



PRODUCT DATA & INSTALLATION

Bulletin T30-TPLP-PDI-16e
Part #1087152

PRODUCT SUPPORT
 web: www.t-rp.com/tplp
 email: evaps@t-rp.com
 call: 1-844-893-3222 x520

scan:

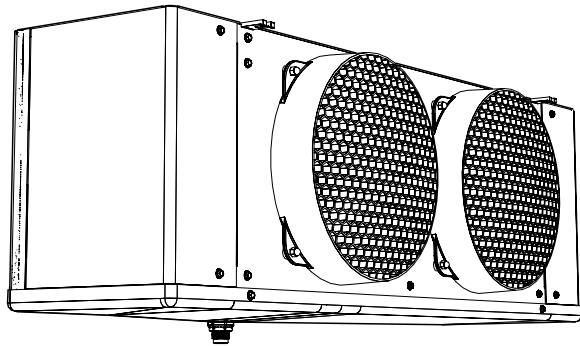
TPLP Pre-Assembled Low Profile Evaporators

60 Hz

Air & Electric Defrost

Medium Temperature Applications: 35°F
 Low Temperature Applications: -10°F

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



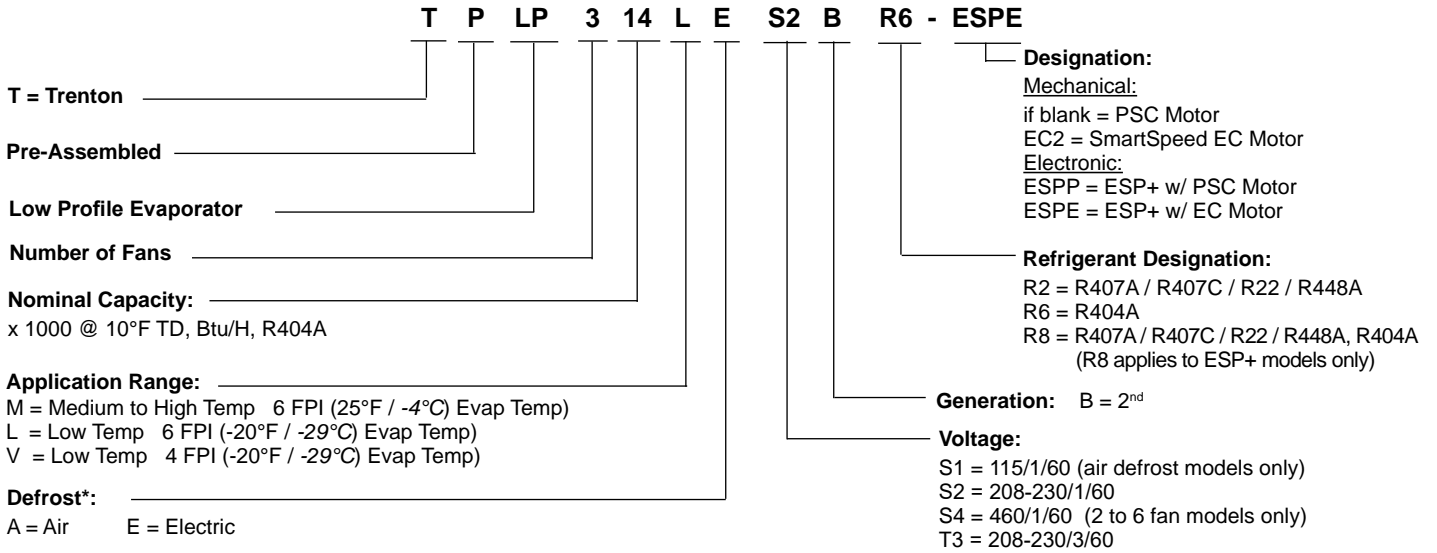
SMARTSPEED™
 FAN MOTOR TECHNOLOGY
 See Page 16 for details

ESP+
 see page 20 for details

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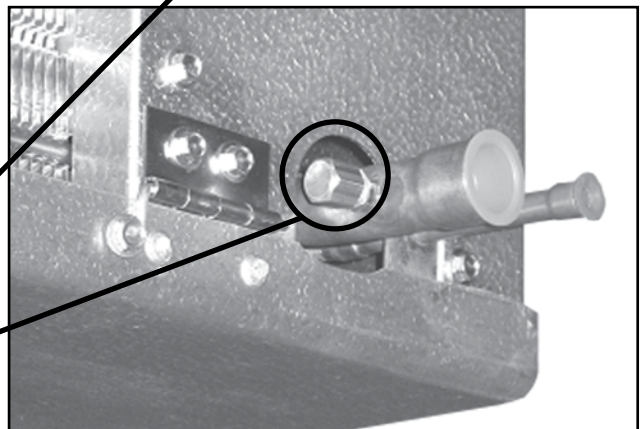
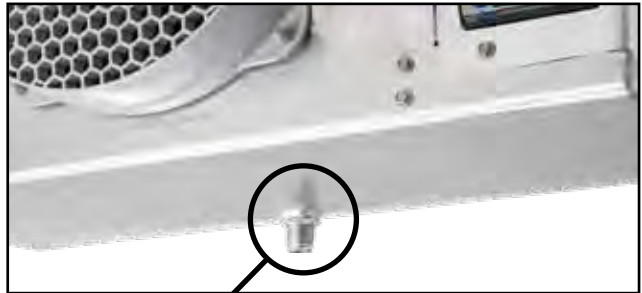
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NOMENCLATURE



STANDARD FEATURES (ALL MODELS)

- Compatible with Low GWP Refrigerants
- High efficiency and high strength fan guard
- Front access
- Internally enhanced tubing
- Convenient mounting brackets
- Ample electrical and header compartments
- Positive slope, hinged drain pan
- Centrally located, universal drain connection
- Large 3/4" ID (3/4" MPT) drain hole
- Schrader valve on suction header, located outside of cabinet



ESP+ (R8) MODELS

Include factory installed:

- ESP+ Adaptive Defrost Control
- ESP+ Remote Display
- EEV Electronic Expansion Valve
- Solenoid Valve



ELECTRO-MECHANICAL (R2 and R6) MODELS

Include factory installed:

- TX Valve
- Solenoid Valve
- Thermostat



ALL CONFIGURATIONS AVAILABLE WITH:

SMARTSPEED™ OR PSC MOTORS

FAN MOTOR TECHNOLOGY

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

| Medium Temp. Models TPLP | | | 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. 25°F (-4°C) | R407A | 4090 | 5230 | 6460 | 8170 | 10450 | 13300 | 16200 | 19000 | 21900 | 24700 | 30400 | 37100 |
| | | R448A | (1197) | (1530) | (1891) | (2394) | (3059) | (3895) | (4731) | (5567) | (6403) | (7230) | (8902) | (10830) |
| | | R407C | 3870 | 4950 | 6120 | 7740 | 9900 | 12600 | 15400 | 18100 | 20800 | 23500 | 28900 | 35200 |
| | | R404A | (1134) | (1449) | (1791) | (2268) | (2898) | (3690) | (4482) | (5274) | (6066) | (6849) | (8433) | (10260) |
| | | R507 | 4300 | 5500 | 6800 | 8600 | 11000 | 14000 | 17000 | 20000 | 23000 | 26000 | 32000 | 39000 |
| | | R22 | (1260) | (1610) | (1990) | (2520) | (3220) | (4100) | (4980) | (5860) | (6740) | (7610) | (9370) | (11400) |
| | | R22 | 4090 | 5230 | 6460 | 8170 | 10500 | 13300 | 16200 | 19000 | 21900 | 24700 | 30400 | 37100 |
| | | R22 | (1197) | (1530) | (1891) | (2394) | (3059) | (3895) | (4731) | (5567) | (6403) | (7230) | (8902) | (10830) |
| Air Flow | CFM (L/S) | | 1010 (477) | 950 (458) | 900 (425) | 2020 (953) | 1910 (901) | 1800 (850) | 2860 (1350) | 2700 (1274) | 3810 (1798) | 3600 (1699) | 4500 (2124) | 5400 (2549) |
| Refrigerant Charge | ** | LB. (KG) | 0.7 (0.3) | 1.1 (0.5) | 1.5 (0.7) | 1.3 (0.6) | 1.4 (0.6) | 2.0 (0.9) | 3.0 (1.4) | 4.0 (1.8) | 3.9 (1.8) | 3.3 (1.5) | 6.5 (2.9) | 7.8 (3.5) |

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

| Low Temp. Models TPLP | | | 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. -20°F (-29°C) | R407A | 3610 | 4560 | 5510 | 7030 | 8550 | 10500 | 13300 | 16200 | 18100 | 20900 | 25700 | 29500 |
| | | R448A | (1055) | (1340) | (1615) | (2062) | (2508) | (3059) | (3895) | (4731) | (5292) | (6118) | (7515) | (8626) |
| | | R404A | 3800 | 4800 | 5800 | 7400 | 9000 | 11000 | 14000 | 17000 | 19000 | 22000 | 27000 | 31000 |
| | | R507 | (1110) | (1410) | (1700) | (2170) | (2640) | (3220) | (4100) | (4980) | (5570) | (6440) | (7910) | (9080) |
| Air Flow | CFM (L/S) | | 1010 (477) | 950 (458) | 900 (425) | 2020 (953) | 1910 (901) | 1800 (850) | 2860 (1350) | 2700 (1274) | 3810 (1798) | 3600 (1699) | 4500 (2124) | 5400 (2549) |
| Refrigerant Charge | ** | LB. (KG) | 0.7 (0.3) | 1.1 (0.5) | 1.5 (0.7) | 1.3 (0.6) | 1.4 (0.6) | 2.0 (0.9) | 3.0 (1.4) | 4.0 (1.8) | 3.9 (1.8) | 3.3 (1.5) | 6.5 (2.9) | 7.8 (3.5) |

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

| Low Temp. 4 FPI Models TPLP | | | 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. -20°F (-29°C) | R407A | 2850 | 3900 | 4750 | 6080 | 7410 | 8840 | 11400 | 14300 | 15200 | 18100 | 21900 | 25700 |
| | | R448A | (836) | (1140) | (1397) | (1786) | (2176) | (2584) | (3344) | (4171) | (4456) | (5292) | (6403) | (7515) |
| | | R404A | 3000 | 4100 | 5000 | 6400 | 7800 | 9300 | 12000 | 15000 | 16000 | 19000 | 23000 | 27000 |
| | | R507 | (880) | (1200) | (1470) | (1880) | (2290) | (2720) | (3520) | (4390) | (4690) | (5570) | (6740) | (7910) |
| Air Flow | CFM (L/S) | | 1010 (477) | 950 (458) | 900 (425) | 2020 (953) | 1910 (901) | 1800 (850) | 2860 (1350) | 2700 (1274) | 3810 (1798) | 3600 (1699) | 4500 (2124) | 5400 (2549) |
| Refrigerant Charge | ** | LB. (KG) | 0.7 (0.3) | 1.1 (0.5) | 1.5 (0.7) | 1.3 (0.6) | 1.4 (0.6) | 2.0 (0.9) | 3.0 (1.4) | 4.0 (1.8) | 3.9 (1.8) | 3.3 (1.5) | 6.5 (2.9) | 7.8 (3.5) |

Capacities rated using 10°F (5.6°C) TD & 100°F (38°C) liquid temperature.

Capacities at other TD within a range of 8 to 15 °F (4.4 to 8.3°C) are directly proportional to TD, or use formula: Capacity = Rated capacity ÷ 10 x TD.

Capacities for R448A, R407A and R407C are based on mean temperature. Mean temperature is the average temperature between the saturated suction temperature and the temperature feeding the evaporator. For dew point ratings, consult factory.

For R449A, use R448A data.

** REFRIGERANT CHARGE CONVERSION FACTORS

| R448A | R407C | R404A | R507 | R22 |
|-------|-------|-------|------|------|
| 0.96 | 0.99 | 0.92 | 0.93 | 1.02 |

**ELECTRICAL DATA
115/1/60 - AIR DEFROST MODELS**

| MODEL TPLP | FPI | FAN MOTORS | | | | | | | | | | |
|---------------|-----|------------|------------|--------------|-------|----------------------------|---------------------|-----------|--------------|-------|----------------------------|---------------------|
| | | QTY. | PSC MOTORS | | | | | EC MOTORS | | | | |
| | | | HP | FLA TOTAL | WATTS | MIN. CIRC. AMPACITY (A) | MAX. FUSE (AMPS) | HP | FLA TOTAL | WATTS | MIN. CIRC. AMPACITY (A) | MAX. FUSE (AMPS) |
| 104MAS1 | 6 | 1 | 1/15 | 1.0 | 100 | 1.3 | 15 | 1/15 | 1.0 | 60 | 1.3 | 15 |
| 106MAS1 | | 1 | 1/15 | 1.0 | 100 | 1.3 | 15 | 1/15 | 1.0 | 60 | 1.3 | 15 |
| 107MAS1 | | 1 | 1/15 | 1.0 | 100 | 1.3 | 15 | 1/15 | 1.0 | 60 | 1.3 | 15 |
| 209MAS1 | | 2 | 1/15 | 2.0 | 200 | 2.3 | 15 | 1/15 | 2.0 | 120 | 2.3 | 15 |
| 211MAS1 | | 2 | 1/15 | 2.0 | 200 | 2.3 | 15 | 1/15 | 2.0 | 120 | 2.3 | 15 |
| 214MAS1 | | 2 | 1/15 | 2.0 | 200 | 2.3 | 15 | 1/15 | 2.0 | 120 | 2.3 | 15 |
| 317MAS1 | | 3 | 1/15 | 3.0 | 300 | 3.3 | 15 | 1/15 | 3.0 | 180 | 3.3 | 15 |
| 320MAS1 | | 3 | 1/15 | 3.0 | 300 | 3.3 | 15 | 1/15 | 3.0 | 180 | 3.3 | 15 |
| 423MAS1 | | 4 | 1/15 | 4.0 | 400 | 4.3 | 15 | 1/15 | 4.0 | 240 | 4.3 | 15 |
| 426MAS1 | | 4 | 1/15 | 4.0 | 400 | 4.3 | 15 | 1/15 | 4.0 | 240 | 4.3 | 15 |
| 532MAS1 | | 5 | 1/15 | 5.0 | 500 | 5.3 | 15 | 1/15 | 5.0 | 300 | 5.3 | 15 |
| 639MAS1 | | 6 | 1/15 | 6.0 | 600 | 6.3 | 15 | 1/15 | 6.0 | 360 | 6.3 | 15 |

**ELECTRICAL DATA
208-230/1/60 - AIR DEFROST MODELS**

| MODEL TPLP | FPI | FAN MOTORS | | | | | | | | | | |
|---------------|-----|------------|------------|--------------|-------|----------------------------|---------------------|-----------|--------------|-------|----------------------------|---------------------|
| | | QTY. | PSC MOTORS | | | | | EC MOTORS | | | | |
| | | | HP | FLA TOTAL | WATTS | MIN. CIRC. AMPACITY (A) | MAX. FUSE (AMPS) | HP | FLA TOTAL | WATTS | MIN. CIRC. AMPACITY (A) | MAX. FUSE (AMPS) |
| 104MAS2 | 6 | 1 | 1/15 | 0.5 | 100 | 0.6 | 15 | 1/15 | 0.6 | 60 | 0.8 | 15 |
| 106MAS2 | | 1 | 1/15 | 0.5 | 100 | 0.6 | 15 | 1/15 | 0.6 | 60 | 0.8 | 15 |
| 107MAS2 | | 1 | 1/15 | 0.5 | 100 | 0.6 | 15 | 1/15 | 0.6 | 60 | 0.8 | 15 |
| 209MAS2 | | 2 | 1/15 | 1.0 | 200 | 1.1 | 15 | 1/15 | 1.2 | 120 | 1.4 | 15 |
| 211MAS2 | | 2 | 1/15 | 1.0 | 200 | 1.1 | 15 | 1/15 | 1.2 | 120 | 1.4 | 15 |
| 214MAS2 | | 2 | 1/15 | 1.0 | 200 | 1.1 | 15 | 1/15 | 1.2 | 120 | 1.4 | 15 |
| 317MAS2 | | 3 | 1/15 | 1.5 | 300 | 1.6 | 15 | 1/15 | 1.8 | 180 | 2.0 | 15 |
| 320MAS2 | | 3 | 1/15 | 1.5 | 300 | 1.6 | 15 | 1/15 | 1.8 | 180 | 2.0 | 15 |
| 423MAS2 | | 4 | 1/15 | 2.0 | 400 | 2.1 | 15 | 1/15 | 2.4 | 240 | 2.6 | 15 |
| 426MAS2 | | 4 | 1/15 | 2.0 | 400 | 2.1 | 15 | 1/15 | 2.4 | 240 | 2.6 | 15 |
| 532MAS2 | | 5 | 1/15 | 2.5 | 500 | 2.6 | 15 | 1/15 | 3.0 | 300 | 3.2 | 15 |
| 639MAS2 | | 6 | 1/15 | 3.0 | 600 | 3.1 | 15 | 1/15 | 3.6 | 360 | 3.8 | 15 |

**ELECTRICAL DATA
460/1/60 - AIR DEFROST MODELS**

| MODEL TPLP | FPI | FAN MOTORS | | | | | |
|---------------|-----|------------|------------|--------------|-------|----------------------------|---------------------|
| | | QUANTITY | PSC MOTORS | | | | |
| | | | HP | FLA TOTAL | WATTS | MIN. CIRC. AMPACITY (A) | MAX. FUSE (AMPS) |
| 209MAS4 | 6 | 2 | 1/15 | 0.8 | 200 | 0.9 | 15 |
| 211MAS4 | | 2 | 1/15 | 0.8 | 200 | 0.9 | 15 |
| 214MAS4 | | 2 | 1/15 | 0.8 | 200 | 0.9 | 15 |
| 317MAS4 | | 3 | 1/15 | 1.2 | 300 | 1.3 | 15 |
| 320MAS4 | | 3 | 1/15 | 1.2 | 300 | 1.3 | 15 |
| 423MAS4 | | 4 | 1/15 | 1.6 | 400 | 1.7 | 15 |
| 426MAS4 | | 4 | 1/15 | 1.6 | 400 | 1.7 | 15 |
| 532MAS4 | | 5 | 1/15 | 2.0 | 500 | 2.1 | 15 |
| 639MAS4 | 6 | 1/15 | 2.4 | 600 | 2.5 | 15 | |

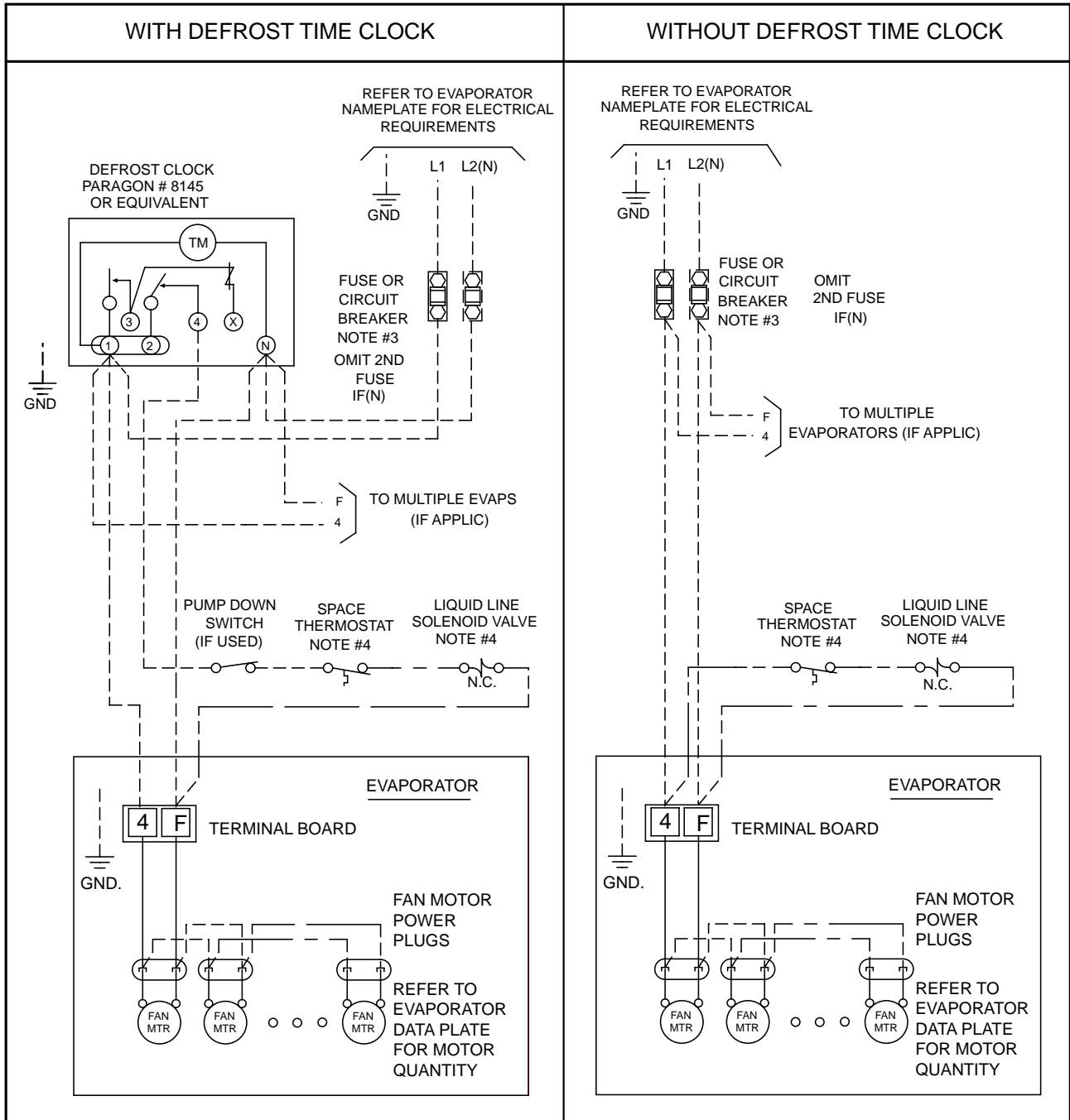
ELECTRICAL DATA -
208-230/1/60 & 208-230/3/60
ELECTRIC DEFROST MODELS

| MODEL TPLP | FPI | FAN MOTORS | | | | | | | | | | DEFROST HEATERS | | | | | | | | |
|---------------|-----|------------|------------|--------------|-------|------------|------------------------|-----------|--------------|-------|------------|------------------------|----------------|---------------|------------|------------------------|---------------|------------|------------------------|----|
| | | QTY. | PSC MOTORS | | | | | EC MOTORS | | | | | TOTAL WATTS | 208-230/1/60 | | | 208-230/3/60 | | | |
| | | | HP | FLA TOTAL | WATTS | MCA (A) | MAX. FUSE (AMPS) | HP | FLA TOTAL | WATTS | MCA (A) | MAX. FUSE (AMPS) | | TOTAL AMPS | MCA (A) | MAX. FUSE (AMPS) | TOTAL AMPS | MCA (A) | MAX. FUSE (AMPS) | |
| 104ME* | 6 | 1 | 1/15 | 0.5 | 100 | 0.6 | 15 | 1/15 | 0.6 | 60 | 0.8 | 15 | 1060 | 4.6 | 5.8 | 15 | 3.0 | 3.8 | 15 | |
| 106ME* | | 1 | 1/15 | 0.5 | 100 | 0.6 | 15 | 1/15 | 0.6 | 60 | 0.8 | 15 | 1060 | 4.6 | 5.8 | 15 | 3.0 | 3.8 | 15 | |
| 107ME* | | 1 | 1/15 | 0.5 | 100 | 0.6 | 15 | 1/15 | 0.6 | 60 | 0.8 | 15 | 1060 | 4.6 | 5.8 | 15 | 3.0 | 3.8 | 15 | |
| 209ME* | | 2 | 1/15 | 1.0 | 200 | 1.1 | 15 | 1/15 | 1.2 | 120 | 1.4 | 15 | 1890 | 8.2 | 10.3 | 15 | 5.3 | 6.7 | 15 | |
| 211ME* | | 2 | 1/15 | 1.0 | 200 | 1.1 | 15 | 1/15 | 1.2 | 120 | 1.4 | 15 | 1890 | 8.2 | 10.3 | 15 | 5.3 | 6.7 | 15 | |
| 214ME* | | 2 | 1/15 | 1.0 | 200 | 1.1 | 15 | 1/15 | 1.2 | 120 | 1.4 | 15 | 1890 | 8.2 | 10.3 | 15 | 5.3 | 6.7 | 15 | |
| 317ME* | | 3 | 1/15 | 1.5 | 300 | 1.6 | 15 | 1/15 | 1.8 | 180 | 2.0 | 15 | 2730 | 11.9 | 14.8 | 15 | 7.7 | 10 | 15 | |
| 320ME* | | 3 | 1/15 | 1.5 | 300 | 1.6 | 15 | 1/15 | 1.8 | 180 | 2.0 | 15 | 2730 | 11.9 | 14.8 | 15 | 7.7 | 10 | 15 | |
| 423ME* | | 4 | 1/15 | 2.0 | 400 | 2.1 | 15 | 1/15 | 2.4 | 240 | 2.6 | 15 | 3560 | 15.5 | 19.3 | 20 | 10 | 12 | 15 | |
| 426ME* | | 4 | 1/15 | 2.0 | 400 | 2.1 | 15 | 1/15 | 2.4 | 240 | 2.6 | 15 | 3560 | 15.5 | 19.3 | 20 | 10 | 12 | 15 | |
| 532ME* | | 5 | 1/15 | 2.5 | 500 | 2.6 | 15 | 1/15 | 3.0 | 300 | 3.2 | 15 | 4400 | 19.1 | 23.9 | 25 | 12 | 15.1 | 20 | |
| 639ME* | | 6 | 1/15 | 3.0 | 600 | 3.1 | 15 | 1/15 | 3.6 | 360 | 3.8 | 15 | 5230 | 22.7 | 28.4 | 30 | 15 | 18 | 20 | |
| 104LE* | | 6 | 1 | 1/15 | 0.5 | 100 | 0.6 | 15 | 1/15 | 0.6 | 60 | 0.75 | 15 | 1060 | 4.6 | 5.8 | 15 | 3.0 | 3.8 | 15 |
| 105LE* | | | 1 | 1/15 | 0.5 | 100 | 0.6 | 15 | 1/15 | 0.6 | 60 | 0.75 | 15 | 1060 | 4.6 | 5.8 | 15 | 3.0 | 3.8 | 15 |
| 106LE* | 1 | | 1/15 | 0.5 | 100 | 0.6 | 15 | 1/15 | 0.6 | 60 | 0.75 | 15 | 1060 | 4.6 | 5.8 | 15 | 3.0 | 3.8 | 15 | |
| 207LE* | 2 | | 1/15 | 1.0 | 200 | 1.1 | 15 | 1/15 | 1.2 | 120 | 1.4 | 15 | 1890 | 8.2 | 10.3 | 15 | 5.3 | 6.7 | 15 | |
| 209LE* | 2 | | 1/15 | 1.0 | 200 | 1.1 | 15 | 1/15 | 1.2 | 120 | 1.4 | 15 | 1890 | 8.2 | 10.3 | 15 | 5.3 | 6.7 | 15 | |
| 211LE* | 2 | | 1/15 | 1.0 | 200 | 1.1 | 15 | 1/15 | 1.2 | 120 | 1.4 | 15 | 1890 | 8.2 | 10.3 | 15 | 5.3 | 6.7 | 15 | |
| 314LE* | 3 | | 1/15 | 1.5 | 300 | 1.6 | 15 | 1/15 | 1.8 | 180 | 2.0 | 15 | 2730 | 11.9 | 14.8 | 15 | 7.7 | 10 | 15 | |
| 317LE* | 3 | | 1/15 | 1.5 | 300 | 1.6 | 15 | 1/15 | 1.8 | 180 | 2.0 | 15 | 2730 | 11.9 | 14.8 | 15 | 7.7 | 10 | 15 | |
| 419LE* | 4 | | 1/15 | 2.0 | 400 | 2.1 | 15 | 1/15 | 2.4 | 240 | 2.6 | 15 | 3560 | 15.5 | 19.3 | 20 | 10 | 12 | 15 | |
| 422LE* | 4 | | 1/15 | 2.0 | 400 | 2.1 | 15 | 1/15 | 2.4 | 240 | 2.6 | 15 | 3560 | 15.5 | 19.3 | 20 | 10 | 12 | 15 | |
| 527LE* | 5 | | 1/15 | 2.5 | 500 | 2.6 | 15 | 1/15 | 3.0 | 300 | 3.2 | 15 | 4400 | 19.1 | 23.9 | 25 | 12 | 15.1 | 20 | |
| 631LE* | 6 | | 1/15 | 3.0 | 600 | 3.1 | 15 | 1/15 | 3.6 | 360 | 3.8 | 15 | 5230 | 22.7 | 28.4 | 30 | 15 | 18 | 20 | |
| 103VE* | 4 | | 1 | 1/15 | 0.5 | 100 | 0.6 | 15 | 1/15 | 0.6 | 60 | 0.75 | 15 | 1060 | 4.6 | 5.8 | 15 | 3.0 | 3.8 | 15 |
| 104VE* | | | 1 | 1/15 | 0.5 | 100 | 0.6 | 15 | 1/15 | 0.6 | 60 | 0.75 | 15 | 1060 | 4.6 | 5.8 | 15 | 3.0 | 3.8 | 15 |
| 105VE* | | 1 | 1/15 | 0.5 | 100 | 0.6 | 15 | 1/15 | 0.6 | 60 | 0.75 | 15 | 1060 | 4.6 | 5.8 | 15 | 3.0 | 3.8 | 15 | |
| 206VE* | | 2 | 1/15 | 1.0 | 200 | 1.1 | 15 | 1/15 | 1.2 | 120 | 1.4 | 15 | 1890 | 8.2 | 10.3 | 15 | 5.3 | 6.7 | 15 | |
| 208VE* | | 2 | 1/15 | 1.0 | 200 | 1.1 | 15 | 1/15 | 1.2 | 120 | 1.4 | 15 | 1890 | 8.2 | 10.3 | 15 | 5.3 | 6.7 | 15 | |
| 209VE* | | 2 | 1/15 | 1.0 | 200 | 1.1 | 15 | 1/15 | 1.2 | 120 | 1.4 | 15 | 1890 | 8.2 | 10.3 | 15 | 5.3 | 6.7 | 15 | |
| 312VE* | | 3 | 1/15 | 1.5 | 300 | 1.6 | 15 | 1/15 | 1.8 | 180 | 2.0 | 15 | 2730 | 11.9 | 14.8 | 15 | 7.7 | 10 | 15 | |
| 315VE* | | 3 | 1/15 | 1.5 | 300 | 1.6 | 15 | 1/15 | 1.8 | 180 | 2.0 | 15 | 2730 | 11.9 | 14.8 | 15 | 7.7 | 10 | 15 | |
| 416VE* | | 4 | 1/15 | 2.0 | 400 | 2.1 | 15 | 1/15 | 2.4 | 240 | 2.6 | 15 | 3560 | 15.5 | 19.3 | 20 | 10 | 12 | 15 | |
| 419VE* | | 4 | 1/15 | 2.0 | 400 | 2.1 | 15 | 1/15 | 2.4 | 240 | 2.6 | 15 | 3560 | 15.5 | 19.3 | 20 | 10 | 12 | 15 | |
| 523VE* | | 5 | 1/15 | 2.5 | 500 | 2.6 | 15 | 1/15 | 3.0 | 300 | 3.2 | 15 | 4400 | 19.1 | 23.9 | 25 | 12 | 15.1 | 20 | |
| 627VE* | | 6 | 1/15 | 3.0 | 600 | 3.1 | 15 | 1/15 | 3.6 | 360 | 3.8 | 15 | 5230 | 22.7 | 28.4 | 30 | 15 | 18 | 20 | |

* = S2 or T3. Refer to Nomenclature for details

| MODEL TPLP | FPI | FAN MOTORS | | | | | DEFROST HEATERS | | | | |
|---------------|-----|------------|------------|--------------|-------|------------|-----------------|---------------|------------|---------------------|---------------------|
| | | QTY. | PSC MOTORS | | | | TOTAL WATTS | TOTAL AMPS | MCA (A) | MAX. FUSE (AMPS) | |
| | | | HP | FLA TOTAL | WATTS | MCA (A) | | | | | MAX. FUSE (AMPS) |
| 209MES4 | 6 | 2 | 1/15 | 0.8 | 200 | 0.9 | 15 | 1890 | 4.1 | 5.1 | 15 |
| 211MES4 | | 2 | 1/15 | 0.8 | 200 | 0.9 | 15 | 1890 | 4.1 | 5.1 | 15 |
| 214MES4 | | 2 | 1/15 | 0.8 | 200 | 0.9 | 15 | 1890 | 4.1 | 5.1 | 15 |
| 317MES4 | | 3 | 1/15 | 1.2 | 300 | 1.3 | 15 | 2730 | 5.9 | 7.4 | 15 |
| 320MES4 | | 3 | 1/15 | 1.2 | 300 | 1.3 | 15 | 2730 | 5.9 | 7.4 | 15 |
| 423MES4 | | 4 | 1/15 | 1.6 | 400 | 1.7 | 15 | 3560 | 7.7 | 9.7 | 15 |
| 426MES4 | | 4 | 1/15 | 1.6 | 400 | 1.7 | 15 | 3560 | 7.7 | 9.7 | 15 |
| 532MES4 | | 5 | 1/15 | 2.0 | 500 | 2.1 | 15 | 4400 | 9.6 | 12.0 | 15 |
| 639MES4 | | 6 | 1/15 | 2.4 | 600 | 2.5 | 15 | 5230 | 11.4 | 14.2 | 15 |
| 207LES4 | 6 | 2 | 1/15 | 0.8 | 200 | 0.9 | 15 | 1890 | 4.1 | 5.1 | 15 |
| 209LES4 | | 2 | 1/15 | 0.8 | 200 | 0.9 | 15 | 1890 | 4.1 | 5.1 | 15 |
| 211LES4 | | 2 | 1/15 | 0.8 | 200 | 0.9 | 15 | 1890 | 4.1 | 5.1 | 15 |
| 314LES4 | | 3 | 1/15 | 1.2 | 300 | 1.3 | 15 | 2730 | 5.9 | 7.4 | 15 |
| 317LES4 | | 3 | 1/15 | 1.2 | 300 | 1.3 | 15 | 2730 | 5.9 | 7.4 | 15 |
| 419LES4 | | 4 | 1/15 | 1.6 | 400 | 1.7 | 15 | 3560 | 7.7 | 9.7 | 15 |
| 422LES4 | | 4 | 1/15 | 1.6 | 400 | 1.7 | 15 | 3560 | 7.7 | 9.7 | 15 |
| 527LES4 | | 5 | 1/15 | 2.0 | 500 | 2.1 | 15 | 4400 | 9.6 | 12.0 | 15 |
| 631LES4 | | 6 | 1/15 | 2.4 | 600 | 2.5 | 15 | 5230 | 11.4 | 14.2 | 15 |
| 206VES4 | 4 | 2 | 1/15 | 0.8 | 200 | 0.9 | 15 | 1890 | 4.1 | 5.1 | 15 |
| 208VES4 | | 2 | 1/15 | 0.8 | 200 | 0.9 | 15 | 1890 | 4.1 | 5.1 | 15 |
| 209VES4 | | 2 | 1/15 | 0.8 | 200 | 0.9 | 15 | 1890 | 4.1 | 5.1 | 15 |
| 312VES4 | | 3 | 1/15 | 1.2 | 300 | 1.3 | 15 | 2730 | 5.9 | 7.4 | 15 |
| 315VES4 | | 3 | 1/15 | 1.2 | 300 | 1.3 | 15 | 2730 | 5.9 | 7.4 | 15 |
| 416VES4 | | 4 | 1/15 | 1.6 | 400 | 1.7 | 15 | 3560 | 7.7 | 9.7 | 15 |
| 419VES4 | | 4 | 1/15 | 1.6 | 400 | 1.7 | 15 | 3560 | 7.7 | 9.7 | 15 |
| 523VES4 | | 5 | 1/15 | 2.0 | 500 | 2.1 | 15 | 4400 | 9.6 | 12.0 | 15 |
| 627VES4 | 6 | 1/15 | 2.4 | 600 | 2.5 | 15 | 5230 | 11.4 | 14.2 | 15 | |

WIRING DIAGRAM - 115/1/60, 208-230/1/60 STANDARD PSC MOTORS 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

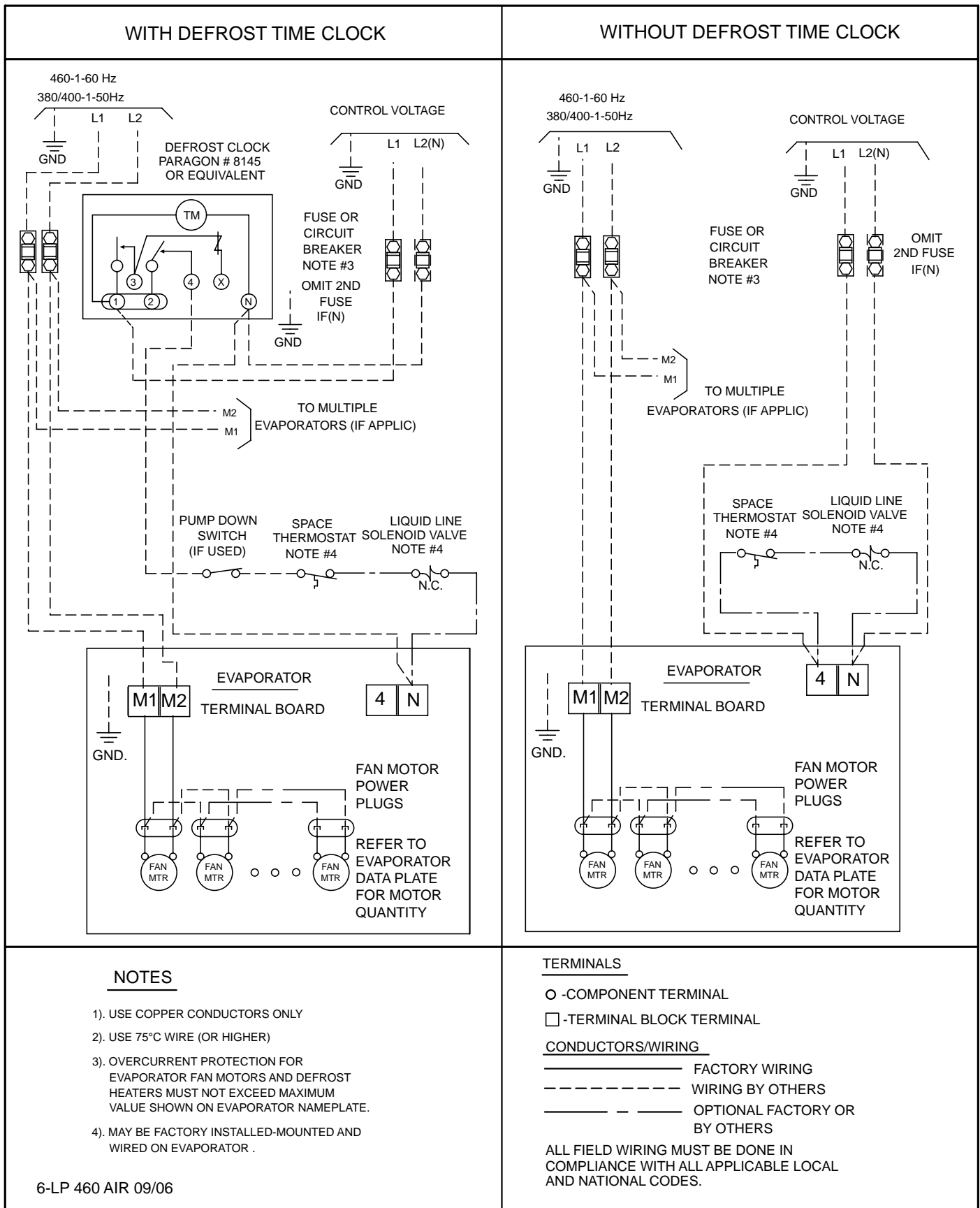
- -COMPONENT TERMINAL
- -TERMINAL BLOCK TERMINAL

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.

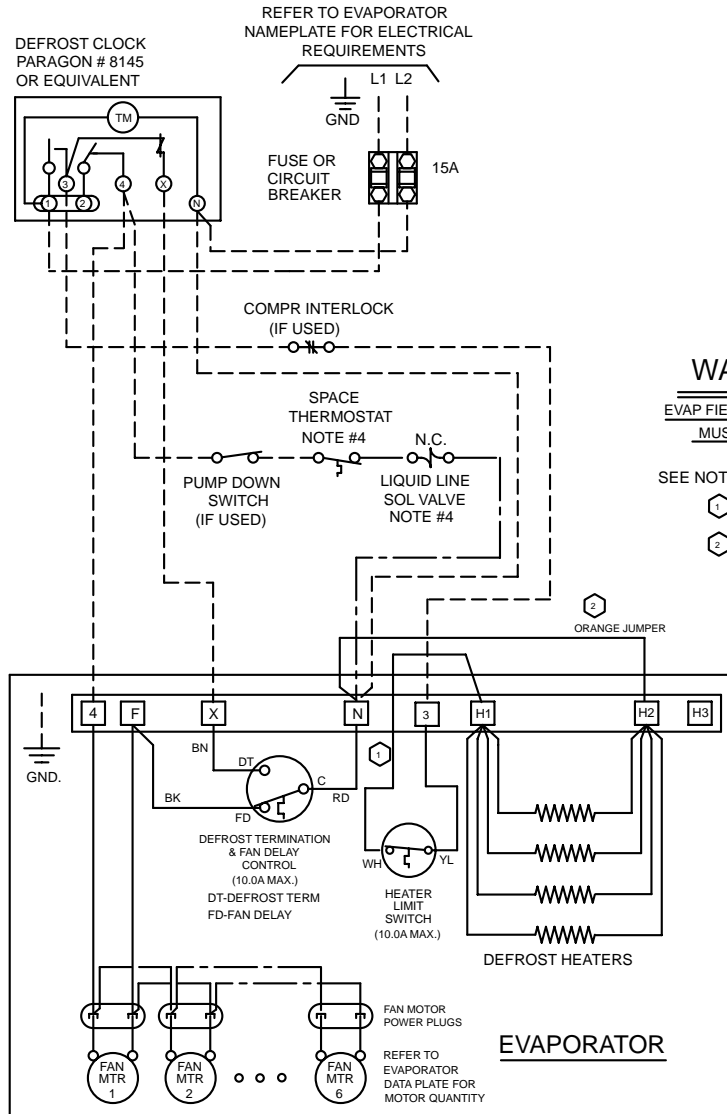
WIRING DIAGRAM - 460/1/60 STANDARD PSC MOTORS AIR DEFROST MODELS



WIRING DIAGRAM - 208-230/1/60 STANDARD PSC MOTORS

ELECTRIC DEFROST MODELS - SINGLE EVAPORATOR 10A MAX.

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



WARNING

EVAP FIELD MODIFICATION
MUST BE MADE

SEE NOTE:

- 1. RELOCATE WHITE WIRE FROM N TO H1 AS SHOWN
- 2. INSTALL ORANGE JUMPER (SUPPLIED LOOSE) FROM H2 TO N

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

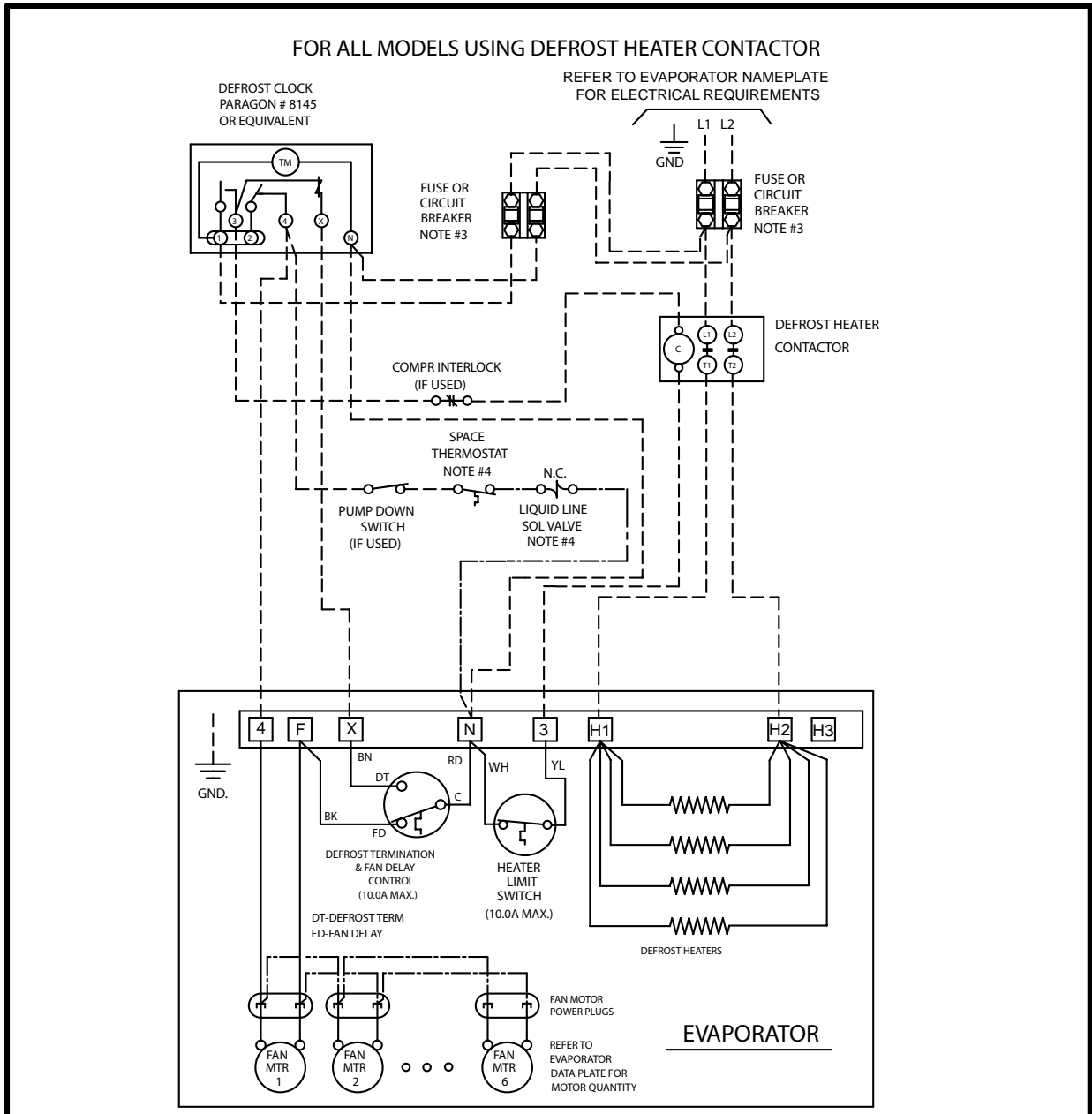
- -COMPONENT TERMINAL
- -TERMINAL BLOCK TERMINAL

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.

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



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.

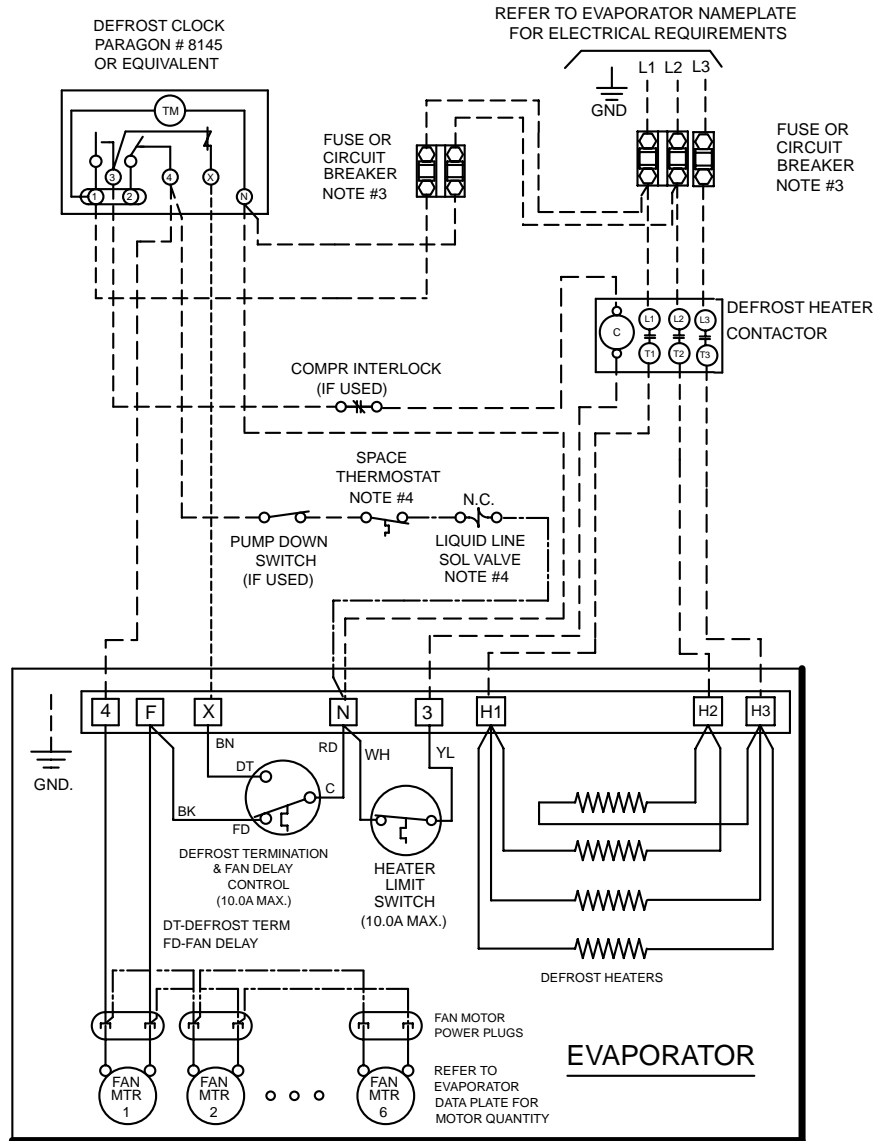
3-LP ED CONTACTOR SINGLE 12/07

WIRING DIAGRAM - 208-230/3/60

STANDARD PSC MOTORS

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

- -COMPONENT TERMINAL
- -TERMINAL BLOCK TERMINAL

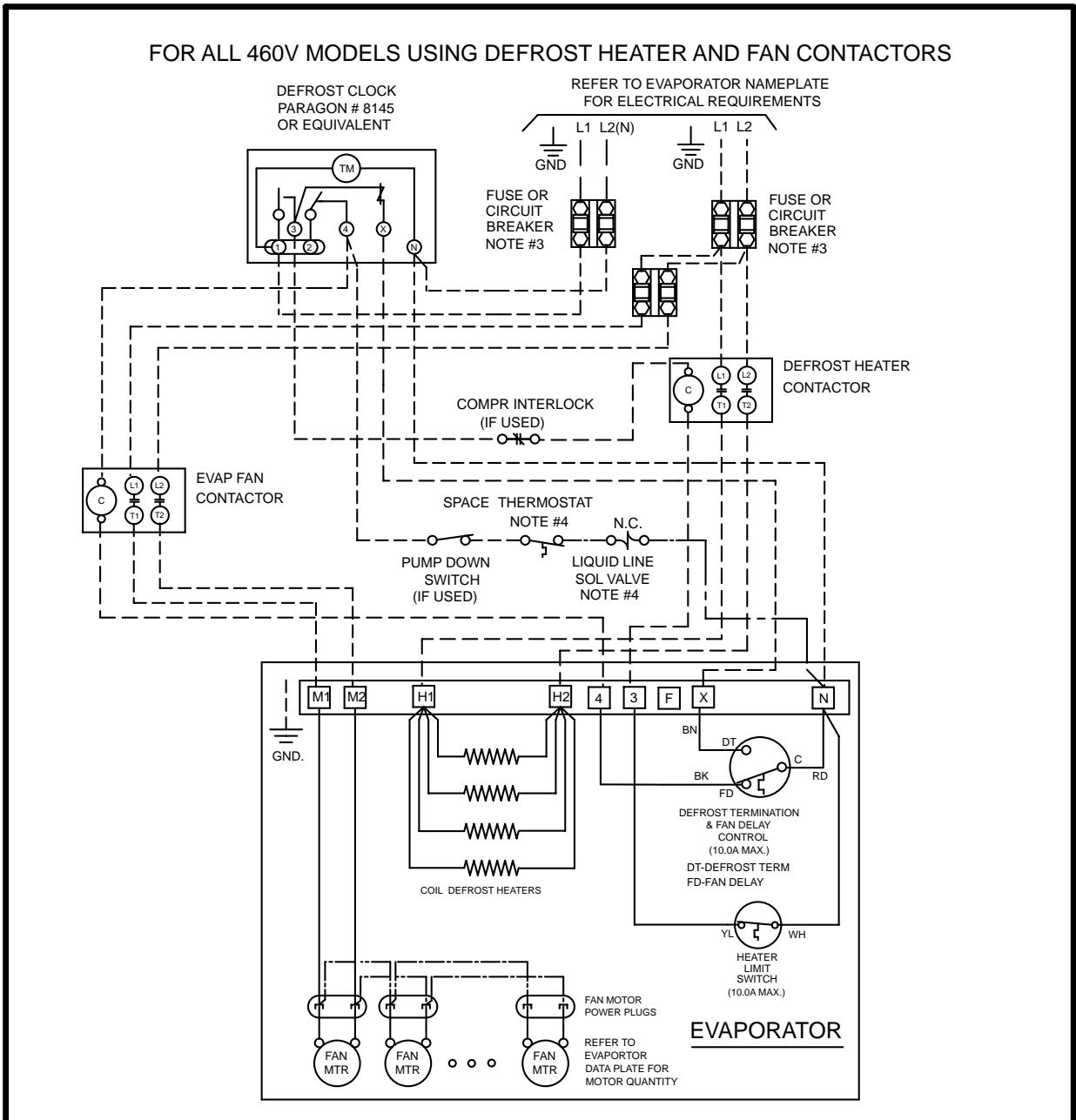
CONDUCTORS/WIRING

- 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 12/07

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



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 12/07

TERMINALS

- -COMPONENT TERMINAL
- -TERMINAL BLOCK TERMINAL

CONDUCTORS/WIRING

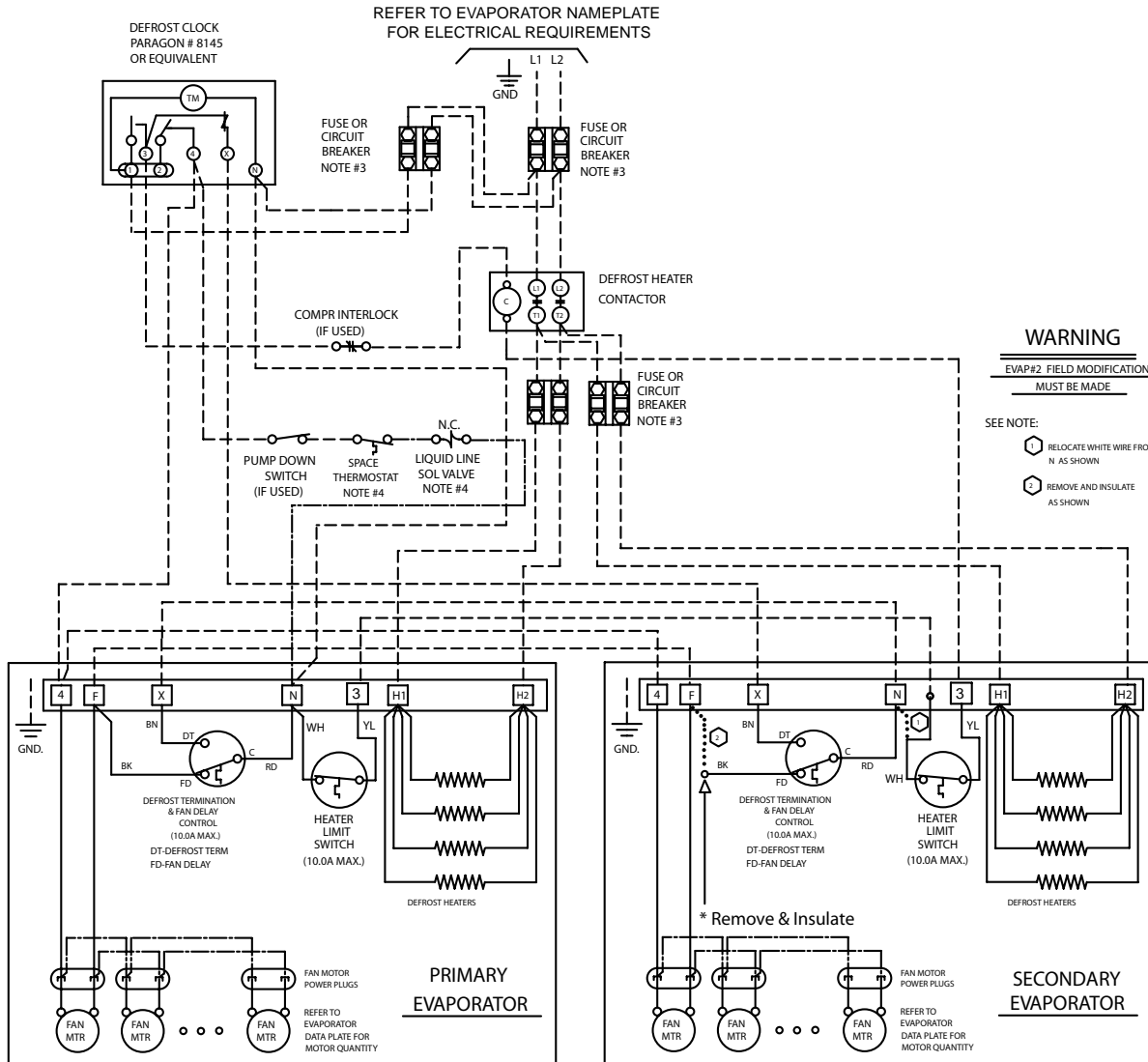
- FACTORY WIRING
- - - - - WIRING BY OTHERS
- OPTIONAL FACTORY OR BY OTHERS

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

STANDARD PSC MOTORS

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 12/07

TERMINALS

- - COMPONENT TERMINAL
- - TERMINAL BLOCK TERMINAL

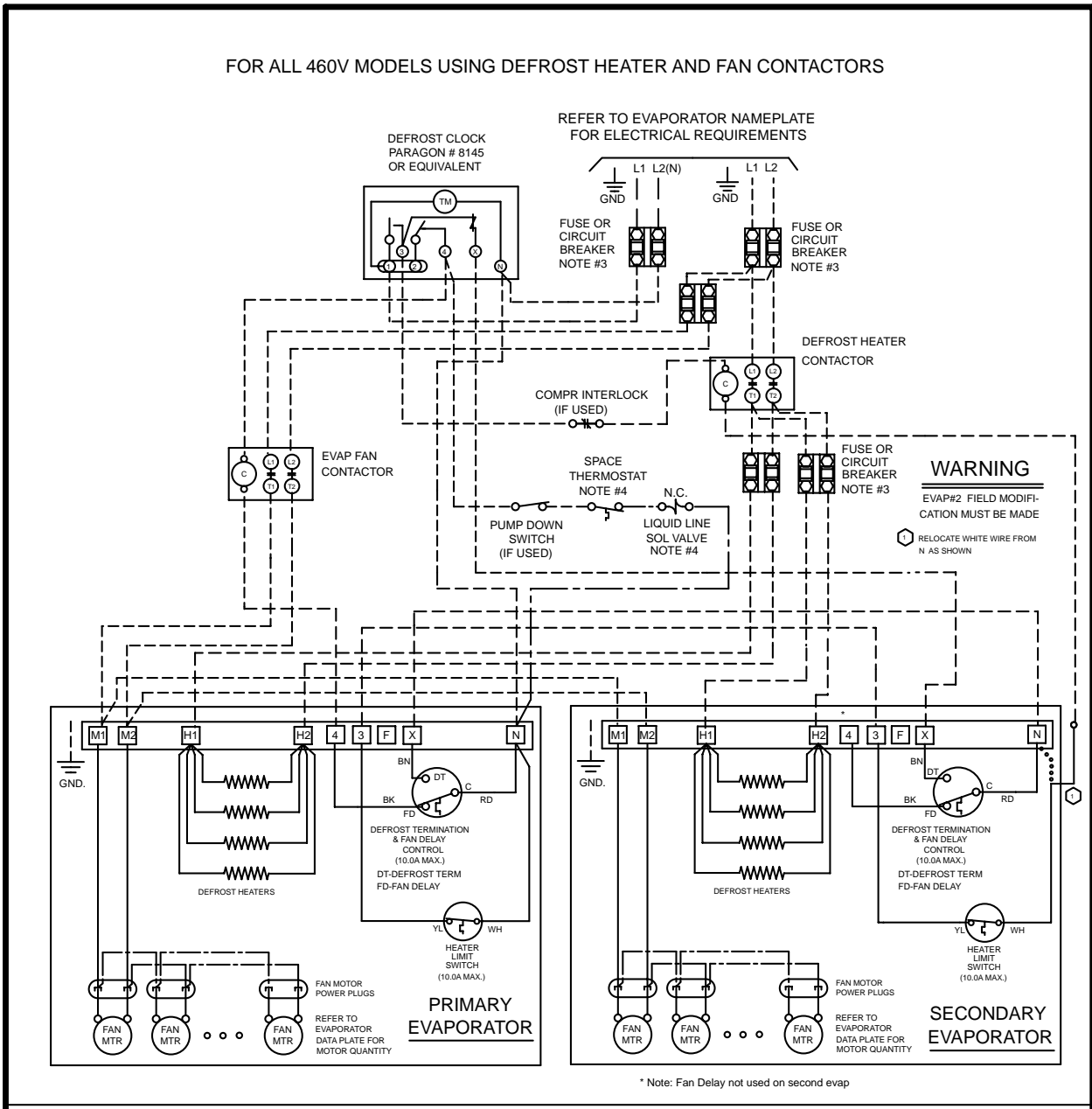
CONDUCTORS/WIRING

- 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.

ELECTRIC DEFROST MODELS - MULTIPLE EVAPORATORS

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

TERMINALS

- - COMPONENT TERMINAL
- - TERMINAL BLOCK TERMINAL

CONDUCTORS/WIRING

- FACTORY WIRING
- WIRING BY OTHERS
- - - - - OPTIONAL FACTORY OR BY OTHERS

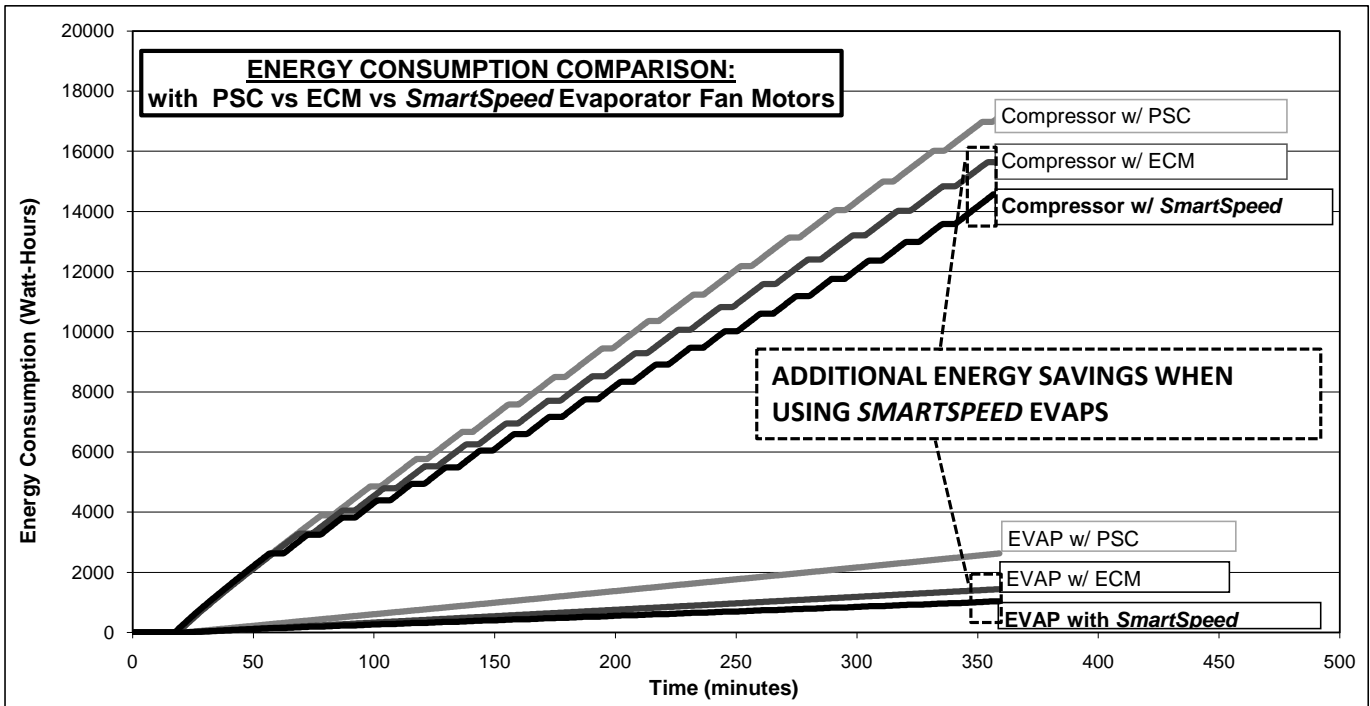
ALL FIELD WIRING MUST BE DONE IN COMPLIANCE WITH ALL APPLICABLE LOCAL AND NATIONAL CODES.

US Patents Nos.
8,635,883
& 9,151,525

DESIGN FEATURES



- Standard on all EC Motors
- NO special controls required.
- Refrigeration mode – EC motor operates at full speed.
Consumption 60 W per motor
- Off Cycle mode – EC motor operates at reduced speed.
Consumption 13 W per motor.
- Energy saving benefit on motor and compressor wattage consumption:

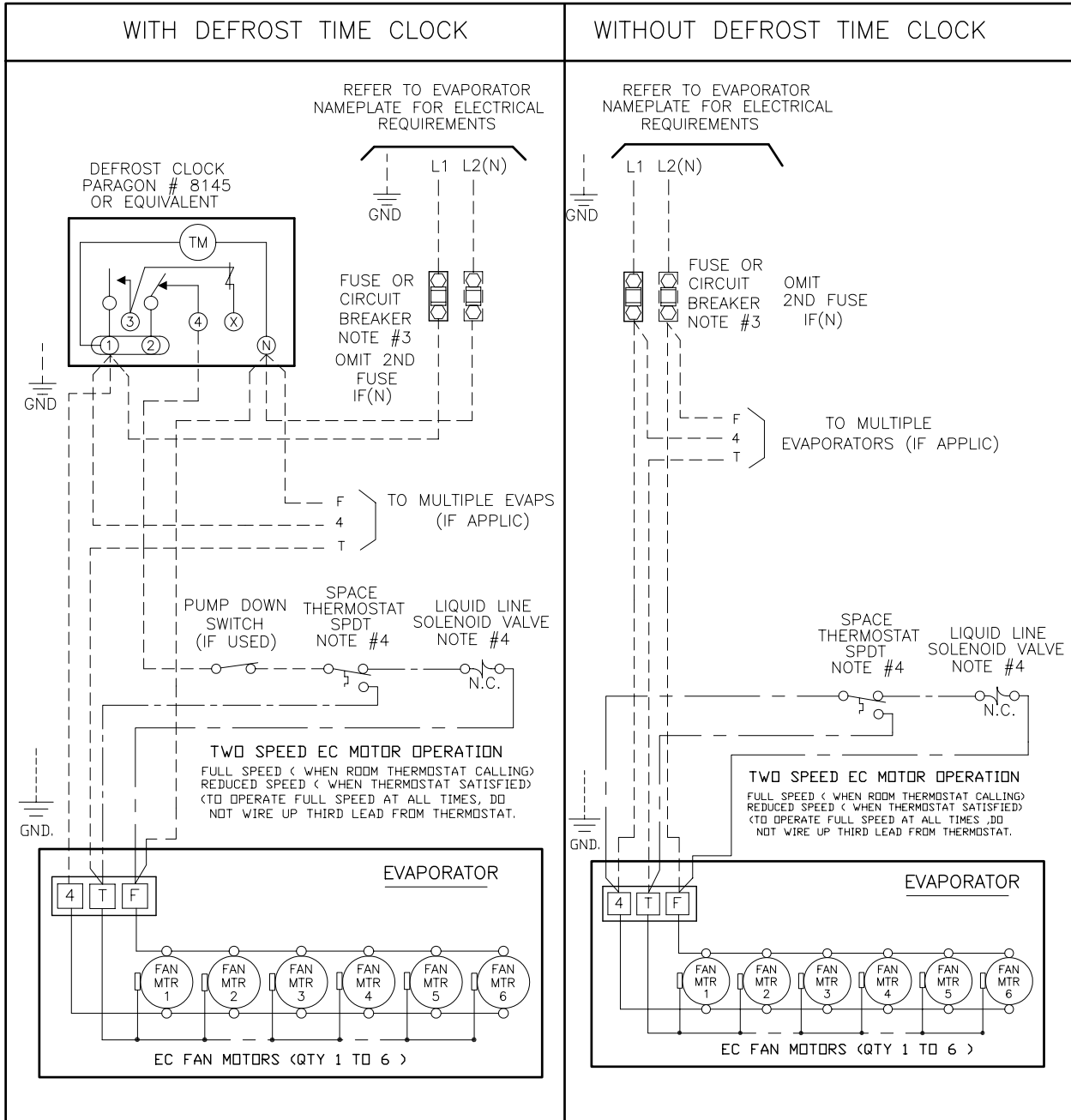


Note: Data collected on a typical freezer application with a 3HP low temp condensing unit and a 4 fan TPLP evaporator

INSTALLATION NOTES

EC motors are factory wired for SmartSpeed operation on evaporators equipped with a factory installed thermostat.

WIRING DIAGRAM - 115/1/60, 208-230/1/60 OPTIONAL EC MOTORS with SMARTSPEED™ 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. MUST BE SPDT TYPE IF TWO SPEED MODE IS REQUIRED.

1-LPEC AIR 01/10

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

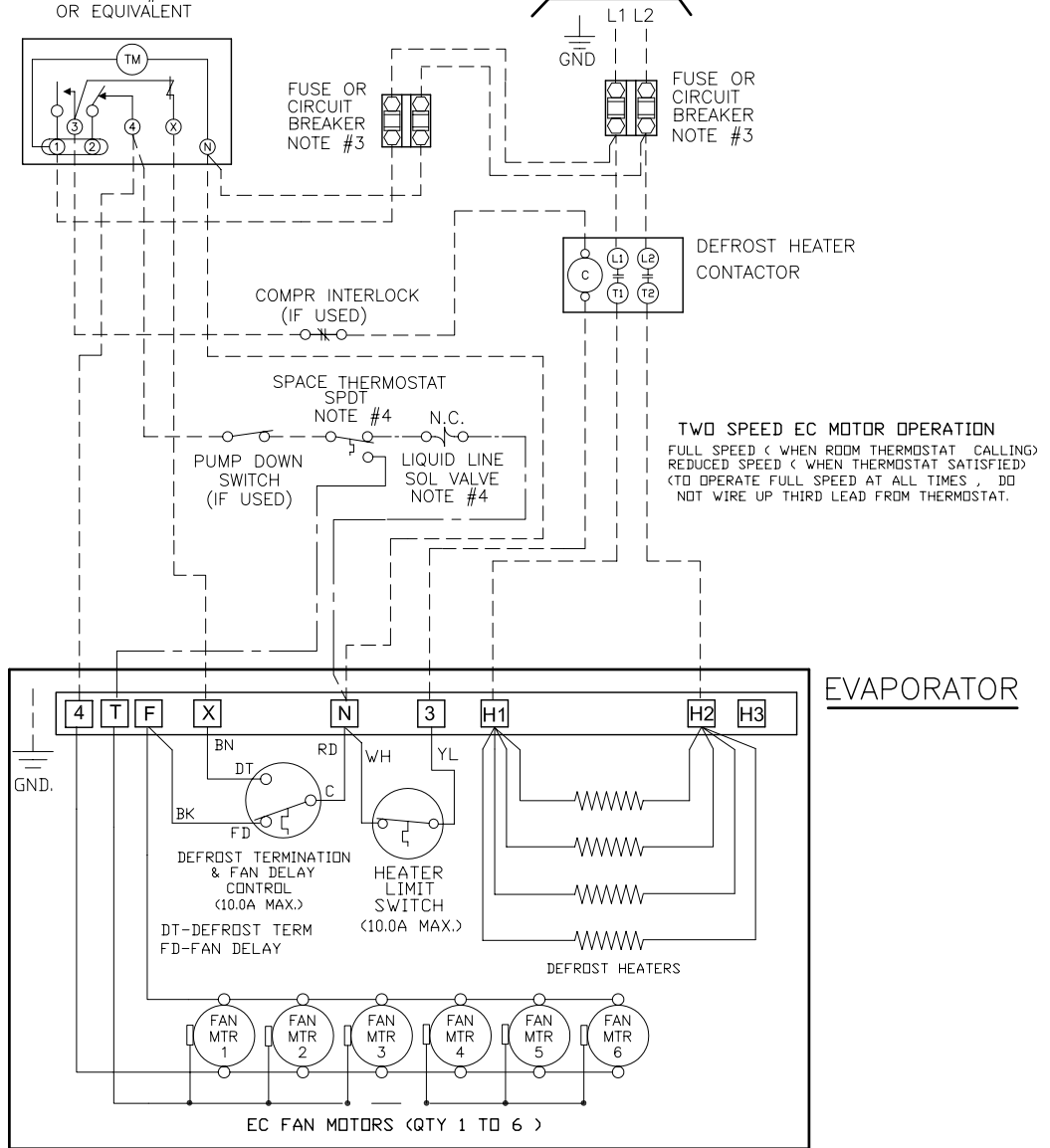
OPTIONAL EC MOTORS with SMARTSPEED™

ELECTRIC DEFROST MODELS

FOR ALL MODELS USING DEFROST HEATER CONTACTOR

DEFROST CLOCK
PARAGON # 8145
OR EQUIVALENT

REFER TO EVAPORATOR NAMEPLATE FOR ELECTRICAL REQUIREMENTS



TWO SPEED EC MOTOR OPERATION
FULL SPEED (WHEN ROOM THERMOSTAT CALLING)
REDUCED SPEED (WHEN THERMOSTAT SATISFIED)
(TO OPERATE FULL SPEED AT ALL TIMES , DO NOT WIRE UP THIRD LEAD FROM THERMOSTAT .

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 . MUST BE SPDT TYPE IF TWO SPEED MODE IS REQUIRED.

TERMINALS

- -COMPONENT TERMINAL
- -TERMINAL BLOCK TERMINAL

CONDUCTORS/WIRING

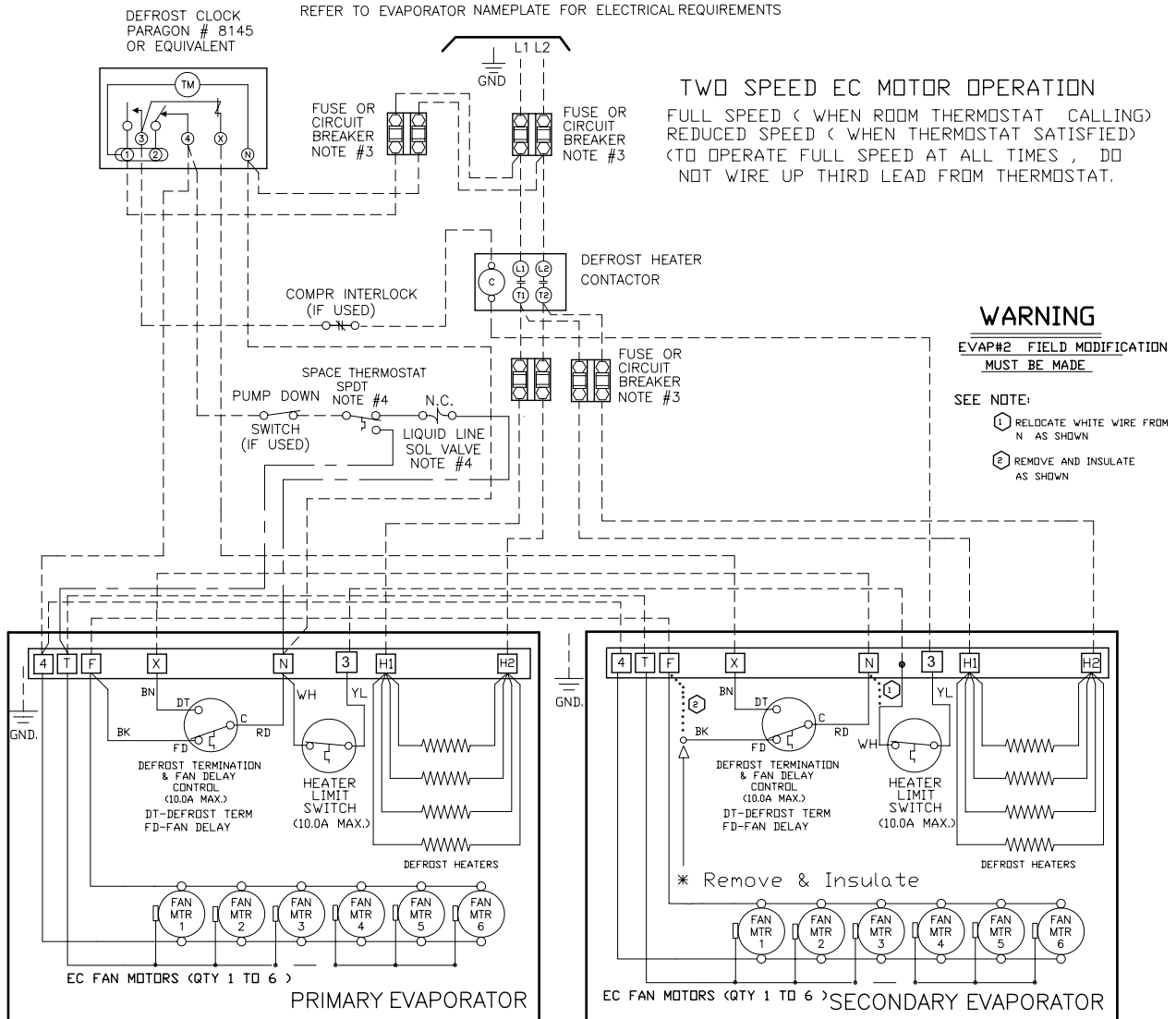
- FACTORY WIRING
- - - - - WIRING BY OTHERS
- OPTIONAL FACTORY OR BY OTHERS

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

2-LPEC ED CONTACTOR SINGLE 01/10

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 . MUST BE SPDT TYPE IF TWO SPEED MODE IS REQUIRED.

3-LPEC ED CONTACTOR MULTI 01/10

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.

INTUITIVE EVAPORATOR CONTROL TECHNOLOGY

What is ESP+?

Trenton Refrigeration's ESP+ intuitive evaporator control technology is designed to replace traditional electro-mechanical refrigeration controls typically used on medium and low temperature applications. By combining award winning adaptive technology along with an electronic expansion valve, Trenton Refrigeration continues Leading The Way with innovative, state-of-the-art designs.

Installing an evaporator utilizing the ESP+ intuitive evaporator control technology is simple. Two pipes, two wires and you're done. No interconnecting control wiring between the evaporator and the condensing unit is required.

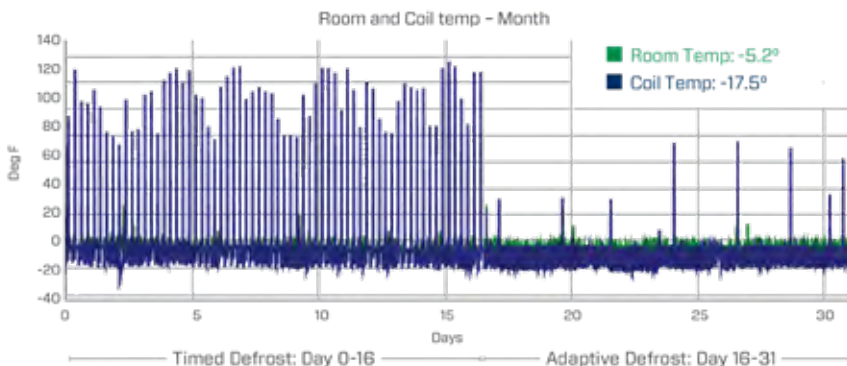
- Quick simple installation
- Improved evaporator performance by minimizing excessive frost on the evaporator
 - Eliminates ice build up on surfaces and product
 - Energy savings through evaporator fan management
- Energy savings with reduction in the number of defrost cycles
 - Defrost heater management
- Improved system diagnostics and service through advanced alarm notification text/email
 - Remote monitoring & system control
 - User friendly interface
 - Precise temperature control for prolonged product shelf life
 - Improved product integrity with less potential for spoilage
 - Downloadable data provides system history for prior 30 days
- Remotely view and change system parameters and alarm settings
 - Manually control system
 - Easily troubleshoot issues

ESP+ controls:

- Box Temperature - Superheat
- Defrost Initiation - Defrost Termination - Fan Motors
- Defrost Heater (Electric Defrost Models)

Plus - User can access operating data directly from the system interface

**15-20% System Energy Savings
over a Properly Commissioned System!**

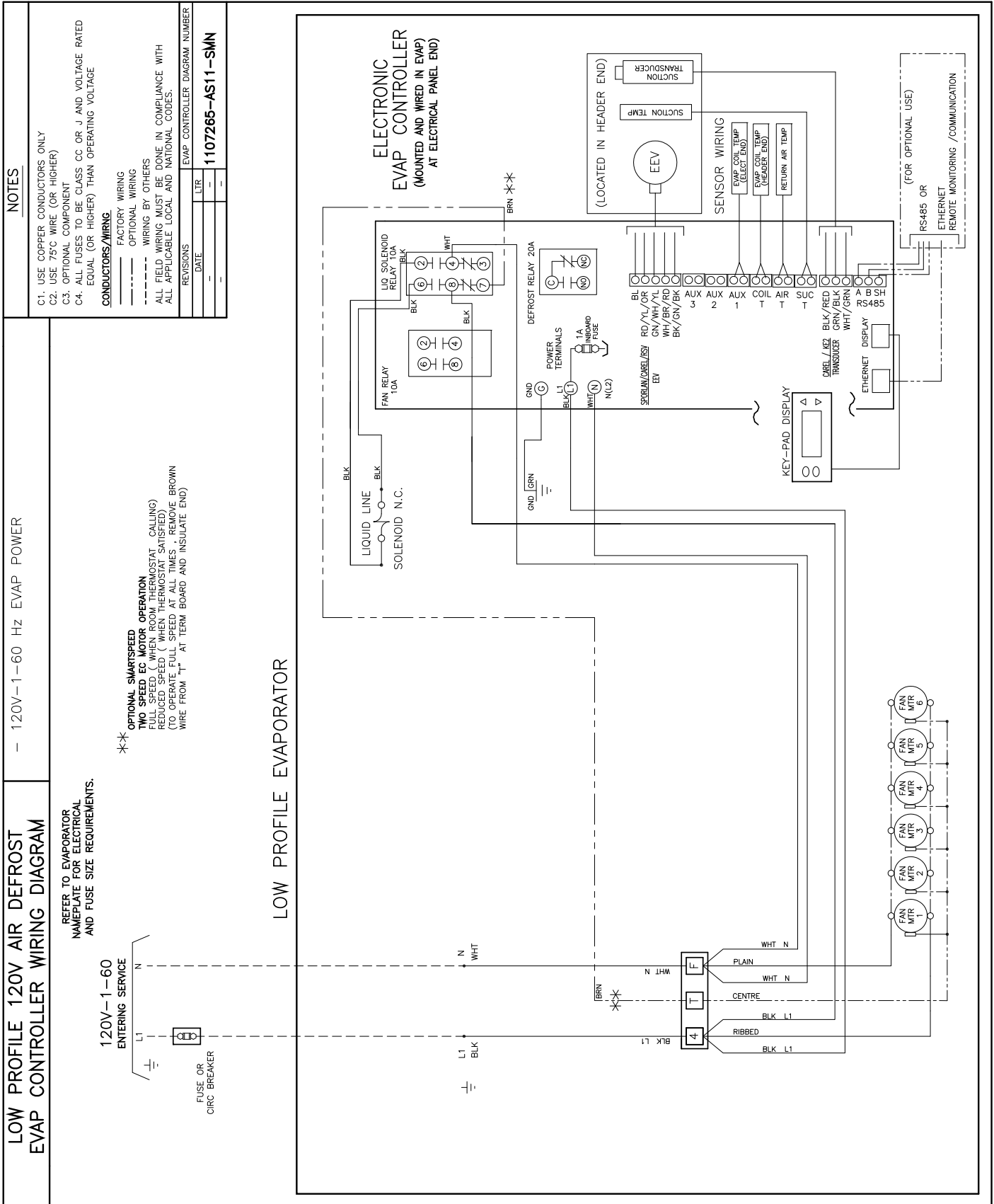


86% Fewer Defrost Cycles*

- Enhanced system performance
- Energy Savings
- Improved product integrity

* Data may vary depending on application

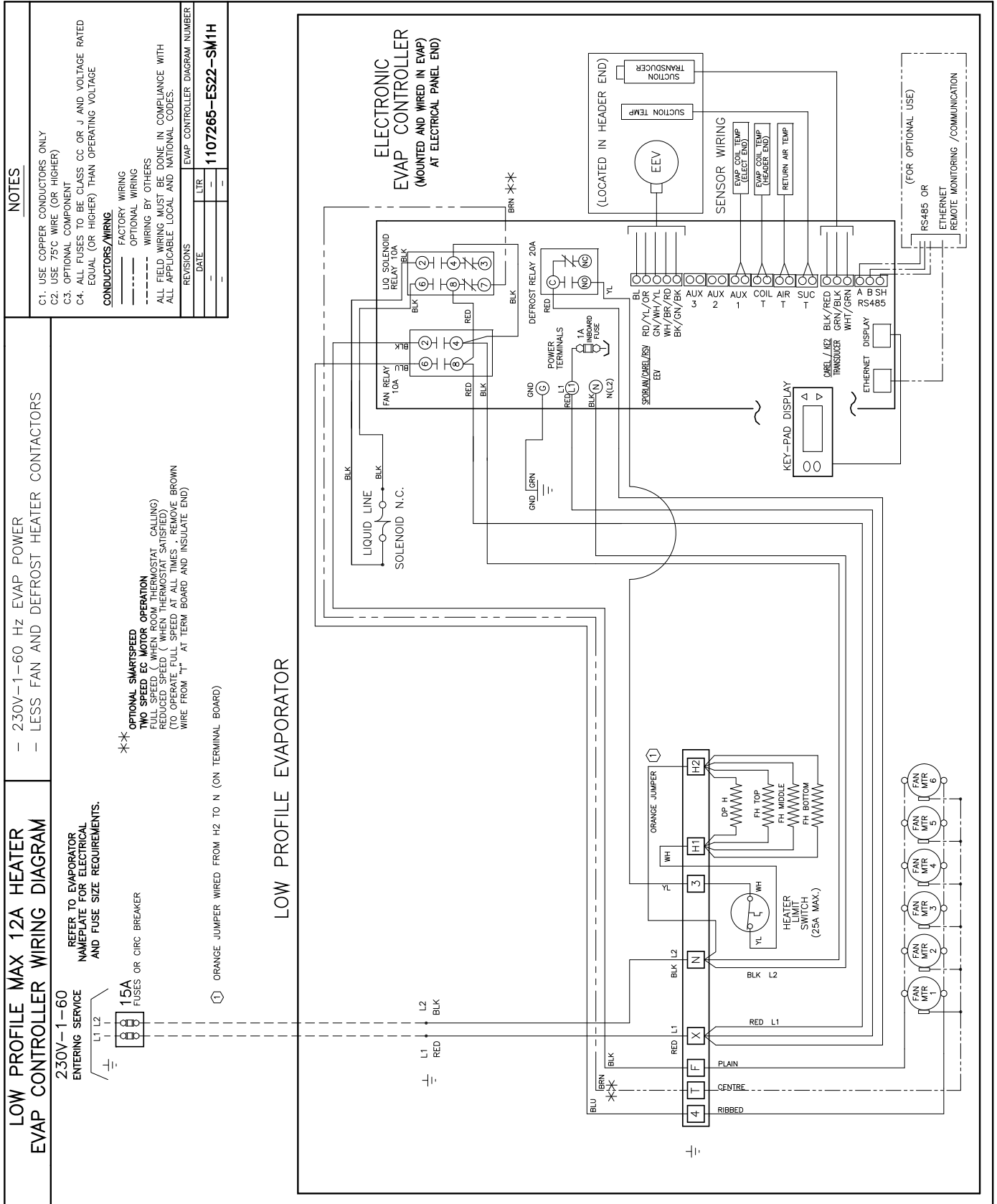
Visit www.t-rp.com/esp for details

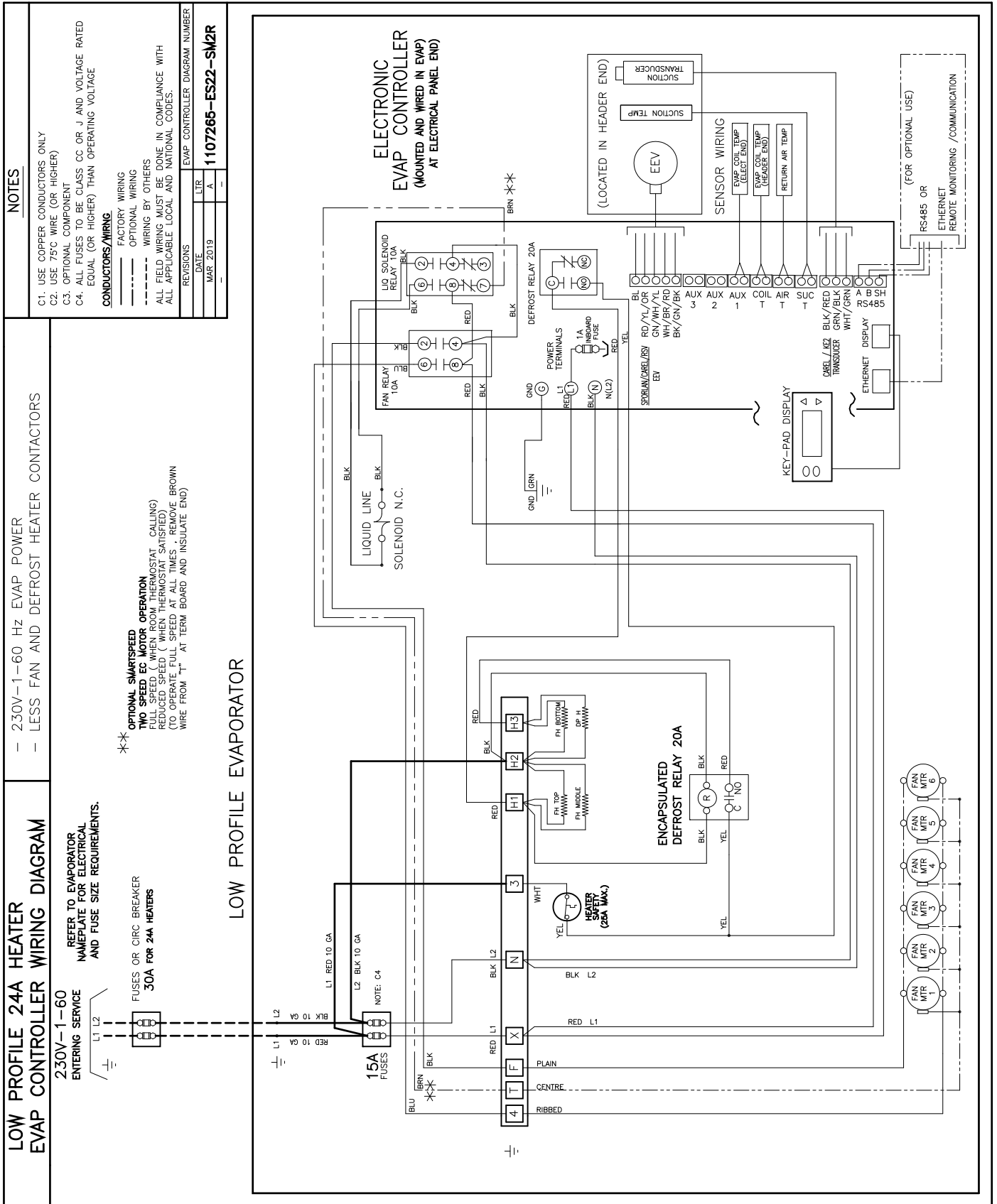


WIRING DIAGRAM - 208-230/1/60

1-3 FAN ELECTRIC DEFROST MODELS

w/ **ESP** MAX. 12A



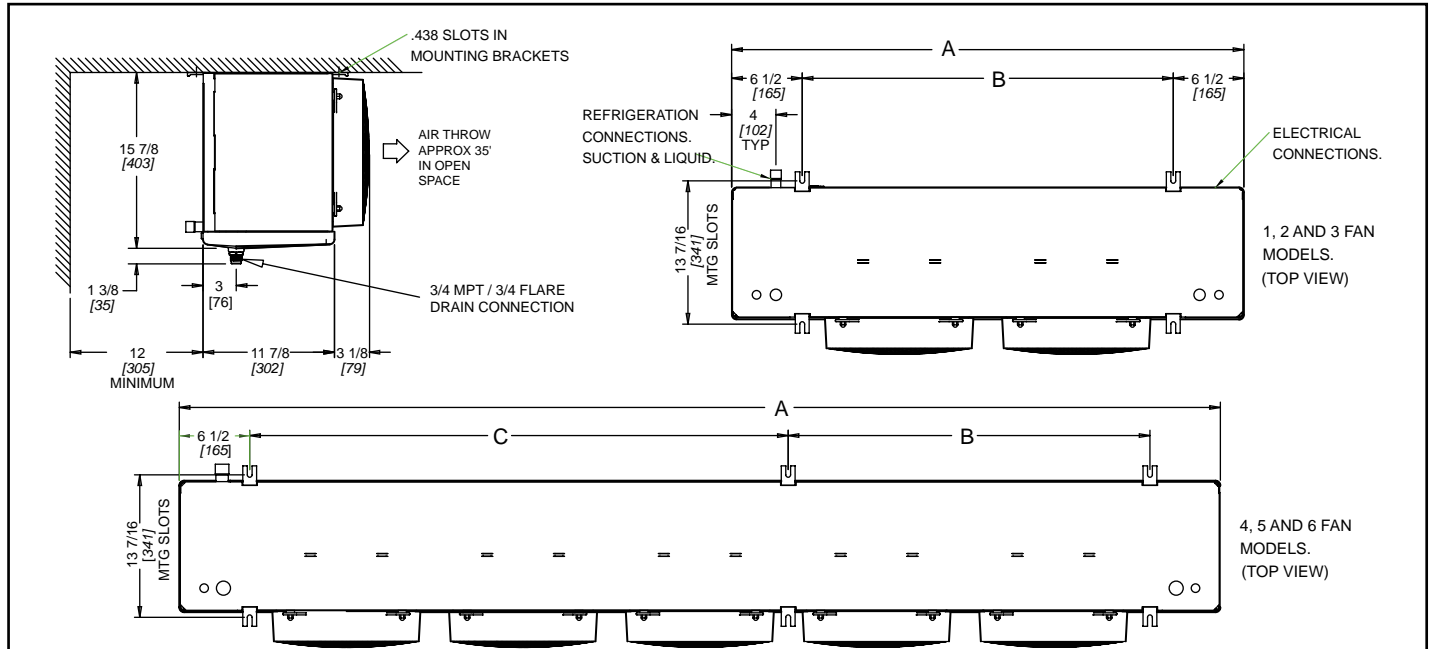


Air Defrost Models

| MODEL TPLP | SHIPPING WEIGHT | |
|---------------|-----------------|------|
| | LB. | (kg) |
| 104MA | 45 | (20) |
| 106MA | 47 | (21) |
| 107MA | 49 | (22) |
| 209MA | 70 | (32) |
| 211MA | 74 | (33) |
| 214MA | 78 | (35) |
| 317MA | 101 | (46) |
| 320MA | 107 | (48) |
| 423MA | 117 | (53) |
| 426MA | 135 | (61) |
| 532MA | 163 | (74) |
| 639MA | 192 | (87) |

Electric Defrost Models

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



| MODEL TPLP | NO. OF FANS | A | | B | | C | | SUCTION CONNECTION (ID) SWEAT | LIQUID CONNECTION (ID) SWEAT | | | |
|-------------------|----------------|---------|--------|--------|--------|--------|--------|-------------------------------------|------------------------------|-----|-------|-----|
| | | IN | (mm) | IN | (mm) | IN | (mm) | | R407A | R22 | R404A | ESP |
| 104M [^] | 1 | 30 1/4 | (768) | 17 1/4 | (438) | N/A | N/A | 5/8 | 3/8 | 3/8 | 3/8 | |
| 106M [^] | 1 | 30 1/4 | (768) | 17 1/4 | (438) | N/A | N/A | 5/8 | 3/8 | 3/8 | 3/8 | |
| 107M [^] | 1 | 30 1/4 | (768) | 17 1/4 | (438) | N/A | N/A | 5/8 | 3/8 | 3/8 | 3/8 | |
| 209M [^] | 2 | 46 1/4 | (1175) | 33 1/4 | (845) | N/A | N/A | 7/8 | 3/8 | 3/8 | 3/8 | |
| 211M [^] | 2 | 46 1/4 | (1175) | 33 1/4 | (845) | N/A | N/A | 7/8 | 3/8 | 3/8 | 3/8 | |
| 214M [^] | 2 | 46 1/4 | (1175) | 33 1/4 | (845) | N/A | N/A | 7/8 | 3/8 | 3/8 | 3/8 | |
| 317M [^] | 3 | 62 1/4 | (1581) | 49 1/4 | (1251) | N/A | N/A | 7/8 | 3/8 | 3/8 | 3/8 | |
| 320M [^] | 3 | 62 1/4 | (1581) | 49 1/4 | (1251) | N/A | N/A | 7/8 | 3/8 | 3/8 | 3/8 | |
| 423M [^] | 4 | 78 1/4 | (1988) | 32 5/8 | (829) | 32 5/8 | (829) | 1 1/8 | 3/8 | 3/8 | 3/8 | |
| 426M [^] | 4 | 78 1/4 | (1988) | 32 5/8 | (829) | 32 5/8 | (829) | 1 1/8 | 3/8 | 1/2 | 3/8 | |
| 532M [^] | 5 | 94 1/4 | (2394) | 32 5/8 | (829) | 48 5/8 | (1235) | 1 3/8 | 1/2 | 1/2 | 1/2 | |
| 639M [^] | 6 | 110 1/4 | (2800) | 48 5/8 | (1235) | 48 5/8 | (1235) | 1 3/8 | 1/2 | 1/2 | 1/2 | |
| 104L [^] | 1 | 30 1/4 | (768) | 17 1/4 | (438) | N/A | N/A | 5/8 | 3/8 | 3/8 | 3/8 | |
| 105L [^] | 1 | 30 1/4 | (768) | 17 1/4 | (438) | N/A | N/A | 5/8 | 3/8 | 3/8 | 3/8 | |
| 106L [^] | 1 | 30 1/4 | (768) | 17 1/4 | (438) | N/A | N/A | 5/8 | 3/8 | 3/8 | 3/8 | |
| 207L [^] | 2 | 46 1/4 | (1175) | 33 1/4 | (845) | N/A | N/A | 7/8 | 3/8 | 3/8 | 3/8 | |
| 209L [^] | 2 | 46 1/4 | (1175) | 33 1/4 | (845) | N/A | N/A | 7/8 | 3/8 | 3/8 | 3/8 | |
| 211L [^] | 2 | 46 1/4 | (1175) | 33 1/4 | (845) | N/A | N/A | 7/8 | 3/8 | 3/8 | 3/8 | |
| 314L [^] | 3 | 62 1/4 | (1581) | 49 1/4 | (1251) | N/A | N/A | 7/8 | 3/8 | 3/8 | 3/8 | |
| 317L [^] | 3 | 62 1/4 | (1581) | 49 1/4 | (1251) | N/A | N/A | 1 1/8 | 3/8 | 3/8 | 3/8 | |
| 419L [^] | 4 | 78 1/4 | (1988) | 32 5/8 | (829) | 32 5/8 | (829) | 1 1/8 | 3/8 | 3/8 | 3/8 | |
| 422L [^] | 4 | 78 1/4 | (1988) | 32 5/8 | (829) | 32 5/8 | (829) | 1 1/8 | 3/8 | 3/8 | 3/8 | |
| 527L [^] | 5 | 94 1/4 | (2394) | 32 5/8 | (829) | 48 5/8 | (1235) | 1 3/8 | 3/8 | 1/2 | 1/2 | |
| 631L [^] | 6 | 110 1/4 | (2800) | 48 5/8 | (1235) | 48 5/8 | (1235) | 1 3/8 | 1/2 | 1/2 | 1/2 | |
| 103V [^] | 1 | 30 1/4 | (768) | 17 1/4 | (438) | N/A | N/A | 5/8 | 3/8 | 3/8 | 3/8 | |
| 104V [^] | 1 | 30 1/4 | (768) | 17 1/4 | (438) | N/A | N/A | 5/8 | 3/8 | 3/8 | 3/8 | |
| 105V [^] | 1 | 30 1/4 | (768) | 17 1/4 | (438) | N/A | N/A | 5/8 | 3/8 | 3/8 | 3/8 | |
| 206V [^] | 2 | 46 1/4 | (1175) | 33 1/4 | (845) | N/A | N/A | 7/8 | 3/8 | 3/8 | 3/8 | |
| 208V [^] | 2 | 46 1/4 | (1175) | 33 1/4 | (845) | N/A | N/A | 7/8 | 3/8 | 3/8 | 3/8 | |
| 209V [^] | 2 | 46 1/4 | (1175) | 33 1/4 | (845) | N/A | N/A | 7/8 | 3/8 | 3/8 | 3/8 | |
| 312V [^] | 3 | 62 1/4 | (1581) | 49 1/4 | (1251) | N/A | N/A | 7/8 | 3/8 | 3/8 | 3/8 | |
| 315V [^] | 3 | 62 1/4 | (1581) | 49 1/4 | (1251) | N/A | N/A | 1 1/8 | 3/8 | 3/8 | 3/8 | |
| 416V [^] | 4 | 78 1/4 | (1988) | 32 5/8 | (829) | 32 5/8 | (829) | 1 1/8 | 3/8 | 3/8 | 3/8 | |
| 419V [^] | 4 | 78 1/4 | (1988) | 32 5/8 | (829) | 32 5/8 | (829) | 1 1/8 | 3/8 | 3/8 | 3/8 | |
| 523V [^] | 5 | 94 1/4 | (2394) | 32 5/8 | (829) | 48 5/8 | (1235) | 1 3/8 | 3/8 | 1/2 | 1/2 | |
| 627V [^] | 6 | 110 1/4 | (2800) | 48 5/8 | (1235) | 48 5/8 | (1235) | 1 3/8 | 3/8 | 1/2 | 1/2 | |

[^] = A or E. Refer to Nomenclature for details

**FACTORY INSTALLED
EXPANSION VALVE SELECTIONS -
MEDIUM TEMP. MODELS (MECHANICAL)**

**MEDIUM TEMPERATURE
R404A
AIR OR ELECTRIC DEFROST**

| MODEL TPLP | FACTORY INSTALLED NOZZLE | FACTORY INSTALLED EXPANSION VALVE | FACTORY INSTALLED LIQUID LINE SOLENOID VALVE | FACTORY INSTALLED SOLENOID COIL |
|---------------|--------------------------------|--|--|--|
| 104M***BR6 | N/A | EBQE-AA-SC | E3 | MKC-1 |
| 106M***BR6 | L-1/2 | EBQE-A-SC | E3 | MKC-1 |
| 107M***BR6 | L-1/2 | EBQE-A-SC | E3 | MKC-1 |
| 209M***BR6 | L-3/4 | EBQE-A-SC | E3 | MKC-1 |
| 211M***BR6 | L-1 | EBQE-A-SC | E3 | MKC-1 |
| 214M***BR6 | L-1 | EBQE-B-SC | E5 | MKC-1 |
| 317M***BR6 | L-1 1/2 | EBQE-B-SC | E5 | MKC-1 |
| 320M***BR6 | L-1 1/2 | EBQE-B-SC | E5 | MKC-1 |
| 423M***BR6 | L-2 | EBQE-C-SC | E6 | MKC-1 |
| 426M***BR6 | L-2 | EBQE-C-SC | E6 | MKC-1 |
| 532M***BR6 | L-2 1/2 | EBSSE-6-SC | E6 | MKC-1 |
| 639M***BR6 | G-3 | EBSSE-6-SC | E6 | MKC-1 |

*** Insert defrost and voltage type. See nomenclature for details

**MEDIUM TEMPERATURE
R448A R407A R407C R22
AIR OR ELECTRIC DEFROST**

| MODEL TPLP | FACTORY INSTALLED NOZZLE | FACTORY INSTALLED EXPANSION VALVE | FACTORY INSTALLED LIQUID LINE SOLENOID VALVE | FACTORY INSTALLED SOLENOID COIL |
|---------------|--------------------------------|--|--|--|
| 104M***BR2 | N/A | EBQE-AAA-VC | E3 | MKC-1 |
| 106M***BR2 | L-1/2 | EBQE-AA-VC | E3 | MKC-1 |
| 107M***BR2 | L-1/2 | EBQE-AA-VC | E3 | MKC-1 |
| 209M***BR2 | L-3/4 | EBQE-A-VC | E3 | MKC-1 |
| 211M***BR2 | L-1 | EBQE-A-VC | E3 | MKC-1 |
| 214M***BR2 | L-1 | EBQE-A-VC | E3 | MKC-1 |
| 317M***BR2 | L-1 1/2 | EBQE-A-VC | E3 | MKC-1 |
| 320M***BR2 | L-1 1/2 | EBQE-B-VC | E5 | MKC-1 |
| 423M***BR2 | L-2 | EBQE-B-VC | E5 | MKC-1 |
| 426M***BR2 | L-2 | EBQE-B-VC | E5 | MKC-1 |
| 532M***BR2 | L-2 1/2 | EBQE-C-VC | E6 | MKC-1 |
| 639M***BR2 | G-3 | EBQE-C-VC | E6 | MKC-1 |

*** Insert defrost and voltage type. See nomenclature for details

**FACTORY INSTALLED
EXPANSION VALVE SELECTIONS -
LOW TEMP. MODELS (MECHANICAL)**

**LOW TEMPERATURE
R404A
ELECTRIC DEFROST**

| MODEL TPLP | FACTORY INSTALLED NOZZLE | FACTORY INSTALLED EXPANSION VALVE | FACTORY INSTALLED LIQUID LINE SOLENOID VALVE | FACTORY INSTALLED SOLENOID COIL |
|---------------|--------------------------------|--|--|--|
| 104LE**BR6 | L-1/2 | EBQE-AA-ZP | E3 | MKC-1 |
| 105LE**BR6 | L-3/4 | EBQE-AA-ZP | E3 | MKC-1 |
| 106LE**BR6 | L-1 | EBQE-A-ZP | E3 | MKC-1 |
| 207LE**BR6 | L-1 | EBQE-A-ZP | E3 | MKC-1 |
| 209LE**BR6 | L-1 1/2 | EBQE-A-ZP | E3 | MKC-1 |
| 211LE**BR6 | L-2 | EBQE-B-ZP | E3 | MKC-1 |
| 314LE**BR6 | L-2 | EBQE-B-ZP | E5 | MKC-1 |
| 317LE**BR6 | L-3 | EBQE-C-ZP | E5 | MKC-1 |
| 419LE**BR6 | L-3 | EBQE-C-ZP | E5 | MKC-1 |
| 422LE**BR6 | G-4 | EBQE-C-ZP | E6 | MKC-1 |
| 527LE**BR6 | G-4 | EBSSE-6-ZP | E6 | MKC-1 |
| 631LE**BR6 | G-5 | EBSSE-6-ZP | E6 | MKC-1 |

*** Insert voltage type. See nomenclature for details

**LOW TEMPERATURE
R448A R407A R22
ELECTRIC DEFROST**

| MODEL TPLP | FACTORY INSTALLED NOZZLE | FACTORY INSTALLED EXPANSION VALVE | FACTORY INSTALLED LIQUID LINE SOLENOID VALVE | FACTORY INSTALLED SOLENOID COIL |
|---------------|--------------------------------|--|--|--|
| 104LE**BR2 | L-1/2 | EBQE-AA-VZ | E3 | MKC-1 |
| 105LE**BR2 | L-3/4 | EBQE-AA-VZ | E3 | MKC-1 |
| 106LE**BR2 | L-1 | EBQE-AA-VZ | E3 | MKC-1 |
| 207LE**BR2 | L-1 | EBQE-A-VZ | E3 | MKC-1 |
| 209LE**BR2 | L-1 1/2 | EBQE-A-VZ | E3 | MKC-1 |
| 211LE**BR2 | L-2 | EBQE-A-VZ | E3 | MKC-1 |
| 314LE**BR2 | L-2 | EBQE-B-VZ | E3 | MKC-1 |
| 317LE**BR2 | L-3 | EBQE-B-VZ | E5 | MKC-1 |
| 419LE**BR2 | L-3 | EBQE-B-VZ | E5 | MKC-1 |
| 422LE**BR2 | G-4 | EBQE-C-VZ | E5 | MKC-1 |
| 527LE**BR2 | G-4 | EBQE-C-VZ | E5 | MKC-1 |
| 631LE**BR2 | G-5 | EBQE-C-VZ | E6 | MKC-1 |

*** Insert voltage type. See nomenclature for details

**LOW TEMPERATURE
R404A
ELECTRIC DEFROST 4 FPI**

| MODEL TPLP | FACTORY INSTALLED NOZZLE | FACTORY INSTALLED EXPANSION VALVE | FACTORY INSTALLED LIQUID LINE SOLENOID VALVE | FACTORY INSTALLED SOLENOID COIL |
|---------------|--------------------------------|--|--|--|
| 103VE**BR6 | L-1/2 | EBQE-AA-ZP | E3 | MKC-1 |
| 104VE**BR6 | L-3/4 | EBQE-AA-ZP | E3 | MKC-1 |
| 105VE**BR6 | L-1 | EBQE-A-ZP | E3 | MKC-1 |
| 206VE**BR6 | L-1 | EBQE-A-ZP | E3 | MKC-1 |
| 208VE**BR6 | L-1 1/2 | EBQE-A-ZP | E3 | MKC-1 |
| 209VE**BR6 | L-2 | EBQE-B-ZP | E3 | MKC-1 |
| 312VE**BR6 | L-2 | EBQE-B-ZP | E5 | MKC-1 |
| 315VE**BR6 | L-3 | EBQE-C-ZP | E5 | MKC-1 |
| 416VE**BR6 | L-3 | EBQE-C-ZP | E5 | MKC-1 |
| 419VE**BR6 | G-4 | EBQE-C-ZP | E6 | MKC-1 |
| 523VE**BR6 | G-4 | EBQE-C-ZP | E6 | MKC-1 |
| 627VE**BR6 | G-5 | EBSSE-6-ZP | E6 | MKC-1 |

*** Insert voltage type. See nomenclature for details

**LOW TEMPERATURE
R448A R407A R22
ELECTRIC DEFROST 4 FPI**

| MODEL TPLP | FACTORY INSTALLED NOZZLE | FACTORY INSTALLED EXPANSION VALVE | FACTORY INSTALLED LIQUID LINE SOLENOID VALVE | FACTORY INSTALLED SOLENOID COIL |
|---------------|--------------------------------|--|--|--|
| 103VE**BR2 | L-1/2 | EBQE-AAA-VZ | E3 | MKC-1 |
| 104VE**BR2 | L-3/4 | EBQE-AA-VZ | E3 | MKC-1 |
| 105VE**BR2 | L-1 | EBQE-AA-VZ | E3 | MKC-1 |
| 206VE**BR2 | L-1 | EBQE-A-VZ | E3 | MKC-1 |
| 208VE**BR2 | L-1 1/2 | EBQE-A-VZ | E3 | MKC-1 |
| 209VE**BR2 | L-2 | EBQE-A-VZ | E3 | MKC-1 |
| 312VE**BR2 | L-2 | EBQE-B-VZ | E3 | MKC-1 |
| 315VE**BR2 | L-3 | EBQE-B-VZ | E5 | MKC-1 |
| 416VE**BR2 | L-3 | EBQE-B-VZ | E5 | MKC-1 |
| 419VE**BR2 | G-4 | EBQE-C-VZ | E5 | MKC-1 |
| 523VE**BR2 | G-4 | EBQE-C-VZ | E5 | MKC-1 |
| 627VE**BR2 | G-5 | EBQE-C-VZ | E6 | MKC-1 |

*** Insert voltage type. See nomenclature for details

FACTORY INSTALLED EXPANSION VALVE SELECTIONS - MODELS w/ **ESP**

MEDIUM TEMPERATURE **R448A R407A R407C R404A R22** AIR OR ELECTRIC DEFROST

| MODEL TPLP | FACTORY INSTALLED NOZZLE | FACTORY INSTALLED EXPANSION VALVE | FACTORY INSTALLED LIQUID LINE SOLENOID VALVE |
|----------------|--------------------------------|--|---|
| 104M***BR8-ESP | N/A | E2V9 | E3 |
| 106M***BR8-ESP | L1/2 | E2V11 | E3 |
| 107M***BR8-ESP | L1/2 | E2V14 | E3 |
| 209M***BR8-ESP | L3/4 | E2V14 | E3 |
| 211M***BR8-ESP | L1 | E2V14 | E3 |
| 214M***BR8-ESP | L1 | E2V18 | E3 |
| 317M***BR8-ESP | L1-1/2 | E2V18 | E5 |
| 320M***BR8-ESP | L1-1/2 | E2V24 | E5 |
| 423M***BR8-ESP | L2 | E2V24 | E5 |
| 426M***BR8-ESP | L2 | E2V24 | E5 |
| 532M***BR8-ESP | L2-1/2 | E2V35 | E6 |
| 639M***BR8-ESP | G3 | E2V35 | E6 |

*** Insert defrost and voltage type. See nomenclature for details

LOW TEMPERATURE **R448A R407A R404A R22** ELECTRIC DEFROST

| MODEL TPLP | FACTORY INSTALLED NOZZLE | FACTORY INSTALLED EXPANSION VALVE | FACTORY INSTALLED LIQUID LINE SOLENOID VALVE |
|----------------|--------------------------------|--|---|
| 104LE**BR8-ESP | L1/2 | E2V9 | E3 |
| 105LE**BR8-ESP | L3/4 | E2V9 | E3 |
| 106LE**BR8-ESP | L1 | E2V11 | E3 |
| 207LE**BR8-ESP | L1 | E2V11 | E3 |
| 209LE**BR8-ESP | L1-1/2 | E2V11 | E3 |
| 211LE**BR8-ESP | L2 | E2V14 | E3 |
| 314LE**BR8-ESP | L2 | E2V14 | E5 |
| 317LE**BR8-ESP | L3 | E2V18 | E5 |
| 419LE**BR8-ESP | L3 | E2V18 | E5 |
| 422LE**BR8-ESP | G4 | E2V24 | E5 |
| 527LE**BR8-ESP | G4 | E2V24 | E6 |
| 631LE**BR8-ESP | G5 | E2V24 | E6 |

** Insert voltage type. See nomenclature for details

LOW TEMPERATURE **R448A R407A R404A R22** ELECTRIC DEFROST 4 FPI

| MODEL TPLP | FACTORY INSTALLED NOZZLE | FACTORY INSTALLED EXPANSION VALVE | FACTORY INSTALLED LIQUID LINE SOLENOID VALVE |
|----------------|--------------------------------|--|---|
| 103VE**BR8-ESP | L1/2 | E2V9 | E3 |
| 104VE**BR8-ESP | L3/4 | E2V9 | E3 |
| 105VE**BR8-ESP | L1 | E2V9 | E3 |
| 206VE**BR8-ESP | L1 | E2V11 | E3 |
| 208VE**BR8-ESP | L1-1/2 | E2V11 | E3 |
| 209VE**BR8-ESP | L2 | E2V11 | E3 |
| 312VE**BR8-ESP | L2 | E2V14 | E3 |
| 315VE**BR8-ESP | L2-1/2 | E2V14 | E5 |
| 416VE**BR8-ESP | J2-1/2 | E2V18 | E5 |
| 419VE**BR8-ESP | G3 | E2V18 | E5 |
| 523VE**BR8-ESP | G4 | E2V24 | E5 |
| 627VE**BR8-ESP | G5 | E2V24 | E6 |

** Insert voltage type. See nomenclature for details

Models w/ Standard PSC Motors

Medium Temperature, 6 FPI, with standard PSC Motors

| TEMP | FPI | # of Fans | Model TPLP | Voltage | 1 X EVAPORATOR | | 2 X EVAPORATOR | |
|-------------------------|-----|-----------|---------------|--------------|----------------|-----------------|----------------|-----------------|
| | | | | | Defrost Kit | Fuse Package | Defrost Kit | Fuse Package |
| ME - MEDIUM TEMPERATURE | 6 | 1 | 104MES2BR* | 208-230/1/60 | DFK-02 | FP-004 | DFK-06 | FP-008 |
| | | | 104MET3BR* | 208-230/3/60 | DFK-03 | FP-013 | DFK-07 | FP-018 |
| | | | 106MES2BR* | 208-230/1/60 | DFK-02 | FP-004 | DFK-06 | FP-008 |
| | | | 106MET3BR* | 208-230/3/60 | DFK-03 | FP-013 | DFK-07 | FP-018 |
| | | | 107MES2BR* | 208-230/1/60 | DFK-02 | FP-004 | DFK-06 | FP-008 |
| | | | 107MET3BR* | 208-230/3/60 | DFK-03 | FP-013 | DFK-07 | FP-018 |
| | | 2 | 209MES2BR* | 208-230/1/60 | DFK-02 | FP-004 | DFK-06 | FP-008 |
| | | | 209MES4BR* | 460/1/60 | DFK-10 | FP-008 | DFK-12 | FP-022 |
| | | | 209MET3BR* | 208-230/3/60 | DFK-03 | FP-013 | DFK-07 | FP-018 |
| | | | 211MES2BR* | 208-230/1/60 | DFK-02 | FP-004 | DFK-06 | FP-008 |
| | | | 211MES4BR* | 460/1/60 | DFK-10 | FP-008 | DFK-12 | FP-022 |
| | | | 211MET3BR* | 208-230/3/60 | DFK-03 | FP-013 | DFK-07 | FP-018 |
| | | 3 | 214MES2BR* | 208-230/1/60 | DFK-02 | FP-004 | DFK-06 | FP-008 |
| | | | 214MES4BR* | 460/1/60 | DFK-10 | FP-008 | DFK-12 | FP-022 |
| | | | 214MET3BR* | 208-230/3/60 | DFK-03 | FP-013 | DFK-07 | FP-018 |
| | | | 317MES2BR* | 208-230/1/60 | DFK-02 | FP-004 | DFK-06 | FP-008 |
| | | | 317MES4BR* | 460/1/60 | DFK-10 | FP-008 | DFK-12 | FP-022 |
| | | | 317MET3BR* | 208-230/3/60 | DFK-03 | FP-013 | DFK-07 | FP-018 |
| | | 4 | 320MES2BR* | 208-230/1/60 | DFK-02 | FP-004 | DFK-06 | FP-008 |
| | | | 320MES4BR* | 460/1/60 | DFK-10 | FP-008 | DFK-12 | FP-022 |
| | | | 320MET3BR* | 208-230/3/60 | DFK-03 | FP-013 | DFK-07 | FP-018 |
| | | | 423MES2BR* | 208-230/1/60 | DFK-02 | FP-006 | DFK-06 | FP-015 |
| | | | 423MES4BR* | 460/1/60 | DFK-10 | FP-008 | DFK-12 | FP-022 |
| | | | 423MET3BR* | 208-230/3/60 | DFK-03 | FP-013 | DFK-07 | FP-018 |
| | | 5 | 426MES2BR* | 208-230/1/60 | DFK-02 | FP-006 | DFK-06 | FP-015 |
| | | | 426MES4BR* | 460/1/60 | DFK-10 | FP-008 | DFK-12 | FP-022 |
| | | | 426MET3BR* | 208-230/3/60 | DFK-03 | FP-013 | DFK-07 | FP-018 |
| | | | 532MES2BR* | 208-230/1/60 | DFK-02 | FP-007 | DFK-06 | FP-010 |
| | | | 532MES4BR* | 460/1/60 | DFK-10 | FP-008 | DFK-12 | FP-022 |
| | | | 532MET3BR* | 208-230/3/60 | DFK-03 | FP-014 | DFK-07 | FP-019 |
| | | 6 | 639MES2BR* | 208-230/1/60 | DFK-02 | FP-020 | DFK-09 | FP-021 |
| | | | 639MES4BR* | 460/1/60 | DFK-10 | FP-008 | DFK-12 | FP-022 |
| | | | 639MET3BR* | 208-230/3/60 | DFK-03 | FP-014 | DFK-07 | FP-019 |

Low Temperature, 6 FPI, with standard PSC Motors

| TEMP | FPI | # of Fans | Model TPLP | Voltage | 1 X EVAPORATOR | | 2 X EVAPORATOR | |
|----------------------|-----|-----------|---------------|--------------|----------------|-----------------|----------------|-----------------|
| | | | | | Defrost Kit | Fuse Package | Defrost Kit | Fuse Package |
| LE - LOW TEMPERATURE | 6 | 1 | 104LES2BR* | 208-230/1/60 | DFK-02 | FP-004 | DFK-06 | FP-008 |
| | | | 104LET3BR* | 208-230/3/60 | DFK-03 | FP-013 | DFK-07 | FP-018 |
| | | | 105LES2BR* | 208-230/1/60 | DFK-02 | FP-004 | DFK-06 | FP-008 |
| | | | 105LET3BR* | 208-230/3/60 | DFK-03 | FP-013 | DFK-07 | FP-018 |
| | | | 106LES2BR* | 208-230/1/60 | DFK-02 | FP-004 | DFK-06 | FP-008 |
| | | | 106LET3BR* | 208-230/3/60 | DFK-03 | FP-013 | DFK-07 | FP-018 |
| | | 2 | 207LES2BR* | 208-230/1/60 | DFK-02 | FP-004 | DFK-06 | FP-008 |
| | | | 207LES4BR* | 460/1/60 | DFK-10 | FP-008 | DFK-12 | FP-022 |
| | | | 207LET3BR* | 208-230/3/60 | DFK-03 | FP-013 | DFK-07 | FP-018 |
| | | | 209LES2BR* | 208-230/1/60 | DFK-02 | FP-004 | DFK-06 | FP-008 |
| | | | 209LES4BR* | 460/1/60 | DFK-10 | FP-008 | DFK-12 | FP-022 |
| | | | 209LET3BR* | 208-230/3/60 | DFK-03 | FP-013 | DFK-07 | FP-018 |
| | | 3 | 211LES2BR* | 208-230/1/60 | DFK-02 | FP-004 | DFK-06 | FP-008 |
| | | | 211LES4BR* | 460/1/60 | DFK-10 | FP-008 | DFK-12 | FP-022 |
| | | | 211LET3BR* | 208-230/3/60 | DFK-03 | FP-013 | DFK-07 | FP-018 |
| | | | 314LES2BR* | 208-230/1/60 | DFK-02 | FP-004 | DFK-06 | FP-008 |
| | | | 314LES4BR* | 460/1/60 | DFK-10 | FP-008 | DFK-12 | FP-022 |
| | | | 314LET3BR* | 208-230/3/60 | DFK-03 | FP-013 | DFK-07 | FP-018 |
| | | 4 | 317LES2BR* | 208-230/1/60 | DFK-02 | FP-004 | DFK-06 | FP-008 |
| | | | 317LES4BR* | 460/1/60 | DFK-10 | FP-008 | DFK-12 | FP-022 |
| | | | 317LET3BR* | 208-230/3/60 | DFK-03 | FP-013 | DFK-07 | FP-018 |
| | | | 419LES2BR* | 208-230/1/60 | DFK-02 | FP-006 | DFK-06 | FP-015 |
| | | | 419LES4BR* | 460/1/60 | DFK-10 | FP-008 | DFK-12 | FP-022 |
| | | | 419LET3BR* | 208-230/3/60 | DFK-03 | FP-013 | DFK-07 | FP-018 |
| | | 5 | 422LES2BR* | 208-230/1/60 | DFK-02 | FP-006 | DFK-06 | FP-015 |
| | | | 422LES4BR* | 460/1/60 | DFK-10 | FP-008 | DFK-12 | FP-022 |
| | | | 422LET3BR* | 208-230/3/60 | DFK-03 | FP-013 | DFK-07 | FP-018 |
| | | | 527LES2BR* | 208-230/1/60 | DFK-02 | FP-007 | DFK-06 | FP-010 |
| | | | 527LES4BR* | 460/1/60 | DFK-10 | FP-008 | DFK-12 | FP-022 |
| | | | 527LET3BR* | 208-230/3/60 | DFK-03 | FP-014 | DFK-07 | FP-019 |
| | | 6 | 631LES2BR* | 208-230/1/60 | DFK-02 | FP-020 | DFK-09 | FP-021 |
| | | | 631LES4BR* | 460/1/60 | DFK-10 | FP-008 | DFK-12 | FP-022 |
| | | | 631LET3BR* | 208-230/3/60 | DFK-03 | FP-014 | DFK-07 | FP-019 |

Models w/ Standard PSC Motors (cont'd)

Very Low Temperature, 4 FPI, with standard PSC Motors

| TEMP | FPI | # of Fans | Model TPLP | Voltage | 1 X EVAPORATOR | | 2 X EVAPORATOR | |
|---------------------------|-----|------------|--------------|--------------|----------------|--------------|----------------|--------------|
| | | | | | Defrost Kit | Fuse Package | Defrost Kit | Fuse Package |
| VE - VERY LOW TEMPERATURE | 4 | 1 | 103VES2BR* | 208-230/1/60 | DFK-02 | FP-004 | DFK-06 | FP-008 |
| | | | 103VET3BR* | 208-230/3/60 | DFK-03 | FP-013 | DFK-07 | FP-018 |
| | | | 104VES2BR* | 208-230/1/60 | DFK-02 | FP-004 | DFK-06 | FP-008 |
| | | | 104VET3BR* | 208-230/3/60 | DFK-03 | FP-013 | DFK-07 | FP-018 |
| | | | 105VES2BR* | 208-230/1/60 | DFK-02 | FP-004 | DFK-06 | FP-008 |
| | | 105VET3BR* | 208-230/3/60 | DFK-03 | FP-013 | DFK-07 | FP-018 | |
| | | 2 | 206VES2BR* | 208-230/1/60 | DFK-02 | FP-004 | DFK-06 | FP-008 |
| | | | 206VES4BR* | 460/1/60 | DFK-10 | FP-008 | DFK-12 | FP-022 |
| | | | 206VET3BR* | 208-230/3/60 | DFK-03 | FP-013 | DFK-07 | FP-018 |
| | | | 208VES2BR* | 208-230/1/60 | DFK-02 | FP-004 | DFK-06 | FP-008 |
| | | | 208VES4BR* | 460/1/60 | DFK-10 | FP-008 | DFK-12 | FP-022 |
| | | | 208VET3BR* | 208-230/3/60 | DFK-03 | FP-013 | DFK-07 | FP-018 |
| | | | 209VES2BR* | 208-230/1/60 | DFK-02 | FP-004 | DFK-06 | FP-008 |
| | | 209VES4BR* | 460/1/60 | DFK-10 | FP-008 | DFK-12 | FP-022 | |
| | | 209VET3BR* | 208-230/3/60 | DFK-03 | FP-013 | DFK-07 | FP-018 | |
| | | 3 | 312VES2BR* | 208-230/1/60 | DFK-02 | FP-004 | DFK-06 | FP-008 |
| | | | 312VES4BR* | 460/1/60 | DFK-10 | FP-008 | DFK-12 | FP-022 |
| | | | 312VET3BR* | 208-230/3/60 | DFK-03 | FP-013 | DFK-07 | FP-018 |
| | | | 315VES2BR* | 208-230/1/60 | DFK-02 | FP-004 | DFK-06 | FP-008 |
| | | | 315VES4BR* | 460/1/60 | DFK-10 | FP-008 | DFK-12 | FP-022 |
| | | 315VET3BR* | 208-230/3/60 | DFK-03 | FP-013 | DFK-07 | FP-018 | |
| | | 4 | 416VES2BR* | 208-230/1/60 | DFK-02 | FP-006 | DFK-06 | FP-015 |
| | | | 416VES4BR* | 460/1/60 | DFK-10 | FP-008 | DFK-12 | FP-022 |
| | | | 416VET3BR* | 208-230/3/60 | DFK-03 | FP-013 | DFK-07 | FP-018 |
| | | | 419VES2BR* | 208-230/1/60 | DFK-02 | FP-006 | DFK-06 | FP-015 |
| | | | 419VES4BR* | 460/1/60 | DFK-10 | FP-008 | DFK-12 | FP-022 |
| | | 419VET3BR* | 208-230/3/60 | DFK-03 | FP-013 | DFK-07 | FP-018 | |
| | | 5 | 523VES2BR* | 208-230/1/60 | DFK-02 | FP-007 | DFK-06 | FP-010 |
| | | | 523VES4BR* | 460/1/60 | DFK-10 | FP-008 | DFK-12 | FP-022 |
| | | | 523VET3BR* | 208-230/3/60 | DFK-03 | FP-014 | DFK-07 | FP-019 |
| | | 6 | 627VES2BR* | 208-230/1/60 | DFK-02 | FP-020 | DFK-09 | FP-021 |
| | | | 627VES4BR* | 460/1/60 | DFK-10 | FP-008 | DFK-12 | FP-022 |
| | | | 627VET3BR* | 208-230/3/60 | DFK-03 | FP-014 | DFK-07 | FP-019 |

Models with optional SMARTSPEED™ EC Motors

Medium Temperature, 6 FPI, with optional SMARTSPEED™ EC Motors

| TEMP | FPI | # of Fans | Model TPLP | Voltage | 1 X EVAPORATOR | | 2 X EVAPORATOR | |
|-------------------------|-----|----------------|----------------|--------------|----------------|--------------|----------------|--------------|
| | | | | | Defrost Kit | Fuse Package | Defrost Kit | Fuse Package |
| ME - MEDIUM TEMPERATURE | 6 | 1 | 104MES2BR*-EC2 | 208-230/1/60 | DFK-02 | FP-004 | DFK-06 | FP-008 |
| | | | 104MET3BR*-EC2 | 208-230/3/60 | DFK-03 | FP-013 | DFK-07 | FP-018 |
| | | | 106MES2BR*-EC2 | 208-230/1/60 | DFK-02 | FP-004 | DFK-06 | FP-008 |
| | | | 106MET3BR*-EC2 | 208-230/3/60 | DFK-03 | FP-013 | DFK-07 | FP-018 |
| | | | 107MES2BR*-EC2 | 208-230/1/60 | DFK-02 | FP-004 | DFK-06 | FP-008 |
| | | | 107MET3BR*-EC2 | 208-230/3/60 | DFK-03 | FP-013 | DFK-07 | FP-018 |
| | | | 209MES2BR*-EC2 | 208-230/1/60 | DFK-02 | FP-004 | DFK-06 | FP-008 |
| | | 209MET3BR*-EC2 | 208-230/3/60 | DFK-03 | FP-013 | DFK-07 | FP-018 | |
| | | 2 | 211MES2BR*-EC2 | 208-230/1/60 | DFK-02 | FP-004 | DFK-06 | FP-008 |
| | | | 211MET3BR*-EC2 | 208-230/3/60 | DFK-03 | FP-013 | DFK-07 | FP-018 |
| | | | 214MES2BR*-EC2 | 208-230/1/60 | DFK-02 | FP-004 | DFK-06 | FP-008 |
| | | | 214MET3BR*-EC2 | 208-230/3/60 | DFK-03 | FP-013 | DFK-07 | FP-018 |
| | | | 317MES2BR*-EC2 | 208-230/1/60 | DFK-02 | FP-004 | DFK-06 | FP-008 |
| | | | 317MET3BR*-EC2 | 208-230/3/60 | DFK-03 | FP-013 | DFK-07 | FP-018 |
| | | | 320MES2BR*-EC2 | 208-230/1/60 | DFK-02 | FP-004 | DFK-06 | FP-008 |
| | | 320MET3BR*-EC2 | 208-230/3/60 | DFK-03 | FP-013 | DFK-07 | FP-018 | |
| | | 4 | 423MES2BR*-EC2 | 208-230/1/60 | DFK-02 | FP-006 | DFK-06 | FP-015 |
| | | | 423MET3BR*-EC2 | 208-230/3/60 | DFK-03 | FP-013 | DFK-07 | FP-018 |
| | | | 426MES2BR*-EC2 | 208-230/1/60 | DFK-02 | FP-006 | DFK-06 | FP-015 |
| | | | 426MET3BR*-EC2 | 208-230/3/60 | DFK-03 | FP-013 | DFK-07 | FP-018 |
| | | 5 | 532MES2BR*-EC2 | 208-230/1/60 | DFK-02 | FP-007 | DFK-06 | FP-010 |
| | | | 532MET3BR*-EC2 | 208-230/3/60 | DFK-03 | FP-014 | DFK-07 | FP-019 |
| | | 6 | 639MES2BR*-EC2 | 208-230/1/60 | DFK-02 | FP-020 | DFK-09 | FP-021 |
| | | | 639MET3BR*-EC2 | 208-230/3/60 | DFK-03 | FP-014 | DFK-07 | FP-019 |

Models with optional SMARTSPEED™ EC Motors (cont'd)

Low Temperature, 6 FPI, with optional SMARTSPEED™ EC Motors

| TEMP | FPI | # of Fans | Model TPLP | Voltage | 1 X EVAPORATOR | | 2 X EVAPORATOR | |
|----------------------|-----|-----------|----------------|--------------|----------------|-----------------|----------------|-----------------|
| | | | | | Defrost Kit | Fuse Package | Defrost Kit | Fuse Package |
| LE - LOW TEMPERATURE | 6 | 1 | 104LES2BR*-EC2 | 208-230/1/60 | DFK-02 | FP-004 | DFK-06 | FP-008 |
| | | | 104LET3BR*-EC2 | 208-230/3/60 | DFK-03 | FP-013 | DFK-07 | FP-018 |
| | | | 105LES2BR*-EC2 | 208-230/1/60 | DFK-02 | FP-004 | DFK-06 | FP-008 |
| | | | 105LET3BR*-EC2 | 208-230/3/60 | DFK-03 | FP-013 | DFK-07 | FP-018 |
| | | | 106LES2BR*-EC2 | 208-230/1/60 | DFK-02 | FP-004 | DFK-06 | FP-008 |
| | | | 106LET3BR*-EC2 | 208-230/3/60 | DFK-03 | FP-013 | DFK-07 | FP-018 |
| | | 2 | 207LES2BR*-EC2 | 208-230/1/60 | DFK-02 | FP-004 | DFK-06 | FP-008 |
| | | | 207LET3BR*-EC2 | 208-230/3/60 | DFK-03 | FP-013 | DFK-07 | FP-018 |
| | | | 209LES2BR*-EC2 | 208-230/1/60 | DFK-02 | FP-004 | DFK-06 | FP-008 |
| | | | 209LET3BR*-EC2 | 208-230/3/60 | DFK-03 | FP-013 | DFK-07 | FP-018 |
| | | | 211LES2BR*-EC2 | 208-230/1/60 | DFK-02 | FP-004 | DFK-06 | FP-008 |
| | | | 211LET3BR*-EC2 | 208-230/3/60 | DFK-03 | FP-013 | DFK-07 | FP-018 |
| | | 3 | 314LES2BR*-EC2 | 208-230/1/60 | DFK-02 | FP-004 | DFK-06 | FP-008 |
| | | | 314LET3BR*-EC2 | 208-230/3/60 | DFK-03 | FP-013 | DFK-07 | FP-018 |
| | | | 317LES2BR*-EC2 | 208-230/1/60 | DFK-02 | FP-004 | DFK-06 | FP-008 |
| | | | 317LET3BR*-EC2 | 208-230/3/60 | DFK-03 | FP-013 | DFK-07 | FP-018 |
| | | 4 | 419LES2BR*-EC2 | 208-230/1/60 | DFK-02 | FP-006 | DFK-06 | FP-015 |
| | | | 419LET3BR*-EC2 | 208-230/3/60 | DFK-03 | FP-013 | DFK-07 | FP-018 |
| | | | 422LES2BR*-EC2 | 208-230/1/60 | DFK-02 | FP-006 | DFK-06 | FP-015 |
| | | | 422LET3BR*-EC2 | 208-230/3/60 | DFK-03 | FP-013 | DFK-07 | FP-018 |
| | | 5 | 527LES2BR*-EC2 | 208-230/1/60 | DFK-02 | FP-007 | DFK-06 | FP-010 |
| | | | 527LET3BR*-EC2 | 208-230/3/60 | DFK-03 | FP-014 | DFK-07 | FP-019 |
| | | 6 | 631LES2BR*-EC2 | 208-230/1/60 | DFK-02 | FP-020 | DFK-09 | FP-021 |
| | | | 631LET3BR*-EC2 | 208-230/3/60 | DFK-03 | FP-014 | DFK-07 | FP-019 |

Very Low Temperature, 4 FPI, with optional SMARTSPEED™ EC Motors

| TEMP | FPI | # of Fans | Model TPLP | Voltage | 1 X EVAPORATOR | | 2 X EVAPORATOR | |
|---------------------------|-----|-----------|----------------|--------------|----------------|-----------------|----------------|-----------------|
| | | | | | Defrost Kit | Fuse Package | Defrost Kit | Fuse Package |
| VE - VERY LOW TEMPERATURE | 4 | 1 | 103VES2BR*-EC2 | 208-230/1/60 | DFK-02 | FP-004 | DFK-06 | FP-008 |
| | | | 103VET3BR*-EC2 | 208-230/3/60 | DFK-03 | FP-013 | DFK-07 | FP-018 |
| | | | 104VES2BR*-EC2 | 208-230/1/60 | DFK-02 | FP-004 | DFK-06 | FP-008 |
| | | | 104VET3BR*-EC2 | 208-230/3/60 | DFK-03 | FP-013 | DFK-07 | FP-018 |
| | | | 105VES2BR*-EC2 | 208-230/1/60 | DFK-02 | FP-004 | DFK-06 | FP-008 |
| | | | 105VET3BR*-EC2 | 208-230/3/60 | DFK-03 | FP-013 | DFK-07 | FP-018 |
| | | 2 | 206VES2BR*-EC2 | 208-230/1/60 | DFK-02 | FP-004 | DFK-06 | FP-008 |
| | | | 206VET3BR*-EC2 | 208-230/3/60 | DFK-03 | FP-013 | DFK-07 | FP-018 |
| | | | 208VES2BR*-EC2 | 208-230/1/60 | DFK-02 | FP-004 | DFK-06 | FP-008 |
| | | | 208VET3BR*-EC2 | 208-230/3/60 | DFK-03 | FP-013 | DFK-07 | FP-018 |
| | | | 209VES2BR*-EC2 | 208-230/1/60 | DFK-02 | FP-004 | DFK-06 | FP-008 |
| | | | 209VET3BR*-EC2 | 208-230/3/60 | DFK-03 | FP-013 | DFK-07 | FP-018 |
| | | 3 | 312VES2BR*-EC2 | 208-230/1/60 | DFK-02 | FP-004 | DFK-06 | FP-008 |
| | | | 312VET3BR*-EC2 | 208-230/3/60 | DFK-03 | FP-013 | DFK-07 | FP-018 |
| | | | 315VES2BR*-EC2 | 208-230/1/60 | DFK-02 | FP-004 | DFK-06 | FP-008 |
| | | | 315VET3BR*-EC2 | 208-230/3/60 | DFK-03 | FP-013 | DFK-07 | FP-018 |
| | | 4 | 416VES2BR*-EC2 | 208-230/1/60 | DFK-02 | FP-006 | DFK-06 | FP-015 |
| | | | 416VET3BR*-EC2 | 208-230/3/60 | DFK-03 | FP-013 | DFK-07 | FP-018 |
| | | | 419VES2BR*-EC2 | 208-230/1/60 | DFK-02 | FP-006 | DFK-06 | FP-015 |
| | | | 419VET3BR*-EC2 | 208-230/3/60 | DFK-03 | FP-013 | DFK-07 | FP-018 |
| | | 5 | 523VES2BR*-EC2 | 208-230/1/60 | DFK-02 | FP-007 | DFK-06 | FP-010 |
| | | | 523VET3BR*-EC2 | 208-230/3/60 | DFK-03 | FP-014 | DFK-07 | FP-019 |
| | | 6 | 627VES2BR*-EC2 | 208-230/1/60 | DFK-02 | FP-020 | DFK-09 | FP-021 |
| | | | 627VET3BR*-EC2 | 208-230/3/60 | DFK-03 | FP-014 | DFK-07 | FP-019 |

Defrost Kits

| Number of Evaps. | Kit Part Number | Description |
|------------------|-----------------|---|
| 1 | DFK-01 | Time Clock, HtrCont - 1x 40A (3P), FB 1x 30A (1P) |
| 1 | DFK-02 | Time Clock, HtrCont - 1x 40A (3P), FB 1x 30A (2P) |
| 1 | DFK-03 | Time Clock, HtrCont - 1x 40A (3P), FB 1x 30A (3P) |
| 1 | DFK-04 | Time Clock, HtrCont - 1x 40A (3P), FB 1x 60A (2P) |
| 2 | DFK-05 | Time Clock, HtrCont - 1x 40A (3P), FB 2x 30A (1P) |
| 2 | DFK-06 | Time Clock, HtrCont - 1x 40A (3P), FB 2x 30A (2P) |
| 2 | DFK-07 | Time Clock, HtrCont - 1x 40A (3P), FB 2x 30A (3P) |
| 2 | DFK-08 | Time Clock, HtrCont - 1x 50A (3P), FB 2x 60A (2P) |
| 2 | DFK-09 | Time Clock, HtrCont - 1x 50A (3P), FB 2x 30A (2P) |
| 1 | DFK-10 | Time Clock, HtrCont - 1x 40A (3P), FanCont - 1x 40A (3P), FB 2x 30A (2P) |
| 1 | DFK-11 | Time Clock, HtrCont - 1x 40A (3P), FanCont - 1x 40A (3P), FB 2x 30A (3P) |
| 2 | DFK-12 | Time Clock, HtrCont - 1x 40A (3P), FanCont - 1x 40A (3P), FB 4x 30A (2P) |
| 2 | DFK-13 | Time Clock, HtrCont - 1x 40A (3P), FanCont - 1x 40A (3P), FB 4x 30A (3P) |
| 1 | DFK-14 | Time Clock, HtrCont - 1x 40A (3P), FanCont - 1x 40A (3P), FB 1x 30A (2P), FB 1x 30A (3P) |
| 1 | DFK-15 | Time Clock, HtrCont - 1x40A (3P), FanCont - 1x 40A (3P), FB 1x 30A (2P), FB 1x 60A (2P) |
| 1 | DFK-16 | Time Clock, HtrCont - 1x 40A (3P), FanCont - 1x 40A (3P), FB 1x 30A (2P), FB 1x 60A (3P) |
| 1 | DFK-17 | Time Clock, HtrCont - 1x 40A (3P), FanCont - 1x 40A (3P), FB 1x 30A (3P), FB 1x 60A (3P) |
| 2 | DFK-18 | Time Clock, HtrCont - 1x 40A (3P), FanCont - 1x 40A (3P), FB 2x 30A (2P), FB 2x 30A (3P) |
| 2 | DFK-19 | Time Clock, HtrCont - 1x 50A (3P), FanCont - 1x 40A (3P), FB 4x 30A (2P) |
| 2 | DFK-20 | Time Clock, HtrCont - 1x 50A (3P), FanCont - 1x 40A (3P), FB 4x 30A (3P) |
| 1 | DFK-21 | Time Clock, HtrCont - 1x 50A (3P), FanCont - 1x 40A (3P), FB 1x 30A (2P), FB 1x 60A (2P) |
| 1 | DFK-22 | Time Clock, HtrCont - 1x 50A (3P), FanCont - 1x 40A (3P), FB 1x 30A (3P), FB 1x 60A (3P) |
| 2 | DFK-23 | Time Clock, HtrCont - 1x 50A (3P), FanCont - 1x 40A (3P), FB 2x 30A (2P), FB 2x 30A (3P) |
| 2 | DFK-24 | Time Clock, HtrCont - 1x 50A (3P), FanCont - 1x 40A (3P), FB 2x 30A (3P), FB 2x 60A (3P) |
| 1 | DFK-25 | Time Clock, HtrCont - 2x 40A (3P), FanCont - 1x 40A (3P), FB 1x 30A (2P), FB 2x 60A (2P) |
| 1 | DFK-26 | Time Clock, HtrCont - 2x 40A (3P), FanCont - 1x 40A (3P), FB 1x 30A (3P), FB 2x 60A (3P) |
| 2 | DFK-27 | Time Clock, HtrCont - 2x 40A (3P), FanCont - 1x 40A (3P), FB 2x 30A (2P), FB 2x 60A (2P) |
| 2 | DFK-28 | Time Clock, HtrCont - 2x 40A (3P), FanCont - 1x 40A (3P), FB 2x 30A (2P), FB 2x 60A (3P) |
| 2 | DFK-29 | Time Clock, HtrCont - 2x 40A (3P), FanCont - 1x 40A (3P), FB 2x 30A (3P), FB 2x 60A (3P) |
| 2 | DFK-30 | Time Clock, HtrCont - 2x 40A (3P), FanCont - 1x 50A (3P), FB 2x 30A (2P), FB 2x 60A (3P) |
| 1 | DFK-31 | Time Clock, HtrCont - 2x 50A (3P), FanCont - 1x 40A (3P), FB 1x 30A (3P), FB 2x 60A (3P) |
| 2 | DFK-32 | Time Clock, HtrCont - 2x 50A (3P), FanCont - 1x 40A (3P), FB 2x 30A (2P), FB 2x 60A (2P) |
| 2 | DFK-33 | Time Clock, HtrCont - 2x 50A (3P), FanCont - 1x 40A (3P), FB 2x 30A (3P), FB 2x 60A (3P) |
| 2 | DFK-34 | Time Clock, HtrCont - 4x 40A (3P), FanCont - 1x 40A (3P), FB 2x 30A (2P), FB 4x 60A (2P) |
| 2 | DFK-35 | Time Clock, HtrCont - 4x 40A (3P), FanCont - 1x 40A (3P), FB 2x 30A (3P), FB 4x 60A (3P) |
| 2 | DFK-36 | Time Clock, HtrCont - 4x 40A (3P), FanCont - 1x 50A (3P), FB 2x 30A (2P), FB 4x 60A (2P) |
| 2 | DFK-37 | Time Clock, HtrCont - 4x 40A (3P), FanCont - 1x 50A (3P), FB 2x 30A (3P), FB 4x 60A (3P) |
| 2 | DFK-38 | Time Clock, HtrCont - 4x 50A (3P), FanCont - 1x 50A (3P), FB 2x 30A (3P), FB 4x 60A (3P) |
| 1 | DFK-39 | Time Clock, HtrCont1 - 1x 40A (3P), HtrCont2 - 2x 50A (3P), FanCont - 1x 40A (3P), FB 4x 60A (3P) |

NOTE: HtrCont = Heater Contactor, FanCont = Fan Contactor, FB = Fuse Block, (1P), (2P), (3P) = Number of Poles

Fuse Packages

| Package Part Number | Description | Package Part Number | Description |
|---------------------|----------------------------|---------------------|-------------------------------------|
| FP-001 | FUSES (1) 15AMP | FP-054 | FUSES (3)15AMP (6) 35AMP |
| FP-002 | FUSES (1) 20AMP | FP-055 | FUSES (2) 15AMP (2) 45AMP |
| FP-003 | FUSES (1) 25AMP | FP-056 | FUSES (2) 15AMP (2) 40AMP |
| FP-004 | FUSES (2) 15AMP | FP-057 | FUSES (2) 20AMP (3) 50AMP |
| FP-006 | FUSES (2) 20AMP | FP-058 | FUSES (2) 15AMP (3) 45AMP |
| FP-007 | FUSES (2) 25AMP | FP-059 | FUSES (2) 15AMP (3) 30AMP |
| FP-008 | FUSES (4) 15AMP | FP-060 | FUSES (2) 15AMP (2) 35AMP |
| FP-010 | FUSES (4) 25AMP | FP-061 | FUSES (2) 15AMP (2) 50AMP |
| FP-012 | FUSES (2) 35AMP | FP-062 | FUSES (2) 15AMP (2) 60AMP |
| FP-013 | FUSES (3) 15AMP | FP-063 | FUSES (2) 15AMP (3) 25AMP |
| FP-014 | FUSES (3) 20AMP | FP-064 | FUSES (2) 15AMP (3) 35AMP |
| FP-015 | FUSES (4) 20AMP | FP-065 | FUSES (2) 15AMP (3) 40AMP |
| FP-016 | FUSES (4) 20AMP (6) 45AMP | FP-066 | FUSES (2) 15AMP (3) 20AMP |
| FP-017 | FUSES (4) 35AMP | FP-067 | FUSES (4) 15AMP (4) 35AMP |
| FP-018 | FUSES (6) 15AMP | FP-068 | FUSES (4) 15AMP (4) 50AMP |
| FP-019 | FUSES (6) 20AMP | FP-069 | FUSES (4) 15AMP (4) 60AMP |
| FP-020 | FUSES (2) 30AMP | FP-070 | FUSES (4) 15AMP (6) 25AMP |
| FP-021 | FUSES (4) 30AMP | FP-071 | FUSES (4) 15AMP (6) 35AMP |
| FP-022 | FUSES (8) 15AMP | FP-072 | FUSES (4) 15AMP (6) 40AMP |
| FP-023 | FUSES (2) 25AMP (3) 50AMP | FP-073 | FUSES (4) 15AMP (6) 20AMP |
| FP-024 | FUSES (2) 20AMP (3) 45AMP | FP-074 | FUSES (3) 20AMP (3) 60AMP |
| FP-025 | FUSES (6) 20AMP (6) 60AMP | FP-075 | FUSES (3) 20AMP (6) 35AMP |
| FP-026 | FUSES (6) 15AMP (12) 40AMP | FP-076 | FUSES (3) 25AMP (6) 50AMP |
| FP-027 | FUSES (6) 15AMP (6) 40AMP | FP-077 | FUSES (3) 35AMP (9) 45AMP |
| FP-028 | FUSES (6) 20AMP (12) 40AMP | FP-078 | FUSES (3) 15AMP (3) 35AMP |
| FP-029 | FUSES (6)15AMP (6) 50AMP | FP-079 | FUSES (3)15AMP (3) 45AMP |
| FP-030 | FUSES (6) 15AMP (6) 45AMP | FP-080 | FUSES (3) 15AMP (3) 50AMP |
| FP-031 | FUSES (6) 15AMP (6) 35AMP | FP-081 | FUSES (3) 20AMP (6) 40AMP |
| FP-032 | FUSES (6) 15AMP (6) 30AMP | FP-082 | FUSES (3) 15AMP (3) 40AMP |
| FP-033 | FUSES (6) 25AMP (12) 50AMP | FP-083 | FUSES (3) 15AMP (6) 40AMP |
| FP-034 | FUSES (6) 20AMP (12) 35AMP | FP-084 | FUSES (6) 15AMP (6) 60AMP |
| FP-035 | FUSES (4) 25AMP (6) 50AMP | FP-085 | FUSES (6) 15AMP (12) 35AMP |
| FP-036 | FUSES (6) 25AMP (12) 60AMP | FP-086 | FUSES (3) 35AMP (3) 45AMP (6) 60AMP |
| FP-037 | FUSES (6) 20AMP (12) 60AMP | FP-087 | FUSES (4) 20AMP (4) 40AMP (4) 50AMP |
| FP-038 | FUSES (6) 20AMP (12) 50AMP | FP-088 | FUSES (4) 15AMP (4) 35AMP (4) 40AMP |
| FP-039 | FUSES (6) 20AMP (12) 45AMP | FP-089 | FUSES (2) 20AMP (2) 40AMP (2) 50AMP |
| FP-040 | FUSES (6) 15AMP (12) 45AMP | FP-090 | FUSES (2) 15AMP (2) 35AMP (2) 40AMP |
| FP-041 | FUSES (5) 15AMP | FP-091 | FUSES (2) 20AMP (2) 35AMP (2) 40AMP |
| FP-042 | FUSES (10) 15AMP | FP-092 | FUSES (2) 25AMP (2) 40AMP (2) 50AMP |
| FP-043 | FUSES (3) 25AMP (6) 60AMP | FP-093 | FUSES (4) 20AMP (4) 35AMP (4) 40AMP |
| FP-044 | FUSES (3) 20AMP (6) 60AMP | FP-094 | FUSES (6) 15AMP (6) 25AMP |
| FP-045 | FUSES (3) 20AMP (6) 50AMP | FP-095 | FUSES (3) 15AMP (3) 25AMP |
| FP-046 | FUSES (3) 25AMP (6) 45AMP | FP-096 | FUSES (3) 15AMP (3) 30AMP |
| FP-047 | FUSES (3) 15AMP (6) 45AMP | FP-097 | FUSES (4) 15AMP (4) 30AMP |
| FP-048 | FUSES (4) 15AMP (4) 45AMP | FP-098 | FUSES (4) 15AMP (4) 25AMP |
| FP-049 | FUSES (4) 15AMP (4) 40AMP | FP-099 | FUSES (4) 15AMP (4) 20AMP |
| FP-050 | FUSES (3) 15AMP (3) 60AMP | FP-100 | FUSES (2) 15AMP (2) 20AMP |
| FP-051 | FUSES (4) 20AMP (6) 50AMP | FP-101 | FUSES (2) 15AMP (2) 25AMP |
| FP-052 | FUSES (4) 15AMP (6) 45AMP | FP-102 | FUSES (2) 15AMP (2) 30AMP |
| FP-053 | FUSES (4) 15AMP (6) 30AMP | FP-103 | FUSES (4) 25AMP (4) 40AMP (4) 50AMP |

NOTE: FUSES 30AMP and Below - Class CC Type, FUSES 35AMP and Above - Class J Type

INSTALLATION

The installation and start-up of evaporators 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

TPLP evaporators are designed for walker-in cooler and freezer applications used with a wide range of refrigerants. For room temperatures above 35°F (2°C) AND evaporating temperatures above 26°F (-3°C), positive defrosting means (electric) may not be required, otherwise, electric 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).

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) PRE-SELECTED

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.

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.

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 P-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.

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. Thorough evacuation and dehydration has been performed.
4. The suction, discharge, and receiver service valves must be open.
5. The system preferably include a liquid line filter drier moisture indicator and suction filter.
6. 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 evaporator. 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.



Visit
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| | |
|-------------------|--------------------|
| System | |
| Model Number | Date of Start-Up |
| Serial Number | Service Contractor |
| Refrigerant | Phone |
| Electrical Supply | E-Mail |

**PRODUCT SUPPORT**

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