS Driers - Include Flange Cover, Compression Spring, Pipe Plug, and Grade 5 Bolts	X12176-3	054046
Shell Strainer Assembly		
STAS-48	X27458-1	060274
STAS-96	X27458-2	060275
STAS-144	X27458-3	060276
STAS-192	X27458-4	060277
Miscellaneous Parts		
Cover Bolts (Stainless Steel - suction line service)	X25787-7	053121
Access Valve (V Option)	X11562-2	037409
Cover Gasket (Includes felt set)	X11983-1	027453
Handle	26446-1	053812
Inlet Retainer	26477-1	053813
Spring	26439-1	060258
Felt Set (3 block set)	27394-1	060278
Gasket Set	X11983-2	027454
Mounting Bracket	X28747-1	061715

STAS Exploded View



Mounting Bracket for STAS 48*

*More than one mounting bracket may be required for shell sizes 96 and above.

ADKS Liquid and Suction Line Filter-Drier

The ADKS is a replaceable core filter-drier for use with CFC, HCFC, and HFC refrigerants in very large commercial air conditioning and refrigerant systems.

Features

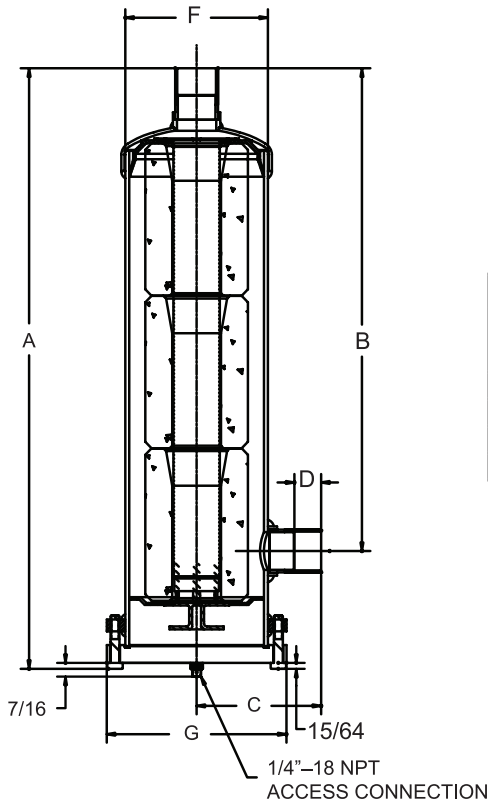
- Full flow fittings for low pressure drop
- Corrosion resistant epoxy powder paint finish
- Sturdy steel shells for long life durability

Nomenclature example: ADKS 30013T

ADKS	300	13	T
System Protector Series	Unit Size (in cu. in.)	Connection Size (in 1/8")	T = Tap Access Connection



Dimensional Data



Specifications

- Filtration (with core): 40 microns
- Maximum working pressure: 500 psig*
- UL/CUL file number: SA 3124
- Bolt Torque: 25 ft-lbs

*Note: Not suitable for R-410A applications above 500 psig.

Ordering Information

PCN	Description	Connection Size	Number Of 100 in ³ Cores	Dimensions (in)							Weight (lbs)	
				A	B	C	D	E	F*	G		H ¹
026570	ADKS-30013T	1 5/8 ODF	3	25.50	19.47	4.19	1.13	23.19	6.00	7.56	22.25	39.00
037978	ADKS-30017T	2 1/8 ODF		25.59	19.00	3.78	1.69					
032105	ADKS-40017T	2 1/8 ODF	4	32.09	25.50	3.78	1.66	29.97	6.00	7.56	28.88	46.00
037570	ADKS-40021T	2 5/8 ODF		33.13	26.72	4.81	1.47					

* Does not include weld bead

¹ "H" Dimension is the clearance required to change the internal hardware assembly

T = 1/4" FPT access connection

ADKS Models are shipped without filter cores or filter-drier cores. For available filter or filter-drier cores, see page 153.

ADKS Capacity Tables (in Tons)

Liquid Line for Replaceable Block Type ADKS Filter-Driers

Description	Connection	Flow Capacity In Tons @ 1 psi ΔP ^{1, 2}					
		R-12	R-134a	R-22	R-407C	R-404/507	R-502
ADKS 30013T	1 5/8 ODF	57	70	76	74	50	49
ADKS 30017T	2 1/8 ODF	69	84	92	90	61	59
ADKS 40017T	2 1/8 ODF	73	89	97	95	64	63
ADKS 40021T	2 5/8 ODF	83	101	110	107	73	71

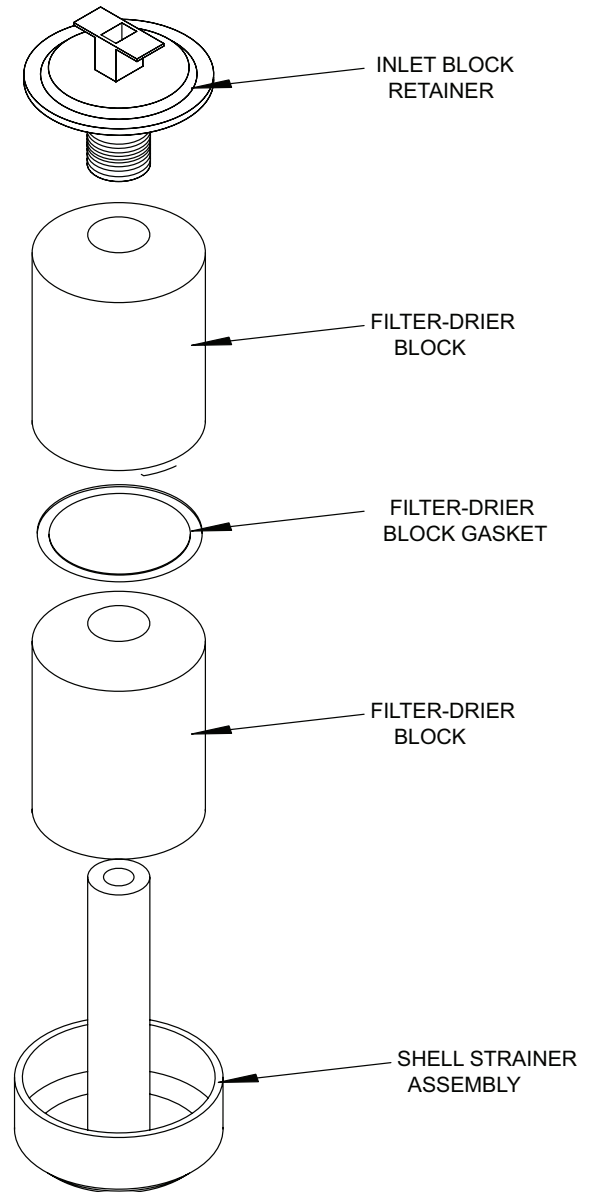
¹ All ratings in accordance with ARI Standard 710-04. 86°F liquid refrigerant temperature
 5°F saturated vapor temperature
 3.1 lbs./min./ton for R-134a
 2.9 lbs./min./ton for R-22 and R-407C
 4.0 lbs./min./ton for R-404A/507 and R-12
 4.4 lbs./min./ton for R-502

² For 2 PSI ΔP . Multiply values by 1.4

Replacement Parts For ADKS

Flange Cover	Description	PCN
ADKS-300, ADKS-400	X12176-2	027467
Shell Strainer Assembly	Description	PCN
ADKS-300	X10574-5	039967
ADKS-400	X10574-6	038315

ADKS Exploded View



Filter-Drier Cores and Filters

Universal replacement cores and filter cores for use in our ADKS & STAS shells and similar competitive take-a-part type filter-drier shells. May not be used for BTAS.

Features

- Water capacities to suit specific system conditions
- Exceptional acid capacities for normal system protection, or to effectively clean-up following a compressor burnout
- Activated carbon blend for soluble contaminant and wax removal (W-HH Series)



Specifications

- Interchangeable with competitive products

NOTE: Filter-drier cores are suitable for use with R-11 AND R-123 but filters are NOT.

Nomenclature

example: H 48

H	48
Series	Cubic Inch

Ordering Information and Capacity Tables

PCN	Description ³	Recommended Refrigerant Type	Function	Water Capacity ¹ Drops of Water ²											
				R-12		R-134a		R-22		R-407C		R-404A/R-507		R-502	
				75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F
056662	D-42	CFC, HCFC	High Acid Removal	782	515	493	384	432	303	320	196	528	378	473	339
056661	H-42	CFC, HCFC	High Acid and Water Removal	933	681	686	576	617	491	478	333	724	587	656	519
056835	W-42-HH	ALL	Burnout Cleanup	612	388	333	253	288	195	231	132	359	248	354	245
059541	D-48	CFC, HCFC	High Acid Removal	810	453	415	340	363	254	225	95	457	343	388	225
059542	H-48	CFC, HCFC	High Acid and Water Removal	1020	688	676	538	597	436	445	285	721	535	643	475
061235	W-48-HH	CFC, HCFC, HFC	Burnout Cleanup	772	488	387	294	335	226	290	165	417	289	444	306
061617	UK-48	CFC, HCFC, HFC	Universal Replacement	1579	1319	1272	1168	1181	1072	1033	786	1319	1241	1332	1150
089338	H-100	CFC, HCFC	High Acid and Water Removal	1958	1225	1112	834	962	673	726	418	1199	839	1109	758
062424	UK-100	CFC, HCFC, HFC	Universal Replacement	3204	2740	2769	2550	2574	2345	2182	1682	2868	2710	2787	2437
043582	W-100-HH	CFC, HCFC, HFC	Burnout Cleanup	1668	1054	1077	812	938	621	629	363	1162	792	960	663
089559	F-48	CFC, HCFC, HFC	Filter (Suction Only)	N/A											
047664	F-48R	CFC, HCFC, HFC	Filter (Suction Only) Reverse Flow												
095762	F-100	CFC, HCFC, HFC	Filter (Suction Only)												
061237	RH-48	CFC, HCFC	Removal	1020	688	676	538	597	436	445	285	721	535	643	475
061238	RW-48	CFC, HCFC	Cleanup	772	488	387	294	335	226	290	165	417	289	444	306

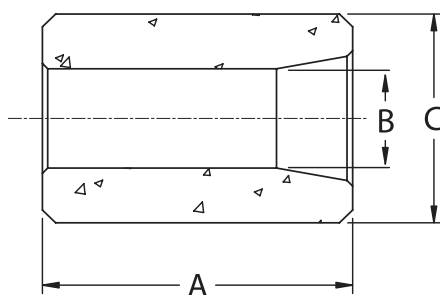
¹ Water Capacities are based on:

Equilibrium Point Dryness (EPD) of:
 50 parts per million for R-134a, R404-A/R-410A and R-407C
 60 parts per million for R-22
 15 parts per million for R-12
 30 parts per million for R-502

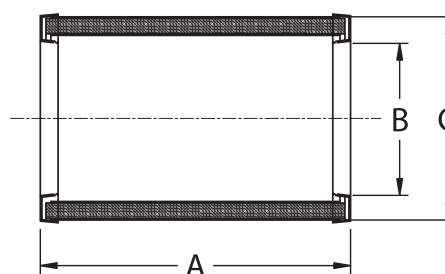
² 20 drops of water = 1 gram = 1 cc

³ D-42, H-42 and W-42 include one neoprene composite lid gasket and one core gasket. All other cores include a universal neoprene composite gasket kit which includes 2 sizes of replacement lid gaskets, and gaskets for the top and bottom of the core or filter.

Dimensional Data



Filter-Drier Block Size	Dimensions			Weight (lbs)
	A	B	C	
42	6.00	1.58	3.12	1.00
48	5.50	1.77	3.72	1.50
100	6.50	2.06	4.81	4.00



Catalog Number	Dimensions			Weight (lbs)
	A	B	C	
F-48/F-48R	5.50	2.81	3.88	0.75
F-100	6.50	3.75	4.81	1.50

BTAS Brass Take-Apart Suction Line Filter-Drier

The BTAS is a suction line, replaceable core filter-drier for suction line services ideal for commercial refrigeration applications.



Features

- Full flow fittings for low pressure drop
- Corrosion resistant brass body with stainless steel bolts
- Special cartridge design exclusive to brass shell

Nomenclature

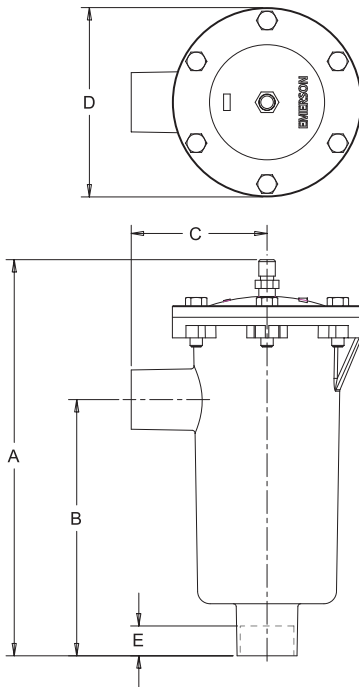
example: BTAS 311SV

BTAS	3	11	SV
Brass Take-A-Part Series	Unit Size	Connection Size (in 1/8")	Suction Line Service

Specifications

- Filtration: 40 microns
- Maximum working pressure: 400 psig
- UL/CUL file number: SA 3124

Dimensional Data



Ordering Information

PCN	Description	Connection Size	Nominal Shell Size (in)	Dimensions (in)					Weight (lbs)
				A	B	C	D	E	
049462	BTAS-27 S-V	7/8 ODF	2	9.75	6.57	2.19	3.75	0.75	6.75
049465	BTAS-39 S-V	1 1/8 ODF	3	10.31	6.81	3.31	4.63	0.91	10.25
049466	BTAS-311 S-V	1 3/8 ODF		11.06	6.94	3.44		0.97	10.50
049467	BTAS-313 S-V	1 5/8 ODF		11.25	7.13	3.63		1.09	11.00
049468	BTAS-317 S-V	2 1/8 ODF		11.50	7.38	3.88		1.34	11.20
064169	BTAS-411 S-V	1 3/8 ODF	4	11.41	7.81	4.13	5.75	0.78	16.20
049470	BTAS-413 S-V	1 5/8 ODF		12.03	7.81	4.13		1.09	16.75
049471	BTAS-417 S-V	2 1/8 ODF		12.28	8.06	4.13		1.34	17.20
049472	BTAS-421 S-V	2 5/8 ODF		12.41	8.19	4.94		1.47	18.00
049473	BTAS-517 S-V	2 1/8 ODF	5	13.44	8.41	4.19	7.09	1.34	28.75
049474	BTAS-521 S-V	2 5/8 ODF		13.56	8.47	4.94		1.47	29.00
049475	BTAS-525 S-V	3 1/8 ODF		13.25	8.16	4.63		1.66	29.25

Type A-F Replaceable Filter Cartridges

PCN	Filter Core	For Shell No.	Core O.D.	Core Length	Filter Area (Sq. In.)	Weight (lbs)
049479	A2F	BTAS-2	1 29/32	6 3/8	66	0.33
049480	A3F	BTAS-3	2 3/4	6 7/8	115	0.50
049481	A4F	BTAS-4	3 3/4	7 1/2	189	0.88
049482	A5F	BTAS-5	4 5/16	8 1/2	270	1.00

Type A-F-D Replaceable Filter-Drier Cartridges

PCN	Filter-Drier Cartridge	For Shell No.	Cartridge O.D.	Cartridge Length	Desiccant Volume (Cu. In.)	Weight (lbs)
049483	A2F-D	BTAS-2	1 29/32	6 3/8	4.2	0.50
049484	A3F-D	BTAS-3	2 3/4	6 7/8	13.3	0.88
049485	A4F-D	BTAS-4	3 3/4	7 1/2	26.0	1.20
049486	A5F-D	BTAS-5	4 5/16	8 1/2	36.5	1.20

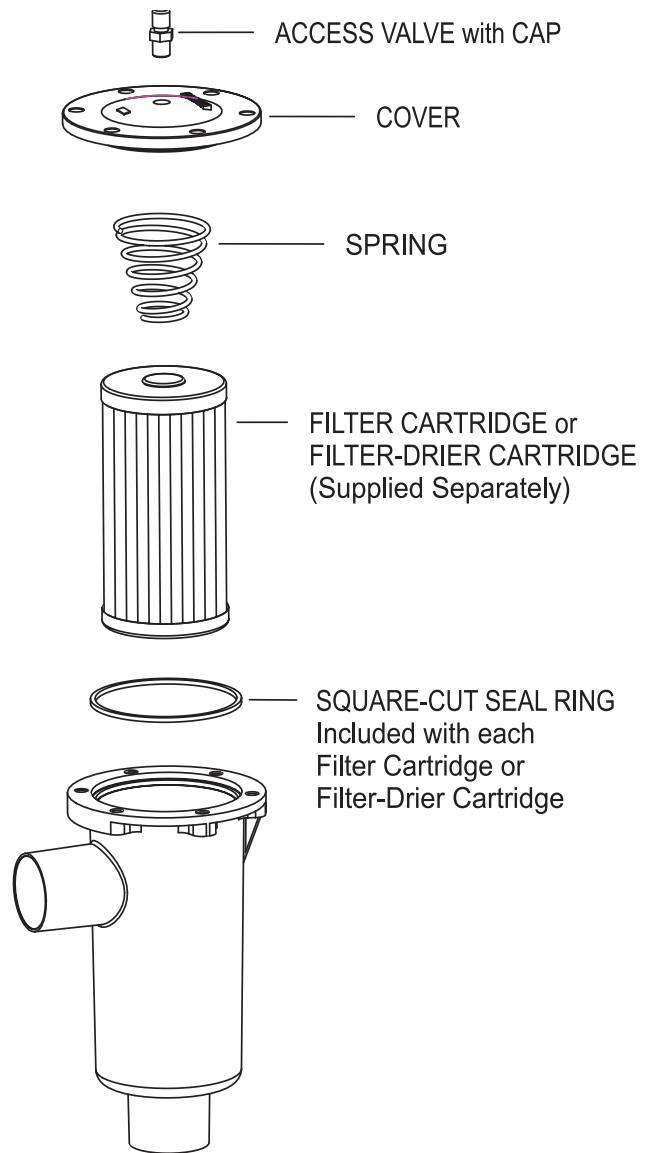
Replacement Parts For BTAS

Misc. Parts	Description	PCN
Access Valve	X11562-2	037409
BTAS 2 Repair Kit	KD-30519-2	065970
BTAS 3 Repair Kit	KD-30519-3	065971
BTAS 4 Repair Kit	KD-30519-4	065972
BTAS 5 Repair Kit	KD-30519-5	065973

Cross Reference

New		Brass Shell Series	Obsolete	
New Kit	New PCN		Old Kit	Old PCN
KD-30519-2	065970	BTAS 2	X-25787-5	049744
			X-25787-1	054043
			X-11562-2	037409
			PS-23380-2	053580
KD-30519-3	065971	BTAS 3	X-25787-5	049744
			X-25787-2	054042
			X-11562-2	037409
			PS-23380-3	053581
KD-30519-4	065972	BTAS 4	X-25787-5	049744
			X-25787-3	054041
			X-11562-2	037409
			PS-23380-4	053582
KD-30519-5	065973	BTAS 5	X-25787-5	049744
			X-25787-4	054040
			X-11562-2	037409
			PS-23380-5	053583

Exploded View



BTAS models are shipped without filter cartridge or filter-drier cartridge.

ASD Premium Suction Line Filter-Drier

The ASD is a premium suction line filter-drier for use with CFC, HCFC and HFC refrigerants. The ASD is optimized for high moisture, acid, and solid contaminant removal.



Features

- Outstanding filtration for ultimate compressor protection
- Dual access valves for easy pressure readings
- Solid copper connections
- Corrosion resistant epoxy powder paint finish

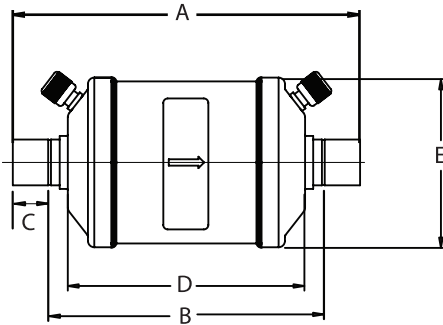
Specifications

- Filtration: 40 microns
- Maximum working pressure: 500 psig
- UL/CUL file number: SA 3124

Nomenclature example: ASD 35S5VV

ASD	35	S	5	VV
Series	Unit Size (in cu. in.)	Connections S = ODF F = SAE	Connection Size (in 1/8")	Dual Access Valves

Dimensional Data



Ordering Information

PCN	Description	Conne- ction Size	Dimensions (in)					Weight (lbs)
			A	B	C	D	E	
056352	ASD 28F3	3/8 SAE	5.59	--	.044	4.13	3.69	2.00
049168	ASD 28S3-W	3/8 ODF	5.59	4.72	0.44	4.13		
049169	ASD 28S4-W	1/2 ODF	5.69	4.69	0.50	4.75	2.50	
049170	ASD 35F5-W	5/8 SAE	7.56	--	--			
049171	ASD 35S5-W	5/8 ODF	6.22	5.28	0.63	5.56	3.00	
049172	ASD 45S6-W	3/4 ODF	7.75	6.50	0.63			
049173	ASD 45S7-W	7/8 ODF	7.94	6.44	0.75	6.13	3.50	
049174	ASD 50S9-W	1 1/8 ODF	8.84	7.03	0.91			
049175	ASD 75S11-W	1 3/8 ODF	12.25	10.31	0.97	8.25	5.00	
049176	ASD 75S13-W	1 5/8 ODF	12.16	9.91	1.13			

SFD Suction Line Filter-Drier

The SFD is a standard suction line filter-drier for use after a burnout or when major work has been performed. It is for use with CFC, HCFC and HFC refrigerants.



Features

- Solid copper connections
- Dual access valves for easy pressure readings
- Corrosion resistant epoxy powder paint finish

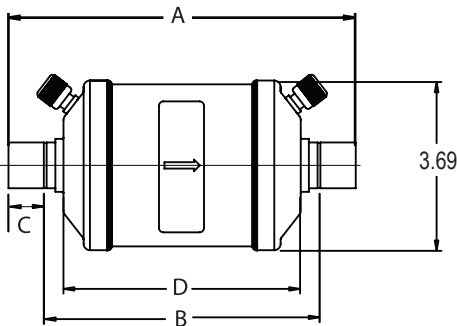
Nomenclature example: SFD 13S5-VV

SFD	13	S	5	VV
Series	Unit Size (in cu. in.)	Connections S = ODF F = SAE	Connection Size (in 1/8")	Dual Access Valves

Specifications

- Filtration: 40 microns
- Maximum working pressure: 500 psig
- UL/CUL file number: SA 3124

Dimensional Data



Ordering Information

PCN	Description	Connection Size	Dimensions (in)				Weight (lbs)
			A	B	C	D	
064042	SFD 08F3-W	3/8 SAE		3.38	5.50	3.13	2.00
064044	SFD 08S3-W	3/8 ODF	5.31		6.19		
064043	SFD 08F4-W	1/2 SAE			5.75		
064045	SFD 08S4-W	1/2 ODF	3.94		5.00	3.69	
064046	SFD 08S5-W	5/8 ODF	3.91		5.16		
064047	SFD 08S6-W	3/4 ODF	4.31		5.56		
060244	SFD 13F3-W	3/8 SAE			5.50		
060245	SFD 13S3-W	3/8 ODF	3.97		4.84		
060246	SFD 13S4-W	1/2 ODF			5.75		
060247	SFD 13F4-W	1/2 SAE	3.94		4.94		
060248	SFD 13F5-W	5/8 SAE		6.13			
050249	SFD 13S5-W	5/8 ODF	3.91	5.16	3.00		
060250	SFD 13S6-W	3/4 ODF	4.00	5.25			
060262	SFD 13S7-W	7/8 ODF	4.25	5.75	4.50		
056505	SFD 27S6-W	3/4 ODF	5.75	7.00			
060251	SFD 27S7-W	7/8 ODF	6.00	7.50			
060252	SFD 27S9-W	1 1/8 ODF	5.81	7.63			
060253	SFD 54S11-W	1 3/8 ODF	10.31	12.25	12.16		
060254	SFD 54S13-W	1 5/8 ODF	9.91	12.16			

CSFD Compact Suction Line Filter-Drier

The CSFD has a compact solid desiccant core perfect for short lay-in applications. The CSFD is used for moisture, acid and solid contaminant removal. It is for use with CFC, HCFC and HFC refrigerants.



Features

- Dual access valves for easy pressure readings
- High acid removal capacity
- Solid copper fittings for easiest brazing
- Corrosion resistant epoxy powder paint finish

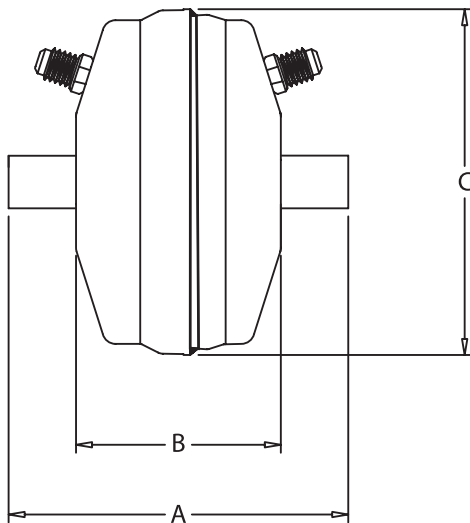
Nomenclature example: CSFD 14S4-VV

CSFD	14	S	4	VV
Series	Unit Size	Connections S = ODF	Connection Size (in 1/8")	Dual Access Valves

Specifications

- Filtration: 40 microns
- Maximum working pressure: 500 psig**
- UL/CUL file number: SA 3124

Dimensional Data



Ordering Information

PCN	Description	Connection Size	Dimensions (in)		
			A	B	C
062231	CSFD-14S4-W	1/2 ODF	4.25	2.75	4.63
062232	CSFD-14S5-W	5/8 ODF	4.50		
062233	CSFD-14S6-W	3/4 ODF	4.38		
062234	CSFD-14S7-W	7/8 ODF	4.56		
062235	CSFD-14S9-W**	1 1/8 ODF	4.88		

** 400 psig Maximum Working Pressure

ASK-HH Suction Line Filter-Drier

The ASK utilizes a solid core with an activated carbon blend to maximize acid, moisture and wax removal. It is for use with CFC, HCFC and HFC refrigerants.



Features

- Dual access valves for easy pressure readings
- Corrosion resistant epoxy powder paint finish
- Activated carbon blend for soluble contaminant and wax
- Solid copper connections

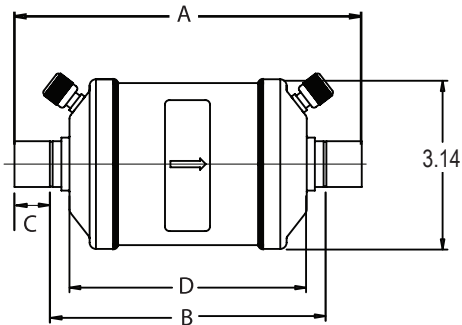
Nomenclature example: ASK 165S-VV-HH

ASK	16	5	S	VV	HH
Series	Unit Size (in cu. in.)	Connection Size (in 1/8")	Connection S = ODF	Dual Access Valves	Charcoal Blend

Specifications

- Filtration: 40 microns
- Maximum working pressure: 500 psig
- UL/CUL file number: SA 3124

Dimensional Data



Ordering Information

PCN	Description	Connection Size	Dimensions (in)				Weight (lbs)
			A	B	C	D	
056508	ASK 165S-W-HH	5/8 ODF	6.38	5.13	0.63	4.63	2.00
056509	ASK 166S-W-HH	3/4 ODF	6.75	5.50	0.38		
056510	ASK 167S-W-HH	7/8 ODF	6.94	5.26	0.75	7.50	3.75
056511	ASK 306S-W-HH	3/4 ODF	9.69	8.56	0.63		
056512	ASK 307S-W-HH	7/8 ODF	9.88	8.38	0.75		
056513	ASK 309S-W-HH	1 1/8 ODF	10.19	8.38	0.94		

¹ Dimension does not include weld bead

ASF Suction Line Filter

The ASF is a specifically designed filter to protect the compressor from dirt and all solid contaminants.



Features

- Dual access valves for easy pressure readings
- Solid copper connections
- Corrosion resistant epoxy powder paint finish

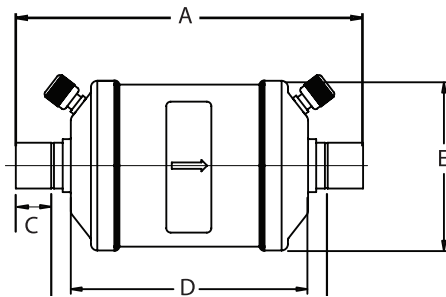
Specifications

- Filtration: 40 microns
- Maximum working pressure: 500 psig**
- UL/CUL file number: SA 3124

Nomenclature example: ASF 35S5-VV

ASF	35	S	5	VV
Series	Unit Size (in cu. in.)	Connections S = ODF F = SAE	Connection Size (in 1/8")	Dual Access Valves

Dimensional Data



Ordering Information

PCN	Description	Connection Size	Dimensions					Weight (lbs)
			A	B	C	D	E*	
062961	ASF 11S4	1/2 ODF	4.38	3.38	0.50	2.88	2.63	1.50
062962	ASF 11S5	5/8 ODF	4.63	3.38	0.63	2.88	2.63	1.50
062963	ASF 28S7	7/8 ODF	6.50	5.00	0.75	4.13	2.63	2.00
062964	ASF 28S0	1 1/8 ODF	7.41	5.61	0.91	4.13	2.63	2.00
049177	ASF 28S3-VV	3/8 ODF	5.59	4.72	0.44	4.13	2.63	2.00
049178	ASF 28S4-VV	1/2 ODF	5.69	4.69	0.50	4.13	2.63	2.00
049179	ASF 35FS-VV	5/8 SAE	7.56	-	-	4.75	3.69	2.50
049180	ASF 35S5-VV	5/8 ODF	6.53	5.28	0.63	4.75	3.69	2.50
059999	ASF 45F3-VV	3/8 SAE	7.69	-	-	5.56	3.69	3.00
049181	ASF 45S6-VV	3/4 ODF	7.75	6.50	0.63	5.56	3.69	3.00
049182	ASF 45S7-VV	7/8 ODF	7.94	6.44	0.75	5.56	3.69	3.00
049183	ASF 50S9-VV	1 1/8 ODF	8.84	7.03	0.91	6.13	5.00	3.50
063113	ASF 64S17-V	2 1/8 ODF	11.75	9.06	1.31	7.63	5.00	3.50
063115	ASF 64S21-V	2 5/8 ODF	13.00	10.00	1.50	7.88	5.00	3.50
049184	ASF 75S11-VV	1 3/8 ODF	12.25	10.31	0.97	8.25	5.00	5.00
049185	ASF 75S13-VV	1 5/8 ODF	12.16	9.91	1.13	8.25	5.00	5.00

* Dimension does not include weld bead

APD Pulsation Dampener/Muffler

The APD series is designed to reduce noise and vibration on the compressor discharge lines.

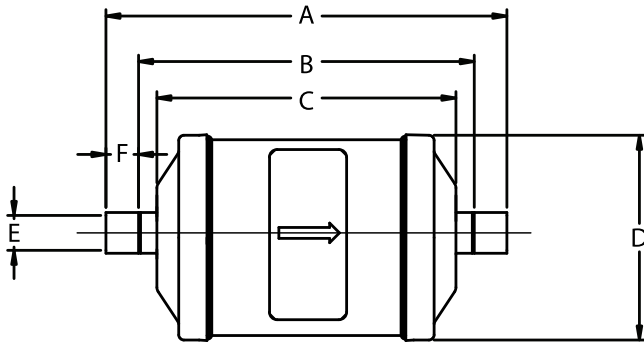
Features

- Compact size
- Full flow fittings
- Solid copper connections
- Corrosion resistant epoxy powder paint finish
- Rugged steel shells for vibration resistance
- Shock resistant steel shell construction

Nomenclature example: APD 053 SB

APD	05	3	S	B
Pulsation Dampener	Cubic Inches	Fitting Size in 1/8"	ODF Fittings	With Baffles (omit for standard)

Dimensional Data



Specifications

- Maximum working pressure: 680 psig
- Operating Range: -40°F to +250°F
- UL/CUL file number: SA 5760

Flow Capacity

Fitting Size	Tons
1/4	1-5
3/8	5-10
1/2	10-20
5/8	15-25
7/8	25-35
1 1/8	35+

Ordering Information

PCN	Description	Dimensions (in)					
		A	B	C	D	E	F
061862	APD 1R	6.00	5.00	4.47	3.02	0.50	0.50
049651	APD 054 S-B	4.56	3.56	3.00	2.63		
059144	APD 163 S	6.25	5.38	4.75		0.38	0.38
049623	APD 163 S-B					0.63	0.63
060119	APD 165 S-B	6.56	5.31			0.63	0.63
056989	APD 309 S	10.25	8.44	7.50	3.13	1.13	.88

HMI - Hermetic Moisture Indicators

The HMI is designed to provide an accurate method of determining the moisture content of a system's refrigerant. The HMI has a unique high accuracy moisture indicator for CFC, HCFC, and HFC refrigerants.



Features

- Highest sensitivity moisture indicator available
- Hermetic, leak-free construction
- Single indicator for all common refrigerants
- Accurate color calibration at low ppm levels and higher temperatures
- Wide angle viewing/high visibility window for ease of monitoring
- All brass corrosion resistant body for fewer leaks
- Solid copper connections

Specifications

- Maximum working pressure: 680 psig
- UL/CUL file number: SA 4876

Nomenclature example: HMI 1TT4

HMI	1	TT	4
Hermetic Moisture Indicator	Series	Connection Style TT = Sweat x Sweat	Connection Size (in 1/8")

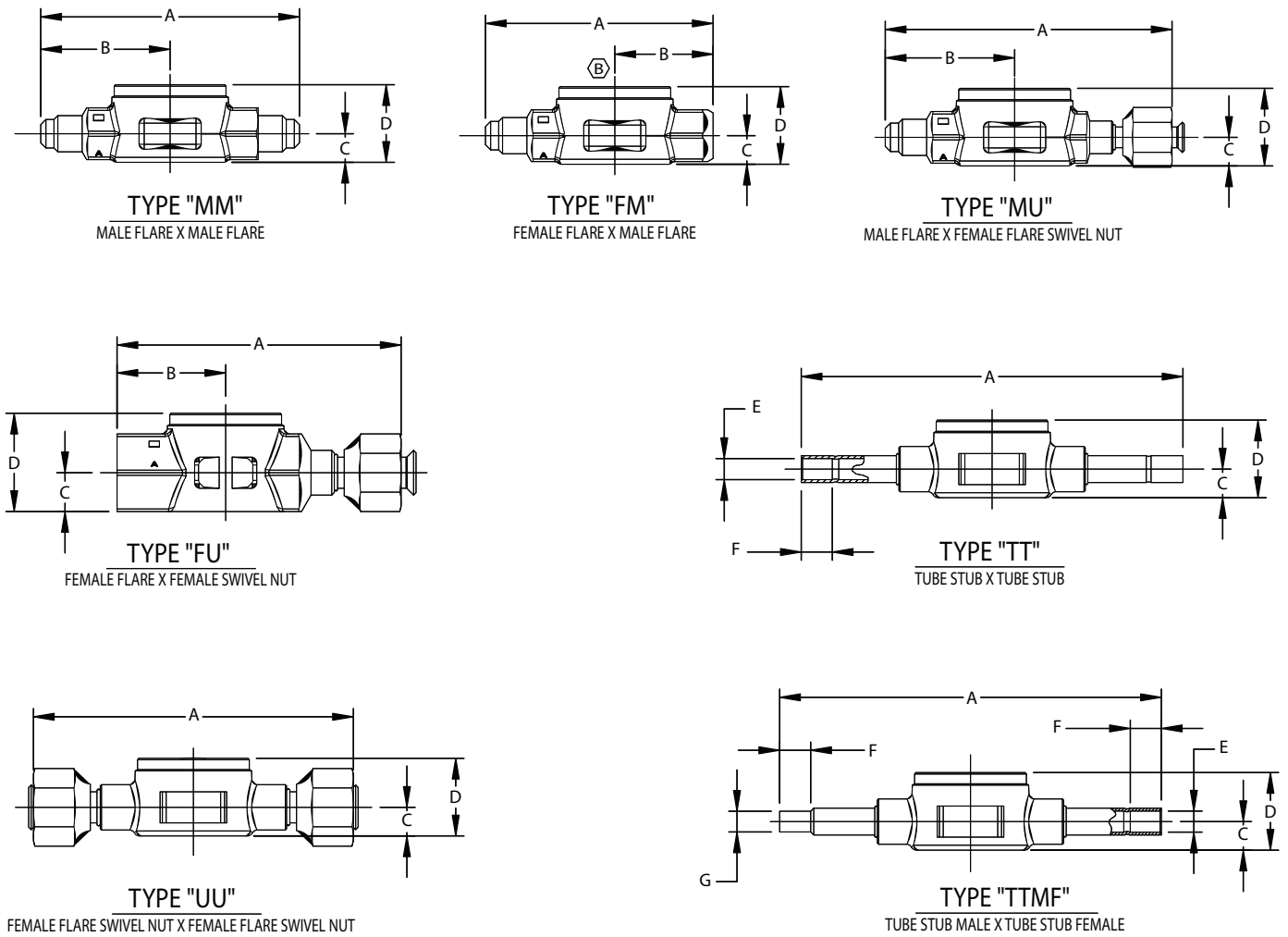
Ordering Information

PCN	Description	Series	Connection Size
065391	HMI-1MM2	Male Flare x Male Flare	1/4
065392	HMI-1MM3		3/8
065393	HMI-1MM4		1/2
065394	HMI-1MM5		5/8
065395	HMI-1MM6		3/4
065405	HMI1-1TT2		Sweat x Sweat (ODF)
065406	HMI1-1TT3	3/8	
065407	HMI1-1TT4	1/2	
065408	HMI1-1TT5	5/8	
065409	HMI1-1TT6	3/4	
065410	HMI1-1TT7	7/8	
065411	HMI1-1TT9	1 1/8	
065396	HMI-1FM2	Female Flare x Male Flare	
065397	HMI-1FM3		3/8
065398	HMI-1FM4		1/2
065399	HMI-1MU2	Male Flare x Female Flare Swivel Nut	1/4
065400	HMI-1MU3		3/8
065401	HMI-1MU4		1/2
065402	HMI-1MU5		5/8
065403	HMI-1FU3		Female Flare x Female Flare Swivel Nut
065404	HMI-1FU4		1/2
065412	HMI-1UU3	Swivel Nut x Swivel Nut	3/8
065413	HMI-1UU4		1/2
065414	HMI-1UU5		5/8
065622	HMI-1TT2MF	Sweat x Sweat (ODM x ODF)	1/4
065814	HMI-1TT3MF		3/8
065979	HMI-1TT4MF		1/2
065980	HMI-1TT5MF		5/8

Moisture Content Color Code (ppm H₂O)

Indication Liquid Temperature	Dry (Dark Blue)			Caution (Purple)			Wet (Salmon)		
	75°F	100°F	125°F	75°F	100°F	125°F	75°F	100°F	125°F
R-12	1.4	2.5	4	5	9	15	25	43	70
R-134A	20	35	60	35	55	85	130	160	190
R-22	25	35	50	40	65	90	145	205	290
R-407C	26	40	64	42	68	109	150	230	370
R-410A	30	55	75	50	85	120	165	290	420
R-404A/507	15	25	45	33	50	80	120	150	180
R-502	2.6	5	8	10	18	30	50	90	150

Dimensional Data



Dimensional Data (in)

Type Number	Connection Size	A	B	C	D	E	F Min	G
HMI - 1MM2	1/4 SAE	3.13	1.56	0.34	0.94			
HMI - 1MM3	3/8 SAE	3.38	1.69	0.34	0.94			
HMI - 1MM4	1/2 SAE	3.62	1.81	0.47	1.19			
HMI - 1MM5	5/8 SAE	3.88	1.94	0.47	1.19			
HMI - 1MM6	3/4 SAE	5.00	2.50	0.59	1.53			
HMI - 1FM2	1/4 SAE	2.75	1.19	0.34	0.94			
HMI - 1FM3	3/8 SAE	3.00	1.31	0.47	1.19			
HMI - 1FM4	1/2 SAE	3.22	1.41	0.47	1.19			
HMI - 1MU2	1/4 SAE	3.91	1.56	0.34	0.94			
HMI - 1MU3	3/8 SAE	4.38	1.69	0.34	0.94			
HMI - 1MU4	1/2 SAE	4.72	1.81	0.47	1.19			
HMI - 1MU5	5/8 SAE	5.09	1.94	0.47	1.19			
HMI - 1FU3	3/8 SAE	4.00	1.31	0.47	1.19			
HMI - 1FU4	1/2 SAE	4.31	1.41	0.47	1.19			
HMI - 1TT2	1/4 ODF	5.56		0.34	0.94	0.25	0.38	
HMI - 1TT3	3/8 ODF	5.62		0.34	0.94	0.38	0.34	
HMI - 1TT4	1/2 ODF	5.88		0.47	1.19	0.50	.035	
HMI - 1TT5	5/8 ODF	5.88		0.47	1.19	0.63	0.63	
HMI - 1TT6	3/4 ODF	6.56		0.61	1.50	0.75	0.63	
HMI - 1TT7	7/8 ODF	6.31		0.61	1.50	0.88	0.75	
HMI - 1TT9	1 1/8 ODF	6.59		0.67	1.37	1.13	0.90	
HMI - 1UU3	3/8 x 3/8 Flare Swivel	4.88		0.34	0.94			
HMI - 1UU4	1/2 x 1/2 Flare Swivel	5.56		0.47	1.19			
HMI - 1UU5	5/8 x 5/8 Flare Swivel	6.02		0.47	1.19			
HMI - 1TT2MF	1/4 ODM x 1/4 ODF	5.56		0.34	0.94	0.25	0.38	0.25
HMI - 1TT3MF	3/8 ODM x 3/8 ODF	5.62		0.34	0.94	0.38	0.38	0.38
HMI - 1TT4MF	1/2 ODM x 1/2 ODF	5.88		0.47	1.19	0.50	0.50	0.50
HMI - 1TT5MF	5/8 ODM x 5/8 ODF	5.88		0.61	1.19	0.63	0.50	0.62

Thermal Expansion Valves
Solenoid Valves
Coils
Industrial Solenoid Valves
Shut Off Valves
System Protectors
Storage Devices
Oil Controls
Pressure Regulators
Temperature Pressure Controls
Competitive Cross Reference

AMI-Moisture Indicators

The AMI is designed to provide an accurate method of determining the moisture content of a system's refrigerant. The AMI has a unique high accuracy moisture indicator for CFC, HCFC and HFC refrigerants. For the AMI-2 Series, see the bottom of the following page.



Features

- Highest sensitivity moisture indicator available
- Take-A-Part design for easy repair
- Single indicator for all common refrigerants
- Accurate color calibration at low ppm levels and higher temperatures
- Wide angle viewing/high visibility window for ease of monitoring
- Solid copper connections

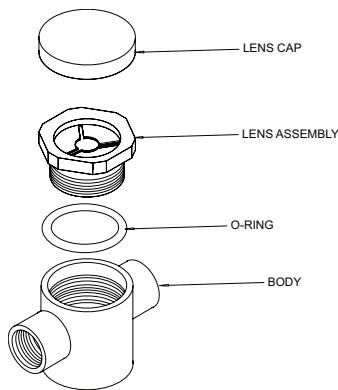
Nomenclature

example: AMI 1SS4

AMI	1	SS	4
Moisture Indicator Series	Design Series 1 = standard connection 2 = bushing style	Connection Style TT = Sweat x Sweat	Connection Size (in 1/8")

Replacement Parts For AMI

PCN	Part	Number
021371	Lenscap	12740-1
020877	"O" Ring	PS1525-2
027511	Lens Assembly Kit (Consists of lens assembly, lens cap and "O" ring)	X12978-1



Specifications

- Maximum working pressure: 680 psig
- UL/CUL file number: SA 4876

Ordering Information

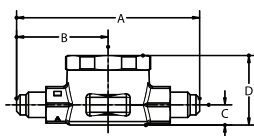
PCN	Description	Series	Connection Size
048803	AMI-1MM2	Male Flare x Male Flare	1/4
048804	AMI-1MM3		3/8
048805	AMI-1MM4		1/2
048806	AMI-1MM5		5/8
048811	AMI-1SS2		1/4
048812	AMI-1SS3	Sweat x Sweat (OD Female)	3/8
048813	AMI-1SS4		1/2
048814	AMI-1SS5		5/8
048815	AMI-1SS7		7/8
048816	AMI-1SS9		1 1/8
047298	AMI-1TT2 EXTENDED ENDS		1/4
042771	AMI-1TT3 EXTENDED ENDS		3/8
022302	AMI-1TT4 EXTENDED ENDS		1/2
031136	AMI-1TT5 EXTENDED ENDS		5/8
037357	AMI-1TT7 EXTENDED ENDS ¹		7/8
031378	AMI-1TT9 EXTENDED ENDS ¹	1 1/8	
048800	AMI-1FM2	Female Flare x Male Flare	1/4
048801	AMI-FM3		3/8
048802	AMI-FM4		1/2
048807	AMI-1MU2	Male Flare x Female Flare Swivel Nut	1/4
048808	AMI-1MU3		3/8
048809	AMI-1MU4		1/2
048810	AMI-1MU5	5/8	
048817	AMI-1FU3	Female Flare x Female Flare Swivel Nut	3/8
048818	AMI-1FU4		1/2
048819	AMI-1SU2	Sweat x Female Flare Swivel Nut	1/4
048820	AMI-1SU3		3/8
048821	AMI-1SU4		1/2
048822	AMI-1SU5		5/8
046647	AMI-1UU3		3/8
046648	AMI-1UU4	Swivel Nut x Swivel Nut	1/2
046649	AMI-1UU5		5/8

¹ 500 PSIG MWP

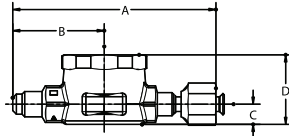
Moisture Content Color Code (ppm H₂O)

Indication Liquid Temperature	Dry (Dark Blue)			Caution (Purple)			Wet (Salmon)		
	75°F	100°F	125°F	75°F	100°F	125°F	75°F	100°F	125°F
R-12	1.4	2.5	4	5	9	15	25	43	70
R-134A	20	35	60	35	55	85	130	160	190
R-22	25	35	50	40	65	90	145	205	290
R-407C	26	40	64	42	68	109	150	230	370
R-410A	30	55	75	50	85	120	165	290	420
R-404A/507	15	25	45	33	50	80	120	150	180
R-502	2.6	5	8	10	18	30	50	90	150

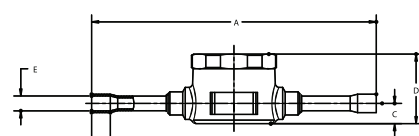
Dimensional Data



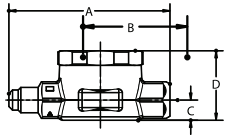
TYPE "MM"
MALE FLARE X MALE FLARE



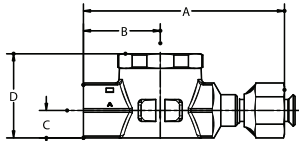
TYPE "MU"
MALE FLARE X FEMALE FLARE SWIVEL NUT



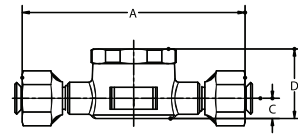
TYPE "TT"
TUBE STUB X TUBE STUB



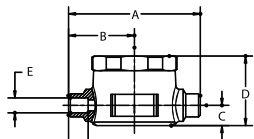
TYPE "FM"
FEMALE FLARE X MALE FLARE



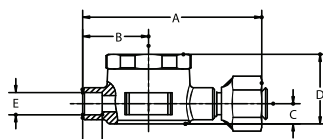
TYPE "FU"
FEMALE FLARE X FEMALE FLARE SWIVEL NUT



TYPE "UU"
FEMALE FLARE SWIVEL NUT X FEMALE FLARE SWIVEL NUT



TYPE "SS"
SWEAT X SWEAT



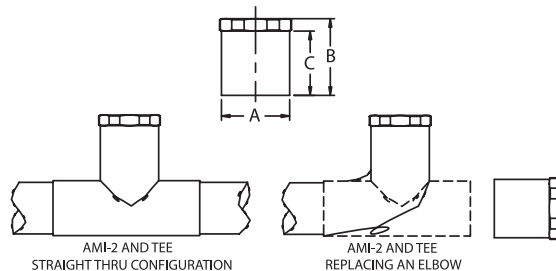
TYPE "SU"
SWEAT X FEMALE FLARE SWIVEL NUT

Dimensional Data (in)

Description	Connection Size	A	B	C	D	E		
AMI-1MM2	1/4 SAE	3.13	1.56	0.34	1.19			
AMI-1MM3	3/8 SAE	3.38	1.69					
AMI-1MM4	1/2 SAE	3.63	1.81					
AMI-1MM5	5/8 SAE	3.88	1.94					
AMI-1FM2	1/4 SAE	2.75	1.19			0.34	1.19	
AMI-1FM3	3/8 SAE	3.00	1.31	0.47	1.44			
AMI-1FM4	1/2 SAE	3.22	1.41					
AMI-1MU2	1/4 SAE	3.91	1.56					
AMI-1MU3	3/8 SAE	4.38	1.69					
AMI-1MU4	1/2 SAE	4.72	1.81					
AMI-1MU5	5/8 SAE	5.09	1.94	0.47	1.44			
AMI-1FU3	3/8 SAE	4.00	1.31					
AMI-1FU4	1/2 SAE	4.31	1.41					
AMI-1SS2	1/4 ODF	2.25	1.13			0.34	1.81	0.31
AMI-1SS3	3/8 ODF							
AMI-1SS4	1/2 ODF		2.63	1.31	0.47	1.44	0.38	
AMI-1SS5	5/8 ODF						0.50	
AMI-1SS7	7/8 ODF	3.13	1.56	0.61	1.75	0.75		
AMI-1SS9	1 1/8 ODF	3.38	1.69	0.67	1.92			
AMI-1SU2	1/4 ODF X 1/4 SAE	3.47	1.13			0.88		
AMI-1SU3	3/8 ODF X 3/8 SAE	3.56		0.34	0.81			
AMI-1SU4	1/2 ODF X 1/2 SAE	4.09		0.47	1.44		0.81	
AMI-1SU5	5/8 ODF X 5/8 SAE	4.22				0.50		
AMI-1TT2	1/4 ODF	4.89				0.34	0.81	0.31
AMI-1TT3	3/8 ODF							
AMI-1TT4	1/2 ODF		4.92		0.47	1.44	0.38	
AMI-1TT5	5/8 ODF		4.91				0.50	
AMI-1TT7	7/8 ODF		6.36		0.61	1.75	0.75	
AMI-1TT9	1 1/8 ODF	6.30		0.67	1.92	0.88		
AMI-1TT11	1 3/8 ODF	6.94		1.00	2.38	0.66		
AMI-1UUJ	3/8 X 3/8 FLARE SWIVEL	4.88		0.34	1.19			
AMI-1UU4	1/2 X 1/2 FLARE SWIVEL	5.56		0.47	1.44			
AMI-1UU5	5/8 X 5/8 FLARE SWIVEL	6.02						

AMI-2 Series Dimensions (in)

PCN	Description	Connection Size	A Dia.	B	C
064857	AMI-2S5	5/8 ODM	0.63	1.40	1.17
064167	AMI-2S7	7/8 ODM	0.88	1.34	1.00
064168	AMI-2S9	1 1/8 ODM	1.13	1.25	1.00
022303	AMI-2S11	1 3/8 ODM	1.38	1.56	1.94
028388	AMI-2S13	1 5/8 ODM	1.63	1.69	1.44
031219	AMI-2S17	2 1/8 ODM	2.13	1.94	1.69



Thermal Expansion Valves
Solenoid Valves
Coils
Industrial Solenoid Valves
Shut Off Valves
System Protectors
Storage Devices
Oil Controls
Pressure Regulators
Temperature Pressure Controls
Competitive Cross Reference

A-IHL Moisture Indicators

The A-IHL saddle design moisture indicator is used for large diameter tubing in CFC, HCFC, and HFC refrigerants.



Features

- Saddle design
- Solid copper connections
- Replaceable moisture indicator
- Eliminates the need for bypass installation - positive reaction to system moisture levels

Nomenclature example: A-IHL 9S

A-IHL	9	S
Series	Connection Size (in 1/8")	S = ODF

Specifications

- Maximum working pressure: 500 psig
- UL/CUL file number: SA 9566

Ordering Information

PCN	Model	Connection Size	Overall Length
060853	A-IHL-9S	1 1/8 ODF	6.31
061030	A-IHL-11S	1 3/8 ODF	7.12
061031	A-IHL-13S	1 5/8 ODF	7.87
061032	A-IHL-17S	2 1/8 ODF	8.68
060973	A-IHL-21S	2 5/8 ODF	9.45

Thermal Expansion Valves

Solenoid Valves

Coils

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Shut Off Valves

System Protectors

Storage Devices

Oil Controls

Pressure Regulators

Temperature Pressure Controls

Competitive Cross Reference

Hermetic Suction Line Filter-Drier Flow Capacities

Description	Connection	Flow Capacity in Tons Refrigerant ¹ (For kW, Multiply Tons by 3.5) ²							
		R-12				R-134a			
		Evaporator Temperature (°F)							
		40	20	0	-20	40	20	0	-20
		Pressure Drop (PSI)							
2	1.5	1	0.5	2	1.5	1	0.5		
ASD 28S3-W	3/8 ODF	1.1	0.6	0.5	0.5	1.4	0.6	0.5	0.4
ASD 28S4-W	1/2 ODF	1.8	1.2	0.8	0.7	1.9	1.2	0.8	1.6
ASD 35F5-2	5/8 SAE	2.1	1.4	1.1	0.9	2.2	1.4	1	0.8
ASD 35S5-W	5/8 ODF	2.8	1.9	1.4	1.1	2.9	1.9	1.3	1
ASD 45S6-W	3/4 ODF	3.8	2.5	1.8	1.2	3.9	2.5	1.7	1.1
ASD 45S7-W	7/8 ODF	5.0	3.6	2.3	1.5	5.1	3.5	2.2	1.3
ASD 50S9-W	1 1/8 ODF	7.1	5.0	3.2	1.8	7.3	4.9	3.0	1.6
ASD 75S11-W	1 3/8 ODF	8.6	5.9	3.7	2.0	8.8	5.8	3.5	1.8
ASD 75S13-W	1 5/8 ODF	9.0	6.2	3.9	2.1	9.3	6.1	3.7	1.9
ASF 28S3-W	3/8 ODF	1.2	0.8	0.5	0.5	1.2	0.8	0.5	0.4
ASF 28S4-W	1/2 ODF	1.9	1.3	0.9	0.8	2	1.3	0.9	0.7
ASF 35F5-W	5/8 SAE	2.2	1.5	1.1	0.9	2.3	1.5	1	0.8
ASF 35S5-W	5/8 ODF	3.2	2.2	1.6	1.4	3.3	2.2	1.5	1.2
ASF 45S6-W	3/4 ODF	4.7	3.2	2.3	1.8	4.8	3.1	2.2	1.6
ASF 45S7-W	7/8 ODF	6.5	4.8	3.3	1.9	6.7	4.7	3.1	1.7
ASF 50S9-W	1 1/8 ODF	9.2	6.8	4.5	2.6	9.5	6.7	4.3	2.3
ASF 64S17-W	2 1/8 ODF	25.3	18.3	12.6	7.2	26	18	12	6.4
ASF 75S11-W	1 3/8 ODF	11.7	8.8	5.9	3.4	12	8.7	5.6	3
ASF 75S13-W	1 5/8 ODF	13.6	9.7	6.6	3.8	14	9.5	6.3	3.4
ASK 165S-W-HH	4/8 ODF	1.9	1.4	0.8	0.6	2	1.4	0.8	0.5
ASK 166S-W-HH	3/4 ODF	2.4	1.7	1.1	0.7	2.5	1.7	1	0.6
ASK 167S-W-HH	7/8 ODF	2.6	1.8	1.2	0.7	2.7	1.8	1.1	0.6
ASK 306S-W-HH	3/4 ODF	3.3	2.3	1.5	0.9	3.4	2.3	1.4	0.8
ASK 307S-W-HH	7/8 ODF	3.5	2.5	1.6	0.9	3.6	2.5	1.5	0.8
ASK 309S-W-HH	1 1/8 ODF	3.8	2.6	1.7	0.9	3.9	2.6	1.6	0.8
CSFD14S4-W	1/2 ODF	1.3	0.9	0.5	0.3	1.3	0.9	0.5	0.3
CSFD14S5-W	5/8 ODF	2.2	1.5	0.9	0.6	2.3	1.5	0.9	1.5
CSFD14S6-W	3/4 ODF	3.0	2.1	1.3	0.8	3.1	2.1	1.3	1.7
CSFD14S7-W	7/8 ODF	3.2	2.2	1.5	0.8	3.3	2.2	1.4	0.7
CSFD14S9-W	1 1/8 ODF	4.4	3.1	1.9	1.1	4.5	3	1.8	1
SFD 13F3-W	3/8 SAE	0.7	0.4	0.2	0.1	0.7	0.4	0.2	0.1
SFD 13S3-W	3/8 ODF	1.3	0.8	0.5	0.2	1.3	0.8	0.5	0.2
SFD 13F4-W	1/2 SAE	1.5	1.0	0.6	0.3	1.5	1.0	0.6	0.3
SFD 13S4-W	1/2 ODF	2.2	1.5	1.1	0.6	2.3	1.5	1	0.5
SFD 13F5-W	5/8 SAE	2.4	1.7	1.2	0.7	2.5	1.7	1.1	0.6
SFD 13S5-W	5/8 ODF	3.0	2.1	1.4	0.8	3.1	2.1	1.3	0.7
SFD 13S6-W	3/4 ODF	4.0	2.7	1.8	1.0	4.1	2.7	1.7	0.9
SFD 13S7-W	7/8 ODF	4.3	3.1	2.0	1.1	4.4	3	1.9	1
SFD 27S6-W	3/4 ODF	4.0	2.7	1.8	1.0	4.1	2.7	1.7	0.9
SFD 27S7-W	7/8 ODF	4.6	3.2	2.0	1.1	4.7	3.1	1.9	1
SFD 27S9-W	1 1/8 ODF	5.1	3.5	2.1	1.1	5.2	3.4	2	1
SFD 54S11-W	1 3/8 ODF	4.4	2.9	1.8	1.0	4.5	2.9	1.7	0.9
SFD 54S13-W	1 5/8 ODF	4.5	3.1	1.9	1.0	4.6	3	1.8	0.9

¹ All ratings in accordance with ARI Standard 730-04.

² Example: 1.0 tons x 3.5 = 3.5 kW

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Hermetic Suction Line Filter-Drier Flow Capacities

Description	Connections	Flow Capacity In Tons Refrigerant ¹ (For kW, Multiply Tons By 3.5) ²							
		R-12				R-134a			
		Evaporator Temperature (°F)							
		40	20	0	-20	40	20	0	-20
		Pressure Drop (PSI)							
2	1.5	1	0.5	2	1.5	1	0.5		
ASD 28S3-VV	3/8 ODF	1.1	0.6	0.5	0.5	1.1	0.6	0.5	0.4
ASD 28S4-VV	1/2 ODF	1.8	1.2	0.8	0.7	1.9	1.2	0.8	0.6
ASD 35F5-VV	5/8 SAE	2.1	1.4	1.1	0.9	2.2	1.4	1.0	0.8
ASD 35S5-VV	5/8 ODF	2.8	1.9	1.4	1.1	2.9	1.9	1.3	1.0
ASD 45S6-VV	3/4 ODF	3.8	2.5	1.8	1.2	3.9	2.5	1.7	1.1
ASD 45S7-VV	7/8 ODF	5.0	3.6	2.3	1.5	5.1	3.5	2.2	1.3
ASD 50S9-VV	1-1/8 ODF	7.1	5.0	3.2	1.8	7.3	4.9	3.0	1.6
ASD 75S11-VV	1-3/8 ODF	8.6	5.9	3.7	2.0	8.8	5.8	3.5	1.8
ASD 75S13-VV	1-5/8 ODF	9.0	6.2	3.9	2.1	9.3	6.1	3.7	1.9
ASF 28S3-VV	3/8 ODF	1.2	0.8	0.5	0.5	1.2	0.8	0.5	0.4
ASF 28S4-VV	1/2 ODF	1.9	1.3	0.9	0.8	2.0	1.3	0.9	0.7
ASF 35F5-VV	5/8 SAE	2.2	1.5	1.1	0.9	2.3	1.5	1.0	0.8
ASF 35S5-VV	5/8 ODF	3.2	2.2	1.6	1.4	3.3	2.2	1.5	1.2
ASF 45S6-VV	3/4 ODF	4.7	3.2	2.3	1.8	4.8	3.1	2.2	1.6
ASF 45S7-VV	7/8 ODF	6.5	4.8	3.3	1.9	6.7	4.7	3.1	1.7
ASF 50S9-VV	1-1/8 ODF	9.2	6.8	4.5	2.6	9.5	6.7	4.3	2.3
ASF 64S17-VV	2-1/8 ODF	25.3	18.3	12.6	7.2	26.0	18	12	6.4
ASF 75S11-VV	1-3/8 ODF	11.7	8.8	5.9	3.4	12.0	8.7	5.6	3.0
ASF 75S13-VV	1-5/8 ODF	13.6	9.7	6.6	3.8	14.0	9.5	6.3	3.4
ASK 165S-VV-HH	5/8 ODF	1.9	1.4	0.8	0.6	2.0	1.4	0.8	0.5
ASK 166S-VV-HH	3/4 ODF	2.4	1.7	1.1	0.7	2.5	1.7	1.0	0.6
ASK 167S-VV-HH	7/8 ODF	2.6	1.8	1.2	0.7	2.7	1.8	1.1	0.6
ASK 306S-VV-HH	3/4 ODF	3.3	2.3	1.5	0.9	3.4	2.3	1.4	0.8
ASK 307S-VV-HH	7/8 ODF	3.5	2.5	1.6	0.9	3.6	2.5	1.5	0.8
ASK 309S-VV-HH	1-1/8 ODF	3.8	2.6	1.7	0.9	3.9	2.6	1.6	0.8
CSFD 14S4-VV	1/2 ODF	1.3	0.9	0.5	0.3	1.3	0.9	0.5	0.3
CSFD 14S5-VV	5/8 ODF	2.2	1.5	0.9	0.6	2.3	1.5	0.9	0.5
CSFD 14S6-VV	3/4 ODF	3.0	2.1	1.3	0.8	3.1	2.1	1.3	0.7
CSFD 14S7-VV	7/8 ODF	3.2	2.2	1.5	0.8	3.3	2.2	1.4	0.7
CSFD 14S9-VV	1-1/8 ODF	4.4	3.1	1.9	1.1	4.5	3.0	1.8	1.0
SFD 13F3-VV	3/8 SAE	0.7	0.4	0.2	0.1	0.7	0.4	0.2	0.1
SFD 13S3-VV	3/8 ODF	1.3	0.8	0.5	0.2	1.3	0.8	0.5	0.2
SFD 13F4-VV	1/2 SAE	1.5	1.0	0.6	0.3	1.5	1.0	0.6	0.3
SFD 13S4-VV	1/2 ODF	2.2	1.5	1.1	0.6	2.3	1.5	1.0	0.5
SFD 13F5-VV	5/8 SAE	2.4	1.7	1.2	0.7	2.5	1.7	1.1	0.6
SFD 13S5-VV	5/8 ODF	3.0	2.1	1.4	0.8	3.1	2.1	1.3	0.7
SFD 13S6-VV	3/4 ODF	4.0	2.7	1.8	1.0	4.1	2.7	1.7	0.9
SFD 13S7-VV	7/8 ODF	4.3	3.1	2.0	1.1	4.4	3.0	1.9	1.0
SFD 27S6-VV	3/4 ODF	4.0	2.7	1.8	1.0	4.1	2.7	1.7	0.9
SFD 27S7-VV	7/8 ODF	4.6	3.2	2.0	1.1	4.7	3.1	1.9	1.0
SFD 27S9-VV	1-1/8 ODF	5.1	3.5	2.1	1.1	5.2	3.4	2.0	1.0
SFD 54S11-VV	1-3/8 ODF	4.4	2.9	1.8	1.0	4.5	2.9	1.7	0.9
SFD 54S13-VV	1-5/8 ODF	4.5	3.1	1.9	1.0	4.6	3.0	1.8	0.9

¹ All ratings in accordance with ARI Standard 730-04.

² Example: 1.0 tons x 3.5 = 3.5 kW

Hermetic Suction Line Filter-Drier Flow Capacities

Description	Connections	Flow Capacity In Tons Refrigerant ¹ (For kW, Multiply Tons By 3.5) ²														
		R-22					R-407C					R-410A				
		Evaporator Temperature (°F)														
		40	20	0	-20	-40	40	20	0	-20	-40	40	20	0	-20	-40
		Pressure Drop (PSI)														
3	2	1.5	1	0.5	3	2	1.5	1	0.5	3	2	1.5	1	0.5		
ASD 28S3-VV	3/8 ODF	2.3	1.3	0.9	0.6	0.5	2.6	1.5	1.1	0.7	0.7	1.6	0.9	0.6	0.4	0.3
ASD 28S4-VV	1/2 ODF	3.8	2.1	1.4	1.0	0.8	4.2	2.4	1.7	1.2	1.1	2.6	1.4	1.0	0.7	0.5
ASD 35F5-VV	5/8 SAE	4.4	2.5	1.7	1.2	0.9	4.9	2.9	2.1	1.5	1.2	3.0	1.7	1.2	0.8	0.6
ASD 35S5-VV	5/8 ODF	5.8	3.2	2.2	1.6	1.0	6.5	3.7	2.7	2.0	1.3	4.0	2.2	1.5	1.1	0.7
ASD 45S6-VV	3/4 ODF	7.0	4.6	3.2	2.0	1.1	7.8	5.3	3.9	2.5	1.5	4.8	3.2	2.2	1.3	0.7
ASD 45S7-VV	7/8 ODF	9.2	6.0	4.1	2.6	1.4	10.0	6.9	4.9	3.2	1.9	6.3	4.1	2.8	1.7	0.9
ASD 50S9-VV	1-1/8 ODF	13.2	8.5	5.7	3.5	1.8	15.0	9.7	6.9	4.3	2.4	9.0	5.8	3.9	2.3	1.2
ASD 75S11-VV	1-3/8 ODF	16.2	10.2	6.7	4.0	2.0	18.0	12.0	8.1	4.9	2.7	11.0	7.0	4.6	2.7	1.3
ASD 75S13-VV	1-5/8 ODF	17.3	10.7	7.0	4.2	2.1	19.0	12.0	8.4	5.2	2.8	12.0	7.3	4.8	2.8	1.4
ASF 28S3-VV	3/8 ODF	2.4	1.3	0.9	0.7	0.5	2.7	1.5	1.1	0.9	0.7	1.6	0.9	0.6	0.5	0.3
ASF 28S4-VV	1/2 ODF	4.1	2.3	1.6	1.2	0.9	4.6	2.6	1.9	1.5	1.2	2.8	1.6	1.1	0.8	0.6
ASF 35F5-VV	5/8 SAE	4.7	2.6	1.8	1.3	1.0	5.2	3.0	2.2	1.6	1.3	3.2	1.8	1.2	0.9	0.7
ASF 35S5-VV	5/8 ODF	6.6	3.7	2.6	1.9	1.6	7.3	4.2	3.1	2.3	2.1	4.5	2.5	1.8	1.3	1.0
ASF 45S6-VV	3/4 ODF	9.8	5.5	3.7	2.7	2.2	11.0	6.3	4.5	3.3	3.0	6.7	3.8	2.5	1.8	1.4
ASF 45S7-VV	7/8 ODF	12.0	8.0	5.6	3.6	3.0	13.0	9.2	6.8	4.4	4.0	8.2	5.5	3.8	2.4	2.0
ASF 50S9-VV	1-1/8 ODF	19.0	12.0	8.2	4.9	2.6	21.0	14.0	9.9	6.0	3.5	13.0	8.2	5.6	3.3	1.7
ASF 64S17-VV	2-1/8 ODF	41.0	27.0	19.0	12.0	6.9	46.0	31.0	23.0	15.0	9.3	28.0	19.0	13.0	8.0	4.5
ASF 75S11-VV	1-3/8 ODF	24.0	15.0	10.0	6.5	3.2	27.0	17.0	12.0	8.0	4.3	16.0	10.0	6.8	4.3	2.1
ASF 75S13-VV	1-5/8 ODF	15.0	16.0	11.0	6.7	3.3	17.0	18.0	13.0	8.3	4.4	10.0	11.0	7.5	4.5	2.2
ASK 165S-VV-HH	5/8 ODF	3.4	2.1	1.4	0.9	0.4	3.8	2.4	1.7	1.1	0.5	2.3	1.4	1.0	0.6	0.3
ASK 166S-VV-HH	3/4 ODF	4.2	2.6	1.7	1.0	0.5	4.7	3.0	2.1	1.2	0.7	2.9	1.8	1.2	0.7	0.3
ASK 167S-VV-HH	7/8 ODF	4.6	2.8	1.9	1.1	0.6	5.1	3.2	2.3	1.4	0.8	3.1	1.9	1.3	0.7	0.4
ASK 306S-VV-HH	3/4 ODF	5.5	3.5	2.3	1.4	0.8	6.1	4.0	2.8	1.7	1.1	3.8	2.4	1.6	0.9	0.5
ASK 307S-VV-HH	7/8 ODF	6.1	3.8	2.5	1.5	0.8	6.8	4.4	3.0	1.9	1.1	4.2	2.6	1.7	1.0	0.5
ASK 309S-VV-HH	1-1/8 ODF	6.5	4.0	2.6	1.6	0.8	7.2	4.6	3.1	2.0	1.1	4.4	2.7	1.8	1.1	0.5
CSFD 14S4-VV	1/2 ODF	2.0	1.3	0.9	0.6	0.3	2.2	1.5	1.1	0.7	0.4	1.4	0.9	0.6	0.4	0.2
CSFD 14S5-VV	5/8 ODF	3.6	2.4	1.6	1.0	0.5	4.0	2.8	1.9	1.2	0.7	2.5	1.6	1.1	0.7	0.3
CSFD 14S6-VV	3/4 ODF	4.9	3.2	2.2	1.4	0.7	5.5	3.7	2.7	1.7	0.9	3.3	2.2	1.5	0.9	0.5
CSFD 14S7-VV	7/8 ODF	5.2	3.4	2.3	1.5	0.8	5.8	3.9	2.8	1.9	1.1	3.6	2.3	1.6	1.0	0.5
CSFD 14S9-VV	1-1/8 ODF	7.0	4.6	3.1	2.0	1.0	7.8	5.3	3.7	2.5	1.3	4.8	3.2	2.1	1.3	0.7
SFD 13F3-VV	3/8 SAE	1.4	0.8	0.4	0.2	0.1	1.6	0.9	0.5	0.2	0.1	1.0	0.5	0.3	0.1	0.1
SFD 13S3-VV	3/8 ODF	2.2	1.3	0.8	0.5	0.2	2.4	1.5	1.0	0.6	0.3	1.5	0.9	0.5	0.3	0.1
SFD 13F4-VV	1/2 SAE	2.4	1.6	1.1	0.7	0.4	2.7	1.8	1.3	0.9	0.5	1.6	1.1	0.7	0.5	0.3
SFD 13S4-VV	1/2 ODF	3.5	2.3	1.6	1.0	0.6	3.9	2.6	1.9	1.2	0.8	2.4	1.6	1.1	0.7	0.4
SFD 13F5-VV	5/8 SAE	3.7	2.4	1.6	1.0	0.6	4.1	2.8	1.9	1.2	0.8	2.5	1.6	1.1	0.7	0.4
SFD 13S5-VV	5/8 ODF	4.9	3.2	2.2	1.4	0.8	5.5	3.7	2.7	1.7	1.1	3.3	2.2	1.5	0.9	0.5
SFD 13S6-VV	3/4 ODF	6.4	4.2	2.8	1.8	1.0	7.1	4.8	3.4	2.2	1.3	4.4	2.9	1.9	1.2	0.7
SFD 13S7-VV	7/8 ODF	7.2	4.6	3.0	1.9	1.0	8.0	5.3	3.6	2.3	1.3	4.9	3.2	2.0	1.3	0.7
SFD 27S6-VV	3/4 ODF	6.4	4.2	2.8	1.8	1.0	7.1	4.8	3.4	2.2	1.3	4.4	2.9	1.9	1.2	0.7
SFD 27S7-VV	7/8 ODF	7.5	4.8	3.2	2.0	1.1	8.3	5.5	3.9	2.5	1.5	5.1	3.3	2.2	1.3	0.7
SFD 27S9-VV	1-1/8 ODF	8.5	5.4	3.5	2.1	1.1	9.5	6.2	4.2	2.6	1.5	5.8	3.7	2.4	1.4	0.7
SFD 54S11-VV	1-3/8 ODF	7.3	4.6	3.0	1.8	1.0	8.1	5.3	3.6	2.2	1.3	5.0	3.2	2.0	1.2	0.7
SFD 54S13-VV	1-5/8 ODF	7.4	4.7	3.2	2.0	1.0	8.2	5.4	3.9	2.5	1.3	5.1	3.2	2.2	1.3	0.7

¹ All ratings in accordance with ARI Standard 730-04.

² Example: 1.0 tons x 3.5 = 3.5 kW

Thermal Expansion Valves
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Coils
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System Protectors
Storage Devices
Oil Controls
Pressure Regulators
Temperature Pressure Controls
Competitive Cross Reference

Take-A-Part Suction Line Filter-Drier Flow Capacities

Description	Connections	Flow Capacity In Tons Refrigerant ¹ (For kW, Multiply Tons By 3.5) ²									
		R-502					R-404A/R-507				
		Evaporator Temperature (°F)									
		40	20	0	-20	-40	40	20	0	-20	-40
		Pressure Drop (PSI)									
3	2	1.5	1	0.5	3	2	1.5	1	0.5		
ASD 28S3-VV	3/8 ODF	2.2	1.1	0.7	0.5	0.3	2.1	1.1	0.7	0.5	0.3
ASD 28S4-VV	1/2 ODF	3.7	1.8	1.1	0.7	0.5	3.6	1.8	1.1	0.7	0.5
ASD 35F5-VV	5/8 SAE	4.2	2.1	1.3	0.9	0.6	4.1	2.1	1.3	0.9	0.6
ASD 35S5-VV	5/8 ODF	5.6	2.8	1.7	1.1	0.8	5.4	2.8	1.7	1.1	0.8
ASD 45S6-VV	3/4 ODF	6.6	3.7	2.5	1.5	0.9	6.4	3.7	2.5	1.6	1.0
ASD 45S7-VV	7/8 ODF	7.7	4.8	3.3	1.9	1.0	7.5	4.8	3.3	2.0	1.1
ASD 50S9-VV	1-1/8 ODF	11.0	6.9	4.6	2.7	1.3	11.0	6.9	4.6	2.8	1.4
ASD 75S11-VV	1-3/8 ODF	14.0	8.4	5.4	3.1	1.5	14.0	8.4	5.4	3.2	1.6
ASD 75S13-VV	1-5/8 ODF	15.0	8.9	5.7	3.3	1.6	15.0	8.9	5.7	3.4	1.7
ASF 28S3-VV	3/8 ODF	2.3	1.1	0.7	0.5	0.3	2.2	1.1	0.7	0.5	0.3
ASF 28S4-VV	1/2 ODF	3.9	2.0	1.2	0.8	0.6	3.8	2.0	1.2	0.8	0.6
ASF 35F5-VV	5/8 SAE	4.5	2.3	1.4	0.9	0.7	4.4	2.3	1.4	0.9	0.7
ASF 35S5-VV	5/8 ODF	6.3	3.2	2.0	1.4	0.9	6.1	3.2	2.0	1.4	1.0
ASF 45S6-VV	3/4 ODF	9.4	4.7	2.9	1.8	1.3	9.1	4.7	2.9	1.9	1.4
ASF 45S7-VV	7/8 ODF	10.0	6.3	4.5	2.7	1.4	9.8	6.3	4.5	2.8	1.5
ASF 50S9-VV	1-1/8 ODF	16.0	10.0	6.6	3.9	1.9	16.0	10.0	6.7	4.0	2.0
ASF 64S17-VV	2-1/8 ODF	36.0	23.0	15.0	9.5	4.9	35.0	23.0	15.0	9.8	5.2
ASF 75S11-VV	1-3/8 ODF	21.0	13.0	8.2	4.9	2.4	20.0	13.0	8.3	5.1	2.6
ASF 75S13-VV	1-5/8 ODF	22.0	13.0	8.3	5.0	2.5	21.0	13.0	8.4	5.2	2.7
ASK 165S-VV-HH	5/8 ODF	3.3	1.9	1.2	0.8	0.3	3.2	1.9	1.2	0.8	0.3
ASK 166S-VV-HH	3/4 ODF	4.0	2.4	1.6	0.9	0.5	3.9	2.4	1.6	0.9	0.5
ASK 167S-VV-HH	7/8 ODF	4.4	2.6	1.7	1.0	0.6	4.3	2.6	1.7	1.0	0.6
ASK 306S-VV-HH	3/4 ODF	5.2	3.2	2.2	1.2	0.7	5.0	3.2	2.2	1.2	0.7
ASK 307S-VV-HH	7/8 ODF	5.8	3.5	2.3	1.4	0.7	5.6	3.5	2.3	1.4	0.7
ASK 309S-VV-HH	1-1/8 ODF	6.2	3.7	2.4	1.4	0.7	6.0	3.7	2.4	1.5	0.7
CSFD 14S4-VV	1/2 ODF	1.3	0.8	0.5	0.3	0.2	1.3	0.8	0.5	0.3	0.2
CSFD 14S5-VV	5/8 ODF	2.7	1.7	1.1	0.7	0.3	2.6	1.7	1.1	0.7	0.3
CSFD 14S6-VV	3/4 ODF	3.7	2.3	1.5	0.9	0.5	3.6	2.3	1.5	0.9	0.5
CSFD 14S7-VV	7/8 ODF	4.0	2.4	1.6	1.0	0.5	3.9	2.4	1.6	1.0	0.5
CSFD 14S9-VV	1-1/8 ODF	5.1	3.1	2.0	1.3	0.7	4.9	3.1	2.0	1.3	0.7
SFD 13F3-VV	3/8 SAE	1.3	0.7	0.4	0.2	0.1	1.3	0.7	0.4	0.2	0.1
SFD 13S3-VV	3/8 ODF	2.0	1.1	0.7	0.4	0.2	1.9	1.1	0.7	0.4	0.2
SFD 13F4-VV	1/2 SAE	2.2	1.3	0.9	0.5	0.3	2.1	1.3	0.9	0.5	0.3
SFD 13S4-VV	1/2 ODF	3.1	1.9	1.3	0.8	0.4	3.0	1.9	1.3	0.8	0.4
SFD 13F5-VV	5/8 SAE	3.3	2.0	1.4	0.9	0.5	3.2	2.0	1.4	0.9	0.5
SFD 13S5-VV	5/8 ODF	4.3	2.7	1.8	1.1	0.6	4.2	2.7	1.8	1.1	0.6
SFD 13S6-VV	3/4 ODF	5.8	3.5	2.3	1.4	0.7	5.6	3.5	2.3	1.4	0.7
SFD 13S7-VV	7/8 ODF	6.5	3.9	2.6	1.4	0.8	6.3	3.9	2.6	1.5	0.8
SFD 27S6-VV	3/4 ODF	5.8	3.5	2.3	1.4	0.7	5.6	3.5	2.3	1.4	0.7
SFD 27S7-VV	7/8 ODF	6.7	4.1	2.7	1.5	0.8	6.5	4.1	2.7	1.6	0.8
SFD 27S9-VV	1-1/8 ODF	7.7	4.6	3.0	1.6	0.8	7.5	4.6	3.0	1.7	0.9
SFD 54S11-VV	1-3/8 ODF	6.6	3.9	2.5	1.4	0.7	6.4	3.9	2.5	1.5	0.7
SFD 54S13-VV	1-5/8 ODF	6.7	4.0	2.6	1.5	0.8	6.5	4.0	2.6	1.6	0.8

¹ All ratings in accordance with ARI Standard 730-04.

² Example: 1.0 tons x 3.5 = 3.5 kW

Take-A-Part Suction Line Filter-Drier Flow Capacities

Description	Connections	Filter-Drier Cartridge	Flow Capacity In Tons Refrigerant ¹ (For kW, Multiply Tons By 3.5) ²							
			R-12				R-134a			
			Evaporator Temperature (°F)							
			40	20	0	-20	40	20	0	-20
			Pressure Drop (PSI)							
2	1.5	1	0.5	2	1.5	1	0.5			
ADKS 30013T	1-5/8 ODF	(3) F-100 Filter	24.0	17.0	12.0	7.0	25.0	17.0	11.0	6.2
ADKS 30017T	2-1/8 ODF	(3) F-100 Filter	42.0	31.0	20.0	12.0	43.0	30.0	19.0	11.0
ADKS 40017T	2-1/8 ODF	(4) F-100 Filter	44.0	32.0	21.0	12.0	45.0	31.0	20.0	11.0
ADKS 40021T	2-5/8 ODF	(4) F-100 Filter	66.0	48.0	32.0	19.0	68.0	47.0	30.0	17.0
ADKS 30013T	1-5/8 ODF	(3) 100 cu in Core	19.0	14.0	9.1	5.5	20.0	14.0	8.7	4.9
ADKS 30017T	2-1/8 ODF	(3) 100 cu in Core	30.0	22.0	15.0	8.7	31.0	22.0	14.0	7.7
ADKS 40017T	2-1/8 ODF	(4) 100 cu in Core	33.0	23.0	16.0	9.5	34.0	23.0	15.0	8.4
ADKS 40021T	2-5/8 ODF	(4) 100 cu in Core	48.0	35.0	23.0	14.0	49.0	34.0	22.0	12.0
BTAS-27 S-V	7/8 ODF	A2F Filter	4.7	3.4	2.2	1.2	4.8	3.3	2.1	1.1
BTAS-39 S-V	1-1/8 ODF	A3F Filter	7.1	5.1	3.4	1.9	7.3	5.0	3.2	1.7
BTAS-311 S-V	1-3/8 ODF	A3F Filter	7.9	5.6	3.7	2.1	8.1	5.5	3.5	1.9
BTAS-313 S-V	1-5/8 ODF	A3F Filter	13.0	8.9	5.9	3.4	13.0	8.8	5.6	3.0
BTAS-317 S-V	2-1/8 ODF	A3F Filter	15.0	11.0	7.2	4.2	16.0	11.0	6.9	3.7
BTAS-411 S-V	1-3/8 ODF	A4F Filter	17.0	12.0	8.0	4.5	17.0	12.0	7.4	4.0
BTAS-413 S-V	1-5/8 ODF	A4F Filter	20.0	15.0	10.0	5.5	21.0	14.0	9.1	4.9
BTAS-417 S-V	2-1/8 ODF	A4F Filter	28.0	20.0	13.0	7.5	29.0	20.0	12.0	6.7
BTAS-421 S-V	2-5/8 ODF	A4F Filter	34.0	24.0	16.0	9.1	35.0	24.0	15.0	8.1
BTAS-517 S-V	2-1/8 ODF	A5F Filter	33.0	24.0	16.0	9.1	34.0	24.0	15.0	8.1
BTAS-521 S-V	2-5/8 ODF	A5F Filter	44.0	32.0	21.0	12.0	45.0	31.0	20.0	11.0
BTAS-525 S-V	3-1/8 ODF	A5F Filter	54.0	39.0	25.0	15.0	56.0	38.0	24.0	13.0
BTAS-25 S-V	5/8 ODF	A2F-D Filter-Drier	2.4	1.7	1.2	0.7	2.5	1.7	1.1	0.6
BTAS-27 S-V	7/8 ODF	A2F-D Filter-Drier	4.0	2.8	1.9	1.1	4.1	2.8	1.8	1.0
BTAS-39 S-V	1-1/8 ODF	A3F-D Filter-Drier	5.2	3.7	2.4	1.4	5.3	3.6	2.3	1.2
BTAS-311 S-V	1-3/8 ODF	A3F-D Filter-Drier	7.2	5.2	3.4	1.9	7.4	5.1	3.2	1.7
BTAS-313 S-V	1-5/8 ODF	A3F-D Filter-Drier	10.0	7.4	4.8	2.8	11.0	7.3	4.6	2.5
BTAS-317 S-V	2-1/8 ODF	A3F-D Filter-Drier	12.0	8.5	5.7	3.3	12.0	8.4	5.4	2.9
BTAS-411 S-V	1-3/8 ODF	A4F-D Filter-Drier	15.0	11.0	7.0	4.1	15.0	11.0	6.7	3.6
BTAS-413 S-V	1-5/8 ODF	A4F-D Filter-Drier	15.0	11.0	7.2	4.2	16.0	11.0	6.9	3.7
BTAS-417 S-V	2-1/8 ODF	A4F-D Filter-Drier	22.0	16.0	11.0	6.1	23.0	16.0	10.0	5.4
BTAS-421 S-V	2-5/8 ODF	A4F-D Filter-Drier	23.0	17.0	11.0	6.3	24.0	16.0	10.0	5.6
BTAS-517 S-V	2-1/8 ODF	A5F-D Filter-Drier	27.0	19.0	13.0	7.2	28.0	19.0	12.0	6.4
BTAS-521 S-V	2-5/8 ODF	A5F-D Filter-Drier	32.0	23.0	15.0	8.8	33.0	23.0	14.0	7.8
BTAS-525 S-V	3-1/8 ODF	A5F-D Filter-Drier	38.0	27.0	18.0	10.0	39.0	27.0	17.0	9.2
STAS-489 S-V	1-1/8 ODF	(1) F-48 Filter	13.0	8.0	5.0	2.0	13.0	8.0	5.0	2.0
STAS-4811 S-V	1-3/8 ODF	(1) F-48 Filter	15.0	10.0	6.0	3.0	15.0	10.0	6.0	3.0
STAS-4813 S-V	1-5/8 ODF	(1) F-48 Filter	19.0	12.0	7.0	5.0	20.0	12.0	7.0	4.0
STAS-4817 S-V	2-1/8 ODF	(1) F-48 Filter	24.0	15.0	11.0	6.0	25.0	15.0	10.0	5.0
STAS-4821 S-V	2-5/8 ODF	(1) F-48 Filter	29.0	20.0	14.0	7.0	30.0	20.0	13.0	6.0
STAS-9617 S-V	2-1/8 ODF	(2) F-48 Filter	27.0	18.0	11.0	6.0	28.0	18.0	10.0	5.0
STAS-9621 S-V	2-5/8 ODF	(2) F-48 Filter	37.0	25.0	16.0	8.0	38.0	25.0	15.0	7.0
STAS-489 S-V	1-1/8 ODF	(1) 48 cu in Core	8.0	6.0	4.0	1.0	8.0	6.0	4.0	1.0
STAS-4811 S-V	1-3/8 ODF	(1) 48 cu in Core	10.0	7.0	4.0	2.0	10.0	7.0	4.0	2.0
STAS-4813 S-V	1-5/8 ODF	(1) 48 cu in Core	13.0	8.0	5.0	3.0	13.0	8.0	5.0	3.0
STAS-4817 S-V	2-1/8 ODF	(1) 48 cu in Core	17.0	10.0	7.0	5.0	17.0	10.0	7.0	4.0
STAS-4821 S-V	2-5/8 ODF	(1) 48 cu in Core	19.0	13.0	8.0	5.0	20.0	13.0	8.0	4.0
STAS-9617 S-V	2-1/8 ODF	(2) 48 cu in Core	18.0	12.0	6.0	5.0	18.0	12.0	6.0	4.0
STAS-9621 S-V	2-5/8 ODF	(2) 48 cu in Core	24.0	17.0	11.0	6.0	25.0	17.0	10.0	5.0
STAS-969	1-1/8 ODF	(2) 48 cu in Core								
STAS-1927/5 T	7/8X5/8 ODF	(4) 48 cu in Core								
STAS-4811 S-V	1-3/8 ODF	(1) 48 cu in Core	15.0	10.0	6.0	3.0	15.0	10.0	6.0	3.0
STAS-4813 T	1-5/8 ODF	(1) 48 cu in Core	19.0	12.0	7.0	5.0	20.0	12.0	7.0	4.0
STAS-9617 T	2-1/8 ODF	(2) 48 cu in Core	18.0	12.0	6.0	5.0	18.0	12.0	6.0	4.0
STAS-9617 V	2-1/8 ODF	(2) 48 cu in Core	18.0	12.0	6.0	5.0	18.0	12.0	6.0	4.0

¹ All ratings in accordance with ARI Standard 730-04.

² Example: 1.0 tons x 3.5 = 3.5 kW

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Take-A-Part Suction Line Filter-Drier Flow Capacities

Description	Connections	Filter-Drier Cartridge	Flow Capacity In Tons Refrigerant ¹ (For kW, Multiply Tons By 3.5) ²									
			R-22					R-407C				
			Evaporator Temperature (°F)									
			40	20	0	-20	-40	40	20	0	-20	-40
			Pressure Drop (PSI)									
3	2	1.5	1	0.5	3	2	1.5	1	0.5			
ADKS 30013T	1-5/8 ODF	(3) F-100 Filter	45.0	30.0	20.0	13.0	7.0	50.0	34.0	24.0	16.0	9.4
ADKS 30017T	2-1/8 ODF	(3) F-100 Filter	77.0	50.0	35.0	22.0	12.0	86.0	57.0	42.0	27.0	16.0
ADKS 40017T	2-1/8 ODF	(4) F-100 Filter	80.0	53.0	37.0	23.0	13.0	89.0	61.0	45.0	28.0	17.0
ADKS 40021T	2-5/8 ODF	(4) F-100 Filter	122.0	80.0	55.0	34.0	19.0	136.0	92.0	66.0	42.0	25.0
ADKS 30013T	1-5/8 ODF	(3) 100 cu in Core	35.0	23.0	16.0	10.0	5.5	39.0	26.0	19.0	12.0	7.4
ADKS 30017T	2-1/8 ODF	(3) 100 cu in Core	56.0	37.0	25.0	16.0	8.8	62.0	42.0	30.0	20.0	12.0
ADKS 40017T	2-1/8 ODF	(4) 100 cu in Core	61.0	40.0	27.0	17.0	9.5	67.0	46.0	33.0	21.0	13.0
ADKS 40021T	2-5/8 ODF	(4) 100 cu in Core	88.0	58.0	40.0	25.0	14.0	98.0	67.0	48.0	31.0	19.0
BTAS-27 S-V	7/8 ODF	A2F Filter	8.8	5.7	3.9	2.5	1.3	9.8	6.5	4.7	3.1	1.7
BTAS-39 S-V	1-1/8 ODF	A3F Filter	14.0	8.8	5.9	3.7	2.0	15.0	10.0	7.1	4.6	2.7
BTAS-311 S-V	1-3/8 ODF	A3F Filter	15.0	10.0	6.6	4.1	2.2	17.0	11.0	8.0	5.1	3.0
BTAS-313 S-V	1-5/8 ODF	A3F Filter	24.0	16.0	11.0	6.6	3.5	27.0	18.0	13.0	8.1	4.7
BTAS-317 S-V	2-1/8 ODF	A3F Filter	29.0	19.0	13.0	8.1	4.3	32.0	22.0	15.0	10.0	5.8
BTAS-411 S-V	1-3/8 ODF	A4F Filter	31.0	20.0	14.0	8.7	4.6	35.0	23.0	17.0	11.0	6.2
BTAS-413 S-V	1-5/8 ODF	A4F Filter	38.0	25.0	17.0	11.0	5.7	42.0	29.0	21.0	13.0	7.6
BTAS-417 S-V	2-1/8 ODF	A4F Filter	53.0	34.0	23.0	15.0	7.8	59.0	39.0	28.0	18.0	10.0
BTAS-421 S-V	2-5/8 ODF	A4F Filter	64.0	42.0	29.0	18.0	10.0	71.0	48.0	35.0	22.0	13.0
BTAS-517 S-V	2-1/8 ODF	A5F Filter	63.0	41.0	28.0	18.0	9.4	70.0	47.0	34.0	22.0	13.0
BTAS-521 S-V	2-5/8 ODF	A5F Filter	84.0	54.0	37.0	23.0	12.0	93.0	62.0	45.0	28.0	17.0
BTAS-525 S-V	3-1/8 ODF	A5F Filter	103.0	67.0	46.0	29.0	15.0	115.0	77.0	56.0	36.0	21.0
BTAS-25 S-V	5/8 ODF	A2F-D Filter-Drier	4.6	3.0	2.0	1.3	0.7	5.1	3.4	2.4	1.6	0.9
BTAS-27 S-V	7/8 ODF	A2F-D Filter-Drier	7.5	4.9	3.3	2.1	1.1	8.3	5.6	4.0	2.6	1.5
BTAS-39 S-V	1-1/8 ODF	A3F-D Filter-Drier	10.0	6.3	4.3	2.7	1.4	11.0	7.2	5.2	3.3	1.9
BTAS-311 S-V	1-3/8 ODF	A3F-D Filter-Drier	14.0	8.9	6.0	3.8	2.0	15.0	10.0	7.2	4.7	2.7
BTAS-313 S-V	1-5/8 ODF	A3F-D Filter-Drier	20.0	13.0	8.6	5.4	2.9	22.0	15.0	10.0	6.7	3.9
BTAS-317 S-V	2-1/8 ODF	A3F-D Filter-Drier	23.0	15.0	10.0	6.3	3.4	26.0	17.0	12.0	7.8	4.6
BTAS-411 S-V	1-3/8 ODF	A4F-D Filter-Drier	28.0	18.0	13.0	7.8	4.2	31.0	21.0	15.0	10.0	5.6
BTAS-413 S-V	1-5/8 ODF	A4F-D Filter-Drier	29.0	19.0	13.0	8.1	4.3	32.0	22.0	15.0	10.0	5.8
BTAS-417 S-V	2-1/8 ODF	A4F-D Filter-Drier	43.0	28.0	19.0	12.0	6.3	48.0	32.0	23.0	15.0	8.5
BTAS-421 S-V	2-5/8 ODF	A4F-D Filter-Drier	44.0	29.0	19.0	12.0	6.5	49.0	33.0	23.0	15.0	8.7
BTAS-517 S-V	2-1/8 ODF	A5F-D Filter-Drier	51.0	33.0	22.0	14.0	7.5	57.0	38.0	27.0	17.0	10.0
BTAS-521 S-V	2-5/8 ODF	A5F-D Filter-Drier	61.0	40.0	27.0	17.0	9.0	68.0	46.0	33.0	21.0	12.0
BTAS-525 S-V	3-1/8 ODF	A5F-D Filter-Drier	72.0	47.0	32.0	20.0	11.0	80.0	54.0	39.0	25.0	14.0
STAS-489 S-V	1-1/8 ODF	(1) F-48 Filter	22.0	14.0	10.0	6.0	2.0	24.0	16.0	12.0	7.0	3.0
STAS-4811 S-V	1-3/8 ODF	(1) F-48 Filter	28.0	17.0	12.0	7.0	3.0	31.0	19.0	14.0	9.0	4.0
STAS-4813 S-V	1-5/8 ODF	(1) F-48 Filter	35.0	20.0	15.0	8.0	4.0	39.0	23.0	18.0	10.0	5.0
STAS-4817 S-V	2-1/8 ODF	(1) F-48 Filter	47.0	30.0	20.0	10.0	5.0	52.0	34.0	24.0	12.0	7.0
STAS-4821 S-V	2-5/8 ODF	(1) F-48 Filter	60.0	40.0	25.0	15.0	7.0	67.0	46.0	30.0	19.0	9.0
STAS-9617 S-V	2-1/8 ODF	(2) F-48 Filter	50.0	30.0	20.0	12.0	6.0	56.0	34.0	24.0	15.0	8.0
STAS-9621 S-V	2-5/8 ODF	(2) F-48 Filter	70.0	43.0	28.0	17.0	8.0	78.0	49.0	34.0	21.0	11.0
STAS-489 S-V	1-1/8 ODF	(1) 48 cu in Core	15.0	9.0	7.0	4.0	1.0	17.0	10.0	8.0	5.0	1.0
STAS-4811 S-V	1-3/8 ODF	(1) 48 cu in Core	18.0	11.0	8.0	5.0	2.0	20.0	13.0	10.0	6.0	3.0
STAS-4813 S-V	1-5/8 ODF	(1) 48 cu in Core	23.0	13.0	10.0	6.0	3.0	26.0	15.0	12.0	7.0	4.0
STAS-4817 S-V	2-1/8 ODF	(1) 48 cu in Core	31.0	20.0	13.0	7.0	3.0	35.0	23.0	16.0	9.0	4.0
STAS-4821 S-V	2-5/8 ODF	(1) 48 cu in Core	40.0	27.0	17.0	10.0	5.0	45.0	31.0	21.0	12.0	7.0
STAS-9617 S-V	2-1/8 ODF	(2) 48 cu in Core	33.0	20.0	13.0	8.0	4.0	37.0	23.0	16.0	10.0	5.0
STAS-9621 S-V	2-5/8 ODF	(2) 48 cu in Core	47.0	28.0	18.0	11.0	6.0	52.0	32.0	22.0	14.0	8.0
STAS-969	1-1/8 ODF	(2) 48 cu in Core										
STAS-1927/5 T	7/8X5/8 ODF	(4) 48 cu in Core										
STAS-4811 S-V	1-3/8 ODF	(1) 48 cu in Core	18.0	11.0	8.0	5.0	2.0	20.0	13.0	10.0	6.0	3.0
STAS-4813 T	1-5/8 ODF	(1) 48 cu in Core	23.0	13.0	10.0	6.0	3.0	26.0	15.0	12.0	7.0	4.0
STAS-9617 T	2-1/8 ODF	(2) 48 cu in Core	33.0	20.0	13.0	8.0	4.0	37.0	23.0	16.0	10.0	5.0
STAS-9617 V	2-1/8 ODF	(2) 48 cu in Core	33.0	20.0	13.0	8.0	4.0	37.0	23.0	16.0	10.0	5.0

¹ All ratings in accordance with ARI Standard 730-04.

² Example: 1.0 tons x 3.5 = 3.5 kW

Take-A-Part Suction Line Filter-Drier Flow Capacities

Description	Connections	Filter-Drier Cartridge	Flow Capacity In Tons Refrigerant ¹ (For kW, Multiply Tons By 3.5) ²									
			R-502					R-404A/R-507				
			Evaporator Temperature (°F)									
			40	20	0	-20	-40	40	20	0	-20	-40
			Pressure Drop (PSI)									
3	2	1.5	1	0.5	3	2	1.5	1	0.5			
ADKS 30013T	1-5/8 ODF	(3) F-100 Filter	38.0	24.0	16.0	9.9	5.2	37.0	24.0	16.0	10.0	5.5
ADKS 30017T	2-1/8 ODF	(3) F-100 Filter	64.0	40.0	27.0	17.0	8.9	62.0	40.0	27.0	18.0	9.4
ADKS 40017T	2-1/8 ODF	(4) F-100 Filter	68.0	43.0	28.0	17.0	9.2	66.0	43.0	29.0	18.0	9.8
ADKS 40021T	2-5/8 ODF	(4) F-100 Filter	102.0	64.0	43.0	27.0	14.0	99.0	64.0	43.0	28.0	15.0
ADKS 30013T	1-5/8 ODF	(3) 100 cu in Core	30.0	19.0	12.0	7.7	4.1	29.0	19.0	13.0	8.0	4.3
ADKS 30017T	2-1/8 ODF	(3) 100 cu in Core	47.0	30.0	20.0	12.0	6.4	46.0	30.0	20.0	13.0	6.8
ADKS 40017T	2-1/8 ODF	(4) 100 cu in Core	51.0	32.0	22.0	13.0	7.0	49.0	32.0	22.0	14.0	7.4
ADKS 40021T	2-5/8 ODF	(4) 100 cu in Core	74.0	47.0	31.0	19.0	10.0	72.0	47.0	32.0	20.0	11.0
BTAS-27 S-V	7/8 ODF	A2F Filter	7.4	4.6	3.1	1.8	0.9	7.2	4.6	3.1	1.9	1.0
BTAS-39 S-V	1-1/8 ODF	A3F Filter	11.0	7.0	4.7	2.8	1.4	11.0	7.0	4.7	2.9	1.5
BTAS-311 S-V	1-3/8 ODF	A3F Filter	12.0	7.8	5.2	3.1	1.6	12.0	7.8	5.2	3.2	1.7
BTAS-313 S-V	1-5/8 ODF	A3F Filter	20.0	12.0	8.2	5.0	2.5	19.0	12.0	8.3	5.2	2.7
BTAS-317 S-V	2-1/8 ODF	A3F Filter	25.0	15.0	10.0	6.1	3.1	24.0	15.0	10.0	6.3	3.3
BTAS-411 S-V	1-3/8 ODF	A4F Filter	27.0	16.0	11.0	6.6	3.4	26.0	16.0	11.0	6.8	3.6
BTAS-413 S-V	1-5/8 ODF	A4F Filter	32.0	20.0	13.0	8.1	4.1	31.0	20.0	14.0	8.4	4.4
BTAS-417 S-V	2-1/8 ODF	A4F Filter	44.0	28.0	18.0	11.0	5.7	43.0	28.0	19.0	12.0	6.0
BTAS-421 S-V	2-5/8 ODF	A4F Filter	54.0	34.0	23.0	14.0	6.9	52.0	34.0	23.0	14.0	7.3
BTAS-517 S-V	2-1/8 ODF	A5F Filter	54.0	33.0	22.0	13.0	6.8	52.0	33.0	22.0	14.0	7.2
BTAS-521 S-V	2-5/8 ODF	A5F Filter	70.0	44.0	29.0	18.0	9.0	68.0	44.0	29.0	18.0	9.6
BTAS-525 S-V	3-1/8 ODF	A5F Filter	87.0	54.0	36.0	22.0	11.0	84.0	54.0	36.0	23.0	12.0
BTAS-25 S-V	5/8 ODF	A2F-D Filter-Drier	3.9	2.4	1.6	1.0	0.5	3.8	2.4	1.6	1.0	0.5
BTAS-27 S-V	7/8 ODF	A2F-D Filter-Drier	6.3	3.9	2.6	1.5	0.8	6.1	3.9	2.6	1.6	0.9
BTAS-39 S-V	1-1/8 ODF	A3F-D Filter-Drier	8.1	5.1	3.4	2.0	1.0	7.9	5.1	3.4	2.1	1.1
BTAS-311 S-V	1-3/8 ODF	A3F-D Filter-Drier	11.0	7.1	4.8	2.9	1.5	11.0	7.1	4.8	3.0	1.6
BTAS-313 S-V	1-5/8 ODF	A3F-D Filter-Drier	16.0	10.0	6.7	4.1	2.1	16.0	10.0	6.8	4.2	2.2
BTAS-317 S-V	2-1/8 ODF	A3F-D Filter-Drier	19.0	12.0	7.9	4.8	2.4	19.0	12.0	8.0	5.0	2.6
BTAS-411 S-V	1-3/8 ODF	A4F-D Filter-Drier	24.0	15.0	10.0	5.9	3.0	23.0	15.0	10.0	6.1	3.2
BTAS-413 S-V	1-5/8 ODF	A4F-D Filter-Drier	25.0	15.0	10.0	6.1	3.1	24.0	15.0	10.0	6.3	3.3
BTAS-417 S-V	2-1/8 ODF	A4F-D Filter-Drier	36.0	22.0	15.0	9.0	4.6	35.0	22.0	15.0	9.3	4.9
BTAS-421 S-V	2-5/8 ODF	A4F-D Filter-Drier	37.0	23.0	15.0	9.2	4.7	36.0	23.0	15.0	10.0	5.0
BTAS-517 S-V	2-1/8 ODF	A5F-D Filter-Drier	42.0	27.0	18.0	11.0	4.7	41.0	27.0	18.0	11.0	5.0
BTAS-521 S-V	2-5/8 ODF	A5F-D Filter-Drier	52.0	32.0	22.0	13.0	6.6	50.0	32.0	22.0	13.0	7.0
BTAS-525 S-V	3-1/8 ODF	A5F-D Filter-Drier	61.0	38.0	25.0	15.0	7.8	59.0	38.0	25.0	16.0	8.3
STAS-489 S-V	1-1/8 ODF	(1) F-48 Filter	21.0	12.0	8.0	5.0	3.0	20.0	12.0	8.0	5.0	3.0
STAS-4811 S-V	1-3/8 ODF	(1) F-48 Filter	15.0	15.0	10.0	6.0	4.0	15.0	15.0	10.0	6.0	4.0
STAS-4813 S-V	1-5/8 ODF	(1) F-48 Filter	31.0	18.0	11.0	7.0	5.0	30.0	18.0	11.0	7.0	5.0
STAS-4817 S-V	2-1/8 ODF	(1) F-48 Filter	41.0	25.0	15.0	9.0	7.0	40.0	25.0	15.0	9.0	7.0
STAS-4821 S-V	2-5/8 ODF	(1) F-48 Filter	57.0	30.0	20.0	12.0	8.0	55.0	30.0	20.0	12.0	8.0
STAS-9617 S-V	2-1/8 ODF	(2) F-48 Filter	41.0	25.0	15.0	10.0	7.0	40.0	25.0	15.0	10.0	7.0
STAS-9621 S-V	2-5/8 ODF	(2) F-48 Filter	62.0	35.0	25.0	14.0	9.0	60.0	35.0	25.0	15.0	10.0
STAS-489 S-V	1-1/8 ODF	(1) 48 cu in Core	13.0	8.0	6.0	4.0	2.0	13.0	8.0	6.0	4.0	2.0
STAS-4811 S-V	1-3/8 ODF	(1) 48 cu in Core	18.0	10.0	6.0	4.0	3.0	17.0	10.0	6.0	4.0	3.0
STAS-4813 S-V	1-5/8 ODF	(1) 48 cu in Core	21.0	12.0	7.0	5.0	4.0	20.0	12.0	7.0	5.0	4.0
STAS-4817 S-V	2-1/8 ODF	(1) 48 cu in Core	28.0	17.0	10.0	6.0	5.0	27.0	17.0	10.0	6.0	5.0
STAS-4821 S-V	2-5/8 ODF	(1) 48 cu in Core	38.0	20.0	13.0	8.0	6.0	37.0	20.0	13.0	8.0	6.0
STAS-9617 S-V	2-1/8 ODF	(2) 48 cu in Core	28.0	17.0	11.0	7.0	5.0	27.0	17.0	11.0	7.0	5.0
STAS-9621 S-V	2-5/8 ODF	(2) 48 cu in Core	41.0	23.0	17.0	10.0	7.0	40.0	23.0	17.0	10.0	7.0
STAS-969	1-1/8 ODF	(2) 48 cu in Core										
STAS-1927/5 T	7/8X5/8 ODF	(4) 48 cu in Core										
STAS-4811 S-V	1-3/8 ODF	(1) 48 cu in Core	18.0	10.0	6.0	4.0	3.0	17.0	10.0	6.0	4.0	3.0
STAS-4813 T	1-5/8 ODF	(1) 48 cu in Core	21.0	12.0	7.0	5.0	4.0	20.0	12.0	7.0	5.0	4.0
STAS-9617 T	2-1/8 ODF	(2) 48 cu in Core	28.0	17.0	11.0	7.0	5.0	27.0	17.0	11.0	7.0	5.0
STAS-9617 V	2-1/8 ODF	(2) 48 cu in Core	28.0	17.0	11.0	7.0	5.0	27.0	17.0	11.0	7.0	5.0

¹ All ratings in accordance with ARI Standard 730-04.

² Example: 1.0 tons x 3.5 = 3.5 kW

Thermal Expansion Valves
Solenoid Valves
Coils
Industrial Solenoid Valves
Shut Off Valves
System Protectors
Storage Devices
Oil Controls
Pressure Regulators
Temperature Pressure Controls
Competitive Cross Reference

A-AS Suction Accumulators

The A-AS protects the compressor from liquid slugging and is used with CFC, HCFC, and HFC refrigerants. It is available for systems through 28 tons nominal capacity.



Features

- Designed to operate in a range of +40°F to -40°F evaporator temperature
- Fusible plug on larger diameter units
- Solid copper connections
- Corrosion resistant epoxy powder paint finish
- Inlet deflector directs refrigerant flow to prevent internal splashing and aid in the collection of refrigerant oil

Nomenclature

example: A-AS 3 125

A	AS	3	12	5
Series	Accumulator Suction	Diameter (in)	Height (in)	Fitting Size in 1/8"

Specifications

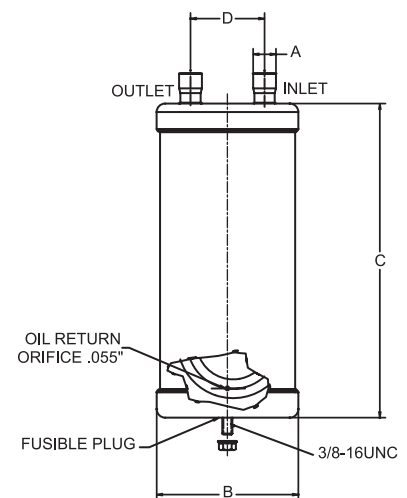
- Maximum working pressure: 300 psig
- Fusible plug temperature: 430°F
- UL/CUL file number: SA 10225

Ordering Information and Dimensional Data (in)

PCN	Description	A Fitting Size (nominal)	B Diameter	C Height	D Fitting Separation	Weight (lbs)	Tons R-22 (+40°F)	Holding Capacity (lbs) 50% Full	
								40°F Liquid R-22/R-134a	40°F Liquid R-404A/R-507
060819	A-AS 3 84*	1/2	3.00	8.00	1.63	2.00	2.00	1.50	1.50
060963	A-AS 3 105*	5/8	3.00	10.00	1.63	2.40	3.00	2.00	2.00
060812	A-AS 3 125*	5/8	3.00	12.00	1.63	2.90	3.00	3.00	2.50
060813	A-AS 3 126*	3/4	3.00	12.00	1.63	2.90	4.00	3.00	2.50
060964	A-AS 3 145*	5/8	3.00	15.00	1.63	3.30	3.00	3.50	3.00
060965	A-AS 3 146*	3/4	3.00	14.00	1.63	3.30	4.00	3.50	2.75
060967	A-AS 4 64	1/2	4.00	6.00	2.50	2.80	2.00	2.50	2.00
060821	A-AS 4 65	5/8	4.00	6.00	2.50	2.80	3.00	2.50	2.00
060966	A-AS 4105	5/8	4.00	10.00	2.50	4.60	3.00	4.00	3.50
060820	A-AS 4 106	3/4	4.00	10.00	2.50	4.60	4.00	4.00	3.50
060824	A-AS 5 96	3/4	5.00	9.00	2.75	5.10	4.00	6.00	5.50
060818	A-AS 5 97	7/8	5.00	9.00	2.75	5.10	7.30	6.00	5.50
060822	A-AS 5 126	3/4	5.00	12.00	2.75	6.60	4.00	8.00	7.50
060823	A-AS 5 127	7/8	5.00	12.00	2.75	6.60	7.30	8.00	7.50
060814	A-AS 5 137	7/8	5.00	13.00	2.75	7.10	7.30	8.50	8.00
060815	A-AS 5 139	1-1/8	5.00	13.00	2.75	7.10	11.80	8.50	8.00
060817	A-AS 5 179	1-1/8	5.00	17.00	2.75	8.40	11.80	12.00	10.00
060816	A-AS 5 1711	1-3/8	5.00	17.00	2.75	8.40	18.80	12.00	10.00
060825	A-AS 6 117	7/8	6.00	11.00	2.94	10.00	7.30	10.00	9.00
060826	A-AS 6 137	7/8	6.00	13.00	2.94	11.70	7.30	12.84	11.49
060968	A-AS 6 139	1-1/8	6.00	13.00	2.94	11.70	11.80	12.84	11.49
060827	A-AS 6 1411	1-3/8	6.00	14.00	2.94	12.10	18.80	14.05	12.57
060969	A-AS 6 1713	1-5/8	6.00	17.00	2.94	15.40	28.50	17.32	15.49
060828	A-AS 6 2013	1-5/8	6.00	20.00	2.94	18.10	28.50	20.62	18.44
060970	A-AS 6 2513	1-5/8	6.00	25.00	2.94	22.60	28.50	25.81	23.08

*Not supplied with a fusible plug

Dimensional Data



A-AS Suction Accumulator Capacity Tables in Tons of Refrigeration

DESCRIPTION	R-134a					R-404A/R-507				
	-40°F	-20°F	0°F	+20°F	+40°F	-40°F	-20°F	0°F	+20°F	+40°F
A-AS 3 84	0.20	0.30	0.60	0.80	1.20	0.20	0.40	0.80	1.00	1.30
A-AS 3 105	0.30	0.50	0.80	1.20	1.70	0.40	0.60	1.20	1.60	2.00
A-AS 3 125	0.30	0.50	0.80	1.20	1.70	0.40	0.60	1.20	1.60	2.00
A-AS 3 126	0.40	0.60	1.00	1.60	2.30	0.40	0.70	1.50	2.00	2.60
A-AS 3 145	0.30	0.50	0.80	1.20	1.70	0.40	0.60	1.20	1.60	2.00
A-AS 3 146	0.40	0.60	1.00	1.60	2.30	0.40	0.70	1.50	2.00	2.60
A-AS 4 64	0.20	0.30	0.60	0.80	1.20	0.20	0.40	0.80	1.00	1.30
A-AS 4 65	0.30	0.50	0.80	1.20	1.70	0.40	0.60	1.20	1.60	2.00
A-AS 4 105	0.30	0.50	0.80	1.20	1.70	0.40	0.60	1.20	1.60	2.00
A-AS 4 106	0.40	0.60	1.00	1.60	2.30	0.40	0.70	1.50	2.00	2.60
A-AS 5 96	0.40	0.60	1.00	1.60	2.30	0.40	0.70	1.50	2.00	2.60
A-AS 5 97	0.70	1.10	1.80	2.80	4.00	0.80	1.30	2.70	3.60	4.60
A-AS 5 126	0.40	0.60	1.00	1.60	2.30	0.40	0.70	1.50	2.00	2.60
A-AS 5 127	0.70	1.10	1.80	2.80	4.00	0.80	1.30	2.70	3.60	4.60
A-AS 5 137	0.70	1.10	1.80	2.80	4.00	0.80	1.30	2.70	3.60	4.60
A-AS 5 139	1.30	2.00	3.10	5.00	7.20	1.40	2.10	4.40	5.90	7.60
A-AS 5 179	1.90	3.00	3.10	5.00	7.20	1.40	2.10	4.40	5.90	7.60
A-AS 5 1711	1.90	3.00	4.60	7.30	10.70	2.20	3.40	7.20	9.60	12.20
A-AS 6 117	0.70	1.10	1.80	2.80	4.00	0.80	1.30	2.70	3.60	4.60
A-AS 6 137	0.70	1.10	1.80	2.80	4.00	0.80	1.30	2.70	3.60	4.60
A-AS 6 139	1.30	2.00	3.10	5.00	7.20	1.40	2.10	4.40	5.90	7.60
A-AS 6 1411	1.90	3.00	4.60	7.30	10.70	2.20	3.40	7.20	9.60	12.20
A-AS 6 1713	3.00	4.80	7.30	11.70	17.00	3.30	5.10	10.70	14.20	18.20
A-AS 6 2013	3.00	4.80	7.30	11.70	17.00	3.30	5.10	10.70	14.20	18.20
A-AS 6 2513	3.00	4.80	7.30	11.70	17.00	3.30	5.10	10.70	14.20	18.20

DESCRIPTION	R-22					R-502				
	-40°F	-20°F	0°F	+20°F	+40°F	-40°F	-20°F	0°F	+20°F	+40°F
A-AS 3 84	0.40	0.60	0.90	1.40	2.00	0.30	0.50	0.80	1.30	1.80
A-AS 3 105	0.50	0.80	1.40	2.10	3.00	0.50	0.80	1.20	1.90	2.70
A-AS 3 125	0.50	0.80	1.40	2.10	3.00	0.50	0.80	1.20	1.90	2.70
A-AS 3 126	0.72	1.10	1.80	2.80	4.00	0.60	1.00	1.60	2.50	3.50
A-AS 3 145	0.50	0.80	1.40	2.10	3.00	0.60	0.80	1.20	1.90	2.70
A-AS 3 146	0.72	1.10	1.80	2.80	4.00	0.60	1.00	1.60	2.50	3.50
A-AS 4 64	0.40	0.60	0.90	1.40	2.00	0.30	0.50	0.80	1.30	1.80
A-AS 4 65	0.50	0.80	1.40	2.10	3.00	0.50	0.80	1.20	1.90	2.70
A-AS 4 105	0.50	0.80	1.40	2.10	3.00	0.50	0.80	1.20	1.90	2.70
A-AS 4 106	0.72	1.10	1.80	2.80	4.00	0.60	1.00	1.60	2.50	3.50
A-AS 5 96	0.72	1.10	1.80	2.80	4.00	0.60	1.00	1.60	2.50	3.50
A-AS 5 97	1.30	2.00	3.30	5.10	7.30	1.10	1.70	2.80	4.30	6.20
A-AS 5 126	0.72	1.10	1.80	2.80	4.00	0.60	1.00	1.60	2.50	3.50
A-AS 5 127	1.30	2.00	3.30	5.10	7.30	1.10	1.70	2.80	4.30	6.20
A-AS 5 137	1.30	2.00	3.30	5.10	7.30	1.10	1.70	2.80	4.30	6.20
A-AS 5 139	2.10	3.30	5.30	8.30	11.80	1.90	2.90	4.60	7.10	10.20
A-AS 5 179	2.10	3.30	5.30	8.30	11.80	1.90	2.90	4.60	7.10	10.20
A-AS 5 1711	3.40	5.30	8.50	13.20	18.80	3.00	4.60	7.40	11.60	16.50
A-AS 6 117	1.30	2.00	3.30	5.10	7.30	1.10	1.70	2.80	4.30	6.20
A-AS 6 137	1.30	2.00	3.30	5.10	7.30	1.10	1.70	2.80	4.30	6.20
A-AS 6 139	2.10	3.30	5.30	8.30	11.80	1.90	2.90	4.60	7.10	10.20
A-AS 6 1411	3.40	5.30	8.50	13.20	18.80	3.00	4.60	7.40	11.60	16.50
A-AS 6 1713	5.10	8.00	12.80	20.00	28.50	4.40	6.90	11.00	17.20	24.50
A-AS 6 2013	5.10	8.00	12.80	20.00	28.50	4.40	6.90	11.00	17.20	24.50
A-AS 6 2513			12.80	20.80	28.50	4.40	6.90	11.00	17.20	24.50

The maximum capacity in tons recommended is based on a pressure drop through the accumulator equivalent to 1.0°F.

Note:

- 1) The minimum system capacity in tons must be no less than 15% of the stated capacity in order to ensure a positive return of oil.
- 2) All of the data is based on tons of refrigeration and is not related to horsepower.
- 3) Minimum evaporator temperature of -40°F. Minimum temperature of the suction gas through the accumulator is 12°F.

Thermal Expansion Valves
 Solenoid Valves
 Coils
 Industrial Solenoid Valves
 Shut Off Valves
 System Protectors
 Storage Devices
 Oil Controls
 Pressure Regulators
 Temperature Pressure Controls
 Competitive Cross Reference

AOR Oil Reservoirs

The AOR oil reserve is a holding vessel for stand-by oil necessary for the operation of commercial refrigeration systems. It is a direct replacement of popular competitive models.

Specifications

- Maximum working pressure: 450 psi
- UL/CUL file number: SA8547

Features

- Two sight glasses with floating ball indicators - 2 gallon model
- Three sight glasses with floating ball indicators - 4 gallon model
- 3/8" flare rotolock valves on top and bottom
- Corrosion resistant epoxy powder paint finish
- Standard mounting stud 3/8 x 16 TPI

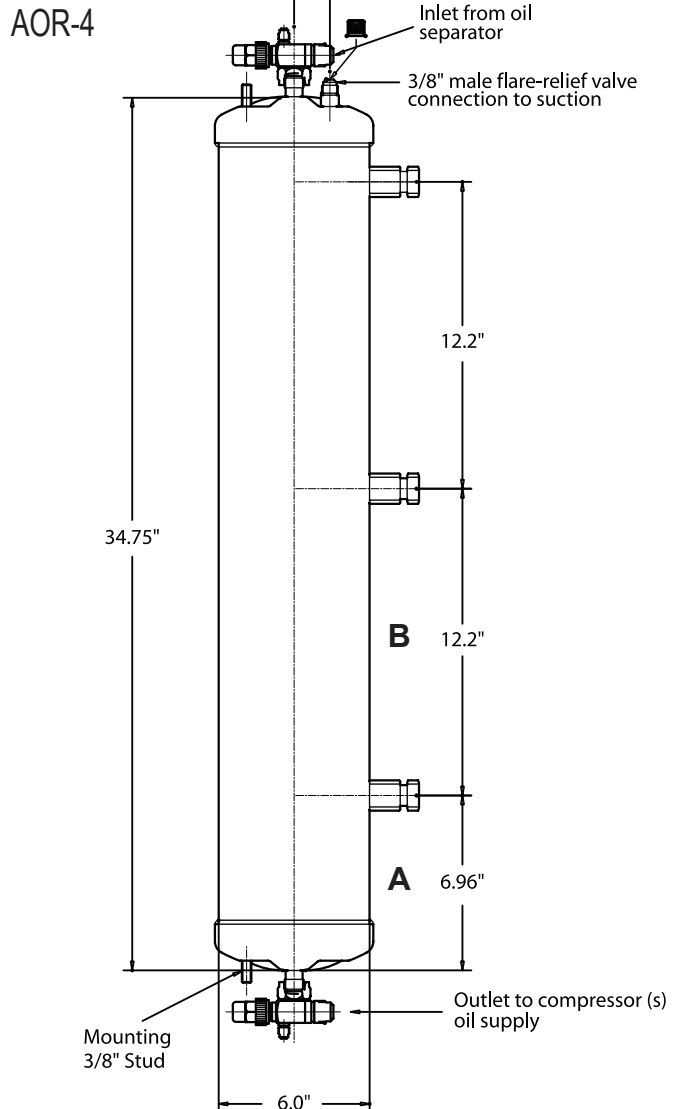
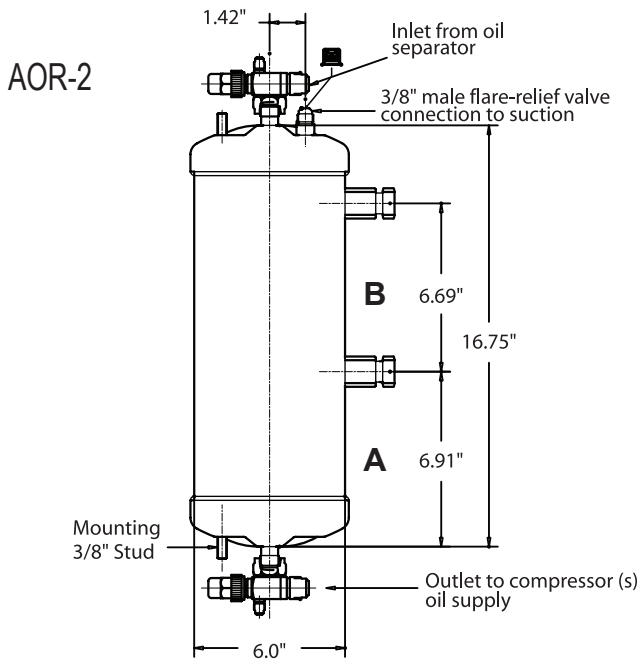
Ordering Information

PCN	Description	Total Volume Gallons	A Level Volume (gals)	B Level Volume (gals)	Length (in)	Number of sight glasses
064950	AOR-2	2	3/4	1-2/3	20"	2
065981	AOR-3	3	2/3	2-2/3	31"	3
064951	AOR-4	4	1-1/2	3-3/4	38"	

Nomenclature example: AOR-3

AOR	3
Series	Gallons

Dimensional Data



W-OLC Mechanical Oil Level Regulators

The W-OLC controls the oil level in the compressor crankcase with a float operated valve and keeps the oil level at the compressor manufacturer's recommended level. It is a direct replacement of popular competitive models.

Features

- Corrosion resistant epoxy powder paint finish
- Standard 3 bolt mounting pattern for standard semi-hermetic compressors

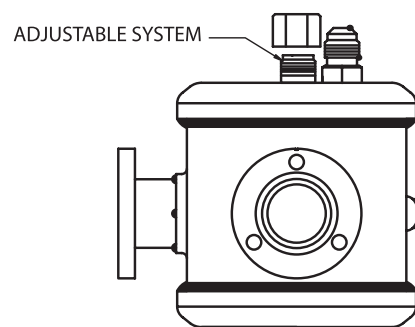
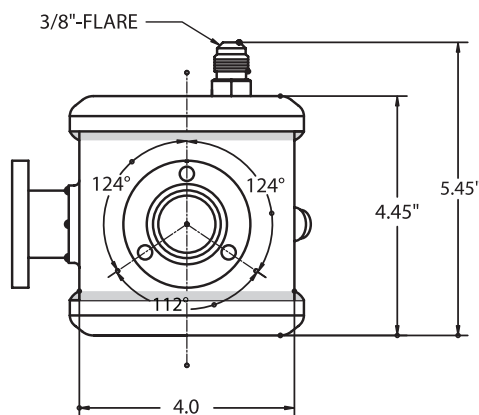
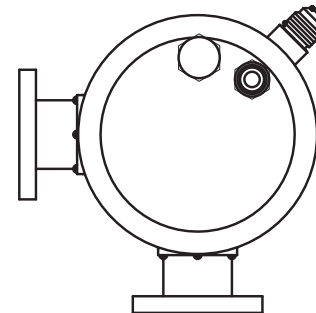
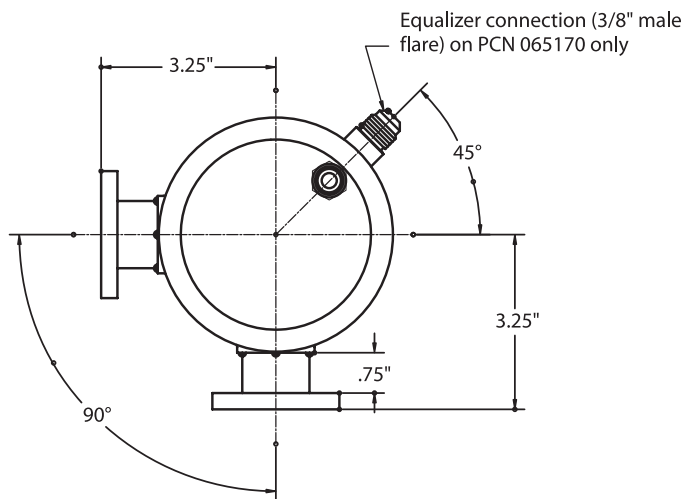
Nomenclature example: W-OLC-2

W-OLC	2
Series	Sight Glass*

* 2 = 1/2, 4 = 1/4, 2-4 = adjustable

Dimensional Data

W-OLC



Specifications

- Maximum working pressure: 450 psi
- UL/CUL file number: SA8547
- Max. OPD: 90 psi

Ordering Information

PCN	Description	Sight Glass Level
064953	W-OLC-2	1/2 sight glass
064954	W-OLC-4	1/4 sight glass
065170	W-OLC-2-4	1/4 to 1/2 level (adjustable)
065361	W-OLC-B	Bitzer

For available adapters, see page 178.

OMB

The OMB is a compressor crankcase oil level protective control ideal for use with Copeland Scroll® models ZF, ZB, ZR and ZS. It is also recommended for Copeland® brand products, Carlyle, Bitzer, and other semi-hermetic compressors.



Features

- Precision oil level measurement for maximum protection
- Easy monitoring with alarm and status lights
- Foam resistant design prevents nuisance trips unlike optical sensor designs
- Contaminant proof operation ensures accurate control
- Only approved oil level control for Copeland Scroll® Compressors
- 5-time lockout feature protects compressor from repeated low oil level condition

Nomenclature example: OMB-JB1 ASC2 24 50/60

OMB	JB1	ASC2 24 50/60
Oil Management Control	JB1 - Junction Box MO1 - Series Relief Connector	Solenoid Coil Model Number, Voltage, Frequency (included)

Ordering Information

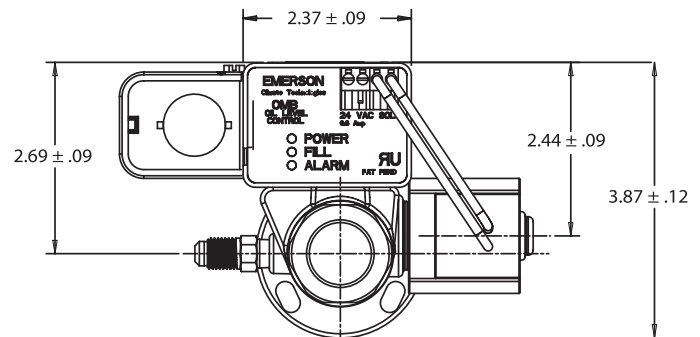
PCN	DESCRIPTION
065365	Oil Management Control OMB-JB1 ASC 2 24/50-60 - STD
065366	OMB-MO1 ASC 2 24/50-60 - STD
	Adapters (to attach OMB to Copeland Scroll® compressor for new installation only)
065667	OMB-ACB ADAPTER (Copeland Scroll® ZR)
065668	OMB-ACA ADAPTER (Copeland Scroll® ZF, ZS, ZB)
063521	OMB-AUA ADAPTER (Copeland® brand 6D & Semi-hermetic Universal 8D)
	Service Parts
048638	Inlet Flare Screen
020877	Sight Glass O-Ring
064812	Mounting O-Rings (3 pieces)
049191	KS-30112 Solenoid Repair Kit

Specifications

- Maximum working pressure: 640 psi
- Solenoid MOPD: 350 psi
- Supply voltage: 24 V AC, 50/60 Hz
- Solenoid coil: ASC 2L 24 V AC, 50/60 Hz
- Current consumption: 0.6A
- Time delay for low level signalling: 5-10 seconds
- Time delay for after setpoint recovery: 5-10 seconds
- Alarm delay time: 120 seconds
- Alarm switch: SPDT
- Alarm contact rating: 10A @ 125; 5A @ 220 V AC 50/60 Hz
- Refrigerant compatibility: HFC, HCFC, CFC
- Oil temperature: 180°F Max.
- Storage and transport temperature: 140°F Max.
- Operating ambient temperature: 120°F Max.
- Oil supply fitting: 1/4" Male SAE
- UL/CUL file number: SA8547
- Transformer VA requirements* 25"

*NOTE: Field supplied transformer should always be of the same primary voltage as the electrical supply system.

Dimensional Data



Unit must be mounted horizontally for correct operation.

A-W & A-F Oil Separators

The A-W and A-F are used for multiple compressor racks in supermarkets and air conditioning systems for use with HCFCs, HFCs and their lubricants.



Features

- Hermetic welded or accessible bolted flange construction
- Solid copper connections
- Corrosion resistant epoxy powder paint

Nomenclature example: AW 5582 4

A	W	5582	4
Series	W = Welded F = Flanged	Model Number	Connection Size (in 1/8")

Specifications

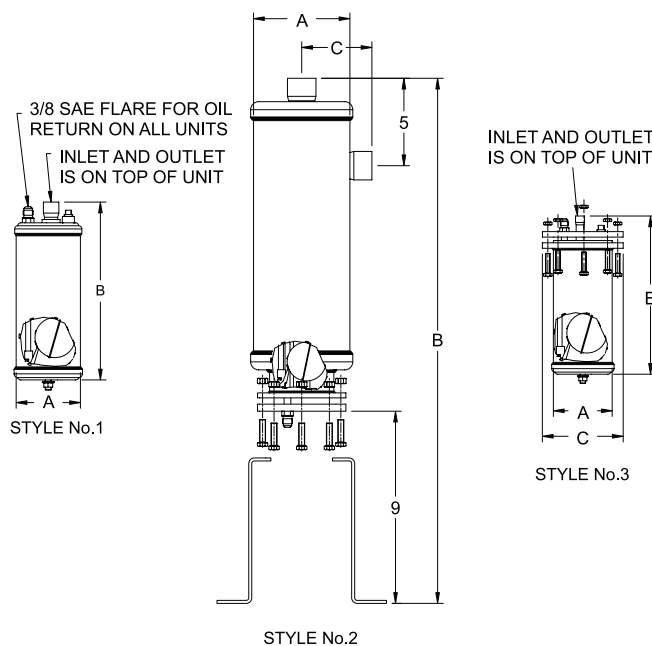
- Maximum working pressure: 450 psi
- UL/CUL file number: SA10468

Ordering Information* and Capacity Table

Description				R-12				R-22/R-407C				R-502				R-134a				R-404A/R-507			
FLANGED	PCN	SEALED	PCN	-40 F/C		40F (14C)		-40F/C		40F (14C)		-40F/C		40F (14C)		-40F/C		40F (14C)		-40F/C		40F (14C)	
				Tons	KW	Tons	KW	Tons	KW	Tons	KW	Tons	KW	Tons	KW	Tons	KW	Tons	KW	Tons	KW	Tons	KW
A-F 58824	060877	A-W 55824	060933	1	3.54	1.5	5.31	1.5	5.31	2	7.08	1.5	5.31	2	7.08	1	3.54	1.75	6.2	1.5	5.31	2	7.0
A-F 58855	060878	A-W 55855	060934	3	10.62	4	14.2	4.5	15.9	5.5	19.5	4.75	16.8	5.75	20.36	3.25	11.5	4.5	15.9	4	14.16	5.5	19.0
A-F 58877	060879	A-W 55877	060931	4.5	15.93	5.5	19.5	7	24.8	8	28.3	7.5	26.6	8.5	30.09	4.75	16.8	6.5	23	6.5	23.01	8.5	30.0
A-F 58889	060759	A-W 55889	060974	6	21.24	7.5	26.6	9	31.9	11	37.2	9.5	33.6	11.5	40.71	6.5	23	8.5	30.1	8.5	30.09	11	38.0
A-F 589011	060760	A-W 559011	060930	7.5	26.55	10	35.4	11.5	40.7	14	47.8	12	42.5	14.5	51.33	8	28.3	11.5	40.7	10.5	37.17	14	49.0
A-F 589213	060761	A-W 559213	060975	9	31.86	11.5	40.7	14	49.6	18	62	16	56.6	17.5	61.95	9.5	33.6	13.25	46.9	14	49.56	17	60.0
-	-	A-W 569011	060978	9	31.69	12	42.25	13	45.77	14	49.8	15	52.8	20	70.4	9.5	33.4	13.7	48.2	11	38.7	19	66.9
A-F 579213	060875	A-W 569213	060979	11	38.94	14	49.6	16	56.6	18	63.7	20	70.8	24	84.96	11.8	41.6	16	56.6	17.5	61.95	23	81
A-F 579417	060876	A-W 569417	060980	17	60.18	22	77.9	25	88.5	30	106	30	106	35	123.9	18	63.7	25.25	89.4	26	92.04	34	121.0

*Replacement parts found on page 187. Repair Kits for Style 2 only.

Dimensional Data



Seal Units: A-W

Description	Style No.	Connection Size	Dimensions (in)	
			A	B
A-W 55824	1	1/2 ODF	4.0	10.75
A-W 55855		5/8 ODF		13.2
A-W 55877		7/8 ODF		15.0
A-W 55889		1-1/8 ODF		16.25
A-W 559011		1-3/8 ODF		19.5
A-W 569011		1-3/8 ODF		15.75
A-W 569213		1-5/8 ODF		19.0
A-W 569417		2-1/8 ODF		19.5

Flanged Units: A-F

Description	Style No.	Connection Size	Dimensions (in)		
			A	B	C
A-F 58824	3	1/2 ODF	4.0	10.5	5.5
A-F 58855		5/8 ODF		15.0	
A-F 58877		7/8 ODF		18.0	
A-F 58889		1 1/8 ODF		21.25	
A-F 589011		1 3/8 ODF		21.37	
A-F 589213		1 5/8 ODF		21.75	
A-F 579213	2	1 5/8 ODF	6.0	20.12	4.37
A-F 579417		2 1/8 ODF		20.31	4.63

Thermal Expansion Valves
Solenoid Valves
Coils
Industrial Solenoid Valves
Shut Off Valves
System Protectors
Storage Devices
Oil Controls
Pressure Regulators
Temperature Pressure Controls
Competitive Cross Reference

High Efficiency Centrifugal Oil Separator

The High Efficiency Centrifugal Oil Separator is used in ultra-low temperature systems with long refrigerant lines or inherent oil return problems. It is also used on multiple compressor racks for supermarkets and air conditioning systems for use with CFCs, HCFCs, HFCs, and their lubricants.



Features

- Internal oil collection screen
- Hermetic welded or accessible bolted flange construction
- Solid copper connections
- Corrosion resistant epoxy powder paint
- High efficiency (99%) centrifugal separation

Specifications

- Maximum working pressure: 450 psi
- UL/CUL file number: SA8547

Nomenclature

example: A-FC 8241717H

A	F	C	8	24	17	17	H
Series	F = Flanged W = Welded	Centrifugal	Diameter (in)	Length (in)	Inlet Connection in 1/8"	Outlet Connection in 1/8"	5" Legs Standard H = 10" Legs

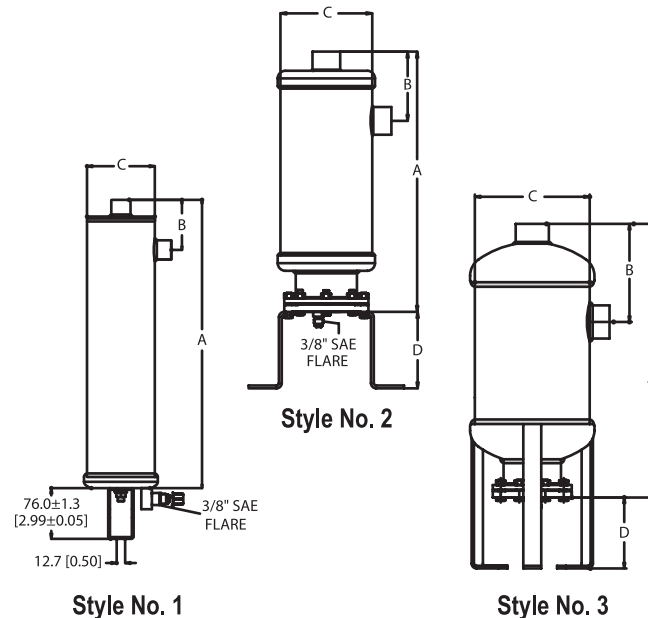
Dimensional Data (in)

Description	Style No.	Connection Size	Dimensions			
			A	B	C	D
A-WC 41777	1	7/8	17.01	2.95	4.00	
A-WC 41999		1 1/8	19.02	3.07		
A-FC 6221111	2	1 3/8	17.00	3.94	6.00	5.00
A-FC 6221111H				4.53		10.00
A-FC 6221313		1 5/8	17.13	4.65	5.00	
A-FC 6221313H					10.00	
A-FC 6221717	3	2 1/8	19.06	6.83	5.38	5.00
A-FC 6221717H						10.00
A-FC 8241717		2 5/8	22.10	6.11	10.00	5.00
A-FC 8241717H						10.00
A-FC 10272121	3 1/8	25.10	7.05	12.00	5.00	
A-FC 10272121H					10.00	
A-FC 12302525H						10.00

Replacement Parts for A-F/A-FC Oil Separators

PCN	Part	Contains
065847	Float Assembly Kit*	Flange w/integral float ass'y and flange gasket
065849	Gasket Kit	Flange gasket

*Repairs AC & R series S1900 Standard and 5200 Helical Oil Separators



Ordering Information and Capacity Table

PCN	Description	Solder Connection Size (ODF)	Style Number	Shell O.D.	Maximum Capacity in tons of Refrigeration at Evaporator Temperature						Maximum Discharge CFM	Oil Pre-Charge Amount (oz.)
					R-134a		R-22		R-404A			
					-40F	+40F	-40F	+40F	-40F	+40F		
065895	A-WC 41777	7/8	1	4"	4.6	5.6	7.1	8.0	6.3	8.3	6	14
065896	A-WC 41999	1 1/8			5.4	6.5	8.3	9.4	7.4	9.7	7	
065930	A-FC 6221111	1 3/8	2	6"	12	15	19	21	17	22	16	25
065931	A-FC 6221111H				14	17	21	24	19	25	18	
065362	A-FC 6221313	1 5/8			15	18	23	25	20	26	19	
065932	A-FC 6221313H				23	28	36	40	32	42	30	
065933	A-FC 6221717	2 1/8	3	8"	46	56	71	80	63	83	60	
065934	A-FC 6221717H				73	89	113	127	100	132	95	
065276	A-FC 8241717	2 5/8	3	10"								
065935	A-FC 8241717H											
065936	A-FC 10272121	3 1/8	3	12"								
065937	A-FC 10272121H											
065938	A-FC 12302525H											

AOFD 553 Oil Filter-Drier

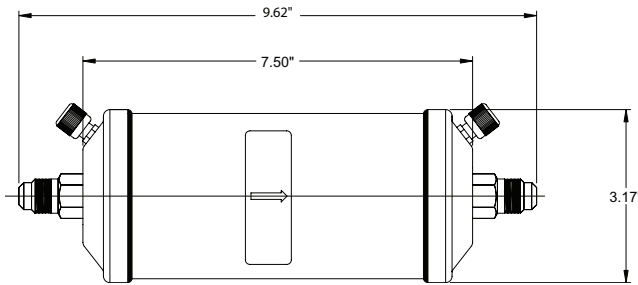
The AOFD is designed specifically for refrigerant systems that use POE oil. POE oil is hygroscopic in nature, which means that it attracts and absorbs water. Moisture in a closed system can produce acid and will harm the compressor. The AOFD protects compressors by removing moisture and trapping contaminants.



Features

- Designed to clean and dry POE Oil
- 3/8" male flare connections for easy replacement
- Large filter surface area to provide maximum filtration
- Contains desiccant for moisture removal
- Designed to operate at a very low pressure drop
- 10 micron filtration for optimum oil cleaning
- Dual access valves for pressure drop monitoring

Dimensional Data



Specifications

- UL/CUL file number: SA3124

AOFD Water Capacity Table

Refrigerant Type	Drops @ 125°F
R-22	497
R-134A	518
R-404A	518
R-407C	435

Ordering Information

PCN	Description
062829	AOFD 553 Oil Filter Drier

*Replaces AC-R 5-4005

AOF High Efficiency Oil Filter

Highly Recommended for Scroll Compressors

The AOF is designed to protect the compressor from dirt and all solid contaminants including metallic magnetic particles. It is ideal for use with compressors that require a 4 micron or higher filtration rating.



Features

- Corrosion resistant epoxy powder paint finish
- 3/8" SAE connections for easy installation in oil lines
- 100% efficient to 4 micron particles; 99% efficient to 3 micron particles
- Compatible with all oils
- High debris capacity with low pressure drop

Specifications

- Maximum working pressure: 450 psig
- UL/CUL file number: SA 3124

Ordering Information

PCN	Description	Lay-in	Diameter
064952	AOF 303	9.63	3.06

AOF High Efficiency Take-A-Part Oil Filter

The AOF is designed to protect the compressor from dirt and all solid contaminants including metallic magnetic particles. It is ideal for burnout/clean-up situations.



Features

- Compatible with all oils
- Solid copper connections
- Quick change filter cartridge
- Corrosion resistant epoxy powder paint finish
- 100% efficient to 4 micron particles; 99% efficient to 3 micron particles
- 3/8 ODF connections
- Quick removal cover design simplifies filter replacement
- High debris capacity with low pressure drop

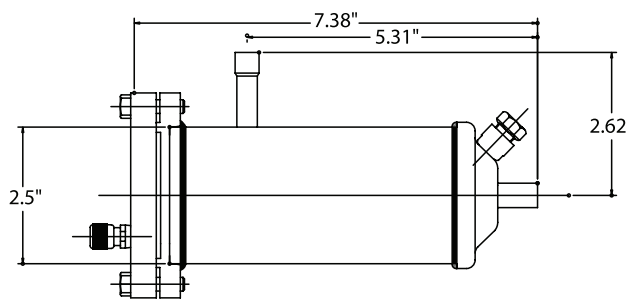
Specifications

- Maximum working pressure: 500 psig
- UL/CUL file number: SA 7175

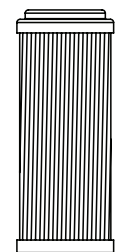
Ordering Information

PCN	Description
062784	AOF 023S*
064799	F023 Cartridge

*Cartridge not included



AOF 023S
Take-Apart OIL
FILTER



F 023
REPLACEABLE
FILTER CARTRIDGE

Universal Acid Test Kit

The Universal Acid Alert Test Kit provides a reliable indication as to the acid level of the refrigeration oil.

Features

- Quick and easy test kit
- Universal acid test kit for use with all refrigeration lubricants
- By changing the percentage of oil sample taken, the acid number of the oil can be accurately determined
- Phase separation of the chemicals eliminates interference from discolored oil

Ordering Information

PCN	Description
064427	AA Kit Universal



Thermal
Expansion Valves

Solenoid
Valves

Coils

Industrial
Solenoid Valves

Shut Off
Valves

System
Protectors

Storage
Devices

Oil
Controls

Pressure
Regulators

Temperature
Pressure Controls

Competitive Cross
Reference

Pressure Regulator Quick Select Guide

Application	Feature	Model	Range (in psig)	Page
Upstream Evaporator Pressure Regulator	Stepper Motor Actuated, Direct Drive	ESR	ANY	185
	Direct Acting, Adjustable	IPR	0 – 100	187
	Brass Body, High Pressure Pilot Actuated, Suction Stop Solenoid	EPRB(S)	0 – 110	188
Downstream Crankcase Pressure Regulator	Direct Acting, Adjustable	OPR	0 – 130	190
Hot Gas Bypass ¹	Stepper Motor Actuated, Direct Drive	ESR	ANY	185
	Direct Acting, Adjustable, 1/2 tons and below (R-22)	ACP(E)	0 – 80	191
	Direct Acting, Adjustable, 1/2 to 4 tons (R-22)	EGR(E)	0 – 80	193
	Direct Acting, Adjustable, 4 to 8 tons (R-22)	DGR(E)	0 – 80	195
	Direct Acting, Adjustable, Take-A-Part Construction, 1/2 to 7 tons (R-22)	CPH(E)	0 – 80	196
Head Pressure Control	Stepper Motor Actuated, Direct Drive	ESR	ANY	185
	3-Way, Non Adjustable	HP(C)	95 – 255	198
Stepper Motor Diagnostic Tool	Handheld, Simple to Use, Operates All Stepper Products	MTB-1	--	186

¹Tons of bypass capacity for sizing (not full-open capacity)

ESR Electronic Stepper Regulator

The ESR is a direct driven suction regulator that uses a linear actuating bi-polar stepper motor to move the piston. The stepper motor is actuated by a voltage pulse to energize each of the motor phases and move the piston in discrete .001 inch increments. When used as an EPR in individual supermarket display cases, the ESR, along with appropriate control electronics, provides state-of-the-art temperature control within less than $\pm 1^\circ\text{F}$ of the desired setpoint temperature. The ESR is compatible with many control electronics widely available in the market today. Applications for the ESR include case control, line-up and rack mounted control, as well as transportation applications on refrigerated trucks, trailers and containers. ESRs are also acceptable for use as hot gas bypass and head pressure, liquid hold-back valves. An ESR may NOT be used as an expansion device. (see ESVB information for this application)



Note: This device requires a “driver” device such as a CPC “Einstein”.

Features

- No external sealing o-rings
- Removable external connector
- Excellent repeatability
- Corrosion resistant design

Options

- Connections: 7/8 ODF (ESR 12)
1-3/8 ODF (ESR 20)

Nomenclature

example: ESR- 12 T7 S/T 12V NC

ESR	12	T	7	S/T	12V	NC
Electric Stepper Regulator	Port Diameter In 1/16" increments ESR-12 = 3/4" Dia. ESR-20 = 1 1/4" Dia.	Connection T = ODF	Connection Size In 1/8" increments 7 = 7/8" 11 = 1 3/8"	Body Configuration S/T = Straight-Thru ANG = Angle VLB = Valve Less Body	12 Volt' 24 Volt Bipolar Stepper Motor	No External Connector

Nominal* Capacity in Tons (kW)

Valve	R-134a	R-22	R-507/R-404A
ESR - 12	5.3 (18.3)	5.8 (20.1)	5.7 (19.9)
ESR - 20	10.3 (35.7)	13.4 (46.3)	11.0 (38.3)

Valve	R-12	R-407C	R-502
ESR - 12	4.8 (17.0)	7.9 (28.0)	7.8 (27.6)
ESR - 20	9.5 (33.6)	15.1 (53.5)	15.1 (53.5)

All capacities shown are at 40°F Evaporator Temperature and 2 psi pressure drop across the ESR, with the ESR full open 800 steps.

*For capacities at other evaporator temperatures and pressure drops, see extended capacity tables. Contact applications engineering for sizing and selection of ESRs in hot gas or head pressure control applications.

Specifications

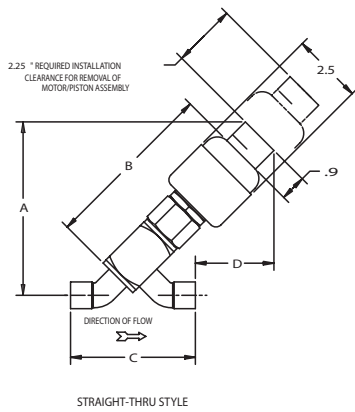
- Operating temperatures
 - Ambient: -40°F to + 150°F
 - Refrigerant: -40°F to + 280°F
- Maximum working pressure: 500 psi
- Linear actuating bi-polar stepper motor
- Direct drive with no hysteresis
- Step rate: 50 \pm 10 steps per second
- Steps full travel: 800 steps
- Voltage tolerance: + 10% and -15% of rated voltage
- .001 inch of linear travel per step
- Resistance (each phase): 29 ohms \pm 10% (12V) or 116 ohms \pm 10% (24V)
- Two motors available. 24V or 12V alternating square wave (see stepper sequence table on next page)
- UL/CUL file number: MP 604
- TUV Bauart Mark Type Approval CE

Ordering Information

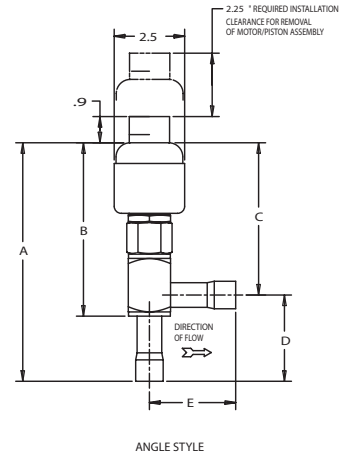
PCN	Description
064773	ESR 12 T 7 S/T 12V NC
064774	ESR 12 T 7 S/T 24V NC
062566	ESR 20 T 11 S/T 12V NC
062750	ESR 20 T 11 S/T 24V NC
062093	ESR External Molded Connector 5'
062094	ESR External Molded Connector 22'

ESR Dimensional Data (in)

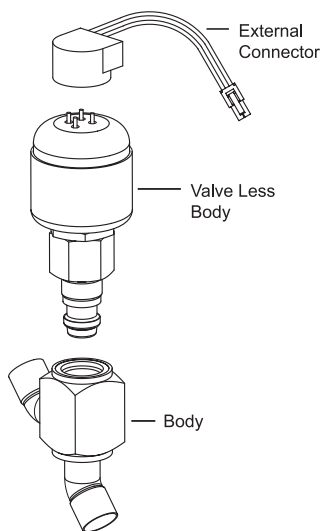
Straight-Thru				
Valve	A	B	C	D
ESR-12	6.0	6.2	4.4	2.4
ESR-20	6.4	6.3	6.4	1.5



Angle Style					
Valve	A	B	C	D	E
ESR-12	8.5	6.2	5.4	3.1	3.1
ESR-20	9.4	6.3	5.3	4.1	4.1



ESR Replacement Parts Exploded View



External Connector	
PCN	Description
065948	External Connector, 4-Wire, 5 Ft. (Part #: 28963-1)
065950	External Connector, 4-Wire, 22 Ft. (Part #: 28963-2)

Valve Less Body	
PCN	Description
064771	ESR-12 VLB 12V NC
064772	ESR-12 VLB 24V NC
064556	ESR-20 VLB 12V NC
064641	ESR-20 VLB 24V NC

MTB 1

The MTB-1 is a troubleshooting and diagnostic tool for use with any stepper valve application.

Features

- Operates all stepper products (ESR, ESV and ESVB)
- Easy to use
- Stepper check-out procedure directions on back of control
- 2 x 16 LCD display
- MTB-1 included in carrying case with 1.5A, 24VAC transformer and valve connector cable



Ordering Information

PCN	Description
063904	MTB-1 Handheld Stepper Driver

Specifications

- Plugs into standard 115 VAC outlet
- Temperature range:
Storage Temperature: 14 to 158°F (-10 to 70°C)
Operating Temperature: 50 to 113°F (10 to 45°C)

IPR Inlet Pressure Upstream Regulator

The IPR accurately maintains a predetermined minimum evaporator inlet pressure, regardless of sudden load or suction pressure changes. These valves operate from an inlet pressure signal, opening on a rise in pressure above the valve set point and closing at any inlet pressure below the set point. The IPR is a hermetic valve supplied with a pressure tap in the inlet connection as standard to provide ease of setting.



Features

- Compact design permits minimal space requirements
- Install in vertical or horizontal suction line
- Solid copper connections (ODF only)

Options

- 3 adjustable range options:
 - 0-50 psig (factory setting 30 psig)
 - 30-100 psig (factory setting 60 psig)
 - 65-225 psig

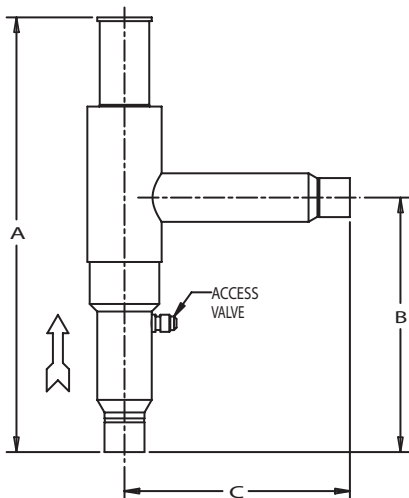
Nominal* Capacity Table in Tons (kW)

Valve	R-12	R-134a	R-22	R- 407C	R-507/R-502/ R-404A
IPR-6	0.8 (2.8)	0.94 (3.2)	1.2 (4.1)	1.3 (4.7)	1.11 (3.8)
IPR-10	2.0 (7.1)	2.27 (7.8)	3.0 (10.6)	3.2 (11.3)	2.5 (8.9)

All capacities shown are at 40°F Evaporator Temperature and 2 psi pressure drop across the valve.
*For capacities at other evaporator temperatures and pressure drops, see extended capacity tables.

Dimensional Data (in)

Valve	A	B	C
IPR-6	9.75	6.38	5.25
IPR-10	11.19	6.5	6.69



Specifications

- Maximum working pressure: 400 psig
- UL/CUL file number: SA 5312

Nomenclature

example: IPR-6 5/8 ODF 0-50 psig

IPR	6	5/8	ODF	0-50 psig
Valve Series	Size	Connection Size	Connection Type (SAE optional)	Adjustment Range

Ordering Information

PCN	Description	Adjustment Range	A	B	C
049239	IPR - 6 (1/2 ODF)	0 - 50 PSIG	9.75	6.38	5.25
047901	IPR - 6 (1/2 SAE)	0 - 50 PSIG	6.31	2.81	2.63
059125	IPR - 6 (1/2 ODF)	30 - 100 PSIG	9.75	6.38	5.25
047902	IPR - 6 (1/2 SAE)	30 - 100 PSIG	6.31	2.81	2.63
047300	IPR - 6 (5/8 ODF)	0 - 50 PSIG	9.75	6.38	5.25
047904	IPR - 6 (5/8 SAE)	0 - 50 PSIG	6.50	3.00	2.81
047303	IPR - 6 (5/8 ODF)	30 - 100 PSIG	9.75	6.38	5.25
047903	IPR - 6 (5/8 SAE)	30 - 100 PSIG	6.50	3.00	2.81
047301	IPR - 6 (7/8 ODF)	0 - 50 PSIG	9.75	6.38	5.25
047304	IPR - 6 (7/8 ODF)	30 - 100 PSIG			
047302	IPR - 6 (1-1/8 ODF)	0 - 50 PSIG			
047305	IPR - 6 (1-1/8 ODF)	30 - 100 PSIG			
047898	IPR-6 (5/8 ODF)	65 - 225 PSIG	11.19	6.50	5.69
047899	IPR-6 (7/8 ODF)	65 - 225 PSIG			
047900	IPR-6 (1-1/8 ODF)	65 - 225 PSIG			
047306	IPR - 10 (7/8 ODF)	0 - 50 PSIG			
047309	IPR - 10 (7/8 ODF)	30 - 100 PSIG	11.19	6.50	5.69
047307	IPR - 10 (1-1/8 ODF)	0 - 50 PSIG			
047310	IPR - 10 (1-1/8 ODF)	30 - 100 PSIG			
047308	IPR - 10 (1-3/8 ODF)	0 - 50 PSIG			
047311	IPR - 10 (1-3/8 ODF)	30 - 100 PSIG			
048293	IPR - 10 (7/8 ODF)	65 - 225 PSIG			
047905	IPR - 10 (1-1/8 ODF)	65 - 225 PSIG			
047906	IPR - 10 (1-3/8 ODF)	65 - 225 PSIG			

EPRB(S) Brass Body Upstream Regulator

The EPRB(S) is an energy-efficient pilot operated regulator. The pilot operation is dependent upon high side system pressure which minimizes the pressure drop across the regulator. This regulator is of normally-open construction so that a manual operator is not required for system evacuation. A solenoid version having the suction stop is available as an option.

EPRB(S) series regulators are pilot operated and designed to maintain a predetermined minimum inlet pressure. They are available in a "S" version for gas defrost applications.



Options

- Pilot connection available in 1/4" SAE or ODF
- Available with suction stop feature using a Take-A-Part solenoid for additional serviceability

Specifications

- Maximum working pressure: 450 psig (3100 KPa)
- MOPD: 350 psi (2412 KPa) "S" version
- Maximum Temperature: 250°F (121°C)
- 25 lb. system pressure differential needed for valve operation
- UL/CUL file number: MP604 / SA5312

Nominal* Capacity Table in Tons (kW)

Valve	R-12	R-134A	R-22	R-407C	R-507/ R-404A	R-502
EPRB(S)-12	2.9 (10.3)	3.41 (11.8)	4.47 (15.5)	5.1 (18.1)	3.77 (13.1)	3.5 (12.4)
EPRB(S)-16	5.3 (18.8)	6.00 (20.8)	7.88 (27.3)	8.3 (29.4)	6.64 (23.0)	6.2 (22.1)
EPRB(S)-20	8.4 (29.7)	11.19 (38.8)	14.70 (51.0)	15.5 (54.9)	12.39 (43.0)	11.07 (41.2)

All capacities shown are at 40°F Evaporator Temperature and 2 psi pressure drop across the valve.
*For capacities at other evaporator temperatures and pressure drops, see extended capacity tables.

Function	Configuration
Function	EPRB(S) without high side pilot pressure: OPEN
	EPRB with high side pilot pressure: EPR
	EPRBS with pilot pressure, solenoid de-energized: CLOSED
	EPRBS with pilot pressure, solenoid energized: EPR

Features

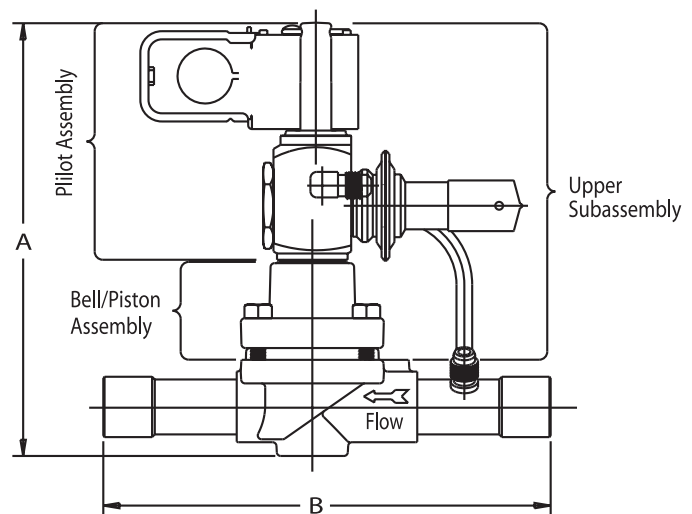
- Energy efficient as it uses high side pressure for pilot operation, which minimizes system pressure drop
- Solid copper connections
- Can be installed without disassembly
- Has wide adjustment range(0-110 psig, factory setting 30 psig)
- Easily disassembled to allow easy serviceability
- Pressure tap on inlet connection
- Corrosion resistant design
- May be installed in either a vertical or horizontal suction line

Nomenclature example: EPRBS 12T9 SAE PILOT 1 1/8" ODF VLC

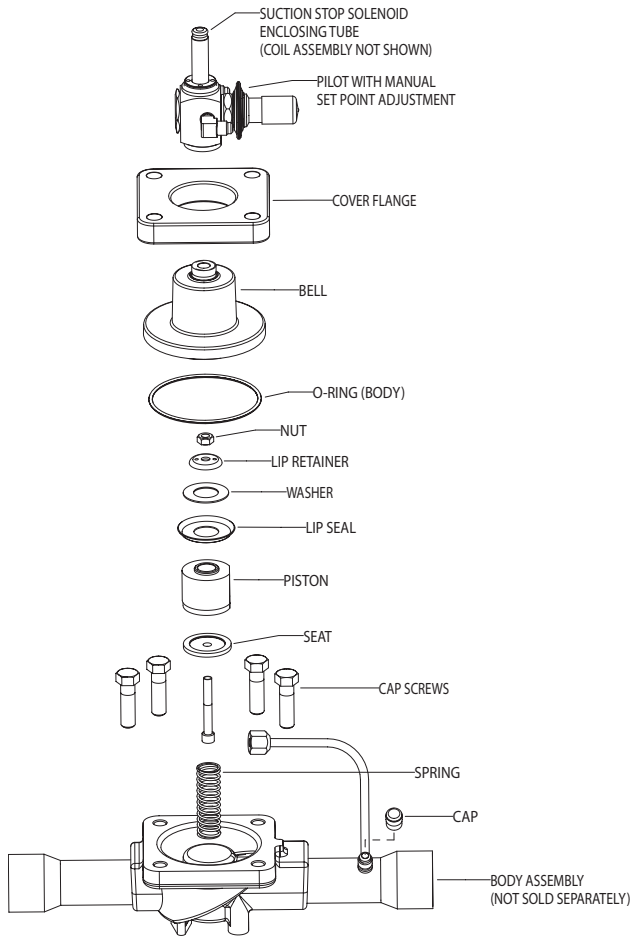
EPRB	S	12	T	9	SAE PILOT	VLC
Valve Series	Suction Stop (optional)	Port Size (in 1/16") 12 = 3/4" 16 = 1" 20 = 1 1/4"	Connection Style T = ODF	Connection Size (in 1/8") 9 = 1 1/8" 11 = 1 3/8" 13 = 1 5/8"	Pilot Type 1/4" SAE or ODF	Coil Type VLC = Valve Less Coil

Ordering Information and Dimensional Data (in)

Description	Pilot Connection	PCN	A	B
EPRB 12 T 7		057907	5.07	7.13
		057893		
EPRB 12 T 9	ODF	057242	5.07	9.88
	SAE	057241		
EPRB 16 T 11		057248	5.64	9.88
		057244		
EPRB 20 T 13		057251	6.62	12.38
		057247		
EPRBS 12 T 7		057894	6.88	7.13
EPRBS 12 T 9		057243	6.88	8.50
		057245		
EPRBS 16 T 11		057250	7.40	9.88
		057246		
EPRBS 20 T 13		057249	8.38	12.38
		057253		



EPRB(S) Replacement Parts Exploded View



EPRB(S) Replacement Parts

Pilot Assembly

1/4" ODF PILOT	Description	PCN
EPRBS	KR-50067	058492
1/4" SAE PILOT	Description	PCN
EPRB	KR-50052	058026
EPRBS	KR-50044	058018

Consists of pilot assembly (EPRB) or pilot assembly with suction stop solenoid (EPRBS)

Upper SubAssembly

1/4" ODF PILOT	Description	PCN
EPRB-12	KR-50068	058493
EPRB-16	KR-50069	058494
EPRB-20	KR-50070	058495
EPRBS-12	KR-50072	058497
EPRBS-16	KR-50073	058498
EPRBS-20	KR-50074	058499
1/4" SAE PILOT	Description	PCN
EPRB-12	KR-50048	058022
EPRB-16	KR-50049	058023
EPRB-20	KR-50050	058024
EPRBS-12	KR-50054	058028
EPRBS-16	KR-50055	058029
EPRBS-20	KR-50056	058030

Consists of all parts except body assembly and cap.

Bell/Piston Assembly

Valve	Description	PCN
EPRB(S)-12	KR-50045	058019
EPRB(S)-16	KR-50056	058030
EPRB(S)-20	KR-50047	058021

Consists of piston ring, piston, seat disc retainer, seat disc and bell.

Gaskets

	Description	PCN
ALL EPRB ALL EPRBS	KR-50053	058027

Gaskets mate with EPRB and EPRBS with SAE or ODF pilot connectors.

Gaskets consist of O-ring and suction stop enclosing tube o-ring.

Thermal Expansion Valves
Solenoid Valves
Coils
Industrial Solenoid Valves
Shut Off Valves
System Protectors
Storage Devices
Oil Controls
Pressure Regulators
Temperature Pressure Controls
Competitive Cross Reference

OPR Outlet Pressure Downstream Regulator

The OPR accurately maintains a predetermined maximum outlet pressure. Designed to prevent compressor motor overload, the OPR is a hermetic valve supplied with a pressure tap in the inlet connection as standard.



Features

- Compact design permits minimal space requirements
- Install in vertical or horizontal line
- Supplied with strainer in the inlet connection

Options

- 3 adjustable range options:
 - 0-60 psig (factory setting 30 psig)
 - 20-90 psig (factory setting 60 psig)
 - 50-130 psig (factory setting 90 psig)
 - 100-230 psig

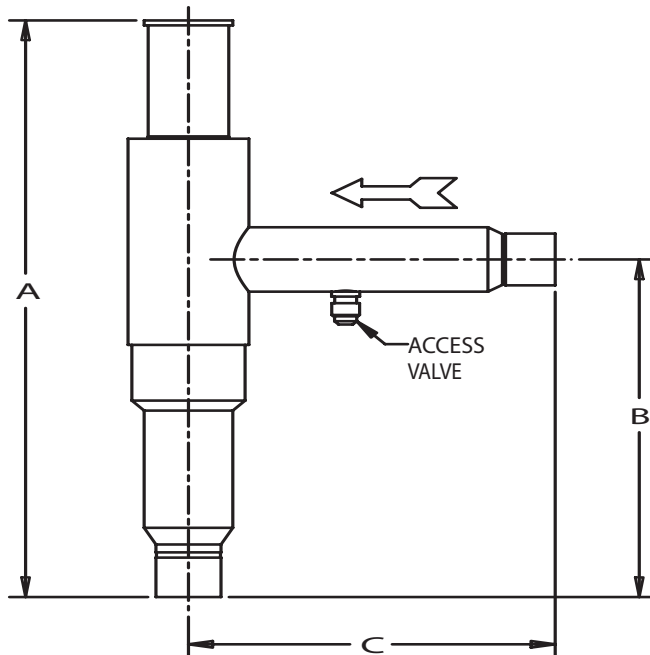
Specifications

- Maximum working pressure: 400 psig
- UL/CUL file number: SA 5312

Nomenclature example: OPR-6 5/8 ODF 0-60 psig

OPR	6	5/8	ODF	0-60 psig
Valve Series	Port Size (in 1/8")	Connection Size	Connection Type SAE or ODF	Adjustable Range

Dimensional Data (in)



Valve	A	B	C
OPR-6	9.75	6.38	5.25
OPR-10	11.19	6.50	5.69

Ordering Information

PCN	Description	Adjustment Range
049241	OPR - 6 (1/2 ODF)	0 - 60 PSIG
054405	OPR - 6 (1/2 ODF)	20 - 90 PSIG
047907	OPR - 6 (1/2 SAE)	0 - 60 PSIG
054871	OPR - 6 (1/2 SAE)	20 - 90 PSIG
047314	OPR - 6 (1-1/8 ODF)	0 - 60 PSIG
047312	OPR - 6 (5/8 ODF)	0 - 60 PSIG
054406	OPR - 6 (5/8 ODF)	20 - 90 PSIG
049712	OPR - 6 (5/8 ODF)	50 - 130 PSIG
047908	OPR - 6 (5/8 SAE)	0 - 60 PSIG
047313	OPR - 6 (7/8 ODF)	0 - 60 PSIG
058172	OPR - 6 (7/8 ODF)	20 - 90 PSIG
047909	OPR - 6 (7/8 ODF)	50 - 130 PSIG
049728	OPR - 6 (5/8 ODF)	100 - 230 PSIG
049729	OPR - 6 (7/8 ODF)	100 - 230 PSIG
049730	OPR - 6 (1-1/8 ODF)	100 - 230 PSIG
059223	OPR - 10 (1-1/8 ODF)	20 - 90 PSIG
049788	OPR - 10 (1-1/8 ODF)	50 - 130 PSIG
047316	OPR - 10 (1-1/8 ODF)	0 - 60 PSIG
049787	OPR - 10 (1-3/8 ODF)	50 - 130 PSIG
047318	OPR - 10 (1-3/8 ODF)	0 - 60 PSIG
047315	OPR - 10 (7/8 ODF)	0 - 60 PSIG
061786	OPR - 10 (7/8 ODF)	20 - 90 PSIG
049789	OPR - 10 (7/8 ODF)	50 - 130 PSIG
049731	OPR - 10 (7/8 ODF)	100 - 230 PSIG
049732	OPR - 10 (1-1/8 ODF)	100 - 230 PSIG
049733	OPR - 10 (1-3/8 ODF)	100 - 230 PSIG

ACP(E) Direct Acting, Hot Gas Regulator

The ACP(E) is a direct acting, hot gas bypass regulator designed for small capacity systems. (see EGR/DGR for large capacity systems) The adjustable ACP(E) regulators are supplied with a factory setting of 40 psig (point at which the regulator starts to open), which can be changed by adjustment. Turning clockwise will increase pressure setting.



Features

- Small, compact size adapts to any installation
- Friction-free floating design
- Covers multiple capacity ranges
- Fully adjustable from 0-80 psig (factory setting 40 psig)
- Wrench flats on inlets and outlets
- Can be used as a constant pressure automatic expansion valve

Options

- Angle or straight-thru style
- Internal or external equalizer
- SAE or ODF connections
- Available with fixed settings/non-adjustable

Specifications

- Clockwise to increase pressure setting
- Maximum working pressure: 450 psig
- Maximum working temperature: 300°F
- UL/CUL file number: SA 5312

Ordering Information

PCN	Description	PCN	Description
046838	ACP 1 IE 1/4 x 3/8-1/2 SAE ANG	049204	ACP 5 IE 3/8 x 3/8-1/2 SAE ANG
057233	ACP 1 IE 1/4 x 3/8 ODF S/T	047653	ACP 6 IE 1/4 x 3/8 SAE ANG
047680	ACP 1 IE 1/4 x 3/8 ODF ANG	047654	ACP 7 IE 3/8 x 1/2 ODF ANG
056240	ACP 1 IE 1/4 x 3/8 SAE ANG	047285	ACP 7 IE 3/8 x 3/8-1/2 SAE ANG
046839	ACP 2 IE 1/4 x 3/8 SAE ANG	047655	ACP 8 IE 3/8 x 1/2 ODF ANG
047651	ACP 2 IE 1/4 x 3/8 ODF ANG	047657	ACP 9 IE 3/8 x 1/2 ODF ANG
047283	ACP 3 IE 1/4 x 3/8 ODF ANG	057209	ACP 9 IE 3/8 x 3/8 ODF ANG
046840	ACP 3 IE 1/4 x 3/8 SAE ANG	057771	ACP 9 IE 1/2 x 5/8 ODF ANG
047105	ACP 4 IE 1/4 x 3/8 ODF ANG	052773	ACP 9 IE 1/4 x 3/8 ODF ANG
047101	ACP 4 IE 1/4 x 3/8 SAE ANG	047658	ACP 9 IE 3/8 x 3/8-1/2 SAE ANG
047284	ACP 5 IE 1/4 x 3/8 ODF ANG	047280	ACPE 1 SAE EE 1/4 x 3/8 SAE S/T
047332	ACP 5 IE 1/4 x 3/8 SAE ANG	047790	ACPE 7 SAE EE 3/8 x 1/2 ODF ANG
053374	ACP 5 IE 3/8 x 3/8 ODF ANG	048657	ACPE 9 SAE EE 3/8 x 1/2 ODF S/T
		058674	ACPE 9 SAE EE 1/2 x 5/8 ODF S/T

Nomenclature example: ACPE 6 SAE EE 1/4 x 3/8 ODF ANG

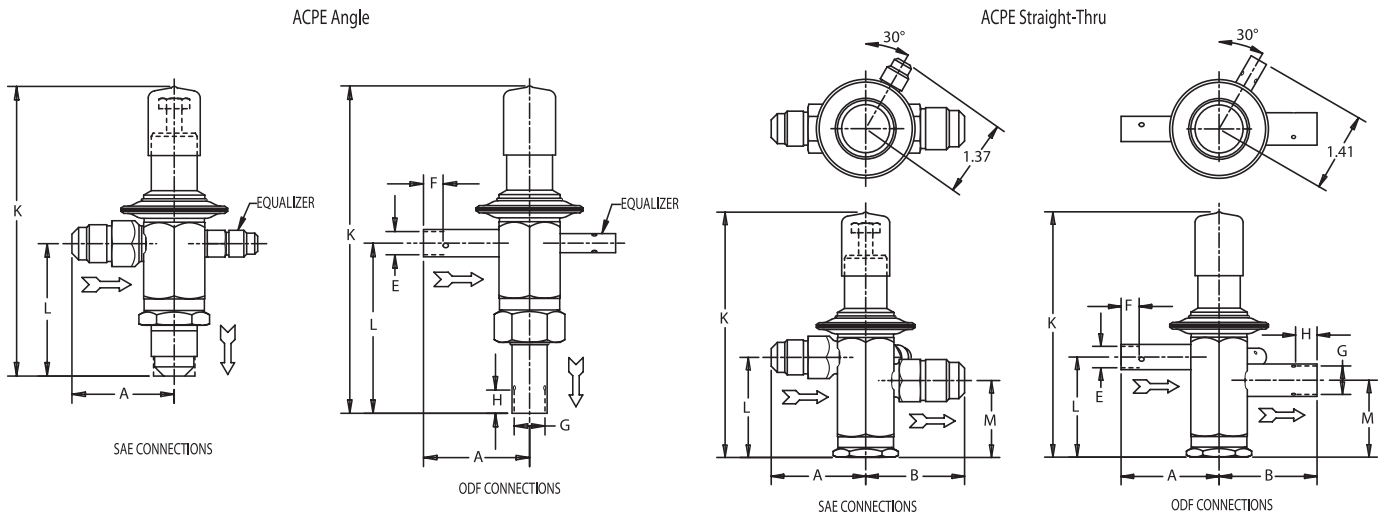
ACP	E	6	SAE EE	1/4 x 3/8		ODF	ANG
Valve Series	External Equalizer (optional)	Size	External Equalizer Type	Inlet Connection Size	Outlet Connection Size	Connection Type ODF or SAE	Body Style ANG = Angle S/T = Straight-thru

Nominal* Capacity Table in Tons (kW)

Valve	Port Dia. (in)	R-12	R-134a	R-22	R-407C	R-507/R-404A	R-502
ACP(E)-1	0.50	0.05 (0.17)	0.07 (0.24)	0.09 (0.31)	0.09 (0.31)	0.09 (0.31)	0.08 (0.28)
ACP(E)-2	0.60	0.07 (0.24)	0.09 (0.31)	0.12 (0.42)	0.12 (0.42)	0.11 (0.38)	0.11 (0.38)
ACP(E)-3	0.10	0.12 (0.42)	0.16 (0.56)	0.22 (0.76)	0.22 (0.76)	0.20 (0.69)	0.20 (0.69)
ACP(E)-4	0.11	0.18 (0.62)	0.23 (0.80)	0.32 (1.11)	0.32 (1.11)	0.28 (0.97)	0.29 (1.01)
ACP(E)-5	0.13	0.28 (0.97)	0.37 (1.28)	0.50 (1.74)	0.50 (1.74)	0.45 (1.56)	0.45 (1.56)
ACP(E)-6	0.14	0.38 (1.32)	0.50 (1.74)	0.69 (2.39)	0.69 (2.39)	0.60 (2.08)	0.63 (2.19)
ACP(E)-7	0.17	0.55 (1.91)	0.71 (2.46)	0.98 (3.40)	0.98 (3.40)	0.90 (3.12)	0.89 (3.09)
ACP(E)-8	0.20	0.65 (2.26)	0.84 (2.91)	1.20 (4.16)	1.20 (4.16)	1.00 (3.47)	1.00 (3.47)
ACP(E)-9	0.23	0.75 (2.60)	0.98 (3.40)	1.40 (4.86)	1.40 (4.86)	1.20 (4.16)	1.20 (4.16)

*All capacities shown are at 40°F Evaporator Temperature and 2 psi pressure drop across the valve. For conditions other than nominal conditions, multiply the nominal capacities shown in the above tables by the appropriate multiplier found in the extended capacity tables section.

ACP Dimensional Data



Dimensional Data (in)

ACP(E) Valve Type	Inlet	Outlet	A	B	E Dia.	F Min.	G Dia.	H Min.	K	L
Angle SAE	1/4	3/8	1.50	-	-	-	-	-	4.50	2.13
	3/8		1.64							
	1/2		1.72							
	1/4	3/8 - 1/2	1.50							
	3/8		1.64							
	1/2		1.72							
Angle ODF	1/4	3/8	1.25	-	0.25	0.32	0.37	0.32	4.55	2.17
	3/8	1/2	1.19		0.37	0.32		0.50		
	1/2	5/8			1.38	0.50	0.38	0.62	0.50	4.73
	5/8		1.38							
	1/4		1.25							
	3/8	1.19	0.37		0.32	0.50	0.38	4.55	2.17	
	1/4	1/2	1.25							
	1/2	7/8	1.19		0.50					0.38

ACP(E) Valve Type	Inlet	Outlet	A	B	E Dia.	F Min.	G Dia.	H Min.	K	L	M
Straight-Thru SAE	1/4	3/8	1.50	1.64	-	-	-	-	4.25	1.88	1.48
	3/8		1.64								
	1/2		1.72								
	1/4	1/2	1.50	1.72							
	3/8	5/8	1.64	1.98							
	1/2		1.72								
Straight-Thru ODF	1/4	3/8	1.25	1.19	0.25	0.32	0.37	0.32	4.25	1.88	1.48
	3/8	1/2	1.19		0.37	0.32		0.50			
	1/2	5/8			1.38	0.50	0.38	0.62			
	5/8		1.38								
	1/4		1.38	0.25		0.32					
	3/8	1.25	0.37	0.32	0.50	0.38	4.55	2.17			
	1/4	1/2	1.19	0.25					0.32		
	1/2	7/8	1.25	1.19					0.50	0.38	0.87
	3/8	7/8	1.19	1.75	0.37	0.32	0.87	0.75			

EGR(E) Direct Acting Hot Gas Bypass Regulator

The EGR(E) is a direct-acting regulator designed for use on light commercial systems. They provide precision system capacity balance. The EGR(E) is an adjustable valve.

The adjustable EGR(E) Regulators are supplied with a factory set point of 50 psig (point at which the regulator starts to open), which can be changed by adjustment. Capacity of these regulators is based on 6° gradient. Rated capacity will be attained when the suction pressure falls the equivalent of 6° below the corresponding set point saturation temperature. This lower temperature, at which the regulator is rated, is termed “evaporator temperature” in the extended capacity tables.

When the suction pressure decreases below the set point, the regulator opens and allows discharge gas to be bypassed. The discharge gas may be bypassed into the evaporator or the suction line. When bypassed to the suction line, a liquid injection thermal expansion valve must be installed to properly desuperheat the suction gas returning to the compressor.



Ordering Information

PCN	Description	PCN	Description
063167	ESG 4 S 3 A IE	063177	EGRE 4 S 5 B SAE EE
063168	EGR 4 S 4 A IE	063178	EGRE 4 S 5 C ODF EE
063169	EGR 4 S 5 A IE	063179	EGRE 6 S 3 B SAE EE
063170	EGR 6 S 4 A IE	063180	EGRE 6 S 3 C ODF EE
063171	EGR 6 S 5 A IE	063181	EGRE 6 S 4 B SAE EE
063172	EGR 6 S 5 A IE	062868	EGRE 6 S 4 C ODF EE
063173	EGR 8 S 4 A IE	062869	EGRE 6 S 5 B SAE EE
063174	EGR 8 S 5 A IE	062870	EGRE 6 S 5 C ODF EE
063175	EGRE 4 S 3 B SAE EE	062871	EGRE 8 S 4 B SAE EE
063176	EGRE 4 S 3 C ODF EE	063182	EGRE 8 S 4 C ODF EE
062866	EGRE 4 S 4 B SAE EE	063183	EGRE 8 S 5 B SAE EE
062867	EGRE 4 S 4 C ODF EE	062872	EGRE 8 S 5 C ODF EE

Features

- Compact hermetic construction
- ODF line connections
- Balanced port design

Specifications

- Maximum working pressure: 440 psig
- Adjustable range: 0-80 psig (factory setting 50 psig)
- UL/CUL file number: SA 5312

Nomenclature example: EGRE 6S4B SAE EE

EGR	E	6	S	4	B	SAE EE
Valve Series	External Equalizer (omit for internal equalizer)	Size	Connection S = ODF connections	Connection (in 1/8")	External Equalizer A = None, B = 1/4" SAE C = 1/4" ODF	External Equalizer Type

Nominal* Capacity Table in Tons (kW)

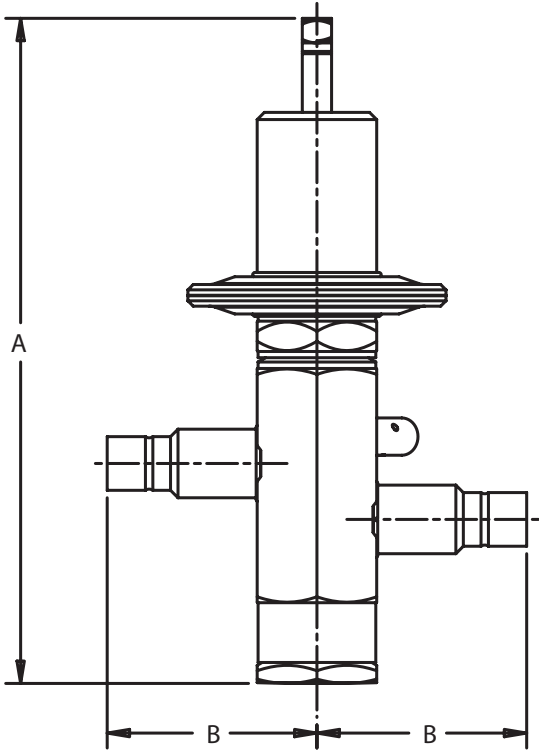
VALVE	R-12	R-134a	R-22	R-407C	R-507/R-404A	R-502
EGR(E)-4	1.6 (5.6)	1.8 (6.2)	2.9 (10.1)	2.9 (10.1)	2.8 (9.7)	2.6 (9.0)
EGR(E)-6	2.0 (6.9)	2.4 (8.3)	3.8 (13.2)	3.8 (13.2)	3.5 (12.1)	2.9 (10.1)
EGR(E)-8	3.6 (12.5)	4.2 (14.6)	6.7 (23.2)	6.7 (23.2)	6.3 (21.9)	5.9 (20.5)

All capacities shown are at 40°F Evaporator Temperature and 2 psi pressure drop across the valve.

*For conditions other than nominal conditions, multiply the nominal capacities shown in the above tables by the appropriate multiplier found in the extended capacity tables section.

EGR(E) Dimensional Data (in)

Valve	Connections	A	B
EGRE4 EGRE6	S3 3/8 ODF	5.63	1.75
	S4 1/2 ODF		1.75
	S5 5/8 ODF		2.13
EGRE8	S3 3/8 ODF	6.25	1.75
	S4 1/2 ODF		1.75
	S5 5/8 ODF		2.13



- Thermal Expansion Valves
- Solenoid Valves
- Coils
- Industrial Solenoid Valves
- Shut Off Valves
- System Protectors
- Storage Devices
- Oil Controls
- Pressure Regulators
- Temperature Pressure Controls
- Competitive Cross Reference

DGR(E) Direct Acting Hot Gas Bypass Regulator

The DGR(E) is designed for use on residential and light commercial systems. They provide precision system capacity balance at an economical price.

The adjustable DGR(E) Regulators are supplied with a factory set point of 50 psig (point at which the regulator starts to open), which can be changed by adjustment. Capacity of these regulators is based on 6° gradient. Rated capacity will be attained when the suction pressure falls 6° below the corresponding set point saturation temperature. This lower temperature, at which the regulator is rated, is termed 'evaporator temperature' in the selection tables.

When the suction pressure decreases below the set point, the regulator opens and allows discharge gas to be bypassed. The discharge gas may be bypassed into the evaporator or the suction line. When bypassed to the suction line, a liquid injection thermal expansion valve must be installed to properly desuperheat the suction gas returning to the compressor.



Specifications

- Maximum working pressure: 440 psig
- Adjustable range: 0-80 psig (factory setting 50 psig)
- UL/CUL file number: SA 5312

Ordering Information

PCN	Description
049640	DGRE 12 S 7 B SAE EE
029806	DGRE 12 S 7 C ODF EE
049861	DGRE 12 S 9 B SAE EE

Features

- Compact hermetic construction

Nomenclature example: DGRE 12S7 B SAE EE

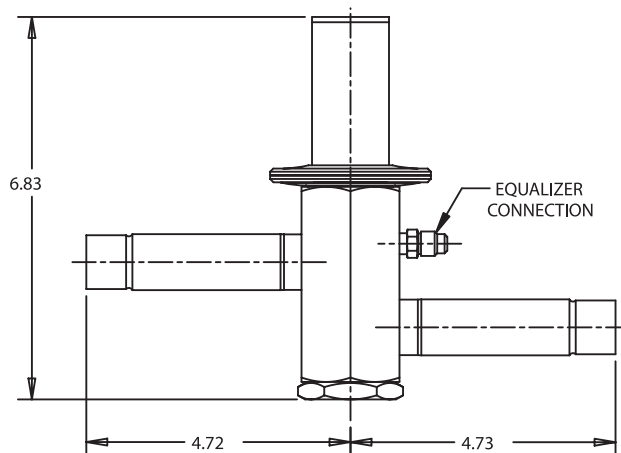
DGR	E	12	S	7	B	SAE EE
Valve Series	External Equalizer (omit for internal equalizer)	Size	Connection S = ODF connections	Connection (in 1/8")	External Equalizer A = None, B = 1/4" SAE C = 1/4" ODF	External Equalizer Type

Nominal* Capacity Table in Tons (kW)

Valve	R-12	R-134a	R-22	R-406C	R507/R-404A	R-502
DGR(E)-12	8.3 (29.4)	9.7 (34.2)	15.4 (54.6)	15.4 (54.6)	14.5 (51.3)	13.6 (48.0)

All capacities shown are at 40°F Evaporator Temperature and 2 psi pressure drop across the valve.
*For conditions other than nominal conditions, multiply the nominal capacities shown in the above tables by the appropriate multiplier found in the extended capacity tables section.

Dimensional Data (in)



CPH(E) Hot Gas Bypass Regulator

The CPH(E) is a take-a-part regulator used for hot gas bypass. These valves use a balanced ported cage assembly.



Features

- SAE 1/4" male flare external equalizer standard
- Take-A-Part construction for easy serviceability without removing the body flange from the line
- Internal or external equalizer

Specifications

- Adjustable Range: 0-80 psig (factory setting 20 psig)

Nomenclature example: CPHE 3 SAE EE 3/8 x 5/8 ODF ANG

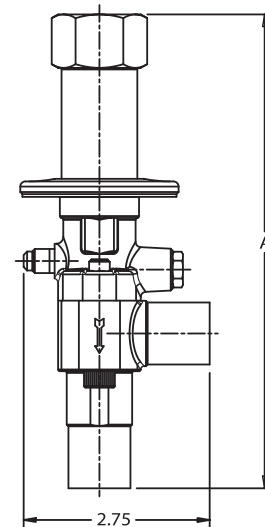
CPH	E	3	SAE EE	3/8 x 5/8	ODF	ANG	
Valve Series	External Equalizer (omit on CPHE1 & 2 for internal equalizer)	Size	1/4" SAE male External Equalizer	Inlet Connection Size	Outlet Connection Size	Connection Type	Connection Style

Dimensional Data (in)

Valve	A
CPHE 1	6.81
CPHE 2	6.94
CPHE 3	8.25
CPHE 4	8.25
CPHE 5	8.75
CPHE 6	8.75

Ordering Information

PCN	Description	PCN	Description
038828	CPHE 1 SAE EE 1/2 X 5/8 ODF ANG	087357	CPHE 3 SAE EE 7/8 ODF/1 1/8 ODM S/T
044015	CPHE 1 SAE EE 1/2 X 5/8 ODF S/T	081348	CPHE 4 SAE EE 7/8 ODF/1 1/8 ODM ANG
087912	CPHE 1 SAE EE 3/8 X 1/2 ODF ANG	044783	CPHE 4 SAE EE 7/8 ODF/1 1/8 ODM S/T
088025	CPHE 1 SAE EE 3/8 X 5/8 ODF ANG	038302	CPHE 5 ODF EE 7/8 ODF/1 1/8 ODM ANG
087274	CHPE 1 SAE EE 3/8 X 5/8 ODF S/T	045225	CPHE 5 SAE EE 7/8 ODF/1 1/8 ODM ANG
087774	CPHE 2 SAE EE 1/2 X 5/8 ODF ANG	037802	CPHE 5 SAE EE 7/8 ODF/1 1/8 ODM S/T
087887	CPHE 2 SAE EE 1/2 X 5/8 ODF S/T	064577	CPHE 6 ODF EE 1 1/8 X 1 1/8 ODM ANG
045398	CPHE 2 SAE EE 3/8 X 1/2 ODF ANG	038661	CPHE 6 ODF EE 1 1/8 X 1 1/8 ODM S/T
043853	CPHE 2 SAE EE 3/8 X 5/8 ODF ANG	028619	CPHE 6 SAE EE 1 1/8 X 1 1/8 ODM ANG
026286	CPHE 2 SAE EE 5/8 X 7/8 ODF ANG	038219	CPHE 6 SAE EE 1 1/8 X 1 1/8 ODM S/T
036903	CPHE 3 SAE EE 7/8 ODF X 1 1/8 ODM ANG		



Nominal* Capacity Table in Tons (kW)

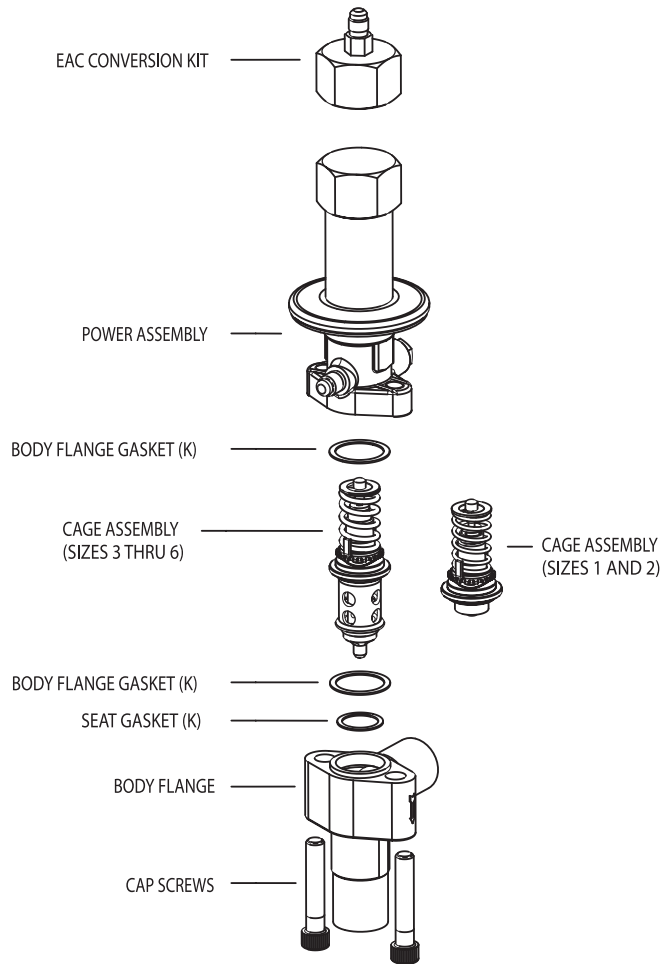
Valve	R-12	R-134a	R-22	R-407C	R-507/R-404A	R-502
CPHE 1	0.4 (1.4)	0.5 (1.7)	0.7 (2.5)	0.7 (2.5)	0.7 (2.4)	0.6 (2.2)
CPHE 2	0.7 (2.3)	0.8 (2.8)	1.2 (4.2)	1.2 (4.2)	1.2 (4.2)	1.0 (3.5)
CPHE 3	1.2 (4.2)	1.6 (5.6)	2.3 (8.0)	2.3 (8.0)	2.2 (7.6)	2.0 (6.9)
CPHE 4	3.0 (10.4)	3.8 (13.2)	5.5 (19.4)	5.5 (19.4)	5.3 (18.4)	4.8 (16.7)
CPHE 5	3.6 (12.5)	4.5 (15.6)	6.7 (23.2)	6.7 (23.2)	6.4 (22.2)	5.8 (20.1)
CPHE 6	4.6 (16.0)	5.8 (20.1)	8.5 (29.5)	8.5 (29.5)	8.2 (28.5)	7.4 (25.7)

All capacities shown are at 40°F Evaporator Temperature and 2 psi pressure drop across the valve.

*For conditions other than nominal conditions, multiply the nominal capacities shown in the above tables by the appropriate multiplier found in the extended capacity tables section.

CPH(E) Replacement Parts and Exploded View

Kit	Description	PCN
EAC CONVERSION	X10227-2	042475



Cage

Description	CPH(E) Size	PCN
X-22440-B5B	1	037043
X-22440-B8B	2	037049
X-11873-B5B	3	089058
X-9117-B9B	4	029429
X-9166-B10B	5	070738
X-9144-B13B	6	021067

Flange

Description	Connection	PCN
C-501-5	3/8 X 5/8 ODF ANG	065748
10331	7/8 ODF X 1 1/8 ODM ANG	029411
9153	7/8 ODF X 1 1/8 ODM ANG	027919
9761-3	3/8 X 5/8 ODF S/T	027771
10332	7/8 ODF X 1 1/8 ODM S/T	032988
9152	7/8 ODF X 1 1/8 ODM S/T	027918

Power Assembly

Valve	Description	PCN
CPHE 1, 2, 3	X7118-4	026296
CPHE 4, 5, 6	X7428-2	029055

Consists of power assembly and body flange gasket

HP/HPC HeadMaster® Head Pressure Controls

The HP/HPC is designed specifically to maintain proper air-cooled condenser pressures during periods of low ambient conditions. It eliminates the need for special piping or multiple control valves. The HP/HPC simplifies piping and reduces installation costs.



Features

- Accurate head pressure control, even at low ambient temperatures
- Maintains liquid subcooling and prevents liquid line flash gas
- Eliminates the need for special piping or multiple control valves

Specifications

- Maximum working pressure: HP 5, 8 (500 psig)
HP 14 (440 psig)
HPC 2, 3 & 5 (500 psig)
- Weights: HP 5 & HP 8 = 2 1/2 lbs
HP 14 = 5 lbs
- UL/CUL file number: SA 5312

Nomenclature

example: HP 8T4 180 1/2 x 1/2 x 1/2 ODF

HP	8	T	4	180	1/2 x 1/2 x 1/2		
Valve Series HP or HPC	Size	Connection Style T = ODF F = SAE	Connection Size (in 1/8")	Condensing Pressure SetPoint (for corresponding Condensing Temp, see P-T Chart)	Bypass Connection Size	Receiver Connection Size	Condenser Connection Size

Ordering Information

PCN	Description	Connections
064188	HPC 2 T 4 - 100	1/2 x 1/2 x 1/2 ODF
064189	HPC 2 T 4 - 125	1/2 x 1/2 x 1/2 ODF
064190	HPC 2 T 4 - 180	1/2 x 1/2 x 1/2 ODF
064191	HPC 3 T 4 - 125	1/2 x 1/2 x 1/2 ODF
064192	HPC 3 T 4 - 180	1/2 x 1/2 x 1/2 ODF
064177	HPC 5 T 3 - 100	3/8 x 3/8 x 3/8 ODF
064179	HPC 5 T 3 - 180	3/8 x 3/8 x 3/8 ODF
064175	HPC 5 T 3 - 225	3/8 x 3/8 x 3/8 ODF
064180	HPC 5 T 4 - 100	1/2 x 1/2 x 1/2 ODF
064181	HPC 5 T 4 - 125	1/2 x 1/2 x 1/2 ODF
064183	HPC 5 T 4 - 180	1/2 x 1/2 x 1/2 ODF
064184	HPC 5 T 4 - 200	1/2 x 1/2 x 1/2 ODF
064228	HPC 5 T 4 - 225	1/2 x 1/2 x 1/2 ODF
064185	HPC 5 T A - 125	1/2 x 3/8 x 3/8 ODF
064187	HPC 5 T A - 180	1/2 x 3/8 x 3/8 ODF
046094	HP 5 F 3 - 110	3/8 x 3/8 x 3/8 SAE
046093	HP 5 F 3 - 185	3/8 x 3/8 x 3/8 SAE
062239	HP 5 F 3 - 215	3/8 x 3/8 x 3/8 SAE
055130	HP 5 F 4 - 110	1/2 x 1/2 x 1/2 SAE
046091	HP 5 F 4 - 185	1/2 x 1/2 x 1/2 SAE
046090	HP 5 T 3 - 110	3/8 x 3/8 x 3/8 ODF
046088	HP 5 T 3 - 185	3/8 x 3/8 x 3/8 ODF
054173	HP 5 T 3 - 215	3/8 x 3/8 x 3/8 ODF
053377	HP 5 T 4 - 60	1/2 x 1/2 x 1/2 ODF
046087	HP 5 T 4 - 110	1/2 x 1/2 x 1/2 ODF
046086	HP 5 T 4 - 185	1/2 x 1/2 x 1/2 ODF
062240	HP 5 T 5 - 215	1/2 x 1/2 x 1/2 ODF

Ordering Information

PCN	Description	Connections
052979	HP 8 F 4 - 110	1/2 x 1/2 x 1/2 SAE
053200	HP 8 F 4 - 185	1/2 x 1/2 x 1/2 SAE
062241	HP 8 F 4 - 215	1/2 x 1/2 x 1/2 SAE
053062	HP 8 F 5 - 110	5/8 X 5/8 X 5/8 SAE
053283	HP 8 F 5 - 185	5/8 X 5/8 X 5/8 SAE
062242	HP 8 F 5 - 215	5/8 X 5/8 X 5/8 SAE
046209	HP 8 T 4 - 110	1/2 x 1/2 x 1/2 ODF
046509	HP 8 T 4 - 120	1/2 x 1/2 x 1/2 ODF
046208	HP 8 T 4 - 185	1/2 x 1/2 x 1/2 ODF
062243	HP 8 T 4 - 215	1/2 x 1/2 x 1/2 ODF
062027	HP 8 T 4 - 225	1/2 x 1/2 x 1/2 ODF
048377	HP 8 T 5 - 60	5/8 X 5/8 X 5/8 ODF
033862	HP 8 T 5 - 110	5/8 X 5/8 X 5/8 ODF
057239	HP 8 T 5 - 120	5/8 X 5/8 X 5/8 ODF
032407	HP 8 T 5 - 185	5/8 X 5/8 X 5/8 ODF
034246	HP 8 T 5 - 175	5/8 X 5/8 X 5/8 ODF
046535	HP 8 T 5 - 215	5/8 X 5/8 X 5/8 ODF
046389	HP 8 T 5 - 225	5/8 X 5/8 X 5/8 ODF
047768	HP 8 T 7 - 60	7/8 X 7/8 X 7/8 ODF
046207	HP 8 T 7 - 110	7/8 X 7/8 X 7/8 ODF
054023	HP 8 T 7 - 125	7/8 X 7/8 X 7/8 ODF
046928	HP 8 T 7 - 155	7/8 X 7/8 X 7/8 ODF
046206	HP 8 T 7 - 185	7/8 X 7/8 X 7/8 ODF
046498	HP 8 T 7 - 215	7/8 X 7/8 X 7/8 ODF
046632	HP 8 T 7 - 205	7/8 X 7/8 X 7/8 ODF
032210	HP 14 T 7 - 120	7/8 X 7/8 X 7/8 ODF
024935	HP 14 T 7 - 175	7/8 X 7/8 X 7/8 ODF
043405	HP 14 T 7 - 215	7/8 X 7/8 X 7/8 ODF
024405	HP 14 T 9 - 120	1 1/8 X 1 1/8 X 1 1/8 ODF
045927	HP 14 T 9 - 125	1 1/8 X 1 1/8 X 1 1/8 ODF
029805	HP 14 T 9 - 175	1 1/8 X 1 1/8 X 1 1/8 ODF
043406	HP 14 T 9 - 215	1 1/8 X 1 1/8 X 1 1/8 ODF
024380	HP 14 T 11 - 120	1 1/8 X 1 1/8 X 1 1/8 ODF
024601	HP 14 T 11 - 175	1 1/8 X 1 1/8 X 1 1/8 ODF
043407	HP 14 T 11 - 215	1 1/8 X 1 1/8 X 1 1/8 ODF

Head Pressure Control

HP/HPC Sizing Selection

Consideration must be given to the system design requirements, such as: equivalent line length (vertical lift or unusual pressure drop), equipment location, etc., to determine if the minimum control range meets design requirements. There are numerous alternatives involving head pressure control applications worth considering. For further questions, contact the Application Engineering Department.

NOTE: Be sure the HP valve is not required to operate at conditions exceeding the maximum working pressure.

NOTE: Not recommended for systems utilizing patented subcooling coils in conjunction with low head pressure systems or on systems where the condensate line bypasses the receiver in order to maintain subcooling effect in the liquid line.

Nominal Capacity Table in Tons and kW

Refrigerant	Valve	Pressure Drop - psi (kPa)									
		1 (7)		2 (14)		3 (21)		4 (28)		5 (35)	
		Tons	kW	Tons	kW	Tons	kW	Tons	kW	Tons	kW
R-134a	HPC-2	1.00	3.50	1.40	4.90	1.80	6.20	2.00	6.90	2.30	8.00
	HPC-3	1.70	5.90	2.40	8.30	3.00	10.40	3.50	12.10	3.90	13.50
	HPC-5	2.20	7.80	3.20	11.00	3.90	13.50	4.50	15.50	5.00	17.40
	HP-5	2.00	6.90	2.90	10.10	3.60	12.50	4.10	14.20	4.60	16.00
	HP-8	5.50	19.10	7.80	27.10	9.60	33.30	11.00	38.20	12.40	43.00
	HP-14	14.00	48.60	19.80	68.70	24.20	84.00	28.30	98.20	31.70	110.00
R-22/ R-407C	HPC-2	1.10	3.80	1.60	5.60	1.90	6.60	2.20	7.60	2.50	8.70
	HPC-3	1.90	6.50	2.70	9.20	3.30	11.30	3.80	13.00	4.20	14.50
	HPC-5	2.40	8.40	3.40	11.90	4.20	14.60	4.90	16.90	5.40	18.80
	HP-5	2.20	7.60	3.20	11.10	3.90	13.50	4.50	15.60	5.00	17.40
	HP-8	6.00	20.80	8.50	29.50	10.50	36.40	12.00	41.60	13.50	46.80
	HP-14	14.70	51.00	20.80	72.20	25.60	88.80	29.70	103.10	33.80	117.30
R-404A/ R-507	HPC-2	0.70	2.40	1.00	3.50	1.30	4.50	1.50	5.20	1.70	5.90
	HPC-3	1.30	4.30	1.80	6.10	2.20	7.50	2.50	8.70	2.80	9.70
	HPC-5	1.60	5.60	2.30	7.90	2.80	9.80	3.30	11.30	3.60	12.60
	HP-5	1.50	5.20	2.10	7.30	2.60	9.00	3.00	10.40	3.30	11.50
	HP-8	3.90	13.50	5.50	19.10	6.70	23.20	7.80	27.10	8.70	30.20
	HP-14	10.10	35.00	14.30	49.60	17.60	61.10	20.50	71.10	23.00	79.80
R-12	HPC-2	0.90	3.00	1.20	4.30	1.50	5.20	1.70	6.00	1.90	6.70
	HPC-3	1.50	5.30	2.10	7.50	2.60	9.20	3.00	10.60	3.40	11.90
	HPC-5	1.80	6.40	2.50	9.00	3.10	11.00	3.60	12.70	4.00	14.20
	HP-5	1.70	6.00	2.40	8.50	3.00	10.60	3.40	12.00	3.80	13.50
	HP-8	4.60	16.30	6.50	23.00	8.00	28.30	9.20	32.60	10.30	36.50
	HP-14	11.70	41.40	16.50	58.40	20.20	71.50	23.60	83.50	26.40	93.50
R-502	HPC-2	0.70	2.60	1.00	3.70	1.30	4.50	1.50	5.20	1.60	5.80
	HPC-3	1.30	4.60	1.80	6.50	2.30	8.00	2.60	9.20	2.90	10.30
	HPC-5	1.60	5.70	2.30	8.00	2.80	9.80	3.20	11.30	3.60	12.70
	HP-5	1.50	5.30	2.10	7.40	2.60	9.20	3.00	10.60	3.30	11.70
	HP-8	3.90	13.80	5.50	19.50	6.70	23.70	7.80	27.60	8.70	30.80
	HP-14	10.10	35.80	14.30	50.60	17.60	62.30	20.50	72.60	23.00	81.40

Multiplier Factors For Capacities At Conditions Other Than Nominal Ratings

Liquid Temperature °F	Evaporator Temperature °F														
	R-134a/R-12					R-22/R-407C					R-404A/R-507/R-502				
	40	20	0	-20	-40	40	20	0	-20	-40	40	20	0	-20	-40
120°	0.87	0.82	0.78	0.71	0.69	0.89	0.86	0.84	0.82	0.78	0.84	0.79	0.74	0.69	0.63
100°	1.00	0.96	0.91	0.86	0.82	1.00	0.98	0.95	0.93	0.89	1.00	0.96	0.90	0.85	0.79
80°	1.13	1.08	1.04	0.99	0.95	1.12	1.09	1.06	1.03	1.00	1.14	1.09	1.04	0.99	0.93
60°	1.27	1.22	1.17	1.12	1.07	1.22	1.20	1.17	1.14	1.10	1.32	1.27	1.21	1.16	1.09
40°		1.34	1.29	1.24	1.19		1.30	1.27	1.24	1.21		1.42	1.37	1.31	1.26
20°			1.42	1.38	1.32			1.39	1.35	1.32			1.51	1.46	1.41

Thermal Expansion Valves
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Competitive Cross Reference

Extended Hot Gas Bypass Capacity Multiplier Factor Tables – Fahrenheit & Centigrade

For ACP(E), EGR(E), DGR(E) and CPH(E)

R12 Table of Multipliers – Fahrenheit

COND. TEMP. °F	EVAPORATOR TEMPERATURE °F									
	50	40	30	20	10	0	-10	-20	-30	-40
80	0.952	0.927	0.905	0.884	0.862	0.840	0.816	0.793	0.770	0.747
100	1.071	1.000	0.977	0.953	0.928	0.904	0.879	0.854	0.827	0.802
120	1.235	1.205	1.175	1.143	1.110	1.079	1.044	1.012	0.977	0.946
140	1.439	1.399	1.359	1.318	1.277	1.236	1.192	1.151	1.107	1.065

R12 Table of Multipliers - Centigrade

COND. TEMP. °C	EVAPORATOR TEMPERATURE °C									
	10	5	0	-5	-10	-15	-20	-25	-30	-40
30	0.894	0.876	0.859	0.842	0.823	0.806	0.786	0.768	0.750	0.710
38	1.023	1.002	0.981	0.960	0.938	0.917	0.893	0.871	0.849	0.802
50	1.258	1.230	1.202	1.173	1.144	1.114	1.083	1.052	1.023	0.960
60	1.439	1.403	1.366	1.330	1.295	1.257	1.218	1.180	1.144	1.065

R134a Table of Multipliers – Fahrenheit

COND. TEMP. °F	EVAPORATOR TEMPERATURE °F									
	50	40	30	20	10	0	-10	-20	-30	-40
80	0.810	0.792	0.775	0.756	0.737	0.719	0.699	0.679	0.659	0.639
100	1.023	1.000	0.981	0.958	0.931	0.906	0.880	0.854	0.827	0.800
120	1.231	1.198	1.166	1.132	1.098	1.062	1.026	0.991	0.954	0.917
140	1.440	1.396	1.353	1.307	1.263	1.217	1.170	1.122	1.074	1.026

R134a Table of Multipliers - Centigrade

COND. TEMP. °C	EVAPORATOR TEMPERATURE °C									
	10	5	0	-5	-10	-15	-20	-25	-30	-40
30	0.890	0.873	0.855	0.837	0.818	0.781	0.762	0.746	0.725	0.685
38	1.034	1.015	0.994	0.970	0.947	0.924	0.901	0.878	0.854	0.804
50	1.253	1.225	1.194	1.163	1.131	1.100	1.068	1.033	1.004	0.937
60	1.440	1.406	1.365	1.324	1.284	1.244	1.202	1.163	1.122	1.035

R22 Table of Multipliers – Fahrenheit

COND. TEMP. °F	EVAPORATOR TEMPERATURE °F									
	50	40	30	20	10	0	-10	-20	-30	-40
80	0.836	0.819	0.804	0.786	0.770	0.752	0.734	0.716	0.696	0.678
100	1.023	1.000	0.981	0.958	0.937	0.913	0.889	0.865	0.841	0.791
120	1.230	1.177	1.153	1.124	1.095	1.066	1.038	1.008	0.976	0.947
140	1.402	1.366	1.335	1.298	1.264	1.227	1.190	1.153	1.113	1.076

R22 Table of Multipliers - Centigrade

COND. TEMP. °C	EVAPORATOR TEMPERATURE °C									
	10	5	0	-5	-10	-15	-20	-25	-30	-40
30	0.885	0.866	0.867	0.853	0.837	0.820	0.807	0.786	0.768	0.714
38	1.023	1.000	1.003	0.985	0.966	0.945	0.928	0.904	?	0.839
50	1.238	1.212	1.188	1.163	1.135	1.114	1.060	1.055	1.025	.970
60	1.402	1.371	1.342	1.312	1.277	1.251	1.213	1.179	1.146	1.076

R404A/507 Table of Multipliers – Fahrenheit

COND. TEMP. °F	EVAPORATOR TEMPERATURE °F									
	50	40	30	20	10	0	-10	-20	-30	-40
80	0.905	0.872	0.863	0.824	0.816	0.790	0.767	0.728	0.703	0.677
100	1.045	1.000	0.989	0.943	0.929	0.896	0.864	0.813	0.780	0.745
120	1.170	1.111	1.092	1.026	1.010	0.966	0.926	0.856	0.812	0.768
140	1.165	1.073	1.053	0.971	0.949	0.896	0.841	0.754	0.699	0.643

R404A/507 Table of Multipliers - Centigrade

COND. TEMP. °C	EVAPORATOR TEMPERATURE °C									
	10	5	0	-5	-10	-15	-20	-25	-30	-40
30	0.896	0.876	0.856	0.834	0.813	0.791	0.769	0.747	0.723	0.674
38	1.007	0.984	0.947	0.932	0.905	0.878	0.851	0.822	0.793	0.733
50	1.126	1.087	1.053	1.017	0.981	0.944	0.907	0.870	0.830	0.750
60	1.111	1.069	1.026	0.982	0.937	0.891	0.844	0.796	0.748	0.650

R502 Table of Multipliers – Fahrenheit

COND. TEMP. °F	EVAPORATOR TEMPERATURE °F									
	50	40	30	20	10	0	-10	-20	-30	-40
80	0.883	0.863	0.842	0.820	0.800	0.776	0.752	0.727	0.703	0.679
100	1.027	1.000	0.973	0.945	0.918	0.889	0.859	0.827	0.797	0.766
120	1.153	1.119	1.086	1.050	1.016	0.979	0.940	0.903	0.865	0.826
140	1.243	1.201	1.159	1.115	1.072	1.027	0.982	0.932	0.886	0.839

R502 Table of Multipliers - Centigrade

COND. TEMP. °C	EVAPORATOR TEMPERATURE °C									
	10	5	0	-5	-10	-15	-20	-25	-30	-40
30	0.915	0.897	0.878	0.858	0.837	0.818	0.796	0.774	0.754	0.710
38	1.025	1.002	0.980	0.956	0.931	0.908	0.883	0.856	0.830	0.778
50	1.184	1.154	1.125	1.093	1.061	1.029	0.995	0.960	0.928	0.857
60	1.284	1.246	1.208	1.170	1.129	1.089	1.048	1.006	0.964	0.879

ESR Extended Capacities in Tons (at 800 steps full open)

R-22														
EVAPORATOR TEMPERATURE														
45°								35°						
PRESSURE DROP (PSI)								PRESSURE DROP (PSI)						
0.5	1	2	3	5	8	10		0.5	1	2	3	5	8	10
ESR 12	3.6	5.08	7.19	8.81	11.37	14.38	15.22	3.27	4.62	6.53	8.00	10.32	12.39	13.69
ESR 20	7.0	9.9	14.0	17.14	22.13	28.0	29.38	6.35	8.98	12.7	15.56	20.08	23.93	26.24
20°														
PRESSURE DROP (PSI)								PRESSURE DROP (PSI)						
0.5	1	2	3	5	8	10		0.5	1	2	3	5	8	10
ESR 12	2.80	3.97	5.61	6.87	8.87	10.48	11.53	2.52	3.56	5.04	6.17	7.56	9.29	10.18
ESR 20	5.45	7.71	10.9	13.35	17.23	20.03	21.82	4.89	6.92	9.79	11.99	14.58	17.59	19.03
0°														
PRESSURE DROP (PSI)								PRESSURE DROP (PSI)						
0.5	1	2	3	5	8	10		0.5	1	2	3	5	8	10
ESR 12	2.25	3.19	4.50	5.52	6.68	8.15	8.89	2.00	2.83	4.01	4.68	5.86	7.08	7.67
ESR 20	4.37	6.19	8.75	10.72	12.8	15.26	16.37	3.89	5.5	7.78	9.04	11.13	13.05	13.82
-20°														
PRESSURE DROP (PSI)								PRESSURE DROP (PSI)						
0.5	1	2	3	5	8	10		0.5	1	2	3	5	8	10
ESR 12	1.77	2.51	3.54	4.09	5.08	6.06	6.50	1.56	2.20	2.96	3.54	4.35	5.10	5.39
ESR 20	3.44	4.87	6.88	7.85	9.54	10.92	11.36	3.03	4.28	5.71	6.74	8.03	8.89	8.99

R-404A/507														
EVAPORATOR TEMPERATURE														
45°								35°						
PRESSURE DROP (PSI)								PRESSURE DROP (PSI)						
0.5	1	2	3	5	8	10		0.5	1	2	3	5	8	10
ESR 12	3.02	4.27	6.04	7.40	9.56	12.09	12.89	2.70	3.83	5.41	6.63	8.55	10.82	11.45
ESR 20	5.82	8.25	11.65	14.27	18.42	23.3	24.68	5.2	7.35	10.4	12.73	16.44	19.77	21.74
20°														
PRESSURE DROP (PSI)								PRESSURE DROP (PSI)						
0.5	1	2	3	5	8	10		0.5	1	2	3	5	8	10
ESR 12	2.27	3.21	4.55	5.57	7.19	8.58	9.47	2.01	2.85	4.02	4.93	6.36	7.52	8.27
ESR 20	4.35	6.15	8.7	10.66	13.76	16.21	17.72	3.84	5.43	7.68	9.41	11.56	14.04	15.27
0°														
PRESSURE DROP (PSI)								PRESSURE DROP (PSI)						
0.5	1	2	3	5	8	10		0.5	1	2	3	5	8	10
ESR 12	1.77	2.51	3.55	4.34	5.32	6.53	7.15	1.55	2.20	3.10	3.80	4.60	5.61	6.12
ESR 20	3.37	4.77	6.74	8.26	10.0	12.03	12.99	2.94	4.16	5.89	7.21	8.56	10.16	10.87
-20°														
PRESSURE DROP (PSI)								PRESSURE DROP (PSI)						
0.5	1	2	3	5	8	10		0.5	1	2	3	5	8	10
ESR 12	1.35	1.91	2.70	3.15	3.94	4.76	5.15	1.16	1.64	2.33	2.68	3.33	3.97	4.25
ESR 20	2.55	3.61	5.1	5.9	7.24	8.43	8.89	2.2	3.11	4.39	4.98	6.02	6.83	7.06

R-134a														
EVAPORATOR TEMPERATURE														
45°								35°						
PRESSURE DROP (PSI)								PRESSURE DROP (PSI)						
0.5	1	2	3	5	8	10		0.5	1	2	3	5	8	10
ESR 12	2.79	3.95	5.59	6.84	8.41	10.36	11.38	2.49	3.52	4.98	6.10	7.43	9.10	9.94
ESR 20	5.44	7.69	10.87	13.31	16.29	19.74	21.43	4.84	6.84	9.68	11.85	14.29	17.14	18.46
20°														
PRESSURE DROP (PSI)								PRESSURE DROP (PSI)						
0.5	1	2	3	5	8	10		0.5	1	2	3	5	8	10
ESR 12	2.08	2.94	4.15	4.85	6.08	7.34	7.95	1.83	2.58	3.66	4.22	5.25	6.27	6.73
ESR 20	4.03	5.7	8.07	9.37	11.54	13.53	14.34	3.55	5.02	7.1	8.11	9.85	11.3	11.77
0°														
PRESSURE DROP (PSI)								PRESSURE DROP (PSI)						
0.5	1	2	3	5	8	10		0.5	1	2	3	5	8	10
ESR 12	1.60	2.26	3.04	3.64	4.48	5.26	5.57							
ESR 20	3.11	4.39	5.87	6.93	8.28	9.19	9.32							

Thermal Expansion Valves
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Temperature Pressure Controls
Competitive Cross Reference

ESR Extended Capacities in Tons (at 800 steps full open)

R-12														
EVAPORATOR TEMPERATURE														
45°							35°							
PRESSURE DROP (PSI)							PRESSURE DROP (PSI)							
0.5	1	2	3	5	8	10	0.5	1	2	3	5	8	10	
ESR 12	2.5	3.6	5.1	6.2	8.0	10.2	11.4	2.3	3.3	4.6	5.6	7.3	9.2	10.3
ESR 20	4.9	7.0	9.9	12.1	15.6	19.7	22.1	4.5	6.3	9.0	11.0	14.2	17.9	20.0
20°							10°							
PRESSURE DROP (PSI)							PRESSURE DROP (PSI)							
0.5	1	2	3	5	8	10	0.5	1	2	3	5	8	10	
ESR 12	2.0	2.8	4.0	4.8	6.3	7.9	8.9	1.8	2.5	3.5	4.3	5.6	7.1	7.9
ESR 20	3.9	5.4	7.7	9.4	12.2	15.4	17.2	3.4	4.9	6.9	8.4	10.8	13.7	15.3
0°							-10°							
PRESSURE DROP (PSI)							PRESSURE DROP (PSI)							
0.5	1	2	3	5	8	10	0.5	1	2	3	5	8	10	
ESR 12	1.5	2.2	3.1	3.8	4.9	6.2	6.9	1.4	1.9	2.7	3.1	4.3	5.5	6.1
ESR 20	3.0	4.3	6.0	7.4	9.5	12.0	13.5	2.7	3.8	5.3	6.5	8.4	10.6	11.9
-20°							-30°							
PRESSURE DROP (PSI)							PRESSURE DROP (PSI)							
0.5	1	2	3	5	8	10	0.5	1	2	3	5	8	10	
ESR 12	1.2	1.7	2.4	2.9	3.8	4.8	5.3	1.0	1.5	2.1	2.6	3.3	4.2	4.7
ESR 20	2.3	3.3	4.6	5.7	7.3	9.2	10.3	2.0	2.9	4.1	5.0	6.4	8.1	9.1
R-502														
EVAPORATOR TEMPERATURE														
45°							35°							
PRESSURE DROP (PSI)							PRESSURE DROP (PSI)							
0.5	1	2	3	5	8	10	0.5	1	2	3	5	8	10	
ESR 12	4.0	5.6	7.9	9.7	12.5	15.8	17.7	3.8	5.3	7.6	9.3	12.0	15.1	16.9
ESR 20	7.7	10.9	15.4	18.9	24.3	30.8	34.4	7.4	10.4	14.7	18.0	23.2	29.4	32.9
20°							10°							
PRESSURE DROP (PSI)							PRESSURE DROP (PSI)							
0.5	1	2	3	5	8	10	0.5	1	2	3	5	8	10	
ESR 12	3.1	4.3	6.1	7.5	9.7	12.2	13.7	2.7	3.9	5.5	6.7	8.7	10.9	12.2
ESR 20	6.0	8.4	11.9	14.6	18.8	23.8	26.6	5.3	7.5	10.6	13.0	16.8	21.3	23.8
0°							-10°							
PRESSURE DROP (PSI)							PRESSURE DROP (PSI)							
0.5	1	2	3	5	8	10	0.5	1	2	3	5	8	10	
ESR 12	2.4	3.5	4.9	6.0	7.7	9.8	10.9	2.2	3.1	4.3	5.3	6.8	8.6	9.7
ESR 20	4.8	6.7	9.5	11.7	15.1	19.0	21.3	4.2	5.9	8.4	10.3	13.3	16.8	18.8
-20°							-30°							
PRESSURE DROP (PSI)							PRESSURE DROP (PSI)							
0.5	1	2	3	5	8	10	0.5	1	2	3	5	8	10	
ESR 12	1.9	2.6	3.7	4.6	5.9	7.5	8.4	1.6	2.3	3.2	4.0	5.1	6.5	7.2
ESR 20	3.6	5.1	7.3	8.9	11.5	14.6	16.3	3.2	4.5	6.3	7.7	10.0	12.6	14.1
R-407C														
EVAPORATOR TEMPERATURE														
45°							35°							
PRESSURE DROP (PSI)							PRESSURE DROP (PSI)							
0.5	1	2	3	5	8	10	0.5	1	2	3	5	8	10	
ESR 12	4.0	5.6	7.9	9.7	12.5	15.8	17.7	3.8	5.3	7.6	9.3	12.0	15.1	16.9
ESR 20	7.7	10.9	15.4	18.9	24.3	30.8	34.4	7.4	10.4	14.7	18.0	23.2	29.4	32.9
20°							10°							
PRESSURE DROP (PSI)							PRESSURE DROP (PSI)							
0.5	1	2	3	5	8	10	0.5	1	2	3	5	8	10	
ESR 12	3.1	4.3	6.1	7.5	9.7	12.2	13.7	2.7	3.9	5.5	6.7	8.7	10.9	12.2
ESR 20	6.0	8.4	11.9	14.6	18.8	23.8	26.6	5.3	7.5	10.6	13.0	16.8	21.3	23.8
0°							-10°							
PRESSURE DROP (PSI)							PRESSURE DROP (PSI)							
0.5	1	2	3	5	8	10	0.5	1	2	3	5	8	10	
ESR 12	2.4	3.5	4.9	6.0	7.7	9.8	10.9	2.2	3.1	4.3	5.3	6.8	8.6	9.7
ESR 20	4.8	6.7	9.5	11.7	15.1	19.0	21.3	4.2	5.9	8.4	10.3	13.3	16.8	18.8
-20°							-30°							
PRESSURE DROP (PSI)							PRESSURE DROP (PSI)							
0.5	1	2	3	5	8	10	0.5	1	2	3	5	8	10	
ESR 12	1.9	2.6	3.7	4.6	5.9	7.5	8.4	1.6	2.3	3.2	4.0	5.1	6.5	7.2
ESR 20	3.6	5.1	7.3	8.9	11.5	14.6	16.3	3.2	4.5	6.3	7.7	10.0	12.6	14.1

IPR-6 Extended Capacity Tables in Tons – Suction Gas

TYPE & ADJUSTMENT RANGE	EVAP. TEMP. °F	SATURATION PRESSURE PSIG			R134a				R22				R404A/R507			
		R-134A	R-22	R404A/R-507	PRESSURE DROP ACROSS VALVE – PSI											
		2	5	10	20	2	5	10	20	2	5	10	20	2	5	10
IPR-6 0/50 or 30/100 psig	40	35.0	68.5	85.7	0.94	1.35	1.57	1.57	1.2	2.0	3.0	4.4	1.11	1.67	2.18	2.56
	30	26.1	54.9	69.7	0.82	1.15	1.26	1.26	1.1	1.8	2.7	3.8	0.98	1.47	1.88	2.10
	20	18.4	43.0	55.7	0.72	0.96	1.00	1.00	1.0	1.6	2.4	3.3	0.87	1.28	1.60	1.70
	10	12.0	36.8	43.5	0.61	0.78	0.79	0.79	0.9	1.4	2.1	2.7	0.75	1.10	1.33	1.36
	0	6.5	24.0	33.0	0.52	0.62	0.62	0.62	0.8	1.2	1.8	2.2	0.66	0.93	1.07	1.07
	-10	2.0	16.5	24.0	0.43	0.48	0.48	0.48	0.7	1.1	1.5	1.8	0.57	0.78	0.84	0.84
	-20	-	-	10.1	16.3	-	-	-	-	0.6	0.9	1.2	1.4	0.48	0.64	0.66

IPR-6 Extended Capacity Tables in Tons – Suction Gas

TYPE & ADJUSTMENT RANGE	EVAP. TEMP. °F	SATURATION PRESSURE PSIG			R12				R407C				R502			
		R-12	R-407C	R-502	PRESSURE DROP ACROSS VALVE – PSI											
		2	5	10	20	2	5	10	20	2	5	10	20	2	5	10
IPR-6 0/50 or 30/100 psig	40	37	61.7	80.2	0.8	1.4	2	2.7	1.3	2.1	3.2	4.6	0.9	1.5	2.3	3.5
	30	28.4	48.4	65.4	0.8	1.2	1.7	2.2	1.0	1.7	2.6	3.6	0.8	1.3	2	3
	20	21	36.9	52.4	0.7	1.1	1.5	1.8	0.9	1.4	2.0	2.8	0.7	1.2	1.8	2.5
	10	14.6	27.1	41.1	0.6	0.9	1.2	1.5	0.7	1.1	1.6	2.1	0.6	1	1.5	2.1
	0	9.2	18.9	31.2	0.5	0.8	1	1.2	0.5	0.8	1.2	1.5	0.5	0.9	1.3	1.7
	-10	4.5	11.9	22.8	0.5	0.6	0.8		0.4	0.7	0.9	1.1	0.5	0.8	1.1	1.4
	-20	0.6	6.17	15.5	0.4	0.5	0.6		0.3	0.5	0.6	0.7	0.4	0.6	0.9	1.1

IPR-10 Extended Capacity Tables in Tons – Suction Gas

TYPE & ADJUSTMENT RANGE	EVAP. TEMP. °F	SATURATION PRESSURE PSIG			R134a				R22				R404A/R507			
		R-134a	R-22	R-404A/R-507	PRESSURE DROP ACROSS VALVE – PSI											
		2	5	10	20	2	5	10	20	2	5	10	20	2	5	10
IPR-10 0/50 or 30/100 psig	40	35	68.5	85.7	2.2	3.1	3.6	4.8	3.0	4.8	6.9	9.5	2.5	3.8	5.0	5.9
	30	26.1	54.9	69.7	1.9	2.6	2.9	3.7	2.7	4.3	6.1	8.3	2.3	3.4	4.3	4.8
	20	18.4	43	55.7	1.7	2.2	2.3	2.8	2.4	3.8	5.4	7.2	2.0	2.9	3.7	3.9
	10	12	36.8	43.5	1.4	1.8	1.8	2.3	2.1	3.3	4.7	5.9	1.7	2.5	3.1	3.1
	0	6.5	24	33	1.2	1.4	1.4	1.6	1.9	2.9	4.0	4.8	1.5	2.1	2.5	2.5
	-10	2	16.5	24	1.0	1.1	1.1	0.0	1.6	2.5	3.3	3.9	1.3	1.8	1.9	1.9
	-20		10.1	16.3	0.0	0.0	0.0	0.0	1.4	2.1	2.7	3.0	1.1	1.5	1.5	1.5

IPR-10 Extended Capacity Tables in Tons – Suction Gas

TYPE & ADJUSTMENT RANGE	EVAP. TEMP. °F	SATURATION PRESSURE PSIG			R12				R407C				R502			
		R-12	R-407C	R-502	PRESSURE DROP ACROSS VALVE – PSI											
		2	5	10	20	2	5	10	20	2	5	10	20	2	5	10
IPR-10 0/50 or 30/100 psig	40	37	61.7	80.2	2	3.2	4.5	5.8	3.2	5.0	7.2	10.0	2.2	3.5	5.3	7.5
	30	28.4	48.4	65.4	1.8	2.9	3.9	4.8	2.6	4.1	5.8	7.9	2	3.1	4.6	6.5
	20	21	36.9	52.4	1.6	2.5	3.3	3.9	2.0	3.2	4.6	6.1	1.8	2.8	4	5.5
	10	14.6	27.1	41.1	1.4	2.2	2.8	3.2	1.6	2.5	3.6	4.5	1.5	2.4	3.5	4.6
	0	9.2	18.9	31.2	1.2	1.9	2.3	2.5	1.3	2.0	2.7	3.3	1.3	2.1	3	3.7
	-10	4.5	11.9	22.8	1.1	1.5	1.8		1.0	1.5	2.0	2.3	1.1	1.8	2.5	3
	-20	0.6	6.17	15.5	0.9	1.2	1.3		0.7	1.1	1.4	1.6	0.9	1.5	2	2.3

Thermal Expansion Valves
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Industrial Solenoid Valves
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Oil Controls
Pressure Regulators
Temperature Pressure Controls
Competitive Cross Reference

Regulators Extended Capacities in Tons

OPR-6, -10 Extended Capacity Tables in Tons R-12 – Suction Gas

TYPE & ADJUSTMENT RANGE	EVAPORATOR TEMP. °F	R-12 SATURATED SUCTION PRESSURE PSIG	1/2 PSI DROP						1 PSI DROP						2 PSI DROP					
			VALVE SET POINT – PSIG																	
			10	20	30	40	50	60	10	20	30	40	50	60	10	20	30	40	50	60
OPR-6 0-60, 20-90, or 50-130 psig	30	28.5			0.27	0.48	0.68	0.89			0.63	0.67	0.96	1.25			0.50	0.91	1.32	1.74
	20	21.1			0.38	0.57	0.75	0.93			0.53	0.79	1.05	1.30			0.71	1.08	1.45	1.82
	10	14.7		0.28	0.44	0.61	0.77	0.83		0.38	0.62	0.85	1.08	1.17		0.50	0.84	1.17	1.49	1.61
	0	9.2	0.18	0.33	0.47	0.62	0.74	0.74	0.24	0.45	0.65	0.86	1.03	1.03	0.30	0.60	0.88	1.18	1.41	17.85
	-10	4.5	0.22	0.35	0.47	0.60	0.64	0.64	0.29	0.47	0.65	0.83	0.90	0.90	0.38	0.63	0.88	1.14	1.23	1.05
OPR-10 0-60, 20-90, or 50-130 psig	30	28.5			0.20	1.48	2.26	2.26			0.28	2.09	3.19	3.19			0.39	2.94	4.49	4.49
	20	21.1			1.03	2.02	2.02	2.02			1.45	2.86	2.86	2.86			2.04	4.02	4.02	4.02
	10	14.7		0.55	1.58	1.80	1.80	1.80		0.78	2.23	2.54	2.54	2.54		1.08	3.12	3.58	3.58	3.58
	0	9.2	0.08	0.99	1.60	1.60	1.60	1.60	0.11	1.39	2.25	2.25	2.25	2.25	0.14	1.94	3.17	3.17	3.17	3.17
	-10	4.5	0.44	1.24	1.41	1.41	1.41	1.41	0.62	1.74	1.98	1.98	1.98	1.98	0.86	2.45	2.78	2.78	2.78	2.78

OPR-6, -10 Extended Capacity Tables in Tons R-22 – Suction Gas

TYPE & ADJUSTMENT RANGE	EVAPORATOR TEMP. °F	R-22 SATURATED SUCTION PRESSURE PSIG	1/2 PSI DROP						1 PSI DROP						2 PSI DROP							
			VALVE SET POINT – PSIG																			
			10	20	30	40	50	60	10	20	30	40	50	60	10	20	30	40	50	60		
OPR-6 0-60, 20-90, or 50-130 psig	30	54.9						0.53						0.74						1.01		
	20	43.1						0.53	0.80					0.74	1.12					1.01	1.55	
	10	32.8				0.47	0.72	0.97					0.66	1.01	1.37					0.90	1.40	1.90
	0	24			0.40	0.62	0.84	1.06				0.55	0.86	1.18	1.49			0.75	1.19	1.63	2.07	
	-10	16.5		0.30	0.49	0.69	0.88	1.00		0.41	0.69	0.97	1.24	1.41		0.55	0.95	1.33	1.73	1.94		
	-20	10.2		0.38	0.55	0.72	0.88	0.88		0.51	0.76	1.01	1.24	1.24						1.70	1.70	
OPR-10 0-60, 20-90, or 50-130 psig	30	54.9						0.98						1.38						1.27	1.27	
	20	43.1						1.20	2.92					1.69	4.13					2.38	5.83	
	10	32.8				1.11	2.67	2.73					1.58	4.04	3.85					2.22	5.31	5.44
	0	24			0.83	2.22	2.44	2.44				1.17	3.13	3.44	3.44			1.65	4.41	4.86	4.86	
	-10	16.5		0.43	1.66	2.17	2.17	2.17		0.61	2.34	3.07	3.07	3.07		0.84	3.31	4.32	4.32	4.32		
	-20	10.2		1.07	1.92	1.92	1.92	1.92		1.50	2.71	2.71	2.71	2.71		2.11	3.81	3.81	3.81	3.81		
-40	0.6	0.79	1.47	1.47	1.47	1.47	1.47	1.11	2.08	2.08	2.08	2.08	2.08	1.55	2.92	2.92	2.92	2.92	2.92			

OPR-6, -10 Extended Capacity Tables in Tons R-134a – Suction Gas

TYPE & ADJUSTMENT RANGE	EVAPORATOR TEMP. °F	R-134a SATURATED SUCTION PRESSURE PSIG	1/2 PSI DROP						1 PSI DROP						2 PSI DROP					
			VALVE SET POINT – PSIG																	
			10	20	30	40	50	60	10	20	30	40	50	60	10	20	30	40	50	60
OPR-6 0-60, 20-90, or 50-130 psig	30	26.1			0.37	0.59	0.82	1.06			0.50	0.83	1.16	1.48			0.67	1.13	1.60	2.06
	20	18.4		0.27	0.47	0.68	0.88	1.04		0.37	0.66	0.95	1.24	1.45		0.49	0.89	1.30	1.71	2.02
	10	12		0.36	0.54	0.71	0.89	0.91		0.48	0.75	1.00	1.25	1.27		0.65	1.00	1.37	1.72	1.75
	0	6.5	0.23	0.39	0.55	0.70	0.80	0.80	0.32	0.54	0.77	0.99	1.10	1.10	0.40	0.71	1.03	1.34	1.52	1.52
	-10	2	0.26	0.40	0.54	0.67	0.68	0.68	0.36	0.55	0.75	0.93	0.96	0.96	0.45	0.72	1.00	1.27	1.30	1.30
OPR-10 0-60, 20-90, or 50-130 psig	30	26.1			0.57	2.01	2.53	2.53			0.80	2.84	3.59	3.59			1.12	4.00	5.05	5.05
	20	18.4		0.21	1.48	2.24	2.24	2.24		0.28	2.08	3.17	3.17	3.17		0.39	2.93	4.46	4.46	4.46
	10	12		0.90	1.97	1.97	1.97	1.97		1.27	2.78	2.78	2.78	2.78		1.79	3.93	3.93	3.93	3.93
	0	6.5	0.35	1.32	1.72	1.72	1.72	1.72	0.48	1.87	2.44	2.44	2.44	2.44	0.66	2.63	3.42	3.42	3.42	3.42
	-10	2	0.68	1.50	1.50	1.50	1.50	1.50	0.97	2.12	2.12	2.12	2.12	2.12	1.34	2.97	2.97	2.97	2.97	2.97

OPR-6, -10 Extended Capacity Tables in Tons R-502 – Suction Gas

TYPE & ADJUSTMENT RANGE	EVAPORATOR TEMP. °F	R-502 SATURATED SUCTION PRESSURE PSIG	1/2 PSI DROP						1 PSI DROP						2 PSI DROP						
			VALVE SET POINT – PSIG																		
			10	20	30	40	50	60	10	20	30	40	50	60	10	20	30	40	50	60	
OPR-6 0-60, 20-90, or 50-130 psig	20	52.5						0.42						0.59						0.82	
	10	41						0.40	0.60					0.57	0.84					0.78	1.16
	0	31.1				0.36	0.53	0.69				0.49	0.74	0.98				0.67	1.02	1.35	
	-10	22.6		0.29	0.44	0.59	0.74			0.40	0.62	0.83	1.04			0.55	0.84	1.14	1.44		
	-20	15.3	0.22	0.35	0.48	0.61	0.67	0.29	0.48	0.67	0.85	0.93	0.39	0.65	0.92	1.19	1.19	1.29			
OPR-10 0-60, 20-90, or 50-130 psig	20	52.5						1.02						1.45						2.04	
	10	41						1.08	2.11					1.53	2.99					2.16	4.22
	0	31.1				0.96	1.87	1.87					1.34	2.65	2.65				1.89	3.74	3.74
	-10	22.6		0.70	1.64	1.65	1.65		0.00	0.99	2.31	2.33	2.33			1.39	3.27	3.29	3.29		
	-20	15.3	0.39	1.21	1.45	1.45	1.45	0.00	0.55	1.70	2.05	2.05	2.05	0.77	2.40	2.88	2.88	2.88	2.88		

OPR-6, -10 Extended Capacity Tables in Tons R-404A – Suction Gas

TYPE & ADJUSTMENT RANGE	EVAPORATOR TEMP. °F	R-404A SATURATED SUCTION PRESSURE PSIG	1/2 PSI DROP						1 PSI DROP						2 PSI DROP					
			VALVE SET POINT – PSIG																	
			10	20	30	40	50	60	10	20	30	40	50	60	10	20	30	40	50	60
OPR-6 0-60, 20-90, or 50-130 psig	20	55.7					0.38						0.53						0.71	
	10	43.5					0.40						0.55						0.76	
	0	33				0.35	0.54				0.47	0.75	0.99				0.65	1.04	1.37	
	-10	24			0.28	0.44	0.61	0.76			0.39	0.62	0.85	1.06			0.54	0.85	1.19	1.47
	-20	16.3		0.21	0.35	0.48	0.63	0.70		0.29	0.48	0.68	0.89	0.98		0.39	0.66	0.93	1.23	1.37
OPR-10 0-60, 20-90, or 50-130 psig	20	55.7					0.60						0.84						1.18	
	10	43.5					0.92	2.09					1.30	2.96					1.84	
	0	33				0.80	2.01	2.01				1.12	2.82	2.82			1.59	3.99	3.99	
	-10	24			0.61	1.59	1.75	1.75			0.85	2.25	2.47	2.47		1.20	3.16	3.49	3.49	
	-20	16.3		0.32	1.19	1.52	1.52	1.52		0.45	1.67	2.14	2.14	2.14		0.62	2.35	3.02	3.02	3.02

OPR-6, -10 Extended Capacity Tables in Tons R-407C – Suction Gas

TYPE & ADJUSTMENT RANGE	EVAPORATOR TEMP. °F	R-407C SATURATED SUCTION PRESSURE PSIG	1/2 PSI DROP						1 PSI DROP						2 PSI DROP					
			VALVE SET POINT – PSIG																	
			10	20	30	40	50	60	10	20	30	40	50	60	10	20	30	40	50	60
OPR-6 0-60, 20-90, or 50-130 psig	30	63.1					0.53						0.74						1.01	
	20	51.6					0.53	0.80					0.74	1.12					1.01	
	10	41.8				0.47	0.72	0.97				0.66	1.01	1.37				0.90	1.40	
	0	33.6			0.40	0.62	0.84	1.06			0.55	0.86	1.18	1.49			0.75	1.19	1.63	
	-10	26.7		0.30	0.49	0.69	0.88	1.00		0.41	0.69	0.97	1.24	1.41		0.55	0.95	1.33	1.73	
OPR-10 0-60, 20-90, or 50-130 psig	30	63.1					0.98						1.38						1.93	
	20	51.6					1.20	2.92					1.69	4.13					2.38	
	10	41.8				1.11	2.67	2.73				1.58	4.04	3.85			2.22	5.31	5.44	
	0	33.6			0.83	2.22	2.44	2.44			1.17	3.13	3.44	3.44			1.65	4.41	4.86	
	-10	26.7		0.43	1.66	2.17	2.17	2.17		0.61	2.34	3.07	3.07	3.07		0.84	3.31	4.32	4.32	

OPR-6, -10 Extended Capacity Tables in Tons R-507 – Suction Gas

TYPE & ADJUSTMENT RANGE	EVAPORATOR TEMP. °F	R-507 SATURATED SUCTION PRESSURE PSIG	1/2 PSI DROP						1 PSI DROP						2 PSI DROP					
			VALVE SET POINT – PSIG																	
			10	20	30	40	50	60	10	20	30	40	50	60	10	20	30	40	50	60
OPR-6 0-60, 20-90, or 50-130 psig	10	46.2					0.32	0.53					0.44	0.75					0.61	
	0	35.2				0.30	0.47	0.66				0.42	0.66	0.92				0.57	0.91	
	-10	25.8			0.25	0.41	0.57	0.72			0.35	0.57	0.79	1.02			0.47	0.79	1.09	
	-20	17.8			0.33	0.46	0.60	0.69			0.45	0.65	0.84	0.98			0.62	0.89	1.16	
	-40	5.5	0.16	0.26	0.37	0.46	0.51	0.51	0.22	0.37	0.50	0.65	0.71	0.71	0.27	0.48	0.68	0.89	0.98	
OPR-10 0-60, 20-90, or 50-130 psig	10	46.2					0.46	1.79					0.66	2.52					0.92	
	0	35.2				0.55	1.64	1.97				0.77	2.31	2.79				1.08	3.26	
	-10	25.8			0.41	1.40	1.73	1.73			0.58	1.97	2.45	2.45			0.81	2.78	3.45	
	-20	17.8			1.04	1.51	1.51	1.51			1.47	2.13	2.13	2.13			2.07	3.00	3.00	
	-40	5.5	0.28	0.92	1.11	1.11	1.11	1.11	0.39	1.30	1.58	1.58	1.58	1.58	0.55	1.84	2.22	2.22	2.22	

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Regulators Extended Capacities in Tons

EPRB(S) Extended Capacity Tables

R-134a	EVAPORATOR TEMPERATURE																							
	+ 45°F					+ 35°F					+ 25°F					+ 20°F								
	PRESSURE DROP ACROSS VALVE – PSI																							
VALVE	.5	1	2	3	4	5	.5	1	2	3	4	5	.5	1	2	3	4	5	.5	1	2	3	4	5
EPRBS 12T9	1.75	2.52	3.61	4.44	5.14	5.60	1.55	2.24	3.20	3.95	4.48	4.86	1.37	1.97	2.83	3.49	3.87	4.17	1.28	1.85	2.66	3.22	3.58	3.83
EPRBS 16T11	3.09	4.44	6.35	7.82	9.06	9.90	2.74	3.94	5.64	6.95	7.91	8.63	2.41	3.48	4.99	6.15	6.86	7.45	2.26	3.26	4.68	5.70	6.37	6.88
EPRBS 20T13	5.76	8.28	11.85	14.59	16.90	18.16	5.11	7.35	10.53	12.97	14.49	16.00	4.50	6.49	9.31	11.47	12.71	13.98	4.21	6.08	8.73	10.45	11.86	13.03

R-134a	EVAPORATOR TEMPERATURE																							
	+ 15°F					+ 10°F					+ 5°F					0°F								
	PRESSURE DROP ACROSS VALVE – PSI																							
VALVE	.5	1	2	3	4	5	.5	1	2	3	4	5	.5	1	2	3	4	5	.5	1	2	3	4	5
EPRBS 12T9	1.20	1.73	2.49	2.99	3.29	3.51	1.12	1.62	2.33	2.76	3.02	3.20	1.04	1.51	2.19	2.53	2.76	2.89	0.97	1.41	2.02	2.32	2.50	2.60
EPRBS 16T11	2.11	3.05	4.38	5.29	5.89	6.34	1.97	2.85	4.10	4.90	5.42	5.80	1.84	2.66	3.86	4.52	4.97	5.29	1.71	2.48	3.57	4.15	4.54	4.79
EPRBS 20T13	3.94	5.70	8.18	9.75	11.04	12.11	3.68	5.32	7.65	9.08	10.26	11.22	3.43	4.97	7.05	8.43	9.50	10.36	3.19	4.63	6.55	7.81	8.78	9.53

R-22	EVAPORATOR TEMPERATURE																							
	+ 45°F					+ 35°F					+ 20°F					+ 10°F								
	PRESSURE DROP ACROSS VALVE – PSI																							
VALVE	.5	1	2	3	4	5	.5	1	2	3	4	5	.5	1	2	3	4	5	.5	1	2	3	4	5
EPRBS 12T9	2.29	3.29	4.69	5.77	6.68	7.49	2.07	2.97	4.25	5.23	6.06	6.78	1.76	2.54	3.63	4.47	5.18	5.81	1.58	2.27	3.25	4.01	4.64	5.02
EPRBS 16T11	4.04	5.79	8.27	10.17	11.77	13.19	3.65	5.24	7.49	9.21	10.67	11.95	3.11	4.47	6.40	7.88	9.13	10.23	2.78	4.00	5.73	7.06	8.18	8.89
EPRBS 20T13	7.53	10.80	15.42	18.97	21.97	24.60	6.81	9.77	13.97	17.19	19.90	22.29	5.80	8.34	11.94	14.70	17.03	19.08	5.18	7.46	10.69	13.17	15.26	16.38

R-22	EVAPORATOR TEMPERATURE																							
	0°F					- 10°F					- 20°F					- 30°F								
	PRESSURE DROP ACROSS VALVE – PSI																							
VALVE	.5	1	2	3	4	5	.5	1	2	3	4	5	.5	1	2	3	4	5	.5	1	2	3	4	5
EPRBS 12T9	1.40	2.02	2.90	3.57	4.02	4.35	1.24	1.79	2.57	3.13	3.47	3.72	1.08	1.57	2.26	2.68	2.94	3.11	0.94	1.37	1.97	2.26	2.44	2.53
EPRBS 16T11	2.47	3.56	5.11	6.29	7.12	7.75	2.18	3.15	4.52	5.53	6.18	6.68	1.91	2.77	3.98	4.77	5.28	5.65	1.66	2.42	3.49	4.05	4.43	4.66
EPRBS 20T13	4.60	6.64	9.53	11.74	13.11	14.45	4.06	5.87	8.44	10.14	11.50	12.64	3.56	5.16	7.43	8.85	10.00	10.93	3.10	4.51	6.42	7.64	8.58	9.31

R-404A/ R-507	EVAPORATOR TEMPERATURE																							
	+ 45°F					+ 35°F					+ 20°F					+ 10°F								
	PRESSURE DROP ACROSS VALVE – PSI																							
VALVE	.5	1	2	3	4	5	.5	1	2	3	4	5	.5	1	2	3	4	5	.5	1	2	3	4	5
EPRBS 12T9	1.95	2.79	3.98	4.90	5.66	6.34	1.74	2.49	3.56	4.38	5.06	5.67	1.45	2.09	2.98	3.67	4.25	4.76	1.28	1.84	2.63	3.24	3.75	4.11
EPRBS 16T11	3.44	4.92	7.01	8.62	9.98	11.17	3.07	4.39	6.27	7.71	8.92	9.99	2.56	3.67	5.25	6.46	7.48	8.38	2.26	3.24	4.64	5.71	6.61	7.26
EPRBS 20T13	6.41	9.18	13.09	16.09	18.62	20.84	5.72	8.19	11.69	14.38	16.64	18.64	4.78	6.86	9.80	12.05	13.96	15.63	4.21	6.05	8.66	10.65	12.34	13.29

R-404A/ R-507	EVAPORATOR TEMPERATURE																							
	0°F					- 10°F					- 20°F					- 30°F								
	PRESSURE DROP ACROSS VALVE – PSI																							
VALVE	.5	1	2	3	4	5	.5	1	2	3	4	5	.5	1	2	3	4	5	.5	1	2	3	4	5
EPRBS 12T9	1.12	1.62	2.32	2.85	3.30	3.54	0.98	1.41	2.02	2.49	2.78	3.01	0.85	1.22	1.76	2.12	2.35	2.51	0.73	1.06	1.52	1.78	1.95	2.05
EPRBS 16T11	1.98	2.85	4.08	5.02	5.82	6.28	1.73	2.49	3.56	4.39	4.93	5.36	1.49	2.16	3.10	3.75	4.19	4.52	1.29	1.86	2.67	3.17	3.50	3.74
EPRBS 20T13	3.69	5.31	7.61	9.37	10.86	11.59	3.22	4.64	6.65	8.20	9.10	10.03	2.79	4.03	5.78	6.90	7.83	8.59	2.40	3.47	4.99	5.90	6.66	7.27

Regulators Extended Capacities in Tons

EPRB(S) Extended Capacity Tables

R-12	EVAPORATOR TEMPERATURE																							
	+ 45°F					+ 35°F					+ 20°F					+ 10°F								
	PRESSURE DROP ACROSS VALVE - PSI																							
VALVE	.5	1	2	3	4	5	.5	1	2	3	4	5	.5	1	2	3	4	5	.5	1	2	3	4	5
EPRBS 12T9	1.60	2.30	3.28	4.04	4.68	5.24	1.3	1.9	2.7	3.3	3.9	4.3	1.0	1.4	2.0	2.5	2.8	3.2	0.8	1.1	1.6	2.0	2.3	2.5
EPRBS 16T11	2.83	4.05	5.79	7.12	8.24	9.23	2.3	3.4	4.8	5.9	6.8	7.6	1.7	2.5	3.5	4.3	5.0	5.6	1.4	2.0	2.8	3.5	4.0	4.4
EPRBS 20T13	5.27	7.56	10.79	13.28	15.38	17.22	4.4	6.3	8.9	11.0	12.7	14.3	3.2	4.6	6.6	8.1	9.4	10.5	2.5	3.7	5.2	6.5	7.5	8.0

R-12	EVAPORATOR TEMPERATURE																							
	0°F					-10°F					-20°F					-30°F								
	PRESSURE DROP ACROSS VALVE - PSI																							
VALVE	.5	1	2	3	4	5	.5	1	2	3	4	5	.5	1	2	3	4	5	.5	1	2	3	4	5
EPRBS 12T9	0.6	0.9	1.2	1.5	1.7	1.9	0.5	0.7	1.0	1.2	1.3	1.4	0.4	0.5	0.7	0.9	1.0	1.0	0.3	0.4	0.6	0.7	0.7	0.7
EPRBS 16T11	1.1	1.5	2.2	2.7	3.1	3.3	0.8	1.2	1.7	2.1	2.3	2.5	0.6	0.9	1.3	1.6	1.7	1.9	0.5	0.7	1.0	1.2	1.3	1.4
EPRBS 20T13	2.0	2.9	4.1	5.0	5.6	6.2	1.5	2.2	3.2	3.9	4.4	4.8	1.2	1.7	2.5	2.9	3.3	3.6	0.9	1.3	1.9	2.2	2.5	2.7

R-407C	EVAPORATOR TEMPERATURE																							
	+ 45°F					+ 35°F					+ 20°F					+ 10°F								
	PRESSURE DROP ACROSS VALVE - PSI																							
VALVE	.5	1	2	3	4	5	.5	1	2	3	4	5	.5	1	2	3	4	5	.5	1	2	3	4	5
EPRBS 12T9	2.52	3.62	5.16	6.35	7.35	8.24	2.1	3.0	4.3	5.2	6.1	6.8	1.5	2.2	3.1	3.8	4.4	4.9	1.2	1.7	2.5	3.0	3.5	3.8
EPRBS 16T11	4.44	6.37	9.10	11.19	12.95	14.51	3.7	5.2	7.5	9.2	10.7	12.0	2.6	3.8	5.4	6.7	7.8	8.7	2.1	3.0	4.4	5.4	6.2	6.8
EPRBS 20T13	8.28	11.88	16.96	20.87	24.17	27.06	6.8	9.8	14.0	17.2	19.9	22.3	4.9	7.1	10.1	12.5	14.5	16.2	3.9	5.7	8.1	10.0	11.6	12.4

R-407C	EVAPORATOR TEMPERATURE																							
	0°F					- 10°F					- 20°F					- 30°F								
	PRESSURE DROP ACROSS VALVE - PSI																							
VALVE	.5	1	2	3	4	5	.5	1	2	3	4	5	.5	1	2	3	4	5	.5	1	2	3	4	5
EPRBS 12T9	1.0	1.4	2.0	2.4	2.7	3.0	0.7	1.1	1.5	1.9	2.1	2.2	0.6	0.8	1.2	1.4	1.5	1.6	0.4	0.6	0.9	1.0	1.1	1.1
EPRBS 16T11	1.7	2.4	3.5	4.3	4.8	5.3	1.3	1.9	2.7	3.3	3.7	4.0	1.0	1.4	2.1	2.5	2.7	2.9	0.7	1.1	1.6	1.8	2.0	2.1
EPRBS 20T13	3.1	4.5	6.5	8.0	8.9	9.8	2.4	3.5	5.1	6.1	6.9	7.6	1.9	2.7	3.9	4.6	5.2	5.7	1.4	2.0	2.9	3.4	3.9	4.2

R-502	EVAPORATOR TEMPERATURE																							
	+ 45°F					+ 35°F					+ 20°F					+ 10°F								
	PRESSURE DROP ACROSS VALVE - PSI																							
VALVE	.5	1	2	3	4	5	.5	1	2	3	4	5	.5	1	2	3	4	5	.5	1	2	3	4	5
EPRBS 12T9	1.90	2.73	3.89	4.79	5.54	6.22	1.6	2.2	3.2	3.9	4.5	5.1	1.1	1.6	2.3	2.9	3.3	3.7	0.9	1.3	1.9	2.3	2.6	2.9
EPRBS 16T11	3.35	4.81	6.86	8.44	9.77	10.95	2.7	3.9	5.6	6.9	8.0	9.0	2.0	2.9	4.1	5.0	5.8	6.5	1.6	2.3	3.3	4.0	4.7	5.1
EPRBS 20T13	6.25	8.96	12.80	15.75	18.24	20.42	5.1	7.3	10.5	12.9	14.9	16.7	3.7	5.3	7.6	9.4	10.9	12.2	3.0	4.3	6.1	7.5	8.7	9.3

R-502	EVAPORATOR TEMPERATURE																							
	0°F					- 10°F					- 20°F					- 30°F								
	PRESSURE DROP ACROSS VALVE - PSI																							
VALVE	.5	1	2	3	4	5	.5	1	2	3	4	5	.5	1	2	3	4	5	.5	1	2	3	4	5
EPRBS 12T9	0.7	1.0	1.5	1.8	2.1	2.2	0.6	0.8	1.2	1.4	1.6	1.7	0.4	0.6	0.9	1.0	1.1	1.2	0.3	0.5	0.7	0.8	0.8	0.9
EPRBS 16T11	1.3	1.8	2.6	3.2	3.6	4.0	1.0	1.4	2.0	2.5	2.8	3.0	0.7	1.1	1.6	1.9	2.1	2.2	0.6	0.8	1.2	1.4	1.5	1.6
EPRBS 20T13	2.3	3.4	4.9	6.0	6.7	7.4	1.8	2.6	3.8	4.6	5.2	5.7	1.4	2.0	2.9	3.5	3.9	4.3	1.1	1.5	2.2	2.6	2.9	3.2

Thermal Expansion Valves
 Solenoid Valves
 Coils
 Industrial Solenoid Valves
 Shut Off Valves
 System Protectors
 Storage Devices
 Oil Controls
 Pressure Regulators
 Temperature Pressure Controls
 Competitive Cross Reference

Hot Gas Bypass Regulators Extended Capacities

Thermal Expansion Valves
 Solenoid Valves
 Coils
 Industrial Solenoid Valves
 Shut Off Valves
 System Protectors
 Storage Devices
 Oil Controls
 Pressure Regulators
 Temperature Pressure Controls
 Competitive Cross Reference

DGR(E) & EGR(E) Valves for R-134a in Tons

TOTAL TONS BYPASSED	COMPONENT TYPE	EVAPORATOR TEMPERATURE °F									
		40°	30°	20°	10°	0°	-10°	-20°	-30°	-40°	
1/2	BYPASS REGULATOR	EGRE6	EGRE8	EGRE8	EGRE8	EGRE8	EGRE8	EGRE8	EGRE8	DGRE12	DGRE12
	HOT GAS SOL.	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3
	LIQ. INJ. VALVE	LCL1B	LCL1B	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C
1	BYPASS REGULATOR	EGRE8	EGRE8	EGRE8	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	-
	HOT GAS SOL.	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	-
	LIQ. INJ. VALVE	LCL1B	LCL1B	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C	-
2	BYPASS REGULATOR	DGRE12	DGRE12	DGRE12	DGRE12	-	-	-	-	-	-
	HOT GAS SOL.	200RB5	200RB5	200RB5	200RB5	-	-	-	-	-	-
	LIQ. INJ. VALVE	LCL2B	LCL2B	LCL2C	LCL2C	-	-	-	-	-	-
3	BYPASS REGULATOR	DGRE12	DGRE12	-	-	-	-	-	-	-	-
	HOT GAS SOL.	200RB6	200RB6	-	-	-	-	-	-	-	-
	LIQ. INJ. VALVE	LCL2B	LCL2B	-	-	-	-	-	-	-	-

DGR(E) & EGR(E) Valves for R-22 in Tons

TOTAL TONS BYPASSED	COMPONENT TYPE	EVAPORATOR TEMPERATURE °F									
		40°	30°	20°	10°	0°	-10°	-20°	-30°	-40°	
1/2	BYPASS REGULATOR	EGRE4	EGRE4	EGRE6	EGRE6	EGRE6	EGRE6	EGRE6	EGRE6	EGRE6	EGRE8
	HOT GAS SOL.	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2
	LIQ. INJ. VALVE	LCL1A	LCL1A	LCL1B	LCL1B	LCL1B	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C
1	BYPASS REGULATOR	EGRE4	EGRE6	EGRE6	EGRE6	EGRE8	EGRE8	EGRE8	EGRE8	EGRE8	EGRE8
	HOT GAS SOL.	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3
	LIQ. INJ. VALVE	LCL1A	LCL1A	LCL1B	LCL1B	LCL1B	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C
2	BYPASS REGULATOR	EGRE8	EGRE8	EGRE8	EGRE8	EGRE8	EGRE8	DGRE12	DGRE12	DGRE12	DGRE12
	HOT GAS SOL.	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4
	LIQ. INJ. VALVE	LCL1A	LCL1A	LCL1B	LCL1B	LCL1B	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C
3	BYPASS REGULATOR	EGRE8	EGRE8	EGRE8	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	-
	HOT GAS SOL.	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	-
	LIQ. INJ. VALVE	LCL1A	LCL1A	LCL1B	LCL1B	LCL1B	LCL2C	LCL2C	LCL2C	LCL2C	-
4	BYPASS REGULATOR	EGRE8	EGRE8	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	-	-
	HOT GAS SOL.	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	-	-
	LIQ. INJ. VALVE	LCL2A	LCL2A	LCL2B	LCL2B	LCL2B	LCL2C	LCL3C	-	-	-
5	BYPASS REGULATOR	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	-	-	-	-
	HOT GAS SOL.	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6	-	-	-	-
	LIQ. INJ. VALVE	LCL2A	LCL2A	LCL2B	LCL2B	LCL2B	LCL2C	-	-	-	-
6	BYPASS REGULATOR	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	-	-	-	-	-
	HOT GAS SOL.	200RB6	200RB6	200RB6	200RB6	200RB6	-	-	-	-	-
	LIQ. INJ. VALVE	LCL2A	LCL2A	LCL2B	LCL2B	LCL2B	-	-	-	-	-
7	BYPASS REGULATOR	DGRE12	DGRE12	DGRE12	DGRE12	-	-	-	-	-	-
	HOT GAS SOL.	240RA8	240RA8	240RA8	240RA8	-	-	-	-	-	-
	LIQ. INJ. VALVE	LCL2A	LCL2A	LCL2B	LCL3B	-	-	-	-	-	-
8	BYPASS REGULATOR	DGRE12	DGRE12	DGRE12	-	-	-	-	-	-	-
	HOT GAS SOL.	240RA8	240RA8	240RA8	-	-	-	-	-	-	-
	LIQ. INJ. VALVE	LCL3A	LCL3A	LCL3B	-	-	-	-	-	-	-
9	BYPASS REGULATOR	DGRE12	DGRE12	-	-	-	-	-	-	-	-
	HOT GAS SOL.	240RA8	240RA8	-	-	-	-	-	-	-	-
	LIQ. INJ. VALVE	LCL3A	LCL3A	-	-	-	-	-	-	-	-
10	BYPASS REGULATOR	DGRE12	-	-	-	-	-	-	-	-	-
	HOT GAS SOL.	240RA8	-	-	-	-	-	-	-	-	-
	LIQ. INJ. VALVE	LCL3A	-	-	-	-	-	-	-	-	-

Hot Gas Bypass Regulators Extended Capacities

DGR(E) & EGR(E) Valves for R12 in Tons

TOTAL TONS BYPASSED	COMPONENT TYPE	EVAPORATOR TEMPERATURE °F									
		40°	30°	20°	10°	0°	-10°	-20°	-30°	-40°	
1/2	BYPASS REGULATOR	EGRE4	EGRE6	EGRE6	EGRE6	EGRE6	EGRE6	EGRE6	EGRE6	DGRE12	DGRE12
	HOT GAS SOL.	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3
	LIQ. INJ. VALVE	LCL1B	LCL1B	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C
1	BYPASS REGULATOR	EGRE6	EGRE6	EGRE6	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	-
	HOT GAS SOL.	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	-
	LIQ. INJ. VALVE	LCL1B	LCL1B	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C	-
2	BYPASS REGULATOR	DGRE12	DGRE12	DGRE12	DGRE12	-	-	-	-	-	-
	HOT GAS SOL.	200RB5	200RB5	200RB5	200RB5	-	-	-	-	-	-
	LIQ. INJ. VALVE	LCL2B	LCL2B	LCL2C	LCL2C	-	-	-	-	-	-
3	BYPASS REGULATOR	DGRE12	DGRE12	-	-	-	-	-	-	-	-
	HOT GAS SOL.	200RB6	200RB6	-	-	-	-	-	-	-	-
	LIQ. INJ. VALVE	LCL2B	LCL2B	-	-	-	-	-	-	-	-

DGR(E) & EGR(E) Valves for R-404A & R-507 in Tons

TOTAL TONS BYPASSED	COMPONENT TYPE	EVAPORATOR TEMPERATURE °F								
		30°	20°	10°	0°	-10°	-20°	-30°	-40°	
1/2	BYPASS REGULATOR	EGRE4	EGRE4	EGRE6	EGRE6	EGRE6	EGRE6	EGRE6	EGRE6	EGRE8
	HOT GAS SOL.	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2
	LIQ. INJ. VALVE	LCL1A	LCL1A	LCL1B	LCL1B	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C
1	BYPASS REGULATOR	EGRE4	EGRE6	EGRE6	EGRE8	EGRE8	EGRE8	EGRE8	EGRE8	EGRE8
	HOT GAS SOL.	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3
	LIQ. INJ. VALVE	LCL1A	LCL1A	LCL1B	LCL1B	LCL1B	LCL1C	LCL1C	LCL1C	LCL1C
2	BYPASS REGULATOR	EGRE8	EGRE8	EGRE8	EGRE8	EGRE8	DGRE12	DGRE12	DGRE12	DGRE12
	HOT GAS SOL.	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4
	LIQ. INJ. VALVE	LCL2A	LCL2A	LCL2B	LCL2B	LCL2B	LCL2C	LCL2C	LCL2C	LCL2C
3	BYPASS REGULATOR	EGRE8	EGRE8	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	-
	HOT GAS SOL.	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	-
	LIQ. INJ. VALVE	LCL2A	LCL2A	LCL2B	LCL2B	LCL3B	LCL3C	LCL3C	LCL3C	-
4	BYPASS REGULATOR	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	-	-
	HOT GAS SOL.	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6	-	-
	LIQ. INJ. VALVE	LCL2A	LCL3A	LCL3B	LCL3B	LCL3B	LCL3C	LCL3C	-	-
5	BYPASS REGULATOR	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	-	-	-	-
	HOT GAS SOL.	200RB6	200RB6	200RB6	200RB6	200RB6	-	-	-	-
	LIQ. INJ. VALVE	LCL3A	LCL3A	LCL3B	LCL3B	LCL3B	-	-	-	-
6	BYPASS REGULATOR	DGRE12	DGRE12	DGRE12	DGRE12	-	-	-	-	-
	HOT GAS SOL.	240RA8	240RA8	240RA8	240RA8	-	-	-	-	-
	LIQ. INJ. VALVE	LCL3A	LCL3A	LCL3B	LCL4B	-	-	-	-	-
7	BYPASS REGULATOR	DGRE12	DGRE12	DGRE12	-	-	-	-	-	-
	HOT GAS SOL.	240RA8	240RA8	240RA8	-	-	-	-	-	-
	LIQ. INJ. VALVE	LCL4A	LCL4A	LCL4B	-	-	-	-	-	-
8	BYPASS REGULATOR	DGRE12	DGRE12	-	-	-	-	-	-	-
	HOT GAS SOL.	240RA8	240RA8	-	-	-	-	-	-	-
	LIQ. INJ. VALVE	LCL4A	LCL4A	-	-	-	-	-	-	-
9	BYPASS REGULATOR	DGRE12	-	-	-	-	-	-	-	-
	HOT GAS SOL.	240RA9	-	-	-	-	-	-	-	-
	LIQ. INJ. VALVE	LCL4A	-	-	-	-	-	-	-	-

Thermal Expansion Valves
 Solenoid Valves
 Coils
 Industrial Solenoid Valves
 Shut Off Valves
 System Protectors
 Storage Devices
 Oil Controls
 Pressure Regulators
 Temperature Pressure Controls
 Competitive Cross Reference

DGR(E) & EGR(E) Valves for R-407C in Tons

TOTAL TONS BYPASSED	COMPONENT TYPE	EVAPORATOR TEMPERATURE °F									
		40°	30°	20°	10°	0°	-10°	-20°	-30°	-40°	
1/2	BYPASS REGULATOR	EGRE4	EGRE4	EGRE6	EGRE6	EGRE6	EGRE6	EGRE6	EGRE6	EGRE6	EGRE8
	HOT GAS SOL.	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2
	LIQ. INJ. VALVE	LCL1A	LCL1A	LCL1B	LCL1B	LCL1B	LCL1B	LCL1C	LCL1C	LCL1C	LCL1C
1	BYPASS REGULATOR	EGRE4	EGRE6	EGRE6	EGRE6	EGRE8	EGRE8	EGRE8	EGRE8	EGRE8	EGRE8
	HOT GAS SOL.	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3
	LIQ. INJ. VALVE	LCL1A	LCL1A	LCL1B	LCL1B	LCL1B	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C
2	BYPASS REGULATOR	EGRE8	EGRE8	EGRE8	EGRE8	EGRE8	EGRE8	DGRE12	DGRE12	DGRE12	DGRE12
	HOT GAS SOL.	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4
	LIQ. INJ. VALVE	LCL1A	LCL1A	LCL1B	LCL1B	LCL1B	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C
3	BYPASS REGULATOR	EGRE8	EGRE8	EGRE8	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	-
	HOT GAS SOL.	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	-
	LIQ. INJ. VALVE	LCL1A	LCL1A	LCL1B	LCL1B	LCL1B	LCL2C	LCL2C	LCL2C	LCL2C	-
4	BYPASS REGULATOR	EGRE8	EGRE8	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	-	-	-
	HOT GAS SOL.	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	-
	LIQ. INJ. VALVE	LCL2A	LCL2A	LCL2B	LCL2B	LCL2B	LCL2C	LCL2C	LCL3C	-	-
5	BYPASS REGULATOR	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	-	-	-	-
	HOT GAS SOL.	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6	-	-	-	-
	LIQ. INJ. VALVE	LCL2A	LCL2A	LCL2B	LCL2B	LCL2B	LCL2C	-	-	-	-
6	BYPASS REGULATOR	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	-	-	-	-	-
	HOT GAS SOL.	200RB6	200RB6	200RB6	200RB6	200RB6	-	-	-	-	-
	LIQ. INJ. VALVE	LCL2A	LCL2A	LCL2B	LCL2B	LCL2B	-	-	-	-	-
7	BYPASS REGULATOR	DGRE12	DGRE12	DGRE12	DGRE12	-	-	-	-	-	-
	HOT GAS SOL.	240RA8	240RA8	240RA8	240RA8	-	-	-	-	-	-
	LIQ. INJ. VALVE	LCL2A	LCL2A	LCL2B	LCL3B	-	-	-	-	-	-
8	BYPASS REGULATOR	DGRE12	DGRE12	DGRE12	-	-	-	-	-	-	-
	HOT GAS SOL.	240RA8	240RA8	240RA8	-	-	-	-	-	-	-
	LIQ. INJ. VALVE	LCL3A	LCL3A	LCL3B	-	-	-	-	-	-	-
9	BYPASS REGULATOR	DGRE12	DGRE12	-	-	-	-	-	-	-	-
	HOT GAS SOL.	240RA8	240RA8	-	-	-	-	-	-	-	-
	LIQ. INJ. VALVE	LCL3A	LCL3A	-	-	-	-	-	-	-	-
10	BYPASS REGULATOR	DGRE12	-	-	-	-	-	-	-	-	-
	HOT GAS SOL.	240RA8	-	-	-	-	-	-	-	-	-
	LIQ. INJ. VALVE	LCL3A	-	-	-	-	-	-	-	-	-

DGR(E) & EGR(E) Valves for R-502 in Tons

TOTAL TONS BYPASSED	COMPONENT TYPE	EVAPORATOR TEMPERATURE °F									
		40°	30°	20°	10°	0°	-10°	-20°	-30°	-40°	
1/2	BYPASS REGULATOR	EGRE4	EGRE4	EGRE4	EGRE4	EGRE4	EGRE4	EGRE4	EGRE4	EGRE4	EGRE6
	HOT GAS SOL.	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2
	LIQ. INJ. VALVE	LCL1A	LCL1A	LCL1B	LCL1B	LCL1B	LCL1B	LCL1C	LCL1C	LCL1C	LCL1C
1	BYPASS REGULATOR	EGRE4	EGRE4	EGRE4	EGRE4	EGRE6	EGRE6	EGRE6	EGRE6	EGRE6	EGRE6
	HOT GAS SOL.	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3
	LIQ. INJ. VALVE	LCL1A	LCL1A	LCL1A	LCL1B	LCL1B	LCL1B	LCL1C	LCL1C	LCL1C	LCL1C
2	BYPASS REGULATOR	EGRE6	EGRE6	EGRE6	EGRE6	EGRE6	EGRE6	DGRE12	DGRE12	DGRE12	DGRE12
	HOT GAS SOL.	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4
	LIQ. INJ. VALVE	LCL2A	LCL2A	LCL2B	LCL2B	LCL2B	LCL2B	LCL2C	LCL2C	LCL2C	LCL2C
3	BYPASS REGULATOR	EGRE6	EGRE6	EGRE6	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	-
	HOT GAS SOL.	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	-
	LIQ. INJ. VALVE	LCL2A	LCL2A	LCL2A	LCL2B	LCL2B	LCL3B	LCL3C	LCL3C	LCL3C	-
4	BYPASS REGULATOR	EGRE6	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	-	-
	HOT GAS SOL.	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6	-	-
	LIQ. INJ. VALVE	LCL2A	LCL2A	LCL3A	LCL3B	LCL3B	LCL3B	LCL3B	LCL3C	-	-
5	BYPASS REGULATOR	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	-	-	-	-
	HOT GAS SOL.	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6	-	-	-	-
	LIQ. INJ. VALVE	LCL3A	LCL3A	LCL3A	LCL3B	LCL3B	LCL3B	-	-	-	-
6	BYPASS REGULATOR	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	-	-	-	-	-
	HOT GAS SOL.	240RA8	240RA8	240RA8	240RA8	240RA8	-	-	-	-	-
	LIQ. INJ. VALVE	LCL3A	LCL3A	LCL3A	LCL3B	LCL4B	-	-	-	-	-
7	BYPASS REGULATOR	DGRE12	DGRE12	DGRE12	DGRE12	-	-	-	-	-	-
	HOT GAS SOL.	240RA8	240RA8	240RA8	240RA8	-	-	-	-	-	-
	LIQ. INJ. VALVE	LCL3A	LCL4A	LCL4A	LCL4B	-	-	-	-	-	-
8	BYPASS REGULATOR	DGRE12	DGRE12	DGRE12	-	-	-	-	-	-	-
	HOT GAS SOL.	240RA8	240RA8	240RA8	-	-	-	-	-	-	-
	LIQ. INJ. VALVE	LCL4A	LCL4A	LCL4A	-	-	-	-	-	-	-
9	BYPASS REGULATOR	DGRE12	DGRE12	-	-	-	-	-	-	-	-
	HOT GAS SOL.	240RA9	240RA9	-	-	-	-	-	-	-	-
	LIQ. INJ. VALVE	LCL4A	LCL4A	-	-	-	-	-	-	-	-
10	BYPASS REGULATOR	DGRE12	-	-	-	-	-	-	-	-	-
	HOT GAS SOL.	240RA9	-	-	-	-	-	-	-	-	-
	LIQ. INJ. VALVE	LCL4A	-	-	-	-	-	-	-	-	-

Hot Gas Bypass Regulators Extended Capacities

CPH(E) Valves for R-134a in Tons

TOTAL TONS BYPASSED	COMPONENT TYPE	EVAPORATOR TEMPERATURE °F								
		40°	30°	20°	10°	0°	-10°	-20°	-30°	-40°
1/2	BYPASS REGULATOR	CPHE-3	CPHE-3	CPHE-3	CPHE-3	CPHE-3	CPHE-3	CPHE-3	CPHE-3	CPHE-3
	HOT GAS SOL.	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3
	LIQ. INJ. VALVE	LCL1B	LCL1B	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C
1	BYPASS REGULATOR	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4
	HOT GAS SOL.	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4
	LIQ. INJ. VALVE	LCL1B	LCL1B	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C
2	BYPASS REGULATOR	CPHE-5	CPHE-5	CPHE-5	CPHE-5	CPHE-5	CPHE-5	CPHE-5	CPHE-5	CPHE-5
	HOT GAS SOL.	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5
	LIQ. INJ. VALVE	LCL2B	LCL2B	LCL2C	LCL2C	LCL2C	LCL2C	LCL2C	LCL2C	LCL2C
3	BYPASS REGULATOR	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6
	HOT GAS SOL.	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6
	LIQ. INJ. VALVE	LCL2B	LCL2B	LCL2C	LCL2C	LCL2C	LCL2C	LCL2C	LCL2C	LCL2C
4	BYPASS REGULATOR	FA8-12M	FA8-12M	FA8-12M	FA8-12M	FA8-12M	FA8-12M	FA8-12M	FA8-12M	FA8-12M
	LIQ. INJ. VALVE	LCL2B	LCL2B	LCL2C	LCL2C	LCL2C	LCL3C	LCL3C	LCL3C	LCL3C
5	BYPASS REGULATOR	FA8-12M	FA8-12M	FA8-12M	FA8-12M	FA8-12M	FA8-12M	FA8-12M	FA8-12M	FA8-12M
	LIQ. INJ. VALVE	LCL3B	LCL3B	LCL3C	LCL3C	LCL3C	LCL3C	LCL3C	LCL3C	LCL4C
6	BYPASS REGULATOR	FA8-12M	FA8-12M	FA8-12M	FA8-12M	FA8-12M	FA8-12M	FA8-12M	FA8-12M	FA8-12M
	LIQ. INJ. VALVE	LCL3B	LCL3B	LCL3C	LCL3C	LCL3C	LCL4C	LCL4C	LCL4C	LCL4C
7-1/2	BYPASS REGULATOR	FA8-13M	FA8-13M	FA8-13M	FA8-13M	FA8-13M	FA8-13M	FA8-13M	FA8-13M	FA8-13M
	LIQ. INJ. VALVE	LCL3B	LCL3B	LCL3C	LCL3C	LCL4C	LCL4C	LCL4C	LCL4C	LCL4C
10	BYPASS REGULATOR	FA8-13M	FA8-13M	FA8-13M	FA8-13M	FA8-13M	FA8-13M	FA8-13M	FA8-13M	FA8-13M
	LIQ. INJ. VALVE	LCL4B	LCL4B	LCL4C	LCL4C	LCL6C	LCL6C	LCL6C	LCL6C	LCL6C
12	BYPASS REGULATOR	FA8-13M	FA8-13M	FA8-13M	FA8-13M	FA8-13M	FA8-13M	FA8-13M	FA8-13M	FA8-13M
	LIQ. INJ. VALVE	LCL6B	LCL6B	LCL6C	LCL6C	LCL6C	LCL6C	LCL6C	LCL6C	LCL6C
15	BYPASS REGULATOR	FA8-14M	FA8-14M	FA8-14M	FA8-14M	FA8-14M	FA8-14M	FA8-14M	FA8-14M	FA8-14M
	LIQ. INJ. VALVE	LCL6B	LCL6B	LCL6C	LCL6C	LCL6C	LCL6C	LCL7C	LCL7C	LCL7C
20	BYPASS REGULATOR	FA8-14M	FA8-14M	FA8-14M	FA8-14M	FA8-14M	FA8-14M	FA8-14M	FA8-14M	FA8-14M
	LIQ. INJ. VALVE	LCL6B	LCL6B	LCL7C	LCL7C	LCL7C	LCL7C	LCL7C	LCL7C	LCL7C
25	BYPASS REGULATOR	FA8-15M	FA8-15M	FA8-15M	FA8-15M	FA8-15M	FA8-15M	FA8-15M	FA8-15M	FA8-15M
	LIQ. INJ. VALVE	LCL7B	LCL7B	LCL7C	LCL7C	LCL9C	LCL9C	LCL10C	LCL10C	LCL10C
30	BYPASS REGULATOR	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M
	LIQ. INJ. VALVE	LCL9B	LCL9B	LCL10C	LCL10C	LCL10C	LCL10C	LCL11C	LCL12C	LCL12C
35	BYPASS REGULATOR	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M
	LIQ. INJ. VALVE	LCL9B	LCL10B	LCL10C	LCL10C	LCL11C	LCL11C	LCL12C	LCL12C	LCL12C
40	BYPASS REGULATOR	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M
	LIQ. INJ. VALVE	LCL10B	LCL10B	LJL11C	LJL11C	LJL11C	LJL12C	LJL12C	LER13C	LER13C
45	BYPASS REGULATOR	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M
	LIQ. INJ. VALVE	LJL11B	LJL11B	LJL12C	LJL12C	LJL12C	LJL12C	LER13C	LER13C	LER14C
50	BYPASS REGULATOR	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M
	LIQ. INJ. VALVE	LJL12B	LJL12B	LJL12C	LJL12C	LER13C	LER13C	LER14C	LER14C	LER14C
55	BYPASS REGULATOR	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M
	LIQ. INJ. VALVE	LJL12B	LJL12B	LER13C	LER13C	LER13C	LER13C	LER14C	LER14C	LER14C
60	BYPASS REGULATOR	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M
	LIQ. INJ. VALVE	LJL12B	LER13B	LER13C	LER13C	LER13C	LER14C	LER14C	LER14C	LER14C
65	BYPASS REGULATOR	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M
	LIQ. INJ. VALVE	LER13B	LER14B	LER14C	LER14C	LER14C	LER14C	LER14C	LER14C	LER15C
70	BYPASS REGULATOR	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M
	LIQ. INJ. VALVE	LER14B	LER14B	LER14C	LER14C	LER14C	LER14C	LER14C	LER15C	LER15C
75	BYPASS REGULATOR	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M
	LIQ. INJ. VALVE	LER14B	LER14B	LER14C	LER14C	LER14C	LER15C	LER15C	LER15C	LER16C
80	BYPASS REGULATOR	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M
	LIQ. INJ. VALVE	LER14B	LER14B	LER14C	LER14C	LER15C	LER15C	LER15C	LER16C	LER16C
85	BYPASS REGULATOR	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M
	LIQ. INJ. VALVE	LER14B	LER14B	LER15C	LER15C	LER15C	LER15C	LER15C	LER16C	LER16C
90	BYPASS REGULATOR	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M
	LIQ. INJ. VALVE	LER14B	LER15B	LER15C	LER15C	LER15C	LER15C	LER15C	LER16C	LER16C
95	BYPASS REGULATOR	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M
	LIQ. INJ. VALVE	LER15B	LER15B	LER15C	LER15C	LER15C	LER16C	LER16C	LER16C	LER16C
100	BYPASS REGULATOR	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M
	LIQ. INJ. VALVE	LER15B	LER15B	LER15C	LER15C	LER16C	LER16C	LER16C	LER16C	LER16C

Thermal Expansion Valves
 Solenoid Valves
 Coils
 Industrial Solenoid Valves
 Shut Off Valves
 System Protectors
 Storage Devices
 Oil Controls
 Pressure Regulators
 Temperature Pressure Controls
 Competitive Cross Reference

CPH(E) Valves for R-404A & R-507 in Tons

TOTAL TONS BYPASSED	COMPONENT TYPE	EVAPORATOR TEMPERATURE °F							
		30°	20°	10°	0°	-10°	-20°	-30°	-40°
1/2	BYPASS REGULATOR	CPHE-2	CPHE-2	CPHE-1	CPHE-1	CPHE-1	CPHE-1	CPHE-1	CPHE-1
	HOT GAS SOL.	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2
	LIQ. INJ. VALVE	LCL1A	LCL1A	LCL1B	LCL1B	LCL1B	LCL1C	LCL1C	LCL1C
1	BYPASS REGULATOR	CPHE-3	CPHE-3	CPHE-3	CPHE-3	CPHE-3	CPHE-3	CPHE-3	CPHE-2
	HOT GAS SOL.	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3
	LIQ. INJ. VALVE	LCL1A	LCL1A	LCL1B	LCL1B	LCL1B	LCL1C	LCL1C	LCL1C
2	BYPASS REGULATOR	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4
	HOT GAS SOL.	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4
	LIQ. INJ. VALVE	LCL2A	LCL2A	LCL2B	LCL2B	LCL2B	LCL2C	LCL2C	LCL2C
3	BYPASS REGULATOR	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4
	HOT GAS SOL.	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5
	LIQ. INJ. VALVE	LCL2A	LCL2A	LCL2B	LCL2B	LCL2B	LCL3C	LCL3C	LCL3C
4	BYPASS REGULATOR	CPHE-5	CPHE-5	CPHE-5	CPHE-5	CPHE-5	CPHE-5	CPHE-5	CPHE-5
	HOT GAS SOL.	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6
	LIQ. INJ. VALVE	LCL2A	LCL3A	LCL3B	LCL3B	LCL3B	LCL3C	LCL3C	LCL3C
5	BYPASS REGULATOR	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6
	HOT GAS SOL.	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6
	LIQ. INJ. VALVE	LCL3A	LCL3A	LCL3B	LCL3B	LCL3B	LCL5C	LCL4C	LCL4C
6	BYPASS REGULATOR	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6
	HOT GAS SOL.	240RA8	240RA8	240RA8	240RA8	240RA8	240RA8	240RA8	240RA8
	LIQ. INJ. VALVE	LCL3A	LCL3A	LCL3B	LCL4B	LCL4B	LCL4C	LCL4C	LCL4C
7	BYPASS REGULATOR	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H
	LIQ. INJ. VALVE	LCL4A	LCL4A	LCL4B	LCL4B	LCL4B	LCL4C	LCL4C	LCL6C
8	BYPASS REGULATOR	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H
	LIQ. INJ. VALVE	LCL4A	LCL4A	LCL4B	LCL4B	LCL4B	LCL6C	LCL6C	LCL6C
9	BYPASS REGULATOR	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H
	LIQ. INJ. VALVE	LCL4A	LCL4A	LCL4B	LCL6B	LCL6B	LCL6C	LCL6C	LCL6C
10	BYPASS REGULATOR	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H
	LIQ. INJ. VALVE	LCL6A	LCL6A	LCL6B	LCL6B	LCL6B	LCL6C	LCL6C	LCL6C
12	BYPASS REGULATOR	FA8-13H	FA8-13H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H
	LIQ. INJ. VALVE	LCL6A	LCL6A	LCL6B	LCL6B	LCL6B	LCL6C	LCL7C	LCL7C
14	BYPASS REGULATOR	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-13H
	LIQ. INJ. VALVE	LCL6A	LCL6A	LCL6B	LCL6B	LCL7B	LCL7C	LCL7C	LCL7C
16	BYPASS REGULATOR	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-13H
	LIQ. INJ. VALVE	LCL6A	LCL6A	LCL7B	LCL7B	LCL7B	LCL7C	LCL7C	LCL7C
20	BYPASS REGULATOR	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-13H
	LIQ. INJ. VALVE	LCL7A	LCL7A	LCL7B	LCL7B	LCL7B	LCL7C	LCL9C	LCL9C
25	BYPASS REGULATOR	FA8-14H	FA8-14H	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-13H
	LIQ. INJ. VALVE	LCL7A	LCL9A	LCL9B	LCL9B	LCL9B	LCL10C	LCL10C	LCL10C
30	BYPASS REGULATOR	FA8-14H	FA8-14H	FA8-14H	FA8-14H	FA8-14H	FA8-14H	FA8-14H	FA8-14H
	LIQ. INJ. VALVE	LCL9A	LCL9A	LCL10B	LCL10B	LCL10B	LJL11C	LJL11C	LJL11C
35	BYPASS REGULATOR	FA8-14H	FA8-14H	FA8-14H	FA8-14H	FA8-14H	FA8-14H	FA8-14H	FA8-14H
	LIQ. INJ. VALVE	LCL10A	LCL10A	LJL11B	LJL11B	LJL11B	LJL11C	LJL11C	LJL11C
40	BYPASS REGULATOR	FA8-15H	FA8-15H	FA8-15H	FA8-15H	FA8-15H	FA8-15H	FA8-15H	FA8-15H
	LIQ. INJ. VALVE	LJL11A	LJL11A	LJL11B	LJL11B	LJL11B	LJL12C	LJL12C	LJL12C
45	BYPASS REGULATOR	FA8-15H	FA8-15H	FA8-15H	FA8-15H	FA8-15H	FA8-15H	FA8-15H	FA8-15H
	LIQ. INJ. VALVE	LJL11A	LJL11A	LJL12B	LJL12B	LJL12B	LER13C	LER13C	LER13C
50	BYPASS REGULATOR	FA8-16H	FA8-16H	FA8-15H	FA8-15H	FA8-15H	FA8-15H	FA8-15H	FA8-15H
	LIQ. INJ. VALVE	LJL12A	LJL12A	LJL12B	LJL12B	LJL12B	LER13C	LER13C	LER13C
55	BYPASS REGULATOR	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H
	LIQ. INJ. VALVE	LJL12A	LJL12A	LER13B	LER13B	LER13B	LER14C	LER14C	LER14C
60	BYPASS REGULATOR	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-15H	FA8-15H	FA8-15H	FA8-15H
	LIQ. INJ. VALVE	LER13A	LER13A	LER13B	LER13B	LER14B	LER14C	LER14C	LER14C
65	BYPASS REGULATOR	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-15H	FA8-15H	FA8-15H	FA8-15H
	LIQ. INJ. VALVE	LER13A	LER13A	LER13B	LER14B	LER14B	LER14C	LER14C	LER15C
70	BYPASS REGULATOR	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-15H	FA8-15H	FA8-15H	FA8-15H
	LIQ. INJ. VALVE	LER13A	LER14A	LER14B	LER14B	LER14B	LER14C	LER15C	LER15C
75	BYPASS REGULATOR	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H
	LIQ. INJ. VALVE	LER14A	LER14A	LER14B	LER14B	LER15B	LER15C	LER15C	LER15C
80	BYPASS REGULATOR	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H
	LIQ. INJ. VALVE	LER14A	LER14A	LER15B	LER15B	LER15B	LER15C	LER15C	LER15C
85	BYPASS REGULATOR	FA8-18H	FA8-18H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H
	LIQ. INJ. VALVE	LER15A	LER15A	LER15B	LER15B	LER15B	LER15C	LER16C	LER16C
90	BYPASS REGULATOR	FA8-18H	FA8-18H	FA8-18H	FA8-18H	FA8-18H	FA8-18H	FA8-16H	FA8-16H
	LIQ. INJ. VALVE	LER15A	LER15A	LER15B	LER15B	LER15B	LER16C	LER16C	LER16C
95	BYPASS REGULATOR	FA8-18H	FA8-18H	FA8-18H	FA8-18H	FA8-18H	FA8-18H	FA8-18H	FA8-18H
	LIQ. INJ. VALVE	LER15A	LER15A	LER15B	LER15B	LER16B	LER16C	LER16C	LER16C
100	BYPASS REGULATOR	FA8-18H	FA8-18H	FA8-18H	FA8-18H	FA8-18H	FA8-18H	FA8-18H	FA8-18H
	LIQ. INJ. VALVE	LER15A	LER15A	LER16B	LER16B	LER16B	LER16C	LER16C	LER16C

Thermal Expansion Valves
Solenoid Valves
Coils
Industrial Solenoid Valves
Shut Off Valves
System Protectors
Storage Devices
Oil Controls
Pressure Regulators
Temperature Pressure Controls
Competitive Cross Reference

CPH(E) Valves for R-12 in Tons

TOTAL TONS BYPASSED	COMPONENT TYPE	EVAPORATOR TEMPERATURE °F								
		40°	30°	20°	10°	0°	-10°	-20°	-30°	-40°
1/2	BYPASS REGULATOR	CPHE-3	CPHE-3	CPHE-3	CPHE-3	CPHE-3	CPHE-3	CPHE-3	CPHE-3	CPHE-3
	HOT GAS SOL.	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3
1	LIQ. INJ. VALVE	LCL1B	LCL1B	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C
	BYPASS REGULATOR	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4
2	HOT GAS SOL.	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4
	LIQ. INJ. VALVE	LCL1B	LCL1B	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C
3	BYPASS REGULATOR	CPHE-5	CPHE-5	CPHE-5	CPHE-5	CPHE-5	CPHE-5	CPHE-5	CPHE-5	CPHE-5
	HOT GAS SOL.	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5
4	LIQ. INJ. VALVE	LCL2B	LCL2B	LCL2C	LCL2C	LCL2C	LCL2C	LCL2C	LCL2C	LCL2C
	BYPASS REGULATOR	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6
5	HOT GAS SOL.	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6
	LIQ. INJ. VALVE	LCL2B	LCL2B	LCL2C	LCL2C	LCL2C	LCL2C	LCL2C	LCL2C	LCL2C
6	BYPASS REGULATOR	FA8-12F	FA8-12F	FA8-12F	FA8-12F	FA8-12F	FA8-12F	FA8-12F	FA8-12F	FA8-12F
	LIQ. INJ. VALVE	LCL2B	LCL2B	LCL2C	LCL2C	LCL2C	LCL3C	LCL3C	LCL3C	LCL3C
7-1/2	BYPASS REGULATOR	FA8-12F	FA8-12F	FA8-12F	FA8-12F	FA8-12F	FA8-12F	FA8-12F	FA8-12F	FA8-12F
	LIQ. INJ. VALVE	LCL3B	LCL3B	LCL3C	LCL3C	LCL3C	LCL3C	LCL3C	LCL3C	LCL4C
10	BYPASS REGULATOR	FA8-12F	FA8-12F	FA8-12F	FA8-12F	FA8-12F	FA8-12F	FA8-12F	FA8-12F	FA8-12F
	LIQ. INJ. VALVE	LCL3B	LCL3B	LCL3C	LCL3C	LCL3C	LCL4C	LCL4C	LCL4C	LCL4C
12	BYPASS REGULATOR	FA8-13F	FA8-13F	FA8-13F	FA8-13F	FA8-13F	FA8-13F	FA8-13F	FA8-13F	FA8-13F
	LIQ. INJ. VALVE	LCL3B	LCL3B	LCL3C	LCL3C	LCL3C	LCL4C	LCL4C	LCL4C	LCL4C
15	BYPASS REGULATOR	FA8-13F	FA8-13F	FA8-13F	FA8-13F	FA8-13F	FA8-13F	FA8-13F	FA8-13F	FA8-13F
	LIQ. INJ. VALVE	LCL4B	LCL4B	LCL4C	LCL4C	LCL6C	LCL6C	LCL6C	LCL6C	LCL6C
20	BYPASS REGULATOR	FA8-13F	FA8-13F	FA8-13F	FA8-13F	FA8-13F	FA8-13F	FA8-13F	FA8-13F	FA8-13F
	LIQ. INJ. VALVE	LCL6B	LCL6B	LCL6C	LCL6C	LCL6C	LCL6C	LCL6C	LCL6C	LCL6C
25	BYPASS REGULATOR	FA8-14F	FA8-14F	FA8-14F	FA8-14F	FA8-14F	FA8-14F	FA8-14F	FA8-14F	FA8-14F
	LIQ. INJ. VALVE	LCL6B	LCL6B	LCL6C	LCL6C	LCL6C	LCL6C	LCL7C	LCL7C	LCL7C
30	BYPASS REGULATOR	FA8-14F	FA8-14F	FA8-14F	FA8-14F	FA8-14F	FA8-14F	FA8-14F	FA8-14F	FA8-14F
	LIQ. INJ. VALVE	LCL6B	LCL6B	LCL6C	LCL6C	LCL6C	LCL6C	LCL7C	LCL7C	LCL7C
35	BYPASS REGULATOR	FA8-15F	FA8-15F	FA8-15F	FA8-15F	FA8-15F	FA8-15F	FA8-15F	FA8-15F	FA8-15F
	LIQ. INJ. VALVE	LCL7B	LCL7B	LCL7C	LCL7C	LCL9C	LCL9C	LCL10C	LCL10C	LCL10C
40	BYPASS REGULATOR	FA8-16F	FA8-16F	FA8-16F	FA8-16F	FA8-16F	FA8-16F	FA8-16F	FA8-16F	FA8-16F
	LIQ. INJ. VALVE	LCL9B	LCL9B	LCL10C	LCL10C	LCL10C	LCL10C	LCL11C	LCL11C	LCL12C
45	BYPASS REGULATOR	FA8-16F	FA8-16F	FA8-16F	FA8-16F	FA8-16F	FA8-16F	FA8-16F	FA8-16F	FA8-16F
	LIQ. INJ. VALVE	LCL9B	LCL10B	LCL10C	LCL10C	LCL10C	LCL11C	LCL11C	LCL12C	LCL12C
50	BYPASS REGULATOR	FA8-16F	FA8-16F	FA8-16F	FA8-16F	FA8-16F	FA8-16F	FA8-16F	FA8-16F	FA8-16F
	LIQ. INJ. VALVE	LCL10B	LCL10B	LCL11C	LCL11C	LCL11C	LCL12C	LCL12C	LCL13C	LCL13C
55	BYPASS REGULATOR	FA8-18F	FA8-18F	FA8-18F	FA8-18F	FA8-18F	FA8-18F	FA8-18F	FA8-18F	FA8-18F
	LIQ. INJ. VALVE	LJL11B	LJL11B	LJL12C	LJL12C	LJL12C	LJL12C	LER13C	LER13C	LER14C
60	BYPASS REGULATOR	FA8-18F	FA8-18F	FA8-18F	FA8-18F	FA8-18F	FA8-18F	FA8-18F	FA8-18F	FA8-18F
	LIQ. INJ. VALVE	LJL12B	LJL12B	LJL12C	LJL12C	LJL12C	LER13C	LER13C	LER14C	LER14C
65	BYPASS REGULATOR	FA8-18F	FA8-18F	FA8-18F	FA8-18F	FA8-18F	FA8-18F	FA8-18F	FA8-18F	FA8-18F
	LIQ. INJ. VALVE	LER13B	LER14B	LER14C	LER14C	LER14C	LER14C	LER14C	LER14C	LER15C
70	BYPASS REGULATOR	FA8-18F	FA8-18F	FA8-18F	FA8-18F	FA8-18F	FA8-18F	FA8-18F	FA8-18F	FA8-18F
	LIQ. INJ. VALVE	LER14B	LER14B	LER14C	LER14C	LER14C	LER14C	LER14C	LER15C	LER15C
75	BYPASS REGULATOR	FA8-18F	FA8-18F	FA8-18F	FA8-18F	FA8-18F	FA8-18F	FA8-18F	FA8-18F	FA8-18F
	LIQ. INJ. VALVE	LER14B	LER14B	LER14C	LER14C	LER14C	LER15C	LER15C	LER15C	LER16C
80	BYPASS REGULATOR	FA8-18F	FA8-18F	FA8-18F	FA8-18F	FA8-18F	FA8-18F	FA8-18F	FA8-18F	FA8-18F
	LIQ. INJ. VALVE	LER14B	LER14B	LER14C	LER14C	LER14C	LER15C	LER15C	LER15C	LER16C
85	BYPASS REGULATOR	FA8-18F	FA8-18F	FA8-18F	FA8-18F	FA8-18F	FA8-18F	FA8-18F	FA8-18F	FA8-18F
	LIQ. INJ. VALVE	LER14B	LER14B	LER15C	LER15C	LER15C	LER15C	LER15C	LER16C	LER16C
90	BYPASS REGULATOR	FA8-18F	FA8-18F	FA8-18F	FA8-18F	FA8-18F	FA8-18F	FA8-18F	FA8-18F	FA8-18F
	LIQ. INJ. VALVE	LER14B	LER15B	LER15C	LER15C	LER15C	LER15C	LER15C	LER16C	LER16C
95	BYPASS REGULATOR	FA8-18F	FA8-18F	FA8-18F	FA8-18F	FA8-18F	FA8-18F	FA8-18F	FA8-18F	FA8-18F
	LIQ. INJ. VALVE	LER15B	LER15B	LER15C	LER15C	LER15C	LER16C	LER16C	LER16C	LER16C
100	BYPASS REGULATOR	FA8-18F	FA8-18F	FA8-18F	FA8-18F	FA8-18F	FA8-18F	FA8-18F	FA8-18F	FA8-18F
	LIQ. INJ. VALVE	LER15B	LER15B	LER15C	LER15C	LER15C	LER16C	LER16C	LER16C	LER16C

Thermal Expansion Valves

Solenoid Valves

Coils

Industrial Solenoid Valves

Shut Off Valves

System Protectors

Storage Devices

Oil Controls

Pressure Regulators

Temperature Pressure Controls

Competitive Cross Reference

ESR Extended Capacities in kWatts (at 800 steps full open)

R-22														
EVAPORATOR TEMPERATURE IN °C														
8°								1°						
PRESSURE DROP (PSI)								PRESSURE DROP (PSI)						
3.5	7	14	21	35	40	70		3.5	7	14	21	35	40	70
ESR 12	12.7	18.0	25.5	31.2	40.2	50.9	53.9	11.6	16.4	23.2	28.4	36.6	43.9	48.5
ESR 20	24.8	35.0	49.6	60.7	78.4	99.1	104.0	22.5	31.8	45.0	55.1	71.1	84.7	92.9
-7°								-12°						
PRESSURE DROP (PSI)								PRESSURE DROP (PSI)						
3.5	7	14	21	35	40	70		3.5	7	14	21	35	40	70
ESR 12	9.9	14.0	19.8	24.3	31.3	37.1	40.8	8.9	12.6	17.8	21.9	26.8	32.9	36.0
ESR 20	19.3	27.3	38.6	47.3	61.0	70.9	77.2	17.3	24.5	34.6	42.4	51.6	62.3	67.4
-18°								-23°						
PRESSURE DROP (PSI)								PRESSURE DROP (PSI)						
3.5	7	14	21	35	40	70		3.5	7	14	21	35	40	70
ESR 12	8.0	11.3	15.9	19.5	23.6	28.9	31.5	7.1	10.0	14.2	16.6	20.7	25.1	27.2
ESR 20	15.5	21.9	30.9	37.9	45.3	54.0	57.9	13.8	19.5	27.5	32.0	39.4	46.2	48.9
-29°								-34°						
PRESSURE DROP (PSI)								PRESSURE DROP (PSI)						
3.5	7	14	21	35	40	70		3.5	7	14	21	35	40	70
ESR 12	6.3	8.9	12.5	14.5	18.0	21.5	23.0	5.5	7.8	10.5	12.5	15.4	18.1	19.1
ESR 20	12.2	17.2	24.4	27.8	33.8	38.7	40.2	10.7	15.2	20.2	23.9	28.4	31.5	31.8
R-404A/507														
EVAPORATOR TEMPERATURE IN °C														
8°								1°						
PRESSURE DROP (PSI)								PRESSURE DROP (PSI)						
3.5	7	14	21	35	40	70		3.5	7	14	21	35	40	70
ESR 12	10.7	15.1	21.4	26.2	33.8	42.8	45.6	9.6	13.6	19.2	23.5	30.3	38.3	40.5
ESR 20	20.6	29.2	41.2	50.5	65.2	82.5	87.4	18.4	26.0	36.8	45.1	58.2	70.0	77.0
-7°								-12°						
PRESSURE DROP (PSI)								PRESSURE DROP (PSI)						
3.5	7	14	21	35	40	70		3.5	7	14	21	35	40	70
ESR 12	8.0	11.4	16.1	19.7	25.5	30.4	33.5	7.1	10.1	14.2	17.5	22.5	26.6	29.3
ESR 20	15.4	21.8	30.8	37.7	48.7	57.4	62.7	13.6	19.2	27.2	33.3	40.9	49.7	54.1
-18°								-23°						
PRESSURE DROP (PSI)								PRESSURE DROP (PSI)						
3.5	7	14	21	35	40	70		3.5	7	14	21	35	40	70
ESR 12	6.3	8.9	12.6	15.4	18.8	23.1	25.3	5.5	7.8	11.0	13.5	16.3	19.9	21.7
ESR 20	11.9	16.9	23.9	29.2	35.4	42.6	46.0	10.4	14.7	20.9	25.5	30.3	36.0	38.5
-29°								-34°						
PRESSURE DROP (PSI)								PRESSURE DROP (PSI)						
3.5	7	14	21	35	40	70		3.5	7	14	21	35	40	70
ESR 12	4.8	6.8	9.6	11.2	13.9	16.9	18.2	4.1	5.8	8.2	9.5	11.8	14.1	15.0
ESR 20	9.0	12.8	18.1	20.9	25.6	29.8	31.5	7.8	11.0	15.5	17.6	21.3	24.2	25.0
R-134a														
EVAPORATOR TEMPERATURE IN °C														
8°								1°						
PRESSURE DROP (PSI)								PRESSURE DROP (PSI)						
3.5	7	14	21	35	40	70		3.5	7	14	21	35	40	70
ESR 12	9.9	14.0	19.8	24.2	29.8	36.7	40.3	8.8	12.5	17.6	21.6	26.3	32.2	35.2
ESR 20	19.3	27.2	38.5	47.1	57.7	69.9	75.9	17.1	24.2	34.3	41.9	50.6	60.7	65.3
-7°								-12°						
PRESSURE DROP (PSI)								PRESSURE DROP (PSI)						
3.5	7	14	21	35	40	70		3.5	7	14	21	35	40	70
ESR 12	7.4	10.4	14.7	17.2	21.5	26.0	28.1	6.5	9.1	13.0	14.9	18.6	22.2	23.8
ESR 20	14.3	20.2	28.6	33.2	40.9	47.9	50.8	12.6	17.8	24.5	28.7	34.9	40.0	41.7
-18°														
PRESSURE DROP (PSI)														
3.5	7	14	21	35	40	70								
ESR 12	5.7	8.0	10.8	12.9	15.9	18.6	19.7							
ESR 20	11.0	15.5	20.8	24.5	29.3	32.5	33.0							

Thermal Expansion Valves
Solenoid Valves
Coils
Industrial Solenoid Valves
Shut Off Valves
System Protectors
Storage Devices
Oil Controls
Pressure Regulators
Temperature Pressure Controls
Competitive Cross Reference

ESR Extended Capacities in Tons (at 800 steps full open)

R-12														
EVAPORATOR TEMPERATURE IN °C														
8°								1°						
PRESSURE DROP (PSI)								PRESSURE DROP (PSI)						
3.5	7	14	21	35	40	70		3.5	7	14	21	35	40	70
ESR 12	9.0	12.7	18.0	22.0	28.4	35.9	40.2	8.2	11.5	16.3	20.0	25.8	32.6	36.5
ESR 20	17.5	24.7	34.9	42.8	55.2	69.9	78.1	15.9	22.4	31.7	38.8	50.2	63.4	70.9
-7°								-12°						
PRESSURE DROP (PSI)								PRESSURE DROP (PSI)						
3.5	7	14	21	35	40	70		3.5	7	14	21	35	40	70
ESR 12	7.0	9.9	14.0	17.2	22.2	28.0	31.3	6.2	8.8	12.5	15.3	19.7	25.0	27.9
ESR 20	13.6	19.3	27.3	33.4	43.1	54.5	61.0	12.1	17.2	24.3	29.7	38.4	48.6	54.3
-18°								-23°						
PRESSURE DROP (PSI)								PRESSURE DROP (PSI)						
3.5	7	14	21	35	40	70		3.5	7	14	21	35	40	70
ESR 12	5.5	7.7	11.0	13.4	17.3	21.9	24.5	4.8	6.8	9.7	11.9	15.3	19.4	21.7
ESR 20	10.7	15.1	21.3	26.1	33.7	42.6	47.7	9.4	13.3	18.8	23.1	29.8	37.7	42.1
-29°								-34°						
PRESSURE DROP (PSI)								PRESSURE DROP (PSI)						
3.5	7	14	21	35	40	70		3.5	7	14	21	35	40	70
ESR 12	4.2	5.9	8.4	10.3	13.3	16.8	18.8	3.7	5.2	7.4	9.1	11.7	14.8	16.5
ESR 20	8.2	11.6	16.4	20.0	25.9	32.7	36.6	7.2	10.2	14.4	17.6	22.7	28.7	32.1
R-502														
EVAPORATOR TEMPERATURE IN °C														
8°								1°						
PRESSURE DROP (PSI)								PRESSURE DROP (PSI)						
3.5	7	14	21	35	40	70		3.5	7	14	21	35	40	70
ESR 12	14.0	19.8	28.0	34.3	44.3	56.1	62.7	13.4	18.9	26.8	32.8	42.3	53.5	59.8
ESR 20	27.3	38.5	54.5	66.8	86.2	109.0	121.9	26.0	36.8	52.0	63.7	82.3	104.1	116.4
-7°								-12°						
PRESSURE DROP (PSI)								PRESSURE DROP (PSI)						
3.5	7	14	21	35	40	70		3.5	7	14	21	35	40	70
ESR 12	10.8	15.3	21.7	26.5	34.3	43.3	48.4	9.7	13.7	19.4	23.7	30.6	38.7	43.3
ESR 20	21.1	29.8	42.1	51.6	66.6	84.3	94.2	18.8	26.6	37.7	46.1	59.6	75.3	84.2
-18°								-23°						
PRESSURE DROP (PSI)								PRESSURE DROP (PSI)						
3.5	7	14	21	35	40	70		3.5	7	14	21	35	40	70
ESR 12	8.7	12.3	17.3	21.2	27.4	34.7	38.8	7.6	10.8	15.3	18.7	24.2	30.6	34.2
ESR 20	16.9	23.8	33.7	41.3	53.3	67.4	75.4	14.9	21.0	29.7	36.4	47.0	59.5	66.5
-29°								-34°						
PRESSURE DROP (PSI)								PRESSURE DROP (PSI)						
3.5	7	14	21	35	40	70		3.5	7	14	21	35	40	70
ESR 12	6.6	9.4	13.3	16.2	21.0	26.5	29.6	5.7	8.1	11.5	14.0	18.1	22.9	25.6
ESR 20	12.9	18.2	25.8	31.6	40.7	51.5	57.6	11.2	15.8	22.3	27.3	35.3	44.6	49.9
R-407C														
EVAPORATOR TEMPERATURE IN °C														
8°								1°						
PRESSURE DROP (PSI)								PRESSURE DROP (PSI)						
3.5	7	14	21	35	40	70		3.5	7	14	21	35	40	70
ESR 12	14.0	19.8	28.0	34.3	44.3	56.1	62.7	13.4	18.9	26.8	32.8	42.3	53.5	59.8
ESR 20	27.3	38.5	54.5	66.8	86.2	109.0	121.9	26.0	36.8	52.0	63.7	82.3	104.1	116.4
-7°								-12°						
PRESSURE DROP (PSI)								PRESSURE DROP (PSI)						
3.5	7	14	21	35	40	70		3.5	7	14	21	35	40	70
ESR 12	10.8	15.3	21.7	26.5	34.3	43.3	48.4	9.7	13.7	19.4	23.7	30.6	38.7	43.3
ESR 20	21.1	29.8	42.1	51.6	66.6	84.3	94.2	18.8	26.6	37.7	46.1	59.6	75.3	84.2
-18°								-23°						
PRESSURE DROP (PSI)								PRESSURE DROP (PSI)						
3.5	7	14	21	35	40	70		3.5	7	14	21	35	40	70
ESR 12	8.7	12.3	17.3	21.2	27.4	34.7	38.8	7.6	10.8	15.3	18.7	24.2	30.6	34.2
ESR 20	16.9	23.8	33.7	41.3	53.3	67.4	75.4	14.9	21.0	29.7	36.4	47.0	59.5	66.5
-29°								-34°						
PRESSURE DROP (PSI)								PRESSURE DROP (PSI)						
3.5	7	14	21	35	40	70		3.5	7	14	21	35	40	70
ESR 12	6.6	9.4	13.3	16.2	21.0	26.5	29.6	5.7	8.1	11.5	14.0	18.1	22.9	25.6
ESR 20	12.9	18.2	25.8	31.6	40.7	51.5	57.6	11.2	15.8	22.3	27.3	35.3	44.6	49.9

IPR-6 Extended Capacity Tables in kWatts – Suction Gas

TYPE & ADJUSTMENT RANGE	EVAP. TEMP. °C	SATURATION PRESSURE kPa			R134a				R22				R404A/R507			
		R-134A	R-22	R404A/R-507	PRESSURE DROP ACROSS VALVE – kPa											
					14	35	70	140	14	35	70	140	14	35	70	140
IPR-6 0-345, or 210-690 kPa	4	242	473	591	3.3	4.8	5.6	7.4	4.2	7.1	10.6	15.6	3.9	5.9	7.7	9.1
	-1	180	379	481	2.9	4.1	4.5	5.7	3.9	6.4	9.6	13.5	3.5	5.2	6.7	7.4
	-7	127	297	384	2.5	3.4	3.5	4.2	3.5	5.7	8.5	11.7	3.1	4.5	5.7	6.0
	-12	83	254	300	2.2	2.8	2.8	3.5	3.2	5.0	7.4	9.6	2.7	3.9	4.7	4.8
	-18	45	166	228	1.8	2.2	2.2	2.5	2.8	4.2	6.4	7.8	2.3	3.3	3.8	3.8
	-23	14	114	166	1.5	1.7	1.7	0.0	2.5	3.9	5.3	6.4	2.0	2.8	3.0	3.0
	-29	0	70	112					2.1	3.2	4.2	5.0	1.7	2.3	2.3	2.3

IPR-6 Extended Capacity Tables in kWatts – Suction Gas

TYPE & ADJUSTMENT RANGE (kPa)	EVAP. TEMP. °C	SATURATION PRESSURE kPa			R12				R407C				R502			
		R-12	R-407C	R-502	PRESSURE DROP ACROSS VALVE – kPa											
					14	35	70	140	14	35	70	140	14	35	70	140
IPR-6 0-345, or 210-690 kPa	4	255	426	553	2.8	5.0	7.1	9.6	4.5	7.4	11.2	16.4	3.2	5.3	8.1	12.4
	-1	196	334	451	2.8	4.2	6.0	7.8	3.7	6.1	9.1	12.8	2.8	4.6	7.1	10.6
	-7	145	255	362	2.5	3.9	5.3	6.4	3.0	4.8	7.2	9.9	2.5	4.2	6.4	8.9
	-12	101	187	284	2.1	3.2	4.2	5.3	2.4	3.8	5.6	7.3	2.1	3.5	5.3	7.4
	-18	63	130	215	1.8	2.8	3.5	4.2	1.9	2.9	4.3	5.3	1.8	3.2	4.6	6.0
	-23	31	82	157	1.8	2.1	2.8	0.0	1.5	2.3	3.2	3.8	1.8	2.8	3.9	5.0
	-29	4	43	107	1.4	1.8	2.1	0.0	1.1	1.7	2.2	2.6	1.4	2.1	3.2	3.9

IPR-10 Extended Capacity Tables in kWatts – Suction Gas

TYPE & ADJUSTMENT RANGE (kPa)	EVAP. TEMP. °C	SATURATION PRESSURE kPa			R134a				R22				R404A/R507			
		R-134A	R-22	R404A/R-507	PRESSURE DROP ACROSS VALVE – kPa											
					14	35	70	140	14	35	70	140	14	35	70	140
IPR-10 0-345, or 210-690 kPa	4	242	473	591	7.7	11.0	12.8	17.1	10.6	17.0	24.4	33.6	9.0	13.6	17.7	20.8
	-1	180	379	481	6.7	9.4	10.3	13.0	9.6	15.2	21.6	29.4	8.0	12.0	15.3	17.1
	-7	127	297	384	5.9	7.8	8.1	9.8	8.5	13.5	19.1	25.5	7.1	10.4	13.0	13.8
	-12	83	254	300	5.0	6.4	6.4	8.1	7.4	11.7	16.6	20.9	6.1	9.0	10.8	11.1
	-18	45	166	228	4.2	5.0	5.0	5.7	6.7	10.3	14.2	17.0	5.4	7.6	8.7	8.7
	-23	14	114	166	3.5	3.9	3.9	0.0	5.7	8.9	11.7	13.8	4.6	6.4	6.8	6.8
	-29	0	70	112					5.0	7.4	9.6	10.6	3.9	5.2	5.4	5.4

IPR-10 Extended Capacity Tables in kWatts – Suction Gas

TYPE & ADJUSTMENT RANGE (kPa)	EVAP. TEMP. °C	SATURATION PRESSURE kPa			R12				R407C				R502			
		R-12	R-407C	R-502	PRESSURE DROP ACROSS VALVE – kPa											
					14	35	70	140	14	35	70	140	14	35	70	140
IPR-10 0-345, or 210-690 kPa	4	255	426	553	7.1	11.3	15.9	20.5	11.2	17.8	25.6	35.3	7.8	12.4	18.8	26.6
	-1	196	334	451	6.4	10.3	13.8	17.0	9.1	14.5	20.5	27.9	7.1	11.0	16.3	23.0
	-7	145	255	362	5.7	8.9	11.7	13.8	7.2	11.4	16.2	21.7	6.4	9.9	14.2	19.5
	-12	101	187	284	5.0	7.8	9.9	11.3	5.6	8.9	12.6	15.9	5.3	8.5	12.4	16.3
	-18	63	130	215	4.2	6.7	8.1	8.9	4.6	7.0	9.6	11.6	4.6	7.4	10.6	13.1
	-23	31	82	157	3.9	5.3	6.4	0.0	3.4	5.3	7.0	8.3	3.9	6.4	8.9	10.6
	-29	4	43	107	3.2	4.2	4.6	0.0	2.6	3.9	5.0	5.5	3.2	5.3	7.1	8.1

Thermal Expansion Valves
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System Protectors
Storage Devices
Oil Controls
Pressure Regulators
Temperature Pressure Controls
Competitive Cross Reference

Regulators Extended Capacities in kW

OPR-6, -10 Extended Capacity Tables in kWatts R-12 – Suction Gas

TYPE & ADJUSTMENT RANGE	EVAPORATOR TEMP. °C	R-12 SATURATED SUCTION PRESSURE kPa	1/2 kPa DROP						1 kPa DROP						2 kPa DROP					
			VALVE SET POINT – kPa																	
			69	138	207	276	345	414	69	138	207	276	345	414	69	138	207	276	345	414
OPR-6 0-410 kPa, 140-620 kPa, or 345-900 kPa	-1	197			0.97	1.71	2.42	3.16			2.23	2.38	3.38	4.42			1.78	3.23	4.68	6.17
	-7	146			1.34	2.01	2.64	3.31			1.86	2.79	3.72	4.61			2.53	3.83	5.13	6.43
	-12	101		1.00	1.56	2.16	2.71	2.94	1.34	2.19	3.01	3.83	4.13		1.78	2.97	4.13	5.28	5.69	
	-18	63	0.63	1.15	1.67	2.19	2.60	2.60	0.85	1.60	2.30	3.05	3.64	3.64	1.08	2.12	3.12	4.16	4.98	63.19
	-23	31	0.78	1.23	1.67	2.12	2.27	2.27	1.04	1.67	2.30	2.94	3.20	3.20	1.34	2.23	3.12	4.05	4.35	3.72
OPR-10 0-410 kPa, 140-620 kPa, or 345-900 kPa	-1	197			0.71	5.24	7.99	7.99			1.00	7.40	11.30	11.30			1.38	10.41	15.91	15.91
	-7	146			3.64	7.14	7.14	7.14			5.13	10.11	10.11	10.11			7.21	14.24	14.24	14.24
	-12	101		1.93	5.58	6.36	6.36	6.36		2.75	7.88	9.00	9.00	9.00		3.83	11.04	12.67	12.67	12.67
	-18	63	0.30	3.49	5.65	5.65	5.65	5.65	0.37	4.91	7.95	7.95	7.95	7.95	0.48	6.88	11.23	11.23	11.23	11.23
	-23	31	1.56	4.39	4.98	4.98	4.98	4.98	2.19	6.17	7.03	7.03	7.03	7.03	3.05	8.66	9.85	9.85	9.85	9.85

OPR-6, -10 Extended Capacity Tables in kWatts R-22 – Suction Gas

TYPE & ADJUSTMENT RANGE	EVAPORATOR TEMP. °C	R-22 SATURATED SUCTION PRESSURE kPa	1/2 kPa DROP						1 kPa DROP						2 kPa DROP						
			VALVE SET POINT – kPa																		
			69	138	207	276	345	414	69	138	207	276	345	414	69	138	207	276	345	414	
OPR-6 0-410 kPa, 140-620 kPa, or 345-900 kPa	-1	379					1.86	1.86					2.60	2.60						3.57	3.57
	-7	297					1.86	2.82					2.60	3.98						3.57	5.50
	-12	226				1.67	2.56	3.42				2.34	3.57	4.83				3.20	4.94	6.73	6.73
	-18	166			1.41	2.19	2.97	3.75			1.93	3.05	4.16	5.28			2.64	4.20	5.76	7.32	7.32
	-23	114		1.08	1.75	2.45	3.12	3.53	1.45	2.45	3.42	4.39	4.98		1.93	3.35	4.72	6.13	6.88	6.88	
	-29	70		1.34	1.93	2.56	3.12	3.12	1.82	2.68	3.57	4.39	4.39		0.00	0.00	0.00	6.02	6.02	6.02	6.02
	-34	4	0.97	1.45	1.93	2.38	2.38	2.38	1.34	2.01	2.68	3.31	3.31	3.31	0.00	0.00	0.00	0.00	4.50	4.50	4.50
OPR-10 0-410 kPa, 140-620 kPa, or 345-900 kPa	-1	379					3.46	3.46					4.87	4.87						6.84	6.84
	-7	297					4.24	10.33					5.98	14.61						8.44	20.63
	-12	226				3.94	9.44	9.66				5.58	14.31	13.64				7.84	18.81	19.25	19.25
	-18	166			2.94	7.84	8.62	8.62			4.13	11.08	12.19	12.19			5.84	15.61	17.21	17.21	17.21
	-23	114		1.52	5.87	7.69	7.69	7.69	2.16	8.29	10.85	10.85	10.85		2.97	11.71	15.28	15.28	15.28	15.28	
	-29	70		3.79	6.80	6.80	6.80	6.80	5.32	9.59	9.59	9.59	9.59		7.47	13.49	13.49	13.49	13.49	13.49	
	-34	4	2.79	5.20	5.20	5.20	5.20	5.20	3.94	7.36	7.36	7.36	7.36	7.36	5.50	10.33	10.33	10.33	10.33	10.33	10.33

OPR-6, -10 Extended Capacity Tables in kWatts R-134a – Suction Gas

TYPE & ADJUSTMENT RANGE	EVAPORATOR TEMP. °C	R-134a SATURATED SUCTION PRESSURE kPa	1/2 kPa DROP						1 kPa DROP						2 kPa DROP					
			VALVE SET POINT – kPa																	
			69	138	207	276	345	414	69	138	207	276	345	414	69	138	207	276	345	414
OPR-6 0-410 kPa, 140-620 kPa, or 345-900 kPa	-1	180			1.30	2.08	2.90	3.75			1.78	2.94	4.09	5.24			2.38	4.01	5.65	7.29
	-7	127			0.97	1.67	2.42	3.12	3.68	1.30	2.34	3.35	4.39	5.13		1.75	3.16	4.61	6.06	7.14
	-12	83		1.26	1.90	2.53	3.16	3.23	1.71	2.64	3.53	4.42	4.50		2.30	3.53	4.83	6.10	6.21	
	-18	45	0.82	1.38	1.93	2.49	2.82	2.82	1.12	1.90	2.71	3.49	3.90	3.90	1.41	2.53	3.64	4.76	5.39	5.39
	-23	14	0.93	1.41	1.90	2.38	2.42	2.42	1.26	1.93	2.64	3.31	3.38	3.38	1.60	2.56	3.53	4.50	4.61	4.61
OPR-10 0-410 kPa, 140-620 kPa, or 345-900 kPa	-1	180			2.01	7.10	8.96	8.96			2.82	10.04	12.71	12.71			3.98	14.16	17.88	17.88
	-7	127			0.74	5.24	7.92	7.92	7.92	1.00	7.36	11.23	11.23	11.23		1.38	10.37	15.80	15.80	15.80
	-12	83			3.20	6.99	6.99	6.99	6.99	4.50	9.85	9.85	9.85	9.85		6.32	13.90	13.90	13.90	13.90
	-18	45	1.23	4.68	6.10	6.10	6.10	6.10	1.71	6.62	8.62	8.62	8.62	8.62	2.34	9.29	12.12	12.12	12.12	12.12
	-23	14	2.42	5.32	5.32	5.32	5.32	5.32	3.42	7.51	7.51	7.51	7.51	7.51	4.76	10.52	10.52	10.52	10.52	10.52

OPR-6, -10 Extended Capacity Tables in kWatts R-502 – Suction Gas

TYPE & ADJUSTMENT RANGE	EVAPORATOR TEMP. °C	R-502 SATURATED SUCTION PRESSURE kPa	1/2 kPa DROP						1 kPa DROP						2 kPa DROP						
			VALVE SET POINT – kPa																		
			69	138	207	276	345	414	69	138	207	276	345	414	69	138	207	276	345	414	
OPR-6 0-410 kPa, 140-620 kPa, or 345-900 kPa	-7	362					1.49	1.49					2.01	2.08						2.75	2.90
	-12	283					1.41	2.12					2.01	2.97						2.75	4.09
	-18	215				1.26	1.86	2.45				1.75	2.60	3.46				2.38	3.61	4.79	4.79
	-23	156			1.04	1.56	2.08	2.60			1.41	2.19	2.94	3.68			1.93	2.97	4.05	5.09	5.09
	-29	106	0.78	1.23	1.71	2.16	2.38	2.38	1.04	1.71	2.38	3.01	3.31		1.38	2.30	3.27	4.20	4.57	4.57	
OPR-10 0-410 kPa, 140-620 kPa, or 345-900 kPa	-7	362					3.61	3.61					5.13	5.13						7.21	7.21
	-12	283					3.83	7.47					5.43	10.59						7.66	14.94
	-18	215				3.38	6.62	6.62				4.76	9.37	9.37				6.69	13.23	13.23	13.23
	-23	156			2.49	5.80	5.84	5.84			3.49	8.18	8.25	8.25			4.91	11.56	11.63	11.63	11.63
	-29	106		1.38	4.27	5.13	5.13	5.13	1.93	6.02	7.25	7.25	7.25		2.71	8.51	10.18	10.18	10.18	10.18	

OPR-6, -10 Extended Capacity Tables in kWatts R-404A – Suction Gas

TYPE & ADJUSTMENT RANGE	EVAPORATOR TEMP. °C	R-404A SATURATED SUCTION PRESSURE kPa	1/2 kPa DROP						1 kPa DROP						2 kPa DROP					
			VALVE SET POINT – kPa																	
			69	138	207	276	345	414	69	138	207	276	345	414	69	138	207	276	345	414
OPR-6 0-410 kPa, 140-620 kPa, or 345-900 kPa	-7	384					1.34													2.53
	-12	300					1.41						1.93							2.68
	-18	228				1.23	1.90	2.49				1.67	2.64	3.49				2.30	3.68	4.83
	-23	166				1.56	2.16	2.68				1.38	2.19	3.01	3.75			1.90	3.01	4.20
	-29	112			0.74	1.23	1.71	2.23	2.49			1.04	1.71	2.42	3.16	3.46		1.38	2.34	3.31
OPR-10 0-410 kPa, 140-620 kPa, or 345-900 kPa	-7	384					2.12													4.16
	-12	300					3.27	7.40					4.61	10.48						6.50
	-18	228				2.82	7.10	7.10					3.98	10.00	10.00				5.61	14.12
	-23	166				2.16	5.61	6.21	6.21				3.01	7.95	8.73	8.73			4.24	11.19
	-29	112			1.12	4.20	5.39	5.39	5.39			1.60	5.91	7.58	7.58	7.58		2.19	8.33	10.70

OPR-6, -10 Extended Capacity Tables in kWatts R-407C – Suction Gas

TYPE & ADJUSTMENT RANGE	EVAPORATOR TEMP. °C	R-407C SATURATED SUCTION PRESSURE kPa	1/2 kPa DROP						1 kPa DROP						2 kPa DROP					
			VALVE SET POINT – kPa																	
			69	138	207	276	345	414	69	138	207	276	345	414	69	138	207	276	345	414
OPR-6 0-410 kPa, 140-620 kPa, or 345-900 kPa	-1	435					1.86													3.57
	-7	356					1.86	2.82					2.60	3.98						5.50
	-12	288				1.67	2.56	3.42					2.34	3.57	4.83				3.20	4.94
	-18	232				1.41	2.19	2.97	3.75				1.93	3.05	4.16	5.28			2.64	4.20
	-23	184			1.08	1.75	2.45	3.12	3.53			1.45	2.45	3.42	4.39	4.98		1.93	3.35	4.72
OPR-10 0-410 kPa, 140-620 kPa, or 345-900 kPa	-1	435					3.46													6.84
	-7	356					4.24	10.33					5.98	14.61						8.44
	-12	288				3.94	9.44	9.66					5.58	14.31	13.64				7.84	18.81
	-18	232				2.94	7.84	8.62	8.62				4.13	11.08	12.19	12.19			5.84	15.61
	-23	184			1.52	5.87	7.69	7.69	7.69			2.16	8.29	10.85	10.85	10.85		2.97	11.71	15.28

OPR-6, -10 Extended Capacity Tables in kWatts R-507 – Suction Gas

TYPE & ADJUSTMENT RANGE	EVAPORATOR TEMP. °C	R-507 SATURATED SUCTION PRESSURE kPa	1/2 kPa DROP						1 kPa DROP						2 kPa DROP					
			VALVE SET POINT – kPa																	
			69	138	207	276	345	414	69	138	207	276	345	414	69	138	207	276	345	414
OPR-6 0-410 kPa, 140-620 kPa, or 345-900 kPa	-7	319					1.12	1.86												2.16
	-12	243					1.08	1.67	2.34										2.01	3.23
	-18	178				0.89	1.45	2.01	2.56					1.23	2.01	2.79	3.61		1.67	2.79
	-23	123				1.15	1.64	2.12	2.45					1.60	2.30	2.97	3.46		2.19	3.16
	-29	38			0.56	0.93	1.30	1.64	1.82	1.82	0.78	1.30	1.78	2.30	2.53	2.53	0.97	1.71	2.42	3.16
OPR-10 0-410 kPa, 140-620 kPa, or 345-900 kPa	-7	319					1.64	6.32												3.27
	-12	243					1.93	5.80	6.99					2.71	8.18	9.89				3.83
	-18	178				1.45	4.94	6.13	6.13					2.04	6.99	8.66	8.66		2.86	9.85
	-23	123				3.68	5.35	5.35	5.35					5.20	7.55	7.55	7.55		7.32	10.63
	-29	38			1.00	3.27	3.94	3.94	3.94	3.94	1.38	4.61	5.58	5.58	5.58	5.58	1.93	6.50	7.84	7.84

Thermal Expansion Valves
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Industrial Solenoid Valves
Shut Off Valves
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Storage Devices
Oil Controls
Pressure Regulators
Temperature Pressure Controls
Competitive Cross Reference

EPRB(S) Extended Capacity Tables in kWatts

R-134a	EVAPORATOR TEMPERATURE																							
	+ 8°C						+ 1°C						-7°C						-12°C					
	PRESSURE DROP ACROSS VALVE – kPa																							
VALVE	3.5	7	14	21	28	35	3.5	7	14	21	28	35	3.5	7	14	21	28	35	3.5	7	14	21	28	35
EPRBS 12T9	6.2	8.9	12.8	15.7	18.2	19.8	5.5	7.9	11.3	14.0	15.9	17.2	4.8	7.0	10.0	12.4	13.7	14.8	4.5	6.5	9.4	11.4	12.7	13.6
EPRBS 16T11	10.9	15.7	22.5	27.7	32.1	35.0	9.7	13.9	20.0	24.6	28.0	30.6	8.5	12.3	17.7	21.8	24.3	26.4	8.0	11.5	16.6	20.2	22.5	24.4
EPRBS 20T13	20.4	29.3	41.9	51.6	59.8	64.3	18.1	26.0	37.3	45.9	51.3	56.6	15.9	23.0	33.0	40.6	45.0	49.5	14.9	21.5	30.9	37.0	42.0	46.1

R-134a	EVAPORATOR TEMPERATURE																							
	-18°C						-23°C						-29°C						-34°C					
	PRESSURE DROP ACROSS VALVE – kPa																							
VALVE	3.5	7	14	21	28	35	3.5	7	14	21	28	35	3.5	7	14	21	28	35	3.5	7	14	21	28	35
EPRBS 12T9	4.2	6.1	8.8	10.6	11.6	12.4	4.0	5.7	8.2	9.8	10.7	11.3	3.7	5.3	7.8	9.0	9.8	10.2	3.4	5.0	7.2	8.2	8.9	9.2
EPRBS 16T11	7.5	10.8	15.5	18.7	20.9	22.4	7.0	10.1	14.5	17.3	19.2	20.5	6.5	9.4	13.7	16.0	17.6	18.7	6.1	8.8	12.6	14.7	16.1	17.0
EPRBS 20T13	13.9	20.2	29.0	34.5	39.1	42.9	13.0	18.8	27.1	32.1	36.3	39.7	12.1	17.6	25.0	29.8	33.6	36.7	11.3	16.4	23.2	27.6	31.1	33.7

R-22	EVAPORATOR TEMPERATURE																							
	+ 8°C						+ 1°C						-7°C						-12°C					
	PRESSURE DROP ACROSS VALVE – kPa																							
VALVE	3.5	7	14	21	28	35	3.5	7	14	21	28	35	3.5	7	14	21	28	35	3.5	7	14	21	28	35
EPRBS 12T9	8.1	11.6	16.6	20.4	23.6	26.5	7.3	10.5	15.0	18.5	21.5	24.0	6.2	9.0	12.9	15.8	18.3	20.6	5.6	8.0	11.5	14.2	16.4	17.8
EPRBS 16T11	14.3	20.5	29.3	36.0	41.7	46.7	12.9	18.5	26.5	32.6	37.8	42.3	11.0	15.8	22.7	27.9	32.3	36.2	9.8	14.2	20.3	25.0	29.0	31.5
EPRBS 20T13	26.7	38.2	54.6	67.2	77.8	87.1	24.1	34.6	49.5	60.9	70.4	78.9	20.5	29.5	42.3	52.0	60.3	67.5	18.3	26.4	37.8	46.6	54.0	58.0

R-22	EVAPORATOR TEMPERATURE																							
	-18°C						-23°C						-29°C						-34°C					
	PRESSURE DROP ACROSS VALVE – kPa																							
VALVE	3.5	7	14	21	28	35	3.5	7	14	21	28	35	3.5	7	14	21	28	35	3.5	7	14	21	28	35
EPRBS 12T9	5.0	7.2	10.3	12.6	14.2	15.4	4.4	6.3	9.1	11.1	12.3	13.2	3.8	5.6	8.0	9.5	10.4	11.0	3.3	4.8	7.0	8.0	8.6	9.0
EPRBS 16T11	8.7	12.6	18.1	22.3	25.2	27.4	7.7	11.2	16.0	19.6	21.9	23.6	6.8	9.8	14.1	16.9	18.7	20.0	5.9	8.6	12.4	14.3	15.7	16.5
EPRBS 20T13	16.3	23.5	33.7	41.6	46.4	51.2	14.4	20.8	29.9	35.9	40.7	44.7	12.6	18.3	26.3	31.3	35.4	38.7	11.0	16.0	22.7	27.0	30.4	33.0

R-404A/ R-507	EVAPORATOR TEMPERATURE																							
	+ 8°C						+ 1°C						-7°C						-12°C					
	PRESSURE DROP ACROSS VALVE – kPa																							
VALVE	3.5	7	14	21	28	35	3.5	7	14	21	28	35	3.5	7	14	21	28	35	3.5	7	14	21	28	35
EPRBS 12T9	6.9	9.9	14.1	17.3	20.0	22.4	6.2	8.8	12.6	15.5	17.9	20.1	5.1	7.4	10.5	13.0	15.0	16.9	4.5	6.5	9.3	11.5	13.3	14.5
EPRBS 16T11	12.2	17.4	24.8	30.5	35.3	39.5	10.9	15.5	22.2	27.3	31.6	35.4	9.1	13.0	18.6	22.9	26.5	29.7	8.0	11.5	16.4	20.2	23.4	25.7
EPRBS 20T13	22.7	32.5	46.3	57.0	65.9	73.8	20.2	29.0	41.4	50.9	58.9	66.0	16.9	24.3	34.7	42.7	49.4	55.3	14.9	21.4	30.7	37.7	43.7	47.0

R-404A/ R-507	EVAPORATOR TEMPERATURE																							
	-18°C						-23°C						-29°C						-34°C					
	PRESSURE DROP ACROSS VALVE – kPa																							
VALVE	3.5	7	14	21	28	35	3.5	7	14	21	28	35	3.5	7	14	21	28	35	3.5	7	14	21	28	35
EPRBS 12T9	4.0	5.7	8.2	10.1	11.7	12.5	3.5	5.6	7.2	8.8	9.8	10.7	3.0	4.3	6.2	7.5	8.3	8.9	2.6	3.8	5.4	6.3	6.9	7.3
EPRBS 16T11	7.0	10.1	14.4	17.8	20.6	22.2	6.1	8.8	12.6	15.5	17.5	19.0	5.3	7.6	11.0	13.3	14.8	16.0	4.6	6.6	9.5	11.2	12.4	13.2
EPRBS 20T13	13.1	18.8	26.9	33.2	38.4	41.0	11.4	16.4	23.5	29.0	32.2	35.5	9.8	14.3	20.5	24.4	27.7	30.4	8.5	12.3	17.7	20.9	23.6	25.7

EPRB(S) Extended Capacity Tables in kWatts

R-12	EVAPORATOR TEMPERATURE																							
	+8°C			+1°C			-7°C			-12°C														
	PRESSURE DROP ACROSS VALVE – kPa																							
VALVE	3.5	7	14	21	28	35	3.5	7	14	21	28	35	3.5	7	14	21	28	35	3.5	7	14	21	28	35
EPRBS 12T9	5.7	8.2	11.6	14.3	16.6	18.6	4.7	6.7	9.6	11.8	13.7	15.4	3.4	4.9	7.1	8.7	10.1	11.3	2.7	3.9	5.6	7.0	8.0	8.7
EPRBS 16T11	10.0	14.3	20.5	25.2	29.2	32.7	8.3	11.9	17.0	20.9	24.2	27.1	6.1	8.7	12.5	15.3	17.8	19.9	4.8	6.9	9.9	12.2	14.2	15.4
EPRBS 20T13	18.7	26.8	38.2	47.0	54.4	61.0	15.4	22.1	31.7	38.9	45.1	50.5	11.3	16.2	23.2	28.6	33.2	37.1	9.0	12.9	18.5	22.8	26.5	28.4

R-12	EVAPORATOR TEMPERATURE																							
	-18°C			-23°C			-29°C			-34°C														
	PRESSURE DROP ACROSS VALVE – kPa																							
VALVE	3.5	7	14	21	28	35	3.5	7	14	21	28	35	3.5	7	14	21	28	35	3.5	7	14	21	28	35
EPRBS 12T9	2.1	3.1	4.4	5.4	6.1	6.6	1.7	2.4	3.5	4.2	4.7	5.0	1.3	1.8	2.6	3.1	3.4	3.6	1.0	1.4	2.0	2.3	2.5	2.6
EPRBS 16T11	3.8	5.4	7.8	9.6	10.8	11.8	2.9	4.2	6.1	7.4	8.3	9.0	2.2	3.2	4.6	5.6	6.2	6.6	1.7	2.5	3.6	4.2	4.5	4.8
EPRBS 20T13	7.0	10.1	14.5	17.9	20.0	22.0	5.5	7.9	11.4	13.6	15.5	17.0	4.2	6.0	8.7	10.3	11.4	12.8	3.2	4.6	6.6	7.8	8.8	9.6

R-407C	EVAPORATOR TEMPERATURE																							
	+8°C			+1°C			-7°C			-12°C														
	PRESSURE DROP ACROSS VALVE – kPa																							
VALVE	3.5	7	14	21	28	35	3.5	7	14	21	28	35	3.5	7	14	21	28	35	3.5	7	14	21	28	35
EPRBS 12T9	8.9	12.8	18.3	22.5	26.0	29.2	7.3	10.5	15.0	18.5	21.5	24.0	5.3	7.6	10.9	13.5	15.6	17.5	4.3	6.1	8.7	10.8	12.5	13.5
EPRBS 16T11	15.7	22.5	32.2	39.6	45.8	51.4	12.9	18.5	26.5	32.6	37.8	42.3	9.4	13.5	19.3	23.7	27.5	30.8	7.5	10.8	15.4	19.0	22.0	23.9
EPRBS 20T13	29.3	42.1	60.0	73.9	85.6	95.8	24.1	34.6	49.5	60.9	70.4	78.9	17.5	25.1	35.9	44.2	51.2	57.4	13.9	20.1	28.8	35.4	41.1	44.1

R-407C	EVAPORATOR TEMPERATURE																							
	-18°C			-23°C			-29°C			-34°C														
	PRESSURE DROP ACROSS VALVE – kPa																							
VALVE	3.5	7	14	21	28	35	3.5	7	14	21	28	35	3.5	7	14	21	28	35	3.5	7	14	21	28	35
EPRBS 12T9	3.4	4.9	7.0	8.6	9.7	10.5	2.6	3.8	5.5	6.6	7.4	7.9	2.0	2.9	4.2	4.9	5.4	5.7	1.5	2.2	3.1	3.6	3.9	4.0
EPRBS 16T11	5.9	8.6	12.3	15.1	17.1	18.7	4.6	6.7	9.6	11.7	13.1	14.2	3.5	5.1	7.3	8.8	9.7	10.4	2.6	3.9	5.6	6.5	7.1	7.4
EPRBS 20T13	11.1	16.0	22.9	28.3	31.6	34.8	8.6	12.5	17.9	21.5	24.4	26.8	6.6	9.5	13.7	16.3	18.4	20.1	4.9	7.2	10.2	12.2	13.7	14.8

R-502	EVAPORATOR TEMPERATURE																							
	+8°C			+1°C			-7°C			-12°C														
	PRESSURE DROP ACROSS VALVE – kPa																							
VALVE	3.5	7	14	21	28	35	3.5	7	14	21	28	35	3.5	7	14	21	28	35	3.5	7	14	21	28	35
EPRBS 12T9	6.7	9.7	13.8	17.0	19.6	22.0	5.5	7.9	11.3	13.9	16.1	18.0	4.0	5.8	8.2	10.1	11.7	13.2	3.2	4.6	6.6	8.1	9.4	10.1
EPRBS 16T11	11.9	17.0	24.3	29.9	34.6	38.8	9.7	13.9	19.9	24.5	28.3	31.7	7.0	10.1	14.5	17.9	20.7	23.2	5.6	8.1	11.6	14.2	16.5	17.9
EPRBS 20T13	22.1	31.7	45.3	55.7	64.6	72.3	18.1	25.9	37.1	45.6	52.8	59.2	13.1	18.9	27.1	33.3	38.6	43.2	10.5	15.1	21.6	26.6	30.8	33.1

R-502	EVAPORATOR TEMPERATURE																							
	-18°C			-23°C			-29°C			-34°C														
	PRESSURE DROP ACROSS VALVE – kPa																							
VALVE	3.5	7	14	21	28	35	3.5	7	14	21	28	35	3.5	7	14	21	28	35	3.5	7	14	21	28	35
EPRBS 12T9	2.5	3.6	5.2	6.4	7.3	7.9	2.0	2.9	4.1	5.0	5.5	5.9	1.5	2.2	3.1	3.7	4.1	4.3	1.1	1.6	2.4	2.7	2.9	3.0
EPRBS 16T11	4.5	6.4	9.2	11.4	12.9	14.0	3.5	5.0	7.2	8.8	9.8	10.6	2.6	3.8	5.5	6.6	7.3	7.8	2.0	2.9	4.2	4.9	5.3	5.6
EPRBS 20T13	8.3	12.0	17.2	21.2	23.7	26.1	6.5	9.4	13.4	16.2	18.3	20.1	4.9	7.1	10.3	12.2	13.8	15.1	3.7	5.4	7.7	9.2	10.3	11.2

Thermal Expansion Valves
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Competitive Cross Reference

DGR(E) & EGR(E) Valves for R134a in kWatts

TOTAL kWatts BYPASSED	COMPONENT TYPE	EVAPORATOR TEMPERATURE °C									
		4°	-1°	-7°	-12°	-18°	-23°	-29°	-34°	-40°	
1.8	BYPASS REGULATOR	EGRE6	EGRE8	EGRE8	EGRE8	EGRE8	EGRE8	EGRE8	EGRE8	DGRE12	DGRE12
	HOT GAS SOL.	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3
	LIQ. INJ. VALVE	LCL1B	LCL1B	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C
3.5	BYPASS REGULATOR	EGRE8	EGRE8	EGRE8	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	-
	HOT GAS SOL.	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	-
	LIQ. INJ. VALVE	LCL1B	LCL1B	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C	-
7.1	BYPASS REGULATOR	DGRE12	DGRE12	DGRE12	DGRE12	-	-	-	-	-	-
	HOT GAS SOL.	200RB5	200RB5	200RB5	200RB5	-	-	-	-	-	-
	LIQ. INJ. VALVE	LCL2B	LCL2B	LCL2C	LCL2C	-	-	-	-	-	-
10.6	BYPASS REGULATOR	DGRE12	DGRE12	-	-	-	-	-	-	-	-
	HOT GAS SOL.	200RB6	200RB6	-	-	-	-	-	-	-	-
	LIQ. INJ. VALVE	LCL2B	LCL2B	-	-	-	-	-	-	-	-

DGR(E) & EGR(E) Valves for R-22 in kWatts

TOTAL kWatts BYPASSED	COMPONENT TYPE	EVAPORATOR TEMPERATURE °C									
		4°	-1°	-7°	-12°	-18°	-23°	-29°	-34°	-40°	
1.8	BYPASS REGULATOR	EGRE4	EGRE4	EGRE6	EGRE6	EGRE6	EGRE6	EGRE6	EGRE6	EGRE6	EGRE8
	HOT GAS SOL.	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2
	LIQ. INJ. VALVE	LCL1A	LCL1A	LCL1B	LCL1B	LCL1B	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C
3.5	BYPASS REGULATOR	EGRE4	EGRE6	EGRE6	EGRE6	EGRE8	EGRE8	EGRE8	EGRE8	EGRE8	EGRE8
	HOT GAS SOL.	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3
	LIQ. INJ. VALVE	LCL1A	LCL1A	LCL1B	LCL1B	LCL1B	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C
7.1	BYPASS REGULATOR	EGRE8	EGRE8	EGRE8	EGRE8	EGRE8	EGRE8	DGRE12	DGRE12	DGRE12	DGRE12
	HOT GAS SOL.	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4
	LIQ. INJ. VALVE	LCL1A	LCL1A	LCL1B	LCL1B	LCL1B	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C
10.6	BYPASS REGULATOR	EGRE8	EGRE8	EGRE8	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	-
	HOT GAS SOL.	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	-
	LIQ. INJ. VALVE	LCL1A	LCL1A	LCL1B	LCL1B	LCL1B	LCL2C	LCL2C	LCL2C	LCL2C	-
14.2	BYPASS REGULATOR	EGRE8	EGRE8	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	-	-	-
	HOT GAS SOL.	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	-	-	-
	LIQ. INJ. VALVE	LCL2A	LCL2A	LCL2B	LCL2B	LCL2B	LCL2C	LCL3C	-	-	-
17.7	BYPASS REGULATOR	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	-	-	-	-
	HOT GAS SOL.	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6	-	-	-	-
	LIQ. INJ. VALVE	LCL2A	LCL2A	LCL2B	LCL2B	LCL2B	LCL2C	-	-	-	-
21.2	BYPASS REGULATOR	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	-	-	-	-	-
	HOT GAS SOL.	200RB6	200RB6	200RB6	200RB6	200RB6	-	-	-	-	-
	LIQ. INJ. VALVE	LCL2A	LCL2A	LCL2B	LCL2B	LCL2B	-	-	-	-	-
24.8	BYPASS REGULATOR	DGRE12	DGRE12	DGRE12	DGRE12	-	-	-	-	-	-
	HOT GAS SOL.	240RA8	240RA8	240RA8	240RA8	-	-	-	-	-	-
	LIQ. INJ. VALVE	LCL2A	LCL2A	LCL2B	LCL3B	-	-	-	-	-	-
28.3	BYPASS REGULATOR	DGRE12	DGRE12	DGRE12	-	-	-	-	-	-	-
	HOT GAS SOL.	240RA8	240RA8	240RA8	-	-	-	-	-	-	-
	LIQ. INJ. VALVE	LCL3A	LCL3A	LCL3B	-	-	-	-	-	-	-
31.9	BYPASS REGULATOR	DGRE12	DGRE12	-	-	-	-	-	-	-	-
	HOT GAS SOL.	240RA8	240RA8	-	-	-	-	-	-	-	-
	LIQ. INJ. VALVE	LCL3A	LCL3A	-	-	-	-	-	-	-	-
35.4	BYPASS REGULATOR	DGRE12	-	-	-	-	-	-	-	-	-
	HOT GAS SOL.	240RA8	-	-	-	-	-	-	-	-	-
	LIQ. INJ. VALVE	LCL3A	-	-	-	-	-	-	-	-	-

DGR(E) & EGR(E) Valves for R12 in kWatts

TOTAL kWatts BYPASSED	COMPONENT TYPE	EVAPORATOR TEMPERATURE °C									
		4°	-1°	-7°	-12°	-18°	-23°	-29°	-34°	-40°	
1.8	BYPASS REGULATOR	EGRE4	EGRE6	EGRE6	EGRE6	EGRE6	EGRE6	EGRE6	EGRE6	DGRE12	DGRE12
	HOT GAS SOL.	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3
	LIQ. INJ. VALVE	LCL1B	LCL1B	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C
3.5	BYPASS REGULATOR	EGRE6	EGRE6	EGRE6	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	-
	HOT GAS SOL.	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	-
	LIQ. INJ. VALVE	LCL1B	LCL1B	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C	-
7.1	BYPASS REGULATOR	DGRE12	DGRE12	DGRE12	DGRE12	-	-	-	-	-	-
	HOT GAS SOL.	200RB5	200RB5	200RB5	200RB5	-	-	-	-	-	-
	LIQ. INJ. VALVE	LCL2B	LCL2B	LCL2C	LCL2C	-	-	-	-	-	-
10.6	BYPASS REGULATOR	DGRE12	DGRE12	-	-	-	-	-	-	-	-
	HOT GAS SOL.	200RB6	200RB6	-	-	-	-	-	-	-	-
	LIQ. INJ. VALVE	LCL2B	LCL2B	-	-	-	-	-	-	-	-

DGR(E) & EGR(E) Valves for R-404A & R-507 in kWatts

TOTAL kWatts BYPASSED	COMPONENT TYPE	EVAPORATOR TEMPERATURE °C								
		-1°	-7°	-12°	-18°	-23°	-29°	-34°	-40°	
1.8	BYPASS REGULATOR	EGRE4	EGRE4	EGRE6	EGRE6	EGRE6	EGRE6	EGRE6	EGRE6	EGRE8
	HOT GAS SOL.	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2
	LIQ. INJ. VALVE	LCL1A	LCL1A	LCL1B	LCL1B	LCL1B	LCL1C	LCL1C	LCL1C	LCL1C
3.5	BYPASS REGULATOR	EGRE4	EGRE6	EGRE6	EGRE8	EGRE8	EGRE8	EGRE8	EGRE8	EGRE8
	HOT GAS SOL.	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3
	LIQ. INJ. VALVE	LCL1A	LCL1A	LCL1B	LCL1B	LCL1B	LCL1C	LCL1C	LCL1C	LCL1C
7.1	BYPASS REGULATOR	EGRE8	EGRE8	EGRE8	EGRE8	EGRE8	DGRE12	DGRE12	DGRE12	DGRE12
	HOT GAS SOL.	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4
	LIQ. INJ. VALVE	LCL2A	LCL2A	LCL2B	LCL2B	LCL2B	LCL2B	LCL2C	LCL2C	LCL2C
10.6	BYPASS REGULATOR	EGRE8	EGRE8	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	-
	HOT GAS SOL.	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	-
	LIQ. INJ. VALVE	LCL2A	LCL2A	LCL2B	LCL2B	LCL3B	LCL3C	LCL3C	LCL3C	-
14.2	BYPASS REGULATOR	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	-	-
	HOT GAS SOL.	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6	-	-
	LIQ. INJ. VALVE	LCL2A	LCL3A	LCL3B	LCL3B	LCL3B	LCL3B	LCL3C	-	-
17.7	BYPASS REGULATOR	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	-	-	-	-
	HOT GAS SOL.	200RB6	200RB6	200RB6	200RB6	200RB6	-	-	-	-
	LIQ. INJ. VALVE	LCL3A	LCL3A	LCL3B	LCL3B	LCL3B	-	-	-	-
21.2	BYPASS REGULATOR	DGRE12	DGRE12	DGRE12	DGRE12	-	-	-	-	-
	HOT GAS SOL.	240RA8	240RA8	240RA8	240RA8	-	-	-	-	-
	LIQ. INJ. VALVE	LCL3A	LCL3A	LCL3B	LCL4B	-	-	-	-	-
24.8	BYPASS REGULATOR	DGRE12	DGRE12	DGRE12	-	-	-	-	-	-
	HOT GAS SOL.	240RA8	240RA8	240RA8	-	-	-	-	-	-
	LIQ. INJ. VALVE	LCL4A	LCL4A	LCL4B	-	-	-	-	-	-
28.3	BYPASS REGULATOR	DGRE12	DGRE12	-	-	-	-	-	-	-
	HOT GAS SOL.	240RA8	240RA8	-	-	-	-	-	-	-
	LIQ. INJ. VALVE	LCL4A	LCL4A	-	-	-	-	-	-	-
31.9	BYPASS REGULATOR	DGRE12	-	-	-	-	-	-	-	-
	HOT GAS SOL.	240RA9	-	-	-	-	-	-	-	-
	LIQ. INJ. VALVE	LCL4A	-	-	-	-	-	-	-	-

DGR(E) & EGR(E) Valves for R-407C in kWatts

TOTAL kWatts BYPASSED	COMPONENT TYPE	EVAPORATOR TEMPERATURE °C									
		4°	-1°	-7°	-12°	-18°	-23°	-29°	-34°	-40°	
1.8	BYPASS REGULATOR	EGRE4	EGRE4	EGRE6	EGRE6	EGRE6	EGRE6	EGRE6	EGRE6	EGRE8	EGRE8
	HOT GAS SOL.	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2
	LIQ. INJ. VALVE	LCL1A	LCL1A	LCL1B	LCL1B	LCL1B	LCL1B	LCL1C	LCL1C	LCL1C	LCL1C
3.5	BYPASS REGULATOR	EGRE4	EGRE6	EGRE6	EGRE6	EGRE8	EGRE8	EGRE8	EGRE8	EGRE8	EGRE8
	HOT GAS SOL.	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3
	LIQ. INJ. VALVE	LCL1A	LCL1A	LCL1B	LCL1B	LCL1B	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C
7.1	BYPASS REGULATOR	EGRE8	EGRE8	EGRE8	EGRE8	EGRE8	EGRE8	DGRE12	DGRE12	DGRE12	DGRE12
	HOT GAS SOL.	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4
	LIQ. INJ. VALVE	LCL1A	LCL1A	LCL1B	LCL1B	LCL1B	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C
10.6	BYPASS REGULATOR	EGRE8	EGRE8	EGRE8	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	-
	HOT GAS SOL.	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	-
	LIQ. INJ. VALVE	LCL1A	LCL1A	LCL1B	LCL1B	LCL1B	LCL2C	LCL2C	LCL2C	LCL2C	-
14.2	BYPASS REGULATOR	EGRE8	EGRE8	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	-	-	-
	HOT GAS SOL.	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	-	-	-
	LIQ. INJ. VALVE	LCL2A	LCL2A	LCL2B	LCL2B	LCL2B	LCL2C	LCL3C	-	-	-
17.7	BYPASS REGULATOR	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	-	-	-	-
	HOT GAS SOL.	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6	-	-	-	-
	LIQ. INJ. VALVE	LCL2A	LCL2A	LCL2B	LCL2B	LCL2B	LCL2C	-	-	-	-
21.2	BYPASS REGULATOR	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	-	-	-	-	-
	HOT GAS SOL.	200RB6	200RB6	200RB6	200RB6	200RB6	-	-	-	-	-
	LIQ. INJ. VALVE	LCL2A	LCL2A	LCL2B	LCL2B	LCL2B	-	-	-	-	-
24.8	BYPASS REGULATOR	DGRE12	DGRE12	DGRE12	DGRE12	-	-	-	-	-	-
	HOT GAS SOL.	240RA8	240RA8	240RA8	240RA8	-	-	-	-	-	-
	LIQ. INJ. VALVE	LCL2A	LCL2A	LCL2B	LCL3B	-	-	-	-	-	-
28.3	BYPASS REGULATOR	DGRE12	DGRE12	DGRE12	-	-	-	-	-	-	-
	HOT GAS SOL.	240RA8	240RA8	240RA8	-	-	-	-	-	-	-
	LIQ. INJ. VALVE	LCL3A	LCL3A	LCL3B	-	-	-	-	-	-	-
31.9	BYPASS REGULATOR	DGRE12	DGRE12	-	-	-	-	-	-	-	-
	HOT GAS SOL.	240RA8	240RA8	-	-	-	-	-	-	-	-
	LIQ. INJ. VALVE	LCL3A	LCL3A	-	-	-	-	-	-	-	-
35.4	BYPASS REGULATOR	DGRE12	-	-	-	-	-	-	-	-	-
	HOT GAS SOL.	240RA8	-	-	-	-	-	-	-	-	-
	LIQ. INJ. VALVE	LCL3A	-	-	-	-	-	-	-	-	-

DGR(E) & EGR(E) Valves for R-502 in kWatts

TOTAL kWatts BYPASSED	COMPONENT TYPE	EVAPORATOR TEMPERATURE °C									
		4°	-1°	-7°	-12°	-18°	-23°	-29°	-34°	-40°	
1.8	BYPASS REGULATOR	EGRE4	EGRE4	EGRE4	EGRE4	EGRE4	EGRE4	EGRE4	EGRE4	EGRE4	EGRE6
	HOT GAS SOL.	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2
	LIQ. INJ. VALVE	LCL1A	LCL1A	LCL1B	LCL1B	LCL1B	LCL1B	LCL1C	LCL1C	LCL1C	LCL1C
3.5	BYPASS REGULATOR	EGRE4	EGRE4	EGRE4	EGRE4	EGRE6	EGRE6	EGRE6	EGRE6	EGRE6	EGRE6
	HOT GAS SOL.	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3
	LIQ. INJ. VALVE	LCL1A	LCL1A	LCL1A	LCL1B	LCL1B	LCL1B	LCL1C	LCL1C	LCL1C	LCL1C
7.1	BYPASS REGULATOR	EGRE6	EGRE6	EGRE6	EGRE6	EGRE6	EGRE6	DGRE12	DGRE12	DGRE12	DGRE12
	HOT GAS SOL.	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4
	LIQ. INJ. VALVE	LCL2A	LCL2A	LCL2B	LCL2B	LCL2B	LCL2B	LCL2C	LCL2C	LCL2C	LCL2C
10.6	BYPASS REGULATOR	EGRE6	EGRE6	EGRE6	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	-
	HOT GAS SOL.	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	-
	LIQ. INJ. VALVE	LCL2A	LCL2A	LCL2A	LCL2B	LCL2B	LCL3B	LCL3C	LCL3C	LCL3C	-
14.2	BYPASS REGULATOR	EGRE6	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	-	-	-
	HOT GAS SOL.	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6	-	-	-
	LIQ. INJ. VALVE	LCL2A	LCL2A	LCL3A	LCL3B	LCL3B	LCL3B	LCL3C	-	-	-
17.7	BYPASS REGULATOR	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	-	-	-	-
	HOT GAS SOL.	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6	-	-	-	-
	LIQ. INJ. VALVE	LCL3A	LCL3A	LCL3A	LCL3B	LCL3B	LCL3B	-	-	-	-
21.2	BYPASS REGULATOR	DGRE12	DGRE12	DGRE12	DGRE12	DGRE12	-	-	-	-	-
	HOT GAS SOL.	240RA8	240RA8	240RA8	240RA8	240RA8	-	-	-	-	-
	LIQ. INJ. VALVE	LCL3A	LCL3A	LCL3A	LCL3B	LCL4B	-	-	-	-	-
24.8	BYPASS REGULATOR	DGRE12	DGRE12	DGRE12	DGRE12	-	-	-	-	-	-
	HOT GAS SOL.	240RA8	240RA8	240RA8	240RA8	-	-	-	-	-	-
	LIQ. INJ. VALVE	LCL3A	LCL4A	LCL4A	LCL4B	-	-	-	-	-	-
28.3	BYPASS REGULATOR	DGRE12	DGRE12	DGRE12	-	-	-	-	-	-	-
	HOT GAS SOL.	240RA8	240RA8	240RA8	-	-	-	-	-	-	-
	LIQ. INJ. VALVE	LCL4A	LCL4A	LCL4A	-	-	-	-	-	-	-
31.9	BYPASS REGULATOR	DGRE12	DGRE12	-	-	-	-	-	-	-	-
	HOT GAS SOL.	240RA9	240RA9	-	-	-	-	-	-	-	-
	LIQ. INJ. VALVE	LCL4A	LCL4A	-	-	-	-	-	-	-	-
35.4	BYPASS REGULATOR	DGRE12	-	-	-	-	-	-	-	-	-
	HOT GAS SOL.	240RA9	-	-	-	-	-	-	-	-	-
	LIQ. INJ. VALVE	LCL4A	-	-	-	-	-	-	-	-	-

CPH(E) Valves for R-134a in kWatts

TOTAL kWatts BYPASSED	COMPONENT TYPE	EVAPORATOR TEMPERATURE °C									
		4°	-1°	-7°	-12°	-18°	-23°	-29°	-34°	-40°	
1.8	BYPASS REGULATOR	CPHE-3	CPHE-3	CPHE-3	CPHE-3	CPHE-3	CPHE-3	CPHE-3	CPHE-3	CPHE-3	CPHE-3
	HOT GAS SOL.	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3
	LIQ. INJ. VALVE	LCL1B	LCL1B	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C
3.5	BYPASS REGULATOR	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4
	HOT GAS SOL.	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4
	LIQ. INJ. VALVE	LCL1B	LCL1B	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C
7.1	BYPASS REGULATOR	CPHE-5	CPHE-5	CPHE-5	CPHE-5	CPHE-5	CPHE-5	CPHE-5	CPHE-5	CPHE-5	CPHE-5
	HOT GAS SOL.	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5
	LIQ. INJ. VALVE	LCL2B	LCL2B	LCL2C	LCL2C	LCL2C	LCL2C	LCL2C	LCL2C	LCL2C	LCL2C
10.6	BYPASS REGULATOR	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6
	HOT GAS SOL.	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6
	LIQ. INJ. VALVE	LCL2B	LCL2B	LCL2C	LCL2C	LCL2C	LCL2C	LCL2C	LCL2C	LCL2C	LCL2C
14.2	BYPASS REGULATOR	FA8-12M	FA8-12M	FA8-12M	FA8-12M	FA8-12M	FA8-12M	FA8-12M	FA8-12M	FA8-12M	FA8-12M
	LIQ. INJ. VALVE	LCL2B	LCL2B	LCL2C	LCL2C	LCL2C	LCL3C	LCL3C	LCL3C	LCL3C	LCL3C
17.7	BYPASS REGULATOR	FA8-12M	FA8-12M	FA8-12M	FA8-12M	FA8-12M	FA8-12M	FA8-12M	FA8-12M	FA8-12M	FA8-12M
	LIQ. INJ. VALVE	LCL3B	LCL3B	LCL3C	LCL3C	LCL3C	LCL3C	LCL3C	LCL3C	LCL3C	LCL4C
21.2	BYPASS REGULATOR	FA8-12M	FA8-12M	FA8-12M	FA8-12M	FA8-12M	FA8-12M	FA8-12M	FA8-12M	FA8-12M	FA8-12M
	LIQ. INJ. VALVE	LCL3B	LCL3B	LCL3C	LCL3C	LCL3C	LCL4C	LCL4C	LCL4C	LCL4C	LCL4C
26.6	BYPASS REGULATOR	FA8-13M	FA8-13M	FA8-13M	FA8-13M	FA8-13M	FA8-13M	FA8-13M	FA8-13M	FA8-13M	FA8-13M
	LIQ. INJ. VALVE	LCL3B	LCL3B	LCL3C	LCL3C	LCL4C	LCL4C	LCL4C	LCL4C	LCL4C	LCL4C
35.4	BYPASS REGULATOR	FA8-13M	FA8-13M	FA8-13M	FA8-13M	FA8-13M	FA8-13M	FA8-13M	FA8-13M	FA8-13M	FA8-13M
	LIQ. INJ. VALVE	LCL4B	LCL4B	LCL4C	LCL4C	LCL6C	LCL6C	LCL6C	LCL6C	LCL6C	LCL6C
42.5	BYPASS REGULATOR	FA8-13M	FA8-13M	FA8-13M	FA8-13M	FA8-13M	FA8-13M	FA8-13M	FA8-13M	FA8-13M	FA8-13M
	LIQ. INJ. VALVE	LCL6B	LCL6B	LCL6C	LCL6C	LCL6C	LCL6C	LCL6C	LCL6C	LCL6C	LCL6C
53.1	BYPASS REGULATOR	FA8-14M	FA8-14M	FA8-14M	FA8-14M	FA8-14M	FA8-14M	FA8-14M	FA8-14M	FA8-14M	FA8-14M
	LIQ. INJ. VALVE	LCL6B	LCL6B	LCL6C	LCL6C	LCL6C	LCL6C	LCL7C	LCL7C	LCL7C	LCL7C
71.0	BYPASS REGULATOR	FA8-14M	FA8-14M	FA8-14M	FA8-14M	FA8-14M	FA8-14M	FA8-14M	FA8-14M	FA8-14M	FA8-14M
	LIQ. INJ. VALVE	LCL6B	LCL6B	LCL7C	LCL7C	LCL7C	LCL7C	LCL7C	LCL7C	LCL7C	LCL7C
88.5	BYPASS REGULATOR	FA8-15M	FA8-15M	FA8-15M	FA8-15M	FA8-15M	FA8-15M	FA8-15M	FA8-15M	FA8-15M	FA8-15M
	LIQ. INJ. VALVE	LCL7B	LCL7B	LCL7C	LCL7C	LCL9C	LCL9C	LCL10C	LCL10C	LCL10C	LCL10C
106.0	BYPASS REGULATOR	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M
	LIQ. INJ. VALVE	LCL9B	LCL9B	LCL10C	LCL10C	LCL10C	LCL10C	LCL11C	LCL12C	LCL12C	LCL12C
124.0	BYPASS REGULATOR	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M
	LIQ. INJ. VALVE	LCL9B	LCL10B	LCL10C	LCL10C	LCL11C	LCL11C	LCL12C	LCL12C	LCL12C	LCL12C
142.0	BYPASS REGULATOR	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M
	LIQ. INJ. VALVE	LCL10B	LCL10B	LJL11C	LJL11C	LJL11C	LJL12C	LJL12C	LJL12C	LER13C	LER13C
160.0	BYPASS REGULATOR	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M
	LIQ. INJ. VALVE	LJL11B	LJL11B	LJL12C	LJL12C	LJL12C	LJL12C	LER13C	LER13C	LER14C	LER14C
177.0	BYPASS REGULATOR	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M
	LIQ. INJ. VALVE	LJL12B	LJL12B	LJL12C	LJL12C	LER13C	LER13C	LER14C	LER14C	LER14C	LER14C
195.0	BYPASS REGULATOR	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M
	LIQ. INJ. VALVE	LJL12B	LJL12B	LER13C	LER13C	LER13C	LER13C	LER14C	LER14C	LER14C	LER14C
212.0	BYPASS REGULATOR	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M
	LIQ. INJ. VALVE	LJL12B	LER13B	LER13C	LER13C	LER13C	LER14C	LER14C	LER14C	LER14C	LER14C
230.0	BYPASS REGULATOR	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M
	LIQ. INJ. VALVE	LER13B	LER14B	LER14C	LER14C	LER14C	LER14C	LER14C	LER14C	LER14C	LER15C
250.0	BYPASS REGULATOR	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M
	LIQ. INJ. VALVE	LER14B	LER14B	LER14C	LER14C	LER14C	LER14C	LER14C	LER14C	LER15C	LER15C
266.0	BYPASS REGULATOR	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M
	LIQ. INJ. VALVE	LER14B	LER14B	LER14C	LER14C	LER14C	LER15C	LER15C	LER15C	LER15C	LER16C
283.0	BYPASS REGULATOR	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M
	LIQ. INJ. VALVE	LER14B	LER14B	LER14C	LER14C	LER15C	LER15C	LER15C	LER16C	LER16C	LER16C
300.0	BYPASS REGULATOR	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M
	LIQ. INJ. VALVE	LER14B	LER14B	LER15C	LER15C	LER15C	LER15C	LER15C	LER16C	LER16C	LER16C
320.0	BYPASS REGULATOR	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M
	LIQ. INJ. VALVE	LER14B	LER15B	LER15C	LER15C	LER15C	LER15C	LER15C	LER16C	LER16C	LER16C
336.0	BYPASS REGULATOR	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M
	LIQ. INJ. VALVE	LER15B	LER15B	LER15C	LER15C	LER15C	LER16C	LER16C	LER16C	LER16C	LER16C
354.0	BYPASS REGULATOR	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M
	LIQ. INJ. VALVE	LER15B	LER15B	LER15C	LER15C	LER16C	LER16C	LER16C	LER16C	LER16C	LER16C

Thermal Expansion Valves
Solenoid Valves
Coils
Industrial Solenoid Valves
Shut Off Valves
System Protectors
Storage Devices
Oil Controls
Pressure Regulators
Temperature Pressure Controls
Competitive Cross Reference

CPH(E) Valves for R-22 in kWatts

TOTAL kWatts BYPASSED	COMPONENT TYPE	EVAPORATOR TEMPERATURE °C									
		4°	-1°	-7°	-12°	-18°	-23°	-29°	-34°	-40°	
1.8	BYPASS REGULATOR	CPHE-1	CPHE-1	CPHE-1	CPHE-1	CPHE-1	CPHE-1	CPHE-1	CPHE-1	CPHE-1	CPHE-1
	HOT GAS SOL.	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2
	LIQ. INJ. VALVE	LCL1A	LCL1A	LCL1B	LCL1B	LCL1B	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C
3.5	BYPASS REGULATOR	CPHE-3	CPHE-3	CPHE-3	CPHE-3	CPHE-3	CPHE-3	CPHE-3	CPHE-3	CPHE-2	CPHE-2
	HOT GAS SOL.	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3
	LIQ. INJ. VALVE	LCL1A	LCL1A	LCL1B	LCL1B	LCL1B	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C
7.1	BYPASS REGULATOR	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4
	HOT GAS SOL.	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4
	LIQ. INJ. VALVE	LCL1A	LCL1A	LCL1B	LCL1B	LCL1B	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C
10.6	BYPASS REGULATOR	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4
	HOT GAS SOL.	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5
	LIQ. INJ. VALVE	LCL1A	LCL1A	LCL1B	LCL1B	LCL1B	LCL1C	LCL2C	LCL2C	LCL2C	LCL2C
14.2	BYPASS REGULATOR	CPHE-5	CPHE-5	CPHE-5	CPHE-5	CPHE-5	CPHE-5	CPHE-5	CPHE-5	CPHE-4	CPHE-4
	HOT GAS SOL.	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5
	LIQ. INJ. VALVE	LCL2A	LCL2A	LCL2B	LCL2B	LCL2B	LCL2C	LCL2C	LCL3C	LCL3C	LCL3C
17.7	BYPASS REGULATOR	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-5	CPHE-5	CPHE-5	CPHE-5
	HOT GAS SOL.	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6
	LIQ. INJ. VALVE	LCL2A	LCL2A	LCL2B	LCL2B	LCL2B	LCL2C	LCL2C	LCL2C	LCL2C	LCL2C
21.2	BYPASS REGULATOR	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-5
	HOT GAS SOL.	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6
	LIQ. INJ. VALVE	LCL2A	LCL2A	LCL2B	LCL2B	LCL2B	LCL2B	LCL3C	LCL3C	LCL3C	LCL3C
24.8	BYPASS REGULATOR	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6
	HOT GAS SOL.	240RA8	240RA8	240RA8	240RA8	240RA8	240RA8	240RA8	240RA8	240RA8	240RA8
	LIQ. INJ. VALVE	LCL2A	LCL2A	LCL2B	LCL3B	LCL3B	LCL3B	LCL3C	LCL3C	LCL3C	LCL3C
28.3	BYPASS REGULATOR	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H
	LIQ. INJ. VALVE	LCL3A	LCL3A	LCL3B	LCL3B	LCL3B	LCL3B	LCL3C	LCL3C	LCL3C	LCL3C
31.9	BYPASS REGULATOR	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H
	LIQ. INJ. VALVE	LCL3A	LCL3A	LCL3B	LCL3B	LCL3B	LCL3B	LCL3C	LCL3C	LCL3C	LCL3C
35.4	BYPASS REGULATOR	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H
	LIQ. INJ. VALVE	LCL3A	LCL3A	LCL3B	LCL3B	LCL3B	LCL3B	LCL3C	LCL3C	LCL3C	LCL4C
42.5	BYPASS REGULATOR	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H
	LIQ. INJ. VALVE	LCL3A	LCL3A	LCL3B	LCL3B	LCL3B	LCL3B	LCL4C	LCL4C	LCL4C	LCL4C
50.0	BYPASS REGULATOR	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H
	LIQ. INJ. VALVE	LCL4A	LCL4A	LCL4B	LCL4B	LCL4B	LCL4C	LCL4C	LCL4C	LCL4C	LCL6C
57.0	BYPASS REGULATOR	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-12H	FA8-12H
	LIQ. INJ. VALVE	LCL4A	LCL4A	LCL4B	LCL4B	LCL4B	LCL4C	LCL4C	LCL4C	LCL6C	LCL6C
71.0	BYPASS REGULATOR	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-13H
	LIQ. INJ. VALVE	LCL4A	LCL4A	LCL4B	LCL4B	LCL4B	LCL4B	LCL6C	LCL6C	LCL6C	LCL6C
88.5	BYPASS REGULATOR	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-13H
	LIQ. INJ. VALVE	LCL6A	LCL6A	LCL6B	LCL6B	LCL6B	LCL6B	LCL6C	LCL7C	LCL7C	LCL7C
106.0	BYPASS REGULATOR	FA8-14H	FA8-14H	FA8-14H	FA8-14H	FA8-14H	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-13H
	LIQ. INJ. VALVE	LCL6A	LCL6A	LCL6B	LCL7B	LCL7B	LCL7C	LCL7C	LCL7C	LCL7C	LCL7C
124.0	BYPASS REGULATOR	FA8-14H	FA8-14H	FA8-14H	FA8-14H	FA8-14H	FA8-14H	FA8-14H	FA8-14H	FA8-14H	FA8-14H
	LIQ. INJ. VALVE	LCL7A	LCL7A	LCL7B	LCL7B	LCL7B	LCL7C	LCL7C	LCL7C	LCL9C	LCL9C
142.0	BYPASS REGULATOR	FA8-15H	FA8-14H	FA8-14H	FA8-14H	FA8-14H	FA8-14H	FA8-14H	FA8-14H	FA8-14H	FA8-14H
	LIQ. INJ. VALVE	LCL7A	LCL7A	LCL7B	LCL7B	LCL9B	LCL9C	LCL9C	LCL9C	LCL10C	LCL10C
160.0	BYPASS REGULATOR	FA8-15H	FA8-15H	FA8-15H	FA8-15H	FA8-15H	FA8-15H	FA8-14H	FA8-14H	FA8-14H	FA8-14H
	LIQ. INJ. VALVE	LCL9A	LCL9A	LCL9B	LCL9B	LCL9B	LCL9C	LCL9C	LCL9C	LCL10C	LCL11C
177.0	BYPASS REGULATOR	FA8-15H	FA8-15H	FA8-15H	FA8-15H	FA8-15H	FA8-15H	FA8-15H	FA8-15H	FA8-15H	FA8-15H
	LIQ. INJ. VALVE	LCL9A	LCL9A	LCL9B	LCL9B	LCL9B	LCL10C	LCL10C	LCL11C	LCL11C	LCL11C
195.0	BYPASS REGULATOR	FA8-16H	FA8-16H	FA8-15H	FA8-15H	FA8-15H	FA8-15H	FA8-15H	FA8-15H	FA8-15H	FA8-15H
	LIQ. INJ. VALVE	LCL9A	LCL9A	LCL9B	LCL10B	LCL10B	LCL10B	LCL11C	LCL11C	LCL11C	LCL12C
212.0	BYPASS REGULATOR	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-15H	FA8-15H	FA8-15H	FA8-15H	FA8-15H
	LIQ. INJ. VALVE	LCL9A	LCL10A	LCL10B	LCL11B	LCL11B	LCL11C	LCL11C	LCL11C	LCL12C	LCL12C
230.0	BYPASS REGULATOR	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-15H
	LIQ. INJ. VALVE	LCL10A	LCL10A	LCL10B	LCL11B	LCL11B	LCL11C	LCL11C	LCL11C	LCL12C	LER13C
250.0	BYPASS REGULATOR	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H
	LIQ. INJ. VALVE	LCL10A	LCL11A	LCL11B	LCL11B	LCL12B	LCL12C	LCL12C	LCL12C	LCL12C	LER13C
266.0	BYPASS REGULATOR	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H
	LIQ. INJ. VALVE	LCL11A	LCL11A	LCL11B	LCL12B	LCL12B	LCL12C	LCL12C	LCL12C	LCL13C	LER13C
283.0	BYPASS REGULATOR	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H
	LIQ. INJ. VALVE	LCL11A	LCL11A	LCL12B	LCL12B	LCL12B	LCL12B	LCL12C	LER13C	LER13C	LER14C
300.0	BYPASS REGULATOR	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H
	LIQ. INJ. VALVE	LCL12A	LCL12A	LCL12B	LCL12B	LCL12B	LER13B	LER13C	LER13C	LER13C	LER14C
320.0	BYPASS REGULATOR	FA8-18H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H
	LIQ. INJ. VALVE	LCL12A	LCL12A	LCL12B	LCL12B	LCL12B	LER13B	LER13C	LER13C	LER14C	LER14C
336.0	BYPASS REGULATOR	FA8-18H	FA8-18H	FA8-18H	FA8-18H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H
	LIQ. INJ. VALVE	LCL12A	LCL12A	LCL12B	LCL12B	LER13B	LER13C	LER13C	LER14C	LER14C	LER14C
354.0	BYPASS REGULATOR	FA8-18H	FA8-18H	FA8-18H	FA8-18H	FA8-18H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H
	LIQ. INJ. VALVE	LCL12A	LCL12A	LCL12B	LCL12B	LER13B	LER13B	LER13C	LER14C	LER14C	LER15C

CPH(E) Valves for R-404A & R-507 in kWatts

TOTAL kWatts BYPASSED	COMPONENT TYPE	EVAPORATOR TEMPERATURE °C							
		-1°	-7°	-12°	-18°	-23°	-29°	-34°	-40°
1.8	BYPASS REGULATOR	CPHE-2	CPHE-2	CPHE-1	CPHE-1	CPHE-1	CPHE-1	CPHE-1	CPHE-1
	HOT GAS SOL.	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2
	LIQ. INJ. VALVE	LCL1A	LCL1A	LCL1B	LCL1B	LCL1B	LCL1C	LCL1C	LCL1C
3.5	BYPASS REGULATOR	CPHE-3	CPHE-3	CPHE-3	CPHE-3	CPHE-3	CPHE-3	CPHE-2	CPHE-2
	HOT GAS SOL.	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3
	LIQ. INJ. VALVE	LCL1A	LCL1A	LCL1B	LCL1B	LCL1B	LCL1C	LCL1C	LCL1C
7.1	BYPASS REGULATOR	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4
	HOT GAS SOL.	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4
	LIQ. INJ. VALVE	LCL2A	LCL2A	LCL2B	LCL2B	LCL2B	LCL2C	LCL2C	LCL2C
10.6	BYPASS REGULATOR	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4
	HOT GAS SOL.	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5
	LIQ. INJ. VALVE	LCL2A	LCL2A	LCL2B	LCL2B	LCL2B	LCL3C	LCL3C	LCL3C
14.2	BYPASS REGULATOR	CPHE-5	CPHE-5	CPHE-5	CPHE-5	CPHE-5	CPHE-5	CPHE-5	CPHE-5
	HOT GAS SOL.	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6
	LIQ. INJ. VALVE	LCL2A	LCL3A	LCL3B	LCL3B	LCL3B	LCL3C	LCL3C	LCL3C
17.7	BYPASS REGULATOR	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6
	HOT GAS SOL.	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6
	LIQ. INJ. VALVE	LCL3A	LCL3A	LCL3B	LCL3B	LCL3B	LCL5C	LCL4C	LCL4C
21.2	BYPASS REGULATOR	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6
	HOT GAS SOL.	240RA8	240RA8	240RA8	240RA8	240RA8	240RA8	240RA8	240RA8
	LIQ. INJ. VALVE	LCL3A	LCL3A	LCL3B	LCL4B	LCL4B	LCL4C	LCL4C	LCL4C
24.8	BYPASS REGULATOR	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H
	LIQ. INJ. VALVE	LCL4A	LCL4A	LCL4B	LCL4B	LCL4B	LCL4C	LCL4C	LCL6C
	28.3	BYPASS REGULATOR	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H
LIQ. INJ. VALVE		LCL4A	LCL4A	LCL4B	LCL4B	LCL4B	LCL6C	LCL6C	LCL6C
31.9		BYPASS REGULATOR	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H
	LIQ. INJ. VALVE	LCL4A	LCL4A	LCL4B	LCL6B	LCL6B	LCL6C	LCL6C	LCL6C
	35.4	BYPASS REGULATOR	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H
LIQ. INJ. VALVE		LCL6A	LCL6A	LCL6B	LCL6B	LCL6B	LCL6C	LCL6C	LCL6C
42.5		BYPASS REGULATOR	FA8-13H	FA8-13H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H
	LIQ. INJ. VALVE	LCL6A	LCL6A	LCL6B	LCL6B	LCL6B	LCL6C	LCL7C	LCL7C
	50.0	BYPASS REGULATOR	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-13H
LIQ. INJ. VALVE		LCL6A	LCL6A	LCL6B	LCL6B	LCL7B	LCL7C	LCL7C	LCL7C
57.0		BYPASS REGULATOR	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-13H
	LIQ. INJ. VALVE	LCL6A	LCL6A	LCL7B	LCL7B	LCL7B	LCL7C	LCL7C	LCL7C
	71.0	BYPASS REGULATOR	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-13H
LIQ. INJ. VALVE		LCL7A	LCL7A	LCL7B	LCL7B	LCL7B	LCL7C	LCL9C	LCL9C
88.5		BYPASS REGULATOR	FA8-14H	FA8-14H	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-13H
	LIQ. INJ. VALVE	LCL7A	LCL9A	LCL9B	LCL9B	LCL9B	LCL10C	LCL10C	LCL10C
	106.0	BYPASS REGULATOR	FA8-14H	FA8-14H	FA8-14H	FA8-14H	FA8-14H	FA8-14H	FA8-14H
LIQ. INJ. VALVE		LCL9A	LCL9A	LCL10B	LCL10B	LCL10B	LJL11C	LJL11C	LJL11C
124.0		BYPASS REGULATOR	FA8-14H	FA8-14H	FA8-14H	FA8-14H	FA8-14H	FA8-14H	FA8-14H
	LIQ. INJ. VALVE	LCL10A	LCL10A	LJL11B	LJL11B	LJL11B	LJL11C	LJL11C	LJL11C
	142.0	BYPASS REGULATOR	FA8-15H	FA8-15H	FA8-15H	FA8-15H	FA8-15H	FA8-15H	FA8-15H
LIQ. INJ. VALVE		LJL11A	LJL11A	LJL11B	LJL11B	LJL11B	LJL12C	LJL12C	LJL12C
160.0		BYPASS REGULATOR	FA8-15H	FA8-15H	FA8-15H	FA8-15H	FA8-15H	FA8-15H	FA8-15H
	LIQ. INJ. VALVE	LJL11A	LJL11A	LJL12B	LJL12B	LJL12B	LER13C	LER13C	LER13C
	177.0	BYPASS REGULATOR	FA8-16H	FA8-16H	FA8-15H	FA8-15H	FA8-15H	FA8-15H	FA8-15H
LIQ. INJ. VALVE		LJL12A	LJL12A	LJL12B	LJL12B	LJL12B	LER13C	LER13C	LER13C
195.0		BYPASS REGULATOR	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H
	LIQ. INJ. VALVE	LJL12A	LJL12A	LER13B	LER13B	LER13B	LER14C	LER14C	LER14C
	212.0	BYPASS REGULATOR	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-15H	FA8-15H	FA8-15H
LIQ. INJ. VALVE		LER13A	LER13A	LER13B	LER13B	LER14B	LER14C	LER14C	LER14C
230.0		BYPASS REGULATOR	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-15H	FA8-15H	FA8-15H
	LIQ. INJ. VALVE	LER13A	LER13A	LER13B	LER14B	LER14B	LER14C	LER14C	LER15C
	248.0	BYPASS REGULATOR	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-15H	FA8-15H	FA8-15H
LIQ. INJ. VALVE		LER13A	LER14A	LER14B	LER14B	LER14B	LER14C	LER15C	LER15C
266.0		BYPASS REGULATOR	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H
	LIQ. INJ. VALVE	LER14A	LER14A	LER14B	LER14B	LER15B	LER15C	LER15C	LER15C
	283.0	BYPASS REGULATOR	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H
LIQ. INJ. VALVE		LER14A	LER14A	LER15B	LER15B	LER15B	LER15C	LER15C	LER15C
300.0		BYPASS REGULATOR	FA8-18H	FA8-18H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H
	LIQ. INJ. VALVE	LER15A	LER15A	LER15B	LER15B	LER15B	LER15C	LER16C	LER16C
	320.0	BYPASS REGULATOR	FA8-18H	FA8-18H	FA8-18H	FA8-18H	FA8-18H	FA8-18H	FA8-16H
LIQ. INJ. VALVE		LER15A	LER15A	LER15B	LER15B	LER15B	LER16C	LER16C	LER16C
336.0		BYPASS REGULATOR	FA8-18H	FA8-18H	FA8-18H	FA8-18H	FA8-18H	FA8-18H	FA8-18H
	LIQ. INJ. VALVE	LER15A	LER15A	LER15B	LER15B	LER16B	LER16C	LER16C	LER16C
	354.0	BYPASS REGULATOR	FA8-18H	FA8-18H	FA8-18H	FA8-18H	FA8-18H	FA8-18H	FA8-18H
LIQ. INJ. VALVE		LER15A	LER15A	LER16B	LER16B	LER16B	LER16C	LER16C	LER16C

CPH(E) Valves for R-407C in kWatts

TOTAL kWatts BYPASSED	COMPONENT TYPE	EVAPORATOR TEMPERATURE °C									
		4°	-1°	-7°	-12°	-18°	-23°	-29°	-34°	-40°	
1.8	BYPASS REGULATOR	CPHE-1	CPHE-1	CPHE-1	CPHE-1	CPHE-1	CPHE-1	CPHE-1	CPHE-1	CPHE-1	CPHE-1
	HOT GAS SOL.	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2	100RB2
	LIQ. INJ. VALVE	LCL1A	LCL1A	LCL1B	LCL1B	LCL1B	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C
3.5	BYPASS REGULATOR	CPHE-3	CPHE-3	CPHE-3	CPHE-3	CPHE-3	CPHE-3	CPHE-3	CPHE-3	CPHE-2	CPHE-2
	HOT GAS SOL.	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3
	LIQ. INJ. VALVE	LCL1A	LCL1A	LCL1B	LCL1B	LCL1B	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C
7.1	BYPASS REGULATOR	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4
	HOT GAS SOL.	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4
	LIQ. INJ. VALVE	LCL1A	LCL1A	LCL1B	LCL1B	LCL1B	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C
10.6	BYPASS REGULATOR	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4
	HOT GAS SOL.	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5
	LIQ. INJ. VALVE	LCL1A	LCL1A	LCL1B	LCL1B	LCL1B	LCL1C	LCL2C	LCL2C	LCL2C	LCL2C
14.2	BYPASS REGULATOR	CPHE-5	CPHE-5	CPHE-5	CPHE-5	CPHE-5	CPHE-5	CPHE-4	CPHE-4	CPHE-4	CPHE-4
	HOT GAS SOL.	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5
	LIQ. INJ. VALVE	LCL2A	LCL2A	LCL2B	LCL2B	LCL2B	LCL2C	LCL3C	LCL3C	LCL3C	LCL3C
17.7	BYPASS REGULATOR	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-5	CPHE-5	CPHE-5	CPHE-5	CPHE-5
	HOT GAS SOL.	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6
	LIQ. INJ. VALVE	LCL2A	LCL2A	LCL2B	LCL2B	LCL2B	LCL2C	LCL2C	LCL2C	LCL2C	LCL2C
21.2	BYPASS REGULATOR	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-5
	HOT GAS SOL.	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6
	LIQ. INJ. VALVE	LCL2A	LCL2A	LCL2B	LCL2B	LCL2B	LCL3C	LCL3C	LCL3C	LCL3C	LCL3C
24.8	BYPASS REGULATOR	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6
	HOT GAS SOL.	240RA8	240RA8	240RA8	240RA8	240RA8	240RA8	240RA8	240RA8	240RA8	240RA8
	LIQ. INJ. VALVE	LCL2A	LCL2A	LCL2B	LCL3B	LCL3B	LCL3C	LCL3C	LCL3C	LCL3C	LCL3C
28.3	BYPASS REGULATOR	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H
	LIQ. INJ. VALVE	LCL3A	LCL3A	LCL3B	LCL3B	LCL3B	LCL3C	LCL3C	LCL3C	LCL3C	LCL3C
31.9	BYPASS REGULATOR	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H
	LIQ. INJ. VALVE	LCL3A	LCL3A	LCL3B	LCL3B	LCL3B	LCL3C	LCL3C	LCL3C	LCL3C	LCL3C
35.4	BYPASS REGULATOR	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H
	LIQ. INJ. VALVE	LCL3A	LCL3A	LCL3B	LCL3B	LCL3B	LCL3C	LCL3C	LCL3C	LCL3C	LCL4C
42.5	BYPASS REGULATOR	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H
	LIQ. INJ. VALVE	LCL3A	LCL3A	LCL3B	LCL3B	LCL3B	LCL4C	LCL4C	LCL4C	LCL4C	LCL4C
50.0	BYPASS REGULATOR	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H	FA8-12H
	LIQ. INJ. VALVE	LCL4A	LCL4A	LCL4B	LCL4B	LCL4B	LCL4C	LCL4C	LCL4C	LCL4C	LCL6C
57.0	BYPASS REGULATOR	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-12H	FA8-12H
	LIQ. INJ. VALVE	LCL4A	LCL4A	LCL4B	LCL4B	LCL4B	LCL4C	LCL4C	LCL4C	LCL6C	LCL6C
71.0	BYPASS REGULATOR	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-13H
	LIQ. INJ. VALVE	LCL4A	LCL4A	LCL4B	LCL4B	LCL4B	LCL6C	LCL6C	LCL6C	LCL6C	LCL6C
88.5	BYPASS REGULATOR	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-13H
	LIQ. INJ. VALVE	LCL6A	LCL6A	LCL6B	LCL6B	LCL6B	LCL6C	LCL7C	LCL7C	LCL7C	LCL7C
106.0	BYPASS REGULATOR	FA8-14H	FA8-14H	FA8-14H	FA8-14H	FA8-14H	FA8-13H	FA8-13H	FA8-13H	FA8-13H	FA8-13H
	LIQ. INJ. VALVE	LCL6A	LCL6A	LCL6B	LCL7B	LCL7B	LCL7C	LCL7C	LCL7C	LCL7C	LCL7C
124.0	BYPASS REGULATOR	FA8-14H	FA8-14H	FA8-14H	FA8-14H	FA8-14H	FA8-14H	FA8-14H	FA8-14H	FA8-14H	FA8-14H
	LIQ. INJ. VALVE	LCL7A	LCL7A	LCL7B	LCL7B	LCL7B	LCL7C	LCL7C	LCL7C	LCL9C	LCL9C
142.0	BYPASS REGULATOR	FA8-15H	FA8-14H	FA8-14H	FA8-14H	FA8-14H	FA8-14H	FA8-14H	FA8-14H	FA8-14H	FA8-14H
	LIQ. INJ. VALVE	LCL7A	LCL7A	LCL7B	LCL7B	LCL9B	LCL9C	LCL9C	LCL9C	LCL10C	LCL10C
160.0	BYPASS REGULATOR	FA8-15H	FA8-15H	FA8-15H	FA8-15H	FA8-15H	FA8-15H	FA8-14H	FA8-14H	FA8-14H	FA8-14H
	LIQ. INJ. VALVE	LCL9A	LCL9A	LCL9B	LCL9B	LCL9B	LCL9C	LCL9C	LCL9C	LCL10C	LCL11C
177.0	BYPASS REGULATOR	FA8-15H	FA8-15H	FA8-15H	FA8-15H	FA8-15H	FA8-15H	FA8-15H	FA8-15H	FA8-15H	FA8-15H
	LIQ. INJ. VALVE	LCL9A	LCL9A	LCL9B	LCL9B	LCL10B	LCL10C	LCL11C	LCL11C	LCL11C	LCL11C
195.0	BYPASS REGULATOR	FA8-16H	FA8-16H	FA8-15H	FA8-15H	FA8-15H	FA8-15H	FA8-15H	FA8-15H	FA8-15H	FA8-15H
	LIQ. INJ. VALVE	LCL9A	LCL9A	LCL9B	LCL10B	LCL10B	LJL11C	LJL11C	LJL11C	LJL12C	LJL12C
212.0	BYPASS REGULATOR	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-15H	FA8-15H	FA8-15H	FA8-15H	FA8-15H
	LIQ. INJ. VALVE	LCL9A	LCL10A	LCL10B	LJL11B	LJL11B	LJL11C	LJL11C	LJL12C	LJL12C	LJL12C
230.0	BYPASS REGULATOR	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-15H
	LIQ. INJ. VALVE	LCL10A	LCL10A	LCL10B	LJL11B	LJL11B	LJL12C	LJL12C	LJL12C	LJL12C	LER13C
250.0	BYPASS REGULATOR	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H
	LIQ. INJ. VALVE	LCL10A	LCL11A	LJL11B	LJL11B	LJL12B	LJL12C	LJL12C	LJL12C	LJL12C	LER13C
266.0	BYPASS REGULATOR	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H
	LIQ. INJ. VALVE	LJL11A	LJL11A	LJL11B	LJL12B	LJL12B	LJL12C	LJL12C	LJL13C	LJL13C	LER13C
283.0	BYPASS REGULATOR	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H
	LIQ. INJ. VALVE	LJL11A	LJL11A	LJL12B	LJL12B	LJL12B	LER13C	LER13C	LER13C	LER14C	LER14C
300.0	BYPASS REGULATOR	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H
	LIQ. INJ. VALVE	LJL12A	LJL12A	LJL12B	LJL12B	LER13B	LER13C	LER13C	LER13C	LER13C	LER14C
320.0	BYPASS REGULATOR	FA8-18H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H
	LIQ. INJ. VALVE	LJL12A	LJL12A	LJL12B	LJL12B	LER13B	LER13C	LER13C	LER14C	LER14C	LER14C
336.0	BYPASS REGULATOR	FA8-18H	FA8-18H	FA8-18H	FA8-18H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H
	LIQ. INJ. VALVE	LJL12A	LJL12A	LJL12B	LER13B	LER13B	LER13C	LER14C	LER14C	LER14C	LER14C
354.0	BYPASS REGULATOR	FA8-18H	FA8-18H	FA8-18H	FA8-18H	FA8-18H	FA8-16H	FA8-16H	FA8-16H	FA8-16H	FA8-16H
	LIQ. INJ. VALVE	LJL12A	LJL12A	LJL12B	LER13B	LER13B	LER13C	LER14C	LER14C	LER14C	LER15C

CPH(E) Valves for R-12 in kWatts

TOTAL kWatts BYPASSED	COMPONENT TYPE	EVAPORATOR TEMPERATURE °C								
		4°	-1°	-7°	-12°	-18°	-23°	-29°	-34°	-40°
1.8	BYPASS REGULATOR	CPHE-3	CPHE-3	CPHE-3	CPHE-3	CPHE-3	CPHE-3	CPHE-3	CPHE-3	CPHE-3
	HOT GAS SOL.	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3	200RB3
	LIQ. INJ. VALVE	LCL1B	LCL1B	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C
3.5	BYPASS REGULATOR	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4	CPHE-4
	HOT GAS SOL.	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4	200RB4
	LIQ. INJ. VALVE	LCL1B	LCL1B	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C	LCL1C
7.1	BYPASS REGULATOR	CPHE-5	CPHE-5	CPHE-5	CPHE-5	CPHE-5	CPHE-5	CPHE-5	CPHE-5	CPHE-5
	HOT GAS SOL.	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5	200RB5
	LIQ. INJ. VALVE	LCL2B	LCL2B	LCL2C	LCL2C	LCL2C	LCL2C	LCL2C	LCL2C	LCL2C
10.6	BYPASS REGULATOR	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6	CPHE-6
	HOT GAS SOL.	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6	200RB6
	LIQ. INJ. VALVE	LCL2B	LCL2B	LCL2C	LCL2C	LCL2C	LCL2C	LCL2C	LCL2C	LCL2C
14.2	BYPASS REGULATOR	FA8-12M	FA8-12M	FA8-12M	FA8-12M	FA8-12M	FA8-12M	FA8-12M	FA8-12M	FA8-12M
	LIQ. INJ. VALVE	LCL2B	LCL2B	LCL2C	LCL2C	LCL2C	LCL3C	LCL3C	LCL3C	LCL3C
17.7	BYPASS REGULATOR	FA8-12M	FA8-12M	FA8-12M	FA8-12M	FA8-12M	FA8-12M	FA8-12M	FA8-12M	FA8-12M
	LIQ. INJ. VALVE	LCL3B	LCL3B	LCL3C	LCL3C	LCL3C	LCL3C	LCL3C	LCL3C	LCL4C
21.2	BYPASS REGULATOR	FA8-12M	FA8-12M	FA8-12M	FA8-12M	FA8-12M	FA8-12M	FA8-12M	FA8-12M	FA8-12M
	LIQ. INJ. VALVE	LCL3B	LCL3B	LCL3C	LCL3C	LCL3C	LCL4C	LCL4C	LCL4C	LCL4C
26.6	BYPASS REGULATOR	FA8-13M	FA8-13M	FA8-13M	FA8-13M	FA8-13M	FA8-13M	FA8-13M	FA8-13M	FA8-13M
	LIQ. INJ. VALVE	LCL3B	LCL3B	LCL3C	LCL3C	LCL4C	LCL4C	LCL4C	LCL4C	LCL4C
35.4	BYPASS REGULATOR	FA8-13M	FA8-13M	FA8-13M	FA8-13M	FA8-13M	FA8-13M	FA8-13M	FA8-13M	FA8-13M
	LIQ. INJ. VALVE	LCL4B	LCL4B	LCL4C	LCL4C	LCL6C	LCL6C	LCL6C	LCL6C	LCL6C
42.5	BYPASS REGULATOR	FA8-13M	FA8-13M	FA8-13M	FA8-13M	FA8-13M	FA8-13M	FA8-13M	FA8-13M	FA8-13M
	LIQ. INJ. VALVE	LCL6B	LCL6B	LCL6C	LCL6C	LCL6C	LCL6C	LCL6C	LCL6C	LCL6C
53.1	BYPASS REGULATOR	FA8-14M	FA8-14M	FA8-14M	FA8-14M	FA8-14M	FA8-14M	FA8-14M	FA8-14M	FA8-14M
	LIQ. INJ. VALVE	LCL6B	LCL6B	LCL6C	LCL6C	LCL6C	LCL6C	LCL7C	LCL7C	LCL7C
71.0	BYPASS REGULATOR	FA8-14M	FA8-14M	FA8-14M	FA8-14M	FA8-14M	FA8-14M	FA8-14M	FA8-14M	FA8-14M
	LIQ. INJ. VALVE	LCL6B	LCL6B	LCL7C	LCL7C	LCL7C	LCL7C	LCL7C	LCL7C	LCL7C
88.5	BYPASS REGULATOR	FA8-15M	FA8-15M	FA8-15M	FA8-15M	FA8-15M	FA8-15M	FA8-15M	FA8-15M	FA8-15M
	LIQ. INJ. VALVE	LCL7B	LCL7B	LCL7C	LCL7C	LCL9C	LCL9C	LCL10C	LCL10C	LCL10C
106.0	BYPASS REGULATOR	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M
	LIQ. INJ. VALVE	LCL9B	LCL9B	LCL10C	LCL10C	LCL10C	LCL10C	LCL11C	LCL12C	LCL12C
124.0	BYPASS REGULATOR	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M
	LIQ. INJ. VALVE	LCL9B	LCL10B	LCL10C	LCL10C	LCL11C	LCL11C	LCL12C	LCL12C	LCL12C
142.0	BYPASS REGULATOR	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M
	LIQ. INJ. VALVE	LCL10B	LCL10B	LJL11C	LJL11C	LJL11C	LJL12C	LJL12C	LER13C	LER13C
160.0	BYPASS REGULATOR	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M	FA8-16M
	LIQ. INJ. VALVE	LJL11B	LJL11B	LJL12C	LJL12C	LJL12C	LJL12C	LER13C	LER13C	LER14C
177.0	BYPASS REGULATOR	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M
	LIQ. INJ. VALVE	LJL12B	LJL12B	LJL12C	LJL12C	LER13C	LER13C	LER14C	LER14C	LER14C
195.0	BYPASS REGULATOR	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M
	LIQ. INJ. VALVE	LJL12B	LJL12B	LER13C	LER13C	LER13C	LER13C	LER14C	LER14C	LER14C
212.0	BYPASS REGULATOR	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M
	LIQ. INJ. VALVE	LJL12B	LER13B	LER13C	LER13C	LER13C	LER14C	LER14C	LER14C	LER14C
230.0	BYPASS REGULATOR	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M
	LIQ. INJ. VALVE	LER13B	LER14B	LER14C	LER14C	LER14C	LER14C	LER14C	LER14C	LER15C
250.0	BYPASS REGULATOR	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M
	LIQ. INJ. VALVE	LER14B	LER14B	LER14C	LER14C	LER14C	LER14C	LER14C	LER15C	LER15C
266.0	BYPASS REGULATOR	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M
	LIQ. INJ. VALVE	LER14B	LER14B	LER14C	LER14C	LER14C	LER15C	LER15C	LER15C	LER16C
283.0	BYPASS REGULATOR	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M
	LIQ. INJ. VALVE	LER14B	LER14B	LER14C	LER14C	LER15C	LER15C	LER16C	LER16C	LER16C
300.0	BYPASS REGULATOR	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M
	LIQ. INJ. VALVE	LER14B	LER14B	LER15C	LER15C	LER15C	LER15C	LER16C	LER16C	LER16C
320.0	BYPASS REGULATOR	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M
	LIQ. INJ. VALVE	LER14B	LER15B	LER15C	LER15C	LER15C	LER15C	LER16C	LER16C	LER16C
336.0	BYPASS REGULATOR	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M
	LIQ. INJ. VALVE	LER15B	LER15B	LER15C	LER15C	LER15C	LER16C	LER16C	LER16C	LER16C
354.0	BYPASS REGULATOR	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M	FA8-18M
	LIQ. INJ. VALVE	LER15B	LER15B	LER15C	LER15C	LER16C	LER16C	LER16C	LER16C	LER16C

Thermal Expansion Valves
Solenoid Valves
Coils
Industrial Solenoid Valves
Shut Off Valves
System Protectors
Storage Devices
Oil Controls
Pressure Regulators
Temperature Pressure Controls
Competitive Cross Reference

Temperature Pressure Controls Quick Select Guide

Application	Feature	Type	Page
Commercial Refrigeration Air Conditioning Controls	Temperature Control, Adjustable Set Point and Differential	TS1	234
	Single Pressure Control, Adjustable Set Point and Differential	PS1	237
	Dual Pressure Control, Adjustable Set Point and Differential	PS2	239
Mini-Pressure Controls	Differential PressureControl	FD113	240
	Mini-Pressure Control	PSC	241
Industrial Pressure Controls	Electronic Fan Speed Control	FSX	244
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TS1 Series Temperature Control

The TS1 series adjustable thermostats are designed for application in refrigeration and heat pump systems. In these systems, thermostats serve control and monitoring functions, such as space temperature control, high/low temperature alarming or defrost termination. By operating a set of electrical contacts, a temperature value is kept inside a certain limit.

Several housing variants and sensors are provided in order to suit a control to a specific application.



Features

- Adjustable temperature and differentials
- Range and differential individually lockable by wire seal
- Captive terminal and cover screws
- Manual toggle for system checkout and override
- Bellows heater for thermostats with vapour charge
- Room thermostats with insulation console
- Standard accessories include mounting brackets and knob with lockplate on all individually packed controls
- Non-ambient sensitive
- Heavy-duty SPDT switch allows handling of most loads directly without the use of relays

Specifications

- Ambient temperature ranges -50°C to +70°C (-58°F to +158°F)
- SPDT switch rated for 120 VAC/240VAC at 24FLA and 144 LRA
- Agency approvals include: UL/CUL file number E85974, VDE 0631/0660, TÜV, CE 73/23/EWG, CE 93/68/EWG

Options

- Vapor, liquid and cross-ambient charges
- Sensor shape for various applications
- Factory set to customer specification
- Different types of mounting brackets
- Sensor bulb wells and capillary tube holders
- Special approvals
- Range and differential pointer in units °C and °F

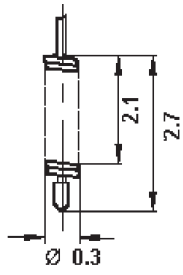
Nomenclature example: TS1 B1E

TS1	B	1	E
Product Name	Housing Variant/function	Temperature Range	Sensor Type
TS1 = Adjustable thermostat TSA = Customer specials	A = Wall mount design, top adjustment B = Wall mount design, top adjustment, off-switch C = Frost monitor, auto reset D = Frost monitor, manual reset X = Wall mount design, top adjustment,	0 = +40 to +68°F (+4.5 to +20°C) 1 = -50 to +14°F (-45 to -10°C) 2 = -22 to +50°F (-30 to +10°C) 3 = +14 to +77°F (-10 to +25°C) 4 = -13 to +86°F (-25 to +30°C) 5 = +68 to +140°F (+20 to +60°C) 6 = +122 to +212°F (+50 to +100°C) NOTES Temp ranges 0-4: manual reset for falling temperature Temp ranges 5 and 6: manual reset for rising temperature.	A = Vapor Charge, 2 m. capillary C = Liquid Charge, 2 m. bulb E = Vapor Charge, 0 m. coil F = Adsorption Charge, 2 m. bulb P = Vapor Charge, 2 m. capillary for housing variant A/B. 6 m. capillary for housing variant C/D/X.

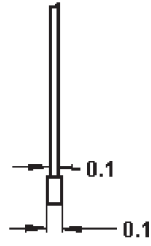
Ordering Information for TS1 Temperature Controls

Type	PCN	Adjustment Range		Factory Setting °F (°C)	Temperature Sensor	
		Upper Setpoint	Different Setpoint		Charge	Type
		°F (°C)	°F (°K)			
Top Operated Thermostats Without Off-Switch (Capillary Type Sensor)						
TS1-X1A	097940	-49 TO 14 (-45...-10)	3 to 29 (2 to 16)	0/-4 (-18/-20)	VAPOR	6 FT. (2 m.) capillary
TS1-X2A	097926	-22 TO 59 (-30...+15)	3 to 29 (2 to 16)	30/21 (-1/-6)	VAPOR	6 FT. (2 m.) capillary
TS1-X4F	097929	-22 TO 95 (-30...+35)	5 TO 36 (3...20)	41/32 (+5/0)	ADSORPTION	6 FT. (2 m.) cap. & bulb
Room Thermostats Top Operated Without Off-Switch (Includes Insulation Console and Coil Type Sensor)						
TS1-X2E	097932	-22 to 59 (-30...+15)	3 to 29 (2 to 16)	39/35 (+4/+2)	VAPOR	Coil
TS1-X3E	097935	14 TO 95 (-10...+35)	3 TO 29 (2 TO 16)	68/64 (+20/+18)	VAPOR	Coil
Freeze-Stat, Top Operated Without Off-Switch (Capillary Type Sensor)						
TS1-C0P	097882	40 TO 68 (+4.5...+20)	5 (3) fix	40/36 (4.5/+2)	VAPOR	20 FT. (6 m.) capillary
TS1-D0P	097885	40 TO 68 (+4.5...+20)	man. reset ca. 5 (3) fix	36 (+2)	VAPOR	20 FT. (6 m.) capillary

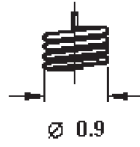
TS1 Dimensional Diagrams (in)



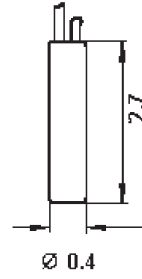
Sensor type A
Vapor charge
2m (6.56 ft)



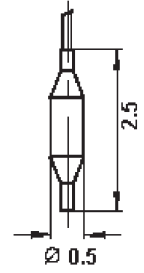
Sensor type P
Vapor charge
2m (6.56 ft)



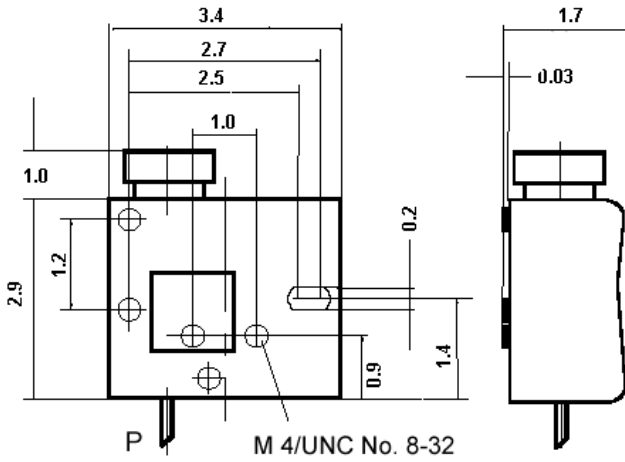
Sensor type E
Vapor charge



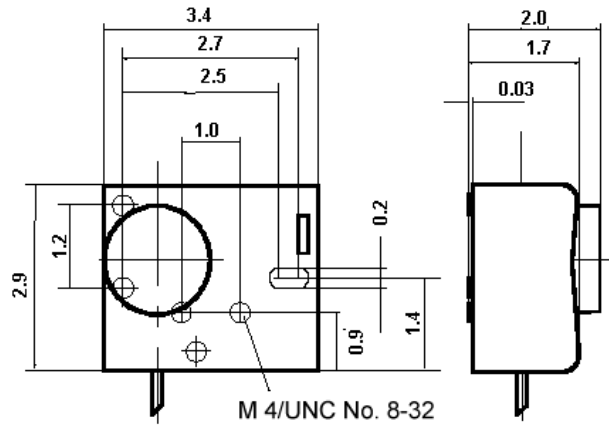
Sensor type F
Adsorption charge
2m (6.56 ft)



Sensor type C
Liquid charge
2m (6.56 ft)



TS1-A / B / C / D



TS1-E / F

PS1 Series Single Pressure Controls

PS1 Single Pressure Controls are designed for use on high and low pressure applications in refrigeration and heat pump systems. By operating a set of electrical contacts, a pressure is kept inside a certain limit.



Features

- Adjustable pressures and differentials
- Narrow adjustable differential depending on model
- Range and differential pointer in units bar and psig
- Range and differential individually lockable by wire seal
- High rated SPDT contacts for all versions
- Captive terminal and cover screws
- Manual toggle for system checkout and override
- Factory installed wire bridge for reduced installation effort

Options

- Different pressure connections
- Automatic and manual reset versions
- Factory set to customer specification
- Different types of mounting brackets

Specifications

- SPDT switch rated for 120 VAC/240VAC at 24FLA and 144 LRA
- Agency approvals include: UL/CUL file number E85974, VDE 0631/0660, TÜV, CE 73/23/EWG, CE 93/68/EWG
- Low and high pressure versions available with TÜV approval according to EN 12263 (supercedes DIN 32733) to meet requirements of DIN 8901 and EN378 (supercedes DIN 8975)

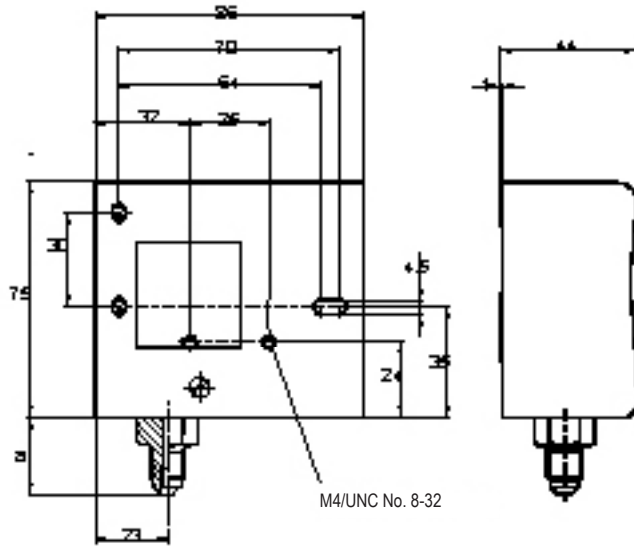
Nomenclature example: PS1-A5K

PS1	A	5	K
Product Name	Housing Variant/function	Temperature Range	Sensor Type
PS1 = Adjustable single Pressure Control	A = Pressure control, automatic reset, internal range & differential adjustments W = Pressure control, automatic reset, DIN/TUV approved, internal range and differential adjustments X = Pressure control, automatic reset, external range and differential adjustments	1 = 24" Hg to 42 psi (-0.75 to 3 bar) 3 = 15" Hg to 100 psi (-0.5 to 7 bar) 4 = 15 to 290 psi (1 to 20 bar) 5 = 90 to 450 psi (6 to 31 bar)	A = 7/16" - 20 UNF male for 1/4" SAE male flare K* = 7/16" - 20 UNF flare nut with 1 meter (3 ft.) cap tube *Controls with housing variant X have extended copper ends, without schrader valve depressor. All other housing variants have schrader valve depressor and brass end fitting with copper gasket.
PSA = Customer specials			

Ordering Information for PS1 Single Pressure Controls

Single Pressure Control	PCN	Adjustment Range		Factory Setting (PSI)	Pressure Connection
		Upper Setpoint (PSI)	Different Setpoint (PSI)		
Low Pressure Controls					
PS1-X1K	097898	24" Hg to 42" Hg	4 to 29	7/15	Capillary Nut
PS1-X1A	097894				7/16" -20 UNF, 1/4" SAE male
PS1-X3A	097914	15" Hg to 100" Hg	7 to 73	50/65	Capillary Nut
PS1-X3K	097904				Capillary Nut
High Pressure Controls					
PS1-X4K	097901	15" Hg to 290" Hg	15 to 100	145/115	Capillary Nut
PS1-X5K	097908	90" Hg to 450" Hg	29 to 217	230/290	
PS1-Y5A	097923		Ext. Manual Reset	50	7/16" -20 UNF, 1/4" SAE male
PS1-Y5K	097911				Capillary Nut

PS1 Dimensional Diagram (in)



PS2 Series Dual Pressure Controls

PS2 Dual Pressure Controls are designed for use on high and low pressure applications in refrigeration and heat pump systems. By operating a set of electrical contacts, a pressure is kept inside certain limits.



Features

- Adjustable pressures and differentials
- Narrow adjustable differential depending on model
- Range and differential pointer in units bar and psig
- Range and differential individually lockable by wire seal
- High rated SPDT contacts for all versions
- Captive terminal and cover screws
- Manual toggle for system checkout and override
- Factory installed wire bridge for reduced installation effort

Specifications

- SPDT switch rated for 120 VAC/240VAC at 24FLA and 144 LRA
- Agency approvals include: UL/CUL file number E85974, VDE 0631/0660, TÜV, CE 73/23/EWG, CE 93/68/EWG
- Low and high pressure versions available with TUV approval according to DIN 32733 to meet requirements of DIN 8901 and DIN 8975

Options

- Different pressure connections
- Automatic and manual reset versions
- Factory set to customer specification
- Different types of mounting brackets

Nomenclature example: PS2-Y7A

PS2	Y	7	A
Product Name	Function	Pressure Ranges	Pressure Connector Type
PS2 = Adjustable Dual Pressostat PSB = Customer special Version	<p>A = <u>Both sides</u>: Pressure controls, Automatic reset, Internal range and differential adjustments.</p> <p>L = <u>Left side</u>: Pressure control, Automatic reset, Internal range and differential adjustments. <u>Right side</u>: Pressure cut out, External manual reset, Internal range and differential adjustments.</p> <p>X = <u>Both sides</u>: Pressure controls, Automatic reset, External range and differential adjustments.</p> <p>Y = <u>Left side</u>: Pressure control, Automatic reset, External range and differential reset, External range and differential adjustments.</p> <p>LOW PRESSURE MANUAL RESET: Cut outs with manual reset function and in combination with the low pressure side of Pressure Ranges 7 & 9 have a low pressure manual reset function (15 psi differential).</p> <p>HIGH PRESSURE MANUAL RESET: Cut outs with manual reset function and in combination with the high pressure side of Pressure Ranges 7 & 9 have a high pressure manual reset function (60 psi differential).</p>	<p>7 = Left side: 15" Hg to 100 psi (-0.5 to 7 bar) Right side: 90 to 450 psi (6 to 31 bar)</p> <p>9 = Left side: 24" Hg to 45 psi (-.75 to 3 bar) Right side: 90 to 450 psi (6 to 31 bar)</p>	<p>A = 7/16" -20 UNF male for 1/4" SAE flare fitting K* = 7/16" -20 UNF flare nut with 1 meter (3 ft.) cap tube L = 1/4" ODM solder with 1 meter (3 ft.) cap tube</p> <p>* Controls with housing variants X/Y have extended copper ends, without schrader valve depressor. All other housing variants have schrader valve depressors and brass end fitting with copper gasket.</p>

Ordering Information

Dual Pressure Control	PCN	Adjustment Range				Factory Setting PSI		Pressure Connection
		Upper Setpoint		Differential Setpoint		Left PSI	Right (PSI)	
		Left PSI	Right (PSI)	Left PSI	Right (PSI)			
Continued Pressure Limiter/Pressure Cut Out for Low Pressure/High Pressure Protection								
PS2-Y7A	097954	15" Hg to 100	90 to 450	7 to 72	Convertible Auto/Manual Reset	50/65	290	7/16" -20 UNF
PS2-Y7K	097943			4 to 29		7/15		Capillary Nut
PS2-Y9K	097950	24" Hg to 45						

FD113-ZUK Oil Pressure Safety Controls

The FD113 Oil Pressure Safety Control senses the effective oil pressure on pressure lubricate compressors. If inadequate oil pressure exists, a time delay is energized. If the oil pressure does not recover to safe levels within the time delay setting, the compressor is shut down. The time delay allows the compressor adequate time to establish oil pressure on start up and avoids nuisance shutdowns on pressure drop of short duration during the run cycle.

Maximum application flexibility is assured by providing an adjustable differential pressure switch which can be adjusted to the compressor's minimum required oil pressure needs and an adjustable electronic time delay which allows you to select the length of time the compressor runs below the minimum pressure before shutdown. The minimum pressure setting and time delay values specified by the compressor manufacturer should be used when installing the FD113 control.

Features

- Pressure range adjustable from 4 to 65 psid; Timer start pressure - timer stop pressure is 3 psid above timer start pressure
- A SPDT switch is used in the pressure portion of the control which allows the addition of a "safe-light" is desired
- Electronic Timer is Time-Adjustable from 20 to 150 seconds
- Supply voltage - 24 to 240 Volt AC/DC; Timing unaffected by voltage or ambient temperature variations
- A SPDT Manual Reset Switch is used in the Timer Module; Upon time-out, the compressor is stopped and an alarm circuit is energized; To restart the compressor and deenergize the alarm circuit, the reset button is pushed
- A factory installed Jumper allowd the FD113 to be powered from a single source power; Should separate circuits be desired for the timer and "Lockout" switch, the Jumper can be removed

Specifications

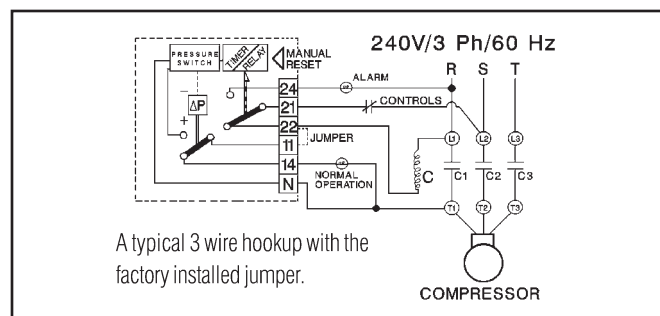
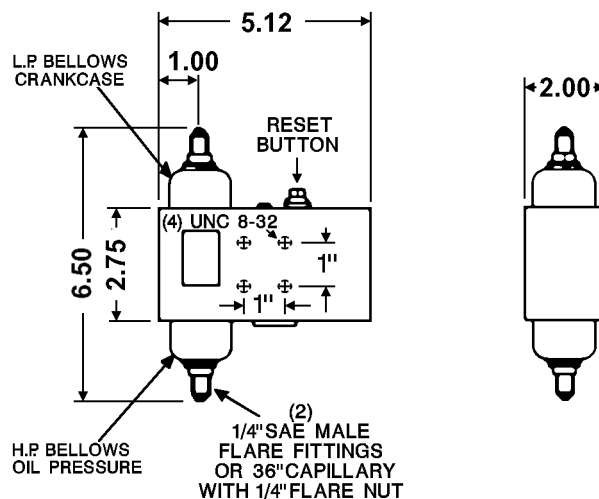
- Agency approvals include: UL/CUL file number E85974, VDE 0631/0660, TÜV, CE 73/23/EWG, CE 93/68/EWG

Ordering Information

PCN	Part Number	Adjustable Pressure Range	Adjustable Time Delay	Supply Voltage	Pressure Connection
097456	FD113-ZUK	4-65 psid	20 to 150 seconds Factory-set at 120 seconds	24 to 240V AC/DC	(2) 36" capillary with 1/4" flare nut



FD113 Dimensional Data (in)



Thermal Expansion Valves
 Solenoid Valves
 Coils
 Industrial Solenoid Valves
 Shut Off Valves
 System Protectors
 Storage Devices
 Oil Controls
 Pressure Regulators
 Temperature Pressure Controls
 Competitive Cross Reference

PSC Mini-Pressure Controls

The PSC Mini-Pressure Control provides the ultimate in reliability and flexibility in a commercial grade mini-pressure control. A standard plug connectable design simplifies installation and service. The SPDT switch allows the addition of alarm circuits on high or low pressure applications. The PSC makes your application and selection easy. Models with high temperature bellows and built-in pressure pulsation snubbers make the PSC ideally suited for compressor head mounting high pressure limit control applications—automatic or manual reset versions are available.



Pressure Ranges/Differential also make the PSC controls ideally suited for condenser fan cycling applications. Low Pressure versions with standard or narrow differential switches make these controls ideally suited low pressure limit or back-up safety controls on electronically controlled systems. Numerous options, such as panel mount or capillary connections are available on high volume applications. Standard on all models are worldwide agency approvals.

Typical Applications

- High Pressure Limit/Alarm
- Condenser Fan Cycling
- Low Pressure Limit/Alarm
- Low Pressure Cycling (Back-Up)
- Defrost Termination/Fan Delay
- Rupture Guard Alarm

Features

- Commercial Grade High/Low/Condenser Fan Cycling Pressure Controls for use on Refrigeration/AC Applications
- Mini-Size 2" x 1-1/2" x 2-3/4"
- Standard SPDT Switch Action
- Automatic or Manual Reset
- Models available with high temperature bellows and built-in pressure pulsation snubber for direct head mount high pressure sensing/limit applications
- Plug Connectable with hub for 1/2" flexible conduit
- Factory preset to customer's desired pressure specifications
- Precise, repeatable settings
- Narrow differential "Micro" switch available on low pressure models

Specifications

- Worldwide Approvals: UL/CUL/VDE/TÜV
- UL/CUL file number: E85974

Nomenclature example: PSC-W6S

PSC	W	6	S
Product Name	Function	Pressure Range/Contacts	Pressure Connections
	<p>A = Pressure control, automatic, high or low pressure applications (Single diaphragm option, 158° F rating, Range 1-5 only, without snubber) (Bellows option, 300° F rating, with snubber, Range 6 only)</p> <p>W = Pressure cut-out, external manual reset, DIN/TUV approved (Double diaphragm option, 158° F, without snubber, Range 1-5) (Bellows option, 300° F rating, with snubber, Range 6 only)</p> <p>X = Pressure control, external manual reset, high or low pressure applications (Single diaphragm option, 158° F rating, Range 1-5 only, without snubber) (Bellows option, 300° F rating, with snubber, Range 6 only)</p> <p>B = Pressure limiter, automatic, DIN/TUV approved (Double diaphragm option, 158° F, without snubber, Range 1-5) (Bellows option, 300° F rating, with snubber, Range 6 only)</p>	<p>Standard Contacts</p> <p>1 = Low pressure 15" Hg to 90 psig</p> <p>5 = High pressure 100 to 465 psig</p> <p>6 = High pressure 145 to 623 psig</p> <p>Microswitch Contacts</p> <p>J = Low pressure 15" Hg to 980 psig</p>	<p>K = 1 m cap tube w/flare nut 7/16"-20 UNF (range 1-5)</p> <p>L = 1/4" ODM solder w/1 m cap tube (range 1-5)</p> <p>S = 7/16"-20 UNF female, Schrader depressor (range 1-6)</p>

Specifications

Electrical Ratings–SPDT Switch

- Standard Switch – High/Low Pressure
 - Load Contact: 6 FLA – 36 LRA – 120/240 VAC
 - Pilot Duty: 240VA @ 120, 480VA @ 240 VAC
 - Back Contact 0.5 Amp 120/240 VAC Pilot Duty
- Micro Switch – Low Pressure
 - 2.5 FLA – 15 LRA – 120/240 VAC
 - Pilot Duty: 120VA @ 120, 240VA @ 240 VAC
 - Back Contact 0.5 Amp 120/240 VAC Pilot Duty

Ambient Temperature

- Storage: –30° to +160°F Operating: –20° to +140°F
- Low Pressure
 - Single diaphragm
 - Maximum media temperature 150°F
- High Pressure
 - Bellows design
 - Maximum media temperature 300°F
 - Internal Pressure Pulsation Snubber available for direct head mount

Protection

- Protect from rain, direct sunlight and exterior damage

Weight

- Approximately 0.25 pound, depending upon configuration

Compatibility

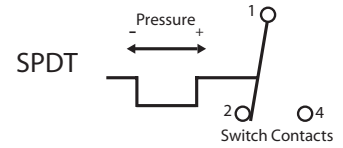
- HFC, HCFC, CFC

Agency Approvals

- UL/CUL/DIN/TÜV, depending upon configuration

Switch Action

- SPDT Standard
 - 1–2 Open on Rise
Close on Fall
 - 1–4 Close on Rise
Open on Fall



PSC Mini-Pressure Control Specification Selection Table

PCN	Type and Description	High Event Range (PSIG)	Differential Range (PSID)	Setting	Reset Function	Pressure Connection	Electrical Connection	Electrical Ratings	Maximum Over Pressure	Mounting
Low Pressure Controls										
097815	PSC-AJS ¹	15" to 90	4 Low / 7 High	1.5/6	Auto	1/4" SAE Female with Valve Depressor	DIN Plug with 1/2" NPTF Hub for Flex Conduit Connection 36" Cable	2.5 FLA/15 LRA	360 PSIG	Free Standing Direct Mount
097849	PSC-A1S		9 Low / 15 High	5/15				6 FLA/36 LRA		
High Pressure Controls										
097793	PSC-W6S	145 to 623	72 Low / 87 High	320/395	Auto	Same as above, plus stainless steel bellows with snubber	DIN Plug with 1/2" NPTF Hub for Flex Conduit Connection 36" Cable	6 FLA/36 LRA	695 PSIG	Free Standing Direct Mount
097998	PSC-B6S			395	Manual					

¹ Micro-Switch Construction.

² All switches SPDT ratings stated are 1 side only 120/240 VAC. Opposite switch side – 1/2 amp pilot duty 120/240.

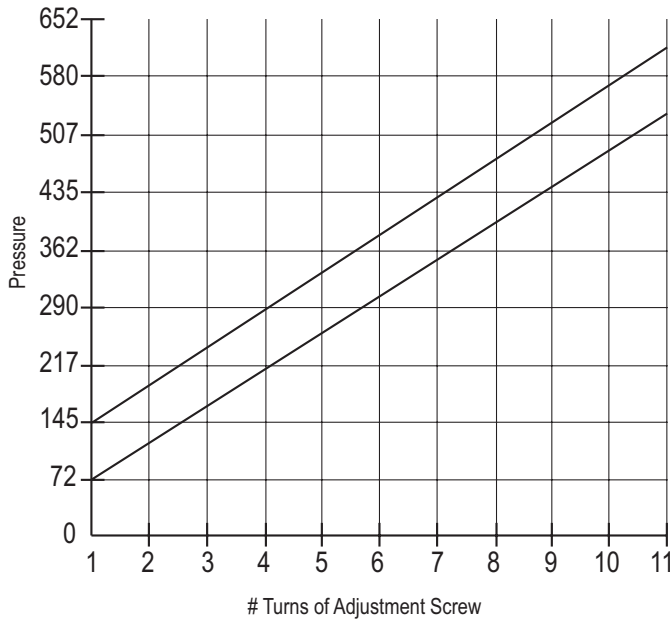
PSC Setting Capabilities

The PSC is factory preset.

For special applications, these controls can be factory preset to other values as illustrated on the appropriate graphs.

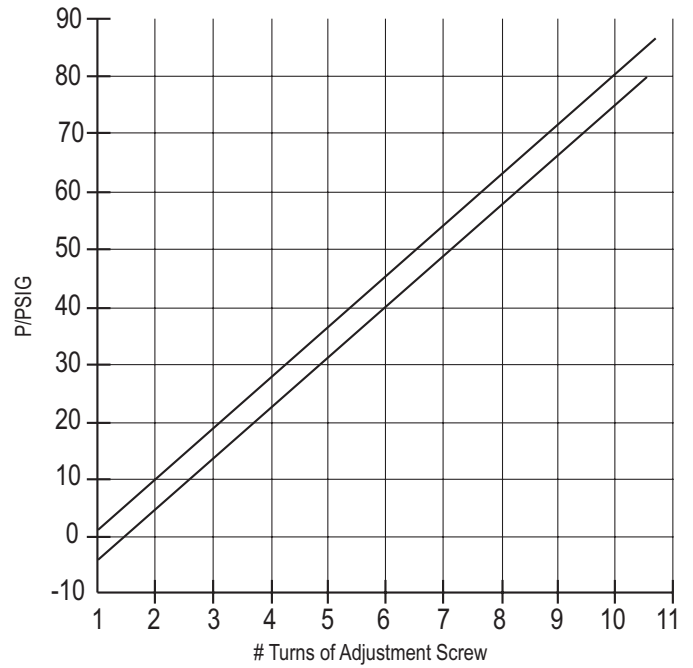
Standard Switch Setting Capability

Pressure Range = 6



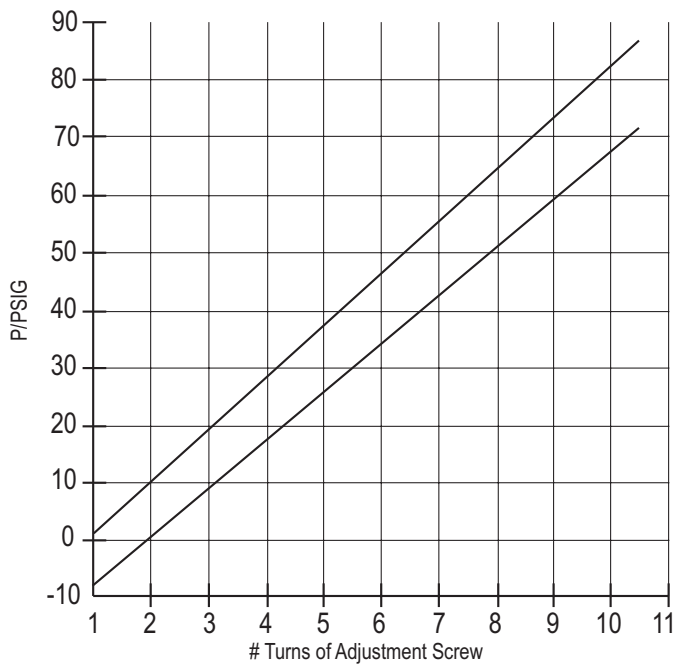
Micro-Switch Setting Capability

Pressure Range = J



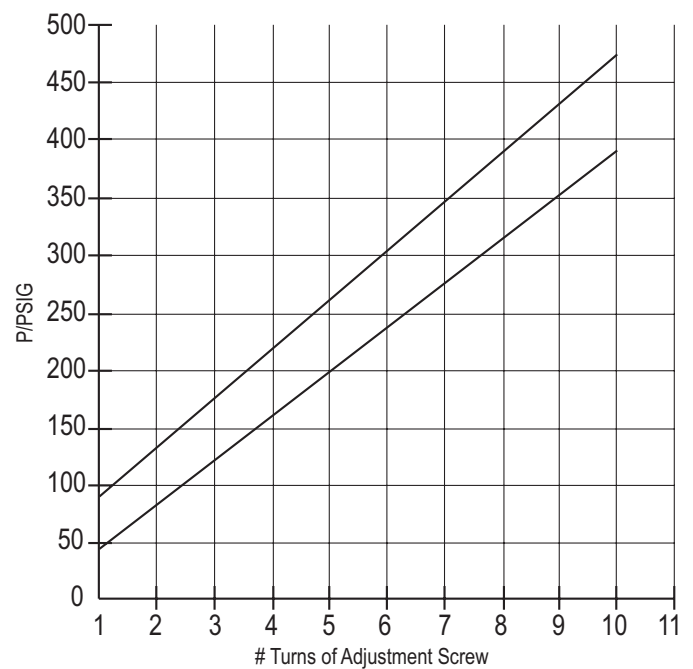
Standard-Switch Setting Capability

Pressure Range = 1



Standard-Switch Setting Capability

Pressure Range = 5



FSX Electric Fan Speed Control

The FSX Fan Speed Control controls the head pressure in air-cooled condensers by reducing the fan speed to maintain head pressure as the outside temperatures/condenser pressure drops. As the motor speed drops under lower ambient/load condition fan noise is also reduced.



The FSX is designed for use with permanent split capacitor and shaded pole fan motors, approved for use by motor/equipment manufacturers for variable voltage, phase angle (triac) speed control.

Features

- Connector includes 2 m. cable installed (FSF and FSO)
- Connector turnable (in 90° steps)
- Compact Design
- State-of-the-Art Electronics
- Direct mount—Easily retrofit to suitable motor
- Low Pressure “Turn Off” Operation
- Adjustable Pressure Setting
- Multiple FSX controls can be used in parallel on multi-circuit condensers
- 2 Cable types:
FSF-N15 with internal circuit design to comply with EC-Directive 89/336/EC (Electromagnetic compatibility requirements for Europe)
FSO-N15, standard with internal voltage spike and over current protection

Options

- Custom Calibration
- Other Operating Voltages/Pressure Ranges

Nomenclature example: FSX-41S

FS	X	4	1			S
Fan Speed Control	Series	Max. Current Rating 4 = 4 Amps maximum at 104°F ambient temperature	Pressure Range			Pressure Connection S = 1/4" SAE female (7/16" -20 UNF) with Schrader Depressor
			Pressure Range	Modulating Band	Factory Setting	
			1 = 6.5 to 15 bar (95 to 220psig)	35 psig	11 bar (160 psig)	
			2 = 13 to 25 bar (190 to 360 psig)	55 psig	16.2 bar (235 psig)	
			3 = 12.4 to 28.4 (180 to 411 psig)	66 psig	21.8 bar (316 psig)	

Ordering Information

Description	PCN	Adjustable Range	Modulating Band	Factory Setting	Pressure Connection
FSX-41S	097816	95 to 220	36	160	7/16" -20 UNF Female
FSX-42S	097817	190 to 360	55	235	
FSX-43S	097774	180 to 411	66	316	

Parts/Accessories

PCN	TYPE
097995	FSF-N15 Cable (EMC)
097775	FSO-N15 Cable (standard)

Specifications

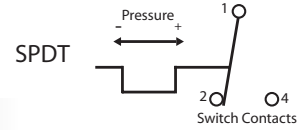
- Nominal current: 0.2 to 4 Amp max up to 104°F (40°C)
0.2 to 2.5 Amp max up to 140°F (60°C)
- Starting current: max. 8 Amp
- Temperature Range
 - Storage and transportation: -30°C to 70°C
 - Ambient temperature: -20°C to 55°C
 - Medium temperature: -20°C to 70°C
- Pressure Operated Fan Speed Control to maintain
- Supply Voltage: 230V AC + 15-20%.
- Protection: Provide an ultimate enclosure to protect from direct rain, sunlight and external damage.
- Weight: 3-1/2 ounces
- Approvals: UL/CUL file number E183816
CE Low Voltage Directive 72/23/EC
Connector per DIN 43650

FF444 Industrial Pressure Controls

The FF444 Industrial Pressure Controls are general purpose switches suitable for oil, water and air at pressures up to 465 psig.

Typical Applications

- Industrial Pressure Control
- Pneumatic and Hydraulic Systems
- Oil Lubrication Systems
- Pump/Compressor Control



Features

- SPDT snap-action contacts
- Independent adjustable upper and lower switching pressures
- Diaphragm-type control for low pressure applications (Buna N diaphragm):
 - resistant to mineral oils
 - medium temperatures up to 160°F
- Transparent polyamide hood – U.V. resistant
- Surface mounted Type 4 enclosure
- Optional manual reset locking on pressure rise

Specifications

- Control circuit rating: 5 A (B300)
- Rated voltage: 300 VAC maximum
- Ambient operating temperature: -10°F to +120°F
- Medium temp. at pressure element: + 160°FMax.
- Resistance to vibration: (4 Hz to 1000 Hz) 4g
- Weight: 1.1 lbs.
- UL/CUL file number: E85974

Description	120VAC	240VAC
Maximum motor rating single phase	1/2 hp	1 -1/2 hp
Motor rated, FLA	10 A	10 A
Motor rated, LRA	60 A	60 A

Options

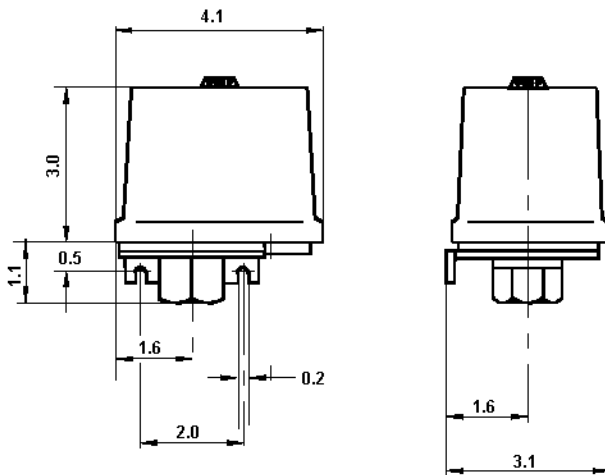
- Optional manual reset locking on pressure rise

Nomenclature

example: FF444-V2-DRF

FF444	V2					D	R	F
Industrial Pressure Control		Lower Switch Point Range	Upper Switch Point Range	Smallest Differential @ Lower-Higher end of Range	Standard Settings	Valve Design D = Diaphragm	Reset Type A = Auto R = Manual, Locking on Pressure Rise	Pressure Connection A = 7/16"-20 UNF male F = 1/4"-18 NPTF
	V1	0.5-27 psig 0.04-1.89 bar	1.5-29 psig 0.11-2 bar	1-1.5 psig 0.07-0.11 bar	7/22 psig 0.5/1.5 bar			
	V2	1-54 psig 0.07- 3.75 bar	3-58 psig 0.22-4 bar	2-4 psig 0.15-0.11 bar	14/44 psig 1/3 bar			
	V3	3-109 psig 0.2-7.5 bar	7-116 psig 0.5-8 bar	4-7 psig 0.3-0.5 bar	29/87 psig 2/6 bar			
	V4	6-217 psig 0.4-15 bar	15-232 psig 1-16 bar	9-14 psig 0.6-1 bar	58/174 psig 4/12 bar			
	V5	12-435 psig 0.8-30 bar	29-464 psig 2-32 bar	17-29 psig 1.2-2 bar	145/290 psig 10/20 bar			

Dimensional Data (in)



Ordering Information

PCN	Description
097308	FF444-V1-DAF
097309	FF444-V2-DAF
097310	FF444-V3-DAF
097311	FF444-V4-DAF
097312	FF444-V5-DAF
097058	FF444-V3-DRF
097379	FF444-V4-DRF

AC&R TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
MS-4	CHECK VALVE			ACK-4	064985	1/4 ODF	
MS-6	CHECK VALVE			ACK-6	064986	3/8 ODF	
MS-8	CHECK VALVE			ACK-8	064987	1/2 ODF	
MS-10	CHECK VALVE			ACK-10	064988	5/8 ODF	
MS-12	CHECK VALVE			ACK-12	064989	3/4 ODF	
MS-14	CHECK VALVE			ACK-14	064990	7/8 ODF	
MS-18	CHECK VALVE			ACK-18	064991	1-1/8 ODF	
MS-22	CHECK VALVE			ACK-22	064992	1-3/8 ODF	
MS-26	CHECK VALVE			ACK-26	064993	1-5/8 ODF	
MS-34	CHECK VALVE			ACK-34	064994	2-1/8 ODF	
MS-42	CHECK VALVE			ACK-42	064995	2-5/8 ODF	

Thermal Expansion Valves
 Solenoid Valves
 Coils
 Industrial Solenoid Valves
 Shut Off Valves
 System Protectors
 Storage Devices
 Oil Controls
 Pressure Regulators
 Temperature Pressure Controls
 Competitive Cross Reference

A-1 COMPONENTS TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
S-5182	OIL SEPARATOR	HELICAL		A-W55824	060933	CONVENTIONAL	SEALED UNIT 4 X 1/2 OD
S-5185	OIL SEPARATOR	HELICAL		A-W55855	060934	CONVENTIONAL	SEALED UNIT 4 X 5/8 OD
S-5187	OIL SEPARATOR	HELICAL		A-W55877	060931	CONVENTIONAL	SEALED UNIT 4 X 7/8 OD
S-5188	OIL SEPARATOR	HELICAL		A-W55889	060974	CONVENTIONAL	SEALED UNIT 4 X 1 1/8 OD
S-5190	OIL SEPARATOR	HELICAL		A-W569011	060930	CONVENTIONAL	SEALED UNIT 6 X 1 3/8 OD
S-5192	OIL SEPARATOR	HELICAL		A-W569213	060979	CONVENTIONAL	SEALED UNIT 6 X 1 5/8 OD
S-5292	OIL SEPARATOR	HELICAL		A-F579213	060875	CONVENTIONAL	FLANGED UNIT 6 X 1 7/8 OD
S-5294	OIL SEPARATOR	HELICAL		A-F579417	060876	CONVENTIONAL	FLANGED UNIT 6 X 2 1/8 OD
S-5582	OIL SEPARATOR	CONVENTIONAL		A-W55824	060933	CONVENTIONAL	SEALED UNIT 4 X 1/2 OD
S-5585	OIL SEPARATOR	CONVENTIONAL		A-W55855	060934	CONVENTIONAL	SEALED UNIT 4 X 5/8 OD
S-5587	OIL SEPARATOR	CONVENTIONAL		A-W55877	060931	CONVENTIONAL	SEALED UNIT 4 X 7/8 OD
S-5588	OIL SEPARATOR	CONVENTIONAL		A-W55889	060974	CONVENTIONAL	SEALED UNIT 4 X 1 1/8 OD
S-5590	OIL SEPARATOR	CONVENTIONAL		A-W559011	060930	CONVENTIONAL	SEALED UNIT 4 X 1 3/8 OD
S-5690	OIL SEPARATOR	CONVENTIONAL		A-W569011	060978	CONVENTIONAL	SEALED UNIT 6 X 1 3/8 OD
S-5692	OIL SEPARATOR	CONVENTIONAL		A-W569213	060979	CONVENTIONAL	SEALED UNIT 6 X 1 5/8 OD
S-5792	OIL SEPARATOR	CONVENTIONAL		A-F579213	060875	CONVENTIONAL	FLANGED UNIT 6 X 1 5/8 OD
S-5794	OIL SEPARATOR	CONVENTIONAL		A-F579417	060876	CONVENTIONAL	FLANGED UNIT 6 X 2 1/8 OD
S-5882	OIL SEPARATOR	CONVENTIONAL		A-F58824	060877	CONVENTIONAL	FLANGED UNIT 4 X 1/2 OD
S-5885	OIL SEPARATOR	CONVENTIONAL		A-F58855	060878	CONVENTIONAL	FLANGED UNIT 4 X 5/8 OD
S-5887	OIL SEPARATOR	CONVENTIONAL		A-F58877	060879	CONVENTIONAL	FLANGED UNIT 4 X 7/8 OD
S-5888	OIL SEPARATOR	CONVENTIONAL		A-F5889	060759	CONVENTIONAL	FLANGED UNIT 4 X 1 1/8 OD
S-5890	OIL SEPARATOR	CONVENTIONAL		A-F589011	060760	CONVENTIONAL	FLANGED UNIT 4 X 1 3/8 OD
S-9108	OIL SEPARATOR	4 GALLON		AOR4	NONE	CONVENTIONAL	3 SIGHT GLASSES
S-9109	OIL SEPARATOR	2 GALLON		AOR2	NONE	CONVENTIONAL	2 SIGHT GLASSES

Thermal
Expansion Valves

Solenoid
Valves

Coils

Industrial
Solenoid Valves

Shut Off
Valves

System
Protectors

Storage
Devices

Oil
Controls

Pressure
Regulators

Temperature
Pressure Controls

Competitive Cross
Reference

OLD ALCO TO NEW EMERSON

	Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
Thermal Expansion Valves	102	TXV			HF 1/2 FC	054892	R12 3/8 X 1/2 SAE	
	2255N	REGULATOR			OBSOLETE	NONE	NAVY	
	228RB353	SOLENOID			200RB3T3	049609	3/8 ODF	
	230RA12T7M	SOLENOID			240RA12T7M	040849	VLC	
	230RA12T7T	SOLENOID			240RA12T7T	040850	VLC	
Solenoid Valves	230RA12T9M	SOLENOID			240RA12T9M	045549	VLC	
	230RA12T9T	SOLENOID			240RA12T9T	043959	VLC	
	230RA16T11M	SOLENOID			240RA16T11M	044788	VLC	
	230RA16T11T	SOLENOID			240RA16T11T	044428	VLC	
	230RA16T9M	SOLENOID			240RA16T9M	042548	VLC	
	230RA16T9T	SOLENOID			240RA16T9T	042549	VLC	
	230RA20T11M	SOLENOID			240RA20T11M	046636	VLC	
	230RA20T11T	SOLENOID			240RA20T11T	047761	VLC	
	230RA20T13M	SOLENOID			240RA20T13M	046637	VLC	
	230RA20T13T	SOLENOID			240RA20T13T	047747	VLC	
Coils	230RA20T17M	SOLENOID			240RA20T17M	046638	VLC	
	230RA20T17T	SOLENOID			240RA20T17T	054297	VLC	
	230RA8T5M	SOLENOID			240RA8T5M	040845	VLC	
	230RA8T5T	SOLENOID			240RA8T5T	040846	VLC	
	230RA8T7M	SOLENOID			240RA8T7M	045753	VLC	
Industrial Solenoid Valves	230RA8T7T	SOLENOID			240RA8T7T	044860	VLC	
	230RA9T5M	SOLENOID			240RA9T5M	040847	VLC	
	230RA9T5T	SOLENOID			240RA9T5T	040848	VLC	
	230RA9T7M	SOLENOID			240RA9T7M	043204	VLC	
	230RA9T7T	SOLENOID			240RA9T7T	043205	VLC	
	230RA9T9M	SOLENOID			240RA9T9M	045752	VLC	
	230RA9T9T	SOLENOID			240RA9T9T	044861	VLC	
Shut Off Valves	2315B08P04	SOLENOID			222CB 1/2B 1/2T	037958	1/2 FPT - STEAM	
	2315B12P06	SOLENOID			222CB 3/4B 3/4T	039930	3/4 FPT - STEAM	
	2315B16P08	SOLENOID			222CB 1B 1T	039834	1" FPT - STEAM	
	2315B20P10	SOLENOID			222CB 11/4B 11/4T	040532	11/4 FPT - STEAM	
	2315B24P12	SOLENOID			222CB 11/2B 11/2T	040582	11/2 FPT - STEAM	
System Protectors	231WB08P04	SOLENOID			222CB 1/2B 1/2B	039917	1/2 FPT - WATER	
	231WB12P06	SOLENOID			222CB 3/4B 3/4B	028192	3/4 FPT - WATER	
	231WB16P08	SOLENOID			222CB 1B 1B	039931	1" FPT - WATER	
	231WB20P10	SOLENOID			222CB 11/4B 11/4B	039918	11/4 FPT - WATER	
	231WB24P12	SOLENOID			222CB 11/2B 11/2B	038879	11/2 FPT - WATER	
	241WA10W04	SOLENOID			210CA 1/2B 5/8B	030620	1/2 FPT - WATER	
Storage Devices	241WA12P06	SOLENOID			210CA 3/4B 3/4B	030621	3/4 FPT - WATER	
	241WA16P08	SOLENOID			210CA 1B 1B	038629	1" FPT - WATER	
	3031RB12S7	SOLENOID			3031RC 12S7	055939	7/8 ODF	
	3031RB12S9	SOLENOID			3031RC 12S9	055940	11/8 ODF	
Oil Controls	401RD10	4 WAY VALVE			OBSOLETE	NONE	HEAT PUMP	
	401RD15	4 WAY VALVE			OBSOLETE	NONE	HEAT PUMP	
	401RD2F34	4 WAY VALVE			RV2F34	062796	3/8 X 1/2 ODF	
	401RD2F35	4 WAY VALVE			RV2F35	062199	3/8 X 5/8 ODF	
	401RD3F45	4 WAY VALVE			RV3F45	065507	1/2 X 5/8 ODF	
	401RD3F46	4 WAY VALVE			RV3F46	061792	1/2 X 3/4 ODF	
	401RD4F46	4 WAY VALVE			RV4F46	062168	1/2 X 3/4 ODF	
	401RD4F47	4 WAY VALVE			RV4F47	062173	1/2 X 7/8 ODF	
	401RD6F46	4 WAY VALVE			RV6F46	062181	1/2 X 3/4 ODF	
	401RD6F47	4 WAY VALVE			RV6F47	062270	1/2 X 7/8 ODF	
Pressure Regulators	401RD6F57	4 WAY VALVE			RV6F57	062190	5/8 X 7/8 ODF	
	402-1	TXV			HF 1/2 HC	054135	R22 3/8 X 1/2 SAE	
	402-2	TXV			HF 1 HC	054927	R22 3/8 X 1/2 SAE	
	4WE4-47	4 WAY VALVE			RV4F47	062173	1/2 X 7/8 ODF	
	4WE4-57	4 WAY VALVE			RV4F57	062176	5/8 X 7/8 ODF	
Temperature Pressure Controls	5091 SERIES	BULB WELL			OBSOLETE	NONE	SUCTION LINE	
	5092 SERIES	BULB WELL			OBSOLETE	NONE	SUCTION LINE	
	722 SERIES	REGULATOR			OBSOLETE	NONE	REMOTE PILOT	
	724	REGULATOR			OBSOLETE	NONE	REMOTE PILOT	
	726 SCP	REGULATOR			OBSOLETE	NONE	PILOT FOR FA8	
	905 SERIES	SOLENOID			OBSOLETE	NONE	FLANGED BODY	
	927 SERIES	STRAINER			OBSOLETE	NONE	AMMONIA	
	932R	STRAINER			OBSOLETE	NONE	AMMONIA	

OLD ALCO TO NEW EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
935 SERIES	TXV			OEM SPECIAL	NONE	TEMP PILOT	
A 3436	PARTS			OBSOLETE	NONE	FLANGE CAP	
AA 1 FC	TXV			AFA 1 FC	047758	3/8 X 3/8-1/2 SAE	
AA 1 HC	TXV			AFA 1 HC	054231	3/8 X 3/8-1/2 SAE	
AA 1/2 FC	TXV			AFA 1/2 FC	054226	3/8 X 3/8-1/2 SAE	
AA 1/2 HC	TXV			AFA 1/2 HC	057260	1/4 X 3/8-1/2 SAE	
AA 1/2 RC	TXV			AFA 1/2 RC	048431	1/4 X 3/8-1/2 SAE	
AA 1/4 FC	TXV			AFA 1/4 FC	047753	1/4 X 3/8-1/2 SAE	
AA 1/4 RC	TXV			AFA 1/4 RC	049871	1/4 X 3/8-1/2 SAE	
AA 11/2 HC	TXV			AFA 11/2 HC	054232	3/8 X 3/8-1/2 SAE	
AA 2 HC	TXV			AFA 2 HC	054233	3/8 X 3/8-1/2 SAE	
AAE 1 FC	TXV			AFAE 1 FC	057048	3/8 X 3/8-1/2 SAE	
AAE 1 HC	TXV			AFAE 1 HC	054246	3/8 X 3/8-1/2 SAE	
AAE 1/2 FC	TXV			AFAE 1/2 FC	057023	1/4 X 3/8-1/2 SAE	
AAE 1/2 HC	TXV			AFAE 1/2 HC	054243	1/4 X 3/8-1/2 SAE	
AAE 1/4 FC	TXV			AFAE 1/4 FC	054240	1/4 X 3/8-1/2 SAE	
AAE 11/2 HC	TXV			AFAE 11/2 HC	054247	3/8 X 3/8-1/2 SAE	
AAE 2 HC	TXV			AFAE 2 HC	054248	3/8 X 3/8-1/2 SAE	
AAE 5 HC	TXV			AFAE 5 HC	054250	3/8 X 3/8-1/2 SAE	
ADKS-14411T	DRIER			STAS-14411T	053022	SHELL (FOR BLOCKS)	
ADKS-14413T	DRIER			STAS-14413T	053024	SHELL (FOR BLOCKS)	
ADKS-14417T	DRIER			STAS-14417T	053025	SHELL (FOR BLOCKS)	
ADKS-1449T	DRIER			STAS-1449T	053020	SHELL (FOR BLOCKS)	
ADKS-19211T	DRIER			STAS-19211T	053028	SHELL (FOR BLOCKS)	
ADKS-485T	DRIER			STAS-485T	053001	SHELL (FOR BLOCKS)	
ADKS-487T	DRIER			STAS-487T	053003	SHELL (FOR BLOCKS)	
ADKS-489T	DRIER			STAS-489T	053005	SHELL (FOR BLOCKS)	
ADKS-9611T	DRIER			STAS-9611T	053014	SHELL (FOR BLOCKS)	
ADKS-9613T	DRIER			STAS-9613T	053017	SHELL (FOR BLOCKS)	
ADKS-967T	DRIER			STAS-967T	053010	SHELL (FOR BLOCKS)	
ADKS-969T	DRIER			STAS-969T	053012	SHELL (FOR BLOCKS)	
AN 1 FC	TXV			AFA 1 FC	047758	3/8 X 3/8-1/2 SAE	
AN 1 HC	TXV			AFA 1 HC	054231	3/8 X 3/8-1/2 SAE	
AN 1/2 FC	TXV			AFA 1/2 FC	054226	3/8 X 3/8-1/2 SAE	
AN 1/2 HC	TXV			AFA 1/2 HC	057260	1/4 X 3/8-1/2 SAE	
AN 1/2 RC	TXV			AFA 1/2 RC	048431	1/4 X 3/8-1/2 SAE	
AN 1/4 FC	TXV			AFA 1/4 FC	047753	1/4 X 3/8-1/2 SAE	
AN 1/4 RC	TXV			AFA 1/4 RC	049871	1/4 X 3/8-1/2 SAE	
AN 11/2 HC	TXV			AFA 11/2 HC	054232	3/8 X 3/8-1/2 SAE	
AN 2 HC	TXV			AFA 2 HC	054233	3/8 X 3/8-1/2 SAE	
ANDE	TXV			OBSOLETE	NONE	BLEED	
ANE 1 FC	TXV			AFAE 1 FC	057048	3/8 X 3/8-1/2 SAE	
ANE 1 HC	TXV			AFAE 1 HC	054246	3/8 X 3/8-1/2 SAE	
ANE 1/2 FC	TXV			AFAE 1/2 FC	057023	1/4 X 3/8-1/2 SAE	
ANE 1/2 HC	TXV			AFAE 1/2 HC	054243	1/4 X 3/8-1/2 SAE	
ANE 1/4 FC	TXV			AFAE 1/4 FC	054240	1/4 X 3/8-1/2 SAE	
ANE 11/2 HC	TXV			AFAE 11/2 HC	054247	3/8 X 3/8-1/2 SAE	
ANE 2 HC	TXV			AFAE 2 HC	054248	3/8 X 3/8-1/2 SAE	
ANE 5 HC	TXV			AFAE 5 HC	054250	3/8 X 3/8-1/2 SAE	
BEPR 12T9	REGULATOR			EPRB 12T9	057242	EVAP PRES.	
BEPR 16T11	REGULATOR			EPRB 16T11	057248	EVAP PRES.	
BEPR 20T13	REGULATOR			EPRB 20T13	057247	EVAP PRES.	
BEPRS 12T9	REGULATOR			EPRBS 12T9	057245	EVAP PRES.	
BEPRS 16T11	REGULATOR			EPRBS 16T11	057250	EVAP PRES.	
BEPRS 20T13	REGULATOR			EPRBS 20T13	057249	EVAP PRES.	
BGG-70	COILS			BMG 208-240/50-60	034906	6 IN LEADS	
BGG-71	COILS			BMG 24/ 50-60	036902	6 IN LEADS	
BGG-72	COILS			BMG 120/50-60	035325	6 IN LEADS	
CDDC	CONTROL			OBSOLETE	NONE	DEFROST	
CFDH	SENSOR			OBSOLETE	NONE	FROST CONTROL	
CPGRS035	AVV			OBSOLETE	NONE	AMMONIA	
CTR	REGULATOR			OBSOLETE	NONE	CASE CONTROL	
D 865	PARTS			OBSOLETE	NONE	EPRV PILOT	
DCU	CONTROL			OBSOLETE	NONE	FROST CONTROL	
DGRE 4	REGULATOR			EGRE 655B	062869	HOT GAS 5/8	

Thermal Expansion Valves
 Solenoid Valves
 Coils
 Industrial Solenoid Valves
 Shut Off Valves
 System Protectors
 Storage Devices
 Oil Controls
 Pressure Regulators
 Temperature Pressure Controls

OLD ALCO TO NEW EMERSON

	Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
Thermal Expansion Valves	DGRE 6	REGULATOR			EGRE 855B	063183	HOT GAS 5/8	
	DP8410	REGULATOR			OBSOLETE	NONE	OEM SPECIAL	OEM SPECIAL
	DS2184	SOLENOID			OBSOLETE	NONE	AMMONIA (3/8 PORT)	
	DS2228	SOLENOID			Z00RB3T3	049609	3/8 ODF	
	DT SERIES	TXV			OBSOLETE	NONE	OEM SPECIAL	OEM SPECIAL
Solenoid Valves	EACFA2	REGULATOR			OEM SPECIAL	NONE	DIFFERENTIAL PRES.	
	EPR SERIES	REGULATOR			OBSOLETE	NONE	EVAP PRES.	
	EPRV SERIES	REGULATOR			OBSOLETE	NONE	EVAP PRES.	
	ETR	REGULATOR			OBSOLETE	NONE	EVAP PRES.	
	FA SERIES	REGULATOR			OBSOLETE	NONE	FLANGED BODY	
Coils	FS1RA	FLOAT SWITCH			OBSOLETE	NONE	FLOODED SYSTEM	
	GS SERIES	SOLENOID			NONE	NONE	OEM SPECIAL	OEM SPECIAL
	GT SERIES	TXV			NONE	NONE	OEM SPECIAL	OEM SPECIAL
	HC 1 FW	TXV			HF 1 FC	054905	3/8 X 1/2 SAE	
	HC 1 HW	TXV			HF 1 HC	054927	3/8 X 1/2 SAE	
Industrial Solenoid Valves	HC 1 RW	TXV			HF 1 RC	054976	3/8 X 1/2 SAE	
	HC 1/2 FW	TXV			HF 1/2 FC	054892	3/8 X 1/2 SAE	
	HC 1/2 HW	TXV			HF 1/2 HC	054135	3/8 X 1/2 SAE	
	HC 1/2 RW	TXV			HF 1/2 RC	054964	3/8 X 1/2 SAE	
	HC 1/4 FW	TXV			HF 1/4 FC	054134	3/8 X 1/2 SAE	
Shut Off Valves	HC 1/4 HW	TXV			HF 1/4 HC	054921	3/8 X 1/2 SAE	
	HC 1/4 RW	TXV			HF 1/4 RC	054137	3/8 X 1/2 SAE	
	HC 11/2 FW	TXV			HF 11/2 FC	054914	3/8 X 1/2 SAE	
	HC 11/2 HW	TXV			HF 11/2 HC	054933	3/8 X 1/2 SAE	
	HC 11/2 RW	TXV			HF 11/2 RC	054984	3/8 X 1/2 SAE	
System Protectors	HC 2 FW	TXV			HF 2 FC	053060	3/8 X 1/2 SAE	
	HC 2 HW	TXV			HF 2 HC	054939	3/8 X 1/2 SAE	
	HC 2 RW	TXV			HF 2 RC	053061	3/8 X 1/2 SAE	
	HC 3 HW	TXV			HF 3 HC	053316	3/8 X 1/2 SAE	
	HC 31/2 RW	TXV			HF 31/2 RC	055936	3/8 X 1/2 SAE	
Storage Devices	HCE 1 FW	TXV			HFE 1 FC	054909	3/8 X 1/2 SAE	
	HCE 1 HW	TXV			HFE 1 HC	054930	3/8 X 1/2 SAE	
	HCE 1 RW	TXV			HFE 1 RC	054979	3/8 X 1/2 SAE	
	HCE 1/2 FW	TXV			HFE 1/2 FC	054895	3/8 X 1/2 SAE	
	HCE 1/2 HW	TXV			HFE 1/2 HC	054361	3/8 X 1/2 SAE	
Oil Controls	HCE 1/2 RW	TXV			HFE 1/2 RC	054967	3/8 X 1/2 SAE	
	HCE 1/4 FW	TXV			HFE 1/4 FC	054360	3/8 X 1/2 SAE	
	HCE 1/4 HW	TXV			HFE 1/4 HC	054924	3/8 X 1/2 SAE	
	HCE 1/4 RW	TXV			HFE 1/4 RC	054366	3/8 X 1/2 SAE	
	HCE 11/2 FW	TXV			HFE 11/2 FC	054917	3/8 X 1/2 SAE	
Pressure Regulators	HCE 11/2 HW	TXV			HFE 11/2 HC	054936	3/8 X 1/2 SAE	
	HCE 11/2 RW	TXV			HFE 11/2 RC	054988	3/8 X 1/2 SAE	
	HCE 2 FW	TXV			HFE 2 FC	053069	3/8 X 1/2 SAE	
	HCE 2 HW	TXV			HFE 2 HC	054942	3/8 X 1/2 SAE	
	HCE 2 RW	TXV			HFE 2 RC	053070	3/8 X 1/2 SAE	
Temperature Pressure Controls	HCE 3 HW	TXV			HFE 3 HC	053317	3/8 X 1/2 SAE	
	HCE 3 RW	TXV			HFE 31/3 RC	054142	3/8 X 1/2 SAE	
	HF D FC	TXV			HF 1/4 FC	054134	R12 3/8 X 1/2 SAE	
	HF D HC	TXV			HF 1/2 HC	054135	R22 3/8 X 1/2 SAE	
	HF D RC	TXV			HF 1/4 RC	054137	R502 3/8 X 1/2 SAE	
Competitive Cross Reference	HF J FC	TXV			HF 1 FC	054905	R12 3/8 X 1/2 SAE	
	HF J HC	TXV			HF 2 HC	054939	R22 3/8 X 1/2 SAE	
	HF J RC	TXV			HF 1 RC	054976	R502 3/8 X 1/2 SAE	
	HF K FC	TXV			HF 2 FC	053060	R12 3/8 X 1/2 SAE	
	HF K HC	TXV			HF 3 HC	053316	R22 3/8 X 1/2 SAE	
	HF K RC	TXV			HF 2 RC	053061	R502 3/8 X 1/2 SAE	
	HFE D FC	TXV			HFE 1/4 FC	054360	R12 3/8 X 1/2 SAE	
	HFE D HC	TXV			HFE 1/2 HC	054361	R22 3/8 X 1/2 SAE	
	HFE D RC	TXV			HFE 1/4 RC	054366	R502 3/8 X 1/2 SAE	
	HFE J FC	TXV			HFE 1 FC	054909	R12 3/8 X 1/2 SAE	
	HFE J HC	TXV			HFE 2 HC	054942	R22 3/8 X 1/2 SAE	
	HFE J RC	TXV			HFE 1 RC	054979	R502 3/8 X 1/2 SAE	
	HFE K FC	TXV			HFE 2 FC	053069	R12 3/8 X 1/2 SAE	
	HFE K HC	TXV			HFE 3 HC	053317	R22 3/8 X 1/2 SAE	
	HFE K RC	TXV			HFE 2 RC	053070	R502 3/8 X 1/2 SAE	

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Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
HFES D HC	TXV			HFES 1/2 HC	055827	R22 3/8 X 1/2 ODF	
HFES D RC	TXV			HFES 1/4 RC	055092	R502 3/8 X 1/2 ODF	
HFES J FC	TXV			HFES 1 FC	055993	R12 3/8 X 1/2 ODF	
HFES J HC	TXV			HFES 2 HC	055706	R22 3/8 X 1/2 ODF	
HFES J RC	TXV			HFES 1 RC	056029	R502 3/8 X 1/2 ODF	
HFES K HC	TXV			HFES 3 HC	053916	R22 3/8 X 1/2 ODF	
HFES K RC	TXV			HFES 2 RC	053270	R502 3/8 X 1/2 ODF	
HFS D HC	TXV			HFS 1/2 HC	054136	R22 3/8 X 1/2 ODF	
HFS D RC	TXV			HFS 1/4 RC	055490	R502 3/8 X 1/2 ODF	
HGR	REGULATOR			OBSOLETE	NONE	OEM SPECIAL	OEM SPECIAL
HNDE SERIES	TXV			OBSOLETE	NONE	BLEED	
J56	FLOAT SWITCH			OBSOLETE	NONE	FLOODED SYSTEM	
K34A	TXV			OBSOLETE	NONE	AMMONIA	
KS30061	KIT			KS30321	060626	FOR 240RA8	
KS30062	KIT			KS30322	060627	FOR 240RA9	
KS30063	KIT			KS30323	060628	FOR 240RA12	
KS30065	KIT			KS30324	060629	FOR 240RA16	
KS30097	KIT			KS30325	060630	FOR 240RA20	
KS30108	KIT			KS30115	049194	FOR 200RB	
KS30109	KIT			KS30115	049194	FOR 200RB	
KS30309	KIT			KS30112	049191	FOR 100RB	
M344	SOLENOID			240RA12T7M	040849	7/8 ODF	
M355-1	SOLENOID			240RA12T7M	040849	7/8 ODF	
M511	SOLENOID			OBSOLETE	NONE	AMMONIA (3/4 PORT)	
M635-1	SOLENOID			240RA9T7M	043204	7/8 ODF	
M811	SOLENOID			OBSOLETE	NONE	AMMONIA (1/2 PORT)	
M91F	SOLENOID			OBSOLETE	NONE	AMMONIA (1/8 PORT)	
NDGRE	REGULATOR			OBSOLETE	NONE	HOT GAS	
NS115-1	SOLENOID			200RBGS1465-1	007580	NAVY - 120 V	
NS115-2	SOLENOID			200RBGS1465-2	007581	NAVY - 480V	
NS120-1	SOLENOID			200RBGS1466-1	007582	NAVY - 120 V	
NS120-2	SOLENOID			200RBGS1466-2	007583	NAVY - 480V	
PETR	REGULATOR			OBSOLETE	NONE	EVAP PRES.	
POS SERIES	TXV			OBSOLETE	NONE	PILOT OPERATED	
R1	SOLENOID			240RA16T9M	042548	11/8 ODF	
R11	SOLENOID			240RA16T9M	042548	11/8 ODF	
R12	SOLENOID			240RA16T9M	042548	11/8 ODF	
R1H	SOLENOID			240RA16T9M	042550	11/8 ODF	
R2	SOLENOID			OBSOLETE	NONE	FLANGED BODY	
R21	SOLENOID			OBSOLETE	NONE	FLANGED BODY	
R22	SOLENOID			OBSOLETE	NONE	FLANGED BODY	
R2H	SOLENOID			OBSOLETE	NONE	FLANGED BODY	
R345-1	SOLENOID			240RA16T9M	042548	11/8 ODF	
R355	SOLENOID			240RA16T9M	042548	11/8 ODF	
R61	SOLENOID			240RA20T11M	046636	13/8 ODF	
R62	SOLENOID			240RA20T11M	046636	13/8 ODF	
R6H	SOLENOID			240RA20T11M	046636	13/8 ODF	
RCD (A) FW	TXV			HF 1/4 FC	009811	(LETTER) CAGE CAPACITY	
RCD (A) HW	TXV			HF 1/2 HC	054135	(LETTER) CAGE CAPACITY	
RCD (A) RW	TXV			HF 1/4 RC	054137	(LETTER) CAGE CAPACITY	
RCD (B) FW	TXV			HF 1/2 FC	009810	(LETTER) CAGE CAPACITY	
RCD (B) HW	TXV			HF 1 HC	054927	(LETTER) CAGE CAPACITY	
RCD (B) RW	TXV			HF 1/2 RC	054964	(LETTER) CAGE CAPACITY	
RCD (C) FW	TXV			HF 1 FC	054905	(LETTER) CAGE CAPACITY	
RCD (C) HW	TXV			HF 11/2 HC	054933	(LETTER) CAGE CAPACITY	
RCD (C) RW	TXV			HF 1 RC	054976	(LETTER) CAGE CAPACITY	
RCD (D) FW	TXV			HF 11/2 FC	054914	(LETTER) CAGE CAPACITY	
RCD (D) HW	TXV			HF 2 HC	054939	(LETTER) CAGE CAPACITY	
RCD (D) RW	TXV			HF 11/2 RC	054984	(LETTER) CAGE CAPACITY	
RCD (E) FW	TXV			HF 2 FC	053060	(LETTER) CAGE CAPACITY	
RCD (E) HW	TXV			HF 3 HC	053316	(LETTER) CAGE CAPACITY	
RCD (E) RW	TXV			HF 2 RC	053061	(LETTER) CAGE CAPACITY	
RCD (F) RW	TXV			HF 31/3 RC	055936	(LETTER) CAGE CAPACITY	
RCDE (A) FW	TXV			HFE 1/4 FC	054360	(LETTER) CAGE CAPACITY	
RCDE (A) HW	TXV			HFE 1/2 HC	054361	(LETTER) CAGE CAPACITY	

Thermal Expansion Valves
 Solenoid Valves
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 Competitive Cross Reference

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	Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
Thermal Expansion Valves	RCDE (A) RW	TXV			HFE 1/4 RC	054366	(LETTER) CAGE CAPACITY	
	RCDE (B) FW	TXV			HFE 1/2 FC	054895	(LETTER) CAGE CAPACITY	
	RCDE (B) HW	TXV			HFE 1 HC	054930	(LETTER) CAGE CAPACITY	
	RCDE (B) RW	TXV			HFE 1/2 RC	054967	(LETTER) CAGE CAPACITY	
	RCDE (C) FW	TXV			HFE 1 FC	054909	(LETTER) CAGE CAPACITY	
	RCDE (C) HW	TXV			HFE 11/2 HC	054936	(LETTER) CAGE CAPACITY	
Solenoid Valves	RCDE (C) RW	TXV			HFE 1 RC	054979	(LETTER) CAGE CAPACITY	
	RCDE (D) FW	TXV			HFE 11/2 FC	054917	(LETTER) CAGE CAPACITY	
	RCDE (D) HW	TXV			HFE 2 HC	054942	(LETTER) CAGE CAPACITY	
	RCDE (D) RW	TXV			HFE 11/2 RC	054988	(LETTER) CAGE CAPACITY	
	RCDE (E) FW	TXV			HFE 2 FC	053069	(LETTER) CAGE CAPACITY	
	RCDE (E) HW	TXV			HFE 3 HC	053317	(LETTER) CAGE CAPACITY	
Coils	RCDE (E) RW	TXV			HFE 2 RC	053070	(LETTER) CAGE CAPACITY	
	RCDE (F) FW	TXV			HFE 31/2 FC	054138	(LETTER) CAGE CAPACITY	
	RCDE (F) HW	TXV			HFE 51/2 HC	054140	(LETTER) CAGE CAPACITY	
	RCDE (F) RW	TXV			HFE 31/2 RC	054142	(LETTER) CAGE CAPACITY	
	RX	FLANGE SET			OBSOLETE	NONE	FLANGED BODY	
	S101	SOLENOID			100RB253	047504	3/8 ODF	
Industrial Solenoid Valves	S115	SOLENOID			200RB4F3M	047507	3/8 SAE	
	S120	SOLENOID			100RB254	047505	1/2 ODF	
	S155	SOLENOID			200RB4T3M	049186	3/8 ODF	
	S221	SOLENOID			200RB6T5M	047547	5/8 ODF	
	S225	SOLENOID			200RB6T5M	047547	5/8 ODF	
	S2N20-1	SOLENOID			240RAGS740-1	006049	NAVY - 120 V	
Shut Off Valves	S2N20-2	SOLENOID			240RAGS740-2	006050	NAVY - 480V	
	S310	SOLENOID			240RA9T7M	043204	7/8 ODF	
	S34	SOLENOID			200RB4T3M	049186	3/8 ODF	
	S36	SOLENOID			200RB6T4M	047545	1/2 ODF	
	S37	SOLENOID			200RB6T5M	047547	5/8 ODF	
	S804	SOLENOID			200RB6T5M	047547	5/8 ODF	
System Protectors	S896	SOLENOID			240RA9T7M	043204	7/8 ODF	
	TEL 2200 HW	TXV			TER 22 HC	061673	VLF	
	TEL 2600 HW	TXV			TER 26 HC	061674	VLF	
	TEL 3500 HW	TXV			TER 35 HC	061675	VLF	
	TEL 3500 HW100	TXV			TER 35 HW100	058038	VLF	
	TG	TXV			OBSOLETE	NONE	AMMONIA	
Storage Devices	TLE 0050 FW	TXV			TCLE 1/2 FC	054413	VLF	
	TLE 0050 HW	TXV			TCLE 1/2 HC	060768	VLF	
	TLE 100 FW	TXV			TCLE 1FC	052940	VLF	
	TLE 100 HW	TXV			TCLE 1 HC	062884	VLF	
	TLE 1000 HW	TXV			TCLE 10 HC	054404	VLF	
	TLE 1000 HW100	TXV			TCLE 10 HW100	059076	VLF	
Oil Controls	TLE 1200 HW	TXV			TCLE 12 HC	060854	VLF	
	TLE 200 FW	TXV			TCLE 2 FC	052941	VLF	
	TLE 200 HW	TXV			TCLE 2 HC	061724	VLF	
	TLE 200 RW	TXV			TCLE 2 RC	061215	VLF	
	TLE 300 FW	TXV			TCLE 3 FC	052942	VLF	
	TLE 300 HW	TXV			TCLE 3 HC	054395	VLF	
Pressure Regulators	TLE 300 RW	TXV			TCLE 3 RC	055501	VLF	
	TLE 400 FW	TXV			TCLE 4 FC	052943	VLF	
	TLE 500 HW	TXV			TCLE 5 HC	054399	VLF	
	TLE 650 FW	TXV			TCLE 61/2 FC	052944	VLF	
	TLE 750 FW	TXV			TCLE 71/2 FC	052945	VLF	
	TLE 750 HW	TXV			TCLE 71/2 HC	054401	VLF	
Temperature Pressure Controls	TLE 800 RW	TXV			TCLE 8 RC	063501	VLF	
	TLX 0050 HW	TXV			TCLE 1/2 HC	060768	VLF	
	TLX 100 FW	TXV			TCLE 1 FC	052940	VLF	
	TLX 100 HW	TXV			TCLE 1 HW	062884	VLF	
	TLX 1000 HW	TXV			TCLE 10 HC	054404	VLF	
	TLX 200 FW	TXV			TCLE 2 FC	052941	VLF	
Competitive Cross Reference	TLX 200 HW	TXV			TCLE 2 HC	061724	VLF	
	TLX 300 HW	TXV			TCLE 3 HC	054395	VLF	
	TLX 400 FW	TXV			TCLE 4 FC	052943	VLF	
	TLX 400 HW	TXV			TCLE 3 HC	054395	VLF	
	TLX 500 HW	TXV			TCLE 5 HC	054399	VLF	

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Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
TLX 650 FW	TXV			TCLE 61/2 FC	052944	VLF	
TLX 750 FW	TXV			TCLE 71/2 FC	052945	VLF	
TLX 750 HW	TXV			TCLE 71/2 HC	054401	VLF	
TN SERIES	TXV			OBSOLETE	NONE	MULTI OUTLET	
TO SERIES	TXV			OBSOLETE	NONE	MULTI OUTLET	
TP SERIES	TXV			OBSOLETE	NONE	MULTI OUTLET	
TR SERIES	TXV			OBSOLETE	NONE	MULTI OUTLET	
TS SERIES	TXV			OBSOLETE	NONE	MULTI OUTLET	
TU SERIES	TXV			OBSOLETE	NONE	MULTI OUTLET	
TV SERIES	TXV			OBSOLETE	NONE	MULTI OUTLET	
TW SERIES	TXV			OBSOLETE	NONE	MULTI OUTLET	
TX SERIES	TXV			OBSOLETE	NONE	MULTI OUTLET	
TX2 SERIES	TXV			OEM SPECIAL	NONE	ALCO - EUROPE	
TX3 - H01	TXV			HFS 1/4 HC	055633	ALCO - EUROPE	
TX3 - H02	TXV			HFS 1/2 HC	054136	ALCO - EUROPE	
TX3 - H21	TXV			HFES 1/4 HC	055927	ALCO - EUROPE	
TX3 - H22	TXV			HFES 1/2 HC	054838	ALCO - EUROPE	
TX3 - H23	TXV			HFES 1 HC	055708	ALCO - EUROPE	
TX3 - H24	TXV			HFES 11/2 HC	055863	ALCO - EUROPE	
TX3 - H25	TXV			HFES 2 HC	055706	ALCO - EUROPE	
TX3 - M23	TXV			HFES 3/4 MC	059422	ALCO - EUROPE	
TX3 - M24	TXV			HFES 1 MC	058546	ALCO - EUROPE	
TX3 - M01	TXV			HFS 1/4 MC	058545	ALCO - EUROPE	
TX3 - N21	TXV			HFS 1/4 RC	055490	ALCO - EUROPE	
TX3 - N23	TXV			HFES 1 RC	054983	ALCO - EUROPE	
UGZ 2	TXV			OBSOLETE	NONE	AMMONIA	
X 7188	PARTS			OBSOLETE	NONE	ENCL. TUBE	
X 137551-70	COILS			AVS 208-240/50-60	057531	SPADE	
X 137551-71	COILS			AVS 24/50-60	057603	SPADE	
X 137551-72	COILS			AVS 120/50-60	057349	SPADE	
X 13758-70	COILS			AVG 208-240/50-60	057342	6 IN LEADS	
X 13758-70 (18")	COILS			AVG 208-240/50-60	057342	6" LEADS	
X 13758-71	COILS			AVG 24/50-60	057341	6 IN LEADS	
X 13758-71 (18")	COILS			AVG 24/50-60	057341	6" LEADS	
X 13758-72	COILS			AVG 120/50-60	057331	6 IN LEADS	
X 13758-72 (18")	COILS			AVG 120/50-60	057331	6" LEADS	
X 22071-70	COILS			AHG 208-240/50-60	057671	6" LEADS	
X 22071-71	COILS			AHG 24/50-60	057669	6" LEADS	
X 22071-72	COILS			AHG 120/50-60	057673	6" LEADS	
X 22163-69	COILS			X 22606-69-18	035020	240/50-60 (M SERIES)	
X 22163-72	COILS			X 22606-72-18	035036	120/50-60 (M SERIES)	
X 22163-82	COILS			X 22606-82-18	036069	208/50-60 (M SERIES)	
X 22202-71	COILS			X 8321-71-18	039244	24/50-60 (4W SERIES)	
X 22202-72	COILS			X 8321-72-18	039166	120/50-60 (4W SERIES)	
X 22202-87	COILS			X 8321-87-18	041579	208-240/50-60(4W SERIES)	
X 22203-70	COILS			BMG 208-240/50-60	034906	6" LEADS	
X 22203-71	COILS			BMG 24/50-60	036902	6" LEADS	
X 22203-72	COILS			BMG 120/50-60	035325	6" LEADS	
X 22275-70	COILS			AMF 208-240/50-60	057504	18" LEADS	
X 22275-71	COILS			AMF 24/50-60	057539	18" LEADS	
X 22275-72	COILS			AMF 120/50-60	057546	18" LEADS	
X 22332-70	COILS			AVG 208-240/50-60	057342	6"LEADS	
X 22332-71	COILS			AVG 24/50-60	057341	6"LEADS	
X 22332-72	COILS			AVG 120/50-60	057331	6"LEADS	
X 24910-71	COILS			DMV 24/50-60	062013	SPADE	
X 24915-70	COILS			DMG 208-240/50-60	054764	6" LEADS	
X 24915-71	COILS			DMG 24/50-60	055129	6" LEADS	
X 24915-72	COILS			DMG 120/50-60	054762	6" LEADS	
X 5409 SERIES	POWER ASSY.			OEM SPECIAL	NONE	TEMP PILOT	
X5488-17	COILS			X 22164-17-18	038947	230/DC (S SERIES)	
X5488-71	COILS			X 22164-71-18	032096	24/50-60 (S SERIES)	
X5488-72	COILS			X 22164-72-18	031340	120/50-60 (S SERIES)	
X5488-82	COILS			X 22164-82-18	032095	208/50-60 (S SERIES)	
X5488-88	COILS			X 22164-88-18	033675	480/50-60 (S SERIES)	
X5578 SERIES	CAGE			OBSOLETE	NONE	MULTI OUTLET	

Thermal Expansion Valves

Solenoid Valves

Coils

Industrial Solenoid Valves

Shut Off Valves

System Protectors

Storage Devices

Oil Controls

Pressure Regulators

Temperature Pressure Controls

Competitive Cross Reference

OLD ALCO TO NEW EMERSON

	Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment	
Thermal Expansion Valves	X6308 SERIES	CAGE			OBSOLETE	NONE	MULTI OUTLET		
	X7585 SERIES	BULB WELL			OBSOLETE	NONE	SUCTION LINE		
	X8400-71	COILS			X-8321-71-18	039244	24/50-60 (4W SERIES)		
	X8400-72	COILS			X-8321-72-18	039166	120/50-60(4W SERIES)		
Solenoid Valves	X8400-87	COILS			X-8321-87-18	041579	208-240/50-60 (4W SERIES)		
	X9600-69	COILS			X-22164-69-18	032813	240/50-60 (S SERIES)		
	X9600-71	COILS			X-22164-71-18	032096	24/50-60 (S SERIES)		
	X9600-72	COILS			X-22164-72-18	031340	120/50-60 (S SERIES)		
	X9600-82	COILS			X-22164-82-18	032095	208/50-60 (S SERIES)		
	XA1550-69	COILS			X-22164-69-18	032813	240/50-60 (S SERIES)		
	XA1550-71	COILS			X-22164-71-18	032096	24/50-60 (S SERIES)		
	XA1550-72	COILS			X-22164-72-18	031340	120/50-60 (S SERIES)		
	XA1550-82	COILS			X-22164-82-18	032095	208/50-60 (S SERIES)		
	XA1702-69	COILS			X-22606-69-18	035020	240/50-60 (M SERIES)		
Coils	XA1702-72	COILS			X-22606-72-18	035036	120/50-60 (M SERIES)		
	XA1702-82	COILS			X-22606-82-18	036069	208/50-60 (M SERIES)		
	XA1704-69	COILS			X-22200-69-18	032813	240/50-60 (R SERIES)		
	XA1704-72	COILS			X-22200-72-18	032139	120/50-60 (R SERIES)		
	XA1704-82	COILS			X-22200-82-18	032242	208/50-60 (R SERIES)		
	Industrial Solenoid Valves	XB1024FW1C	POWER ASSY.			X23048FW1C	043424	NAVY	
XB1024FW2C		POWER ASSY.			X23048FW2C	043542	NAVY		
XB1024FW4C		POWER ASSY.			X23048FW4C	043464	NAVY		
XB1024FW554C		POWER ASSY.			X23048FW554C	052838	NAVY		
XB1024FW6C		POWER ASSY.			X23048FW6C	043465	NAVY		
XB1047 SERIES		POWER ASSY.			OBSOLETE	NONE	MULTI OUTLET		
XB1049 SERIES		POWER ASSY.			OBSOLETE	NONE	AMMONIA - TG		
XB1050 SERIES		POWER ASSY.			OBSOLETE	NONE	MULTI OUTLET		
Shut Off Valves		XC 717 B00B	CAGE			X-22517 B3B	041556	TLE SERIES	
		XC 717 B1B	CAGE			X-22517 B5B	041562	TLE SERIES	
	XC 717 B3B	CAGE			X-22517 B7B	041566	TLE SERIES		
	XC709-B0B	CAGE			X-22440B4B	037041	TCLE SERIES		
	XC709-B1B	CAGE			X-22440B5B	037043	TCLE SERIES		
	XC709-B3B	CAGE			X-22440B7B	037047	TCLE SERIES		
	XC709-B4B	CAGE			X-22440B6B	037045	TCLE SERIES		
	XC709-B5B	CAGE			X-22440B8B	037049	TCLE SERIES		
	XC713 SERIES	CAGE			OBSOLETE	NONE	MULTI OUTLET		
	XC736 SERIES	CAGE			OBSOLETE	NONE	MULTI OUTLET		
System Protectors	XC739 SERIES	CAGE			OBSOLETE	NONE	MULTI OUTLET		
	XC741 SERIES	CAGE			OBSOLETE	NONE	AMMONIA		
	XC743 SERIES	CAGE			OBSOLETE	NONE	MULTI OUTLET		
	XC763 SERIES	CAGE			OBSOLETE	NONE	MULTI OUTLET		
	XW SERIES	WIPER			NONE	NONE	AIRCRAFT		

DANFOSS TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
48DA	DRIER	48 CU. IN.		W48	061235	SAME	REPLACABLE DRIER BLOCK
48DN	DRIER	48 CU. IN.		H48	059542	SAME	REPLACABLE DRIER BLOCK
48DU	DRIER	48 CU. IN.		UK48	061617	SAME	REPLACABLE DRIER BLOCK
48F	DRIER	48 CU. IN.		F48R	047664	SAME	REPLACABLE FILTER CORE
AKS 3000	PRESS. TRAN.	Range: 0-87		NONE	NONE	NONE	NO CROSS
AKS 3000	PRESS. TRAN.	Range: 0-175		NONE	NONE	NONE	NO CROSS
AKS 3000	PRESS. TRAN.	Range: 0-290		NONE	NONE	NONE	NO CROSS
AKS 3000	PRESS. TRAN.	Range: 0-435		NONE	NONE	NONE	NO CROSS
AKS 32 1/4"	PRESS. TRAN.	29" Hg-87; 6.5 FT		NONE	NONE	NONE	NO CROSS
AKS 32 1/4"	PRESS. TRAN.	29" Hg-175; 6.5 FT		NONE	NONE	NONE	NO CROSS
AKS 32 1/4"	PRESS. TRAN.	29" Hg-175; DIN		NONE	NONE	NONE	NO CROSS
AKS 32 1/4"	PRESS. TRAN.	29" Hg-290; 6.5 FT		NONE	NONE	NONE	NO CROSS
AKS 32 1/4"	PRESS. TRAN.	29" Hg-495; 6.5 FT		NONE	NONE	NONE	NO CROSS
AKS 32 1/8"	PRESS. TRAN.	0-100; 6.5 FT		NONE	NONE	NONE	NO CROSS
AKS 32 1/8"	PRESS. TRAN.	0-200; 6.5 FT		NONE	NONE	NONE	NO CROSS
AKS 32 1/8"	PRESS. TRAN.	0-300; 6.5 FT		NONE	NONE	NONE	NO CROSS
AKS 33 1/4"	PRESS. TRAN.	29" Hg-87; 6.5 FT		NONE	NONE	NONE	NO CROSS
AKS 33 1/4"	PRESS. TRAN.	29" Hg-87; DIN		NONE	NONE	NONE	NO CROSS
AKS 33 1/4"	PRESS. TRAN.	29" Hg-175; 6.5 FT		NONE	NONE	NONE	NO CROSS
AKS 33 1/4"	PRESS. TRAN.	29" Hg-175; DIN		NONE	NONE	NONE	NO CROSS
AKS 33 1/4"	PRESS. TRAN.	29" Hg-290; 6.5 FT		NONE	NONE	NONE	NO CROSS
AKS 33 1/4"	PRESS. TRAN.	29" Hg-290; DIN		NONE	NONE	NONE	NO CROSS
AKS 33 1/4"	PRESS. TRAN.	29" Hg-495; 6.5 FT		NONE	NONE	NONE	NO CROSS
AKS 33 1/4"	PRESS. TRAN.	29" Hg-495; DIN		NONE	NONE	NONE	NO CROSS
AKS 33 1/8"	PRESS. TRAN.	0-200; 6.5 FT		NONE	NONE	NONE	NO CROSS
CPCE 12	REGULATOR	1/2 SAE		CPHE 5	038302	SAME	7/8 X 1-1/8 ODF ONLY
CPCE 12	REGULATOR	1/2 ODF		CPHE 5	038302	SAME	7/8 X 1-1/8 ODF ONLY
CPCE 15	REGULATOR	5/8 ODF		CPHE 6	064577	SAME	1-1/8 X 1-1/8 ONLY
CPCE 22	REGULATOR	7/8 ODF		NONE	NONE	NONE	NO CROSS
DAS 083SVV	DRIER	3/8 ODF		SFD 08S3-VV	064044	SAME	SUCTION FILTER-DRIER
DAS 083VV	DRIER	3/8 SAE		SFD 08F3-VV	064042	SAME	SUCTION FILTER-DRIER
DAS 084 SVV	DRIER	1/2 ODF		SFD 08S4-VV	064045	SAME	SUCTION FILTER-DRIER
DAS 084VV	DRIER	1/2 SAE		SFD 08F4-VV	064043	SAME	SUCTION FILTER-DRIER
DAS 085 SVV	DRIER	5/8 ODF		SFD 08S5-VV	064046	SAME	SUCTION FILTER-DRIER
DAS 086 SVV	DRIER	3/4 ODF		SFD 08S6-VV	064047	SAME	SUCTION FILTER-DRIER
DAS 164 SVV	DRIER	1/2 ODF		NONE	NONE	NONE	NO CROSS
DAS 164VV	DRIER	1/2 SAE		NONE	NONE	NONE	NO CROSS
DAS 165 SVV	DRIER	5/8 ODF		NONE	NONE	NONE	NO CROSS
DAS 165VV	DRIER	5/8 SAE		NONE	NONE	NONE	NO CROSS
DAS 166 SVV	DRIER	3/4 ODF		NONE	NONE	NONE	NO CROSS
DAS 167 SVV	DRIER	7/8 ODF		NONE	NONE	NONE	NO CROSS
DAS 305 SVV	DRIER	5/8 ODF		NONE	NONE	NONE	NO CROSS
DAS 306 SVV	DRIER	3/4 ODF		NONE	NONE	NONE	NO CROSS
DAS 307 SVV	DRIER	7/8 ODF		NONE	NONE	NONE	NO CROSS
DAS 309 SVV	DRIER	1-1/8 ODF		NONE	NONE	NONE	NO CROSS
DAS 417 SVV	DRIER	7/8 ODF		NONE	NONE	NONE	NO CROSS
DAS 419 SVV	DRIER	1-1/8 ODF		NONE	NONE	NONE	NO CROSS
DAS 607 SVV	DRIER	7/8 ODF		NONE	NONE	NONE	NO CROSS
DAS 609 SVV	DRIER	1-1/8 ODF		NONE	NONE	NONE	NO CROSS
DCL 032	DRIER	1/4 SAE		EK 032	060009	SAME	LIQUID LINE SERVICE
DCL 032 S	DRIER	1/4 ODF		EK 032S	060012	SAME	LIQUID LINE SERVICE
DCL 033	DRIER	3/8 SAE		EK 033	060013	SAME	LIQUID LINE SERVICE
DCL 033 S	DRIER	3/8 ODF		EK 033S	060014	SAME	LIQUID LINE SERVICE
DCL 052	DRIER	1/4 SAE		EK 052	047601	SAME	LIQUID LINE SERVICE
DCL 052 S	DRIER	1/4 ODF		EK 052S	047602	SAME	LIQUID LINE SERVICE
DCL 052.5 S	DRIER	5/16 ODF		NONE	NONE	NONE	LIQUID LINE SERVICE
DCL 053	DRIER	3/8 SAE		EK 053	047603	SAME	LIQUID LINE SERVICE
DCL 053 S	DRIER	3/8 ODF		EK 053S	047604	SAME	LIQUID LINE SERVICE
DCL 082	DRIER	1/4 SAE		EK 082	047605	SAME	LIQUID LINE SERVICE
DCL 082 S	DRIER	1/4 ODF		EK 082S	047606	SAME	LIQUID LINE SERVICE
DCL 082.5 S	DRIER	5/16 ODF		EK 08 25 S	049551	SAME	LIQUID LINE SERVICE
DCL 083	DRIER	3/8 SAE		EK 083	047606	SAME	LIQUID LINE SERVICE
DCL 083 S	DRIER	3/8 ODF		EK 083S	047608	SAME	LIQUID LINE SERVICE
DCL 084	DRIER	1/2 SAE		EK 084	047609	SAME	LIQUID LINE SERVICE
DCL 084 S	DRIER	1/2 ODF		EK 084S	047610	SAME	LIQUID LINE SERVICE

Thermal Expansion Valves
 Solenoid Valves
 Coils
 Industrial Solenoid Valves
 Shut Off Valves
 System Protectors
 Storage Devices
 Oil Controls
 Pressure Regulators
 Temperature Pressure Controls
 Competitive Cross Reference

DANFOSS TO EMERSON

	Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
Thermal Expansion Valves	DCL 162	DRIER	1/4 SAE		EK 162	047611	SAME	LIQUID LINE SERVICE
	DCL 162 S	DRIER	1/4 ODF		EK 162S	047612	SAME	LIQUID LINE SERVICE
	DCL 162.5 S	DRIER	5/16 ODF		EK 16 25S	056045	SAME	LIQUID LINE SERVICE
	DCL 163	DRIER	3/8 SAE		EK 163	047613	SAME	LIQUID LINE SERVICE
	DCL 163 S	DRIER	3/8 ODF		EK 163S	047614	SAME	LIQUID LINE SERVICE
	DCL 164	DRIER	1/2 SAE		EK 164	047615	SAME	LIQUID LINE SERVICE
Solenoid Valves	DCL 164 S	DRIER	1/2 ODF		EK 164S	047616	SAME	LIQUID LINE SERVICE
	DCL 165	DRIER	5/8 SAE		EK 165	047617	SAME	LIQUID LINE SERVICE
	DCL 165 S	DRIER	5/8 ODF		EK 165S	047618	SAME	LIQUID LINE SERVICE
	DCL 167 S	DRIER	7/8 ODF		EK 167S	047619	SAME	LIQUID LINE SERVICE
	DCL 303	DRIER	3/8 SAE		EK 303	048210	SAME	LIQUID LINE SERVICE
	DCL 303 S	DRIER	3/8 ODF		EK 303S	048211	SAME	LIQUID LINE SERVICE
Coils	DCL 304	DRIER	1/2 SAE		EK 304	048212	SAME	LIQUID LINE SERVICE
	DCL 304 S	DRIER	1/2 ODF		EK 304S	048213	SAME	LIQUID LINE SERVICE
	DCL 305	DRIER	5/8 SAE		EK 305	048214	SAME	LIQUID LINE SERVICE
	DCL 305 S	DRIER	5/8 ODF		EK 305S	048215	SAME	LIQUID LINE SERVICE
	DCL 306 S	DRIER	3/4 ODF		EK 306S	048216	SAME	LIQUID LINE SERVICE
	DCL 307 S	DRIER	7/8 ODF		EK 307S	048217	SAME	LIQUID LINE SERVICE
Industrial Solenoid Valves	DCL 309 S	DRIER	1-1/8 ODF		EK 309S	048218	SAME	LIQUID LINE SERVICE
	DCL 413	DRIER	3/8 SAE		EK 413	048219	SAME	LIQUID LINE SERVICE
	DCL 414	DRIER	1/2 SAE		EK 414	048220	SAME	LIQUID LINE SERVICE
	DCL 414 S	DRIER	1/2 ODF		EK 414S	048221	SAME	LIQUID LINE SERVICE
	DCL 415	DRIER	5/8 SAE		EK 415	048222	SAME	LIQUID LINE SERVICE
	DCL 415 S	DRIER	5/8 ODF		EK 415S	048223	SAME	LIQUID LINE SERVICE
Shut Off Valves	DCL 417 S	DRIER	7/8 ODF		EK 417S	048224	SAME	LIQUID LINE SERVICE
	DCL 419 S	DRIER	1-1/8 ODF		EK 419S	048225	SAME	LIQUID LINE SERVICE
	DCL 607 S	DRIER	7/8 ODF		NONE	NONE	NONE	NO CROSS
	DCL 609 S	DRIER	1-1/8 ODF		NONE	NONE	NONE	NO CROSS
	DCL 757 S	DRIER	7/8 ODF		EK 757S	048228	SAME	LIQUID LINE SERVICE
	DCL 759 S	DRIER	1-1/8 ODF		EK 759S	048229	SAME	LIQUID LINE SERVICE
System Protectors	DCR 0485s	DRIER	5/8 ODF		STAS 485T	053001	SAME	DRIER SHELL - 1 CORE
	DCR 0487s	DRIER	7/8 ODF		STAS 487T	053003	SAME	DRIER SHELL - 1 CORE
	DCR 0489s	DRIER	1-1/8 ODF		STAS 489T	053005	SAME	DRIER SHELL - 1 CORE
	DCR 09611s	DRIER	1-3/8 ODF		STAS 9611T	053014	SAME	DRIER SHELL - 2 CORE
	DCR 09613s	DRIER	1-5/8 ODF		STAS 9613T	053017	SAME	DRIER SHELL - 2 CORE
	DCR 09617s	DRIER	2-1/8 ODF		STAS 9617T	053018	SAME	DRIER SHELL - 2 CORE
	DCR 0967s	DRIER	7/8 ODF		STAS 967T	053010	SAME	DRIER SHELL - 2 CORE
	DCR 0969s	DRIER	11/8 ODF		STAS 969T	053012	SAME	DRIER SHELL - 2 CORE
	DCR 14411s	DRIER	13/8 ODF		STAS 14411T	053022	SAME	DRIER SHELL - 3 CORE
	DCR 14413s	DRIER	1-5/8 ODF		STAS 14413T	053024	SAME	DRIER SHELL - 3 CORE
Storage Devices	DCR 14419s	DRIER	2-1/8 ODF		NONE	NONE	NONE	NO CROSS
	DCR 1449s	DRIER	1-1/8 ODF		STAS 1449T	053020	SAME	DRIER SHELL - 3 CORE
	DCR 19211s	DRIER	1-3/8 ODF		STAS 19211T	053028	SAME	DRIER SHELL - 4 CORE
	DCR 19213s	DRIER	15/8 ODF		STAS 19213T	053030	SAME	DRIER SHELL - 4 CORE
	DCR 19217s	DRIER	2-1/8 ODF		STAS 19217T	053031	SAME	DRIER SHELL - 4 CORE
	DCR 4811s	DRIER	1-3/8 ODF		STAS 4811T	053007	SAME	DRIER SHELL - 1 CORE
Oil Controls	DCR 4813s	DRIER	1-5/8 ODF		STAS 4813T	053375	SAME	DRIER SHELL - 1 CORE
	DCR 4817s	DRIER	2-1/8 ODF		STAS 4817 SV	053044	SAME	DRIER SHELL - 1 CORE
	DCR 4821s	DRIER	2-5/8 ODF		STAS 4821 SV	053045	SAME	DRIER SHELL - 1 CORE
	DML 032	DRIER	1/4 SAE		EK 032	060009		LIQUID LINE SERVICE
Pressure Regulators	DML 032 S	DRIER	1/4 ODF		EK 032S	060012		LIQUID LINE SERVICE
	DML 033	DRIER	3/8 SAE		EK 033	060013		LIQUID LINE SERVICE
	DML 033 S	DRIER	3/8 ODF		EK 033S	060014		LIQUID LINE SERVICE
	DML 052	DRIER	1/4 SAE		EK 052	047601		LIQUID LINE SERVICE
	DML 052 S	DRIER	1/4 ODF		EK 052S	047602		LIQUID LINE SERVICE
	DML 052.5 S	DRIER	5/16 ODF		NONE	NONE	NONE	LIQUID LINE SERVICE
Temperature Pressure Controls	DML 053	DRIER	3/8 SAE		EK 053	047603		LIQUID LINE SERVICE
	DML 053 S	DRIER	3/8 ODF		EK 053S	047604		LIQUID LINE SERVICE
	DML 082	DRIER	1/4 SAE		EK 082	047605		LIQUID LINE SERVICE
	DML 082 S	DRIER	1/4 ODF		EK 082S	047606		LIQUID LINE SERVICE
	DML 082.5 S	DRIER	5/16 ODF		EK 08 25S	049551		LIQUID LINE SERVICE
	DML 083	DRIER	3/8 SAE		EK 083	047606		LIQUID LINE SERVICE
	DML 083 S	DRIER	3/8 ODF		EK 083S	047608		LIQUID LINE SERVICE
	DML 084	DRIER	1/2 SAE		EK 084	047609		LIQUID LINE SERVICE
	DML 084 S	DRIER	1/2 ODF		EK 084S	047610		LIQUID LINE SERVICE

DANFOSS TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
DML 162	DRIER	1/4 SAE		EK 162	047611		LIQUID LINE SERVICE
DML 162 S	DRIER	1/4 ODF		EK 162S	047612		LIQUID LINE SERVICE
DML 162.5 S	DRIER	5/16 ODF		EK 16 25S	056045		LIQUID LINE SERVICE
DML 163	DRIER	3/8 SAE		EK 163	047613		LIQUID LINE SERVICE
DML 163 S	DRIER	3/8 ODF		EK 163S	047614		LIQUID LINE SERVICE
DML 164	DRIER	1/2 SAE		EK 164	047615		LIQUID LINE SERVICE
DML 164 S	DRIER	1/2 ODF		EK 164S	047616		LIQUID LINE SERVICE
DML 165	DRIER	5/8 SAE		EK 165	047617		LIQUID LINE SERVICE
DML 165 S	DRIER	5/8 ODF		EK 165S	047618		LIQUID LINE SERVICE
DML 167 S	DRIER	7/8 ODF		EK 167S	047619		LIQUID LINE SERVICE
DML 303	DRIER	3/8 SAE		EK 303	048210		LIQUID LINE SERVICE
DML 303 S	DRIER	3/8 ODF		EK 303S	048211		LIQUID LINE SERVICE
DML 304	DRIER	1/2 SAE		EK 304	048212		LIQUID LINE SERVICE
DML 304 S	DRIER	1/2 ODF		EK 304S	048213		LIQUID LINE SERVICE
DML 305	DRIER	5/8 SAE		EK 305	048214		LIQUID LINE SERVICE
DML 305 S	DRIER	5/8 ODF		EK 305S	048215		LIQUID LINE SERVICE
DML 306 S	DRIER	3/4 ODF		EK 306S	048216		LIQUID LINE SERVICE
DML 307 S	DRIER	7/8 ODF		EK 307S	048217		LIQUID LINE SERVICE
DML 309 S	DRIER	1-1/8 ODF		EK 309S	048218		LIQUID LINE SERVICE
DML 413	DRIER	3/8 SAE		EK 413	048219		LIQUID LINE SERVICE
DML 414	DRIER	1/2 SAE		EK 414	048220		LIQUID LINE SERVICE
DML 414 S	DRIER	1/2 ODF		EK 414S	048221		LIQUID LINE SERVICE
DML 415	DRIER	5/8 SAE		EK 415	048222		LIQUID LINE SERVICE
DML 415 S	DRIER	5/8 ODF		EK 415S	048223		LIQUID LINE SERVICE
DML 417 S	DRIER	7/8 ODF		EK 417S	048224		LIQUID LINE SERVICE
DML 419 S	DRIER	1-1/8 ODF		EK 419S	048225		LIQUID LINE SERVICE
DML 607 S	DRIER	7/8 ODF		NONE	NONE	NONE	NO CROSS
DML 609 S	DRIER	1-1/8 ODF		NONE	NONE	NONE	NO CROSS
DML 757 S	DRIER	7/8 ODF		EK 757S	048228		LIQUID LINE SERVICE
DML 759 S	DRIER	1-1/8 ODF		EK759S	048229		LIQUID LINE SERVICE
EVR 10	SOLENOID	3/8 ODF		NONE	NONE	NONE	NO CROSS
EVR 10	SOLENOID	SEAL KIT		NONE	NONE	NONE	NO CROSS
EVR 10	SOLENOID	1/2 SAE		200RB 6F4	059731	SAME	REFRIGERATION SERVICE - VLC
EVR 10	SOLENOID	1/2 ODF		200RB 6T4	047544	SAME	REFRIGERATION SERVICE - VLC
EVR 10	SOLENOID	5/8 SAE		200RB 6F5	059732	SAME	REFRIGERATION SERVICE - VLC
EVR 10	SOLENOID	5/8 ODF		200RB 6T5	056766	SAME	REFRIGERATION SERVICE - VLC
EVR 10	SOLENOID	1/2 SAE WITH MANUAL STEM		200RB 6F4M	047530	SAME	REFRIGERATION SERVICE - VLC
EVR 10	SOLENOID	1/2 ODF WITH MANUAL STEM		200RB 6T4M	047545	SAME	REFRIGERATION SERVICE - VLC
EVR 10 NO	SOLENOID	SEAL KIT		NONE	NONE	NONE	NO CROSS
EVR 10 NO	SOLENOID	1/2 ODF		500RB 6T4	063339	SAME	REFRIGERATION SERVICE - VLC
EVR 15	SOLENOID	1-1/8 ODF		NONE	NONE	NONE	NO CROSS
EVR 15	SOLENOID	SEAL KIT		NONE	NONE	NONE	NO CROSS
EVR 15	SOLENOID	7/8 ODF		200RB 7T7	064282	SAME	REFRIGERATION SERVICE - VLC
EVR 15	SOLENOID	5/8 ODF WITH MANUAL STEM		200RB 7T5M	064267	SAME	REFRIGERATION SERVICE - VLC
EVR 15 NO	SOLENOID	5/8 ODF WITH MANUAL STEM		NONE	NONE	NONE	NO CROSS
EVR 15 NO	SOLENOID	SEAL KIT		NONE	NONE	NONE	NO CROSS
EVR 18	SOLENOID	7/8 ODF		200RB 9T7	064645	SAME	REFRIGERATION SERVICE - VLC
EVR 18	SOLENOID	1-1/8 ODF		200RB 9T9	064767	SAME	REFRIGERATION SERVICE - VLC
EVR 18	SOLENOID	SEAL KIT		NONE	NONE	NONE	NO CROSS
EVR 2	SOLENOID	SEAL KIT		NONE	NONE	NONE	NO CROSS
EVR 2	SOLENOID	1/4 SAE		100RB 2F2	047500	SAME	REFRIGERATION SERVICE - VLC
EVR 2	SOLENOID	1/4 ODF		100RB 2T2	048489	SAME	REFRIGERATION SERVICE - VLC
EVR 20	SOLENOID	SEAL KIT		NONE	NONE	NONE	NO CROSS
EVR 20	SOLENOID	7/8 ODF		200RB 9T7	064645	SAME	REFRIGERATION SERVICE - VLC
EVR 20	SOLENOID	1-1/8 ODF		200RB 9T9	064767	SAME	REFRIGERATION SERVICE - VLC
EVR 20	SOLENOID	7/8 ODF WITH MANUAL STEM		200RB 9T9M	064768	SAME	REFRIGERATION SERVICE - VLC
EVR 22	SOLENOID	1-3/8 ODF		NONE	NONE	NONE	NO CROSS
EVR 22	SOLENOID	SEAL KIT		NONE	NONE	NONE	NO CROSS
EVR 22	SOLENOID	1-1/8 ODF		200RB 12T9	064821	SAME	REFRIGERATION SERVICE - VLC
EVR 25	SOLENOID	SEAL KIT		NONE	NONE	NONE	NO CROSS
EVR 25	SOLENOID	PISTON SERVICE		NONE	NONE	NONE	NO CROSS
EVR 25	SOLENOID	1-1/8 ODF		240RA 16T9	060381	SAME	REFRIGERATION SERVICE - VLC
EVR 25	SOLENOID	1-3/8 ODF		240RA 16T11	060382	SAME	REFRIGERATION SERVICE - VLC
EVR 25	SOLENOID	1-1/8 ODF WITH MANUAL STEM		240RA 16T9M	042548	SAME	REFRIGERATION SERVICE - VLC
EVR 25	SOLENOID	1-3/8 ODF WITH MANUAL STEM		240RA 16T11M	044788	SAME	REFRIGERATION SERVICE - VLC

Thermal Expansion Valves
 Solenoid Valves
 Coils
 Industrial Solenoid Valves
 Shut Off Valves
 System Protectors
 Storage Devices
 Oil Controls
 Pressure Regulators
 Temperature Pressure Controls
 Competitive Cross Reference

DANFOSS TO EMERSON

	Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment	
Thermal Expansion Valves	EVR 3	SOLENOID	SEAL KIT		NONE	NONE	NONE	NO CROSS	
	EVR 3	SOLENOID	1/4 SAE		200RB 2F2	053014	SAME	REFRIGERATION SERVICE - VLC	
	EVR 3	SOLENOID	1/4 ODF		200RB 2T2	053105	SAME	REFRIGERATION SERVICE - VLC	
	EVR 3	SOLENOID	3/8 SAE		200RB 2F3	062611	SAME	REFRIGERATION SERVICE - VLC	
	EVR 3	SOLENOID	3/8 ODF		200RB 3T3	049609	SAME	REFRIGERATION SERVICE - VLC	
Solenoid Valves	EVR 32	SOLENOID	SEAL KIT		NONE	NONE	NONE	NO CROSS	
	EVR 32	SOLENOID	PISTON SERVICE		NONE	NONE	NONE	NO CROSS	
	EVR 32	SOLENOID	1-5/8 ODF		240RA 20T13	060384	SAME	REFRIGERATION SERVICE - VLC	
	EVR 32	SOLENOID	1-5/8 ODF	WITH MANUAL STEM	240RA 20T13M	046637	SAME	REFRIGERATION SERVICE - VLC	
	EVR 4	SOLENOID	SEAL KIT		NONE	NONE	NONE	NO CROSS	
Coils	EVR 4	SOLENOID	3/8 ODF		200RB 3T3	049609	SAME	REFRIGERATION SERVICE - VLC	
	EVR 4	SOLENOID	1/2 SAE		200RB 3F4	052727	SAME	REFRIGERATION SERVICE - VLC	
	EVR 4	SOLENOID	3/8 SAE		200RB 3F3	052726	SAME	REFRIGERATION SERVICE - VLC	
	EVR 40	SOLENOID	2-1/8 ODF		NONE	NONE	NONE	NO CROSS	
	EVR 40	SOLENOID	SEAL KIT		NONE	NONE	NONE	NO CROSS	
	EVR 40	SOLENOID	PISTON SERVICE		NONE	NONE	NONE	NO CROSS	
	EVR 6	SOLENOID	5/8 ODF		NONE	NONE	NONE	NO CROSS	
	EVR 6	SOLENOID	3/8 SAE WITH MANUAL STEM		NONE	NONE	NONE	NO CROSS	
	EVR 6	SOLENOID	SEAL KIT		NONE	NONE	NONE	NO CROSS	
	EVR 6	SOLENOID	3/8 SAE		200RB 3F3	052726	SAME	REFRIGERATION SERVICE - VLC	
Industrial Solenoid Valves	EVR 6	SOLENOID	3/8 ODF		200RB 3T3	049609	SAME	REFRIGERATION SERVICE - VLC	
	EVR 6	SOLENOID	1/2 SAE		200RB 3F4	052727	SAME	REFRIGERATION SERVICE - VLC	
	EVR 6	SOLENOID	1/2 ODF		200RB 3T4	049692	SAME	REFRIGERATION SERVICE - VLC	
	EVR 6	SOLENOID	3/8 ODF WITH MANUAL STEM		200RB 3T3M	065620	SAME	REFRIGERATION SERVICE - VLC	
	EVR 6 NO	SOLENOID	3/8 SAE WITH MANUAL STEM		NONE	NONE	NONE	NO CROSS	
	EVR 6 NO	SOLENOID	3/8 ODF WITH MANUAL STEM		NONE	NONE	NONE	NO CROSS	
	EVR 6 NO	SOLENOID	SEAL KIT		NONE	NONE	NONE	NO CROSS	
	EVR 8	SOLENOID	SEAL KIT		NONE	NONE	NONE	NO CROSS	
	EVR 8	SOLENOID	3/8 ODF		200RB 5T3	061227	SAME	REFRIGERATION SERVICE - VLC	
	EVR 8	SOLENOID	1/2 SAE		200RB 5F4	047519	SAME	REFRIGERATION SERVICE - VLC	
Shut Off Valves	EVR 8	SOLENOID	1/2 ODF		200RB 5T4	057206	SAME	REFRIGERATION SERVICE - VLC	
	EVR 8	SOLENOID	5/8 ODF		200RB 5T5	059730	SAME	REFRIGERATION SERVICE - VLC	
	KP1 1/4" FLARE	TPC	060-2001		NONE	NONE	NONE	NO CROSS	
	KP1 3/8" Cap Tube w/1/4" Fl.	TPC	060-2051		NONE	NONE	NONE	NO CROSS	
	KP1 3/8" Cap Tube w/1/4" Fl.	TPC	060-2052		NONE	NONE	NONE	NO CROSS	
	KP1 60-1101	TPC	LOW PRES		PS1-X3A	097914	SAME	SEE CATALOG SECTION FOR MORE SPECIFICS	
	KP15 1/4" FLARE	TPC	060-2008		NONE	NONE	NONE	NO CROSS	
	KP15 1/4" FLARE	TPC	060-2026		NONE	NONE	NONE	NO CROSS	
	KP15 3/8" Cap Tube w/1/4" Fl.	TPC	060-2058		NONE	NONE	NONE	NO CROSS	
	KP15 3/8" Cap Tube w/1/4" Fl.	TPC	060-2059		NONE	NONE	NONE	NO CROSS	
System Protectors	KP15 3/8" Cap Tube w/1/4" Fl.	TPC	060-2060		NONE	NONE	NONE	NO CROSS	
	KP15 3/8" Cap Tube w/1/4" Fl.	TPC	060-2031		NONE	NONE	NONE	NO CROSS	
	KP15 60-1241	TPC	DUAL PRES		PS2-A7A	097874	SAME	SEE CATALOG SECTION FOR MORE SPECIFICS	
	KP15 60-1243	TPC	DUAL PRES		PS2-L7A	097877	SAME	SEE CATALOG SECTION FOR MORE SPECIFICS	
	KP15 60-1264	TPC	DUAL PRES		PS2-L7A	097877	SAME	SEE CATALOG SECTION FOR MORE SPECIFICS	
	KP15 60-1265	TPC	DUAL PRES		PS2-A7A	097874	SAME	SEE CATALOG SECTION FOR MORE SPECIFICS	
	KP17W 3/8" Cap Tube w/1/4" Fl.	TPC	060-2029		NONE	NONE	NONE	NO CROSS	
	KP17W 3/8" Cap Tube w/1/4" Fl.	TPC	060-2055		NONE	NONE	NONE	NO CROSS	
	KP2 1/4" FLARE	TPC	060-2013		NONE	NONE	NONE	NO CROSS	
	KP2 3/8" Cap Tube w/1/4" Fl.	TPC	060-2063		NONE	NONE	NONE	NO CROSS	
Storage Devices	KP2 60-1120	TPC	LOW PRES		PS1-X1A	097889	SAME	SEE CATALOG SECTION FOR MORE SPECIFICS	
	KP5 1/4" FLARE	TPC	060-2014		NONE	NONE	NONE	NO CROSS	
	KP5 3/8" Cap Tube w/1/4" Fl.	TPC	060-2064		NONE	NONE	NONE	NO CROSS	
	KP5 60-1171	TPC	HIGH PRES		PS1-X5A	097919	SAME	SEE CATALOG SECTION FOR MORE SPECIFICS	
	KP5 60-1173	TPC	HIGH PRES		PS1-Y5A	097923	SAME	SEE CATALOG SECTION FOR MORE SPECIFICS	
	KP61 60L1100	TPC	TEMP CONTROL		TS1-X2P	097887	SAME	SEE CATALOG SECTION FOR MORE SPECIFICS	
	KP62 60L1106	TPC	TEMP CONTROL		TS1- *	*	SAME	* SEE CATALOG SECTION TO COMPLETE PART NO	
	KP63 60L1107	TPC	TEMP CONTROL		TS1- *	*	SAME	* SEE CATALOG SECTION TO COMPLETE PART NO	
	KP71 60L1113	TPC	TEMP CONTROL		TS1-A4F	097888	SAME	SEE CATALOG SECTION FOR MORE SPECIFICS	
	KP73 60L1117	TPC	TEMP CONTROL		TS1-A4F	097888	SAME	SEE CATALOG SECTION FOR MORE SPECIFICS	
Oil Controls	KP75 60L1120	TPC	TEMP CONTROL		TS1-A4F	097888	SAME	SEE CATALOG SECTION FOR MORE SPECIFICS	
	KP7B 1/4" FLARE	TPC	060-2004		NONE	NONE	NONE	NO CROSS	
	KP7B 3/8" Cap Tube w/1/4" Fl.	TPC	060-2054		NONE	NONE	NONE	NO CROSS	
	KP7W 1/4" FLARE	TPC	060-2003		NONE	NONE	NONE	NO CROSS	
	KP7W 3/8" Cap Tube w/1/4" Fl.	TPC	060-2053		NONE	NONE	NONE	NO CROSS	
	Pressure Regulators								
Temperature Pressure Controls									
Competitive Cross Reference									

DANFOSS TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
KVC 12	REGULATOR	1/2 SAE		NONE	NONE	NONE	NO CROSS
KVC 12	REGULATOR	1/2 ODF		NONE	NONE	NONE	NO CROSS
KVC 15	REGULATOR	5/8 SAE		NONE	NONE	NONE	NO CROSS
KVC 15	REGULATOR	5/8 ODF		NONE	NONE	NONE	NO CROSS
KVC 22	REGULATOR	7/8 ODF		NONE	NONE	NONE	NO CROSS
KVD 12	REGULATOR	1/2 SAE		NONE	NONE	NONE	NO CROSS
KVD 12	REGULATOR	1/2 ODF		NONE	NONE	NONE	NO CROSS
KVD 15	REGULATOR	5/8 SAE		NONE	NONE	NONE	NO CROSS
KVD 15	REGULATOR	5/8 ODF		NONE	NONE	NONE	NO CROSS
KVL 12	REGULATOR	1/2 SAE		NONE	NONE	NONE	NO CROSS
KVL 12	REGULATOR	1/2 ODF		NONE	NONE	NONE	NO CROSS
KVL 15	REGULATOR	5/8 SAE		OPR - 6		SAVE	VARIOUS PRESSURE RANGES AVAILABLE
KVL 15	REGULATOR	5/8 ODF		OPR - 6		SAVE	VARIOUS PRESSURE RANGES AVAILABLE
KVL 22	REGULATOR	7/8 ODF		OPR - 6		SAVE	VARIOUS PRESSURE RANGES AVAILABLE
KVL 28	REGULATOR	1-1/8 ODF		OPR - 10		SAVE	VARIOUS PRESSURE RANGES AVAILABLE
KVL 35	REGULATOR	1-3/8 ODF		OPR - 10		SAVE	VARIOUS PRESSURE RANGES AVAILABLE
KVP12	REGULATOR	1/2 SAE		IPR - 6		SAVE	VARIOUS PRESSURE RANGES AVAILABLE
KVP12	REGULATOR	1/2 ODF		IPR - 6		SAVE	VARIOUS PRESSURE RANGES AVAILABLE
KVP15	REGULATOR	5/8 SAE		IPR - 6		SAVE	VARIOUS PRESSURE RANGES AVAILABLE
KVP15	REGULATOR	5/8 ODF		IPR - 6		SAVE	VARIOUS PRESSURE RANGES AVAILABLE
KVP22	REGULATOR	7/8 ODF		IPR - 6		SAVE	VARIOUS PRESSURE RANGES AVAILABLE
KVP28	REGULATOR	11/8 ODF		IPR - 10		SAVE	VARIOUS PRESSURE RANGES AVAILABLE
KVP35	REGULATOR	13/8 ODF		IPR - 10		SAVE	VARIOUS PRESSURE RANGES AVAILABLE
KVR 12	REGULATOR	1/2 SAE		HP 8 T 4			HEAD PRESSURE REGULATOR
KVR 12	REGULATOR	1/2 ODF		HP 8 T 4			HEAD PRESSURE REGULATOR
KVR 15	REGULATOR	5/8 SAE		HP 8 T 5			HEAD PRESSURE REGULATOR
KVR 15	REGULATOR	5/8 ODF		HP 8 T 5			HEAD PRESSURE REGULATOR
KVR 22	REGULATOR	7/8 ODF		HP 8 T 7			HEAD PRESSURE REGULATOR
KVR 28	REGULATOR	1-1/8 ODF		HP 14 T 9			HEAD PRESSURE REGULATOR
KVR 35	REGULATOR	1-3/8 ODF		HP 14 T 11			HEAD PRESSURE REGULATOR
MP 54 (120 SEC)	TPC	1/4" SAE	Fixed Differential and time delay setting	FD113-ZU	097464	SAVE	Adjustable Differential and time delay
MP 54 (120 SEC)	TPC	36" Cap Tube	Fixed Differential and time delay setting	FD113-ZUK	097456	SAVE	Adjustable Differential and time delay
MP 54 (45 SEC)	TPC	1/4" SAE	Fixed Differential and time delay setting	FD113-ZU	097464	SAVE	Adjustable Differential and time delay
MP 54 (45 SEC)	TPC	36" Cap Tube	Fixed Differential and time delay setting	FD113-ZUK	097456	SAVE	Adjustable Differential and time delay
MP 54 (60 SEC)	TPC	1/4" SAE	Fixed Differential and time delay setting	FD113-ZU	097464	SAVE	Adjustable Differential and time delay
MP 54 (60 SEC)	TPC	36" Cap Tube	Fixed Differential and time delay setting	FD113-ZUK	097456	SAVE	Adjustable Differential and time delay
MP 54 (60 SEC)	TPC	1/4" SAE	Fixed Differential and time delay setting	FD113-ZU	097464	SAVE	Adjustable Differential and time delay
MP 54 (60 SEC)	TPC	36" Cap Tube	Fixed Differential and time delay setting	FD113-ZUK	097456	SAVE	Adjustable Differential and time delay
MP 54 (90 SEC)	TPC	1/4" SAE	Fixed Differential and time delay setting	FD113-ZU	097464	SAVE	Adjustable Differential and time delay
MP 55 (120 SEC)	TPC	1/4" SAE	Adjustable Differential setting, fixed time delay	FD113-ZU	097464	SAVE	Adjustable Differential and time delay
MP 55 (120 SEC)	TPC	36" Cap Tube	Adjustable Differential setting, fixed time delay	FD113-ZUK	097456	SAVE	Adjustable Differential and time delay
MP 55 (45 SEC)	TPC	1/4" SAE	Adjustable Differential setting, fixed time delay	FD113-ZU	097464	SAVE	Adjustable Differential and time delay
MP 55 (45 SEC)	TPC	36" Cap Tube	Adjustable Differential setting, fixed time delay	FD113-ZUK	097456	SAVE	Adjustable Differential and time delay
MP 55 (60 SEC)	TPC	1/4" SAE	Adjustable Differential setting, fixed time delay	FD113-ZU	097464	SAVE	Adjustable Differential and time delay
MP 55 (60 SEC)	TPC	1/4" SAE	Adjustable Differential setting, fixed time delay	FD113-ZU	097464	SAVE	Adjustable Differential and time delay
MP 55 (90 SEC)	TPC	1/4" SAE	Adjustable Differential setting, fixed time delay	FD113-ZU	097464	SAVE	Adjustable Differential and time delay
MP 55 (90 SEC)	TPC	36" Cap Tube	Adjustable Differential setting, fixed time delay	FD113-ZUK	097456	SAVE	Adjustable Differential and time delay
NRD	REGULATOR	1/2 ODF		NONE	NONE	NONE	NO CROSS
NRV 10	CHECK	3/8 ODF		ACK-6	064986	SAVE	CHECK VALVES
NRV 10	CHECK	3/8 SAE		NONE	NONE	NONE	
NRV 12	CHECK	1/2 ODF		ACK-8	064987	SAVE	CHECK VALVES
NRV 12	CHECK	1/2 SAE		NONE	NONE	NONE	
NRV 16	CHECK	5/8 ODF		ACK-10	064988	SAVE	CHECK VALVES
NRV 16	CHECK	5/8 SAE		NONE	NONE	NONE	
NRV 19	CHECK	3/4 ODF		ACK-12	064989	SAVE	CHECK VALVES
NRV 19	CHECK	3/4 SAE		NONE	NONE	NONE	
NRV 19	CHECK	7/8 ODF		ACK-14	064990	SAVE	CHECK VALVES
NRV 225	CHECK	7/8 ODF		NONE	NONE	NONE	
NRV 285	CHECK	1-1/8 ODF		NONE	NONE	NONE	
NRV 355	CHECK	1-3/8 ODF		NONE	NONE	NONE	
NRV 6	CHECK	1/4 ODF		ACK-4	064985	SAVE	CHECK VALVES
NRV 6	CHECK	1/4 SAE		NONE	NONE	NONE	
OUB 1	OIL SEP.	3/8 SAE		NONE	NONE	NONE	NO CROSS
OUB 1	OIL SEP.	3/8 ODF		NONE	NONE	NONE	NO CROSS
OUB 1	OIL SEP.	1/2 SAE		NONE	NONE	NONE	NO CROSS

Thermal Expansion Valves
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DANFOSS TO EMERSON

	Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
Thermal Expansion Valves	B 1	OIL SEP	1/2 ODF		NONE	NONE	NONE	NO CROSS
	B 1	OIL SEP	5/8 SAE		NONE	NONE	NONE	NO CROSS
	B 1	OIL SEP	5/8 ODF		NONE	NONE	NONE	NO CROSS
	B 4	OIL SEP	5/8 SAE		NONE	NONE	NONE	NO CROSS
	B 4	OIL SEP	5/8 ODF		NONE	NONE	NONE	NO CROSS
Solenoid Valves	B 4	OIL SEP	3/4 SAE		NONE	NONE	NONE	NO CROSS
	B 4	OIL SEP	3/4 ODF		NONE	NONE	NONE	NO CROSS
	B 4	OIL SEP	7/8 ODF		NONE	NONE	NONE	NO CROSS
	B 4	OIL SEP	1 SAE		NONE	NONE	NONE	NO CROSS
	B 4	OIL SEP	1 ODF		NONE	NONE	NONE	NO CROSS
Coils	B 4	OIL SEP	1-1/8 ODF		NONE	NONE	NONE	NO CROSS
	TF - 125	TXV	125 TON R12		NONE	NONE	NONE	NO CROSS
	TF - 300 - 1	TXV	200 TON R12		NONE	NONE	NONE	NO CROSS
	TF - 300 - 2	TXV	300 TON R12		NONE	NONE	NONE	NO CROSS
	TF 85 - 2	TXV	20 TON R12		NONE	NONE	NONE	NO CROSS
	TF 85 - 3	TXV	40 TON R12		NONE	NONE	NONE	NO CROSS
	TF 85 - 4	TXV	50 TON R12		NONE	NONE	NONE	NO CROSS
	TX 125	TXV	200 TON R22		NONE	NONE	NONE	NO CROSS
	TX 300 - 1	TXV	350 TON R22		NONE	NONE	NONE	NO CROSS
	Industrial Solenoid Valves	TX 85 - 1	TXV	30 TON R22		NONE	NONE	NONE
TX 85 - 2		TXV	50 TON R22		NONE	NONE	NONE	NO CROSS
TX 85 - 3		TXV	75 TON R22		NONE	NONE	NONE	NO CROSS
TX 85 - 4		TXV	125 TON R22		NONE	NONE	NONE	NO CROSS
Shut Off Valves	/12	REGULATOR	11/8 ODF		NONE	NONE	NONE	NO CROSS
	/15	REGULATOR	13/8 ODF		NONE	NONE	NONE	NO CROSS
	/20	REGULATOR	15/8 ODF		NONE	NONE	NONE	NO CROSS
	/S12	REGULATOR	11/8 ODF		NONE	NONE	NONE	NO CROSS
	/S15	REGULATOR	13/8 ODF		NONE	NONE	NONE	NO CROSS
System Protectors	/S20	REGULATOR	15/8 ODF		NONE	NONE	NONE	NO CROSS
	1-10	REGULATOR	VLF		NONE	NONE	NONE	NO CROSS
	1-15	REGULATOR	VLF		NONE	NONE	NONE	NO CROSS
	1-20	REGULATOR	VLF		NONE	NONE	NONE	NO CROSS
	1-25	REGULATOR	VLF		NONE	NONE	NONE	NO CROSS
	1-32	REGULATOR	VLF		NONE	NONE	NONE	NO CROSS
	1-5	REGULATOR	VLF		NONE	NONE	NONE	NO CROSS
	3-10	REGULATOR	VLF		NONE	NONE	NONE	NO CROSS
	3-15	REGULATOR	VLF		NONE	NONE	NONE	NO CROSS
	3-20	REGULATOR	VLF		NONE	NONE	NONE	NO CROSS
Storage Devices	3-25	REGULATOR	VLF		NONE	NONE	NONE	NO CROSS
	3-32	REGULATOR	VLF		NONE	NONE	NONE	NO CROSS
	3-5	REGULATOR	VLF		NONE	NONE	NONE	NO CROSS
		TPC	1/4" SAE		NONE	NONE	NONE	Enclosure to IP 44 per IEC 529
Oil Controls	60A	TPC	3/8" BSP FOR AMMONIA APPLICATIONS		NONE	NONE	NONE	NO CROSS
	62A	TPC	3/8" BSP FOR AMMONIA APPLICATIONS		NONE	NONE	NONE	NO CROSS
	62AL	TPC	3/8" BSP FOR AMMONIA APPLICATIONS		NONE	NONE	NONE	NO CROSS
	68	TPC	1/4" SAE		NONE	NONE	NONE	NO CROSS
	65	TPC	1/4" SAE		NONE	NONE	NONE	NO CROSS
		TPC	1/4" SAE		NONE	NONE	NONE	NO CROSS
		TPC	1/4" SAE		NONE	NONE	NONE	NO CROSS
	6AB	TPC	3/8" BSP FOR AMMONIA APPLICATIONS		NONE	NONE	NONE	NO CROSS
	6AS	TPC	3/8" BSP FOR AMMONIA APPLICATIONS		NONE	NONE	NONE	NO CROSS
	6B	TPC	1/4" SAE		NONE	NONE	NONE	NO CROSS
Pressure Regulators	6S	TPC	1/4" SAE		NONE	NONE	NONE	NO CROSS
	6W	TPC	1/4" SAE		NONE	NONE	NONE	NO CROSS
	10	SIGHT GLASS	3/8 SAE EXT X EXT		HIM-1MM3	065392	SAVE	MOISTURE INDICATOR
	10	SIGHT GLASS	3/8 SAE INT X EXT		HIM-1FM3	065397	SAVE	MOISTURE INDICATOR
Temperature Pressure Controls	10s	SIGHT GLASS	3/8 ODF X ODF		HIM-1TT3	065406	SAVE	MOISTURE INDICATOR
	10s	SIGHT GLASS	3/8 ODF ODM		NONE	NONE	NONE	NO CROSS
	12	SIGHT GLASS	1/2 SAE EXT X EXT		HIM-1MM4	065393	SAVE	MOISTURE INDICATOR
	12	SIGHT GLASS	1/2 SAE INT X EXT		HIM-1FM4	065398	SAVE	MOISTURE INDICATOR
	12s	SIGHT GLASS	1/2 ODF X ODF		HIM-1TT4	065407	SAVE	MOISTURE INDICATOR
	16	SIGHT GLASS	5/8 SAE EXT X EXT		HIM-1MM5	065394	SAVE	MOISTURE INDICATOR
	16	SIGHT GLASS	5/8 SAE INT X EXT		NONE	NONE	NONE	NO CROSS
	16s	SIGHT GLASS	5/8 ODF X ODF		HIM-1TT5	065408	SAVE	MOISTURE INDICATOR
	22s	SIGHT GLASS	7/8 ODF X ODF		HIM-1TT7	065410	SAVE	MOISTURE INDICATOR

DANFOSS TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
SGI 6	SIGHT GLASS	1/4 SAE EXT X EXT		HIM-1MM2	065391	SAME	MOISTURE INDICATOR
SGI 6	SIGHT GLASS	1/4 SAE INT X EXT		HIM-1FM2	065396	SAME	MOISTURE INDICATOR
SGI 6s	SIGHT GLASS	1/4 ODF X ODF		HIM-*1TT2	065405	SAME	MOISTURE INDICATOR
SGN 10	SIGHT GLASS	3/8 SAE EXT X EXT		HIM-1MM3	065392	SAME	MOISTURE INDICATOR
SGN 10	SIGHT GLASS	3/8 SAE INT X EXT		HIM-1FMB	065397	SAME	MOISTURE INDICATOR
SGN 10s	SIGHT GLASS	3/8 ODF X ODF		HIM-1TT3	065406	SAME	MOISTURE INDICATOR
SGN 10s	SIGHT GLASS	3/8 ODF ODM		NONE	NONE	NONE	NO CROSS
SGN 12	SIGHT GLASS	1/2 SAE INT X EXT		HIM-1MM4	065393	SAME	MOISTURE INDICATOR
SGN 12s	SIGHT GLASS	1/2 ODF X ODF		HIM-1TT4	065407	SAME	MOISTURE INDICATOR
SGN 12s	SIGHT GLASS	1/2 ODF X ODM		NONE	NONE	NONE	NO CROSS
SGN 16	SIGHT GLASS	5/8 SAE INT X EXT		NONE	NONE	NONE	NO CROSS
SGN 16s	SIGHT GLASS	5/8 ODF X ODF		HIM-1MM5	065394	SAME	MOISTURE INDICATOR
SGN 16s	SIGHT GLASS	5/8 ODF X ODM		NONE	NONE	NONE	NO CROSS
SGN 22s	SIGHT GLASS	7/8 ODF X ODM		NONE	NONE	NONE	MOISTURE INDICATOR
SGN 22s	SIGHT GLASS	7/8 ODF X ODF		HIM-1TT7	065410	SAME	MOISTURE INDICATOR
SGN 6	SIGHT GLASS	1/4 SAE EXT X EXT		HIM-1MM2	065391	SAME	MOISTURE INDICATOR
SGN 6	SIGHT GLASS	1/4 SAE INT X EXT		HIM-1FM2	065396	SAME	MOISTURE INDICATOR
SGN 6s	SIGHT GLASS	1/4 ODF X ODF		HIM-*1TT2	065405	SAME	MOISTURE INDICATOR
SGR	SIGHT GLASS	1/2 NPT		NONE	NONE	NONE	NO CROSS
SGR	SIGHT GLASS	3/4 NPT		NONE	NONE	NONE	NO CROSS
SGR SGI	SIGHT GLASS	1/2 NPT		NONE	NONE	NONE	NO CROSS
SGR SGN	SIGHT GLASS	1/2 NPT		NONE	NONE	NONE	NO CROSS
T2	KITS	00MMKBOX1		NONE	NONE	NONE	NO CROSS
T2 FLARE X FLARE	KITS	000MMK-A		NONE	NONE	NONE	NO CROSS
T2 FLARE X FLARE	KITS	000MMK-I		NONE	NONE	NONE	NO CROSS
T2 Orifice	TXV	0X		NONE	NONE	NONE	NO CROSS
T2 Orifice	TXV	00		NONE	NONE	NONE	NO CROSS
T2 Orifice	TXV	01		NONE	NONE	NONE	NO CROSS
T2 Orifice	TXV	02		NONE	NONE	NONE	NO CROSS
T2 Orifice	TXV	03		NONE	NONE	NONE	NO CROSS
T2 Orifice	TXV	04		NONE	NONE	NONE	NO CROSS
T2 Orifice	TXV	05		NONE	NONE	NONE	NO CROSS
T2 Orifice	TXV	06		NONE	NONE	NONE	NO CROSS
TDEBX11 5/8 X 1-1/8	TXV	068H7134		TFES 10 HCA	061610	SAME	5/8 X 7/8 ODF
TDEBX11 5/8 X 7/8	TXV	068H7132		TFES 10 HCA	061610	SAME	5/8 X 7/8 ODF
TDEBX12.5 5/8 X 7/8	TXV	068H7136		NONE	NONE	NONE	NO REPLACEMENT
TDEBX12.5 7/8 X 1-1/8	TXV	068H7138		NONE	NONE	NONE	NO REPLACEMENT
TDEBX16 5/8 X 1-1/8	TXV	068H7140		TRAE+ 15 HCA	063510	SAME	5/8 X 7/8 ODF
TDEBX16 7/8 X 1-1/8	TXV	068H7142		TRAE+ 15 HCA	062721	SAME	SAME CONNECTION SIZE
TDEBX19 7/8 X 1-1/8	TXV	068H7144		TRAE+ 20 HCA	062725	SAME	SAME CONNECTION SIZE
TDEBX20 7/8 X 1-1/8	TXV	068H7146		TRAE+ 20 HCA	062725	SAME	SAME CONNECTION SIZE
TDEBX26 7/8 X 1-3/8	TXV	068H7148		TRAE+ 30 HCA	062727	SAME	7/8 X 1-1/8 ODF
TDEBX30 7/8 X 1-3/8	TXV	068H7150		TRAE+ 30 HCA	062727	SAME	7/8 X 1-1/8 ODF
TDEBX40 1-1/8 X 1-3/8	TXV	068H7154		TRAE+ 40 HCA	062734	SAME	SAME CONNECTION SIZE
TDEBX8 5/8 X 7/8	TXV	068H7130		NONE	NONE	NONE	NO REPLACEMENT
TDEX 11	TXV	10 TON R22		TFES 10 HCA 5/8 X 7/8 ODFS/T	061610	SAME	EMERSON IS BALANCED PORT
TDEX 12.5	TXV	12 TON R22		NONE	NONE	NONE	EMERSON IS BALANCED PORT
TDEX 18	TXV	20 TON R22		TRAE+ 20 HCA 7/8 X 1-1/8 ODFS/T	062725	SAME	EMERSON IS BALANCED PORT
TDEX 19	TXV	20 TON R22		TRAE+ 20 HCA 7/8 X 1-1/8 ODFS/T	062725	SAME	EMERSON IS BALANCED PORT
TDEX 20	TXV	20 TON R22		TRAE+ 20 HCA 7/8 X 1-1/8 ODFS/T	062725	SAME	EMERSON IS BALANCED PORT
TDEX 25	TXV	30 TON R22		TRAE+ 30 HCA 1-1/8 X 1-3/8 ODFS/T	062730	SAME	EMERSON IS BALANCED PORT
TDEX 3	TXV	3 TON R22		NONE	NONE	NONE	EMERSON IS BALANCED PORT
TDEX 30	TXV	30 TON R22		TRAE+ 30 HCA 1-1/8 X 1-3/8 ODFS/T	062730	SAME	EMERSON IS BALANCED PORT
TDEX 4	TXV	4 TON R22		NONE	NONE	NONE	EMERSON IS BALANCED PORT
TDEX 40	TXV	40 TON R22		TRAE+ 40 HCA 1-1/8 X 1-3/8 ODFS/T	062734	SAME	EMERSON IS BALANCED PORT
TDEX 6	TXV	6 TON R22		HFES 5 1/2 HCA 1/2 X 5/8 ODFS/T	057378	SAME	EMERSON IS BALANCED PORT
TDEX 7.5	TXV	8 TON R22		NONE	NONE	NONE	EMERSON IS BALANCED PORT
TDEX 8	TXV	8 TON R22		NONE	NONE	NONE	EMERSON IS BALANCED PORT
TDEX3 1/2 X 5/8	TXV	068H6201		HFES 3 HC	053916	SAME	3/8 X 1/2 CONNECTION SIZE
TDEX3 3/8 X 5/8	TXV	068H6200		HFES 3 HC	053916	SAME	3/8 X 1/2 CONNECTION SIZE
TDEX4 1/2 X 7/8	TXV	068H6202		NONE	NONE	NONE	NO REPLACEMENT
TDEX6 1/2 X 5/8	TXV	068H6234		HFES 5 1/2 HC	057378	SAME	SAME CONNECTION SIZE
TDEX6 1/2 X 7/8	TXV	068H6203		HFES 5 1/2 HC	055187	SAME	SAME CONNECTION SIZE
TDEX6 5/8 X 7/8	TXV	068H6204		HFES 5 1/2 HC	054779	SAME	SAME CONNECTION SIZE
TDEX7.5 5/8 X 7/8	TXV	068H6205		NONE	NONE	NONE	NO REPLACEMENT

Thermal Expansion Valves
 Solenoid Valves
 Coils
 Industrial Solenoid Valves
 Shut Off Valves
 System Protectors
 Storage Devices
 Oil Controls
 Pressure Regulators
 Temperature Pressure Controls
 Competitive Cross Reference

DANFOSS TO EMERSON

	Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment	
Thermal Expansion Valves	TEF 12 - 12 R12	TXV	12 TON R12		TJRE 11 FC VLF	055105	SAME		
	TEF 12 - 3 R12	TXV	3 TON R12		TCLC 3 FC VLF	052942	SAME		
	TEF 12 - 5 R12	TXV	4 TON R12		TCLC 4 FC VLF	052943	SAME		
	TEF 12 - 8 R12	TXV	7 1/2 TON R12		TCLC 7 1/2 FC VLF	052945	SAME		
	TEF 2 - 0.3 R12	TXV	1/3 TON R12		TIE 1 MW	065017	SAME	USE CAGE 065090	
Solenoid Valves	TEF 2 - 0.5 R12	TXV	1/2 TON R12		TIE 2 MW	065017	SAME	USE CAGE 065091	
	TEF 2 - 1.0 R12	TXV	1 TON R12		TIE 3 MW	065017	SAME	USE CAGE 065091	
	TEF 2 - 1.5 R12	TXV	1 1/2 TON R12		TIE 4 MW	065017	SAME	USE CAGE 065092	
	TEF 2 - 2.0 R12	TXV	2 TON R12		TIE 5 MW	065017	SAME	USE CAGE 065092	
	TEF 2 - 3.0 R12	TXV	2 1/2 TON R12		TIE 6 MW	065017	SAME	USE CAGE 065093	
	TEF 20 - 20 R12	TXV	20 TON R12		TER 20 FC VLF	055111	SAME		
	TEF 5 - 2 R12	TXV	2 TON R12		TCLC 2 FC VLF	052941	SAME		
	TEF 5 - 3 R12	TXV	3 TON R12		TCLC 3 FC VLF	052942	SAME		
	TEF 5 - 5 R12	TXV	4 TON R12		TCLC 4 FC VLF	052943	SAME		
	TEF 5 - 8 R12	TXV	8 TON R12		TCLC 7 1/2 FC VLF	052945	SAME		
Coils	TEF 55 - 33 R12	TXV	35 TON R12		NONE	NONE	NONE		
	TEF 55 - 55 R12	TXV	55 TON R12		NONE	NONE	NONE		
Industrial Solenoid Valves	TEF12 R12	POWER ELEM.	067B3204		NONE	NONE	NONE	NO CROSS	
	TEF12 R12	POWER ELEM.	067B3203		NONE	NONE	NONE	NO CROSS	
	TEF12 R12	POWER ELEM.	067B3228		NONE	NONE	NONE	NO CROSS	
	TEF12 R12	POWER ELEM.	067B3201		NONE	NONE	NONE	NO CROSS	
	TEF12 R12	POWER ELEM.	067B3205		NONE	NONE	NONE	NO CROSS	
	TEF20 R12	POWER ELEM.	067B3270		NONE	NONE	NONE	NO CROSS	
	TEF20 R12	POWER ELEM.	067B3289		NONE	NONE	NONE	NO CROSS	
	TEF20 R12	POWER ELEM.	037B3285		NONE	NONE	NONE	NO CROSS	
	TEF20 R12	POWER ELEM.	067B3271		NONE	NONE	NONE	NO CROSS	
	TEF5 R12	POWER ELEM.	067B3244		NONE	NONE	NONE	NO CROSS	
Shut Off Valves	TEF5 R12	POWER ELEM.	067B3266		NONE	NONE	NONE	NO CROSS	
	TEF5 R12	POWER ELEM.	067B3242		NONE	NONE	NONE	NO CROSS	
	TEF5 R12	POWER ELEM.	067B3245		NONE	NONE	NONE	NO CROSS	
	TEF55 R12	POWER ELEM.	067G3201		NONE	NONE	NONE	NO CROSS	
	TEF55 R12	POWER ELEM.	067G3204		NONE	NONE	NONE	NO CROSS	
	TEF55 R12	POWER ELEM.	067G3202		NONE	NONE	NONE	NO CROSS	
	TEF55 R12	POWER ELEM.	067G3203		NONE	NONE	NONE	NO CROSS	
	TEN12 R134a	POWER ELEM.	067B3232		NONE	NONE	NONE	NO CROSS	
	TEN12 R134a	POWER ELEM.	067B3233		NONE	NONE	NONE	NO CROSS	
	TEN12 R134a	POWER ELEM.	067B3364		NONE	NONE	NONE	NO CROSS	
System Protectors	TEN12 R134a	POWER ELEM.	067B3365		NONE	NONE	NONE	NO CROSS	
	TEN20 R134a	POWER ELEM.	067B3292		NONE	NONE	NONE	NO CROSS	
	TEN20 R134a	POWER ELEM.	067B3293		NONE	NONE	NONE	NO CROSS	
	TEN20 R134a	POWER ELEM.	067B3371		NONE	NONE	NONE	NO CROSS	
	TEN5 R134a	POWER ELEM.	067B3297		NONE	NONE	NONE	NO CROSS	
	TEN5 R134a	POWER ELEM.	067B3298		NONE	NONE	NONE	NO CROSS	
	TEN5 R134a	POWER ELEM.	067B3327		NONE	NONE	NONE	NO CROSS	
	TEN55 R134a	POWER ELEM.	067G3222		NONE	NONE	NONE	NO CROSS	
	TEN55 R134a	POWER ELEM.	067G3230		NONE	NONE	NONE	NO CROSS	
	TEN55 R134a	POWER ELEM.	067G3223		NONE	NONE	NONE	NO CROSS	
Storage Devices	TEN55 R134a	POWER ELEM.	067G3232		NONE	NONE	NONE	NO CROSS	
	TES12 404A/507	POWER ELEM.	067B3347		NONE	NONE	NONE	NO CROSS	
	TES12 404A/507	POWER ELEM.	067B3346		NONE	NONE	NONE	NO CROSS	
	TES12 404A/507	POWER ELEM.	067B3348		NONE	NONE	NONE	NO CROSS	
	TES12 404A/507	POWER ELEM.	067B3349		NONE	NONE	NONE	NO CROSS	
	TES12 404A/507	POWER ELEM.	067B3350		NONE	NONE	NONE	NO CROSS	
	TES20 404A/507	POWER ELEM.	067B3352		NONE	NONE	NONE	NO CROSS	
	TES20 404A/507	POWER ELEM.	067B3356		NONE	NONE	NONE	NO CROSS	
	TES20 404A/507	POWER ELEM.	067B3351		NONE	NONE	NONE	NO CROSS	
	TES20 404A/507	POWER ELEM.	067B3354		NONE	NONE	NONE	NO CROSS	
Oil Controls	TES5 404A/507	POWER ELEM.	067B3342		NONE	NONE	NONE	NO CROSS	
	TES5 404A/507	POWER ELEM.	067B3357		NONE	NONE	NONE	NO CROSS	
	TES5 404A/507	POWER ELEM.	067B3358		NONE	NONE	NONE	NO CROSS	
	TES5 404A/507	POWER ELEM.	067B3344		NONE	NONE	NONE	NO CROSS	
	TES5 404A/507	POWER ELEM.	067B3343		NONE	NONE	NONE	NO CROSS	
	TES55 404A/507	POWER ELEM.	067G3302		NONE	NONE	NONE	NO CROSS	
	TES55 404A/507	POWER ELEM.	067G3306		NONE	NONE	NONE	NO CROSS	
	Pressure Regulators	TES12 404A/507	POWER ELEM.	067B3347		NONE	NONE	NONE	NO CROSS
		TES12 404A/507	POWER ELEM.	067B3346		NONE	NONE	NONE	NO CROSS
		TES12 404A/507	POWER ELEM.	067B3348		NONE	NONE	NONE	NO CROSS
TES12 404A/507		POWER ELEM.	067B3349		NONE	NONE	NONE	NO CROSS	
TES12 404A/507		POWER ELEM.	067B3350		NONE	NONE	NONE	NO CROSS	
TES20 404A/507		POWER ELEM.	067B3352		NONE	NONE	NONE	NO CROSS	
TES20 404A/507		POWER ELEM.	067B3356		NONE	NONE	NONE	NO CROSS	
TES20 404A/507		POWER ELEM.	067B3351		NONE	NONE	NONE	NO CROSS	
TES20 404A/507		POWER ELEM.	067B3354		NONE	NONE	NONE	NO CROSS	
TES5 404A/507		POWER ELEM.	067B3342		NONE	NONE	NONE	NO CROSS	
Temperature Pressure Controls	TES5 404A/507	POWER ELEM.	067B3357		NONE	NONE	NONE	NO CROSS	
	TES5 404A/507	POWER ELEM.	067B3358		NONE	NONE	NONE	NO CROSS	
	TES5 404A/507	POWER ELEM.	067B3344		NONE	NONE	NONE	NO CROSS	
	TES5 404A/507	POWER ELEM.	067B3343		NONE	NONE	NONE	NO CROSS	
	TES55 404A/507	POWER ELEM.	067G3302		NONE	NONE	NONE	NO CROSS	
	TES55 404A/507	POWER ELEM.	067G3306		NONE	NONE	NONE	NO CROSS	

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Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
TEX 12 - 12 R22	TXV	12 TON R22		TCLE 12 HC VLF	060854	SAME	
TEX 12 - 18 R22	TXV	18 TON R22		TJRE 18 HC VLF	060858	SAME	
TEX 12 - 4.5 R22	TXV	5 TON R22		TCLE 5 HC VLF	054399	SAME	
TEX 12 - 7.5 R22	TXV	7 1/2 TON R22		TCLE 7 1/2 HC VLF	054401	SAME	
TEX 2 - 0.7 R22	TXV	1/3 TON R22		TIE 1/3 HW	065021	SAME	USE CAGE 065087
TEX 2 - 1.0 R22	TXV	3/4 TON R22		TIE 1 HW	065021	SAME	USE CAGE 065088
TEX 2 - 1.5 R22	TXV	1 TON R22		TIE 2 HW	065021	SAME	USE CAGE 065090
TEX 2 - 2.3 R22	TXV	2 TON R22		TIE 3 HW	065021	SAME	USE CAGE 065090
TEX 2 - 3.0 R22	TXV	3 TON R22		TIE 4 HW	065021	SAME	USE CAGE 065091
TEX 2 - 4.5 R22	TXV	4 TON R22		TIE 5 HW	065021	SAME	USE CAGE 065091
TEX 20 - 30 R22	TXV	30 TON R22		TER 26 HC VLF	061674	SAME	
TEX 5 - 12 R22	TXV	12 TON R22		TCLE 12 HC VLF	060854	SAME	
TEX 5 - 3 R22	TXV	3 TON R22		TCLE 3 HC VLF	054395	SAME	
TEX 5 - 4.5 R22	TXV	5 TON R22		TCLE 5 HC VLF	054399	SAME	
TEX 5 - 7.5 R22	TXV	7 1/2 TON R22		TCLE 7 1/2 HC VLF	054401	SAME	
TEX 55 - 50 R22	TXV	50 TON R22		TER 45 HC VLF	061676	SAME	
TEX 55 - 85 R22	TXV	85 TON R22		THR 100 HC VLF	062036	SAME	
TEX12 R22	POWER ELEM.	067B3210		NONE	NONE	NONE	NO CROSS
TEX12 R22	POWER ELEM.	067B3209		NONE	NONE	NONE	NO CROSS
TEX12 R22	POWER ELEM.	067B3227		NONE	NONE	NONE	NO CROSS
TEX12 R22	POWER ELEM.	067B3213		NONE	NONE	NONE	NO CROSS
TEX12 R22	POWER ELEM.	067B3211		NONE	NONE	NONE	NO CROSS
TEX12 R22	POWER ELEM.	067B3212		NONE	NONE	NONE	NO CROSS
TEX20 R22	POWER ELEM.	067B3274		NONE	NONE	NONE	NO CROSS
TEX20 R22	POWER ELEM.	067B3290		NONE	NONE	NONE	NO CROSS
TEX20 R22	POWER ELEM.	067B3286		NONE	NONE	NONE	NO CROSS
TEX20 R22	POWER ELEM.	067B3275		NONE	NONE	NONE	NO CROSS
TEX20 R22	POWER ELEM.	067B3276		NONE	NONE	NONE	NO CROSS
TEX5 R22	POWER ELEM.	067B3250		NONE	NONE	NONE	NO CROSS
TEX5 R22	POWER ELEM.	067B3267		NONE	NONE	NONE	NO CROSS
TEX5 R22	POWER ELEM.	067B3249		NONE	NONE	NONE	NO CROSS
TEX5 R22	POWER ELEM.	067B3253		NONE	NONE	NONE	NO CROSS
TEX5 R22	POWER ELEM.	067B3263		NONE	NONE	NONE	NO CROSS
TEX5 R22	POWER ELEM.	067B3251		NONE	NONE	NONE	NO CROSS
TEX55 R22	POWER ELEM.	067G3205		NONE	NONE	NONE	NO CROSS
TEX55 R22	POWER ELEM.	067G3209		NONE	NONE	NONE	NO CROSS
TEX55 R22	POWER ELEM.	067G3220		NONE	NONE	NONE	NO CROSS
TEX55 R22	POWER ELEM.	067G3207		NONE	NONE	NONE	NO CROSS
TEY 12 - 3 R502	TXV	2 TON R502		TCLE 2 RC VLF	061215	SAME	
TEY 12 - 5 R502	TXV	5 TON R502		NONE	NONE	NONE	
TEY 12 - 8 R502	TXV	7 TON R502		NONE	NONE	NONE	
TEY 12 - 12 R502	TXV	12 TON R502		NONE	NONE	NONE	
TEY 2 - 0.2 R502	TXV	1/4 TON R502		TIE1/4SW	065031	SAME	USE CAGE 065087
TEY 2 - 0.3 R502	TXV	1/2 TON R502		TIE 1 SW	065031	SAME	USE CAGE 065088
TEY 2 - 0.6 R502	TXV	3/4 TON R502		TIE 2 SW	065031	SAME	USE CAGE 065090
TEY 2 - 1.0 R502	TXV	1 1/2 TON R502		TIE 3 SW	065031	SAME	USE CAGE 065091
TEY 2 - 1.5 R502	TXV	2 TON R502		NONE	NONE	NONE	
TEY 2 - 2.0 R502	TXV	2 1/2 TON R502		NONE	NONE	NONE	
TEY 2 - 3.0 R502	TXV	3 TON R502		TIE 6 SW	065031	SAME	USE CAGE 065092
TEY 20 - 20 R502	TXV	20 TON R502		NONE	NONE	NONE	
TEY 5 - 2 R502	TXV	2 TON R502		TCLE 2 RC VLF	061215	SAME	
TEY 5 - 3 R502	TXV	3 TON R502		TCLE 3 RC VLF	055501	SAME	
TEY 5 - 5 R502	TXV	5 TON R502		NONE	NONE	NONE	
TEY 5 - 8 R502	TXV	8 TON R502		TCLE 8 RC VLF	063501	SAME	
TEY 55 - 33 R502	TXV	33 TON R502		NONE	NONE	NONE	
TEY 55 - 55 R502	TXV	55 TON R502		NONE	NONE	NONE	
TEY12 R502	POWER ELEM.	067B3218		NONE	NONE	NONE	NO CROSS
TEY12 R502	POWER ELEM.	067B3217		NONE	NONE	NONE	NO CROSS
TEY12 R502	POWER ELEM.	067B3215		NONE	NONE	NONE	NO CROSS
TEY12 R502	POWER ELEM.	067B3221		NONE	NONE	NONE	NO CROSS
TEY12 R502	POWER ELEM.	067B3219		NONE	NONE	NONE	NO CROSS
TEY12 R502	POWER ELEM.	067B3220		NONE	NONE	NONE	NO CROSS
TEY20 R502	POWER ELEM.	067B3280		NONE	NONE	NONE	NO CROSS
TEY20 R502	POWER ELEM.	067B3291		NONE	NONE	NONE	NO CROSS
TEY20 R502	POWER ELEM.	067B3279		NONE	NONE	NONE	NO CROSS

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Thermal Expansion Valves	TEY20 R502	POWER ELEM.	067B3281		NONE	NONE	NONE	NO CROSS
	TEY20 R502	POWER ELEM.	067B3282		NONE	NONE	NONE	NO CROSS
	TEY20 R502	POWER ELEM.	067B3288		NONE	NONE	NONE	NO CROSS
	TEY5 R502	POWER ELEM.	067B3257		NONE	NONE	NONE	NO CROSS
	TEY5 R502	POWER ELEM.	067B3259		NONE	NONE	NONE	NO CROSS
	TEY5 R502	POWER ELEM.	067B3261		NONE	NONE	NONE	NO CROSS
Solenoid Valves	TEY5 R502	POWER ELEM.	067B3265		NONE	NONE	NONE	NO CROSS
	TEY5 R502	POWER ELEM.	067B3258		NONE	NONE	NONE	NO CROSS
	TEY55 R502	POWER ELEM.	067G3211		NONE	NONE	NONE	NO CROSS
	TEY55 R502	POWER ELEM.	067G3210		NONE	NONE	NONE	NO CROSS
	TEY55 R502	POWER ELEM.	067G3213		NONE	NONE	NONE	NO CROSS
	TEY55 R502	POWER ELEM.	067G3218		NONE	NONE	NONE	NO CROSS
Coils	TF 2 - 0.2 R12	TXV	1/6 TON R12		NONE	NONE	NONE	
	TF 2 - 0.3 R12	TXV	1/3 TON R12	TI 1 MW		065016	SAME	USE CAGE 065090
	TF 2 - 0.5 R12	TXV	1/2 TON R12		NONE	NONE	NONE	
	TF 2 - 1.0 R12	TXV	1 TON R12	TI 3 MW		065016	SAME	USE CAGE 065091
	TF 2 - 1.5 R12	TXV	1 1/2 TON R12		NONE	NONE	NONE	
	TF 2 - 2.0 R12	TXV	2 TON R12	TI 5 MW		065016	SAME	USE CAGE 065092
Industrial Solenoid Valves	TF 2 - 3.0 R12	TXV	2 1/2 TON R12		NONE	NONE	NONE	
	TKEF 20 - 10 R12	TXV	10 TON R12	TJRE 11 FC VLF		055105	SAME	
	TKEF 20 - 12 R12	TXV	12 TON R12		NONE	NONE	NONE	
	TKEF 20 - 16 R12	TXV	16 TON R12		NONE	NONE	NONE	
	TKEF 20 - 20 R12	TXV	20 TON R12	TER 20 FC VLF		055109	SAME	
	TKEF 3 - 2 R12	TXV	2 TON R12	HFE 2 FC 3/8 X 1/2 SAEANG		053069	SAME	
Shut Off Valves	TKEF 3 - 3 R12	TXV	3 TON R12		NONE	NONE	NONE	
	TKEF 8 - 5 R12	TXV	5 TON R12	HFES 6 MC 5/8 X 7/8 ODFS/T		057903	SAME	
	TKEF 8 - 6 R12	TXV	6 TON R12	HFES 6 MC 5/8 X 7/8 ODFS/T		057903	SAME	
	TKEF 8 - 8 R12	TXV	8 TON R12		NONE	NONE	NONE	
	TKEX 20 - 20 R22	TXV	20 TON R22	HFES 20 HC 7/8 X 1-1/8 ODFS/T		062055	SAME	
	TKEX 20 - 30 R22	TXV	30 TON R22	TRAE+ 30 HC 1-1/8 X 1-3/8 ODFS/T		062728	SAME	
System Protectors	TKEX 3 - 3 R22	TXV	21/2 TON R22	HFE 21/2 HC 3/8 X 1/2 ODFS/T		055931	SAME	
	TKEX 8 - 12 R22	TXV	10 TON R22	HFES 10 HC 5/8 X 7/8 ODFS/T		057256	SAME	
	TKEX 8 - 15 R22	TXV	15 TON R22	HFES 15 HC 5/8 X 7/8 ODFS/T		057317	SAME	
	TKEX 8 - 7.5 R22	TXV	8 TON R22	HFE 8 HC 5/8 X 7/8 ODFS/T		057313	SAME	
	TKEY 20 - 12 R502	TXV	12 TON R502		NONE	NONE	NONE	
	TKEY 20 - 21 R502	TXV	21 TON R502		NONE	NONE	NONE	
Storage Devices	TKEY 3 - 2 R502	TXV	11/2 TON R502	HFE 11/2 RC 3/8 X 1/0 SAEANG		054967	SAME	
	TKEY 3 - 3 R502	TXV	2 TON R502	HFE 2 RC 3/8 X 1/2 SAEANG		053070	SAME	
	TKEY 3 - 4 R502	TXV	3 1/2 TON R502	HFE 3 1/2 RC 3/8 X 1/2 SAEANG		054142	SAME	
	TKEY 8 - 6 R502	TXV	5 TON R502	HFES 5 RC 3/8 X 1/2 ODFS/T		058875	SAME	
	TKEY 8 - 7 R502	TXV	7 TON R502		NONE	NONE	NONE	
	TKEY 8 - 9 R502	TXV	10 TON R502	HFES 10 RC 5/8 X 7/8 ODFS/T		058808	SAME	
Oil Controls	TRE10-10 5/8X7/8	TXV	067L1024		NONE	NONE	NONE	NO REPLACEMENT
	TRE10-5N 5/8X7/8	TXV	067L1003		NONE	NONE	NONE	NO REPLACEMENT
	TRE10-7N 5/8X7/8	TXV	067L1006		NONE	NONE	NONE	NO REPLACEMENT
	TRE10-8X 5/8X7/8	TXV	067L1021		NONE	NONE	NONE	NO REPLACEMENT
	TRE20-10X 5/8X7/8	TXV	067L1075		NONE	NONE	NONE	NO REPLACEMENT
	TRE20-11N 7/8X1-1/8	TXV	067L1050		NONE	NONE	NONE	NO REPLACEMENT
	TRE20-12.5 5/8X7/8	TXV	067L1079		NONE	NONE	NONE	NO REPLACEMENT
	TRE20-14N 7/8-1-1/8	TXV	067L1053		NONE	NONE	NONE	NO REPLACEMENT
	TRE20-14N 7/8X1-3/8	TXV	067L1054		NONE	NONE	NONE	NO REPLACEMENT
	TRE20-15X 7/8X1-1/8	TXV	067L1084		NONE	NONE	NONE	NO REPLACEMENT
Pressure Regulators	TRE20-20X 7/8X1-1/8	TXV	067L1087		NONE	NONE	NONE	NO REPLACEMENT
	TRE20-20X 7/8X1-3/8	TXV	067L1088		NONE	NONE	NONE	NO REPLACEMENT
	TRE20-7N 5/8X7/8	TXV	067L1041		NONE	NONE	NONE	NO REPLACEMENT
	TRE20-9N 5/8X7/8	TXV	068L1045		NONE	NONE	NONE	NO REPLACEMENT
	TUA	KITS	00MMKBOX2		NONE	NONE	NONE	NO CROSS
	Temperature Pressure Controls	TUA 3/8 x 1/2	TXV	R22; Interchangeable orifices, SAE connections	TI HW		065020	SAME
TUA 3/8 x 1/2		TXV	R134a; Interchangeable orifices, SAE connections	TI MW		065016	SAME	Need to select orifices and order
TUA 3/8 x 1/2		TXV	R404A/R507; Interchangeable orifices, SAE connections	TI SW		065028	SAME	Need to select orifices and order
TUA 3/8 x 1/2		TXV	R407C; Interchangeable orifices, SAE connections	TI NW		065038	SAME	Need to select orifices and order
TUA SWEAT X SWEAT		KITS	000MMK-U		NONE	NONE	NONE	NO CROSS
TUA 3/8 x 1/2		TXV	R22; Interchangeable orifices, SAE connections	TIE HW		065021	SAME	Need to select orifices and order
Competitive Cross Reference	TUA 3/8 x 1/2	TXV	R134a; Interchangeable orifices, SAE connections	TIE MW		065017	SAME	Need to select orifices and order
	TUA 3/8 x 1/2	TXV	R404A/R507; Interchangeable orifices, SAE connections	TIE SW		065031	SAME	Need to select orifices and order

DANFOSS TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
TJAE 3/8 x 1/2	TXV	R407C; Interchangeable orifices	SAE Connections	TIE MW	065039	SAME	Need to select orifices and order
TUB-00 1/4 X 1/2 R22	TXV	068U2056	ANG STYLE	NONE	NONE	NONE	S/T BODY TYPE
TUB-00 3/8 X 1/2 R22	TXV	068U2156	ANG STYLE	NONE	NONE	NONE	NO REPLACEMENT
TUB-01 1/4 X 1/2 R134a	TXV	068U2027	ANG STYLE	TIS MW	065064	SAME	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUB-01 1/4 X 1/2 R22	TXV	068U2057	ANG STYLE	TIS-HW	065068	SAME	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUB-01 1/4X1/2 404A/507	TXV	068U2094	ANG STYLE	TIS-SW	065076	SAME	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUB-01 3/8 X 1/2 404A/507	TXV	068U2129	ANG STYLE	TIS-SW	065076	SAME	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-01 3/8 X 1/2 R134a	TXV	068U2117	ANG STYLE	TIS-MW	065064	SAME	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-01 3/8 X 1/2 R22	TXV	068U2157	ANG STYLE	TIS-HW	065068	SAME	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-02 1/4 X 1/2 R134a	TXV	068U2028	ANG STYLE	TIS -MW	065064	SAME	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUB-02 1/4 X 1/2 R22	TXV	068U2058	ANG STYLE	TIS-HW	065068	SAME	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUB-02 1/4X1/2 404A/507	TXV	068U2095	ANG STYLE	TIS-SW	065076	SAME	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUB-02 3/8 X 1/2 404A/507	TXV	068U2130	ANG STYLE	TIS-SW	065076	SAME	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-02 3/8 X 1/2 R134a	TXV	068U2118	ANG STYLE	TIS-MW	065064	SAME	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-02 3/8 X 1/2 R22	TXV	068U2179	ANG STYLE	TIS-HW	065068	SAME	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-03 1/4 X 1/2 R134a	TXV	068U2029	ANG STYLE	TIS-MW	065064	SAME	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUB-03 1/4 X 1/2 R22	TXV	068U2059	ANG STYLE	TIS-HW	065068	SAME	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUB-03 1/4X1/2 404A/507	TXV	068U2096	ANG STYLE	TIS-SW	065076	SAME	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUB-03 3/8 X 1/2 404A/507	TXV	068U2131	ANG STYLE	TIS-SW	065076	SAME	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-03 3/8 X 1/2 R134a	TXV	068U2119	ANG STYLE	TIS-MW	065068	SAME	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-03 3/8 X 1/2 R22	TXV	068U2180	ANG STYLE	TIS-HW	065068	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-04 1/4 X 1/2 R134a	TXV	068U2030	ANG STYLE	TIS-MW	065064	NONE	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUB-04 1/4 X 1/2 R22	TXV	068U2060	ANG STYLE	TIS-HW	065068	NONE	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUB-04 1/4X1/2 404A/507	TXV	068U2097	ANG STYLE	TIS-SW	065076	NONE	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUB-04 3/8 X 1/2 404A/507	TXV	068U2132	ANG STYLE	TIS-SW	065076	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-04 3/8 X 1/2 R134a	TXV	068U2120	ANG STYLE	TIS-MW	065064	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-04 3/8 X 1/2 R22	TXV	068U2183	ANG STYLE	TIS-HW	065068	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-05 1/4 X 1/2 R134a	TXV	068U2031	ANG STYLE	TIS-MW	065064	NONE	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUB-05 1/4 X 1/2 R22	TXV	068U2051	ANG STYLE	TIS-HW	065068	NONE	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUB-05 1/4X1/2 404A/507	TXV	068U2098	ANG STYLE	TIS-SW	065076	NONE	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUB-05 3/8 X 1/2 404A/507	TXV	068U2133	ANG STYLE	TIS-SW	065076	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-05 3/8 X 1/2 R134a	TXV	068U2121	ANG STYLE	TIS-MW	065064	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-05 3/8 X 1/2 R22	TXV	068U2181	ANG STYLE	TIS-HW	065068	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-06 1/4 X 1/2 R134a	TXV	068U2032	ANG STYLE	TIS-MW	065064	NONE	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUB-06 1/4 X 1/2 R22	TXV	068U2062	ANG STYLE	TIS-HW	065068	NONE	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUB-06 1/4X1/2 404A/507	TXV	068U2099	ANG STYLE	TIS-SW	065076	NONE	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUB-06 3/8 X 1/2 404A/507	TXV	068U2134	ANG STYLE	TIS-SW	065076	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-06 3/8 X 1/2 R134a	TXV	068U2122	ANG STYLE	TIS-MW	065064	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-06 3/8 X 1/2 R22	TXV	068U2182	ANG STYLE	TIS-HW	065068	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-07 3/8 X 1/2 404A/507	TXV	068U2100	ANG STYLE	TIS-SW	065076	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-07 3/8 X 1/2 R134a	TXV	068U2033	ANG STYLE	TIS-MW	065064	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-07 3/8 X 1/2 R22	TXV	068U2063	ANG STYLE	TIS-HW	065068	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-08 3/8 X 1/2 404A/507	TXV	068U2101	ANG STYLE	TIS-SW	065076	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-08 3/8 X 1/2 R134a	TXV	068U2034	ANG STYLE	TIS-MW	065064	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-08 3/8 X 1/2 R22	TXV	068U2064	ANG STYLE	TIS-HW	065068	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-09 3/8 X 1/2 404A/507	TXV	068U2102	ANG STYLE	TIS-SW	065076	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-09 3/8 X 1/2 R134a	TXV	068U2035	ANG STYLE	TIS-MW	065064	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-1 3/8X1/2 R22	TXV	068U1858	ANG STYLE	TIS-HW	065068	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-2 3/8X1/2 404A/507	TXV	068U1850	ANG STYLE	TIS-SW	065076	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-2 3/8X1/2 R134a	TXV	068U1867	ANG STYLE	TIS-MW	065064	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-2 3/8X1/2 R22	TXV	068U1859	ANG STYLE	TIS-HW	065068	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-4 3/8X1/2 404A/507	TXV	068U1851	ANG STYLE	TIS-SW	065076	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUB-4 3/8X1/2 R134a	TXV	068U1868	ANG STYLE	TIS-MW	065064	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUBE-00 1/4 X 1/2 R22	TXV	068U2066	ANG STYLE	TIS-HW	065068	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUBE-00 3/8 X 1/2 R22	TXV	068U2158	ANG STYLE	NONE	NONE	NONE	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUBE-01 1/4 X 1/2 R134a	TXV	068U2018	ANG STYLE	TISE-MW	065065	NONE	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUBE-01 1/4 X 1/2 R22	TXV	068U2067	ANG STYLE	TISE-HW	065069	NONE	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUBE-01 1/4X1/2 404A/507	TXV	068U2103	ANG STYLE	TISE-SW	065077	NONE	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUBE-01 3/8 X 1/2 R22	TXV	068U2159	ANG STYLE	TISE-HW	065069	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUBE-01 3/8X1/2 404A/507	TXV	068U2135	ANG STYLE	TISE-SW	065077	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUBE-02 1/4 X 1/2 R134a	TXV	068U2019	ANG STYLE	TISE-MW	065065	NONE	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUBE-02 1/4 X 1/2 R22	TXV	068U2068	ANG STYLE	TISE-HW	065069	NONE	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUBE-02 1/4X1/2 404A/507	TXV	068U2104	ANG STYLE	TISE-SW	065077	NONE	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
TUBE-02 3/8 X 1/2 R134a	TXV	068U2124	ANG STYLE	TISE-MW	065065	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
TUBE-02 3/8 X 1/2 R22	TXV	068U2160	ANG STYLE	TISE-HW	065069	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE

Thermal Expansion Valves
 Solenoid Valves
 Coils
 Industrial Solenoid Valves
 Shut Off Valves
 System Protectors
 Storage Devices
 Oil Controls
 Pressure Regulators
 Temperature Pressure Controls
 Competitive Cross Reference

DANFOSS TO EMERSON

	Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
Thermal Expansion Valves	TUBE-03 1/4 X 1/2 R134a	TXV	068U2020	ANG STYLE	TISE-MW	065065	NONE	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
	TUBE-03 1/4 X 1/2 R22	TXV	068U2069	ANG STYLE	TISE-HW	065069	NONE	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
	TUBE-03 1/4X1/2 404A/507	TXV	068U2105	ANG STYLE	TISE-SW	065077	NONE	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
	TUBE-03 3/8 X 1/2 R134a	TXV	068U2125	ANG STYLE	TISE-MW	065065	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
	TUBE-03 3/8 X 1/2 R22	TXV	068U2161	ANG STYLE	TISE-HW	065069	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
	TUBE-03 3/8X1/2 404A/507	TXV	068U2137	ANG STYLE	TISE-SW	065077	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
Solenoid Valves	TUBE-04 1/4 X 1/2 R134a	TXV	068U2021	ANG STYLE	TISE-MW	065065	NONE	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
	TUBE-04 1/4 X 1/2 R22	TXV	068U2070	ANG STYLE	TISE-HW	065069	NONE	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
	TUBE-04 1/4X1/2 404A/507	TXV	068U2106	ANG STYLE	TISE-SW	065077	NONE	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
	TUBE-04 3/8 X 1/2 R134a	TXV	068U2126	ANG STYLE	TISE-MW	065065	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
	TUBE-04 3/8 X 1/2 R22	TXV	068U2162	ANG STYLE	TISE-HW	065069	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
	TUBE-04 3/8X1/2 404A/507	TXV	068U2138	ANG STYLE	TISE-SW	065077	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
Coils	TUBE-05 1/4 X 1/2 R134a	TXV	068U2022	ANG STYLE	TISE-MW	065065	NONE	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
	TUBE-05 1/4 X 1/2 R22	TXV	068U2071	ANG STYLE	TISE-HW	065069	NONE	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
	TUBE-05 1/4X1/2 404A/507	TXV	068U2107	ANG STYLE	TISE-SW	065077	NONE	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
	TUBE-05 3/8 X 1/2 R134a	TXV	068U2127	ANG STYLE	TISE-MW	065065	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
	TUBE-05 3/8 X 1/2 R22	TXV	068U2163	ANG STYLE	TISE-HW	065069	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
	TUBE-05 3/8X1/2 404A/507	TXV	068U2139	ANG STYLE	TISE-SW	065077	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
Industrial Solenoid Valves	TUBE-06 1/4 X 1/2 R134a	TXV	068U2023	ANG STYLE	TISE-MW	065065	NONE	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
	TUBE-06 1/4 X 1/2 R22	TXV	068U2072	ANG STYLE	TISE-HW	065069	NONE	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
	TUBE-06 1/4X1/2 404A/507	TXV	068U2108	ANG STYLE	TISE-SW	065077	NONE	ORDER 065098 1/4" INLET ADAPTER AND ORIFICE
	TUBE-06 3/8 X 1/2 R134a	TXV	068U2128	ANG STYLE	TISE-MW	065065	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
	TUBE-06 3/8 X 1/2 R22	TXV	068U2164	ANG STYLE	TISE-HW	065069	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
	TUBE-06 3/8X1/2 404A/507	TXV	068U2185	ANG STYLE	TISE-SW	065077	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
Shut Off Valves	TUBE-07 3/8 X 1/2 R134a	TXV	068U2024	ANG STYLE	TISE-MW	065065	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
	TUBE-07 3/8 X 1/2 R22	TXV	068U2073	ANG STYLE	TISE-HW	065069	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
	TUBE-07 3/8X1/2 404A/507	TXV	068U2109	ANG STYLE	TISE-SW	065077	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
	TUBE-08 3/8 X 1/2 R134a	TXV	068U2025	ANG STYLE	TISE-MW	065065	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
	TUBE-08 3/8 X 1/2 R22	TXV	068U2074	ANG STYLE	TISE-HW	065069	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
	TUBE-08 3/8X1/2 404A/507	TXV	068U2110	ANG STYLE	TISE-SW	065077	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
System Protectors	TUBE-09 3/8 X 1/2 R134a	TXV	068U2026	ANG STYLE	TISE-MW	065065	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
	TUBE-09 3/8 X 1/2 R22	TXV	068U2075	ANG STYLE	TISE-HW	065069	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
	TUBE-09 3/8X1/2 404A/507	TXV	068U2111	ANG STYLE	TISE-SW	065077	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
	TUBE-3 3/8X1/2 R22	TXV	068U1862	ANG STYLE	TISE-HW	065069	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
	TUBE-4 3/8X1/2 404A/507	TXV	068U1853	ANG STYLE	TISE-SW	065077	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
	TUBE-4 3/8X1/2 R134a	TXV	068U1870	ANG STYLE	TISE-MW	065065	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
Storage Devices	TUBE-5 3/8X1/2 R22	TXV	068U1864	ANG STYLE	TISE-HW	065069	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
	TUBE-6 3/8X1/2 404A/507	TXV	068U1855	ANG STYLE	TISE-SW	065077	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
	TUBE-6 3/8X1/2 R22	TXV	068U1865	ANG STYLE	TISE-HW	065069	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
	TUBE-7 3/8X1/2 404A/507	TXV	068U1856	ANG STYLE	TISE-SW	065077	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
	TUBE-7 3/8X1/2 R134a	TXV	068U1873	ANG STYLE	TISE-MW	065065	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
	TUBE-7 3/8X1/2 R22	TXV	068U1866	ANG STYLE	TISE-HW	065069	NONE	ORDER 065099 3/8" INLET ADAPTER AND ORIFICE
Oil Controls	TX 2 - 0.7 R22	TXV	1/3 TON R22		TI 1/3 HW	065020	SAVE	USE CAGE 065087
	TX 2 - 1.0 R22	TXV	3/4 TON R22		TI 1 HW	065020	SAVE	USE CAGE 065088
	TX 2 - 1.5 R22	TXV	1 TON R22		TI 2 HW	065020	SAVE	USE CAGE 065090
	TX 2 - 2.3 R22	TXV	2 TON R22		TI 3 HW	065020	SAVE	USE CAGE 065090
	TX 2 - 3.0 R22	TXV	3 TON R22		TI 4 HW	065020	SAVE	USE CAGE 065091
	TX 2 - 4.5 R22	TXV	4 TON R22		TI 5 HW	065020	SAVE	USE CAGE 065091
	TY 2 - 0.2 R502	TXV	1/4 TON R502		NONE	NONE	NONE	
	TY 2 - 0.3 R502	TXV	1/2 TON R502		TI 1 SW	065028	SAVE	USE CAGE 065088
	TY 2 - 0.6 R502	TXV	3/4 TON R502		TI 2 SW	065028	SAVE	USE CAGE 065090
	TY 2 - 1.0 R502	TXV	1 1/2 TON R502		TI 3 SW	065028	SAVE	USE CAGE 065091
Pressure Regulators	TY 2 - 1.5 R502	TXV	2 TON R502		NONE	NONE	NONE	
	TY 2 - 2.0 R502	TXV	2 1/2 TON R502		NONE	NONE	NONE	
	TY 2 - 3.0 502	TXV	3 TON R502		TI 6SW	065028	SAVE	USE CAGE 065092

PARKER TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
032	DRIER	1/4 SAE		EK 032	060009		LIQUID LINE SERVICE
032S	DRIER	1/4 ODF		EK 032S	060012	SAME	LIQUID LINE SERVICE
052	DRIER	1/4 SAE		EK 052	047601		LIQUID LINE SERVICE
0525S	DRIER	5/16 ODF		EK 0525S	063978	SAME	LIQUID LINE SERVICE
052S	DRIER	1/4 ODF		EK 052S	047602	SAME	LIQUID LINE SERVICE
053S	DRIER	3/8 ODF		EK 053S	047604	SAME	LIQUID LINE SERVICE
082	DRIER	1/4 SAE		EK 082	047605		LIQUID LINE SERVICE
0825S	DRIER	5/16 ODF		EK 0825S	049551	SAME	LIQUID LINE SERVICE
082S	DRIER	1/4 ODF		EK 082S	047606	SAME	LIQUID LINE SERVICE
083	DRIER	3/8 SAE		EK 083	047606		LIQUID LINE SERVICE
083S	DRIER	3/8 ODF		EK 083S	047608	SAME	LIQUID LINE SERVICE
084	DRIER	1/2 SAE		EK 084	047609		LIQUID LINE SERVICE
084S	DRIER	1/2 ODF		EK 084S	047610	SAME	LIQUID LINE SERVICE
104A	TXV	1/4 - 1		NONE	NONE	NONE	NO CROSS
104AB	TXV	1/4 - 1		NONE	NONE	NONE	NO CROSS
162	DRIER	1/4 SAE		EK 162	047611		LIQUID LINE SERVICE
1625S	DRIER	5/16 ODF		EK 1625S	056045	SAME	LIQUID LINE SERVICE
162S	DRIER	1/4 ODF		EK 162S	047612	SAME	LIQUID LINE SERVICE
163	DRIER	3/8 SAE		EK 163	047613		LIQUID LINE SERVICE
163S	DRIER	3/8 ODF		EK 163S	047633	SAME	LIQUID LINE SERVICE
164	DRIER	1/2 SAE		EK 164	047615		LIQUID LINE SERVICE
164S	DRIER	1/2 ODF		EK 164S	047616	SAME	LIQUID LINE SERVICE
165	DRIER	5/8 SAE		EK 165	047617		LIQUID LINE SERVICE
165S	DRIER	5/8 ODF		EK 165S	047618	SAME	LIQUID LINE SERVICE
302V	DRIER	1/4"X 1/4"X		NONE	NONE	NONE	NO CROSS
303	DRIER	3/8 SAE		EK 303	048210		LIQUID LINE SERVICE
303S	DRIER	3/8 ODF		EK 303S	048211	SAME	LIQUID LINE SERVICE
304	DRIER	1/2 SAE		EK 304	048212		LIQUID LINE SERVICE
304S	DRIER	1/2 ODF		EK 304S	048213	SAME	LIQUID LINE SERVICE
305	DRIER	5/8 SAE		EK 305	048214		LIQUID LINE SERVICE
305S	DRIER	5/8 ODF		EK 305S	048215	SAME	LIQUID LINE SERVICE
307S	DRIER	7/8 ODF		EK 307S	048217	SAME	LIQUID LINE SERVICE
319 (Hercules)	SERVICE DRIER	5/16 X CAP		CU-319	064025	SAME	
413	DRIER	3/8 SAE		EK 413	048219		LIQUID LINE SERVICE
414	DRIER	1/2 SAE		EK 414	048220		LIQUID LINE SERVICE
414S	DRIER	1/2 ODF		EK 414S	048221	SAME	LIQUID LINE SERVICE
415	DRIER	5/8 SAE		EK 415	048222		LIQUID LINE SERVICE
415S	DRIER	5/8 ODF		EK 415S	048223	SAME	LIQUID LINE SERVICE
417S	DRIER	7/8 ODF		EK 417S	048224	SAME	LIQUID LINE SERVICE
619	SERVICE DRIER	1/4 X CAP		CU-619	064026	SAME	
620	SERVICE DRIER	5/16 X CAP		CU-620	064027		
621	SERVICE DRIER	1/4 X CAP		CU-621	064119	SAME	
712 (Little Giant)	SERVICE DRIER	1/4 X CAP		NONE	NONE	NONE	NO CROSS
756S	DRIER	3/4 SAE		NONE	NONE	NONE	NO CROSS
757S	DRIER	7/8 ODF		EK 757S	048228	SAME	LIQUID LINE SERVICE
759S	DRIER	1 1/8 ODF		EK 759S	048229	SAME	LIQUID LINE SERVICE
A-1	TXV	1/4 - 1-1/2		NONE	NONE	NONE	NO CROSS
A-1	TXV	1/2 - 2-1/2		NONE	NONE	NONE	NO CROSS
A-1	TXV	1/4 - 2		NONE	NONE	NONE	NO CROSS
A-2(1)	TXV	1/4 - 1-1/2		NONE	NONE	NONE	NO CROSS
A-2(1)	TXV	1/2 - 2-1/2		NONE	NONE	NONE	NO CROSS
A-2(1)	TXV	1/4 - 2		NONE	NONE	NONE	NO CROSS
A-3	TXV	1/4 - 1-1/2		NONE	NONE	NONE	NO CROSS
A-3	TXV	1/2 - 2-1/2		NONE	NONE	NONE	NO CROSS
A-3	TXV	1/4 - 2		NONE	NONE	NONE	NO CROSS
A7-A	TXV	3/8 X 3/8 ODF S/T STYLE		ACP 5	053374	3/8 X 3/8 ODF ANG STYLE	
A7-AA	TXV	3/8 X 3/8 ODF S/T STYLE		ACP 3	047283	1/4 X 3/8 ODF ANG STYLE	
A7-B	TXV	3/8 X 3/8 ODF S/T STYLE		ACP 7	047654	3/8 X 1/2 ODF ANG STYLE	
A7-C	TXV	3/8 X 3/8 ODF S/T STYLE		ACP 9	057209	3/8 X 3/8 ODF ANG STYLE	
A81: 7/8, 1-1/8, 1-3/8	REGULATOR	1-3/8		NONE	NONE	NONE	NO CROSS
A81: 7/8, 1-1/8, 1-3/8	REGULATOR	1-5/8		NONE	NONE	NONE	NO CROSS
A81: 7/8, 1-1/8, 1-3/8	REGULATOR	2-1/8		NONE	NONE	NONE	NO CROSS
A81B: 7/8, 1-1/8	REGULATOR	1-1/8		NONE	NONE	NONE	Hot Gas Bypass (Large Tonnage)
A81B: 7/8, 1-1/8, 1-3/8	REGULATOR	1-3/8		NONE	NONE	NONE	Hot Gas Bypass (Large Tonnage)
A81B: 7/8, 1-1/8, 1-3/8	REGULATOR	1-5/8		NONE	NONE	NONE	Hot Gas Bypass (Large Tonnage)

Thermal Expansion Valves
 Solenoid Valves
 Coils
 Industrial Solenoid Valves
 Shut Off Valves
 System Protectors
 Storage Devices
 Oil Controls
 Pressure Regulators
 Temperature Pressure Controls
 Competitive Cross Reference

PARKER TO EMERSON

	Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
Thermal Expansion Valves	A81B: 7/8, 1-1/8, 1-3/8	REGULATOR	2-1/8		NONE	NONE	NONE	Hot Gas Bypass (Large Tonnage)
	A81BL: 7/8, 1-1/8	REGULATOR	1-1/8		NONE	NONE	NONE	Hot Gas Bypass (Large Tonnage)
	A81BL: 7/8, 1-1/8, 1-3/8	REGULATOR	1-3/8		NONE	NONE	NONE	Hot Gas Bypass (Large Tonnage)
	A81BL: 7/8, 1-1/8, 1-3/8	REGULATOR	1-5/8		NONE	NONE	NONE	Hot Gas Bypass (Large Tonnage)
	A81BL: 7/8, 1-1/8, 1-3/8	REGULATOR	2-1/8		NONE	NONE	NONE	Hot Gas Bypass (Large Tonnage)
Solenoid Valves	A81L: 7/8, 1-1/8	REGULATOR	1-1/8		NONE	NONE	NONE	Differential Pressure Regulator
	A81L: 7/8, 1-1/8, 1-3/8	REGULATOR	1-3/8		NONE	NONE	NONE	Differential Pressure Regulator
	A81L: 7/8, 1-1/8, 1-3/8	REGULATOR	1-5/8		NONE	NONE	NONE	Differential Pressure Regulator
	A81L: 7/8, 1-1/8, 1-3/8	REGULATOR	2-1/8		NONE	NONE	NONE	Differential Pressure Regulator
	A81OE: 7/8, 1-1/8	REGULATOR	1-1/8		NONE	NONE	NONE	NO CROSS
Coils	A81OE: 7/8, 1-1/8, 1-3/8	REGULATOR	1-3/8		NONE	NONE	NONE	NO CROSS
	A81OE: 7/8, 1-1/8, 1-3/8	REGULATOR	1-5/8		NONE	NONE	NONE	NO CROSS
	A81OE: 7/8, 1-1/8, 1-3/8	REGULATOR	2-1/8		NONE	NONE	NONE	NO CROSS
	A81OES: 7/8, 1-1/8	REGULATOR	1-1/8		NONE	NONE	NONE	NO CROSS
	A81OES: 7/8, 1-1/8, 1-3/8	REGULATOR	1-3/8		NONE	NONE	NONE	NO CROSS
Industrial Solenoid Valves	A81OES: 7/8, 1-1/8, 1-3/8	REGULATOR	1-5/8		NONE	NONE	NONE	NO CROSS
	A81OES: 7/8, 1-1/8, 1-3/8	REGULATOR	2-1/8		NONE	NONE	NONE	NO CROSS
	A81S: 7/8, 1-1/8	REGULATOR	1-1/8		NONE	NONE	NONE	NO CROSS
	A81S: 7/8, 1-1/8, 1-3/8	REGULATOR	1-3/8		NONE	NONE	NONE	NO CROSS
	A81S: 7/8, 1-1/8, 1-3/8	REGULATOR	1-5/8		NONE	NONE	NONE	NO CROSS
Shut Off Valves	A81S: 7/8, 1-1/8, 1-3/8	REGULATOR	2-1/8		NONE	NONE	NONE	NO CROSS
	A82: 1-5/8, 2-1/8	REGULATOR	1-5/8		NONE	NONE	NONE	NO CROSS
	A82: 1-5/8, 2-1/8, 2-5/8	REGULATOR	2-1/8		NONE	NONE	NONE	NO CROSS
	A82: 1-5/8, 2-1/8, 2-5/8	REGULATOR	2-5/8		NONE	NONE	NONE	NO CROSS
	A82B: 1-5/8, 2-1/8	REGULATOR	1-5/8		NONE	NONE	NONE	Hot Gas Bypass (Large Tonnage)
System Protectors	A82B: 1-5/8, 2-1/8, 2-5/8	REGULATOR	2-1/8		NONE	NONE	NONE	Hot Gas Bypass (Large Tonnage)
	A82B: 1-5/8, 2-1/8, 2-5/8	REGULATOR	2-5/8		NONE	NONE	NONE	Hot Gas Bypass (Large Tonnage)
	A82BL: 1-5/8, 2-1/8	REGULATOR	1-5/8		NONE	NONE	NONE	Hot Gas Bypass (Large Tonnage)
	A82BL: 1-5/8, 2-1/8, 2-5/8	REGULATOR	2-1/8		NONE	NONE	NONE	Hot Gas Bypass (Large Tonnage)
	A82BL: 1-5/8, 2-1/8, 2-5/8	REGULATOR	2-5/8		NONE	NONE	NONE	Hot Gas Bypass (Large Tonnage)
Storage Devices	A82L: 1-5/8, 2-1/8	REGULATOR	1-5/8		NONE	NONE	NONE	NO CROSS
	A82L: 1-5/8, 2-1/8, 2-5/8	REGULATOR	2-1/8		NONE	NONE	NONE	NO CROSS
	A82L: 1-5/8, 2-1/8, 2-5/8	REGULATOR	2-5/8		NONE	NONE	NONE	NO CROSS
	A82OE: 1-5/8, 2-1/8	REGULATOR	1-5/8		NONE	NONE	NONE	NO CROSS
	A82OE: 1-5/8, 2-1/8	REGULATOR	2-1/8		NONE	NONE	NONE	NO CROSS
Oil Controls	A82OE: 1-5/8, 2-1/8	REGULATOR	2-5/8		NONE	NONE	NONE	NO CROSS
	A82S: 1-5/8, 2-1/8	REGULATOR	1-5/8		NONE	NONE	NONE	NO CROSS
	A82S: 1-5/8, 2-1/8, 2-5/8	REGULATOR	2-1/8		NONE	NONE	NONE	NO CROSS
	A82S: 1-5/8, 2-1/8, 2-5/8	REGULATOR	2-5/8		NONE	NONE	NONE	NO CROSS
	ABA 1: 7/8, 1-1/8	REGULATOR	1-1/8		NONE	NONE	NONE	NO CROSS
Pressure Regulators	ABA: 3/8, 5/8	REGULATOR	5/8		NONE	NONE	NONE	NO CROSS
	ABA: 3/8, 5/8, 7/8	REGULATOR	7/8		NONE	NONE	NONE	NO CROSS
	ABA: 3/8, 5/8, 7/8	REGULATOR	1-1/8		NONE	NONE	NONE	NO CROSS
	ABAB: 3/8, 5/8	REGULATOR	5/8		NONE	NONE	NONE	Hot Gas Bypass (Large Tonnage)
	ABAB: 3/8, 5/8, 7/8	REGULATOR	7/8		NONE	NONE	NONE	Hot Gas Bypass (Large Tonnage)
Temperature Pressure Controls	ABAB: 3/8, 5/8, 7/8	REGULATOR	1-1/8		NONE	NONE	NONE	Hot Gas Bypass (Large Tonnage)
	ABABL: 3/8, 5/8	REGULATOR	5/8		NONE	NONE	NONE	Hot Gas Bypass (Large Tonnage)
	ABABL: 3/8, 5/8, 7/8	REGULATOR	7/8		NONE	NONE	NONE	Hot Gas Bypass (Large Tonnage)
	ABABL: 3/8, 5/8, 7/8	REGULATOR	1-1/8		NONE	NONE	NONE	Hot Gas Bypass (Large Tonnage)
	ABAL: 3/8, 5/8	REGULATOR	5/8		NONE	NONE	NONE	NO CROSS
Competitive Cross Reference	ABAL: 3/8, 5/8, 7/8	REGULATOR	7/8		NONE	NONE	NONE	NO CROSS
	ABAL: 3/8, 5/8, 7/8	REGULATOR	1-1/8		NONE	NONE	NONE	NO CROSS
	ABAOE: 3/8, 5/8	REGULATOR	5/8		NONE	NONE	NONE	NO CROSS
	ABAOE: 3/8, 5/8, 7/8	REGULATOR	7/8		NONE	NONE	NONE	NO CROSS
	ABAOE: 3/8, 5/8, 7/8	REGULATOR	1-1/8		NONE	NONE	NONE	NO CROSS
	ABAOES: 3/8, 5/8	REGULATOR	5/8		NONE	NONE	NONE	NO CROSS
	ABAOES: 3/8, 5/8, 7/8	REGULATOR	7/8		NONE	NONE	NONE	NO CROSS
	ABAOES: 3/8, 5/8, 7/8	REGULATOR	1-1/8		NONE	NONE	NONE	NO CROSS
	ABAS: 3/8, 5/8	REGULATOR	5/8		NONE	NONE	NONE	NO CROSS
	ABAS: 3/8, 5/8, 7/8	REGULATOR	7/8		NONE	NONE	NONE	NO CROSS
	ABAS: 3/8, 5/8, 7/8	REGULATOR	1-1/8		NONE	NONE	NONE	NO CROSS
	A9, A9E: 1-1/8	REGULATOR			NONE	NONE	NONE	Hot Gas Bypass (Large Tonnage)
	A9, A9E: 3/8, 5/8	REGULATOR			NONE	NONE	NONE	Hot Gas Bypass (Large Tonnage)
	A9, A9E: 5/8, 7/8	REGULATOR			NONE	NONE	NONE	Hot Gas Bypass (Large Tonnage)
	A9S, A9SE: 3/8, 5/8	REGULATOR			NONE	NONE	NONE	Hot Gas Bypass (Large Tonnage)

PARKER TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
A9S, A9SE: 5/8, 7/8	REGULATOR			NONE	NONE	NONE	Hot Gas Bypass (Large Tonnage)
A9S, A9SE: 7/8, 1-1/8	REGULATOR			NONE	NONE	NONE	Hot Gas Bypass (Large Tonnage)
AE-3	TXV	2		NONE	NONE	NONE	NO CROSS
AE-3	TXV	3		NONE	NONE	NONE	NO CROSS
AE-3	TXV	2		NONE	NONE	NONE	NO CROSS
AS	TXV	1/4 - 1		NONE	NONE	NONE	NO CROSS
AS	TXV	1/2 - 1-1/2		NONE	NONE	NONE	NO CROSS
ASB20 WITH BLEED	TXV	1/4 - 1		NONE	NONE	NONE	NO CROSS
ASB20 WITH BLEED	TXV	1/2 - 1-1/2		NONE	NONE	NONE	NO CROSS
BF082S	DRIER	1/4 ODF		BFK 082S	058584	SAME	BI FLOW
BF083	DRIER	3/8 SAE		BFK 083	043321	SAME	BI FLOW
BF083S	DRIER	3/8 ODF		BFK 083S	043323	SAME	BI FLOW
BF084	DRIER	1/2 SAE		BFK 084	043325	SAME	BI FLOW
BF084S	DRIER	1/2 ODF		BFK 084S	043327	SAME	BI FLOW
BF162S	DRIER	1/4 ODF		NONE	NONE	NONE	NO CROSS
BF163	DRIER	3/8 SAE		BFK 163	043330	SAME	BI FLOW
BF163S	DRIER	3/8 ODF		BFK 163S	043333	SAME	BI FLOW
BF164	DRIER	1/2 SAE		BFK 164	043335	SAME	BI FLOW
BF164S	DRIER	1/2 ODF		BFK 164S	043337	SAME	BI FLOW
BF165S	DRIER	5/8 ODF		BFK 165S	043734	SAME	BI FLOW
C 1 FW	TXV	1 TON R12		HF 1 FC 3/8 X 1/2 SAEANG	054905	SAME	
C 1 RW	TXV	1 TON R502		HF 1 RC 3/8 X 1/2 SAEANG	054976	SAME	
C 1/2 FW	TXV	1/2 TON R12		HF 1/2 FC 1/4 X 1/2 SAEANG	009810	SAME	
C 1/2 RW	TXV	1/2 TON R502		HF 1/2 RC 3/8 X 1/2 SAEANG	054964	SAME	
C 11/2 VW	TXV	11/2 TON R22		HF 11/2 HC 3/8 X 1/2 SAEANG	054933	SAME	
C 2 FW	TXV	2 TON R12		HF 2 FC 3/8 X 1/2 SAEANG	053060	SAME	
C 2 RW	TXV	2 TON R502		HF 2 RC 3/8 X 1/2 SAEANG	053061	SAME	
C 3 FW	TXV	3 TON R12		NONE	NONE	NONE	
C 3 VW	TXV	3 TON R22		HF 3 HC 3/8 X 1/2 SAEANG	053316	SAME	
C 3/4 VW	TXV	3/4 TON R22		HF 1 HC 3/8 X 1/2 SAEANG	054927	SAME	
C 4 RW	TXV	4 TON R502		NONE	NONE	NONE	
C 5 VW	TXV	5 TON R22		NONE	NONE	NONE	
C A FW	TXV	1 TON R12		HF 1 FC 3/8 X 1/2 SAEANG	054905	SAME	
C A RW	TXV	1 TON R502		HF 1 RC 3/8 X 1/2 SAEANG	054976	SAME	
C A VW	TXV	11/2 TON R22		HF 11/2 HC 3/8 X 1/2 SAEANG	054933	SAME	
C AA FW	TXV	1/2 TON R12		HF 1/2 FC 1/4 X 1/2 SAEANG	009810	SAME	
C AA RW	TXV	1/2 TON R502		HF 1/2 RC 3/8 X 1/2 SAEANG	054964	SAME	
C AA VW	TXV	3/4 TON R22		HF 1 FC 3/8 X 1/2 SAEANG	054905	SAME	
C B FW	TXV	2 TON R12		HF 2 FC 3/8 X 1/2 SAEANG	053060	SAME	
C B RW	TXV	2 TON R502		HF 2 RC 3/8 X 1/2 SAEANG	053061	SAME	
C B VW	TXV	3 TON R22		HF 3 HC 3/8 X 1/2 SAEANG	053316	SAME	
C C FW	TXV	3 TON R12		NONE	NONE	NONE	
C C RW	TXV	4 TON R502		NONE	NONE	NONE	
C C VW	TXV	5 TON R22		NONE	NONE	NONE	
C073S	SERVICE DRIER	3/8 X 3/8		NONE	NONE	NONE	NO CROSS
CE 1 FW	TXV	1 TON R12		HFE 1 FC 3/8 X 1/2 SAEANG	054930	SAME	
CE 1 RW	TXV	1 TON R502		HFE 1 RC 3/8 X 1/2 SAEANG	054979	SAME	
CE 1/2 FW	TXV	1/2 TON R12		HFE 1/2 FC 1/4 X 1/2 SAEANG	009955	SAME	
CE 1/2 RW	TXV	1/2 TON R502		HFE 1/2 RC 3/8 X 1/2 SAEANG	054967	SAME	
CE 11/2 VW	TXV	11/2 TON R22		HFE 11/2 HC 3/8 X 1/2 SAEANG	054936	SAME	
CE 2 FW	TXV	2 TON R12		HFE 2 FC 3/8 X 1/2 SAEANG	053069	SAME	
CE 2 RW	TXV	2 TON R502		HFE 2 RC 3/8 X 1/2 SAEANG	053070	SAME	
CE 3 FW	TXV	3 TON R12		HFE 3 HC 3/8 X 1/2 SAEANG	053317	SAME	
CE 3 VW	TXV	3 TON R22		HFE 3 HC 3/8 X 1/2 SAEANG	053317	SAME	
CE 3/4 VW	TXV	3/4 TON R22		HFE 1 HC 3/8 X 1/2 SAEANG	054930	SAME	
CE 4 RW	TXV	4 TON R502		NONE	NONE	NONE	
CE 5 VW	TXV	5 TON R22		HFE 51/2 HC 3/8 X 1/2 SAEANG	054140	SAME	
CE A FW	TXV	1 TON R12		HFE 1 FC 3/8 X 1/2 SAEANG	054930	SAME	
CE A RW	TXV	1 TON R502		HFE 1 RC 3/8 X 1/2 SAEANG	054979	SAME	
CE A VW	TXV	11/2 TON R22		HFE 11/2 HC 3/8 X 1/2 SAEANG	054936	SAME	
CE AA FW	TXV	1/2 TON R12		HFE 1/2 FC 1/4 X 1/2 SAEANG	009955	SAME	
CE AA RW	TXV	1/2 TON R502		HFE 1/2 RC 3/8 X 1/2 SAEANG	054967	SAME	
CE AA VW	TXV	3/4 TON R22		HFE 1 HC 3/8 X 1/2 SAEANG	054930	SAME	
CE B FW	TXV	2 TON R12		HFE 2 FC 3/8 X 1/2 SAEANG	053069	SAME	
CE B RW	TXV	2 TON R502		HFE 2 RC 3/8 X 1/2 SAEANG	053070	SAME	

Thermal Expansion Valves
 Solenoid Valves
 Coils
 Industrial Solenoid Valves
 Shut Off Valves
 System Protectors
 Storage Devices
 Oil Controls
 Pressure Regulators
 Temperature Pressure Controls
 Competitive Cross Reference

PARKER TO EMERSON

	Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
Thermal Expansion Valves	CE B VW	TXV	3 TON R22		HFE 3 HC 3/8 X 1/2 SAEANG	053317	SAVE	
	CE C FW	TXV	3 TON R12		HFE 3 HC 3/8 X 1/2 SAEANG	053317	SAVE	
	CE C RW	TXV	4 TON R502		NONE	NONE	NONE	
	CE C VW	TXV	5 TON R22		HFE 51/2 HC 3/8 X 1/2 SAEANG	054140	SAVE	
Solenoid Valves	CULLD16-3S	SOLID CORE	3/8 ODF		CU 163S	064395	SAVE	LIQUID LINE SPUN COPPER
	CULLD3-2S	SOLID CORE	1/4 ODF		NONE	NONE	NONE	NO CROSS
	CULLD3-3S	SOLID CORE	3/8 ODF		CU 033S	064389	SAVE	LIQUID LINE SPUN COPPER
	CULLD5-3S	SOLID CORE	3/8 ODF		CU 053S	064391	SAVE	LIQUID LINE SPUN COPPER
	CULLD8-3S	SOLID CORE	3/8 ODF		CU 083S	064393	SAVE	LIQUID LINE SPUN COPPER
	CUSLD 5/16	SERVICE DRIER	5/16 ODF		NONE	NONE	NONE	NO CROSS
Coils	CUSLD-3S	SOLID CORE	3/8 ODF		NONE	NONE	NONE	NO CROSS
	CUSLD-4S	SOLID CORE	1/2 ODF		NONE	NONE	NONE	NO CROSS
	D 1 FW	TXV	1 TON R12		HF 1 FC 3/8 X 1/2 SAEANG	054905	SAVE	
	D 1 RW	TXV	1 TON R502		HF 1 RC 3/8 X 1/2 SAEANG	054976	SAVE	
	D 1 VW	TXV	1 TON R22		HF 1 HC 3/8 X 1/2 SAEANG	054927	SAVE	
	D 1/2 FW	TXV	1/2 TON R12		HF 1/2 FC 1/4 X 1/2 SAEANG	009810	SAVE	
	D 1/2 RW	TXV	1/2 TON R502		HF 1/2 RC 3/8 X 1/2 SAEANG	054964	SAVE	
	D 1/2 VW	TXV	1/2 TON R22		HF 1/2 HC 1/4 X 1/2 SAEANG	009812	SAVE	
	D 1/4 FW	TXV	1/4 TON R12		HF 1/4 FC 1/4 X 1/2 SAEANG	009811	SAVE	
	D 1/4 RW	TXV	1/4 TON R502		HF 1/4 RC 3/8 X 1/2 SAEANG	054137	SAVE	
Industrial Solenoid Valves	D 11/2 FW	TXV	11/2 TON R12		HF 11/2 FC 3/8 X 1/2 SAEANG	054914	SAVE	
	D 11/2 RW	TXV	11/2 TON R502		HF 11/2 RC 3/8 X 1/2 SAEANG	054984	SAVE	
	D 11/2 VW	TXV	11/2 TON R22		HF 11/2 HC 3/8 X 1/2 SAEANG	054933	SAVE	
	D 2 FW	TXV	2 TON R12		HF 2 FC 3/8 X 1/2 SAEANG	053060	SAVE	
	D 2 RW	TXV	2 TON R502		HF 2 RC 3/8 X 1/2 SAEANG	053061	SAVE	
	D 21/2 VW	TXV	21/2 TON R22		HF 21/2 HC 3/8 X 1/2 SAEANG	054947	SAVE	
	D 3 FW	TXV	3 TON R12		NONE	NONE	NONE	
	D 3 RW	TXV	3 TON R502		HF 31/2 RC 3/8 X 1/2 SAEANG	055936	SAVE	
	D 3 VW	TXV	3 TON R22		HF 3 HC 3/8 X 1/2 SAEANG	053316	SAVE	
	D 4 RW	TXV	4 TON R502		NONE	NONE	NONE	
Shut Off Valves	D 4 VW	TXV	4 TON R22		TCL 3 HW VLF	037882	SAVE	
	D 5 VW	TXV	5 TON R22		NONE	NONE	NONE	
	DE 1 FW	TXV	1 TON R12		HFE 1 FC 3/8 X 1/2 SAEANG	054930	SAVE	
	DE 1 RW	TXV	1 TON R502		HFE 1 RC 3/8 X 1/2 SAEANG	054979	SAVE	
	DE 1 VW	TXV	1 TON R22		HFE 1 HC 3/8 X 1/2 SAEANG	054930	SAVE	
	DE 1/2 FW	TXV	1/2 TON R12		HFE 1/2 FC 1/4 X 1/2 SAEANG	009955	SAVE	
	DE 1/2 RW	TXV	1/2 TON R502		HFE 1/2 RC 3/8 X 1/2 SAEANG	054967	SAVE	
	DE 11/2 FW	TXV	11/2 TON R12		HFE 11/2 FC 3/8 X 1/2 SAEANG	054914	SAVE	
	DE 11/2 RW	TXV	11/2 TON R502		HFE 11/2 RC 3/8 X 1/2 SAEANG	054984	SAVE	
	DE 11/2 VW	TXV	11/2 TON R22		HFE 11/2 HC 3/8 X 1/2 SAEANG	054936	SAVE	
System Protectors	DE 2 FW	TXV	2 TON R12		HFE 2 FC 3/8 X 1/2 SAEANG	053069	SAVE	
	DE 2 RW	TXV	2 TON R502		HFE 2 RC 3/8 X 1/2 SAEANG	053070	SAVE	
	DE 21/2 VW	TXV	21/2 TON R22		HF 21/2 HC 3/8 X 1/2 SAEANG	054947	SAVE	
	DE 3 FW	TXV	3 TON R12		NONE	NONE	NONE	
	DE 3 RW	TXV	3 TON R502		NONE	NONE	NONE	
	DE 3 VW	TXV	3 TON R22		HFE 3 HC 3/8 X 1/2 SAEANG	053316	SAVE	
	DE 4 RW	TXV	4 TON R502		NONE	NONE	NONE	
	DE 4 VW	TXV	4 TON R22		TCL 3 HC VLF	054395	SAVE	
	DE 5 VW	TXV	5 TON R22		HFE 51/2 HC 3/8 X 1/2 SAEANG	054140	SAVE	
	EC 1 FW	TXV	1 TON R12		NONE	NONE	SAVE	
Storage Devices	EC 1 RW	TXV	1 TON R502		NONE	NONE	NONE	
	EC 1/2 FW	TXV	1/2 TON R12		HF 1/2 FC 1/4 X 1/2 SAEANG	009810	SAVE	
	EC 1/2 RW	TXV	1/2 TON R502		NONE	NONE	NONE	
	EC 11/2 VW	TXV	11/2 TON R22		HFS 11/2 HC 3/8 X 1/2 SAEANG	055969	SAVE	
	EC 2 FW	TXV	2 TON R12		NONE	NONE	NONE	
	EC 3 FW	TXV	3 TON R12		NONE	NONE	NONE	
	EC 3 VW	TXV	3 TON R22		HFS 3 HC 3/8 X 1/2 ODF S/T	053915	SAVE	
	EC 3/4 VW	TXV	3/4 TON R22		HFS 1 HC 3/8 X 1/2 ODF S/T	055702	SAVE	
	EC 4 RW	TXV	4 TON R502		NONE	NONE	NONE	
	EC 5 VW	TXV	5 TON R22		NONE	NONE	NONE	
Oil Controls	EC A FW	TXV	1 TON R12		NONE	NONE	NONE	
	EC A RW	TXV	1 TON R502		NONE	NONE	NONE	
	EC A VW	TXV	11/2 TON R22		HFS 11/2 HC 3/8 X 1/2 ODFANG	055969	SAVE	
	EC AA FW	TXV	1/2 TON R12		HFS 1/2 FC 3/8 X 1/2 ODFANG	056063	SAVE	
	EC AA RW	TXV	1/2 TON R502		NONE	NONE	NONE	
	EC AA VW	TXV	1/2 TON R22		NONE	NONE	NONE	
Pressure Regulators								
Temperature Pressure Controls								
Competitive Cross Reference								

PARKER TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
EC AA VW	TXV	3/4 TON R22		HFS 1 HC 3/8 X 1/2 ODF S/T	055702	SAME	
EC B FW	TXV	2 TON R12		NONE	NONE	NONE	
EC B RW	TXV	2 TON R502		NONE	NONE	NONE	
EC B VW	TXV	3 TON R22		HFS 3 HC 3/8 X 1/2 ODF S/T	053915	SAME	
EC C FW	TXV	3 TON R12		NONE	NONE	NONE	
EC C RW	TXV	4 TON R502		NONE	NONE	NONE	
EC C VW	TXV	5 TON R22		NONE	NONE	NONE	
ECE 1 FW	TXV	1 TON R12		HFES 1 FC 3/8 X 1/2 ODFANG	055993	SAME	
ECE 1 RW	TXV	1 TON R502		HFES 1 RC 3/8 X 1/2 ODF S/T	056029	SAME	
ECE 1/2 FW	TXV	1/2 TON R12		HFES 1/2 FC 3/8 X 1/2 ODFS/T	056021	SAME	
ECE 1/2 RW	TXV	1/2 TON R502		HFES 1/2 RC 3/8 X 1/2 ODFANG	055992	SAME	
ECE 11/2 VW	TXV	11/2 TON R22		HFES 11/2 HC 3/8 X 1/2 ODFANG	055495	SAME	
ECE 2 FW	TXV	2 TON R12		NONE	NONE	NONE	
ECE 2 RW	TXV	2 TON R502		HFES 2 RC 3/8 X1/2 ODFS/T	053270	SAME	
ECE 3 FW	TXV	3 TON R12		NONE	NONE	NONE	
ECE 3 HW	TXV	3 TON R22		HFES 3 HC 3/8 X 1/2 ODFS/T	053916	SAME	
ECE 3/4 VW	TXV	3/4 TON R22		HFES 1 HC 3/8 X 1/2 ODFANG	055494	SAME	
ECE 4 RW	TXV	4 TON R502		NONE	NONE	NONE	
ECE 5 VW	TXV	5 TON R22		HFES 51/2 HC 1/2 X 5/8 ODFS/T	054778	SAME	
ECE A FW	TXV	1 TON R12		HFES 1 FC 3/8 X 1/2 ODFANG	055993	SAME	
ECE A RW	TXV	1 TON R502		HFES 1 RC 3/8 X 1/2 ODF S/T	056029	SAME	
ECE A VW	TXV	11/2 TON R22		HFES 11/2 HC 3/8 X 1/2 ODFANG	055495	SAME	
ECE AA FW	TXV	1/2 TON R12		HFES 1/2 FC 3/8 X 1/2 ODFS/T	056021	SAME	
ECE AA RW	TXV	1/2 TON R502		HFES 1/2 RC 3/8 X 1/2 ODFANG	055992	SAME	
ECE AA VW	TXV	3/4 TON R22		HFES 1 HC 3/8 X 1/2 ODFANG	055494	SAME	
ECE B FW	TXV	2 TON R12		NONE	NONE	NONE	
ECE B RW	TXV	2 TON R502		HFES 2 RC 3/8 X1/2 ODFS/T	053270	SAME	
ECE B VW	TXV	3 TON R22		HFES 3 HC 3/8 X 1/2 ODFS/T	053916	SAME	
ECE C FW	TXV	3 TON R12		NONE	NONE	NONE	
ECE C RW	TXV	4 TON R502		NONE	NONE	NONE	
ECE C VW	TXV	5 TON R22		HFES 51/2 HC 1/2 X 5/8 ODFS/T	054778	SAME	
EG 1 FW	TXV	1 TON R12		NONE	NONE	NONE	
EG 1 HW	TXV	1 TON R22		HFS 1 HC 3/8 X 1/2 ODF S/T	055702	SAME	
EG 1 RW	TXV	1 TON R502		NONE	NONE	NONE	
EG 1/2 FW	TXV	1/2 TON R12		NONE	NONE	NONE	
EG 1/2 RW	TXV	1/2 TON R502		NONE	NONE	NONE	
EG 1/2 VW	TXV	1/2 TON R22		HFS 1/2 HC 3/8 X 1/2 ODFS/T	054136	SAME	
EG 1/4 FW	TXV	1/4 TON R12		HFS 1/4 MC 3/8 X 1/2 ODFANG	058545	SAME	
EG 1/4 RW	TXV	1/4 TON R502		HFS 1/4 RC 3/8 X 1/2 ODFANG	055490	SAME	
EG 1/4 VW	TXV	1/4 TON R22		HFS 1/4 HC 3/8 X 1/2 ODFS/T	055633	SAME	
EG 1/8 FW	TXV	1/8 TON R12		NONE	NONE	NONE	
EG 1/8 RW	TXV	1/8 TON R502		NONE	NONE	NONE	
EG 11/2	TXV	11/2 TON R22		HFS 11/2 HC 3/8 X 1/2 ODFS/T	056018	SAME	
EG 11/2 FW	TXV	11/2 TON R12		NONE	NONE	NONE	
EG 11/2 RW	TXV	11/2 TON R502		NONE	NONE	NONE	
EG 2 FW	TXV	2 TON R12		NONE	NONE	NONE	
EG 2 RW	TXV	2 TON R502		NONE	NONE	NONE	
EG 2 VW	TXV	2 TON R22		NONE	NONE	NONE	
EG 21/2 VW	TXV	21/2 TON R22		NONE	NONE	NONE	
EG 3 VW	TXV	3 TON R22		HFS 3 HC 3/8 X 1/2 ODF S/T	053915	SAME	
EGE 1 FW	TXV	1 TON R12		HFESC 1 FC 3/8 X 1/2 ODFANG	057398	SAME	
EGE 1 RW	TXV	1 TON R502		HFESC 1 RC 3/8 X 1/2 ODFANG	057438	SAME	
EGE 1 VW	TXV	1 TON R22		HFESC 1 HC 3/8 X 1/2 ODFANG	057410	SAME	
EGE 1/2 FW	TXV	1/2 TON R12		HFESC 1/2 FC 3/8 X 1/2 ODFANG	057397	SAME	
EGE 1/2 RW	TXV	1/2 TON R502		HFESC 1/2 RC 3/8 X 1/2 ODFANG	057437	SAME	
EGE 1/2 VW	TXV	1/2 TON R22		HFESC 1/2 HC 3/8 X 1/2 ODFANG	057291	SAME	
EGE 1/4 FW	TXV	1/4 TON R12		NONE	NONE	NONE	
EGE 1/4 RW	TXV	1/4 TON R502		NONE	NONE	NONE	
EGE 1/4 VW	TXV	1/4 TON R22		HFESC 1/4 HC 3/8 X 1/2 ODFANG	057409	SAME	
EGE 1/8 FW	TXV	1/8 TON R12		NONE	NONE	NONE	
EGE 1/8 RW	TXV	1/8 TON R502		NONE	NONE	NONE	
EGE 11/2 FW	TXV	11/2 TON R12		HFESC 11/2 FC 3/8 X 1/2 ODFANG	057399	SAME	
EGE 11/2 RW	TXV	11/2 TON R502		HFESC 11/2 RC 3/8 X 1/2 ODFANG	057439	SAME	
EGE 11/2 VW	TXV	11/2 TON R22		HFESC 11/2 HC 3/8 X 1/2 ODFANG	057292	SAME	
EGE 2 FW	TXV	2 TON R12		NONE	NONE	NONE	

Thermal Expansion Valves
 Solenoid Valves
 Coils
 Industrial Solenoid Valves
 Shut Off Valves
 System Protectors
 Storage Devices
 Oil Controls
 Pressure Regulators
 Temperature Pressure Controls
 Competitive Cross Reference

PARKER TO EMERSON

	Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
Thermal Expansion Valves	EGE 2 RW	TXV	2 TON R502		HFESC 2 RC 3/8 X 1/2 ODFANG	057440	SAME	
	EGE 2 VW	TXV	2 TON R22		HFESC 2 HC 3/8 X 1/2 ODFANG	057294	SAME	
	EGE 21/2 VW	TXV	21/2 TON R22		HFESC 21/2 HC 3/8 X 1/2 ODFANG	057411	SAME	
	EGE 3 VW	TXV	3 TON R22		HFESC 3 HC 3/8 X 1/2 ODFANG	057412	SAME	
Solenoid Valves	FE 15 FW	TXV	15 TON R12		NONE	NONE	NONE	
	FE 20 FW	TXV	20 TON R12		TER 20 FC VLF	055109	SAME	
	FE 25 FW	TXV	25 TON R12		TER 25 FC VLF	055111	SAME	
	FE 35 FW	TXV	35 TON R12		NONE	NONE	NONE	
	FE 45 FW	TXV	45 TON R12		NONE	NONE	NONE	
	FE 55 FW	TXV	55 TON R12		NONE	NONE	NONE	
Coils	G 1 FW	TXV	1 TON R12		HF 1 FC 3/8 X 1/2 SAEANG	054905	SAME	
	G 1 RW	TXV	1 TON R502		HF 1 RC 3/8 X 1/2 SAEANG	054976	SAME	
	G 1 VW	TXV	1 TON R22		HF 1 HC 3/8 X 1/2 SAEANG	054927	SAME	
	G 1/2 FW	TXV	1/2 TON R12		HF 1/2 FC 1/4 X 1/2 SAEANG	009810	SAME	
	G 1/2 RW	TXV	1/2 TON R502		HF 1/2 RC 3/8 X 1/2 SAEANG	054964	SAME	
	G 1/2 VW	TXV	1/2 TON R22		HF 1/2 HC 1/4 X 1/2 SAEANG	009812	SAME	
	G 1/4 FW	TXV	1/4 TON R12		HF 1/4 FC 1/4 X 1/2 SAEANG	009811	SAME	
	G 1/4 RW	TXV	1/4 TON R502		HF 1/4 RC 3/8 X 1/2 SAEANG	059304	SAME	
Industrial Solenoid Valves	G 1/4 VW	TXV	1/4 TON R22		HF 1/4 HC 1/4 X 1/2 SAEANG	058430	SAME	
	G 1/8 FW	TXV	1/8 TON R12		NONE	NONE	NONE	
	G 1/8 RW	TXV	1/8 TON R502		NONE	NONE	NONE	
	G 11/2 FW	TXV	11/2 TON R12		HF 11/2 FC 3/8 X 1/2 SAEANG	054914	SAME	
	G 11/2 RW	TXV	11/2 TON R502		HF 11/2 RC 3/8 X 1/2 SAEANG	054984	SAME	
	G 11/2 VW	TXV	11/2 TON R22		HF 11/2 HC 3/8 X 1/2 SAEANG	054933	SAME	
	G 2 FW	TXV	2 TON R12		HF 2 FC 3/8 X 1/2 SAEANG	053060	SAME	
	G 2 RW	TXV	2 TON R502		HF 2 RC 3/8 X 1/2 SAEANG	053061	SAME	
Shut Off Valves	G 2 VW	TXV	2 TON R22		HF 2 HC 3/8 X 1/2 SAEANG	054939	SAME	
	G 21/2 VW	TXV	21/2 TON R22		HF 21/2 HC 3/8 X 1/2 SAEANG	054947	SAME	
	G 3 VW	TXV	3 TON R22		HF 3 HC 3/8 X 1/2 SAEANG	053316	SAME	
	G 3 FW	TXV	3 TON R12		NONE	NONE	NONE	
	G 3 RW	TXV	3 TON R502		HF 31/2 RC 3/8 X 1/2 SAEANG	055936	SAME	
	G 4 RW	TXV	4 TON R502		HF 31/2 RC 3/8 X 1/2 SAEANG	055936	SAME	
System Protectors	G 4 VW	TXV	4 TON R22		TCL3 HW VLF	037882	SAME	
	G 5 FW	TXV	5 TON R12		NONE	NONE	NONE	
	G 5 VW	TXV	5 TON R22		NONE	NONE	NONE	
	G 6 RW	TXV	6 TON R502		HFES 7 RC 5/8 X 7/8 ODFS/T	058607	SAME	
	G 8 VW	TXV	8 TONS R22		HFES 8 HC 5/8 X 7/8 ODFS/T	057313	SAME	
	Storage Devices	G-23MM (75520)	SOLENOID	12VDC		NONE	NONE	NONE
G-23MM (75530)		SOLENOID	24VDC		NONE	NONE	NONE	NO CROSS
G-23MM (77300)		SOLENOID	24V/50-60		NONE	NONE	NONE	NO CROSS
G-23MM (77310)		SOLENOID	110-120V/50-60		NONE	NONE	NONE	NO CROSS
G-23MM (77320)		SOLENOID	208-240V/50-60		NONE	NONE	NONE	NO CROSS
G-23MM (77340)		SOLENOID	480V/50-60		NONE	NONE	NONE	NO CROSS
Oil Controls	G-23MM (77360)	SOLENOID	110-120/208-240		NONE	NONE	NONE	NO CROSS
	GE 1 FW	TXV	1 TON R12		HFE 1 FC 3/8 X 1/2 SAEANG	054909	SAME	
	GE 1 RW	TXV	1 TON R502		HFE 1 RC 3/8 X 1/2 SAEANG	054979	SAME	
	GE 1 VW	TXV	1 TON R22		HFE 1 HC 3/8 X 1/2 SAEANG	054930	SAME	
	GE 1/2 FW	TXV	1/2 TON R12		HFE 1/2 FC 1/4 X 1/2 SAEANG	009955	SAME	
	GE 1/2 RW	TXV	1/2 TON R502		HFE 1/2 RC 3/8 X 1/2 SAEANG	054967	SAME	
	GE 1/2 VW	TXV	1/2 TON R22		HFE 1/2 HC 1/4 X 1/2 SAEANG	059079	SAME	
	GE 1/4 FW	TXV	1/4 TON R12		HFE 1/4 FC 3/8 X 1/2 SAEANG	054360	SAME	
	GE 1/4 RW	TXV	1/4 TON R502		HFE 1/4 RC 3/8 X 1/2 SAEANG	054366	SAME	
	GE 1/4 VW	TXV	1/4 TON R22		HFE 1/4 HC 3/8 X 1/2 SAEANG	054924	SAME	
Pressure Regulators	GE 1/8 FW	TXV	1/8 TON R12		NONE	NONE	NONE	
	GE 1/8 RW	TXV	1/8 TON R502		NONE	NONE	NONE	
	GE 11/2 FW	TXV	11/2 TON R12		HFE 11/2 FC 3/8 X 1/2 SAEANG	054917	SAME	
	GE 11/2 RW	TXV	11/2 TON R502		HFE 11/2 RC 3/8 X 1/2 SAEANG	054988	SAME	
	GE 11/2 VW	TXV	11/2 TON R22		HFE 11/2 HC 3/8 X 1/2 SAEANG	054936	SAME	
	GE 2 FW	TXV	2 TON R12		HFE 2 FC 3/8 X 1/2 SAEANG	053069	SAME	
Temperature Pressure Controls	GE 2 RW	TXV	2 TON R502		HFE 2 RC 3/8 X 1/2 SAEANG	053070	SAME	
	GE 2 VW	TXV	2 TON R22		HFE 21/2 HC 3/8 X 1/2 SAEANG	054950	SAME	
	GE 21/2 VW	TXV	21/2 TON R22		HFE 21/2 HC 3/8 X 1/2 SAEANG	054950	SAME	
	GE 3 FW	TXV	3 TON R12		HFE 31/2 FC 3/8 X 1/2 SAEANG	054138	SAME	
	GE 3 RW	TXV	3 TON R502		HFE 31/2 RC 3/8 X 1/2 SAEANG	054142	SAME	
	GE 3 VW	TXV	3 TON R22		HFE 3 HC 3/8 X 1/2 SAEANG	053317	SAME	

PARKER TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
GE 4 RW	TXV	4 TON R502		NONE	NONE	NONE	
GE 4 VW	TXV	4 TON R22		TCLC 3 HC VLF	054395	SAME	
GE 5 FW	TXV	5 TON R12		NONE	NONE	NONE	
GE 5 VW	TXV	5 TON R22		HFE 51/2 HC 3/8 X 1/2 SAEANG	054140	SAME	
GE 6 RW	TXV	6 TON R502		NONE	NONE	NONE	
GE 8 VW	TXV	8 TON R22		NONE	NONE	NONE	
GP1007 (70808)	SOLENOID	1 NPT		222CB 1 B 1 T	039834	SAME	HOT WATER/LOW PRESSURE STEAM SERVICE - VLC
GP1057 (70777)	SOLENOID	1 NPT		NONE	NONE	NONE	NO CROSS
GP10A (70810)	SOLENOID	1 NPT		222CB 1 B 1 B	039931	SAME	AIR/WATER SERVICE - VLC
GP20	SPOOL TYPE	REPAIR KIT		NONE	NONE	NONE	NO CROSS
GP200 (70221)	SOLENOID	1/4 NPT		NONE	NONE	NONE	NO CROSS
GP207 (70222)	SOLENOID	1/4 NPT		NONE	NONE	NONE	NO CROSS
GP24	SPOOL TYPE	REPAIR KIT		NONE	NONE	NONE	NO CROSS
GP257 (70223)	SOLENOID	1/4 NPT		NONE	NONE	NONE	NO CROSS
GP30	SPOOL TYPE	REPAIR KIT		NONE	NONE	NONE	NO CROSS
GP300 (70392)	SOLENOID	3/8 NPT		222CB 3/8 B 1/2 T	041518	SAME	AIR/WATER SERVICE - VLC
GP307 (70393)	SOLENOID	3/8 NPT		222CB 3/8 B 1/2 T	041518	SAME	HOT WATER/LOW PRESSURE STEAM SERVICE - VLC
GP357 (70394)	SOLENOID	3/8 NPT		NONE	NONE	NONE	NO CROSS
GP400 (70562)	SOLENOID	1/2 NPT		222CB 1/2 B 1/2 B	039917	SAME	AIR/WATER SERVICE - VLC
GP407 (70563)	SOLENOID	1/2 NPT		222CB 1/2 B 1/2 T	037958	SAME	HOT WATER/LOW PRESSURE STEAM SERVICE - VLC
GP457 (70564)	SOLENOID	1/2 NPT		NONE	NONE	NONE	NO CROSS
GP600 (70712)	SOLENOID	3/4 NPT		222CB 3/4 B 3/4 B	028192	SAME	AIR/WATER SERVICE - VLC
GP607 (70713)	SOLENOID	3/4 NPT		222CB 3/4 B 3/4 B	039930	SAME	HOT WATER/LOW PRESSURE STEAM SERVICE - VLC
GP657 (70714)	SOLENOID	3/4 NPT		NONE	NONE	NONE	NO CROSS
HAE3VX100	TXV	3 TON R22		AAE3HAA		3 TON R22	
HAE3VX100B15	TXV	3 TON R22		NONE	NONE	NONE	NO CROSS
HAE5VX100	TXV	5 TON R22		AAE5HAA		5 TON R22	
HAE5VX100B15	TXV	5 TON R22		NONE	NONE	NONE	NO CROSS
HCAE1.5VX100	TXV	1.5 TON R22		AAE1.5HAA		1.5 TON R22	
HCAE3VX100	TXV	3 TON R22		AACE3HAA		3 TON R22	
HCAE3VX100A	TXV	3 TON R22		AACE3HAA		3 TON R22	
HCAE5VX100	TXV	5 TON R22		AACE5HAA		5 TON R22	
HCAE5VX100A	TXV	5 TON R22		AACE5HAA		5 TON R22	
I 1 JW	TXV	1 TON R134a		NONE	NONE	NONE	
I 1/2 JW	TXV	1/2 TON R134a		HFS 1/2 FC 3/8 X 1/2 ODFANG	056063	SAME	
I 1 SW	TXV	1 TON 404A		NONE	NONE	NONE	NO REPLACEMENT
I 1/2 SW	TXV	1/2 TON 404A		NONE	NONE	NONE	NO REPLACEMENT
K-4607-01	DRIER KIT	DRIER KIT					
K-4607-02	DRIER KIT	DRIER KIT					
K-4607-03	DRIER KIT	DRIER KIT					
K-4607-04	DRIER KIT	DRIER KIT					
MMS-100	SERVICE DRIER	1/4 X 1/4		CU-80	064023	SAME	
MMS-200	SERVICE DRIER	Stepped fittings, OD, 1/4, 5/16 and 3/8		CU-200	064024	SAME	
MMS-80	SERVICE DRIER	1/4 X 1/4		CU-80	064023	SAME	
N 1 VW	TXV	1 TON R22		AFA 1 HC 3/8 X 3/8-1/2 SAEANG	054231	SAME	
N 1/2 FW	TXV	1/2 TON R12		AFA 1/2 FC 3/8 X 3/8-1/2 SAEANG	057027	SAME	
N 1/2 RW	TXV	1/2 TON R502		AFA 1/2 RC 1/4 X 3/8-1/2 SAEANG	048431	SAME	
N 2 FW	TXV	2 TON R12		NONE	NONE	NONE	
N 2 RW	TXV	2 TON R502		NONE	NONE	NONE	
N 3 VW	TXV	3 TON R22		NONE	NONE	NONE	
NE 2 FW	TXV	2 TON R12		NONE	NONE	NONE	
NE 2 RW	TXV	2 TON R502		NONE	NONE	NONE	
NE 3 VW	TXV	3 TON R22		AFAE 3 HC 3/8 X 3/8-1/2 SAEANG	054249	SAME	
OR-23MM (74370)	SOLENOID	110-220/208-240V; For Normally Open Valves		NONE	NONE	NONE	NO CROSS
OR-23MM (74690)	SOLENOID	24V/50-60; For Normally Open Valves		NONE	NONE	NONE	
OR-23MM (74740)	SOLENOID	110-120V/50-60; For Normally Open Valves		NONE	NONE	NONE	
OR-23MM (74750)	SOLENOID	208-240V/50-60; For Normally Open Valves		NONE	NONE	NONE	
OR-23MM (74780)	SOLENOID	12VDC; For Normally Open Valves		NONE	NONE	NONE	
OR-23MM (74790)	SOLENOID	24VDC; For Normally Open Valves		NONE	NONE	NONE	
OR-23MM (TBA)	SOLENOID	SPECIAL VOLTAGE; For Normally Open Valves		NONE	NONE	NONE	NO CROSS
ORA101	KITS	KIT# 76748		NONE	NONE	NONE	NO CROSS
ORA201	KITS	KIT# 76750		NONE	NONE	NONE	NO CROSS
ORA301	KITS	KIT# 76750		NONE	NONE	NONE	NO CROSS
ORA401	KITS	KIT# 76750		NONE	NONE	NONE	NO CROSS
ORA51	KITS	KIT# 76748		NONE	NONE	NONE	NO CROSS

Thermal Expansion Valves
 Solenoid Valves
 Coils
 Industrial Solenoid Valves
 Shut Off Valves
 System Protectors
 Storage Devices
 Oil Controls
 Pressure Regulators
 Temperature Pressure Controls
 Competitive Cross Reference

PARKER TO EMERSON

	Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
Thermal Expansion Valves	ORB15E5 (71502)	SOLENOID	5/8 ODF		500RB 7T5	064065	SAME	REFRIGERATION SERVICE - VLC
	ORB15P4 (71482)	SOLENOID	1/2 NPT		500RB 7T4	064064	1/2 ODF	REFRIGERATION SERVICE - VLC
	ORB1E2 (71164)	SOLENOID	1/4 ODF		500RB 2T2	063278	SAME	REFRIGERATION SERVICE - VLC
	ORB1E3 (71171)	SOLENOID	3/8 ODF		500RB 2T3	063280	SAME	REFRIGERATION SERVICE - VLC
	ORB1F2 (71161)	SOLENOID	1/4 SAE MALE		500RB 2F2	063274	SAME	REFRIGERATION SERVICE - VLC
	ORB1P2 (71153)	SOLENOID	1/4 NPT		500RB 2T2	063278	1/4 ODF	REFRIGERATION SERVICE - VLC
Solenoid Valves	ORB1P3 (71154)	SOLENOID	3/8 NPT		500RB 2T3	063280	3/8 ODF	REFRIGERATION SERVICE - VLC
	ORB201	KITS	KIT# 76750		NONE	NONE	NONE	NO CROSS
	ORB21E7 (71564)	SOLENOID	7/8 ODF		540RA 9T7	060395	SAME	REFRIGERATION SERVICE - VLC
	ORB21P6 (71542)	SOLENOID	3/4 NPT		540RA 9T7	060395	7/8 ODF	REFRIGERATION SERVICE - VLC
	ORB301	KITS	KIT# 76750		NONE	NONE	NONE	NO CROSS
	ORB3E3 (71236)	SOLENOID	3/8 ODF		500RB 2T3	063280	SAME	REFRIGERATION SERVICE - VLC
Coils	ORB3E4 (71237)	SOLENOID	1/2 ODF		NONE	NONE	NONE	NO CROSS
	ORB3F2 (71221)	SOLENOID	1/4 SAE MALE		500RB 2F2	063274	SAME	REFRIGERATION SERVICE - VLC
	ORB3F3 (71222)	SOLENOID	3/8 SAE MALE		500RB 2F3	063276	SAME	REFRIGERATION SERVICE - VLC
	ORB3P2 (71213)	SOLENOID	1/4 NPT		500RB 2T2	063278	1/4 ODF	REFRIGERATION SERVICE - VLC
	ORB3P3 (71214)	SOLENOID	3/8 NPT		500RB 2T3	063280	3/8 ODF	REFRIGERATION SERVICE - VLC
	ORB3S3 (71217)	SOLENOID	3/8 ODF		500RB 2T3	063280	SAME	REFRIGERATION SERVICE - VLC
Industrial Solenoid Valves	ORB401	KITS	KIT# 76750		NONE	NONE	NONE	NO CROSS
	ORB41E11 (71646)	SOLENOID	1-3/8 ODF		540RA 16T11	060400	SAME	REFRIGERATION SERVICE - VLC
	ORB41E9 (71645)	SOLENOID	1-1/8 ODF		540RA 16T9	060399	SAME	REFRIGERATION SERVICE - VLC
	ORB41P8 (71632)	SOLENOID	1 NPT		NONE	NONE	NONE	NO CROSS
	ORB41S9 (71638)	SOLENOID	1 ODF		NONE	NONE	NONE	NO CROSS
	ORB6E4 (71373)	SOLENOID	1/2 ODF		500RB 5T4	063323	SAME	REFRIGERATION SERVICE - VLC
Shut Off Valves	ORB6E5 (71376)	SOLENOID	5/8 ODF		500RB 5T5	063325	SAME	REFRIGERATION SERVICE - VLC
	ORB6F4 (71370)	SOLENOID	1/2 SAE MALE		500RB 5F4	063312	SAME	REFRIGERATION SERVICE - VLC
	ORB81E13 (71653)	SOLENOID	1-5/8 ODF		540RA 20T13	060402	SAME	REFRIGERATION SERVICE - VLC
	ORB81E17 (71655)	SOLENOID	2-1/8 ODF		540RA 20T17	060403	SAME	REFRIGERATION SERVICE - VLC
	ORB9E4 (71448)	SOLENOID	1/2 ODF		500RB 6T4	063339	SAME	REFRIGERATION SERVICE - VLC
	ORB9E5 (71452)	SOLENOID	5/8 ODF		500RB 6T5	063341	SAME	REFRIGERATION SERVICE - VLC
System Protectors	ORB9F5 (71407)	SOLENOID	5/8 SAE MALE		500RB 6F5	063329	SAME	REFRIGERATION SERVICE - VLC
	ORB9P3 (71392)	SOLENOID	3/8 NPT		500RB 6P3	063331	SAME	REFRIGERATION SERVICE - VLC
	ORB9P4 (71394)	SOLENOID	1/2 NPT		500RB 6T4	063339	1/2 ODF	NO CROSS
	P14411	DRIER SHELL	13/8 ODF		STAS 14411T	053022	SAME	3 REPLACEMENT CORE
	P1449	DRIER SHELL	11/8 ODF		STAS 1449T	053020	SAME	3 REPLACEMENT CORE
	P19211	DRIER SHELL	13/8 ODF		STAS 19211T	053028	SAME	4 REPLACEMENT CORE
Storage Devices	P19213	DRIER SHELL	15/8 ODF		STAS 19213T	053030	SAME	4 REPLACEMENT CORE
	P4811	DRIER SHELL	13/8 ODF		STAS 4811T	053014	SAME	1 REPLACEMENT CORE
	P4813	DRIER SHELL	15/8 ODF		STAS4813T	053375	SAME	1 REPLACEMENT CORE
	P485	DRIER SHELL	5/8 ODF		STAS 485T	053001	SAME	1 REPLACEMENT CORE
	P487	DRIER SHELL	7/8 ODF		STAS 487T	053003	SAME	1 REPLACEMENT CORE
	P489	DRIER SHELL	11/8 ODF		STAS 489T	053005	SAME	1 REPLACEMENT CORE
Oil Controls	P9611	DRIER SHELL	13/8 ODF		STAS 9611T	053014	SAME	2 REPLACEMENT CORE
	P9613	DRIER SHELL	15/8 ODF		STAS 9613T	053017	SAME	2 REPLACEMENT CORE
	P967	DRIER SHELL	7/8 ODF		STAS 967T	053010	SAME	2 REPLACEMENT CORE
	P969	DRIER SHELL	11/8 ODF		STAS 969T	053012	SAME	2 REPLACEMENT CORE
	PA3050-15-5	ACCUMULATOR	5/8 ODF					
	PA3060-10-5	ACCUMULATOR	5/8 ODF		A-AS-3105	060963	SAME	SUCTION SERVICE
Pressure Regulators	PA3060-15-5	ACCUMULATOR	5/8 ODF		A-AS-3145	060964	SAME	SUCTION SERVICE
	PA3060-15-6	ACCUMULATOR	3/4 ODF		A-AS-3146	060965	SAME	SUCTION SERVICE
	PA3065-10-4	ACCUMULATOR	1/2 ODF		NONE	NONE	NONE	NO CROSS
	PA4065-9-5C	ACCUMULATOR	5/8 ODF		A-AS-4105	060966	SAME	SUCTION SERVICE
	PA4065-9-6C	ACCUMULATOR	3/4 ODF		A-AS-4106	060820	SAME	SUCTION SERVICE
	PA5083-11-6C	ACCUMULATOR	3/4 ODF		A-AS-5126	060822	SAME	SUCTION SERVICE
Temperature Pressure Controls	PA5083-11-7C	ACCUMULATOR	7/8 ODF		A-AS-5127	060823	SAME	SUCTION SERVICE
	PA5083-12-7C	ACCUMULATOR	7/8 ODF		A-AS-5137	060814	SAME	SUCTION SERVICE
	PA5083-15-7C	ACCUMULATOR	7/8 ODF		NONE	NONE	NONE	NO CROSS
	PA5083-17-7C	ACCUMULATOR	7/8 ODF		NONE	NONE	NONE	NO CROSS
	PA5083-9-6C	ACCUMULATOR	3/4 ODF		A-AS-596	060824	SAME	SUCTION SERVICE
	PA5083-9-7C	ACCUMULATOR	7/8 ODF		A-AS-597	060818	SAME	SUCTION SERVICE
Competitive Cross Reference	PA6125-15-11C	ACCUMULATOR	1-3/8 ODF		NONE	NONE	NONE	NO CROSS
	PA6125-15-9C	ACCUMULATOR	1-1/8 ODF		NONE	NONE	NONE	NO CROSS
	PA6125-18-9C	ACCUMULATOR	1-1/8 ODF		NONE	NONE	NONE	NO CROSS
	PA6125-20-11C	ACCUMULATOR	1-3/8 ODF		NONE	NONE	NONE	NO CROSS
	PA6125-21-11C	ACCUMULATOR	1-3/8 ODF		NONE	NONE	NONE	NO CROSS

PARKER TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
PCK-100	DRIER BLOCK	100 CU. IN.		H 100	089338	SAME	REPLACABLE CORE - STANDARD CAPACITY
PCK-48	DRIER BLOCK	48 CU. IN.		H 48	059542	SAME	REPLACABLE CORE - STANDARD CAPACITY
PCK-48HH	DRIER BLOCK	48 CU. IN.		W 48	061235	SAME	REPLACABLE CORE - BURNOUT
PCX-48	DRIER BLOCK	48 CU. IN.		UK 48	061617	SAME	REPLACABLE CORE - HIGH CAPACITY
PFE-48 BF	DRIER CORE	48 CU. IN.		F 48R	047664	SAME	REPLACABLE CORE - FILTER
PORT	REGULATOR			NONE	NONE	NONE	NO CROSS
PORT II	REGULATOR			NONE	NONE	NONE	NO CROSS
PRA71	KITS	KIT# 76748		NONE	NONE	NONE	NO CROSS
PS-10T	SIGHT GLASS	ELEMENT		NONE	NONE	NONE	NO CROSS
PSG-11S	SIGHT GLASS	13/8 ODF		AMI - 1TT11	060255	SAME	MOISTURE INDICATOR
PSG-13S	SIGHT GLASS	1-5/8" ODF		NONE	NONE	NONE	NO CROSS
PSG-17S	SIGHT GLASS	2-1/8" ODF		NONE	NONE	NONE	NO CROSS
PSG-2	SIGHT GLASS	1/4 SAE - M		HMI-1MV2	065391	SAME	MOISTURE INDICATOR
PSG-2MF	SIGHT GLASS	1/4 SAE M X F		HMI-1FM2	065396	SAME	MOISTURE INDICATOR
PSG-2S	SIGHT GLASS	1/4 ODF		HMI-1TT2	065405	SAME	MOISTURE INDICATOR
PSG-3	SIGHT GLASS	3/8 SAE - M		HMI-1MV3	065392	SAME	MOISTURE INDICATOR
PSG-3MF	SIGHT GLASS	3/8 SAE M X F		HMI-1FM3	065397	SAME	MOISTURE INDICATOR
PSG-3S	SIGHT GLASS	3/8 ODF		HMI-1TT3	065406	SAME	MOISTURE INDICATOR
PSG-4	SIGHT GLASS	1/2 SAE - M		HMI-1MVH	065393	SAME	MOISTURE INDICATOR
PSG-4MF	SIGHT GLASS	1/2 SAE M X F		HMI-1FM4	065398	SAME	MOISTURE INDICATOR
PSG-4S	SIGHT GLASS	1/2 ODF		HMI-1TT4	065407	SAME	MOISTURE INDICATOR
PSG-5	SIGHT GLASS	5/8 SAE - M		HMI-1MV5	065394	SAME	MOISTURE INDICATOR
PSG-5MF	SIGHT GLASS	5/8 SAE M X F		NONE	NONE	SAME	MOISTURE INDICATOR
PSG-5S	SIGHT GLASS	5/8 ODF		HMI-1TT5	065408	SAME	MOISTURE INDICATOR
PSG-7S	SIGHT GLASS	7/8 ODF		HMI-1TT7	065410	SAME	MOISTURE INDICATOR
PSG-9S	SIGHT GLASS	11/8 ODF		HMI-1TT9	065411	SAME	MOISTURE INDICATOR
R-23MM (75370)	SOLENOID	110-120 OR 208-240; For Normally Closed Valves		NONE	NONE	NONE	NO CROSS
R-23MM (75690)	SOLENOID	24V/50-60; For Normally Closed Valves		NONE	NONE	NONE	NO CROSS
R-23MM (75740)	SOLENOID	110-120V/50-60; For Normally Closed Valves		NONE	NONE	NONE	NO CROSS
R-23MM (75750)	SOLENOID	208-240V/50-60; For Normally Closed Valves		NONE	NONE	NONE	NO CROSS
R-23MM (75760)	SOLENOID	440-480V/50-60; For Normally Closed Valves		NONE	NONE	NONE	NO CROSS
R-23MM (75780)	SOLENOID	12VDC; For Normally Closed Valves		NONE	NONE	NONE	NO CROSS
R-23MM (75790)	SOLENOID	24VDC; For Normally Closed Valves		NONE	NONE	NONE	NO CROSS
R-23MM (TBA)	SOLENOID	SPECIAL VOLTAGE; For Normally Closed Valves		NONE	NONE	NONE	NO CROSS
RA101/101M	KITS	KIT# 76748		NONE	NONE	NONE	NO CROSS
RA201	KITS	KIT# 76750		NONE	NONE	NONE	NO CROSS
RA201M	KITS	KIT# 76750		NONE	NONE	NONE	NO CROSS
RA301	KITS	KIT# 76750		NONE	NONE	NONE	NO CROSS
RA301M	KITS	KIT# 76750		NONE	NONE	NONE	NO CROSS
RA401	KITS	KIT# 76750		NONE	NONE	NONE	NO CROSS
RA401M	KITS	KIT# 76750		NONE	NONE	NONE	NO CROSS
RA51/51M	KITS	KIT# 76748		NONE	NONE	NONE	NO CROSS
RA71/71M	KITS	KIT# 76748		NONE	NONE	NONE	NO CROSS
RB15E5	SOLENOID	5/8 ODF		200RB 7T5	064063	SAME	REFRIGERATION SERVICE - VLC
RB15E7	SOLENOID	7/8 ODF		200RB 7T7	064282	SAME	REFRIGERATION SERVICE - VLC
RB15E9	SOLENOID	1-1/8 ODF		NONE	NONE	NONE	NO CROSS
RB15ME5	SOLENOID	5/8 ODF		200RB 7T5M	064267	SAME	REFRIGERATION SERVICE - VLC
RB15ME7	SOLENOID	7/8 ODF		200RB 7T7M	064283	SAME	REFRIGERATION SERVICE - VLC
RB15MP4	SOLENOID	1/2 NPT		NONE	NONE	NONE	NO CROSS
RB15P4	SOLENOID	1/2 FPT		200RB 7T4	064062	1/2 ODF	REFRIGERATION SERVICE - VLC
RB1E2	SOLENOID	1/4 ODF		100RB 2S2	047503	1/4 ODF	REFRIGERATION SERVICE - VLC
RB1E3	SOLENOID	3/8 ODF		100RB 2S3	047504	3/8 ODF	REFRIGERATION SERVICE - VLC
RB1F2	SOLENOID	1/4 SAE		100RB 2F2	047500	SAME	REFRIGERATION SERVICE - VLC
RB1P1	SOLENOID	1/8 NPT		NONE	NONE	NONE	NO CROSS
RB1P2	SOLENOID	1/4 FPT		100RB 2P2	047502	SAME	REFRIGERATION SERVICE - VLC
RB1P3	SOLENOID	3/8 NPT		100RB 2S3	047504	3/8 ODF	REFRIGERATION SERVICE - VLC
RB21E7	SOLENOID	7/8 ODF		200RB 9T7	064645	SAME	REFRIGERATION SERVICE - VLC
RB21E9	SOLENOID	1-1/8 ODF		200RB 9T9	064767	SAME	REFRIGERATION SERVICE - VLC
RB21ME9	SOLENOID	1-1/8 ODF		200RB 9T9M	064768	SAME	REFRIGERATION SERVICE - VLC
RB21MP6	SOLENOID	3/4 NPT		200RB 9T7M	064765	7/8 ODF	REFRIGERATION SERVICE - VLC
RB21P6	SOLENOID	3/4 NPT		200RB 9T7	064645	7/8 ODF	REFRIGERATION SERVICE - VLC
RB31ME7	SOLENOID	7/8 ODF		200RB 12T7M	064819	SAME	REFRIGERATION SERVICE - VLC
RB3E3	SOLENOID	3/8 ODF		200RB 2T3	053106	SAME	REFRIGERATION SERVICE - VLC
RB3E4	SOLENOID	1/2 ODF		200RB 3T4	049692	SAME	REFRIGERATION SERVICE - VLC
RB3F2	SOLENOID	1/4 SAE		200RB 2F2	053014	SAME	REFRIGERATION SERVICE - VLC

Thermal Expansion Valves
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	Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
Thermal Expansion Valves	RB3F3	SOLENOID	3/8 SAE		200RB 2F3	062611	SAME	REFRIGERATION SERVICE - VLC
	RB3ME3	SOLENOID	3/8 ODF		200RB 3T3M	065620	SAME	REFRIGERATION SERVICE - VLC
	RB3ME4	SOLENOID	1/2 ODF		200RB 3T4M	065621	SAME	REFRIGERATION SERVICE - VLC
	RB3P2	SOLENOID	1/4 NPT		200RB 2T2	053105	1/4 ODF	REFRIGERATION SERVICE - VLC
	RB3P3	SOLENOID	3/8 NPT		200RB 2T3	053106	3/8 ODF	REFRIGERATION SERVICE - VLC
Solenoid Valves	RB3S3	SOLENOID	3/8 ODF		200RB 2T3	053106	SAME	REFRIGERATION SERVICE - VLC
	RB3S4	SOLENOID	1/2 ODF		200RB 3T4	049692	NONE	REFRIGERATION SERVICE - VLC
	RB41E11	SOLENOID	1-3/8 ODF		240RA 16T11	060382	SAME	REFRIGERATION SERVICE - VLC
	RB41E9	SOLENOID	1-3/8 ODF		240RA 16T9	060381	SAME	REFRIGERATION SERVICE - VLC
	RB41ME11	SOLENOID	1-3/8 ODF		240RA 16T11M	044788	SAME	REFRIGERATION SERVICE - VLC
	RB41ME9	SOLENOID	1-1/8 ODF		240RA 16T9M	042548	SAME	REFRIGERATION SERVICE - VLC
	RB41MP8	SOLENOID	1 NPT		NONE	NONE	NONE	NO CROSS
	RB41P8	SOLENOID	1-3/8 ODF		NONE	NONE	NONE	NO CROSS
	RB41S9	SOLENOID	1-1/8 ODF		NONE	NONE	NONE	NO CROSS
	Coils	RB6E4	SOLENOID	1/2 ODF		200RB 5T4	057206	SAME
RB6E5		SOLENOID	5/8 ODF		200RB 5T5	059730	SAME	REFRIGERATION SERVICE - VLC
RB6F4		SOLENOID	1/2 SAE		200RB 5F4	047519	SAME	REFRIGERATION SERVICE - VLC
RB6ME4		SOLENOID	1/2 ODF		200RB 5T4M	049188	SAME	REFRIGERATION SERVICE - VLC
RB6ME5		SOLENOID	5/8 ODF		200RB 5T5M	049189	SAME	REFRIGERATION SERVICE - VLC
Industrial Solenoid Valves	RB81E13	SOLENOID	1-5/8 ODF		240RA 20T13	060384	SAME	REFRIGERATION SERVICE - VLC
	RB81E17	SOLENOID	2-1/8 ODF		240RA 20T17	060385	SAME	REFRIGERATION SERVICE - VLC
	RB81ME13	SOLENOID	1-5/8 ODF		240RA 20T13M	046637	SAME	REFRIGERATION SERVICE - VLC
	RB81ME17	SOLENOID	2-1/8 ODF		240RA 20T17M	046638	SAME	REFRIGERATION SERVICE - VLC
	RB9E4	SOLENOID	1/2 ODF		200RB 6T4	047544	SAME	REFRIGERATION SERVICE - VLC
	RB9E5	SOLENOID	5/8 ODF		200RB 6T5	056766	SAME	REFRIGERATION SERVICE - VLC
	RB9F5	SOLENOID	5/8 SAE MALE		200RB 6F5	059732	SAME	REFRIGERATION SERVICE - VLC
Shut Off Valves	RB9ME4	SOLENOID	1/2 ODF		200RB 6T4M	047545	SAME	REFRIGERATION SERVICE - VLC
	RB9ME5	SOLENOID	5/8 ODF		200RB 6T5M	047547	SAME	REFRIGERATION SERVICE - VLC
	RB9MP3	SOLENOID	3/8 NPT		200RB 6P3M	047535	SAME	REFRIGERATION SERVICE - VLC
	RB9MP4	SOLENOID	1/2 NPT		200RB 6T4M	047545	1/2 ODF	REFRIGERATION SERVICE - VLC
	RB9MS4	SOLENOID	1/2 ODF		200RB 6S4M	047538	SAME	REFRIGERATION SERVICE - VLC
System Protectors	RB9MS5	SOLENOID	5/8 ODF		200RB 6S5M	047541	SAME	REFRIGERATION SERVICE - VLC
	RB9P3	SOLENOID	3/8 NPT		200RB 6P3	059733	SAME	REFRIGERATION SERVICE - VLC
	RB9S4	SOLENOID	1/2 ODF		200RB 6S4	047537	SAME	REFRIGERATION SERVICE - VLC
	RB9S5	SOLENOID	5/8 ODF		200RB 6S5	047540	SAME	REFRIGERATION SERVICE - VLC
	RE 10 VW	TXV	10 TON R22		HIFES 10 HC 7/8 X 1-1/8 ODFS/T	057316	SAME	
RE 12 FW	TXV	12 TON R12		NONE	NONE	NONE		
RE 12 RW	TXV	12 TON R502		NONE	NONE	NONE		
RE 15 VW	TXV	15 TON R22		HIFES 15 HC 7/8 X 1-1/8 ODFS/T	057318	SAME		
RE 16 FW	TXV	16 TON R12		NONE	NONE	NONE		
RE 20 VW	TXV	20 TON R22		HIFES 20 HC 7/8 X 1-1/8 ODFS/T	062055	SAME		
RE 21 RW	TXV	21 TON R502		NONE	NONE	NONE		
RE 23 FW	TXV	23 TON R12		TER 25 FC VLF	055111	SAME		
RE 30 RW	TXV	30 TON R502		NONE	NONE	NONE		
RE 30 VW	TXV	30 TON R22		TRAE+ 30 HC 1-1/8 X 1-3/8 ODFS/T	062728	SAME		
RE 40 FW	TXV	40 TON R12		NONE	NONE	NONE		
RE 40 VW	TXV	40 TON R22		TRAE+ 40 HC 1-1/8 X 1-3/8 ODFS/T	062733	SAME		
RE 45 RW	TXV	45 TON R502		NONE	NONE	NONE		
RE 6 RW	TXV	6 TON R502		HIFES 7 RC 5/8 X 7/8 ODFS/T	058607	SAME		
RE 70 VW	TXV	70 TON R22		THR 75 HC VLF	064961	SAME		
RE 8 FW	TXV	8 TON R12		NONE	NONE	NONE		
RE 9 FW	TXV	8 TON R12		NONE	NONE	NONE		
RE 9 RW	TXV	9 TON R502		HIFES 10 RC 5/8 X 7/8 ODFS/T	058808	SAME		
Pressure Regulators	RS55 (76053)	SOLENOID	7/8 x 1-1/8 x 1-1/8		NONE	NONE	NONE	NO CROSS
	RS56 (76052)	SOLENOID	7/8 X 1-3/8 X 1-3/8		NONE	NONE	NONE	NO CROSS
	RS70 (76051)	SOLENOID	7/8 X 1-3/8 X 1-3/8		NONE	NONE	NONE	NO CROSS
Temperature Pressure Controls	S 1 FW	TXV	1 TON R12		NONE	NONE	NONE	
	S 1 RW	TXV	1 TON R502		NONE	NONE	NONE	
	S 1/2 FW	TXV	1/2 TON R12		HFS 1/2 FC 3/8 X 1/2 ODFANG	056063	SAME	
	S 1/2 RW	TXV	1/2 TON R502		NONE	NONE	NONE	
	S 10 VW	TXV	10 TON R22		HIFES 10 HC 7/8 X 1-1/8 ODFS/T	057316	SAME	
	S 11/2 HW	TXV	11/2 TON R22		HFS 11/2 HC 3/8 X 1/2 ODFS/T	056018	SAME	
	S 2 FW	TXV	2 TON R12		NONE	NONE	NONE	
	S 2 RW	TXV	2 TON R502		NONE	NONE	NONE	
	S 3 FW	TXV	3 TON R12		NONE	NONE	NONE	

PARKER TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
S 3 VW	TXV	3 TON R22		HFES 3 HC 3/8 X 1/2 ODF S/T	053915	SAME	
S 3/4 VW	TXV	3/4 TON R22		HFES 1 HC 3/8 X 1/2 ODFANG	055702	SAME	
S 4 RW	TXV	4 TON R502		NONE	NONE	NONE	
S 5 FW	TXV	5 TON R12		NONE	NONE	NONE	
S 5 VW	TXV	5 TON R22		NONE	NONE	NONE	
S 6 RW	TXV	6 TON R502		HFES 7 RC 5/8 X 7/8 ODFS/T	058607	SAME	
S 7 1/2 VW	TXV	7 1/2 TON R22		NONE	NONE	NONE	
SE 1 FW	TXV	1 TON R12		HFES 1 FC 3/8 X 1/2 ODFANG	055993	SAME	
SE 1 RW	TXV	1 TON R502		HFES 1 RC 3/8 X 1/2 ODF S/T	056029	SAME	
SE 1/2 FW	TXV	1/2 TON R12		HFES 1/2 FC 3/8 X 1/2 ODFANG	056021	SAME	
SE 1/2 RW	TXV	1/2 TON R502		HFES 1/2 RC 3/8 X 1/2 ODFANG	055992	SAME	
SE 10 VW	TXV	10 TON R22		HFES 10 HC 7/8 X 1-1/8 ODFS/T	057316	SAME	
SE 11/2 VW	TXV	11/2 TON R22		HFES 11/2 HC 3/8 X 1/2 ODFANG	055495	SAME	
SE 2 FW	TXV	2 TON R12		NONE	NONE	NONE	
SE 2 RW	TXV	2 TON R502		HFES 2 RC 3/8 X 1/2 ODFS/T	053270	SAME	
SE 3 FW	TXV	3 TON R12		NONE	NONE	NONE	
SE 3 VW	TXV	3 TON R22		HFES 3 HC 3/8 X 1/2 ODFS/T	053916	SAME	
SE 3/4 VW	TXV	3/4 TON R22		HFES 1 HC 3/8 X 1/2 ODFANG	055494	SAME	
SE 4 RW	TXV	4 TON R502		NONE	NONE	NONE	
SE 5 FW	TXV	5 TON R12		NONE	NONE	NONE	
SE 5 VW	TXV	5 TON R22		HFES 5 1/2 HC 1/2 X 5/8 ODFS/T	054778	SAME	
SE 6 RW	TXV	6 TON R502		HFES 7 RC 5/8 X 7/8 ODFS/T	058607	SAME	
SE 7 1/2 VW	TXV	7 1/2 TON R22		HFES 8 HC 5/8 X 7/8 ODFS/T	057313	SAME	
SLD13-5VHH	DRIER	5/8 SAE		SFD1355V	060249	SAME	SUCTION LINE
SLD13-6SV-HH	DRIER	3/4 ODF		SFD1356V	060250	SAME	SUCTION LINE
SLD13-7SV-HH	DRIER	7/8 ODF		SFD1357V	060262	SAME	SUCTION LINE
SLD13-9SVHH	DRIER	1-1/8 ODF		NONE	NONE	NONE	NO CROSS
SLD13-5SV-HH	DRIER	5/8 ODF		SFD1355V	060249	SAME	SUCTION LINE
SLD27-7SV-HH	DRIER	7/8 ODF		SFD2757V	060251	SAME	SUCTION LINE
SLD27-9SV-HH	DRIER	1 1/8 ODF		SFD2759V	060252	SAME	SUCTION LINE
SLD54-11SV-HH	DRIER	1 3/8 ODF		SFD54511V	060253	SAME	SUCTION LINE
SLD54-13SV-HH	DRIER	1 5/8 ODF		SFD54513V	060254	SAME	SUCTION LINE
SLD8-3SVHH	DRIER	3/8 ODF		NONE	NONE	NONE	NO CROSS
SLD8-3VHH	DRIER	3/8 SAE		NONE	NONE	NONE	NO CROSS
SLD8-4HH	DRIER	1/2 SAE		NONE	NONE	NONE	NO CROSS
SLD8-4SVHH	DRIER	1/2 ODF		SFD0854V	064045	SAME	SUCTION LINE
SLD8-5SVHH	DRIER	5/8 ODF		SFD0855V	064046	SAME	SUCTION LINE
SLD8-6SVHH	DRIER	3/4 ODF		NONE	NONE	NONE	NO CROSS
SPD162	DRIER	1/4"		NONE	NONE	NONE	NO CROSS
SPD162MF	DRIER	1/4"		NONE	NONE	NONE	NO CROSS
SPD163	DRIER	3/8"		NONE	NONE	NONE	NO CROSS
SPORT	REGULATOR			NONE	NONE	NONE	NO CROSS
SPORT B	REGULATOR			NONE	NONE	NONE	NO CROSS
SPORT II	REGULATOR			NONE	NONE	NONE	NO CROSS
SPORT II B	REGULATOR			NONE	NONE	NONE	NO CROSS
VDS	DRIER	3/8" Flare		NONE	NONE	NONE	*Supplied with adaptors for 1/4" flare
Z48	DRIER BLOCK	48 CU. IN.		HX 48	062549	SAME	REPLACABLE CORE - SUPER CAPACITY

Thermal Expansion Valves
 Solenoid Valves
 Coils
 Industrial Solenoid Valves
 Shut Off Valves
 System Protectors
 Storage Devices
 Oil Controls
 Pressure Regulators
 Temperature Pressure Controls

SPORLAN TO EMERSON

	Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
Thermal Expansion Valves	180	SOLENOID	1/4 SAE		702RA - 001	029781	SAME	HARD SHUT-OFF VALVE
	1013	DISTRIBUTOR	DISTRIBUTOR	1-5/8" ODM	NONE	NONE	NONE	NO CROSS
	1104	DISTRIBUTOR	DISTRIBUTOR	5/8" SAE FLARE NUT	NONE	NONE	NONE	NO CROSS
	1105	DISTRIBUTOR	DISTRIBUTOR		NONE	NONE	NONE	NO CROSS
	1109	DISTRIBUTOR	DISTRIBUTOR	H FLANGE	NONE	NONE	NONE	NO CROSS
	1110	DISTRIBUTOR	DISTRIBUTOR		NONE	NONE	NONE	NO CROSS
Solenoid Valves	1112	DISTRIBUTOR	DISTRIBUTOR	7/8" ODM	701	NONE	NONE	USE NOZZLE G
	1113	DISTRIBUTOR	DISTRIBUTOR	7/8" ODM	702	NONE	NONE	USE NOZZLE G
	1115	DISTRIBUTOR	DISTRIBUTOR	1 1/8" ODM	901	NONE	NONE	USE NOZZLE E
	1116	DISTRIBUTOR	DISTRIBUTOR	1 1/8" ODM	902	NONE	NONE	USE NOZZLE E
	1117	DISTRIBUTOR	DISTRIBUTOR	1 3/8" ODM	1101	NONE	NONE	USE NOZZLE C
	1119	DISTRIBUTOR	DISTRIBUTOR		NONE	NONE	NONE	NO CROSS
Coils	1121	DISTRIBUTOR	DISTRIBUTOR	MV FLANGE	NONE	NONE	NONE	NO CROSS
	1124	DISTRIBUTOR	DISTRIBUTOR	H FLANGE	NONE	NONE	NONE	NO CROSS
	1125	DISTRIBUTOR	DISTRIBUTOR	1 5/8" ODM	1301	NONE	NONE	USE NOZZLE A
	1126	DISTRIBUTOR	DISTRIBUTOR	1 3/8" ODM	1102	NONE	NONE	USE NOZZLE C
	1127	DISTRIBUTOR	DISTRIBUTOR	1 5/8" ODM	NONE	NONE	NONE	NO CROSS
	1128	DISTRIBUTOR	DISTRIBUTOR	1 3/8" ODM	1103	NONE	NONE	USE NOZZLE C
Industrial Solenoid Valves	1130	DISTRIBUTOR	DISTRIBUTOR		NONE	NONE	NONE	NO CROSS
	1132	DISTRIBUTOR	DISTRIBUTOR		NONE	NONE	NONE	NO CROSS
	1133	DISTRIBUTOR	DISTRIBUTOR		NONE	NONE	NONE	NO CROSS
	1138	DISTRIBUTOR	DISTRIBUTOR		NONE	NONE	NONE	NO CROSS
	1143	DISTRIBUTOR	DISTRIBUTOR	1 5/8" ODM	NONE	NONE	NONE	NO CROSS
	1147	DISTRIBUTOR	DISTRIBUTOR	5/8" SAE FLARE NUT	F501	NONE	NONE	USE NOZZLE J - WITH FLARE NUT
Shut Off Valves	1180	DISTRIBUTOR	DISTRIBUTOR		NONE	NONE	NONE	NO CROSS
	1182	DISTRIBUTOR	DISTRIBUTOR		NONE	NONE	NONE	NO CROSS
	1185	DISTRIBUTOR	DISTRIBUTOR		NONE	NONE	NONE	NO CROSS
	1192	DISTRIBUTOR	H FLANGE		NONE	NONE	NONE	NO CROSS
	1192	DISTRIBUTOR	DISTRIBUTOR		NONE	NONE	NONE	NO CROSS
	1193	DISTRIBUTOR	DISTRIBUTOR		NONE	NONE	NONE	NO CROSS
System Protectors	1538	KITS	INLET STRAINER			NONE	NONE	FOR SPORLAN TXV ONLY
	1603	DISTRIBUTOR	DISTRIBUTOR	1/2" SAE FLARE NUT	F401	NONE	NONE	USE NOZZLE L - WITH FLARE NUT
	1604	DISTRIBUTOR	DISTRIBUTOR	0.430" ODM	S401	NONE	NONE	USE NOZZLE L
	1605	DISTRIBUTOR	DISTRIBUTOR	1/2" SAE FLARE NUT	F403	NONE	NONE	USE NOZZLE L - WITH FLARE NUT
	1606	DISTRIBUTOR	DISTRIBUTOR	1/2" SAE FLARE NUT	F402	NONE	NONE	USE NOZZLE L - WITH FLARE NUT
	1607	DISTRIBUTOR	DISTRIBUTOR	0.430" ODM	S402	NONE	NONE	USE NOZZLE L
Storage Devices	1608	DISTRIBUTOR	DISTRIBUTOR	1/2" SAE FLARE NUT	F404	NONE	NONE	USE NOZZLE L - WITH FLARE NUT
	1613	DISTRIBUTOR	DISTRIBUTOR	1/2" ODM	401	NONE	NONE	USE NOZZLE L
	1616	DISTRIBUTOR	DISTRIBUTOR	1/2" ODM	402	NONE	NONE	USE NOZZLE L
	1620	DISTRIBUTOR	DISTRIBUTOR	5/8" ODM	501	NONE	NONE	USE NOZZLE J
	1622	DISTRIBUTOR	DISTRIBUTOR	5/8" ODM	502	NONE	NONE	USE NOZZLE J
	1650	DISTRIBUTOR	DISTRIBUTOR		F405	NONE	NONE	AUX. SIDE INLET AND FLARE NUT
Oil Controls	1651	DISTRIBUTOR	DISTRIBUTOR		503	NONE	NONE	AUX. SIDE INLET
	1652	DISTRIBUTOR	DISTRIBUTOR		F503	NONE	NONE	AUX. SIDE INLET AND FLARE NUT
	1653	DISTRIBUTOR	DISTRIBUTOR		703	NONE	NONE	AUX. SIDE INLET
	1654	DISTRIBUTOR	DISTRIBUTOR		F504	NONE	NONE	AUX. SIDE INLET AND FLARE NUT
	1655	DISTRIBUTOR	DISTRIBUTOR		903	NONE	NONE	AUX. SIDE INLET
	1656	DISTRIBUTOR	DISTRIBUTOR		F505	NONE	NONE	AUX. SIDE INLET AND FLARE NUT
Pressure Regulators	1657	DISTRIBUTOR	DISTRIBUTOR		1104	NONE	NONE	AUX. SIDE INLET
	1659	DISTRIBUTOR	DISTRIBUTOR		1302	NONE	NONE	AUX. SIDE INLET
	1935	KITS	INLET STRAINER		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
	3427	KITS	INLET STRAINER		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
	10G711B	SOLENOID	1-3/8 ODF		NONE	NONE	NONE	NO CROSS
	10G711C	SOLENOID	1-3/8 ODF		NONE	NONE	NONE	NO CROSS
Temperature Pressure Controls	10G713B	SOLENOID	1-5/8 ODF		NONE	NONE	NONE	NO CROSS
	10G79B	SOLENOID	7/8 X 1-1/8		NONE	NONE	NONE	NO CROSS
	1130	DISTRIBUTOR	D FLANGE		NONE	NONE	NONE	NO CROSS
	1132	DISTRIBUTOR	D FLANGE		NONE	NONE	NONE	NO CROSS
	1133	DISTRIBUTOR	D FLANGE		NONE	NONE	NONE	NO CROSS
	1138	DISTRIBUTOR	A FLANGE		NONE	NONE	NONE	NO CROSS
Competitive Cross Reference	1176-000	DISTRIBUTOR	DISTRIBUTOR		NONE	NONE	NONE	NO CROSS
	1179-000	DISTRIBUTOR	DISTRIBUTOR		NONE	NONE	NONE	NO CROSS
	1180	DISTRIBUTOR	D FLANGE		NONE	NONE	NONE	NO CROSS
	1182	DISTRIBUTOR	D FLANGE		NONE	NONE	NONE	NO CROSS
	1185	DISTRIBUTOR	A FLANGE		NONE	NONE	NONE	NO CROSS

SPORLAN TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
1193	DISTRIBUTOR	MV FLANGE		NONE	NONE	NONE	NO CROSS
1199-000	DISTRIBUTOR	DISTRIBUTOR		NONE	NONE	NONE	NO CROSS
12D11B	SOLENOID	1-3/8 ODF		3031RB 20511B	044831	SAME	HEAT RECLAIM
12D11B-CS	SOLENOID	1-3/8 ODF		NONE	NONE	NONE	NO CROSS
12D11B-CV	SOLENOID	1-3/8 ODF		NONE	NONE	NONE	NO CROSS
12D11C	SOLENOID	1-3/8 ODF		3031RB 20511B	044831	SAME	HEAT RECLAIM
12D11C-CS	SOLENOID	1-3/8 ODF		NONE	NONE	NONE	NO CROSS
12D13B	SOLENOID	1-5/8 ODF		3031RB 20513B	NONE	SAME	HEAT RECLAIM
12D13B-CV	SOLENOID	1-5/8 ODF		NONE	NONE	NONE	NO CROSS
12D13B-SC	SOLENOID	1-5/8 ODF		NONE	NONE	NONE	NO CROSS
12D13C	SOLENOID	1-5/8 ODF		NONE	NONE	NONE	NO CROSS
12D13C-SC	SOLENOID	1-5/8 ODF		NONE	NONE	NONE	NO CROSS
12D17B	SOLENOID	2-1/8 ODF		3031RB 20517B	NONE	SAME	HEAT RECLAIM
12D17B-CV	SOLENOID	2-1/8 ODF		NONE	NONE	NONE	NO CROSS
12D17B-SC	SOLENOID	2-1/8 ODF		NONE	NONE	NONE	NO CROSS
12D17C	SOLENOID	2-1/8 ODF		3031RB 20517	NONE	SAME	HEAT RECLAIM
12D17C-SC	SOLENOID	2-1/8 ODF		NONE	NONE	NONE	NO CROSS
1650	DISTRIBUTOR	1/2 SAE FLARE NUT		NONE	NONE	NONE	NO CROSS
1650R	DISTRIBUTOR	1/2 SAE FLARE NUT		NONE	NONE	NONE	NO CROSS
1651	DISTRIBUTOR	5/8 ODM		NONE	NONE	NONE	NO CROSS
1651R	DISTRIBUTOR	5/8 ODM		NONE	NONE	NONE	NO CROSS
1652	DISTRIBUTOR	5/8 SAE FLARE NUT		NONE	NONE	NONE	NO CROSS
1652R	DISTRIBUTOR	5/8 SAE FLARE NUT		NONE	NONE	NONE	NO CROSS
1653	DISTRIBUTOR	7/8 ODM		NONE	NONE	NONE	NO CROSS
1653R	DISTRIBUTOR	7/8 ODM		NONE	NONE	NONE	NO CROSS
1654	DISTRIBUTOR	5/8 SAE FLARE NUT		NONE	NONE	NONE	NO CROSS
1654R	DISTRIBUTOR	5/8 SAE FLARE NUT		NONE	NONE	NONE	NO CROSS
1655	DISTRIBUTOR	1-1/8 ODM		NONE	NONE	NONE	NO CROSS
1655R	DISTRIBUTOR	1-1/8 ODM		NONE	NONE	NONE	NO CROSS
1656	DISTRIBUTOR	5/8 SAE FLARE NUT		NONE	NONE	NONE	NO CROSS
1656R	DISTRIBUTOR	5/8 SAE FLARE NUT		NONE	NONE	NONE	NO CROSS
1657	DISTRIBUTOR	1-3/8 ODM		NONE	NONE	NONE	NO CROSS
1657R	DISTRIBUTOR	1-3/8 ODM		NONE	NONE	NONE	NO CROSS
1659	DISTRIBUTOR	1-5/8 ODM		NONE	NONE	NONE	NO CROSS
1659R	DISTRIBUTOR	1-5/8 ODM		NONE	NONE	NONE	NO CROSS
16C17C	SOLENOID	2-1/8 ODF		NONE	NONE	NONE	NO CROSS
16C17C-SC	SOLENOID	2-1/8 ODF		NONE	NONE	NONE	NO CROSS
16D17B	SOLENOID	2-1/8 ODF		NONE	NONE	NONE	NO CROSS
16D17B-CV	SOLENOID	2-1/8 ODF		NONE	NONE	NONE	NO CROSS
16D17B-SC	SOLENOID	2-1/8 ODF		NONE	NONE	NONE	NO CROSS
576-000	DISTRIBUTOR	DISTRIBUTOR		NONE	NONE	NONE	NO CROSS
5D5B	SOLENOID	5/8 ODF		NONE	NONE	NONE	NO CROSS
5D5C	SOLENOID	5/8 ODF		NONE	NONE	NONE	NO CROSS
8D7B	SOLENOID	7/8 ODF		3031RC 1257B	055941	SAME	HEAT RECLAIM
8D7B-CV	SOLENOID	7/8 ODF		NONE	NONE	NONE	NO CROSS
8D7B-SC	SOLENOID	7/8 ODF		NONE	NONE	NONE	NO CROSS
8D7C	SOLENOID	7/8 ODF		3031RC 1257	055939	SAME	HEAT RECLAIM
8D7C-CV	SOLENOID	7/8 ODF		NONE	NONE	NONE	NO CROSS
8D9B	SOLENOID	1-1/8 ODF		3031RC 1259B	055942	SAME	HEAT RECLAIM
8D9B-CV	SOLENOID	1-1/8 ODF		NONE	NONE	NONE	NO CROSS
8D9B-SC	SOLENOID	1-1/8 ODF		NONE	NONE	NONE	NO CROSS
8D9C	SOLENOID	1-1/8 ODF		3031RC 1259	055940	SAME	HEAT RECLAIM
8D9C-CS	SOLENOID	1-1/8 ODF		NONE	NONE	NONE	NO CROSS
A-175-1	MNTG BRACKET			NONE	NONE	NONE	NO CROSS
A-175-2	MNTG BRACKET			NONE	NONE	NONE	NO CROSS
A-3-	KITS	DOVE		NONE	NONE	NONE	FOR SPORLAN BYPASS VALVE
A-3-0/30	KITS			NONE	NONE	NONE	NO CROSS
A-3-0/80	KITS			NONE	NONE	NONE	NO CROSS
A3F1	SOLENOID	1/4 FLARE		200RB 2F2	053014	SAME	REFRIGERATION SERVICE - VLC
A3P1	SOLENOID	3/8 FPT		200RB 2T3	053106	3/8 ODF	REFRIGERATION SERVICE - VLC
A3S1	SOLENOID	1/4 ODF		200RB 2T2	053105	SAME	REFRIGERATION SERVICE - VLC
A3S1	SOLENOID	3/8 ODF		200RB 2T3	053106	SAME	REFRIGERATION SERVICE - VLC
A-4	KITS	PILOT ASSY		NONE	NONE	NONE	FOR SPORLAN REGULATOR
A-4-0/100	KITS			NONE	NONE	NONE	NO CROSS
A-4-75/150	KITS			NONE	NONE	NONE	NO CROSS

Thermal Expansion Valves
 Solenoid Valves
 Coils
 Industrial Solenoid Valves
 Shut Off Valves
 System Protectors
 Storage Devices
 Oil Controls
 Pressure Regulators
 Temperature Pressure Controls
 Competitive Cross Reference

SPORLAN TO EMERSON

	Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
Thermal Expansion Valves	A-685	MNTG BRACKET			NONE	NONE	NONE	FOR SPORLAN REGULATOR
	A-8-	KITS	DOVE		NONE	NONE	NONE	FOR SPORLAN BYPASS VALVE
	A-8-0/30	KITS			NONE	NONE	NONE	NO CROSS
	A-8-0/80	KITS			NONE	NONE	NONE	NO CROSS
Solenoid Valves	AA 20	TXV	20 TON R717		NONE	NONE	NONE	NO CROSS
	AA 30	TXV	30 TON R717		NONE	NONE	NONE	NO CROSS
	AA 50	TXV	50 TON R717		NONE	NONE	NONE	NO CROSS
	AA100	TXV	100 TON R717		NONE	NONE	NONE	NO CROSS
	AA-100, AAE-100	TXV	100 TON R717		NONE	NONE	NONE	NO CROSS
	AA-20, AAE-20	TXV	20 TON R717		NONE	NONE	NONE	NO CROSS
	AA-30, AAE-30	TXV	30 TON R717		NONE	NONE	NONE	NO CROSS
Coils	AA-50, AAE-50	TXV	50 TON R717		NONE	NONE	NONE	NO CROSS
	AA75	TXV	75 TON R717		NONE	NONE	NONE	NO CROSS
	AA-75, AAE-75	TXV	75 TON R717		NONE	NONE	NONE	NO CROSS
	AAE 100	TXV	100 TON R717		NONE	NONE	NONE	NO CROSS
	AAE 20	TXV	20 TON R717		NONE	NONE	NONE	NO CROSS
	AAE 30	TXV	30 TON R717		NONE	NONE	NONE	NO CROSS
	AAE 50	TXV	50 TON R717		NONE	NONE	NONE	NO CROSS
Industrial Solenoid Valves	AAE 75	TXV	75 TON R717		NONE	NONE	NONE	NO CROSS
	AC-2	TXV			NONE	NONE	NONE	NO CROSS
	AC-20	TXV			NONE	NONE	NONE	NO CROSS
	AC-3	TXV			NONE	NONE	NONE	NO CROSS
Shut Off Valves	ADRHE-6	REGULATORS	HOT GAS	5/8 ODF	CPHE 6	038219	SAME	DIRECT ACTING
	ADRHE-6	REGULATORS	HOT GAS	7/8 ODF	CPHE 6	038219	SAME	DIRECT ACTING
	ADRHE-6	REGULATORS	HOT GAS	1 1/8 ODF	CPHE 6	038219	SAME	DIRECT ACTING
	ADRI - 1-1/4	REGULATORS	HOT GAS	3/8 ODF	ACP 3	046840	SAME	DIRECT ACTING
System Protectors	ADRIE - 1-1/4	REGULATORS	HOT GAS	3/8 ODF	NONE	NONE	NONE	NO CROSS
	ADRP-3	REGULATORS	HOT GAS	1/2 ODF	NONE	NONE	NONE	NO CROSS
	ADRP-3	REGULATORS	HOT GAS	5/8 ODF	NONE	NONE	NONE	NO CROSS
	ADRPE-3	REGULATORS	HOT GAS	1/2 ODF	EGRE 8	062871	SAME	DIRECT ACTING
	ADRPE-3	REGULATORS	HOT GAS	5/8 ODF	EGRE 8	063183	SAME	DIRECT ACTING
	ADRS-2	REGULATORS	HOT GAS	1/2 ODF	NONE	NONE	NONE	NO CROSS
Storage Devices	ADRS-2	REGULATORS	HOT GAS	5/8 ODF	NONE	NONE	NONE	NO CROSS
	ADRSE-2	REGULATORS	HOT GAS	1/2 ODF	EGRE-6	063181	SAME	DIRECT ACTING
	ADRSE-2	REGULATORS	HOT GAS	5/8 ODF	EGRE-6	062869	SAME	DIRECT ACTING
Oil Controls	AK-3	KITS	ACID TEST		AA KIT	064427	SAME	UNIVERSAL
	AKI-16	KITS	ACID TEST		AA KIT	064428	SAME	UNIVERSAL
	AKMB	KITS	ACID TEST		AA KIT	064429	SAME	UNIVERSAL
	AKN-2	KITS	ACID TEST		AA KIT	064430	SAME	UNIVERSAL
	AKOV	KITS	ACID TEST		AA KIT	064431	SAME	UNIVERSAL
	AOL-A	OIL CONTROL			NONE	NONE	NONE	NO CROSS
	AOL-C	OIL CONTROL			NONE	NONE	NONE	NO CROSS
	AOL-K1	OIL CONTROL			NONE	NONE	NONE	NO CROSS
	AOL-P	OIL CONTROL			NONE	NONE	NONE	NO CROSS
	AOL-R1	OIL CONTROL			NONE	NONE	NONE	NO CROSS
Pressure Regulators	ASC-11-7	DISTRIBUTOR	DISTRIBUTOR		NONE	NONE	NONE	NO CROSS
	ASC-11-9	DISTRIBUTOR	DISTRIBUTOR		NONE	NONE	NONE	NO CROSS
	ASC-13-9	DISTRIBUTOR	DISTRIBUTOR		NONE	NONE	NONE	NO CROSS
	ASC-4-3	DISTRIBUTOR	DISTRIBUTOR		NONE	NONE	NONE	NO CROSS
	ASC-4-4	DISTRIBUTOR	DISTRIBUTOR		NONE	NONE	NONE	NO CROSS
Temperature Pressure Controls	ASC-5-4	DISTRIBUTOR	DISTRIBUTOR		NONE	NONE	NONE	NO CROSS
	ASC-7-4	DISTRIBUTOR	DISTRIBUTOR		NONE	NONE	NONE	NO CROSS
	ASC-7-5	DISTRIBUTOR	DISTRIBUTOR		NONE	NONE	NONE	NO CROSS
	ASC-9-5	DISTRIBUTOR	DISTRIBUTOR		NONE	NONE	NONE	NO CROSS
	ASC-9-7	DISTRIBUTOR	DISTRIBUTOR		NONE	NONE	NONE	NO CROSS

SPORLAN TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
ASC-H-7	DISTRIBUTOR	DISTRIBUTOR		NONE	NONE	NONE	NO CROSS
ASC-M-9	DISTRIBUTOR	DISTRIBUTOR		NONE	NONE	NONE	NO CROSS
B10F2	SOLENOID	1/2 SAE		200RB 6F4	059731	SAME	REFRIGERATION SERVICE - VLC
B14P2	SOLENOID	1/2 FPT		240RA 8T4	060373	1/2 ODF	REFRIGERATION SERVICE - VLC
B14S2	SOLENOID	5/8 ODF		240RA 8T5	060374	SAME	REFRIGERATION SERVICE - VLC
B19P2	SOLENOID	3/8 FPT		240RA 9T5	060376	5/8 ODF	REFRIGERATION SERVICE - VLC
B19S2	SOLENOID	7/8 ODF		240RA 9T7	060377	SAME	REFRIGERATION SERVICE - VLC
B25P2	SOLENOID	1-1/8 FPT		240RA 12T9	060380	1-1/8 ODF	REFRIGERATION SERVICE - VLC
B25S2	SOLENOID	7/8 ODF		240RA 12T7	060379	SAME	REFRIGERATION SERVICE - VLC
B33S2	SOLENOID	1-1/8 ODF		240RA 16T9	060381	SAME	REFRIGERATION SERVICE - VLC
B-3H-25/35-AR	KITS			NONE	NONE	NONE	NO CROSS
B-3H-32/44-AR	KITS			NONE	NONE	NONE	NO CROSS
B-3H-55/70-AR	KITS			NONE	NONE	NONE	NO CROSS
B-3H-65/80-AR	KITS			NONE	NONE	NONE	NO CROSS
B-3H-AR	KITS	DOVE		NONE	NONE	NONE	FOR SPORLAN BYPASS VALVE
B-3P-25/35-AR	KITS			NONE	NONE	NONE	NO CROSS
B-3P-32/44-AR	KITS			NONE	NONE	NONE	NO CROSS
B-3P-55/70-AR	KITS			NONE	NONE	NONE	NO CROSS
B-3P-65/80-AR	KITS			NONE	NONE	NONE	NO CROSS
B-3P-AR	KITS	DOVE		NONE	NONE	NONE	FOR SPORLAN BYPASS VALVE
B6F1	SOLENOID	3/8 SAE		200RB 3F3	052726	SAME	REFRIGERATION SERVICE - VLC
B6P1	SOLENOID	3/8 FPT		200RB 3T3	049609	3/8 ODF	REFRIGERATION SERVICE - VLC
B6S1	SOLENOID	1/2 ODF		200RB 3T4	049692	SAME	REFRIGERATION SERVICE - VLC
B9F2	SOLENOID	3/8 SAE		200RB 5T3	061227	3/8 ODF	REFRIGERATION SERVICE - VLC
B9P2	SOLENOID	3/8 FPT		200RB 5T3	061227	3/8 ODF	REFRIGERATION SERVICE - VLC
B9S2	SOLENOID	1/2 ODF		200RB 5S4	047524	1/2 ODF x 5/8 ODM	REFRIGERATION SERVICE - VLC
BFF-A - C	TXV	1 TON R12	1/4 X 1/2 SAE - 30"	HF 1 FC	054905	3/8 X 1/2 SAE	MEDIUM TEMP
BFF-A - Z	TXV	1 TON R12	3/8 X 1/2 SAE - 30"	HF 1 FZ	054907	3/8 X 1/2 SAE	LOW TEMP
BFF-A - ZP	TXV	1 TON R12	3/8 X 1/2 SAE - 30"	HF 1 FW15	054908	3/8 X 1/2 SAE	PRESSURE LIMIT
BFF-AA - C	TXV	1/2 TON R12	1/4 X 1/2 SAE - 30"	HF 1/2 FC	009810	SAME	MEDIUM TEMP
BFF-AA - Z	TXV	1/2 TON R12	1/4 X 1/2 SAE - 30"	HF 1/2 FZ	054893	3/8 X 1/2 SAE	LOW TEMP
BFF-AA - ZP	TXV	1/2 TON R12	3/8 X 1/2 SAE - 30"	HF 1/2 FW15	054894	3/8 X 1/2 SAE	PRESSURE LIMIT
BFF-B - C	TXV	1 1/2 TON R12	3/8 X 1/2 SAE - 30"	HF 1 1/2 FC	054914	3/8 X 1/2 SAE	MEDIUM TEMP
BFF-C - C	TXV	3 TON R12	3/8 X 1/2 SAE - 30"	HF 3 1/2 FC	NONE	3 1/2 TON R12	MEDIUM TEMP - USE HFK KIT
BFFE-A - C	TXV	1 TON R12	3/8 X 1/2 SAE - 30"	HFE 1 FC	054909	SAME	MEDIUM TEMP
BFFE-A - Z	TXV	1 TON R12	3/8 X 1/2 SAE - 30"	HFE 1 FZ	054910	SAME	LOW TEMP
BFFE-A - ZP	TXV	1 TON R12	3/8 X 1/2 SAE - 30"	HFE 1 FW15	054911	SAME	PRESSURE LIMIT
BFFE-AA - C	TXV	1/2 TON R12	1/4 X 1/2 SAE - 30"	HFE 1/2 FC	009955	SAME	MEDIUM TEMP
BFFE-AAA - C	TXV	1/4 TON R12	1/4 X 1/2 SAE - 30"	HFE 1/4 FC	054360	3/8 X 1/2 SAE	MEDIUM TEMP
BFFE-B - C	TXV	1 1/2 TON R12	3/8 X 1/2 SAE - 30"	HFE 1 1/2 FC	054917	SAME	MEDIUM TEMP
BFFE-C - C	TXV	3 TON R12	3/8 X 1/2 SAE - 30"	HFE 3 1/2 FC	054138	3 1/2 TON R12	MEDIUM TEMP
BFJ-A - C	TXV	1 1/4 TON R134	1/4 X 1/2 SAE - 30"	HF1 MC	057619	1 TON R134	MEDIUM TEMP
BFJ-AA - C	TXV	1/2 TON R134	1/4 X 1/2 SAE - 30"	HF 1/2 MC	057620	3/8 X 1/2 SAE	MEDIUM TEMP
BFJ-AAA - C	TXV	1/4 TON R134	1/4 X 1/2 SAE - 30"	HF 1/4 MC	057618	3/8 X 1/2 SAE	MEDIUM TEMP
BFJ-B - C	TXV	2 TON R134	3/8 X 1/2 SAE - 30"	HF 1 3/4 MC	NONE	1 3/4 TON R134	MEDIUM TEMP - USE HFK KIT
BFJ-C - C	TXV	3 1/2 TON R134	3/8 X 1/2 SAE - 30"	HF 4 MC	NONE	4 TON R134	MEDIUM TEMP - USE HFK KIT
BFJE-A - C	TXV	1 1/4 TON R134	3/8 X 1/2 SAE - 30"	HFE 1 MC	065108	1 TON R134	MEDIUM TEMP
BFJE-AA - C	TXV	1/2 TON R134	1/4 X 1/2 SAE - 30"	HFE 1/2 MC	057616	3/8 X 1/2 SAE	MEDIUM TEMP
BFJE-AAA - C	TXV	1/4 TON R134	1/4 X 1/2 SAE - 30"	HFE 1/4 MC	057860	3/8 X 1/2 SAE	MEDIUM TEMP
BFJE-B - C	TXV	2 TON R134	3/8 X 1/2 SAE - 30"	HFE 1 3/4 MC	057896	SAME	MEDIUM TEMP
BFJE-C - C	TXV	3 1/2 TON R134	3/8 X 1/2 SAE - 30"	HFE 4 MC	057897	4 TON R134	MEDIUM TEMP
BFR-A - C	TXV	1 TON R502	3/8 X 1/2 SAE - 30"	HF 1 RC	054976	3/8 X 1/2 SAE	MEDIUM TEMP
BFR-AA - C	TXV	1/2 TON R502	3/8 X 1/2 SAE - 30"	HF 1/2 RC	054964	3/8 X 1/2 SAE	MEDIUM TEMP
BFR-AAA - C	TXV	1/4 TON R502	3/8 X 1/2 SAE - 30"	HF 1/4 RC	054137	3/8 X 1/2 SAE	MEDIUM TEMP
BFR-B - C	TXV	2 TON R502	3/8 X 1/2 SAE - 30"	HF 2 R *	053061	3/8 X 1/2 SAE	MEDIUM TEMP
BFR-C - C	TXV	3 TON R502	3/8 X 1/2 SAE - 30"	HF 3 1/2 RC	055936	3 1/2 TON R502	MEDIUM TEMP
BFRE-A - C	TXV	1 TON R502	3/8 X 1/2 SAE - 30"	HFE 1 RC	054979	3/8 X 1/2 SAE	MEDIUM TEMP
BFRE-AA - C	TXV	1/2 TON R502	3/8 X 1/2 SAE - 30"	HFE 1/2 RC	054967	3/8 X 1/2 SAE	MEDIUM TEMP
BFRE-AAA - C	TXV	1/4 TON R502	3/8 X 1/2 SAE - 30"	HFE 1/4 RC	054366	3/8 X 1/2 SAE	MEDIUM TEMP
BFRE-B - C	TXV	2 TON R502	3/8 X 1/2 SAE - 30"	HFE 2 RC	053070	3/8 X 1/2 SAE	MEDIUM TEMP
BFRE-C - C	TXV	3 TON R502	3/8 X 1/2 SAE - 30"	HFE 3 1/2 RC	054142	3 1/2 R502	MEDIUM TEMP
BFS-A - C	TXV	1 TON R404	3/8 X 1/2 SAE - 30"	HF 1 SC	058308	SAME	MEDIUM TEMP
BFS-A - Z	TXV	1 TON R404	3/8 X 1/2 SAE - 30"	HF 1 SZ	054977	SAME	LOW TEMP - USE HF 1 RZ
BFS-A - ZP	TXV	1 TON R404	3/8 X 1/2 SAE - 30"	HF 1 SW45	054978	SAME	PRESSURE LIMIT - USE HF 1 RW45
BFS-AA - C	TXV	1/2 TON R404	1/4 X 1/2 SAE - 30"	HF 1/2 SC	062029	3/8 X 1/2 SAE	MEDIUM TEMP

Thermal Expansion Valves
 Solenoid Valves
 Coils
 Industrial Solenoid Valves
 Shut Off Valves
 System Protectors
 Storage Devices
 Oil Controls
 Pressure Regulators
 Temperature Pressure Controls
 Competitive Cross Reference

SPORLAN TO EMERSON

	Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
Thermal Expansion Valves	BFS-AA - Z	TXV	1/2 TON R404	1/4 X 1/2 SAE - 30"	HF 1/2 SZ	054965	3/8 X 1/2 SAE	LOW TEMP - USE HF 1/2 RZ
	BFS-AA - ZP	TXV	1/2 TON R404	1/4 X 1/2 SAE - 30"	HF 1/2 SW45	054966	3/8 X 1/2 SAE	PRESSURE LIMIT - USE HF 1/2 RW45
	BFS-AAA - C	TXV	1/4 TON R404	1/4 X 1/2 SAE - 30"	HF 1/4 SC	054137	3/8 X 1/2 SAE	MEDIUM TEMP - USE HF 1/4 RC
	BFS-B - C	TXV	2 TON R404	3/8 X 1/2 SAE - 30"	HF 2 SC	053061	3/8 X 1/2 SAE	MEDIUM TEMP - USE HF 2 RC
	BFS-C - C	TXV	3 TON R404	3/8 X 1/2 SAE - 30"	HF 31/2 SC	055936	31/2 TON R404	MEDIUM TEMP - USE HF 31/2 RC
	BFSE-A - C	TXV	1 TON R404	3/8 X 1/2 SAE - 30"	HFE 1 SC	054979	SAME	MEDIUM TEMP - USE HFE 1 RC
Solenoid Valves	BFSE-A - Z	TXV	1 TON R404	3/8 X 1/2 SAE - 30"	HFE 1 SZ	054980	SAME	LOW TEMP - USE HFE 1 RC
	BFSE-A - ZP	TXV	1 TON R404	3/8 X 1/2 SAE - 30"	HFE 1 SW45	054981	SAME	PRESSURE LIMIT - USE HFE 1 RW45
	BFSE-AA - C	TXV	1/2 TON R404	1/4 X 1/2 SAE - 30"	HFE 1/2 SC	054967	3/8 X 1/2 SAE	MEDIUM TEMP - USE HFE 1/2 RC
	BFSE-AA - Z	TXV	1/2 TON R404	1/4 X 1/2 SAE - 30"	HFE 1/2 SZ	054968	3/8 X 1/2 SAE	LOW TEMP - USE HFE 1/2 RZ
	BFSE-AA - ZP	TXV	1/2 TON R404	1/4 X 1/2 SAE - 30"	HFE 1/2 SW45	054969	3/8 X 1/2 SAE	PRESSURE LIMIT - USE HFE 1/2 RW45
	BFSE-AAA - C	TXV	1/4 TON R404	1/4 X 1/2 SAE - 30"	HFE 1/4 SC	054366	3/8 X 1/2 SAE	MEDIUM TEMP - USE HFE 1/4 RC
Coils	BFSE-B - C	TXV	2 TON R404	3/8 X 1/2 SAE - 30"	HFE 2 SC	053070	SAME	MEDIUM TEMP - USE HFE 2 RC
	BFSE-B - Z	TXV	2 TON R404	3/8 X 1/2 SAE - 30"	HFE 2 SZ	053071	SAME	LOW TEMP - USE HFE 2 RZ
	BFSE-B - ZP	TXV	2 TON R404	3/8 X 1/2 SAE - 30"	HFE 2 SW45	054992	SAME	PRESSURE LIMIT - USE HFE 2 RW45
	BFSE-C - C	TXV	3 TON R404	3/8 X 1/2 SAE - 30"	HFE 31/2 SC	054142	31/2 TON R404	MEDIUM TEMP - USE HFE 31/2 RC
	BFSE-C - Z	TXV	3 TON R404	3/8 X 1/2 SAE - 30"	HFE 31/2 SZ	054145	31/2 TON R404	LOW TEMP - USE HFE 31/2 RZ
	BFSE-C - ZP	TXV	3 TON R404	3/8 X 1/2 SAE - 30"	HFE 31/2 SW45	054993	31/2 TON R404	PRESSURE LIMIT - USE HFE 31/2 RW45
Industrial Solenoid Valves	BFV-A - C	TXV	11/2 TON R22	1/4 X 1/2 SAE - 30"	HF 11/2 HC	054933	3/8 X 1/2 SAE	MEDIUM TEMP
	BFV-A - Z	TXV	11/2 TON R22	3/8 X 1/2 SAE - 30"	HF 11/2 HZ	NONE	SAME	LOW TEMP - USE HFK KIT
	BFV-A - ZP	TXV	11/2 TON R22	3/8 X 1/2 SAE - 30"	HF 11/2 HW35	NONE	SAME	PRESSURE LIMIT - USE HFK KIT
	BFV-AA - C	TXV	3/4 TON R22	1/4 X 1/2 SAE - 30"	HF 1 HC	054927	1 TON R22	MEDIUM TEMP
	BFV-AA - Z	TXV	3/4 TON R22	3/8 X 1/2 SAE - 30"	HF 1 HZ	054928	1 TON R22	LOW TEMP
	BFV-AAA - C	TXV	1/2 TON R22	1/4 X 1/2 SAE - 30"	HF 1/2 HC	009812	SAME	MEDIUM TEMP
Shut Off Valves	BFV-B - C	TXV	23/4 TON R22	3/8 X 1/2 SAE - 30"	HF21/2 HC	054947	21/2 TON R22	MEDIUM TEMP
	BFV-C - C	TXV	51/4 TON R22	3/8 X 1/2 SAE - 30"	HF 51/2 HC	NONE	51/2 TON R22	MEDIUM TEMP - USE HFK KIT
	BFVE-A - C	TXV	11/2 TON R22	3/8 X 1/2 SAE - 30"	HFE 11/2 HC	054936	SAME	MEDIUM TEMP
	BFVE-A - Z	TXV	11/2 TON R22	3/8 X 1/2 SAE - 30"	HFE 11/2 HZ	054937	SAME	MEDIUM TEMP
	BFVE-A - ZP40	TXV	11/2 TON R22	3/8 X 1/2 SAE - 30"	HFE 11/2 HW35	054938	SAME	MEDIUM TEMP
	BFVE-AA - C	TXV	3/4 TON R22	1/4 X 1/2 SAE - 30"	HFE 1 HC	054930	1 TON R22	MEDIUM TEMP
System Protectors	BFVE-AAA - C	TXV	1/2 TON R22	3/8 X 1/2 SAE - 30"	HFE 1/2 HC	054361	3/8 X 1/2 SAE	MEDIUM TEMP
	BFVE-B - C	TXV	23/4 TON R22	3/8 X 1/2 SAE - 30"	HFE 21/2 HC	054950	21/2 TON R22	MEDIUM TEMP
	BFVE-B - Z	TXV	23/4 TON R22	3/8 X 1/2 SAE - 30"	HFE 21/2 HZ	NONE	21/2 TON R22	LOW TEMP - USE HFK KIT
	BFVE-C - C	TXV	51/4 TON R22	3/8 X 1/2 SAE - 30"	HFE 51/2 HC	054140	51/2 TON R22	MEDIUM TEMP
	BR183P1	SOLENOID	3/8 FPT		231WB 08P04	030051	SAME	
	BR184P1	SOLENOID	1/2 FPT		231WB 08P04	030051	SAME	
Storage Devices	BR246P1	SOLENOID	3/4 FPT		231WB 12P06	039987	SAME	
	C-032	DRIER	1/4 SAE		EK 032	060009	SAME	LIQUID LINE SERVICE
	C-032-FM	DRIER	1/4 F X 1/4 M		EK 032 FM	060011	SAME	LIQUID LINE SERVICE
	C-032-S	DRIER	1/4 ODF		EK 032 S	060012	SAME	LIQUID LINE SERVICE
	C-032-SA CAP	DRIER	1/4 X CAP W/ACC		EK 032SV CAP	063208	SAME	LIQUID LINE SERVICE
	C-033	DRIER	3/8 SAE		EK 033	060013	SAME	LIQUID LINE SERVICE
Oil Controls	C-033-S	DRIER	3/8 ODF		EK 033S	060014	SAME	LIQUID LINE SERVICE
	C-052	DRIER	1/4 SAE		EK 052	047601	SAME	LIQUID LINE SERVICE
	C-052S-S	DRIER	5/16 ODF		EK 052S	063978	SAME	LIQUID LINE SERVICE
	C-052-F	DRIER	1/4 SAE X SAE FLARE NUT		EK 052MF	057013	SAME	LIQUID LINE SERVICE
	C-052-F-HH	DRIER	1/4 SAE X SAE FLARE NUT		BOK 052 HH	060222	SAME	BURN OUT - LIQUID LINE
	C-052-FM	DRIER	1/4 SAE X FLARE NUT X SAE		EK 052FM	057033	SAME	LIQUID LINE SERVICE
Pressure Regulators	C-052-FM-HH	DRIER	1/4 SAE FLARE NUT X SAE		BOK 052 HH	060222	MALE X MALE	BURN OUT - LIQUID LINE
	C-052-HH	DRIER	1/4 SAE		BOK 052 HH	060222	SAME	BURN OUT - LIQUID LINE
	C-052-S	DRIER	1/4 ODF		EK 052S	047602	SAME	LIQUID LINE SERVICE
	C-052-S-HH	DRIER	1/4 ODF		BOK 052S HH	064571	SAME	BURN OUT - LIQUID LINE
	C-053	DRIER	3/8 SAE		EK 053	047603	SAME	LIQUID LINE SERVICE
	C-053-F	DRIER	3/8 SAE X SAE FLARE NUT		EK 053MF	062481	SAME	LIQUID LINE SERVICE
Temperature Pressure Controls	C-053-S	DRIER	3/8 ODF		EK 053S	047604	SAME	LIQUID LINE SERVICE
	C-053-S-T-HH	DRIER	1/4 ODF		BOK 053S HH	062892	SAME	BURN OUT - LIQUID LINE
	C-082	DRIER	1/4 SAE		EK 082	047605	SAME	LIQUID LINE SERVICE
	C-082S-S	DRIER	5/16 ODF		EK 082S	049551	SAME	LIQUID LINE SERVICE
	C-082-F	DRIER	1/4 SAE X SAE FLARE NUT		EK 082 MF	056884	SAME	LIQUID LINE SERVICE
	C-082-F-HH	DRIER	1/4 SAE X SAE FLARE NUT		BOK 082 HH	060223	MALE X MALE	BURN OUT - LIQUID LINE
Competitive Cross Reference	C-082-FM	DRIER	1/4 SAE FLARE NUT X SAE		EK 082FM	057034	SAME	LIQUID LINE SERVICE
	C-082-FM-HH	DRIER	1/4 SAE FLARE NUT X SAE		BOK 082 HH	060223	MALE X MALE	BURN OUT - LIQUID LINE
	C-082-HH	DRIER	1/4 SAE		BOK 082 HH	060223	SAME	BURN OUT - LIQUID LINE
	C-082-S	DRIER	1/4 ODF		EK 082S	047606	SAME	LIQUID LINE SERVICE
	C-082-S-HH	DRIER	1/4 ODF		BOK 082S HH	064591	SAME	BURN OUT - LIQUID LINE

SPORLAN TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
C-083	DRIER	3/8 SAE		EK 083	047607	SAME	LIQUID LINE SERVICE
C-083-F	DRIER	3/8 SAE X SAE FLARE NUT		EK 083MF	056609	SAME	LIQUID LINE SERVICE
C-083-HH	DRIER	3/8 SAE		BOK 083 HH	060224	SAME	BURN OUT - LIQUID LINE
C-083-S	DRIER	3/8 ODF		EK 083S	047608	SAME	LIQUID LINE SERVICE
C-083-S-HH	DRIER	3/8 ODF		BOK 083S	064572	SAME	BURN OUT - LIQUID LINE
C-083-S-T-HH	DRIER	3/8 ODF		NONE	NONE	NONE	BURN OUT - LIQUID LINE
C-084	DRIER	1/2 SAE		EK 084	047609	SAME	LIQUID LINE SERVICE
C-084-S	DRIER	1/2 ODF		EK 084S	047610	SAME	LIQUID LINE SERVICE
C-084-S-T-HH	DRIER	1/2 ODF		SFD 0854VV	064045	SAME	SUCTION FILTER DRIER
C-14411	DRIER	13/8 ODF		STAS 14411T	053022	SAME	TAKE APART SHELL
C-14411-G	DRIER	1 3/8 ODF		STAS 14411T	053022	SAME	TAKE APART SHELL
C-14411-T	DRIER	1 3/8 ODF		STAS 14411T	053022	SAME	TAKE APART SHELL
C-14413	DRIER	1 5/8 ODF		STAS 14413T	053024	SAME	TAKE APART SHELL
C-14413-G	DRIER	15/8 ODF		STAS 14413T	053024	SAME	TAKE APART SHELL
C-14413-T	DRIER	1 5/8 ODF		STAS 14413T	053024	SAME	TAKE APART SHELL
C-1448-P	DRIER	1 NPT		NONE	NONE	SAME	TAKE APART SHELL
C-1449	DRIER	11/8 ODF		STAS 1449T	053020	SAME	TAKE APART SHELL
C-1449-G	DRIER	1 1/8 ODF		STAS 1449T	053020	SAME	TAKE APART SHELL
C-1449-T	DRIER	1 1/8 ODF		STAS 1449T	053020	SAME	TAKE APART SHELL
C-144-S-TT-HH	DRIER	1/2 ODF		CSFD 1454VV	062231	SAME	SUCTION FILTER DRIER
C-145-S-TT-HH	DRIER	5/8 ODF		CSFD 1455VV	062232	SAME	SUCTION FILTER DRIER
C-146-S-TT-HH	DRIER	3/4 ODF		CSFD 1456VV	062233	SAME	SUCTION FILTER DRIER
C-147-S-TT-HH	DRIER	7/8 ODF		CSFD 1457VV	062234	SAME	SUCTION FILTER DRIER
C-149-S-TT-HH	DRIER	11/8 ODF		CSFD 1459VV	062235	SAME	SUCTION FILTER DRIER
C-162	DRIER	1/4 SAE		EK 162	047611	SAME	LIQUID LINE SERVICE
C-162S-S	DRIER	5/16 ODF		EK 162S	056045	SAME	LIQUID LINE SERVICE
C-162-F	DRIER	1/4 SAE X SAE FLARE NUT		EK 162MF	057014	SAME	LIQUID LINE SERVICE
C-162-F-HH	DRIER	1/4 SAE X SAE FLARE NUT		BOK 162 HH	060240	MALE X MALE	BURN OUT - LIQUID LINE
C-162-FM	DRIER	1/4 SAE FLARE NUT X SAE		EK 162 FM	057014	SAME	LIQUID LINE SERVICE
C-162-FM-HH	DRIER	1/4 SAE FLARE NUT X SAE		BOK 162 HH	060240	MALE X MALE	BURN OUT - LIQUID LINE
C-162-HH	DRIER	1/4 SAE		BOK 162	060240	SAME	BURN OUT - LIQUID LINE
C-162-S	DRIER	1/4 ODF		EK 162S	047612	SAME	LIQUID LINE SERVICE
C-162-S-HH	DRIER	1/4 ODF		BOK 162S HH	064592	SAME	BURN OUT - LIQUID LINE
C-163	DRIER	3/8 SAE		EK 163	047613	SAME	LIQUID LINE SERVICE
C-163-HH	DRIER	3/8 SAE		BOK 163 HH	060241	SAME	BURN OUT - LIQUID LINE
C-163-S	DRIER	3/8 ODF		EK 163S	047614	SAME	LIQUID LINE SERVICE
C-163-S-HH	DRIER	3/8 ODF		BOK 163S HH	060242	SAME	BURN OUT - LIQUID LINE
C-164	DRIER	1/2 SAE		EK 164	047615	SAME	LIQUID LINE SERVICE
C-164-HH	DRIER	1/2 SAE		BOK 164 HH	060228	SAME	BURN OUT - LIQUID LINE
C-164-S	DRIER	1/2 ODF		EK 164S	047616	SAME	LIQUID LINE SERVICE
C-164-S-HH	DRIER	1/2 ODF		BOK 164S HH	060229	SAME	BURN OUT - LIQUID LINE
C-164-S-T-HH	DRIER	1/2 ODF		ASK 165S-VV-HH	056508	5/8 ODF	SUCTION FILTER DRIER
C-165	DRIER	5/8 SAE		EK 165	047617	SAME	LIQUID LINE SERVICE
C-165-HH	DRIER	5/8 SAE		BOK 165 HH	060230	SAME	BURN OUT - LIQUID LINE
C-165-S	DRIER	5/8 ODF		EK 165S	047618	SAME	LIQUID LINE SERVICE
C-165-S-HH	DRIER	5/8 ODF		BOK 165S HH	060231	SAME	BURN OUT - LIQUID LINE
C-165-S-T-HH	DRIER	5/8 ODF		ASK 165S-VV-HH	056508	SAME	SUCTION FILTER DRIER
C-166-S-T-HH	DRIER	3/4 ODF		ASK 166S-VV-HH	056509	SAME	SUCTION FILTER DRIER
C-167-S	DRIER	7/8 ODF		EK 167S	047619	SAME	LIQUID LINE SERVICE
C-167-S-T-HH	DRIER	7/8 ODF		ASK 167S-VV-HH	056510	SAME	SUCTION FILTER DRIER
C-19211	DRIER	13/8 ODF		STAS 19211T	053028	SAME	TAKE APART SHELL
C-19211-G	DRIER	1 3/8 ODF		STAS 19211T	053028	SAME	TAKE APART SHELL
C-19211-T	DRIER	1 3/8 ODF		STAS 19211T	053028	SAME	TAKE APART SHELL
C-19212-O	DRIER	1 1/2 NPT		NONE	NONE	NONE	NO CROSS
C-19213	DRIER	15/8 ODF		STAS 19213T	053030	SAME	TAKE APART SHELL
C-19213-G	DRIER	1 5/8 ODF		STAS 19213T	053030	SAME	TAKE APART SHELL
C-19213-T	DRIER	1 5/8 ODF		STAS 19213T	053030	SAME	TAKE APART SHELL
C-19217-G	DRIER	21/8 ODF		STAS 19217T	053031	SAME	TAKE APART SHELL
C-19217-T	DRIER	2 1/8 ODF		NONE	NONE	NONE	NO CROSS
C-30013	DRIER	15/8 ODF		ADKS 30013T	026570	SAME	TAKE APART SHELL
C-30013-G	DRIER	1 5/8 ODF		ADKS 30013T	026570	SAME	TAKE APART SHELL
C-30013-T	DRIER	1 5/8 ODF		ADKS 30013T	026570	SAME	TAKE APART SHELL
C-30017-G	DRIER	21/8 ODF		ADKS 30017T	037978	SAME	TAKE APART SHELL
C-30017-T	DRIER	2 1/8 ODF		ADKS 30017T	037978	SAME	TAKE APART SHELL
C-303	DRIER	3/8 SAE		EK 303	048210	SAME	LIQUID LINE SERVICE

Thermal Expansion Valves
 Solenoid Valves
 Coils
 Industrial Solenoid Valves
 Shut Off Valves
 System Protectors
 Storage Devices
 Oil Controls
 Pressure Regulators
 Temperature Pressure Controls
 Competitive Cross Reference

SPORLAN TO EMERSON

	Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
Thermal Expansion Valves	C-303-HH	DRIER	3/8 SAE		BOK 303 HH	060232	SAME	BURN OUT - LIQUID LINE
	C-303-S	DRIER	3/8 ODF		EK 303S	048211	SAME	LIQUID LINE SERVICE
	C-303-S-HH	DRIER	3/8 ODF		BOK 303 HH	060232	3/8 SAE	BURN OUT - LIQUID LINE
	C-304	DRIER	1/2 SAE		EK 304	048212	SAME	LIQUID LINE SERVICE
	C-304-HH	DRIER	1/2 SAE		BOK 304	060233	SAME	BURN OUT - LIQUID LINE
Solenoid Valves	C-304-S	DRIER	1/2 ODF		EK 304S	048213	SAME	LIQUID LINE SERVICE
	C-304-S-HH	DRIER	1/2 ODF		BOK 304S	060234	SAME	BURN OUT - LIQUID LINE
	C-305	DRIER	5/8 SAE		EK 305	048214	SAME	LIQUID LINE SERVICE
	C-305-HH	DRIER	5/8 SAE		BOK 305	060235	SAME	BURN OUT - LIQUID LINE
	C-305-S	DRIER	5/8 ODF		EK 305S	048215	SAME	LIQUID LINE SERVICE
Coils	C-305-S-HH	DRIER	5/8 ODF		BOK 305S	060236	SAME	BURN OUT - LIQUID LINE
	C-305-S-T-HH	DRIER	5/8 ODF		ASD 3555V	049171	SAME	SUCTION FILTER DRIER
	C-306-S	DRIER	3/4 ODF		EK 306S	048216	SAME	LIQUID LINE SERVICE
	C-306-S-T-HH	DRIER	3/4 ODF		ASK 306S-VV-HH	056511	SAME	SUCTION FILTER DRIER
	C-307-S	DRIER	7/8 ODF		EK 307S	048217	SAME	LIQUID LINE SERVICE
Industrial Solenoid Valves	C-307-S-T-HH	DRIER	7/8 ODF		ASK 307S-VV-HH	056512	SAME	SUCTION FILTER DRIER
	C-309-S	DRIER	1 1/8 ODF		EK 309S	048218	SAME	LIQUID LINE SERVICE
	C-309-S-T-HH	DRIER	1 1/8 ODF		ASK 309S-VV-HH	056513	SAME	SUCTION FILTER DRIER
	C-40016-P	DRIER	2 NPT		NONE	NONE	NONE	NO CROSS
	C-40017	DRIER	2 1/8 ODF		ADKS 40017T	032105	SAME	TAKE APART SHELL
Shut Off Valves	C-40017-G	DRIER	2 1/8 ODF		ADKS 40017T	032105	SAME	TAKE APART SHELL
	C-40017-T	DRIER	2 1/8 ODF		ADKS 40017T	032105	SAME	TAKE APART SHELL
	C-40021-G	DRIER	25/8 ODF		ADKS 40021T	037570	SAME	TAKE APART SHELL
	C-40021-T	DRIER	2 5/8 ODF		ADKS 40021T	037570	SAME	TAKE APART SHELL
	C-40025-G	DRIER	3 1/8 ODF		NONE	NONE	NONE	25/8 IS LARGEST
System Protectors	C-40025-T	DRIER	3 1/8 ODF		NONE	NONE	NONE	25/8 IS LARGEST
	C-40029-G	DRIER	35/8 ODF		NONE	NONE	NONE	25/8 IS LARGEST
	C-40029-T	DRIER	3 5/8 ODF		NONE	NONE	NONE	25/8 IS LARGEST
	C-40033-G	DRIER	4 1/8 ODF		NONE	NONE	NONE	25/8 IS LARGEST
	C-40033-T	DRIER	4 1/8 ODF		NONE	NONE	NONE	25/8 IS LARGEST
Storage Devices	C-413	DRIER	3/8 SAE		EK 413	048219	SAME	LIQUID LINE SERVICE
	C-413-P	DRIER	3/8 FPT		NONE	NONE	NONE	NO PIPE THREAD
	C-414	DRIER	1/2 SAE		EK 414	048220	SAME	LIQUID LINE SERVICE
	C-414-HH	DRIER	1/2 SAE		BOK 414	060237	SAME	BURN OUT - LIQUID LINE
	C-414-S	DRIER	1/2 ODF		EK 414S	048221	SAME	LIQUID LINE SERVICE
Oil Controls	C-414-S-HH	DRIER	1/2 ODF		BOK 414 HH	060237	1/2 SAE	BURN OUT - LIQUID LINE
	C-415	DRIER	5/8 SAE		EK 415	048222	SAME	LIQUID LINE SERVICE
	C-415-HH	DRIER	5/8 SAE		BOK 415 HH	060238	SAME	BURN OUT - LIQUID LINE
	C-415-S	DRIER	ODF		EK 415S	048223	SAME	LIQUID LINE SERVICE
	C-417-S	DRIER	7/8 ODF		EK 417S	048224	SAME	LIQUID LINE SERVICE
Pressure Regulators	C-417-S-HH	DRIER	7/8 ODF		BOK 417S	060239	SAME	BURN OUT - LIQUID LINE
	C-417-S-T-HH	DRIER	7/8 ODF		ASD 4557V	049173	SAME	SUCTION FILTER DRIER
	C-419-S	DRIER	1 1/8 ODF		EK 419S	048225	SAME	LIQUID LINE SERVICE
	C-419-S-T-HH	DRIER	1 1/8 ODF		ASD 5059V	049174	SAME	SUCTION FILTER DRIER
	C-4311-S-T-HH	DRIER	13/8 ODF		SFD 54S11V	060253	SAME	SUCTION FILTER DRIER
Temperature Pressure Controls	C-4313-S-T-HH	DRIER	15/8 ODF		SFD 54S13V	060254	SAME	SUCTION FILTER DRIER
	C-437-S-T-HH	DRIER	7/8 ODF		ASD 4557V	049173	SAME	SUCTION FILTER DRIER
	C-439-S-T-HH	DRIER	1 1/8 ODF		ASD 5059V	049174	SAME	SUCTION FILTER DRIER
	C-4811-G	DRIER	13/8 ODF		STAS 4811T	053007	SAME	TAKE APART SHELL
	C-4811-T	DRIER	1 3/8 ODF		STAS 4811T	053007	SAME	TAKE APART SHELL
Competitive Cross Reference	C-4813-G	DRIER	15/8 ODF		STAS 4813T	053375	SAME	TAKE APART SHELL
	C-4813-G	DRIER	1 5/8 ODF		STAS 4813T	053375	SAME	TAKE APART SHELL
	C-4813-T	DRIER	1 5/8 ODF		STAS 4813T	053375	SAME	TAKE APART SHELL
	C-484-P	DRIER	1/2 NPT		NONE	NONE	NONE	TAKE APART SHELL
	C-485	DRIER	5/8 ODF		STAS 485T	053001	SAME	TAKE APART SHELL
Competitive Cross Reference	C-485-C	DRIER	5/8 ODF		STAS 485T	053001	SAME	TAKE APART SHELL
	C-485-T	DRIER	5/8 ODF		STAS 485T	053001	SAME	TAKE APART SHELL
	C-487	DRIER	7/8 ODF		STAS 487T	053003	SAME	TAKE APART SHELL
	C-487-C	DRIER	7/8 ODF		STAS 487T	053003	SAME	TAKE APART SHELL
	C-487-T	DRIER	7/8 ODF		STAS 487T	053003	SAME	TAKE APART SHELL
Competitive Cross Reference	C-489	DRIER	1 1/8 ODF		STAS 489T	053005	SAME	TAKE APART SHELL
	C-489-G	DRIER	1 1/8 ODF		STAS 489T	053005	SAME	TAKE APART SHELL
	C-489-T	DRIER	1 1/8 ODF		STAS 489T	053005	SAME	TAKE APART SHELL
	C-607-S	DRIER	7/8 ODF		EK 757S	048228	75 CU. IN.	LIQUID LINE SERVICE
	C-607-S-T-HH	DRIER	7/8 ODF		NONE	NONE	NONE	LIQUID LINE SERVICE

SPORLAN TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
C-609-S	DRIER	11/8 ODF		EK 759S	048229	75 CU. IN.	LIQUID LINE SERVICE
C-609-S-T-HH	DRIER	11/8 ODF		ASD 75S13VV	049176	SAME	SUCTION FILTER DRIER
C-9611	DRIER	1 3/8 ODF		STAS 9611T	053014	SAME	TAKE APART SHELL
C-9611-G	DRIER	13/8 ODF		STAS 9611T	053014	SAME	TAKE APART SHELL
C-9611-T	DRIER	1 3/8 ODF		STAS 9611T	053014	SAME	TAKE APART SHELL
C-9613-G	DRIER	15/8 ODF		STAS 9613T	053017	SAME	TAKE APART SHELL
C-9613-T	DRIER	1 5/8 ODF		STAS 9613T	053017	SAME	TAKE APART SHELL
C-966-P	DRIER	3/4 NPT		NONE	NONE	NONE	TAKE APART SHELL
C-967	DRIER	7/8 ODF		STAS 967T	053010	SAME	TAKE APART SHELL
C-967	DRIER	7/8 ODF		STAS 967T	053010	SAME	TAKE APART SHELL
C-967-T	DRIER	7/8 ODF		STAS 967T	053010	SAME	TAKE APART SHELL
C-969	DRIER	11/8 ODF		STAS 969T	053012	SAME	TAKE APART SHELL
C-969	DRIER	1 1/8 ODF		STAS 969T	053012	SAME	TAKE APART SHELL
C-969-T	DRIER	1 1/8 ODF		STAS 969T	053012	SAME	TAKE APART SHELL
CB1052	SOLENOID	5/8 ODF		NONE	NONE	NONE	NO CROSS
CB1452	SOLENOID	5/8 ODF		NONE	NONE	NONE	NO CROSS
CB1952	SOLENOID	7/8 ODF		NONE	NONE	NONE	NO CROSS
CB952	SOLENOID	1/2 ODF		NONE	NONE	NONE	NO CROSS
CCF-1	REGULATORS	R12	1/4 X 3/8 ODF	ACP 4	047105	SAME	AUTO EXPANSION VALVE
CCF-1-1/2	REGULATORS	R-12	1/4 X 3/8 ODF	ACP 5	047284	SAME	AUTO EXPANSION VALVE
CCF-2	REGULATORS	R-12	1/4 X 3/8 ODF	ACP 6	047653	SAME	AUTO EXPANSION VALVE
CCF-2-1/2	REGULATORS	R-12	3/8 X 1/2 SAE	ACP 7	047285	SAME	AUTO EXPANSION VALVE
CCF-3	REGULATORS	R-12	3/8 X 1/2 ODF	ACP 8	047655	SAME	AUTO EXPANSION VALVE
CCFE-1	REGULATORS	R-12	3/8 X 1/2 ODF	NONE	NONE	NONE	AUTO EXPANSION VALVE
CCFE-1-1/2	REGULATORS	R-12	3/8 X 1/2 ODF	NONE	NONE	NONE	AUTO EXPANSION VALVE
CCFE-2	REGULATORS	R-12	3/8 X 1/2 ODF	NONE	NONE	NONE	AUTO EXPANSION VALVE
CCFE-2-1/2	REGULATORS	R-12	3/8 X 1/2 ODF	ACPE 7	047790	SAME	AUTO EXPANSION VALVE
CCFE-3	REGULATORS	R-12		NONE	NONE	NONE	AUTO EXPANSION VALVE
CCR-1	REGULATORS	R-502	1/4 X 3/8 ODF	ACP 4	047105	SAME	AUTO EXPANSION VALVE
CCR-1-1/2	REGULATORS	R-502	1/4 X 3/8 ODF	ACP 5	047284	SAME	AUTO EXPANSION VALVE
CCR-2	REGULATORS	R-502	3/8 X 1/2 SAE	ACP 7	047285	SAME	AUTO EXPANSION VALVE
CCR-3	REGULATORS	R-502	3/8 X 1/2 SAE	ACP 9	047658	SAME	AUTO EXPANSION VALVE
CCR-4	REGULATORS	R-502		NONE	NONE	NONE	AUTO EXPANSION VALVE
CCRE-1	REGULATORS	R-502		NONE	NONE	NONE	AUTO EXPANSION VALVE
CCRE-1-1/2	REGULATORS	R-502		NONE	NONE	NONE	AUTO EXPANSION VALVE
CCRE-2	REGULATORS	R-502	3/8 X 1/2 ODF	ACPE 7	047790	SAME	AUTO EXPANSION VALVE
CCRE-3	REGULATORS	R-502		NONE	NONE	NONE	AUTO EXPANSION VALVE
CCRE-4	REGULATORS	R-502		NONE	NONE	NONE	AUTO EXPANSION VALVE
CCV-1-1/2	REGULATORS	R-22	1/4 X 3/8 ODF	ACP 4	047105	SAME	AUTO EXPANSION VALVE
CCV-2	REGULATORS	R-22	1/4 X 3/8 ODF	ACP 5	047284	SAME	AUTO EXPANSION VALVE
CCV-3	REGULATORS	R-22	1/4 X 3/8 ODF	ACP 7	047285	SAME	AUTO EXPANSION VALVE
CCV-4	REGULATORS	R-22	1/4 X 3/8 ODF	ACP 8	047655	SAME	AUTO EXPANSION VALVE
CCV-5	REGULATORS	R-22	1/2 X 5/8 ODF	ACP 9	057771	SAME	AUTO EXPANSION VALVE
CCVE-1-1/2	REGULATORS	R-22		NONE	NONE	NONE	AUTO EXPANSION VALVE
CCVE-2	REGULATORS	R-22		NONE	NONE	NONE	AUTO EXPANSION VALVE
CCVE-3	REGULATORS	R-22		ACPE 7	047790	SAME	AUTO EXPANSION VALVE
CCVE-4	REGULATORS	R-22		NONE	NONE	NONE	AUTO EXPANSION VALVE
CCVE-5	REGULATORS	R-22		ACPE 9	048657	SAME	AUTO EXPANSION VALVE
CE105250	SOLENOID	5/8 ODF EXTENDED		200RB GS1930	009694	SAME	BI - FLOW
CE145250	SOLENOID	5/8 ODF EXTENDED		NONE	NONE	NONE	NO CROSS
CE95230	SOLENOID	3/8 ODF EXTENDED		NONE	NONE	NONE	NO CROSS
CE95240	SOLENOID	1/2 ODF EXTENDED		NONE	NONE	NONE	NO CROSS
CF 2 - C	TXV	2 TON R12	3/8 X 1/2 SAE	HF 2 FC	053060	SAME	MEDIUM TEMP
CF 3 - C	TXV	3 TON R12	3/8 X 1/2 SAE	HF 31/2 FC	NONE	31/2 TON R12	MEDIUM TEMP - USE HFK KIT
CFE 3 - C	TXV	3 TON R12	3/8 X 1/2 SAE - 5'	HFE 31/2 FC	054138	31/2 TON R12	MEDIUM TEMP
CFE 3 - Z	TXV	3 TON R12	3/8 X 1/2 SAE - 5'	HFE 31/2 F Z	NONE	31/2 TON R12	LOW TEMP - USE HFK KIT
CFE 5 - C	TXV	5 TON R12	1/2 X 5/8 SAE - 5'	NONE	NONE	NONE	NO CROSS
CG-032	DRIER	1/4 SAE FLARE		EK 032	060009	SAME	LIQUID LINE SERVICE
CG-032-S	DRIER	1/4 ODF SOLDER		EK 032S	060012	SAME	LIQUID LINE SERVICE
CG-033-S	DRIER	3/8 ODF SOLDER		EK 033S	060014	SAME	LIQUID LINE SERVICE
CG-052	DRIER	1/4 SAE FLARE		EK 052	047601	SAME	LIQUID LINE SERVICE
CG-052-S	DRIER	1/4 ODF SOLDER		EK 052S	047602	SAME	LIQUID LINE SERVICE
CG-053	DRIER	3/8 SAE FLARE		EK 053	047603	SAME	LIQUID LINE SERVICE
CG-053-S	DRIER	3/8 ODF SOLDER		EK 053S	047604	SAME	LIQUID LINE SERVICE
CG-082	DRIER	1/4 SAE FLARE		EK 082	047605	SAME	LIQUID LINE SERVICE

Thermal Expansion Valves

Solenoid Valves

Coils

Industrial Solenoid Valves

Shut Off Valves

System Protectors

Storage Devices

Oil Controls

Pressure Regulators

Temperature Pressure Controls

Competitive Cross Reference

SPORLAN TO EMERSON

	Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
Thermal Expansion Valves	CG-082-S	DRIER	1/4 ODF SOLDER		EK 082S	047606	SAME	LIQUID LINE SERVICE
	CG-083	DRIER	3/8 SAE FLARE		EK 083	047607	SAME	LIQUID LINE SERVICE
	CG-083-S	DRIER	3/8 ODF SOLDER		EK 083S	047608	SAME	LIQUID LINE SERVICE
	CG-163-S	DRIER	3/8 ODF SOLDER		EK 163S	047614	SAME	LIQUID LINE SERVICE
	CG-164	DRIER	1/2 SAE FLARE		EK 164	047615	SAME	LIQUID LINE SERVICE
	CG-164-S	DRIER	1/2 ODF SOLDER		EK 164S	047616	SAME	LIQUID LINE SERVICE
Solenoid Valves	CG-165	DRIER	5/8 SAE FLARE		EK 165	047617	SAME	LIQUID LINE SERVICE
	CG-165-S	DRIER	5/8 ODF SOLDER		EK 165S	047618	SAME	LIQUID LINE SERVICE
	CG-193	DRIER	3/8 SAE FLARE		EK 303	048210	SAME	LIQUID LINE SERVICE
	CG-304	DRIER	1/2 SAE FLARE		EK 304	048212	SAME	LIQUID LINE SERVICE
	CG-304-S	DRIER	1/2 ODF SOLDER		EK 304S	048213	SAME	LIQUID LINE SERVICE
	CG-305	DRIER	5/8 SAE FLARE		EK 305	048214	SAME	LIQUID LINE SERVICE
Coils	CG-305-S	DRIER	5/8 ODF SOLDER		EK 305S	048215	SAME	LIQUID LINE SERVICE
	CG-307-S	DRIER	7/8 ODF SOLDER		EK 307S	048217	SAME	LIQUID LINE SERVICE
	CI 21/2 - C	TXV	21/2 TON R134	3/8 X 1/2 SAE	HF 21/2 MC	NONE	SAME	MEDIUM TEMP - USE HFK KIT
	CJE 21/2 - C	TXV	21/2 TON R134	3/8 X 1/2 SAE	HFE 21/2 MC	NONE	SAME	MEDIUM TEMP - USE HFK KIT
	CJE 3 - C	TXV	3 TON R134	3/8 X 1/2 SAE	HFE 21/2 MC	NONE	SAME	MEDIUM TEMP - USE HFK KIT
	CJE 5 - C	TXV	5 TON R134	1/2 X 5/8 SAE - 5'	NONE	NONE	NONE	NO CROSS
Industrial Solenoid Valves	CMB1052	SOLENOID	5/8 ODF		200RB GS1930	009694	SAME	BI - FLOW - ADD MANUAL STEM KIT - KS 30117
	CMB1952	SOLENOID	7/8 ODF		NONE	NONE	NONE	NO CROSS
	CME105240	SOLENOID	1/2 ODF EXTENDED		200RB GS1930	009694	SAME	BI - FLOW - ADD MANUAL STEM KIT - KS 30117
	CME105250	SOLENOID	5/8 ODF EXTENDED		200RB GS1930	009694	5/8 ODF	BI - FLOW - ADD MANUAL STEM KIT - KS 30117
	CME145250	SOLENOID	5/8 ODF EXTENDED		NONE	NONE	NONE	NO CROSS
	CME195270	SOLENOID	7/8 ODF EXTENDED		NONE	NONE	NONE	NO CROSS
Shut Off Valves	CME95230	SOLENOID	3/8 ODF EXTENDED		200RB GS1928	009692	1/2 ODF	BI - FLOW - ADD MANUAL STEM KIT - KS 30117
	CME95240	SOLENOID	1/2 ODF EXTENDED		200RB GS1928	009692	SAME	BI - FLOW - ADD MANUAL STEM KIT - KS 30117
	CPF-12	REGULATORS	R-12		NONE	NONE	NONE	NO CROSS
	CPF-8	REGULATORS	R-12		NONE	NONE	NONE	NO CROSS
	CPFE-12	REGULATORS	R-12		NONE	NONE	NONE	NO CROSS
	CPFE-8	REGULATORS	R-12		NONE	NONE	NONE	NO CROSS
System Protectors	CPR-12	REGULATORS	R-502		NONE	NONE	NONE	NO CROSS
	CPR-4 (non-adj.)	REGULATORS		5/8 SAE Strainer not available	NONE	NONE	NONE	NO CROSS
	CPR-4 (non-adj.)	REGULATORS		5/8 ODF Strainer not available	NONE	NONE	NONE	NO CROSS
	CPR-9	REGULATORS	R-502		NONE	NONE	NONE	NO CROSS
	CPRE-12	REGULATORS	R-502		NONE	NONE	NONE	NO CROSS
	CPRE-9	REGULATORS	R-502		NONE	NONE	NONE	NO CROSS
Storage Devices	CPV-11	REGULATORS	R-22		NONE	NONE	NONE	NO CROSS
	CPV-16	REGULATORS	R-22		NONE	NONE	NONE	NO CROSS
	CPV-20	REGULATORS	R-22		NONE	NONE	NONE	NO CROSS
	CPVE-11	REGULATORS	R-22		NONE	NONE	NONE	NO CROSS
	CPVE-16	REGULATORS	R-22		NONE	NONE	NONE	NO CROSS
	CPVE-20	REGULATORS	R-22		NONE	NONE	NONE	NO CROSS
Oil Controls	CR 2 - C	TXV	2 TON R502	3/8 x 1/2 SAE	HF 2 R C	053061	SAME	MEDIUM TEMP
	CR 4 - C	TXV	4 TON R502	3/8 x 1/2 SAE	HF 31/2 RC	055936	31/2 TON R502	MEDIUM TEMP
	C-R424	TXV		1/2 ODF	NONE	NONE	NONE	NO CROSS
	C-R424-C	TXV		1/2 ODF	NONE	NONE	NONE	NO CROSS
	C-R424-T	TXV		1/2 ODF	NONE	NONE	NONE	NO CROSS
	C-R425	TXV		5/8 ODF	NONE	NONE	NONE	NO CROSS
	C-R425-C	TXV		5/8 ODF	NONE	NONE	NONE	NO CROSS
	C-R425-T	TXV		5/8 ODF	NONE	NONE	NONE	NO CROSS
	C-R427	TXV		7/8 ODF	NONE	NONE	NONE	NO CROSS
	C-R427-C	TXV		7/8 ODF	NONE	NONE	NONE	NO CROSS
	C-R427-T	TXV		7/8 ODF	NONE	NONE	NONE	NO CROSS
	Pressure Regulators	CRE 2 - C	TXV	2 TON R502	3/8 x 1/2 SAE	HFE 2 RC	053070	SAME
CRE 4 - C		TXV	4 TON R502	3/8 x 1/2 SAE	HFE 31/2 RC	054142	31/2 TON R502	MEDIUM TEMP
CRO-10-0/60		REGULATORS	7/8 ODF	W/O Pressure Tap	OPR-10	047315	Same	W/ Pressure Tap
CRO-10-0/60		REGULATORS	1-1/8 ODF	W/O Pressure Tap	OPR-10	047316	Same	W/ Pressure Tap
CRO-10-0/60		REGULATORS	1-3/8 ODF	W/O Pressure Tap	OPR-10	047318	Same	W/ Pressure Tap
CRO-10-30/110		REGULATORS	7/8 ODF	W/O Pressure Tap	OPR-10	061786	Same	20 / 90 psi Adjustment Range
Temperature Pressure Controls	CRO-10-30/110	REGULATORS	1-1/8 ODF	W/O Pressure Tap	OPR-10	059223	Same	20 / 90 psi Adjustment Range
	CRO-10-30/110	REGULATORS	1-3/8 ODF	W/O Pressure Tap	NONE	NONE	NONE	NO CROSS
	CRO-6-0-60	REGULATORS	1/2 SAE	W/O Pressure Tap	OPR-6	0547907	Same	W/ Pressure Tap
	CRO-6-0-60	REGULATORS	5/8 SAE	W/O Pressure Tap	OPR-6	047908	Same	W/ Pressure Tap
	CRO-6-0-60	REGULATORS	1/2 ODF	W/O Pressure Tap	OPR-6	049241	Same	W/ Pressure Tap
	CRO-6-0-60	REGULATORS	5/8 ODF	W/O Pressure Tap	OPR-6	047312	Same	W/ Pressure Tap

SPORLAN TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
CRO-6-0-60	REGULATORS	7/8 ODF	W/O Pressure Tap	OPR-6	047313	Same	W/ Pressure Tap
CRO-6-0-60	REGULATORS	1-1/8 ODF	W/O Pressure Tap	OPR-6	047314	Same	W/ Pressure Tap
CRO-6-30/110	REGULATORS	1/2 SAE	W/O Pressure Tap	OPR-6	054871	Same	20 / 90 psi Adjustment Range
CRO-6-30/110	REGULATORS	5/8 ODF	W/O Pressure Tap	OPR-6	054406	Same	20 / 90 psi Adjustment Range
CRO-6-30/110	REGULATORS	7/8 ODF	W/O Pressure Tap	OPR-6	058172	Same	20 / 90 psi Adjustment Range
CRO-6-30/110	REGULATORS	5/8 SAE	W/O Pressure Tap	NONE	NONE	NONE	NO CROSS
CRO-6-30/110	REGULATORS	1-1/8 ODF	W/O Pressure Tap	NONE	NONE	NONE	NO CROSS
CROT-10-0/60	REGULATORS	7/8 ODF	w/pressure tap	OPR-10	047315	Same	
CROT-10-0/60	REGULATORS	1-1/8 ODF	w/pressure tap	OPR-10	047316	Same	
CROT-10-0/60	REGULATORS	1-3/8 ODF	w/pressure tap	OPR-10	047318	Same	
CROT-10-30/110	REGULATORS	7/8 ODF	w/pressure tap	OPR-10	061786	Same	20 / 90 psi Adjustment Range
CROT-10-30/110	REGULATORS	1-1/8 ODF	w/pressure tap	OPR-10	059223	Same	20 / 90 psi Adjustment Range
CROT-10-30/110	REGULATORS	1-3/8 ODF	w/pressure tap	NONE	NONE	NONE	NO CROSS
CROT-6-0/60	REGULATORS	1/2 SAE	w/pressure tap	OPR-6	0547907	Same	
CROT-6-0/60	REGULATORS	5/8 SAE	w/pressure tap	OPR-6	047908	Same	
CROT-6-0/60	REGULATORS	5/8 ODF	w/pressure tap	OPR-6	047312	Same	
CROT-6-0/60	REGULATORS	7/8 ODF	w/pressure tap	OPR-6	047313	Same	
CROT-6-0/60	REGULATORS	1-1/8 ODF	w/pressure tap	OPR-6	047314	Same	
CROT-6-30/110	REGULATORS	1/2 SAE	w/pressure tap	OPR-6	054871	Same	20 / 90 psi Adjustment Range
CROT-6-30/110	REGULATORS	5/8 ODF	w/pressure tap	OPR-6	054406	Same	20 / 90 psi Adjustment Range
CROT-6-30/110	REGULATORS	7/8 ODF	w/pressure tap	OPR-6	058172	Same	20 / 90 psi Adjustment Range
CROT-6-30/110	REGULATORS	5/8 SAE	w/pressure tap	NONE	NONE	NONE	NO CROSS
CROT-6-30/110	REGULATORS	1-1/8 ODF	w/pressure tap	NONE	NONE	NONE	NO CROSS
CRP-4	REGULATORS	5/8 SAE		NONE	NONE	NONE	NO CROSS
CRP-4	REGULATORS	5/8 ODF		NONE	NONE	NONE	NO CROSS
CS 2 - C	TXV	2 TON R404	3/8 x 1/2 SAE	HF 2 SC	053061	SAME	MEDIUM TEMP - USE R502 VALVE
CS 4 - C	TXV	4 TON R404	3/8 x 1/2 SAE	HF 31/2 SC	055936	31/2 TON R404	MEDIUM TEMP - USE R502 VALVE
CSE 3 - Z	TXV	3 TON R404	3/8 X 1/2 SAE - 5'	HFE 31/2 RZ	054145	31/2 TON R404	LOW TEMP - USE R502 VALVE
CSE 3 - ZP	TXV	3 TON R404	3/8 X 1/2 SAE - 5'	HFE 31/2 RW45	054993	31/2 TON R404	LOW TEMP - USE R502 VALVE
CSE 4 - ZP	TXV	4 TON R404	3/8 X 1/2 SAE - 5'	HFE 31/2 RW45	054993	31/2 TON R404	LOW TEMP - USE R502 VALVE
CSF-1	REGULATORS	R-12	1/4 X 3/8 SAE	ACP 4	047105	SAME	AUTQ. EXPANSION VALVE
CSF-1-1/2	REGULATORS	R-12	1/4 X 3/8 SAE	ACP 5	047284	SAME	AUTQ. EXPANSION VALVE
CSF-2	REGULATORS	R-12	1/4 X 3/8 SAE	ACP 6	047653	SAME	AUTQ. EXPANSION VALVE
CSF-2-1/2	REGULATORS	R-12	3/8 X 1/2 SAE	ACP 7	047654	SAME	AUTQ. EXPANSION VALVE
CSF-3	REGULATORS	R-12	3/8 X 1/2 SAE	ACP 8	047655	SAME	AUTQ. EXPANSION VALVE
CSF-5	REGULATORS	R-12	3/8 X 1/2 SAE	NONE	NONE	NONE	NO CROSS
CSFE-1	REGULATORS	R-12	3/8 X 1/2 SAE	NONE	NONE	NONE	NO CROSS
CSFE-1-1/2	REGULATORS	R-12	3/8 X 1/2 SAE	NONE	NONE	NONE	NO CROSS
CSFE-2	REGULATORS	R-12	3/8 X 1/2 SAE	NONE	NONE	NONE	NO CROSS
CSFE-2-1/2	REGULATORS	R-12	3/8 X 1/2 SAE	ACPE 7	047790	SAME	AUTQ. EXPANSION VALVE
CSFE-3	REGULATORS	R-12	3/8 X 1/2 SAE	NONE	NONE	NONE	AUTQ. EXPANSION VALVE
CSFE-5	REGULATORS	R-12	3/8 X 1/2 SAE	NONE	NONE	NONE	NO CROSS
CSR-1	REGULATORS	R-502	1/4 X 3/8 SAE	ACP 4	047105	SAME	AUTQ. EXPANSION VALVE
CSR-1-1/2	REGULATORS	R-502	1/4 X 3/8 SAE	ACP 5	047284	SAME	AUTQ. EXPANSION VALVE
CSR-2	REGULATORS	R-502	1/4 X 3/8 SAE	ACP 6	047653	SAME	AUTQ. EXPANSION VALVE
CSR-3	REGULATORS	R-502	1/4 X 3/8 SAE	NONE	NONE	NONE	NO CROSS
CSR-4	REGULATORS	R-502	1/4 X 3/8 SAE	NONE	NONE	NONE	NO CROSS
CSR-6	REGULATORS	R-502	1/4 X 3/8 SAE	NONE	NONE	NONE	NO CROSS
CSRE-1	REGULATORS	R-502	1/4 X 3/8 SAE	NONE	NONE	NONE	NO CROSS
CSRE-1-1/2	REGULATORS	R-502	1/4 X 3/8 SAE	NONE	NONE	NONE	NO CROSS
CSRE-2	REGULATORS	R-502	3/8 X 1/2 SAE	ACPE 7	047790	SAME	AUTQ. EXPANSION VALVE
CSRE-3	REGULATORS	R-502	3/8 X 1/2 SAE	NONE	NONE	NONE	NO CROSS
CSRE-4	REGULATORS	R-502	3/8 X 1/2 SAE	NONE	NONE	NONE	NO CROSS
CSRE-6	REGULATORS	R-502	3/8 X 1/2 SAE	NONE	NONE	NONE	NO CROSS
CSV-1-1/2	REGULATORS	R-22	3/8 X 1/2 SAE	NONE	NONE	NONE	NO CROSS
CSV-2	REGULATORS	R-22	3/8 X 1/2 SAE	NONE	NONE	NONE	NO CROSS
CSV-3	REGULATORS	R-22	3/8 X 1/2 ODF	ACPE 7	047790	SAME	AUTQ. EXPANSION VALVE
CSV-4	REGULATORS	R-22	3/8 X 1/2 SAE	NONE	NONE	NONE	NO CROSS
CSV-5	REGULATORS	R-22	1/2 X 5/8 ODF	ACPE 9	058674	SAME	AUTQ. EXPANSION VALVE
CSV-8	REGULATORS	R-22	1/2 X 5/8 ODF	NONE	NONE	NONE	NO CROSS
CSVE-1-1/2	REGULATORS	R-22	3/8 X 1/2 SAE	NONE	NONE	NONE	NO CROSS
CSVE-2	REGULATORS	R-22	3/8 X 1/2 SAE	NONE	NONE	NONE	NO CROSS
CSVE-3	REGULATORS	R-22	3/8 X 1/2 ODF	ACPE 7	047790	SAME	AUTQ. EXPANSION VALVE
CSVE-4	REGULATORS	R-22	3/8 X 1/2 ODF	NONE	NONE	NONE	NO CROSS
CSVE-5	REGULATORS	R-22	3/8 X 1/2 ODF	ACPE 9	048657	SAME	AUTQ. EXPANSION VALVE

Thermal Expansion Valves

Solenoid Valves

Coils

Industrial Solenoid Valves

Shut Off Valves

System Protectors

Storage Devices

Oil Controls

Pressure Regulators

Temperature Pressure Controls

Competitive Cross Reference

SPORLAN TO EMERSON

	Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
Thermal Expansion Valves	CSVE-8	REGULATORS	R-22	3/8 X 1/2 ODF	NONE	NONE	NONE	NO CROSS
	CV 3 - C	TXV	3 TON R22	3/8 X 1/2 SAE	HF 3 HC	053316	SAME	MEDIUM TEMP
	CV 5 - C	TXV	5 TON R22	3/8 X 1/2 SAE	HF 51/2 HC	NONE	51/2 TON R22	MEDIUM TEMP - USE HFK KIT
	CVE 4 - CP100	TXV	4 TON R22	3/8 X 1/2 SAE - 5'	TCLC 3 HW100	NONE	4 TON R22	ORDER SEPARATE TCLC PARTS
Solenoid Valves	CVE 4 - GA	TXV	4 TON R22	3/8 X 1/2 SAE - 5'	TCLC 3 HCA	NONE	4 TON R22	ORDER SEPARATE TCLC PARTS
	CVE 4 C	TXV	4 TON R22	3/8 X 1/2 SAE - 5'	TCLC 3 HC	NONE	4 TON R22	ORDER SEPARATE TCLC PARTS
	CVE 5 - C	TXV	5 TON R22	3/8 X 1/2 SAE - 5'	HFE 51/2 HC	054140	51/2 TON R22	MEDIUM TEMP
	CVE 5 - CP100	TXV	5 TON R22	3/8 X 1/2 SAE - 5'	HFE 51/2 HW100	NONE	51/2 TON R22	MEDIUM TEMP - USE HFK KIT
	CVE 5 GA	TXV	5 TON R22	3/8 X 1/2 SAE - 5'	HFE 51/2 HCA	NONE	51/2 TON R22	MEDIUM TEMP - USE HFK KIT
	CVE 8 - C	TXV	8 TON R22	1/2 X 5/8 ODF - 5'	HFE5 8 HC	057313	SAME	MEDIUM TEMP
	CVE 8 - CP100	TXV	8 TON R22	5/8 x 7/8 ODF - 5'	HFE5 8 HW100	057354	SAME	MEDIUM TEMP
	CVE 8 - GA	TXV	8 TON R22	5/8 X 7/8 ODF - 5'	HFE5 8 HCA	056819	SAME	MEDIUM TEMP
Coils	D260	KITS		1/2" ODM	NONE	NONE	NONE	NO CROSS
	D262	KITS		1/2" ODM	NONE	NONE	NONE	NO CROSS
	D-3H	KITS	DOVE		NONE	NONE	NONE	FOR SPORLAN BYPASS VALVE
	D-3H*	KITS			NONE	NONE	NONE	NO CROSS
	D-3P	KITS	DOVE		NONE	NONE	NONE	FOR SPORLAN BYPASS VALVE
	D-3P*	KITS	ELEMENT		NONE	NONE	NONE	FOR SPORLAN BYPASS VALVE
Industrial Solenoid Valves	D-3P*	KITS			NONE	NONE	NONE	NO CROSS
	D-8	KITS	DOVE		NONE	NONE	NONE	FOR SPORLAN BYPASS VALVE
	D-8*	KITS			NONE	NONE	NONE	NO CROSS
	DA 1	TXV	1 TON R717		NONE	NONE	NONE	OBSOLETE - AMMONIA
	DA 10	TXV	10 TON R717		NONE	NONE	NONE	OBSOLETE - AMMONIA
	DA 15	TXV	15 TON R717		NONE	NONE	NONE	OBSOLETE - AMMONIA
	DA 2	TXV	2 TON R717		NONE	NONE	NONE	OBSOLETE - AMMONIA
Shut Off Valves	DA 5	TXV	5 TON R717		NONE	NONE	NONE	OBSOLETE - AMMONIA
	DA-1, DAE-1	TXV			NONE	NONE	NONE	NO CROSS
	DA-10, DAE-10	TXV			NONE	NONE	NONE	NO CROSS
	DA-15, DAE-15	TXV			NONE	NONE	NONE	NO CROSS
	DA-2, DAE-2	TXV			NONE	NONE	NONE	NO CROSS
System Protectors	DA-5, DAE-5	TXV			NONE	NONE	NONE	NO CROSS
	DAE 1	TXV	1 TON R717		NONE	NONE	NONE	OBSOLETE - AMMONIA
	DAE 10	TXV	10 TON R717		NONE	NONE	NONE	OBSOLETE - AMMONIA
	DAE 15	TXV	15 TON R717		NONE	NONE	NONE	OBSOLETE - AMMONIA
	DAE 2	TXV	2 TON R717		NONE	NONE	NONE	OBSOLETE - AMMONIA
Storage Devices	DAE 5	TXV	5 TON R717		NONE	NONE	NONE	OBSOLETE - AMMONIA
	DK-12	KITS	SEAT + PUSHRODS		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
	DK-13	KITS	SEAT + PUSHRODS		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
	DK-8	KITS	SEAT + PUSHRODS		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
Oil Controls	DMA17A3	SOLENOID			NONE	NONE	NONE	NO CROSS
	DMA32P3	SOLENOID			NONE	NONE	NONE	NO CROSS
	DRHE-6	REGULATORS	5/8, 7/8 1-1/8 ODF	HOT GAS	NONE	NONE	NONE	TEMP SENSING
	DRHE-6-25/35AR	REGULATORS	7/8, 1-1/8 ODF	HOT GAS	NONE	NONE	NONE	TEMP SENSING
	DRHE-6-55/70AR	REGULATORS	7/8, 1-1/8 ODF	HOT GAS	NONE	NONE	NONE	TEMP SENSING
	DRHE-6-65/80AR	REGULATORS	7/8, 1-1/8 ODF	HOT GAS	NONE	NONE	NONE	TEMP SENSING
	DRP	REGULATORS		HOT GAS	NONE	NONE	NONE	TEMP SENSING
	DRP-3*	REGULATORS	1/2 or 5/8 Flare or ODF	HOT GAS	NONE	NONE	NONE	TEMP SENSING
	DRP-3-* R	REGULATORS	1/2 or 5/8 Flare or ODF	HOT GAS	NONE	NONE	NONE	TEMP SENSING
	DRP-3-55/70AR	REGULATORS	5/8 ODF	HOT GAS	NONE	NONE	NONE	TEMP SENSING
Pressure Regulators	DRPE-3*	REGULATORS	1/2 or 5/8 Flare or ODF	HOT GAS	NONE	NONE	NONE	TEMP SENSING
	DRPE-3-*R	REGULATORS	1/2 or 5/8 Flare or ODF	HOT GAS	NONE	NONE	NONE	TEMP SENSING
	DRPE-3-55/70AR	REGULATORS	5/8 ODF	HOT GAS	NONE	NONE	NONE	TEMP SENSING
	DRS-2*	REGULATORS	3/8, 1/2, 5/8 Flare or ODF	HOT GAS	NONE	NONE	NONE	TEMP SENSING
	DRS-2-* R	REGULATORS	3/8, 1/2, 5/8 Flare or ODF	HOT GAS	NONE	NONE	NONE	TEMP SENSING
	E105240	SOLENOID	1/2 ODF	NORMALLY CLOSED	200RB 554	047524	1/2 ODF x 5/8 ODM	REFRIGERATION SERVICE - VLC
E105250	SOLENOID	5/8 ODF	NORMALLY CLOSED	200RB 555	049201	SAME	REFRIGERATION SERVICE - VLC	
E145250	SOLENOID	5/8 ODF	NORMALLY CLOSED	200RB 755	064037	5/8 ODF x 7/8 ODM	REFRIGERATION SERVICE - VLC	
Temperature Pressure Controls	E145270	SOLENOID	7/8 ODF	NORMALLY CLOSED	200RB 777	064282	SAME	REFRIGERATION SERVICE - VLC
	E195250	SOLENOID	5/8 ODF	NORMALLY CLOSED	200RB 975	064762	SAME	REFRIGERATION SERVICE - VLC
	E195270	SOLENOID	7/8 ODF	NORMALLY CLOSED	200RB 977	064645	SAME	REFRIGERATION SERVICE - VLC
	E255270	SOLENOID	7/8 ODF	NORMALLY CLOSED	200RB 1277	064818	SAME	REFRIGERATION SERVICE - VLC
	E255290	SOLENOID	1-1/8 ODF	NORMALLY CLOSED	200RB 1279	064821	SAME	REFRIGERATION SERVICE - VLC
	E3452110	SOLENOID	1-3/8 ODF	NORMALLY CLOSED	240RA 16711	060382	SAME	REFRIGERATION SERVICE - VLC
	E345290	SOLENOID	1-1/8 ODF	NORMALLY CLOSED	240RA 1679	060381	SAME	REFRIGERATION SERVICE - VLC
	E35120	SOLENOID	1/4 ODF	NORMALLY CLOSED	100RB 252	047503	SAME	REFRIGERATION SERVICE - VLC

SPORLAN TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
E3S130	SOLENOID	3/8 ODF	NORMALLY CLOSED	100RB 253	047504	SAME	REFRIGERATION SERVICE - VLC
E42S2130	SOLENOID	1-5/8 ODF	NORMALLY CLOSED	240RA 20T13	060384	SAME	REFRIGERATION SERVICE - VLC
E42S2170	SOLENOID	2-1/8 ODF	NORMALLY CLOSED	240RA 20T17	060385	SAME	REFRIGERATION SERVICE - VLC
ESS120	SOLENOID	1/4 ODF	NORMALLY CLOSED	200RB 2T2	053105	SAME	REFRIGERATION SERVICE - VLC
ESS130	SOLENOID	3/8 ODF	NORMALLY CLOSED	200RB 2T3	053106	SAME	REFRIGERATION SERVICE - VLC
E6S130	SOLENOID	3/8 ODF	NORMALLY CLOSED	200RB 3T3	049609	SAME	REFRIGERATION SERVICE - VLC
E6S140	SOLENOID	1/2 ODF	NORMALLY CLOSED	200RB 3T4	049692	SAME	REFRIGERATION SERVICE - VLC
E9S230	SOLENOID	3/8 ODF	NORMALLY CLOSED	200RB 5T3	061227	SAME	REFRIGERATION SERVICE - VLC
E9S240	SOLENOID	1/2 ODF	NORMALLY CLOSED	200RB 5S4	047524	1/2 ODF x 5/8 ODM	REFRIGERATION SERVICE - VLC
EBFF-A - C	TXV	1 TON R12	3/8 X 1/2 ODF - 30"	HFS 1 FC	NONE	NONE	MEDIUM TEMP - USE HFK KIT
EBFF-AA - C	TXV	1/2 TON R12	3/8 X 1/2 ODF - 30"	HFS 1/2 FC	056063	SAME	MEDIUM TEMP
EBFF-AAA - C	TXV	1/4 TON R12	3/8 X 1/2 ODF - 30"	HFS 1/4 FC	NONE	NONE	MEDIUM TEMP - USE HFK KIT
EBFF-B - C	TXV	13/4 TON R12	3/8 X 1/2 ODF - 30"	HFS 11/2 FC	NONE	11/2 TON R12	MEDIUM TEMP - USE HFK KIT
EBFF-C - C	TXV	3 TON R12	3/8 X 1/2 ODF - 30"	HFS 31/2 FC	NONE	31/2 TON R12	MEDIUM TEMP - USE HFK KIT
EBFFE-A - C	TXV	1 TON R12	3/8 X 1/2 ODF - 30"	HFES 1 F C	055993	SAME	MEDIUM TEMP
EBFFE-AA - C	TXV	1/2 TON R12	3/8 X 1/2 ODF - 30"	HFES 1/2 F C	055827	SAME	MEDIUM TEMP
EBFFE-AAA - *	TXV	1/4 TON R12	3/8 X 1/2 ODF - 30"	HFES 1/4 FC	NONE	NONE	MEDIUM TEMP - USE HFK KIT
EBFFE-B - C	TXV	13/4 TON R12	3/8 X 1/2 ODF - 30"	HFES 11/2 F C	055994	11/2 TON R12	MEDIUM TEMP
EBFFE-C - C	TXV	3 TON R12	3/8 X 1/2 ODF - 30"	HFES 31/2 FC	NONE	NONE	MEDIUM TEMP - USE HFK KIT
EBFJ-A - C	TXV	11/4 TON R134	3/8 X 1/2 ODF - 30"	HFS 1 MC	NONE	1 TON R134	MEDIUM TEMP - USE HFK KIT
EBFJ-AA - C	TXV	1/2 TON R134	3/8 X 1/2 ODF - 30"	HFS 1/2 MC	NONE	NONE	MEDIUM TEMP - USE HFK KIT
EBFJ-AAA - C	TXV	1/4 TON R134	3/8 X 1/2 ODF - 30"	HFS 1/4 MC	058545	SAME	MEDIUM TEMP
EBFJ-B - C	TXV	2 TON R134	3/8 X 1/2 ODF - 30"	HFS 13/4 MC	NONE	13/4 TON R134	MEDIUM TEMP - USE HFK KIT
EBFJ-C - C	TXV	31/2 TON R134	3/8 X 1/2 ODF - 30"	HFS 4 MC	NONE	4 TON R134	MEDIUM TEMP - USE HFK KIT
EBFJE-A - C	TXV	11/4 TON R134	3/8 X 1/2 ODF - 30"	HFES 1 M C	058546	1 TON R134	MEDIUM TEMP
EBFJE-AA - C	TXV	1/2 TON R134	3/8 X 1/2 ODF - 30"	HFES 1/2 M C	NONE	NONE	MEDIUM TEMP - USE HFK KIT
EBFJE-AAA - C	TXV	1/4 TON R134	3/8 X 1/2 ODF - 30"	HFES 1/4 MC	NONE	NONE	MEDIUM TEMP - USE HFK KIT
EBFJE-B - C	TXV	2 TON R134	3/8 X 1/2 ODF - 30"	HFES 13/4 M C	058152	13/4 TON R134	MEDIUM TEMP
EBFJE-C - C	TXV	31/2 TON R134	3/8 X 1/2 ODF - 30"	HFES 4 MC	NONE	4 TON R134	MEDIUM TEMP - USE HFK KIT
EBFR-A - C	TXV	1 TON R502	3/8 X 1/2 ODF - 30"	HFS 1 RC	NONE	NONE	MEDIUM TEMP - USE HFK KIT
EBFR-AA - C	TXV	1/2 TON R502	3/8 X 1/2 ODF - 30"	HFS 1/2 RC	NONE	SAME	MEDIUM TEMP - USE HFK KIT
EBFR-AAA - C	TXV	1/4 TON R502	3/8 X 1/2 ODF - 30"	HFS 1/4 RC	055490	SAME	MEDIUM TEMP
EBFR-B - C	TXV	2 TON R502	3/8 X 1/2 ODF - 30"	HFS 2 RC	NONE	SAME	MEDIUM TEMP - USE HFK KIT
EBFR-C - C	TXV	3 TON R502	3/8 X 1/2 ODF - 30"	HFES 31/2 RC	054143	31/2 TON R502	MEDIUM TEMP
EBFRE-A - C	TXV	1 TON R502	3/8 X 1/2 ODF - 30"	HFES 1 RC	056029	SAME	MEDIUM TEMP
EBFRE-AA - C	TXV	1/2 TON R502	3/8 X 1/2 ODF - 30"	HFES 1/2 RC	056022	SAME	MEDIUM TEMP
EBFRE-AAA - C	TXV	1/4 TON R502	3/8 X 1/2 ODF - 30"	HFES 1/4 RC	055092	SAME	MEDIUM TEMP
EBFRE-B - C	TXV	2 TON R502	3/8 X 1/2 ODF - 30"	HFES 2 RC	053270	SAME	MEDIUM TEMP
EBFRE-C - C	TXV	3 TON R502	3/8 X 1/2 ODF - 30"	HFES 31/2 RC	054143	31/2 TON R502	MEDIUM TEMP
EBFS-A - C	TXV	1 TON R404	3/8 X 1/2 ODF - 30"	HFS 1 SC	NONE	SAME	MEDIUM TEMP - USE HFK KIT
EBFS-AA - C	TXV	1/2 TON R404	3/8 X 1/2 ODF - 30"	HFS 1/2 SC	NONE	SAME	MEDIUM TEMP - USE HFK KIT
EBFS-AAA - C	TXV	1/4 TON R404	3/8 X 1/2 ODF - 30"	HFS 1/4 RC	055490	SAME	MEDIUM TEMP
EBFS-B - C	TXV	2 TON R404	3/8 X 1/2 ODF - 30"	HFS 2 SC	NONE	SAME	MEDIUM TEMP - USE HFK KIT
EBFS-C - C	TXV	3 TON R404	3/8 X 1/2 ODF - 30"	HFS 31/2 SC	NONE	31/2 TON R404	MEDIUM TEMP - USE HFK KIT
EBFSE-A - C	TXV	1 TON R404	3/8 X 1/2 ODF - 30"	HFES 1 RC	056029	SAME	MEDIUM TEMP
EBFSE-A - Z	TXV	1 TON R404	3/8 X 1/2 ODF - 30"	HFES 1 RZ	056225	SAME	MEDIUM TEMP
EBFSE-A - ZP	TXV	1 TON R404	3/8 X 1/2 ODF - 30"	HFES 1 RW45	055948	SAME	MEDIUM TEMP
EBFSE-AA - C	TXV	1/2 TON R404	3/8 X 1/2 ODF - 30"	HFES 1/2 RC	056022	SAME	MEDIUM TEMP
EBFSE-AAA - C	TXV	1/4 TON R404	3/8 X 1/2 ODF - 30"	HFES 1/4 RC	055092	SAME	MEDIUM TEMP
EBFSE-B - C	TXV	2 TON R404	3/8 X 1/2 ODF - 30"	HFES 2 RC	053270	SAME	MEDIUM TEMP
EBFSE-C - C	TXV	3 TON R404	3/8 X 1/2 ODF - 30"	HFES 31/2 RC	054143	31/2 TON R404	MEDIUM TEMP
EBFV-A - C	TXV	11/2 TON R22	3/8 X 1/2 ODF - 30"	HFS 11/2 HC	056018	SAME	MEDIUM TEMP
EBFV-AA - C	TXV	3/4 TON R22	3/8 X 1/2 ODF - 30"	HFS 1 HC	055702	1 TON R22	MEDIUM TEMP
EBFV-AAA - C	TXV	1/2 TON R22	3/8 X 1/2 ODF - 30"	HFS 1/2 HC	054136	SAME	MEDIUM TEMP
EBFV-B - C	TXV	23/4 TON R22	3/8 X 1/2 ODF - 30"	HFS 21/2 HC	NONE	21/2 TON R22	MEDIUM TEMP - USE HFK KIT
EBFV-C - C	TXV	51/2 TON R22	3/8 X 1/2 ODF - 30"	HFS 51/2 HC	NONE	51/2 TON R22	MEDIUM TEMP - USE HFK KIT
EBFVE-A - C	TXV	11/2 TON R22	3/8 X 1/2 ODF - 30"	HFES 11/2 H C	055863	SAME	MEDIUM TEMP
EBFVE-A - Z	TXV	11/2 TON R22	3/8 X 1/2 ODF - 30"	HFES 11/2 H Z	NONE	SAME	LOW - TEMP
EBFVE-AA - C	TXV	3/4 TON R22	3/8 X 1/2 ODF - 30"	HFES 1 H C	055708	1 TON R22	MEDIUM TEMP
EBFVE-AAA - C	TXV	1/2 TON R22	3/8 X 1/2 ODF - 30"	HFES 1/2 HC	055827	SAME	MEDIUM TEMP
EBFVE-B - C	TXV	23/4 TON R22	3/8 X 1/2 ODF - 30"	HFES 21/2 H C	055931	21/2 TON R22	MEDIUM TEMP
EBFVE-B - GA	TXV	23/4 TON R22	3/8 X 1/2 ODF - 30"	HFES 21/2 HCA	NONE	21/2 TON R22	MEDIUM TEMP - USE HFK KIT
EBFVE-C - C	TXV	51/4 TON R22	1/2 X 5/8 ODF	HFES 51/2 H C	054778	51/2 TON R22	MEDIUM TEMP
EBFVE-C - GA	TXV	51/4 TON R22	1/2 X 5/8 ODF	HFES 51/2 HCA	057378	51/2 TON R22	MEDIUM TEMP
EBSE 5 - C	TXV	5 TON R134	1/2 X 5/8 ODF	HFES 6 MC	057903	6 TON R134	MEDIUM TEMP

Thermal Expansion Valves

Solenoid Valves

Coils

Industrial Solenoid Valves

Shut Off Valves

System Protectors

Storage Devices

Oil Controls

Pressure Regulators

Temperature Pressure Controls

Competitive Cross Reference

SPORLAN TO EMERSON

	Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
Thermal Expansion Valves	EBSJE 7 - C	TXV	7 TON R134	5/8 X 7/8 ODF	HFES 71/2 MC	057904	71/2 TON R134	MEDIUM TEMP
	EBSRE 71/2 - C	TXV	71/2 TON R502	5/8 X 7/8 ODF	HFES 7 RC	058607	7 TON R502	MEDIUM TEMP
	EBSSE 71/2 - C	TXV	71/2 TON R404	5/8 X 7/8 ODF	HFES 7 RC	058607	7 TON R404	MEDIUM TEMP
	EBSVE 11 - CP100	TXV	11 TON R22	5/8 X 7/8 ODF 5"	HFES 10 HW100	058159	10 TON R22	MEDIUM TEMP
	EBSVE 11 - GA	TXV	11 TON R22	5/8 X 7/8 ODF 5"	HFES 10 HCA	056821	10 TON R22	MEDIUM TEMP
Solenoid Valves	EBSVE 15 - C	TXV	15 TON R22	5/8 X 7/8 ODF 5"	HFES 15 HC	057317	15 TON R22	MEDIUM TEMP
	EBSVE 15 - CP100	TXV	15 TON R22	5/8 X 7/8 ODF 5"	HFES 15 HW100	062396	15 TON R22	MEDIUM TEMP
	EBSVE 15 - GA	TXV	15 TON R22	7/8 X 1 1/8 ODF 5"	HFES 15 HCA	056825	15 TON R22	MEDIUM TEMP
	EBSVE 20 - C	TXV	20 TON R22	7/8 X 1 1/8 ODF 5"	HFES 20 HC	062055	20 TON R22	MEDIUM TEMP
	EBSVE 20 - CP100	TXV	20 TON R22	7/8 X 1 1/8 ODF 5"	HFES 20 HW100	062229	20 TON R22	MEDIUM TEMP
Coils	EBSVE 20 - GA	TXV	20 TON R22	7/8 X 1 1/8 ODF 5"	HFES 20 HCA	058490	20 TON R22	MEDIUM TEMP
	EBSVE 8 - C	TXV	8 TON R22	5/8 X 7/8 ODF 5"	HFES 8 HC	057313	SAME	MEDIUM TEMP
	EBSVE 8 - CP100	TXV	8 TON R22	5/8 X 7/8 ODF 5"	HFES 8 HW100	057354	SAME	MEDIUM TEMP
	EBSVE 8 - GA	TXV	8 TON R22	5/8 X 7/8 ODF 5"	HFES 8 HCA	056819	SAME	MEDIUM TEMP
	EFF 1 C	TXV	1 TON R12	1/4 X 1/2 ODF - 30"	AA 1 FC	NONE	SAME	MEDIUM TEMP
Industrial Solenoid Valves	EFF 1/2 - C	TXV	1/2 TON R12	1/4 X 1/2 ODF - 30"	AA 1/2 FC	NONE	SAME	MEDIUM TEMP
	EFF 1/4 - C	TXV	1/4 TON R12	1/4 X 1/2 ODF - 30"	AA 1/4 FC	048986	1/4 X 3/8 ODF	MEDIUM TEMP
	EFF 11/2 C	TXV	11/2 TON R12	1/4 X 1/2 ODF - 30"	AA 11/2 FC	NONE	SAME	MEDIUM TEMP
	EFFE 1 - C	TXV	1 TON R12	3/8 X 1/2 ODF - 30"	AAE 1 FC	NONE	SAME	MEDIUM TEMP
	EFFE 1/2 - C	TXV	1/2 TON R12	1/4 X 1/2 ODF - 30"	AAE 1/2 FC	NONE	SAME	MEDIUM TEMP
Shut Off Valves	EFFE 1/4 C	TXV	1/4 TON R12	1/4 X 1/2 ODF - 30"	AAE 1/4 FC	048986	1/4 X 3/8 ODF	MEDIUM TEMP
	EFFE 11/2 C	TXV	11/2 TON R12	1/4 X 1/2 ODF - 30"	AAE 11/2 FC	NONE	SAME	MEDIUM TEMP
	EFFE 2C	TXV	2 TON R12	3/8 X 1/2 ODF - 30"	AAE 2 FC	NONE	SAME	MEDIUM TEMP
	EFJ 1/2 - C	TXV	1/2 TON R134	1/4 X 1/2 ODF - 30"	AA 1/2 MC	NONE	SAME	MEDIUM TEMP
	EFJ 1/4 - C	TXV	1/4 TON R134	1/4 X 1/2 ODF - 30"	AA 1/4 MC	NONE	SAME	MEDIUM TEMP
System Protectors	EFJ 11/2 C	TXV	11/2 TON R134	1/4 X 1/2 ODF - 30"	AA 11/2 MC	NONE	SAME	MEDIUM TEMP
	EFJ 1C	TXV	1 TON R134	1/4 X 1/2 ODF - 30"	AA 1 MC	NONE	SAME	MEDIUM TEMP
	EFJE 1 - C	TXV	1 TON R134	3/8 X 1/2 ODF - 30"	AAE 1 MC 3/8 X 1/2 ODFS/T-5FT	065631	SAME	MEDIUM TEMP
	EFJE 1/2 - C	TXV	1/2 TON R134	1/4 X 1/2 ODF - 30"	AAE 1/2 MC 1/4 X 1/2 ODFS/T-5FT	065630	SAME	MEDIUM TEMP
	EFJE 1/4 C	TXV	1/4 TON R134	1/4 X 1/2 ODF - 30"	NONE	NONE	NONE	MEDIUM TEMP
Storage Devices	EFJE 11/2 C	TXV	11/2 TON R134	3/8 X 1/2 ODF - 30"	NONE	NONE	NONE	MEDIUM TEMP
	EFJE 2C	TXV	2 TON R134	3/8 X 1/2 ODF - 30"	NONE	NONE	NONE	MEDIUM TEMP
	EFR 1/2C	TXV	1/2 TON R502	1/4 X 1/2 ODF - 30"	AA 1/2 SC 1/4 X 1/2 ODFS/T-5FT	063504	SAME	MEDIUM TEMP
	EFR 1/4 C	TXV	1/4 TON R502	1/4 X 1/2 ODF - 30"	AA 1/4 SC 1/4 X 1/2 ODFS/T	063503	SAME	MEDIUM TEMP
	EFR 11/2C	TXV	11/2 TON R502	1/4 X 1/2 ODF - 30"	NONE	NONE	NONE	MEDIUM TEMP
Oil Controls	EFRE 1 C	TXV	1 TON R502	1/4 X 1/2 ODF - 30"	HF 1 SC 3/8 X 1/2 ODFS/T	065643	SAME	MEDIUM TEMP
	EFRE 1/2 C	TXV	1/2 TON R502	1/4 X 1/2 ODF - 30"	HFES 1/2 3/8 X 1/2 ODFS/T	056022	SAME	MEDIUM TEMP
	EFRE 1/4 C	TXV	1/4 TON R502	1/4 X 1/2 ODF - 30"	NONE	NONE	NONE	MEDIUM TEMP
	EFRE 11/2 C	TXV	11/2 TON R502	1/4 X 1/2 ODF - 30"	AAE 11/2 RC 3/8 X 1/2 ODFS/T	056031	SAME	MEDIUM TEMP
	EFRE 2C	TXV	2 TON R502	3/8 X 1/2 ODF - 30"	AAE 2 SC 3/8 X 1/2 ODFS/T	065330	SAME	MEDIUM TEMP
Pressure Regulators	EFS 1 C	TXV	1 TON R404	1/4 X 1/2 ODF - 30"	HF 1 SC 3/8 X 1/2 ODFS/T	065643	SAME	MEDIUM TEMP
	EFS 1/2 C	TXV	1/2 TON R404	1/4 X 1/2 ODF - 30"	AA 1/2 SC 1/4 X 1/2 ODFS/T	063504	SAME	MEDIUM TEMP
	EFS 1/4 C	TXV	1/4 TON R404	1/4 X 1/2 ODF - 30"	AA 1/4 SC 1/4 X 1/2 ODFS/T	063503	SAME	MEDIUM TEMP
	EFS 11/2 C	TXV	11/2 TON R404	1/4 X 1/2 ODF - 30"	NONE	NONE	NONE	MEDIUM TEMP
	EFSE 1 - ZP	TXV	1 TON R404	3/8 X 1/2 ODF - 30"	AAE 1 SZ 3/8 X 1/2 ODFS/T-5FT	065183	SAME	LOW - TEMP
Temperature Pressure Controls	EFSE 1/2 - ZP	TXV	1/2 TON R404	1/4 X 1/2 ODF - 30"	AAE 1/2 SZ 3/8 X 1/2 ODFS/T-5FT	065687	SAME	LOW - TEMP
	EFSE 1/4 C	TXV	1/4 TON R404	1/4 X 1/2 ODF - 30"	NONE	NONE	NONE	MEDIUM TEMP
	EFSE 11/2 C	TXV	11/2 TON R404	1/4 X 1/2 ODF - 30"	AAE 11/2 SC 3/8 X 1/2 ODFS/T	057974	SAME	MEDIUM TEMP
	EFSE 2C	TXV	2 TON R404	3/8 X 1/2 ODF - 30"	AAE 2 SC 3/8 X 1/2 ODFS/T	065330	SAME	MEDIUM TEMP
	EFV 1/2 - C	TXV	1/2 TON R22	1/4 X 1/2 ODF - 30"	AA 1/2 HC 1/4 X 1/2 ODFS/T-5FT	065626	SAME	MEDIUM TEMP
Competitive Cross Reference	EFV 1/3 - C	TXV	1/3 TON R22	1/4 X 1/2 ODF - 30"	NONE	NONE	NONE	MEDIUM TEMP
	EFV 1/4 - C	TXV	1/4 TON R22	1/4 X 1/2 ODF - 30"	AA 1/4 HC	056315	1/4 X 3/8 ODF	MEDIUM TEMP
	EFV 1/4 - C	TXV	1/4 TON R22	1/4 X 3/8 ODF - 30"	AA 1/4 HC	056315	SAME	MEDIUM TEMP
	EFV 11/2C	TXV	11/2 TON HC	1/4 X 1/2 ODF - 30"	AA 11/2 HC 3/8 X 1/2 ODFS/T	056018	SAME	MEDIUM TEMP
	EFV 1C	TXV	1 TON R22	1/4 X 1/2 ODF - 30"	AA 1 HC 3/8 X 1/2 ODFS/T	055928	SAME	MEDIUM TEMP

SPORLAN TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
EGF 1/8 C	TXV	1/8 TON R12	1/4 X 3/8 ODF - 30"	NONE	NONE	NONE	MEDIUM TEMP
EGF 11/2 C	TXV	11/2 TON R12	3/8 X 1/2 ODF - 30"	NONE	NONE	NONE	MEDIUM TEMP
EGF 1C	TXV	1 TON R12	1/4 X 3/8 ODF - 30"	HF5 1 FC 3/8 X 1/2 ODFS/T	056119	SAVE	MEDIUM TEMP
EGFE 1 C	TXV	1 TON R12	3/8 X 1/2 ODF - 30"	HF5 1 FC 3/8 X 1/2 ODFS/T	056119	SAVE	MEDIUM TEMP
EGFE 1/2 C	TXV	1/2 TON R12	1/4 X 3/8 ODF - 30"	HF5 1/2 FC 3/8 X 1/2 ODFS/T	056331	SAVE	MEDIUM TEMP
EGFE 1/4 C	TXV	1/4 TON R12	1/4 X 3/8 ODF - 30"	NONE	NONE	NONE	MEDIUM TEMP
EGFE 1/8 C	TXV	1/8 TON R12	1/4 X 3/8 ODF - 30"	NONE	NONE	NONE	MEDIUM TEMP
EGFE 11/2 C	TXV	11/2 TON R12	3/8 X 1/2 ODF - 30"	HF5 11/2 FC 3/8 X 1/2 ODFANG	05594	SAVE	MEDIUM TEMP
EGFE 2 C	TXV	2 TON R12	3/8 X 1/2 ODF - 30"	HF5 2 FC 3/8 X 1/2 ODFS/T	053266	SAVE	MEDIUM TEMP
EGJ 1 C	TXV	1 TON R134	3/8 X 1/2 ODF - 30"	HF5 1 MC 3/8 X 1/2 ODFS/T	065641	SAVE	MEDIUM TEMP
EGJ 1/2 C	TXV	1/2 TON R134	1/4 X 3/8 ODF - 30"	HF5 1/2 MC 3/8 X 1/2 ODFS/T	058100	SAVE	MEDIUM TEMP
EGJ 1/4 C	TXV	1/4 TON R134	1/4 X 3/8 ODF - 30"	HF5 1/4 MC	058545	SAVE	MEDIUM TEMP
EGJ 11/2 C	TXV	11/2 TON R134	3/8 X 1/2 ODF - 30"	HF5 11/2 MC	NONE	SAVE	MEDIUM TEMP
EGJE 1 - C	TXV	1 TON R134	3/8 X 1/2 ODF - 5"	HF5 1 MC	058546	SAVE	MEDIUM TEMP
EGJE 1/2 C	TXV	1/2 TON R134	1/4 X 3/8 ODF - 30"	HF5 1/2 MC 3/8 X 1/2 ODFS/T	056545	SAVE	MEDIUM TEMP
EGJE 1/4 C	TXV	1/4 TON R134	1/4 X 3/8 ODF - 30"	NONE	NONE	NONE	MEDIUM TEMP
EGJE 11/2 - C	TXV	11/2 TON R134	3/8 X 1/2 ODF - 5"	NONE	NONE	NONE	MEDIUM TEMP
EGJE 2 C	TXV	2 TON R134	3/8 X 1/2 ODF - 5"	NONE	NONE	NONE	MEDIUM TEMP
EGR 1 C	TXV	1 TON R502	3/8 X 1/2 ODF - 5"	HF5 1SC 3/8 X 1/2 ODFS/T	065643	SAVE	MEDIUM TEMP
EGR 1/2 C	TXV	1/2 TON R502	3/8 X 1/2 ODF - 5"	NONE	NONE	NONE	MEDIUM TEMP
EGR 1/4 C	TXV	1/4 TON R502	3/8 X 1/2 ODF - 5"	HF5 1/4 RC 3/8 X 1/2 ODFANG	055490	SAVE	MEDIUM TEMP
EGR 11/2 C	TXV	11/2 TON R502	1/4 X 1/2 ODF - 30"	NONE	NONE	NONE	MEDIUM TEMP
EGRE 1 C	TXV	1 TON R502	3/8 X 1/2 ODF - 5"	HF5 1 RC	056029	SAVE	MEDIUM TEMP
EGRE 1/2C	TXV	1/2 TON R502	3/8 X 1/2 ODF - 5"	HF5 1/2 RC	056022	SAVE	MEDIUM TEMP
EGRE 1/4 C	TXV	1/4 TON R502	3/8 X 1/2 ODF - 5"	HF5 1/4 RC	NONE	SAVE	MEDIUM TEMP
EGRE 11/2 C	TXV	11/2 TON R502	3/8 X 1/2 ODF - 5"	HF5 11/2 RC	056031	SAVE	MEDIUM TEMP
EGRE 2 C	TXV	2 TON R502	3/8 X 1/2 ODF - 5"	HF5 2 RC	053270	SAVE	MEDIUM TEMP
EGS 1 C	TXV	1 TON R404	3/8 X 1/2 ODF - 5"	HF5 1SC 3/8 X 1/2 ODFS/T	065643	SAVE	MEDIUM TEMP
EGS 1/2 - C	TXV	1/2 TON R404	3/8 X 1/2 ODF - 5"	NONE	NONE	NONE	MEDIUM TEMP
EGS 1/4 - C	TXV	1/4 TON R404	3/8 X 1/2 ODF - 5"	NONE	NONE	NONE	MEDIUM TEMP
EGS 1/4 - Z	TXV	1/4 TON R404	3/8 X 1/2 ODF - 5"	NONE	NONE	NONE	LOW - TEMP
EGS 11/2 C	TXV	11/2 TON R404	3/8 X 1/2 ODF - 5"	NONE	NONE	NONE	MEDIUM TEMP
EGSE 1 - C	TXV	1 TON R404	3/8 X 1/2 ODF - 5"	HF5 1 SC 3/8 X 1/2 ODFS/T	065650	SAVE	MEDIUM TEMP
EGSE 1 - Z	TXV	1 TON R404	3/8 X 1/2 ODF - 5"	HF5 1 SZ 3/8 X 1/2 ODFS/T	064289	SAVE	LOW - TEMP
EGSE 1 - ZP	TXV	1 TON R404	3/8 X 1/2 ODF - 5"	HF5 1 SW45	059086	SAVE	LOW - TEMP
EGSE 1/2 - C	TXV	1/2 TON R404	3/8 X 1/2 ODF - 5"	HF5 1/2 SC 3/8 X 1/2 ODFANG	058976	SAVE	MEDIUM TEMP
EGSE 1/2 - Z	TXV	1/2 TON R404	3/8 X 1/2 ODF - 5"	HF5 1/2 SZ 3/8 X 1/2 ODFS/T	065735	SAVE	LOW - TEMP
EGSE 1/2 - ZP	TXV	1/2 TON R404	3/8 X 1/2 ODF - 5"	HF5 1/2 SW45 3/8 X 1/2 ODFS/T	065736	SAVE	LOW - TEMP
EGSE 1/4 - C	TXV	1/4 TON R404	3/8 X 1/2 ODF - 5"	NONE	NONE	NONE	MEDIUM TEMP
EGSE 1/4 - Z	TXV	1/4 TON R404	3/8 X 1/2 ODF - 5"	HF5 1/4 SZ 3/8 X 1/2 ODFS/T	065733	SAVE	LOW - TEMP
EGSE 11/2 - C	TXV	11/2 TON R404	3/8 X 1/2 ODF - 5"	HF5 11/2 SC 3/8 X 1/2 ODFS/T	057974	SAVE	MEDIUM TEMP
EGSE 11/2 - Z	TXV	11/2 TON R404	3/8 X 1/2 ODF - 5"	HF5 11/2 SZ 3/8 X 1/2 ODFS/T	064290	SAVE	LOW - TEMP
EGSE 11/2 - ZP	TXV	11/2 TON R404	3/8 X 1/2 ODF - 5"	HF5 11/2 SW45 3/8 X 1/2 ODFS/T	065738	SAVE	LOW - TEMP
EGSE 2 - C	TXV	2 TON R404	3/8 X 1/2 ODF - 5"	HF5 2 SC 3/8 X 1/2 ODFS/T	057958	SAVE	MEDIUM TEMP
EGSE 2 - ZP	TXV	2 TON R404	3/8 X 1/2 ODF - 5"	HF5 2 SW45 3/8 X 1/2 ODFS/T	065740	SAVE	LOW - TEMP
EGV 1/2 - C	TXV	1/2 TON R22	3/8 X 1/2 ODF - 5"	HF5 1/2 H C	054136	SAVE	MEDIUM TEMP
EGV 1/3 - C	TXV	1/3 TON R22	3/8 X 1/2 ODF - 5"	HF5 1/3 HC	055633	1/4 TON R22	MEDIUM TEMP
EGV 1/5 - C	TXV	1/5 TON R22	3/8 X 1/2 ODF - 5"	HF5 1/4 H C	055633	1/4 TON R22	MEDIUM TEMP
EGV 11/2 C	TXV	11/2 TON R22	3/8 X 1/2 ODF - 5"	HF5 11/2 HC	056018	SAVE	MEDIUM TEMP
EGV 1C	TXV	1 TON R22	3/8 X 1/2 ODF - 5"	HF5 1 HC	055702	SAVE	MEDIUM TEMP
EGV 21/2C	TXV	21/2 TON R22	3/8 X 1/2 ODF - 5"	HF5 3 HC	053915	3 TON R22	MEDIUM TEMP
EGVE - 3/4 - C	TXV	3/4 TON R22	3/8 X 1/2 ODF - 5"	HF5 1 HC	055708	1 TON R22	MEDIUM TEMP
EGVE - 3/4 - Z	TXV	3/4 TON R22	3/8 X 1/2 ODF - 5"	HF5 3/4 HZ	NONE	SAVE	LOW TEMP
EGVE - 3/4 - ZP40	TXV	3/4 TON R22	3/8 X 1/2 ODF - 5"	HF5 3/4 HW35	NONE	SAVE	LOW TEMP
EGVE 1 - C	TXV	1 TON R22	3/8 X 1/2 ODF - 5"	HF5 1 H C	055708	SAVE	MEDIUM TEMP
EGVE 1 - Z	TXV	1 TON R22	3/8 X 1/2 ODF - 5"	HF5 1 H Z	NONE	SAVE	LOW TEMP
EGVE 1 - ZP	TXV	1 TON R22	3/8 X 1/2 ODF - 5"	HF5 1 HW35	NONE	SAVE	LOW TEMP
EGVE 1/2 - C	TXV	1/2 TON R22	3/8 X 1/2 ODF - 5"	HF5 1/2 H C	055827	SAVE	MEDIUM TEMP
EGVE 1/2 - Z	TXV	1/2 TON R22	3/8 X 1/2 ODF - 5"	HF5 1/2 H Z	055889	SAVE	LOW TEMP
EGVE 1/3 C	TXV	1/3 TON R22	3/8 X 1/2 ODF - 5"	HF5 3/4 HC	NONE	SAVE	MEDIUM TEMP
EGVE 1/5 - C	TXV	1/5 TON R22	3/8 X 1/2 ODF - 5"	HF5 1/4 H C	055927	1/4 TON R22	MEDIUM TEMP
EGVE 11/2 - C	TXV	11/2 TON R22	3/8 X 1/2 ODF - 5"	HF5 11/2 H C	055863	SAVE	MEDIUM TEMP
EGVE 11/2 - Z	TXV	11/2 TON R22	3/8 X 1/2 ODF - 5"	HF5 11/2 H Z	NONE	SAVE	LOW TEMP
EGVE 11/2 - ZP40	TXV	11/2 TON R22	3/8 X 1/2 ODF - 5"	HF5 11/2 HW35	NONE	SAVE	MEDIUM TEMP
EGVE 2 - C	TXV	2 TON R22	3/8 X 1/2 ODF - 5"	HF5 2 HC	055706	SAVE	MEDIUM TEMP

Thermal Expansion Valves

Solenoid Valves

Coils

Industrial Solenoid Valves

Shut Off Valves

System Protectors

Storage Devices

Oil Controls

Pressure Regulators

Temperature Pressure Controls

Competitive Cross Reference

SPORLAN TO EMERSON

	Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
Thermal Expansion Valves	EGVE 2 - Z	TXV	2 TON R22	3/8 X 1/2 ODF - 5'	HFES 2 HZ	NONE	SAME	LOW TEMP
	EGVE 21/2 C	TXV	21/2 TON R22	3/8 X 1/2 ODF - 5'	HFES 21/2 HC	055931	SAME	MEDIUM TEMP
	EGVE 3 - C	TXV	3 TON R22	3/8 X 1/2 ODF - 5'	HFES 3 HC	053916	SAME	MEDIUM TEMP
	EMC 10 FC	TXV	3/16 TON R12	3/8 X 1/2 ODF - 5'	HFS 1/4 FC	NONE	1/4 TON R12	MEDIUM TEMP
	EMC 10 JC	TXV	1/4 TON R134	3/8 X 1/2 ODF - 5'	HFS 1/4 MC	058545	SAME	MEDIUM TEMP
	EMC 10 RC	TXV	1/4 TON R502	3/8 X 1/2 ODF - 5'	HFS 1/4 RC	055490	SAME	MEDIUM TEMP
Solenoid Valves	EMC 10 SC	TXV	1/4 TON R404	3/8 X 1/2 ODF - 5'	HFS 1/4 SC	NONE	SAME	MEDIUM TEMP
	EMC 10 V - C	TXV	1/4 TON R22	3/8 X 1/2 ODF - 5'	HFS 1/4 HC	055633	SAME	MEDIUM TEMP
	EMC 11 FC	TXV	1/2 TON R12	3/8 X 1/2 ODF - 5'	HFS 1/2 FC	056063	SAME	MEDIUM TEMP
	EMC 11 JC	TXV	1/2 TON R134	3/8 X 1/2 ODF - 5'	HFS 1/2 MC	NONE	SAME	MEDIUM TEMP
	EMC 11 RC	TXV	1/2 TON R502	3/8 X 1/2 ODF - 5'	HFS 1/2 RC	NONE	SAME	MEDIUM TEMP
	EMC 11 S - Z	TXV	1/2 TON R404	3/8 X 1/2 ODF - 5'	HFS 1/2 SZ	NONE	SAME	MEDIUM TEMP
Coils	EMC 11 VC	TXV	1 TON R22	3/8 X 1/2 ODF - 5'	HFS 1 HC	055702	SAME	MEDIUM TEMP
	EMC 12 FC	TXV	3/4 TON R12	3/8 X 1/2 ODF - 5'	HFS 1 FC	NONE	1 TON R12	MEDIUM TEMP
	EMC 12 JC	TXV	1 TON R134	3/8 X 1/2 ODF - 5'	HFS 1 MC	NONE	SAME	MEDIUM TEMP
	EMC 12 RC	TXV	1 TON R502	3/8 X 1/2 ODF - 5'	HFS 1 RC	NONE	SAME	MEDIUM TEMP
	EMC 12 SC	TXV	1 TON R404	3/8 X 1/2 ODF - 5'	HFS 1 SC	NONE	SAME	MEDIUM TEMP
	EMC 12 VC	TXV	11/4 TON R22	3/8 X 1/2 ODF - 5'	HFS 11/2 HC	056018	11/2 TON R22	MEDIUM TEMP
Industrial Solenoid Valves	EMC 13 FC	TXV	1 TON R12	3/8 X 1/2 ODF - 5'	HFS 1 FC	NONE	SAME	MEDIUM TEMP
	EMC 13 JC	TXV	11/4 TON R134	3/8 X 1/2 ODF - 5'	HFS 11/2 MC	NONE	11/2 TON R134	MEDIUM TEMP
	EMC 13 RC	TXV	11/4 TON R502	3/8 X 1/2 ODF - 5'	HFS 11/4 RC	NONE	SAME	MEDIUM TEMP
	EMC 13 SC	TXV	11/4 TON R404	3/8 X 1/2 ODF - 5'	HFS 11/4 SC	NONE	SAME	MEDIUM TEMP
	EMC 13 VC	TXV	13/4 TON R22	3/8 X 1/2 ODF - 5'	HFS 2 HC	NONE	2 TON R22	MEDIUM TEMP
	EMC 20 FC	TXV	3/16 TON R12	3/8 X 1/2 ODF - 5'	HFSB 1/4 FC	NONE	1/4 TON R12	MEDIUM TEMP
Shut Off Valves	EMC 20 JC	TXV	1/4 TON R134	3/8 X 1/2 ODF - 5'	HFSB 1/4 MC	NONE	SAME	MEDIUM TEMP
	EMC 20 RC	TXV	1/4 TON R502	3/8 X 1/2 ODF - 5'	HFSB 1/4 RC	NONE	SAME	MEDIUM TEMP
	EMC 20 SC	TXV	1/4 TON R404	3/8 X 1/2 ODF - 5'	HFSB 1/4 SC	NONE	SAME	MEDIUM TEMP
	EMC 20 VC	TXV	1/4 TON R22	3/8 X 1/2 ODF - 5'	HFSB 1/4 HC	NONE	SAME	MEDIUM TEMP
	EMC 21 FC	TXV	1/2 TON R12	3/8 X 1/2 ODF - 5'	HFSB 1/2 FC	NONE	SAME	MEDIUM TEMP
	EMC 21 JC	TXV	1/2 TON R134	3/8 X 1/2 ODF - 5'	HFSB 1/2 MC	NONE	SAME	MEDIUM TEMP
System Protectors	EMC 21 RC	TXV	1/2 TON R502	3/8 X 1/2 ODF - 5'	HFSB 1/2 RC	NONE	SAME	MEDIUM TEMP
	EMC 21 SC	TXV	1/2 TON R404	3/8 X 1/2 ODF - 5'	HFSB 1/2 SC	NONE	SAME	MEDIUM TEMP
	EMC 21 VC	TXV	1 TON R22	3/8 X 1/2 ODF - 5'	HFSB 1 HC	NONE	SAME	MEDIUM TEMP
	EMC 22 FC	TXV	3/4 TON R12	3/8 X 1/2 ODF - 5'	HFSB 1/2 FC	NONE	1/2 TON R12	MEDIUM TEMP
	EMC 22 JC	TXV	3/4 TON R134	3/8 X 1/2 ODF - 5'	HFSB 3/4 MC	NONE	SAME	MEDIUM TEMP
	EMC 22 RC	TXV	1 TON R502	3/8 X 1/2 ODF - 5'	HFSB 1 RC	NONE	SAME	MEDIUM TEMP
Storage Devices	EMC 22 SC	TXV	1 TON R404	3/8 X 1/2 ODF - 5'	HFSB 1 SC	NONE	SAME	MEDIUM TEMP
	EMC 22 VC	TXV	11/4 TON R22	3/8 X 1/2 ODF - 5'	HFSB 11/2 HC	NONE	11/2 TON R22	MEDIUM TEMP
	EMC 23 FC	TXV	1 TON R12	3/8 X 1/2 ODF - 5'	HFSB 1 FC	NONE	SAME	MEDIUM TEMP
	EMC 23 JC	TXV	1 TON R134	3/8 X 1/2 ODF - 5'	HFSB 1 MC	NONE	SAME	MEDIUM TEMP
	EMC 23 RC	TXV	11/4 TON R502	3/8 X 1/2 ODF - 5'	HFSB 11/4 RC	NONE	SAME	MEDIUM TEMP
	EMC 23 SC	TXV	11/4 TON R404	3/8 X 1/2 ODF - 5'	HFSB 11/4 SC	NONE	SAME	MEDIUM TEMP
Oil Controls	EMC 23 VC	TXV	11/2 TON R22	3/8 X 1/2 ODF - 5'	HFSB 11/2 HC	NONE	SAME	MEDIUM TEMP
	EMCE 10 FC	TXV	3/16 TON R12	3/8 X 1/2 ODF - 5'	HFES 1/4 FC	NONE	1/4 TON R12	MEDIUM TEMP
	EMCE 10 JC	TXV	1/4 TON R134	3/8 X 1/2 ODF - 5'	HFES 1/4 MC	NONE	SAME	MEDIUM TEMP
	EMCE 10 RC	TXV	1/4 TON R502	3/8 X 1/2 ODF - 5'	HFES 1/4 RC	055092	SAME	MEDIUM TEMP
	EMCE 10 SC	TXV	1/4 TON R404	3/8 X 1/2 ODF - 5'	HFES 1/4 SC	NONE	SAME	MEDIUM TEMP
	EMCE 10 VC	TXV	1/4 TON R22	3/8 X 1/2 ODF - 5'	HFES 1/4 HC	055927	SAME	MEDIUM TEMP
Pressure Regulators	EMCE 11 FC	TXV	1/2 TON R12	3/8 X 1/2 ODF - 5'	HFES 1/2 FC	056021	SAME	MEDIUM TEMP
	EMCE 11 JC	TXV	1/2 TON R134	3/8 X 1/2 ODF - 5'	HFES 1/2 MC	NONE	SAME	MEDIUM TEMP
	EMCE 11 RC	TXV	1/2 TON R502	3/8 X 1/2 ODF - 5'	HFES 1/2 RC	056022	SAME	MEDIUM TEMP
	EMCE 11 S - Z	TXV	1/2 TON R404	3/8 X 1/2 ODF - 5'	HFES 1/2 SZ	NONE	SAME	MEDIUM TEMP
	EMCE 11 V - Z	TXV	1 TON R22	3/8 X 1/2 ODF - 5'	HFES 1 HZ	NONE	SAME	MEDIUM TEMP
	EMCE 12 FC	TXV	3/4 TON R12	3/8 X 1/2 ODF - 5'	HFES 1 FC	055993	1 TON R12	MEDIUM TEMP
Temperature Pressure Controls	EMCE 12 JC	TXV	1 TON R134	3/8 X 1/2 ODF - 5'	HFES 1 MC	058546	SAME	MEDIUM TEMP
	EMCE 12 RC	TXV	1 TON R502	3/8 X 1/2 ODF - 5'	HFES 1 RC	056029	SAME	MEDIUM TEMP
	EMCE 12 S - Z	TXV	1 TON R404	3/8 X 1/2 ODF - 5'	HFES 1 SZ	NONE	SAME	MEDIUM TEMP
	EMCE 12 VC	TXV	11/4 TON R22	3/8 X 1/2 ODF - 5'	HFES 11/2 HC	055994	11/2 TON R22	MEDIUM TEMP
	EMCE 13 FC	TXV	1 TON R12	3/8 X 1/2 ODF - 5'	HFES 1 FC	055993	SAME	MEDIUM TEMP
	EMCE 13 JC	TXV	11/4 TON R134	3/8 X 1/2 ODF - 5'	HFES 11/2 MC	NONE	11/2 TON R134	MEDIUM TEMP
Competitive Cross Reference	EMCE 13 RC	TXV	11/4 TON R502	3/8 X 1/2 ODF - 5'	HFES 11/4 RC	NONE	SAME	MEDIUM TEMP
	EMCE 13 SC	TXV	11/4 TON R404	3/8 X 1/2 ODF - 5'	HFES 11/4 SC	NONE	SAME	MEDIUM TEMP
	EMCE 13 VC	TXV	13/4 TON R22	3/8 X 1/2 ODF - 5'	HFES 2 HC	055706	2 TON R22	MEDIUM TEMP
	EMCE 20 FC	TXV	3/16 TON R12	3/8 X 1/2 ODF - 5'	HFSEB 1/4 FC	NONE	1/4 TON R12	MEDIUM TEMP
	EMCE 20 JC	TXV	1/4 TON R134	3/8 X 1/2 ODF - 5'	HFSEB 1/4 MC	NONE	SAME	MEDIUM TEMP

SPORLAN TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
EMCE 20 RC	TXV	1/4 TON R502	3/8 X 1/2 ODF - 5'	HFESB 1/4 RC	NONE	SAME	MEDIUM TEMP
EMCE 20 SC	TXV	1/4 TON R404	3/8 X 1/2 ODF - 5'	HFESB 1/4 SC	NONE	SAME	MEDIUM TEMP
EMCE 20 VC	TXV	1/4 TON R22	3/8 X 1/2 ODF - 5'	HFESB 1/4 HC	NONE	SAME	MEDIUM TEMP
EMCE 21 FC	TXV	1/2 TON R12	3/8 X 1/2 ODF - 5'	HFSEB 1/2 FC	NONE	SAME	MEDIUM TEMP
EMCE 21 JC	TXV	1/2 TON R134	3/8 X 1/2 ODF - 5'	HFSEB 1/2 MC	NONE	SAME	MEDIUM TEMP
EMCE 21 RC	TXV	1/2 TON R502	3/8 X 1/2 ODF - 5'	HFESB 1/2 RC	NONE	SAME	MEDIUM TEMP
EMCE 21 SC	TXV	1/2 TON R404	3/8 X 1/2 ODF - 5'	HFESB 1/2 SC	NONE	SAME	MEDIUM TEMP
EMCE 21 VC	TXV	1 TON R22	3/8 X 1/2 ODF - 5'	HFESB 1 HC	NONE	SAME	MEDIUM TEMP
EMCE 22 FC	TXV	3/4 TON R12	3/8 X 1/2 ODF - 5'	HFSEB 1/2 FC	NONE	1/2 TON R12	MEDIUM TEMP
EMCE 22 JC	TXV	3/4 TON R134	3/8 X 1/2 ODF - 5'	HFSEB 3/4 MC	NONE	SAME	MEDIUM TEMP
EMCE 22 RC	TXV	1 TON R502	3/8 X 1/2 ODF - 5'	HFESB 1 RC	NONE	SAME	MEDIUM TEMP
EMCE 22 SC	TXV	1 TON R404	3/8 X 1/2 ODF - 5'	HFESB 1 SC	NONE	SAME	MEDIUM TEMP
EMCE 22 VC	TXV	1 1/4 TON R22	3/8 X 1/2 ODF - 5'	HFESB 1 1/2 HC	NONE	1 1/2 TON R22	MEDIUM TEMP
EMCE 23 FC	TXV	1 TON R12	3/8 X 1/2 ODF - 5'	HFSEB 1 FC	NONE	SAME	MEDIUM TEMP
EMCE 23 JC	TXV	1 TON R134	3/8 X 1/2 ODF - 5'	HFSEB 1 MC	NONE	SAME	MEDIUM TEMP
EMCE 23 RC	TXV	1 1/4 TON R502	3/8 X 1/2 ODF - 5'	HFESB 1 1/4 RC	NONE	SAME	MEDIUM TEMP
EMCE 23 SC	TXV	1 1/4 TON R404	3/8 X 1/2 ODF - 5'	HFESB 1 1/4 SC	NONE	SAME	MEDIUM TEMP
EMCE 23 VC	TXV	1 1/2 TON R22	3/8 X 1/2 ODF - 5'	HFESB 1 1/2 HC	NONE	SAME	MEDIUM TEMP
EQ-0-FC	TXV	1/5 TON R12	3/8 X 1/2 ODF - 5'	HFS 1/8 FC	056471	1/8 TON R12	HF IS BALANCED PORT
EQ-0-JC	TXV	1/4 TON R134	3/8 X 1/2 ODF - 5'	HFS 1/4 MC	058545	SAME	HF IS BALANCED PORT
EQ-0-RC	TXV	1/5 TON R502	3/8 X 1/2 ODF - 5'	HFS 1/4 RC	056010	1/4 TON R502	HF IS BALANCED PORT
EQ-0-VC	TXV	1/4 TON R22	3/8 X 1/2 ODF - 5'	HFS 1/4 HC	055633	SAME	HF IS BALANCED PORT
EQ-1-FC	TXV	1/2 TON R12	3/8 X 1/2 ODF - 5'	HFS 1/2 FC	056013	SAME	HF IS BALANCED PORT
EQ-1-JC	TXV	1/2 TON R134	3/8 X 1/2 ODF - 5'	HFS 1/2 MC	057946	SAME	HF IS BALANCED PORT
EQ-1-RC	TXV	1/2 TON R502	3/8 X 1/2 ODF - 5'	HFS 1/2 RC	055701	SAME	HF IS BALANCED PORT
EQ-1-VC	TXV	3/4 TON R22	3/8 X 1/2 ODF - 5'	HFS 1 HC	055928	1 TON R22	HF IS BALANCED PORT
EQ-2-FC	TXV	5/8 TON R12	3/8 X 1/2 ODF - 5'	HFS 1/2 FC	056013	1/2 TON R12	HF IS BALANCED PORT
EQ-2-JC	TXV	3/4 TON R134	3/8 X 1/2 ODF - 5'	HFS 3/4 MC	058151	SAME	HF IS BALANCED PORT
EQ-2-RC	TXV	5/8 TON R502	3/8 X 1/2 ODF - 5'	HFS 1/2 RC	055701	1/2 TON R502	HF IS BALANCED PORT
EQ-2-VC	TXV	1 TON R22	3/8 X 1/2 ODF - 5'	HFS 1 HC	055928	SAME	HF IS BALANCED PORT
EQ-3-FC	TXV	1 TON R12	3/8 X 1/2 ODF - 5'	HFS 1 FC	056119	SAME	HF IS BALANCED PORT
EQ-3-JC	TXV	1 1/4 TON R134	3/8 X 1/2 ODF - 5'	HFS 1 1/2 MC	NONE	1 1/2 TON R134	HF IS BALANCED PORT
EQ-3-RC	TXV	1 TON R502	3/8 X 1/2 ODF - 5'	HFS 1 RC	056016	SAME	HF IS BALANCED PORT
EQ-3-VC	TXV	1 1/2 TON R22	3/8 X 1/2 ODF - 5'	HFS 1 1/2 HC	056018	SAME	HF IS BALANCED PORT
EQ-4-FC	TXV	1 1/2 TON R12	3/8 X 1/2 ODF - 5'	HFS 1 1/2 FC	NONE	SAME	HF IS BALANCED PORT
EQ-4-JC	TXV	1 1/2 TON R134	3/8 X 1/2 ODF - 5'	HFS 1 1/2 MC	NONE	SAME	HF IS BALANCED PORT
EQ-4-RC	TXV	1 1/2 TON R502	3/8 X 1/2 ODF - 5'	HFS 1 1/2 RC	055985	SAME	HF IS BALANCED PORT
EQ-4-VC	TXV	2 1/2 TON R22	3/8 X 1/2 ODF - 5'	HFS 2 1/2 HC	056147	SAME	HF IS BALANCED PORT
EQ-5-FC	TXV	2 TON R12	3/8 X 1/2 ODF - 5'	HFS 2 FC	NONE	SAME	HF IS BALANCED PORT
EQ-5-JC	TXV	2 1/2 TON R134	3/8 X 1/2 ODF - 5'	HFS 2 1/2 MC	NONE	SAME	HF IS BALANCED PORT
EQ-5-RC	TXV	2 TON R502	3/8 X 1/2 ODF - 5'	HFS 2 RC	054837	SAME	HF IS BALANCED PORT
EQ-5-VC	TXV	3 1/2 TON R22	3/8 X 1/2 ODF - 5'	HFS 3 HC	053915	3 TON R22	HF IS BALANCED PORT
EQ-6-RC	TXV	3 TON R502	3/8 X 1/2 ODF - 5'	HFS 3 RC	053915	SAME	HF IS BALANCED PORT
EQ-6-VC	TXV	5 TON R22	3/8 X 1/2 ODF - 5'	HFS 5 1/2 HC	055840	5 1/2 TON R22	HF IS BALANCED PORT
EQE-0-FC	TXV	1/5 TON R12	3/8 X 1/2 ODF - 5'	HFES 1/8 FC	057237	1/8 TON R12	HF IS BALANCED PORT
EQE-0-JC	TXV	1/4 TON R134	3/8 X 1/2 ODF - 5'	HFES 1/4 MC	058544	SAME	HF IS BALANCED PORT
EQE-0-RC	TXV	1/5 TON R502	3/8 X 1/2 ODF - 5'	HFES 1/4 RC	055092	1/4 TON R502	HF IS BALANCED PORT
EQE-0-VC	TXV	1/4 TON R22	3/8 X 1/2 ODF - 5'	HFES 1/4 HC	055927	SAME	HF IS BALANCED PORT
EQE-1-FC	TXV	1/2 TON R12	3/8 X 1/2 ODF - 5'	HFES 1/2 FC	056331	SAME	HF IS BALANCED PORT
EQE-1-JC	TXV	1/2 TON R134	3/8 X 1/2 ODF - 5'	HFES 1/2 MC	057945	SAME	HF IS BALANCED PORT
EQE-1-RC	TXV	1/2 TON R502	3/8 X 1/2 ODF - 5'	HFES 1/2 RC	056022	SAME	HF IS BALANCED PORT
EQE-1-VC	TXV	3/4 TON R22	3/8 X 1/2 ODF - 5'	HFES 1 HC	055708	1 TON R22	HF IS BALANCED PORT
EQE-2-FC	TXV	5/8 TON R12	3/8 X 1/2 ODF - 5'	HFES 1/2 FC	056331	1/2 TON R12	HF IS BALANCED PORT
EQE-2-JC	TXV	3/4 TON R134	3/8 X 1/2 ODF - 5'	HFES 3/4 MC	059422	SAME	HF IS BALANCED PORT
EQE-2-RC	TXV	5/8 TON R502	3/8 X 1/2 ODF - 5'	HFES 1/2 RC	056022	1/2 TON R502	HF IS BALANCED PORT
EQE-2-VC	TXV	1 TON R22	3/8 X 1/2 ODF - 5'	HFES 1 HC	055708	SAME	HF IS BALANCED PORT
EQE-3-FC	TXV	1 TON R12	3/8 X 1/2 ODF - 5'	HFES 1 FC	056151	SAME	HF IS BALANCED PORT
EQE-3-JC	TXV	1 1/4 TON R134	3/8 X 1/2 ODF - 5'	HFES 1 1/2 MC	058543	1 1/2 TON R134	HF IS BALANCED PORT
EQE-3-RC	TXV	1 TON R502	3/8 X 1/2 ODF - 5'	HFES 1 RC	056029	SAME	HF IS BALANCED PORT
EQE-3-VC	TXV	1 1/2 TON R22	3/8 X 1/2 ODF - 5'	HFES 1 1/2 HC	055863	SAME	HF IS BALANCED PORT
EQE-4-FC	TXV	1 1/2 TON R12	3/8 X 1/2 ODF - 5'	HFES 1 1/2 FC	056030	SAME	HF IS BALANCED PORT
EQE-4-JC	TXV	1 1/2 TON R134	3/8 X 1/2 ODF - 5'	HFES 1 1/2 MC	058543	SAME	HF IS BALANCED PORT
EQE-4-RC	TXV	1 1/2 TON R502	3/8 X 1/2 ODF - 5'	HFES 1 1/2 RC	056170	SAME	HF IS BALANCED PORT
EQE-4-VC	TXV	2 1/2 TON R22	3/8 X 1/2 ODF - 5'	HFES 2 1/2 HC	055931	SAME	HF IS BALANCED PORT
EQE-5-FC	TXV	2 TON R12	3/8 X 1/2 ODF - 5'	HFES 2 FC	053266	SAME	HF IS BALANCED PORT

Thermal Expansion Valves
 Solenoid Valves
 Coils
 Industrial Solenoid Valves
 Shut Off Valves
 System Protectors
 Storage Devices
 Controls
 Pressure Regulators
 Temperature Pressure Controls
 Competitive Cross Reference

SPORLAN TO EMERSON

	Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
Thermal Expansion Valves	EQE-5-JC	TXV	21/2 TON R134	3/8 X 1/2 ODF - 5'	HFES 21/2 MC	064542	SAME	HF IS BALANCED PORT
	EQE-5-RC	TXV	2 TON R502	3/8 X 1/2 ODF - 5'	HFES 2 RC	053270	SAME	HF IS BALANCED PORT
	EQE-5-VC	TXV	31/2 TON R22	3/8 X 1/2 ODF - 5'	HFES 3 HC	058280	3 TON R22	HF IS BALANCED PORT
	EQE-6-RC	TXV	3 TON R502	3/8 X 1/2 ODF - 5'	HFES 3 RC	053916	SAME	HF IS BALANCED PORT
	EQE-6-VC	TXV	5 TON R22	5/8 X 7/8 ODF - 5'	HFES 51/2 HC	054779	51/2 TON R22	HF IS BALANCED PORT
	FF 1 - C	TXV	1 TON R12	3/8 X 3/8 SAE - 5'	AFA 1 F C	047758	SAME	
Solenoid Valves	FF 1 - Z	TXV	1 TON R12	3/8 X 3/8 SAE - 5'	AFA 1 F Z	NONE	SAME	
	FF 1/2 - C	TXV	1/2 TON R12	1/4 X 3/8 SAE 30"	AFA 1/2 FC	057028	3/8 X 3/8 SAE - 5'	
	FF 1/2 - C	TXV	1/2 TON R12	1/4 X 1/2 SAE 30"	AFA 1/2 FC	047752	1/4 X 3/8 SAE	
	FF 1/2 - C	TXV	1/2 TON R12	3/8 X 1/2 SAE - 30"	AFA 1/2 FC	057027	SAME	
	FF 1/2 Z	TXV	1/2 TON R12	1/4 X 1/2 SAE 30"	AFA 1/2 FZ	048685	1/4 X 3/8 SAE	
	FF 1/2 ZP	TXV	1/2 TON R12	1/4 X 1/2 SAE 30"	AFA 1/2 FW 15	NONE	SAME	
Coils	FF 1/4 - C	TXV	1/4 TON R12	1/4 X 3/8 SAE 30"	AFA 1/4 FC	047753	SAME	
	FF 1/4 - C	TXV	1/4 TON R12	1/4 X 1/2 SAE 30"	AFA 1/4 FC	057047	1/4 X 3/8 SAE	
	FF 1/4 - C	TXV	1/4 TON R12	3/8 X 1/2 SAE - 30"	AFA 1/4 FC	054258	3/8 X 3/8 SAE - 5'	
	FF 1/4 - Z	TXV	1/4 TON R12	1/4 X 1/2 SAE 30"	AFA 1/4 FZ	NONE	SAME	
	FF 1/4 - ZP	TXV	1/4 TON R12	1/4 X 1/2 SAE 30"	AFA 1/4 FW 15	NONE	SAME	
	FF 1/8C	TXV	1/8 TON R12	1/4 X 1/2 SAE 30"	AFA 1/8 FC	NONE	SAME	
Industrial Solenoid Valves	FF 11/2C	TXV	11/2 TON R12	3/8 X 1/2 SAE 30"	AFA 11/2 FC	NONE	SAME	
	FFE 1 - C	TXV	1 TON R12	3/8 X 1/2 SAE 30"	AFAE 1 FC	057048	3/8 X 3/8 SAE 30"	
	FFE 1 - Z	TXV	1 TON R12	3/8 X 1/2 SAE 30"	AFAE 1 FZ	NONE	SAME	
	FFE 1 - ZP	TXV	1 TON R12	3/8 X 1/2 SAE 30"	AFAE 1 FW 15	NONE	SAME	
	FFE 1 1/2 - C	TXV	11/2 TON R12	3/8 X 1/2 SAE 30"	AFAE 11/2 FC	NONE	SAME	
	FFE 1/2 - C	TXV	1/2 TON R12	1/4 X 1/2 SAE 30"	AFAE 1/2 FC	057023	1/4 X 3/8 SAE 30"	
Shut Off Valves	FFE 1/2 - C	TXV	1/2 TON R12	1/4 X 1/2 SAE 30"	AFAE 1/2 FC	057023	1/4 X 3/8 SAE 30"	
	FFE 1/2 - Z	TXV	1/2 TON R12	3/8 X 1/2 SAE 30"	AFAE 1/2 FZ	NONE	SAME	
	FFE 1/2 - ZP	TXV	1/2 TON R12	1/4 X 1/2 SAE 30"	AFAE 1/2 FW 15	NONE	SAME	
	FFE 1/4 - C	TXV	1/4 TON R12	1/4 X 1/2 SAE 30"	AFAE 1/4 FC	054240	1/4 X 3/8 SAE 5'	
	FFE 2 - C	TXV	2 TON R12	3/8 X 1/2 SAE 30"	AFAE 2 FC	NONE	SAME	
	FJ 1 - C	TXV	1 TON R134	3/8 X 1/2 SAE 30"	AFA 1 MC	NONE	SAME	
System Protectors	FJ 1/2 - C	TXV	1/2 TON R134	1/4 X 3/8 SAE 30"	AFA 1/2 MC	057606	SAME	
	FJ 1/2 - C	TXV	1/2 TON R134	3/8 X 1/2 SAE 30"	AFA 1/2 MC	057606	1/4 X 3/8 SAE 30"	
	FJ 1/2 - C	TXV	1/2 TON R134	3/8 X 1/2 SAE - 30"	AFA 1/2 MC	059625	3/8 X 3/8 SAE 30"	
	FJ 1/4 - C	TXV	1/4 TON R134	1/4 X 3/8 SAE 30"	AFA 1/4 MC	057607	SAME	
	FJ 1/4 - C	TXV	1/4 TON R134	1/4 X 1/2 SAE 30"	AFA 1/4 MC	057607	1/4 X 1/2 SAE 30"	
	FJ 1/4 - C	TXV	1/4 TON R134	3/8 X 1/2 SAE - 30"	AFA 1/4 MC	057607	1/4 X 1/2 SAE 30"	
Storage Devices	FJ 11/2C	TXV	11/2 TON R134	3/8 X 1/2 SAE - 30"	AFA 11/2 MC	NONE	SAME	
	FJE 1/2C	TXV	1/2 TON R134	1/4 X 1/2 SAE 30"	AFAE 1/2 MC	NONE	SAME	
	FJE 1/4C	TXV	1/4 TON R134	1/4 X 1/2 SAE 30"	AFAE 1/4 MC	NONE	SAME	
	FJE 11/2C	TXV	11/2 TON R134	3/8 X 1/2 SAE - 30"	AFAE 11/2 MC	NONE	SAME	
	FJE 1C	TXV	1 TON R134	3/8 X 1/2 SAE - 30"	AFAE 1 MC	057613	3/8 X 1/2 SAE 30"	
	FJE 2C	TXV	2 TON R134	3/8 X 1/2 SAE - 30"	AFAE 2 MC	NONE	SAME	
Oil Controls	FR 1/2C	TXV	1/2 TON R502	1/4 X 3/8 SAE 5'	AFA 1/2 RC	048431	SAME	
	FR 1/4C	TXV	FR 1/4C	1/4 TON R502	1/4 X 3/8 SAE 5'	AFA 1/4 RC 1/4 X 3/8 SAE	049871	SAME
	FR 11/2C	TXV	FR 11/2C	11/2 TON R502	3/8 X 1/2 SAE - 30"	HF 1-1/2 RC 3/8 X 1/2 SAE	054984	SAME
	FR 1C	TXV	FR 1C	1 TON R502	3/8 X 1/2 SAE - 30"	HF 1 RC 3/8 X 1/2 SAE	NONE	SAME
	FRE 1/2C	TXV	FRE 1/2C	1/2 TON R502	1/4 X 3/8 SAE 30"	HFE 1/2 RC 3/8 X 1/2 SAE	054967	SAME
	FRE 1/4C	TXV	FRE 1/4C	1/4 TON R502	1/4 X 3/8 SAE 30"	HFE 1/4 RC 3/8 X 1/2 SAE	054366	SAME
Pressure Regulators	FRE 11/2C	TXV	FRE 11/2C	11/2 TON R502	3/8 X 1/2 SAE - 30"	HFE 1-1/2 RC 3/8 X 1/2 SAE	054988	SAME
	FRE 1C	TXV	FRE 1C	1 TON R502	3/8 X 1/2 SAE - 30"	HFE 1 RC 3/8 X 1/2 SAE	054979	SAME
	FRE 2C	TXV	FRE 2C	2 TON R502	3/8 X 1/2 SAE - 30"	HFE 2 RC 3/8 X 1/2 SAE	053070	SAME
	FS 1/2 - C	TXV	FS 1/2 - C	1/2 TON R404	1/4 X 1/2 SAE 30"	NONE	NONE	NONE
	FS 1/2 - Z	TXV	FS 1/2 - Z	1/2 TON R404	1/4 X 1/2 SAE 30"	NONE	NONE	NONE
	FS 1/2 - ZP	TXV	FS 1/2 - ZP	1/2 TON R404	1/4 X 1/2 SAE 30"	NONE	NONE	NONE
Temperature Pressure Controls	FS 1/4 - C	TXV	FS 1/4 - C	1/4 TON R404	1/4 X 1/2 SAE 30"	NONE	NONE	NONE
	FS 1/4 - Z	TXV	FS 1/4 - Z	1/4 TON R404	1/4 X 1/2 SAE 30"	NONE	NONE	NONE
	FS 1/4 - ZP	TXV	FS 1/4 - ZP	1/4 TON R404	1/4 X 1/2 SAE 30"	NONE	NONE	NONE
	FS 11/2C	TXV	FS 11/2C	11/2 TON R404	3/8 X 1/2 SAE 30"	NONE	NONE	NONE
	FS1 - ZP	TXV	FS1 - ZP	1 TON R404	3/8 X 2/1 SAE 30"	NONE	NONE	NONE
	FSE 1 - C	TXV	FSE 1 - C	1 TON R404	3/8 X 1/2 SAE 30"	NONE	NONE	NONE
Competitive Cross Reference	FSE 1 - Z	TXV	FSE 1 - Z	1 TON R404	3/8 X 1/2 SAE 30"	NONE	NONE	NONE
	FSE 1 - ZP	TXV	FSE 1 - ZP	1 TON R404	3/8 X 1/2 SAE 30"	NONE	NONE	NONE
	FSE 1 1/2 - Z	TXV	FSE 1 1/2 - Z	11/2 TON R404	3/8 X 1/2 SAE 30"	NONE	NONE	NONE
	FSE 1 1/2 - ZP	TXV	FSE 1 1/2 - ZP	11/2 TON R404	3/8 X 1/2 SAE 30"	NONE	NONE	NONE
	FSE 1/2 - C	TXV	FSE 1/2 - C	1/2 TON R404	1/4 X 1/2 SAE 30"	NONE	NONE	NONE

SPORLAN TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
FSE 1/2 - Z	TXV	FSE 1/2 - Z	1/2 TON R404	1/4 X 1/2 SAE 30"	NONE	NONE	
FSE 1/2 - ZP	TXV	FSE 1/2 - ZP	1/2 TON R404	1/4 X 1/2 SAE 30"	NONE	NONE	
FSE 1/4 - ZP	TXV	FSE 1/4 - ZP	1/4 R404	1/4 X 1/2 SAE 30"	NONE	NONE	
FSE 2 - Z	TXV	FSE 2 - Z	2 TON R404	3/8 X 1/2 SAE 30"	NONE	NONE	
FSE 2 - ZP	TXV	FSE 2 - ZP	1/2 TON R404	3/8 X 1/2 SAE 30"	NONE	NONE	
FV 1 - C	TXV	1 TON R22	1/4 X 1/2 SAE 30"	AFA 1 HC	054231	3/8 X 3/8 SAE 5'	
FV 1 - C	TXV	1 TON R22	3/8 X 1/2 SAE 30"	AFA 1 HC	054231	3/8 X 3/8 SAE 5'	
FV 1/2 - C	TXV	1/2 TON R22	1/4 X 1/2 SAE 30"	AFA 1/2 HC	057260	1/4 X 3/8 SAE 30"	
FV 1/2 - C	TXV	1/2 TON R22	3/8 X 1/2 SAE 30"	AFA 1/2 HC	057260	1/4 X 3/8 SAE 30"	
FV 1/3 - C	TXV	1/3 TON R22	1/4 X 1/2 SAE 30"	AFA 1/3 HC	NONE	SAME	
FV 1/4 - C	TXV	1/4 TON R22	1/4 X 1/2 SAE 30"	AFA 1/4 HC	057261	1/4 X 3/8 SAE 30"	
FV 11/2 - C	TXV	11/2 TON R22	3/8 X 1/2 SAE 30"	AFA 11/2 HC	054232	3/8 X 3/8 SAE 5'	
FV 2C	TXV	2 TON R22	3/8 X 1/2 SAE 30"	AFA 2 HC	054233	3/8 X 3/8 SAE 5'	
FVE 1 - C	TXV	1 TON R22	1/4 X 1/2 SAE 30"	AFAE 1 HC	054246	3/8 X 3/8 SAE 5'	
FVE 1 - C	TXV	1 TON R22	3/8 X 1/2 SAE 30"	AFAE 1 HC	054246	3/8 X 3/8 SAE 5'	
FVE 1 - Z	TXV	1 TON R22	3/8 X 1/2 SAE 30"	AFAE 1 HZ	NONE	SAME	
FVE 1 1/2 - C	TXV	11/2 TON R22	3/8 X 1/2 SAE 30"	AFAE 11/2 HC	054232	3/8 X 3/8 SAE 5'	
FVE 1 1/2 - Z	TXV	11/2 TON R22	3/8 X 1/2 SAE 30"	AFAE 11/2 HZ	NONE	SAME	
FVE 1/2 - C	TXV	1/2 TON R22	1/4 X 3/8 SAE 5'	AFAE 1/2 HC	054243	SAME	
FVE 1/2 - C	TXV	1/2 TON R22	3/8 X 1/2 SAE 30"	AFAE 1/2 HC	054243	1/4 X 3/8 SAE 5'	
FVE 1/4 - C	TXV	1/4 TON R22	1/4 X 1/2 SAE 30"	AFAE 1/4 HC	NONE	SAME	
FVE 2 - C	TXV	2 TON R22	3/8 X 1/2 SAE 30"	AFAE 2 HC	054248	3/8 X 3/8 SAE 5'	
FVE 3 - C	TXV	3 TON R22	3/8 X 1/2 SAE 30"	AFAE 3 HC	054249	3/8 X 3/8 SAE 5'	
GF 1 - C	TXV	1 TON R12	3/8 X 1/2 SAE 5'	HF 1 F C	054905	SAME	
GF 1/2 - C	TXV	1/2 TON R12	3/8 X 1/2 SAE 5'	HF 1/2 F C	054892	SAME	
GF 1/4C	TXV	1/4 TON R12	1/4 X 1/2 SAE 5'	HF 1/4 FC	009811	SAME	
GF 1/8C	TXV	1/8 TON R12	3/8 X 1/2 SAE 5'	HF 1/8 FC	NONE	SAME	
GF 11/2 - C	TXV	11/2 TON R12	3/8 X 1/2 SAE 5'	HF 11/2 F C	054914	SAME	
GFE 1 - C	TXV	1 TON R12	3/8 X 1/2 SAE 5'	HFE 1 F C	054909	SAME	
GFE 1 - Z	TXV	1 TON R12	3/8 X 1/2 SAE 5'	HFE 1 F Z	NONE	SAME	
GFE 1 - ZP	TXV	1 TON R12	3/8 X 1/2 SAE 5'	HFE 1 FW15	NONE	SAME	
GFE 1/2 - C	TXV	1/2 TON R12	1/4 X 1/2 SAE 5'	HFE 1/2 F C	009955	SAME	
GFE 1/2 - Z	TXV	1/2 TON R12	3/8 X 1/2 SAE 5'	HFE 1/2 F Z	NONE	SAME	
GFE 1/2 - ZP	TXV	1/2 TON R12	3/8 X 1/2 SAE 5'	HFE 1/2 FW15	NONE	SAME	
GFE 1/4C	TXV	1/4 TON R12	3/8 X 1/2 SAE 5'	HFE 1/4 HC	054924	SAME	
GFE 1/8C	TXV	1/8 TON R12	3/8 X 1/2 SAE 5'	HFE 1/8 FC	NONE	SAME	
GFE 11/2 - C	TXV	11/2 TON R12	3/8 X 1/2 SAE 5'	HFE 11/2 FC	054917	SAME	
GFE 11/2 - Z	TXV	11/2 TON R12	3/8 X 1/2 SAE 5'	HFE 11/2 FZ	NONE	SAME	
GFE 11/2 - ZP	TXV	11/2 TON R12	3/8 X 1/2 SAE 5'	HFE 11/2 FW15	NONE	SAME	
GFE 2C	TXV	2 TON R12	3/8 X 1/2 SAE 5'	HFE 2 FC	053069	SAME	
GJ 1 - C	TXV	1 TON R134	3/8 X 1/2 SAE 5'	HF 1 M C	057619	SAME	
GJ 1/2 - C	TXV	1/2 TON R134	3/8 X 1/2 SAE 5'	HF 1/2 M C	057620	SAME	
GJ 1/4C	TXV	1/4 TON R134	3/8 X 1/2 SAE 5'	HF 1/4 MC	057618	SAME	
GJ 11/2 - C	TXV	11/2 TON R134	3/8 X 1/2 SAE 5'	HF11/2 M C	NONE	SAME	
GJE 1 - C	TXV	1 TON R134	3/8 X 1/2 SAE 5'	HFE 1 M C	065108	SAME	
GJE 1/2 - C	TXV	1/2 TON R134	3/8 X 1/2 SAE 5'	HFE 1/2 M C	057616	SAME	
GJE 1/4C	TXV	1/4 TON R134	3/8 X 1/2 SAE 5'	HFE 1/4 MC	NONE	SAME	
GJE 11/2 - C	TXV	11/2 TON R134	3/8 X 1/2 SAE 5'	HFE 11/2 M C	057895	SAME	
GJE 2 - C	TXV	2 TON R134	3/8 X 1/2 SAE 5'	HFE 2 M C	NONE	SAME	
GR 1/2C	TXV	1/2 TON R502	3/8 X 1/2 SAE 5'	HF 1/2 RC	054964	SAME	
GR 1/4C	TXV	1/4 TON R502	3/8 X 1/2 SAE 5'	HF 1/4 RC	054137	SAME	
GR 1/8C	TXV	1/8 TON R502	3/8 X 1/2 SAE 5'	HF 1/8 RC	NONE	SAME	
GR 11/2C	TXV	11/2 TON R502	3/8 X 1/2 SAE 5'	HF 11/2 RC	054984	SAME	
GR 1C	TXV	1 TON R502	3/8 X 1/2 SAE 5'	HF 1 RC	054976	SAME	
GRE 1/2C	TXV	1/2 TON R502	3/8 X 1/2 SAE 5'	HFE 1/2 RC	054967	SAME	
GRE 1/4C	TXV	1/4 TON R502	3/8 X 1/2 SAE 5'	HFE 1/4 RC	054366	SAME	
GRE 11/2C	TXV	11/2 TON R502	3/8 X 1/2 SAE 5'	HFE 11/2 RC	054988	SAME	
GRE 1C	TXV	1 TON R502	3/8 X 1/2 SAE 5'	HFE 1 RC	054979	SAME	
GRE 2C	TXV	2 TON R502	3/8 X 1/2 SAE 5'	HFE 2 RC	053070	SAME	
GS 1 - Z	TXV	1 TON R404	3/8 X 1/2 SAE 5'	HF 1 SZ	NONE	SAME	
GS 1/2 - Z	TXV	1/2 TON R404	3/8 X 1/2 SAE 5'	HF 1/2 SZ	NONE	SAME	
GS 1/2 - ZP	TXV	1/2 TON R404	3/8 X 1/2 SAE 5'	HF 1/2 SW35	NONE	SAME	
GS 1/4C	TXV	1/4 TON R404	3/8 X 1/2 SAE 5'	HF 1/4 SC	NONE	SAME	
GS 1/8C	TXV	1/8 TON R404	3/8 X 1/2 SAE 5'	HF 1/8 SC	NONE	SAME	
GS 11/2C	TXV	11/2 TON R404	3/8 X 1/2 SAE 5'	HF 11/2 SC	NONE	SAME	

Thermal Expansion Valves

Solenoid Valves

Coils

Industrial Solenoid Valves

Shut Off Valves

System Protectors

Storage Devices

Oil Controls

Pressure Regulators

Temperature Pressure Controls

Competitive Cross Reference

SPORLAN TO EMERSON

	Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
Thermal Expansion Valves	GS 2 - ZP	TXV	2 TON R404	3/8 X 1/2 SAE 5'	HF 1 SW35	NONE	SAME	
	GSE 1 - C	TXV	1 TON R404	3/8 X 1/2 SAE - 5'	HFE 1 SC	NONE	SAME	
	GSE 1 - Z	TXV	1 TON R404	3/8 X 1/2 SAE - 5'	HFE 1 SZ	NONE	SAME	
	GSE 1 - ZP	TXV	1 TON R404	3/8 X 1/2 SAE - 5'	HFE 1 SW35	NONE	SAME	
	GSE 1/2 - C	TXV	1/2 TON R404	3/8 X 1/2 SAE - 5'	HFE 1/2 SC	NONE	SAME	
Solenoid Valves	GSE 1/2 - Z	TXV	1/2 TON R404	3/8 X 1/2 SAE - 5'	HFE 1/2 SZ	NONE	SAME	
	GSE 1/2 - ZP	TXV	1/2 TON R404	3/8 X 1/2 SAE - 5'	HFE 1/2 SW35	NONE	SAME	
	GSE 1/4C	TXV	1/4 TON R404	3/8 X 1/2 SAE - 5'	HFE 1/4 SC	NONE	SAME	
	GSE 11/2 - C	TXV	11/2 TON R404	3/8 X 1/2 SAE - 5'	HFE 11/2 SC	NONE	SAME	
	GSE 11/2 - Z	TXV	11/2 TON R404	3/8 X 1/2 SAE - 5'	HFE 11/2 SZ	NONE	SAME	
Coils	GSE 11/2 - ZP	TXV	11/2 TON R404	3/8 X 1/2 SAE - 5'	HFE 11/2 SW35	NONE	SAME	
	GSE 2 - C	TXV	2 TON R404	3/8 X 1/2 SAE - 5'	HFE 2 SC	NONE	SAME	
	GSE 2 - Z	TXV	2 TON R404	3/8 X 1/2 SAE - 5'	HFE 2 SZ	NONE	SAME	
	GSE 2 - ZP	TXV	2 TON R404	3/8 X 1/2 SAE - 5'	HFE 2 SW35	NONE	SAME	
	GV 1 - C	TXV	1 TON R22	3/8 X 1/2 SAE - 5'	HF 2 HC	054939	SAME	
Industrial Solenoid Valves	GV 1 - Z	TXV	1 TON R22	3/8 X 1/2 SAE - 5'	HF 1 HZ	054928	SAME	
	GV 1/2 - C	TXV	1/2 TON R22	3/8 X 1/2 SAE - 5'	HF 1/2 H C	054135	SAME	
	GV 1/2 - Z	TXV	1/2 TON R22	3/8 X 1/2 SAE - 5'	HF 1/2 H Z	054364	SAME	
	GV 11/2 - C	TXV	11/2 TON R22	3/8 X 1/2 SAE - 5'	HF 11/2 H C	054933	SAME	
	GV 21/2C	TXV	21/2 TON R22	3/8 X 1/2 SAE - 5'	HF 21/2 HC	054947	SAME	
Shut Off Valves	GVE 1 - C	TXV	1 TON R22	3/8 X 1/2 SAE - 5'	HFE 1 H C	054930	SAME	
	GVE 1 - Z	TXV	1 TON R22	3/8 X 1/2 SAE - 5'	HFE 1 H Z	054931	SAME	
	GVE 1/2 - C	TXV	1/2 TON R22	3/8 X 1/2 SAE - 5'	HFE 1/2 H C	054361	SAME	
	GVE 11/2 - C	TXV	11/2 TON R22	3/8 X 1/2 SAE - 5'	HFE 11/2 H C	054936	SAME	
	GVE 11/2 - Z	TXV	11/2 TON R22	3/8 X 1/2 SAE - 5'	HFE 11/2 H Z	054937	SAME	
System Protectors	GVE 2 - C	TXV	2 TON R22	3/8 X 1/2 SAE - 5'	HFE 2 HC	054942	SAME	
	GVE 2 - CP100	TXV	2 TON R22	3/8 X 1/2 SAE - 5'	HFE 2 HW100	NONE	SAME	
	GVE 2 - GA	TXV	2 TON R22	3/8 X 1/2 SAE - 5'	HFE 2 HW100	NONE	SAME	
	GVE 2 - Z	TXV	2 TON R22	3/8 X 1/2 SAE - 5'	HFE 2 HZ	054943	SAME	
	GVE 21/2C	TXV	21/2 TON R22	3/8 X 1/2 SAE - 5'	HFE 2 1/2 HC	054940	SAME	
Storage Devices	GVE 3 - C	TXV	3 TON R22	3/8 X 1/2 SAE - 5'	HFE 3 H C	053317	SAME	
	GVE 3 - CP100	TXV	3 TON R22	3/8 X 1/2 SAE - 5'	HFE 3 HW100	NONE	SAME	
	GVE 3 - GA	TXV	3 TON R22	3/8 X 1/2 SAE - 5'	HFE 3 HW100	NONE	SAME	
	HFE 11/2C	TXV	11/2 TON R12	3/8 X 1/2 ODF - 5'	HFES 11/2 FC	055994	SAME	
	HFE 12C	TXV	12 TON R12		HFES 12 FC	NONE	12 TON R12	
Oil Controls	HFE 3C	TXV	3 TON R12	3/8 X 1/2 SAE - 5'	HFES 31/2 FC	NONE	31/2 TON R12	
	HFE 4C	TXV	4 TON R12	3/8 X 1/2 SAE - 5'	HFES 31/2 FC	NONE	31/2 TON R12	
	HFE 5C	TXV	5 TON R12	3/8 X 1/2 SAE - 5'	HFES 5 FC	NONE	SAME	
	HFE 8C	TXV	8 TON R12		HFES 9 FC	NONE	9 TON R12	
	HJE 11/2C	TXV	11/2 TON R134	3/8 X 1/2 SAE - 5'	HFES 11/2 MC	NONE	SAME	
Pressure Regulators	HJE 12C	TXV	12 TON R134	7/8 X 1-1/8 ODF-5'	HFES 11 MC	058681	11 TON R134	
	HJE 4C	TXV	4 TON R134	3/8 X 1/2 SAE - 5'	HFES 4 MC	NONE	SAME	
	HJE 5C	TXV	5 TON R134	5/8 X 7/8 ODF - 5'	HFES 6 MC	057903	6 TON R134	
	HJE 8C	TXV	8 TON R134	5/8 X 7/8 ODF - 5'	HFES 71/2 MC	057904	71/2 TON R134	
	HPC-103	DRIER	3/8 SAE		BFK 083	043324	SAME	BI - FLOW
Temperature Pressure Controls	HPC-103-S	DRIER	3/8 ODF		BFK 083S	043323	SAME	BI - FLOW
	HPC-104	DRIER	1/2 SAE		BFK 084	043325	SAME	BI - FLOW
	HPC-104-S	DRIER	1/2 ODF		BFK 084S	043327	SAME	BI - FLOW
	HPC-163-HH	DRIER	3/8 SAE		BFK 163	043330	SAME	BI - FLOW
	HPC-163-S-HH	DRIER	3/8 ODF		BFK 163S	043333	SAME	BI - FLOW
Competitive Cross Reference	HPC-164-HH	DRIER	1/2 SAE		BFK 164	043335	SAME	BI - FLOW
	HPC-164-S-HH	DRIER	1/2 ODF		BFK 164S	043337	SAME	BI - FLOW
	HPC-165-HH	DRIER	5/8 SAE		BFK 165	043732	SAME	BI - FLOW
	HPC-165-S-HH	DRIER	5/8 ODF		BFK 165S	043734	SAME	BI - FLOW
	HRE 11/2C	TXV	11/2 TON R502	3/8 X 1/2 ODF - 5'	HFES 11/2 RC	056031	11/2 TON R502	
Competitive Cross Reference	HRE 12C	TXV	12 TON R502	3/8 X 1/2 ODF - 5'	HFES 13 RC	NONE	13 TON R502	
	HRE 3C	TXV	3 TON R502	3/8 X 1/2 ODF - 5'	HFES 31/2 RC	054143	31/2 TON R502	
	HRE 4C	TXV	4 TON R502	3/8 X 1/2 ODF - 5'	HFES 31/2 RC	054143	31/2 TON R502	
	HRE 61/2C	TXV	61/2 TON R502	5/8 X 7/8 ODF - 5'	HFES 7 RC	058607	7 TON R502	
	HRE 9C	TXV	9 TON R502	5/8 X 7/8 ODF - 5'	HFES 10 RC	058808	10 TON R502	
Competitive Cross Reference	HSE 11/2C	TXV	11/2 TON R404	3/8 X 1/2 ODF - 5'	HFES 11/2 SC	NONE	SAME	
	HSE 12C	TXV	12 TON R404	5/8 X 7/8 ODF - 5'	HFES 13 SC	NONE	13 TON R404	
	HSE 3C	TXV	3 TON R404	3/8 X 1/2 ODF - 5'	HFES 31/2 SC	NONE	31/2 TON R404	
	HSE 4C	TXV	4 TON R404	3/8 X 1/2 ODF - 5'	HFES 31/2 SC	NONE	31/2 TON R404	
	HSE 61/2C	TXV	61/2 TON R404	5/8 X 7/8 ODF - 5'	HFES 7 SC	NONE	7 TON R404	

SPORLAN TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
HSE 9C	TXV	9 TON R404	5/8 X 7/8 ODF - 5'	HFES 10 SC	NONE	10 TON R404	
HVE 11C	TXV	11 TON R22	5/8 X 7/8 ODF - 5'	HFES 10 HC	057256	10 TON R22	
HVE 16C	TXV	16 TON R22	5/8 X 7/8 ODF - 5'	HFES 15 HC	057317	15 TON R22	
HVE 20C	TXV	20 TON R22	7/8 X 1-1/8 ODF-5'	HFES 20 HC	062055	SAME	
HVE 21/2C	TXV	21/2 TON R22	3/8 X 1/2 ODF - 5'	HFES 21/2 HC	055931	SAME	
HVE 51/2C	TXV	51/2 TON R22	1/2 X 5/8 ODF - 5'	HFES 51/2 HC	054778	SAME	
HVE 7C	TXV	7 TON R22	5/8 X 7/8 ODF - 5'	HFES 8 HC	057313	8 TON R22	
K-1178	KITS	ADAPTOR-FLANGE		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
K-1800E-1	KITS	DOVE		NONE	NONE	NONE	FOR SPORLAN BYPASS VALVE
K-1800E-1	KITS			NONE	NONE	NONE	NO CROSS
K-1800E-2	KITS	DOVE		NONE	NONE	NONE	FOR SPORLAN BYPASS VALVE
K-1800E-2	KITS			NONE	NONE	NONE	NO CROSS
KA-1	KITS	SEAL CAP		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
KA-2	KITS	SEAL CAP		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
KA-3	KITS	SEAL CAP		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
KA-4	KITS	SEAL CAP		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
KA-5X	KITS	SEAL CAP		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
KA-6	KITS	SEAL CAP		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
KA-7	KITS	SEAL CAP		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
KA-8	KITS	SEAL CAP		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
KBR183P1	SOLENOID	3/8 FPT		NONE	NONE	NONE	NO CROSS
KBR184P1	SOLENOID	1/2 FPT		NONE	NONE	NONE	NO CROSS
KBR246P1	SOLENOID	3/4 FPT		NONE	NONE	NONE	NO CROSS
KC-3	SOLENOID	DUAL VOLTAGE COIL		NONE	NONE	NONE	NO CROSS
KE-10	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KE-10/14	KITS			NONE	NONE	NONE	NO CROSS
KE-18	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KE-18/24	KITS			NONE	NONE	NONE	NO CROSS
KE-19	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KE-19	KITS			NONE	NONE	NONE	NO CROSS
KE-25	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KE-25	KITS			NONE	NONE	NONE	NO CROSS
KE-3	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KE-3	KITS			NONE	NONE	NONE	NO CROSS
KE-33	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KE-33	KITS			NONE	NONE	NONE	NO CROSS
KE-6	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KE-6	KITS			NONE	NONE	NONE	NO CROSS
KE-8D	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KE-8D/12D	KITS			NONE	NONE	NONE	NO CROSS
KE-9	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KE-9	KITS			NONE	NONE	NONE	NO CROSS
KE-MA32	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KE-MA32	KITS			NONE	NONE	NONE	NO CROSS
KE-MA42	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KE-MA42	KITS			NONE	NONE	NONE	NO CROSS
KE-MA5	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KE-MA5/MA17	KITS			NONE	NONE	NONE	NO CROSS
KE-MA50	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KE-MA50	KITS			NONE	NONE	NONE	NO CROSS
KG-(S)CRIT-PI	KITS			NONE	NONE	NONE	NO CROSS
KG-SORIT-P1	KITS	GASKETS		NONE	NONE	NONE	FOR SPORLAN REGULATOR
KM-1	KITS	MANUAL STEM		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KM-1	KITS			NONE	NONE	NONE	NO CROSS
KM-2	KITS	MANUAL STEM		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KM-2	KITS			NONE	NONE	NONE	NO CROSS
KM-3	KITS	MANUAL STEM		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KM-3	KITS			NONE	NONE	NONE	NO CROSS
KM-4	KITS	MANUAL STEM		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KM-4	KITS			NONE	NONE	NONE	NO CROSS
KM-5	KITS	MANUAL STEM		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KM-5	KITS			NONE	NONE	NONE	NO CROSS
KM-6	KITS	MANUAL STEM		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KM-6	KITS			NONE	NONE	NONE	NO CROSS
KMC-1 12 DC JAK	KITS			NONE	NONE	NONE	NO CROSS

Thermal Expansion Valves
 Solenoid Valves
 Coils
 Industrial Solenoid Valves
 Shut Off Valves
 System Protectors
 Storage Devices
 Oil Controls
 Pressure Regulators
 Temperature Pressure Controls
 Competitive Cross Reference

SPORLAN TO EMERSON

	Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
Thermal Expansion Valves	KO-10	KITS	SPRING		NONE	NONE	NONE	FOR SPORLAN BYPASS VALVE
	KO-8	KITS	SPRING		NONE	NONE	NONE	FOR SPORLAN BYPASS VALVE
	K-CRIT-P1	KITS	PILOT ASSY		NONE	NONE	NONE	FOR SPORLAN REGULATOR
	K-CRIT-P1	KITS			NONE	NONE	NONE	NO CROSS
Solenoid Valves	KP01	KITS	SEAT + PUSHRODS		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
	KP01-0002	KITS			NONE	NONE	NONE	NO CROSS
	KP01-0005	KITS			NONE	NONE	NONE	NO CROSS
	KP01-0010	KITS			NONE	NONE	NONE	NO CROSS
	KP01-0015	KITS			NONE	NONE	NONE	NO CROSS
	KP02	KITS	SEAT + PUSHRODS		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
	KP02-0005	KITS			NONE	NONE	NONE	NO CROSS
	KP02-0010	KITS			NONE	NONE	NONE	NO CROSS
	KP02-0015	KITS			NONE	NONE	NONE	NO CROSS
	KP02-0020	KITS			NONE	NONE	NONE	NO CROSS
Coils	KP02-0025	KITS			NONE	NONE	NONE	NO CROSS
	KP02-0030	KITS			NONE	NONE	NONE	NO CROSS
	KP02-0050	KITS			NONE	NONE	NONE	NO CROSS
	KP02-0060	KITS			NONE	NONE	NONE	NO CROSS
	KP03	KITS	SEAT + PUSHRODS		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
	KP03-0002	KITS			NONE	NONE	NONE	NO CROSS
	KP03-0002	KITS			NONE	NONE	NONE	NO CROSS
	KP03-0005	KITS			NONE	NONE	NONE	NO CROSS
	KP03-0010	KITS			NONE	NONE	NONE	NO CROSS
	KP03-0015	KITS			NONE	NONE	NONE	NO CROSS
Shut Off Valves	KP03-0020	KITS			NONE	NONE	NONE	NO CROSS
	KP03-0025	KITS			NONE	NONE	NONE	NO CROSS
	KP03-0030	KITS			NONE	NONE	NONE	NO CROSS
	KP08	KITS	SEAT + PUSHRODS		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
	KP08-0050	KITS			NONE	NONE	NONE	NO CROSS
	KP08-0075	KITS			NONE	NONE	NONE	NO CROSS
	KP08-0110	KITS			NONE	NONE	NONE	NO CROSS
	KP08-0130	KITS			NONE	NONE	NONE	NO CROSS
	KP08-0150	KITS			NONE	NONE	NONE	NO CROSS
	KP08-0200	KITS			NONE	NONE	NONE	NO CROSS
System Protectors	KP08-0250	KITS			NONE	NONE	NONE	NO CROSS
	KP09	KITS	SEAT + PUSHRODS		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
	KP10	KITS	SEAT + PUSHRODS		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
	KP12	KITS	SEAT + PUSHRODS		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
	KP12-0015	KITS			NONE	NONE	NONE	NO CROSS
	KP12-0030	KITS			NONE	NONE	NONE	NO CROSS
	KP12-0040	KITS			NONE	NONE	NONE	NO CROSS
	KP12-0050	KITS			NONE	NONE	NONE	NO CROSS
	KP12-0080	KITS			NONE	NONE	NONE	NO CROSS
	KP12-0120	KITS			NONE	NONE	NONE	NO CROSS
Oil Controls	KP13	KITS	SEAT + PUSHRODS		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
	KP13-0015	KITS			NONE	NONE	NONE	NO CROSS
	KP13-0030	KITS			NONE	NONE	NONE	NO CROSS
	KP13-0040	KITS			NONE	NONE	NONE	NO CROSS
	KP13-0050	KITS			NONE	NONE	NONE	NO CROSS
	KP13-0080	KITS			NONE	NONE	NONE	NO CROSS
	KP13-0120	KITS			NONE	NONE	NONE	NO CROSS
	KP16	KITS	SEAT + PUSHRODS		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
	KP17	KITS	SEAT + PUSHRODS		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
	KP19	KITS	SEAT + PUSHRODS		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
Pressure Regulators	KP19-0060	KITS			NONE	NONE	NONE	NO CROSS
	KP19-0090	KITS			NONE	NONE	NONE	NO CROSS
	KP19-0120	KITS			NONE	NONE	NONE	NO CROSS
	KP19-0160	KITS			NONE	NONE	NONE	NO CROSS
	K-P1-E	KITS	PILOT ASSY		NONE	NONE	NONE	FOR SPORLAN REGULATOR
	KP20	KITS	SEAT + PUSHRODS		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
Temperature Pressure Controls	KP20-0230	KITS			NONE	NONE	NONE	NO CROSS
	KP20-0320	KITS			NONE	NONE	NONE	NO CROSS
	KP20-0400	KITS			NONE	NONE	NONE	NO CROSS
	K-P1-E	KITS			NONE	NONE	NONE	NO CROSS
	KR183P1	SOLENOID	3/8 FPT		NONE	NONE	NONE	NO CROSS

SPORLAN TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
KR184P1	SOLENOID	1/2 FPT		NONE	NONE	NONE	NO CROSS
KR246P1	SOLENOID	3/4 FPT		NONE	NONE	NONE	NO CROSS
KS-(S)ORI-PI-2	KITS			NONE	NONE	NONE	NO CROSS
KS-(S)ORI-PI-3	KITS			NONE	NONE	NONE	NO CROSS
KS-(S)ORI-PI-4	KITS			NONE	NONE	NONE	NO CROSS
KS-(S)ORI-PI-5	KITS			NONE	NONE	NONE	NO CROSS
KS-10G	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-10G	KITS			NONE	NONE	NONE	NO CROSS
KS-10GP-B	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-10GP-B	KITS			NONE	NONE	NONE	NO CROSS
KS-10GP-C	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-10GP-C	KITS			NONE	NONE	NONE	NO CROSS
KS-12DB	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-12DB	KITS			NONE	NONE	NONE	NO CROSS
KS-12DB-SC	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-12DB-SC	KITS			NONE	NONE	NONE	NO CROSS
KS-12DC	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-12DC	KITS			NONE	NONE	NONE	NO CROSS
KS-12DC-SC	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-12DC-SC	KITS			NONE	NONE	NONE	NO CROSS
KS-12D-CV	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-12D-CV	KITS			NONE	NONE	NONE	NO CROSS
KS-12DP	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-16DB	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-16DB	KITS			NONE	NONE	NONE	NO CROSS
KS-16DB-SC	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-16DB-SC	KITS			NONE	NONE	NONE	NO CROSS
KS-16DC	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-16DC	KITS			NONE	NONE	NONE	NO CROSS
KS-16DC-SC	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-16DC-SC	KITS			NONE	NONE	NONE	NO CROSS
KS-16D-CV	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-16D-CV	KITS			NONE	NONE	NONE	NO CROSS
KS-16DP	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-16DP	KITS			NONE	NONE	NONE	NO CROSS
KS-16DP-SC	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-16DP-SC	KITS			NONE	NONE	NONE	NO CROSS
KS-73	KITS	STEM + PLUNGER		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-8D	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-8D/12DP	KITS			NONE	NONE	NONE	NO CROSS
KS-8D/12DP-SC	KITS			NONE	NONE	NONE	NO CROSS
KS-8DB	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-8DB	KITS			NONE	NONE	NONE	NO CROSS
KS-8DB-SC	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-8DB-SC	KITS			NONE	NONE	NONE	NO CROSS
KS-8DC	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-8DC	KITS			NONE	NONE	NONE	NO CROSS
KS-8DC-SC	KITS	ENCLOSING TUBE		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-8DC-SC	KITS			NONE	NONE	NONE	NO CROSS
KS-A10	KITS	STEM + PLUNGER		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
K-SA-4	SIGHT GLASS	KIT		NONE	NONE	NONE	REFRIGERANT SERVICE
KS-B10	KITS	STEM + PLUNGER		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-B10	KITS	STEM + PLUNGER		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-B10/E10	KITS			NONE	NONE	NONE	NO CROSS
KS-B10/E10-20	KITS			NONE	NONE	NONE	NO CROSS
KS-B14	KITS	STEM + PLUNGER		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-B14	KITS	STEM + PLUNGER		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-B14/E14	KITS			NONE	NONE	NONE	NO CROSS
KS-B14/E14-20	KITS			NONE	NONE	NONE	NO CROSS
KS-B14/E14-HP	KITS			NONE	NONE	NONE	NO CROSS
KS-B19	KITS	STEM + PLUNGER		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-B19	KITS	STEM + PLUNGER		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-B19/E19	KITS			NONE	NONE	NONE	NO CROSS
KS-B19/E19-20	KITS			NONE	NONE	NONE	NO CROSS
KS-B19/E19-HP	KITS			NONE	NONE	NONE	NO CROSS

Thermal Expansion Valves

Solenoid Valves

Coils

Industrial Solenoid Valves

Shut Off Valves

System Protectors

Storage Devices

Oil Controls

Pressure Regulators

Temperature Pressure Controls

Competitive Cross Reference

SPORLAN TO EMERSON

	Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
Thermal Expansion Valves	KS-B25	KITS	STEM + PLUNGER		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
	KS-B25	KITS	STEM + PLUNGER		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
	KS-B25/E25	KITS			NONE	NONE	NONE	NO CROSS
	KS-B25/E25-20	KITS			NONE	NONE	NONE	NO CROSS
	KS-B33	KITS	STEM + PLUNGER		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
Solenoid Valves	KS-B33/E33	KITS			NONE	NONE	NONE	NO CROSS
	KS-B6	KITS	STEM + PLUNGER		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
	KS-B6	KITS	STEM + PLUNGER		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
	KS-B6/E6	KITS			NONE	NONE	NONE	NO CROSS
	KS-B6/E6-20	KITS			NONE	NONE	NONE	NO CROSS
Coils	KS-B6/E6-HP	KITS			NONE	NONE	NONE	NO CROSS
	KS-B9	KITS	STEM + PLUNGER		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
	KS-B9	KITS	STEM + PLUNGER		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
	KS-B9/E9	KITS			NONE	NONE	NONE	NO CROSS
	KS-B9/E9-20	KITS			NONE	NONE	NONE	NO CROSS
Industrial Solenoid Valves	KS-B9/E9-HP	KITS			NONE	NONE	NONE	NO CROSS
	KS-BR18	KITS	COMPLETE REPAIR		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
	KS-BR18	KITS			NONE	NONE	NONE	NO CROSS
	KS-BR24	KITS	COMPLETE REPAIR		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
	KS-BR24	KITS			NONE	NONE	NONE	NO CROSS
Shut Off Valves	KS-CB10	KITS	STEM + PLUNGER		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
	KS-CB10/CE10	KITS			NONE	NONE	NONE	NO CROSS
	KS-CB14	KITS	STEM + PLUNGER		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
	KS-CB14/CE14	KITS			NONE	NONE	NONE	NO CROSS
	KS-CB19	KITS	STEM + PLUNGER		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
System Protectors	KS-CB19/CE19	KITS			NONE	NONE	NONE	NO CROSS
	KS-CB9/CE9	KITS			NONE	NONE	NONE	NO CROSS
	KS-CDA-12P	KITS	PILOT ASSY		NONE	NONE	NONE	FOR SPORLAN REGULATOR
	KS-CDA-12S	KITS	PILOT ASSY		NONE	NONE	NONE	FOR SPORLAN REGULATOR
	KS-CDA-15P	KITS	PILOT ASSY		NONE	NONE	NONE	FOR SPORLAN REGULATOR
Storage Devices	KS-CDA-20P	KITS	PILOT ASSY		NONE	NONE	NONE	FOR SPORLAN REGULATOR
	KS-DB14	KITS	COMPLETE REPAIR		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
	KS-DB14	KITS			NONE	NONE	NONE	NO CROSS
	KS-DB19	KITS	COMPLETE REPAIR		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
	KS-DB19	KITS			NONE	NONE	NONE	NO CROSS
Oil Controls	KS-DMA17	KITS	COMPLETE REPAIR		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
	KS-DMA17	KITS			NONE	NONE	NONE	NO CROSS
	KS-DMA24	KITS	COMPLETE REPAIR		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
	KS-DMA32	KITS	COMPLETE REPAIR		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
	KS-DMA32	KITS			NONE	NONE	NONE	NO CROSS
Pressure Regulators	KS-E34	KITS	COIL HOUSING		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
	KS-E34	KITS			NONE	NONE	NONE	NO CROSS
	KS-E34-20	KITS			NONE	NONE	NONE	NO CROSS
	KS-E42	KITS	COIL HOUSING		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
	KS-E42	KITS			NONE	NONE	NONE	NO CROSS
Temperature Pressure Controls	KS-E42-20	KITS			NONE	NONE	NONE	NO CROSS
	K-SHGB-8	KITS			NONE	NONE	NONE	NO CROSS
	KS-MA17A	KITS	STEM + PLUNGER		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
	KS-MA17A	KITS			NONE	NONE	NONE	NO CROSS
	KS-MA32	KITS	STEM + PLUNGER		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
Competitive Cross Reference	KS-MA32	KITS			NONE	NONE	NONE	NO CROSS
	KS-MA42	KITS	STEM + PLUNGER		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
	KS-MA42	KITS			NONE	NONE	NONE	NO CROSS
	KS-MA50	KITS	STEM + PLUNGER		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
	KS-MA50	KITS			NONE	NONE	NONE	NO CROSS
	KS-MA5A	KITS	STEM + PLUNGER		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
	KS-MA5A	KITS			NONE	NONE	NONE	NO CROSS
	KS-OB10	KITS	COMPLETE REPAIR		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
	KS-OB10-OE10	KITS			NONE	NONE	NONE	NO CROSS
	KS-OB14	KITS	COMPLETE REPAIR		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
	KS-OB14/OE14	KITS			NONE	NONE	NONE	NO CROSS
	KS-OB19	KITS	COMPLETE REPAIR		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
	KS-OB19/OE19	KITS			NONE	NONE	NONE	NO CROSS
	KS-OB25	KITS	COMPLETE REPAIR		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
	KS-OB25/OE25	KITS			NONE	NONE	NONE	NO CROSS

SPORLAN TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
KS-OB33	KITS	COMPLETE REPAIR		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-OB33/OE33	KITS			NONE	NONE	NONE	NO CROSS
KS-OB9	KITS	COMPLETE REPAIR		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-OB9/OE9	KITS			NONE	NONE	NONE	NO CROSS
KS-OE33	KITS	COMPLETE REPAIR		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-OE34	KITS	COMPLETE REPAIR		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-OE34	KITS			NONE	NONE	NONE	NO CROSS
KS-OE42	KITS	COMPLETE REPAIR		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-OE42	KITS			NONE	NONE	NONE	NO CROSS
KS-ORI/CDA-15	KITS			NONE	NONE	NONE	NO CROSS
KS-ORI/CDA-20	KITS			NONE	NONE	NONE	NO CROSS
KS-ORI-12	KITS	PILOT ASSY		NONE	NONE	NONE	FOR SPORLAN REGULATOR
KS-ORI-12*	KITS			NONE	NONE	NONE	NO CROSS
KS-ORI-15	KITS	PILOT ASSY		NONE	NONE	NONE	FOR SPORLAN REGULATOR
KS-ORI-15	KITS	PILOT ASSY		NONE	NONE	NONE	FOR SPORLAN REGULATOR
KS-ORI-20	KITS	PILOT ASSY		NONE	NONE	NONE	FOR SPORLAN REGULATOR
KS-ORI-20	KITS	PILOT ASSY		NONE	NONE	NONE	FOR SPORLAN REGULATOR
K-SORIT-P1	KITS	PILOT ASSY		NONE	NONE	NONE	FOR SPORLAN REGULATOR
K-SORIT-P1	KITS			NONE	NONE	NONE	NO CROSS
KS-R18	KITS	COMPLETE REPAIR		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-R18	KITS			NONE	NONE	NONE	NO CROSS
KS-R24	KITS	COMPLETE REPAIR		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-R24	KITS			NONE	NONE	NONE	NO CROSS
KS-RW3	KITS	COMPLETE REPAIR		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-RW3	KITS			NONE	NONE	NONE	NO CROSS
KS-SHGB-15	KITS	PILOT ASSY		NONE	NONE	NONE	FOR SPORLAN BYPASS VALVE
KS-SHGB-15	KITS			NONE	NONE	NONE	NO CROSS
KS-SHGB-8	KITS			NONE	NONE	NONE	NO CROSS
KS-SORIT-P12	KITS	PILOT ASSY		NONE	NONE	NONE	FOR SPORLAN REGULATOR
KS-SORIT-P13	KITS	PILOT ASSY		NONE	NONE	NONE	FOR SPORLAN REGULATOR
KS-SORIT-P14	KITS	PILOT ASSY		NONE	NONE	NONE	FOR SPORLAN REGULATOR
KS-W14	KITS	COMPLETE REPAIR		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-W14	KITS			NONE	NONE	NONE	NO CROSS
KS-W19	KITS	COMPLETE REPAIR		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-W19	KITS			NONE	NONE	NONE	NO CROSS
KS-W25	KITS	COMPLETE REPAIR		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-W25	KITS			NONE	NONE	NONE	NO CROSS
KS-W3	KITS	COMPLETE REPAIR		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-W3	KITS			NONE	NONE	NONE	NO CROSS
KS-W6	KITS	COMPLETE REPAIR		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-W6	KITS			NONE	NONE	NONE	NO CROSS
KS-XJH	KITS	STEM + PLUNGER		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-XJH/XOF	KITS			NONE	NONE	NONE	NO CROSS
KS-XPO	KITS	STEM + PLUNGER		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-XPO	KITS			NONE	NONE	NONE	NO CROSS
KS-XRM	KITS	STEM + PLUNGER		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-XRM	KITS			NONE	NONE	NONE	NO CROSS
KS-XRN	KITS	STEM + PLUNGER		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-XRN	KITS			NONE	NONE	NONE	NO CROSS
KS-XJP	KITS	STEM + PLUNGER		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
KS-XJP/XXF	KITS			NONE	NONE	NONE	NO CROSS
KS-Y1228-SORIT-PI-2	KITS			NONE	NONE	NONE	NO CROSS
KT-12-AL	KITS			NONE	NONE	NONE	NO CROSS
KT-23	KITS	POWER ASSY		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
KT-23-AC	KITS			NONE	NONE	NONE	NO CROSS
KT-23-AL	KITS			NONE	NONE	NONE	NO CROSS
KT-23-AZ	KITS			NONE	NONE	NONE	NO CROSS
KT-33	KITS	POWER ASSY		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
KT-33-FC	KITS			NONE	NONE	NONE	NO CROSS
KT-33-FCP60	KITS			NONE	NONE	NONE	NO CROSS
KT-33-FZ	KITS			NONE	NONE	NONE	NO CROSS
KT-33-FZP	KITS			NONE	NONE	NONE	NO CROSS
KT-33-JC	KITS			NONE	NONE	NONE	NO CROSS
KT-33-PC	KITS			NONE	NONE	NONE	NO CROSS
KT-33-PZ	KITS			NONE	NONE	NONE	NO CROSS

Thermal Expansion Valves
 Solenoid Valves
 Coils
 Industrial Solenoid Valves
 Shut Off Valves
 System Protectors
 Storage Devices
 Oil Controls
 Pressure Regulators
 Temperature Pressure Controls
 Competitive Cross Reference

SPORLAN TO EMERSON

	Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
Thermal Expansion Valves	KT-33-RC	KITS			NONE	NONE	NONE	NO CROSS
	KT-33-RX	KITS			NONE	NONE	NONE	NO CROSS
	KT-33-RZ	KITS			NONE	NONE	NONE	NO CROSS
	KT-33-RZP	KITS			NONE	NONE	NONE	NO CROSS
	KT-33-SC	KITS			NONE	NONE	NONE	NO CROSS
	KT-33-SZ	KITS			NONE	NONE	NONE	NO CROSS
Solenoid Valves	KT-33-SZP	KITS			NONE	NONE	NONE	NO CROSS
	KT-33-VC	KITS			NONE	NONE	NONE	NO CROSS
	KT-33-VCP100	KITS			NONE	NONE	NONE	NO CROSS
	KT-33-VGA	KITS			NONE	NONE	NONE	NO CROSS
	KT-33-VN	KITS			NONE	NONE	NONE	NO CROSS
	KT-33-VX	KITS			NONE	NONE	NONE	NO CROSS
Coils	KT-33-VZ	KITS			NONE	NONE	NONE	NO CROSS
	KT-33-VZP40	KITS			NONE	NONE	NONE	NO CROSS
	KT-43	KITS	POWER ASSY.		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
	KT-63	KITS	POWER ASSY.		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
	KT-63-FC	KITS			NONE	NONE	NONE	NO CROSS
	KT-63-FCP60	KITS			NONE	NONE	NONE	NO CROSS
Industrial Solenoid Valves	KT-63-FZ	KITS			NONE	NONE	NONE	NO CROSS
	KT-63-FZP	KITS			NONE	NONE	NONE	NO CROSS
	KT-63-PC	KITS			NONE	NONE	NONE	NO CROSS
	KT-63-PZ	KITS			NONE	NONE	NONE	NO CROSS
	KT-63-RC	KITS			NONE	NONE	NONE	NO CROSS
	KT-63-RX	KITS			NONE	NONE	NONE	NO CROSS
Shut Off Valves	KT-63-RZ	KITS			NONE	NONE	NONE	NO CROSS
	KT-63-RZP	KITS			NONE	NONE	NONE	NO CROSS
	KT-63-SC	KITS			NONE	NONE	NONE	NO CROSS
	KT-63-SZ	KITS			NONE	NONE	NONE	NO CROSS
	KT-63-VC	KITS			NONE	NONE	NONE	NO CROSS
	KT-63-VCP100	KITS			NONE	NONE	NONE	NO CROSS
System Protectors	KT-63-VGA	KITS			NONE	NONE	NONE	NO CROSS
	KT-63-VN	KITS			NONE	NONE	NONE	NO CROSS
	KT-63-VX	KITS			NONE	NONE	NONE	NO CROSS
	KT-63-VZ	KITS			NONE	NONE	NONE	NO CROSS
	KT-63-VZP	KITS			NONE	NONE	NONE	NO CROSS
	KT-7-FG	KITS			NONE	NONE	NONE	NO CROSS
Storage Devices	KT-7-VG	KITS			NONE	NONE	NONE	NO CROSS
	K-Y1005-0/100	KITS			NONE	NONE	NONE	NO CROSS
	K-Y1010-0/100	KITS			NONE	NONE	NONE	NO CROSS
	KY-12	KITS	POWER ASSY.		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
	K-Y1228-SORIT-PI	KITS			NONE	NONE	NONE	NO CROSS
	KY-53	KITS	POWER ASSY.		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
Oil Controls	KY-83	KITS	POWER ASSY.		NONE	NONE	NONE	FOR SPORLAN TXV ONLY
	K-Y917	KITS	PILOT ASSY.		NONE	NONE	NONE	FOR SPORLAN BYPASS VALVE
	K-Y917	KITS			NONE	NONE	NONE	NO CROSS
	LAC-10-100	REGULATORS	1-3/8X7/8X7/8		HP14T7-120	032210	SAME	120 PSIG SETTING
	LAC-10-100	REGULATORS	1-3/8X1-1/8X1-1/8		HP14T9-120	024405	SAME	120 PSIG SETTING
	LAC-10-180	REGULATORS	1-3/8X7/8X7/8		HP14T7-175	024935	SAME	175 PSIG SETTING
Pressure Regulators	LAC-10-180	REGULATORS	1-3/8X1-1/8X1-1/8		HP14T9-175	029805	SAME	175 PSIG SETTING
	LAC-10-200	REGULATORS	1-3/8X7/8X7/8		HP14T7-215	043405	SAME	215 PSIG SETTING
	LAC-10-200	REGULATORS	1-3/8X1-1/8X1-1/8		HP14T9-215	043406	SAME	215 PSIG SETTING
	LAC-4	REGULATORS	HEAD PRES.		HPCS		SAME	SELECT PRES. AN CONN.
	LAC-4-100	REGULATORS	3/8X3/8X3/8		HPC5T3-100	064177	SAME	
	LAC-4-100	REGULATORS	1/2X1/2X1/2		HPC5T4-100	064180	SAME	
Temperature Pressure Controls	LAC-4-180	REGULATORS	3/8X3/8X3/8		HPC5T3-180	065174	SAME	
	LAC-4-180	REGULATORS	1/2X1/2X1/2		HPC5T4-180	064183	SAME	
	LAC-4-210	REGULATORS	3/8X3/8X3/8		HPC5T3-225	064175	SAME	225 PSIG SETTING
	LAC-4-210	REGULATORS	1/2X1/2X1/2		HPC5T4-225	065228	SAME	
	LAC-5-100	REGULATORS	1/2X1/2X1/2		HP8T4-110	046209	SAME	110 PSIG SETTING
	LAC-5-100	REGULATORS	5/8X5/8X5/8		HP8T5-110	033862	SAME	110 PSIG SETTING
Competitive Cross Reference	LAC-5-100	REGULATORS	7/8X7/8X7/8		HP8T7-110	046207	SAME	110 PSIG SETTING
	LAC-5-100	REGULATORS	1-1/8X1-1/8X1-1/8		NONE	NONE	SAME	
	LAC-5-180	REGULATORS	1/2X1/2X1/2		HP8T4-185	046208	SAME	185 PSIG SETTING
	LAC-5-180	REGULATORS	5/8X5/8X5/8		HP8T5-185	032407	SAME	185 PSIG SETTING
LAC-5-180	REGULATORS	7/8X7/8X7/8		HP8T7-185	046206	SAME	185 PSIG SETTING	

SPORLAN TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
LAC-5-180	REGULATORS	1-1/8X1-1/8X1-1/8		NONE	NONE	SAME	
LAC-5-210	REGULATORS	1/2X1/2X1/2		HP8T4-215	062243	SAME	215 PSIG SETTING
LAC-5-210	REGULATORS	5/8X5/8X5/8		HP8T5-215	046535	SAME	215 PSIG SETTING
LAC-5-210	REGULATORS	7/8X7/8X7/8		HP8T7-215	046498	SAME	215 PSIG SETTING
LAC-5-210	REGULATORS	1-1/8X1-1/8X1-1/8		NONE	NONE	SAME	
MA17A3	SOLENOID	1/2 FPT		NONE	NONE	NONE	NO CROSS
MA32P3	SOLENOID	1-1/4 FPT		NONE	NONE	NONE	NO CROSS
MA42P3	SOLENOID	1-1/2 FPT		NONE	NONE	NONE	NO CROSS
MA50P3	SOLENOID	2 FPT		NONE	NONE	NONE	NO CROSS
MA50P3	SOLENOID	2 FPT		NONE	NONE	NONE	NO CROSS
MA50S3	SOLENOID	2-1/8 OR 2-5/8 ODF		NONE	NONE	NONE	NO CROSS
MA52S3	SOLENOID	1-5/8 OR 2-1/8 ODF		NONE	NONE	NONE	NO CROSS
MA5A3	SOLENOID	1/4 FPT		NONE	NONE	NONE	AMMONIA SERVICE
MB10F2	SOLENOID	1/2 FLARE		200RB 5F4M	047520	SAME	REFRIGERATION SERVICE - VLC
MB10S2	SOLENOID	5/8 ODF, 3/4 ODM		NONE	NONE	NONE	NO CROSS
MB10S2	SOLENOID	5/8 ODF		200RB 5S5M	047527	SAME	REFRIGERATION SERVICE - VLC
MB10S2-20	SOLENOID	5/8 ODF, 3/4 ODM EXTENDED		NONE	NONE	NONE	NO CROSS
MB10S2-40	SOLENOID	5/8 ODF		200RB 5T5M	049189	SAME	REFRIGERATION SERVICE - VLC
MB14S2	SOLENOID	5/8 ODF, 7/8 ODM		200RB 7T5M	064267	5/8 ODF	REFRIGERATION SERVICE - VLC
MB14S2	SOLENOID	5/8 ODF		200RB 7T5M	064267	SAME	REFRIGERATION SERVICE - VLC
MB15P2	SOLENOID	1/2 NPT		NONE	NONE	NONE	NO CROSS
MB19P2	SOLENOID	3/4 NPT		NONE	NONE	NONE	NO CROSS
MB19S2	SOLENOID	5/8 ODF		200RB 9T5M	064763	SAME	REFRIGERATION SERVICE - VLC
MB19S2	SOLENOID	7/8 ODF		200RB 9T7M	064765	SAME	REFRIGERATION SERVICE - VLC
MB19S2-20	SOLENOID	7/8 ODF EXTENDED		NONE	NONE	NONE	NO CROSS
MB25P2	SOLENOID	1 NPT		NONE	NONE	NONE	NO CROSS
MB25P2-20	SOLENOID	3/4 NPT		NONE	NONE	NONE	NO CROSS
MB25S2	SOLENOID	7/8 ODF		200RB 12T7M	064819	SAME	REFRIGERATION SERVICE - VLC
MB25S2	SOLENOID	1-1/8 ODF		200RB 12T9M	064822	SAME	REFRIGERATION SERVICE - VLC
MB25S2-20	SOLENOID	1-1/8 ODF EXTENDED		NONE	NONE	NONE	NO CROSS
MB33S2	SOLENOID	1-5/8 ODF		NONE	NONE	NONE	NO CROSS
MB33S2	SOLENOID	1-1/8 ODF		240RA 16T9M	042548	SAME	REFRIGERATION SERVICE - VLC
MB33S2	SOLENOID	1-3/8 ODF		240RA 16T11M	044788	SAME	REFRIGERATION SERVICE - VLC
MB6F1	SOLENOID	3/8 FLARE		200RB 3T3M	065620	3/8 ODF	REFRIGERATION SERVICE - VLC
MB6P1	SOLENOID	3/8 NPT		NONE	NONE	NONE	NO CROSS
MB6S1	SOLENOID	1/2 ODF		200RB 3T4M	065621	SAME	REFRIGERATION SERVICE - VLC
MB6S1	SOLENOID	3/8 ODF		200RB 3T3M	065620	SAME	REFRIGERATION SERVICE - VLC
MB6S1-20	SOLENOID	1/2 ODF EXTENDED		NONE	NONE	NONE	NO CROSS
MB9F2	SOLENOID	3/8 FLARE		200RB 4F3M	047507	SAME	REFRIGERATION SERVICE - VLC
MB9F2-20	SOLENOID	3/8 FLARE EXTENDED		NONE	NONE	NONE	NO CROSS
MB9P2	SOLENOID	3/8 NPT		NONE	NONE	NONE	NO CROSS
MB9S2	SOLENOID	1/2 ODF, 5/8 ODM		200RB 5T4M	049188	SAME	REFRIGERATION SERVICE - VLC
MB9S2-20	SOLENOID	1/2 ODF, 5/8 ODM EXTENDED		NONE	NONE	NONE	NO CROSS
MC 10 FC	TXV	3/16 TON R12	3/8 X 1/2 SAE - 5'	HF 1/4 FC	054134	1/4 TON R12	
MC 10 JC	TXV	1/4 TON R134	3/8 X 1/2 SAE - 5'	HF 1/4 MC	057618	SAME	
MC 10 RC	TXV	1/4 TON R502	3/8 X 1/2 SAE - 5'	HF 1/4 RC	054137	SAME	
MC 10 SC	TXV	1/4 TON 404	3/8 X 1/2 SAE - 5'	HF 1/4 SC	NONE	SAME	
MC 10 VC	TXV	1/4 TON R22	3/8 X 1/2 SAE - 5'	HF 1/4 HC	054921	SAME	
MC 11 FC	TXV	1/2 TON R12	3/8 X 1/2 SAE - 5'	HF 1/2 FC	054892	SAME	
MC 11 JC	TXV	1/2 TON R134	3/8 X 1/2 SAE - 5'	HF 1/2 MC	057620	SAME	
MC 11 RC	TXV	1/2 TON R502	3/8 X 1/2 SAE - 5'	HF 1/2 RC	054964	SAME	
MC 11 SC	TXV	1/2 TON R404	3/8 X 1/2 SAE - 5'	HF 1/2 SC	NONE	SAME	
MC 11 VC	TXV	1 TON R22	3/8 X 1/2 SAE - 5'	HF 1 HC	054927	SAME	
MC 12 FC	TXV	3/4 TON R12	3/8 X 1/2 SAE - 5'	HF 1 FC	054905	1 TON R12	
MC 12 JC	TXV	1 TON R134	3/8 X 1/2 SAE - 5'	HF 1 MC	057619	SAME	
MC 12 RC	TXV	1 TON R502	3/8 X 1/2 SAE - 5'	HF 1 RC	054976	SAME	
MC 12 SC	TXV	1 TON R404	3/8 X 1/2 SAE - 5'	HF 1 SC	NONE	SAME	
MC 12 VC	TXV	11/2 TON R22	3/8 X 1/2 SAE - 5'	HF 11/2 HC	054933	SAME	
MC 13 FC	TXV	1 TON R12	3/8 X 1/2 SAE - 5'	HF 1 FC	054905	SAME	
MC 13 JC	TXV	11/4 TON R134	3/8 X 1/2 SAE - 5'	HF 11/2 MC	NONE	11/2 TON R134	
MC 13 RC	TXV	11/4 TON R502	3/8 X 1/2 SAE - 5'	HF 11/4 RC	NONE	SAME	
MC 13 SC	TXV	11/4 TON R404	3/8 X 1/2 SAE - 5'	HF 11/4 SC	NONE	SAME	
MC 13 VC	TXV	13/4 TON R22	3/8 X 1/2 SAE - 5'	HF 2 HC	054939	2 TON R22	
MC 20 FC	TXV	3/16 TON R12		HFB 1/4 FC	NONE	1/4 TON R12	
MC 20 JC	TXV	1/4 TON R134		HFB 1/4 MC	NONE	SAME	

Thermal Expansion Valves
 Solenoid Valves
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 Industrial Solenoid Valves
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 Storage Devices
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 Pressure Regulators
 Temperature Pressure Controls
 Competitive Cross Reference

SPORLAN TO EMERSON

	Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
Thermal Expansion Valves	MC 20 RC	TXV	1/4 TON R502		HFB 1/4 RC	NONE	SAME	
	MC 20 SC	TXV	1/4 TON R404		HFB 1/4 SC	NONE	SAME	
	MC 20 VC	TXV	1/4 TON R22		HFB 1/4 HC	NONE	SAME	
	MC 21 FC	TXV	1/2 TON R12		HFB 1/2 FC	NONE	SAME	
	MC 21 JC	TXV	1/2 TON R134		HFB 1/2 MC	NONE	SAME	
	MC 21 RC	TXV	1/2 TON R502		HFB 1/2 RC	NONE	SAME	
Solenoid Valves	MC 21 SC	TXV	1/2 TON R404		HFB 1/2 SC	NONE	SAME	
	MC 21 VC	TXV	1/2 TON R22		HFB 1/2 HC	NONE	SAME	
	MC 22 FC	TXV	3/4 TON R12		HFB 1/2 FC	NONE	1/2 TON R12	
	MC 22 JC	TXV	1 TON R134		HFB 1 MC	NONE	SAME	
	MC 22 RC	TXV	1 TON R502		HFB 1 RC	NONE	SAME	
	MC 22 SC	TXV	1 TON R404		HFB 1 SC	NONE	SAME	
Coils	MC 22 VC	TXV	1 TON R22		HFB 1 HC	NONE	SAME	
	MC 23 FC	TXV	1 TON R12		HFB 1 FC	NONE	SAME	
	MC 23 JC	TXV	11/4 TON R134		HFB 1 MC	NONE	1 TON R134	
	MC 23 RC	TXV	11/4 TON R502		HFB 1 RC	NONE	1 TON R502	
	MC 23 SC	TXV	11/4 TON R404		HFB 1 SC	NONE	1 TON R404	
	MC 23 VC	TXV	11/4 TON R22		HFB 1 HC	NONE	1 TON R22	
Industrial Solenoid Valves	MCE 10 FC	TXV	3/16 TON R12	3/8 X 1/2 SAE - 5'	HFE 1/4 FC	054360	1/4 TON R12	
	MCE 10 JC	TXV	1/4 TON R134	3/8 X 1/2 SAE - 5'	HFE 1/4 MC	NONE	SAME	
	MCE 10 RC	TXV	1/4 TON R502	3/8 X 1/2 SAE - 5'	HFE 1/4 RC	054366	SAME	
	MCE 10 SC	TXV	1/4 TON R404	3/8 X 1/2 SAE - 5'	HFE 1/4 SC	NONE	SAME	
	MCE 10 VC	TXV	1/4 TON R22	3/8 X 1/2 SAE - 5'	HFE 1/4 HC	054924	SAME	
	MCE 11 FC	TXV	1/2 TON R12	3/8 X 1/2 SAE - 5'	HFE 1/2 FC	054895	SAME	
Shut Off Valves	MCE 11 JC	TXV	1/2 TON R134	3/8 X 1/2 SAE - 5'	HFE 1/2 MC	057616	SAME	
	MCE 11 RC	TXV	1/2 TON R502	3/8 X 1/2 SAE - 5'	HFE 1/2 RC	054967	SAME	
	MCE 11 SC	TXV	1/2 TON R404	3/8 X 1/2 SAE - 5'	HFE 1/2 SC	NONE	SAME	
	MCE 11VC	TXV	1 TON R22	3/8 X 1/2 SAE - 5'	HFE 1 HC	054930	SAME	
	MCE 12 FC	TXV	3/4 TON R12	3/8 X 1/2 SAE - 5'	HFE 1 FC	054909	1 TON R12	
	MCE 12 JC	TXV	1 TON R134	3/8 X 1/2 SAE - 5'	HFE 1 MC	057617	SAME	
System Protectors	MCE 12 RC	TXV	1 TON R502	3/8 X 1/2 SAE - 5'	HFE 1 RC	054979	SAME	
	MCE 12 SC	TXV	1 TON R404	3/8 X 1/2 SAE - 5'	HFE 1 SC	NONE	SAME	
	MCE 12 VC	TXV	11/2 TON R22	3/8 X 1/2 SAE - 5'	HFE 11/2 HC	054936	SAME	
	MCE 13 FC	TXV	1 TON R12	3/8 X 1/2 SAE - 5'	HFE 1 FC	054909	SAME	
	MCE 13 JC	TXV	11/4 TON R134	3/8 X 1/2 SAE - 5'	HFE 11/2 MC	057895	11/2 TON R134	
	MCE 13 RC	TXV	11/4 TON R502	3/8 X 1/2 SAE - 5'	HFE 11/4 RC	NONE	SAME	
Storage Devices	MCE 13 SC	TXV	11/4 TON R404	3/8 X 1/2 SAE - 5'	HFE 11/4 SC	NONE	SAME	
	MCE 13 VC	TXV	13/4 TON R22	3/8 X 1/2 SAE - 5'	HFE 2 HC	054942	2 TON R22	
	MCE 20 FC	TXV	3/16 TON R12		HFEB 1/4 FC	NONE	1/4 TON R12	
	MCE 20 JC	TXV	1/4 TON R134		HFEB 1/4 MC	NONE	SAME	
	MCE 20 RC	TXV	1/4 TON R502		HFEB 1/4 RC	NONE	SAME	
	MCE 20 SC	TXV	1/4 TON R404		HFEB 1/4 SC	NONE	SAME	
Oil Controls	MCE 20 VC	TXV	1/4 TON R22		HFEB 1/4 HC	NONE	SAME	
	MCE 21 FC	TXV	1/2 TON R12		HFBE 1/2 FC	NONE	SAME	
	MCE 21 JC	TXV	1/2 TON R134		HFEB 1/2 MC	NONE	SAME	
	MCE 21 RC	TXV	1/2 TON R502		HFEB 1/2 RC	NONE	SAME	
	MCE 21 SC	TXV	1/2 TON R404		HFEB 1/2 SC	NONE	SAME	
	MCE 21 VC	TXV	1/2 TON R22		HFEB 1/2 HC	NONE	SAME	
Pressure Regulators	MCE 22 FC	TXV	3/4 TON R12		HFEB 1/2 FC	NONE	1/2 TON R12	
	MCE 22 JC	TXV	1 TON R134		HFEB 1 MC	NONE	SAME	
	MCE 22 RC	TXV	1 TON R502		HFEB 1 RC	NONE	SAME	
	MCE 22 SC	TXV	1 TON R404		HFEB 1 SC	NONE	SAME	
	MCE 22 VC	TXV	1 TON R22		HFEB 1 HC	NONE	SAME	
	MCE 23 FC	TXV	1 TON R12		HFEB 1 FC	NONE	SAME	
Temperature Pressure Controls	MCE 23 JC	TXV	11/4 TON R134		HFEB 1 MC	NONE	1 TON R134	
	MCE 23 RC	TXV	11/4 TON R502		HFEB 1 RC	NONE	1 TON R502	
	MCE 23 SC	TXV	11/4 TON R404		HFEB 1 SC	NONE	1 TON R404	
	MCE 23 VC	TXV	11/4 TON R22		HFEB 1 HC	NONE	1 TON R22	
	ME10S240	SOLENOID	1/2 ODF		200RB 554M	047525	1/2 ODF X 5/8 ODM	REFRIGERATION SERVICE - VLC
	ME10S250	SOLENOID	5/8 ODF		200RB 555M	047527	SAME	REFRIGERATION SERVICE - VLC
ME14S250	SOLENOID	5/8 ODF		200RB 7T5M	064267	SAME	REFRIGERATION SERVICE - VLC	
ME14S250-HP	SOLENOID	5/8 ODF		NONE	NONE	NONE	NO CROSS	
ME14S270	SOLENOID	7/8 ODF		200RB 7T7M	064283	SAME	REFRIGERATION SERVICE - VLC	
ME19S250	SOLENOID	5/8 ODF		200RB 9T5M	064763	SAME	REFRIGERATION SERVICE - VLC	
ME19S270	SOLENOID	7/8 ODF		200RB 9T7M	064765	SAME	REFRIGERATION SERVICE - VLC	

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Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
ME19S270-HP	SOLENOID	7/8 ODF		NONE	NONE	NONE	NO CROSS
ME19S290	SOLENOID	1-1/8 ODF		200RB 9T9M	064768	SAVE	REFRIGERATION SERVICE - VLC
ME25S270	SOLENOID	7/8 ODF		200RB 12T7M	064819	SAVE	REFRIGERATION SERVICE - VLC
ME25S290	SOLENOID	1-1/8 ODF		200RB 12T9M	064822	SAVE	REFRIGERATION SERVICE - VLC
ME34S2110	SOLENOID	1-3/8 ODF		240RA 16T11M	044788	SAVE	REFRIGERATION SERVICE - VLC
ME34S2110-20	SOLENOID	1-3/8 ODF EXTENDED		NONE	NONE	NONE	NO CROSS
ME34S290	SOLENOID	1-1/8 ODF		240RA 16T9M	042548	SAVE	REFRIGERATION SERVICE - VLC
ME34S290-20	SOLENOID	1-1/8 ODF EXTENDED		NONE	NONE	NONE	NO CROSS
ME42S2110	SOLENOID	1-3/8 ODF		240RA 20T11M	046636	SAVE	REFRIGERATION SERVICE - VLC
ME42S2110-20	SOLENOID	1-3/8 ODF EXTENDED		NONE	NONE	NONE	NO CROSS
ME42S2130	SOLENOID	1-5/8 ODF		240RA 20T13M	046637	SAVE	REFRIGERATION SERVICE - VLC
ME42S2130-20	SOLENOID	1-5/8 ODF EXTENDED		NONE	NONE	NONE	NO CROSS
ME42S2170	SOLENOID	2-1/8 ODF		NONE	NONE	NONE	NO CROSS
ME-42S2170-20	SOLENOID	2-1/8 ODF EXTENDED		NONE	NONE	NONE	NO CROSS
ME6S130	SOLENOID	3/8 ODF		200RB 3T3M	065620	SAVE	REFRIGERATION SERVICE - VLC
ME6S130-HP	SOLENOID	3/8 ODF		NONE	NONE	NONE	NO CROSS
ME6S140	SOLENOID	1/2 ODF		200RB 3T4M	065621	SAVE	REFRIGERATION SERVICE - VLC
ME6S140-20	SOLENOID	1/2 ODF EXTENDED		NONE	NONE	NONE	NO CROSS
ME9S230	SOLENOID	3/8 ODF		200RB 4S3M	047512	3/8 ODF X 1/2 ODM	REFRIGERATION SERVICE - VLC
ME9S240	SOLENOID	1/2 ODF		200RB 4S4M	047514	1/2 ODF X 5/8 ODM	REFRIGERATION SERVICE - VLC
ME9S240-HP	SOLENOID	1/2 ODF		NONE	NONE	NONE	NO CROSS
ME9S250	SOLENOID	5/8 ODF		200RB 4T5M	056518	SAVE	REFRIGERATION SERVICE - VLC
MFE 15C	TXV	15 TON R12		TER 15 FC	NONE	SAVE	
MFE 20C	TXV	20 TON R12		TER 20 FC	055109	SAVE	
MFE 25C	TXV	25 TON R12		TER 25 FC	055111	25 TON R12	
MJE 13C	TXV	13 TON R134		TJRE 13 MC	NONE	SAVE	
MJE 15C	TXV	15 TON R134		TER 16 MC	NONE	16 TON R134	
MJE 20C	TXV	20 TON R134		TER 19 MC	NONE	19 TON R134	
MJE 25C	TXV	25 TON R134		TER 25 MC	NONE	SAVE	
MKC-1	SOLENOID	COIL DUAL VOLTAGE		NONE	NONE	NONE	NO CROSS
MKC-1	SOLENOID	STD. SINGLE AC VOLT.		NONE	NONE	NONE	NO CROSS
MKC-1	SOLENOID	DUAL VOLT.		NONE	NONE	NONE	NO CROSS
MKC-1	SOLENOID	COIL STANDARD SINGLE AC VOLTAGE		AMG	VARIOUS	SAVE	NOT INTERCHANGEABLE
MKC-1	SOLENOID	COIL		AMG	VARIOUS	SAVE	NOT INTERCHANGEABLE
MKC-1 115 DC JAK	KITS			NONE	NONE	NONE	NO CROSS
MKC-1 120/50-60 CAM	KITS			NONE	NONE	NONE	NO CROSS
MKC-1 120/50-60 JAM	KITS			NONE	NONE	NONE	NO CROSS
MKC-1 208-240/50-60 CAN	KITS			NONE	NONE	NONE	NO CROSS
MKC-1 208-240/50-60 JAN	KITS			NONE	NONE	NONE	NO CROSS
MKC-1 24 DC JAK	KITS			NONE	NONE	NONE	NO CROSS
MKC-1 24/50-60 CAQ	KITS			NONE	NONE	NONE	NO CROSS
MKC-1 24/50-60 JAQ	KITS			NONE	NONE	NONE	NO CROSS
MKC-1 480/50-60 JAK	KITS			NONE	NONE	NONE	NO CROSS
MKC-1 DUAL CAU	KITS			NONE	NONE	NONE	NO CROSS
MKC-1 DUAL JAU	KITS			NONE	NONE	NONE	NO CROSS
MKC-119	SOLENOID	120/60 JAK		NONE	NONE	NONE	NO CROSS
MKC-121	SOLENOID	240/60 JAK		NONE	NONE	NONE	NO CROSS
MKC-124	SOLENOID	240/50 JAK		NONE	NONE	NONE	NO CROSS
MKC-129	SOLENOID	120/50 JAK		NONE	NONE	NONE	NO CROSS
MKC-1E 120/50-60	KITS			NONE	NONE	NONE	NO CROSS
MKC-1S 120/50-60	KITS			NONE	NONE	NONE	NO CROSS
MKC-2	SOLENOID	COIL DUAL VOLTAGE		NONE	NONE	NONE	NO CROSS
MKC-2	SOLENOID	COIL STANDARD SINGLE AC VOLTAGE		AMG	VARIOUS	SAVE	NOT INTERCHANGEABLE
MKC-2	SOLENOID	COIL		AMG	VARIOUS	SAVE	NOT INTERCHANGEABLE
MKC-2 115 DC JAK	KITS			NONE	NONE	NONE	NO CROSS
MKC-2 12 DC JAK	KITS			NONE	NONE	NONE	NO CROSS
MKC-2 120/50-60 CAM	KITS			NONE	NONE	NONE	NO CROSS
MKC-2 120/50-60 JAM	KITS			NONE	NONE	NONE	NO CROSS
MKC-2 208-240/50-60 CAN	KITS			NONE	NONE	NONE	NO CROSS
MKC-2 208-240/50-60 JAN	KITS			NONE	NONE	NONE	NO CROSS
MKC-2 24 DC JAK	KITS			NONE	NONE	NONE	NO CROSS
MKC-2 24/50-60 CAQ	KITS			NONE	NONE	NONE	NO CROSS
MKC-2 24/50-60 JAQ	KITS			NONE	NONE	NONE	NO CROSS
MKC-2 32 DC JAK	KITS			NONE	NONE	NONE	NO CROSS
MKC-2 480/50-60 JAK	KITS			NONE	NONE	NONE	NO CROSS

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	Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
Thermal Expansion Valves	MKC-2 64 DC JAK	KITS			NONE	NONE	NONE	NO CROSS
	MKC-2 DUAL CAU	KITS			NONE	NONE	NONE	NO CROSS
	MKC-2 DUAL JAU	KITS			NONE	NONE	NONE	NO CROSS
	MKC-2/OMKC-2	SOLENOID	STD. SINGLE AC VOLT.		NONE	NONE	NONE	NO CROSS
	MKC-2/OMKC-2	SOLENOID	DUAL VOLT.		NONE	NONE	NONE	NO CROSS
	MKC-219	SOLENOID	120/60 JAK		NONE	NONE	NONE	NO CROSS
Solenoid Valves	MKC-221	SOLENOID	240/60 JAK		NONE	NONE	NONE	NO CROSS
	MKC-2E 120/50-60	KITS			NONE	NONE	NONE	NO CROSS
	MRE 15C	TXV	15 TON R502		TER 16 RC	NONE	16 TON R502	
	MRE 20C	TXV	20 TON R502		TER 21 RC	NONE	21 TON R502	
	MRE 25C	TXV	25 TON R502		TER 27 RC	NONE	27 TON R502	
	MSE 15C	TXV	15 TON R404		TER 16 SC	NONE	16 TON R404	
Coils	MSE 20C	TXV	20 TON R404		TER 21 SC	NONE	21 TON R404	
	MSE 25C	TXV	25 TON R404		TER 27 SC	NONE	27 TON R404	
	MVE 21C	TXV	21 TON R22		TER 22 HC	061673	22 TON R22	
	MVE 26C	TXV	26 TON R22		TER 26 HC	061674	SAME	
	MVE 34C	TXV	34 TON R22		TER 35 HC	061675	35 TON R22	
	MVE 42C	TXV	42 TON R22		TER 45 HC	061676	45 TON R22	
Industrial Solenoid Valves	NIF 1/2C	TXV	1/2 TON R12	3/8 X 3/8 SAE - 5'	AFA 1/2 FC	054226	SAME	
	NIF 1/4C	TXV	1/4 TON R12	3/8 X 3/8 SAE - 5'	AFA 1/4 FC	054258	SAME	
	NIF 1/8C	TXV	1/8 TON R12	3/8 X 3/8 SAE - 5'	AFA 1/8 FC	NONE	SAME	
	NIF 1C	TXV	1 TON R12	3/8 X 3/8 SAE - 5'	AFA 1 FC	047758	SAME	
	NIJ 1/2C	TXV	1/2 TON R134	3/8 X 3/8 SAE - 5'	AFA 1/2 MC	059625	SAME	
	NIJ 1/4C	TXV	1/4 TON R134	1/4 X 3/8 SAE - 30"	AFA 1/4 MC	057607	SAME	
Shut Off Valves	NIJ 1C	TXV	1 TON R134	3/8 X 3/8 SAE - 5'	AFA 1 MC	NONE	SAME	
	NIR 1/2C	TXV	1/2 TON R502	1/4 X 3/8 SAE - 5'	AFA 1/2 RC	048431	SAME	
	NIR 1/4C	TXV	1/4 TON R502	1/4 X 3/8 SAE - 5'	AFA 1/4 RC	049871	SAME	
	NIR 1C	TXV	1 TON R502	3/8 X 3/8 SAE - 5'	AFA 1 RC	NONE	SAME	
	NIS 1/2C	TXV	1/2 TON R404	3/8 X 3/8 SAE - 5'	AFA 1/2 SC	NONE	SAME	
	NIS 1/4C	TXV	1/4 TON R404	3/8 X 3/8 SAE - 5'	AFA 1/4 SC	NONE	SAME	
System Protectors	NIS 1/8C	TXV	1/8 TON R404		HF 1/8 SC	NONE	SAME	
	NIS 1C	TXV	1 TON R404	3/8 X 3/8 SAE - 5'	AFA 1 SC	NONE	SAME	
	NIV 1/2C	TXV	1/2 TON R22	1/4 X 3/8 SAE - 30"	AFA 1/2 HC	057260	SAME	
	NIV 1/4C	TXV	1/4 TON R22	1/4 X 3/8 SAE - 30"	AFA 1/4 HC	057261	SAME	
	NIV 1C	TXV	1 TON R22	3/8 X 3/8 SAE - 5'	AFA 1 HC	054231	SAME	
	Storage Devices	OB10F2	SOLENOID	1/2 SAE		500RB 6F4	063327	SAME
OB10S2		SOLENOID	5/8 ODF		500RB 6S5	063335	SAME	2 WAY - NORMALLY OPEN
OB14P2		SOLENOID	1/2 FPT		500RB 7T4	064064	1/2 ODF	2 WAY - NORMALLY OPEN
OB14S2		SOLENOID	5/8 ODF		500RB 7S5	064038	5/8 ODF x 7/8 ODM	REFRIGERATION SERVICE - VLC
OB19P2		SOLENOID	3/4 FPT		540RA 9T7	060395	7/8 ODF	2 WAY - NORMALLY OPEN
OB19S2		SOLENOID	5/8 ODF		540RA 9T5	060394	SAME	2 WAY - NORMALLY OPEN
OB19S2		SOLENOID	7/8 ODF		540RA 9T7	060395	SAME	2 WAY - NORMALLY OPEN
OB25P2		SOLENOID	1 NPT		NONE	NONE	NONE	NO CROSS
OB25S2		SOLENOID	7/8 ODF		540RA 12T7	060397	SAME	2 WAY - NORMALLY OPEN
OB25S2		SOLENOID	1-1/8 ODF		540RA 12T9	060398	SAME	2 WAY - NORMALLY OPEN
OB33S2		SOLENOID	1-3/8 ODF		540RA 16T11	047214	SAME	2 WAY - NORMALLY OPEN
Oil Controls		OB33S2	SOLENOID	1-1/8 ODF		540RA 16T9	060399	SAME
	OB33S2	SOLENOID	1-5/8 ODF		NONE	NONE	NONE	NO CROSS
	OB9F2	SOLENOID	3/8 SAE		500RB 5F4	063312	1/2 SAE	2 WAY - NORMALLY OPEN
	OB9P2	SOLENOID	3/8 FPT		500RB 5P3	063316	SAME	2 WAY - NORMALLY OPEN
	OB9S2	SOLENOID	1/2 ODF		500RB 5S4	063318	1/2 ODF x 5/8 ODM	REFRIGERATION SERVICE - VLC
	OCV-10	SOLENOID	10 PSI		NONE	NONE	NONE	NO CROSS
	OCV-20	SOLENOID	20 PSI		NONE	NONE	NONE	NO CROSS
	OCV-5	SOLENOID	5 PSI		NONE	NONE	NONE	NO CROSS
	OE10S240	SOLENOID	1/2 ODF		500RB 5T4	063323	SAME	2 WAY - NORMALLY OPEN
	OE10S250	SOLENOID	5/8 ODF		500RB 5T5	063325	SAME	2 WAY - NORMALLY OPEN
	OE14S250	SOLENOID	5/8 ODF		500RB 7T5	064065	SAME	2 WAY - NORMALLY OPEN
	Temperature Pressure Controls	OE14S250-20	SOLENOID	5/8 ODF EXTENDED		NONE	NONE	NONE
OE19S250		SOLENOID	5/8 ODF		540RA 9T5	060394	SAME	2 WAY - NORMALLY OPEN
OE19S270		SOLENOID	7/8 ODF		540RA 9T7	060395	SAME	2 WAY - NORMALLY OPEN
OE19S270-20		SOLENOID	7/8 ODF EXTENDED		NONE	NONE	NONE	NO CROSS
OE25S270		SOLENOID	7/8 ODF		540RA 12T7	046269	SAME	2 WAY - NORMALLY OPEN
OE25S290		SOLENOID	1-1/8 ODF		540RA 12T9	060398	SAME	2 WAY - NORMALLY OPEN
OE34S2110		SOLENOID	1-3/8 ODF		540RA 16T11	047214	SAME	2 WAY - NORMALLY OPEN
OE34S2110-20		SOLENOID	1-3/8 ODF EXTENDED		NONE	NONE	NONE	NO CROSS

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Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
OE345290	SOLENOID	1-1/8 ODF		540RA 16T9	060399	SAME	2 WAY - NORMALLY OPEN
OE345290-20	SOLENOID	1-1/8 ODF EXTENDED		NONE	NONE	NONE	NO CROSS
OE4252130	SOLENOID	1-5/8 ODF		540RA 20T13	060402	SAME	2 WAY - NORMALLY OPEN
OE4252130-20	SOLENOID	1-5/8 ODF EXTENDED		NONE	NONE	NONE	NO CROSS
OE4252170	SOLENOID	2-1/8 ODF		540RA 20T17	060403	SAME	2 WAY - NORMALLY OPEN
OE95230	SOLENOID	3/8 ODF		500RB 5T3	063322	SAME	2 WAY - NORMALLY OPEN
OE95240	SOLENOID	1/2 ODF		500RB 5T4	063323	SAME	2 WAY - NORMALLY OPEN
OE95240-20	SOLENOID	1/2 ODF EXTENDED		NONE	NONE	NONE	NO CROSS
OF-303	OIL CONTROL	SEALED MODEL		ACF 303	064952	SAME	
OF-303-BP	OIL CONTROL	SEALED MODEL W/BYP.		NONE	NONE	NONE	NO CROSS
OFE 12C	TXV	12 TON R12		TER 13 FC		13 TON R12	
OFE 16C	TXV	16 TON R12		TER 15 FC		15 TON R12	
OFE 23C	TXV	23 TON R12		TER 25 FC		25 TON R12	
OFE 32C	TXV	32 TON R12		TIR 35 FC		35 TON R12	
OFE 40C	TXV	40 TON R12		THR 45 FC		45 TON R12	
OFE 9C	TXV	9 TON R12		HFES 9 FC		SAME	
OFE-1	OIL CONTROL	ELEMENT W/GASKET		NONE	NONE	NONE	NO CROSS
OJE 12C	TXV	12 TON R134		TJRE 13 MC		13 TON R134	
OJE 16C	TXV	16 TON R134		TER 16 MC		16 TON R134	
OJE 23C	TXV	23 TON R134		TER 25 MC		25 TON R134	
OJE 32C	TXV	32 TON R134		TER 31 MC		31 TON R134	
OJE 40C	TXV	40 TON R134		TIR 45 MC		45 TON R134	
OJE 9C	TXV	9 TON R134		TJRE 11 MC		11 TON R134	
OL-1CH	OIL CONTROL	MAX rP 30		NONE	NONE	NONE	NO CROSS
OL-1FH	OIL CONTROL	MAX rP 30		W-OLC-2-4	065170	SAME	
OL-1HH-6	OIL CONTROL	MAX rP 30		NONE	NONE	NONE	NO CROSS
OL-1NH-2	OIL CONTROL	MAX rP 30		NONE	NONE	NONE	NO CROSS
OL-2CH	OIL CONTROL	MAX rP 90		NONE	NONE	NONE	NO CROSS
OL-2FH	OIL CONTROL	MAX rP 90		W-OLC-2-4	065170	SAME	
OL-2HH-6	OIL CONTROL	MAX rP 90		NONE	NONE	NONE	NO CROSS
OL-2NH-2	OIL CONTROL	MAX rP 90		NONE	NONE	NONE	NO CROSS
OL-2TH-1	OIL CONTROL	MAX rP 90		NONE	NONE	NONE	NO CROSS
OL-2TH-2	OIL CONTROL	MAX rP 90		NONE	NONE	NONE	NO CROSS
OL-60XH	OIL CONTROL	MAX rP 90		NONE	NONE	NONE	NO CROSS
OL-60XH-1	OIL CONTROL	MAX rP 90		NONE	NONE	NONE	NO CROSS
OMKC-1	SOLENOID	STD. SINGLE AC VOLT.		NONE	NONE	NONE	NOT INTERCHANGEABLE
OMKC-1	SOLENOID	DUAL VOLT.		NONE	NONE	NONE	NOT INTERCHANGEABLE
OMKC-1 120/50-60 JAM	KITS			NONE	NONE	NONE	NO CROSS
OMKC-1 208-240/50-60 JAN	KITS			NONE	NONE	NONE	NO CROSS
OMKC-1 24 DC JAK	KITS			NONE	NONE	NONE	NO CROSS
OMKC-1 24/50-60 JAQ	KITS			NONE	NONE	NONE	NO CROSS
OMKC-1 DUAL JAU	KITS			NONE	NONE	NONE	NO CROSS
OMKC-2	SOLENOID	STD. SINGLE AC VOLT.		NONE	NONE	NONE	NOT INTERCHANGEABLE
OMKC-2	SOLENOID	DUAL VOLT.		NONE	NONE	NONE	NOT INTERCHANGEABLE
OMKC-2 120/50-60 JAM	KITS			NONE	NONE	NONE	NO CROSS
OMKC-2 208-240/50-60 JAN	KITS			NONE	NONE	NONE	NO CROSS
OMKC-2 24/50-60 JAQ	KITS			NONE	NONE	NONE	NO CROSS
OMKC-2 COL	SOLENOID	STANDARD SINGLE AC VOLTAGE		NONE	NONE	NONE	NOT INTERCHANGEABLE
OMKC-2 COL	SOLENOID	DUAL VOLTAGE		NONE	NONE	NONE	NOT INTERCHANGEABLE
OMKC-2 DC JAK	KITS			NONE	NONE	NONE	NO CROSS
OMKC-2 DUAL JAU	KITS			NONE	NONE	NONE	NO CROSS
ORD-4-20	REGULATORS		5/8 ODF	NONE	NONE	NONE	NO CROSS
ORD-4-25	REGULATORS		5/8 ODF	NONE	NONE	NONE	NO CROSS
ORD-4-30	REGULATORS		5/8 ODF	NONE	NONE	NONE	NO CROSS
ORD-4-35	REGULATORS		5/8 ODF	NONE	NONE	NONE	NO CROSS
ORE 12C	TXV	12 TON R502		TRAE+ 12 RC		SAME	
ORE 21C	TXV	21 TON R502		TRAE+ 20 RC		20 TON R502	
ORE 30C	TXV	30 TON R502		TER 27 RC		27 TON R502	
ORE 35C	TXV	35 TON R502		TIR 37 RC		37 TON R502	
ORE 45C	TXV	45 TON R502		THR 48 RC		48 TON R502	
ORE 9C	TXV	9 TON R502		TRAE+ 8 RC		8 TON R502	
ORI-10-65/225H	REGULATORS		1 1/8 ODF	IPR-10	047310	SAME	30/100 adjustment range
ORI-10-65/225H	REGULATORS		1 3/8 ODF	IPR-10	047311	SAME	30/100 adjustment range
ORI-6-65/225H	REGULATORS		5/8 ODF	IPR-6	047303	SAME	30/100 adjustment range
ORI-6-65/225H	REGULATORS		7/8 ODF	IPR-6	047301	SAME	30/100 adjustment range

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	Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
Thermal Expansion Valves	ORI-6-65/225H	REGULATORS		1 1/8 ODF	IPR-6	047305	SAME	30/100 adjustment range
	ORIL-PL-27E-0/100	REGULATORS		7/8	NONE	NONE	NONE	NO CROSS
	ORIT-10-0/50	REGULATORS		7/8 ODF	IPR-10	047306	SAME	W/ Pressure Tap
	ORIT-10-0/50	REGULATORS		1 1/8 ODF	IPR-10	047307	SAME	W/ Pressure Tap
	ORIT-10-0/50	REGULATORS		1 3/8 ODF	IPR-10	047308	SAME	W/ Pressure Tap
Solenoid Valves	ORIT-10-30/100	REGULATORS		7/8 ODF	IPR-10	047309	SAME	W/ Pressure Tap
	ORIT-10-30/100	REGULATORS		1 1/8 ODF	IPR-10	047310	SAME	W/ Pressure Tap
	ORIT-10-30/100	REGULATORS		1 3/8 ODF	IPR-10	047311	SAME	W/ Pressure Tap
	ORIT-12-0/100	REGULATORS		1 1/8 ODF	EPRB-12 T 9	057242	SAME	BRASS BODY
	ORIT-15-0/100	REGULATORS		1 3/8 ODF	NONE	NONE	NONE	NO CROSS
Coils	ORIT-20-0/100	REGULATORS		1 5/8 ODF	EPRB-20 T 13	057247	SAME	BRASS BODY, 0/110
	ORIT-20-0/100	REGULATORS		2 1/8 ODF	NONE	NONE	NONE	NO CROSS
	ORIT-6-0/50	REGULATORS		1/2 SAE STRAINER N/A	IPR-6	047901	SAME	W/ Pressure Tap
	ORIT-6-0/50	REGULATORS		5/8 SAE STRAINER N/A	IPR-6	047904	SAME	W/ Pressure Tap
	ORIT-6-0/50	REGULATORS		5/8 ODF	IPR-6	047300	SAME	W/ Pressure Tap
Industrial Solenoid Valves	ORIT-6-0/50	REGULATORS		7/8 ODF	IPR-6	047301	SAME	W/ Pressure Tap
	ORIT-6-0/50	REGULATORS		1 1/8 ODF	IPR-6	047302	SAME	W/ Pressure Tap
	ORIT-6-30/100	REGULATORS		1/2 SAE STRAINER N/A	IPR-6	047902	SAME	W/ Pressure Tap
	ORIT-6-30/100	REGULATORS		5/8 SAE STRAINER N/A	IPR-6	047903	SAME	W/ Pressure Tap
	ORIT-6-30/100	REGULATORS		5/8 ODF	IPR-6	047303	SAME	W/ Pressure Tap
Shut Off Valves	ORIT-6-30/100	REGULATORS		7/8 ODF	IPR-6	047304	SAME	W/ Pressure Tap
	ORIT-6-30/100	REGULATORS		1 1/8 ODF	IPR-6	0473605	SAME	W/ Pressure Tap
	ORIT-PL-211-0/100	REGULATORS		1 3/8	NONE	NONE	NONE	NO CROSS
	ORIT-PL-211E-0/100	REGULATORS		1 3/8	NONE	NONE	NONE	NO CROSS
	ORIT-PL-25-0/100	REGULATORS		5/8	NONE	NONE	NONE	NO CROSS
System Protectors	ORIT-PL-25E-0/100	REGULATORS		5/8	NONE	NONE	NONE	NO CROSS
	ORIT-PL-27-0/100	REGULATORS		7/8	NONE	NONE	NONE	NO CROSS
	ORIT-PL-29-0/100	REGULATORS		1 1/8	NONE	NONE	NONE	NO CROSS
	ORIT-PL-29E-0/100	REGULATORS		1 1/8	NONE	NONE	NONE	NO CROSS
	ORIT-PL-311-0/100	REGULATORS		1 3/8	NONE	NONE	NONE	NO CROSS
Storage Devices	ORIT-PL-311E-0/100	REGULATORS		1 3/8	NONE	NONE	NONE	NO CROSS
	ORIT-PL-313-0/100	REGULATORS		1 5/8	NONE	NONE	NONE	NO CROSS
	ORIT-PL-313E-0/100	REGULATORS		1 5/8	NONE	NONE	NONE	NO CROSS
	ORIT-PL-37-0/100	REGULATORS		7/8	NONE	NONE	NONE	NO CROSS
	ORIT-PL-37E-0/100	REGULATORS		7/8	NONE	NONE	NONE	NO CROSS
Oil Controls	ORIT-PL-39-0/100	REGULATORS		1 1/8	NONE	NONE	NONE	NO CROSS
	ORIT-PL-39E-0/100	REGULATORS		1 1/8	NONE	NONE	NONE	NO CROSS
	ORIT-PL-411-0/100	REGULATORS		1 3/8	NONE	NONE	NONE	NO CROSS
	ORIT-PL-411E-0/100	REGULATORS		1 3/8	NONE	NONE	NONE	NO CROSS
	ORIT-PL-413-0/100	REGULATORS		1 5/8	NONE	NONE	NONE	NO CROSS
Pressure Regulators	ORIT-PL-413E-0/100	REGULATORS		1 5/8	NONE	NONE	NONE	NO CROSS
	ORIT-PL-417-0/100	REGULATORS		2 1/8	NONE	NONE	NONE	NO CROSS
	ORIT-PL-417E-0/100	REGULATORS		2 1/8	NONE	NONE	NONE	NO CROSS
	ORIT-PL-49-0/100	REGULATORS		1 1/8	NONE	NONE	NONE	NO CROSS
	ORIT-PL-49E-0/100	REGULATORS		1 1/8	NONE	NONE	NONE	NO CROSS
Temperature Pressure Controls	ORIT-PL-511-0/100	REGULATORS		1 3/8	NONE	NONE	NONE	NO CROSS
	ORIT-PL-511E-0/100	REGULATORS		1 3/8	NONE	NONE	NONE	NO CROSS
	ORIT-PL-513-0/100	REGULATORS		1 5/8	NONE	NONE	NONE	NO CROSS
	ORIT-PL-513E-0/100	REGULATORS		1 5/8	NONE	NONE	NONE	NO CROSS
	ORIT-PL-517-0/100	REGULATORS		2 1/8	NONE	NONE	NONE	NO CROSS
Competitive Cross Reference	ORIT-PL-517E-0/100	REGULATORS		2 1/8	NONE	NONE	NONE	NO CROSS
	OQA-5-100	REGULATORS	100 psi setting	5/8 ODF	HP8 T 5-110	033862	SAME	110 psi setting, others available
	OQA-5-180	REGULATORS	180 psi setting	5/8 ODF	HP8 T 5-185	032407	SAME	185 psi setting, others available
	O5E 12 - ZP	TXV	12 TON R404	7/8 X 1 3/8 ODF - 5'	TRAE+ 12 SW35		SAME	
	O5E 21C	TXV	21 TON R404		TRAE+ 20 SC		20 TON R404	
O5E 30C	TXV	30 TON R404		TER 27 SC		27 TON R404		
O5E 35C	TXV	35 TON R404		TIR 37 SC		37 TON R404		
O5E 45C	TXV	45 TON R404		THR 48 SC		48 TON R404		
O5E 9	TXV	R-404A		NONE	NONE	NONE		
O5E 9C	TXV	9 TON R404		NONE	NONE	NONE		
O5E 15	TXV	R-22		TRAE+ 15 HC 7/8 X 1-1/8 ODF 5/T	062721	NONE		
O5E 15 - C	TXV	15 TON R22	7/8 X 1 1/8 ODF - 5'	NONE	NONE	NONE		
O5E 20	TXV	R-22		TRAE+ 20 H*	NONE	NONE		
O5E 20 - C	TXV	20 TON R22	7/8 X 1 3/8 ODF - 5'	NONE	NONE	NONE		
O5E 30	TXV	R-22		TRAE+ 30 H*	NONE	NONE		

SPORLAN TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
OVE 30 - C	TW	30 TON R22	1 1/8 X 1 3/8 ODF - 5'	TRAE+ 30 HC 1-1/8 X 1-3/8 ODFS/T	062728	SAME	
OVE 40	TW	R-22		TRAE+ 40 HC 1-1/8 X 1-3/8 ODFS/T	062733	SAME	
OVE 40 - C	TW	40 TON R22	1 1/8 X 1 3/8 ODF - 5'	NONE	NONE	NONE	
OVE 55	TW	R-22		TIR 55 HC VLF	061677	SAME	
OVE 55 - CP-100	TW	55 TON R22	1 1/8 X 1 3/8 ODF - 5'	NONE	NONE	NONE	
OVE 70	TW	R-22		THR 75 HC VLF	064961	SAME	
OVE 70 - CP-100	TW	70 TON R22	1 1/8 X 1 3/8 ODF - 5'	NONE	NONE	NONE	
PFE 12C	TW	12 TON R12		NONE	NONE	NONE	
PFE 8C	TW	8 TON R12		NONE	NONE	NONE	
PJE 12C	TW	12 TON R134		NONE	NONE	NONE	
PJE 8C	TW	8 TON R134		NONE	NONE	NONE	
PRE 12C	TW	12 TON R502		NONE	NONE	NONE	
PRE 9C	TW	9 TON R502		HFES 10 RC 5/8 X 7/8 ODFS/T	058808	10 TON R502	
PSE 12C	TW	12 TON R404		NONE	NONE	NONE	
PSE 9C	TW	9 TON R404		NONE	NONE	NONE	
PVE 10C	TW	10 TON R22		HFES 10 HC 7/8 X 1-1/8 ODFS/T	057316	10 TON R22	
PVE 11	TW	R-22		HFES 10 HC 7/8 X 1-1/8 ODFS/T	057316	NONE	
PVE 11 - CP100	TW	11 TON R22	5/8 X 7/8 ODF - 5'	NONE	NONE	NONE	
PVE 16	TW	R-22		HFES 15 HC 5/8 X 7/8 ODF S/T	056823	SAME	
PVE 16 - CP100	TW	16 TON R22	7/8 X 1 1/8 ODF - 5'	NONE	NONE	NONE	
PVE 20	TW	R-22		HFES 20 HC 7/8 X 1-1/8 ODFS/T	062055	SAME	
PVE 20 - CP100	TW	20 TON R22	7/8 X 1 3/8 ODF - 5'	NONE	NONE	NONE	
Q-0-JC	TW	1/4 TON R134		HF 1/4 MC	058905	SAME	HF IS BALANCED PORT
Q-0-RC	TW	1/5 TON R502		HF 1/4 RC	059304	1/4 TON R502	HF IS BALANCED PORT
Q-0-VC	TW	1/4 TON R22		HF 1/4 HC	058430	SAME	HF IS BALANCED PORT
Q-1-FC	TW	1/2 TON R12		HF 1/2 FC	054892	SAME	HF IS BALANCED PORT
Q-1-JC	TW	1/2 TON R134		HF 1/2 MC	057620	SAME	HF IS BALANCED PORT
Q-1-RC	TW	1/2 TON R502		HF 1/2 RC	054965	SAME	HF IS BALANCED PORT
Q-1-VC	TW	3/4 TON R22		HF 1 HC	054927	1 TON R22	HF IS BALANCED PORT
Q-2-FC	TW	5/8 TON R12		HF 1/2 FC	054892	1/2 TON R12	HF IS BALANCED PORT
Q-2-JC	TW	3/4 TON R134		HF 3/4 MC	057879	SAME	HF IS BALANCED PORT
Q-2-RC	TW	5/8 TON R502		HF 1/2 RC	054965	1/2 TON R502	HF IS BALANCED PORT
Q-2-VC	TW	1 TON R22		HF 1 HC	054927	SAME	HF IS BALANCED PORT
Q-3-FC	TW	1 TON R12		HF 1 FC	054905	SAME	HF IS BALANCED PORT
Q-3-JC	TW	11/4 TON R134		HF 11/2 MC	054914	11/2 TON R134	HF IS BALANCED PORT
Q-3-RC	TW	1 TON R502		HF 1 RC	054976	SAME	HF IS BALANCED PORT
Q-3-VC	TW	11/2 TON R22		HF 11/2 HC	054933	SAME	HF IS BALANCED PORT
Q-4-FC	TW	11/2 TON R12		HF 11/2 FC	054914	SAME	HF IS BALANCED PORT
Q-4-JC	TW	11/2 TON R134		HF 11/2 MC	054914	SAME	HF IS BALANCED PORT
Q-4-RC	TW	11/2 TON R502		HF 11/2 RC	054984	SAME	HF IS BALANCED PORT
Q-4-VC	TW	21/2 TON R22		HF 21/2 HC	054947	SAME	HF IS BALANCED PORT
Q-5-FC	TW	2 TON R12		HF 2 FC	053060	SAME	HF IS BALANCED PORT
Q-5-JC	TW	21/2 TON R134		HF 21/2 MC		SAME	HF IS BALANCED PORT
Q-5-RC	TW	2 TON R502		HF 2 RC	053061	SAME	HF IS BALANCED PORT
Q-5-VC	TW	31/2 TON R22		HF 3 HC	053316	3 TON R22	HF IS BALANCED PORT
Q-6-RC	TW	3 TON R502		HF 31/2 RC	055936	31/2 TON R502	HF IS BALANCED PORT
Q-6-VC	TW	5 TON R22		HF 51/2 HC	055920	51/2 TON R22	HF IS BALANCED PORT
QE-0-FC	TW	1/5 TON R12		HFE 1/8 FC	054883	1/8 TON R12	HF IS BALANCED PORT
QE-0-JC	TW	1/4 TON R134		HFE 1/4 MC	057860	SAME	HF IS BALANCED PORT
QE-0-RC	TW	1/5 TON R502		HFE 1/4 RC	059066	1/4 TON R502	HF IS BALANCED PORT
QE-0-VC	TW	1/4 TON R22		HFE 1/4 HC	057381	SAME	HF IS BALANCED PORT
QE-1-FC	TW	1/2 TON R12		HFE 1/2 FC	054895	SAME	HF IS BALANCED PORT
QE-1-JC	TW	1/2 TON R134		HFE 1/2 MC	057616	SAME	HF IS BALANCED PORT
QE-1-RC	TW	1/2 TON R502		HFE 1/2 RC	054967	SAME	HF IS BALANCED PORT
QE-1-VC	TW	3/4 TON R22		HFE 1 HC	054930	1 TON R22	HF IS BALANCED PORT
QE-2-FC	TW	5/8 TON R12		HFE 1/2 FC	054895	1/2 TON R12	HF IS BALANCED PORT
QE-2-JC	TW	3/4 TON R134		HFE 3/4 MC	057861	SAME	HF IS BALANCED PORT
QE-2-RC	TW	5/8 TON R502		HFE 1/2 RC	054967	1/2 TON R502	HF IS BALANCED PORT
QE-2-VC	TW	1 TON R22		HFE 1 HC	054930	2 TON R22	HF IS BALANCED PORT
QE-3-FC	TW	1 TON R12		HFE 1 FC	054909	SAME	HF IS BALANCED PORT
QE-3-JC	TW	11/4 TON R134		HFE 11/2 MC	057895	11/2 TON R134	HF IS BALANCED PORT
QE-3-RC	TW	1 TON R502		HFE 1 RC	054979	SAME	HF IS BALANCED PORT
QE-3-VC	TW	11/2 TON R22		HFE 11/2 HC	054936	SAME	HF IS BALANCED PORT
QE-4-FC	TW	11/2 TON R12		HFE 11/2 FC	054917	SAME	HF IS BALANCED PORT
QE-4-JC	TW	11/2 TON R134		HFE 11/2 MC	057895	SAME	HF IS BALANCED PORT

Thermal Expansion Valves

Solenoid Valves

Coils

Industrial Solenoid Valves

Shut Off Valves

System Protectors

Storage Devices

Oil Controls

Pressure Regulators

Temperature Pressure Controls

Competitive Cross Reference

SPORLAN TO EMERSON

	Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
Thermal Expansion Valves	QE-4-RC	TXV	11/2 TON R502		HFE 11/2 RC	054988	SAME	HF IS BALANCED PORT
	QE-4-VC	TXV	21/2 TON T22		HFE 21/2 HC	054950	SAME	HF IS BALANCED PORT
	QE-5-FC	TXV	2 TON R12		HFE 2 FC	053069	SAME	HF IS BALANCED PORT
	QE-5-JC	TXV	21/2 TON R134		HFE 21/2 MC	057622	SAME	HF IS BALANCED PORT
	QE-5-RC	TXV	2 TON R502		HFE 2 RC	053070	SAME	HF IS BALANCED PORT
Solenoid Valves	QE-5-VC	TXV	31/2 TON R22		HFE 3 HC	053317	3 TON R22	HF IS BALANCED PORT
	QE-6-RC	TXV	3 TON R502		HFE 31/2 RC	054142	31/2 TON R502	HF IS BALANCED PORT
	QE-6-VC	TXV	5 TON R22		HFE 51/2 HC	054140	51/2 TON R22	HF IS BALANCED PORT
	Q-O-FC	TXV	1/5 TON R12		HF 1/8 FC	054880	1/8 TON R12	HF IS BALANCED PORT
	R183P1	SOLENOID	3/8 ODF		231SB 08P04	034171	1/2 FPT	STEAM SERVICE
Coils	R184P1	SOLENOID	1/2 FPT		231SB 08P04	034171	SAME	STEAM SERVICE
	R246P1	SOLENOID	3/4 FPT		231SB 12P06	040069	SAME	STEAM SERVICE
	R-3H	KITS	DOME		NONE	NONE	NONE	FOR SPORLAN BYPASS VALVE
	R-3H	KITS			NONE	NONE	NONE	NO CROSS
	R-3L	KITS	DOME		NONE	NONE	NONE	FOR SPORLAN BYPASS VALVE
	R-3P	KITS	DOME		NONE	NONE	NONE	FOR SPORLAN BYPASS VALVE
	R-3P	KITS			NONE	NONE	NONE	NO CROSS
	R-8	KITS	DOME		NONE	NONE	NONE	FOR SPORLAN BYPASS VALVE
	R-8	KITS			NONE	NONE	NONE	NO CROSS
	Industrial Solenoid Valves	RC-10098	DRIER	100 CU. IN.		H100	089338	SAME
RC-10098-HH		DRIER	100 CU. IN.		W100	043582	SAME	DRIER BLOCK
RC-4267		DRIER	42 CU. IN.		D42	056662	SAME	DRIER BLOCK
RC-4864		DRIER	48 CU. IN.		D48	059541	SAME	DRIER BLOCK
RC-4864-HH		DRIER	48 CU. IN.		W48	061235	SAME	DRIER BLOCK
Shut Off Valves	RCVE 2 GA	TXV	2 TON R22	SAE or ODF 30"	HFES 2 HCA	059670	SAME	ODF CONNECTIONS
	RCVE 3 GA	TXV	3 TON R22	SAE or ODF 30"	HFES 3 HCA	058648	SAME	ODF CONNECTIONS
	RCVE 4 GA	TXV	4 TON R22	SAE or ODF 30"	TCLE 3 HCA		3 TON R22	ODF CONNECTIONS
	RCVE 5 GA	TXV	5 TON R22	SAE or ODF 30"	HFES 51/2 HCA	057378	51/2 TON R22	ODF CONNECTIONS
	RCW-100	DRIER	100 CU. IN.		W100	043582	SAME	DRIER BLOCK
System Protectors	RCW-42	DRIER	42 CU. IN.		D42	056662	STD	DRIER BLOCK
	RCW-48	DRIER	48 CU. IN.		H48	059542	SAME	DRIER BLOCK
	RIVE 2-GA-RPB	TXV	2 TON R22	SAE or ODF 30"	AAE 2 HCA	059579	SAME	ODF CONNECTIONS
	RIVE 3-GA-RPB	TXV	31/2 TON R22	SAE or ODF 30"	AAE 3 HCA	064275	31/2 TON R22	ODF CONNECTIONS
	RIVE 4-GA-RPB	TXV	4 TON R22	SAE or ODF 30"	AAE 4 HCA	064276	SAME	ODF CONNECTIONS
Storage Devices	RIVE 5-GA-RPB	TXV	41/2 TON R22	SAE or ODF 30"	AAE 4 HCA	064276	4 TON R22	ODF CONNECTIONS
	ROF-413	OIL CONTROL	REPLACEABLE OIL FILT.		NONE	NONE	NONE	NO CROSS
	RPE-100	DRIER	100 CU. IN.		F100	095762	SAME	FILTER ELEMENT
	RPE-48-BD	DRIER	48 CU. IN.		F48R	047664	SAME	FILTER ELEMENT
	RSF-4811-T	DRIER	13/8 ODF		STAS 4811SV	053938	SAME	TAKE APART SHELL - SUCTION
	RSF-4813-T	DRIER	15/8 ODF		STAS 4813SV	053043	SAME	TAKE APART SHELL - SUCTION
	RSF-4817-T	DRIER	21/8 ODF		STAS 4817SV	053044	SAME	TAKE APART SHELL - SUCTION
	RSF-4821-T	DRIER	25/8 ODF		STAS 4821SV	053045	SAME	TAKE APART SHELL - SUCTION
	RSF-487-T	DRIER	7/8 ODF		STAS 487SV	058161	SAME	TAKE APART SHELL - SUCTION
	RSF-489-T	DRIER	11/8 ODF		STAS 489SV	053937	SAME	TAKE APART SHELL - SUCTION
Oil Controls	RSF-9611-T	DRIER	1 3/8 ODF		STAS 9611-T	053014	SAME	TAKE APART SHELL - SUCTION
	RSF-9613-T	DRIER	1 5/8 ODF		STAS 9613-T	053017	SAME	TAKE APART SHELL - SUCTION
	RSF-9617-T	DRIER	21/8 ODF		STAS 9617SV	053047	SAME	TAKE APART SHELL - SUCTION
	RSF-9621-T	DRIER	25/8 ODF		STAS 9621SV	053048	SAME	TAKE APART SHELL - SUCTION
	RSF-9625-T	DRIER	31/8 ODF		ATD 9625SV	059739	SAME	TAKE APART SHELL - SUCTION
Pressure Regulators	S1A1	OIL CONTROL	OIL LEVEL		OMA-JB1	063519	SAME	TRAX OIL - STANDARD
	S1AU-1	OIL CONTROL	OIL LEVEL		OMA-MO1	063518	SAME	TRAX OIL - HUSSMANN
	SA-12	SIGHT GLASS	1/4 SAE	1/4 FLARE	HMI-1MM2	065391	SAME	MOISTURE INDICATOR
	SA-12FM	SIGHT GLASS	1/4 M X F SAE	1/4 M FLARE X 1/4 F FLARE	HMI-1FM2	065396	SAME	MOISTURE INDICATOR
	SA-12S	SIGHT GLASS	1/4 ODF	1/4 ODF	HMI-1TT2	065405	SAME	MOISTURE INDICATOR
Temperature Pressure Controls	SA-13	SIGHT GLASS	3/8 SAE	3/8 FLARE	HMI-1MM3	065392	SAME	MOISTURE INDICATOR
	SA-13FM	SIGHT GLASS	3/8 M X F SAE	3/8 M FLARE X 3/8 F FLARE	HMI-1FM3	065397	SAME	MOISTURE INDICATOR
	SA-13FU	SIGHT GLASS	3/8 F SAE X SWIV		HMI-1FU3	065403	SAME	MOISTURE INDICATOR
	SA-13S	SIGHT GLASS	3/8 ODF		HMI-1TT3	065406	SAME	MOISTURE INDICATOR
	SA-13SU	SIGHT GLASS	3/8 ODF X SWIV		AMI-1SU3	048820	SAME	MOISTURE INDICATOR
Competitive Cross Reference	SA-13U	SIGHT GLASS	3/8 M SAE X SWIV		HMI-1MU3	065400	SAME	MOISTURE INDICATOR
	SA-13UU	SIGHT GLASS	3/8 SWIV X SWIV		HMI-1UU3	065412	SAME	MOISTURE INDICATOR
	SA-14	SIGHT GLASS	1/2 SAE		HMI-1MM4	065393	SAME	MOISTURE INDICATOR
	SA-14FM	SIGHT GLASS	1/2 M X F SAE		HMI-1FM4	065398	SAME	MOISTURE INDICATOR
	SA-14FU	SIGHT GLASS	1/2 F SAE X SWIV		HMI-1FU4	065404	SAME	MOISTURE INDICATOR
SA-14S	SIGHT GLASS	1/2 ODF		HMI-1TT4	065407	SAME	MOISTURE INDICATOR	

SPORLAN TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
SA-14SU	SIGHT GLASS	1/2 ODF X SWIV		AM-15U4	048821	SAME	MOISTURE INDICATOR
SA-14U	SIGHT GLASS	1/2 M SAE X SWIV		HIM-1MU4	065401	SAME	MOISTURE INDICATOR
SA-14UU	SIGHT GLASS	1/2 SWIV X SWIV		HIM-1UU4	065413	SAME	MOISTURE INDICATOR
SA-15	SIGHT GLASS	5/8 SAE		HIM-1MV5	065394	SAME	MOISTURE INDICATOR
SA-15S	SIGHT GLASS	5/8 ODF		HIM-1TT5	065408	SAME	MOISTURE INDICATOR
SA-15SU	SIGHT GLASS	5/8 ODF X SWIV		AM-15U5	048822	SAME	MOISTURE INDICATOR
SA-15U	SIGHT GLASS	5/8 M SAE X SWIV		HIM-1MU5	065402	SAME	MOISTURE INDICATOR
SA-15UU	SIGHT GLASS	5/8 SWIV X SWIV		HIM-1UU5	065414	SAME	MOISTURE INDICATOR
SA-17S	SIGHT GLASS	7/8 ODF		HIM-1TT7	065410	SAME	MOISTURE INDICATOR
SA-19S	SIGHT GLASS	1 1/8 ODF		HIM-1TT9	065411	SAME	MOISTURE INDICATOR
SA-211	SIGHT GLASS	13/8 ODF		AM-2S11	022303	SAME	MOISTURE INDICATOR
SA-213	SIGHT GLASS	15/8 ODF		AM-2S13	028388	SAME	MOISTURE INDICATOR
SA-217	SIGHT GLASS	2 1/8 ODF		AM-2S17	031219	SAME	MOISTURE INDICATOR
SA-K140	SIGHT GLASS	1 1/8 ODF		HIM-1TT9	065411	SAME	MOISTURE INDICATOR
SA-K142	SIGHT GLASS	1/4 ODF		HIM-1TT2	065405	SAME	MOISTURE INDICATOR
SA-K143	SIGHT GLASS	3/8 ODF		HIM-1TT3	065406	SAME	MOISTURE INDICATOR
SA-K144	SIGHT GLASS	1/2 ODF		HIM-1TT4	065407	SAME	MOISTURE INDICATOR
SA-K145	SIGHT GLASS	5/8 ODF		HIM-1TT5	065408	SAME	MOISTURE INDICATOR
SA-K147	SIGHT GLASS	7/8 ODF		HIM-1TT7	065410	SAME	MOISTURE INDICATOR
SA-K87	SIGHT GLASS	LESS CONNECTIONS		NONE	NONE	NONE	
SA-K87	SIGHT GLASS	4X4 FPT		NONE	NONE	NONE	
SA-K90	SIGHT GLASS	LESS CONNECTIONS		NONE	NONE	NONE	
SA-K90	SIGHT GLASS	4X4 FPT		NONE	NONE	NONE	
SA-K90	SIGHT GLASS	6X6 FPT		NONE	NONE	NONE	
SA-K90	SIGHT GLASS	8X8 FPT		NONE	NONE	NONE	
SBFF-A - C	TXV	1 TON R12		HFSC 1 F C		SAME	
SBFF-AA - C	TXV	1/2 TON R12		HFSC 1/2 F C		SAME	
SBFF-AAA-C	TXV	1/4 TON R12		NONE	NONE	NONE	
SBFF-B-C	TXV	13/4 TON R12		NONE	NONE	NONE	
SBFF-C-C	TXV	3 TON R12		NONE	NONE	NONE	
SBFFE-A - C	TXV	1 TON R12		NONE	NONE	NONE	
SBFFE-AAA-C	TXV	1/4 TON R12		NONE	NONE	NONE	
SBFFE-AA-C	TXV	1/2 TON R12		HFESC 1/2 FC 3/8 X 1/2 ODFANG	057397	SAME	
SBFFE-B-C	TXV	13/4 TON R12		HFESC 11/2 FC 3/8 X 1/2 ODFANG	057399	11/2 TON R12	
SBFFE-C-C	TXV	3 TON R12		NONE	NONE	NONE	
SBFJ-AAA-C	TXV	1/4 TON R134		NONE	NONE	NONE	
SBFJ-AA-C	TXV	1/2 TON R134		NONE	NONE	NONE	
SBFJ-A-C	TXV	1 1/4 TON R134		NONE	NONE	NONE	
SBFJ-B-C	TXV	2 TON R134		NONE	NONE	NONE	
SBFJ-C-C	TXV	3 1/2 TON R134		NONE	NONE	NONE	
SBFJE-AAA-C	TXV	1/4 TON R134		HFESC 1/4 MC 3/8 X 1/2 ODFANG	057572	SAME	
SBFJE-AA-C	TXV	1/2 TON R134		HFESC 1/2 MC 3/8 X 1/2 ODFANG	058069	SAME	
SBFJE-A-C	TXV	1 1/4 TON R134		HFESC 1 MC 3/8 X 1/2 ODFANG	057570	1 TON R134	
SBFJE-B-C	TXV	2 TON R134		NONE	NONE	NONE	
SBFJE-C-C	TXV	3 1/2 TON R134		NONE	NONE	NONE	
SBFR-AAA-C	TXV	1/4 TON R502		HFSC 1/4 RC 3/8 X 1/2 ODFANG	057487	SAME	
SBFR-AA-C	TXV	1/2 TON R502		HFSC 1/2 RC 3/8 X 1/2 ODFANG	057488	SAME	
SBFR-A-C	TXV	1 TON R502		NONE	NONE	NONE	
SBFR-B-C	TXV	2 TON R502		NONE	NONE	NONE	
SBFR-C-C	TXV	3 TON R502		NONE	NONE	NONE	
SBFRE-AAA-C	TXV	1/4 TON R502		NONE	NONE	NONE	
SBFRE-AA-C	TXV	1/2 TON R502		HFESC 1/2 RC 3/8 X 1/2 ODFANG	057437	SAME	
SBFRE-A-C	TXV	1 TON R502		HFESC 1 RC 3/8 X 1/2 ODFANG	057438	SAME	
SBFRE-B-C	TXV	2 TON R502		HFESC 2 RC 3/8 X 1/2 ODFANG	057440	SAME	
SBFRE-C-C	TXV	3 TON R502		NONE	NONE	NONE	
SBFS-A - ZP	TXV			NONE	NONE	NONE	
SBFS-AA - ZP	TXV			NONE	NONE	NONE	
SBFS-AAA-C	TXV	1/4 TON R404		HFSC 1/4 SC 3/8 X 1/2 ODFANG	058249	SAME	
SBFS-AA-C	TXV	1/2 TON R404		HFSC 1/2 SC 3/8 X 1/2 ODFANG	058250	SAME	
SBFS-A-C	TXV	1 TON R404		NONE	NONE	NONE	
SBFS-B-C	TXV	2 TON R404		NONE	NONE	NONE	
SBFS-C-C	TXV	3 TON R404		NONE	NONE	NONE	
SBFSE-A - C	TXV	1 TON R404		NONE	NONE	NONE	
SBFSE-AAA-C	TXV	1/4 TON R404		NONE	NONE	NONE	
SBFSE-AA-C	TXV	1/2 TON R404		NONE	NONE	NONE	

Thermal Expansion Valves
 Solenoid Valves
 Coils
 Industrial Solenoid Valves
 Shut Off Valves
 System Protectors
 Storage Devices
 Oil Controls
 Pressure Regulators
 Temperature Pressure Controls
 Competitive Cross Reference

SPORLAN TO EMERSON

	Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
Thermal Expansion Valves	SBFSE-AA-Z	TXV			NONE	NONE	NONE	
	SBFSE-AA-ZP	TXV			NONE	NONE	NONE	
	SBFSE-A-Z	TXV			NONE	NONE	NONE	
	SBFSE-A-ZP	TXV			NONE	NONE	NONE	
	SBFSE-B-C	TXV	2 TON R404		NONE	NONE	NONE	
	SBFSE-B-Z	TXV			NONE	NONE	NONE	
Solenoid Valves	SBFSE-B-ZP	TXV			NONE	NONE	NONE	
	SBFSE-C - Z	TXV			NONE	NONE	NONE	
	SBFSE-C - ZP	TXV			NONE	NONE	NONE	
Coils	SBFSE-C-C	TXV	3 TON R404		NONE	NONE	NONE	
	SBFV-AA - Z	TXV			NONE	NONE	NONE	
	SBFV-AAA-C	TXV	1/2 TON R22		HFSC 1/2 HC 3/8 X 1/2 ODFANG	057293	SAME	
	SBFV-AA-C	TXV	3/4 TON R22		HFSC 1 HC 3/8 X 1/2 ODFANG	057468	1 TON R22	
	SBFV-A-C	TXV	11/2 TON R22		NONE	NONE	NONE	
	SBFV-B-C	TXV	23/4 TON R22		NONE	NONE	NONE	
	SBFV-C-C	TXV	51/4 TON R22		NONE	NONE	NONE	
	SBFVE-A - Z	TXV			HFESC 11/2 HZ 3/8 X 1/2 ODFANG	057321		
	SBFVE-A - ZP40	TXV			HFESC 11/2 HW35 3/8 X 1/2 ODFANG	057419		
	SBFVE-AA - Z	TXV			HFESC 1 HZ 3/8 X 1/2 ODFANG	057430		
Industrial Solenoid Valves	SBFVE-AA - ZP40	TXV			HFESC 1 HW35 3/8 X 1/2 ODFANG	057416		
	SBFVE-AAA-C	TXV	1/2 TON R22		HFESC 1/2 HC 3/8 X 1/2 ODFANG	057291	SAME	
	SBFVE-AA-C	TXV	3/4 TON R22		HFESC 1 HC 3/8 X 1/2 ODFANG	057410	1 TON R22	
	SBFVE-A-C	TXV	11/2 TON R22		HFESC 11/2 HC 3/8 X 1/2 ODFANG	057292	SAME	
	SBFVE-B - Z	TXV			HFESC 21/2 HZ 3/8 X 1/2 ODFANG	057434		
	SBFVE-B - ZP40	TXV			NONE	NONE	NONE	
Shut Off Valves	SBFVE-B-C	TXV	23/4 TON R22		HFESC 21/2 HC 3/8X1/2 ODFANG	057411	21/2 TON R22	
	SBFVE-C-C	TXV	51/4 TON R22		HFESC 51/2 HC 3/8 X 1/2 ODFANG	057781	51/2 TON R22	
	S-CB9	KITS	STEM + PLUNGER		NONE	NONE	NONE	FOR SPORLAN SOLENOIDS
	SF 2-C	TXV	2 TON R12		HF 2 FC 3/8 X 1/2 SAE	053060	SAME	
	SF 3-C	TXV	3 TON R12		NONE	NONE	NONE	
	SF-112-FM	DRIER	1/4 SAE FLARE NUT X SAE		NONE	NONE	NONE	NO CROSS
System Protectors	SF-112-MF	DRIER	1/4 SAE X SAE FLARE NUT		NONE	NONE	NONE	NO CROSS
	SF-114	DRIER	1/2 ODF		ASF 28S4-VV	049178	SAME	SUCTION FILTER
	SF-114F	DRIER	1/2 SAE		ASF 28S4-VV	049178	1/2 ODF	SUCTION FILTER
	SF-115	DRIER	5/8 ODF		ASF 35S5-VV	049180	SAME	SUCTION FILTER
	SF-115F	DRIER	5/8 SAE		ASF 35F5-VV	049179	SAME	SUCTION FILTER
	SF-283F	DRIER	3/8 SAE		ASF 35F3-VV	065509	SAME	SUCTION FILTER
	SF-285F	DRIER	5/8 SAE		NONE	NONE	NONE	NO CROSS
	SF285F-T	DRIER	5/8 SAE		ASF 35F5-VV	049179	SAME	SUCTION FILTER
	SF-285-T	DRIER	5/8 ODF		ASF 35S5-VV	049180	SAME	SUCTION FILTER
	SF-286-T	DRIER	3/4 ODF		ASF 45S6-VV	049181	SAME	SUCTION FILTER
Storage Devices	SF-287-T	DRIER	7/8 ODF		ASF 45S7-VV	049182	SAME	SUCTION FILTER
	SF-289-T	DRIER	11/8 ODF		ASF 50S9-VV	049183	SAME	SUCTION FILTER
	SF-4811-T	DRIER	13/8 ODF		ASF 75S11-VV	049184	SAME	SUCTION FILTER
	SF-4813-T	DRIER	15/8 ODF		ASF 75S13-VV	049185	SAME	SUCTION FILTER
	SF-489-T	DRIER	11/8 ODF		ASF 50S9-VV	049183	SAME	SUCTION FILTER
	SF-64170T	DRIER	2 1/8 ODF		ASF 64S17-V	063113	SAME	SUCTION FILTER
	SF-6421-T	DRIER	2 5/8 ODF		ASF 64S21-V	063115	SAME	SUCTION FILTER
	SFE 2-C	TXV	2 TON R12		HFE 2 FC 3/8 X 1/2 SAE ANG	053069	SAME	
	SFE 3-C	TXV	3 TON R12	1/2 X 7/8 ODF - 5'	HFE 3-1/2 FC 3/8 X 1/2 SAE ANG	054138	31/2 TON R12	
	SFE 5	TXV	R-12		NONE	NONE	NONE	
Pressure Regulators	SFE 5-C	TXV	5 TON R12	5/8 X 7/8 ODF - 5'	NONE	NONE	NONE	
	SFE 6-C	TXV	6 TON R12		NONE	NONE	NONE	
	SHGB-15	REGULATORS		1 1/8 ODF	NONE	NONE	NONE	NO CROSS
	SHGB-15	REGULATORS		1 3/8 ODF	NONE	NONE	NONE	NO CROSS
	SHGB-8	REGULATORS		7/8 ODF	NONE	NONE	NONE	NO CROSS
	SHGB-8	REGULATORS		1 1/8 ODF	NONE	NONE	NONE	NO CROSS
	SHGBE-15	REGULATORS	HOT GAS	1 1/8 ODF	NONE	NONE	NONE	NO CROSS
	SHGBE-15	REGULATORS		1 3/8 ODF	NONE	NONE	NONE	NO CROSS
	SHGBE-8	REGULATORS		7/8 ODF	NONE	NONE	NONE	NO CROSS
	SHGBE-8	REGULATORS		1 1/8 ODF	NONE	NONE	NONE	NO CROSS
Temperature Pressure Controls	SJ 21/2-C	TXV	21/2 TON R134		HF 21/2 M *		SAME	
	SJ 2-C	TXV	2 TON R134		HF 21/2 M *		21/2 TON R134	
	SJE 2-C	TXV	2 TON R134		HFE 21/2 M *		21/2 TON R134	
	SJE 3	TXV	R-134A		HFE5 4 M*	NONE	NONE	

SPORLAN TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
SJE 5	TW	R-134A		HFES 6 M*	NONE	NONE	
SJE 6-C	TW	6 TON R134		HFE 6 M*		SAME	
SORIT-12-0/100	REGULATORS	EVAPORATOR	1 1/8 ODF	EPRBS-12 T 9	057243	SAME	W/ Coil
SORIT-15-0/100	REGULATORS		1 3/8 ODF	EPRBS-16 T 11	057246	SAME	W/ Coil
SORIT-20-0/100	REGULATORS		2 1/8 ODF	NONE	NONE	NONE	NO CROSS
SORIT-20-0/100	REGULATORS		1 5/8 ODF	EPRBS -20 T 13	057249	SAME	W/ Coil
SORIT-PL-2115-0/100	REGULATORS		1 3/8	NONE	NONE	NONE	NO CROSS
SORIT-PL-2115E-0/100	REGULATORS		1 3/8	NONE	NONE	NONE	NO CROSS
SORIT-PL-255-0/100	REGULATORS		5/8	NONE	NONE	NONE	NO CROSS
SORIT-PL-255E-0/100	REGULATORS		5/8	NONE	NONE	NONE	NO CROSS
SORIT-PL-275-0/100	REGULATORS		7/8	NONE	NONE	NONE	NO CROSS
SORIT-PL-275E-0/100	REGULATORS		7/8	NONE	NONE	NONE	NO CROSS
SORIT-PL-295-0/100	REGULATORS		1 1/8	NONE	NONE	NONE	NO CROSS
SORIT-PL-295E-0/100	REGULATORS		1 1/8	NONE	NONE	NONE	NO CROSS
SORIT-PL-3115-0/100	REGULATORS		1 3/8	NONE	NONE	NONE	NO CROSS
SORIT-PL-3115E-0/100	REGULATORS		1 3/8	NONE	NONE	NONE	NO CROSS
SORIT-PL-3135-0/100	REGULATORS		1 5/8	NONE	NONE	NONE	NO CROSS
SORIT-PL-3135E-0/100	REGULATORS		1 5/8	NONE	NONE	NONE	NO CROSS
SORIT-PL-375-0/100	REGULATORS		7/8	NONE	NONE	NONE	NO CROSS
SORIT-PL-375E-0/100	REGULATORS		7/8	NONE	NONE	NONE	NO CROSS
SORIT-PL-395-0/100	REGULATORS		1 1/8	NONE	NONE	NONE	NO CROSS
SORIT-PL-395E-0/100	REGULATORS		1 1/8	NONE	NONE	NONE	NO CROSS
SORIT-PL-4115-0/100	REGULATORS		1 3/8	NONE	NONE	NONE	NO CROSS
SORIT-PL-4115E-0/100	REGULATORS		1 3/8	NONE	NONE	NONE	NO CROSS
SORIT-PL-4135-0/100	REGULATORS		1 5/8	NONE	NONE	NONE	NO CROSS
SORIT-PL-4135E-0/100	REGULATORS		1 5/8	NONE	NONE	NONE	NO CROSS
SORIT-PL-4175-0/100	REGULATORS		2 1/8	NONE	NONE	NONE	NO CROSS
SORIT-PL-4175E-0/100	REGULATORS		2 1/8	NONE	NONE	NONE	NO CROSS
SORIT-PL-495-0/100	REGULATORS		1 1/8	NONE	NONE	NONE	NO CROSS
SORIT-PL-495E-0/100	REGULATORS		1 1/8	NONE	NONE	NONE	NO CROSS
SORIT-PL-5115-0/100	REGULATORS		1 3/8	NONE	NONE	NONE	NO CROSS
SORIT-PL-5115E-0/100	REGULATORS		1 3/8	NONE	NONE	NONE	NO CROSS
SORIT-PL-5135-0/100	REGULATORS		1 5/8	NONE	NONE	NONE	NO CROSS
SORIT-PL-5135E-0/100	REGULATORS		1 5/8	NONE	NONE	NONE	NO CROSS
SORIT-PL-5175-0/100	REGULATORS		2 1/8	NONE	NONE	NONE	NO CROSS
SORIT-PL-5175E-0/100	REGULATORS		2 1/8	NONE	NONE	NONE	NO CROSS
SQ-0-FC	TW	1/5 TON R12		HFSC 1/8 FC	057460	1/8 TON R12	HF IS BALANCED PORT
SQ-0-JC	TW	1/4 TON R134		HFSC 1/4 MC	057573	SAME	HF IS BALANCED PORT
SQ-0-RC	TW	1/5 TON R502		HFSC 1/4 RC	061756	1/4 TON R502	HF IS BALANCED PORT
SQ-0-VC	TW	1/4 TON R22		HFSC 1/4 HC	057467	SAME	HF IS BALANCED PORT
SQ-1-FC	TW	1/2 TON R12		HFSC 1/2 FC	057462	SAME	HF IS BALANCED PORT
SQ-1-JC	TW	1/2 TON R134		HFSC 1/2 MC	058067	SAME	HF IS BALANCED PORT
SQ-1-RC	TW	1/2 TON R502		HFSC 1/2 RC	057488	SAME	HF IS BALANCED PORT
SQ-1-VC	TW	3/4 TON R22		HFSC 1 HC	057468	1 TON R22	HF IS BALANCED PORT
SQ-2-FC	TW	5/8 TON R12		HFSC 1/2 FC	057462	1/2 TON R12	HF IS BALANCED PORT
SQ-2-JC	TW	3/4 TON R134		HFSC 3/4 MC	058301	SAME	HF IS BALANCED PORT
SQ-2-RC	TW	5/8 TON R502		HFSC 1/2 RC	057488	1/2 TON R502	HF IS BALANCED PORT
SQ-2-VC	TW	1 TON R22		HFSC 1 HC	057468	SAME	HF IS BALANCED PORT
SQ-3-FC	TW	1 TON R12		HFSC 1 FC	057463	SAME	HF IS BALANCED PORT
SQ-3-JC	TW	11/4 TON R134		HFSC 11/2 MC	057569	11/2 TON R134	HF IS BALANCED PORT
SQ-3-RC	TW	1 TON R502		HFSC 1 RC	057489	SAME	HF IS BALANCED PORT
SQ-3-VC	TW	11/2 TON R22		HFSC 11/2 HC	057469	SAME	HF IS BALANCED PORT
SQ-4-FC	TW	11/2 TON R12		HFSC 11/2 FC	057464	SAME	HF IS BALANCED PORT
SQ-4-JC	TW	11/2 TON R134		HFSC 11/2 MC	057569	SAME	HF IS BALANCED PORT
SQ-4-RC	TW	11/2 TON R502		HFSC 11/2 RC	057490	SAME	HF IS BALANCED PORT
SQ-4-VC	TW	21/2 TON R22		HFSC 21/2 HC	057471	SAME	HF IS BALANCED PORT
SQ-5-FC	TW	2 TON R12		HFSC 2 FC	057465	SAME	HF IS BALANCED PORT
SQ-5-JC	TW	21/2 TON R134		HFSC 21/2 MC		SAME	HF IS BALANCED PORT
SQ-5-RC	TW	2 TON R502		HFSC 2 RC	057491	SAME	HF IS BALANCED PORT
SQ-5-VC	TW	31/2 TON R22		HFSC 3 HC		3 TON R22	HF IS BALANCED PORT
SQ-6-RC	TW	3 TON R502		HFSC 3 RC		SAME	HF IS BALANCED PORT
SQ-6-VC	TW	5 TON R22		HFSC 51/2 HC		51/2 TON R22	HF IS BALANCED PORT
SQE-0-FC	TW	1/5 TON R12		HFESC 1/8 FC	057395	1/8 TON R12	HF IS BALANCED PORT
SQE-0-JC	TW	1/4 TON R134		HFESC 1/4 MC	057572	SAME	HF IS BALANCED PORT
SQE-0-RC	TW	1/5 TON R502		HFESC 1/4 RC	058491	1/4 TON R502	HF IS BALANCED PORT

Thermal Expansion Valves
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SPORLAN TO EMERSON

	Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
Thermal Expansion Valves	SQE-0-VC	TXV	1/4 TON R22		HFESC 1/4 HC	057795	SAME	HF IS BALANCED PORT
	SQE-1-FC	TXV	1/2 TON R12		HFESC 1/2 FC	057397	SAME	HF IS BALANCED PORT
	SQE-1-JC	TXV	1/2 TON R134		HFESC 1/2 MC	058069	SAME	HF IS BALANCED PORT
	SQE-1-RC	TXV	1/2 TON R502		HFESC 1/2 RC	057437	SAME	HF IS BALANCED PORT
	SQE-1-VC	TXV	3/4 TON R22		HFESC 1 HC	057410	1 TON R22	HF IS BALANCED PORT
	SQE-2-FC	TXV	5/8 TON R12		HFESC 1/2 FC	057397	1/2 TON R12	HF IS BALANCED PORT
Solenoid Valves	SQE-2-JC	TXV	3/4 TON R134		HFESC 3/4 MC	058070	SAME	HF IS BALANCED PORT
	SQE-2-RC	TXV	5/8 TON R502		HFESC 1/2 RC	057437	1/2 TON R502	HF IS BALANCED PORT
	SQE-2-VC	TXV	1 TON R22		HFESC 1 HC	057410	SAME	HF IS BALANCED PORT
	SQE-3-FC	TXV	1 TON R12		HFESC 1 FC	057398	SAME	HF IS BALANCED PORT
	SQE-3-JC	TXV	11/4 TON R134		HFESC 11/2 MC	057840	11/2 TON R134	HF IS BALANCED PORT
	SQE-3-RC	TXV	1 TON R502		HFESC 1 RC	057438	SAME	HF IS BALANCED PORT
Coils	SQE-3-VC	TXV	11/2 TON R22		HFESC 11/2 HC	057292	SAME	HF IS BALANCED PORT
	SQE-4-FC	TXV	11/2 TON R12		HFESC 11/2 FC	057399	SAME	HF IS BALANCED PORT
	SQE-4-JC	TXV	11/2 TON R134		HFESC 11/2 MC	057840	SAME	HF IS BALANCED PORT
	SQE-4-RC	TXV	11/2 TON R502		HFESC 11/2 RC	057439	SAME	HF IS BALANCED PORT
	SQE-4-VC	TXV	21/2 TON R22		HFESC 21/2 HC	059233	SAME	HF IS BALANCED PORT
	SQE-5-FC	TXV	2 TON R12		HFESC 2 FC	057400	SAME	HF IS BALANCED PORT
Industrial Solenoid Valves	SQE-5-JC	TXV	21/2 TON R134		HFESC 21/2 MC	058421	SAME	HF IS BALANCED PORT
	SQE-5-RC	TXV	2 TON R502		HFESC 2 RC	057440	SAME	HF IS BALANCED PORT
	SQE-5-VC	TXV	31/2 TON R22		HFESC 3 HC	057412	3 TON R22	HF IS BALANCED PORT
	SQE-6-RC	TXV	3 TON R502		HFESC 3 RC	057412	SAME	HF IS BALANCED PORT
	SQE-6-VC	TXV	5 TON R22		HFESC 51/2 HC	057781	51/2 TON R22	HF IS BALANCED PORT
	SR 2-C	TXV	2 TON R502		NONE	NONE	NONE	
Shut Off Valves	SR 3-C	TXV	3 TON R502		NONE	NONE	NONE	
	SRE 2-C	TXV	2 TON R502		HFES 2 RC 3/8 X 1/2 ODFS/T	053270	SAME	
	SRE 3-C	TXV	3TON R502		HFES 31/2 RC 3/8 X 1/2 ODFS/T	054143	31/2 TON R502	
	SRE 7-C	TXV	7 TON R502		HFES 7 RC 5/8 7/8 ODFS/T	058607	7 TON R502	
	SS 2-C	TXV	2 TON R404		NONE	NONE	NONE	
	SS 3-C	TXV	3 TON R404		NONE	NONE	NONE	
System Protectors	SSE 2-C	TXV	2 TON R404		HFES 2 SC 3/8 X 1/2 ODFS/T	057958	SAME	
	SSE 3 - ZP	TXV		1/2 X 7/8 ODF - 5'	NONE	NONE	NONE	
	SSE 3-C	TXV	3 TON R404		HFES 31/2 SC 3/8 X 1/2 ODFS/T	065652	31/2 TON R404	
	SSE 4 - Z	TXV	R-404A		NONE	NONE	NONE	
	SSE 6	TXV	R-404A		NONE	NONE	NONE	
	SSE 7 - ZP	TXV	7 TON R404		5/8 X 7/8 ODF - 5'	NONE	NONE	NONE
Storage Devices	SV 2-C	TXV	2 TON R22		NONE	NONE	NONE	
	SV 3-C	TXV	3 TON R22		NONE	NONE	NONE	
	SV 5-C	TXV	5 TON R22		NONE	NONE	NONE	
	SVE 10	TXV	R-22		HFES 10 HC 7/8 X 1-1/8 ODFS/T	057316	NONE	
	SVE 10-C	TXV	10 TON R22		HFES 10 HC 7/8 X 1-1/8 ODFS/T	057316	SAME	
	SVE 2	TXV	R-22		HFES 2 HC 3/8 X 1/2 ODFS/T	055706	NONE	
Oil Controls	SVE 2 - C	TXV	2 TON R22		1/2 X 5/8 ODF - 5'	HFES 2 HC 3/8 X 1/2 ODFS/T	055706	SAME
	SVE 3	TXV	R-22		HFES 3 HC 3/8 X 1/2 ODFS/T	053916	NONE	
	SVE 3-C	TXV	3 TON R22		1/2 X 5/8 ODF - 5'	HFES 3 HC 3/8 X 1/2 ODFS/T	053916	SAME
	SVE 4	TXV	R-22		HFES 5 1/2 HC 3/8 X 1/2 ODFS/T	054141	NONE	
	SVE 5	TXV	R-22		HFES 5 1/2 HC 3/8 X 1/2 ODFS/T	054141	NONE	
	SVE 5 - C	TXV	5 TON R22		1/2 X 7/8 ODF - 5'	HFES 51/2 HC 1/2 X 7/8 ODFS/T	055187	SAME
Pressure Regulators	SVE 8	TXV	R-22		HFES 8 HC 1/2 X 5/8 ODFS/T	57312	SAME	
	SVE 8 - C	TXV	8 TON R22		5/8 X 7/8 ODF - 5'	HFES 8 HC 5/8 X 7/8 ODFS/T	057313	SAME
	TA-1	SIGHT GLASS						
	VFE 35-C	TXV	35 TON R12		NONE	NONE	NONE	
	VFE 45-C	TXV	45 TON R12		NONE	NONE	NONE	
	VFE 55-C	TXV	55 TON R12		NONE	NONE	NONE	
Temperature Pressure Controls	VJE 45-C	TXV	45 TON R134		NONE	NONE	NONE	
	VJE 55-C	TXV	55 TON R134		NONE	NONE	NONE	
	VRE 38-C	TXV	38 TON R502		NONE	NONE	NONE	
	VRE 50-C	TXV	50 TON R502		NONE	NONE	NONE	
	VSE 38-C	TXV	38 TON R404		NONE	NONE	NONE	
	VSE 50-C	TXV	50 TON R404		NONE	NONE	NONE	
Competitive Cross Reference	WE 100-C	TXV	100 TON R22		THR 100 HC VLF	062036	SAME	
	WE 52-C	TXV	52 TON R22		TIR 55 HC VLF	06167	55 TON R22	
	WE 70-C	TXV	70 TON R22		THR 75 HC VLF	064961	75 TON R22	
	W14P2	SOLENOID	1/2 FPT		231WB 08P04	030051	SAME	WATER SERVICE
	W19P2	SOLENOID	3/4 FPT		231WB 12P06	039987	SAME	WATER SERVICE

SPORLAN TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
W25P2	SOLENOID	1-1/8 FPT		231WB 16P08	034211	SAME	WATER SERVICE
W3P1	SOLENOID	1/4 FPT		204CD 1/4 B 1/8 B	056110	SAME	WATER SERVICE
W6P1	SOLENOID	3/8 FPT		203CA 3/8 B 1/4 B	030603	SAME	WATER SERVICE
WFE 110	TXV	110 TON R12		NONE	NONE	100 TON R12	NO REPLACEMENT
WFE 80	TXV	80 TON R12		NONE	098246	75 TON R 12	NO REPLACEMENT
WJE 110	TXV	110 TON R134		NONE	NONE	NONE	NO REPLACEMENT
WJE 80	TXV	80 TON R134		NONE	058752	90 TON R134	NO REPLACEMENT
WRE 100	TXV	100 TON R502		NONE	NONE	NONE	NO REPLACEMENT
WRE 70	TXV	70 TON R502		NONE	NONE	NONE	NO REPLACEMENT
WSE 100	TXV	100 TON R404		NONE	NONE	NONE	NO REPLACEMENT
WSE 70	TXV	70 TON R404		NONE	NONE	NONE	NO REPLACEMENT
WVE 135	TXV	135 TON R22		NONE	032718	125 TON R22	NO REPLACEMENT
WVE 180	TXV	180 TON R22		NONE	NONE	NONE	NO REPLACEMENT
XPO	SOLENOID	RAPID CYCLING		NONE	NONE	NONE	NO CROSS
XPO-1	SOLENOID	7/8 ODF		NONE	NONE	NONE	NO CROSS
XPO-3	SOLENOID	7/8 ODF EXTENDED		NONE	NONE	NONE	NO CROSS
XPO-5	SOLENOID	7/8 ODF EXTENDED		NONE	NONE	NONE	NO CROSS
XRM	SOLENOID	RAPID CYCLING		NONE	NONE	NONE	NO CROSS
XRM	SOLENOID	5/8 ODF		NONE	NONE	NONE	NO CROSS
XRM-1	SOLENOID	5/8 ODF EXTENDED		NONE	NONE	NONE	NO CROSS
XRM-4	SOLENOID	5/8 ODF EXTENDED		NONE	NONE	NONE	NO CROSS
XRN	SOLENOID	RAPID CYCLING		NONE	NONE	NONE	NO CROSS
XRN	SOLENOID	1/2 ODF		NONE	NONE	NONE	NO CROSS
XRN-1	SOLENOID	3/8 ODF EXTENDED		NONE	NONE	NONE	NO CROSS
XRN-2	SOLENOID	3/8 ODF EXTENDED		NONE	NONE	NONE	NO CROSS
XRN-3	SOLENOID	1/2 ODF EXTENDED		NONE	NONE	NONE	NO CROSS
XRN-4	SOLENOID	1/2 ODF EXTENDED		NONE	NONE	NONE	NO CROSS
XUP	SOLENOID	RAPID CYCLING		NONE	NONE	NONE	NO CROSS
XUP	SOLENOID	3/8 ODF EXTENDED		NONE	NONE	NONE	NO CROSS
XUP-1	SOLENOID	1/4 ODF EXTENDED		NONE	NONE	NONE	NO CROSS
XUP-3	SOLENOID	1/2 ODF EXTENDED		NONE	NONE	NONE	NO CROSS
XXF	SOLENOID	3/8 ODF EXTENDED		NONE	NONE	NONE	NO CROSS
Y1037 FV 1 1/2-190	TXV	LIQUID INJ.		NONE	NONE	NONE	NO REPLACEMENT
Y1037 FV 1 1/2-220	TXV			NONE	NONE	NONE	NO REPLACEMENT
Y1037 FV 1 1/2-230	TXV			NONE	NONE	NONE	NO REPLACEMENT
Y1037 FV 1 1/2-240	TXV			NONE	NONE	NONE	NO REPLACEMENT
Y1037 FV 1/2-190	TXV	LIQUID INJ.		NONE	NONE	NONE	NO REPLACEMENT
Y1037 FV 1/2-220	TXV			NONE	NONE	NONE	NO REPLACEMENT
Y1037 FV 1/2-230	TXV			NONE	NONE	NONE	NO REPLACEMENT
Y1037 FV 1/2-240	TXV			NONE	NONE	NONE	NO REPLACEMENT
Y1037 FV 1/3-190	TXV			NONE	NONE	NONE	NO REPLACEMENT
Y1037 FV 1/3-220	TXV			NONE	NONE	NONE	NO REPLACEMENT
Y1037 FV 1/3-230	TXV			NONE	NONE	NONE	NO REPLACEMENT
Y1037 FV 1-190	TXV	LIQUID INJ.		NONE	NONE	NONE	NO REPLACEMENT
Y1037 FV 1-220	TXV			NONE	NONE	NONE	NO REPLACEMENT
Y1037 FV 1-230	TXV			NONE	NONE	NONE	NO REPLACEMENT
Y1037 FV 1-240	TXV			NONE	NONE	NONE	NO REPLACEMENT
Y1037 FV 2-190	TXV	LIQUID INJ.		NONE	NONE	NONE	NO REPLACEMENT
Y1037 FV 2-220	TXV			NONE	NONE	NONE	NO REPLACEMENT
Y1037 FV 2-230	TXV			NONE	NONE	NONE	NO REPLACEMENT
Y1037 FV 3-190	TXV	LIQUID INJ.		NONE	NONE	NONE	NO REPLACEMENT
Y1037 FV 3-220	TXV			NONE	NONE	NONE	NO REPLACEMENT
Y1037 FV 3-230	TXV			NONE	NONE	NONE	NO REPLACEMENT
Y1037 FV 5-190	TXV	LIQUID INJ.		NONE	NONE	NONE	NO REPLACEMENT
Y1037 FV 5-230	TXV			NONE	NONE	NONE	NO REPLACEMENT
Y1228-SORIT-PI-255-0/100	REGULATORS	5/8	OEM special	NONE	NONE	NONE	NO CROSS
Y1228-SORIT-PI-255E-0/100	REGULATORS	5/8	OEM special	NONE	NONE	NONE	NO CROSS
Y1228-SORIT-PI-275-0/101	REGULATORS	7/8	OEM special	NONE	NONE	NONE	NO CROSS
Y1228-SORIT-PI-275E-0/101	REGULATORS	7/8	OEM special	NONE	NONE	NONE	NO CROSS
Y1228-SORIT-PI-295-0/102	REGULATORS	1-1/8	OEM special	NONE	NONE	NONE	NO CROSS
Y1228-SORIT-PI-295E-0/102	REGULATORS	1-1/8	OEM special	NONE	NONE	NONE	NO CROSS
Y362	TXV	VARIOUS		NONE	NONE	NONE	NO REPLACEMENT
Y362-CF-2	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
Y362-CF-2-1/2	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
Y362-CF-3	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL

Thermal Expansion Valves
 Solenoid Valves
 Coils
 Industrial Solenoid Valves
 Shut Off Valves
 System Protectors
 Storage Devices
 Oil Controls
 Pressure Regulators
 Temperature Pressure Controls
 Competitive Cross Reference

SPORLAN TO EMERSON

	Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
Thermal Expansion Valves	Y362-CFE-1	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
	Y362-CFE-1-1/2	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
	Y362-CFE-2	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
	Y362-CFE-2-1/2	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
	Y362-CFE-3	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
Solenoid Valves	Y362-CR-2	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
	Y362-CR-3	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
	Y362-CR-4	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
	Y362-CRE-1	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
	Y362-CRE-1-1/2	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
Coils	Y362-CRE-2	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
	Y362-CRE-3	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
	Y362-CRE-4	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
	Y362-CV-3	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
	Y362-CV-4	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
Industrial Solenoid Valves	Y362-CV-5	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
	Y362-CVE-1-1/2	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
	Y362-CVE-2	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
	Y362-CVE-3	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
	Y362-CVE-4	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
Shut Off Valves	Y362-CVE-5	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
	Y362-EGF-1	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
	Y362-EGF-1/2	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
	Y362-EGF-1/4	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
	Y362-EGF-1-1/2	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
System Protectors	Y362-EGR-1	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
	Y362-EGR-1/2	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
	Y362-EGR-1/4	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
	Y362-EGR-1-1/2	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
	Y362-EGV-1	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
Storage Devices	Y362-EGV-1/2	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
	Y362-EGV-1-1/2	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
	Y362-EGV-2-1/2	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
	Y362-GF-1	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
	Y362-GF-1/2	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
Oil Controls	Y362-GF-1/4	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
	Y362-GF-1-1/2	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
	Y362-GR-1	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
	Y362-GR-1/2	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
	Y362-GR-1/4	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
Pressure Regulators	Y362-GR-1-1/2	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
	Y362-GV-1	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
	Y362GV-1/2	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
	Y362-GV-1-1/2	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
	Y362-GV-2-1/2	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
Temperature Pressure Controls	Y735	TXV	VARIOUS		NONE	NONE	NONE	DOUBLE DIAPHRAGM
	Y750	TXV	VARIOUS		NONE	NONE	NONE	DOUBLE DIAPHRAGM
	Y755	TXV	VARIOUS		NONE	NONE	NONE	DOUBLE DIAPHRAGM
	Y781	TXV	VARIOUS		NONE		NONE	OEM SPECIAL - DEFROST PORT
	Y781-CF-2	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
Competitive Cross Reference	Y781-CF-2-1/2	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
	Y781-CF-3	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
	Y781-CFE-1	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
	Y781-CFE-1-1/2	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
	Y781-CFE-2	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
	Y781-CFE-2-1/2	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
	Y781-CFE-3	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
	Y781-CR-2	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
	Y781-CR-3	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
	Y781-CR-4	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
	Y781-CRE-1	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
	Y781-CRE-1-1/2	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
	Y781-CRE-2	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
	Y781-CRE-3	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
	Y781-CRE-4	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL

SPORLAN TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
Y781-CV-3	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
Y781-CV-4	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
Y781-CV-5	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
Y781-CVE-1-1/2	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
Y781-CVE-2	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
Y781-CVE-3	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
Y781-CVE-4	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
Y781-CVE-5	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
Y781-GF-1	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
Y781-GF-1/2	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
Y781-GF-1/4	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
Y781-GF-1-1/2	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
Y781-GFE-1	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
Y781-GFE-1/2	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
Y781-GFE-1-1/2	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
Y781-GFE-2	TXV	R-12		NONE	NONE	NONE	OEM SPECIAL
Y781-GR-1	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
Y781-GR-1/2	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
Y781-GR-1/4	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
Y781-GR-1-1/2	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
Y781-GRE-1	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
Y781-GRE-1/2	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
Y781-GRE-1-1/2	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
Y781-GRE-2	TXV	R-502		NONE	NONE	NONE	OEM SPECIAL
Y781-GV-1	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
Y781-GV-1/2	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
Y781-GV-1-1/2	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
Y781-GV-2-1/2	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
Y781-GVE-1	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
Y781-GVE-1/2	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
Y781-GVE-1-1/2	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
Y781-GVE-2	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL
Y781-GVE-3	TXV	R-22		NONE	NONE	NONE	OEM SPECIAL

Thermal
Expansion Valves

Solenoid
Valves

Coils

Industrial
Solenoid Valves

Shut Off
Valves

System
Protectors

Storage
Devices

Oil
Controls

Pressure
Regulators

Temperature
Pressure Controls

Competitive Cross
Reference

VIRGINIA TO EMERSON

	Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
Thermal Expansion Valves	LDE-2	SIGHT GLASS	1/4 SAE		AMV-1MM2	048803	SAME	MOISTURE INDICATOR
	LDE-2MF	SIGHT GLASS	1/4 SAE MXF		AMV-1MU2	048807	SAME	MOISTURE INDICATOR
	LDE-2S	SIGHT GLASS	1/4 ODF		HMV-1TT2	065405	SAME	MOISTURE INDICATOR
	LDE-3	SIGHT GLASS	3/8 SAE		AMV-1MM3	048804	SAME	MOISTURE INDICATOR
	LDE-3MF	SIGHT GLASS	3/8 SAE MXF		AMV-1MU3	048808	SAME	MOISTURE INDICATOR
Solenoid Valves	LDE-3S	SIGHT GLASS	3/8 ODF		HMV-1TT3	065406	SAME	MOISTURE INDICATOR
	LDE-4	SIGHT GLASS	1/2 SAE		AMV-1MM4	048805	SAME	MOISTURE INDICATOR
	LDE-4MF	SIGHT GLASS	1/2 SAE MXF		AMV-1MU4	048809	SAME	MOISTURE INDICATOR
	LDE-4S	SIGHT GLASS	1/2 ODF		HMV-1TT4	065407	SAME	MOISTURE INDICATOR
	LDE-5	SIGHT GLASS	5/8 SAE		AMV-1MM5	048806	SAME	MOISTURE INDICATOR
	LDE-5MF	SIGHT GLASS	5/8 SAE MXF		AMV-1MU5	048810	SAME	MOISTURE INDICATOR
	LDE-5S	SIGHT GLASS	5/8 ODF		HMV-1TT5	065408	SAME	MOISTURE INDICATOR
	LDE-7S	SIGHT GLASS	7/8 ODF		HMV-1TT7	065410	SAME	MOISTURE INDICATOR
	LDE-9S	SIGHT GLASS	11/8 ODF		AMV-1TT9	031578	SAME	MOISTURE INDICATOR
	Coils	RB11S	BALL VALVE	13/8 ODF		ABV11	062109	SAME
RB11SP		BALL VALVE	13/8 ODF		ABV11A	062119	SAME	WITH ACCESS VALVE
RB13S		BALL VALVE	15/8 ODF		ABV13	062110	SAME	FULL PORT
RB13SP		BALL VALVE	15/8 ODF		ABV13A	062120	SAME	WITH ACCESS VALVE
RB17S		BALL VALVE	21/8 ODF		ABV17	062111	SAME	FULL PORT
RB17SP		BALL VALVE	21/8 ODF		ABV17A	062121	SAME	WITH ACCESS VALVE
Industrial Solenoid Valves		RB21S	BALL VALVE	25/8 ODF		ABV21	062112	SAME
	RB21SP	BALL VALVE	25/8 ODF		ABV21A	062122	SAME	WITH ACCESS VALVE
	RB25S	BALL VALVE	31/8 ODF		ABV25	062113	SAME	FULL PORT
	RB25SP	BALL VALVE	31/8 ODF		ABV25A	062123	SAME	WITH ACCESS VALVE
	RB2S	BALL VALVE	1/4 ODF		ABV2	064383	SAME	FULL PORT
	RB2SP	BALL VALVE	1/4 ODF		ABV2A	064384	SAME	WITH ACCESS VALVE
	RB3S	BALL VALVE	3/8 ODF		ABV3	062104	SAME	FULL PORT
	RB3SP	BALL VALVE	3/8 ODF		ABV3A	062114	SAME	WITH ACCESS VALVE
	RB4S	BALL VALVE	1/2 ODF		ABV4	062105	SAME	FULL PORT
	RB4SP	BALL VALVE	1/2 ODF		ABV4A	062115	SAME	WITH ACCESS VALVE
Shut Off Valves	RB5S	BALL VALVE	5/8 ODF		ABV5	062106	SAME	FULL PORT
	RB5SP	BALL VALVE	5/8 ODF		ABV5A	062116	SAME	WITH ACCESS VALVE
	RB7S	BALL VALVE	7/8 ODF		ABV7	062107	SAME	FULL PORT
	RB7SP	BALL VALVE	7/8 ODF		ABV7A	062117	SAME	WITH ACCESS VALVE
	RB9S	BALL VALVE	11/8 ODF		ABV9	062108	SAME	FULL PORT
	RB9SP	BALL VALVE	11/8 ODF		ABV9A	062118	SAME	WITH ACCESS VALVE
	System Protectors	TDE-2	SIGHT GLASS	1/4 SAE		A-IHN2	062772	SAME
TDE-3		SIGHT GLASS	3/8 SAE		A-IHN3	062773	SAME	MOISTURE INDICATOR
TDE-3S		SIGHT GLASS	3/8 ODF		A-IHN3S	062776	SAME	MOISTURE INDICATOR
TDE-4		SIGHT GLASS	1/2 SAE		A-IHN4	062774	SAME	MOISTURE INDICATOR
TDE-4S		SIGHT GLASS	1/2 ODF		A-IHN4S	062777	SAME	MOISTURE INDICATOR
TDE-5		SIGHT GLASS	5/8 SAE		A-IHN5	062775	SAME	MOISTURE INDICATOR
TDE-5S		SIGHT GLASS	5/8 ODF		A-IHN5S	062778	SAME	MOISTURE INDICATOR
VA-30-4S		ACCUMULATOR	1/2 ODF		A-AS-384	060819	SAME	SUCTION SERVICE
VA-31-5S		ACCUMULATOR	5/8 ODF		A-AS-3105	060963	SAME	SUCTION SERVICE
VA-32-5S		ACCUMULATOR	5/8 ODF		A-AS-3125	060812	SAME	SUCTION SERVICE
Oil Controls	VA-32-6S	ACCUMULATOR	3/4 ODF		A-AS-3126	060813	SAME	SUCTION SERVICE
	VA-35-5S	ACCUMULATOR	5/8 ODF		A-AS-3145	060964	SAME	SUCTION SERVICE
	VA-35-6S	ACCUMULATOR	3/4 ODF		A-AS-3146	060965	SAME	SUCTION SERVICE
	VA-44-6SRD	ACCUMULATOR	3/4 ODF		A-AS-4106	060820	SAME	SUCTION SERVICE
	VA-54-6SRD	ACCUMULATOR	3/4 ODF		A-AS-4105	060966	SAME	SUCTION SERVICE
	VA-54-6SRD	ACCUMULATOR	3/4 ODF		A-AS-596	060824	SAME	SUCTION SERVICE
	VA-54-7SRD	ACCUMULATOR	7/8 ODF		A-AS-597	060818	SAME	SUCTION SERVICE
	VA-56-6SRD	ACCUMULATOR	3/4 ODF		A-AS-5126	060822	SAME	SUCTION SERVICE
	VA-56-7SRD	ACCUMULATOR	7/8 ODF		A-AS-5127	060823	SAME	SUCTION SERVICE
	VA-57-7SRD	ACCUMULATOR	7/8 ODF		A-AS-5137	060814	SAME	SUCTION SERVICE
Pressure Regulators	VA-57-9SRD	ACCUMULATOR	11/8 ODF		A-AS-5139	060815	SAME	SUCTION SERVICE
	VA-59-11SRD	ACCUMULATOR	13/8 ODF		A-AS-51711	060816	SAME	SUCTION SERVICE
	VA-59-9SRD	ACCUMULATOR	11/8 ODF		A-AS-5179	060817	SAME	SUCTION SERVICE
	VA-610-7SRD	ACCUMULATOR	7/8 ODF		A-AS-6137	060826	SAME	SUCTION SERVICE
	VA-610-9SRD	ACCUMULATOR	11/8 ODF		A-AS-6139	060968	SAME	SUCTION SERVICE
	VA-611-11SRD	ACCUMULATOR	13/8 ODF		A-AS-61411	060827	SAME	SUCTION SERVICE
	VA-616-13SRD	ACCUMULATOR	15/8 ODF		A-AS-62013	060828	SAME	SUCTION SERVICE
	VCF-410-4	OIL SEPARATOR	1/2 ODF		A-F58824	060877	SAME	FLANGED
	VCF-414-5	OIL SEPARATOR	5/8 ODF		A-F58855	060878	SAME	FLANGED

VIRGINIA TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
VOF-417-7	OIL SEPARATOR	7/8 ODF		A-F58877	060879	SAME	FLANGED
VOF-421-11	OIL SEPARATOR		13/8 ODF	A-F589011	060760	SAME	FLANGED
VOF-421-9	OIL SEPARATOR		11/8 ODF	A-F58889	060759	SAME	FLANGED
VOF-620-13	OIL SEPARATOR		15/8 ODF	A-F579213	060761	SAME	FLANGED
VOF-620-17	OIL SEPARATOR		21/8 ODF	A-F57917	060876	SAME	FLANGED
VOS-414-5	OIL SEPARATOR		5/8 ODF	A-W55855	060934	SAME	SEALED
VOS-417-7	OIL SEPARATOR		7/8 ODF	A-W55877	060931	SAME	SEALED
VOS-421-11	OIL SEPARATOR		13/8 ODF	A-W59011	060930	SAME	SEALED
VOS-421-9	OIL SEPARATOR		11/8 ODF	A-W55889	060974	SAME	SEALED
VOS-619-13	OIL SEPARATOR		15/8 ODF	A-W559213	060975	SAME	SEALED
VOS-619-17	OIL SEPARATOR		21/8 ODF	A-W569417	060980	SAME	SEALED
VS-100H	DRIER		100 CU. IN.	H100	089338	SAME	BLOCK
VS-42R	DRIER		42 CU. IN.	W42	056835	SAME	BLOCK
VS-48F	DRIER		48 CU. IN.	F48R	047664	SAME	FILTER
WAH 032	DRIER		1/4 SAE	EK 032	060009	SAME	STANDARD OPERATION
WAH 032S	DRIER		1/4 ODF	EK 032S	060012	SAME	STANDARD OPERATION
WAH 033	DRIER		3/8 SAE	EK 033	060013	SAME	STANDARD OPERATION
WAH 033S	DRIER		3/8 ODF	EK 033S	060014	SAME	STANDARD OPERATION
WAH 052	DRIER		1/4 SAE	EK 052	047601	SAME	STANDARD OPERATION
WAH 0525S	DRIER		5/16 ODF	EK 0525S	063978	SAME	STANDARD OPERATION
WAH 052S	DRIER		1/4 ODF	EK 052S	047602	SAME	STANDARD OPERATION
WAH 053	DRIER		3/8 SAE	EK 053	047603	SAME	STANDARD OPERATION
WAH 053S	DRIER		3/8 ODF	EK 053S	047604	SAME	STANDARD OPERATION
WAH 082	DRIER		1/4 SAE	EK 082	047605	SAME	STANDARD OPERATION
WAH 0825S	DRIER		5/16 ODF	EK 0825S	049551	SAME	STANDARD OPERATION
WAH 082S	DRIER		1/4 ODF	EK 082S	047606	SAME	STANDARD OPERATION
WAH 083	DRIER		3/8 SAE	EK 083	047607	SAME	STANDARD OPERATION
WAH 083S	DRIER		3/8 ODF	EK 083S	047608	SAME	STANDARD OPERATION
WAH 084	DRIER		1/2 SAE	EK 084	047609	SAME	STANDARD OPERATION
WAH 084S	DRIER		1/2 ODF	EK 084S	047610	SAME	STANDARD OPERATION
WAH 162	DRIER		1/4 SAE	EK 162	047611	SAME	STANDARD OPERATION
WAH 1625S	DRIER		5/16 ODF	EK 1625S	056045	SAME	STANDARD OPERATION
WAH 162S	DRIER		1/4 ODF	EK 162S	047612	SAME	STANDARD OPERATION
WAH 164	DRIER		1/2 SAE	EK 164	047615	SAME	STANDARD OPERATION
WAH 164S	DRIER		1/2 ODF	EK 164S	047616	SAME	STANDARD OPERATION
WAH 165	DRIER		5/8 SAE	EK 165	047617	SAME	STANDARD OPERATION
WAH 165S	DRIER		5/8 ODF	EK 165S	047618	SAME	STANDARD OPERATION
WAH 303	DRIER		3/8 SAE	EK 303	048210	SAME	STANDARD OPERATION
WAH 303S	DRIER		3/8 ODF	EK 303S	048211	SAME	STANDARD OPERATION
WAH 304	DRIER		1/2 SAE	EK 304	048212	SAME	STANDARD OPERATION
WAH 304S	DRIER		1/2 ODF	EK304S	048213	SAME	STANDARD OPERATION
WAH 305	DRIER		5/8 SAE	EK 305	048214	SAME	STANDARD OPERATION
WAH 305S	DRIER		5/8 ODF	EK 305S	048215	SAME	STANDARD OPERATION
WAH 307S	DRIER		7/8 ODF	EK 307S	048217	SAME	STANDARD OPERATION
WAH 413	DRIER		3/8 SAE	EK 413	048219	SAME	STANDARD OPERATION
WAH 414	DRIER		1/2 SAE	EK 414	048220	SAME	STANDARD OPERATION
WAH 414S	DRIER		1/2 ODF	EK 414S	048221	SAME	STANDARD OPERATION
WAH 415	DRIER		5/8 SAE	EK 415	048222	SAME	STANDARD OPERATION
WAH 415S	DRIER		5/8 ODF	EK 415S	048223	SAME	STANDARD OPERATION
WAH 417S	DRIER		7/8 ODF	EK 417S	048224	SAME	STANDARD OPERATION
WAH 757S	DRIER		7/8 ODF	EK 757S	048228	SAME	STANDARD OPERATION
WAH 759S	DRIER		11/8 ODF	EK 759S	048229	SAME	STANDARD OPERATION
WC-48H	DRIER		48 CU. IN.	H48	059542	SAME	BLOCK
WC-48S	DRIER		48 CU. IN.	W48	061235	SAME	BLOCK
WHP-083	DRIER		3/8 SAE	BFK 083	043321	SAME	BI - FLOW
WHP-083S	DRIER		3/8 ODF	BFK 083S	043324	SAME	BI - FLOW
WHP-084	DRIER		1/2 SAE	BFK 084	043325	SAME	BI - FLOW
WHP-084S	DRIER		1/2 ODF	BFK 084S	043327	SAME	BI - FLOW
WHP-163	DRIER		3/8 SAE	BFK 163	043330	SAME	BI - FLOW
WHP-163S	DRIER		3/8 ODF	BFK 163S	043333	SAME	BI - FLOW
WHP-164	DRIER		1/2 SAE	BFK 164	043335	SAME	BI - FLOW
WHP-164S	DRIER		1/2 ODF	BFK 164S	043337	SAME	BI - FLOW
WHP-165	DRIER		5/8 SAE	BFK 165	043732	SAME	BI - FLOW
WHP-165S	DRIER		5/8 ODF	BFK 165S	043734	SAME	BI - FLOW
WRK 19211	DRIER SHELL		13/8 ODF	STAS 19211T	053028	SAME	4 REPLACABLE CORE

Thermal Expansion Valves
 Solenoid Valves
 Coils
 Industrial Solenoid Valves
 Shut Off Valves
 System Protectors
 Storage Devices
 Oil Controls
 Pressure Regulators
 Temperature Pressure Controls
 Competitive Cross Reference

VIRGINIA TO EMERSON

	Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
Thermal Expansion Valves	WRK 19213	DRIER SHELL		15/8 ODF	STAS 19213T	053030	SAME	4 REPLACABLE CORE
	WRK 19217	DRIER SHELL		21/8 ODF	STAS 19217T	053031	SAME	4 REPLACABLE CORE
	WRK 4811	DRIER SHELL		13/8 ODF	STAS 4811T	053007	SAME	1 REPLACABLE CORE
	WRK 4813	DRIER SHELL		15/8 ODF	STAS 4813T	053375	SAME	1 REPLACABLE CORE
	WRK 4817	DRIER SHELL		21/8 ODF	STAS 4817T	058621	SAME	1 REPLACABLE CORE
Solenoid Valves	WRK 4821	DRIER SHELL		25/8 ODF	STAS 4821SV	053045	SAME	1 REPLACABLE CORE
	WRK 485	DRIER SHELL		5/8 ODF	STAS 485T	053001	SAME	1 REPLACABLE CORE
	WRK 487	DRIER SHELL		7/8 ODF	STAS 487T	053003	SAME	1 REPLACABLE CORE
	WRK 489	DRIER SHELL		11/8 ODF	STAS 489T	053005	SAME	1 REPLACABLE CORE
	WRK 9611	DRIER SHELL		13/8 ODF	STAS 9611T	053014	SAME	2 REPLACABLE CORE
	WRK 9613	DRIER SHELL		15/8 ODF	STAS 9613T	053017	SAME	2 REPLACABLE CORE
	WRK 9617	DRIER SHELL		21/8 ODF	STAS 9617T	053018	SAME	2 REPLACABLE CORE
	WRK 9621	DRIER SHELL		25/8 ODF	STAS 9621SV	053048	SAME	2 REPLACABLE CORE
	WRK 967	DRIER SHELL		7/8 ODF	STAS 967T	053010	SAME	2 REPLACABLE CORE
	WRK 969	DRIER SHELL		11/8 ODF	STAS 969T	053012	SAME	2 REPLACABLE CORE
Coils	WSC 032	DRIER		1/4 SAE	EK 032	06009	SAME	EXTRA WATER REMOVAL
	WSC 032S	DRIER		1/4 ODF	EK 032S	060012	SAME	EXTRA WATER REMOVAL
	WSC 033	DRIER		3/8 SAE	EK 033	060013	SAME	EXTRA WATER REMOVAL
	WSC 033S	DRIER		3/8 ODF	EK 033S	060014	SAME	EXTRA WATER REMOVAL
	WSC 052	DRIER		1/4 SAE	EK 052	047601	SAME	EXTRA WATER REMOVAL
	WSC 052S	DRIER		1/4 ODF	EK 052S	047602	SAME	EXTRA WATER REMOVAL
	WSC 053	DRIER		3/8 SAE	EK 053	047603	SAME	EXTRA WATER REMOVAL
	WSC 053S	DRIER		3/8 ODF	EK 053S	047604	SAME	EXTRA WATER REMOVAL
	WSC 082	DRIER		1/4 SAE	EK 082	047605	SAME	EXTRA WATER REMOVAL
	WSC 082S	DRIER		1/4 ODF	EK 082S	047606	SAME	EXTRA WATER REMOVAL
Industrial Solenoid Valves	WSC 083	DRIER		3/8 SAE	EK 083	047607	SAME	EXTRA WATER REMOVAL
	WSC 083S	DRIER		3/8 ODF	EK 083S	047608	SAME	EXTRA WATER REMOVAL
	WSC 084	DRIER		1/2 SAE	EK 084	047609	SAME	EXTRA WATER REMOVAL
	WSC 084S	DRIER		1/2 ODF	EK 084S	047610	SAME	EXTRA WATER REMOVAL
	WSC 162	DRIER		1/4 SAE	EK 162	047611	SAME	EXTRA WATER REMOVAL
	WSC 162S	DRIER		1/4 ODF	EK 162S	047612	SAME	EXTRA WATER REMOVAL
	WSC 163	DRIER		3/8 SAE	EK 163	047613	SAME	EXTRA WATER REMOVAL
	WSC 163S	DRIER		3/8 ODF	EK 163S	047614	SAME	EXTRA WATER REMOVAL
	WSC 164	DRIER		1/2 SAE	EK 164	047615	SAME	EXTRA WATER REMOVAL
	WSC 164S	DRIER		1/2 ODF	EK 164S	047616	SAME	EXTRA WATER REMOVAL
Shut Off Valves	WSC 165	DRIER		5/8 SAE	EK 165	047617	SAME	EXTRA WATER REMOVAL
	WSC 165S	DRIER		5/8 ODF	EK 165S	047618	SAME	EXTRA WATER REMOVAL
	WSC 303	DRIER		3/8 SAE	EK 303	048210	SAME	EXTRA WATER REMOVAL
	WSC 303S	DRIER		3/8 ODF	EK 303S	048211	SAME	EXTRA WATER REMOVAL
	WSC 304	DRIER		1/2 SAE	EK 304	048212	SAME	EXTRA WATER REMOVAL
	WSC 304S	DRIER		1/2 ODF	EK 304S	048213	SAME	EXTRA WATER REMOVAL
	WSC 305	DRIER		5/8 SAE	EK 305	048214	SAME	EXTRA WATER REMOVAL
	WSC 305S	DRIER		5/8 ODF	EK 305S	048215	SAME	EXTRA WATER REMOVAL
	WSC 307S	DRIER		7/8 ODF	EK 307S	048217	SAME	EXTRA WATER REMOVAL
	WSC 413S	DRIER		3/8 ODF	EK 413S	048219	SAME	EXTRA WATER REMOVAL
System Protectors	WSC 414	DRIER		1/2 SAE	EK 414	048220	SAME	EXTRA WATER REMOVAL
	WSC 414S	DRIER		1/2 ODF	EK 414S	048221	SAME	EXTRA WATER REMOVAL
	WSC 415	DRIER		5/8 SAE	EK 415	048222	SAME	EXTRA WATER REMOVAL
	WSC 415S	DRIER		5/8 ODF	EK 415S	048223	SAME	EXTRA WATER REMOVAL
	WSC 417S	DRIER		7/8 ODF	EK 417S	048224	SAME	EXTRA WATER REMOVAL
	WSD-4S	DRIER		1/2 ODF	CSFD 14S4W	062231	SAME	SUCTION SERVICE
	WSD-5S	DRIER		5/8 ODF	CSFD 14S5W	062232	SAME	SUCTION SERVICE
	WSD-6S	DRIER		3/4 ODF	CSFD 14S6W	062233	SAME	SUCTION SERVICE
	WSD-7S	DRIER		7/8 ODF	CSFD 14S7W	062234	SAME	SUCTION SERVICE
	WSD-9S	DRIER		11/8 ODF	CSFD 14S9W	062235	SAME	SUCTION SERVICE
Storage Devices	WSF-11S	DRIER		13/8 ODF	ASF 75S11W	049184	SAME	SUCTION SERVICE
	WSF-13S	DRIER		15/8 ODF	ASF 75S13W	049185	SAME	SUCTION SERVICE
	WSF-5S	DRIER		5/8 ODF	ASF 35S5W	049180	SAME	SUCTION SERVICE
	WSF-6S	DRIER		3/4 ODF	ASF 45S6W	049181	SAME	SUCTION SERVICE
	WSF-7S	DRIER		7/8 ODF	ASF 45S7W	049182	SAME	SUCTION SERVICE
	WSF-9S	DRIER		11/8 ODF	ASF 50S9W	049183	SAME	SUCTION SERVICE
	WSL 163S	DRIER		3/8 ODF	ASD 28S3W	049168	SAME	SUCTION SERVICE
	WSL 164S	DRIER		1/2 ODF	ASD 28S4W	049169	SAME	SUCTION SERVICE
	WSL 165S	DRIER		5/8 ODF	ASD 35S5W	049170	SAME	SUCTION SERVICE
	WSL 166S	DRIER		3/4 ODF	ASD 45S6W	049172	SAME	SUCTION SERVICE
Oil Controls								
Pressure Regulators								
Temperature Pressure Controls								
Competitive Cross Reference								

VIRGINIA TO EMERSON

Manufacturer No.	Product Type	Manufacturer Description	Additional Info	Emerson No.	PCN	Emerson Descrip.	Comment
WSL 167S	DRIER		7/8 ODF	ASD 45S7VV	049173	SAME	SUCTION SERVICE
WSL 419S	DRIER		11/8 ODF	ASD 50S9VV	049174	SAME	SUCTION SERVICE
WSL 75S11	DRIER		13/8 ODF	ASD 75S11VV	049175	SAME	SUCTION SERVICE
WSL 75S13	DRIER		15/8 ODF	ASD 75S13VV	049176	SAME	SUCTION SERVICE
WTD-12	DRIER		12 CU. IN.	A-TFD-12	062764	SAME	USE WITH A-IHN SIGHT GLASS
WTD-20	DRIER		20 CU. IN.	A-TFD-20	062765	SAME	USE WITH A-IHN SIGHT GLASS
WTD-30	DRIER		30 CU. IN.	A-TFD-30	062766	SAME	USE WITH A-IHN SIGHT GLASS
WTD-8	DRIER		8 CU. IN.	A-TFD-08	062756	SAME	USE WITH A-IHN SIGHT GLASS

Thermal
Expansion Valves

Solenoid
Valves

Coils

Industrial
Solenoid Valves

Shut Off
Valves

System
Protectors

Storage
Devices

Oil
Controls

Pressure
Regulators

Temperature
Pressure Controls

Competitive Cross
Reference

TEMPERATURE CONTROL

Manufacturer no.	Product Type	Emerson no.	New PCN	Emerson Descrip.	Comments
TF115-S2-AA10	TPC	TS1-X2A	097926	Thermostat	Setting 21/30
TF115-S4-AF10	TPC	TS1-X4F	097929	Thermostat	Setting 32/41
TF115-S2-AE00	TPC	TS1-X2E	097932	Thermostat	Setting 36/40
TF115-S3-AE00	TPC	TS1-X3E	097935	Thermostat	Setting 64/68
TF115-S1-AA10	TPC	TS1-X1A	097940	Thermostat	Setting 4/0
TF115-S0-AP20	TPC	TS1-C0P	097882	Thermostat	Setting 36/40
TF115-S0-DP20	TPC	TS1-D0P	097885	Thermostat	Setting 36/40
TF115-S2-AP06	TPC	TS1-A2P	097887	Thermostat	
TF115-S4-AF06	TPC	TS1-A4F	097888	Thermostat	Setting 32/41
FF115-S1-BAK	TPC	PS1-X1K	097898	Single Pressure Control	Setting 7/15
FF115-S4-BAK	TPC	PS1-X4K	097901	Single Pressure Control	Setting 115/145
FF115-S3-BAK	TPC	PS1-X3K	097904	Single Pressure Control	Setting 50/65
FF115-S5-BAK	TPC	PS1-X5K	097908	Single Pressure Control	Setting 230/290
FF115-S5-BRK	TPC	PS1-Y5K	097911	Single Pressure Control	Setting 230/290
FF115-S3-BAA	TPC	PS1-X3A	097914	Single Pressure Control	Setting 50/65
FF115-S5-BAA	TPC	PS1-X5A	097919	Single Pressure Control	Setting 140/280
FF115-S5-BRA	TPC	PS1-Y5A	097923	Single Pressure Control	Setting 330/390
FF215-S7-BAUK	TPC	PS2-Y7K	097943	Dual Pressure Control	Setting 50/60 - 230/290
FF215-S9-BAUK	TPC	PS2-Y9K	097950	Dual Pressure Control	Setting 7/15 - 230/290
FF215-S7-BAUA	TPC	PS2-Y7A	097954	Dual Pressure Control	Setting 50/60 - 230/290
FF215-S7-BAAK	TPC	PS2-X7K	097875	Dual Pressure Control	Setting 50/60 - 230/290
FF215-S7-BAAL	TPC	PS2-A7L	097876	Dual Pressure Control	Setting 50/60 - 230/290
FF215-S7-BARA	TPC	PS2-L7A	097877	Dual Pressure Control	Setting 50/60 - 230/290
FF215-S7-BAUL	TPC	PSB-Y7L	097896	Dual Pressure Control	Setting 50/60 - 230/290
FF4-2 DAH	TPC	FF444-V1-DAF	097308	Industrial Pressure Control	Pressure Connection 1/4"-18 NPTF
FF4-8 DAH	TPC	FF444-V3-DAF	097310	Industrial Pressure Control	Pressure Connection 1/4"-18 NPTF
FF4-16 DAH	TPC	FF444-V4-DAF	097311	Industrial Pressure Control	Pressure Connection 1/4"-18 NPTF
FF4-32 DAH	TPC	FF444-V5-DAF	097312	Industrial Pressure Control	Pressure Connection 1/4"-18 NPTF
FF4-2 DAI	TPC	FF444-V1-DAF	097308	Industrial Pressure Control	Pressure Connection 1/4"-18 NPTF
PS3-AF1-HMS	TPC	PSC-AJS	097815	Mini Pressure Control	Setting 1.5/4.5
PS3-AF1-HNS	TPC	PSC-A1S	097849	Mini Pressure Control	Setting 5/15
PS3-XF5-HNB	TPC	PSC-W6S	097793	Mini Pressure Control	Setting 320/395
PS3-CF5-HNB	TPC	PSC-B6S	097998	Mini Pressure Control	Setting 395

Thermal Expansion Valves
 Solenoid Valves
 Coils
 Industrial Solenoid Valves
 Shut Off Valves
 System Protectors
 Storage Devices
 Oil Controls
 Pressure Regulators
 Temperature Pressure Controls
 Competitive Cross Reference

TEMPERATURE CONTROL

Temperature Pressure Control Cross Reference

Temperature Controls

Model	PCN	Replaces the Competition					
		Ranco	Penn	White-Rodgers	Honeywell	Danfoss	Saginomiya
TS1-X2A 21/30	097926	010-1408, 010-1409 010-1410, 010-104		1609-90	T4031A1008		
TS1-X4F 32/41	097929	060-100 F25-107	A19ABC-24 A19ZBC-2	1609-101, 1609-102 1609-103	T6031A1029		
TS1-X2E 36/40	097932	010-1418, 016-594 010-1072	A19BBC-2	201-20	T6054A		
TS1-X3E 64/68	097935	010-301, 016-165	A19BAB-3 A19BAC-1	201-8	T6054B		
TS1-X1A -4/0	097940	010-1433		1609-100			
TS1-COP 36/40	097882						
TS1-DOP 36	097885						
TS1-X2P	097887	016-109				KP6160L1100	BNS-C1030X
TS1-A4F 32/41	097888	016-109				KP71 60L1113, KP71 60L1115, KP73 60L1117, KP73 60L1118, KP73 60L1140, KP73 60L1143, KP75 60L1120, KP75 60L1137	TNS-C1010XC TNS-C1034XC

Single Pressure Controls

Model	PCN	Replaces the Competition				
		Copeland® brand products ¹	Ranco	Penn	Danfoss	Saginomiya
PS2-Y7K 50/65* 230/290	097943	085-0098-02, 085-7000-00, 985-CP2M-7K	012-1549 012-4834	P70LB-1, P70LB-6, P70MA-1, P70MA-18		
PS2-Y9K 7/15* 230/290	097950	085-0098-22, 085-0098-23	012-1502, 012-1506, 012-1554, 012-4833	P70LB-1, P70LB-6, P70MA-1, P70M1-18		
PS2-Y7A 50/65* 230/290		985-CP2M-7A	012-1550	P170LB-1 P170MA-1		
PS2-A7A 50/65* 230/290			017-108	P78LC1-9300 P78LCA-9320	KP1560-1241, KP1560-1265	DNS-D304X, DNS-D306X, DNS-D604X, DNS-D606X, DNS-D706X
PS2-X7K 50/65* 230/290	097875					
PS2-A7L 50/65* 230/290	097876					
PS2-L7A 50/65* 290	097877		017-108	P78MCA-9300 P78MCA-9320	KP1560-1243, KP1560-1264	DNS-D304XM, DNS-D304XML, DNS-D306XM, DNS-D306XML, DNS- D604XM, DNS-D606XM, DNSD606XMM
PS2-Y7L 50/65* 290	097896					

¹ The control may be used with bracket (PCN 097221) to allow replacement of the Copeland® brand products control with the same mounting configuration.

Dual Pressure Controls

Model	PCN	Replaces the competition				
		Copeland® brand products ¹	Ranco	Penn	Danfoss	Saginomiya
PS1-X1K 7/15	097898	085-0098-21 985-CP1A-1K	010-1402 016-557	P70AB-12		
PS1-X4K 115/145	097901	085-0098-33	010-2000 016-593	P70AA-2		
PS1-X3K 50/65	097904	085-0098-00 985-CP1A-3K	010-1483, 011-3099, 016-527	P70AB-12, P70AB-2, P70CA-2		
PS1-X5K 230/290	097908	085-0098-08 985-CP1A-5K	010-2054, 011-1711, 016-108, 020-7006	P70AA-118, P70CA-3		
PS1-65K 230/290	097911		016-200	P70DA-1, P70KA-1		
PSA-X3A 50/65	097914	985-CP1A-3A	010-1401, 010-1831, 011-1799, 016-106, 016-107	P170AB-12, P70AB-2	KP160-1101	SNS-C106X
PS1-X5A 140/280	097919	985-CP1A-5A	010-1894, 011-1713, 016-503, 016-570, 016-106	P170AA-118, P170CA-3, P77AAA-9350, P77AAA-9370	KP560-1171	SNS-C130X, SNS-C135X
PS1-65A 330/390	097923		016-209, 016-106	P170DA-1, P77BEA-9350, P77BEA-9370	KP560-1173	

¹ The control may be used with bracket (PCN 097221) to allow replacement of the Copeland® brand products control with the same mounting configuration.

Oil Pressure Controls

Model	PCN	Replaces		
		Copeland® brand products	Penn	Ranco
FD113-ZUK	097456	085-0062-00	P45NCA-12, P45NCA-82, P28AA-1, P28AA-2, P28AA-17, P28AA-18, P28DA-1, P28GA-2, P28NA-5	P30-5826, P30-3601, P30-3701, P30-3801

Thermal Expansion Valves
Solenoid Valves
Coils
Industrial Solenoid Valves
Shut Off Valves
System Protectors
Storage Devices
Oil Controls
Pressure Regulators
Temperature Pressure Controls
Competitive Cross Reference

Notes

Notes

TERMS AND CONDITIONS OF SALE

EMERSON CLIMATE TECHNOLOGIES FLOW CONTROLS, A DIVISION EMERSON ELECTRIC CO., is herein referred to as the "Seller" and the customer or person or entity purchasing goods or services (hereinafter collectively referred to as "Goods") and/or licensing software and/or firmware which are preloaded, or to be loaded into Goods ("Software") from Seller hereunder is referred to as the "Buyer". These Terms and Conditions, any price list or schedule, quotation, acknowledgment or invoice from Seller relevant to the sale of the Goods and all documents incorporated by specific reference therein, constitute the complete and exclusive statement of the terms of the agreement governing the sale of Goods by Seller to Buyer. Buyer's acceptance of the Goods will manifest Buyer's assent to these terms and conditions without variation or addition. Any different or additional terms in Buyer's purchase order or other Buyer documents are hereby objected to. Seller reserves the right in its sole discretion to refuse orders.

1. **PRICES:** Unless a fixed price is quoted, the price at which this order is accepted is subject to adjustment to the Seller's price in effect at the time of shipment.
2. **TAXES:** Any current or future tax or government charge (or increase in same) affecting Seller's costs of production, sale or delivery or which Seller is otherwise required to pay or collect in connection with the sale, purchase, delivery, storage, processing, use or consumption of Goods (but excluding any tax on Seller's net income or profit) shall be for Buyer's account and shall be added to the price.
3. **TERMS OF PAYMENT:** Unless otherwise specified by Seller, terms are net thirty (30) days from the date of Seller's invoice in U.S. currency. Seller shall have the right, among other remedies, either to terminate this agreement or to suspend further performance under this and/or other agreements with the Buyer in the event Buyer fails to make any payment when due, which other agreements Buyer and Seller hereby amend accordingly, or Seller otherwise deems itself insecure. Buyer shall be liable for all expenses, including attorney's fees, relating to the collection of past due amounts. If any amount owed to Seller is not paid when due, it shall bear interest at the rate of 1.5% per month from the date on which it is due until it is paid. Should Buyer's financial responsibility become impaired or unsatisfactory to Seller, cash payments or security satisfactory to Seller may be required by Seller for future deliveries and for the Goods theretofore delivered. If such cash payment or security is not provided, in addition to Seller's other right and remedies, Seller may discontinue deliveries and/or terminate this order, all without liability or prejudice to Seller. Buyer hereby grants Seller a security interest in all Goods sold to Buyer by Seller, which security interest shall continue until such Goods are fully paid for in cash, and Buyer, upon Seller's demand, will execute and deliver to Seller such instruments as Seller requests to protect and perfect such security interest.
4. **SHIPMENT AND DELIVERY:** Unless otherwise expressly provided, shipments are made F.O.B. Seller's shipping point. Risk of loss or damage and responsibility shall pass from Seller to Buyer upon delivery to and receipt by common carrier. Any claims for shortages or damages suffered in transit are the responsibility of the Buyer and shall be submitted by the Buyer directly to the carrier. Shortages or damages must be acknowledged and signed for at the time of delivery. While Seller will use all reasonable commercial efforts to maintain the delivery date(s) acknowledged or quoted by Seller, all shipping dates are approximate and not guaranteed. Seller reserves the right to make partial shipments. Seller, at its option, shall not be bound to tender delivery of any Goods for which Buyer has not provided shipping instructions. If the shipment of the Goods is postponed or delayed by Buyer for any reason, Buyer agrees to reimburse Seller for any and all handling and storage costs and other additional expenses resulting therefrom. All claims for shipping errors, lost shipments or any other discrepancies must be made within ten (10) days or they will be disallowed and deemed waived.
5. **LIMITED WARRANTY:** Subject to the limitations of Section 6, Seller warrants that the Software will execute the programming instructions provided by Seller and that the Goods purchased for resale hereunder will be free from defects in material and workmanship under normal use and regular service and maintenance for a period of 12 months from date of installation and no more than 18 months from the date of manufacture. This warranty shall not apply to any Goods which:
 - a. Have been repaired or altered outside Seller's factory by other than Seller in any manner so as, in Seller's judgment, to affect its serviceability or proper operation.
 - b. Have been subjected by persons other than Seller to improper handling, operation, maintenance, repair or alteration.
 - c. Have been subjected to misuse, negligence, improper installation or accident. Seller's obligation under this warranty, and the Buyer's exclusive remedy for the breach thereof, shall be limited to, at Seller's option, replacement of any allegedly defective Goods or issues or credit, excluding the cost of labor and any other expenses incurred in servicing the unit on which the Goods are installed. Seller requires the return of any allegedly defective Goods, transportation prepaid, before honoring any claim. All returned Goods are subject to inspection, and if examination does not disclose any defect covered by this warranty, replacement of such Goods or issuance of credit for same will not be approved. **THE FOREGOING CONSTITUTES SELLER'S SOLE WARRANTY RESPONSIBILITY AND BUYER'S EXCLUSIVE REMEDY WHETHER SOUNDING IN TORT, CONTRACT, STRICT LIABILITY OR OTHERWISE, EXCEPT AS OTHERWISE EXPRESSLY SET FORTH IN THIS AGREEMENT. THERE ARE NO OTHER WARRANTIES, EXPRESS OR IMPLIED, WHETHER OR MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR OTHERWISE. SELLER SHALL NOT BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY CHARACTER IN CONNECTION WITH THE SALE, RESALE OR USE OF THE GOODS.** Products purchased by Seller from a third party for resale to Buyer ("Resale Products") shall carry only the warranty extended by the original manufacturer. This warranty extends only to persons or organizations who purchase the Goods from Seller for resale.
6. **LIMITATION OF REMEDY AND LIABILITY: THE SOLE AND EXCLUSIVE REMEDY FOR BREACH OF ANY WARRANTY HEREUNDER (OTHER THAN THE WARRANTY PROVIDED UNDER SECTION 7) SHALL BE LIMITED TO REPAIR, CORRECTION, REPLACEMENT OR CREDIT UNDER SECTION 5. SELLER SHALL NOT BE LIABLE FOR DAMAGES CAUSED BY DELAY IN PERFORMANCE, REGARDLESS OF THE FORM OF THE CLAIM OR CAUSE OF ACTION (WHETHER BASED IN CONTRACT, INFRINGEMENT, NEGLIGENCE, STRICT LIABILITY, OTHER TORT OR OTHERWISE), AND IN NO EVENT SHALL SELLER'S LIABILITY TO BUYER AND/OR ITS CUSTOMERS EXCEED THE PRICE PAID BY BUYER FOR THE SPECIFIC GOODS PROVIDED BY SELLER GIVING RISE TO THE CLAIM OR CAUSE OF ACTION, AND BUYER SHALL INDEMNIFY SELLER FOR ANY DAMAGES IN EXCESS THEREOF. BUYER AGREES THAT IN NO EVENT SHALL SELLER'S LIABILITY TO BUYER AND/OR ITS CUSTOMERS EXTEND TO INCLUDE INCIDENTAL, CONSEQUENTIAL OR PUNITIVE DAMAGES, WHICH ARE WAIVED BY BUYER AND AS TO WHICH BUYER SHALL INDEMNIFY SELLER.** The term "consequential damages" shall include, but not be limited to, loss of anticipated profits, business interruption, loss of use of revenue, cost of capital or loss or damage to property or equipment, or loss of reputation. Further, Buyer shall indemnify and hold Seller harmless from any liability to Buyer, Buyer's employees, workers, contractors or any other persons arising out of Buyer's, or any other persons' use of the Goods. It is further expected that all instructions and warnings supplied by Seller will be passed on to those persons who use the Goods. Seller's Goods are to be used in their recommended applications and all warning labels adhered to the Goods by Seller are to be left intact. It is expressly understood that any technical advice furnished by Seller with respect to the use of the Goods is given without charge, and Seller assumes no obligation or liability for the advice given, or results obtained, all such advice being given and accepted at Buyer's risk.
7. **PATENTS AND COPYRIGHTS:** Subject to the limitations of the second paragraph of Section 6, Seller warrants that the Goods sold, except those goods made pursuant to Buyer's drawings or specifications or otherwise at Buyer's direction ("Custom Goods"), do not infringe any valid U.S. patent or copyright, as the case may be, in existence as of the date of shipment. This warranty is given upon the condition that Buyer promptly notify Seller of any claim or suit involving Buyer in which such infringement is alleged, and that Buyer cooperate fully with Seller and permit Seller to control completely the defense, settlement or compromise of any allegation or infringement. Seller's warranty only applies to infringements arising solely out of the inherent operation, according to Seller's specifications and instructions, of such Goods or of any combination of Goods acquired by Seller in a system designed by Seller. In the event such Goods are found to infringe such a U.S. patent or copyright in such suit, and the use of such Goods is enjoined, or in the case of a compromise or settlement by Seller, Seller shall have the right, at its option and expense, to procure for Buyer the right to continue using such Goods, or replace them with non-infringing Goods, or modify same to become non-infringing, or grant Buyer a credit for the depreciated value of such Goods upon their return. In the event of the foregoing, Seller may also, at its option, cancel the agreement as to future deliveries of such Goods, without liability.
8. **FORCE MAJEURE:** Seller shall not be liable for delays in performance or non-performance due to acts of God; acts of Buyer; war; fire; flood; weather; sabotage; strikes; labor disputes, civil disturbances or riots; governmental requests, restrictions, allocations, laws, regulations, orders or decrees; unavailability of or delays in transportation; or unforeseen circumstances or events beyond Seller's reasonable control. Deliveries or other performance may be suspended for an appropriate period of time or canceled by Seller upon notice to Buyer in the event of any of the foregoing, but the balance of the agreement shall otherwise remain unaffected. If Seller determines that it is unable to supply the total demand for the Goods, or to obtain material used directly or indirectly in the manufacture of the Goods, is hindered, limited or made impracticable due to causes set forth herein, Seller may allocate its available supply of the Goods or such material (without obligation to acquire other supplies of any such Goods or materials) among itself and its purchasers on such basis as Seller determines to be equitable without liability for any failure of performance which may result therefrom.
9. **CANCELLATION:** Orders may not be canceled, except upon Seller's written approval which shall be subject to the Buyer's payment of Seller's reasonable cancellation charges. Such charges shall include all reasonable costs incurred by Seller in preparing to meet the Buyer's anticipated delivery schedule including, without limitation, commitments by Seller to its suppliers, and the cost of inventory (raw materials, work in process, and finished goods) allocated in the Buyer's order together with a reasonable allowance for prorated expenses and anticipated profits.
10. **CHANGES:** Buyer may request changes or additions to the Goods and/or Software consistent with Seller's specifications and criteria. In the event such changes or additions are accepted by Seller, Seller may revise the price(s), license fee(s) and date(s) of delivery. Seller reserves the right to change designs and specifications for standard Goods and/or Software without prior notice to Buyer, but not with respect to custom Goods being made for Buyer. Seller shall have no obligation to install or make such change in any Goods manufactured prior to the date of such change.
11. **ASSIGNMENT:** Buyer shall not assign its rights or delegate its duties hereunder or any interest herein without the prior written consent of the Seller, and any such assignment, without such consent, shall be void.
12. **INSTALLATION:** Buyer shall be responsible for receiving, inspecting, testing, storing, installing, starting up and maintaining all Goods.
13. **INSPECTION/TESTING:** Buyer, at its expense, agrees that it will promptly inspect the Goods upon receipt thereof, and in no event later than thirty (30) days from the date of receipt of the Goods. Buyer shall deliver to Seller within fifteen (15) days of inspection, but in no event later than forty-five (45) days from the date of receipt of the Goods, written notice of any and all deficiencies, defects, variations from specifications or complaints of any kind with respect to the quantity, quality, condition, shipment, performance, price or appearance of the Goods so received by Buyer. In the event no such written notice is received by Seller, Buyer shall be deemed conclusively to have inspected and accepted all such Goods unconditionally and to have waived any and all rights and claims, including without limitation any right to reject the Goods or to claim damages in respect thereof. Buyer may not return Goods without first advising Seller of the reasons therefor, obtaining from Seller a material authorization number and observing such instructions as Seller may give in authorizing such return. Buyer, at its option, may inspect and observe the testing by Seller of the Goods for compliance with Seller's standard test procedures prior to shipment, which inspection and testing shall be conducted at Seller's plant at such reasonable time as is specified by Seller. Any alleged rejection of the Goods at Seller's plant must be made promptly by Buyer before shipment. Tests shall be deemed to be satisfactorily completed and the test fully met when the Goods meet Seller's criteria for such procedures.
14. **DRAWINGS:** Seller's prints and drawings (including without limitation, the underlying technology) furnished by Seller to Buyer in connection with this agreement are the property of Seller and Seller retains all rights, including without limitation, exclusive rights of use, licensing and sale of same. Possession of such prints or drawings does not convey to Buyer any rights therein or license thereto. Upon termination of this agreement, or at any time upon Seller's request, all such prints and drawings, and any copies or duplications of same, shall be immediately returned to Seller.
15. **QUANTITY:** Buyer agrees to accept overruns of up to ten percent (10%) of the order on Custom Goods, including parts. Any such additional items shall be priced at the price per item charged for the specific quantity ordered.
16. **TOOLING:** Tool, die and pattern changes, if any, are in addition to the price of the Goods and are due and payable upon completion of the tooling. All such tools, dies and patterns shall be and remain the property of Seller. Charges for tools, dies and patterns do not convey to Buyer, title, ownership interests in, or rights to possession or removal, or prevent their use by Seller for other purchasers, except as otherwise expressly provided by Seller and Buyer in writing with reference to this provision.
17. **SOFTWARE:** It is recognized and agreed that title to any Software provided to Buyer shall remain with Seller and that such Software shall be furnished to, and used by, Buyer only after execution of Seller's standard license agreement, the terms of which are incorporated herein by reference. Buyer is granted a non-exclusive, royalty free license only for Buyer's use of the Software. Under this limited license, Buyer may: (a) use the Software with the Goods provided; and (b) adapt the Software for Buyer's use with the Goods.
18. **DOCUMENTATION:** Seller shall provide Buyer with that data/documentation which is specifically identified in Seller's quotation. If additional copies of data/documentation are to be provided by Seller, it shall be provided to Buyer at Seller's applicable prices then in effect.
19. **SERVICES:** If this agreement requires Seller to perform or provide any service hereunder, Seller (including without limitation its successors, assigns, agents or any person or entity acting at Seller's direction) shall not be responsible for any damages, claims, liabilities or expenses of any nature arising out of such services.
20. **CONFIDENTIALITY:** Seller (including without limitation its successors, assigns, agents or any person or entity acting at Seller's direction) shall not be responsible for keeping confidential any specifications, drawings, designs, manufacturing data or other information of any nature provided by Buyer hereunder; and further, Seller shall not be liable for any damages, costs or expenses of any nature arising out of any dissemination of such documents or information.
21. **U.S. EXPORT CONTROL REGULATIONS:** All Goods sold to Buyer by Seller hereunder are subject to U.S. Export Control Laws. Buyer hereby agrees not to resell or divert any Goods contrary to such laws.
22. **MISCELLANEOUS:** These terms and conditions supersede all other communications, negotiations and prior oral or written statements regarding the subject matter of these terms and conditions. No change, modification, rescission, discharge, abandonment, or waiver of these terms and conditions shall be binding upon the Seller unless made in writing and signed on its behalf by its duly authorized representative. No conditions, usage or trade, course of dealing or performance, understanding or agreement purporting to modify, vary, explain or supplement these terms and conditions shall be binding unless hereafter made in writing and signed by Seller. No modification shall be effected by the Seller's receipt or acceptance of Buyer's purchase orders, shipping instruction forms, or other documentation containing terms at variance with or in addition to those set forth herein, all of which are objected to by the Seller. No waiver by Seller with respect to any breach or default of any right or remedy and no course of dealing, shall be deemed to constitute a continuing waiver of any other breach or default of any other right or remedy, unless such waiver be expressed in writing and signed by Seller. All typographical or clerical errors made by Seller in any quotation, acknowledgment or publication are subject to correction.

The validity, performance, and all other matters relating to the interpretation and effect of this agreement shall be governed by the laws of the state of Missouri without regard to its conflict of law principles. Buyer and Seller agree that the proper venue for all actions arising in connection herewith shall be only in state and federal courts located in Missouri and the parties agree to submit to such jurisdiction. No action, regardless of form, arising out of transactions relating to this contract, may be brought by either party more than two (2) years after the cause of action has accrued. Further, the United Nations Convention on the International Sale of Goods (1980) (as amended from time to time) shall not apply to this Purchase Order or any transactions relating thereto.

23. **CODES:** Product Code Number - PCN (also A.C.R.I. Code Number). Example: PCN 020599 or 120568. First digit, 0 standards for ACRI Supplier Code number 681344. First digit, 1 stands for ACRI Supplier Code number 681345. Next five digits (20599 or 20568) is ACRI Product Code. Therefore, PCN 025099 = ACRI Number 681344-20599 and PCN 120568 = ACRI NUMBER 681345-20568.