



Balanced Port Thermostatic Expansion Valve Selection Chart

for

CHANDLER

HEATCRAFT, INC. REFRIGERANT PRODUCTS DIV.
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Stone Mountain, GA 30083

All of the valves selected below are of the balanced port design with load conditions provided by Chandler. The selections are based on 95°F condensing temperature and 10°F liquid subcooling. Externally equalized valves are used with coils having refrigerant distributors. The pressure drop across the coil and distributor is approximately 35 psi for R-22 and R-502. The balanced port design is recommended primarily for use on systems having one or more of the following operating conditions: (1) widely varying evaporator loads; (2) widely varying head pressures; and (3) fluctuating or extremely low liquid temperatures. However, if actual conditions differ from those listed above, valve selections should be made from Bulletins 10-10-2 and 20-10. For systems that do not utilize the design concepts listed above, select a standard thermostatic expansion valve by referring to Bulletin 500-10-M or Bulletin 10-10.

REACH-IN UNIT COOLERS 0° to -30° F Evaporating Temperature

COIL MODEL	COIL INLET CONN. Inches	BTU/HR. 10° F T.D.	REFRIGERANT		
			12	22	502
CCL-011*	1/2 SAE Flare Nut	1,000	BFF-AA-ZP	BFV-AA-ZP	BFR-AA-ZP
CCL-014		1,400			
CCL-019		1,900			
CCL-028		2,800	BFFE-A-ZP	BFVE-AA-ZP	BFRE-A-ZP
CCL-035		3,500			
CCL-045		4,500			
CCL-054		5,400			

LO-SILHOUETTE UNIT COOLERS For -30° F Evaporating Temperature

GLC-070*	1/2 SAE Flare Nut	7,000	BFFE-A-ZP	BFVE-A-ZP	BFRE-A-ZP
GLC-090		9,000			
GLC-105		10,500			
GLC-120	1/2 ODM	12,000	EBFFE-C-ZP	EBFVE-A-ZP	EBFRE-B-ZP
GLC-140		14,000			
GLC-160		16,000	EBFFE-C-ZP	EBFVE-B-ZP	
GLC-175		17,500			
GLC-210	21,000	1% ODM	EBSFE-D-ZP	EBFVE-C-ZP	EBSRE-D-ZP
GLC-250	25,000				
GLC-300	30,000				
GLC-360	36,000				

LOW SILHOUETTE UNIT COOLERS For -20° F Evaporating Temperature

ELC-041*	1/2 SAE Flare Nut	4,100	BFF-A-ZP	BFV-AA-ZP	BFR-A-ZP
ELC-056		5,600			
ELC-071		7,100			
ELC-096		9,600	BFFE-B-ZP	BFVE-A-ZP	BFRE-A-ZP
ELC-122		12,200			
ELC-143		14,300	BFFE-C-ZP	BFVE-B-ZP	BFRE-B-ZP
ELC-163		16,300			
ELC-184	18,400				
ELC-245	1/2 ODM	24,500	EBFFE-C-ZP	EBFVE-B-ZP	EBFRE-C-ZP
ELC-286		28,600			

HOT ROD UNIT COOLERS For -30° F Evaporating Temperature

COIL MODEL	COIL INLET CONN. Inches	BTU/HR. 10° F T.D.	REFRIGERANT		
			12	22	502
EEP-003*	1/2 SAE Flare Nut	3,000	BFFE-A-ZP	BFVE-AA-ZP	BFRE-A-ZP
EEP-005		4,500			
EEP-006		6,200			
EEP-009		9,000			
EEP-012	1/2 ODM	12,000	EBFFE-B-ZP	EBFVE-A-ZP	EBFRE-A-ZP
EEP-016		16,000			
EEP-024		24,000			
EEP-031	1% ODM	30,000	EBSFE-D-ZP	EBFVE-C-ZP	EBSRE-D-ZP
EEP-036		36,000			
EEP-048	1% ODM	48,000	OFE-9-ZP	EBSVE-D-ZP	ORE-9-ZP
EEP-061		60,000			
EEP-072	72,000	OFE-12-ZP	OVE-15-ZP	ORE-12-ZP	
EEP-096	96,000				
EEP-121	120,000	OFE-16-ZP	OVE-20-ZP	ORE-21-ZP	

HOT GAS DEFROST UNIT COOLERS For -30° F Evaporating Temperature

GZA-006*	1/2 ODM	6,000	EBFFE-A-ZP	EBFVEAA-ZP	EBFRE-A-ZP
GZA-009		9,000			
GZA-012	1/2 ODM	12,000	EBFFE-B-ZP	EBFVE-A-ZP	EBFRE-B-ZP
GZA-016		16,000			
GZA-024		24,000			
GZA-030	1% ODM	30,000	EBSFE-D-ZP	EBFVE-C-ZP	EBSRE-D-ZP
GZA-036		36,000			
GZA-048	1% ODM	48,000	OFE-9-ZP	EBSVE-D-ZP	ORE-9-ZP
GZA-061		60,000			
GZA-072		72,000			
GZA-096		96,000			
GZA-121	120,000	OFE-16-ZP	OVE-20-ZP	ORE-21-ZP	

THIN LINE UNIT FREEZER For -10° F Evaporating Temperature

TLFM-040*	1/2 SAE Flare Nut	4,000	BFF-A-ZP	BFV-AA-ZP	BFR-A-ZP
TLFM-047		4,700			
TLFM-069		6,900	BFFE-A-ZP	BFVE-AA-ZP	BFRE-A-ZP
TLFM-081		8,100			
TLFM-094		9,400			
TLFM-107		10,700	BFFE-B-ZP	BFVE-A-ZP	BFRE-B-ZP
TLFM-128		12,800			
TLFM-157		15,700			
TLFM-170		17,000			
TLFM-205		20,500	BFFE-C-ZP	BFVE-B-ZP	BFRE-B-ZP

* The last digit of Model Number designation may be any letter and has no effect on TEV selection.

GRAVITY BOOSTER UNIT COOLERS
For 20°F Evaporating Temperature

COIL MODEL	COIL INLET CONN. Inches	BTU/HR. 10°F T.D.	REFRIGERANT			
			12	22	502	
EGB-045*	½ SAE Flare Nut	4,500	BFF-A-C	BFV-AA-C	BFR-A-C	
EGB-063		6,300	BFFE-A-C	BFVE-AA-C	BFR-A-C	
EGB-087		8,700		BFVE-A-C		BFRE-A-C
EGB-120		12,000				
EGB-150		15,000	BFFE-B-C	BFRE-B-C		
EGB-180	¾ ODM	18,000	EBFFE-B-C	EBFVE-A-C	EBFRE-B-C	
EGB-270		27,000	EBFFE-C-C	EBFVE-B-C		

REACH-IN UNIT COOLERS
For 20°F Evaporating Temperature

COIL MODEL	COIL INLET CONN. Inches	BTU/HR. 10°F T.D.	REFRIGERANT
H-0131	½ SAE Flare Nut	1,380	BFF-AA-C BFV-AA-C BFR-AA-C
H-0171		1,750	
H-0231		2,380	
H-0301		3,020	

THIN LINE UNIT COOLER
For 20°F Evaporating Temperature

COIL MODEL	COIL INLET CONN. Inches	BTU/HR. 10°F T.D.	REFRIGERANT
TLCM-045	½ SAE Flare Nut	4,500	BFF-A-C BFV-AA-C BFR-A-C
TLCM-076		7,600	BFVE-AA-C
TLCM-090		9,000	
TLCM-102		10,200	BFRE-A-C
TLCM-120		12,000	
TLCM-140		14,000	BFFE-B-C
TLCM-167		16,700	
TLCM-188		18,800	BFFE-C-C
TLCM-220		22,000	

MAC UNIT COOLERS
For 25°F Evaporating Temperature

COIL MODEL	COIL INLET CONN. Inches	BTU/HR. 10°F T.D.	REFRIGERANT
MAC-007*	½ SAE Flare Nut	650	BFF-AA-C BFV-AA-C BFR-AA-C
MAC-008		800	
MAC-012		1,200	
MAC-017		1,700	
MAC-023		2,300	
MAC-031		3,100	

CEILING UNIT COOLERS
For 25°F Evaporating Temperature

COIL MODEL	COIL INLET CONN. Inches	BTU/HR. 10°F T.D.	REFRIGERANT	
CCH-013*	½ SAE Flare Nut	1,300	BFF-AA-C BFV-AA-C BFR-AA-C	
CCH-015		1,550		
CCH-017		1,700		
CCH-023		2,300		
CCH-031		3,100		
CCH-045		4,500		BFF-A-C BFR-A-C
CCH-055		5,500		BFFE-A-C BFVE-AA-C BFRE-A-C

GRAVITY BOOSTER UNIT COOLERS
For 25°F Evaporating Temperature

COIL MODEL	COIL INLET CONN. Inches	BTU/HR. 10°F T.D.	REFRIGERANT		
			12	22	502
RGB-045*	½ SAE Flare Nut	4,500	BFF-A-C	BFV-AA-C	BFR-A-C
RGB-063		6,300	BFFE-A-C	BFVE-AA-C	BFR-A-C
RGB-087		8,700			
RGB-120		12,000		BFVE-A-C	
RGB-150		15,000	BFFE-B-C		BFRE-B-C
RGB-180		18,000	BFFE-C-C	BFRE-B-C	
RGB-270	¾ ODM	27,000	EBFFE-C-C	EBFVE-B-C	EBFRE-B-C

MULLION-PANEL UNIT COOLERS
For about 25°F Evaporating Temperature

COIL MODEL	COIL INLET CONN. Inches	BTU/HR. 10°F T.D.	REFRIGERANT
MJH-010*	½ SAE Flare Nut	1,000	BFF-AA-C BFV-AA-C BFR-AA-C
MJH-013		1,300	
MJH-017		1,700	
MJH-023		2,300	

LO-SILHOUETTE UNIT COOLERS
For 20°F Evaporating Temperature

COIL MODEL	COIL INLET CONN. Inches	BTU/HR. 10°F T.D.	REFRIGERANT
RLC-041*	½ SAE Flare Nut	4,100	BFF-A-C BFV-AA-C BFR-A-C
RLC-054		5,400	BFVE-AA-C
RLC-067		6,700	
RLC-092		9,200	BFRE-A-C
RLC-107		10,700	
RLC-122		12,200	BFFE-B-C
RLC-143		14,300	
RLC-163		16,300	BFFE-C-C
RLC-204		20,400	
RLC-275		27,500	BFRE-C-C
RLC-316	¾ ODM	31,600	EBFFE-C-C EBFVE-B-C EBFRE-D-C
RLC-408		40,800	EBSFE-D-C EBSRE-D-C
FLC-122	½ SAE Flare Nut	12,200	BFFE-B-C BFVE-A-C BFRE-A-C
FLC-163		16,300	BFRE-B-C

BOTTLE COOLER UNIT COOLERS
For about 25°F Evaporating Temperature

COIL MODEL	COIL INLET CONN. Inches	BTU/HR. 10°F T.D.	REFRIGERANT
CBC-012*	½ SAE Flare Nut	1,200	BFF-AA-C BFV-AA-C BFR-AA-C
CBC-016		1,800	
CBC-022		2,200	

PACEMAKER UNIT COOLERS
For about 25°F Evaporating Temperature

COIL MODEL	COIL INLET CONN. Inches	BTU/HR. 10°F T.D.	REFRIGERANT
RUA-005*	½ SAE Flare Nut	4,500	BFF-A-C BFV-AA-C BFR-A-C
RUA-006		5,500	BFVE-AA-C
RUA-008		7,800	
RUA-009		9,000	BFRE-A-C
RUA-011		11,000	
RUA-015		14,500	BFFE-B-C
RUA-017		17,000	
RUA-023	23,000	BFFE-C-C BFVE-B-C	
RUA-030	¾ ODM	30,000	EBFFE-C-C
RUA-037		36,000	
RUA-045	1% ODM	45,000	EBSFE-D-C
RUA-060		60,000	
RUA-080	1% ODM	80,000	EBSVE-D-C
RUA-115		115,000	
RUA-144	1% ODM	144,000	OFE-12-C OVE-15-C ORE-12-C

*The last digit of Model Number designation may be any letter and has no effect on TEV selection.

GRAVITY BOOSTER UNIT COOLERS For Food Processing Rooms

COIL MODEL	35°F Suction Temp. Entering Air 55°F db/55% R.H.		REFRIGERANT		
	COIL INLET CONN. Inches	BTU/HR.	12	22	502
RGB-045*	½ SAE Flare Nut	11,700	BFFE-A-C	BFVE-A-C	BFRE-A-C
RGB-063		16,400	BFFE-B-C		BFRE-B-C
RGB-087		22,600	BFFE-C-C	BFVE-B-C	BFRE-C-C
RGB-120		31,200			BFRE-C-C
RGB-150		39,000			BSRE-D-C
RGB-180		46,800	BSFE-D-C	BFVE-C-C	BSRE-D-C
RGB-270	7/8 ODM	70,200	EBSFE-D-C	EBFVE-C-C	EBSRE-D-C

*The last digit of Model Number designation may be any letter and has no effect on TEV selection.

LOW VELOCITY AIR DEFROST UNITS

COIL MODEL	35°F ROOM & 25°F EVAP. TEMP.					55°F ROOM & 30°F EVAP. TEMP.					
	COIL INLET CONN. Inches	BTU/HR.	REFRIGERANT			COIL INLET CONN. Inches	BTU/HR.	REFRIGERANT			
			12	22	502			12	22	502	
LVC-500	½ SAE Flare Nut	5,000	BFFE-A-C	BFVE-AA-C	BFRE-A-C	½ SAE Flare Nut	12,500	BFFE-A-C	BFVE-A-C	BFRE-A-C	
LVC-700		7,000					BFFE-B-C	BFRE-B-C			
LVC-900		9,000	BFFE-C-C	BFVE-A-C	BFRE-B-C		22,500	BFFE-C-C	BFVE-B-C	BFRE-C-C	
LVC-1200		12,000					BSFE-D-C			BFVE-C-C	BSRE-D-C
LVC-1600		16,000					BSFE-D-C			BFVE-C-C	BSRE-D-C
LVC-2100		21,000	BSFE-D-C	BFVE-C-C	BSRE-D-C						
LVC-2700		27,000	BSFE-D-C	BFVE-C-C	BSRE-D-C						

30°F COOLERS WITH ELECTRIC DEFROST For 20°F Evaporating Temperature

COIL MODEL	COIL INLET CONN. Inches	BTU/HR. 10°F T.D.	REFRIGERANT		
			12	22	502
LVD-900	½ SAE Flare Nut	9,000	BFFE-A-C	BFVE-A-C	BFRE-A-C
LVD-1200		12,000			
LVD-1600		16,000	BFRE-C-C		
LVD-2100		21,000	BSFE-D-C	BFVE-B-C	
LVD-2700		27,000	BSFE-D-C	BFVE-B-C	



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