



SPORLAN Thermostatic Expansion Valve Selection Chart for CLIMATE CONTROL

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The selections are based on load and operating conditions provided by Climate Control. All are based on 100°F. vapor free liquid at the valve inlet. Externally equalized valves are used with refrigerant distributors. The pressure drop across the distributor, tubes, and nozzle are approximately 25 psi for R12 and 35 psi for R22 and R502. If the actual conditions differ from those shown, valve selections must be made from Sporlan Bulletins 10-10 and 20-10.

30° F. COOLERS WITH ELECTRIC DEFROST

COIL MODEL	COIL INLET CONNECTION INCHES	20° F. EVAPORATING TEMPERATURE 10° T.D.		
		VALVE LOAD BTU/HR	REFRIGERANT	
			12	22
CCL-011C	1/2 SAE Flare Nut	1100	FF-1/4-C	FV-1/2-C
CCL-014C		1540		
CCL-019C		2090		
CCL-028C		3080		
CCL-035C		3850	FFE-1/4-C	FVE-1/2-C
CCL-045C		4950	FFE-1/2-C	
CCL-054C		5940		
LVD-900		9000	FFE-1-C	FVE-1-C
LVD-1200		12000		
LVD-1600		16000	FFE-1-1/2-C	FVE-1-1/2-C
LVD-2100		21000	FFE-2-C	
LVD-2700		27000	CFE-2-1/2-C	
LSF-30		3330	FFE-1/4-C	FVE-1/2-C
LSF-45		4900	FFE-1/2-C	
LSF-58		6400		
LSF-72		7900		
LSF-94		10400	FFE-1-C	FVE-1-C
LSF-120		13360	FFE-1-1/2-C	
LSF-140		15500		
LSF-160		17700		
LSF-190	21000	FFE-2-C	FVE-1-1/2-C	
LSF-240	26600	SFE-2-1/2-C	SVE-2-C	
LSF-280	31000	SFE-3-C	SVE-3-C	
HDF-57	1/2 SAE Flare Nut	6500	FFE-1/2-C	FVE-1/2-C
HDF-78		9000	FFE-1-C	FVE-1-C
HDF-104		12000		
HDF-141		16300	FFE-1-1/2-C	
HDF-171		19800	FFE-2-C	FVE-1-1/2-C
HDF-196		22800		
HDF-241	7/8 ODF	28000	SFE-2-1/2-C	SVE-2-C
HDF-341	1-1/8 ODF	39700	SFE-3-C	SVE-3-C
HDF-421		49100	SFE-5-C	
HDF-541		63100	OFE-6-C	SVE-4-C
HDF-731	1-3/8 ODF	85400	PFE-8-C	OVE-10-C

NOTE: Type G(E) valves may be substituted for the Type F(E) valves where nominal capacities are equivalent.

35° F. COOLERS WITH AIR DEFROST EVAPORATORS

COIL MODEL	COIL INLET CONNECTION INCHES	25° F. EVAPORATING TEMPERATURE 10° T.D.			20° F. EVAPORATING TEMPERATURE 15° T.D.		
		VALVE LOAD BTU/HR	REFRIGERANT		VALVE LOAD BTU/HR	REFRIGERANT	
			12	22		12	22
MAC-008	1/2 SAE Flare Nut	800			1200		
MAC-012		1200			1800		
MAC-017		1700			2550		
MAC-023		2300			3450		
MAC-031		3100			4650		
MJH-010		1000			1500		
MJH-013		1300			1850		
MJH-017		1700			2550		
MJH-023		2300			3450		
CBC-012C		1200			1800		
CBC-016C		1600	FF-1/4-C	FV-1/2-C	2400	FF-1/4-C	FV-1/2-C
CBC-022C		2200			3300		
H-13		1360			2040		
H-17		1750			2625		
H-23		2380			3570		
H-30		3020			4530		
CCH-010		1000			1500		
CCH-013		1350			2025		
CCH-015		1550			2325		
CCH-017		1750			2625		
CCH-023		2300			3450		
CCH-031		3100	FFE-1/4-C		4650	FFE-1/4-C	
CCH-045		4500			6750		
CCH-055		5500	FFE-1/2-C		8250	FFE-1/2-C	FVE-1/2-C
LSC-40		4500	FFE-1/4-C		6750		
LSC-52		5200			7800		
LSC-65		6500	FFE-1/2-C		9750		
LSC-83		8300			12450	FFE-1-C	FVE-1-C
LSC-100		10000			15000		
LSC/LFC-120		12000	FFE-1-C	FVE-1-C	18000	FFE-1-1/2-C	FVE-1-1/2-C
LSC-140		14000			21000	FFE-2-C	
LSC/LFC-160		16000	FFE-1-1/2-C	FVE-1-1/2-C	24000		FVE-2-C
LSC-200	20000	FFE-2-C		30000	CFE-2-1/2-C		
LSC-270	27000	CFE-2-1/2-C	FVE-2-C	40500	CFE-3-C	FVE-3-C	
LSC-340	34000			51000			
LSC-400	7/8 ODF	40000	SFE-3-C	SVE-3-C	60000	SFE-5-C	SVE-4-C
HDC-81	1/2 SAE Flare Nut	8100	FFE-1/2-C	FVE-1/2-C	12150	FFE-1-C	FVE-1-C
HDC-113		11300	FFE-1-C	FVE-1-C	16950	FFE-1-1/2-C	FVE-1-1/2-C
HDC-150		15000	FFE-1-1/2-C		22500	FFE-2-C	
HDC-200		20000	FFE-2-C	FVE-1-1/2-C	30000	CFE-2-1/2-C	FVE-2-C
HDC-280		28000	CFE-2-1/2-C	FVE-2-C	42000	CFE-5-C*	FVE-3-C
HDC-400	7/8 ODF	40000	SFE-3-C	SVE-3-C	60000	OFE-6-C	SVE-4-C
HDC-560	1-1/8 ODF	56000	SFE-5-C	SVE-4-C	84000	PFE-8-C	SVE-8-C
HDC-640		64000	OFE-6-C		96000	OFE-9-C	
HDC-800		80000	PFE-8-C	SVE-5-C	120000	OFE-12-C	OVE-10-C
HDC-1120	1-3/8 ODF	112000	OFE-9-C	OVE-10-C	168000	OFE-16-C	OVE-15-C

*Available only with 5/8" SAE Outlet Connection.

NOTE: Type G(E) valves may be substituted for the Type F(E) valves where nominal capacities are equivalent.

35° F. COOLERS WITH AIR DEFROST EVAPORATORS

COIL MODEL	COIL INLET CONNECTION INCHES	25° F. EVAPORATING TEMPERATURE 10° T.D.		20° F. EVAPORATING TEMPERATURE 15° T.D.			
		VALVE LOAD BTU/HR	REFRIGERANT		VALVE LOAD BTU/HR	REFRIGERANT	
			12	22		12	22
WUC-93	1/2 SAE Flare Nut	9300	FFE-1/2-C	FVE-1-C	13950	FFE-1-C	FVE-1-C
WUC-131		13100	FFE-1-C		19650	FFE-1-1/2-C	FVE-1-1/2-C
WUC-180		18000	FFE-1-1/2-C	FVE-1-1/2-C	27000	CFE-2-1/2-C	FVE-2-C
WUC-217		21700	FFE-2-C		32550	CFE-3-C	
WUC-271		27100	CFE-2-1/2-C	FVE-2-C	40650		FVE-3-C
WUC-326	7/8 ODF	32600	SFE-3-C	SVE-2-C	48900	SFE-5-C	SVE-3-C
WUC-392		39200		SVE-3-C	58800	SFE-6-C or OVE-6-C	SVE-4-C
WUC-434		43400	SFE-5-C		65100		
WUC-543	1-1/8 ODF	54300	SFE-6-C or OFE-6-C	SVE-4-C	81450	PFE-8-C	SVE-5-C

LOW VELOCITY AIR DEFROST UNITS

COIL MODEL	COIL INLET CONNECTION INCHES	35° F. ROOM & 25° F. EVAP. TEMP.		55° F. ROOM & 30° F. EVAP. TEMP.			
		VALVE LOAD BTU/HR	REFRIGERANT		VALVE LOAD BTU/HR	REFRIGERANT	
			12	22		12	22
LVC-500	1/2 SAE Flare Nut	5000	FFE-1/2-C	FVE-1/2-C	12500	FFE-1-C	FVE-1-C
LVC-700		7000			17500	FFE-1-1/2-C	FVE-1-1/2-C
LVC-900		9000	FFE-1-C	FVE-1-C	22500	FFE-2-C	
LVC-1200		12000			30000	CFE-2-1/2-C	FVE-2-C
LVC-1600		16000	FFE-1-1/2-C		40000	CFE-3-C	FVE-3-C
LVC-2100		21000	FFE-2-C	FVE-1-1/2-C	52500		CVE-4-C
LVC-2700		27000	CFE-2-1/2-C	FVE-2-C	67500	CFE-5-C*	CVE-5-C

*Available only with 5/8" SAE Outlet Connection.

**LOW TEMPERATURE ELECTRIC DEFROST UNITS

COIL MODEL	COIL INLET CONNECTION INCHES	0° F. ROOM & -10° F. EVAP. TEMP.		-10° F. ROOM & -20° F. EVAP. TEMP.			
		VALVE LOAD BTU/HR	REFRIGERANT		VALVE LOAD BTU/HR	REFRIGERANT	
			12	22		12	22
CCL-011	1/2 SAE Flare Nut	1000	FF-1/4-Z	FR-1/4-ZP	1000	FF-1/4-Z	FR-1/4-ZP
CCL-014		1400			1400		
CCL-019		1900			1900		
CCL-028		2800	FFE-1/4-Z	FRE-1/4-ZP	2800	FFE-1/4-Z	FRE-1/4-ZP
CCL-035		3500			3500		
CCL-045		4500	FFE-1/4-Z	FRE-1/4-ZP	4500	FFE-1/4-Z	FRE-1/4-ZP
CCL-054		5400	FFE-1/2-Z	FRE-1/2-ZP	5400	FFE-1/2-Z	FRE-1/2-ZP
LSF-30		3120	FFE-1/4-Z	FRE-1/4-ZP	3000	FFE-1/4-Z	FRE-1/4-ZP
LSF-45		4680	FFE-1/2-Z	FRE-1/4-ZP	4500	FFE-1/2-Z	FRE-1/4-ZP
LSF-58		6032	FFE-1/2-Z	FRE-1/2-ZP	5800	FFE-1/2-Z	FRE-1/2-ZP
LSF-72		7488	FFE-1-Z	FRE-1/2-ZP	7200	FFE-1-Z	FRE-1/2-ZP
LSF-94		9766	FFE-1-Z	FRE-1-ZP	9400	FFE-1-Z	FRE-1-ZP
LSF-120		12600	FFE-1-Z	FRE-1-ZP	12100	FFE-1-1/2-Z	FRE-1-ZP
LSF-140		14500	FFE-1-1/2-Z	FRE-1-ZP	14000	FFE-2-Z	FRE-1-1/2-ZP
LSF-160		16800	FFE-2-Z	FRE-1-1/2-ZP	16000	FFE-2-Z	FRE-1-1/2-ZP
LSF-190		19760	FFE-2-Z	FRE-1-1/2-ZP	19000	CFE-2-1/2-Z	FRE-2-ZP
LSF-240		7/8 ODF	24960	SFE-3-Z	SRE-2-ZP	24000	SFE-3-Z
LSF-280	29120		SFE-3-Z	SRE-3-ZP	28000	SFE-5-Z	SRE-3-ZP

** Type ZP thermostatic charges may be used in place of the Z charges shown. On 502 applications the ZP40 may be used also.

- NOTE: 1. Type G(E) valves may be substituted for the Type F(E) valves where nominal capacities are equivalent.
 2. Do Not Use ZP charges and Crankcase Pressure Regulating Valves on the same unit.
 3. Z charges may be substituted for ZP charges, but a Crankcase Pressure Regulating Valve MAY BE necessary.

****LOW TEMPERATURE ELECTRIC DEFROST UNITS**

COIL MODEL	COIL INLET CONNECTION INCHES	-10° F. ROOM & -20° F. EVAP. TEMP.			-20° F. ROOM & -30° F. EVAP. TEMP.		
		VALVE LOAD BTU/HR	REFRIGERANT		VALVE LOAD BTU/HR	REFRIGERANT	
			12	502		12	502
HDF-57	1/2 SAE Flare Nut	5600	FFE-1/2-Z	FRE-1/2-ZP	5152	FFE-1-Z	FRE-1/2-ZP
HDF-78		7700	FFE-1-Z		7084		
HDF-104		10300	FFE-1-1/2-Z	FRE-1-ZP	9476	FFE-1-1/2-Z	FRE-1-ZP
HDF-141		13800	FFE-2-Z		12880	FFE-2-Z	
HDF-171		17000	CFE-2-1/2-Z	FRE-1-1/2-ZP	15640	CFE-2-1/2-Z	FRE-1-1/2-ZP
HDF-196		19500		FRE-2-ZP	17940	CFE-3-Z	FRE-2-ZP
HDF-241		7/8 ODF	24000	SFE-3-Z	SRE-2-ZP	22080	SFE-3-Z
HDF-341	1-1/8 ODF	34000	SFE-5-Z	SRE-3-ZP	31280	PFE-8-Z	SRE-4-ZP
HDF-421		42000	PFE-8-Z	SRE-4-ZP	38640	OFE-9-Z	ORE-6-ZP
HDF-541		54000	OFE-9-Z	ORE-6-ZP	49680	OFE-9-Z	ORE-6-ZP
HDF-731		1-3/8 ODF	73000	OFE-12-ZP	ORE-9-ZP	67160	OFE-12-Z

****LOW TEMPERATURE ELECTRIC DEFROST UNITS**

COIL MODEL	COIL INLET CONNECTION INCHES	0° F. ROOM & -10° F. EVAP. TEMP.			-10° F. ROOM & -20° F. EVAP. TEMP.		
		VALVE LOAD BTU/HR	REFRIGERANT		VALVE LOAD BTU/HR	REFRIGERANT	
			12	502		12	502
WUF-82	1/2 SAE Flare Nut	8200	FFE-1-Z	FRE-1/2-ZP	7890	FFE-1-Z	FRE-1/2-ZP
WUF-120		12000	FFE-1-1/2-Z	FRE-1-ZP	11540	FFE-1-1/2-Z	FRE-1-ZP
WUF-161		16100	FFE-2-Z	FRE-1-1/2-ZP	15480	FFE-2-Z	FRE-1-1/2-ZP
WUF-196		19600	CFE-2-1/2-Z		18850	CFE-2-1/2-Z	
WUF-241		24100	CFE-3-Z	FRE-2-ZP	23170	CFE-3-Z	FRE-2-ZP
WUF-295	7/8 ODF	29500	SFE-3-Z	SRE-3-ZP	28370	SFE-3-Z	SRE-3-ZP
WUF-359		35900	SFE-5-Z	SRE-4-ZP	34520	SFE-5-Z	SRE-4-ZP
WUF-393		39300			37790		
WUF-491	1-1/8 ODF	49100	SFE-6-Z or OFE-6-Z	SRE-6-ZP or ORE-6-ZP	47140	SFE-6-Z or OFE-6-Z	SRE-6-ZP or ORE-6-ZP

** Type ZP thermostatic charges may be used in place of the Z charges shown. On 502 applications the ZP40 may be used also.

NOTE: 1. Type G(E) valves may be substituted for the type F(E) valves where nominal capacities are equivalent.
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