BLP
Low Profile
Unit Cooler

60 Hz

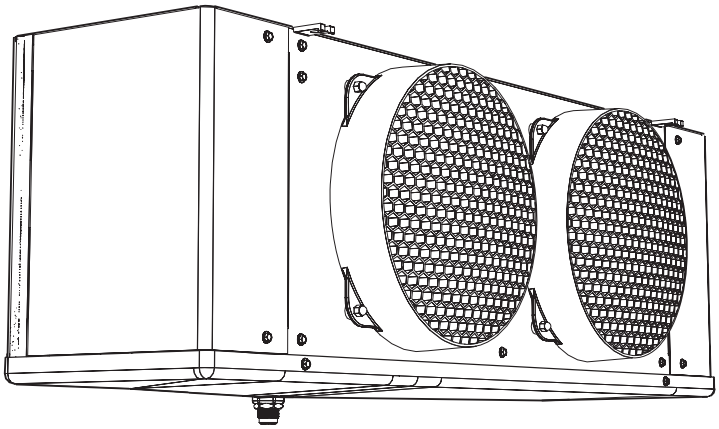
PRODUCT DATA & INSTALLATION

Bulletin B30-BLP-PDI-6

1082850

Air, Electric, Hot Gas
& Warm Fluid Defrost

Electrical Power:
115/1/60, 208-230/1/60,
208-230/3/60, 460/1/60



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NOMENCLATURE

B LP 3 15 V E - T3 A

B = Bally

Low Profile Unit Cooler

Number of Fans

Nominal Capacity:
x 1000 @ 10°F TD, Btu/H, R404A

Application Range:
M = Medium to High Temp 6 FPI (10°F to 45°F (*-12°C to 7°C*) Evap Temp)
L = Low Temp 6 FPI (-40°F to 0°F(*-40°C to -17°C*) Evap Temp)
V = Low Temp 4 FPI (-40°F to 0°F (*-40°C to -17°C*) Evap Temp)
W = Fluid Air Cooler (with water or glycol)

Defrost*:
A = Air E = Electric
T = 3 Pipe Hot Gas w/ Electric Heater Pan
or Warm Fluid w/ Electric Heater Pan for Fluid Air Coolers
H = 3 Pipe Hot Gas w/ Hot Gas Loop Pan (optional)
G = Reverse Cycle w/ Electric Heater Pan
R = Reverse Cycle w/ Hot Gas Loop Pan (optional)
*** T, H, G, R, available on 2 to 6 fan models only**

Voltage:
S1 = 115/1/60 (air defrost & hot gas models only)
S2 = 208-230/1/60
S4 = 460/1/60 (2 to 6 fan models only)
T3 = 208-230/3/60

Generation: A = 1st

STANDARD FEATURES

- Modern look
- High efficiency and high strength fan guard
- Front access
- Higher capacity
- Compact
- Internally enhanced tubing
- More uniform air flow
- Reverse cycle & 3 pipe hot gas available
- Convenient mounting brackets
- Ample electrical and header compartments
- Lower heater wattage
- Proven motor/fan/motor mount design
- Liquid line solenoid valve wire harness factory installed
- Schrader valve on suction header
- Positive slope, hinged drain pan
- Central drain connections (approximate)
- Universal drain fitting
- Large 3/4" ID (3/4" MPT) drain hole
- Factory installed distributor nozzle
- 460/1/60 PSC motor only

OPTIONAL FEATURES

- PSC motors
- Hot gas loop pan with hot gas defrost models
- Factory installed expansion valve, solenoid valve and room thermostat
- Wire fan guard

CAPACITY DATA
ALL MODELS

60Hz

Medium Temperature Models - Capacity @ 6 F.P.I.

Medium Temp. Models			104M	106M	107M	209M	211M	214M	317M	320M	423M	426M	532M	639M
Number Of Fans			1	1	1	2	2	2	3	3	4	4	5	6
Capacity BTUH *(WATTS)*	Evap Temp. °F *(°C)*	25 *(-4)*	4300 *(1260)*	5500 *(1610)*	6800 *(1990)*	8600 *(2520)*	11000 *(3220)*	14000 *(4100)*	17000 *(4980)*	20000 *(5860)*	23000 *(6740)*	26000 *(7610)*	32000 *(9370)*	39000 *(11400)*
Air Flow	CFM *(L/S)*		1010 *(470)*	950 *(450)*	900 *(430)*	2020 *(950)*	1910 *(900)*	1800 *(850)*	2860 *(1350)*	2700 *(1270)*	3810 *(1800)*	3600 *(1700)*	4500 *(2120)*	5400 *(2550)*
Refrigerant Charge (R404A)	LB. *(KG)*		0.7 *(0.3)*	1.0 *(0.5)*	1.3 *(0.6)*	1.3 *(0.6)*	1.9 *(0.9)*	2.5 *(1.1)*	2.8 *(1.3)*	3.7 *(1.7)*	3.7 *(1.7)*	4.9 *(2.2)*	6.1 *(2.7)*	7.2 *(3.3)*

Low Temperature Models - Capacity @ 6 F.P.I.

Low Temp. Models			104L	105L	106L	207L	209L	211L	314L	317L	419L	422L	527L	631L
Number Of Fans			1	1	1	2	2	2	3	3	4	4	5	6
Capacity BTUH *(WATTS)*	Evap Temp. °F *(°C)*	0 *(-18)*	3930 *(1150)*	5200 *(1520)*	6090 *(1780)*	7930 *(2320)*	9720 *(2850)*	11500 *(3370)*	15100 *(4420)*	18100 *(5300)*	20000 *(5860)*	23000 *(6740)*	29000 *(8490)*	34400 *(10100)*
		-10 *(-23)*	3870 *(1130)*	5020 *(1470)*	5960 *(1750)*	7690 *(2250)*	9400 *(2750)*	11300 *(3310)*	14600 *(4280)*	17600 *(5160)*	19600 *(5740)*	22500 *(6590)*	28100 *(8230)*	32900 *(9640)*
		-20 *(-29)*	3800 *(1110)*	4800 *(1410)*	5800 *(1700)*	7400 *(2170)*	9000 *(2640)*	11000 *(3220)*	14000 *(4100)*	17000 *(4980)*	19000 *(5570)*	22000 *(6440)*	27000 *(7910)*	31000 *(9080)*
		-30 *(-34)*	3550 *(1040)*	4410 *(1290)*	5380 *(1580)*	6820 *(2000)*	8280 *(2430)*	10200 *(2990)*	12900 *(3780)*	15700 *(4600)*	17600 *(5160)*	20400 *(5980)*	24900 *(7290)*	28400 *(8320)*
		-40 *(-40)*	3270 *(960)*	3980 *(1170)*	4920 *(1440)*	6180 *(1810)*	7470 *(2190)*	9340 *(2740)*	11700 *(3430)*	14300 *(4190)*	16100 *(4720)*	18800 *(5510)*	22500 *(6590)*	25300 *(7410)*
Air Flow	CFM *(L/S)*		1010 *(480)*	950 *(450)*	900 *(430)*	2020 *(950)*	1910 *(900)*	1800 *(850)*	2860 *(1350)*	2700 *(1270)*	3810 *(1800)*	3600 *(1700)*	4500 *(2120)*	5400 *(2550)*
Refrigerant Charge (R404A)	LB. *(KG)*		0.7 *(0.3)*	1.0 *(0.5)*	1.3 *(0.6)*	1.3 *(0.6)*	1.7 *(0.8)*	2.5 *(1.1)*	2.8 *(1.3)*	3.7 *(1.7)*	3.7 *(1.7)*	4.9 *(2.2)*	6.1 *(2.7)*	7.2 *(3.3)*

Low Temperature Models - Capacity @ 4 F.P.I.

Low Temp. 4 FPI Models			103V	104V	105V	206V	208V	209V	312V	315V	416V	419V	523V	627V
Number Of Fans			1	1	1	2	2	2	3	3	4	4	5	6
Capacity BTUH *(WATTS)*	Evap Temp. °F *(°C)*	0 *(-18)*	3070 *(900)*	4340 *(1270)*	5170 *(1510)*	6720 *(1970)*	8240 *(2410)*	9610 *(2820)*	12600 *(3690)*	15700 *(4600)*	16600 *(4860)*	19600 *(5740)*	24200 *(7090)*	29100 *(8520)*
		-10 *(-23)*	3040 *(890)*	4230 *(1240)*	5100 *(1490)*	6570 *(1920)*	8040 *(2360)*	9480 *(2780)*	12300 *(3600)*	15400 *(4510)*	16300 *(4770)*	19300 *(5650)*	23600 *(6910)*	28100 *(8230)*
		-20 *(-29)*	3000 *(880)*	4100 *(1200)*	5000 *(1470)*	6400 *(1880)*	7800 *(2290)*	9300 *(2720)*	12000 *(3520)*	15000 *(4390)*	16000 *(4690)*	19000 *(5570)*	23000 *(6740)*	27000 *(7910)*
		-30 *(-34)*	2820 *(830)*	3790 *(1110)*	4660 *(1370)*	5930 *(1740)*	7220 *(2120)*	8680 *(2540)*	11100 *(3250)*	13900 *(4070)*	14900 *(4360)*	17800 *(5210)*	21300 *(6240)*	24900 *(7290)*
		-40 *(-40)*	2620 *(770)*	3460 *(1010)*	4310 *(1260)*	5430 *(1590)*	6590 *(1930)*	8020 *(2350)*	10200 *(2990)*	12800 *(3750)*	13700 *(4010)*	16400 *(4800)*	19500 *(5710)*	22500 *(6590)*
Air Flow	CFM *(L/S)*		1070 *(510)*	1010 *(480)*	950 *(450)*	2140 *(1010)*	2020 *(950)*	1910 *(900)*	3030 *(1430)*	2860 *(1350)*	4040 *(1910)*	3810 *(1800)*	4770 *(2250)*	5720 *(2700)*
Refrigerant Charge (R404A)	LB. *(KG)*		0.7 *(0.3)*	1.0 *(0.5)*	1.3 *(0.6)*	1.3 *(0.6)*	1.7 *(0.8)*	2.5 *(1.1)*	2.8 *(1.3)*	3.7 *(1.7)*	3.7 *(1.7)*	4.9 *(2.2)*	6.1 *(2.7)*	7.2 *(3.3)*

Capacities rated using R404A with 10°F *(5.6°C)* TD & 100°F *(38°C)* liquid temperature.
Capacities at other TD within a range of 8 to 12 °F *(4.4 to 6.7°C)* are directly proportional to TD, or use formula:

Capacity = Rated capacity ÷ 10 x TD.

For capacities at TD outside of range 8 to 12 °F *(4.4 to 6.7°C)*, or liquid temperature lower than 75°F *(24°)*, consult factory.

ELECTRICAL DATA - 115/1/60

60Hz

AIR DEFROST &
HOT GAS DEFROST WITH HOT GAS LOOP PAN MODELS

MODEL	FPI	FAN MOTORS								
		QUANTITY	SHADED POLE MOTORS				PSC MOTORS			
			HP	FLA TOTAL	MIN. CIRC. AMPACITY (A)	MAX. FUSE (AMPS)	HP	FLA TOTAL	MIN. CIRC. AMPACITY (A)	MAX. FUSE (AMPS)
104MA-S1A *	6	1	1/20	2.1	2.6	15	1/15	1.0	1.3	15
106MA-S1A *		1	1/20	2.1	2.6	15	1/15	1.0	1.3	15
107MA-S1A *		1	1/20	2.1	2.6	15	1/15	1.0	1.3	15
209M#-S1A		2	1/20	4.2	4.7	15	1/15	2.0	2.3	15
211M#-S1A		2	1/20	4.2	4.7	15	1/15	2.0	2.3	15
214M#-S1A		2	1/20	4.2	4.7	15	1/15	2.0	2.3	15
317M#-S1A		3	1/20	6.3	6.8	15	1/15	3.0	3.3	15
320M#-S1A		3	1/20	6.3	6.8	15	1/15	3.0	3.3	15
423M#-S1A		4	1/20	8.4	8.9	15	1/15	4.0	4.3	15
426M#-S1A		4	1/20	8.4	8.9	15	1/15	4.0	4.3	15
532M#-S1A		5	1/20	10.5	11.0	15	1/15	5.0	5.3	15
639M#-S1A		6	1/20	12.6	15.1	20	1/15	6.0	6.3	15
207L†-S1A	6	2	1/20	4.2	4.7	15	1/15	2.0	2.3	15
209L†-S1A		2	1/20	4.2	4.7	15	1/15	2.0	2.3	15
211L†-S1A		2	1/20	4.2	4.7	15	1/15	2.0	2.3	15
314L†-S1A		3	1/20	6.3	6.8	15	1/15	3.0	3.3	15
317L†-S1A		3	1/20	6.3	6.8	15	1/15	3.0	3.3	15
419L†-S1A		4	1/20	8.4	8.9	15	1/15	4.0	4.3	15
422L†-S1A		4	1/20	8.4	8.9	15	1/15	4.0	4.3	15
527L†-S1A		5	1/20	10.5	11.0	15	1/15	5.0	5.3	15
631L†-S1A		6	1/20	12.6	15.1	20	1/15	6.0	6.3	15
206V†-S1A	4	2	1/20	4.2	4.7	15	1/15	2.0	2.3	15
208V†-S1A		2	1/20	4.2	4.7	15	1/15	2.0	2.3	15
209V†-S1A		2	1/20	4.2	4.7	15	1/15	2.0	2.3	15
312V†-S1A		3	1/20	6.3	6.8	15	1/15	3.0	3.3	15
315V†-S1A		3	1/20	6.3	6.8	15	1/15	3.0	3.3	15
416V†-S1A		4	1/20	8.4	8.9	15	1/15	4.0	4.3	15
419V†-S1A		4	1/20	8.4	8.9	15	1/15	4.0	4.3	15
523V†-S1A		5	1/20	10.5	11.0	15	1/15	5.0	5.3	15
627V†-S1A		6	1/20	12.6	15.1	20	1/15	6.0	6.3	15

 # = A, H or R. Refer to Nomenclature for details

*** = H and R available on 2 to 6 fan models only.**

† = H or R. Refer to Nomenclature for details

ELECTRICAL DATA - 208-230/1/60

60Hz

AIR DEFROST &
HOT GAS DEFROST WITH HOT GAS LOOP PAN MODELS

MODEL	FPI	FAN MOTORS								
		QUANTITY	SHADED POLE MOTORS				PSC MOTORS			
			HP	FLA TOTAL	MIN. CIRC. AMPACITY (A)	MAX. FUSE (AMPS)	HP	FLA TOTAL	MIN. CIRC. AMPACITY (A)	MAX. FUSE (AMPS)
104MA-S2A *	6	1	1/20	1.1	1.4	15	1/15	0.5	0.6	15
106MA-S2A *		1	1/20	1.1	1.4	15	1/15	0.5	0.6	15
107MA-S2A *		1	1/20	1.1	1.4	15	1/15	0.5	0.6	15
209M#-S2A		2	1/20	2.2	2.5	15	1/15	1.0	1.1	15
211M#-S2A		2	1/20	2.2	2.5	15	1/15	1.0	1.1	15
214M#-S2A		2	1/20	2.2	2.5	15	1/15	1.0	1.1	15
317M#-S2A		3	1/20	3.3	3.6	15	1/15	1.5	1.6	15
320M#-S2A		3	1/20	3.3	3.6	15	1/15	1.5	1.6	15
423M#-S2A		4	1/20	4.4	4.7	15	1/15	2.0	2.1	15
426M#-S2A		4	1/20	4.4	4.7	15	1/15	2.0	2.1	15
532M#-S2A		5	1/20	5.5	5.8	15	1/15	2.5	2.6	15
639M#-S2A		6	1/20	6.6	6.9	15	1/15	3.0	3.1	15
207L†-S2A	6	2	1/20	2.2	2.5	15	1/15	1.0	1.1	15
209L†-S2A		2	1/20	2.2	2.5	15	1/15	1.0	1.1	15
211L†-S2A		2	1/20	2.2	2.5	15	1/15	1.0	1.1	15
314L†-S2A		3	1/20	3.3	3.6	15	1/15	1.5	1.6	15
317L†-S2A		3	1/20	3.3	3.6	15	1/15	1.5	1.6	15
419L†-S2A		4	1/20	4.4	4.7	15	1/15	2.0	2.1	15
422L†-S2A		4	1/20	4.4	4.7	15	1/15	2.0	2.1	15
527L†-S2A		5	1/20	5.5	5.8	15	1/15	2.5	2.6	15
631L†-S2A		6	1/20	6.6	6.9	15	1/15	3.0	3.1	15
206V†-S2A	4	2	1/20	2.2	2.5	15	1/15	1.0	1.1	15
208V†-S2A		2	1/20	2.2	2.5	15	1/15	1.0	1.1	15
209V†-S2A		2	1/20	2.2	2.5	15	1/15	1.0	1.1	15
312V†-S2A		3	1/20	3.3	3.6	15	1/15	1.5	1.6	15
315V†-S2A		3	1/20	3.3	3.6	15	1/15	1.5	1.6	15
416V†-S2A		4	1/20	4.4	4.7	15	1/15	2.0	2.1	15
419V†-S2A		4	1/20	4.4	4.7	15	1/15	2.0	2.1	15
523V†-S2A		5	1/20	5.5	5.8	15	1/15	2.5	2.6	15
627V†-S2A		6	1/20	6.6	6.9	15	1/15	3.0	3.1	15

 # = A, H or R. Refer to Nomenclature for details

*** = H and R available on 2 to 6 fan models only.**

† = H or R. Refer to Nomenclature for details

ELECTRICAL DATA - 460/1/60

60Hz

AIR DEFROST &
HOT GAS DEFROST WITH HOT GAS LOOP PAN MODELS

MODEL	FPI	FAN MOTORS								
		QUANTITY	SHADED POLE MOTORS				PSC MOTORS			
			HP	FLA TOTAL	MIN. CIRC. AMPACITY (A)	MAX. FUSE (AMPS)	HP	FLA TOTAL	MIN. CIRC. AMPACITY (A)	MAX. FUSE (AMPS)
209M#-S4A	6	2	N/A	N/A	N/A	N/A	1/15	0.8	0.9	15
211M#-S4A		2	N/A	N/A	N/A	N/A	1/15	0.8	0.9	15
214M#-S4A		2	N/A	N/A	N/A	N/A	1/15	0.8	0.9	15
317M#-S4A		3	N/A	N/A	N/A	N/A	1/15	1.2	1.3	15
320M#-S4A		3	N/A	N/A	N/A	N/A	1/15	1.2	1.3	15
423M#-S4A		4	N/A	N/A	N/A	N/A	1/15	1.6	1.7	15
426M#-S4A		4	N/A	N/A	N/A	N/A	1/15	1.6	1.7	15
532M#-S4A		5	N/A	N/A	N/A	N/A	1/15	2.0	2.1	15
639M#-S4A		6	N/A	N/A	N/A	N/A	1/15	2.4	2.5	15
207L†-S4A	6	2	N/A	N/A	N/A	N/A	1/15	0.8	0.9	15
209L†-S4A		2	N/A	N/A	N/A	N/A	1/15	0.8	0.9	15
211L†-S4A		2	N/A	N/A	N/A	N/A	1/15	0.8	0.9	15
314L†-S4A		3	N/A	N/A	N/A	N/A	1/15	1.2	1.3	15
317L†-S4A		3	N/A	N/A	N/A	N/A	1/15	1.2	1.3	15
419L†-S4A		4	N/A	N/A	N/A	N/A	1/15	1.6	1.7	15
422L†-S4A		4	N/A	N/A	N/A	N/A	1/15	1.6	1.7	15
527L†-S4A		5	N/A	N/A	N/A	N/A	1/15	2.0	2.1	15
631L†-S4A		6	N/A	N/A	N/A	N/A	1/15	2.4	2.5	15
206V†-S4A	4	2	N/A	N/A	N/A	N/A	1/15	0.8	0.9	15
208V†-S4A		2	N/A	N/A	N/A	N/A	1/15	0.8	0.9	15
209V†-S4A		2	N/A	N/A	N/A	N/A	1/15	0.8	0.9	15
312V†-S4A		3	N/A	N/A	N/A	N/A	1/15	1.2	1.3	15
315V†-S4A		3	N/A	N/A	N/A	N/A	1/15	1.2	1.3	15
416V†-S4A		4	N/A	N/A	N/A	N/A	1/15	1.6	1.7	15
419V†-S4A		4	N/A	N/A	N/A	N/A	1/15	1.6	1.7	15
523V†-S4A		5	N/A	N/A	N/A	N/A	1/15	2.0	2.1	15
627V†-S4A		6	N/A	N/A	N/A	N/A	1/15	2.4	2.5	15

 # = A, H or R. Refer to Nomenclature for details

† = H or R. Refer to Nomenclature for details

ELECTRICAL DATA -
208-230/1/60 & 208-230/3/60
ELECTRIC DEFROST MODELS

60Hz

MODEL	FPI	FAN MOTORS									DEFROST HEATERS						
			SHADED POLE MOTORS				PSC MOTORS					208-230/1/60			208-230/3/60		
		QTY.	HP	FLA TOTAL	MCA (A)	MAX. FUSE (AMPS)	HP	FLA TOTAL	MCA (A)	MAX. FUSE (AMPS)	TOTAL WATTS	TOTAL AMPS	MCA (A)	MAX. FUSE (AMPS)	TOTAL AMPS	MCA (A)	MAX. FUSE (AMPS)
104ME-*A	6	1	1/20	1.1	1.4	15	1/15	0.5	0.6	15	1060	4.6	5.8	15	3.0	3.8	15
106ME-*A		1	1/20	1.1	1.4	15	1/15	0.5	0.6	15	1060	4.6	5.8	15	3.0	3.8	15
107ME-*A		1	1/20	1.1	1.4	15	1/15	0.5	0.6	15	1060	4.6	5.8	15	3.0	3.8	15
209ME-*A		2	1/20	2.2	2.5	15	1/15	1.0	1.1	15	1890	8.2	10.3	15	5.3	6.7	15
211ME-*A		2	1/20	2.2	2.5	15	1/15	1.0	1.1	15	1890	8.2	10.3	15	5.3	6.7	15
214ME-*A		2	1/20	2.2	2.5	15	1/15	1.0	1.1	15	1890	8.2	10.3	15	5.3	6.7	15
317ME-*A		3	1/20	3.3	3.6	15	1/15	1.5	1.6	15	2730	11.9	14.8	15	7.7	10	15
320ME-*A		3	1/20	3.3	3.6	15	1/15	1.5	1.6	15	2730	11.9	14.8	15	7.7	10	15
423ME-*A		4	1/20	4.4	4.7	15	1/15	2.0	2.1	15	3560	15.5	19.3	20	10	12	15
426ME-*A		4	1/20	4.4	4.7	15	1/15	2.0	2.1	15	3560	15.5	19.3	20	10	12	15
532ME-*A		5	1/20	5.5	5.8	15	1/15	2.5	2.6	15	4400	19.1	23.9	25	12	15.1	20
639ME-*A		6	1/20	6.6	6.9	15	1/15	3.0	3.1	15	5230	22.7	28.4	30	15	18	20
104LE-*A	6	1	1/20	1.1	1.4	15	1/15	0.5	0.6	15	1060	4.6	5.8	15	3.0	3.8	15
105LE-*A		1	1/20	1.1	1.4	15	1/15	0.5	0.6	15	1060	4.6	5.8	15	3.0	3.8	15
106LE-*A		1	1/20	1.1	1.4	15	1/15	0.5	0.6	15	1060	4.6	5.8	15	3.0	3.8	15
207LE-*A		2	1/20	2.2	2.5	15	1/15	1.0	1.1	15	1890	8.2	10.3	15	5.3	6.7	15
209LE-*A		2	1/20	2.2	2.5	15	1/15	1.0	1.1	15	1890	8.2	10.3	15	5.3	6.7	15
211LE-*A		2	1/20	2.2	2.5	15	1/15	1.0	1.1	15	1890	8.2	10.3	15	5.3	6.7	15
314LE-*A		3	1/20	3.3	3.6	15	1/15	1.5	1.6	15	2730	11.9	14.8	15	7.7	10	15
317LE-*A		3	1/20	3.3	3.6	15	1/15	1.5	1.6	15	2730	11.9	14.8	15	7.7	10	15
419LE-*A		4	1/20	4.4	4.7	15	1/15	2.0	2.1	15	3560	15.5	19.3	20	10	12	15
422LE-*A		4	1/20	4.4	4.7	15	1/15	2.0	2.1	15	3560	15.5	19.3	20	10	12	15
527LE-*A		5	1/20	5.5	5.8	15	1/15	2.5	2.6	15	4400	19.1	23.9	25	12	15.1	20
631LE-*A		6	1/20	6.6	6.9	15	1/15	3.0	3.1	15	5230	22.7	28.4	30	15	18	20
103VE-*A	4	1	1/20	1.1	1.4	15	1/15	0.5	0.6	15	1060	4.6	5.8	15	3.0	3.8	15
104VE-*A		1	1/20	1.1	1.4	15	1/15	0.5	0.6	15	1060	4.6	5.8	15	3.0	3.8	15
105VE-*A		1	1/20	1.1	1.4	15	1/15	0.5	0.6	15	1060	4.6	5.8	15	3.0	3.8	15
206VE-*A		2	1/20	2.2	2.5	15	1/15	1.0	1.1	15	1890	8.2	10.3	15	5.3	6.7	15
208VE-*A		2	1/20	2.2	2.5	15	1/15	1.0	1.1	15	1890	8.2	10.3	15	5.3	6.7	15
209VE-*A		2	1/20	2.2	2.5	15	1/15	1.0	1.1	15	1890	8.2	10.3	15	5.3	6.7	15
312VE-*A		3	1/20	3.3	3.6	15	1/15	1.5	1.6	15	2730	11.9	14.8	15	7.7	10	15
315VE-*A		3	1/20	3.3	3.6	15	1/15	1.5	1.6	15	2730	11.9	14.8	15	7.7	10	15
416VE-*A		4	1/20	4.4	4.7	15	1/15	2.0	2.1	15	3560	15.5	19.3	20	10	12	15
419VE-*A		4	1/20	4.4	4.7	15	1/15	2.0	2.1	15	3560	15.5	19.3	20	10	12	15
523VE-*A		5	1/20	5.5	5.8	15	1/15	2.5	2.6	15	4400	19.1	23.9	25	12	15.1	20
627VE-*A		6	1/20	6.6	6.9	15	1/15	3.0	3.1	15	5230	22.7	28.4	30	15	18	20

*** = S2 or T3. Refer to Nomenclature for details**

ELECTRICAL DATA - 460/1/60
ELECTRIC DEFROST MODELS

60Hz

MODEL	FPI	FAN MOTORS									DEFROST HEATERS			
		QTY.	SHADED POLE MOTORS				PSC MOTORS				TOTAL WATTS	TOTAL AMPS	MCA (A)	MAX. FUSE (AMPS)
			HP	FLA TOTAL	MCA (A)	MAX. FUSE (AMPS)	HP	FLA TOTAL	MCA (A)	MAX. FUSE (AMPS)				
209ME-S4A	6	2	N/A	N/A	N/A	N/A	1/15	0.8	0.9	15	1890	4.1	5.1	15
211ME-S4A		2	N/A	N/A	N/A	N/A	1/15	0.8	0.9	15	1890	4.1	5.1	15
214ME-S4A		2	N/A	N/A	N/A	N/A	1/15	0.8	0.9	15	1890	4.1	5.1	15
317ME-S4A		3	N/A	N/A	N/A	N/A	1/15	1.2	1.3	15	2730	5.9	7.4	15
320ME-S4A		3	N/A	N/A	N/A	N/A	1/15	1.2	1.3	15	2730	5.9	7.4	15
423ME-S4A		4	N/A	N/A	N/A	N/A	1/15	1.6	1.7	15	3560	7.7	9.7	15
426ME-S4A		4	N/A	N/A	N/A	N/A	1/15	1.6	1.7	15	3560	7.7	9.7	15
532ME-S4A		5	N/A	N/A	N/A	N/A	1/15	2.0	2.1	15	4400	9.6	12.0	15
639ME-S4A		6	N/A	N/A	N/A	N/A	1/15	2.4	2.5	15	5230	11.4	14.2	15
207LE-S4A	6	2	N/A	N/A	N/A	N/A	1/15	0.8	0.9	15	1890	4.1	5.1	15
209LE-S4A		2	N/A	N/A	N/A	N/A	1/15	0.8	0.9	15	1890	4.1	5.1	15
211LE-S4A		2	N/A	N/A	N/A	N/A	1/15	0.8	0.9	15	1890	4.1	5.1	15
314LE-S4A		3	N/A	N/A	N/A	N/A	1/15	1.2	1.3	15	2730	5.9	7.4	15
317LE-S4A		3	N/A	N/A	N/A	N/A	1/15	1.2	1.3	15	2730	5.9	7.4	15
419LE-S4A		4	N/A	N/A	N/A	N/A	1/15	1.6	1.7	15	3560	7.7	9.7	15
422LE-S4A		4	N/A	N/A	N/A	N/A	1/15	1.6	1.7	15	3560	7.7	9.7	15
527LE-S4A		5	N/A	N/A	N/A	N/A	1/15	2.0	2.1	15	4400	9.6	12.0	15
631LE-S4A		6	N/A	N/A	N/A	N/A	1/15	2.4	2.5	15	5230	11.4	14.2	15
206VE-S4A	4	2	N/A	N/A	N/A	N/A	1/15	0.8	0.9	15	1890	4.1	5.1	15
208VE-S4A		2	N/A	N/A	N/A	N/A	1/15	0.8	0.9	15	1890	4.1	5.1	15
209VE-S4A		2	N/A	N/A	N/A	N/A	1/15	0.8	0.9	15	1890	4.1	5.1	15
312VE-S4A		3	N/A	N/A	N/A	N/A	1/15	1.2	1.3	15	2730	5.9	7.4	15
315VE-S4A		3	N/A	N/A	N/A	N/A	1/15	1.2	1.3	15	2730	5.9	7.4	15
416VE-S4A		4	N/A	N/A	N/A	N/A	1/15	1.6	1.7	15	3560	7.7	9.7	15
419VE-S4A		4	N/A	N/A	N/A	N/A	1/15	1.6	1.7	15	3560	7.7	9.7	15
523VE-S4A		5	N/A	N/A	N/A	N/A	1/15	2.0	2.1	15	4400	9.6	12.0	15
627VE-S4A		6	N/A	N/A	N/A	N/A	1/15	2.4	2.5	15	5230	11.4	14.2	15

ELECTRICAL DATA - 115/1/60

HOT GAS DEFROST

WITH DRAIN PAN HEATER MODELS

60Hz

MODEL	FPI	FAN MOTORS									DRAIN PAIN HEATERS			
		QTY.	SHADED POLE MOTORS				PSC MOTORS				TOTAL WATTS	TOTAL AMPS	MCA (A)	MAX. FUSE (AMPS)
			HP	FLA TOTAL	MCA (A)	MAX. FUSE (AMPS)	HP	FLA TOTAL	MCA (A)	MAX. FUSE (AMPS)				
209M#-S1A	6	2	1/20	4.2	4.7	15	1/15	2.0	2.3	15	410	3.6	4.5	15
211M#-S1A		2	1/20	4.2	4.7	15	1/15	2.0	2.3	15	410	3.6	4.5	15
214M#-S1A		2	1/20	4.2	4.7	15	1/15	2.0	2.3	15	410	3.6	4.5	15
317M#-S1A		3	1/20	6.3	6.8	15	1/15	3.0	3.3	15	560	4.9	6.1	15
320M#-S1A		3	1/20	6.3	6.8	15	1/15	3.0	3.3	15	560	4.9	6.1	15
423M#-S1A		4	1/20	8.4	8.9	15	1/15	4.0	4.3	15	720	6.3	7.8	15
426M#-S1A		4	1/20	8.4	8.9	15	1/15	4.0	4.3	15	720	6.3	7.8	15
532M#-S1A		5	1/20	10.5	11.0	15	1/15	5.0	5.3	15	880	7.7	9.6	15
639M#-S1A		6	1/20	12.6	15.1	20	1/15	6.0	6.3	15	1030	9.0	11.2	15
207L#-S1A	6	2	1/20	4.2	4.7	15	1/15	2.0	2.3	15	410	3.6	4.5	15
209L#-S1A		2	1/20	4.2	4.7	15	1/15	2.0	2.3	15	410	3.6	4.5	15
211L#-S1A		2	1/20	4.2	4.7	15	1/15	2.0	2.3	15	410	3.6	4.5	15
314L#-S1A		3	1/20	6.3	6.8	15	1/15	3.0	3.3	15	560	4.9	6.1	15
317L#-S1A		3	1/20	6.3	6.8	15	1/15	3.0	3.3	15	560	4.9	6.1	15
419L#-S1A		4	1/20	8.4	8.9	15	1/15	4.0	4.3	15	720	6.3	7.8	15
422L#-S1A		4	1/20	8.4	8.9	15	1/15	4.0	4.3	15	720	6.3	7.8	15
527L#-S1A		5	1/20	10.5	11.0	15	1/15	5.0	5.3	15	880	7.7	9.6	15
631L#-S1A		6	1/20	12.6	15.1	20	1/15	6.0	6.3	15	1030	9.0	11.2	15
206V#-S1A	4	2	1/20	4.2	4.7	15	1/15	2.0	2.3	15	410	3.6	4.5	15
208V#-S1A		2	1/20	4.2	4.7	15	1/15	2.0	2.3	15	410	3.6	4.5	15
209V#-S1A		2	1/20	4.2	4.7	15	1/15	2.0	2.3	15	410	3.6	4.5	15
312V#-S1A		3	1/20	6.3	6.8	15	1/15	3.0	3.3	15	560	4.9	6.1	15
315V#-S1A		3	1/20	6.3	6.8	15	1/15	3.0	3.3	15	560	4.9	6.1	15
416V#-S1A		4	1/20	8.4	8.9	15	1/15	4.0	4.3	15	720	6.3	7.8	15
419V#-S1A		4	1/20	8.4	8.9	15	1/15	4.0	4.3	15	720	6.3	7.8	15
523V#-S1A		5	1/20	10.5	11.0	15	1/15	5.0	5.3	15	880	7.7	9.6	15
627V#-S1A		6	1/20	12.6	15.1	20	1/15	6.0	6.3	15	1030	9.0	11.2	15

 # = T or G. Refer to Nomenclature for details

ELECTRICAL DATA - 208-230/1/60

HOT GAS DEFROST

WITH DRAIN PAN HEATER MODELS

60Hz

MODEL	FPI	FAN MOTORS									DRAIN PAN HEATERS			
		QTY.	SHADED POLE MOTORS				PSC MOTORS				TOTAL WATTS	TOTAL AMPS	MCA (A)	MAX. FUSE (AMPS)
			HP	FLA TOTAL	MCA (A)	MAX. FUSE (AMPS)	HP	FLA TOTAL	MCA (A)	MAX. FUSE (AMPS)				
209M^-S2A	6	2	1/20	2.2	2.5	15	1/15	1.0	1.1	15	410	1.8	2.2	15
211M^-S2A		2	1/20	2.2	2.5	15	1/15	1.0	1.1	15	410	1.8	2.2	15
214M^-S2A		2	1/20	2.2	2.5	15	1/15	1.0	1.1	15	410	1.8	2.2	15
317M^-S2A		3	1/20	3.3	3.6	15	1/15	1.5	1.6	15	560	2.4	3.0	15
320M^-S2A		3	1/20	3.3	3.6	15	1/15	1.5	1.6	15	560	2.4	3.0	15
423M^-S2A		4	1/20	4.4	4.7	15	1/15	2.0	2.1	15	720	3.1	3.9	15
426M^-S2A		4	1/20	4.4	4.7	15	1/15	2.0	2.1	15	720	3.1	3.9	15
532M^-S2A		5	1/20	5.5	5.8	15	1/15	2.5	2.6	15	880	3.8	4.8	15
639M^-S2A		6	1/20	6.6	6.9	15	1/15	3.0	3.1	15	1030	4.0	5.0	15
207L^-S2A	6	2	1/20	2.2	2.5	15	1/15	1.0	1.1	15	410	1.8	2.2	15
209L^-S2A		2	1/20	2.2	2.5	15	1/15	1.0	1.1	15	410	1.8	2.2	15
211L^-S2A		2	1/20	2.2	2.5	15	1/15	1.0	1.1	15	410	1.8	2.2	15
314L^-S2A		3	1/20	3.3	3.6	15	1/15	1.5	1.6	15	560	2.4	3.0	15
317L^-S2A		3	1/20	3.3	3.6	15	1/15	1.5	1.6	15	560	2.4	3.0	15
419L^-S2A		4	1/20	4.4	4.7	15	1/15	2.0	2.1	15	720	3.1	3.9	15
422L^-S2A		4	1/20	4.4	4.7	15	1/15	2.0	2.1	15	720	3.1	3.9	15
527L^-S2A		5	1/20	5.5	5.8	15	1/15	2.5	2.6	15	880	3.8	4.8	15
631L^-S2A		6	1/20	6.6	6.9	15	1/15	3.0	3.1	15	1030	4.0	5.0	15
206V^-S2A	4	2	1/20	2.2	2.5	15	1/15	1.0	1.1	15	410	1.8	2.2	15
208V^-S2A		2	1/20	2.2	2.5	15	1/15	1.0	1.1	15	410	1.8	2.2	15
209V^-S2A		2	1/20	2.2	2.5	15	1/15	1.0	1.1	15	410	1.8	2.2	15
312V^-S2A		3	1/20	3.3	3.6	15	1/15	1.5	1.6	15	560	2.4	3.0	15
315V^-S2A		3	1/20	3.3	3.6	15	1/15	1.5	1.6	15	560	2.4	3.0	15
416V^-S2A		4	1/20	4.4	4.7	15	1/15	2.0	2.1	15	720	3.1	3.9	15
419V^-S2A		4	1/20	4.4	4.7	15	1/15	2.0	2.1	15	720	3.1	3.9	15
523V^-S2A		5	1/20	5.5	5.8	15	1/15	2.5	2.6	15	880	3.8	4.8	15
627V^-S2A		6	1/20	6.6	6.9	15	1/15	3.0	3.1	15	1030	4.0	5.0	15

^ = T or G. Refer to Nomenclature for details

ELECTRICAL DATA - 460/1/60

HOT GAS DEFROST

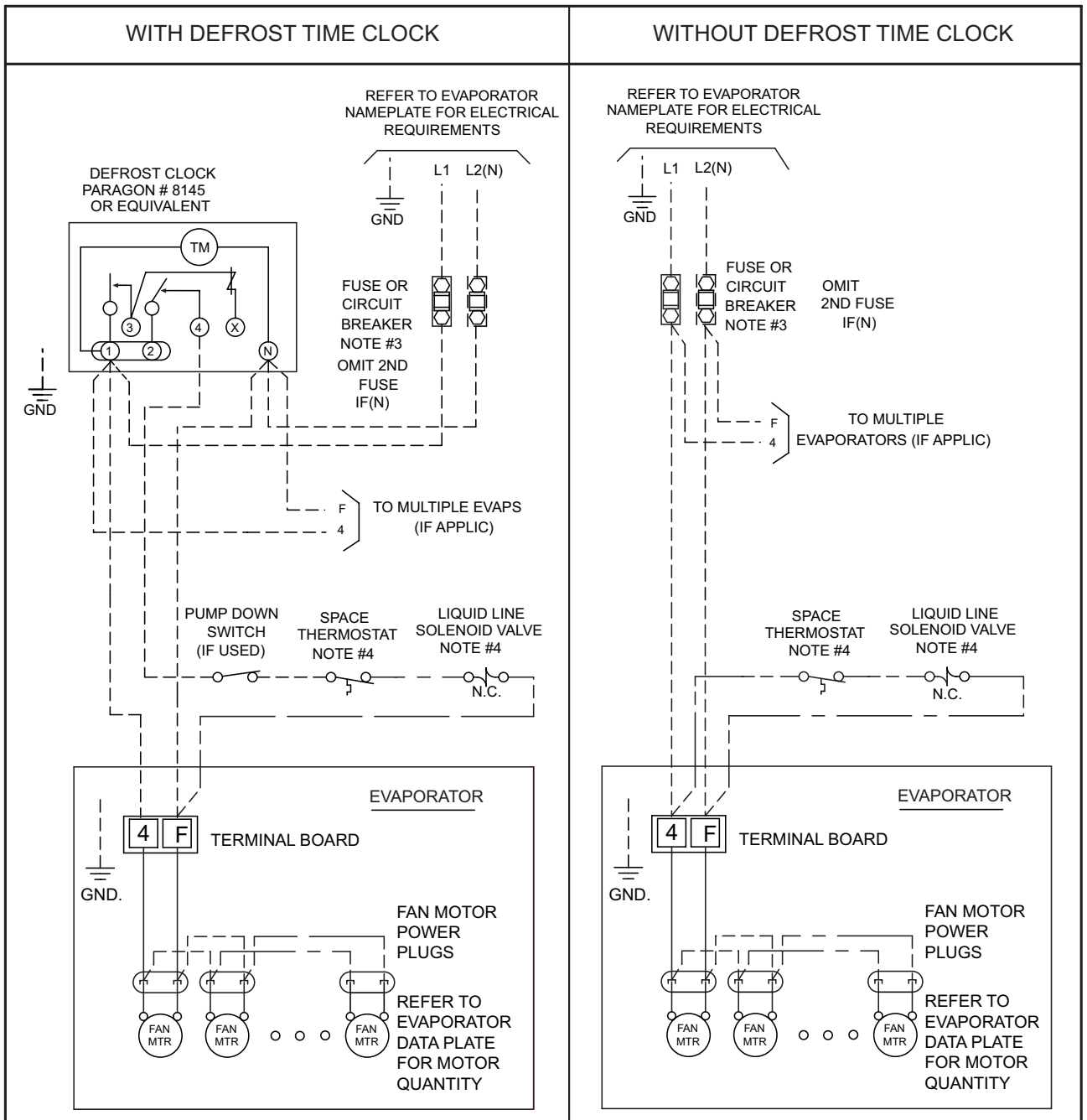
WITH DRAIN PAN HEATER MODELS

60Hz

MODEL	FPI	FAN MOTORS									DRAIN PAN HEATERS			
		QTY.	SHADED POLE MOTORS				PSC MOTORS				TOTAL WATTS	TOTAL AMPS	MCA (A)	MAX. FUSE (AMPS)
			HP	FLA TOTAL	MCA (A)	MAX. FUSE (AMPS)	HP	FLA TOTAL	MCA (A)	MAX. FUSE (AMPS)				
209M^-S4A	6	2	N/A	N/A	N/A	N/A	1/15	0.8	0.9	15	410	0.9	1.1	15
211M^-S4A		2	N/A	N/A	N/A	N/A	1/15	0.8	0.9	15	410	0.9	1.1	15
214M^-S4A		2	N/A	N/A	N/A	N/A	1/15	0.8	0.9	15	410	0.9	1.1	15
317M^-S4A		3	N/A	N/A	N/A	N/A	1/15	1.2	1.3	15	560	1.2	1.5	15
320M^-S4A		3	N/A	N/A	N/A	N/A	1/15	1.2	1.3	15	560	1.2	1.5	15
423M^-S4A		4	N/A	N/A	N/A	N/A	1/15	1.6	1.7	15	720	1.6	2.0	15
426M^-S4A		4	N/A	N/A	N/A	N/A	1/15	1.6	1.7	15	720	1.6	2.0	15
532M^-S4A		5	N/A	N/A	N/A	N/A	1/15	2.0	2.1	15	880	1.9	2.4	15
639M^-S4A		6	N/A	N/A	N/A	N/A	1/15	2.4	2.5	15	1030	2.2	2.8	15
207L^-S4A	6	2	N/A	N/A	N/A	N/A	1/15	0.8	0.9	15	410	0.9	1.1	15
209L^-S4A		2	N/A	N/A	N/A	N/A	1/15	0.8	0.9	15	410	0.9	1.1	15
211L^-S4A		2	N/A	N/A	N/A	N/A	1/15	0.8	0.9	15	410	0.9	1.1	15
314L^-S4A		3	N/A	N/A	N/A	N/A	1/15	1.2	1.3	15	560	1.2	1.5	15
317L^-S4A		3	N/A	N/A	N/A	N/A	1/15	1.2	1.3	15	560	1.2	1.5	15
419L^-S4A		4	N/A	N/A	N/A	N/A	1/15	1.6	1.7	15	720	1.6	2.0	15
422L^-S4A		4	N/A	N/A	N/A	N/A	1/15	1.6	1.7	15	720	1.6	2.0	15
527L^-S4A		5	N/A	N/A	N/A	N/A	1/15	2.0	2.1	15	880	1.9	2.4	15
631L^-S4A		6	N/A	N/A	N/A	N/A	1/15	2.4	2.5	15	1030	2.2	2.8	15
206V^-S4A	4	2	N/A	N/A	N/A	N/A	1/15	0.8	0.9	15	410	0.9	1.1	15
208V^-S4A		2	N/A	N/A	N/A	N/A	1/15	0.8	0.9	15	410	0.9	1.1	15
209V^-S4A		2	N/A	N/A	N/A	N/A	1/15	0.8	0.9	15	410	0.9	1.1	15
312V^-S4A		3	N/A	N/A	N/A	N/A	1/15	1.2	1.3	15	560	1.2	1.5	15
315V^-S4A		3	N/A	N/A	N/A	N/A	1/15	1.2	1.3	15	560	1.2	1.5	15
416V^-S4A		4	N/A	N/A	N/A	N/A	1/15	1.6	1.7	15	720	1.6	2.0	15
419V^-S4A		4	N/A	N/A	N/A	N/A	1/15	1.6	1.7	15	720	1.6	2.0	15
523V^-S4A		5	N/A	N/A	N/A	N/A	1/15	2.0	2.1	15	880	1.9	2.4	15
627V^-S4A		6	N/A	N/A	N/A	N/A	1/15	2.4	2.5	15	1030	2.2	2.8	15

^ = T or G. Refer to Nomenclature for details

WIRING DIAGRAM - 115/1/60, 208-230/1/60
AIR DEFROST MODELS



NOTES

1). USE COPPER CONDUCTORS ONLY

2). USE 75°C WIRE (OR HIGHER)

3). OVERCURRENT PROTECTION FOR EVAPORATOR FAN MOTORS AND DEFROST HEATERS MUST NOT EXCEED MAXIMUM VALUE SHOWN ON EVAPORATOR NAMEPLATE.

4). MAY BE FACTORY INSTALLED-MOUNTED AND WIRED ON EVAPORATOR .

1-LP AIR 09/06

TERMINALS

O -COMPONENT TERMINAL

☐ -TERMINAL BLOCK TERMINAL

CONDUCTORS/WIRING

——————— FACTORY WIRING

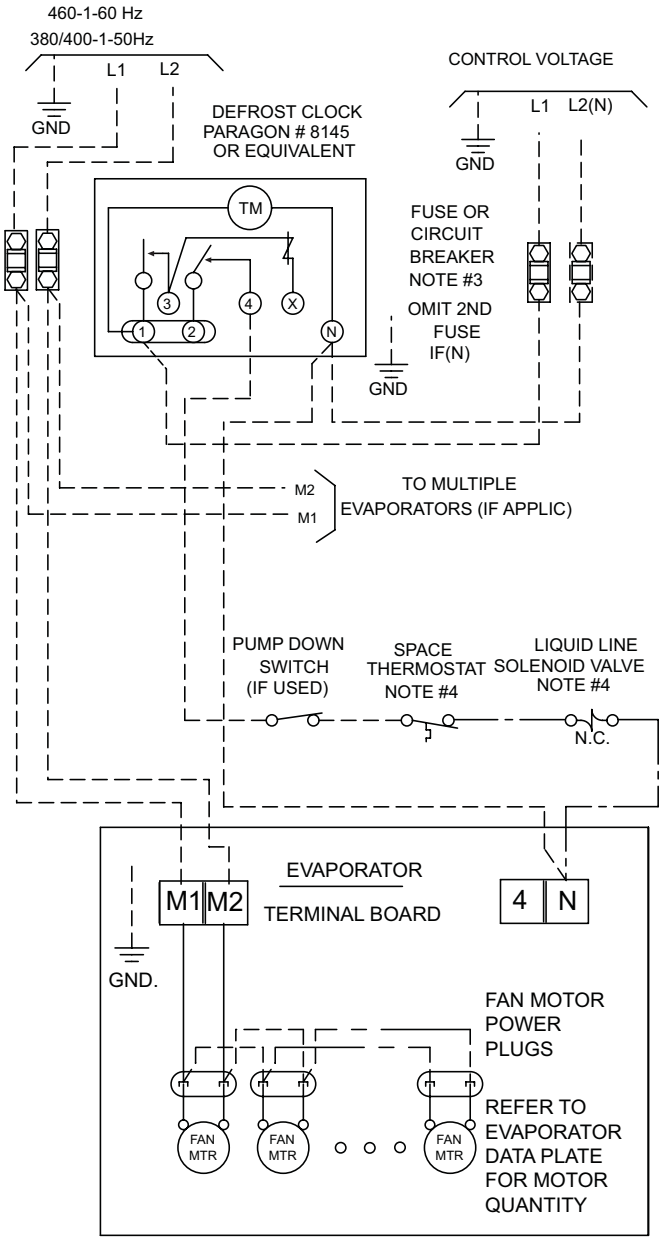
– – – – – – – – – WIRING BY OTHERS

——— – ——— OPTIONAL FACTORY OR BY OTHERS

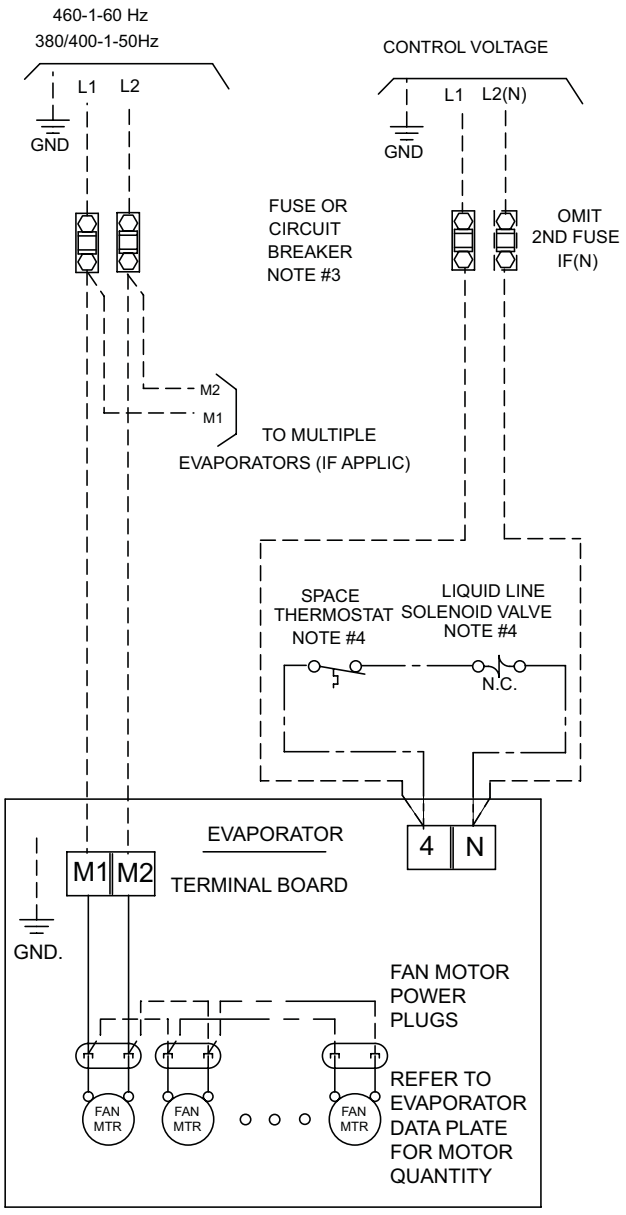
ALL FIELD WIRING MUST BE DONE IN COMPLIANCE WITH ALL APPLICABLE LOCAL AND NATIONAL CODES.

WIRING DIAGRAM - 460/1/60
AIR DEFROST MODELS

WITH DEFROST TIME CLOCK



WITHOUT DEFROST TIME CLOCK



NOTES

1). USE COPPER CONDUCTORS ONLY

2). USE 75°C WIRE (OR HIGHER)

3). OVERCURRENT PROTECTION FOR EVAPORATOR FAN MOTORS AND DEFROST HEATERS MUST NOT EXCEED MAXIMUM VALUE SHOWN ON EVAPORATOR NAMEPLATE.

4). MAY BE FACTORY INSTALLED-MOUNTED AND WIRED ON EVAPORATOR .

6-LP 460 AIR 09/06

TERMINALS

O -COMPONENT TERMINAL

□ -TERMINAL BLOCK TERMINAL

CONDUCTORS/WIRING

——————— FACTORY WIRING

– – – – – – – – – WIRING BY OTHERS

——— – ——— OPTIONAL FACTORY OR BY OTHERS

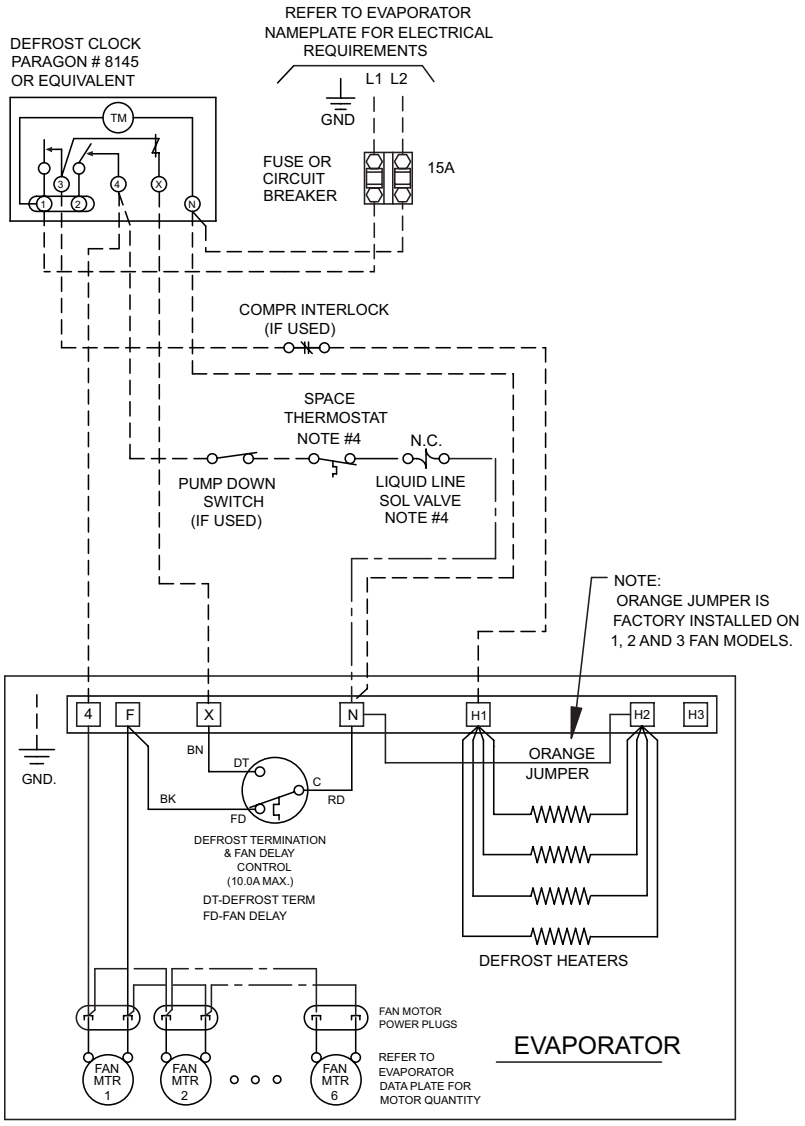
ALL FIELD WIRING MUST BE DONE IN COMPLIANCE WITH ALL APPLICABLE LOCAL AND NATIONAL CODES.

WIRING DIAGRAM - 208-230/1/60

ELECTRIC DEFROST MODELS

SINGLE EVAPORATOR 12A MAX. HEATERS

FOR ALL MODELS WITHOUT DEFROST HEATER CONTACTOR
USING MAXIMUM 15A HEATER OVERCURRENT PROTECTION



NOTES

1). USE COPPER CONDUCTORS ONLY

2). USE 75°C WIRE (OR HIGHER)

3). OVERCURRENT PROTECTION FOR EVAPORATOR FAN MOTORS AND DEFROST HEATERS MUST NOT EXCEED MAXIMUM VALUE SHOWN ON EVAPORATOR NAMEPLATE.

4.) MAY BE FACTORY INSTALLED-MOUNTED AND WIRED ON EVAPORATOR

TERMINALS

O -COMPONENT TERMINAL

☐ -TERMINAL BLOCK TERMINAL

CONDUCTORS/WIRING

——————— FACTORY WIRING

– – – – – – – – WIRING BY OTHERS

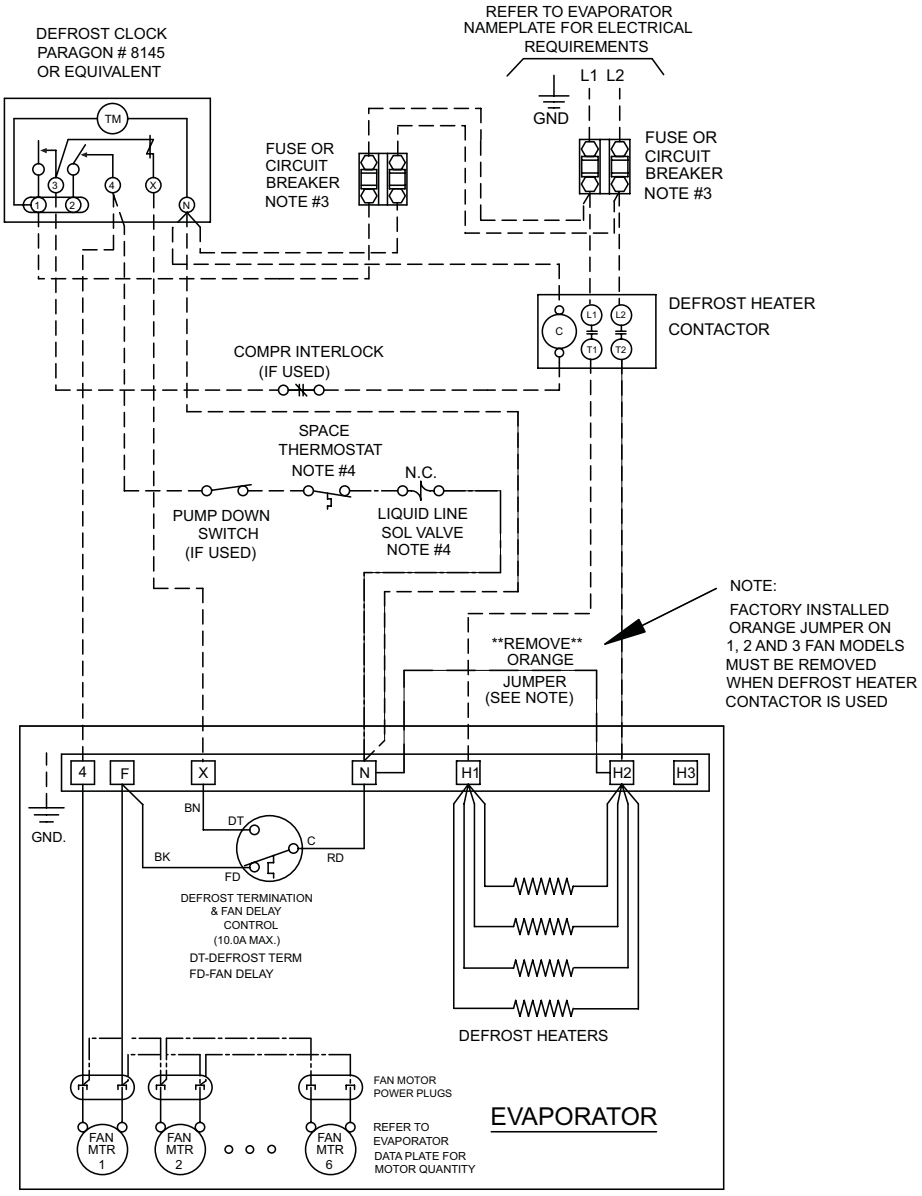
– —— – —— – —— OPTIONAL FACTORY OR BY OTHERS

ALL FIELD WIRING MUST BE DONE IN COMPLIANCE WITH ALL APPLICABLE LOCAL AND NATIONAL CODES.

2-LP ED 06/06 (B)

WIRING DIAGRAM - 208-230/1/60
ELECTRIC DEFROST MODELS
SINGLE EVAPORATOR

FOR ALL MODELS USING DEFROST HEATER CONTACTOR



NOTES

1). USE COPPER CONDUCTORS ONLY

2). USE 75°C WIRE (OR HIGHER)

3). OVERCURRENT PROTECTION FOR EVAPORATOR FAN MOTORS AND DEFROST HEATERS MUST NOT EXCEED MAXIMUM VALUE SHOWN ON EVAPORATOR NAMEPLATE.

4.) MAY BE FACTORY INSTALLED-MOUNTED AND WIRED ON EVAPORATOR

3-LP ED CONTACTOR SINGLE 06/06 (B)

TERMINALS

○ -COMPONENT TERMINAL

□ -TERMINAL BLOCK TERMINAL

CONDUCTORS/WIRING

——————— FACTORY WIRING

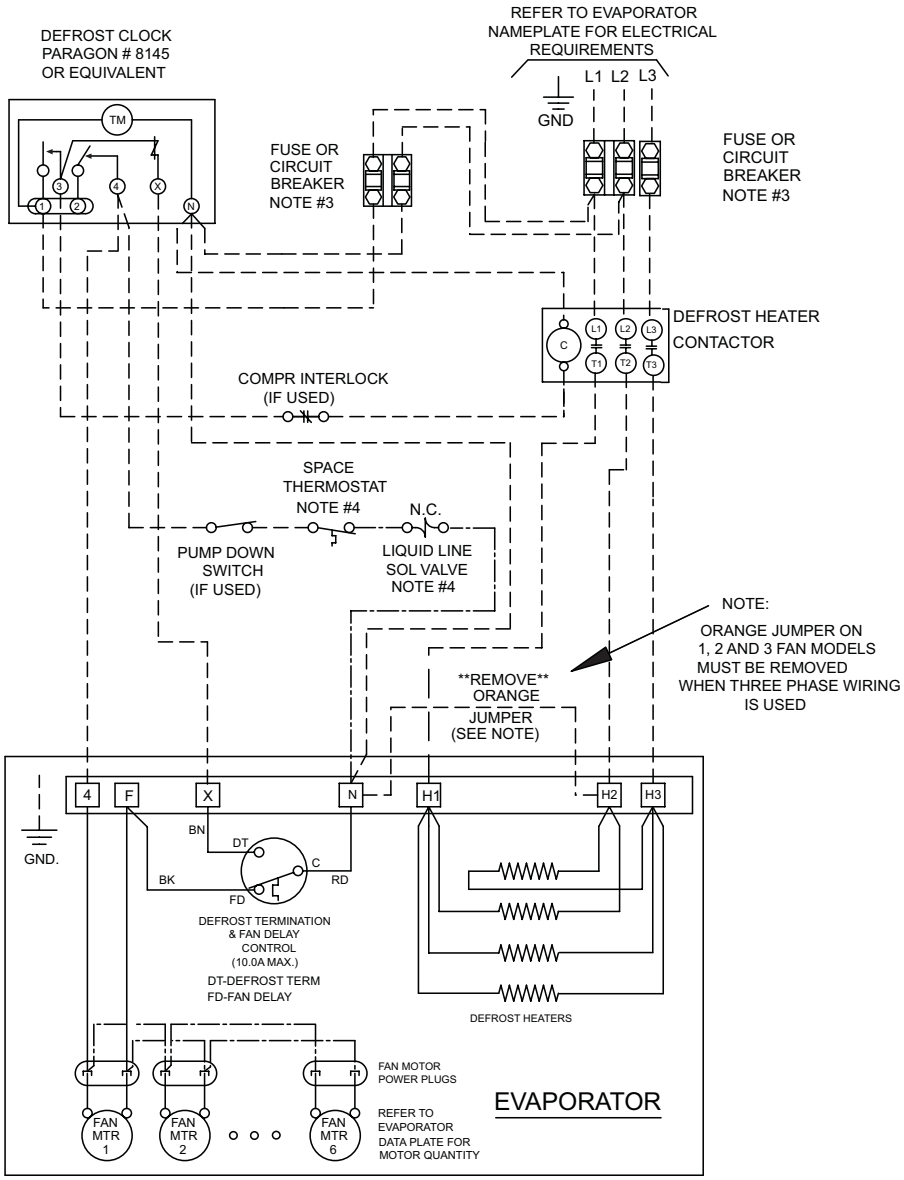
– – – – – – – – – WIRING BY OTHERS

– —— – —— – —— OPTIONAL FACTORY OR BY OTHERS

ALL FIELD WIRING MUST BE DONE IN COMPLIANCE WITH ALL APPLICABLE LOCAL AND NATIONAL CODES.

WIRING DIAGRAM - 208-230/3/60
ELECTRIC DEFROST MODELS
SINGLE EVAPORATOR

FOR ALL MODELS USING 3 PHASE DEFROST HEATER CONTACTOR



NOTES

1). USE COPPER CONDUCTORS ONLY

2). USE 75°C WIRE (OR HIGHER)

3). OVERCURRENT PROTECTION FOR EVAPORATOR FAN MOTORS AND DEFROST HEATERS MUST NOT EXCEED MAXIMUM VALUE SHOWN ON EVAPORATOR NAMEPLATE.

4.) MAY BE FACTORY INSTALLED-MOUNTED AND WIRED ON EVAPORATOR

TERMINALS

O -COMPONENT TERMINAL

☐ -TERMINAL BLOCK TERMINAL

CONDUCTORS/WIRING

——————— FACTORY WIRING

– – – – – – – – WIRING BY OTHERS

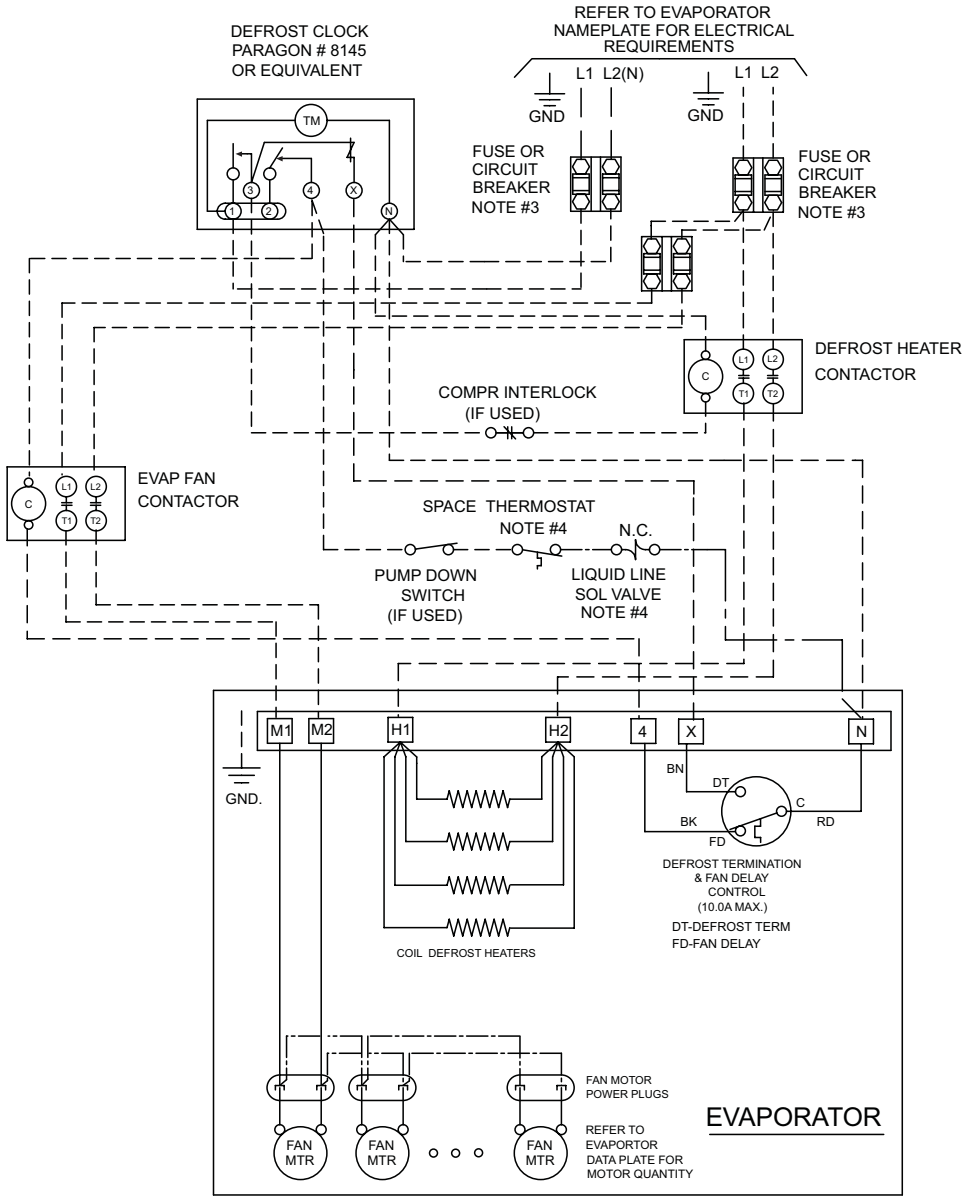
-·—·—·—·—·— OPTIONAL FACTORY OR BY OTHERS

ALL FIELD WIRING MUST BE DONE IN COMPLIANCE WITH ALL APPLICABLE LOCAL AND NATIONAL CODES.

3A-LP ED 3ph.CONTACTOR SINGLE 09/06

WIRING DIAGRAM - 460/1/60
ELECTRIC DEFROST MODELS
SINGLE EVAPORATOR

FOR ALL 460V MODELS USING DEFROST HEATER AND FAN CONTACTORS



NOTES

1). USE COPPER CONDUCTORS ONLY

2). USE 75°C WIRE (OR HIGHER)

3). OVERCURRENT PROTECTION FOR EVAPORATOR FAN MOTORS AND DEFROST HEATERS MUST NOT EXCEED MAXIMUM VALUE SHOWN ON EVAPORATOR NAMEPLATE.

4.) MAY BE FACTORY INSTALLED-MOUNTED AND WIRED ON EVAPORATOR

7-LP ED CONTACTOR SINGLE 09/06

TERMINALS

○ -COMPONENT TERMINAL

□ -TERMINAL BLOCK TERMINAL

CONDUCTORS/WIRING

——————— FACTORY WIRING

– – – – – – – – – WIRING BY OTHERS

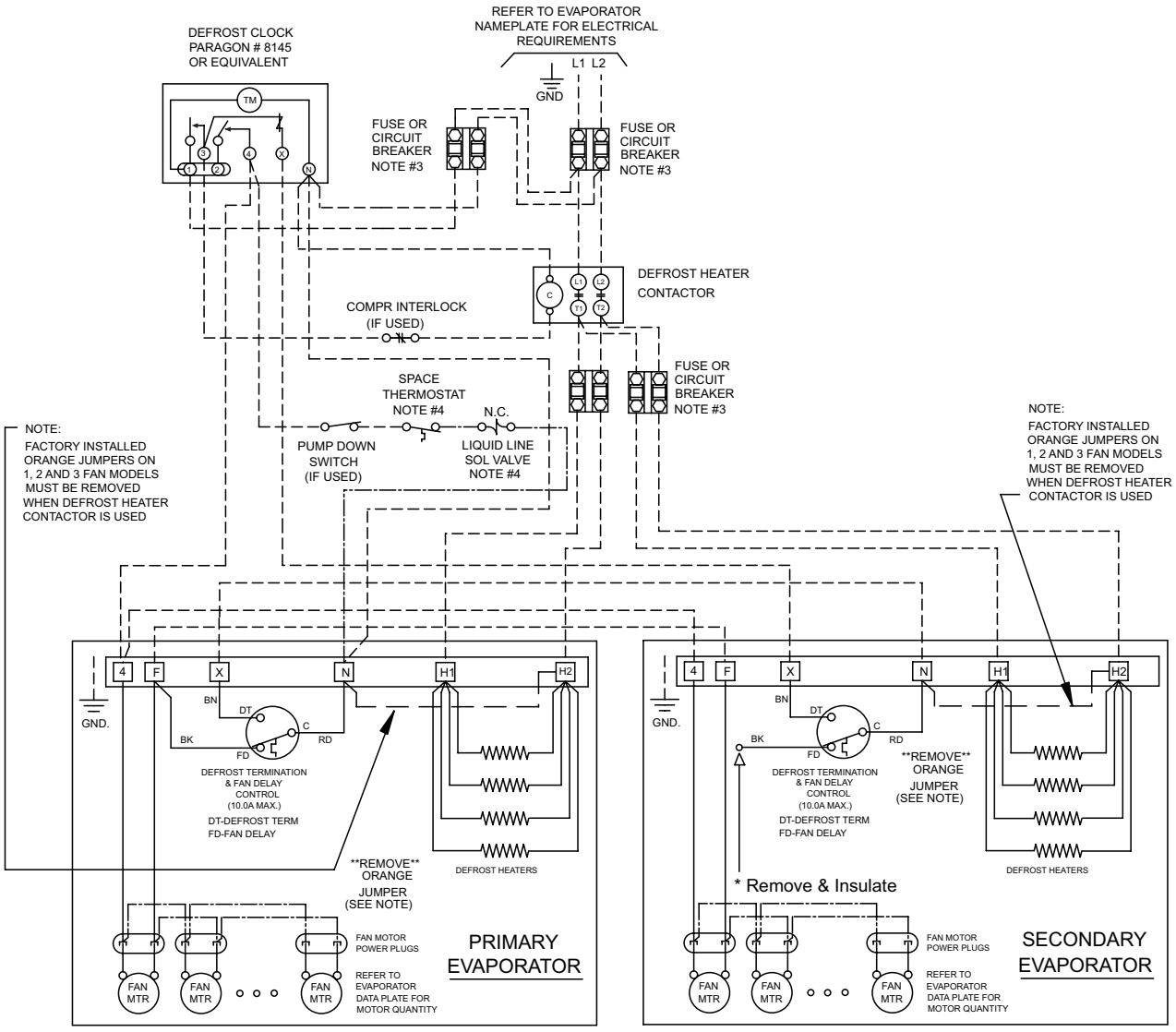
-·—·—·—·—·— OPTIONAL FACTORY OR BY OTHERS

ALL FIELD WIRING MUST BE DONE IN COMPLIANCE WITH ALL APPLICABLE LOCAL AND NATIONAL CODES.

WIRING DIAGRAM - 208-230/1/60

ELECTRIC DEFROST MODELS
MULTIPLE EVAPORATORS

FOR ALL MODELS USING DEFROST HEATER CONTACTOR



* Fan delay not used on second evap / use fan contactor if total fan amps exceeds 10A

NOTES

1). USE COPPER CONDUCTORS ONLY

2). USE 75°C WIRE (OR HIGHER)

3). OVERCURRENT PROTECTION FOR EVAPORATOR FAN MOTORS AND DEFROST HEATERS MUST NOT EXCEED MAXIMUM VALUE SHOWN ON EVAPORATOR NAMEPLATE.

4.) MAY BE FACTORY INSTALLED-MOUNTED AND WIRED ON EVAPORATOR

4-LP ED CONTACTOR MULTI 09/06

TERMINALS

○ -COMPONENT TERMINAL

□ -TERMINAL BLOCK TERMINAL

CONDUCTORS/WIRING

———— FACTORY WIRING

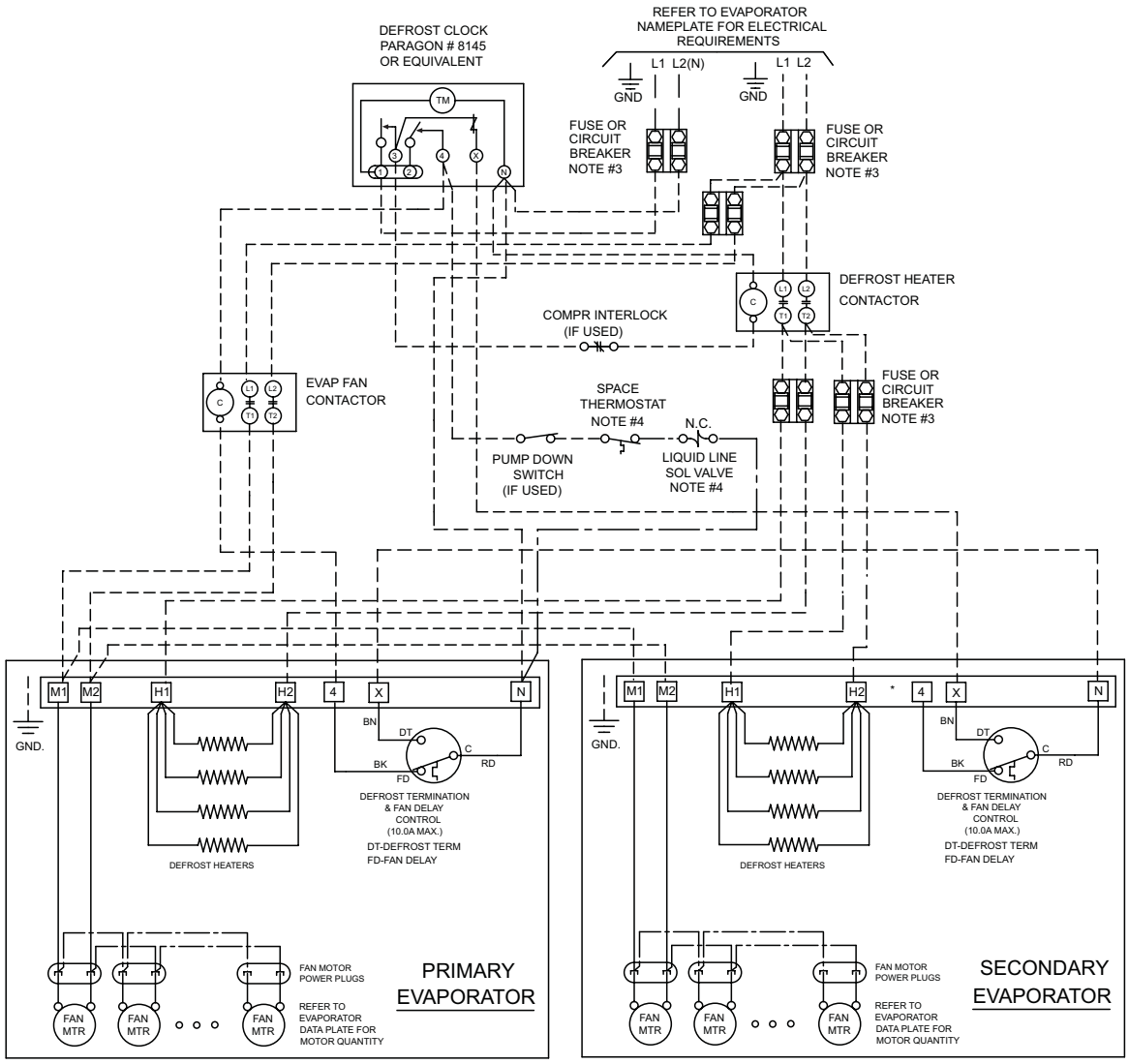
– – – – – – – – – – – WIRING BY OTHERS

—·—·—·—·—·— OPTIONAL FACTORY OR BY OTHERS

ALL FIELD WIRING MUST BE DONE IN COMPLIANCE WITH ALL APPLICABLE LOCAL AND NATIONAL CODES.

WIRING DIAGRAM - 460/1/60
ELECTRIC DEFROST MODELS
MULTIPLE EVAPORATORS

FOR ALL 460V MODELS USING DEFROST HEATER AND FAN CONTACTORS



* Note: Fan Delay not used on second evap

NOTES

1). USE COPPER CONDUCTORS ONLY

2). USE 75°C WIRE (OR HIGHER)

3). OVERCURRENT PROTECTION FOR EVAPORATOR FAN MOTORS AND DEFROST HEATERS MUST NOT EXCEED MAXIMUM VALUE SHOWN ON EVAPORATOR NAMEPLATE.

4.) MAY BE FACTORY INSTALLED-MOUNTED AND WIRED ON EVAPORATOR

TERMINALS

○ -COMPONENT TERMINAL

□ -TERMINAL BLOCK TERMINAL

CONDUCTORS/WIRING

———— FACTORY WIRING

– – – – – – – – – – – – WIRING BY OTHERS

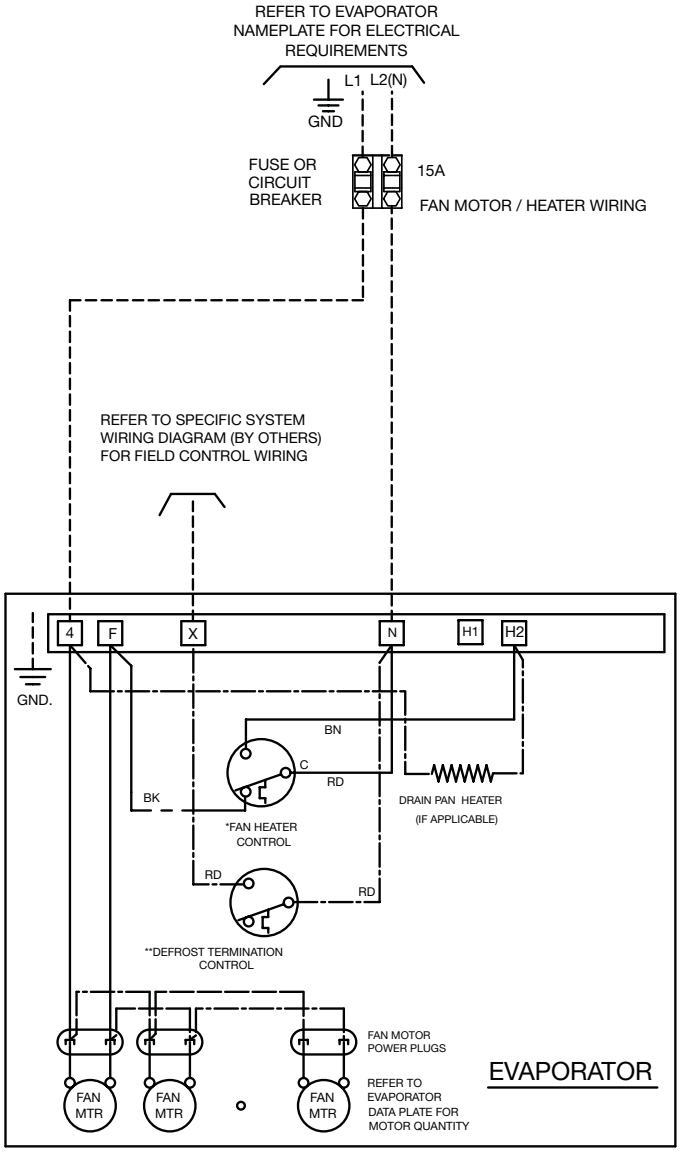
—·—·—·—·— OPTIONAL FACTORY OR BY OTHERS

ALL FIELD WIRING MUST BE DONE IN COMPLIANCE WITH ALL APPLICABLE LOCAL AND NATIONAL CODES.

8-LP 460v ED CONTACTOR MULTI 09/06

WIRING DIAGRAM - 115/1/60, 208-230/1/60
HOT GAS DEFROST MODELS

USING MAXIMUM 15A HEATER OVERCURRENT PROTECTION



*FAN HEATER
CONTROL
ON REVERSE CYCLE LOCATED AT SUCTION LINE.
ON THREE-PIPE LOCATED AT DISTRIBUTOR SIDE PORT.
NOTE: DURING THE HOT GAS DEFROST CYCLE
THE FAN/HEATER CONTROL DE-ENERGIZES THE
EVAPORATOR FANS AND ENERGIZES THE
DRAIN PAN HEATER.
(ANYTIME THE TEMPERATURE OF THE INCOMING
REFRIGERANT GAS IS ABOVE 50° F).

**DEFROST TERMINATION
CONTROL
OPTIONAL FACTORY WIRED OR BY OTHERS
LOCATED ON TUBE END SHEET
THE CONTROL CLOSES WHEN REACHES 55` F (20 F DIFF)

NOTES

1). USE COPPER CONDUCTORS ONLY

2). USE 75°C WIRE (OR HIGHER)

3). OVERCURRENT PROTECTION FOR EVAPORATOR FAN MOTORS AND DEFROST HEATERS MUST NOT EXCEED MAXIMUM VALUE SHOWN ON EVAPORATOR NAMEPLATE.

4.) MAY BE FACTORY INSTALLED-MOUNTED AND WIRED ON EVAPORATOR

TERMINALS

○ -COMPONENT TERMINAL

□ -TERMINAL BLOCK TERMINAL

CONDUCTORS/WIRING

——————— FACTORY WIRING

- - - - - - - - - - - - WIRING BY OTHERS

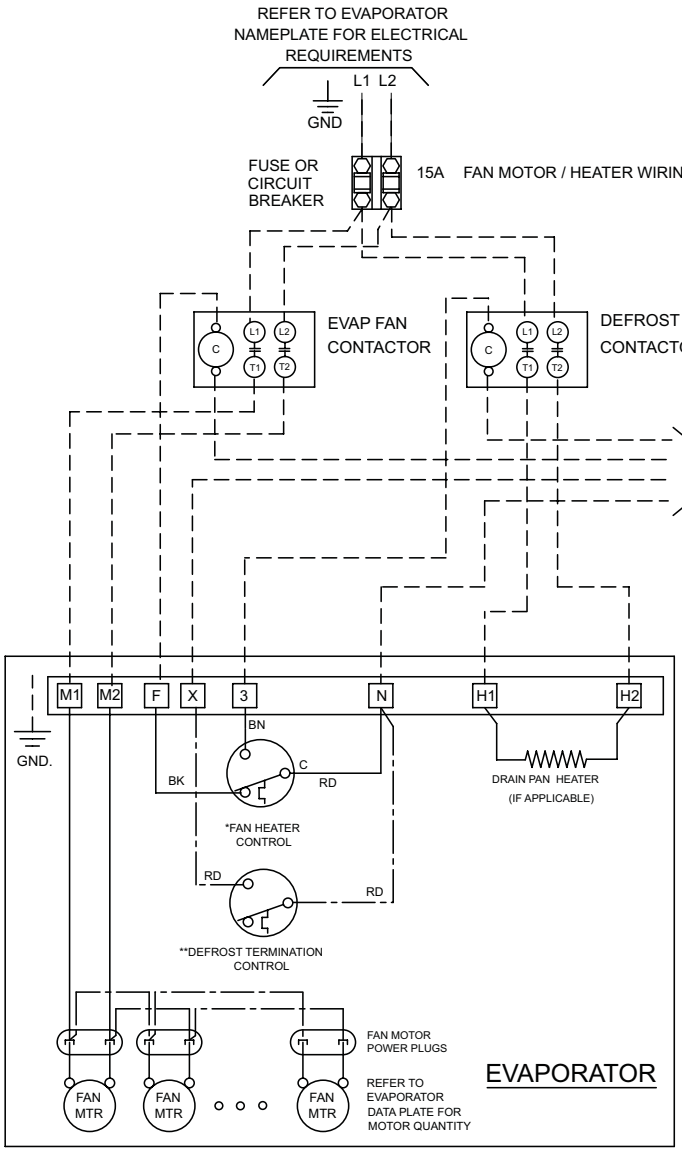
- — ——————— OPTIONAL FACTORY OR BY OTHERS

ALL FIELD WIRING MUST BE DONE IN COMPLIANCE WITH ALL APPLICABLE LOCAL AND NATIONAL CODES.

5-LP HG 08/06

WIRING DIAGRAM - 460/1/60
HOT GAS DEFROST MODELS

USING MAXIMUM 15A HEATER OVERCURRENT PROTECTION



***FAN HEATER CONTROL**

ON REVERSE CYCLE LOCATED AT SUCTION LINE.
ON THREE-PIPE LOCATED AT DISTRIBUTOR SIDE PORT.
NOTE: DURING THE HOT GAS DEFROST CYCLE THE FAN/HEATER CONTROL DE-ENERGIZES THE EVAPORATOR FANS AND ENERGIZES THE DRAIN PAN HEATER.
(ANYTIME THE TEMPERATURE OF THE INCOMING REFRIGERANT GAS IS ABOVE 50° F).

****DEFROST TERMINATION CONTROL**

OPTIONAL FACTORY WIRED OR BY OTHERS
LOCATED ON TUBE END SHEET.
THE CONTROL CLOSES WHEN REACHES 55˚ F (20 F DIFF)

NOTES

1). USE COPPER CONDUCTORS ONLY

2). USE 90°C WIRE (OR HIGHER)

3). OVERCURRENT PROTECTION FOR EVAPORATOR FAN MOTORS AND DEFROST HEATERS MUST NOT EXCEED MAXIMUM VALUE SHOWN ON EVAPORATOR NAMEPLATE.

4.) MAY BE FACTORY INSTALLED-MOUNTED AND WIRED ON EVAPORATOR

TERMINALS

○ -COMPONENT TERMINAL

□ -TERMINAL BLOCK TERMINAL

CONDUCTORS/WIRING

——————— FACTORY WIRING

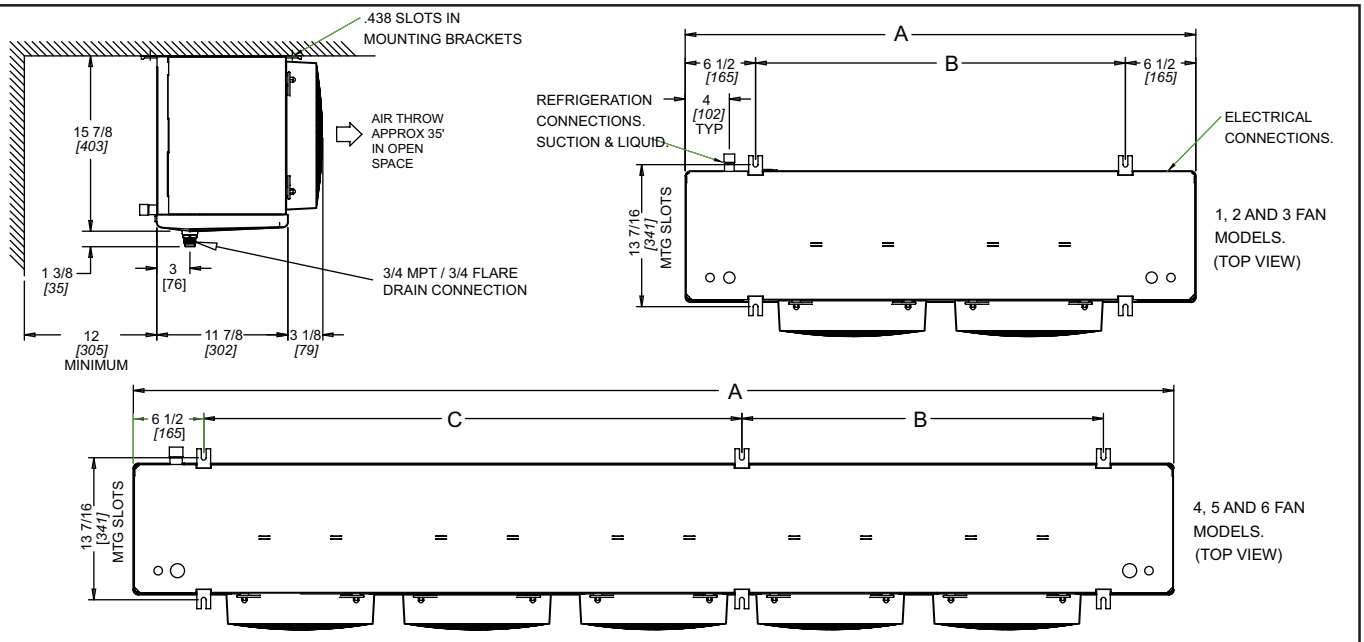
– – – – – – – – – WIRING BY OTHERS

·——·——·——·—— OPTIONAL FACTORY OR BY OTHERS

ALL FIELD WIRING MUST BE DONE IN COMPLIANCE WITH ALL APPLICABLE LOCAL AND NATIONAL CODES.

9-LP 460 HG 05/06

DIMENSIONAL DATA



MODEL	NO. OF FANS	A		B		C		SUCTION CONNECTION (ID) SWEAT	DISTRIBUTOR INLET SIZE	HOT GAS DISTRIBUTOR SIDE PORT	DRAIN PAN LOOP
		IN	*(mm)*	IN	*(mm)*	IN	*(mm)*				
104M^	1	30 1/4	*(768)*	17 1/4	*(438)*	N/A	*N/A*	5/8	1/2	1/2	N/A
106M^	1	30 1/4	*(768)*	17 1/4	*(438)*	N/A	*N/A*	5/8	1/2	1/2	N/A
107M^	1	30 1/4	*(768)*	17 1/4	*(438)*	N/A	*N/A*	5/8	1/2	1/2	N/A
209M#	2	46 1/4	*(1175)*	33 1/4	*(845)*	N/A	*N/A*	7/8	1/2	1/2	5/8
211M#	2	46 1/4	*(1175)*	33 1/4	*(845)*	N/A	*N/A*	7/8	1/2	1/2	5/8
214M#	2	46 1/4	*(1175)*	33 1/4	*(845)*	N/A	*N/A*	7/8	1/2	1/2	5/8
317M#	3	62 1/4	*(1581)*	49 1/4	*(1251)*	N/A	*N/A*	7/8	1/2	1/2	7/8
320M#	3	62 1/4	*(1581)*	49 1/4	*(1251)*	N/A	*N/A*	7/8	1/2	1/2	7/8
423M#	4	78 1/4	*(1988)*	32 5/8	*(829)*	32 5/8	*(829)*	1 1/8	1/2	1/2	7/8
426M#	4	78 1/4	*(1988)*	32 5/8	*(829)*	32 5/8	*(829)*	1 1/8	1/2	1/2	7/8
532M#	5	94 1/4	*(2394)*	32 5/8	*(829)*	48 5/8	*(1235)*	1 3/8	1/2	1/2	1 1/8
639M#	6	110 1/4	*(2800)*	48 5/8	*(1235)*	48 5/8	*(1235)*	1 3/8	7/8	5/8	1 1/8
104L^	1	30 1/4	*(768)*	17 1/4	*(438)*	N/A	*N/A*	5/8	1/2	1/2	N/A
105L^	1	30 1/4	*(768)*	17 1/4	*(438)*	N/A	*N/A*	5/8	1/2	1/2	N/A
106L^	1	30 1/4	*(768)*	17 1/4	*(438)*	N/A	*N/A*	5/8	1/2	1/2	N/A
207L#	2	46 1/4	*(1175)*	33 1/4	*(845)*	N/A	*N/A*	7/8	1/2	1/2	5/8
209L#	2	46 1/4	*(1175)*	33 1/4	*(845)*	N/A	*N/A*	7/8	1/2	1/2	5/8
211L#	2	46 1/4	*(1175)*	33 1/4	*(845)*	N/A	*N/A*	7/8	1/2	1/2	5/8
314L#	3	62 1/4	*(1581)*	49 1/4	*(1251)*	N/A	*N/A*	7/8	1/2	1/2	7/8
317L#	3	62 1/4	*(1581)*	49 1/4	*(1251)*	N/A	*N/A*	1 1/8	1/2	1/2	7/8
419L#	4	78 1/4	*(1988)*	32 5/8	*(829)*	32 5/8	*(829)*	1 1/8	1/2	1/2	7/8
422L#	4	78 1/4	*(1988)*	32 5/8	*(829)*	32 5/8	*(829)*	1 1/8	7/8	5/8	7/8
527L#	5	94 1/4	*(2394)*	32 5/8	*(829)*	48 5/8	*(1235)*	1 3/8	7/8	5/8	1 1/8
631L#	6	110 1/4	*(2800)*	48 5/8	*(1235)*	48 5/8	*(1235)*	1 3/8	7/8	5/8	1 1/8
103V^	1	30 1/4	*(768)*	17 1/4	*(438)*	N/A	*N/A*	5/8	1/2	1/2	N/A
104V^	1	30 1/4	*(768)*	17 1/4	*(438)*	N/A	*N/A*	5/8	1/2	1/2	N/A
105V^	1	30 1/4	*(768)*	17 1/4	*(438)*	N/A	*N/A*	5/8	1/2	1/2	N/A
206V#	2	46 1/4	*(1175)*	33 1/4	*(845)*	N/A	*N/A*	7/8	1/2	1/2	5/8
208V#	2	46 1/4	*(1175)*	33 1/4	*(845)*	N/A	*N/A*	7/8	1/2	1/2	5/8
209V#	2	46 1/4	*(1175)*	33 1/4	*(845)*	N/A	*N/A*	7/8	1/2	1/2	5/8
312V#	3	62 1/4	*(1581)*	49 1/4	*(1251)*	N/A	*N/A*	7/8	1/2	1/2	7/8
315V#	3	62 1/4	*(1581)*	49 1/4	*(1251)*	N/A	*N/A*	1 1/8	1/2	1/2	7/8
416V#	4	78 1/4	*(1988)*	32 5/8	*(829)*	32 5/8	*(829)*	1 1/8	1/2	1/2	7/8
419V#	4	78 1/4	*(1988)*	32 5/8	*(829)*	32 5/8	*(829)*	1 1/8	7/8	5/8	7/8
523V#	5	94 1/4	*(2394)*	32 5/8	*(829)*	48 5/8	*(1235)*	1 3/8	7/8	5/8	1 1/8
627V#	6	110 1/4	*(2800)*	48 5/8	*(1235)*	48 5/8	*(1235)*	1 3/8	7/8	5/8	1 1/8

 # = A, E, T, H, G, or R. ^ = A or E. T, H, G or R available in 2 to 6 fan models only Refer to Nomenclature for details

SHIPPING WEIGHTS

Air Defrost and Hot Gas Defrost with Drain Pan Heater Models

MODEL NUMBER								SHIPPING WEIGHT	
								LB.	*(kg)*
104MA	N/A	N/A	N/A	N/A	N/A	N/A	104WA	45	*(20)*
106MA	N/A	N/A	N/A	N/A	N/A	N/A	106WA	47	*(21)*
107MA	N/A	N/A	N/A	N/A	N/A	N/A	107WA	49	*(22)*
209MA	209MT	209MG	207LG	207LT	206VG	206VT	209WA	70	*(32)*
211MA	211MT	211MG	209LG	209LT	208VG	208VT	211WA	74	*(33)*
214MA	214MT	214MG	211LG	211LT	209VG	209VT	214WA	78	*(35)*
317MA	317MT	317MG	314LG	314LT	312VG	312VT	317WA	101	*(46)*
320MA	320MT	320MG	317LG	317LT	315VG	315VT	320WA	107	(48)
423MA	423MT	423MG	419LG	419LT	416VG	416VT	423WA	117	*(53)*
426MA	426MT	426MG	422LG	422LT	419VG	419VT	426WA	135	*(61)*
532MA	532MT	532MG	527LG	527LT	523VG	523VT	532WA	163	*(74)*
639MA	639MT	639MG	631LG	631LT	627VG	627VT	639WA	192	*(87)*

Electric Defrost Models

MODEL NUMBER				SHIPPING WEIGHT	
				LB.	*(kg)*
104ME	104LE	103VE	104WE	49	*(22)*
106ME	105LE	104VE	106WE	51	*(23)*
107ME	106LE	105VE	107WE	53	*(24)*
209ME	207LE	206VE	209WE	76	*(34)*
211ME	209LE	208VE	211WE	80	*(36)*
214ME	211LE	209VE	214WE	84	*(38)*
317ME	314LE	312VE	317WE	109	*(49)*
320ME	317LE	315VE	320WE	115	(52)
423ME	419LE	416VE	423WE	127	*(58)*
426ME	422LE	419VE	426WE	145	*(66)*
532ME	527LE	523VE	532WE	176	*(80)*
639ME	631LE	627VE	639WE	207	*(94)*

Hot Gas Defrost with Drain Pan Loop Models

MODEL NUMBER						SHIPPING WEIGHT	
						LB.	*(kg)*
209MH	209MR	207LH	207LR	206VH	206VR	87	*(39)*
211MH	211MR	209LH	209LR	208VH	208VR	91	*(41)*
214MH	214MR	211LH	211LR	209VH	209VR	95	*(43)*
317MH	317MR	314LH	314LR	312VH	312VR	124	*(56)*
320MH	320MR	317LH	317LR	315VH	315VR	130	(59)
423MH	423MR	419LH	419LR	416VH	416VR	145	*(66)*
426MH	426MR	422LH	422LR	419VH	419VR	163	*(74)*
532MH	532MR	527LH	527LR	523VH	523VR	198	*(90)*
639MH	639MR	631LH	631LR	627VH	627VR	233	*(106)*

RECOMMENDED EXPANSION VALVE SELECTIONS
MEDIUM TEMPERATURE MODELS

DANFOSS

MODEL	FACTORY INSTALLED NOZZLE	R404A / R507	R22	R134a
104M	N/A	TUAE-R404A-4-N	TUAE-R22-3-N	TUAE-R134a-3-N
106M	L-1/2	TUAE-R404A-4-N	TUAE-R22-4-N	TUAE-R134a-4-N
107M	L-1/2	TUAE-R404A-5-N	TUAE-R22-4-N	TUAE-R134a-5-N
209M	L-3/4	TUAE-R404A-6-N	TUAE-R22-4-N	TUAE-R134a-6-N
211M	L-1	TUAE-R404A-6-N	TUAE-R22-5-N	TUAE-R134a-6-N
214M	L-1	TUAE-R404A-7-N	TUAE-R22-6-N	TUAE-R134a-7-N
317M	L-1 1/2	TUAE-R404A-8-N	TUAE-R22-7-N	TUAE-R134a-8-N
320M	L-1 1/2	TUAE-R404A-8-N	TUAE-R22-7-N	TUAE-R134a-8-N
423M	L-2	TUAE-R404A-8-N	TUAE-R22-8-N	TUAE-R134a-8-N
426M	L-2	TUAE-R404A-9-N	TUAE-R22-8-N	TUAE-R134a-9-N
532M	L-2 1/2	TCAE-R404A-TC1-N	TUAE-R22-8-N	TUAE-R134a-9-N
639M	G-3	TCAE-R404A-TC2-N	TUAE-R22-9-N	TCAE-R134a-TC2-N

SPORLAN*

MODEL	FACTORY INSTALLED NOZZLE	R404A / R507 *	R22	R134a
104M	N/A	EGSE-1/4-C	EGVE-1/3-C	EGJE-1/4-C
106M	L-1/2	EGSE-1/2-C	EGVE-1/2-C	EGJE-1/2-C
107M	L-1/2	EGSE-1/2-C	EGVE-3/4-C	EGJE-1/2-C
209M	L-3/4	EGSE-1-C	EGVE-3/4-C	EGJE-1-C
211M	L-1	EGSE-1-C	EGVE-1-C	EGJE-1-C
214M	L-1	EGSE-1-1/2-C	EGVE-1-1/2-C	EGJE-1-C
317M	L-1 1/2	EGSE-1-1/2-C	EGVE-1-1/2-C	EGJE-1-1/2-C
320M	L-1 1/2	EGSE-2-C	EGVE-1-1/2-C	EGJE-1-1/2-C
423M	L-2	EGSE-2-C	EGVE-2-C	EGJE-1-1/2-C
426M	L-2	EGSE-2-C	EGVE-2-C	EGJE-2-C
532M	L-2 1/2	SSE-3-C	EGVE-3-C	EGJE-2-1/2-C
639M	G-3	SSE-4-C	EGVE-3-C	EGJE-3-C

*** For R507, refrigerant code for Sporlan expansion valve will be "P" instead of "S" . i.e.: "EGSE" becomes "EGPE"**

ALCO

MODEL	FACTORY INSTALLED NOZZLE	R404A / R507	R22	R134a
104M	N/A	HFESC 1/4 SC	HFESC 1/2 HC	HFESC 1/2 MC
106M	L-1/2	HFESC 1/2 SC	HFESC 1/2 HC	HFESC 3/4 MC
107M	L-1/2	HFESC 1/2 SC	HFESC 1/2 HC	HFESC 3/4 MC
209M	L-3/4	HFESC 1 SC	HFESC 1 HC	HFESC 3/4 MC
211M	L-1	HFESC 1 SC	HFESC 1 HC	HFESC 1 MC
214M	L-1	HFESC 1-1/4 SC	HFESC 1-1/2 HC	HFESC 1 MC
317M	L-1 1/2	HFESC 1-1/2 SC	HFESC 1-1/2 HC	HFESC 1-1/2 MC
320M	L-1 1/2	HFESC 1-1/2 SC	HFESC 2 HC	HFESC 1-3/4 MC
423M	L-2	HFESC 2 SC	HFESC 2 HC	HFESC 1-3/4 MC
426M	L-2	HFESC 2 SC	HFESC 2-1/2 HC	HFESC 2-1/2 MC
532M	L-2 1/2	HFESC 3-1/2 SC	HFESC 2-1/2 HC	HFESC 2-1/2 MC
639M	G-3	HFESC 3-1/2 SC	HFESC 3 HC	HFESC 4 MC

If correct nozzle is not available, the proper orifice size can be drilled in the field using the following chart

NOZZLE ORIFICE No.	DRILL SIZE IN.
1/2	.070
3/4	.086
1	.0995
1-1/2	.120
2	.1406
2-1/2	.157
3	.172
4	.199
5	.211
6	.242
8	.266
10	.281

Above selections based on:

1) 100°F *(38°C)* vapor free liquid entering expansion valve
2) 110°F *(43°C)* Condensing temperature
3) 8 -12°F *(4.4 -6.7°C)* evaporator TD

RECOMMENDED EXPANSION VALVE SELECTIONS
LOW TEMPERATURE R404A/R507 MODELS

DANFOSS

MODEL	FACTORY INSTALLED NOZZLE	0° F *(-18° C)* EVAP.	-10° F *(-23° C)* EVAP.	-20° F *(-29° C)* EVAP.	-30° F *(-34° C)* EVAP.	-40° F *(-40° C)* EVAP.
104L	L-1/2	TUAE-R404A-4-N	TUAE-R404A-5-NM	TUAE-R404A-5-NM	TUAE-R404A-6-NM	TUAE-R404A-6-NM
105L	L-3/4	TUAE-R404A-5-N	TUAE-R404A-6-NM	TUAE-R404A-6-NM	TUAE-R404A-6-NM	TUAE-R404A-6-NM
106L	L-1	TUAE-R404A-6-N	TUAE-R404A-6-NM	TUAE-R404A-6-NM	TUAE-R404A-7-NM	TUAE-R404A-7-NM
207L	L-1	TUAE-R404A-6-N	TUAE-R404A-7-NM	TUAE-R404A-7-NM	TUAE-R404A-7-NM	TUAE-R404A-8-NM
209L	1-1/2	TUAE-R404A-7-N	TUAE-R404A-7-NM	TUAE-R404A-8-NM	TUAE-R404A-8-NM	TUAE-R404A-8-NM
211L	L-2	TUAE-R404A-7-N	TUAE-R404A-8-NM	TUAE-R404A-8-NM	TUAE-R404A-8-NM	TUAE-R404A-9-NM
314L	L-2	TUAE-R404A-8-N	TUAE-R404A-8-NM	TUAE-R404A-9-NM	TUAE-R404A-9-NM	TUAE-R404A-9-NM
317L	L-3	TUAE-R404A-9-N	TUAE-R404A-9-NM	TUAE-R404A-9-NM	TCAE-R404A-TC1-NM	TCAE-R404A-TC1-NM
419L	L-3	TUAE-R404A-9-N	TUAE-R404A-9-NM	TCAE-R404A-TC1-NM	TCAE-R404A-TC1-NM	TCAE-R404A-TC1-NM
422L	G-4	TUAE-R404A-9-N	TCAE-R404A-TC1-NM	TCAE-R404A-TC1-NM	TCAE-R404A-TC1-NM	TCAE-R404A-TC2-NM
527L	G-4	TCAE-R404A-TC1-N	TCAE-R404A-TC2-NM	TCAE-R404A-TC2-NM	TCAE-R404A-TC2-NM	TCAE-R404A-TC3-NM
631L	G-5	TCAE-R404A-TC2-N	TCAE-R404A-TC2-NM	TCAE-R404A-TC3-NM	TCAE-R404A-TC3-NM	TCAE-R404A-TC3-NM
103V	L-1/2	TUAE-R404A-4-N	TUAE-R404A-4-NM	TUAE-R404A-4-NM	TUAE-R404A-5-NM	TUAE-R404A-5-NM
104V	L-3/4	TUAE-R404A-5-N	TUAE-R404A-5-NM	TUAE-R404A-5-NM	TUAE-R404A-6-NM	TUAE-R404A-6-NM
105V	L-1	TUAE-R404A-5-N	TUAE-R404A-6-NM	TUAE-R404A-6-NM	TUAE-R404A-6-NM	TUAE-R404A-7-NM
206V	L-1	TUAE-R404A-6-N	TUAE-R404A-6-NM	TUAE-R404A-7-NM	TUAE-R404A-7-NM	TUAE-R404A-7-NM
208V	L-1 1/2	TUAE-R404A-6-N	TUAE-R404A-7-NM	TUAE-R404A-7-NM	TUAE-R404A-8-NM	TUAE-R404A-8-NM
209V	L-2	TUAE-R404A-7-N	TUAE-R404A-7-NM	TUAE-R404A-8-NM	TUAE-R404A-8-NM	TUAE-R404A-8-NM
312V	L-2	TUAE-R404A-8-N	TUAE-R404A-8-NM	TUAE-R404A-8-NM	TUAE-R404A-9-NM	TUAE-R404A-9-NM
315V	L-2 1/2	TUAE-R404A-8-N	TUAE-R404A-9-NM	TUAE-R404A-9-NM	TUAE-R404A-9-NM	TCAE-R404A-TC1-NM
416V	L-2 1/2	TUAE-R404A-8-N	TUAE-R404A-9-NM	TUAE-R404A-9-NM	TUAE-R404A-9-NM	TCAE-R404A-TC1-NM
419V	G-3	TUAE-R404A-9-N	TUAE-R404A-9-NM	TCAE-R404A-TC1-NM	TCAE-R404A-TC1-NM	TCAE-R404A-TC1-NM
523V	G-4	TUAE-R404A-9-N	TCAE-R404A-TC1-NM	TCAE-R404A-TC1-NM	TCAE-R404A-TC2-NM	TCAE-R404A-TC2-NM
627V	G-5	TCAE-R404A-TC1-N	TCAE-R404A-TC2-NM	TCAE-R404A-TC2-NM	TCAE-R404A-TC2-NM	TCAE-R404A-TC3-NM

SPORLAN*

MODEL	FACTORY INSTALLED NOZZLE	0° F *(-18° C)* EVAP.	-10° F *(-23° C)* EVAP.	-20° F *(-29° C)* EVAP.	-30° F *(-34° C)* EVAP.	-40° F *(-40° C)* EVAP.
104L	L-1/2	EGSE-1/4-C	EGSE-1/4-ZP	EGSE-1/2-ZP	EGSE-1/2-ZP	EGSE-1/2-ZP
105L	L-3/4	EGSE-1/2-C	EGSE-1/2-ZP	EGSE-1/2-ZP	EGSE-1/2-ZP	EGSE-1/2-ZP
106L	L-1	EGSE-1/2-C	EGSE-1/2-ZP	EGSE-1/2-ZP	EGSE-1/2-ZP	EGSE-1/2-ZP
207L	L-1	EGSE-1/2-C	EGSE-1/2-ZP	EGSE-1-ZP	EGSE-1-ZP	EGSE-1-ZP
209L	1-1/2	EGSE-1-C	EGSE-1-ZP	EGSE-1-ZP	EGSE-1-ZP	EGSE-1-ZP
211L	L-2	EGSE-1-C	EGSE-1-ZP	EGSE-1-ZP	EGSE-1-ZP	EGSE-1-ZP
314L	L-2	EGSE-1-1/2-C	EGSE-1-1/2-ZP	EGSE-1-1/2-ZP	EGSE-1-1/2-ZP	EGSE-1-1/2-ZP
317L	L-3	EGSE-1-1/2-C	EGSE-1-1/2-ZP	EGSE-1-1/2-ZP	EGSE-2-ZP	EGSE-2-ZP
419L	L-3	EGSE-2-C	EGSE-2-ZP	EGSE-2-ZP	EGSE-2-ZP	EGSE-2-ZP
422L	G-4	EGSE-2-C	EGSE-2-ZP	EGSE-2-ZP	SSE-3-ZP	SSE-3-ZP
527L	G-4	SSE-3-C	SSE-3-ZP	SSE-3-ZP	SSE-3-ZP	SSE-4-ZP
631L	G-5	SSE-4-C	SSE-4-ZP	SSE-4-ZP	SSE-4-ZP	SSE-4-ZP
103V	L-1/2	EGSE-1/6-C	EGSE-1/6-ZP	EGSE-1/4-ZP	EGSE-1/4-ZP	EGSE-1/4-ZP
104V	L-3/4	EGSE-1/4-C	EGSE-1/4-ZP	EGSE-1/2-ZP	EGSE-1/2-ZP	EGSE-1/2-ZP
105V	L-1	EGSE-1/2-C	EGSE-1/2-ZP	EGSE-1/2-ZP	EGSE-1/2-ZP	EGSE-1/2-ZP
206V	L-1	EGSE-1/2-C	EGSE-1/2-ZP	EGSE-1/2-ZP	EGSE-1/2-ZP	EGSE-1/2-ZP
208V	L-1 1/2	EGSE-1/2-C	EGSE-1/2-ZP	EGSE-1-ZP	EGSE-1-ZP	EGSE-1-ZP
209V	L-2	EGSE-1-C	EGSE-1-ZP	EGSE-1-ZP	EGSE-1-ZP	EGSE-1-ZP
312V	L-2	EGSE-1-C	EGSE-1-ZP	EGSE-1-ZP	EGSE-1-ZP	EGSE-1-1/2-ZP
315V	L-2 1/2	EGSE-1-1/2-C	EGSE-1-1/2-ZP	EGSE-1-1/2-ZP	EGSE-1-1/2-ZP	EGSE-1-1/2-ZP
416V	L-2 1/2	EGSE-1-1/2-C	EGSE-1-1/2-ZP	EGSE-1-1/2-ZP	EGSE-1-1/2-ZP	EGSE-2-ZP
419V	G-3	EGSE-1-1/2-C	EGSE-1-1/2-ZP	EGSE-2-ZP	EGSE-2-ZP	EGSE-2-ZP
523V	G-4	EGSE-2-C	EGSE-2-ZP	SSE-3-ZP	SSE-3-ZP	SSE-3-ZP
627V	G-5	SSE-3-C	SSE-3-ZP	SSE-3-ZP	SSE-3-ZP	SSE-4-ZP

*** For R507, refrigerant code for Sporlan expansion valve will be "P" instead of "S" . i.e.: "EGSE" becomes "EGPE"**

Above selections based on:

1) 100°F *(38°C)* vapor free liquid entering expansion valve
2) 110°F *(43°C)* Condensing temperature
3) 8 -12°F *(4.4 -6.7°C)* evaporator TD

RECOMMENDED EXPANSION VALVE SELECTIONS
LOW TEMPERATURE R404A/R507 MODELS (cont'd)

ALCO

MODEL	FACTORY INSTALLED NOZZLE	0° F *(-18° C)* EVAP.	-10° F *(-23° C)* EVAP.	-20° F *(-29° C)* EVAP.	-30° F *(-34° C)* EVAP.	-40° F *(-40° C)* EVAP.
104L	L-1/2	HFESC 1/4 SC	HFESC 1/2 SW45	HFESC 1/2 SW45	HFESC 1/2 SW45	HFESC 1/2 SW45
105L	L-3/4	HFESC 1/2 SC	HFESC 1/2 SW45	HFESC 1/2 SW45	HFESC 1/2 SW45	HFESC 1 SW45
106L	L-1	HFESC 1/2 SC	HFESC 1/2 SW45	HFESC 1 SW45	HFESC 1 SW45	HFESC 1 SW45
207L	L-1	HFESC 1 SC	HFESC 1 SW45	HFESC 1 SW45	HFESC 1 SW45	HFESC 1-1/4 SW45
209L	1-1/2	HFESC 1 SC	HFESC 1 SW45	HFESC 1-1/4 SW45	HFESC 1-1/4 SW45	HFESC 1-1/2 SW45
211L	L-2	HFESC 1 SC	HFESC 1-1/4 SW45	HFESC 1-1/2 SW45	HFESC 1-1/2 SW45	HFESC 2 SW45
314L	L-2	HFESC 1-1/4 SC	HFESC 1-1/2 SW45	HFESC 2 SW45	HFESC 2 SW45	HFESC 2 SW45
317L	L-3	HFESC 1-1/2 SC	HFESC 2 SW45	HFESC 2 SW45	HFESC 2 SW45	HFESC 3-1/2 SW45
419L	L-3	HFESC 1-1/2 SC	HFESC 2 SW45	HFESC 2 SW45	HFESC 3-1/2 SW45	HFESC 3-1/2 SW45
422L	G-4	HFESC 2 SC	HFESC 2 SW45	HFESC 3-1/2 SW45	HFESC 3-1/2 SW45	HFESC 3-1/2 SW45
527L	G-4	HFESC 3-1/2 SC	HFESC 3-1/2 SW45	HFESC 3-1/2 SW45	HFESC 3-1/2 SW45	HFESC 5 SW45
631L	G-5	HFESC 3-1/2 SC	HFESC 3-1/2 SW45	HFESC 3-1/2 SW45	HFESC 5 SW45	HFESC 5 SW45
103V	L-1/2	HFESC 1/4 SC	HFESC 1/4 SW45	HFESC 1/4 SW45	HFESC 1/2 SW45	HFESC 1/2 SW45
104V	L-3/4	HFESC 1/4 SC	HFESC 1/2 SW45	HFESC 1/2 SW45	HFESC 1/2 SW45	HFESC 1/2 SW45
105V	L-1	HFESC 1/2 SC	HFESC 1/2 SW45	HFESC 1/2 SW45	HFESC 1 SW45	HFESC 1 SW45
206V	L-1	HFESC 1/2 SC	HFESC 1/2 SW45	HFESC 1 SW45	HFESC 1 SW45	HFESC 1-1/4 SW45
208V	L-1 1/2	HFESC 1 SC	HFESC 1 SW45	HFESC 1 SW45	HFESC 1-1/4 SW45	HFESC 1-1/4 SW45
209V	L-2	HFESC 1 SC	HFESC 1 SW45	HFESC 1-1/4 SW45	HFESC 1-1/4 SW45	HFESC 1-1/2 SW45
312V	L-2	HFESC 1-1/4 SC	HFESC 1-1/4 SW45	HFESC 1-1/2 SW45	HFESC 1-1/2 SW45	HFESC 2 SW45
315V	L-2 1/2	HFESC 1-1/4 SC	HFESC 1-1/2 SW45	HFESC 2 SW45	HFESC 2 SW45	HFESC 2 SW45
416V	L-2 1/2	HFESC 1-1/2 SC	HFESC 1-1/2 SW45	HFESC 2 SW45	HFESC 2 SW45	HFESC 3-1/2 SW45
419V	G-3	HFESC 1-1/2 SC	HFESC 2 SW45	HFESC 2 SW45	HFESC 3-1/2 SW45	HFESC 3-1/2 SW45
523V	G-4	HFESC 2 SC	HFESC 3-1/2 SW45	HFESC 3-1/2 SW45	HFESC 3-1/2 SW45	HFESC 3-1/2 SW45
627V	G-5	HFESC 3-1/2 SC	HFESC 3-1/2 SW45	HFESC 3-1/2 SW45	HFESC 3-1/2 SW45	HFESC 5 SW45

Above selections based on:

1) 100°F *(38°C)* vapor free liquid entering expansion valve
2) 110°F *(43°C)* Condensing temperature
3) 8 -12°F *(4.4 -6.7°C)* evaporator TD

INSTALLATION INSTRUCTIONS

INSTALLATION
The installation and start-up of Unit Coolers should only be performed by qualified refrigeration mechanics. This equipment should be installed in accordance with all applicable codes, ordinances and local by-laws.

INSPECTION
Inspect all equipment before unpacking for visible signs of damage or loss. Check shipping list against material received to ensure shipment is complete.

IMPORTANT: Remember, you, the consignee, must make any claim necessary against the transportation company. Shipping damage or missing parts, when discovered at the outset, will prevent later unnecessary and costly delays.
If damage or loss during transport is evident, make claim to carrier, as this will be their responsibility, not the manufacturer's.
Should carton be damaged, but damage to equipment is not obvious, a claim should be filed for "concealed damage" with the carrier.

IMPORTANT: The electrical characteristics of the unit should be checked at this time to make sure they correspond to those ordered and to electrical power available at the job site.

Save all shipping papers, tags and instruction sheets for reference by installer and owner.

APPLICATION
LP unit coolers are designed for walker-in cooler and freezer applications used with refrigerant R22 or R404A. For room temperatures above 35°F *(2 °C)* AND evaporating temperatures above 26°F *(-3 °C)*, positive defrosting means (with electric or hot gas) may not be required, otherwise, electric defrost or hot gas defrost models should be used. Electric defrost models come with defrost termination and fan delay as standard to control the defrost cycle termination and fan delay, while defrost initiation means (e.g. defrost timer) is not included.

The coil must not be exposed to any abnormal atmospheric or acidic environments. This may result in corrosion to the cabinet and possible coil failure (leaks). (Consult manufacturer for optional baked on phenolic protective coatings).

LOCATION
The unit location in the room should be selected to ensure uniform air distribution throughout the entire space to be refrigerated. Be sure that the product does not obstruct the free circulation of air. Allow a minimum of 24" clearance at each end. Do not locate evaporators over doors. Consideration should be given to the coil location in order to minimize the piping run length to the condensing unit and floor drain.

EXPANSION VALVE (TXV) SELECTION
All units require the use of an **externally equalized** expansion valve. (A 1/4" *(6 mm)* O.D. equalizer line has been provided on the coil) TX valves should **not** be selected strictly by their nominal ton rating. (This rating is based at a specific pressure differential and entering liquid temperature). Since applications will differ it is suggested the following selection procedure be followed.

1. Determine actual unit cooler capacity.
   The nominal rating is based at 10°F T.D. *(5 .6°C)* (Entering Air Temp. minus Evap. Temp.), R404A refrigerant. For R22, use the rated capacity x 0.95. For medium temperature R134a, use the rated capacity x 0.90. Note that a higher / lower operating T.D.will increase / decrease this capacity rating by their direct ratio within a range of 8 to 12°F *(4 .4 to 6.7°C)* T.D.

2. Determine the pressure drop across the valve by subtracting the evaporating pressure and distributor pressure drop from the high side liquid pressure. The distributor pressure drop is typically in the range of 20 to 35 psig (1.4 to 2.4 bar) depending on the type of refrigerant and operating conditions.

3. Estimate entering liquid temperature. Temperatures lower than 100°F *(38 °C)* increase valve capacity ratings. Refer to valve manufacturer's specs for details.

4. Select valve from the valve manufacturer selection charts for the appropriate refrigerant, evaporating temp and pressure drop.

For best performance, the outlet of the expansion valve should be installed directly to the distributor body. If this is not possible, a straight tube up to 12 inches may be used for the connection.

Locate the expansion valve bulb on a horizontal length of suction line preferably 3 to 6 inches from the suction header. Locate the bulb at 4 or 8 clock position and insulate with a waterproof type of insulation. Clamp the bulb to ensure 100% contact of the bulb with the suction line.

Ensure appropriate nozzle has been installed in the distributor before installing valve. After following the manufacturer's installation instructions and after the room has reached the desired temperature the valve superheat should be checked. This will confirm that the evaporator is operating properly and performing to maximum efficiency. The superheat should be around 6 *(3.3 °C)* to 8°F *(4.4 °C)* for a 10 to 12°F T.D *(5.6 to 6.7 °C)*. Too high or low a super heat will result in unsatisfactory system performance and possible compressor problems.

INSTALLATION INSTRUCTIONS

NOZZLE INSTALLATION

For common applications (Medium temp. R404A, R22, 8 to 12°F *(4 .4 to 6.7°C)* T.D.; low temp. R404A, 8 to 12°F *(4 .4 to 6.7°C)* T.D.) the nozzle for all models has been factory installed. For other applications, refer to nozzle manufacturer's selection guide. To replace a nozzle, the nozzle retainer clip (in distributor) must be removed before inserting nozzle. Re-install clip ensuring nozzle is properly in place. A small nozzle can be drilled larger using the drill size listed in table on page 23**.** Ensure the hole must be accurately centered and smooth. A lathe is preferred for the drilling.

MOUNTING

Refer to dimensional drawing for recommended mounting arrangements. Ensure adequate clearance is provided behind the coil as well as each end. The evaporators may be mounted flush with ceiling with bolts, or hanging down with rod hangers. When using rod hangers, allow adequate space between the top of the unit and the ceiling for cleaning to comply with NSF Standard 7.
Ensure that the ceiling is level since the drain pan has been sloped for drainage during the defrost cycle.

DRAIN LINE

The drain line should be run from the drain connection, sloping at least 1" *(25 mm)* per foot and should have the size at least as large as the drain connection. A trap in a warm area outside the room must be provided to allow proper draining through the tubing. Connection should be made to proper drainage facilities that comply with local regulations.

To prevent freeze-up when the temperature of the refrigerated space is 35°F *(2 °C)* or lower, the drain line should be heated along its run inside the cold room. The heated drain line should be insulated. It is recommended that the heater be energized at all times. A heat input of 20 watts per foot in a 28°F *(-2°C)* room and 30 watts per foot for -20°F *(-29°C)* rooms, is satisfactory. Drain line heaters are not required for constant room temperature above 35°F *(2°C)*.
Always trap evaporator drain line individually to prevent vapor migration.

Ensure that the drain line has sufficient slope for proper drainage (prevention of ice build up/blockage in pan).

PIPING

Refrigeration grade piping must be used for all field refrigeration piping. Refrigerant line sizes are important and **may not** be the same size as the coil connections. Consult ASHRAE handbook or other similar reference book for proper line sizing.
Refrigerant piping and control system should be designed to prevent possible liquid slugging (from oil or refrigerant) of the compressors on start-up after the defrost cycle. Also, it should prevent oil logging and minimize refrigerant pressure drop.

For hot gas models, refer to pages 30 - 31 for recommended piping.

INSTALLATION INSTRUCTIONS

WIRING

Wire system in accordance with governing standards and local codes. See data and wiring diagrams on pages 4 to 20 for typical wiring arrangement. Electrical wiring is to be sized in accordance with minimum circuit ampacity rating (MCA). Size fuses used must not exceed the Maximum Fuse Size ratings.

For ease of identifying the proper wiring terminal, unit wiring is color coded and terminal block connections are identified.

When **fan delay thermostats** (combination fan delay and defrost termination) are installed, on start-up, the fans do not operate until the coil temperature is reduced to approximately 25°F *(-4°C)*. It is normal for the fans to cycle a few times until the room temperature is brought down. At higher evaporating temperatures this control may not close and therefore should either be by-passed temporarily or replaced with an adjustable type. (set for a higher temperature cut-in point).

MAINTENANCE

The unit should be periodically inspected for any dirt or ice build-up on the fin surface and cleaned if necessary with a soft whisk or brush. Also ensure coils inner (and outer) drain pans do not have any ice build-up from improper defrost operation. When replacing heater elements first remove heater retainer brackets and heater clips.

SYSTEM CHECK

Before Start-Up:

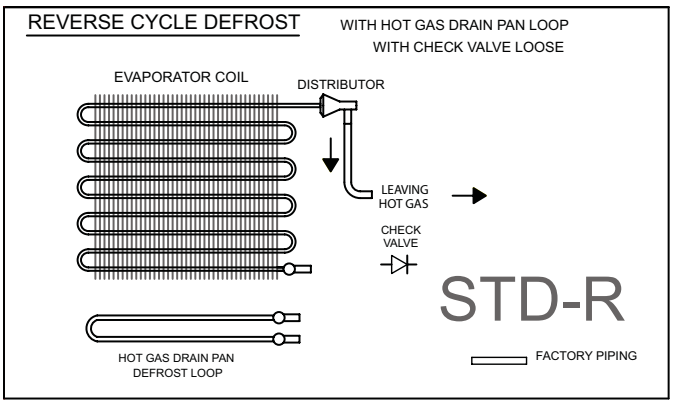
1. All wiring should be in accordance with local codes.
2. Refrigerant lines should be properly sized.
3. All systems preferably include a liqud line solenoid valve at immediately up stream of the expansion valve.
4. Thorough evacuation and dehydration has been performed.
5. The suction, discharge, and receiver service valves must be open.
6. The system preferably include a liquid line filter drier moisture indicator and suction filter.
7. Pour enough water into the drain pan to allow a good check on drainage and seal the trap.

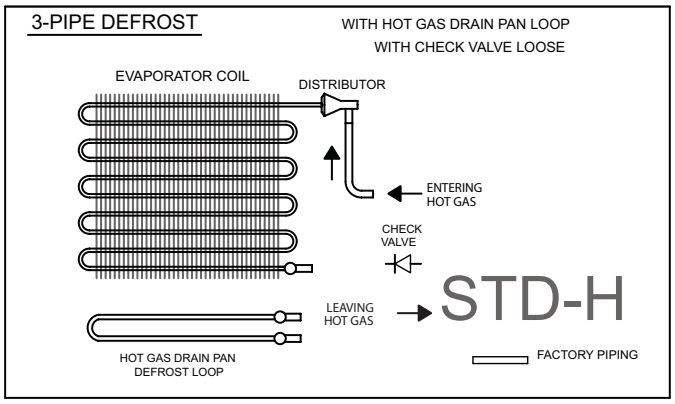
After Start-Up:

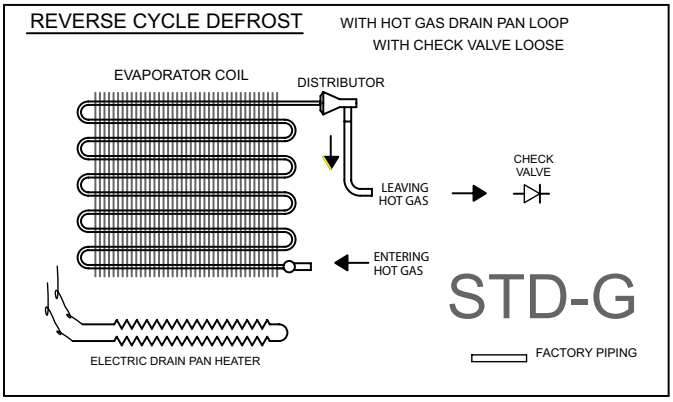
1. Check the oil level to be sure the oil charge is correct.
2. On initial start up the fans do not start until coil temperature is pulled down to approximately 25°F *(-4 °C)* on the coil. Also, it is normal for the fan to cycle a few times until the room temperature is pulled down.
3. If necessary, temporarily by-pass fan delay control (to run fans until room temp is lowered).
4. Be sure that the expansion valve is properly set to provide the correct amount of superheat.
5. After the box temperature is close to reaching the desired temperature, the evaporator superheat must be checked and adjustment made if necessary. In general, evaporators running with a TD of 10°F *(5.6 °C)* should have a superheat reading of 6° to 8°F *(3.3 °C to 4.4 °C)*. For evaporators with another T.D., the general rule is that the superheat should be around 60 to 80% of T.D.
6. Heavy moisture loads are usually encountered when starting the system for the first time. This may cause a rapid build-up of frost on the unit cooler. During the initial pull down, we suggest that the frost build-up be watched and defrosted manually as required.
7. Observe that the system goes through at least one complete DEFROST CYCLE.

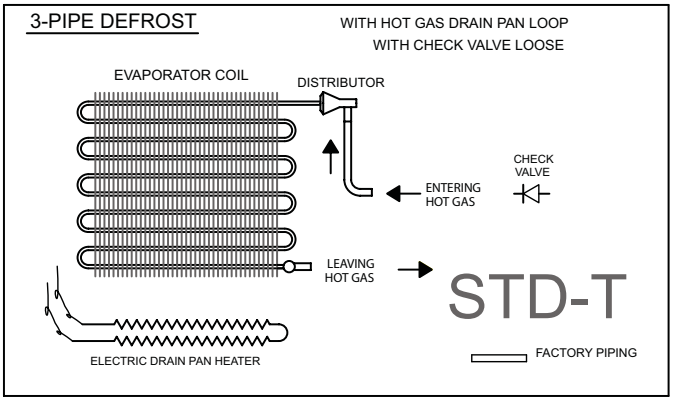
HOT GAS PIPING SCHEMATICS
STANDARD CONFIGURATIONS

Refer to Nomenclatuere for details









Standard Offering: *All Models*

Check Valve is included with the coil shipped loose as it is a must have component for system operation.

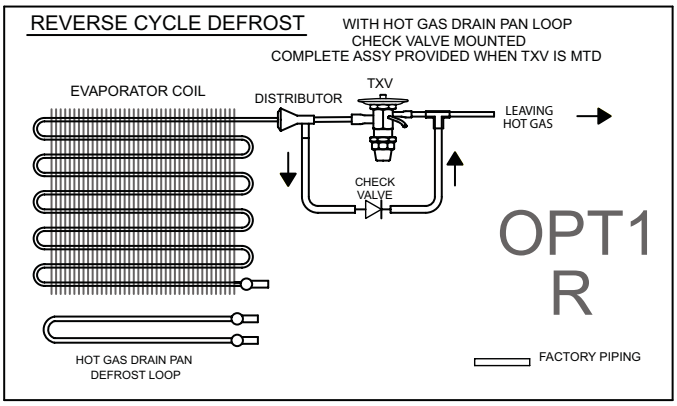
Check Valve & TXV - See next page (OPT 1)

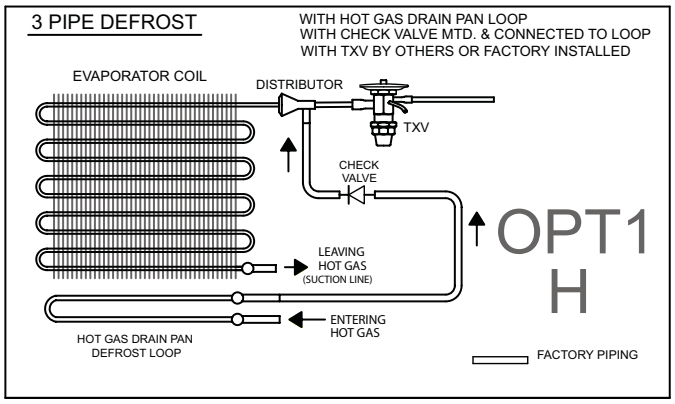
When a TXV is ordered with a HG defrost coil: Its *only* option will be **Factory Installed**. The bypass check valve will be **factory installed** as well as part of the same option.

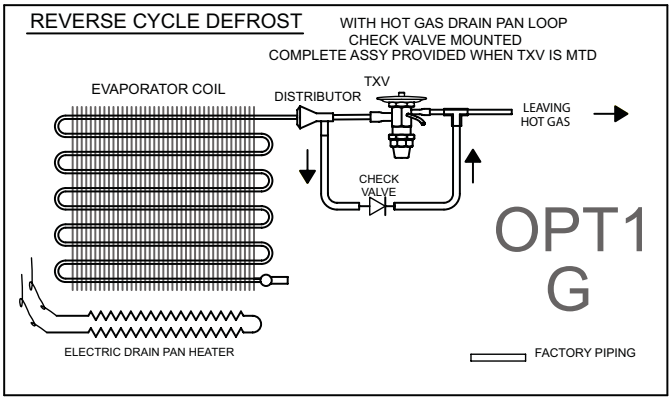
- **Reverse Cycle PanHeater *(G Models)*** when ordered with TXV & Check Valve:
  - TXV, Check Valve and bypass Tee are factory installed
- **Reverse Cycle PanLoop *(R Models)*** when ordered with TXV & Check Valve:
  - TXV, Check Valve and bypass Tee are factory installed
- **3-Pipe PanHeater *(T Models)*** when ordered with TXV & Check Valve:
  - TXV and Check Valve are factory installed
- **3-Pipe PanLoop *(H Models)*** when ordered with TXV & Check Valve:
  - TXV and Check Valve are factory installed

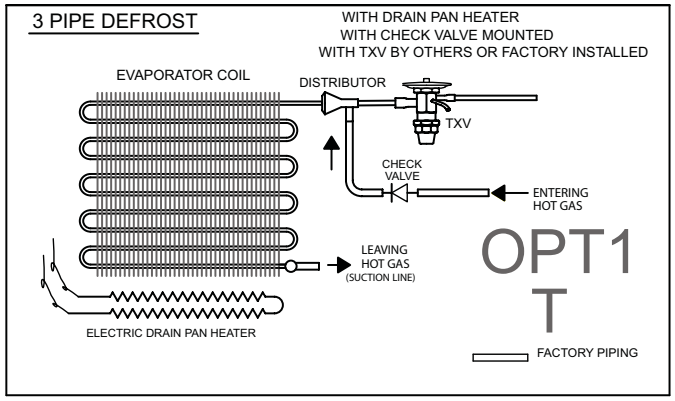
HOT GAS PIPING SCHEMATICS
OPTIONAL CONFIGURATIONS

Refer to Nomenclatuere for details





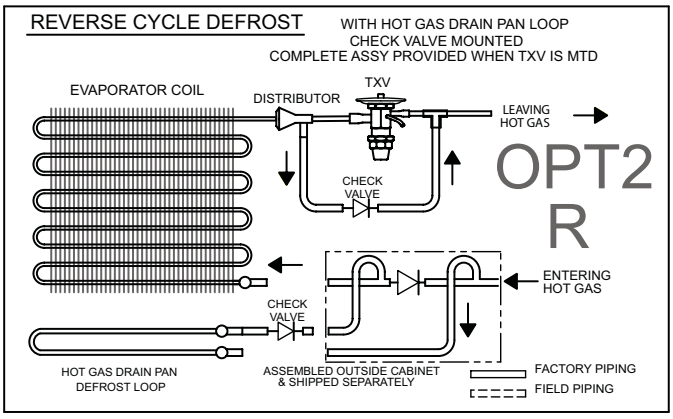




Drain pan Loop Kit - See below (OPT 2)

Drain pan loop kit is an assembly that is fully assembled and shipped loose for field installation outside the cabinet. Two check valves are included, depending on the model size, one or both are factory installed.

- **Reverse Cycle PanLoop *(R Models)*** when ordered with TXV & Check Valve:
  - Suction line piping shipped as a pre-piped assembly for field installation



Solenoid Valve

Solenoid valves are available as a shipped loose item due to limited space inside the cabinet

GLYCOL FLUID AIR COOLER DATA

60Hz

MODEL	NO. OF FANS	AIRFLOW		CAPACITY * - 5 USGPM *(.032 L/S)*				CAPACITY * - 15 USGPM *(.095 L/S)*				CONN. SIZE (IN/OUT)
		CFM	*(L/S)*	BTU/H	*(WATTS)*	P.D. ($FT. H_20$)	*P.D. (kPa)*	BTU/H	*(WATTS)*	P.D. ($FT. H_20$)	*P.D. (kPa)*	
104W	1	1010	*(480)*	2100	*(620)*	6.9	*(20.7)*	2500	*(730)*	17	*(51.7)*	7/8
106W	1	950	*(450)*	2800	*(820)*	3.2	*(9.7)*	3100	*(910)*	8.1	*(24.1)*	7/8
107W	1	900	*(430)*	3400	*(1000)*	4.4	*(13.1)*	3700	*(1080)*	4.6	*(13.8)*	7/8
209W	2	2020	*(950)*	3800	*(1110)*	10	*(31.0)*	5000	*(1470)*	25	*(73.8)*	7/8
211W	2	1910	*(900)*	4900	*(1440)*	4.8	*(14.5)*	5700	*(1670)*	12	*(35.2)*	7/8
214W	2	1800	*(850)*	5900	*(1730)*	6.5	*(19.3)*	6700	*(1960)*	6.9	*(20.7)*	7/8
317W	3	2860	*(1350)*	6600	*(1930)*	6.5	*(19.3)*	8000	*(2340)*	15	*(46.2)*	7/8
320W	3	2700	*(1270)*	8000	*(2340)*	8.8	*(26.2)*	9400	*(2750)*	9.2	*(27.6)*	7/8
423W	4	3810	*(1800)*	8100	*(2370)*	8.1	*(24.1)*	10000	*(2930)*	19	*(57.2)*	7/8
426W	4	3600	*(1700)*	9800	*(2870)*	11	*(32.4)*	12000	*(3520)*	11	*(33.8)*	7/8
532W	5	4500	*(2120)*	11000	*(3220)*	13	*(38.6)*	14000	*(4100)*	14	*(40.7)*	7/8
639W	6	5400	*(2550)*	13000	*(3810)*	15	*(45.5)*	16000	*(4690)*	16	*(46.9)*	7/8

The above capacities were rated based on 30% Propylene Glycol, 25°F *(-4°C)* glycol entering temperature and 35°F *(-2°C)* air entering termperature with glycol flow rate listed. For all other conditions, please use "Pi-Coil" software (contact factory).

GENERIC SERVICE PARTS LIST

60Hz

Miscellaneous

DESCRIPTION	PART #
FAN MOTOR 115V	1043336
FAN MOTOR 208-230V	1043766
FAN MOTOR 115V (PSC)	1047778
FAN MOTOR 208-230V (PSC)	1047779
FAN MOTOR 460V (PSC)	1082684
MOTOR MOUNT	1081180
FAN BLADE	1043667
FAN GUARD (PLASTIC)	1081182
FAN GUARD (WIRE)	1081272
ACORN NUT #CN1/4-20 PANTONE GREY#429-C	1082950
LOCKNUT 1/4-20-UNC for use with WIRE GUARD	1043768
HEATER RETAINER CLIP-COIL (WIRE CLIP)	1081810
HEATER HOLD DOWN BRKT-DRAIN PAN	1081183

DESCRIPTION	PART #
TERMINAL BOARD: AIR DEFROST (115v, 208-230V)	1048825
TERMINAL BOARD: AIR DEFROST (460V)	1045017
INSULATOR, for 460V terminal board #1045017	171159
TERMINAL BOARD: ELECTRIC and HOT GAS DEFROST (208-230V)	1070060
TERMINAL BOARD: ELECTRIC and HOT GAS DEFROST (460V)	1082728
HINGE ASSY #8820-16GA-2"X2"OP-STAINLESS STEEL	160401
DRAIN FITTING	1085310
LOCKNUT - DRAIN FITTING	1081102
GASKET - DRAIN FITTING	1081103
HANGER BRKT LP	1081033
SCREWS: #12 x 5/8" lg.	1081100
FAN DELAY DETROST TERMINATION	1071280

Defrost Heaters - Electric Defrost Models

MODELS			PART NUMBER			
			COIL FACE HEATER (3 REQUIRED)		DRAIN PAN HEATER (1 REQUIRED)	
			208-230V	460V	208-230V	460V
104ME	**104LE**	**103VE**	269W / 1081185-001	269W / 1081186-001	253W / 1081187-011	253W / 1081188-001
106ME	**105LE**	**104VE**	269W / 1081185-001	269W / 1081186-001	253W / 1081187-011	253W / 1081188-001
107ME	**106LE**	**105VE**	269W / 1081185-001	269W / 1081186-001	253W / 1081187-011	253W / 1081188-001
209ME	**207LE**	**206VE**	495W / 1081185-002	495W / 1081186-002	408W / 1081187-012	408W / 1081188-002
211ME	**209LE**	**208VE**	495W / 1081185-002	495W / 1081186-002	408W / 1081187-012	408W / 1081188-002
214ME	**211LE**	**209VE**	495W / 1081185-002	495W / 1081186-002	408W / 1081187-012	408W / 1081188-002
317ME	**314LE**	**312VE**	721W / 1081185-003	721W / 1081186-003	564W / 1081187-013	564W / 1081187-013
320ME	**317LE**	**315VE**	721W / 1081185-003	721W / 1081186-003	564W / 1081187-013	564W / 1081188-003
423ME	**419LE**	**416VE**	947W / 1081185-004	947W / 1081186-004	719W / 1081187-014	719W / 1081188-004
426ME	**422LE**	**419VE**	947W / 1081185-004	947W / 1081186-004	719W / 1081187-014	719W / 1081188-004
532ME	**527LE**	**523VE**	1174W / 1081185-005	1174W / 1081186-005	875W / 1081187-015	875W / 1081188-005
639ME	**631LE**	**627VE**	1400W / 1081185-006	1400W / 1081186-006	1031W / 1081187-016	1031W / 1081188-006

GENERIC SERVICE PARTS LIST

60Hz

Defrost Heaters - Hot Gas Defrost with Electric Drain Pan

MODELS						PART NUMBER		
						DRAIN PAN HEATER (1 REQUIRED)		
						115V	208-230V	460V
209MT	209MG	207LT	207LG	206VT	206VG	408W / 1081187-002	408W / 1081187-012	408W / 1081188-002
211MT	211MG	209LT	209LG	208VT	208VG	408W / 1081187-002	408W / 1081187-012	408W / 1081188-002
214MT	214MG	211LT	211LG	209VT	209VG	408W / 1081187-002	408W / 1081187-012	408W / 1081188-002
317MT	317MG	314LT	314LG	312VT	312VG	564W / 1081187-003	564W / 1081187-013	564W / 1081188-003
320MT	320MG	317LT	317LG	315VT	315VG	564W / 1081187-003	564W / 1081187-013	564W / 1081188-003
423MT	423MG	419LT	419LG	416VT	416VG	719W / 1081187-004	719W / 1081187-014	719W / 1081188-004
426MT	426MG	422LT	422LG	419VT	419VG	719W / 1081187-004	719W / 1081187-014	719W / 1081188-004
532MT	532MG	527LT	527LG	523VT	523VG	875W / 1081187-005	875W / 1081187-015	875W / 1081188-005
639MT	639MG	631LT	631LG	627VT	627VG	1031W / 1081187-006	1031W / 1081187-016	1031W / 1081188-006

Drain Pan Assemblies

NUMBER OF FANS	AIR DEFROST - "MA" MODELS	ELECTRIC DEFROST - "ME", "LE" & "VE" MODELS HOT GAS WITH ED PAN - "MT, LT & VT" MODELS "MG, LG & VG" MODELS	HOT GAS DEFROST HG LOOP IN PAN "MH, LH & VH" MODELS "MR, LR & VR" MODELS
1 FAN	1081011-002	1081011-001	N/A
2 FAN	1081012-002	1081012-001	1081162-001
3 FAN	1081013-002	1081013-001	1081163-001
4 FAN	1081014-002	1081014-001	1081164-001
5 FAN	1081015-002	1081015-001	1081165-001
6 FAN	1081016-002	1081016-001	1081166-001

Drain pan assemblies include drain fitting, hinge and heater hold down brackets when applicable.

Drain pan assemblies do not include heaters or hot gas loops.

FINISHED GOODS WARRANTY

The terms and conditions as described below in the General Warranty Policy cover all products manufactured by National Refrigeration.

GENERAL WARRANTY POLICY

Subject to the terms and conditions hereof, the Company warrants all Products, including Service Parts, manufactured by the Company to be free of defects in material or workmanship, under normal use and application for a period of one (1) year from the original date of installation, or eighteen (18) months from the date of shipment from the Company, whichever occurs first. Any replacement part(s) so supplied will be warranted for the balance of the product's original warranty. The part(s) to be replaced must be made available in exchange for the replacement part(s) and reasonable proof of the original installation date of the product must be presented in order to establish the effective date of the warranty, failing which, the effective date will be based upon the date of manufacture plus thirty (30) days. Any labour, material, refrigerant, transportation, freight or other charges incurred in connection with the performance of this warranty will be the responsibility of the owner at the current rates and prices then in effect. This warranty may be transferred to a subsequent owner of the product.

THIS WARRANTY DOES NOT COVER

(a) Damages caused by accident, abuse, negligence, misuse, riot, fire, flood, or Acts of God (b) damages caused by operating the product in a corrosive atmosphere (c) damages caused by any unauthorized alteration or repair of the system affecting the product's reliability or performance (d) damages caused by improper matching or application of the product or the product's components (e) damages caused by failing to provide routine and proper maintenance or service to the product (f) expenses incurred for the erecting, disconnecting, or dismantling the product (g) parts used in connection with normal maintenance, such as filters or belts (h) products no longer at the site of the original installation (i) products installed or operated other than in accordance with the printed instructions, with the local installation or building codes and with good trade practices (j) products lost or stolen.

No one is authorized to change this WARRANTY or to create for or on behalf of the Company any other obligation or liability in connection with the Product(s). There is no other representation, warranty or condition in any respect, expressed or implied, made by or binding upon the Company other than the above or as provided by provincial or state law and which cannot be limited or excluded by such law, nor will we be liable in any way for incidental, consequential, or special damages however caused.

The provisions of this additional written warranty are in addition to and not a modification of or subtraction from the statutory warranties and other rights and remedies provided by Federal, Provincial or State laws.

PROJECT INFORMATION

System	
Model Number	Date of Start-Up
Serial Number	Service Contractor
Refrigerant	Phone
Electrical Supply	Fax

“AS BUILT” SERVICE PARTS LIST

Service Parts List
Label
To Be Attached
HERE

DISTRIBUTED BY:

General Sales, Parts & Service Manufacturing & Engineering
135 Little Nine Drive, Morehead City, NC 28557
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Due to Manufacturer’s policy of continuous product improvement, the Manufacturer reserves the right to make changes without notice.

10/10/2007