



PRODUCT DATA & INSTALLATION

Part # 1112936



GENERATION E

THP HIGH PROFILE EVAPORATOR

Air, Electric & Hot Gas Defrost

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



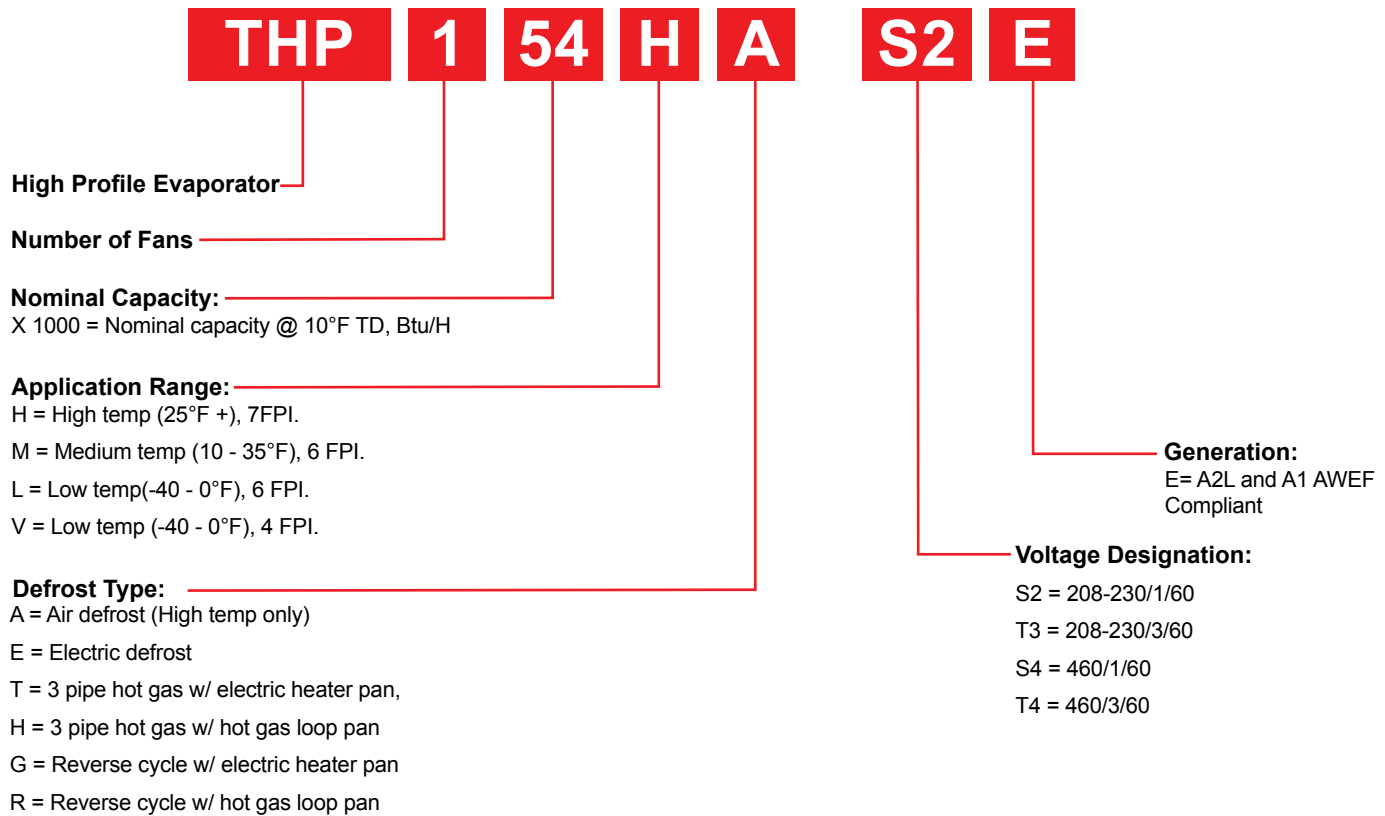
AWEF
COMPLIANT

CONTENTS

PAGE

NOMENCLATURE	2
STANDARD FEATURES	2
AVAILABLE OPTIONS	2
A2L CAPACITY DATA	3
A1 CAPACITY DATA	5
ELECTRICAL DATA	9
WIRING DIAGRAMS	17
AWEF ANNUAL WALK-IN ENERGY FACTOR RAITING	31
DIMENSIONAL DATA / SPECIFICATIONS	32
SHIPPING WEIGHTS	37
RECOMMENDED THERMAL EXPANSION VALVE SELECTIONS	39
FACTORY INSTALLED EXPANSION VALVE SELECTIONS FOR ESP+	41
INSTALLATION INSTRUCTIONS FOR ALL MODELS	43
INSTALLATION INSTRUCTIONS - A2L	46
A2L SAFETY SHUT OFF VALVE INSTALLATION	53
HOT GAS PIPING SCHEMATICS	54
DEFROST KITS	56
PROJECT INFORMATION	62
PRODUCT SUPPORT RESOURCES	63

NOMENCLATURE



STANDARD FEATURES

- EC motors with patented SmartSpeed® Technology.
- Totally enclosed high efficiency EC motors
- High efficiency and high strength fan guard
- Hinged access panels
- Internally enhanced tubing
- Ample electrical and header compartments
- Adjustable Fan Delay on medium temp Electric Defrost units
- Fixed fan delay on all low temperature units
- Electronic defrost termination on all electric and hot gas defrost units
- Liquid line solenoid valve wire harness factory installed
- Schrader valve on suction header
- Quiet swept wing fan blade
- 1-1/4" NPT drain fitting
- Unit shipped with Nitrogen holding charge
- Factory-installed distributor nozzle

AVAILABLE OPTIONS

- ESP+ Intuitive Evaporator Control Technology
- Factory installed expansion valve, solenoid valve and room thermostat
- Hot gas loop pan with hot gas defrost models
- Corrosion protection: alternate fin materials and coatings
- Electronic expansion valve (EEV)
- Transducer for EEV
- Insulated drain pan
- Wire fan guard
- Transducer schrader with isolation valve
- A2L Refrigerant Detection System (RDS)
- A2L Leak Mitigation System - Safety Shut Off Valve (SSOV), and Check Shut Off Valve (CSOV)
- Additional options available, please contact factory

A2L

R454A - R454C - R455A**High Temperature - 7 FPI Models**

MODEL	QtyFans	Evaporator Temperature Selection Capacity BTU/H			Air Flow		Refrig. Charge R454A-R454C- R455A	
		20/25°F (-4/-7°C)	15°F (-9°C)	10°F (-12°C)	CFM	L/S	LB.	KG
THP052H	1	51500	51000	50500	6100	2880	7.1	3.2
THP060H		60000	59400	58800	5900	2780	9.1	4.1
THP065H		65000	64400	63700	5600	2640	11.1	5.0
THP103H	2	103300	102300	101200	12200	5760	13.1	5.9
THP120H		120000	118800	117600	11800	5570	17.5	7.9
THP131H		131100	129800	128500	11100	5240	21.4	9.7
THP155H	3	155200	153600	152100	18300	8640	19.3	8.8
THP180H		180000	178200	176400	17600	8310	25.1	11.4
THP196H		195600	193600	191700	16700	7880	31.0	14.1
THP242H	4	241600	239200	236800	23500	11090	33.5	15.2
THP263H		263000	260400	257700	22300	10520	41.2	18.7

A2L

R454A - R454C - R455A**Med Temperature - 6 FPI Models**

MODEL	QtyFans	Evaporator Temperature Selection Capacity BTU/H			Air Flow		Refrig. Charge R454A-R454C- R455A	
		20/25°F (-4/-7°C)	15°F (-9°C)	10°F (-12°C)	CFM	L/S	LB.	KG
THP048M	1	47600	47100	46600	6200	2930	7.1	3.2
THP056M		56300	55700	55200	6000	2830	9.1	4.1
THP062M		62000	61400	60800	5700	2690	11.1	5.0
THP095M	2	95300	94300	93400	12400	5850	13.1	5.9
THP113M		113300	112200	111000	12000	5660	17.5	7.9
THP125M		124500	123300	122000	11300	5330	21.4	9.7
THP143M	3	143200	141800	140300	18600	8780	19.3	8.8
THP168M		168300	166600	164900	18000	8500	25.1	11.4
THP186M		186200	184300	182500	17000	8020	31.0	14.1
THP227M	4	227200	224900	222700	23900	11280	33.5	15.2
THP250M		250000	247500	245000	22700	10710	41.2	18.7

Capacities are rated based on nominal 10°F 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.

** R448A/R449A use conversion factor 0.96

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R454A - R454C - R455A

Low Temperature - 6 FPI Models

MODEL	QtyFans	Evaporator Temperature Selection Capacity BTU/H					Air Flow		Refrig. Charge R454A-R454C- R455A	
		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
THP 041L	1	43200	42000	40800	37100	34700	6200	2930	7	3.2
THP 049L		51700	50300	48800	44400	41500	6000	2830	9.3	4.2
THP 055L		58300	56700	55000	50100	46800	5700	2690	11.3	5.1
THP 083L	2	87700	85200	82700	75300	70300	12400	5850	13	5.9
THP 099L		104700	101800	98800	89900	84000	12000	5660	16.8	7.6
THP 110L		116600	113300	110000	100100	93500	11300	5330	21.1	9.6
THP 125L	3	132100	128300	124600	113400	105900	18600	8780	19.2	8.7
THP 149L		157600	153200	148700	135300	126400	18000	8500	24.7	11.2
THP 165L		174900	170000	165000	150200	140300	17000	8020	30.3	13.8
THP 188L	4	199300	193600	188000	171100	159800	23900	11280	32.8	14.9
THP 211L		223700	217300	211000	192000	179400	22700	10710	40.2	18.2

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R454A - R454C - R455A

Low Temperature - 4 FPI Models

MODEL	Qty Fans	Evaporator Temperature Selection Capacity BTU/H					Air Flow		Refrig. Charge R454A-R454C- R455A	
		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
THP 035V	1	37400	36400	35300	32100	30000	6400	3020	7	3.2
THP 043V		45700	44400	43100	39200	36600	6200	2930	9.3	4.2
THP 049V		51600	50200	48700	44300	41400	5900	2780	11.3	5.1
THP 071V	2	75500	73300	71200	64800	60500	12800	6040	13	5.9
THP 087V		92000	89400	86800	79000	73800	12400	5850	16.8	7.6
THP 098V		103700	100700	97800	89000	83100	11800	5570	21.1	9.6
THP 107V	3	113700	110500	107300	97600	91200	19200	9060	19.1	8.7
THP 130V		138300	134400	130500	118800	110900	18600	8780	24.7	11.2
THP 147V		155900	151500	147100	133900	125000	17600	8310	30.3	13.8
THP 168V	4	178400	173300	168300	153200	143100	24800	11700	32.8	14.9
THP 190V		201400	195700	190000	172900	161500	23500	11090	40.2	18.2

Capacities are rated based on nominal 10°F 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.

** R448A/R449A use conversion factor 0.96

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R448A - R449A - R407A - R407C**High Temperature - 7 FPI Models**

MODEL	QtyFans	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
THP 052H	1	51500	51000	50500	6100	2880	9.2	4.2
THP 060H		60000	59400	58800	5900	2780	12.3	5.6
THP 065H		65000	64400	63700	5600	2640	15.4	7.0
THP 103H	2	103300	102300	101200	12200	5760	17.8	8.1
THP 120H		120000	118800	117600	11800	5570	23.8	10.8
THP 131H		131100	129800	128500	11100	5240	29.0	13.2
THP 155H	3	155200	153600	152100	18300	8640	26.4	12.0
THP 180H		180000	178200	176400	17600	8310	35.2	16.0
THP 196H		195600	193600	191700	16700	7880	44.0	20.0
THP 242H	4	241600	239200	236800	23500	11090	46.7	21.2
THP 263H		263000	260400	257700	22300	10520	58.3	26.5

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R448A - R449A - R407A - R407C**Med Temperature - 6 FPI Models**

MODEL	QtyFans	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
THP 048M	1	47600	47100	46600	6200	2930	9.2	4.2
THP 056M		56300	55700	55200	6000	2830	12.3	5.6
THP 062M		62000	61400	60800	5700	2690	15.0	6.8
THP 095M	2	95300	94300	93400	12400	5850	17.8	8.1
THP 113M		113300	112200	111000	12000	5660	23.8	10.8
THP 125M		124500	123300	122000	11300	5330	29.0	13.2
THP 143M	3	143200	141800	140300	18600	8780	26.4	12.0
THP 168M		168300	166600	164900	18000	8500	35.2	16.0
THP 186M		186200	184300	182500	17000	8020	44.0	20.0
THP 227M	4	227200	224900	222700	23900	11280	46.7	21.2
THP 250M		250000	247500	245000	22700	10710	58.3	26.5

Capacities are rated based on nominal 10°F 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.

** R448A/R449A use conversion factor 0.96

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

MODEL	QtyFans	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
THP 041L	1	43200	42000	40800	37100	34700	6200	2930	9.5	4.3
THP 049L		51700	50300	48800	44400	41500	6000	2830	12.8	5.8
THP 055L		58300	56700	55000	50100	46800	5700	2690	16.4	7.5
THP 083L	2	87700	85200	82700	75300	70300	12400	5850	19	8.6
THP 099L		104700	101800	98800	89900	84000	12000	5660	25.4	11.5
THP 110L		116600	113300	110000	100100	93500	11300	5330	31.7	14.4
THP 125L	3	132100	128300	124600	113400	105900	18600	8780	28.2	12.8
THP 149L		157600	153200	148700	135300	126400	18000	8500	37.6	17.1
THP 165L		174900	170000	165000	150200	140300	17000	8020	47	21.4
THP 188L	4	199300	193600	188000	171100	159800	23900	11280	49.9	22.7
THP 211L		223700	217300	211000	192000	179400	22700	10710	62.4	28.3

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R448A - R449A - R407A**Low Temperature - 4 FPI Models**

MODEL	QtyFans	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
THP 035V	1	37400	36400	35300	32100	30000	6400	3020	9.5	4.3
THP 043V		45700	44400	43100	39200	36600	6200	2930	12.8	5.8
THP 049V		51600	50200	48700	44300	41400	5900	2780	16.4	7.5
THP 071V	2	75500	73300	71200	64800	60500	12800	6040	19	8.6
THP 087V		92000	89400	86800	79000	73800	12400	5850	25.4	11.5
THP 098V		103700	100700	97800	89000	83100	11800	5570	31.7	14.4
THP 107V	3	113700	110500	107300	97600	91200	19200	9060	28.2	12.8
THP 130V		138300	134400	130500	118800	110900	18600	8780	37.6	17.1
THP 147V		155900	151500	147100	133900	125000	17600	8310	47	21.4
THP 168V	4	178400	173300	168300	153200	143100	24800	11700	49.9	22.7
THP 190V		201400	195700	190000	172900	161500	23500	11090	62.4	28.3

Capacities are rated based on nominal 10°F 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.

** R448A/R449A use conversion factor 0.96

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R404A - R507**High Temperature - 7 FPI Models**

MODEL	QtyFans	Evaporator Temperature Selection Capacity BTU/H			Air Flow		Refrig. Charge R404A	
		20/25°F (-4/-7°C)	15°F (-9°C)	10°F (-12°C)	CFM	L/S	LB.	KG
THP 052H	1	41900	41500	41100	6100	2880	7.4	3.4
THP 060H		48700	48200	47700	5900	2780	9.5	4.3
THP 065H		52800	52300	51700	5600	2640	11.5	5.2
THP 103H	2	84000	83200	82300	12200	5760	13.6	6.2
THP 120H		97900	96900	95900	11800	5570	18.2	8.3
THP 131H		106600	105500	104500	11100	5240	22.2	10.1
THP 155H	3	126200	124900	123700	18300	8640	20.1	9.1
THP 180H		146400	144900	143500	17600	8310	26.1	11.9
THP 196H		159000	157400	155800	16700	7880	32.3	14.7
THP 242H	4	196400	194400	192500	23500	11090	34.8	15.8
THP 263H		213800	211700	209500	22300	10520	42.8	19.5

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R404A - R507**Med Temperature - 6 FPI Models**

MODEL	QtyFans	Evaporator Temperature Selection Capacity BTU/H			Air Flow		Refrig. Charge R404A	
		20/25°F (-4/-7°C)	15°F (-9°C)	10°F (-12°C)	CFM	L/S	LB.	KG
THP048M	1	38700	38300	37900	6200	2930	7.4	3.4
THP056M		45800	45300	44900	6000	2830	9.5	4.3
THP062M		50400	49900	49400	5700	2690	11.5	5.2
THP095M	2	77500	76700	76000	12400	5850	13.6	6.2
THP 113M		92100	91200	90300	12000	5660	18.2	8.3
THP 125M		101200	100200	99200	11300	5330	22.2	10.1
THP 143M	3	116400	115200	114100	18600	8780	20.1	9.1
THP 168M		136800	135400	134100	18000	8500	26.1	11.9
THP 186M		151400	149900	148400	17000	8020	32.3	14.7
THP 227M	4	184700	182900	181000	23900	11280	34.8	15.8
THP 250M		203000	201000	198900	22700	10710	42.8	19.5

Capacities are rated based on nominal 10°F 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.

** R448A/R449A use conversion factor 0.96

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R404A**Low Temperature - 6 FPI Models**

MODEL	QtyFans	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
THP 041L	1	35200	34200	33200	30200	28200	6200	2930	8.7	4
THP 049L		42100	40900	39700	36100	33700	6000	2830	11.7	5.3
THP 055L		47400	46000	44700	40700	38000	5700	2690	15.1	6.9
THP 083L	2	71200	69200	67200	61200	57100	12400	5850	17.5	8
THP 099L		85100	82700	80300	73100	68300	12000	5660	23.3	10.6
THP 110L		94400	91800	89100	81100	75700	11300	5330	29.2	13.3
THP 125L	3	107400	104300	101300	92200	86100	18600	8780	25.9	11.8
THP 149L		128200	124500	120900	110000	102800	18000	8500	34.6	15.7
THP 165L		142100	138100	134100	122000	114000	17000	8020	43.2	19.6
THP 188L	4	162000	157400	152800	139000	129900	23900	11280	45.9	20.9
THP 211L		182000	176900	171700	156200	145900	22700	10710	57.4	26.1

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R404A**Low Temperature - 4 FPI Models**

MODEL	QtyFans	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
THP035V	1	30400	29600	28700	26100	24400	6400	3020	8.7	4
THP043V		37100	36100	35000	31900	29800	6200	2930	11.7	5.3
THP049V		42000	40800	39600	36000	33700	5900	2780	15.1	6.9
THP071V	2	61400	59600	57900	52700	49200	12800	6040	17.5	8
THP087V		74800	72700	70600	64200	60000	12400	5850	23.3	10.6
THP098V		84300	81900	79500	72300	67600	11800	5570	29.2	13.3
THP107V	3	92400	89800	87200	79400	74100	19200	9060	25.9	11.8
THP130V		112500	109300	106100	96600	90200	18600	8780	34.6	15.7
THP147V		126800	123200	119600	108800	101700	17600	8310	43.2	19.6
THP168V	4	145000	140900	136800	124500	116300	24800	11700	45.9	20.9
THP190V		163800	159100	154500	140600	131300	23500	11090	57.4	26.1

Capacities are rated based on nominal 10°F 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.

** R448A/R449A use conversion factor 0.96

208-230/1/60**AIR DEFROST**

MODEL	FPI	FAN MOTORS					
		QTY	208-230/1/60 (2 SPD ECM - STD)				
			HP	FLA TOTAL	WATTS	MCA (A)	MOP (A)
THP 052HA-S2E	7	1	1	5	560	15	20
THP 060HA-S2E		1	1	5	560	15	20
THP 065HA-S2E		1	1	5	560	15	20
THP 103HA-S2E		2	1	10	1120	15	20
THP 120HA-S2E		2	1	10	1120	15	20
THP 131HA-S2E		2	1	10	1120	15	20
THP 155HA-S2E		3	1	15	1680	20	25
THP 180HA-S2E		3	1	15	1680	20	25
THP 196HA-S2E		3	1	15	1680	20	25
THP 242HA-S2E		4	1	20	2240	25	30
THP 263HA-S2E		4	1	20	2240	25	30

460/1/60**AIR DEFROST**

MODEL	FPI	FAN MOTORS					
		QTY	460/1/60 (2 SPD ECM - STD)				
			HP	FLA TOTAL	WATTS	MCA (A)	MOP (A)
THP 052HA-S4E	7	1	1	2.5	520	15	20
THP 060HA-S4E		1	1	2.5	520	15	20
THP 065HA-S4E		1	1	2.5	520	15	20
THP 103HA-S4E		2	1	5	1040	15	20
THP 120HA-S4E		2	1	5	1040	15	20
THP 131HA-S4E		2	1	5	1040	15	20
THP 155HA-S4E		3	1	7.5	1560	15	20
THP 180HA-S4E		3	1	7.5	1560	15	20
THP 196HA-S4E		3	1	7.5	1560	15	20
THP 242HA-S4E		4	1	10	2080	15	20
THP 263HA-S4E		4	1	10	2080	15	20

= T or G. Refer to nomenclature for details.

* = H or R. Refer to nomenclature for details.

208-230/3/60**ELECTRIC DEFROST**

MODEL	FPI	FAN MOTORS						DEFROST HEATERS CIRCUIT #1				DEFROST HEATERS CIRCUIT #2			DEFROST HEATERS CIRCUIT #3		
		QTY	208-230/1/60 (2 SPD ECM - STD)					208-230/3/60				208-230/3/60			208-230/3/60		
			HP	FLA TOTAL	WATTS	MCA (A)	MOP (A)	TOTAL WATTS	TOTAL AMPS	MCA (A)	MOP (A)	TOTAL AMPS	MCA (A)	MOP (A)	TOTAL AMPS	MCA (A)	MOP (A)
THP 048ME-T3E	6	1	1	5	560	15	20	8820	23.7	29.6	30	-	-	-	-	-	-
THP 056ME-T3E		1	1	5	560	15	20	8820	23.7	29.6	30	-	-	-	-	-	-
THP 062ME-T3E		1	1	5	560	15	20	12600	33.2	41.5	45	-	-	-	-	-	-
THP 095ME-T3E		2	1	10	1120	15	20	17150	46.2	57.7	60	-	-	-	-	-	-
THP 113ME-T3E		2	1	10	1120	15	20	17150	46.2	57.7	60	-	-	-	-	-	-
THP 125ME-T3E		2	1	10	1120	15	20	24500	32.4	40.5	45	32.4	40.5	45	-	-	-
THP 143ME-T3E		3	1	15	1680	20	25	24500	33.2	41.5	45	33.2	41.5	45	-	-	-
THP 168ME-T3E		3	1	15	1680	20	25	24500	33.2	41.5	45	33.2	41.5	45	-	-	-
THP 186ME-T3E		3	1	15	1680	20	25	35000	46.3	57.9	60	46.3	57.9	60	-	-	-
THP 227ME-T3E		4	1	20	2240	25	30	31850	42.9	53.6	60	42.9	53.6	60	-	-	-
THP 250ME-T3E		4	1	20	2240	25	30	45500	43.1	53.9	60	43.1	53.9	60	34.3	42.9	45
THP 041LE-T3E	6	1	1	5	560	15	20	8820	23.7	29.6	30	-	-	-	-	-	-
THP 049LE-T3E		1	1	5	560	15	20	8820	23.7	29.6	30	-	-	-	-	-	-
THP 055LE-T3E		1	1	5	560	15	20	12600	33.2	41.5	45	-	-	-	-	-	-
THP 083LE-T3E		2	1	10	1120	15	20	17150	46.2	57.7	60	-	-	-	-	-	-
THP 099LE-T3E		2	1	10	1120	15	20	17150	46.2	57.7	60	-	-	-	-	-	-
THP 110LE-T3E		2	1	10	1120	15	20	24500	32.4	40.5	45	32.4	40.5	45	-	-	-
THP 125LE-T3E		3	1	15	1680	20	25	24500	33.2	41.5	45	33.2	41.5	45	-	-	-
THP 149LE-T3E		3	1	15	1680	20	25	24500	33.2	41.5	45	33.2	41.5	45	-	-	-
THP 165LE-T3E		3	1	15	1680	20	25	35000	46.3	57.9	60	46.3	57.9	60	-	-	-
THP 188LE-T3E		4	1	20	2240	25	30	31850	42.9	53.6	60	42.9	53.6	60	-	-	-
THP 211LE-T3E		4	1	20	2240	25	30	45500	43.1	53.9	60	43.1	53.9	60	34.3	42.9	45
THP 035VE-T3E	4	1	1	5	560	15	20	8820	23.7	29.6	30	-	-	-	-	-	-
THP 043VE-T3E		1	1	5	560	15	20	8820	23.7	29.6	30	-	-	-	-	-	-
THP 049VE-T3E		1	1	5	560	15	20	12600	33.2	41.5	45	-	-	-	-	-	-
THP 071VE-T3E		2	1	10	1120	15	20	17150	46.2	57.7	60	-	-	-	-	-	-
THP 087VE-T3E		2	1	10	1120	15	20	17150	46.2	57.7	60	-	-	-	-	-	-
THP 098VE-T3E		2	1	10	1120	15	20	24500	32.4	40.5	45	32.4	40.5	45	-	-	-
THP 107VE-T3E		3	1	15	1680	20	25	24500	33.2	41.5	45	33.2	41.5	45	-	-	-
THP 130VE-T3E		3	1	15	1680	20	25	24500	33.2	41.5	45	33.2	41.5	45	-	-	-
THP 147VE-T3E		3	1	15	1680	20	25	35000	46.3	57.9	60	46.3	57.9	60	-	-	-
THP 168VE-T3E		4	1	20	2240	25	30	31850	43.1	53.9	60	43.1	53.9	60	-	-	-
THP 190VE-T3E		4	1	20	2240	25	30	45500	43.1	53.9	60	43.1	53.9	60	34.3	42.9	45

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460/3/60**ELECTRIC DEFROST**

MODEL	FPI	FAN MOTORS						DEFROST HEATERS CIRCUIT #1				DEFROST HEATERS CIRCUIT #2		
		QTY	460/1/60 (2 SPD ECM - STD)					460/3/60				460/3/60		
			HP	FLA TOTAL	WATTS	MCA (A)	MOP (A)	TOTAL WATTS	TOTAL AMPS	MCA (A)	MOP (A)	TOTAL AMPS	MCA (A)	MOP (A)
THP048ME-T4E	6	1	1	2.5	520	15	20	8820	11.9	14.9	15	-	-	-
THP056ME-T4E		1	1	2.5	520	15	20	8820	11.9	14.9	15	-	-	-
THP062ME-T4E		1	1	2.5	520	15	20	12600	16.6	20.8	25	-	-	-
THP095ME-T4E		2	1	5	1040	15	20	17150	23.1	28.9	30	-	-	-
THP113ME-T4E		2	1	5	1040	15	20	17150	23.1	28.9	30	-	-	-
THP125ME-T4E		2	1	5	1040	15	20	24500	32.4	40.5	45	-	-	-
THP143ME-T4E		3	1	7.5	1560	15	20	24500	33.2	41.5	45	-	-	-
THP168ME-T4E		3	1	7.5	1560	15	20	24500	33.2	41.5	45	-	-	-
THP186ME-T4E		3	1	7.5	1560	15	20	35000	46.3	57.9	60	-	-	-
THP227ME-T4E		4	1	10	2080	15	20	31850	43.1	53.9	60	-	-	-
THP250ME-T4E		4	1	10	2080	15	20	45500	30.1	37.7	40	30.1	37.7	40
THP041LE-T4E	6	1	1	2.5	520	15	20	8820	11.9	14.9	15	-	-	-
THP049LE-T4E		1	1	2.5	520	15	20	8820	11.9	14.9	15	-	-	-
THP055LE-T4E		1	1	2.5	520	15	20	12600	16.6	20.8	25	-	-	-
THP083LE-T4E		2	1	5	1040	15	20	17150	23.1	28.9	30	-	-	-
THP099LE-T4E		2	1	5	1040	15	20	17150	23.1	28.9	30	-	-	-
THP110LE-T4E		2	1	5	1040	15	20	24500	32.4	40.5	45	-	-	-
THP125LE-T4E		3	1	7.5	1560	15	20	24500	33.2	41.5	45	-	-	-
THP149LE-T4E		3	1	7.5	1560	15	20	24500	33.2	41.5	45	-	-	-
THP165LE-T4E		3	1	7.5	1560	15	20	35000	46.3	57.9	60	-	-	-
THP188LE-T4E		4	1	10	2080	15	20	31850	43.1	53.9	60	-	-	-
THP211LE-T4E		4	1	10	2080	15	20	45500	30.1	37.7	40	30.1	37.7	40
THP035VE-T4E	4	1	1	2.5	520	15	20	8820	11.9	14.9	15	-	-	-
THP043VE-T4E		1	1	2.5	520	15	20	8820	11.9	14.9	15	-	-	-
THP049VE-T4E		1	1	2.5	520	15	20	12600	16.6	20.8	25	-	-	-
THP071VE-T4E		2	1	5	1040	15	20	17150	23.1	28.9	30	-	-	-
THP087VE-T4E		2	1	5	1040	15	20	17150	23.1	28.9	30	-	-	-
THP098VE-T4E		2	1	5	1040	15	20	24500	32.4	40.5	45	-	-	-
THP107VE-T4E		3	1	7.5	1560	15	20	24500	33.2	41.5	45	-	-	-
THP130VE-T4E		3	1	7.5	1560	15	20	24500	33.2	41.5	45	-	-	-
THP147VE-T4E		3	1	7.5	1560	15	20	35000	46.3	57.9	60	-	-	-
THP168VE-T4E		4	1	10	2080	15	20	31850	43.1	53.9	60	-	-	-
THP190VE-T4E		4	1	10	2080	15	20	45500	30.1	37.7	40	30.1	37.7	40

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208-230/3/60**HOT GAS DEFROST W/ ELECTRIC DRAIN PAN HEATERS**

MODEL	FPI	FAN MOTORS						DRAIN PAN HEATERS			
		QTY	208-230/1/60 (2 SPD ECM - STD)					208-230/3/60			
			HP	FLA TOTAL	WATTS	MCA (A)	MOP (A)	TOTAL WATTS	TOTAL AMPS	MCA (A)	MOP (A)
THP 048M#-T3E	6	1	1	5	560	15	20	3780	9.5	11.9	15
THP 056M#-T3E		1	1	5	560	15	20	3780	9.5	11.9	15
THP 062M#-T3E		1	1	5	560	15	20	3780	9.5	11.9	15
THP 095M#-T3E		2	1	10	1120	15	20	7350	18.5	23.1	25
THP 113M#-T3E		2	1	10	1120	15	20	7350	18.5	23.1	25
THP 125M#-T3E		2	1	10	1120	15	20	7350	18.5	23.1	25
THP 143M#-T3E		3	1	15	1680	20	25	10500	26.4	33	35
THP 168M#-T3E		3	1	15	1680	20	25	10500	26.4	33	35
THP 186M#-T3E		3	1	15	1680	20	25	10500	26.4	33	35
THP 227M#-T3E		4	1	20	2240	25	30	13650	34.3	42.8	45
THP 250M#-T3E		4	1	20	2240	25	30	13650	34.3	42.8	45
THP 041L#-T3E	6	1	1	5	560	15	20	3780	9.5	11.9	15
THP 049L#-T3E		1	1	5	560	15	20	3780	9.5	11.9	15
THP 055L#-T3E		1	1	5	560	15	20	3780	9.5	11.9	15
THP 083L#-T3E		2	1	10	1120	15	20	7350	18.5	23.1	25
THP 099L#-T3E		2	1	10	1120	15	20	7350	18.5	23.1	25
THP 110L#-T3E		2	1	10	1120	15	20	7350	18.5	23.1	25
THP 125L#-T3E		3	1	15	1680	20	25	10500	26.4	33	35
THP 149L#-T3E		3	1	15	1680	20	25	10500	26.4	33	35
THP 165L#-T3E		3	1	15	1680	20	25	10500	26.4	33	35
THP 188L#-T3E		4	1	20	2240	25	30	13650	34.3	42.8	45
THP 211L#-T3E		4	1	20	2240	25	30	13650	34.3	42.8	45
THP 035V#-T3E	4	1	1	5	560	15	20	3780	9.5	11.9	15
THP 043V#-T3E		1	1	5	560	15	20	3780	9.5	11.9	15
THP 049V#-T3E		1	1	5	560	15	20	3780	9.5	11.9	15
THP 071V#-T3E		2	1	10	1120	15	20	7350	18.5	23.1	25
THP 087V#-T3E		2	1	10	1120	15	20	7350	18.5	23.1	25
THP 098V#-T3E		2	1	10	1120	15	20	7350	18.5	23.1	25
THP 107V#-T3E		3	1	15	1680	20	25	10500	26.4	33	35
THP 130V#-T3E		3	1	15	1680	20	25	10500	26.4	33	35
THP 147V#-T3E		3	1	15	1680	20	25	10500	26.4	33	35
THP 168V#-T3E		4	1	20	2240	25	30	13650	34.3	42.8	45
THP 190V#-T3E		4	1	20	2240	25	30	13650	34.3	42.8	45

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460/3/60**HOT GAS DEFROST W/ ELECTRIC DRAIN PAN HEATERS**

MODEL	FPI	FAN MOTORS						DRAIN PAN HEATERS			
		QTY	460/1/60 (2 SPD ECM - STD)					460/3/60			
			HP	FLA TOTAL	WATTS	MCA (A)	MOP (A)	TOTAL WATTS	TOTAL AMPS	MCA (A)	MOP (A)
THP 048M#-T4E	6	1	1	2.5	520	15	20	3780	4.7	5.9	15
THP 056M#-T4E		1	1	2.5	520	15	20	3780	4.7	5.9	15
THP 062M#-T4E		1	1	2.5	520	15	20	3780	4.7	5.9	15
THP 095M#-T4E		2	1	5	1040	15	20	7350	9.2	11.5	15
THP 113M#-T4E		2	1	5	1040	15	20	7350	9.2	11.5	15
THP 125M#-T4E		2	1	5	1040	15	20	7350	9.2	11.5	15
THP 143M#-T4E		3	1	7.5	1560	15	20	10500	13.2	16.5	20
THP 168M#-T4E		3	1	7.5	1560	15	20	10500	13.2	16.5	20
THP 186M#-T4E		3	1	7.5	1560	15	20	10500	13.2	16.5	20
THP 227M#-T4E		4	1	10	2080	15	20	13650	17.2	21.5	25
THP 250M#-T4E		4	1	10	2080	15	20	13650	17.2	21.5	25
THP 041L#-T4E	6	1	1	2.5	520	15	20	3780	4.7	5.9	15
THP 049L#-T4E		1	1	2.5	520	15	20	3780	4.7	5.9	15
THP 055L#-T4E		1	1	2.5	520	15	20	3780	4.7	5.9	15
THP 083L#-T4E		2	1	5	1040	15	20	7350	9.2	11.5	15
THP 099L#-T4E		2	1	5	1040	15	20	7350	9.2	11.5	15
THP 110L#-T4E		2	1	5	1040	15	20	7350	9.2	11.5	15
THP 125L#-T4E		3	1	7.5	1560	15	20	10500	13.2	16.5	20
THP 149L#-T4E		3	1	7.5	1560	15	20	10500	13.2	16.5	20
THP 165L#-T4E		3	1	7.5	1560	15	20	10500	13.2	16.5	20
THP 188L#-T4E		4	1	10	2080	15	20	13650	17.2	21.5	25
THP 211L#-T4E		4	1	10	2080	15	20	13650	17.2	21.5	25
THP 035V#-T4E	4	1	1	2.5	520	15	20	3780	4.7	5.9	15
THP 043V#-T4E		1	1	2.5	520	15	20	3780	4.7	5.9	15
THP 049V#-T4E		1	1	2.5	520	15	20	3780	4.7	5.9	15
THP 071V#-T4E		2	1	5	1040	15	20	7350	9.2	11.5	15
THP 087V#-T4E		2	1	5	1040	15	20	7350	9.2	11.5	15
THP 098V#-T4E		2	1	5	1040	15	20	7350	9.2	11.5	15
THP 107V#-T4E		3	1	7.5	1560	15	20	10500	13.2	16.5	20
THP 130V#-T4E		3	1	7.5	1560	15	20	10500	13.2	16.5	20
THP 147V#-T4E		3	1	7.5	1560	15	20	10500	13.2	16.5	20
THP 168V#-T4E		4	1	10	2080	15	20	13650	17.2	21.5	25
THP 190V#-T4E		4	1	10	2080	15	20	13650	17.2	21.5	25

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208-230/1/60
HOT GAS DEFROST W/ LOOP IN DRAIN PAN

MODEL	FPI	FAN MOTORS					
		QTY	208-230/1/60 (2 SPD ECM - STD)				
			HP	FLA TOTAL	WATTS	MCA (A)	MOP (A)
THP 048M*-S2E	6	1	1	5	560	15	20
THP 056M*-S2E		1	1	5	560	15	20
THP 062M*-S2E		1	1	5	560	15	20
THP 095M*-S2E		2	1	10	1120	15	20
THP 113M*-S2E		2	1	10	1120	15	20
THP 125M*-S2E		2	1	10	1120	15	20
THP 143M*-S2E		3	1	15	1680	20	25
THP 168M*-S2E		3	1	15	1680	20	25
THP 186M*-S2E		3	1	15	1680	20	25
THP 227M*-S2E		4	1	20	2240	25	30
THP 250M*-S2E		4	1	20	2240	25	30
THP 041L*-S2E	6	1	1	5	560	15	20
THP 049L*-S2E		1	1	5	560	15	20
THP 055L*-S2E		1	1	5	560	15	20
THP 083L*-S2E		2	1	10	1120	15	20
THP 099L*-S2E		2	1	10	1120	15	20
THP 110L*-S2E		2	1	10	1120	15	20
THP 125L*-S2E		3	1	15	1680	20	25
THP 149L*-S2E		3	1	15	1680	20	25
THP 165L*-S2E		3	1	15	1680	20	25
THP 188L*-S2E		4	1	20	2240	25	30
THP 211L*-S2E		4	1	20	2240	25	30
THP 035V*-S2E	4	1	1	5	560	15	20
THP 043V*-S2E		1	1	5	560	15	20
THP 049V*-S2E		1	1	5	560	15	20
THP 071V*-S2E		2	1	10	1120	15	20
THP 087V*-S2E		2	1	10	1120	15	20
THP 098V*-S2E		2	1	10	1120	15	20
THP 107V*-S2E		3	1	15	1680	20	25
THP 130V*-S2E		3	1	15	1680	20	25
THP 147V*-S2E		3	1	15	1680	20	25
THP 168V*-S2E		4	1	20	2240	25	30
THP 190V*-S2E		4	1	20	2240	25	30

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460/1/60**HOT GAS DEFROST W/ LOOP IN DRAIN PAN**

MODEL	FPI	FAN MOTORS					
		QTY	460/1/60 (2 SPD ECM - STD)				
			HP	FLA TOTAL	WATTS	MCA (A)	MOP (A)
THP 048M*-S4E	6	1	1	2.5	520	15	20
THP 056M*-S4E		1	1	2.5	520	15	20
THP 062M*-S4E		1	1	2.5	520	15	20
THP 095M*-S4E		2	1	5	1040	15	20
THP 113M*-S4E		2	1	5	1040	15	20
THP 125M*-S4E		2	1	5	1040	15	20
THP 143M*-S4E		3	1	7.5	1560	15	20
THP 168M*-S4E		3	1	7.5	1560	15	20
THP 186M*-S4E		3	1	7.5	1560	15	20
THP 227M*-S4E		4	1	10	2080	15	20
THP 250M*-S4E		4	1	10	2080	15	20
THP 041L*-S4E	6	1	1	2.5	520	15	20
THP 049L*-S4E		1	1	2.5	520	15	20
THP 055L*-S4E		1	1	2.5	520	15	20
THP 083L*-S4E		2	1	5	1040	15	20
THP 099L*-S4E		2	1	5	1040	15	20
THP 110L*-S4E		2	1	5	1040	15	20
THP 125L*-S4E		3	1	7.5	1560	15	20
THP 149L*-S4E		3	1	7.5	1560	15	20
THP 165L*-S4E		3	1	7.5	1560	15	20
THP 188L*-S4E		4	1	10	2080	15	20
THP 211L*-S4E		4	1	10	2080	15	20
THP 035V*-S4E	4	1	1	2.5	520	15	20
THP 043V*-S4E		1	1	2.5	520	15	20
THP 049V*-S4E		1	1	2.5	520	15	20
THP 071V*-S4E		2	1	5	1040	15	20
THP 087V*-S4E		2	1	5	1040	15	20
THP 098V*-S4E		2	1	5	1040	15	20
THP 107V*-S4E		3	1	7.5	1560	15	20
THP 130V*-S4E		3	1	7.5	1560	15	20
THP 147V*-S4E		3	1	7.5	1560	15	20
THP 168V*-S4E		4	1	10	2080	15	20
THP 190V*-S4E		4	1	10	2080	15	20

= T or G. Refer to nomenclature for details.

* = H or R. Refer to nomenclature for details.

208-230/1/60**AIR DEFROST W/ ESP+**

MODEL	FPI	ESP+ CIRCUIT	
		208-230/1/60	
		MCA (A)	MOP (A)
THP 052HA-S2E	7	15	20
THP 060HA-S2E		15	20
THP 065HA-S2E		15	20
THP 103HA-S2E		15	20
THP 120HA-S2E		15	20
THP 131HA-S2E		15	20
THP 155HA-S2E		20	25
THP 180HA-S2E		20	25
THP 196HA-S2E		20	25
THP 242HA-S2E		25	30
THP 263HA-S2E		25	30

460/1/60**AIR DEFROST W/ ESP+**

MODEL	FPI	ESP+ CIRCUIT	
		460/1/60	
		MCA (A)	MOP (A)
THP 052HA-S4E	7	15	20
THP 060HA-S4E		15	20
THP 065HA-S4E		15	20
THP 103HA-S4E		15	20
THP 120HA-S4E		15	20
THP 131HA-S4E		15	20
THP 155HA-S4E		15	20
THP 180HA-S4E		15	20
THP 196HA-S4E		15	20
THP 242HA-S4E		15	20
THP 263HA-S4E		15	20

208-230/3/60**ELECTRIC DEFROST W/ ESP+**

MODEL	FPI	ESP+ CIRCUIT	
		208-230/3/60	
		MCA (A)	MOP (A)
THP 048ME-T3E	6	29.6	30
THP 056ME-T3E		29.6	30
THP 062ME-T3E		41.5	45
THP 095ME-T3E		57.7	60
THP 113ME-T3E		57.7	60
THP 125ME-T3E		81	90
THP 143ME-T3E		83	90
THP 168ME-T3E		83	90
THP 186ME-T3E		115.8	125
THP 227ME-T3E		107.2	125
THP 250ME-T3E		150.7	175
THP 041LE-T3E	6	29.6	30
THP 049LE-T3E		29.6	30
THP 055LE-T3E		41.5	45
THP 083LE-T3E		57.7	60
THP 099LE-T3E		57.7	60
THP 110LE-T3E		81	90
THP 125LE-T3E		83	90
THP 149LE-T3E		83	90
THP 165LE-T3E		115.8	125
THP 188LE-T3E		107.2	125
THP 211LE-T3E		150.7	175
THP 035VE-T3E	4	29.6	30
THP 043VE-T3E		29.6	30
THP 049VE-T3E		41.5	45
THP 071VE-T3E		57.7	60
THP 087VE-T3E		57.7	60
THP 098VE-T3E		81	90
THP 107VE-T3E		83	90
THP 130VE-T3E		83	90
THP 147VE-T3E		115.8	125
THP 168VE-T3E		107.8	125
THP 190VE-T3E		150.7	175

460/3/60**ELECTRIC DEFROST W/ ESP+**

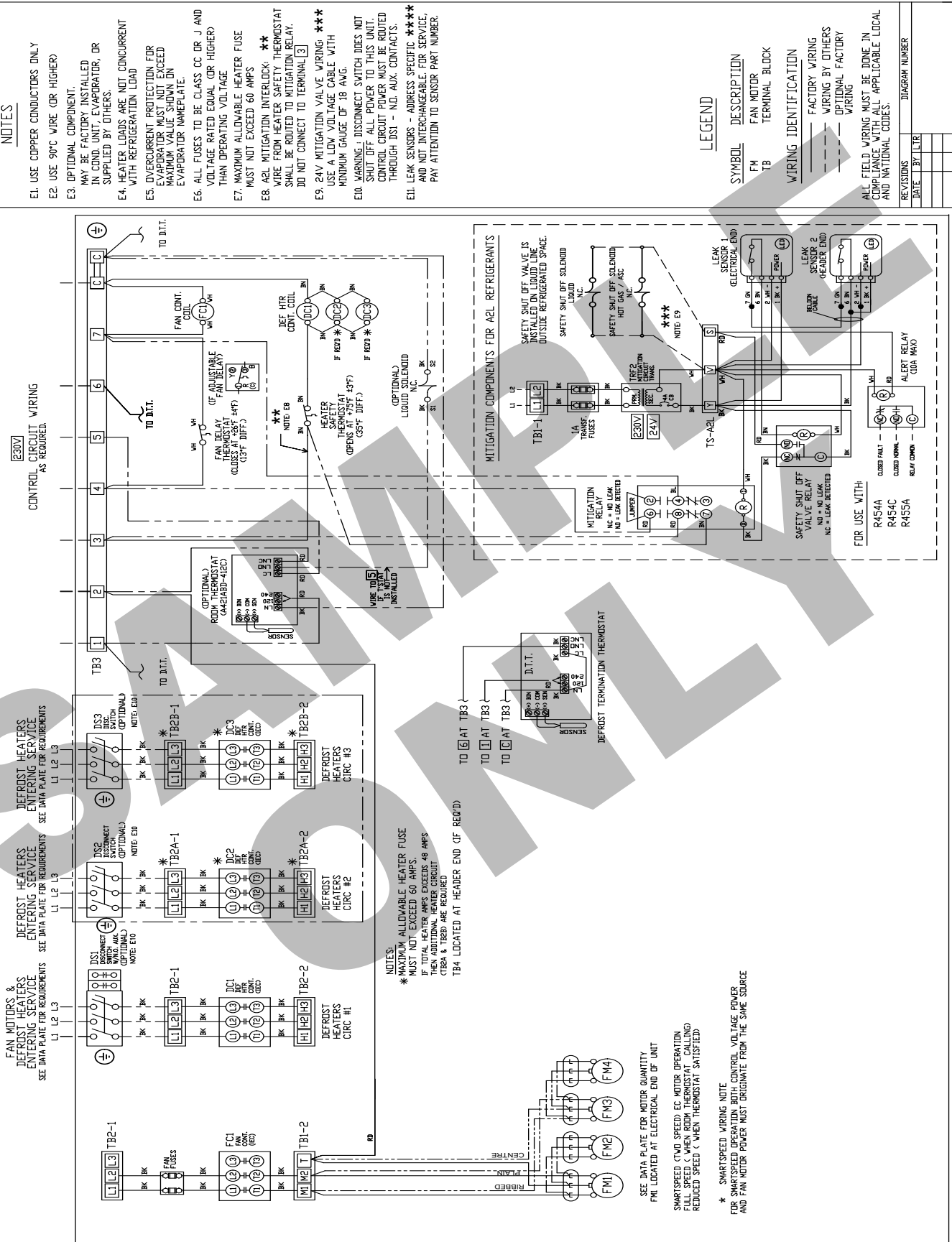
MODEL	FPI	ESP+ CIRCUIT	
		460/3/60	
		MCA (A)	MOP (A)
THP 048ME-T4E	6	14.9	15
THP 056ME-T4E		14.9	15
THP 062ME-T4E		20.8	25
THP 095ME-T4E		28.9	30
THP 113ME-T4E		28.9	30
THP 125ME-T4E		40.5	45
THP 143ME-T4E		41.5	45
THP 168ME-T4E		41.5	45
THP 186ME-T4E		57.9	60
THP 227ME-T4E		53.9	60
THP 250ME-T4E		75.4	80
THP 041LE-T4E	6	14.9	15
THP 049LE-T4E		14.9	15
THP 055LE-T4E		20.8	25
THP 083LE-T4E		28.9	30
THP 099LE-T4E		28.9	30
THP 110LE-T4E		40.5	45
THP 125LE-T4E		41.5	45
THP 149LE-T4E		41.5	45
THP 165LE-T4E		57.9	60
THP 188LE-T4E		53.9	60
THP 211LE-T4E		75.4	80
THP 035VE-T4E	4	14.9	15
THP 043VE-T4E		14.9	15
THP 049VE-T4E		20.8	25
THP 071VE-T4E		28.9	30
THP 087VE-T4E		28.9	30
THP 098VE-T4E		40.5	45
THP 107VE-T4E		41.5	45
THP 130VE-T4E		41.5	45
THP 147VE-T4E		57.9	60
THP 168VE-T4E		53.9	60
THP 190VE-T4E		75.4	80



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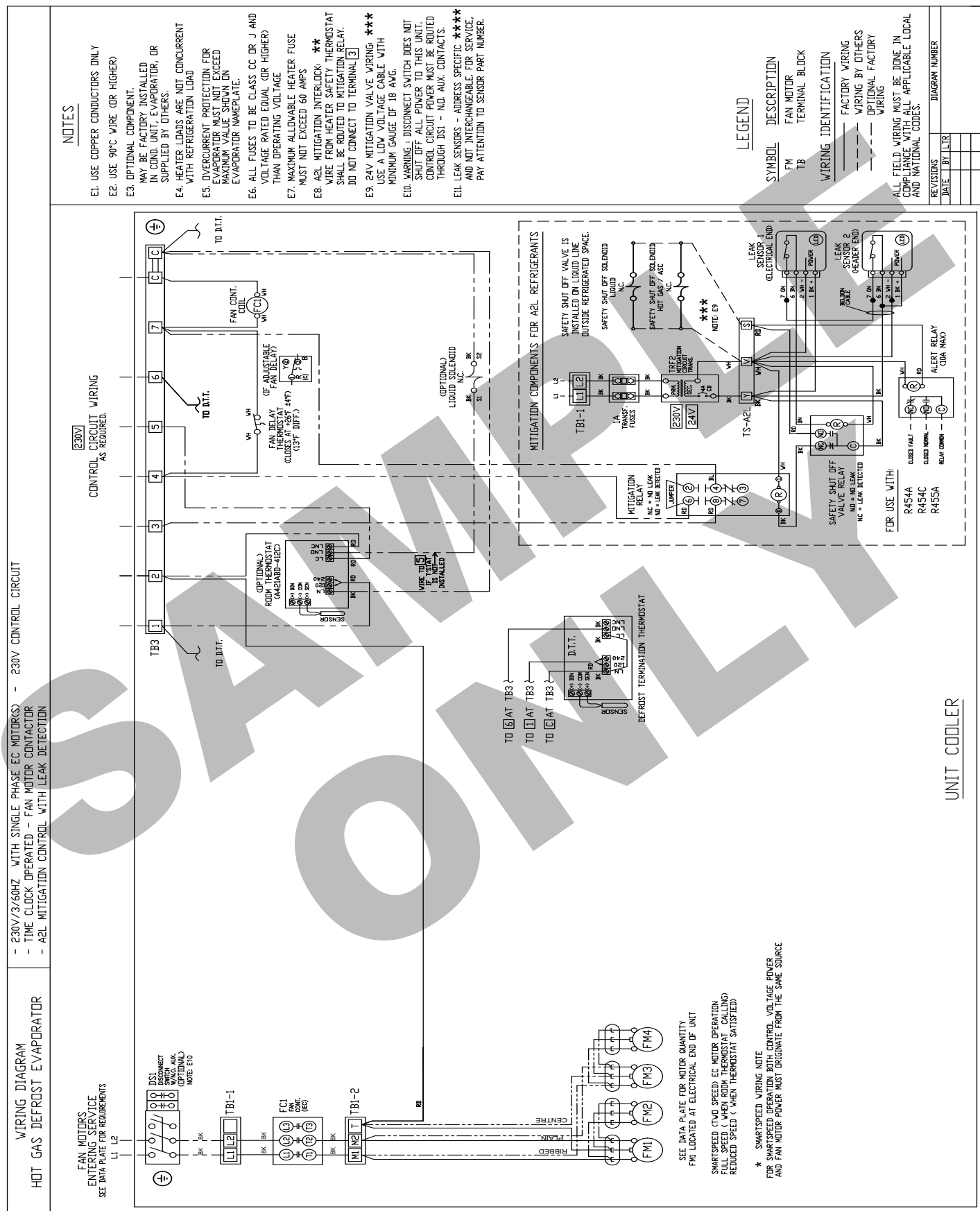
WIRING DIAGRAM

– 230V/3/60HZ WITH SINGLE PHASE EC MOTOR(S) – 230V CONTROL CIRCUIT
– TIME CLOCK OPERATED – FAN MOTOR CONTACTOR AND HEATER CONTACTOR(S)
– AEL MITIGATION CONTROL WITH LEAK DETECTION

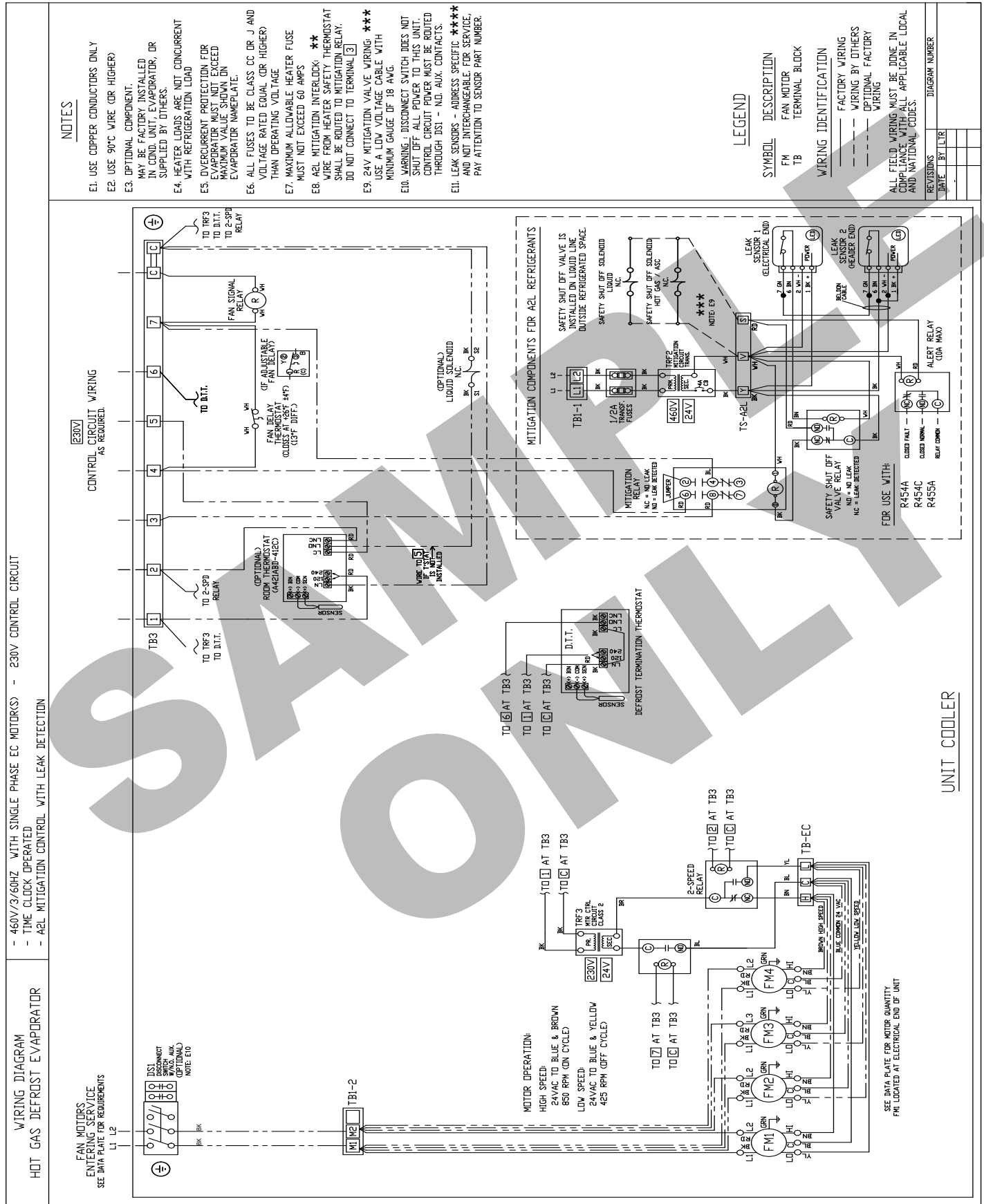


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208-230/3/60 HOTGAS DEFROST MODELS

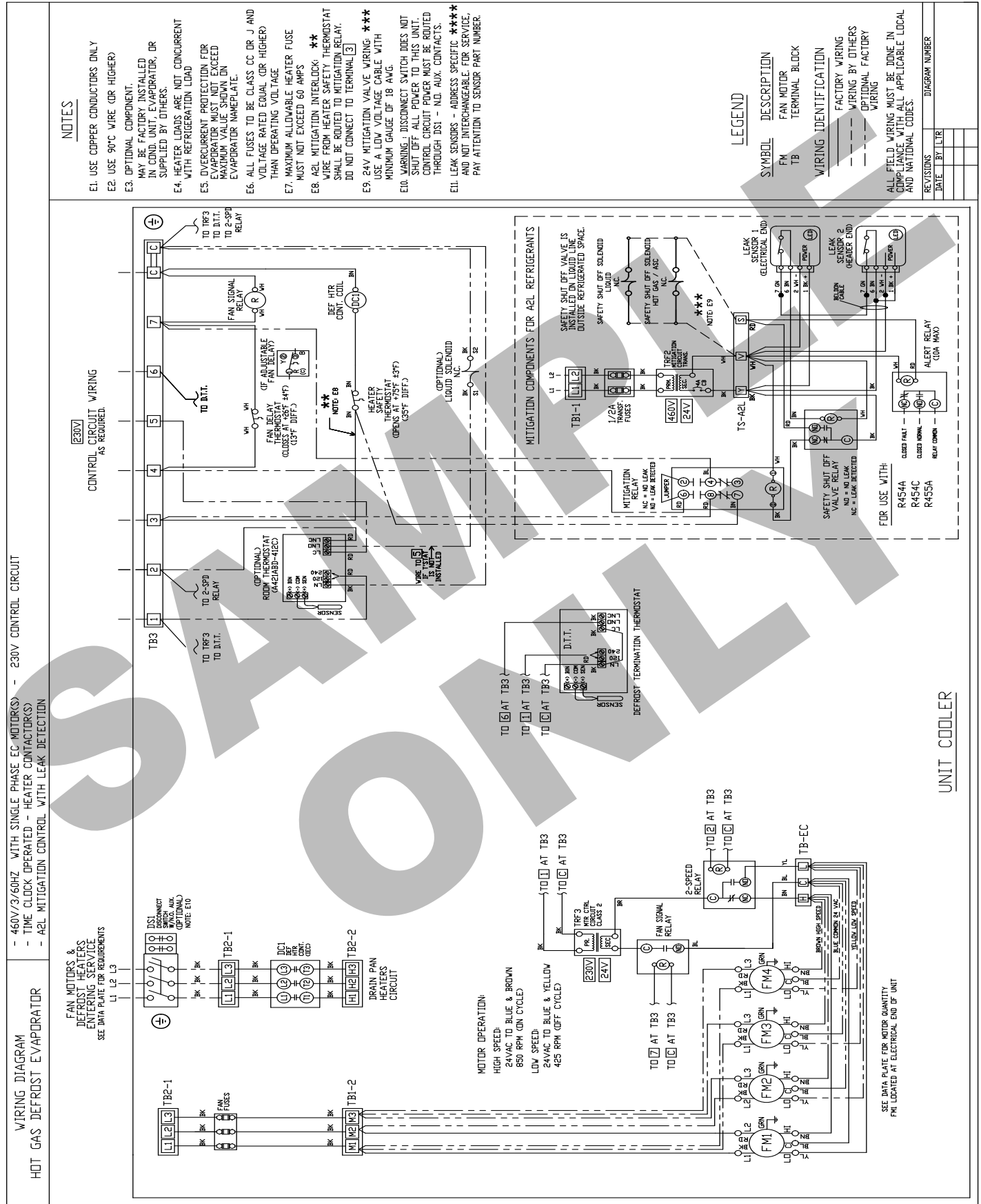


460/3/60 HOTGAS DEFROST MODELS





460/3/60 HOTGAS DEFROST MODELS WITH CONTACTORS



ESP+ INTUITIVE EVAPORATOR CONTROL TECHNOLOGY

WHAT IS ESP+?

ESP+ intuitive evaporator control technology is engineered to replace conventional electromechanical refrigeration controls commonly found in medium- and low-temperature systems. It integrates award-winning adaptive technology with an electronic expansion valve. With just two pipes and two wires, installation is simple, eliminating the need for interconnecting control wiring between the evaporator and the condensing unit.

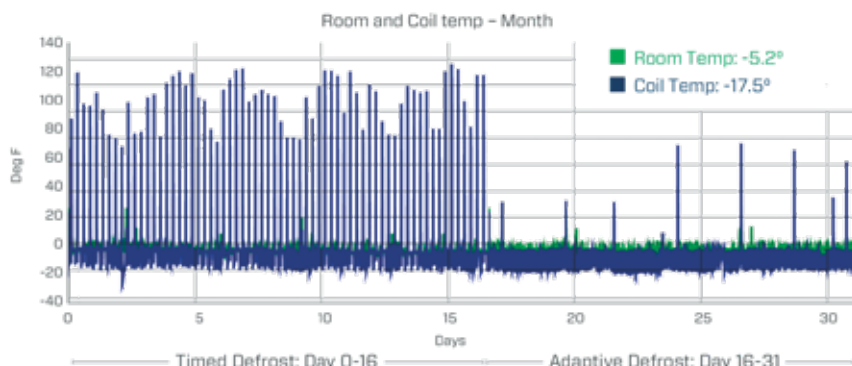
- Quick, simple installation
- Improved evaporator performance by minimizing excessive frost on the evaporator
- Eliminates ice build up on surfaces and product
- Energy savings through evaporator fan management
- Energy savings with reduction in the number of defrost cycles
- Defrost heater management
- 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 the 30 days
- Remotely view and change system parameters and alarm settings
- Manually control the system
- Easily troubleshoot issues
- Refrigerant Leak Mitigation Strategy Included for A2L units

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*

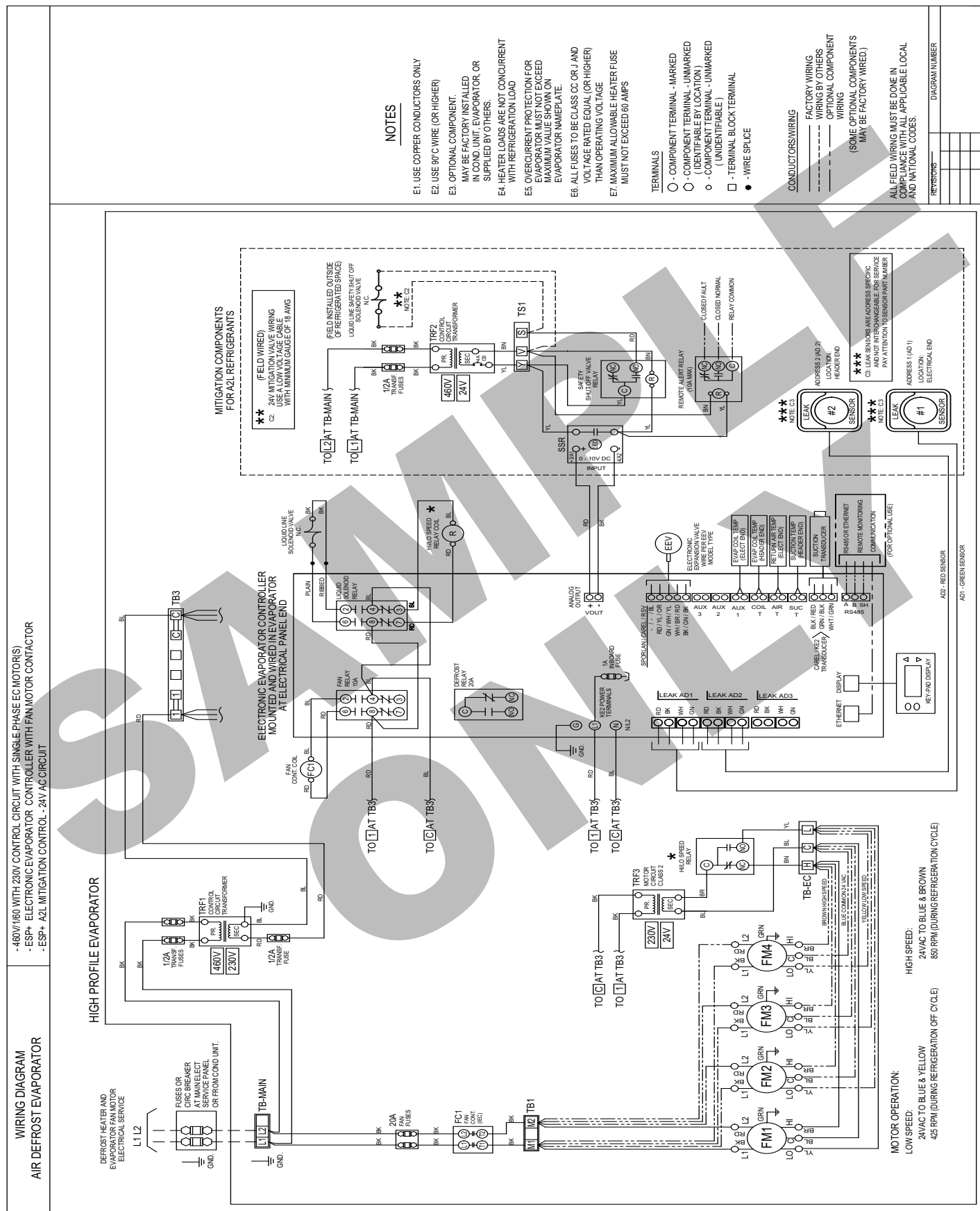
- Enhanced system performance
- Energy savings
- Improved product integrity

* Data may vary depending on application

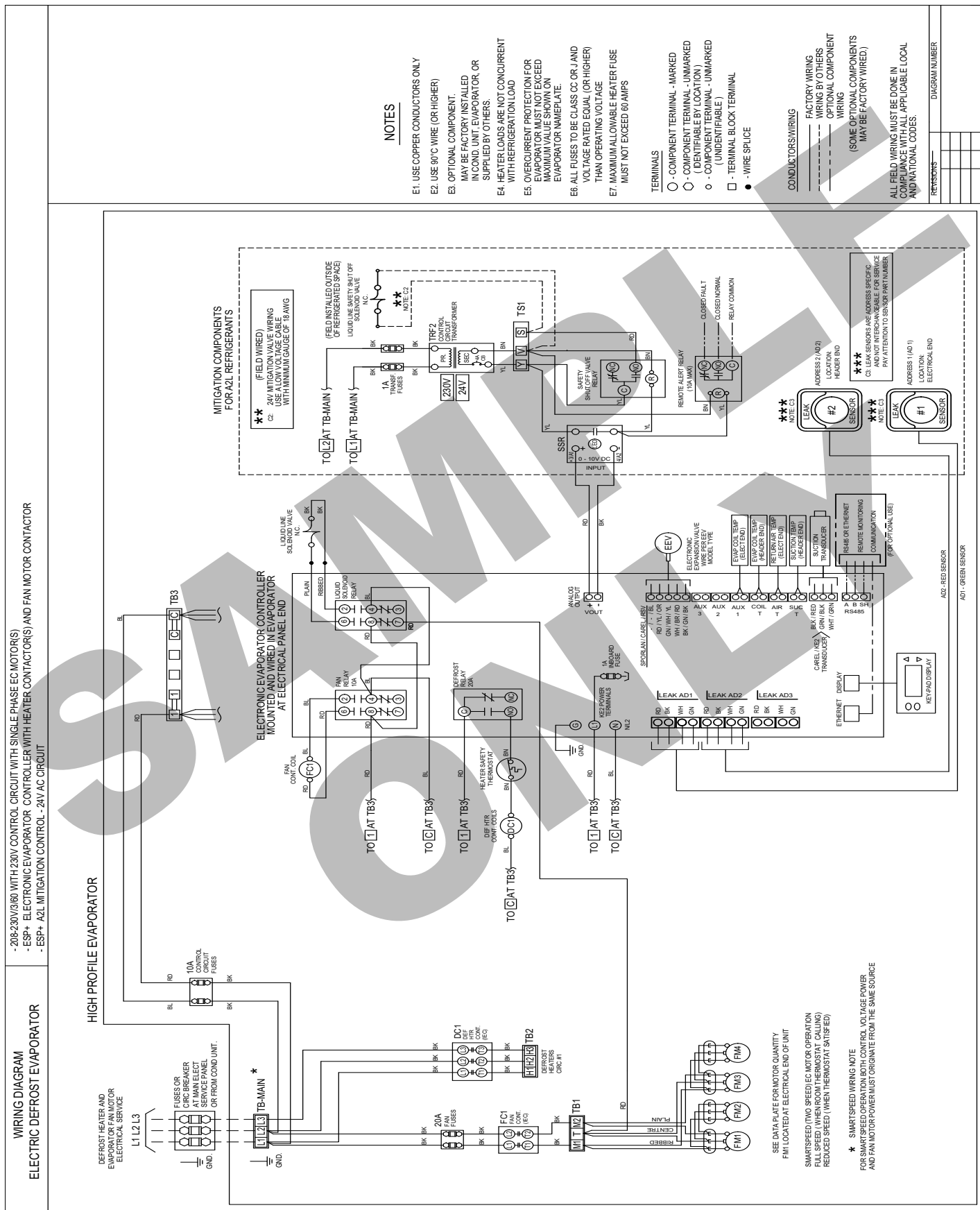
VISIT T-RP.COM/ESP FOR DETAILS



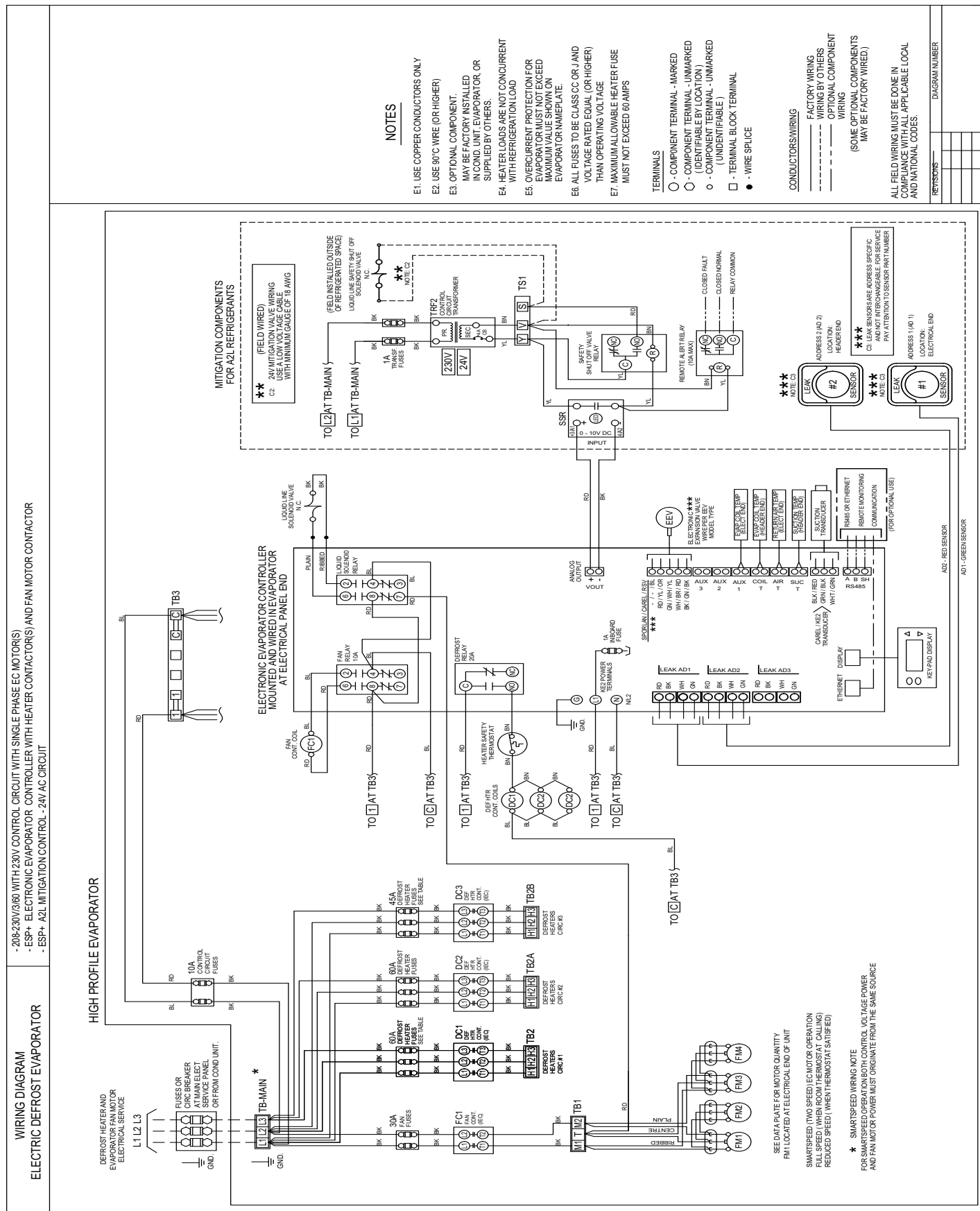
460/1/60: AIR DEFROST MODELS WITH ESP+



208-230/3/60 ELECTRIC DEFROST MODELS WITH ESP+



208-230/3/60 ELECTRIC DEFROST MODELS WITH ESP+ AND DEFROST/ FAN CONTACTORS.





A2L/A1

HIGH / MEDIUM TEMPERATURE MODELS

MODEL		R404A / R507 - R448A / R449A - R407C / R407A	R454A - R454C - R455A
THP 052H	THP 048M	9	9
THP 060H	THP 056M	9	9
THP 065H	THP 062M	9	9
THP 103H	THP 095M	9	9
THP 120H	THP 113M	9	9
THP 131H	THP 125M	9	9
THP 155H	THP 143M	9	9
THP 180H	THP 168M	9	9
THP 196H	THP 186M	9	9
THP 242H	THP 227M	9	9
THP 263H	THP 250M	9	9

A2L/A1

LOW TEMPERATURE MODELS

MODEL		R404A / R507 - R448A / R449A - R407C / R407A	R454A - R454C - R455A
THP 041L	THP 035V	4.15	4.15
THP 049L	THP 043V	4.15	4.15
THP 055L	THP 049V	4.15	4.15
THP 083L	THP 071V	4.15	4.15
THP 099L	THP 087V	4.15	4.15
THP 110L	THP 098V	4.15	4.15
THP 125L	THP 107V	4.15	4.15
THP 149L	THP 130V	4.15	4.15
THP 165L	THP 147V	4.15	4.15
THP 188L	THP 168V	4.15	4.15
THP 211L	THP 190V	4.15	4.15

SOUND DATA

dBa @ 10 ft.

E GEN			
1 FAN	2 FAN	3 FAN	4 FAN
65	67	68.5	69.5

Annual Walk-In Energy Factor Ratings

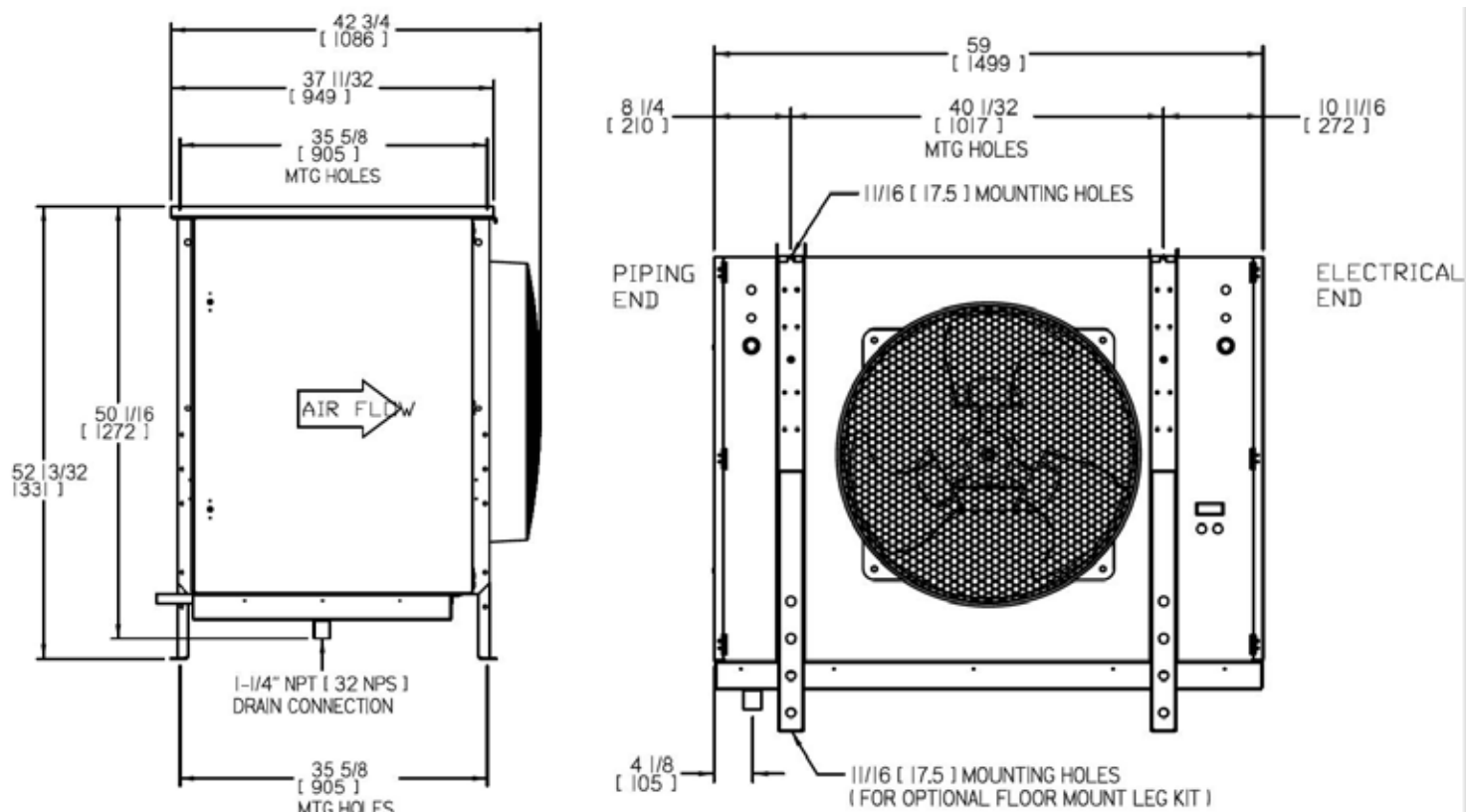
If a numerical value is listed in the tables, the following statement applies to that corresponding model:

“This refrigeration system is designed and certified for use in walk-in cooler applications.”

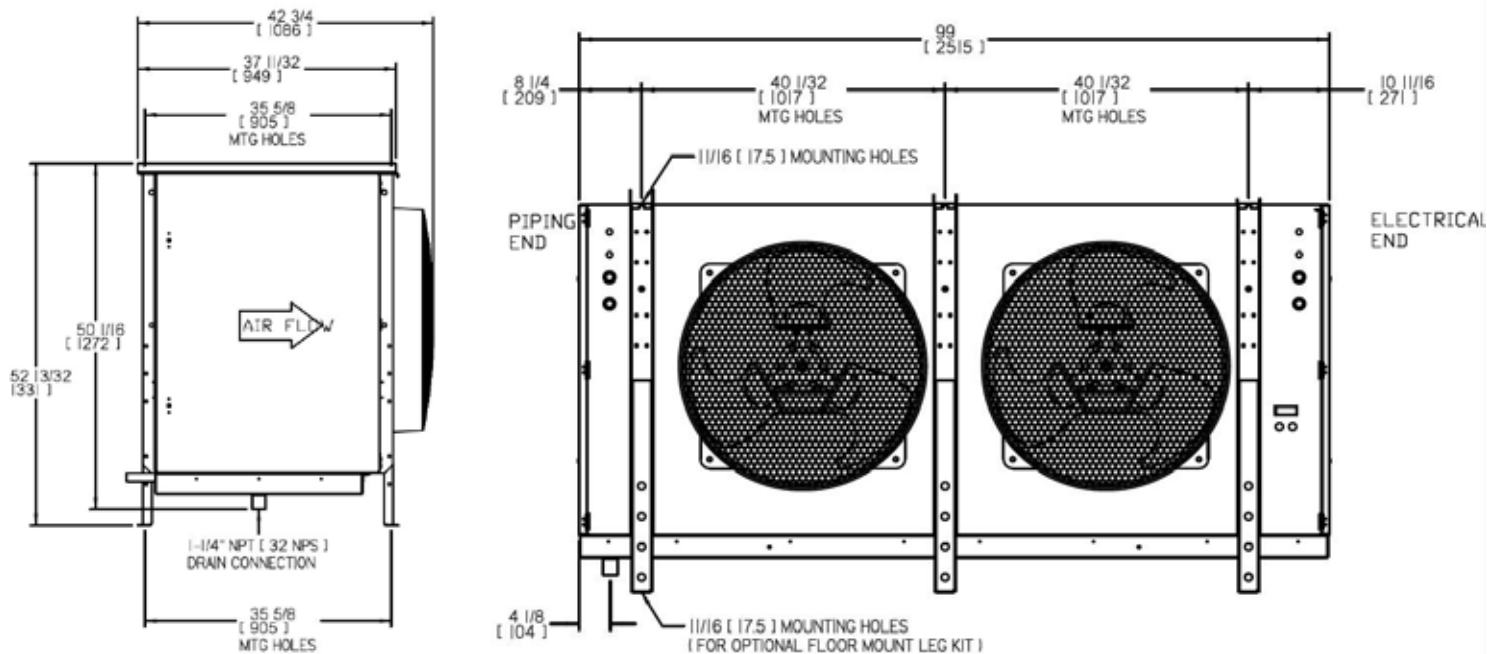
Sound Data is Typical of “Free Field” conditions. Factors such as reflecting walls, background noises and installation may have significant influence on data

Data above is for reference only.

1 FAN MODEL



2 FAN MODEL

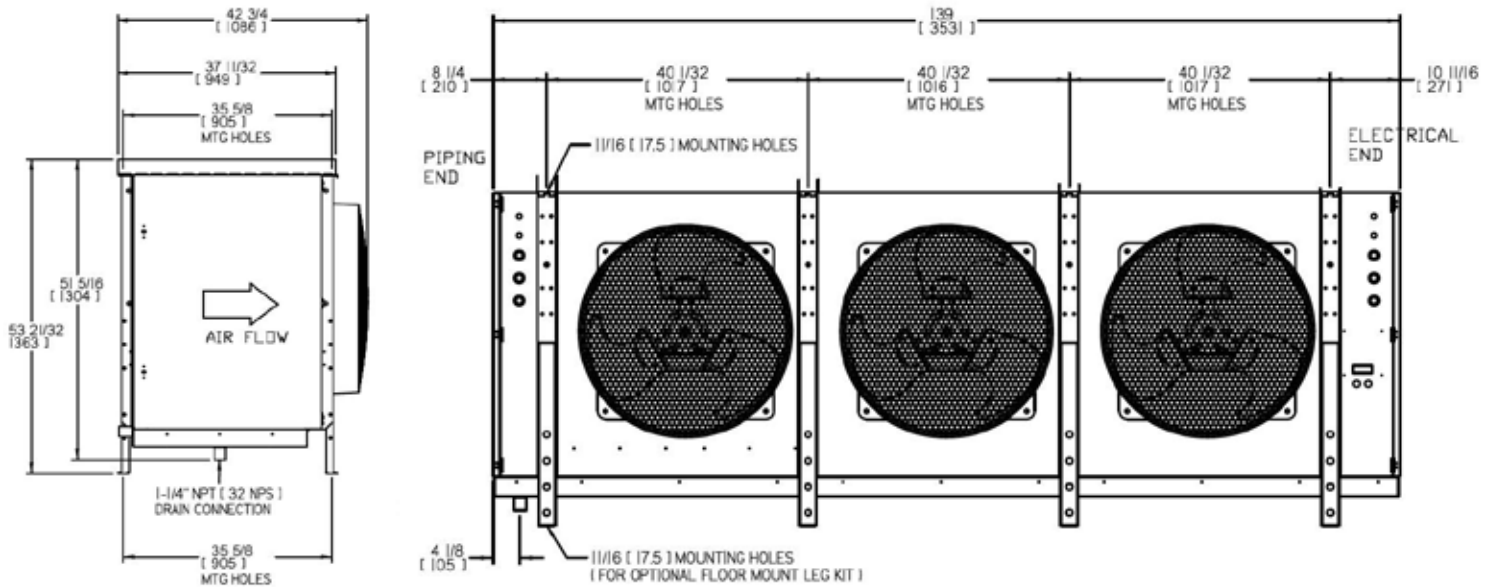


ALL MODELS AIR THROW:

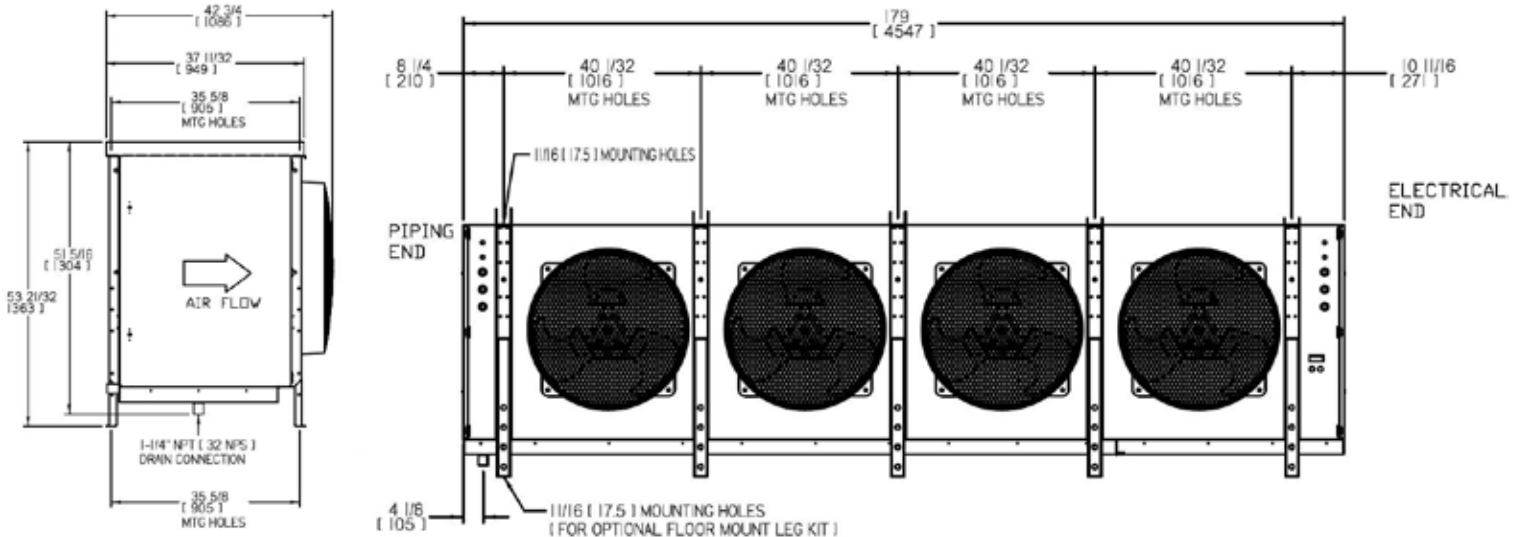
Standard high efficiency fan guard approximately 150 ft (45.7 Metres) in open space.

Optional wire fan guard approximately 100 ft (30.5 Metres) in open space.

3 FAN MODEL



4 FAN MODEL



ALL MODELS AIR THROW:

Standard high efficiency fan guard approximately 150 ft (45.7 Metres) in open space.

Optional wire fan guard approximately 100 ft (30.5 Metres) in open space.

A2L/A1 HIGH TEMP AIR DEFROST MODELS

MODEL	No. of Fans	Suction Conn. (ID) Sweat	Distributor Inlet Size (OD) Sweat
THP 052HA	1	1 3/8	1 1/8
THP 060HA	1	1 3/8	1 1/8
THP 065HA	1	1 3/8	1 1/8
THP 103HA	2	1 5/8	1 3/8
THP 120HA	2	2 1/8	1 3/8
THP 131HA	2	2 1/8	1 3/8
THP 155HA	3	2 1/8	1 5/8
THP 180HA	3	2 1/8	1 5/8
THP 196HA	3	2 1/8	1 5/8
THP 242HA	4	2 5/8	1 5/8
THP 263HA	4	2 5/8	1 5/8

A2L/A1 MEDIUM TEMP AIR AND ELECTRIC DEFROST MODELS

MODEL	No. of Fans	Suction Conn. (ID) Sweat	Distributor Inlet Size (OD) Sweat
THP048M#	1	1 5/8	1 1/8
THP056M#	1	1 5/8	1 1/8
THP062M#	1	1 5/8	1 1/8
THP095M#	2	1 7/8	1 3/8
THP 113M#	2	2 5/8	1 3/8
THP 125M#	2	2 5/8	1 3/8
THP 143M#	3	2 5/8	1 5/8
THP 168M#	3	2 5/8	1 5/8
THP 186M#	3	2 5/8	1 5/8
THP 227M#	4	3 1/8	1 5/8
THP 250M#	4	3 1/8	1 5/8

= A or E. Refer to Nomenclature for details

^ = T,H,G,or R. Refer to Nomenclature for details

A2L/A1

LOW TEMP ELECTRIC DEFROST MODELS

MODEL	No. of Fans	Suction Conn. (ID) Sweat	Distributor Inlet Size (OD) Sweat
THP 041LE	1	1 7/8	1 1/8
THP 049LE	1	2 5/8	1 1/8
THP 055LE	1	2 5/8	1 3/8
THP 083LE	2	2 5/8	1 3/8
THP 099LE	2	2 5/8	1 3/8
THP 110LE	2	3 1/8	1 5/8
THP 125LE	3	3 1/8	1 5/8
THP 149LE	3	3 1/8	1 5/8
THP 165LE	3	3 1/8	1 5/8
THP 188LE	4	3 7/8	1 5/8
THP 211LE	4	3 7/8	1 5/8
THP 035VE	1	1 7/8	1 1/8
THP 043VE	1	2 5/8	1 1/8
THP 049VE	1	2 5/8	1 3/8
THP 071VE	2	2 5/8	1 3/8
THP 087VE	2	2 5/8	1 3/8
THP 098VE	2	3 1/8	1 5/8
THP 107VE	3	3 1/8	1 5/8
THP 130VE	3	3 1/8	1 5/8
THP 147VE	3	3 1/8	1 5/8
THP 168VE	4	3 7/8	1 5/8
THP 190VE	4	3 7/8	1 5/8

= A or E. Refer to Nomenclature for details

^ = T,H,G,or R. Refer to Nomenclature for details

A2L/A1

HOT GAS DEFROST MODELS

MODEL	No. of Fans	Suction Conn. (ID) Sweat	Reverse Cycle Defrost / 3 Pipe Defrost		Drain Pan Loop Conn. (OD) Sweat
			Distributor Inlet Size (OD) Sweat	Side Port Conn. (OD) Sweat	
THP048M^	1	1 5/8	1 1/8	7/8	1-3/8
THP056M^	1	1 5/8	1 1/8	7/8	1-3/8
THP062M^	1	1 5/8	1 1/8	7/8	1-3/8
THP095M^	2	1 7/8	1 3/8	1-1/8	1-3/8
THP113M^	2	2 5/8	1 3/8	1-1/8	1-3/8
THP125M^	2	2 5/8	1 3/8	1-1/8	1-3/8
THP143M^	3	2 5/8	1 5/8	1-3/8	1-5/8
THP168M^	3	2 5/8	1 5/8	1-3/8	1-5/8
THP186M^	3	2 5/8	1 5/8	1-3/8	1-5/8
THP227M^	4	3 1/8	1 5/8	1-5/8	1-5/8
THP250M^	4	3 1/8	1 5/8	1-5/8	1-5/8
THP 041L^	1	1 7/8	1 1/8	7/8	1-3/8
THP 049L^	1	2 5/8	1 1/8	7/8	1-3/8
THP 055L^	1	2 5/8	1 3/8	7/8	1-3/8
THP 083L^	2	2 5/8	1 3/8	1-1/8	1-3/8
THP 099L^	2	2 5/8	1 3/8	1-1/8	1-3/8
THP 110L^	2	3 1/8	1 5/8	1-1/8	1-3/8
THP 125L^	3	3 1/8	1 5/8	1-3/8	1-5/8
THP 149L^	3	3 1/8	1 5/8	1-3/8	1-5/8
THP 165L^	3	3 1/8	1 5/8	1-3/8	1-5/8
THP 188L^	4	3 7/8	1 5/8	1-5/8	1-5/8
THP 211L^	4	3 7/8	1 5/8	1-5/8	1-5/8
THP 035V^	1	1 7/8	1 1/8	7/8	1-3/8
THP 043V^	1	2 5/8	1 1/8	7/8	1-3/8
THP 049V^	1	2 5/8	1 3/8	7/8	1-3/8
THP 071V^	2	2 5/8	1 3/8	1-1/8	1-3/8
THP 087V^	2	2 5/8	1 3/8	1-1/8	1-3/8
THP 098V^	2	3 1/8	1 5/8	1-1/8	1-3/8
THP 107V^	3	3 1/8	1 5/8	1-3/8	1-5/8
THP 130V^	3	3 1/8	1 5/8	1-3/8	1-5/8
THP 147V^	3	3 1/8	1 5/8	1-3/8	1-5/8
THP 168V^	4	3 7/8	1 5/8	1-5/8	1-5/8
THP 190V^	4	3 7/8	1 5/8	1-5/8	1-5/8

= A or E. Refer to Nomenclature for details

^ = T,H,G,or R. Refer to Nomenclature for details

A2L/A1**AIR DEFROST**

MODEL	SHIPPING WEIGHT	
	LB.	KG.
THP 052HA	348	158
THP 060HA	371	168
THP 065HA	394	179
THP 103HA	603	274
THP 120HA	649	294
THP 131HA	695	315
THP 155HA	859	390
THP 180HA	928	421
THP 196HA	996	452

A2L/A1**ELECTRIC DEFROST**

MODEL	SHIPPING WEIGHT	
	LB.	KG.
THP 048ME	343	156
THP 056ME	364	165
THP 062ME	386	175
THP 095ME	594	270
THP 113ME	637	289
THP 125ME	679	308
THP 143ME	845	383
THP 168ME	909	412
THP 186ME	973	441
THP 227ME	1181	536
THP 250ME	1266	574
THP 041LE	343	156
THP 049LE	364	165
THP 055LE	386	175
THP 083LE	594	270
THP 099LE	637	289
THP 110LE	679	308
THP 125LE	845	383
THP 149LE	909	412
THP 165LE	973	441
THP 188LE	1181	536
THP 211LE	1266	574
THP 035VE	334	151
THP 043VE	352	160
THP 049VE	370	168

A2L/A1 HOT GAS DEFROST

WITH HOT GAS LOOP				WITH ELECTRIC HEATER PAN			
MODEL		SHIPPING WEIGHT		MODEL		SHIPPING WEIGHT	
		LB.	KG.			LB.	KG.
THP 048MH	THP 048MR	365	166	THP 048MG	THP 048MT	346	157
THP 056MH	THP 056MR	387	175	THP 056MG	THP 056MT	368	167
THP 062MH	THP 062MR	408	185	THP 062MG	THP 062MT	389	176
THP 095MH	THP 095MR	631	286	THP 095MG	THP 095MT	601	272
THP 113MH	THP 113MR	674	306	THP 113MG	THP 113MT	643	292
THP 125MH	THP 125MR	716	325	THP 125MG	THP 125MT	686	311
THP 143MH	THP 143MR	919	417	THP 143MG	THP 143MT	855	388
THP 168MH	THP 168MR	983	446	THP 168MG	THP 168MT	919	417
THP 186MH	THP 186MR	1047	475	THP 186MG	THP 186MT	982	446
THP 227MH	THP 227MR	1287	584	THP 227MG	THP 227MT	1194	542
THP 250MH	THP 250MR	1372	623	THP 250MG	THP 250MT	1279	580
THP 041LH	THP 041LR	365	166	THP 041LG	THP 041LT	346	157
THP 049LH	THP 049LR	387	175	THP 049LG	THP 049LT	368	167
THP 055LH	THP 055LR	408	185	THP 055LG	THP 055LT	389	176
THP 083LH	THP 083LR	631	286	THP 083LG	THP 083LT	601	272
THP 099LH	THP 099LR	674	306	THP 099LG	THP 099LT	643	292
THP 110LH	THP 110LR	716	325	THP 110LG	THP 110LT	686	311
THP 125LH	THP 125LR	919	417	THP 125LG	THP 125LT	855	388
THP 149LH	THP 149LR	983	446	THP 149LG	THP 149LT	919	417
THP 165LH	THP 165LR	1047	475	THP 165LG	THP 165LT	982	446
THP 188LH	THP 188LR	1287	584	THP 188LG	THP 188LT	1194	542
THP 211LH	THP 211LR	1372	623	THP 211LG	THP 211LT	1279	580
THP 035VH	THP 035VR	356	162	THP 035VG	THP 035VT	356	162
THP 043VH	THP 043VR	374	170	THP 043VG	THP 043VT	374	170
THP 049VH	THP 049VR	393	178	THP 049VG	THP 049VT	393	178

A2L/A1**HIGH TEMPERATURE MODELS**

MODEL	R454A		R448A/R449A/R407A/R407C/ R454C/R455A		R404A/R507	
	SPORLAN	SOLENOID VALVES	SPORLAN	SOLENOID VALVES	SPORLAN	SOLENOID VALVES
THP 052H	EBSTE-8-C	B9	EBSVE-8-C	B9	EBSSE-6-C	B9
THP 060H	EBSTE-8-C	B9	EBSVE-8-C	B9	EBSSE-6-C	B9
THP 065H	EBSTE-8-C	B9	EBSVE-8-C	B9	EBSSE-6-C	B9
THP 103H	OTE-15-C	B10	OVE-15-C	B10	OSE-12-C	B10
THP 120H	OTE-15-C	B14	OVE-15-C	B14	OSE-12-C	B14
THP 131H	OTE-15-C	B14	OVE-15-C	B14	OSE-12-C	B14
THP 155H	OTE-20-C	B14	OVE-20-C	B14	OSE-21-C	B14
THP 180H	OTE-20-C	B19	OVE-20-C	B19	OSE-21-C	B19
THP 196H	OTE-20-C	B19	OVE-20-C	B19	OSE-21-C	B19
THP 242H	OTE-30-C	B19	OVE-30-C	B19	OSE-21-C	B19
THP 263H	OTE-30-C	B25	OVE-30-C	B25	OSE-30-C	B25

A2L/A1**MED TEMPERATURE MODELS**

MODEL	R454A		R448A/R449A/R407A/R407C/ R454C/R455A		R404A/R507	
	SPORLAN	SOLENOID VALVES	SPORLAN	SOLENOID VALVES	SPORLAN	SOLENOID VALVES
THP 048M	EBSTE-8-C	B9	EBSVE-8-C	B9	EBSSE-6-C	B9
THP 056M	EBSTE-8-C	B9	EBSVE-8-C	B9	EBSSE-6-C	B9
THP 062M	EBSTE-8-C	B9	EBSVE-8-C	B9	EBSSE-6-C	B9
THP 095M	OTE-15-C	B10	OVE-15-C	B10	OSE-12-C	B10
THP 113M	OTE-15-C	B14	OVE-15-C	B14	OSE-12-C	B14
THP 125M	OTE-15-C	B14	OVE-15-C	B14	OSE-12-C	B14
THP 143M	OTE-20-C	B14	OVE-20-C	B14	OSE-21-C	B14
THP 168M	OTE-20-C	B19	OVE-20-C	B19	OSE-21-C	B19
THP 186M	OTE-20-C	B19	OVE-20-C	B19	OSE-21-C	B19
THP 227M	OTE-30-C	B19	OVE-30-C	B19	OSE-21-C	B19
THP 250M	OTE-30-C	B25	OVE-30-C	B25	OSE-30-C	B25

A2L/A1**LOW TEMPERATURE MODELS**

MODEL	R454A		R448A/R449A/R407A/R407C/ R454C/R455A		R404A/R507	
	SPORLAN	SOLENOID VALVES	SPORLAN	SOLENOID VALVES	SPORLAN	SOLENOID VALVES
THP 041L	EBSTE-8-ZP	B6	EBSVE-8-ZP	B6	EBSSE-7-1/2-ZP	B6
THP 049L	EBSTE-11-ZP	B9	EBSVE-11-ZP	B9	EBSSE-10-ZP	B9
THP 055L	EBSTE-11-ZP	B9	EBSVE-11-ZP	B9	EBSSE-10-ZP	B9
THP 083L	OTE-20-ZP	B10	OVE-20-ZP	B10	OSE-12-ZP	B10
THP 099L	OTE-20-ZP	B14	OVE-20-ZP	B14	OSE-21-ZP	B14
THP 110L	OTE-20-ZP	B14	OVE-20-ZP	B14	OSE-21-ZP	B14
THP 125L	OTE-30-ZP	B14	OVE-30-ZP	B14	OSE-21-ZP	B14
THP 149L	OTE-30-ZP	B19	OVE-30-ZP	B19	OSE-30-ZP	B19
THP 165L	OTE-40-ZP	B19	OVE-40-ZP	B19	OSE-30-ZP	B19
THP 188L	OTE-40-ZP	B19	OVE-40-ZP	B19	OSE-30-ZP	B19
THP 211L	OTE-40-ZP	B19	OVE-40-ZP	B19	OSE-35-ZP	B19
THP 035V	EBSTE-8-ZP	B6	EBSVE-8-ZP	B6	EBSSE-7-1/2-ZP	B6
THP 043V	EBSTE-11-ZP	B9	EBSVE-11-ZP	B9	EBSSE-10-ZP	B9
THP 049V	EBSTE-11-ZP	B9	EBSVE-11-ZP	B9	EBSSE-10-ZP	B9
THP 071V	OTE-20-ZP	B10	OVE-20-ZP	B10	OSE-12-ZP	B10
THP 087V	OTE-20-ZP	B10	OVE-20-ZP	B10	OSE-21-ZP	B10
THP 098V	OTE-20-ZP	B14	OVE-20-ZP	B14	OSE-21-ZP	B14
THP 107V	OTE-30-ZP	B14	OVE-30-ZP	B14	OSE-21-ZP	B14
THP 130V	OTE-30-ZP	B14	OVE-30-ZP	B14	OSE-30-ZP	B14
THP 147V	OTE-40-ZP	B19	OVE-40-ZP	B19	OSE-30-ZP	B19
THP 168V	OTE-40-ZP	B19	OVE-40-ZP	B19	OSE-30-ZP	B19
THP 190V	OTE-40-ZP	B19	OVE-40-ZP	B19	OSE-35-ZP	B19

A2L/A1

**HIGH TEMPERATURE
AIR DEFROST**

MODEL	FACTORY INSTALLED NOZZLE	FACTORY INSTALLED EXPANSION VALVE	FACTORY INSTALLED LIQUID LINE SOLENOID VALVE	A2L Refrigerants	
				FACTORY SUPPLIED SAFETY SOLENOID VALVE	FACTORY SUPPLIED SAFETY CHECK VALVE
THP 052H	E5	E3V45	B9	SSOV10	CSOV11
THP 060H	E6	E3V45	B9	SSOV10	CSOV11
THP 065H	E6	E3V45	B9	SSOV10	CSOV11
THP 103H	C12	E3V55	B10	SSOV19	CSOV13
THP 120H	C15	E3V55	B14	SSOV19	CSOV17
THP 131H	C15	E3V55	B14	SSOV19	CSOV17
THP 155H	A17	E3V65	B14	SSOV19	CSOV17
THP 180H	A20	E3V65	B19	SSOV19	CSOV17
THP 196H	A20	E3V65	B19	SSOV19	CSOV17
THP 242H	A25	E3V65	B19	SSOV25	CSOV21
THP 263H	A30	E3V65	B25	SSOV25	CSOV21

A2L/A1

**MEDIUM TEMPERATURE
AIR OR ELECTRIC DEFROST**

MODEL	FACTORY INSTALLED NOZZLE	FACTORY INSTALLED EXPANSION VALVE	FACTORY INSTALLED LIQUID LINE SOLENOID VALVE	A2L Refrigerants	
				FACTORY SUPPLIED SAFETY SOLENOID VALVE	FACTORY SUPPLIED SAFETY CHECK VALVE
THP 048M	E5	E3V45	B9	SSOV10	CSOV11
THP 056M	E6	E3V45	B9	SSOV10	CSOV11
THP 062M	E6	E3V45	B9	SSOV10	CSOV11
THP 095M	C12	E3V55	B10	SSOV19	CSOV13
THP 113M	C15	E3V55	B14	SSOV19	CSOV17
THP 125M	C15	E3V55	B14	SSOV19	CSOV17
THP 143M	A17	E3V65	B14	SSOV19	CSOV17
THP 168M	A20	E3V65	B19	SSOV19	CSOV17
THP 186M	A20	E3V65	B19	SSOV19	CSOV17
THP 227M	A25	E3V65	B19	SSOV25	CSOV21
THP 250M	A30	E3V65	B25	SSOV25	CSOV21

A2L/A1

**LOW TEMPERATURE
ELECTRIC DEFROST**

MODEL	FACTORY INSTALLED NOZZLE	FACTORY INSTALLED EXPANSION VALVE	FACTORY INSTALLED LIQUID LINE SOLENOID VALVE	A2L Refrigerants	
				FACTORY SUPPLIED SAFETY SOLENOID VALVE	FACTORY SUPPLIED SAFETY CHECK VALVE
THP 041L	E8	E3V45	B6	SSOV10	CSOV13
THP 049L	E10	E3V45	B9	SSOV10	CSOV17
THP 055L	E12	E3V45	B9	SSOV10	CSOV17
THP 083L	C17	E3V55	B10	SSOV19	CSOV17
THP 099L	C20	E3V55	B14	SSOV19	CSOV17
THP 110L	A25	E3V55	B14	SSOV19	CSOV21
THP 125L	A30	E3V65	B14	SSOV19	CSOV21
THP 149L	A35	E3V65	B19	SSOV19	CSOV21
THP 165L	A35	E3V65	B19	SSOV19	CSOV21
THP 188L	A40	E3V65	B19	SSOV25	CSOV25
THP 211L	A50	E3V65	B19	SSOV25	CSOV25
THP 035V	E6	E3V45	B6	SSOV10	CSOV13
THP 043V	E8	E3V45	B9	SSOV10	CSOV17
THP 049V	E10	E3V45	B9	SSOV10	CSOV17
THP 071V	C15	E3V55	B10	SSOV19	CSOV17
THP 087V	C17	E3V55	B10	SSOV19	CSOV17
THP 098V	A20	E3V55	B14	SSOV19	CSOV21
THP 107V	A20	E3V65	B14	SSOV19	CSOV21
THP 130V	A25	E3V65	B14	SSOV19	CSOV21
THP 147V	A30	E3V65	B19	SSOV19	CSOV21
THP 168V	A35	E3V65	B19	SSOV25	CSOV25
THP 190V	A40	E3V65	B19	SSOV25	CSOV25

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

HP evaporators are designed for walk-in cooler and freezer applications used with wide range of refrigerants. For room temperatures above 35°F (2 °C) AND evaporating temperatures above 26°F (-3 °C), positive defrosting means (with electric or hot gas) may not be required, otherwise, electric defrost or hot gas defrost models should be used. Electric defrost models come with defrost termination and fan delay as standard to control the defrost cycle termination and fan delay, while defrost initiation means (e.g. defrost timer) is not included.

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

LOCATION

The unit location in the room should be selected to ensure uniform air distribution throughout the entire

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

EXPANSION VALVE (TXV) SELECTION

1. All units require the use of an externally equalized expansion valve. (A 1/4" (6 mm) O.D. equalizer line has been provided on the coil) TX valves should not be selected strictly by their nominal ton rating. (This rating is based at a specific pressure differential and entering liquid temperature). Since applications will differ it is suggested the following selection procedure be followed.
2. Determine actual evaporator capacity. The nominal rating is based at 10°F T.D. (5.6°C) (Entering Air Temp. minus Evap. Temp.) Note that a higher/lower operating T.D. will increase / decrease this capacity rating by their direct ratio within a range of 8 to 12°F (4.4 to 8.3°C) T.D.
3. Determine the pressure drop across the valve by subtracting the evaporating pressure and distributor pressure drop from the high side liquid pressure. The distributor pressure drop is typically in the range of 20 to 35 psig (1.4 to 2.4 bar) depending on the type of refrigerant and operating conditions.
4. Estimate entering liquid temperature. Temperatures lower than 100°F (38 °C) increase valve capacity ratings. Refer to valve manufacturer's specs for details.
5. Select valve from the valve manufacturer selection charts for the appropriate refrigerant, evaporating temp and pressure drop.

For best performance, the outlet of the expansion valve should be installed directly to the distributor body. If this is not possible, a straight tube up to 12 inches may be used for the connection. Locate the expansion valve bulb on a horizontal length of suction line preferably 3 to 6 inches from the suction header. Locate the bulb at 4 or 8 clock position and insulate with a waterproof type of insulation. Clamp the bulb to ensure 100% contact of the bulb with the suction line.

Ensure appropriate nozzle has been installed in the

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

NOZZLE INSTALLATION

The nozzle for all models has been factory installed. For other applications, refer to nozzle manufacturer's selection guide. To replace a nozzle, the nozzle retainer clip (in distributor) must be removed before inserting nozzle. Re-install clip ensuring nozzle is properly in place. A small nozzle can be drilled larger using the drill size listed in table on page 35. Ensure the hole must be accurately centered and smooth. A lathe is preferred for the drilling.

MOUNTING

This evaporator is supplied with shipping legs to allow units to be shipped in an upright position. Units can be lifted into place with shipping skid attached to mounting legs.

Hanger brackets take up to 5/8" (15.9 mm) hanger rods.

After the evaporator is hung in place, remove the bolts attaching the skid to the legs.

DRAIN LINE

If the evaporator is mounted flush to ceiling, the staggered hanger will provide a positive pitch for drainage.

If units are suspended below the ceiling, the installer must provide adequate pitch to the unit by adjusting the location of the hanger rod nuts.

Note: Check for adequate drainage by pouring water into the drain pan.

Ensure that the drain pan 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.

Hot gas models, refer to pages 44 - 45 for recommended piping.

WIRING

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

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

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

MAINTENANCE

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

SYSTEM CHECK

Before Start-Up:

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

After Start-Up:

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

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for Quick Start Guide, Operation Manual, etc.



WARNING

Do not use means to accelerate the defrosting process or to clean, other than those recommended by the manufacturer.
The appliance shall be stored or in a room without continuously operating ignition sources (for example: open flames, an operating gas appliance or an operating electric heater).
Do not pierce or burn.
Be aware that refrigerants may not contain an odor.

MISE EN GARDE

Ne pas utiliser de moyens autres que ceux recommandés par le fabricant pour accélérer le processus de dégivrage ou pour nettoyer l'appareil.
L'appareil doit être entreposé dans un local ne contenant pas de sources d'inflammation permanentes (flammes nues, appareil à gaz ou dispositif de chauffage électrique en fonctionnement, par exemple).
Ne pas percer ou brûler.
Attention, les fluides frigorigènes peuvent ne pas dégager d'odeur.

This appliance is not intended for use by persons (including children) with reduced physical, sensory, or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.

This appliance may be installed at an elevation above 6500 ft (2000 m). At higher altitudes, electronic expansion valve controllers may read artificially low superheat due to gauge pressure sensors. Follow the controller manufacturing instructions to calibrate the suction pressure sensor for high altitudes.

Appliance shall be installed in areas not accessible to the general public or at least at a level not less than 99.5" (2.5m).

The evaporator must be wired to a disconnect that breaks all ungrounded conductors. Note that the evaporator may be supplied with a factory installed disconnect.

The evaporator must be connected to a condensing unit designed for the same type of refrigerant.

Additional Installation, Service, and Decommissioning requirements for units charged with A2L refrigerants

GENERAL A2L EQUIPMENT SERVICE REQUIREMENTS

Walk-in cooler or freezer split systems utilizing A2L flammable refrigerants have special requirements for installation, service, and decommissioning. **WARNING:** To reduce flammability hazards, installation and service may only be performed by qualified service personnel who have been licensed by their local and national authorities to perform work on refrigeration systems. Personnel must be trained on how to service equipment utilizing flammable refrigerant, and how to mitigate the hazards. Installation and service may only be performed as recommended by the manufacturer. When making repairs, only service parts recommended by the manufacturer may be used.

When installing, servicing, or decommissioning this equipment, procedures must be used to minimize the risk of flammable gas or vapor being present while the work is being performed. The area must be checked with an appropriate refrigerant detector prior to and during work to ensure that the technician is aware of potentially flammable atmospheres. Refrigerant detection equipment must be designed and sold for use with A2L refrigerants.

A2L EQUIPMENT SERVICE PROCEDURE

All maintenance staff and others working in the local area must be instructed on the nature of the work being performed.

Ensure that no ignition sources are present in the area, including other appliances or cigarette smoking. Prior to work taking place, the area around the equipment shall be surveyed to make sure that there are no flammable hazards or ignition risks. "No Smoking" signs shall be displayed. A dry chemical or CO2 fire extinguisher must be present when any hot work is performed.

Ensure that the area is adequately ventilated before opening the refrigeration system or conducting any hot work. Ventilation must continue for the duration of the work. The ventilation should safely disperse any released refrigerant to the outside atmosphere.

BEFORE STARTING WORK

- Verify that the markings on the equipment are legible.
- Check that refrigerant containing components and tubing are not excessively corroded or installed in a way that they may become corroded.
- Verify that the releasable charge is appropriate for the room size.
- Test the function of electrical systems, and repair if defective.
- Discharge capacitors in a safe manner to prevent sparking.

DURING WORK

- No live electrical components and wiring are exposed during charging, recovering, or purging the system.
- Check for continuity of ground bonding.
- Ensure that wires and cables are not subject to wear, corrosion, excess pressure vibration, or sharp edges.
- Do not attempt to repair any sealed electrical component or intrinsically safe component; these must be replaced.

LEAK DETECTION

When a leak in the refrigerant system is suspected, ensure that all open flames are extinguished. Only a chlorine-free leak detection fluid, or an electronic leak detector designed and sold for use with A2L refrigerants may be used. NEVER USE AN OPEN FLAME TO FIND REFRIGERANT LEAK SOURCES. If brazing is required to repair a leak, all refrigerant must be recovered from the system or isolated by means of a shutoff valve. The system or the isolated portion of the system must be purged with an inert gas. Ensure that the purging fluid outlet discharges into a well-ventilated area away from any sources of ignition.

SAFETY ISOLATION VALVES FOR FLAMMABLE REFRIGERANT

Walk-in cooler or freezer split systems utilizing A2L flammable refrigerant must be equipped with safety isolation valves to limit the releasable charge in the event of a leak. These safety isolation valves may be either factory installed in the condensing unit or field installed. Both a liquid line solenoid valve and a suction line check valve are required. Additionally, a discharge line solenoid valve is required for external hot gas bypass or hot gas defrost systems. All safety isolation valves must be installed outside of the walk-in box. Before proceeding with field installation of refrigerant tubing, verify if the system is equipped with safety isolation valves factory installed in the condensing unit or if they are field installed. Field installed valves must be located outside of the walk-in box.

Field installed safety isolation valves shall be Sporlan SSOV series for liquid and discharge and Sporlan CSOV for suction. Valves must be protected from overheating during installation. Solenoid valves shall be installed to avoid hydraulic shock.

Additional information for applying mitigation valves, including systems with multiple evaporators per condensing unit may be found at the end of this manual.

FIELD INSTALLED SAFETY SHUTOFF VALVES

The evaporator may be configured with safety shutoff valves for field installation outside of the walk-in box. A check valve is provided for the suction line and a solenoid is provided for the liquid line. If the evaporator is configured with an external hot gas bypass or a hot gas defrost system, a hot gas solenoid is also provided. If the system is configured with reverse cycle defrost, an additional solenoid and check valve are provided for reverse cycle operation.

In the case of multiple evaporators installed in a common refrigeration circuit, each line must be routed outside the walk-in box before being piped together. Safety shutoff valves are provided with each evaporator, which must be installed in the line between the evaporator and the tee.

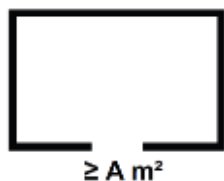
The solenoid valves are provided with 24VAC coils. The solenoid coils are wired to the terminal strip in the evaporator with 18 AWG class 2 cable or equivalent. All valves and coils are shipped in the end compartment near the refrigerant line connections.

Field installed safety isolation valves should be installed as close to the walk-in box as possible. Ensure that the valves are oriented in the correct flow direction. See drawings for details.

SAFETY SHUTOFF VALVES FACTORY INSTALLED IN CONDENSING UNIT

The evaporator may be configured to be connected to a condensing unit with factory installed safety shutoff valves. The 24VAC solenoid coil in the condensing unit must be connected to the terminal strip in the evaporator with 18AWG class 2 cable or equivalent.

MINIMUM WALK-IN BOX AREA



Walk-in cooler or freezer split systems utilizing A2L flammable refrigerant are subject to minimum walk-in box floor area to limit the hazard of a refrigerant leak. This minimum room area depends on the size of the evaporator, as well as the length and diameter of the field installed refrigerant tubing between the evaporator and the safety isolation valves. Follow the instructions below to ensure compliance.

- Measure the distance along the planned tubing route from the outlet of the evaporator to the inlet of the liquid line safety isolation valve.
- Determine the diameter of the liquid and suction lines to be used.
- Measure the internal length and width of the walk-in box. Multiply the length x width to determine the area.
- Find the row with the evaporator model number in the table below. Under the MAXIMUM LINE LENGTH heading, pick the column which is greater than the length of the measured tubing route. Verify that the MINIMUM ROOM AREA value is less than the calculated walk-in box area.

If the MINIMUM ROOM AREA value is greater than the calculated walk-in box area, or for tubing runs longer than what is shown in the table, contact the factory for guidance.

Example:

A **THP120H** evaporator is to be installed in a walk-in cooler.

The length from the outlet of the evaporator to the safety isolation valve is **35 ft (10.6 m)**. Standard **7/8" (22.2 mm)** liquid line and **2 1/8" (53.9 mm)** suction line diameters are used

The internal dimensions of the walk-in box are **25 ft (7.6 m)** wide and **20 ft (6.09 m)** long. The calculated area is **25 ft x 20 ft = 500 ft² (7.6 m x 6.09 m = 46.2 m²)**.

The **THP120H** is shown in the fifth row down. The **50 ft (15.2 m)** column shows a minimum room area of **484 ft² (147.5 m²)**. This is less than the calculated room area, so the installation is compliant.

NOTE: If there are multiple evaporators serving the same walk-in box, each evaporator is connected to its own set fieldinstalled safety shutoff valves. Calculate the releasable charge of each evaporator and use the largest releasable charge to evaluate walk-in box area. Do not add the releasable charges together when evaluating walk-in box area.

MODEL	LIQUID LINE OD (in)	SUCTION LINE OD (in)	MAXIMUM LINE LENGTH			
			A (10 ft)	B (25 ft)	C (50 ft)	D (100 ft)
			MINIMUM ROOM AREA (FT ²)			
THP 052H	5/8	1 3/8	104	129	172	257
THP 060H	5/8	1 3/8	128	154	196	281
THP 065H	5/8	1 3/8	153	178	220	305
THP 103H	7/8	1 5/8	192	242	324	488
THP 120H	7/8	2 1/8	247	299	384	555*
THP 131H	7/8	2 1/8	295	346	432	603*
THP 155H	7/8	2 1/8	270	321	407	578*
THP 180H	7/8	2 1/8	341	392	477	648*
THP 196H	1 1/8	2 1/8	434	518*	658*	937*
THP 242H	1 1/8	2 5/8	466	552*	696*	984*
THP 263H	1 1/8	2 5/8	560*	646*	790*	1078*
THP 048M	5/8	1 3/8	104	129	172	257
THP 056M	5/8	1 3/8	128	154	196	281
THP 062M	5/8	1 3/8	153	178	220	305
THP 095M	7/8	1 5/8	192	242	324	488
THP 113M	7/8	2 1/8	247	299	384	555*
THP 125M	7/8	2 1/8	295	346	432	603*
THP 143M	7/8	2 1/8	270	321	407	578*
THP 168M	7/8	2 1/8	341	392	477	648*
THP 186M	1 1/8	2 1/8	434	518*	658*	937*
THP 227M	1 1/8	2 5/8	466	552*	696*	984*
THP 250M	1 1/8	2 5/8	560*	646*	790*	1078*
THP 041L	5/8	1 5/8	102	126	167	250
THP 049L	5/8	2 1/8	131	156	199	285
THP 055L	5/8	2 1/8	154	180	223	308
THP 083L	7/8	2 1/8	191	240	321	484
THP 099L	7/8	2 1/8	237	285	367	529*
THP 110L	7/8	2 5/8	290	340	423	590*
THP 125L	7/8	2 5/8	266	316	399	566*
THP 149L	7/8	2 5/8	334	384	467	634*
THP 165L	1 1/8	2 5/8	424	507	644*	919*
THP 188L	1 1/8	3 1/8	455	539*	679*	959*
THP 211L	1 1/8	3 1/8	545*	629*	769*	1048*
THP 035V	5/8	1 5/8	102	126	167	250
THP 043V	5/8	2 1/8	131	156	199	285
THP 049V	5/8	2 1/8	154	180	223	308
THP 071V	7/8	2 1/8	191	240	321	484
THP 087V	7/8	2 1/8	237	285	367	529*
THP 098V	7/8	2 5/8	290	340	423	590*
THP 107V	7/8	2 5/8	266	316	399	566*
THP 130V	7/8	2 5/8	334	384	467	634*
THP 147V	1 1/8	2 5/8	424	507	644*	919*
THP 168V	1 1/8	3 1/8	455	539*	679*	959*
THP 190V	1 1/8	3 1/8	545*	629*	769*	1048*

* Ventilation is required for this application. Ventilation requirements can change by reducing line run or changing to multiple evaporators. Call Factory for assistance.

MODEL	LIQUID LINE OD (mm)	SUCTION LINE OD (mm)	MAXIMUM LINE LENGTH			
			A (3m)	B (7.6m)	C (15.2m)	D (30.5m)
			MINIMUM ROOM AREA (M2)			
THP 052H	16	35	10	12	16	24
THP 060H	16	35	12	14	18	26
THP 065H	16	35	14	17	20	28
THP 103H	22	41	18	22	30	45
THP 120H	22	54	23	28	36	52*
THP 131H	22	54	27	32	40	56*
THP 155H	22	54	25	30	38	54*
THP 180H	22	54	32	36	44	60*
THP 196H	29	54	40	48*	61*	87*
THP 242H	29	67	43	51*	65*	91*
THP 263H	29	67	52*	60*	73*	100*
THP 048M	16	35	10	12	16	24
THP 056M	16	35	12	14	18	26
THP 062M	16	35	14	17	20	28
THP 095M	22	41	18	22	30	45
THP 113M	22	54	23	28	36	52*
THP 125M	22	54	27	32	40	56*
THP 143M	22	54	25	30	38	54*
THP 168M	22	54	32	36	44	60*
THP 186M	29	54	40	48*	61*	87*
THP 227M	29	67	43	51*	65*	91*
THP 250M	29	67	52*	60*	73*	100*
THP 041L	16	41	9	12	16	23
THP 049L	16	54	12	15	19	26
THP 055L	16	54	14	17	21	29
THP 083L	22	54	18	22	30	45
THP 099L	22	54	22	27	34	49*
THP 110L	22	67	27	32	39	55*
THP 125L	22	67	25	29	37	53*
THP 149L	22	67	31	36	43	59*
THP 165L	29	67	39	47	60*	85*
THP 188L	29	79	42	50*	63*	89*
THP 211L	29	79	51*	58*	71*	97*
THP 035V	16	41	9	12	16	23
THP 043V	16	54	12	15	19	26
THP 049V	16	54	14	17	21	29
THP 071V	22	54	18	22	30	45
THP 087V	22	54	22	27	34	49*
THP 098V	22	67	27	32	39	55*
THP 107V	22	67	25	29	37	53*
THP 130V	22	67	31	36	43	59*
THP 147V	29	67	39	47	60*	85*
THP 168V	29	79	42	50*	63*	89*
THP 190V	29	79	51*	58*	71*	97*

* Ventilation is required for this application. Ventilation requirements can change by reducing line run or changing to multiple evaporators. Call Factory for assistance.

REFRIGERANT TUBING INSTALLATION

Refrigerant piping must be installed in accordance with ANSI/ASHRAE 15 and any other applicable local or national codes.

- All equipment, refrigerant tubing, fittings, and protection devices must be securely mounted and protected from physical damage and other adverse environmental effects such as water collecting and freezing, corrosion, and the accumulation of dirt and debris. Tubing inside the walk-in box or routed through other unventilated spaces must be additionally protected from accidental damage when product or furniture is installed or moved.
- All tubing joints must be accessible for inspection prior to being covered or enclosed.
- The routing of tubing must be as direct as possible, and the length of tubing kept to a minimum.
- Use only copper tubing. Flexible connections are not allowed. All field connections must be brazed.
- Provisions shall be made for expansion and contraction of long runs of tubing.
- Tubing shall be installed to minimize damaging effects of hydraulic shock.
- Tubing shall be constrained to prevent excess vibration or pulsation.
- Insulation shall be suitable for the material being insulated.
- All installed tubing must be pressure tested to 450 PSIG with an inert gas and held for a minimum of 1 hour with no decrease in pressure. The test gauge must have a minimum resolution of 20 PSIG.
- If the pressure test is successful, the refrigerant piping must be evacuated below 500 microns. After isolating the vacuum pump, the system pressure must remain below 1000 microns for 30 minutes. See “Deep Vacuum Method” in the condensing unit installation manual for more details.

CHARGING

After installation of field refrigerant tubing, the system must be charged by weight of refrigerant. See the condensing unit installation manual for charging instructions weight for each condensing unit model.

During charging:

- Ensure that contamination of different refrigerants does not occur when using charging equipment. Hoses or lines shall be as short as possible to minimize the amount of refrigerant contained in them.
- Cylinders must be kept in an appropriate position according to the instructions.
- Ensure that the system is earthed prior to charging the system with refrigerant.
- Extreme care shall be taken not to overfill the system.
- After charging, write the refrigerant number and weight in the blank space on the data label of the condensing unit.

After charging, all brazed tubing joints made indoors shall be tested with a refrigerant detector. The detector must have a sensitivity of 0.2 oz/year (5 g/year) or better under a pressure of at least 150 PSIG. No leak shall be detected.

The system must be leak-free before the system is commissioned or recommissioned after repair. See section “REFRIGERANT TUBING INSTALLATION” for additional details on required leak checks.

REFRIGERANT LEAK MITIGATION SYSTEM

Evaporators designed for A2L refrigerants are equipped with a leak mitigation system to minimize the hazard of refrigerant leaks. The leak mitigation system includes factory installed refrigerant leak sensors, and mitigation controller to initiate mitigation actions in the event of a leak. Mitigation actions include activating fans for circulation, deactivating electric defrost heaters and closing safety isolation valves.

Ventilation of the walk-in box should not be used. Do not connect the evaporator to any ductwork.

Safety isolation solenoid valves must be field wired to the mitigation controller in the evaporator. See unit wiring diagram for additional details.

The mitigation system does not require any periodic maintenance. To test the operation of the mitigation system, disconnect one of the refrigerant leak sensors and verify that the safety isolation solenoid valves close, evaporator fans are energized, and defrost heaters are de-energized.

If a replacement refrigerant leak detector or controller is required, only manufacturer-approved components may be used. Replacement sensors must be installed in the same location as the sensors that were removed.

REFRIGERANT RECOVERY

Local and national regulations must be followed for recovery, transportation, and disposal of A2L refrigerant. It is essential that best practices are followed to minimize the risk of fire

- All recovery cylinders, recovery machines, vacuum pumps, and other refrigeration tools must be designed for use with A2L refrigerants and must be in good working order, with instruction manuals available for reference.
- Cylinders must be labeled with the refrigerant they contain.
- Ensure that the pressure and rating of the recovery cylinders are appropriate for the refrigerant being recovered. Any pressure relief or overfill prevention devices must be in good working order.
- A calibrated refrigerant scale must be used to measure the weight of the recovered refrigerant to prevent overfilling. Do not fill cylinders more than 80% full.
- Recovery cylinders must be of appropriate volume to contain the refrigerant to be recovered. Multiple recovery cylinders should be available if required.
- Empty cylinders must be evacuated prior to filling.
- Do not mix refrigerants. Recovery machines must be purged before changing refrigerants.
- All service hose connections must be equipped with a means to limit the release of refrigerant such as anti-blowback fittings or service valves.

After completing all safety checks, safely remove refrigerant according to local and national regulations:

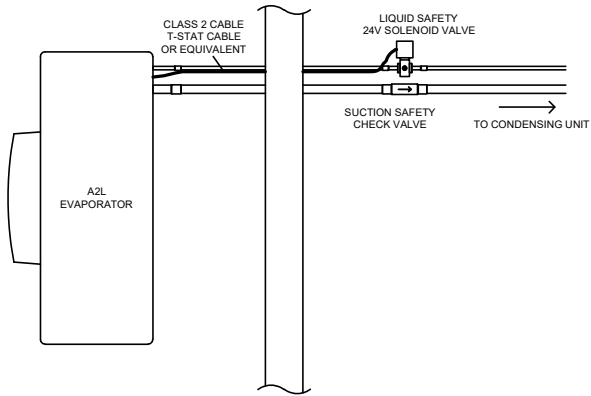
- Recover refrigerant into an appropriate recovery cylinder.
- After achieving the required recovery level, pressurize the system with inert gas to 450 PSIG.
- Safely release the inert gas, ensuring that there are no sources of ignition near the venting outlet.
- If a compressor or compressor oil is going to be removed, the system must be evacuated to ensure that no refrigerant remains dissolved in the oil.
- The system may now be opened by cutting or brazing.

DECOMMISSIONING

When the system reaches the end of its life, it must be decommissioned. The equipment must be electrically isolated, and all refrigerant must be recovered by competent personnel in accordance with all local and national regulations. See section “REFRIGERANT RECOVERY” for additional details.

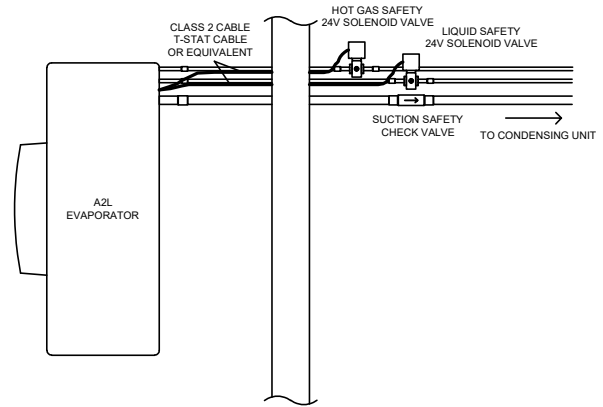
The equipment shall be labeled as “DECOMMISSIONED” and marked with the date and signature of the person recovering the refrigerant. The equipment is now ready for disposal.

STANDARD EVAPORATOR



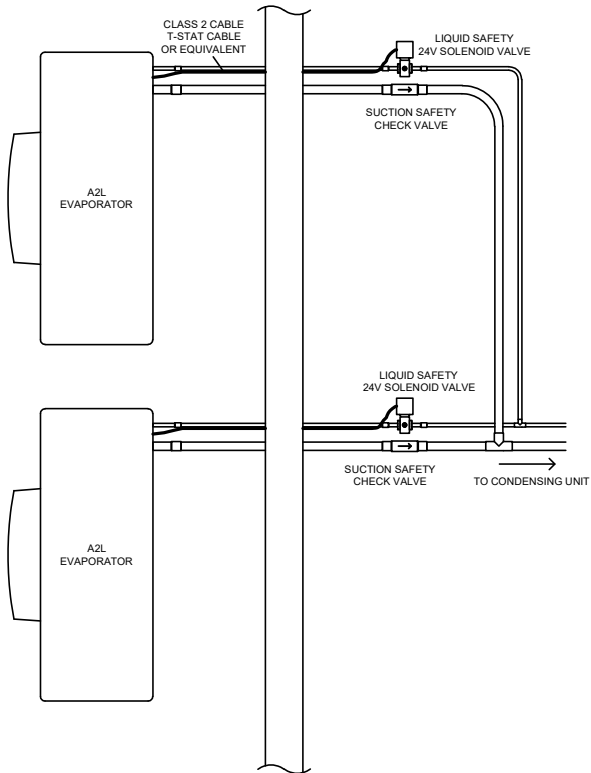
TOP VIEW

HOT GAS BYPASS / 3-PIPE HOT GAS DEFROST



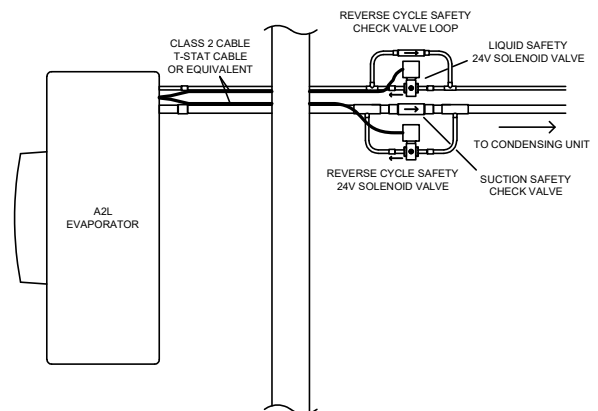
TOP VIEW

TWO OR MORE EVAPORATORS



TOP VIEW

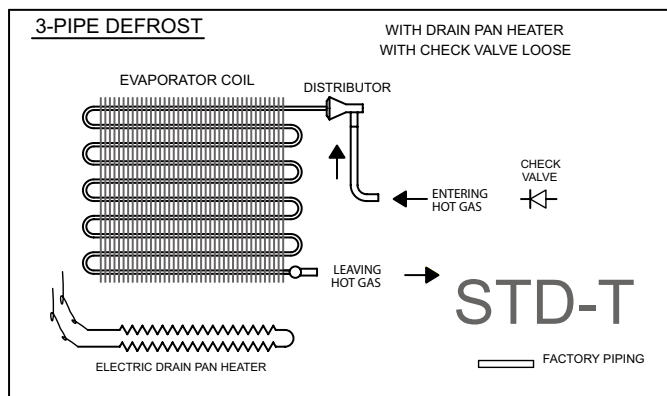
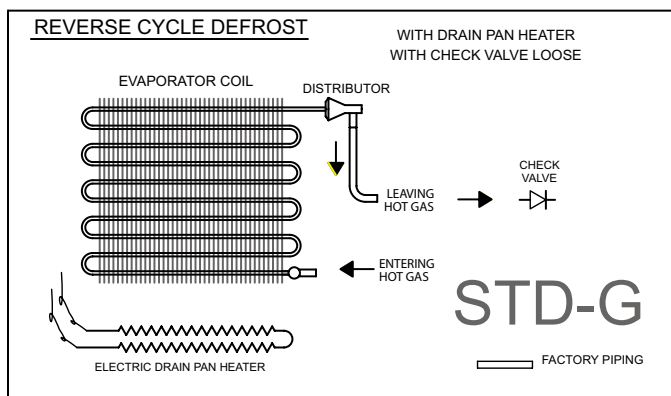
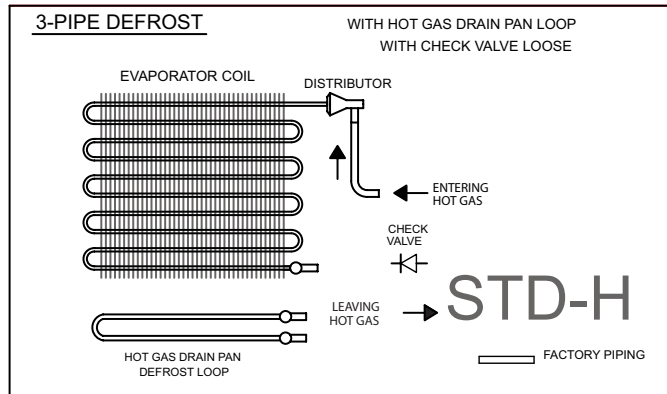
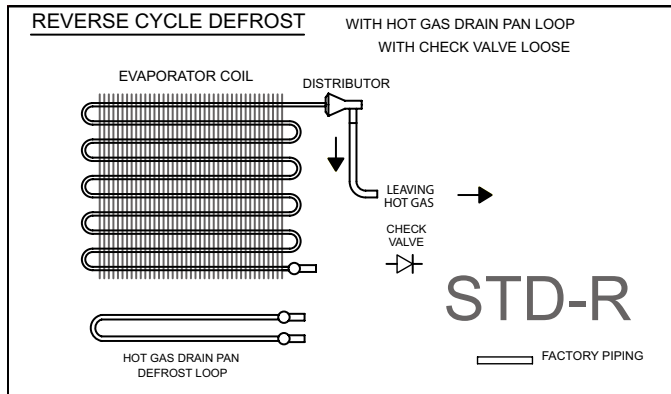
REVERSE CYCLE



TOP VIEW

Follow valve manufacturer mounting instructions.

* Safety Shut-off valve installation in accordance to valve manufacturer requirements.

STANDARD CONFIGURATIONS- REFER TO NOMENCLATURE FOR DETAILS**Standard Offering: All Models**

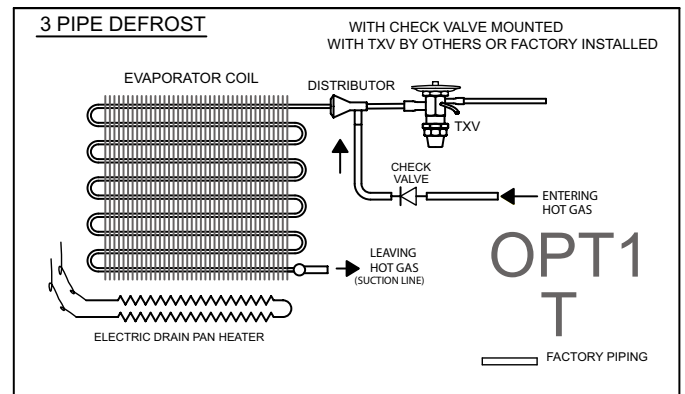
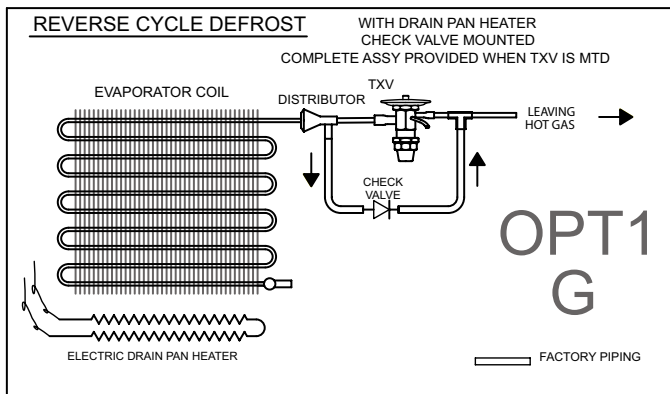
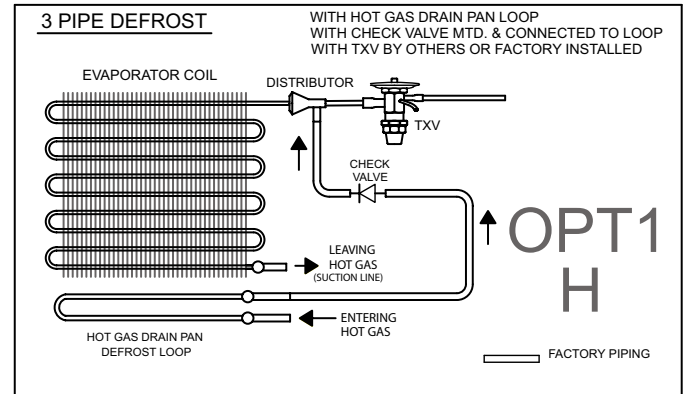
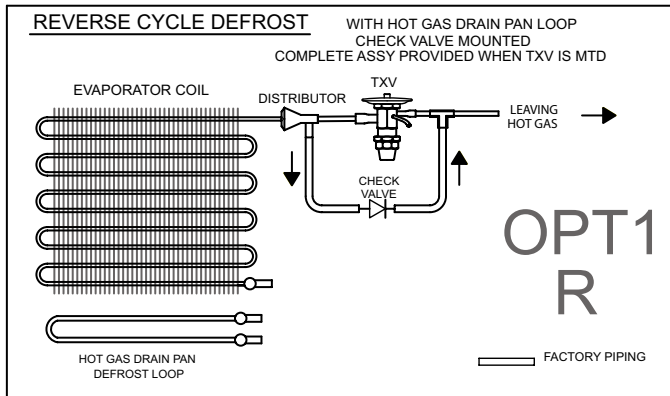
Check Valve is included with the coil shipped loose as it is a must have component for system operation.

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

When a TXV is ordered with a HG defrost coil: Its only option will be **Factory Installed**.

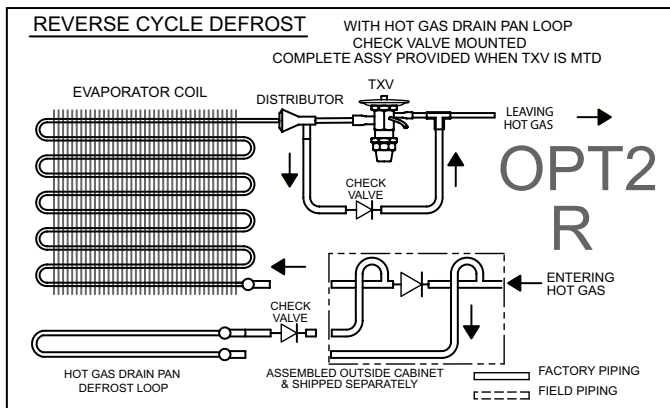
The bypass check valve will be **factory installed** as well as part of the same option.

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

OPTIONAL CONFIGURATIONS- REFER TO NOMENCLATURE FOR DETAILS**Drain pan Loop Kit - See below (OPT 2)**

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

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

**Solenoid Valve**

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

A2L/A1

ME - MEDIUM TEMPERATURE 6 FPI

MODEL	# OF FANS	VOLTAGE	1 EVAPORATOR		2 EVAPORATOR	
			DEFROST KIT	FUSE PACKAGE	DEFROST KIT	FUSE PACKAGE
THP 048ME-T3E	1	208-230/3/60	TBA	TBA	TBA	TBA
THP 056ME-T3E	1	208-230/3/60				
THP 062ME-T3E	1	208-230/3/60				
THP 095ME-T3E	2	208-230/3/60				
THP 113ME-T3E	2	208-230/3/60				
THP 125ME-T3E	2	208-230/3/60				
THP 143ME-T3E	3	208-230/3/60				
THP 168ME-T3E	3	208-230/3/60				
THP 186ME-T3E	3	208-230/3/60				
THP 227ME-T3E	4	208-230/3/60				
THP 250ME-T3E	4	208-230/3/60				
THP 048ME-T4E	1	460/3/60				
THP 056ME-T4E	1	460/3/60				
THP 062ME-T4E	1	460/3/60				
THP 095ME-T4E	2	460/3/60				
THP 113ME-T4E	2	460/3/60				
THP 125ME-T4E	2	460/3/60				
THP 143ME-T4E	3	460/3/60				
THP 168ME-T4E	3	460/3/60				
THP 186ME-T4E	3	460/3/60				
THP 227ME-T4E	4	460/3/60				
THP 250ME-T4E	4	460/3/60				

A2L/A1**LE - LOW TEMPERATURE 6 FPI**

MODEL	# OF FANS	VOLTAGE	1 EVAPORATOR		2 EVAPORATOR	
			DEFROST KIT	FUSE PACKAGE	DEFROST KIT	FUSE PACKAGE
THP 041LE-T3E	1	208-230/3/60	TBA	TBA	TBA	TBA
THP 049LE-T3E	1	208-230/3/60				
THP 055LE-T3E	1	208-230/3/60				
THP 083LE-T3E	2	208-230/3/60				
THP 099LE-T3E	2	208-230/3/60				
THP 110LE-T3E	2	208-230/3/60				
THP 125LE-T3E	3	208-230/3/60				
THP 149LE-T3E	3	208-230/3/60				
THP 165LE-T3E	3	208-230/3/60				
THP 188LE-T3E	4	208-230/3/60				
THP 211LE-T3E	4	208-230/3/60				
THP 041LE-T4E	1	460/3/60				
THP 049LE-T4E	1	460/3/60				
THP 055LE-T4E	1	460/3/60				
THP 083LE-T4E	2	460/3/60				
THP 099LE-T4E	2	460/3/60				
THP 110LE-T4E	2	460/3/60				
THP 125LE-T4E	3	460/3/60				
THP 149LE-T4E	3	460/3/60				
THP 165LE-T4E	3	460/3/60				
THP 188LE-T4E	4	460/3/60				
THP 211LE-T4E	4	460/3/60				

A2L/A1**VE - VERY LOW TEMPERATURE 4 FPI**

MODEL	# OF FANS	VOLTAGE	1 EVAPORATOR		2 EVAPORATOR	
			DEFROST KIT	FUSE PACKAGE	DEFROST KIT	FUSE PACKAGE
THP 035VE-T3E	1	208-230/3/60	TBA	TBA	TBA	TBA
THP 043VE-T3E	1	208-230/3/60				
THP 049VE-T3E	1	208-230/3/60				
THP 071VE-T3E	2	208-230/3/60				
THP 087VE-T3E	2	208-230/3/60				
THP 098VE-T3E	2	208-230/3/60				
THP 107VE-T3E	3	208-230/3/60				
THP 130VE-T3E	3	208-230/3/60				
THP 147VE-T3E	3	208-230/3/60				
THP 168VE-T3E	4	208-230/3/60				
THP 190VE-T3E	4	208-230/3/60				
THP 035VE-T4E	1	460/3/60				
THP 043VE-T4E	1	460/3/60				
THP 049VE-T4E	1	460/3/60				
THP 071VE-T4E	2	460/3/60				
THP 087VE-T4E	2	460/3/60				
THP 098VE-T4E	2	460/3/60				
THP 107VE-T4E	3	460/3/60				
THP 130VE-T4E	3	460/3/60				
THP 147VE-T4E	3	460/3/60				
THP 168VE-T4E	4	460/3/60				
THP 190VE-T4E	4	460/3/60				

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

Defrost Kit & Fuse Package
 Online Selection Tool:
t-rp.com/dfk

PROJECT INFORMATION

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



PRODUCT SUPPORT

web: t-rp.com/thp
email: evaps@t-rp.com
call: 1-844-893-322 x520



TROUBLESHOOTING

email: troubleshooting@t-rp.com
call: 1-844-893-322 x529



SERVICE PARTS

web: t-rp.com/parts
email: parts@t-rp.com
call: 1-844-893-322 x504



WARRANTY

web: t-rp.com/warranty
email: warranty@t-rp.com
call: 1-844-893-322 x507



ORDERS

email: orders@t-rp.com
call: 1-844-893-322 x501



SHIPPING

email: shipping@t-rp.com
call: 1-844-893-322 x503

How can we help you?

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Service Parts List Label To Be Attached *HERE*



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