TPLP Generation D
Pre-Assembled Low Profile Evaporators

PRODUCT DATA & INSTALLATION

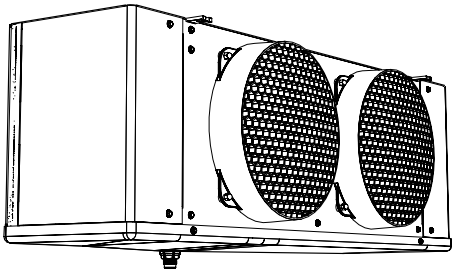
Part #1109294

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

Air & Electric Defrost

Medium Temperature Applications: 25°F
Low Temperature Applications: -20°F

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



LOW GWP REFRIGERANTS

INCLUDES MODELS FOR DOE & NRCAN
AWEF-COMPLIANT APPLICATIONS

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07/07/25

NOMENCLATURE

TP LP 3 16 V E S2 D - R8 ESP

Pre-Assembled

Low Profile Evaporator

Number of Fans

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

Application Range:
M = Medium to High Temp 6 FPI (25°F / *-4°C*) Evap Temp)
L = Low Temp 6 FPI (-20°F / *-29°C*) Evap Temp)
V = Low Temp 4 FPI (-20°F / *-29°C*) Evap Temp)

Defrost:
A = Air E = Electric

Designation:
ESP = ESP+

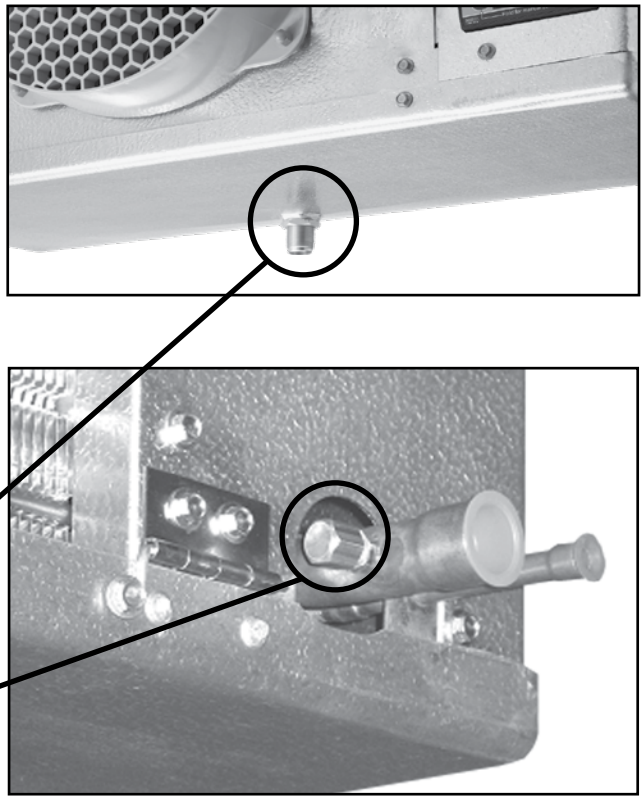
Refrigerant Designation:
R2 = R407A / R407C / R448A / R449A
R6 = R404A
R8 = R407A / R407C / R448A / R449A, R404A

Designation Generation:
D = A1 Refrigerant, AWEF Compliant

Voltage:
S1 = 115/1/60
S2 = 208-230/1/60
T3 = 208-230/3/60

STANDARD FEATURES

- EC motors with patented SmartSpeed® Technology
- 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





D GENERATION

ESP+ (R8) MODELS

Includes factory installed:

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



D GENERATION

ELECTRO-MECHANICAL (R2 and R6) MODELS

Includes factory installed:

- TX Valve
- Solenoid Valve
- Thermostat

R407A - R407C - R448A - R449A
Medium Temperature - 6 FPI Models

Model TPLP	Qty. Fans	Evaporator Temperature Selection Capacity BTU/h			Air Flow		Refrig. Charge R407A**	
		20/25°F *(-4/-7°C)*	15°F *(-9°C)*	10°F *(-12°C)*	CFM	L/S	LB.	*KG*
TPLP104M	1	4700	4650	4610	750	*350*	1.0	*(0.4)*
TPLP106M		6400	6340	6270	705	*330*	1.2	*(0.5)*
TPLP107M		7600	7520	7450	680	*320*	1.3	*(0.6)*
TPLP209M	2	9500	9410	9310	1500	*710*	1.3	*(0.6)*
TPLP211M		12400	12300	12150	1410	*670*	1.7	*(0.8)*
TPLP214M		14900	14800	14600	1360	*640*	2.0	*(0.9)*
TPLP317M	3	18400	18200	18030	2115	*1000*	2.1	*(1.0)*
TPLP320M		22100	21900	21660	2040	*960*	2.6	*(1.2)*
TPLP422M	4	24400	24200	23910	2820	*1330*	2.7	*(1.2)*
TPLP427M		29400	29100	28810	2720	*1280*	3.3	*(1.5)*
TPLP534M	5	36700	36300	35970	3400	*1600*	4.0	*(1.8)*
TPLP640M	6	44000	43600	43120	4080	*1930*	4.6	*(2.1)*

The above capacities were rated based on nominal 10 TD
- 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.

** For R448A/R449A, use conversion factor 0.96

R404A - R507
Medium Temperature - 6 FPI Models

Model TPLP	Qty. Fans	Evaporator Temperature Selection Capacity BTU/h			Air Flow		Refrig. Charge R404A - R507	
		20/25°F *(-4/-7°C)*	15°F *(-9°C)*	10°F *(-12°C)*	CFM	L/S	LB.	*KG*
TPLP104M	1	4200	4160	4120	750	*350*	1.0	*(0.4)*
TPLP106M		5770	5710	5650	705	*330*	1.1	*(0.5)*
TPLP107M		6830	6760	6690	680	*320*	1.3	*(0.6)*
TPLP209M	2	8500	8420	8330	1500	*710*	1.3	*(0.6)*
TPLP211M		11100	10990	10880	1410	*670*	1.6	*(0.7)*
TPLP214M		13300	13200	13030	1360	*640*	1.9	*(0.9)*
TPLP317M	3	16600	16400	16270	2115	*1000*	2.0	*(0.9)*
TPLP320M		19800	19600	19400	2040	*960*	2.5	*(1.1)*
TPLP422M	4	21800	21600	21360	2820	*1330*	2.5	*(1.2)*
TPLP427M		26400	26100	25870	2720	*1280*	3.1	*(1.4)*
TPLP534M	5	32900	32600	32240	3400	*1600*	3.8	*(1.7)*
TPLP640M	6	39400	39000	38610	4080	*1930*	4.4	*(2.0)*

The above capacities were rated based on nominal 10 TD
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.

R407A - R407C - R448A - R449A
Low Temperature - 6 FPI Models

Model TPLP	Qty. Fans	Evaporator Temperature Selection Capacity BTU/h					Air Flow		Refrig. Charge R407A**	
		0°F *(-18°C)*	-10°F *(-23°C)*	-20°F *(-29°C)*	-30°F *(-34°C)*	-40°F *(-40°C)*	CFM	L/S	LB.	*KG*
TPLP104L	1	**4310**	**4190**	**4070**	**3740**	**3460**	**750**	*350*	**1.0**	*(0.4)*
TPLP105L		**5190**	**5050**	**4900**	**4510**	**4170**	**705**	*330*	**1.1**	*(0.5)*
TPLP106L		**6710**	**6520**	**6330**	**5820**	**5380**	**680**	*320*	**1.3**	*(0.6)*
TPLP207L	2	**7590**	**7370**	**7160**	**6590**	**6090**	**1500**	*710*	**1.3**	*(0.6)*
TPLP209L		**9950**	**9670**	**9390**	**8640**	**7980**	**1410**	*670*	**1.6**	*(0.7)*
TPLP211L		**11980**	**11600**	**11300**	**10400**	**9610**	**1360**	*640*	**1.9**	*(0.9)*
TPLP314L	3	**14730**	**14300**	**13900**	**12800**	**11800**	**2115**	*1000*	**2.1**	*(0.9)*
TPLP316L		**17170**	**16700**	**16200**	**14900**	**13800**	**2040**	*960*	**2.6**	*(1.2)*
TPLP418L	4	**19500**	**19000**	**18400**	**16900**	**15600**	**2820**	*1330*	**2.6**	*(1.2)*
TPLP421L		**22470**	**21800**	**21200**	**19500**	**18000**	**2720**	*1280*	**3.2**	*(1.4)*
TPLP526L	5	**27670**	**26900**	**26100**	**24000**	**22200**	**3400**	*1600*	**3.9**	*(1.7)*
TPLP631L	6	**32970**	**32000**	**31100**	**28600**	**26400**	**4080**	*1930*	**4.5**	*(2.0)*

The above capacities were rated based on nominal 10 TD
- 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.
** For R448A/R449A, use conversion factor 0.96

R404A - R507
Low Temperature - 6 FPI Models

Model TPLP	Qty. Fans	Evaporator Temperature Selection Capacity BTU/h					Air Flow		Refrig. Charge R404A - R507	
		0°F *(-18°C)*	-10°F *(-23°C)*	-20°F *(-29°C)*	-30°F *(-34°C)*	-40°F *(-40°C)*	CFM	L/S	LB.	*KG*
TPLP104L	1	**4210**	**4090**	**3970**	**3650**	**3370**	**750**	*350*	**0.9**	*(0.4)*
TPLP105L		**5070**	**4920**	**4780**	**4400**	**4060**	**705**	*330*	**1.1**	*(0.5)*
TPLP106L		**6540**	**6360**	**6170**	**5680**	**5240**	**680**	*320*	**1.2**	*(0.6)*
TPLP207L	2	**7400**	**7190**	**6980**	**6420**	**5930**	**1500**	*710*	**1.2**	*(0.6)*
TPLP209L		**9710**	**9430**	**9160**	**8430**	**7790**	**1410**	*670*	**1.5**	*(0.7)*
TPLP211L		**11660**	**11330**	**11000**	**10120**	**9350**	**1360**	*640*	**1.8**	*(0.8)*
TPLP314L	3	**14420**	**14000**	**13600**	**12500**	**11560**	**2115**	*1000*	**2.0**	*(0.9)*
TPLP316L		**16750**	**16300**	**15800**	**14500**	**13430**	**2040**	*960*	**2.4**	*(1.1)*
TPLP418L	4	**18970**	**18400**	**17900**	**16500**	**15220**	**2820**	*1330*	**2.4**	*(1.1)*
TPLP421L		**21840**	**21200**	**20600**	**19000**	**17510**	**2720**	*1280*	**3.0**	*(1.4)*
TPLP526L	5	**27140**	**26400**	**25600**	**23600**	**21760**	**3400**	*1600*	**3.6**	*(1.6)*
TPLP631L	6	**32220**	**31300**	**30400**	**28000**	**25840**	**4080**	*1930*	**4.2**	*(1.9)*

The above capacities were rated based on nominal 10 TD
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.

R407A - R448A - R449A
Low Temperature - 4 FPI Models

Model TPLP	Qty. Fans	Evaporator Temperature Selection Capacity BTU/h					Air Flow		Refrig. Charge R407A**	
		0°F *(-18°C)*	-10°F *(-23°C)*	-20°F *(-29°C)*	-30°F *(-34°C)*	-40°F *(-40°C)*	CFM	L/S	LB.	*KG*
TPLP103V	1	3880	3770	3660	3370	3110	750	*350*	1.0	*(0.4)*
TPLP104V		4610	4480	4350	4000	3700	705	*330*	1.1	*(0.5)*
TPLP106V		5880	5720	5550	5110	4720	680	*320*	1.3	*(0.6)*
TPLP207V	2	7070	6870	6670	6140	5670	1500	*710*	1.3	*(0.6)*
TPLP208V		8590	8340	8100	7450	6890	1410	*670*	1.6	*(0.7)*
TPLP211V		11200	10900	10600	9750	9010	1360	*640*	1.9	*(0.9)*
TPLP313V	3	13400	13000	12600	11600	10700	2115	*1000*	2.1	*(0.9)*
TPLP316V		16500	16100	15600	14400	13300	2040	*960*	2.6	*(1.2)*
TPLP418V	4	18800	18200	17700	16300	15000	2820	*1330*	2.6	*(1.2)*
TPLP421V		22300	21600	21000	19300	17900	2720	*1280*	3.2	*(1.4)*
TPLP524V	5	25300	24600	23900	22000	20300	3400	*1600*	3.9	*(1.7)*
TPLP627V	6	28400	27600	26800	24700	22800	4080	*1930*	4.5	*(2.0)*

The above capacities were rated based on nominal 10 TD
- 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.
** For R448A/R449A, use conversion factor 0.96

R404A
Low Temperature - 4 FPI Models

Model TPLP	Qty. Fans	Evaporator Temperature Selection Capacity BTU/h					Air Flow		Refrig. Charge R404A	
		0°F *(-18°C)*	-10°F *(-23°C)*	-20°F *(-29°C)*	-30°F *(-34°C)*	-40°F *(-40°C)*	CFM	L/S	LB.	*KG*
TPLP103V	1	3640	3530	3430	3160	2920	750	*350*	0.9	*(0.4)*
TPLP104V		4300	4180	4060	3740	3450	705	*330*	1.1	*(0.5)*
TPLP106V		5500	5350	5190	4770	4410	680	*320*	1.2	*(0.6)*
TPLP207V	2	6600	6420	6230	5730	5300	1500	*710*	1.2	*(0.6)*
TPLP208V		8020	7800	7570	6960	6430	1410	*670*	1.5	*(0.7)*
TPLP211V		10460	10170	9870	9080	8390	1360	*640*	1.8	*(0.8)*
TPLP313V	3	12400	12100	11700	10760	9950	2115	*1000*	2.0	*(0.9)*
TPLP316V		15370	14900	14500	13300	12330	2040	*960*	2.4	*(1.1)*
TPLP418V	4	17600	17100	16600	15300	14110	2820	*1330*	2.4	*(1.1)*
TPLP421V		20880	20300	19700	18100	16750	2720	*1280*	3.0	*(1.4)*
TPLP524V	5	23640	23000	22300	20500	18960	3400	*1600*	3.6	*(1.6)*
TPLP627V	6	26610	25900	25100	23100	21340	4080	*1930*	4.2	*(1.9)*

The above capacities were rated based on nominal 10 TD
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.

115/1/60: Air Defrost Models

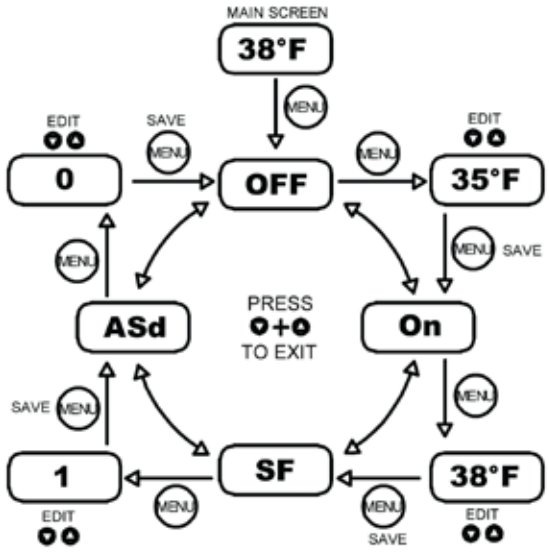
Model TPLP	FPI	FAN MOTORS					
		Qty.	Standard SMARTSPEED EC Motors				
			HP	FLA Total	Watts	MCA (A)	MOP
TPLP104MA-S1D	6	1	1/15	1.0	60	1.3	15
TPLP106MA-S1D		1	1/15	1.0	60	1.3	15
TPLP107MA-S1D		1	1/15	1.0	60	1.3	15
TPLP209MA-S1D		2	1/15	2.0	120	2.3	15
TPLP211MA-S1D		2	1/15	2.0	120	2.3	15
TPLP214MA-S1D		2	1/15	2.0	120	2.3	15
TPLP317MA-S1D		3	1/15	3.0	180	3.3	15
TPLP320MA-S1D		3	1/15	3.0	180	3.3	15
TPLP422MA-S1D		4	1/15	4.0	240	4.3	15
TPLP427MA-S1D		4	1/15	4.0	240	4.3	15
TPLP534MA-S1D		5	1/15	5.0	300	5.3	15
TPLP640MA-S1D		6	1/15	6.0	360	6.3	15

Model TPLP	FPI	FAN MOTORS					
		Qty.	Standard SMARTSPEED EC Motors				
			HP	FLA Total	Watts	MCA (A)	MOP
TPLP104MA-S1D	6	1	1/15	0.6	60	0.8	15
TPLP106MA-S1D		1	1/15	0.6	60	0.8	15
TPLP107MA-S1D		1	1/15	0.6	60	0.8	15
TPLP209MA-S1D		2	1/15	1.2	120	1.4	15
TPLP211MA-S1D		2	1/15	1.2	120	1.4	15
TPLP214MA-S1D		2	1/15	1.2	120	1.4	15
TPLP317MA-S1D		3	1/15	1.8	180	2.0	15
TPLP320MA-S1D		3	1/15	1.8	180	2.0	15
TPLP422MA-S1D		4	1/15	2.4	240	2.6	15
TPLP427MA-S1D		4	1/15	2.4	240	2.6	15
TPLP534MA-S1D		5	1/15	3.0	300	3.2	15
TPLP640MA-S1D		6	1/15	3.6	360	3.8	15

208-230/1/60 & 208-230/3/60: Electric Defrost Models

Model TPLP	FPI	FAN MOTORS						DEFROST HEATERS						
		Qty.	Standard SMARTSPEED EC Motors					Total WATTS	208-230/1/60			208-230/3/60		
			HP	FLA Total	Watts	MCA (A)	MOP		Total AMPS	MCA (A)	MOP	Total AMPS	MCA (A)	MOP
TPLP104ME-*	6	1	1/15	0.6	60	0.8	15	1060	4.6	5.8	15	3.0	3.8	15
TPLP106ME-*		1	1/15	0.6	60	0.8	15	1060	4.6	5.8	15	3.0	3.8	15
TPLP107ME-*		1	1/15	0.6	60	0.8	15	1060	4.6	5.8	15	3.0	3.8	15
TPLP209ME-*		2	1/15	1.2	120	1.4	15	1890	8.2	10.3	15	5.3	6.7	15
TPLP211ME-*		2	1/15	1.2	120	1.4	15	1890	8.2	10.3	15	5.3	6.7	15
TPLP214ME-*		2	1/15	1.2	120	1.4	15	1890	8.2	10.3	15	5.3	6.7	15
TPLP317ME-*		3	1/15	1.8	180	2.0	15	2730	11.9	14.8	15	7.7	10.0	15
TPLP320ME-*		3	1/15	1.8	180	2.0	15	2730	11.9	14.8	15	7.7	10.0	15
TPLP422ME-*		4	1/15	2.4	240	2.6	15	3560	15.5	19.3	20	10.0	12.0	15
TPLP427ME-*		4	1/15	2.4	240	2.6	15	3560	15.5	19.3	20	10.0	12.0	15
TPLP534ME-*		5	1/15	3.0	300	3.2	15	4400	19.1	23.9	25	12.0	15.0	20
TPLP640ME-*		6	1/15	3.6	360	3.8	15	5230	22.7	28.4	30	15.0	18.0	20
TPLP104LE-*	6	1	1/15	0.6	60	0.8	15	1060	4.6	5.8	15	3.0	3.8	15
TPLP105LE-*		1	1/15	0.6	60	0.8	15	1060	4.6	5.8	15	3.0	3.8	15
TPLP106LE-*		1	1/15	0.6	60	0.8	15	1060	4.6	5.8	15	3.0	3.8	15
TPLP207LE-*		2	1/15	1.2	120	1.4	15	1890	8.2	10.3	15	5.3	6.7	15
TPLP209LE-*		2	1/15	1.2	120	1.4	15	1890	8.2	10.3	15	5.3	6.7	15
TPLP211LE-*		2	1/15	1.2	120	1.4	15	1890	8.2	10.3	15	5.3	6.7	15
TPLP314LE-*		3	1/15	1.8	180	2.0	15	2730	11.9	14.8	15	7.7	10.0	15
TPLP316LE-*		3	1/15	1.8	180	2.0	15	2730	11.9	14.8	15	7.7	10.0	15
TPLP418LE-*		4	1/15	2.4	240	2.6	15	3560	15.5	19.3	20	10.0	12.0	15
TPLP421LE-*		4	1/15	2.4	240	2.6	15	3560	15.5	19.3	20	10.0	12.0	15
TPLP526LE-*		5	1/15	3.0	300	3.2	15	4400	19.1	23.9	25	12.0	15.0	20
TPLP631LE-*		6	1/15	3.6	360	3.8	15	5230	22.7	28.4	30	15.0	18.0	20
TPLP103VE-*	4	1	1/15	0.6	60	0.8	15	1060	4.6	5.8	15	3.0	3.8	15
TPLP104VE-*		1	1/15	0.6	60	0.8	15	1060	4.6	5.8	15	3.0	3.8	15
TPLP106VE-*		1	1/15	0.6	60	0.8	15	1060	4.6	5.8	15	3.0	3.8	15
TPLP207VE-*		2	1/15	1.2	120	1.4	15	1890	8.2	10.3	15	5.3	6.7	15
TPLP208VE-*		2	1/15	1.2	120	1.4	15	1890	8.2	10.3	15	5.3	6.7	15
TPLP211VE-*		2	1/15	1.2	120	1.4	15	1890	8.2	10.3	15	5.3	6.7	15
TPLP313VE-*		3	1/15	1.8	180	2.0	15	2730	11.9	14.8	15	7.7	10.0	15
TPLP316VE-*		3	1/15	1.8	180	2.0	15	2730	11.9	14.8	15	7.7	10.0	15
TPLP418VE-*		4	1/15	2.4	240	2.6	15	3560	15.5	19.3	20	10.0	12.0	15
TPLP421VE-*		4	1/15	2.4	240	2.6	15	3560	15.5	19.3	20	10.0	12.0	15
TPLP524VE-*		5	1/15	3.0	300	3.2	15	4400	19.1	23.9	25	12.0	15.0	20
TPLP627VE-*		6	1/15	3.6	360	3.8	15	5230	22.7	28.4	30	15.0	18.0	20

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



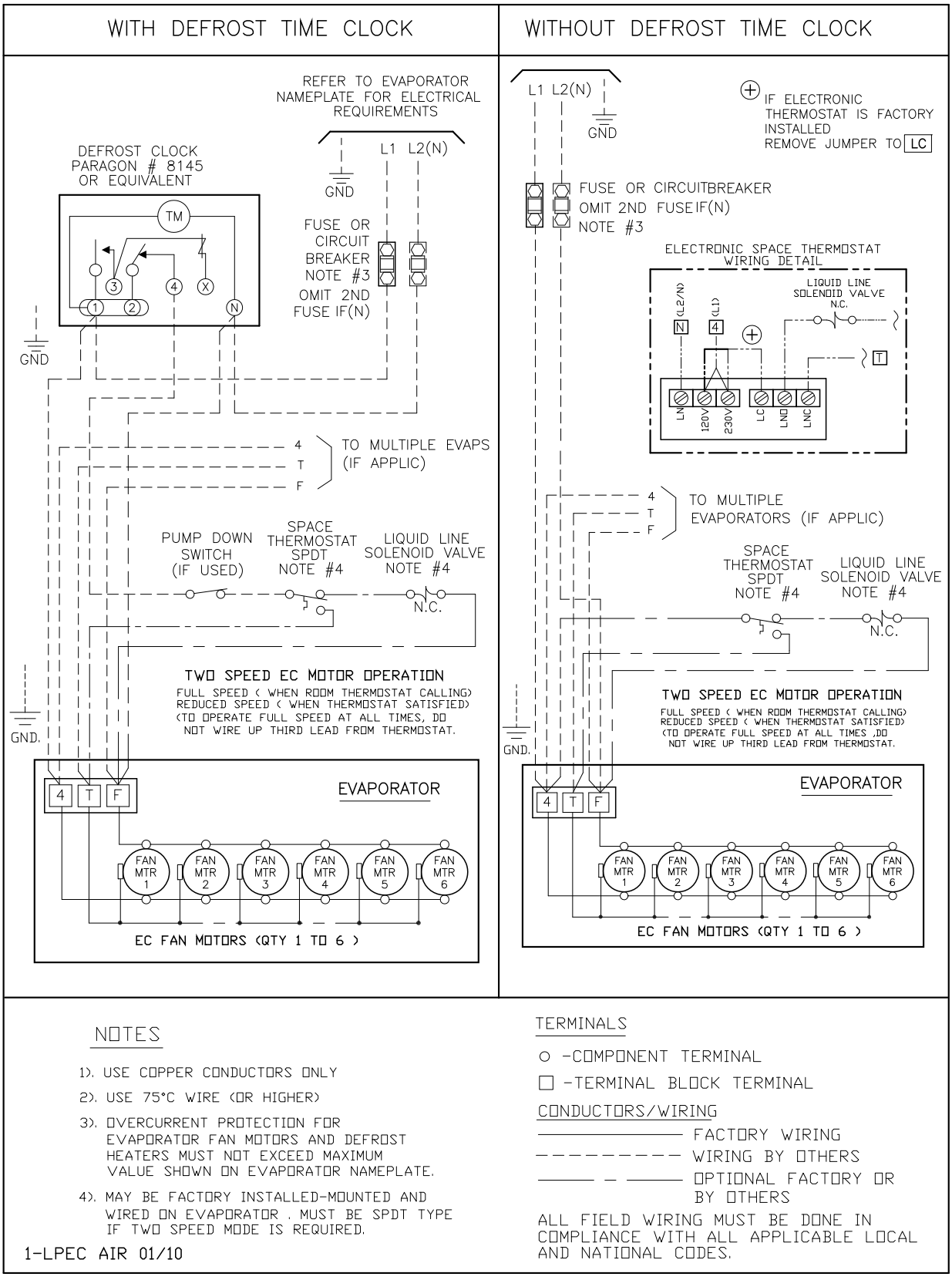
Viewing and changing values in the Basic menu

To access the Basic menu and view and change the Basic parameter values, complete the following steps:

1. On the Main screen, press **MENU**. The LCD displays **OFF**, which is the first parameter code screen displayed in the Basic menu.
2. To scroll through all of the basic parameter codes and display the preferred code, press **Down** or **Up**.
3. With the preferred parameter code displayed, press **MENU** to display the current parameter value for the code.
4. With the current parameter value displayed, press **Down** or **Up** to scroll through all of the parameter's usable values and display the preferred value.
5. With the preferred parameter value displayed, press **MENU** to save the displayed value and go to the next parameter code.
6. To exit the Basic menu and go to the Advanced menu, simultaneously press and hold **Down** or **Up** for 5 seconds.

	Code	Parameter Description	Usable Values	Default MT / LT
BASIC MENU	Off	Relay Off Temperature	-40°F to 212°F	35°F / -10°F
	On	Relay On Temperature	-40°F to 212°F	38°F / -8°F
	SF	Sensor Failure Action	0 = Relay Off 1 = Relay On	1
	ASd	Anti-Short Cycle Delay	0 - 12 Minutes	0
ADVANCED MENU Press & Hold ↑↓ for 5 Seconds	Un	Temperature Units	°F or °C	°F
	tSb	Temperature Setback	-50°F to 50°F	0°F
	So	Sensor Offset Adjustment	-5°F to 5°F	0°F
	HtS	High Temperature Stop	-40°F to 212°F	212°F
	LtS	Low Temperature Stop	-40°F to 212°F	-40°F
	bLL	LCD Backlight Brightness Level Adjustment	0 = Backlight off 10 = Max Backlight	10
	dFt	Defrost Cycle Time	1 - 99 Minutes	30 Min
	dI	Defrost interval	0 or 2 - 24 Hrs	0
	SdF	Start or Stop Defrost	1 to Start Defrost 0 to Stop Defrost	0
	bIn	Binary Input Mode	0 = Temp Setback 1 = Start Defrost	1

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

1-LPEC AIR 01/10

TERMINALS

○ -COMPONENT TERMINAL

□ -TERMINAL BLOCK TERMINAL

CONDUCTORS/WIRING

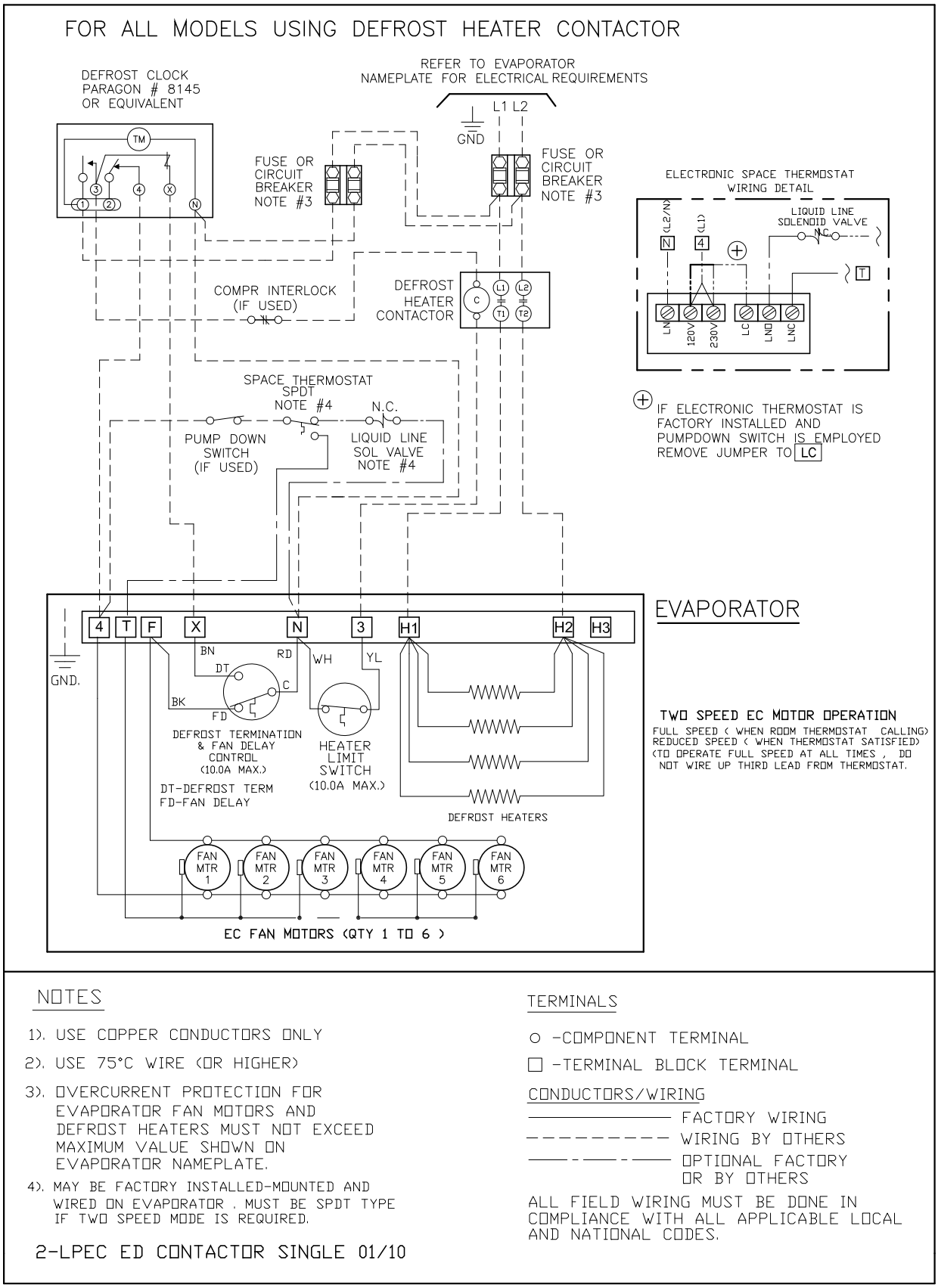
———————— FACTORY WIRING

– – – – – – – – – WIRING BY OTHERS

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

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

208-230/1/60: Electric 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.

2-LPEC ED CONTACTOR SINGLE 01/10

TERMINALS

○ -COMPONENT TERMINAL

□ -TERMINAL BLOCK TERMINAL

CONDUCTORS/WIRING

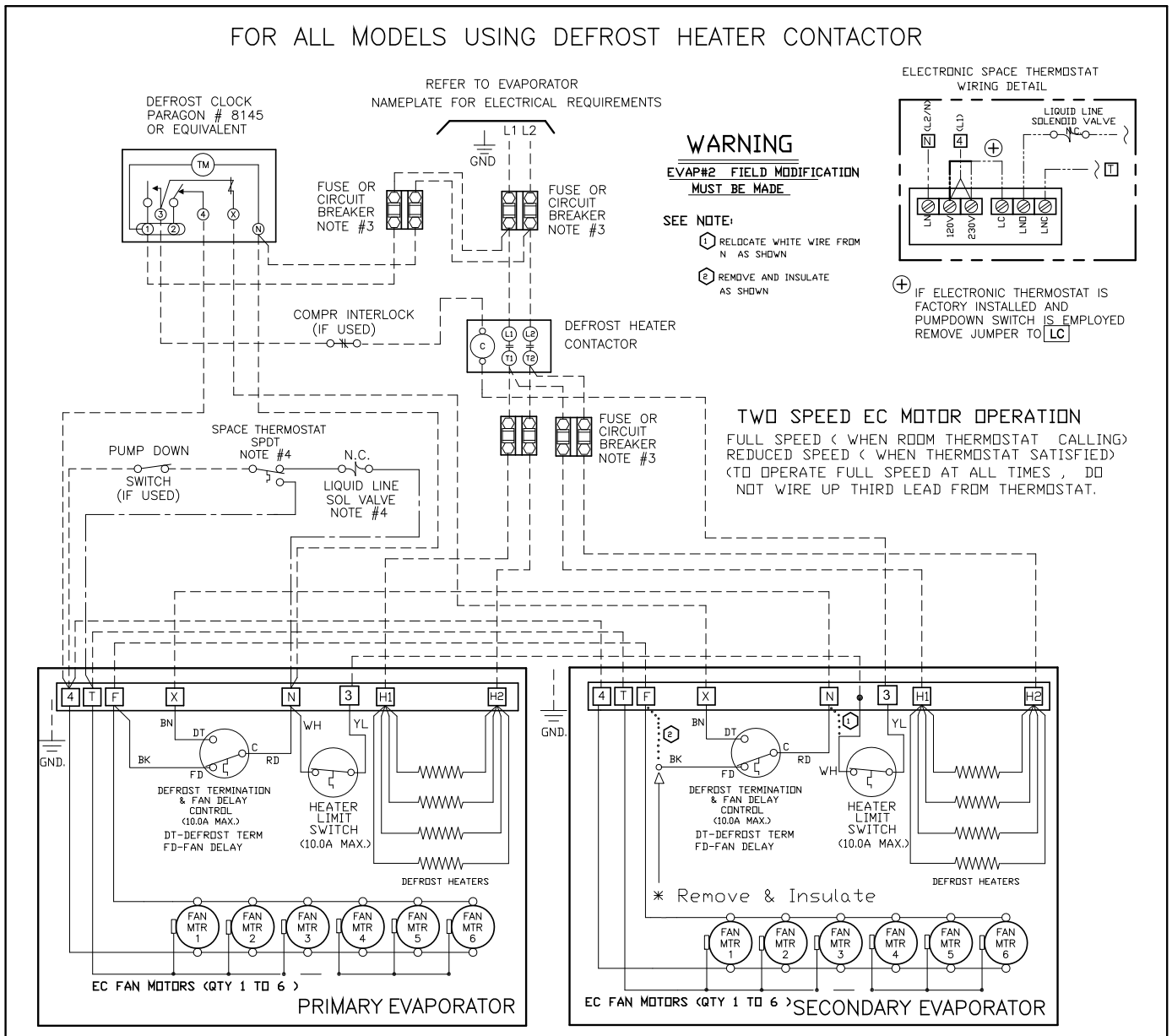
——————— FACTORY WIRING

– – – – – – – – – WIRING BY OTHERS

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

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

208-230/1/60: Electric Defrost Models with Multiple Evaporators



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.

ESP+ 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.

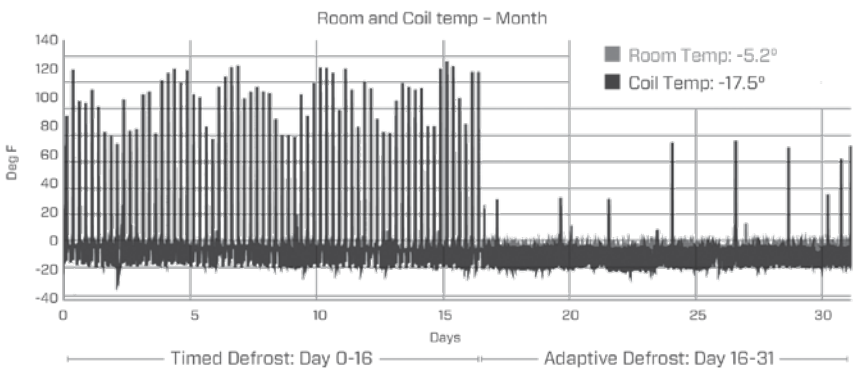
Installing an evaporator utilizing the ESP+ intuitive evaporator control technology is simple. Two pipes, two wires and you're done. No interconnecting control wiring between the evaporator and the condensing unit is required.

- 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 - Liquid Line Solenoid
- 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!



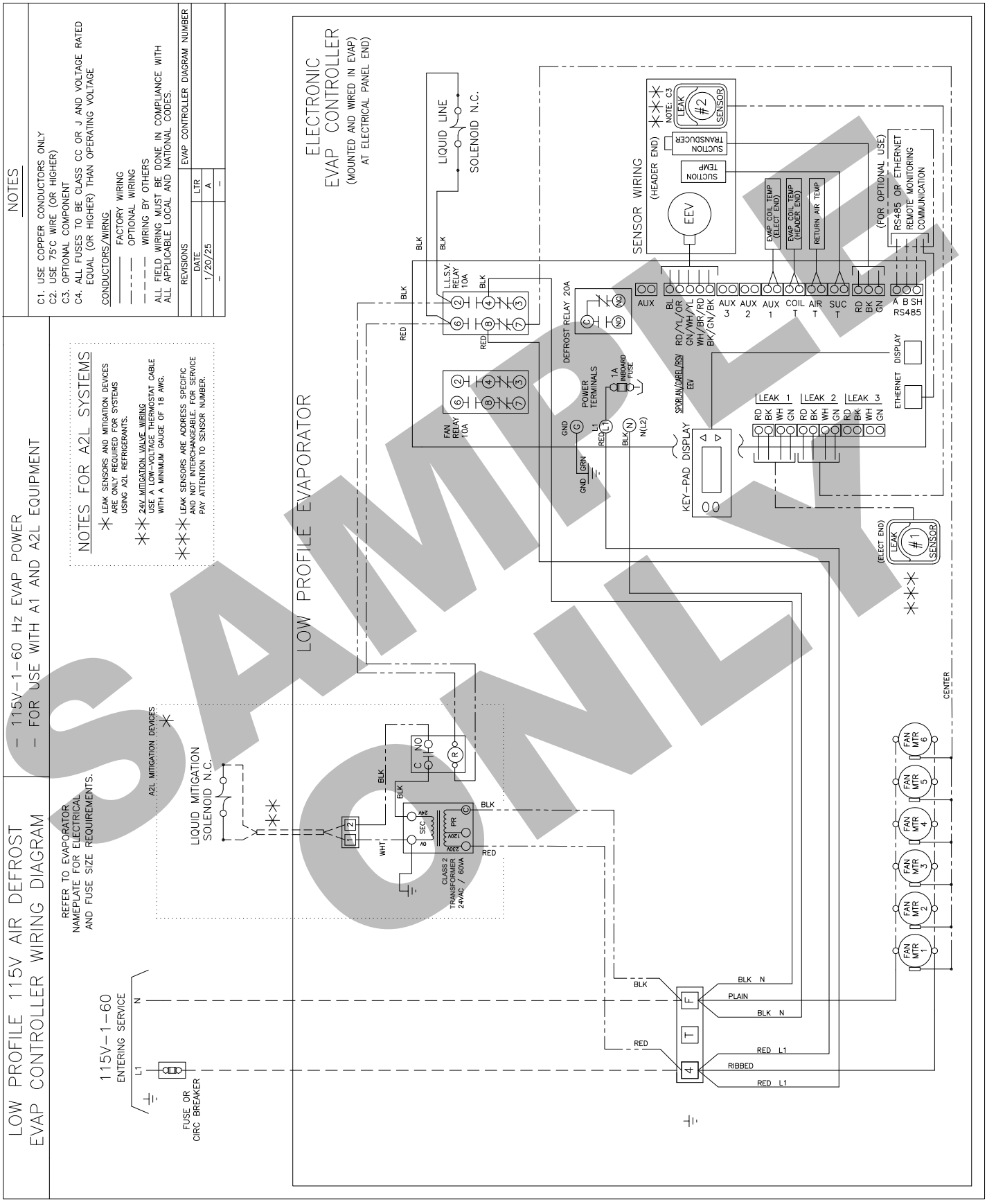
86% Fewer Defrost Cycles*

- Enhanced system performance
- Energy Savings
- Improved product integrity

* Data may vary depending on application

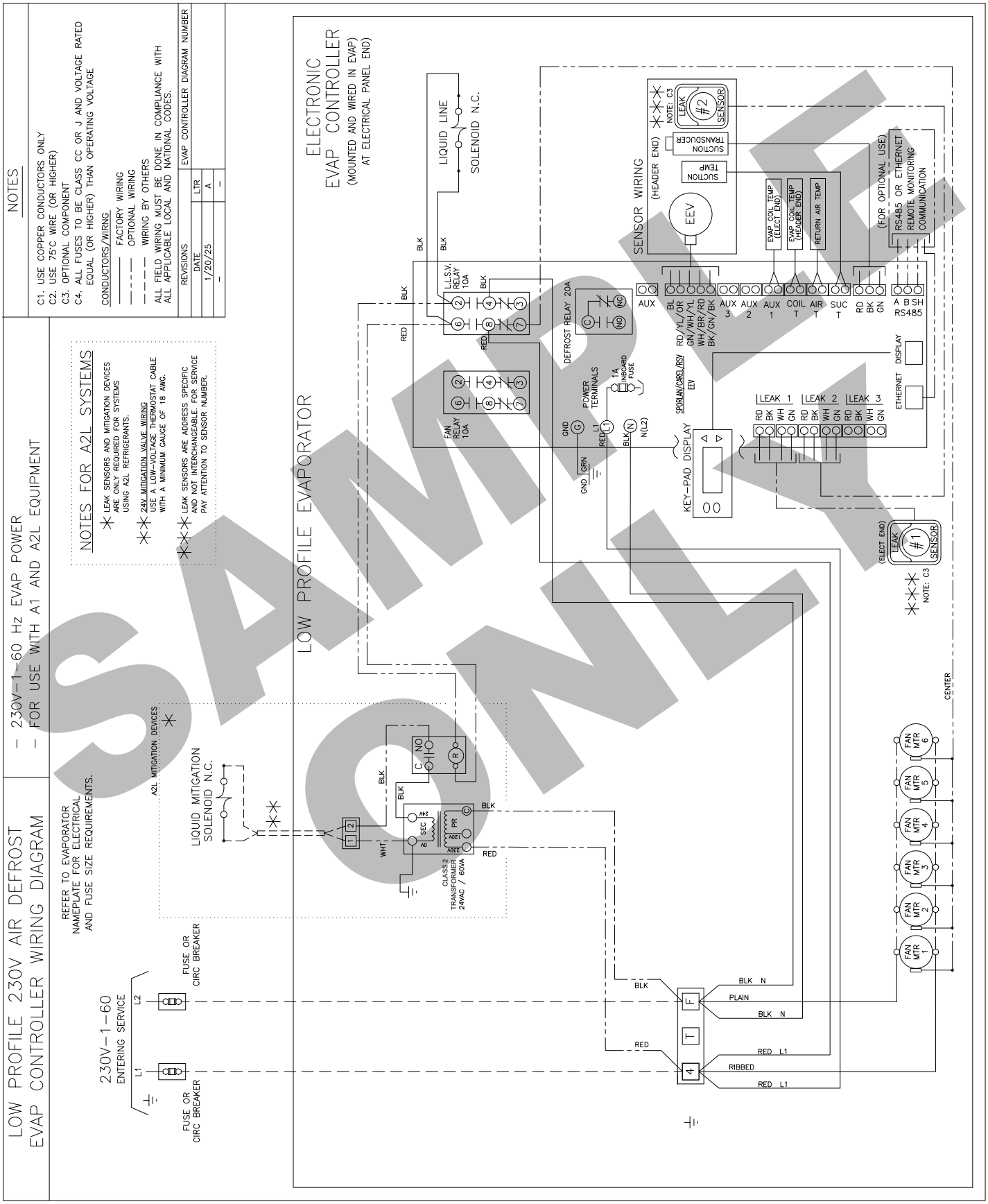
Visit www.t-rp.com/esp for details

115/1/60: Air Defrost Models with ESP+

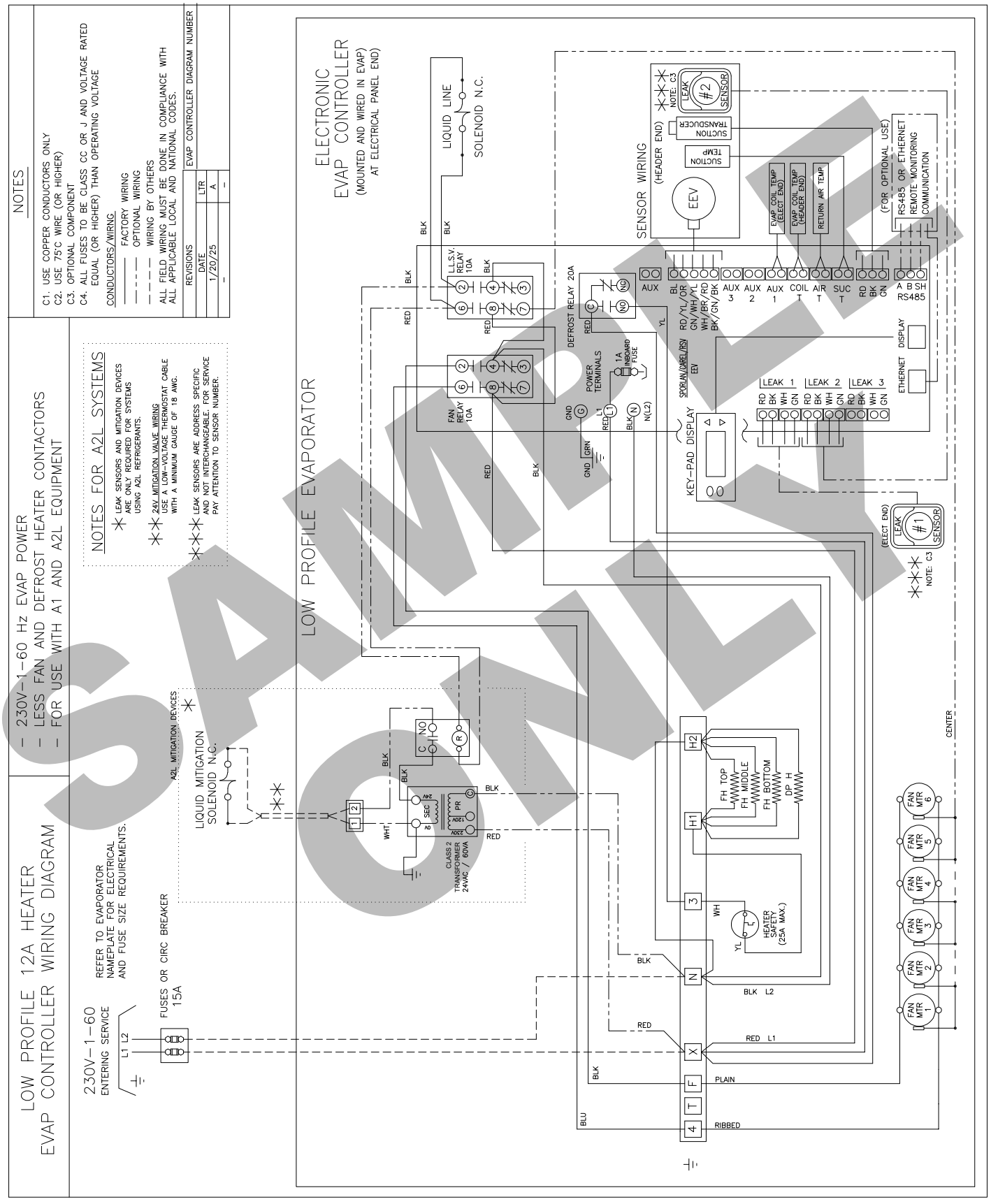


SAMPLE ONLY

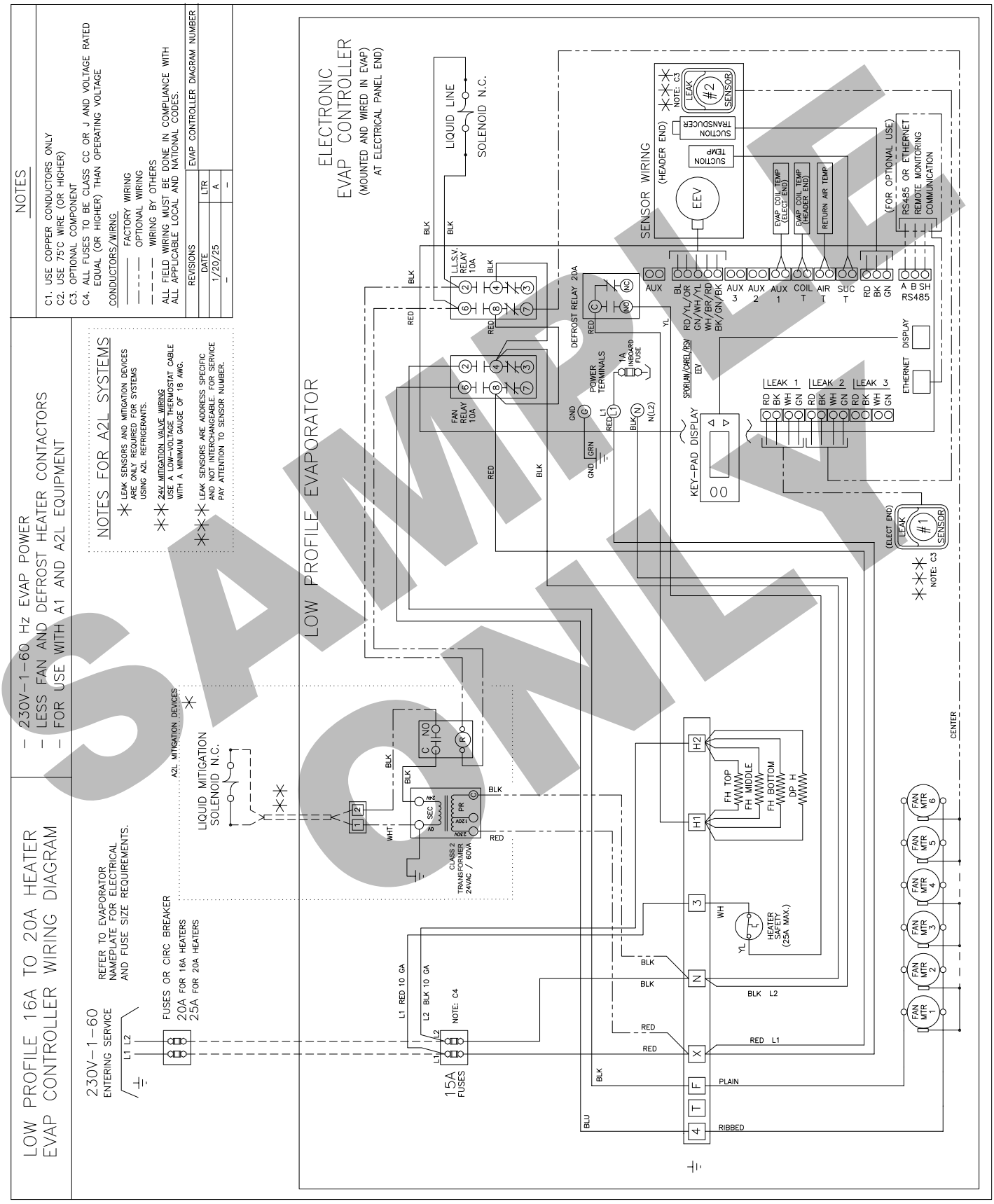
208-230/1/60: Air Defrost Models with ESP+



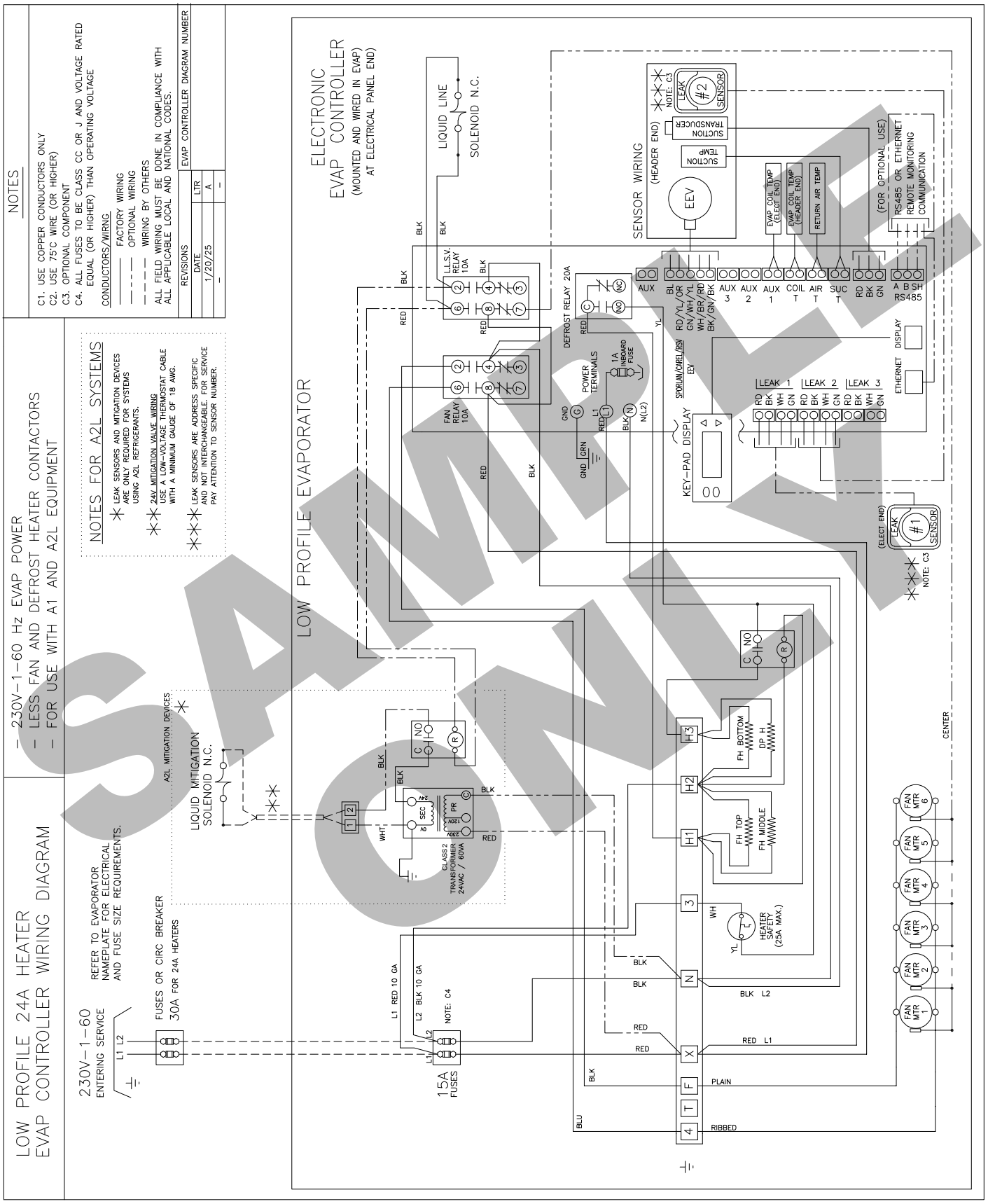
208-230/1/60: 1-3 Fan Electric Defrost Models with ESP+ Max.12A



208-230/1/60: 4-5 Fan Electric Defrost Models with ESP+ 16A to 20A



208-230/1/60: 6 Fan Electric Defrost Models with ESP 24A



Annual Walk-In Energy Factor Ratings - High/Medium Temperature

If a numerical value is listed in the table below, the following statement applies to that corresponding model: "This refrigeration system is designed and certified for use in walk-in cooler applications."

Model TPLP	R404A R507	R407A R407C	R448A R449A
TPLP104M	9.00	9.00	9.00
TPLP106M	9.00	9.00	9.00
TPLP107M	9.00	9.00	9.00
TPLP209M	9.00	9.00	9.00
TPLP211M	9.00	9.00	9.00
TPLP214M	9.00	9.00	9.00
TPLP317M	9.00	9.00	9.00
TPLP320M	9.00	9.00	9.00
TPLP422M	9.00	9.00	9.00
TPLP427M	9.00	9.00	9.00
TPLP534M	9.00	9.00	9.00
TPLP640M	9.00	9.00	9.00

Annual Walk-In Energy Factor Ratings - Low Temperature

If a numerical value is listed in the table below, the following statement applies to that corresponding model: "This refrigeration system is designed and certified for use in walk-in freezer applications."

Model TPLP	R404A R507	R407A	R448A R449A
TPLP104L	3.96	3.96	3.96
TPLP105L	3.97	3.97	3.97
TPLP106L	3.99	3.99	3.99
TPLP207L	3.99	3.99	3.99
TPLP209L	4.02	4.02	4.02
TPLP211L	4.04	4.04	4.04
TPLP314L	4.07	4.07	4.07
TPLP316L	4.10	4.10	4.10
TPLP418L	4.13	4.13	4.13
TPLP421L	4.15	4.15	4.15
TPLP526L	4.15	4.15	4.15
TPLP631L	4.15	4.15	4.15

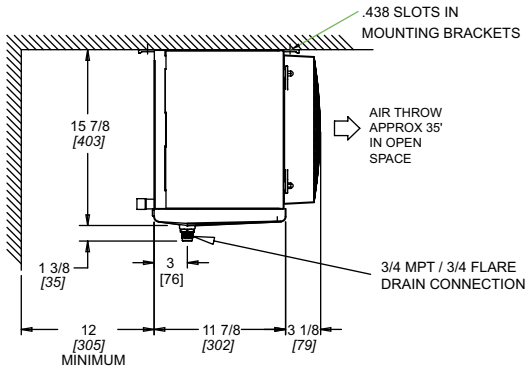
Model TPLP	R404A R507	R407A	R448A R449A
TPLP103V	3.95	3.95	3.95
TPLP104V	3.96	3.96	3.96
TPLP106V	3.98	3.98	3.98
TPLP207V	3.99	3.99	3.99
TPLP208V	4.01	4.01	4.01
TPLP211V	4.04	4.04	4.04
TPLP313V	4.06	4.06	4.06
TPLP316V	4.10	4.10	4.10
TPLP418V	4.13	4.13	4.13
TPLP421V	4.15	4.15	4.15
TPLP524V	4.15	4.15	4.15
TPLP627V	4.15	4.15	4.15

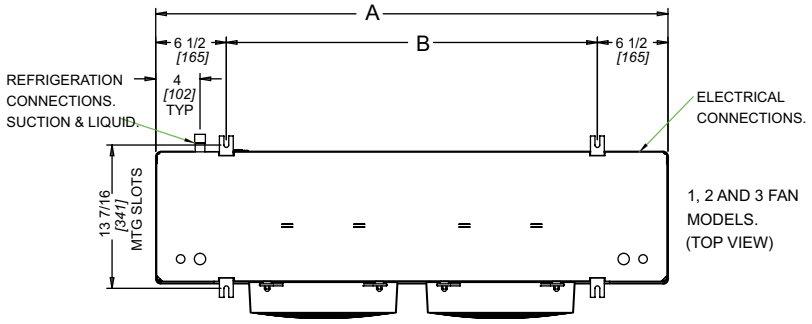
Sound Data

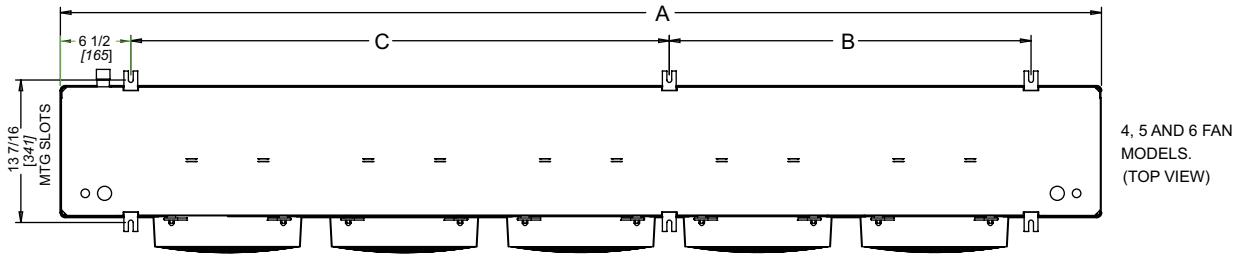
dBa @ 10 ft.

GEN D					
1 FAN	2 FAN	3 Fan	4 Fan	5 Fan	6 Fan
54	55.9	57	58	58.5	59

Data is Typical of “Free Field” conditions. Factors such as reflecting walls, background noises and installation may have significant influence on data.
Data above is for reference only.







MODEL TPLP	NO. OF FANS	A		B		C		SUCTION CONNECTION (ID) SWEAT
		IN	*mm*	IN	*mm*	IN	*mm*	
TPLP104M	1	30 1/4	*768*	17 1/4	*438*	N/A	*N/A*	5/8
TPLP106M		30 1/4	*768*	17 1/4	*438*	N/A	*N/A*	5/8
TPLP107M		30 1/4	*768*	17 1/4	*438*	N/A	*N/A*	5/8
TPLP209M	2	46 1/4	*1175*	33 1/4	*845*	N/A	*N/A*	7/8
TPLP211M		46 1/4	*1175*	33 1/4	*845*	N/A	*N/A*	7/8
TPLP214M		46 1/4	*1175*	33 1/4	*845*	N/A	*N/A*	7/8
TPLP317M	3	62 1/4	*1581*	49 1/4	*1251*	N/A	*N/A*	7/8
TPLP320M		62 1/4	*1581*	49 1/4	*1251*	N/A	*N/A*	7/8
TPLP422M	4	78 1/4	*1988*	32 5/8	*829*	32 5/8	*829*	1 1/8
TPLP427M		78 1/4	*1988*	32 5/8	*829*	32 5/8	*829*	1 1/8
TPLP534M	5	94 1/4	*2394*	32 5/8	*829*	48 5/8	*1235*	1 3/8
TPLP640M	6	110 1/4	*2800*	48 5/8	*1235*	48 5/8	*1235*	1 3/8
TPLP104L	1	30 1/4	*768*	17 1/4	*438*	N/A	*N/A*	5/8
TPLP105L		30 1/4	*768*	17 1/4	*438*	N/A	*N/A*	5/8
TPLP106L		30 1/4	*768*	17 1/4	*438*	N/A	*N/A*	5/8
TPLP207L	2	46 1/4	*1175*	33 1/4	*845*	N/A	*N/A*	7/8
TPLP209L		46 1/4	*1175*	33 1/4	*845*	N/A	*N/A*	7/8
TPLP211L		46 1/4	*1175*	33 1/4	*845*	N/A	*N/A*	7/8
TPLP314L	3	62 1/4	*1581*	49 1/4	*1251*	N/A	*N/A*	7/8
TPLP316L		62 1/4	*1581*	49 1/4	*1251*	N/A	*N/A*	1 1/8
TPLP418L	4	78 1/4	*1988*	32 5/8	*829*	32 5/8	*829*	1 1/8
TPLP421L		78 1/4	*1988*	32 5/8	*829*	32 5/8	*829*	1 1/8
TPLP526L	5	94 1/4	*2394*	32 5/8	*829*	48 5/8	*1235*	1 3/8
TPLP631L	6	110 1/4	*2800*	48 5/8	*1235*	48 5/8	*1235*	1 3/8
TPLP103V	1	30 1/4	*768*	17 1/4	*438*	N/A	*N/A*	5/8
TPLP104V		30 1/4	*768*	17 1/4	*438*	N/A	*N/A*	5/8
TPLP106V		30 1/4	*768*	17 1/4	*438*	N/A	*N/A*	5/8
TPLP207V	2	46 1/4	*1175*	33 1/4	*845*	N/A	*N/A*	7/8
TPLP208V		46 1/4	*1175*	33 1/4	*845*	N/A	*N/A*	7/8
TPLP211V		46 1/4	*1175*	33 1/4	*845*	N/A	*N/A*	7/8
TPLP313V	3	62 1/4	*1581*	49 1/4	*1251*	N/A	*N/A*	7/8
TPLP316V		62 1/4	*1581*	49 1/4	*1251*	N/A	*N/A*	1 1/8
TPLP418V	4	78 1/4	*1988*	32 5/8	*829*	32 5/8	*829*	1 1/8
TPLP421V		78 1/4	*1988*	32 5/8	*829*	32 5/8	*829*	1 1/8
TPLP524V	5	94 1/4	*2394*	32 5/8	*829*	48 5/8	*1235*	1 3/8
TPLP627V	6	110 1/4	*2800*	48 5/8	*1235*	48 5/8	*1235*	1 3/8

Air Defrost Models

MODEL TPLP	SHIPPING WEIGHT	
	LB.	*kg*
TPLP104MA	45	*20*
TPLP106MA	47	*21*
TPLP107MA	49	*22*
TPLP209MA	70	*32*
TPLP211MA	74	*33*
TPLP214MA	78	*35*
TPLP317MA	101	*46*
TPLP320MA	107	48
TPLP422MA	117	*53*
TPLP427MA	135	*61*
TPLP534MA	163	*74*
TPLP640MA	192	*87*

Electric Defrost Models

MODEL TPLP			SHIPPING WEIGHT	
			LB.	*kg*
TPLP104ME	**TPLP104LE**	**TPLP103VE**	49	*22*
TPLP106ME	**TPLP105LE**	**TPLP104VE**	51	*23*
TPLP107ME	**TPLP106LE**	**TPLP106VE**	53	*24*
TPLP209ME	**TPLP207LE**	**TPLP207VE**	76	*35*
TPLP211ME	**TPLP209LE**	**TPLP208VE**	80	*36*
TPLP214ME	**TPLP211LE**	**TPLP211VE**	84	*38*
TPLP317ME	**TPLP314LE**	**TPLP313VE**	109	*49*
TPLP320ME	**TPLP316LE**	**TPLP316VE**	115	52
TPLP422ME	**TPLP418LE**	**TPLP418VE**	127	*58*
TPLP427ME	**TPLP421LE**	**TPLP421VE**	145	*66*
TPLP534ME	**TPLP526LE**	**TPLP524VE**	176	*80*
TPLP640ME	**TPLP631LE**	**TPLP627VE**	207	*94*

Medium Temperature Models

Model TPLP	R404A - R507		R407A - R407C - R448A - R449A	
	SPORLAN	SOLENOID VALVES	SPORLAN	SOLENOID VALVES
TPLP104MA	EBQSE-AA-C	3	EBQVE-AAA-C	3
TPLP106MA	EBQSE-A-C	3	EBQVE-AA-C	3
TPLP107MA	EBQSE-A-C	3	EBQVE-AA-C	3
TPLP209MA	EBQSE-A-C	3	EBQVE-A-C	3
TPLP211MA	EBQSE-B-C	3	EBQVE-A-C	3
TPLP214MA	EBQSE-B-C	5	EBQVE-A-C	3
TPLP317MA	EBQSE-B-C	5	EBQVE-A-C	3
TPLP320MA	EBQSE-B-C	5	EBQVE-B-C	5
TPLP422MA	EBQSE-C-C	6	EBQVE-B-C	5
TPLP427MA	EBQSE-C-C	6	EBQVE-B-C	5
TPLP534MA	EBSSE-6-C	6	EBQVE-C-C	6
TPLP640MA	EBSSE-6-C	6	EBQVE-C-C	6

Above selections based on: 1) 100°F (38°C) vapor free liquid entering expansion valve, 2) 110°F (43°C) condensing temperature, 3) 9-12°F (4.4-6.7C) evaporator TD

Low Temperature 6FPI Models

Model TPLP	R404A - R507		R407A - R448A - R449A	
	SPORLAN	SOLENOID VALVES	SPORLAN	SOLENOID VALVES
TPLP104LE	EBQSE-AA-ZP	3	EBQVE-AA-ZP	3
TPLP105LE	EBQSE-A-ZP	3	EBQVE-AA-ZP	3
TPLP106LE	EBQSE-A-ZP	3	EBQVE-AA-ZP	3
TPLP207LE	EBQSE-A-ZP	3	EBQVE-A-ZP	3
TPLP209LE	EBQSE-A-ZP	3	EBQVE-A-ZP	3
TPLP211LE	EBQSE-B-ZP	3	EBQVE-A-ZP	3
TPLP314LE	EBQSE-B-ZP	5	EBQVE-B-ZP	3
TPLP316LE	EBQSE-C-ZP	5	EBQVE-B-ZP	5
TPLP418LE	EBQSE-C-ZP	5	EBQVE-B-ZP	5
TPLP421LE	EBQSE-C-ZP	6	EBQVE-C-ZP	5
TPLP526LE	EBSSE-6-ZP	6	EBQVE-C-ZP	5
TPLP631LE	EBSSE-6-ZP	6	EBQVE-C-ZP	6

Above selections based on: 1) 100°F (38°C) vapor free liquid entering expansion valve, 2) 110°F (43°C) condensing temperature, 3) 9-12°F (4.4-6.7C) evaporator TD

Low Temperature 4FPI Models

Model TPLP	R404A - R507		R407A - R448A - R449A	
	SPORLAN	SOLENOID VALVES	SPORLAN	SOLENOID VALVES
TPLP103VE	EBQSE-AA-ZP	3	EBQVE-AA-ZP	3
TPLP104VE	EBQSE-AA-ZP	3	EBQVE-AA-ZP	3
TPLP106VE	EBQSE-A-ZP	3	EBQVE-AA-ZP	3
TPLP207VE	EBQSE-A-ZP	3	EBQVE-A-ZP	3
TPLP208VE	EBQSE-A-ZP	3	EBQVE-A-ZP	3
TPLP211VE	EBQSE-A-ZP	3	EBQVE-A-ZP	3
TPLP313VE	EBQSE-B-ZP	5	EBQVE-B-ZP	3
TPLP316VE	EBQSE-B-ZP	5	EBQVE-B-ZP	3
TPLP418VE	EBQSE-C-ZP	5	EBQVE-B-ZP	3
TPLP421VE	EBQSE-C-ZP	6	EBQVE-B-ZP	5
TPLP524VE	EBSSE-6-ZP	6	EBQVE-C-ZP	5
TPLP627VE	EBSSE-6-ZP	6	EBQVE-C-ZP	5

Above selections based on: 1) 100°F (38°C) vapor free liquid entering expansion valve, 2) 110°F (43°C) condensing temperature, 3) 9-12°F (4.4-6.7C) evaporator TD

Models with ESP+

Medium Temperature Air Or Electric Defrost
All Refrigerants

MODEL TPLP	FACTORY INSTALLED NOZZLE	PRIMARY INSTALLED ELECTRONIC EXPANSION VALVE	ALTERNATE INSTALLED ELECTRONIC EXPANSION VALVE	FACTORY INSTALLED LIQUID LINE SOLENOID VALVE
TPLP104M* **	N/A	RSV 220	E2V24	E3
TPLP106M* **	L1/2	RSV 220	E2V24	E3
TPLP107M* **	L1/2	RSV 220	E2V24	E3
TPLP209M* **	L3/4	RSV 220	E2V24	E3
TPLP211M* **	L1	RSV 220	E2V24	E3
TPLP214M* **	L1	RSV 220	E2V24	E3
TPLP317M* **	L1-1/2	RSV 220	E2V24	E5
TPLP320M* **	L1-1/2	RSV 220	E2V24	E5
TPLP422M* **	L2	RSV 320	E2V24	E5
TPLP427M* **	L2	RSV 320	E2V24	E5
TPLP534M* **	L2-1/2	RSV 320	E2V35	E6
TPLP640M* **	G3	E2V35	RSV 400	E6

*** Insert Air or Electric Defrost type. See nomenclature for details.

Low Temperature Electric Defrost 6 FPI
All Refrigerants

MODEL TPLP	FACTORY INSTALLED NOZZLE	PRIMARY INSTALLED ELECTRONIC EXPANSION VALVE	ALTERNATE INSTALLED ELECTRONIC EXPANSION VALVE	FACTORY INSTALLED LIQUID LINE SOLENOID VALVE
TPLP104LE	L1/2	E2V24	RSV220	E3
TPLP105LE	L3/4	E2V24	RSV220	E3
TPLP106LE	L1	E2V24	RSV220	E3
TPLP207LE	L1	E2V24	RSV220	E3
TPLP209LE	L1-1/2	E2V24	RSV220	E3
TPLP211LE	L2	E2V24	RSV220	E3
TPLP314LE	L2	E2V24	RSV220	E5
TPLP316LE	L3	E2V24	RSV220	E5
TPLP418LE	L3	E2V24	RSV220	E5
TPLP421LE	G4	E2V35	RSV220	E5
TPLP526LE	G4	E2V35	RSV320	E6
TPLP631LE	G5	E2V35	RSV320	E6

Low Temperature Electric Defrost 4 FPI
All Refrigerants

MODEL TPLP	FACTORY INSTALLED NOZZLE	PRIMARY INSTALLED ELECTRONIC EXPANSION VALVE	ALTERNATE INSTALLED ELECTRONIC EXPANSION VALVE	FACTORY INSTALLED LIQUID LINE SOLENOID VALVE
TPLP103VE	L1/2	E2V24	RSV220	E3
TPLP104VE	L3/4	E2V24	RSV220	E3
TPLP106VE	L1	E2V24	RSV220	E3
TPLP207VE	L1	E2V24	RSV220	E3
TPLP208VE	L1-1/2	E2V24	RSV220	E3
TPLP211VE	L2	E2V24	RSV220	E3
TPLP313VE	L2	E2V24	RSV220	E5
TPLP316VE	L2-1/2	E2V24	RSV220	E5
TPLP418VE	J2-1/2	E2V24	RSV220	E5
TPLP421VE	G3	E2V35	RSV220	E5
TPLP524VE	G4	E2V35	RSV220	E6
TPLP627VE	G5	E2V35	RSV320	E6

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 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 25ºF *(-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.

ESP+

Visit
www.t-rp.com/esp
for Quick Start Guide, Operation Manual, etc

Medium Temperature, 6 FPI

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	TPLP104ME-S2D	208-230/1/60	DFK-02	FP-004	DFK-06	FP-008
			TPLP104ME-T3D	208-230/3/60	DFK-03	FP-013	DFK-07	FP-018
			TPLP106ME-S2D	208-230/1/60	DFK-02	FP-004	DFK-06	FP-008
			TPLP106ME-T3D	208-230/3/60	DFK-03	FP-013	DFK-07	FP-018
			TPLP107ME-S2D	208-230/1/60	DFK-02	FP-004	DFK-06	FP-008
			TPLP107ME-T3D	208-230/3/60	DFK-03	FP-013	DFK-07	FP-018
		2	TPLP209ME-S2D	208-230/1/60	DFK-02	FP-004	DFK-06	FP-008
			TPLP209ME-T3D	208-230/3/60	DFK-03	FP-013	DFK-07	FP-018
			TPLP211ME-S2D	208-230/1/60	DFK-02	FP-004	DFK-06	FP-008
			TPLP211ME-T3D	208-230/3/60	DFK-03	FP-013	DFK-07	FP-018
			TPLP214ME-S2D	208-230/1/60	DFK-02	FP-004	DFK-06	FP-008
			TPLP214ME-T3D	208-230/3/60	DFK-03	FP-013	DFK-07	FP-018
		3	TPLP317ME-S2D	208-230/1/60	DFK-02	FP-004	DFK-06	FP-008
			TPLP317ME-T3D	208-230/3/60	DFK-03	FP-013	DFK-07	FP-018
			TPLP320ME-S2D	208-230/1/60	DFK-02	FP-004	DFK-06	FP-008
			TPLP320ME-T3D	208-230/3/60	DFK-03	FP-013	DFK-07	FP-018
		4	TPLP422ME-S2D	208-230/1/60	DFK-02	FP-006	DFK-06	FP-015
			TPLP422ME-T3D	208-230/3/60	DFK-03	FP-013	DFK-07	FP-018
			TPLP427ME-S2D	208-230/1/60	DFK-02	FP-006	DFK-06	FP-015
			TPLP427ME-T3D	208-230/3/60	DFK-03	FP-013	DFK-07	FP-018
		5	TPLP534ME-S2D	208-230/1/60	DFK-02	FP-007	DFK-06	FP-010
			TPLP534ME-T3D	208-230/3/60	DFK-03	FP-014	DFK-07	FP-019
		6	TPLP640ME-S2D	208-230/1/60	DFK-02	FP-020	DFK-09	FP-021
			TPLP640ME-T3D	208-230/3/60	DFK-03	FP-014	DFK-07	FP-019

Low Temperature, 6 FPI

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	TPLP104LE-S2D	208-230/1/60	DFK-02	FP-004	DFK-06	FP-008
			TPLP104LE-T3D	208-230/3/60	DFK-03	FP-013	DFK-07	FP-018
			TPLP105LE-S2D	208-230/1/60	DFK-02	FP-004	DFK-06	FP-008
			TPLP105LE-T3D	208-230/3/60	DFK-03	FP-013	DFK-07	FP-018
			TPLP106LE-S2D	208-230/1/60	DFK-02	FP-004	DFK-06	FP-008
			TPLP106LE-T3D	208-230/3/60	DFK-03	FP-013	DFK-07	FP-018
		2	TPLP207LE-S2D	208-230/1/60	DFK-02	FP-004	DFK-06	FP-008
			TPLP207LE-T3D	208-230/3/60	DFK-03	FP-013	DFK-07	FP-018
			TPLP209LE-S2D	208-230/1/60	DFK-02	FP-004	DFK-06	FP-008
			TPLP209LE-T3D	208-230/3/60	DFK-03	FP-013	DFK-07	FP-018
			TPLP211LE-S2D	208-230/1/60	DFK-02	FP-004	DFK-06	FP-008
			TPLP211LE-T3D	208-230/3/60	DFK-03	FP-013	DFK-07	FP-018
		3	TPLP314LE-S2D	208-230/1/60	DFK-02	FP-004	DFK-06	FP-008
			TPLP314LE-T3D	208-230/3/60	DFK-03	FP-013	DFK-07	FP-018
			TPLP316LE-S2D	208-230/1/60	DFK-02	FP-004	DFK-06	FP-008
			TPLP316LE-T3D	208-230/3/60	DFK-03	FP-013	DFK-07	FP-018
		4	TPLP418LE-S2D	208-230/1/60	DFK-02	FP-006	DFK-06	FP-015
			TPLP418LE-T3D	208-230/3/60	DFK-03	FP-013	DFK-07	FP-018
			TPLP421LE-S2D	208-230/1/60	DFK-02	FP-006	DFK-06	FP-015
			TPLP421LE-T3D	208-230/3/60	DFK-03	FP-013	DFK-07	FP-018
		5	TPLP526LE-S2D	208-230/1/60	DFK-02	FP-007	DFK-06	FP-010
			TPLP526LE-T3D	208-230/3/60	DFK-03	FP-014	DFK-07	FP-019
		6	TPLP631LE-S2D	208-230/1/60	DFK-02	FP-020	DFK-09	FP-021
			TPLP631LE-T3D	208-230/3/60	DFK-03	FP-014	DFK-07	FP-019

Low Temperature, 4 FPI

TEMP	FPI	# of Fans	Model TPLP	Voltage	1 X EVAPORATOR		2 X EVAPORATOR	
					Defrost Kit	Fuse Package	Defrost Kit	Fuse Package
VE - LOW TEMPERATURE	4	1	**TPLP103VE-S2D**	208-230/1/60	DFK-02	FP-004	DFK-06	FP-008
			TPLP103VE-T3D	208-230/3/60	DFK-03	FP-013	DFK-07	FP-018
			TPLP104VE-S2D	208-230/1/60	DFK-02	FP-004	DFK-06	FP-008
			TPLP104VE-T3D	208-230/3/60	DFK-03	FP-013	DFK-07	FP-018
			TPLP106VE-S2D	208-230/1/60	DFK-02	FP-004	DFK-06	FP-008
			TPLP106VE-T3D	208-230/3/60	DFK-03	FP-013	DFK-07	FP-018
		2	**TPLP207VE-S2D**	208-230/1/60	DFK-02	FP-004	DFK-06	FP-008
			TPLP207VE-T3D	208-230/3/60	DFK-03	FP-013	DFK-07	FP-018
			TPLP208VE-S2D	208-230/1/60	DFK-02	FP-004	DFK-06	FP-008
			TPLP208VE-T3D	208-230/3/60	DFK-03	FP-013	DFK-07	FP-018
			TPLP211VE-S2D	208-230/1/60	DFK-02	FP-004	DFK-06	FP-008
			TPLP211VE-T3D	208-230/3/60	DFK-03	FP-013	DFK-07	FP-018
		3	**TPLP313VE-S2D**	208-230/1/60	DFK-02	FP-004	DFK-06	FP-008
			TPLP313VE-T3D	208-230/3/60	DFK-03	FP-013	DFK-07	FP-018
			TPLP316VE-S2D	208-230/1/60	DFK-02	FP-004	DFK-06	FP-008
			TPLP316VE-T3D	208-230/3/60	DFK-03	FP-013	DFK-07	FP-018
		4	**TPLP418VE-S2D**	208-230/1/60	DFK-02	FP-006	DFK-06	FP-015
			TPLP418VE-T3D	208-230/3/60	DFK-03	FP-013	DFK-07	FP-018
			TPLP421VE-S2D	208-230/1/60	DFK-02	FP-006	DFK-06	FP-015
			TPLP421VE-T3D	208-230/3/60	DFK-03	FP-013	DFK-07	FP-018
		5	**TPLP524VE-S2D**	208-230/1/60	DFK-02	FP-007	DFK-06	FP-010
			TPLP524VE-T3D	208-230/3/60	DFK-03	FP-014	DFK-07	FP-019
		6	**TPLP627VE-S2D**	208-230/1/60	DFK-02	FP-020	DFK-09	FP-021
			TPLP627VE-T3D	208-230/3/60	DFK-03	FP-014	DFK-07	FP-019

For info on matched Trenton condensing units, visit www.t-rp.com/cu

Defrost Kit & Fuse Package Online Selection Tool:

www.t-rp.com/dfk

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
FP-001	FUSES (1) 15AMP
FP-002	FUSES (1) 20AMP
FP-003	FUSES (1) 25AMP
FP-004	FUSES (2) 15AMP
FP-006	FUSES (2) 20AMP
FP-007	FUSES (2) 25AMP
FP-008	FUSES (4) 15AMP
FP-010	FUSES (4) 25AMP
FP-012	FUSES (2) 35AMP
FP-013	FUSES (3) 15AMP
FP-014	FUSES (3) 20AMP
FP-015	FUSES (4) 20AMP
FP-016	FUSES (4) 20AMP (6) 45AMP
FP-017	FUSES (4) 35AMP
FP-018	FUSES (6) 15AMP
FP-019	FUSES (6) 20AMP
FP-020	FUSES (2) 30AMP
FP-021	FUSES (4) 30AMP
FP-022	FUSES (8) 15AMP
FP-023	FUSES (2) 25AMP (3) 50AMP
FP-024	FUSES (2) 20AMP (3) 45AMP
FP-025	FUSES (6) 20AMP (6) 60AMP
FP-026	FUSES (6) 15AMP (12) 40AMP
FP-027	FUSES (6) 15AMP (6) 40AMP
FP-028	FUSES (6) 20AMP (12) 40AMP
FP-029	FUSES (6)15AMP (6) 50AMP
FP-030	FUSES (6) 15AMP (6) 45AMP
FP-031	FUSES (6) 15AMP (6) 35AMP
FP-032	FUSES (6) 15AMP (6) 30AMP
FP-033	FUSES (6) 25AMP (12) 50AMP
FP-034	FUSES (6) 20AMP (12) 35AMP
FP-035	FUSES (4) 25AMP (6) 50AMP
FP-036	FUSES (6) 25AMP (12) 60AMP
FP-037	FUSES (6) 20AMP (12) 60AMP
FP-038	FUSES (6) 20AMP (12) 50AMP
FP-039	FUSES (6) 20AMP (12) 45AMP
FP-040	FUSES (6) 15AMP (12) 45AMP
FP-041	FUSES (5) 15AMP
FP-042	FUSES (10) 15AMP
FP-043	FUSES (3) 25AMP (6) 60AMP
FP-044	FUSES (3) 20AMP (6) 60AMP
FP-045	FUSES (3) 20AMP (6) 50AMP
FP-046	FUSES (3) 25AMP (6) 45AMP
FP-047	FUSES (3) 15AMP (6) 45AMP
FP-048	FUSES (4) 15AMP (4) 45AMP
FP-049	FUSES (4) 15AMP (4) 40AMP
FP-050	FUSES (3) 15AMP (3) 60AMP
FP-051	FUSES (4) 20AMP (6) 50AMP
FP-052	FUSES (4) 15AMP (6) 45AMP
FP-053	FUSES (4) 15AMP (6) 30AMP

Package Part Number	Description
FP-054	FUSES (3)15AMP (6) 35AMP
FP-055	FUSES (2) 15AMP (2) 45AMP
FP-056	FUSES (2) 15AMP (2) 40AMP
FP-057	FUSES (2) 20AMP (3) 50AMP
FP-058	FUSES (2) 15AMP (3) 45AMP
FP-059	FUSES (2) 15AMP (3) 30AMP
FP-060	FUSES (2) 15AMP (2) 35AMP
FP-061	FUSES (2) 15AMP (2) 50AMP
FP-062	FUSES (2) 15AMP (2) 60AMP
FP-063	FUSES (2) 15AMP (3) 25AMP
FP-064	FUSES (2) 15AMP (3) 35AMP
FP-065	FUSES (2) 15AMP (3) 40AMP
FP-066	FUSES (2) 15AMP (3) 20AMP
FP-067	FUSES (4) 15AMP (4) 35AMP
FP-068	FUSES (4) 15AMP (4) 50AMP
FP-069	FUSES (4) 15AMP (4) 60AMP
FP-070	FUSES (4) 15AMP (6) 25AMP
FP-071	FUSES (4) 15AMP (6) 35AMP
FP-072	FUSES (4) 15AMP (6) 40AMP
FP-073	FUSES (4) 15AMP (6) 20AMP
FP-074	FUSES (3) 20AMP (3) 60AMP
FP-075	FUSES (3) 20AMP (6) 35AMP
FP-076	FUSES (3) 25AMP (6) 50AMP
FP-077	FUSES (3) 35AMP (9) 45AMP
FP-078	FUSES (3) 15AMP (3) 35AMP
FP-079	FUSES (3)15AMP (3) 45AMP
FP-080	FUSES (3) 15AMP (3) 50AMP
FP-081	FUSES (3) 20AMP (6) 40AMP
FP-082	FUSES (3) 15AMP (3) 40AMP
FP-083	FUSES (3) 15AMP (6) 40AMP
FP-084	FUSES (6) 15AMP (6) 60AMP
FP-085	FUSES (6) 15AMP (12) 35AMP
FP-086	FUSES (3) 35AMP (3) 45AMP (6) 60AMP
FP-087	FUSES (4) 20AMP (4) 40AMP (4) 50AMP
FP-088	FUSES (4) 15AMP (4) 35AMP (4) 40AMP
FP-089	FUSES (2) 20AMP (2) 40AMP (2) 50AMP
FP-090	FUSES (2) 15AMP (2) 35AMP (2) 40AMP
FP-091	FUSES (2) 20AMP (2) 35AMP (2) 40AMP
FP-092	FUSES (2) 25AMP (2) 40AMP (2) 50AMP
FP-093	FUSES (4) 20AMP (4) 35AMP (4) 40AMP
FP-094	FUSES (6) 15AMP (6) 25AMP
FP-095	FUSES (3) 15AMP (3) 25AMP
FP-096	FUSES (3) 15AMP (3) 30AMP
FP-097	FUSES (4) 15AMP (4) 30AMP
FP-098	FUSES (4) 15AMP (4) 25AMP
FP-099	FUSES (4) 15AMP (4) 20AMP
FP-100	FUSES (2) 15AMP (2) 20AMP
FP-101	FUSES (2) 15AMP (2) 25AMP
FP-102	FUSES (2) 15AMP (2) 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

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



web: **www.t-rp.com/tplp**
email: **evaps@t-rp.com**
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call: **1-844-893-3222 x507**



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call: **1-844-893-3222 x501**



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Service Parts List Label To Be Attached *HERE*

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Brantford, ON • Longview, TX
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Due to the manufacturer's policy of continuous product improvement, we reserve the right to make changes without notice.