



PRODUCT DATA & INSTALLATION

Part # 1112937



GENERATION E

BHP HIGH PROFILE EVAPORATOR

Air, Electric & Hot Gas Defrost

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

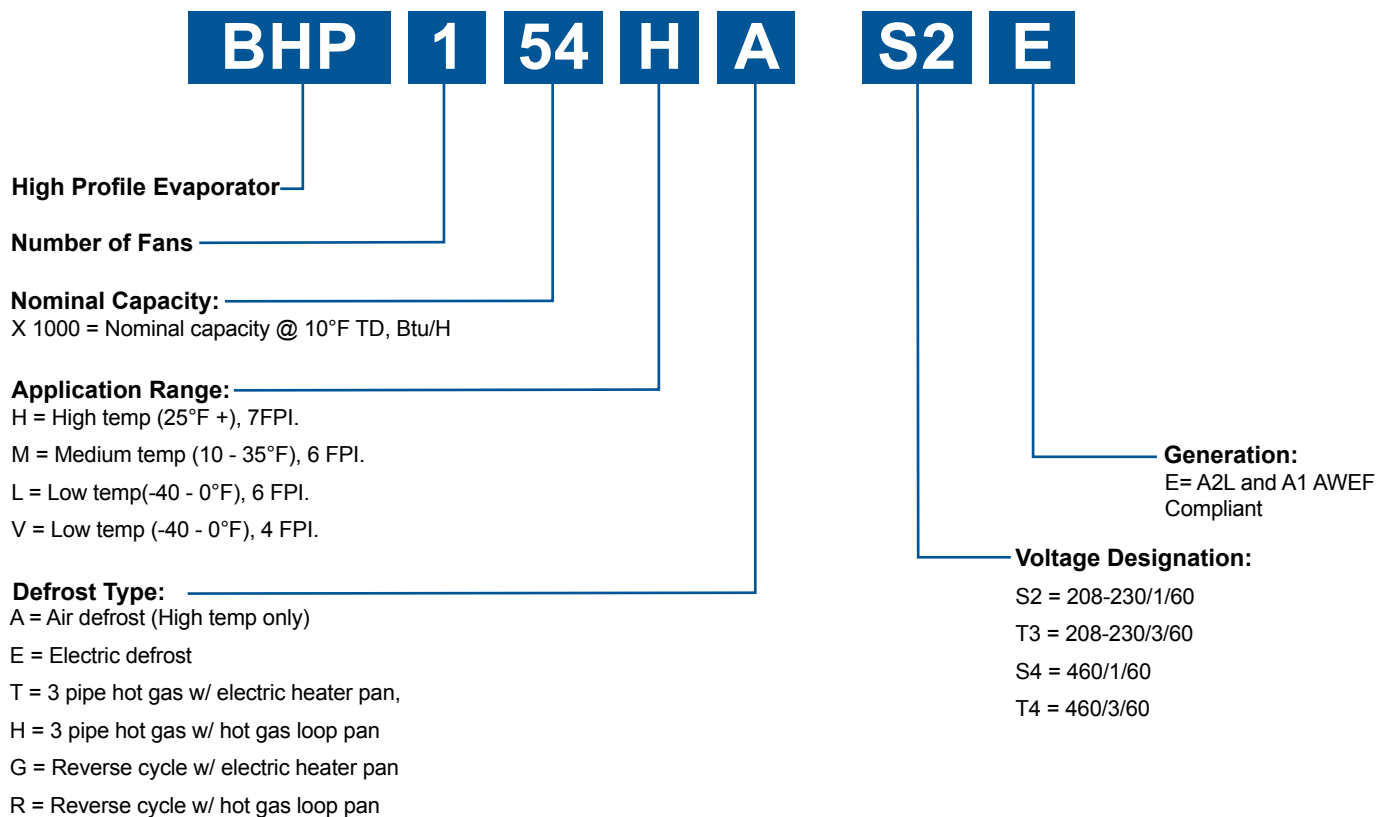


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NOMENCLATURE



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

- SmartVap+ 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
BHP052H	1	51500	51000	50500	6100	2880	7.1	3.2
BHP060H		60000	59400	58800	5900	2780	9.1	4.1
BHP065H		65000	64400	63700	5600	2640	11.1	5.0
BHP103H	2	103300	102300	101200	12200	5760	13.1	5.9
BHP120H		120000	118800	117600	11800	5570	17.5	7.9
BHP131H		131100	129800	128500	11100	5240	21.4	9.7
BHP155H	3	155200	153600	152100	18300	8640	19.3	8.8
BHP180H		180000	178200	176400	17600	8310	25.1	11.4
BHP196H		195600	193600	191700	16700	7880	31.0	14.1
BHP242H	4	241600	239200	236800	23500	11090	33.5	15.2
BHP263H		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
BHP048M	1	47600	47100	46600	6200	2930	7.1	3.2
BHP056M		56300	55700	55200	6000	2830	9.1	4.1
BHP062M		62000	61400	60800	5700	2690	11.1	5.0
BHP095M	2	95300	94300	93400	12400	5850	13.1	5.9
BHP113M		113300	112200	111000	12000	5660	17.5	7.9
BHP125M		124500	123300	122000	11300	5330	21.4	9.7
BHP143M	3	143200	141800	140300	18600	8780	19.3	8.8
BHP168M		168300	166600	164900	18000	8500	25.1	11.4
BHP186M		186200	184300	182500	17000	8020	31.0	14.1
BHP227M	4	227200	224900	222700	23900	11280	33.5	15.2
BHP250M		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

A2L

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

A2L

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
BHP 035V	1	37400	36400	35300	32100	30000	6400	3020	7	3.2
BHP 043V		45700	44400	43100	39200	36600	6200	2930	9.3	4.2
BHP 049V		51600	50200	48700	44300	41400	5900	2780	11.3	5.1
BHP 071V	2	75500	73300	71200	64800	60500	12800	6040	13	5.9
BHP 087V		92000	89400	86800	79000	73800	12400	5850	16.8	7.6
BHP 098V		103700	100700	97800	89000	83100	11800	5570	21.1	9.6
BHP 107V	3	113700	110500	107300	97600	91200	19200	9060	19.1	8.7
BHP 130V		138300	134400	130500	118800	110900	18600	8780	24.7	11.2
BHP 147V		155900	151500	147100	133900	125000	17600	8310	30.3	13.8
BHP 168V	4	178400	173300	168300	153200	143100	24800	11700	32.8	14.9
BHP 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
BHP052H	1	51500	51000	50500	6100	2880	9.2	4.2
BHP060H		60000	59400	58800	5900	2780	12.3	5.6
BHP065H		65000	64400	63700	5600	2640	15.4	7.0
BHP103H	2	103300	102300	101200	12200	5760	17.8	8.1
BHP120H		120000	118800	117600	11800	5570	23.8	10.8
BHP131H		131100	129800	128500	11100	5240	29.0	13.2
BHP155H	3	155200	153600	152100	18300	8640	26.4	12.0
BHP180H		180000	178200	176400	17600	8310	35.2	16.0
BHP196H		195600	193600	191700	16700	7880	44.0	20.0
BHP242H	4	241600	239200	236800	23500	11090	46.7	21.2
BHP263H		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
BHP048M	1	47600	47100	46600	6200	2930	9.2	4.2
BHP056M		56300	55700	55200	6000	2830	12.3	5.6
BHP062M		62000	61400	60800	5700	2690	15.0	6.8
BHP095M	2	95300	94300	93400	12400	5850	17.8	8.1
BHP113M		113300	112200	111000	12000	5660	23.8	10.8
BHP125M		124500	123300	122000	11300	5330	29.0	13.2
BHP143M	3	143200	141800	140300	18600	8780	26.4	12.0
BHP168M		168300	166600	164900	18000	8500	35.2	16.0
BHP186M		186200	184300	182500	17000	8020	44.0	20.0
BHP227M	4	227200	224900	222700	23900	11280	46.7	21.2
BHP250M		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
BHP 041L	1	43200	42000	40800	37100	34700	6200	2930	9.5	4.3
BHP 049L		51700	50300	48800	44400	41500	6000	2830	12.8	5.8
BHP 055L		58300	56700	55000	50100	46800	5700	2690	16.4	7.5
BHP 083L	2	87700	85200	82700	75300	70300	12400	5850	19	8.6
BHP 099L		104700	101800	98800	89900	84000	12000	5660	25.4	11.5
BHP 110L		116600	113300	110000	100100	93500	11300	5330	31.7	14.4
BHP 125L	3	132100	128300	124600	113400	105900	18600	8780	28.2	12.8
BHP 149L		157600	153200	148700	135300	126400	18000	8500	37.6	17.1
BHP 165L		174900	170000	165000	150200	140300	17000	8020	47	21.4
BHP 188L	4	199300	193600	188000	171100	159800	23900	11280	49.9	22.7
BHP 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
BHP035V	1	37400	36400	35300	32100	30000	6400	3020	9.5	4.3
BHP043V		45700	44400	43100	39200	36600	6200	2930	12.8	5.8
BHP049V		51600	50200	48700	44300	41400	5900	2780	16.4	7.5
BHP071V	2	75500	73300	71200	64800	60500	12800	6040	19	8.6
BHP087V		92000	89400	86800	79000	73800	12400	5850	25.4	11.5
BHP098V		103700	100700	97800	89000	83100	11800	5570	31.7	14.4
BHP 107V	3	113700	110500	107300	97600	91200	19200	9060	28.2	12.8
BHP 130V		138300	134400	130500	118800	110900	18600	8780	37.6	17.1
BHP 147V		155900	151500	147100	133900	125000	17600	8310	47	21.4
BHP 168V	4	178400	173300	168300	153200	143100	24800	11700	49.9	22.7
BHP 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
BHP052H	1	41900	41500	41100	6100	2880	7.4	3.4
BHP060H		48700	48200	47700	5900	2780	9.5	4.3
BHP065H		52800	52300	51700	5600	2640	11.5	5.2
BHP103H	2	84000	83200	82300	12200	5760	13.6	6.2
BHP120H		97900	96900	95900	11800	5570	18.2	8.3
BHP131H		106600	105500	104500	11100	5240	22.2	10.1
BHP155H	3	126200	124900	123700	18300	8640	20.1	9.1
BHP180H		146400	144900	143500	17600	8310	26.1	11.9
BHP196H		159000	157400	155800	16700	7880	32.3	14.7
BHP242H	4	196400	194400	192500	23500	11090	34.8	15.8
BHP263H		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
BHP048M	1	38700	38300	37900	6200	2930	7.4	3.4
BHP056M		45800	45300	44900	6000	2830	9.5	4.3
BHP062M		50400	49900	49400	5700	2690	11.5	5.2
BHP095M	2	77500	76700	76000	12400	5850	13.6	6.2
BHP113M		92100	91200	90300	12000	5660	18.2	8.3
BHP125M		101200	100200	99200	11300	5330	22.2	10.1
BHP143M	3	116400	115200	114100	18600	8780	20.1	9.1
BHP168M		136800	135400	134100	18000	8500	26.1	11.9
BHP186M		151400	149900	148400	17000	8020	32.3	14.7
BHP227M	4	184700	182900	181000	23900	11280	34.8	15.8
BHP250M		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
BHP 041L	1	35200	34200	33200	30200	28200	6200	2930	8.7	4
BHP 049L		42100	40900	39700	36100	33700	6000	2830	11.7	5.3
BHP 055L		47400	46000	44700	40700	38000	5700	2690	15.1	6.9
BHP 083L	2	71200	69200	67200	61200	57100	12400	5850	17.5	8
BHP 099L		85100	82700	80300	73100	68300	12000	5660	23.3	10.6
BHP 110L		94400	91800	89100	81100	75700	11300	5330	29.2	13.3
BHP 125L	3	107400	104300	101300	92200	86100	18600	8780	25.9	11.8
BHP 149L		128200	124500	120900	110000	102800	18000	8500	34.6	15.7
BHP 165L		142100	138100	134100	122000	114000	17000	8020	43.2	19.6
BHP 188L	4	162000	157400	152800	139000	129900	23900	11280	45.9	20.9
BHP 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
BHP035V	1	30400	29600	28700	26100	24400	6400	3020	8.7	4
BHP043V		37100	36100	35000	31900	29800	6200	2930	11.7	5.3
BHP049V		42000	40800	39600	36000	33700	5900	2780	15.1	6.9
BHP071V	2	61400	59600	57900	52700	49200	12800	6040	17.5	8
BHP087V		74800	72700	70600	64200	60000	12400	5850	23.3	10.6
BHP098V		84300	81900	79500	72300	67600	11800	5570	29.2	13.3
BHP107V	3	92400	89800	87200	79400	74100	19200	9060	25.9	11.8
BHP130V		112500	109300	106100	96600	90200	18600	8780	34.6	15.7
BHP147V		126800	123200	119600	108800	101700	17600	8310	43.2	19.6
BHP168V	4	145000	140900	136800	124500	116300	24800	11700	45.9	20.9
BHP190V		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)
BHP052HA-S2E	7	1	1	5	560	15	20
BHP060HA-S2E		1	1	5	560	15	20
BHP065HA-S2E		1	1	5	560	15	20
BHP103HA-S2E		2	1	10	1120	15	20
BHP120HA-S2E		2	1	10	1120	15	20
BHP131HA-S2E		2	1	10	1120	15	20
BHP155HA-S2E		3	1	15	1680	20	25
BHP180HA-S2E		3	1	15	1680	20	25
BHP196HA-S2E		3	1	15	1680	20	25
BHP242HA-S2E		4	1	20	2240	25	30
BHP263HA-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)
BHP052HA-S4E	7	1	1	2.5	520	15	20
BHP060HA-S4E		1	1	2.5	520	15	20
BHP065HA-S4E		1	1	2.5	520	15	20
BHP103HA-S4E		2	1	5	1040	15	20
BHP120HA-S4E		2	1	5	1040	15	20
BHP131HA-S4E		2	1	5	1040	15	20
BHP155HA-S4E		3	1	7.5	1560	15	20
BHP180HA-S4E		3	1	7.5	1560	15	20
BHP196HA-S4E		3	1	7.5	1560	15	20
BHP242HA-S4E		4	1	10	2080	15	20
BHP263HA-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)
BHP048ME-T3E	6	1	1	5	560	15	20	8820	23.7	29.6	30	-	-	-	-	-	-
BHP056ME-T3E		1	1	5	560	15	20	8820	23.7	29.6	30	-	-	-	-	-	-
BHP062ME-T3E		1	1	5	560	15	20	12600	33.2	41.5	45	-	-	-	-	-	-
BHP095ME-T3E		2	1	10	1120	15	20	17150	46.2	57.7	60	-	-	-	-	-	-
BHP113ME-T3E		2	1	10	1120	15	20	17150	46.2	57.7	60	-	-	-	-	-	-
BHP125ME-T3E		2	1	10	1120	15	20	24500	32.4	40.5	45	32.4	40.5	45	-	-	-
BHP143ME-T3E		3	1	15	1680	20	25	24500	33.2	41.5	45	33.2	41.5	45	-	-	-
BHP168ME-T3E		3	1	15	1680	20	25	24500	33.2	41.5	45	33.2	41.5	45	-	-	-
BHP186ME-T3E		3	1	15	1680	20	25	35000	46.3	57.9	60	46.3	57.9	60	-	-	-
BHP227ME-T3E		4	1	20	2240	25	30	31850	42.9	53.6	60	42.9	53.6	60	-	-	-
BHP250ME-T3E		4	1	20	2240	25	30	45500	43.1	53.9	60	43.1	53.9	60	34.3	42.9	45
BHP041LE-T3E	6	1	1	5	560	15	20	8820	23.7	29.6	30	-	-	-	-	-	-
BHP049LE-T3E		1	1	5	560	15	20	8820	23.7	29.6	30	-	-	-	-	-	-
BHP055LE-T3E		1	1	5	560	15	20	12600	33.2	41.5	45	-	-	-	-	-	-
BHP083LE-T3E		2	1	10	1120	15	20	17150	46.2	57.7	60	-	-	-	-	-	-
BHP099LE-T3E		2	1	10	1120	15	20	17150	46.2	57.7	60	-	-	-	-	-	-
BHP110LE-T3E		2	1	10	1120	15	20	24500	32.4	40.5	45	32.4	40.5	45	-	-	-
BHP125LE-T3E		3	1	15	1680	20	25	24500	33.2	41.5	45	33.2	41.5	45	-	-	-
BHP149LE-T3E		3	1	15	1680	20	25	24500	33.2	41.5	45	33.2	41.5	45	-	-	-
BHP165LE-T3E		3	1	15	1680	20	25	35000	46.3	57.9	60	46.3	57.9	60	-	-	-
BHP188LE-T3E		4	1	20	2240	25	30	31850	42.9	53.6	60	42.9	53.6	60	-	-	-
BHP211LE-T3E		4	1	20	2240	25	30	45500	43.1	53.9	60	43.1	53.9	60	34.3	42.9	45
BHP035VE-T3E	4	1	1	5	560	15	20	8820	23.7	29.6	30	-	-	-	-	-	-
BHP043VE-T3E		1	1	5	560	15	20	8820	23.7	29.6	30	-	-	-	-	-	-
BHP049VE-T3E		1	1	5	560	15	20	12600	33.2	41.5	45	-	-	-	-	-	-
BHP071VE-T3E		2	1	10	1120	15	20	17150	46.2	57.7	60	-	-	-	-	-	-
BHP087VE-T3E		2	1	10	1120	15	20	17150	46.2	57.7	60	-	-	-	-	-	-
BHP098VE-T3E		2	1	10	1120	15	20	24500	32.4	40.5	45	32.4	40.5	45	-	-	-
BHP107VE-T3E		3	1	15	1680	20	25	24500	33.2	41.5	45	33.2	41.5	45	-	-	-
BHP130VE-T3E		3	1	15	1680	20	25	24500	33.2	41.5	45	33.2	41.5	45	-	-	-
BHP147VE-T3E		3	1	15	1680	20	25	35000	46.3	57.9	60	46.3	57.9	60	-	-	-
BHP168VE-T3E		4	1	20	2240	25	30	31850	43.1	53.9	60	43.1	53.9	60	-	-	-
BHP190VE-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)
BHP048ME-T4E	6	1	1	2.5	520	15	20	8820	11.9	14.9	15	-	-	-
BHP056ME-T4E		1	1	2.5	520	15	20	8820	11.9	14.9	15	-	-	-
BHP062ME-T4E		1	1	2.5	520	15	20	12600	16.6	20.8	25	-	-	-
BHP095ME-T4E		2	1	5	1040	15	20	17150	23.1	28.9	30	-	-	-
BHP113ME-T4E		2	1	5	1040	15	20	17150	23.1	28.9	30	-	-	-
BHP125ME-T4E		2	1	5	1040	15	20	24500	32.4	40.5	45	-	-	-
BHP143ME-T4E		3	1	7.5	1560	15	20	24500	33.2	41.5	45	-	-	-
BHP168ME-T4E		3	1	7.5	1560	15	20	24500	33.2	41.5	45	-	-	-
BHP186ME-T4E		3	1	7.5	1560	15	20	35000	46.3	57.9	60	-	-	-
BHP227ME-T4E		4	1	10	2080	15	20	31850	43.1	53.9	60	-	-	-
BHP250ME-T4E		4	1	10	2080	15	20	45500	30.1	37.7	40	30.1	37.7	40
BHP 041LE-T4E	6	1	1	2.5	520	15	20	8820	11.9	14.9	15	-	-	-
BHP 049LE-T4E		1	1	2.5	520	15	20	8820	11.9	14.9	15	-	-	-
BHP 055LE-T4E		1	1	2.5	520	15	20	12600	16.6	20.8	25	-	-	-
BHP 083LE-T4E		2	1	5	1040	15	20	17150	23.1	28.9	30	-	-	-
BHP 099LE-T4E		2	1	5	1040	15	20	17150	23.1	28.9	30	-	-	-
BHP 110LE-T4E		2	1	5	1040	15	20	24500	32.4	40.5	45	-	-	-
BHP 125LE-T4E		3	1	7.5	1560	15	20	24500	33.2	41.5	45	-	-	-
BHP 149LE-T4E		3	1	7.5	1560	15	20	24500	33.2	41.5	45	-	-	-
BHP 165LE-T4E		3	1	7.5	1560	15	20	35000	46.3	57.9	60	-	-	-
BHP 188LE-T4E		4	1	10	2080	15	20	31850	43.1	53.9	60	-	-	-
BHP 211LE-T4E		4	1	10	2080	15	20	45500	30.1	37.7	40	30.1	37.7	40
BHP035VE-T4E	4	1	1	2.5	520	15	20	8820	11.9	14.9	15	-	-	-
BHP043VE-T4E		1	1	2.5	520	15	20	8820	11.9	14.9	15	-	-	-
BHP049VE-T4E		1	1	2.5	520	15	20	12600	16.6	20.8	25	-	-	-
BHP071VE-T4E		2	1	5	1040	15	20	17150	23.1	28.9	30	-	-	-
BHP087VE-T4E		2	1	5	1040	15	20	17150	23.1	28.9	30	-	-	-
BHP098VE-T4E		2	1	5	1040	15	20	24500	32.4	40.5	45	-	-	-
BHP107VE-T4E		3	1	7.5	1560	15	20	24500	33.2	41.5	45	-	-	-
BHP130VE-T4E		3	1	7.5	1560	15	20	24500	33.2	41.5	45	-	-	-
BHP147VE-T4E		3	1	7.5	1560	15	20	35000	46.3	57.9	60	-	-	-
BHP168VE-T4E		4	1	10	2080	15	20	31850	43.1	53.9	60	-	-	-
BHP190VE-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)
BHP048M#-T3E	6	1	1	5	560	15	20	3780	9.5	11.9	15
BHP056M#-T3E		1	1	5	560	15	20	3780	9.5	11.9	15
BHP062M#-T3E		1	1	5	560	15	20	3780	9.5	11.9	15
BHP095M#-T3E		2	1	10	1120	15	20	7350	18.5	23.1	25
BHP113M#-T3E		2	1	10	1120	15	20	7350	18.5	23.1	25
BHP125M#-T3E		2	1	10	1120	15	20	7350	18.5	23.1	25
BHP143M#-T3E		3	1	15	1680	20	25	10500	26.4	33	35
BHP168M#-T3E		3	1	15	1680	20	25	10500	26.4	33	35
BHP186M#-T3E		3	1	15	1680	20	25	10500	26.4	33	35
BHP227M#-T3E		4	1	20	2240	25	30	13650	34.3	42.8	45
BHP250M#-T3E		4	1	20	2240	25	30	13650	34.3	42.8	45
BHP041L#-T3E	6	1	1	5	560	15	20	3780	9.5	11.9	15
BHP049L#-T3E		1	1	5	560	15	20	3780	9.5	11.9	15
BHP055L#-T3E		1	1	5	560	15	20	3780	9.5	11.9	15
BHP083L#-T3E		2	1	10	1120	15	20	7350	18.5	23.1	25
BHP099L#-T3E		2	1	10	1120	15	20	7350	18.5	23.1	25
BHP110L#-T3E		2	1	10	1120	15	20	7350	18.5	23.1	25
BHP125L#-T3E		3	1	15	1680	20	25	10500	26.4	33	35
BHP149L#-T3E		3	1	15	1680	20	25	10500	26.4	33	35
BHP165L#-T3E		3	1	15	1680	20	25	10500	26.4	33	35
BHP188L#-T3E		4	1	20	2240	25	30	13650	34.3	42.8	45
BHP211L#-T3E		4	1	20	2240	25	30	13650	34.3	42.8	45
BHP035V#-T3E	4	1	1	5	560	15	20	3780	9.5	11.9	15
BHP043V#-T3E		1	1	5	560	15	20	3780	9.5	11.9	15
BHP049V#-T3E		1	1	5	560	15	20	3780	9.5	11.9	15
BHP071V#-T3E		2	1	10	1120	15	20	7350	18.5	23.1	25
BHP087V#-T3E		2	1	10	1120	15	20	7350	18.5	23.1	25
BHP098V#-T3E		2	1	10	1120	15	20	7350	18.5	23.1	25
BHP107V#-T3E		3	1	15	1680	20	25	10500	26.4	33	35
BHP130V#-T3E		3	1	15	1680	20	25	10500	26.4	33	35
BHP147V#-T3E		3	1	15	1680	20	25	10500	26.4	33	35
BHP168V#-T3E		4	1	20	2240	25	30	13650	34.3	42.8	45
BHP190V#-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)
BHP 048M#-T4E	6	1	1	2.5	520	15	20	3780	4.7	5.9	15
BHP 056M#-T4E		1	1	2.5	520	15	20	3780	4.7	5.9	15
BHP 062M#-T4E		1	1	2.5	520	15	20	3780	4.7	5.9	15
BHP 095M#-T4E		2	1	5	1040	15	20	7350	9.2	11.5	15
BHP 113M#-T4E		2	1	5	1040	15	20	7350	9.2	11.5	15
BHP 125M#-T4E		2	1	5	1040	15	20	7350	9.2	11.5	15
BHP 143M#-T4E		3	1	7.5	1560	15	20	10500	13.2	16.5	20
BHP 168M#-T4E		3	1	7.5	1560	15	20	10500	13.2	16.5	20
BHP 186M#-T4E		3	1	7.5	1560	15	20	10500	13.2	16.5	20
BHP 227M#-T4E		4	1	10	2080	15	20	13650	17.2	21.5	25
BHP 250M#-T4E		4	1	10	2080	15	20	13650	17.2	21.5	25
BHP 041L#-T4E	6	1	1	2.5	520	15	20	3780	4.7	5.9	15
BHP 049L#-T4E		1	1	2.5	520	15	20	3780	4.7	5.9	15
BHP 055L#-T4E		1	1	2.5	520	15	20	3780	4.7	5.9	15
BHP 083L#-T4E		2	1	5	1040	15	20	7350	9.2	11.5	15
BHP 099L#-T4E		2	1	5	1040	15	20	7350	9.2	11.5	15
BHP 110L#-T4E		2	1	5	1040	15	20	7350	9.2	11.5	15
BHP 125L#-T4E		3	1	7.5	1560	15	20	10500	13.2	16.5	20
BHP 149L#-T4E		3	1	7.5	1560	15	20	10500	13.2	16.5	20
BHP 165L#-T4E		3	1	7.5	1560	15	20	10500	13.2	16.5	20
BHP 188L#-T4E		4	1	10	2080	15	20	13650	17.2	21.5	25
BHP 211L#-T4E		4	1	10	2080	15	20	13650	17.2	21.5	25
BHP 035V#-T4E	4	1	1	2.5	520	15	20	3780	4.7	5.9	15
BHP 043V#-T4E		1	1	2.5	520	15	20	3780	4.7	5.9	15
BHP 049V#-T4E		1	1	2.5	520	15	20	3780	4.7	5.9	15
BHP 071V#-T4E		2	1	5	1040	15	20	7350	9.2	11.5	15
BHP 087V#-T4E		2	1	5	1040	15	20	7350	9.2	11.5	15
BHP 098V#-T4E		2	1	5	1040	15	20	7350	9.2	11.5	15
BHP 107V#-T4E		3	1	7.5	1560	15	20	10500	13.2	16.5	20
BHP 130V#-T4E		3	1	7.5	1560	15	20	10500	13.2	16.5	20
BHP 147V#-T4E		3	1	7.5	1560	15	20	10500	13.2	16.5	20
BHP 168V#-T4E		4	1	10	2080	15	20	13650	17.2	21.5	25
BHP 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)
BHP 048M*-S2E	6	1	1	5	560	15	20
BHP 056M*-S2E		1	1	5	560	15	20
BHP 062M*-S2E		1	1	5	560	15	20
BHP 095M*-S2E		2	1	10	1120	15	20
BHP 113M*-S2E		2	1	10	1120	15	20
BHP 125M*-S2E		2	1	10	1120	15	20
BHP 143M*-S2E		3	1	15	1680	20	25
BHP 168M*-S2E		3	1	15	1680	20	25
BHP 186M*-S2E		3	1	15	1680	20	25
BHP 227M*-S2E		4	1	20	2240	25	30
BHP 250M*-S2E		4	1	20	2240	25	30
BHP 041L*-S2E	6	1	1	5	560	15	20
BHP 049L*-S2E		1	1	5	560	15	20
BHP 055L*-S2E		1	1	5	560	15	20
BHP 083L*-S2E		2	1	10	1120	15	20
BHP 099L*-S2E		2	1	10	1120	15	20
BHP 110L*-S2E		2	1	10	1120	15	20
BHP 125L*-S2E		3	1	15	1680	20	25
BHP 149L*-S2E		3	1	15	1680	20	25
BHP 165L*-S2E		3	1	15	1680	20	25
BHP 188L*-S2E		4	1	20	2240	25	30
BHP 211L*-S2E		4	1	20	2240	25	30
BHP 035V*-S2E	4	1	1	5	560	15	20
BHP 043V*-S2E		1	1	5	560	15	20
BHP 049V*-S2E		1	1	5	560	15	20
BHP 071V*-S2E		2	1	10	1120	15	20
BHP 087V*-S2E		2	1	10	1120	15	20
BHP 098V*-S2E		2	1	10	1120	15	20
BHP 107V*-S2E		3	1	15	1680	20	25
BHP 130V*-S2E		3	1	15	1680	20	25
BHP 147V*-S2E		3	1	15	1680	20	25
BHP 168V*-S2E		4	1	20	2240	25	30
BHP 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)
BHP 048M*-S4E	6	1	1	2.5	520	15	20
BHP 056M*-S4E		1	1	2.5	520	15	20
BHP 062M*-S4E		1	1	2.5	520	15	20
BHP 095M*-S4E		2	1	5	1040	15	20
BHP 113M*-S4E		2	1	5	1040	15	20
BHP 125M*-S4E		2	1	5	1040	15	20
BHP 143M*-S4E		3	1	7.5	1560	15	20
BHP 168M*-S4E		3	1	7.5	1560	15	20
BHP 186M*-S4E		3	1	7.5	1560	15	20
BHP 227M*-S4E		4	1	10	2080	15	20
BHP 250M*-S4E		4	1	10	2080	15	20
BHP 041L*-S4E	6	1	1	2.5	520	15	20
BHP 049L*-S4E		1	1	2.5	520	15	20
BHP 055L*-S4E		1	1	2.5	520	15	20
BHP 083L*-S4E		2	1	5	1040	15	20
BHP 099L*-S4E		2	1	5	1040	15	20
BHP 110L*-S4E		2	1	5	1040	15	20
BHP 125L*-S4E		3	1	7.5	1560	15	20
BHP 149L*-S4E		3	1	7.5	1560	15	20
BHP 165L*-S4E		3	1	7.5	1560	15	20
BHP 188L*-S4E		4	1	10	2080	15	20
BHP 211L*-S4E		4	1	10	2080	15	20
BHP 035V*-S4E	4	1	1	2.5	520	15	20
BHP 043V*-S4E		1	1	2.5	520	15	20
BHP 049V*-S4E		1	1	2.5	520	15	20
BHP 071V*-S4E		2	1	5	1040	15	20
BHP 087V*-S4E		2	1	5	1040	15	20
BHP 098V*-S4E		2	1	5	1040	15	20
BHP 107V*-S4E		3	1	7.5	1560	15	20
BHP 130V*-S4E		3	1	7.5	1560	15	20
BHP 147V*-S4E		3	1	7.5	1560	15	20
BHP 168V*-S4E		4	1	10	2080	15	20
BHP 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/ SMARTVAP+**

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

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

MODEL	FPI	SMARTVAP+ CIRCUIT	
		460/1/60	
		MCA (A)	MOP (A)
BHP052HA-S4E	7	15	20
BHP060HA-S4E		15	20
BHP065HA-S4E		15	20
BHP103HA-S4E		15	20
BHP120HA-S4E		15	20
BHP131HA-S4E		15	20
BHP155HA-S4E		15	20
BHP180HA-S4E		15	20
BHP196HA-S4E		15	20
BHP242HA-S4E		15	20
BHP263HA-S4E		15	20

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

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

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

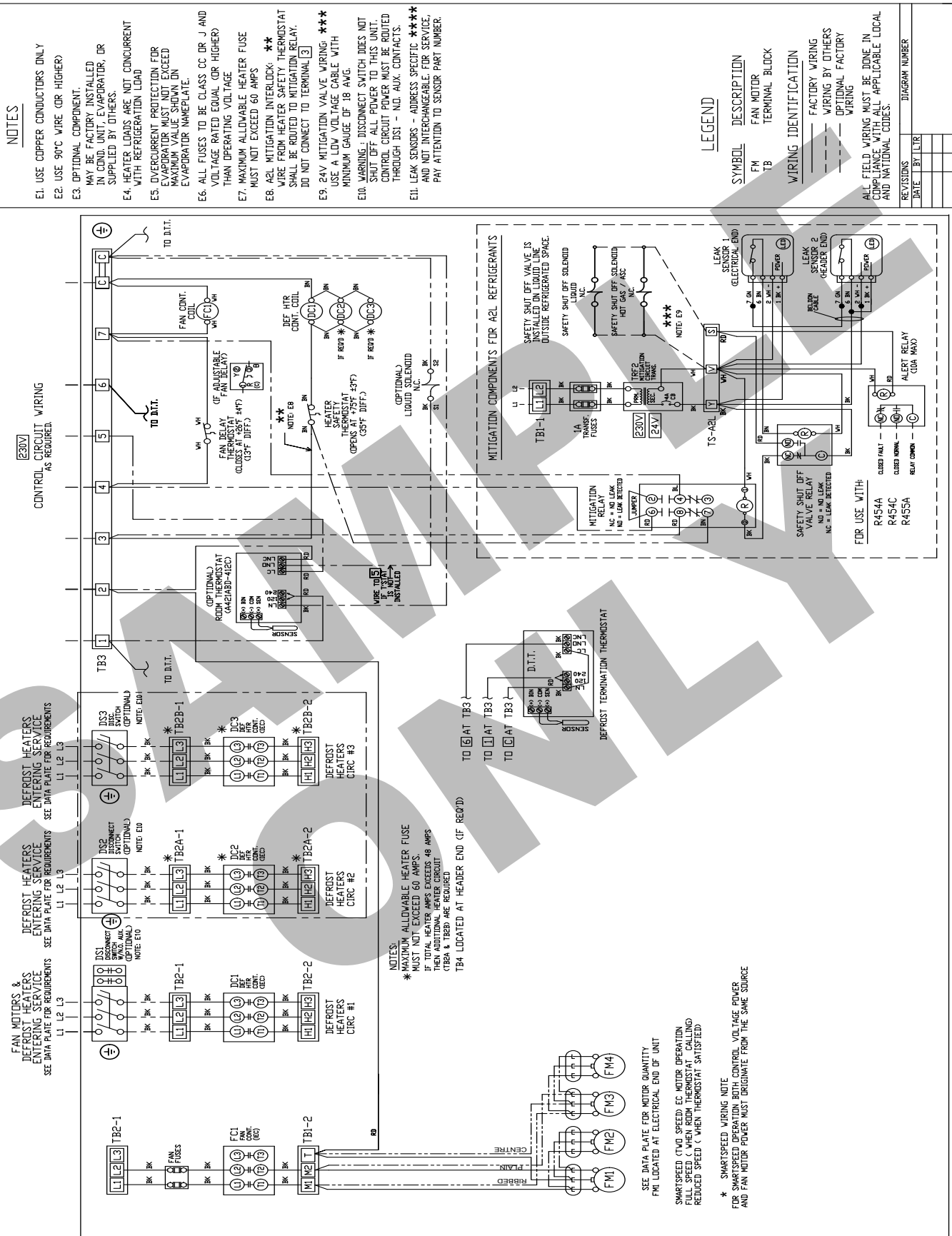
MODEL	FPI	SMARTVAP+ CIRCUIT	
		460/3/60	
		MCA (A)	MOP (A)
BHP 048ME-T4E	6	14.9	15
BHP 056ME-T4E		14.9	15
BHP 062ME-T4E		20.8	25
BHP 095ME-T4E		28.9	30
BHP 113ME-T4E		28.9	30
BHP 125ME-T4E		40.5	45
BHP 143ME-T4E		41.5	45
BHP 168ME-T4E		41.5	45
BHP 186ME-T4E		57.9	60
BHP 227ME-T4E		53.9	60
BHP 250ME-T4E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



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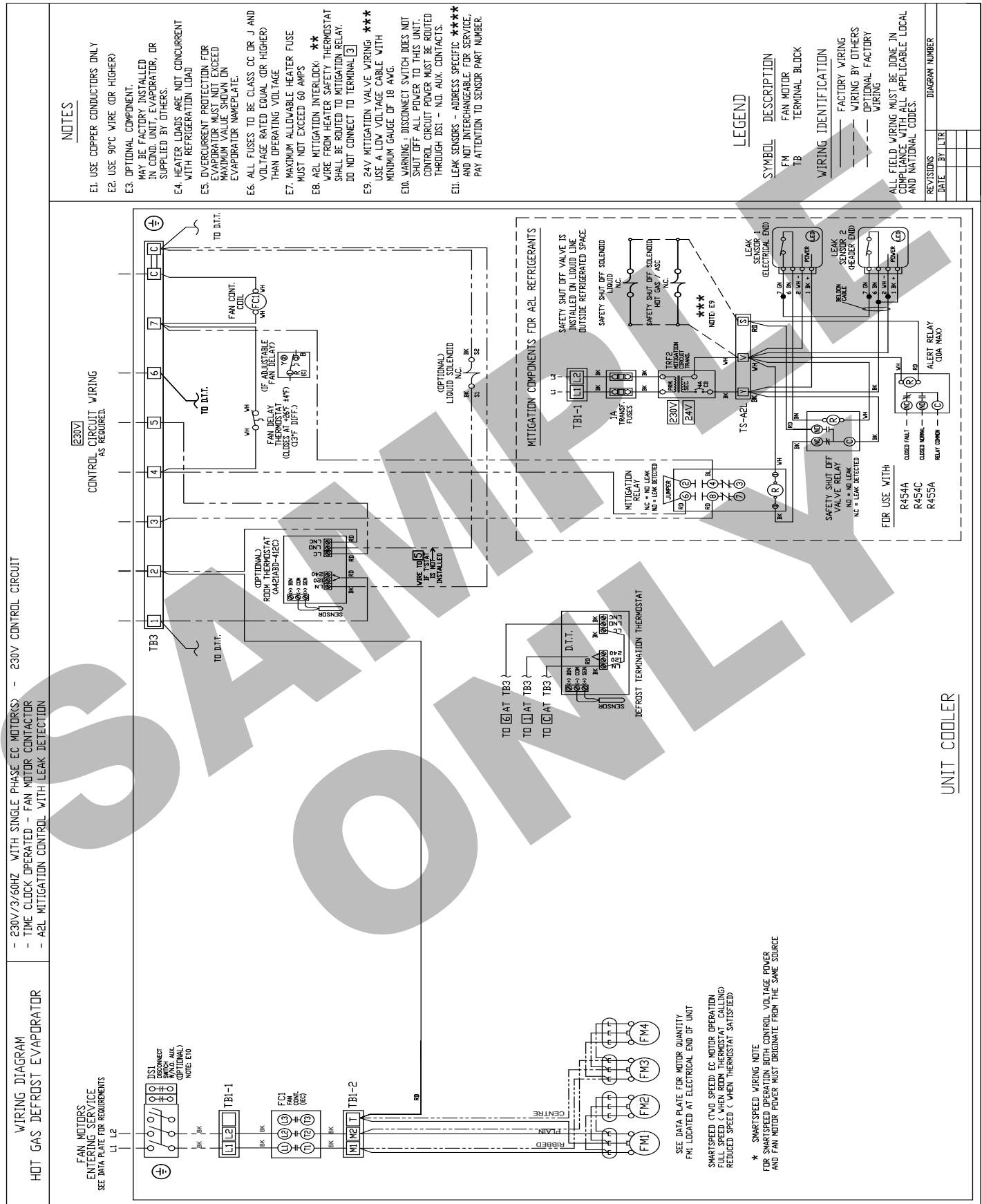
WIRING DIAGRAM

– 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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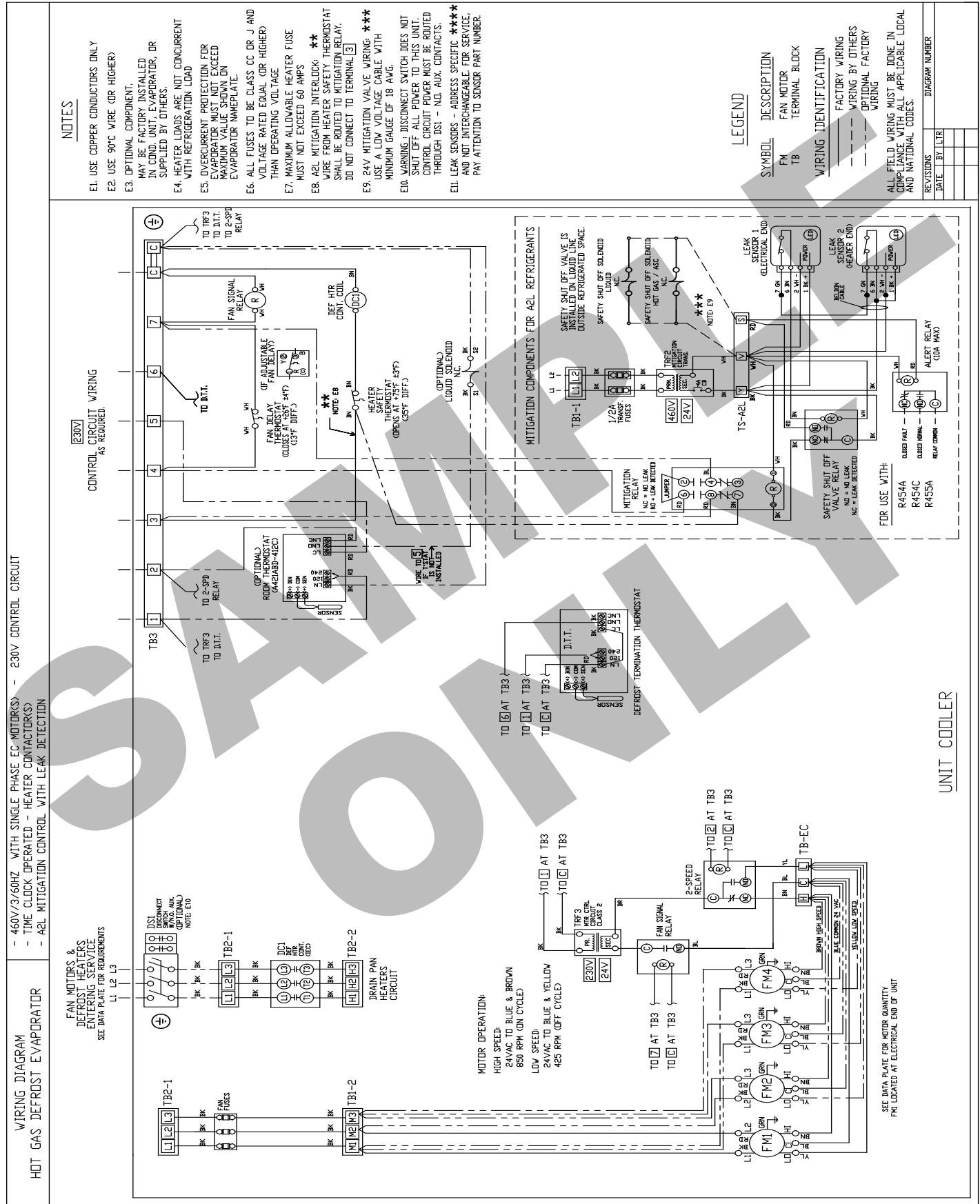
208-230/3/60 HOTGAS DEFRSOT MODELS



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460/3/60 HOTGAS DEFROST MODELS WITH CONTACTORS



SMARTVAP+ INTUITIVE EVAPORATOR CONTROL TECHNOLOGY

WHAT IS SMARTVAP+?

SMARTVAP+ 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.

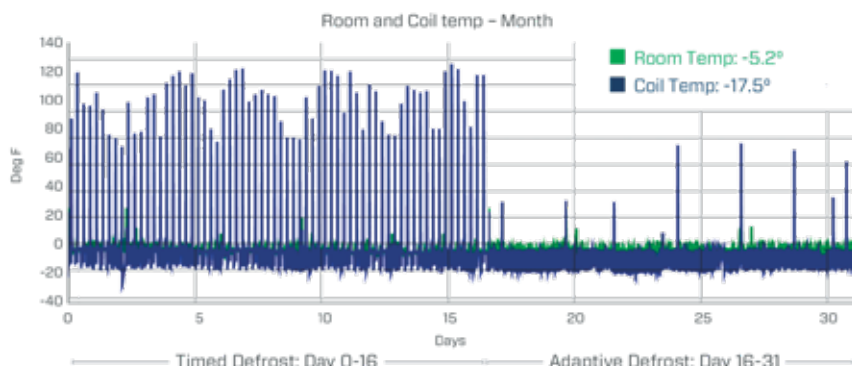
- Quick, simple installation
- Improved evaporator performance by minimizing excessive frost on the evaporator
- Eliminates ice build up on surfaces and product
- Energy savings through evaporator fan management
- Energy savings with reduction in the number of defrost cycles
- Defrost heater management
- 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

SMARTVAP+ 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!



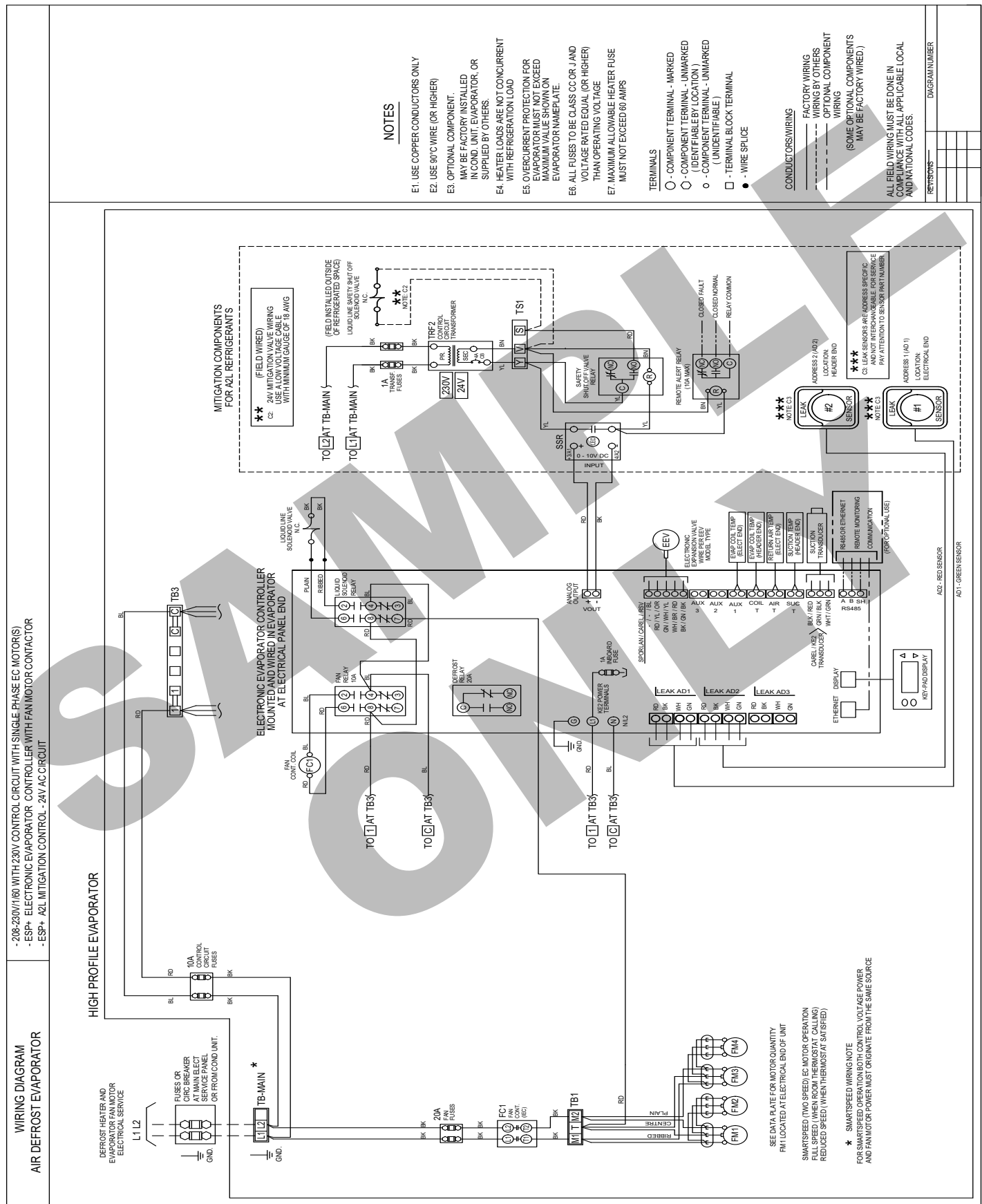
86% FEWER DEFROST CYCLES*

- Enhanced system performance
- Energy savings
- Improved product integrity

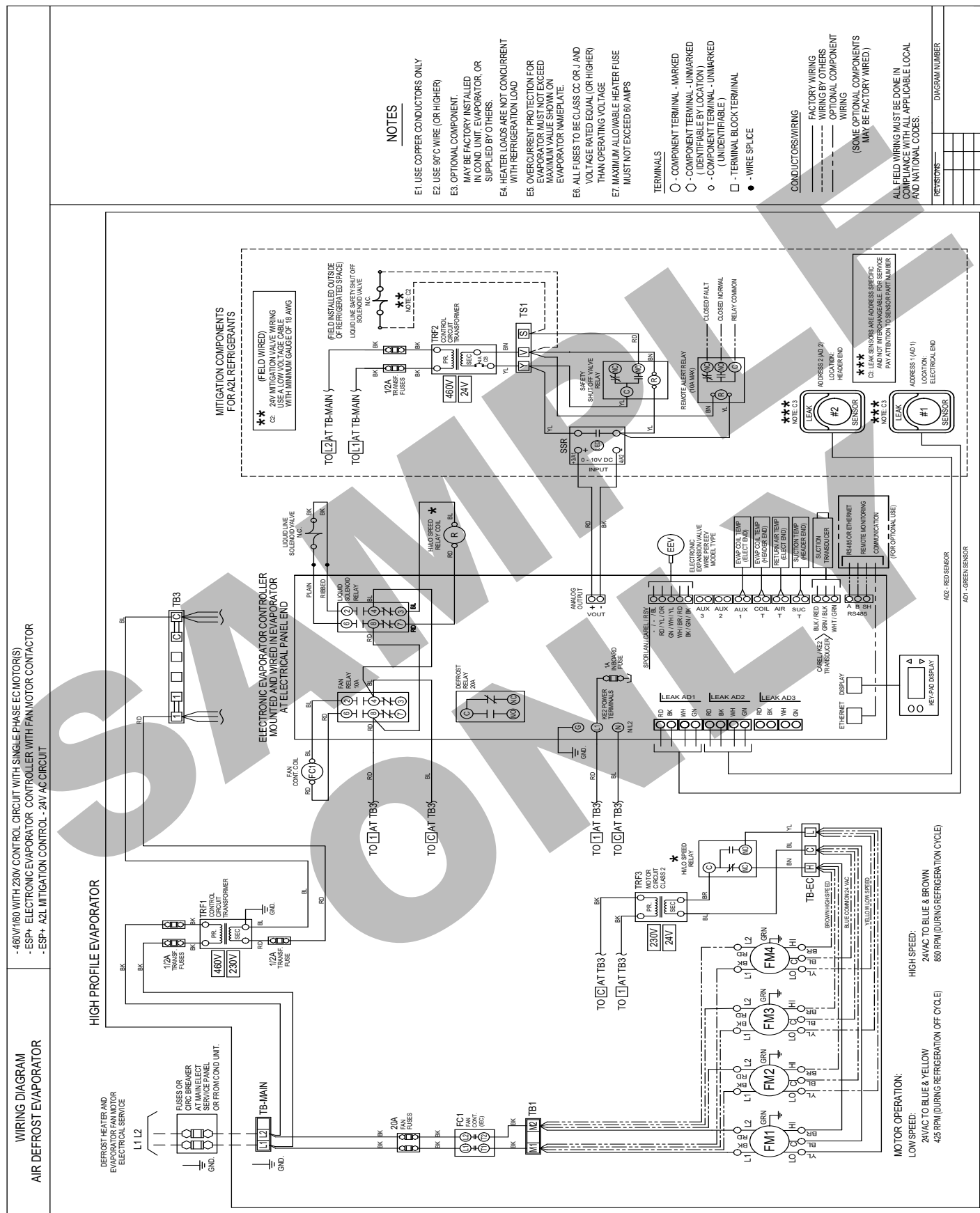
* Data may vary depending on application

VISIT B-RP.COM/TECHNOLOGY/SMARTVAP FOR DETAILS

208-230/1/60: AIR DEFROST MODELS WITH SMARTVAP+

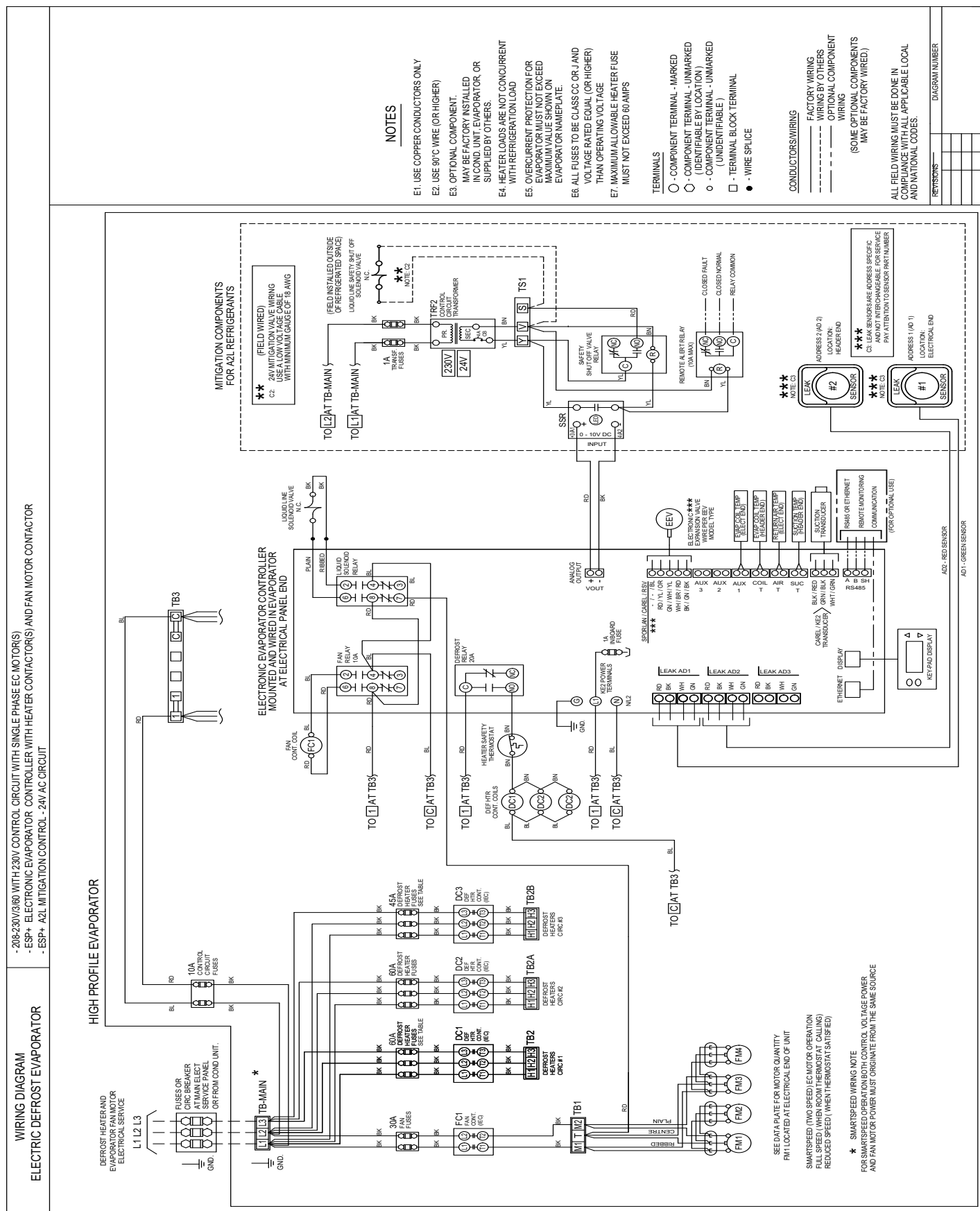


460/1/60: AIR DEFROST MODELS WITH SMARTVAP+





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





A2L/A1
HIGH / MEDIUM TEMPERATURE MODELS

MODEL		R404A / R507 - R448A / R449A - R407C / R407A	R454A - R454C - R455A
BHP052H	BHP048M	9	9
BHP060H	BHP056M	9	9
BHP065H	BHP062M	9	9
BHP103H	BHP095M	9	9
BHP120H	BHP113M	9	9
BHP131H	BHP125M	9	9
BHP155H	BHP143M	9	9
BHP180H	BHP168M	9	9
BHP196H	BHP186M	9	9
BHP242H	BHP227M	9	9
BHP263H	BHP250M	9	9

A2L/A1
LOW TEMPERATURE MODELS

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

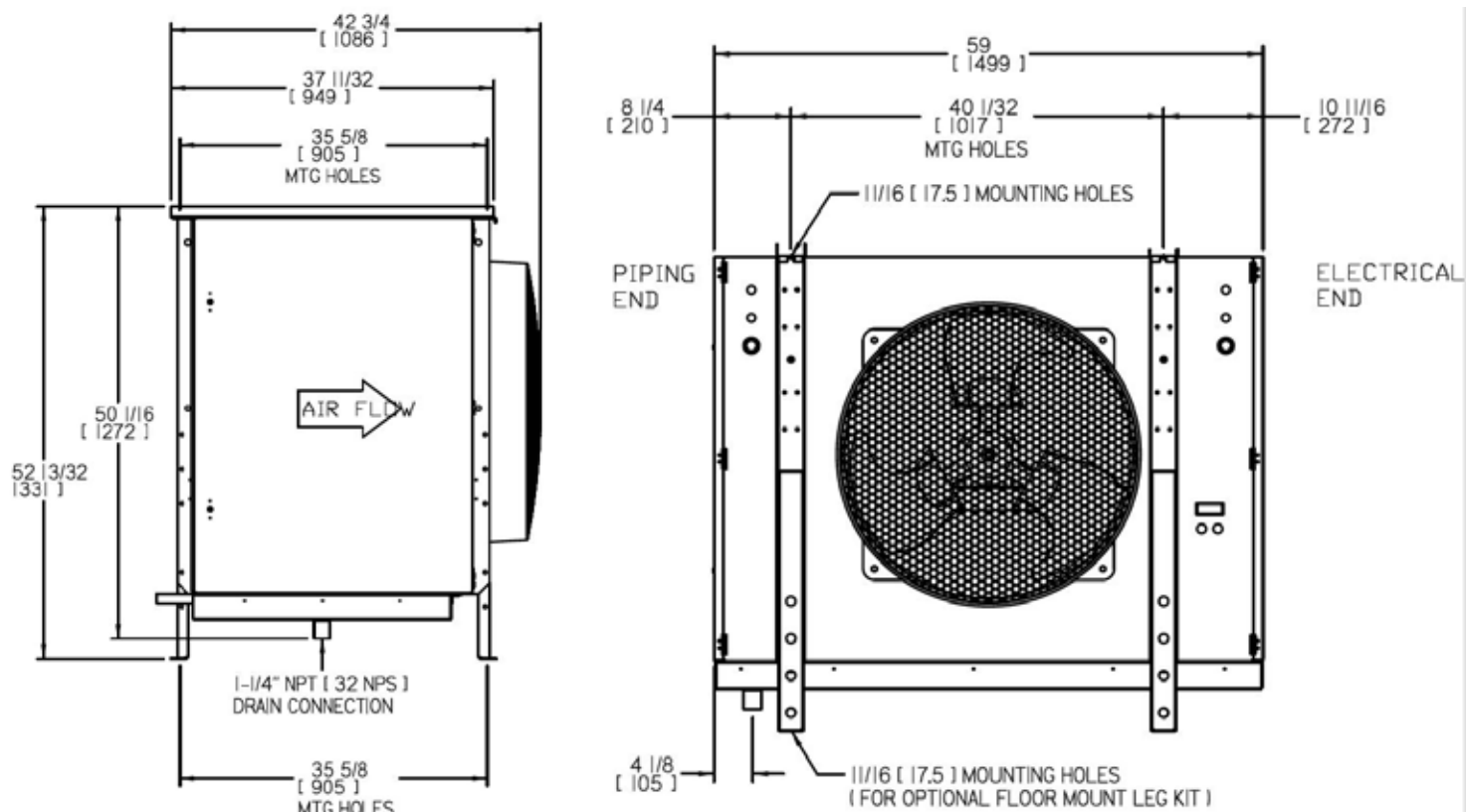
If a numerical value is listed in the tables, the following statement applies to that corresponding model:

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

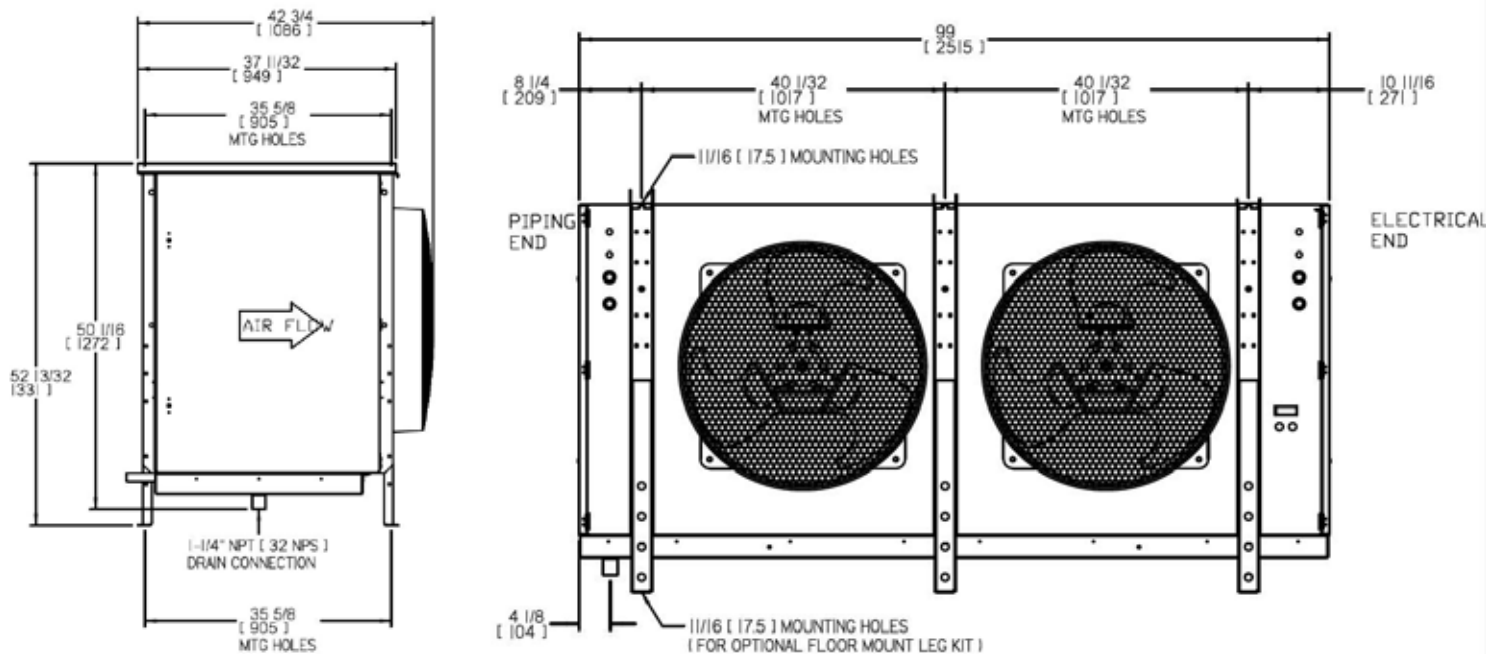
Sound Data is Typical of “Free Field” conditions. Factors such as reflecting walls, background noises and installation may have significant influence on data

Data above is for reference only.

1 FAN MODEL



2 FAN MODEL

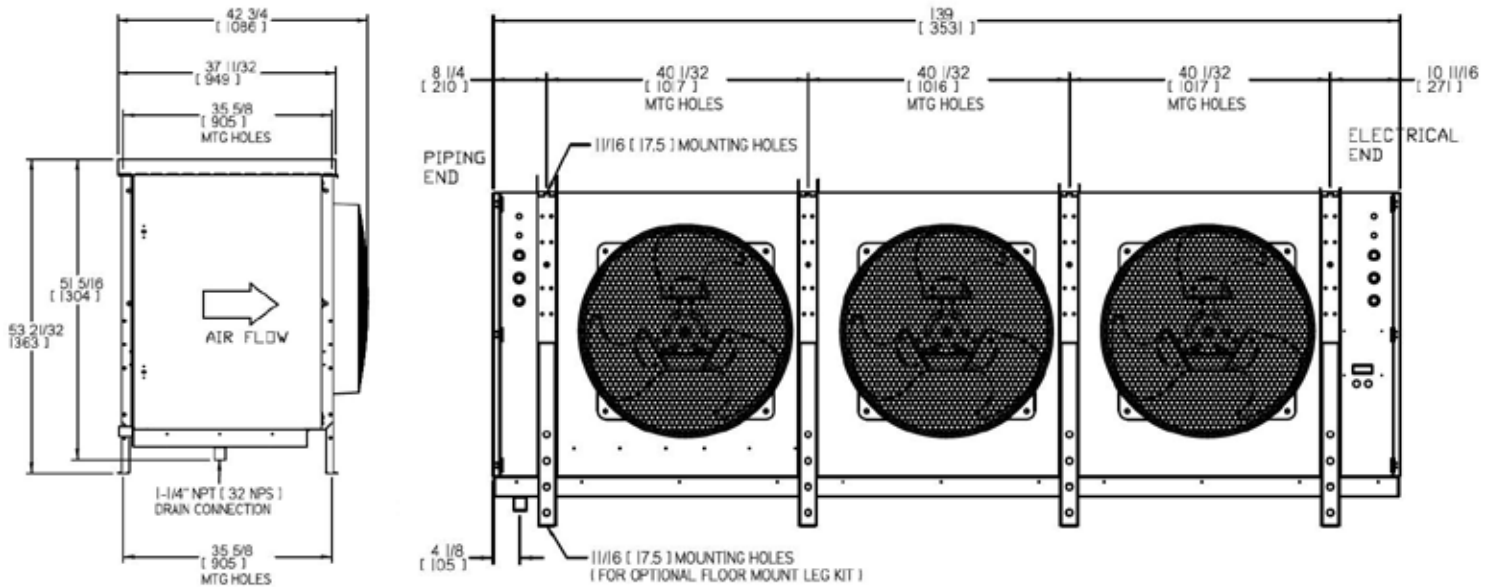


ALL MODELS AIR THROW:

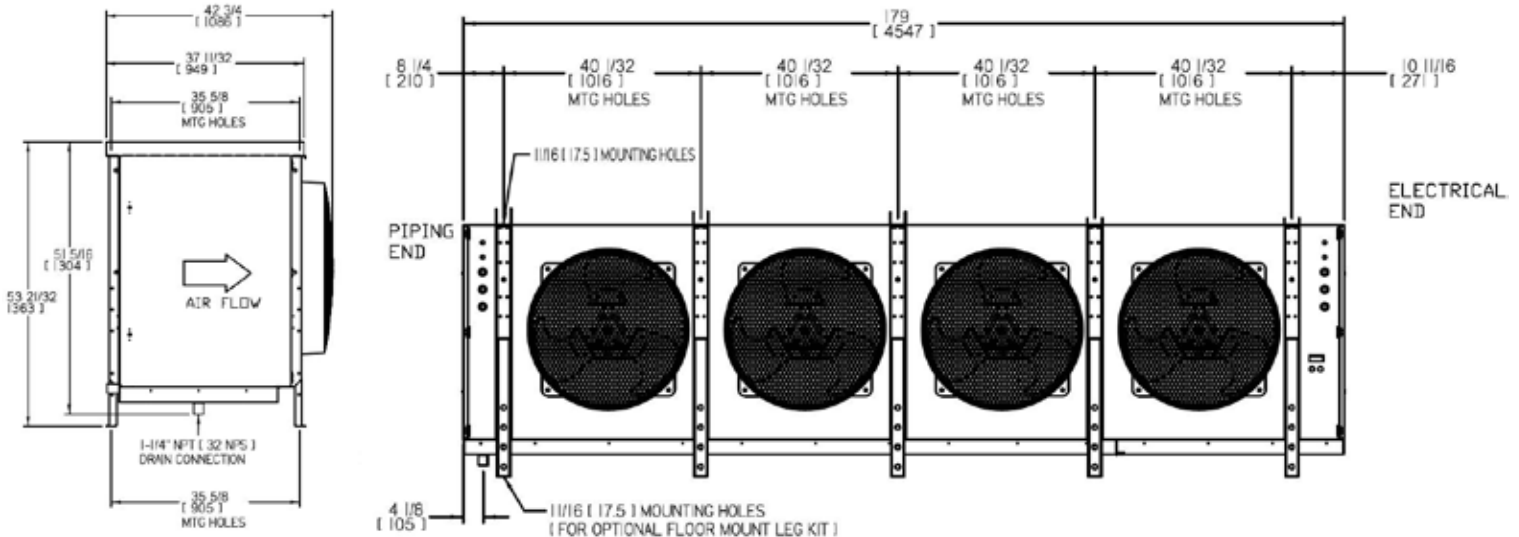
Standard high efficiency fan guard approximately 150 ft (45.7 Metres) in open space.

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
BHP052HA	1	1 3/8	1 1/8
BHP060HA	1	1 3/8	1 1/8
BHP065HA	1	1 3/8	1 1/8
BHP103HA	2	1 5/8	1 3/8
BHP120HA	2	2 1/8	1 3/8
BHP131HA	2	2 1/8	1 3/8
BHP155HA	3	2 1/8	1 5/8
BHP180HA	3	2 1/8	1 5/8
BHP196HA	3	2 1/8	1 5/8
BHP242HA	4	2 5/8	1 5/8
BHP263HA	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
BHP048M#	1	1 5/8	1 1/8
BHP056M#	1	1 5/8	1 1/8
BHP062M#	1	1 5/8	1 1/8
BHP095M#	2	1 7/8	1 3/8
BHP113M#	2	2 5/8	1 3/8
BHP125M#	2	2 5/8	1 3/8
BHP143M#	3	2 5/8	1 5/8
BHP168M#	3	2 5/8	1 5/8
BHP186M#	3	2 5/8	1 5/8
BHP227M#	4	3 1/8	1 5/8
BHP250M#	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
BHP 041LE	1	1 7/8	1 1/8
BHP 049LE	1	2 5/8	1 1/8
BHP 055LE	1	2 5/8	1 3/8
BHP 083LE	2	2 5/8	1 3/8
BHP 099LE	2	2 5/8	1 3/8
BHP 110LE	2	3 1/8	1 5/8
BHP 125LE	3	3 1/8	1 5/8
BHP 149LE	3	3 1/8	1 5/8
BHP 165LE	3	3 1/8	1 5/8
BHP 188LE	4	3 7/8	1 5/8
BHP 211LE	4	3 7/8	1 5/8
BHP 035VE	1	1 7/8	1 1/8
BHP 043VE	1	2 5/8	1 1/8
BHP 049VE	1	2 5/8	1 3/8
BHP 071VE	2	2 5/8	1 3/8
BHP 087VE	2	2 5/8	1 3/8
BHP 098VE	2	3 1/8	1 5/8
BHP 107VE	3	3 1/8	1 5/8
BHP 130VE	3	3 1/8	1 5/8
BHP 147VE	3	3 1/8	1 5/8
BHP 168VE	4	3 7/8	1 5/8
BHP 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	
BHP048M^	1	1 5/8	1 1/8	7/8	1-3/8
BHP056M^	1	1 5/8	1 1/8	7/8	1-3/8
BHP062M^	1	1 5/8	1 1/8	7/8	1-3/8
BHP095M^	2	1 7/8	1 3/8	1-1/8	1-3/8
BHP113M^	2	2 5/8	1 3/8	1-1/8	1-3/8
BHP125M^	2	2 5/8	1 3/8	1-1/8	1-3/8
BHP143M^	3	2 5/8	1 5/8	1-3/8	1-5/8
BHP168M^	3	2 5/8	1 5/8	1-3/8	1-5/8
BHP186M^	3	2 5/8	1 5/8	1-3/8	1-5/8
BHP227M^	4	3 1/8	1 5/8	1-5/8	1-5/8
BHP250M^	4	3 1/8	1 5/8	1-5/8	1-5/8
BHP 041L^	1	1 7/8	1 1/8	7/8	1-3/8
BHP 049L^	1	2 5/8	1 1/8	7/8	1-3/8
BHP 055L^	1	2 5/8	1 3/8	7/8	1-3/8
BHP 083L^	2	2 5/8	1 3/8	1-1/8	1-3/8
BHP 099L^	2	2 5/8	1 3/8	1-1/8	1-3/8
BHP 110L^	2	3 1/8	1 5/8	1-1/8	1-3/8
BHP 125L^	3	3 1/8	1 5/8	1-3/8	1-5/8
BHP 149L^	3	3 1/8	1 5/8	1-3/8	1-5/8
BHP 165L^	3	3 1/8	1 5/8	1-3/8	1-5/8
BHP 188L^	4	3 7/8	1 5/8	1-5/8	1-5/8
BHP 211L^	4	3 7/8	1 5/8	1-5/8	1-5/8
BHP035V^	1	1 7/8	1 1/8	7/8	1-3/8
BHP043V^	1	2 5/8	1 1/8	7/8	1-3/8
BHP049V^	1	2 5/8	1 3/8	7/8	1-3/8
BHP071V^	2	2 5/8	1 3/8	1-1/8	1-3/8
BHP087V^	2	2 5/8	1 3/8	1-1/8	1-3/8
BHP098V^	2	3 1/8	1 5/8	1-1/8	1-3/8
BHP 107V^	3	3 1/8	1 5/8	1-3/8	1-5/8
BHP 130V^	3	3 1/8	1 5/8	1-3/8	1-5/8
BHP 147V^	3	3 1/8	1 5/8	1-3/8	1-5/8
BHP 168V^	4	3 7/8	1 5/8	1-5/8	1-5/8
BHP 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.
BHP 052HA	348	158
BHP 060HA	371	168
BHP 065HA	394	179
BHP 103HA	603	274
BHP 120HA	649	294
BHP 131HA	695	315
BHP 155HA	859	390
BHP 180HA	928	421
BHP 196HA	996	452

A2L/A1**ELECTRIC DEFROST**

MODEL	SHIPPING WEIGHT	
	LB.	KG.
BHP 048ME	343	156
BHP 056ME	364	165
BHP 062ME	386	175
BHP 095ME	594	270
BHP 113ME	637	289
BHP 125ME	679	308
BHP 143ME	845	383
BHP 168ME	909	412
BHP 186ME	973	441
BHP 227ME	1181	536
BHP 250ME	1266	574
BHP 041LE	343	156
BHP 049LE	364	165
BHP 055LE	386	175
BHP 083LE	594	270
BHP 099LE	637	289
BHP 110LE	679	308
BHP 125LE	845	383
BHP 149LE	909	412
BHP 165LE	973	441
BHP 188LE	1181	536
BHP 211LE	1266	574
BHP 035VE	334	151
BHP 043VE	352	160
BHP 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.
BHP 048MH	BHP 048MR	365	166	BHP 048MG	BHP 048MT	346	157
BHP 056MH	BHP 056MR	387	175	BHP 056MG	BHP 056MT	368	167
BHP 062MH	BHP 062MR	408	185	BHP 062MG	BHP 062MT	389	176
BHP 095MH	BHP 095MR	631	286	BHP 095MG	BHP 095MT	601	272
BHP 113MH	BHP 113MR	674	306	BHP 113MG	BHP 113MT	643	292
BHP 125MH	BHP 125MR	716	325	BHP 125MG	BHP 125MT	686	311
BHP 143MH	BHP 143MR	919	417	BHP 143MG	BHP 143MT	855	388
BHP 168MH	BHP 168MR	983	446	BHP 168MG	BHP 168MT	919	417
BHP 186MH	BHP 186MR	1047	475	BHP 186MG	BHP 186MT	982	446
BHP 227MH	BHP 227MR	1287	584	BHP 227MG	BHP 227MT	1194	542
BHP 250MH	BHP 250MR	1372	623	BHP 250MG	BHP 250MT	1279	580
BHP 041LH	BHP 041LR	365	166	BHP 041LG	BHP 041LT	346	157
BHP 049LH	BHP 049LR	387	175	BHP 049LG	BHP 049LT	368	167
BHP 055LH	BHP 055LR	408	185	BHP 055LG	BHP 055LT	389	176
BHP 083LH	BHP 083LR	631	286	BHP 083LG	BHP 083LT	601	272
BHP 099LH	BHP 099LR	674	306	BHP 099LG	BHP 099LT	643	292
BHP 110LH	BHP 110LR	716	325	BHP 110LG	BHP 110LT	686	311
BHP 125LH	BHP 125LR	919	417	BHP 125LG	BHP 125LT	855	388
BHP 149LH	BHP 149LR	983	446	BHP 149LG	BHP 149LT	919	417
BHP 165LH	BHP 165LR	1047	475	BHP 165LG	BHP 165LT	982	446
BHP 188LH	BHP 188LR	1287	584	BHP 188LG	BHP 188LT	1194	542
BHP 211LH	BHP 211LR	1372	623	BHP 211LG	BHP 211LT	1279	580
BHP 035VH	BHP 035VR	356	162	BHP 035VG	BHP 035VT	356	162
BHP 043VH	BHP 043VR	374	170	BHP 043VG	BHP 043VT	374	170
BHP 049VH	BHP 049VR	393	178	BHP 049VG	BHP 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
BHP 052H	EBSTE-8-C	B9	EBSVE-8-C	B9	EBSSE-6-C	B9
BHP 060H	EBSTE-8-C	B9	EBSVE-8-C	B9	EBSSE-6-C	B9
BHP 065H	EBSTE-8-C	B9	EBSVE-8-C	B9	EBSSE-6-C	B9
BHP 103H	OTE-15-C	B10	OVE-15-C	B10	OSE-12-C	B10
BHP 120H	OTE-15-C	B14	OVE-15-C	B14	OSE-12-C	B14
BHP 131H	OTE-15-C	B14	OVE-15-C	B14	OSE-12-C	B14
BHP 155H	OTE-20-C	B14	OVE-20-C	B14	OSE-21-C	B14
BHP 180H	OTE-20-C	B19	OVE-20-C	B19	OSE-21-C	B19
BHP 196H	OTE-20-C	B19	OVE-20-C	B19	OSE-21-C	B19
BHP 242H	OTE-30-C	B19	OVE-30-C	B19	OSE-21-C	B19
BHP 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
BHP 048M	EBSTE-8-C	B9	EBSVE-8-C	B9	EBSSE-6-C	B9
BHP 056M	EBSTE-8-C	B9	EBSVE-8-C	B9	EBSSE-6-C	B9
BHP 062M	EBSTE-8-C	B9	EBSVE-8-C	B9	EBSSE-6-C	B9
BHP 095M	OTE-15-C	B10	OVE-15-C	B10	OSE-12-C	B10
BHP 113M	OTE-15-C	B14	OVE-15-C	B14	OSE-12-C	B14
BHP 125M	OTE-15-C	B14	OVE-15-C	B14	OSE-12-C	B14
BHP 143M	OTE-20-C	B14	OVE-20-C	B14	OSE-21-C	B14
BHP 168M	OTE-20-C	B19	OVE-20-C	B19	OSE-21-C	B19
BHP 186M	OTE-20-C	B19	OVE-20-C	B19	OSE-21-C	B19
BHP 227M	OTE-30-C	B19	OVE-30-C	B19	OSE-21-C	B19
BHP 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
BHP 041L	EBSTE-8-ZP	B6	EBSVE-8-ZP	B6	EBSSE-7-1/2-ZP	B6
BHP 049L	EBSTE-11-ZP	B9	EBSVE-11-ZP	B9	EBSSE-10-ZP	B9
BHP 055L	EBSTE-11-ZP	B9	EBSVE-11-ZP	B9	EBSSE-10-ZP	B9
BHP 083L	OTE-20-ZP	B10	OVE-20-ZP	B10	OSE-12-ZP	B10
BHP 099L	OTE-20-ZP	B14	OVE-20-ZP	B14	OSE-21-ZP	B14
BHP 110L	OTE-20-ZP	B14	OVE-20-ZP	B14	OSE-21-ZP	B14
BHP 125L	OTE-30-ZP	B14	OVE-30-ZP	B14	OSE-21-ZP	B14
BHP 149L	OTE-30-ZP	B19	OVE-30-ZP	B19	OSE-30-ZP	B19
BHP 165L	OTE-40-ZP	B19	OVE-40-ZP	B19	OSE-30-ZP	B19
BHP 188L	OTE-40-ZP	B19	OVE-40-ZP	B19	OSE-30-ZP	B19
BHP 211L	OTE-40-ZP	B19	OVE-40-ZP	B19	OSE-35-ZP	B19
BHP 035V	EBSTE-8-ZP	B6	EBSVE-8-ZP	B6	EBSSE-7-1/2-ZP	B6
BHP 043V	EBSTE-11-ZP	B9	EBSVE-11-ZP	B9	EBSSE-10-ZP	B9
BHP 049V	EBSTE-11-ZP	B9	EBSVE-11-ZP	B9	EBSSE-10-ZP	B9
BHP 071V	OTE-20-ZP	B10	OVE-20-ZP	B10	OSE-12-ZP	B10
BHP 087V	OTE-20-ZP	B10	OVE-20-ZP	B10	OSE-21-ZP	B10
BHP 098V	OTE-20-ZP	B14	OVE-20-ZP	B14	OSE-21-ZP	B14
BHP 107V	OTE-30-ZP	B14	OVE-30-ZP	B14	OSE-21-ZP	B14
BHP 130V	OTE-30-ZP	B14	OVE-30-ZP	B14	OSE-30-ZP	B14
BHP 147V	OTE-40-ZP	B19	OVE-40-ZP	B19	OSE-30-ZP	B19
BHP 168V	OTE-40-ZP	B19	OVE-40-ZP	B19	OSE-30-ZP	B19
BHP 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
BHP 052H	E5	E3V45	B9	SSOV10	CSOV11
BHP 060H	E6	E3V45	B9	SSOV10	CSOV11
BHP 065H	E6	E3V45	B9	SSOV10	CSOV11
BHP 103H	C12	E3V55	B10	SSOV19	CSOV13
BHP 120H	C15	E3V55	B14	SSOV19	CSOV17
BHP 131H	C15	E3V55	B14	SSOV19	CSOV17
BHP 155H	A17	E3V65	B14	SSOV19	CSOV17
BHP 180H	A20	E3V65	B19	SSOV19	CSOV17
BHP 196H	A20	E3V65	B19	SSOV19	CSOV17
BHP 242H	A25	E3V65	B19	SSOV25	CSOV21
BHP 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
BHP 048M	E5	E3V45	B9	SSOV10	CSOV11
BHP 056M	E6	E3V45	B9	SSOV10	CSOV11
BHP 062M	E6	E3V45	B9	SSOV10	CSOV11
BHP 095M	C12	E3V55	B10	SSOV19	CSOV13
BHP 113M	C15	E3V55	B14	SSOV19	CSOV17
BHP 125M	C15	E3V55	B14	SSOV19	CSOV17
BHP 143M	A17	E3V65	B14	SSOV19	CSOV17
BHP 168M	A20	E3V65	B19	SSOV19	CSOV17
BHP 186M	A20	E3V65	B19	SSOV19	CSOV17
BHP 227M	A25	E3V65	B19	SSOV25	CSOV21
BHP 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
BHP 041L	E8	E3V45	B6	SSOV10	CSOV13
BHP 049L	E10	E3V45	B9	SSOV10	CSOV17
BHP 055L	E12	E3V45	B9	SSOV10	CSOV17
BHP 083L	C17	E3V55	B10	SSOV19	CSOV17
BHP 099L	C20	E3V55	B14	SSOV19	CSOV17
BHP 110L	A25	E3V55	B14	SSOV19	CSOV21
BHP 125L	A30	E3V65	B14	SSOV19	CSOV21
BHP 149L	A35	E3V65	B19	SSOV19	CSOV21
BHP 165L	A35	E3V65	B19	SSOV19	CSOV21
BHP 188L	A40	E3V65	B19	SSOV25	CSOV25
BHP 211L	A50	E3V65	B19	SSOV25	CSOV25
BHP 035V	E6	E3V45	B6	SSOV10	CSOV13
BHP 043V	E8	E3V45	B9	SSOV10	CSOV17
BHP 049V	E10	E3V45	B9	SSOV10	CSOV17
BHP 071V	C15	E3V55	B10	SSOV19	CSOV17
BHP 087V	C17	E3V55	B10	SSOV19	CSOV17
BHP 098V	A20	E3V55	B14	SSOV19	CSOV21
BHP 107V	A20	E3V65	B14	SSOV19	CSOV21
BHP 130V	A25	E3V65	B14	SSOV19	CSOV21
BHP 147V	A30	E3V65	B19	SSOV19	CSOV21
BHP 168V	A35	E3V65	B19	SSOV25	CSOV25
BHP 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 walker-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.

Visit **b-rp.com/technology/smartvap**
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.

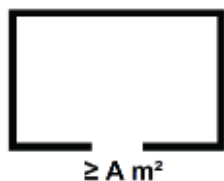
The solenoid valves are provided with 24VAC coils. The solenoid coils are wired to the terminal strip in the evaporator with 18 AWG class 2 cable or equivalent. All valves and coils are shipped in the end compartment near the refrigerant line connections.

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 **BHP120H** 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 **BHP120H** 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)			
BHP 052H	5/8	1 3/8	104	129	172	257
BHP 060H	5/8	1 3/8	128	154	196	281
BHP 065H	5/8	1 3/8	153	178	220	305
BHP 103H	7/8	1 5/8	192	242	324	488
BHP 120H	7/8	2 1/8	247	299	384	555*
BHP 131H	7/8	2 1/8	295	346	432	603*
BHP 155H	7/8	2 1/8	270	321	407	578*
BHP 180H	7/8	2 1/8	341	392	477	648*
BHP 196H	1 1/8	2 1/8	434	518*	658*	937*
BHP 242H	1 1/8	2 5/8	466	552*	696*	984*
BHP 263H	1 1/8	2 5/8	560*	646*	790*	1078*
BHP 048M	5/8	1 3/8	104	129	172	257
BHP 056M	5/8	1 3/8	128	154	196	281
BHP 062M	5/8	1 3/8	153	178	220	305
BHP 095M	7/8	1 5/8	192	242	324	488
BHP 113M	7/8	2 1/8	247	299	384	555*
BHP 125M	7/8	2 1/8	295	346	432	603*
BHP 143M	7/8	2 1/8	270	321	407	578*
BHP 168M	7/8	2 1/8	341	392	477	648*
BHP 186M	1 1/8	2 1/8	434	518*	658*	937*
BHP 227M	1 1/8	2 5/8	466	552*	696*	984*
BHP 250M	1 1/8	2 5/8	560*	646*	790*	1078*
BHP 041L	5/8	1 5/8	102	126	167	250
BHP 049L	5/8	2 1/8	131	156	199	285
BHP 055L	5/8	2 1/8	154	180	223	308
BHP 083L	7/8	2 1/8	191	240	321	484
BHP 099L	7/8	2 1/8	237	285	367	529*
BHP 110L	7/8	2 5/8	290	340	423	590*
BHP 125L	7/8	2 5/8	266	316	399	566*
BHP 149L	7/8	2 5/8	334	384	467	634*
BHP 165L	1 1/8	2 5/8	424	507	644*	919*
BHP 188L	1 1/8	3 1/8	455	539*	679*	959*
BHP 211L	1 1/8	3 1/8	545*	629*	769*	1048*
BHP 035V	5/8	1 5/8	102	126	167	250
BHP 043V	5/8	2 1/8	131	156	199	285
BHP 049V	5/8	2 1/8	154	180	223	308
BHP 071V	7/8	2 1/8	191	240	321	484
BHP 087V	7/8	2 1/8	237	285	367	529*
BHP 098V	7/8	2 5/8	290	340	423	590*
BHP 107V	7/8	2 5/8	266	316	399	566*
BHP 130V	7/8	2 5/8	334	384	467	6334*
BHP 147V	1 1/8	2 5/8	424	507	644*	919*
BHP 168V	1 1/8	3 1/8	455	539*	679*	959*
BHP 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)			
BHP 052H	16	35	10	12	16	24
BHP 060H	16	35	12	14	18	26
BHP 065H	16	35	14	17	20	28
BHP 103H	22	41	18	22	30	45
BHP 120H	22	54	23	28	36	52*
BHP 131H	22	54	27	32	40	56*
BHP 155H	22	54	25	30	38	54*
BHP 180H	22	54	32	36	44	60*
BHP 196H	29	54	40	48*	61*	87*
BHP 242H	29	67	43	51*	65*	91*
BHP 263H	29	67	52*	60*	73*	100*
BHP 048M	16	35	10	12	16	24
BHP 056M	16	35	12	14	18	26
BHP 062M	16	35	14	17	20	28
BHP 095M	22	41	18	22	30	45
BHP 113M	22	54	23	28	36	52*
BHP 125M	22	54	27	32	40	56*
BHP 143M	22	54	25	30	38	54*
BHP 168M	22	54	32	36	44	60*
BHP 186M	29	54	40	48*	61*	87*
BHP 227M	29	67	43	51*	65*	91*
BHP 250M	29	67	52*	60*	73*	100*
BHP 041L	16	41	9	12	16	23
BHP 049L	16	54	12	15	19	26
BHP 055L	16	54	14	17	21	29
BHP 083L	22	54	18	22	30	45
BHP 099L	22	54	22	27	34	49*
BHP 110L	22	67	27	32	39	55*
BHP 125L	22	67	25	29	37	53*
BHP 149L	22	67	31	36	43	59*
BHP 165L	29	67	39	47	60*	85*
BHP 188L	29	79	42	50*	63*	89*
BHP 211L	29	79	51*	58*	71*	97*
BHP 035V	16	41	9	12	16	23
BHP 043V	16	54	12	15	19	26
BHP 049V	16	54	14	17	21	29
BHP 071V	22	54	18	22	30	45
BHP 087V	22	54	22	27	34	49*
BHP 098V	22	67	27	32	39	55*
BHP 107V	22	67	25	29	37	53*
BHP 130V	22	67	31	36	43	59*
BHP 147V	29	67	39	47	60*	85*
BHP 168V	29	79	42	50*	63*	89*
BHP 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:

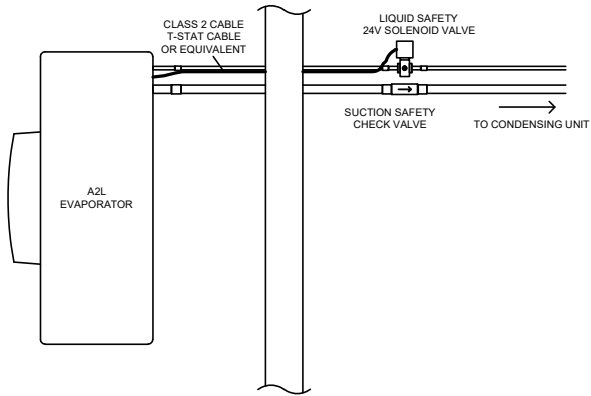
- Recover refrigerant into an appropriate recovery cylinder.
- After achieving the required recovery level, pressurize the system with inert gas to 450 PSIG.
- Safely release the inert gas, ensuring that there are no sources of ignition near the venting outlet.
- If a compressor or compressor oil is 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.

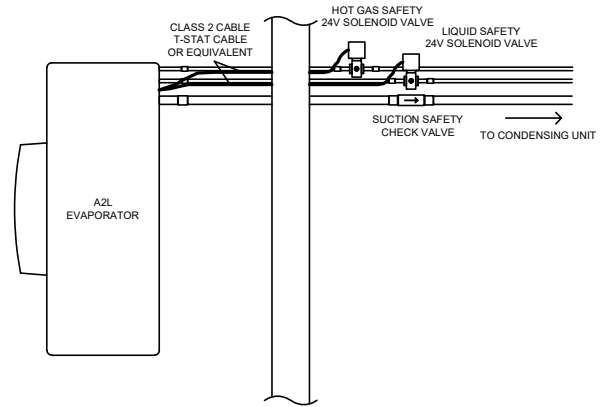
The equipment shall be labeled as “DECOMMISSIONED” and marked with the date and signature of the person recovering the refrigerant. The equipment is now ready for disposal.

STANDARD EVAPORATOR



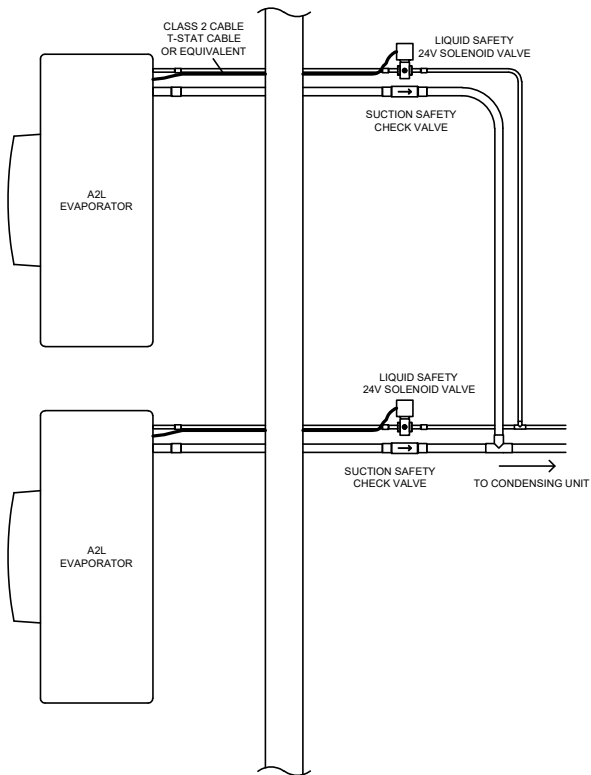
TOP VIEW

HOT GAS BYPASS / 3-PIPE HOT GAS DEFROST



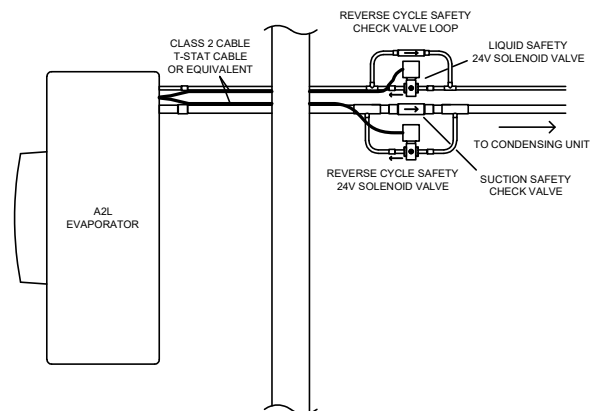
TOP VIEW

TWO OR MORE EVAPORATORS



TOP VIEW

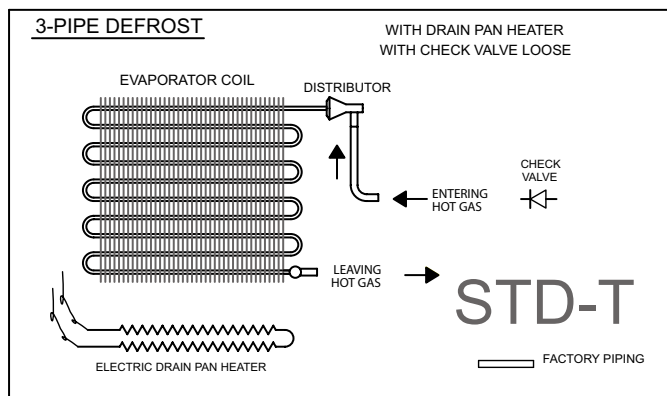
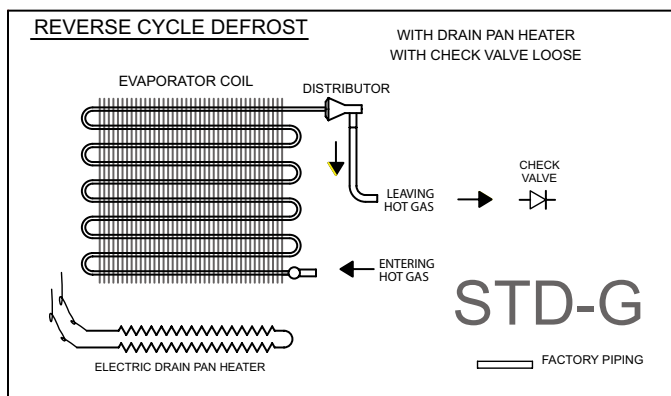
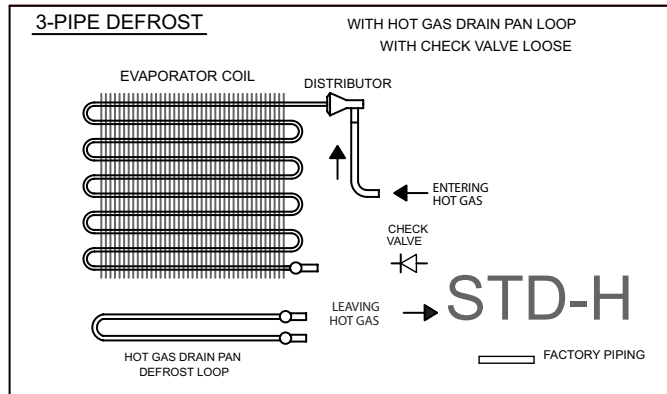
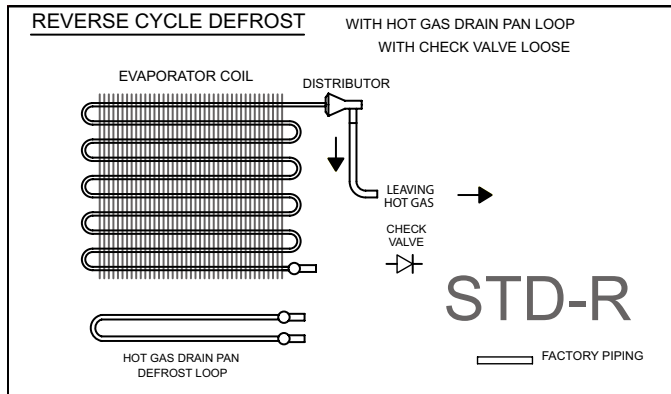
REVERSE CYCLE



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**

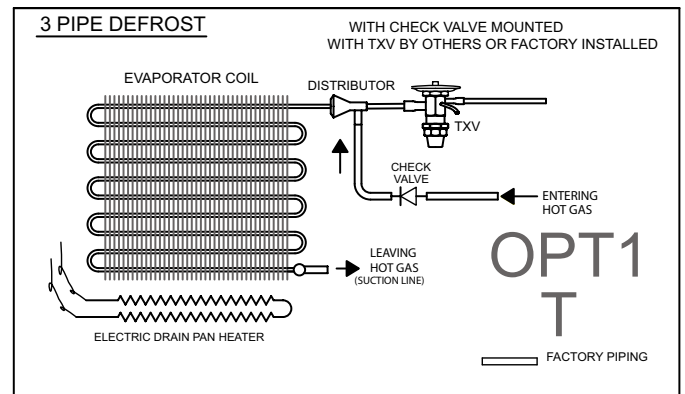
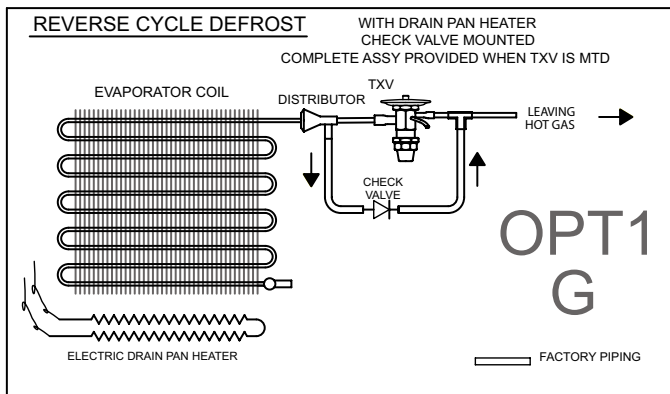
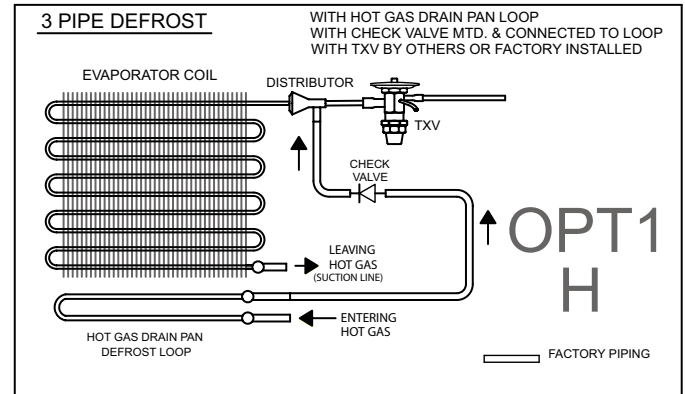
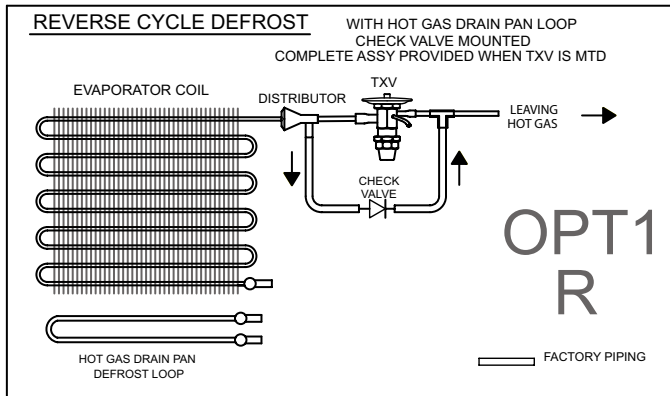
Check Valve is included with the coil shipped loose as it is a must have component for system operation.

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**.

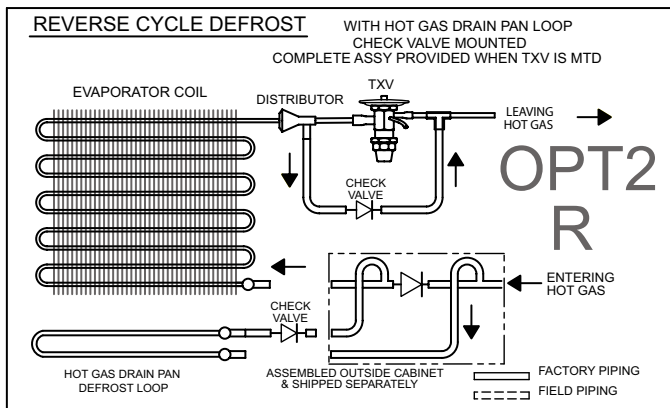
The bypass check valve will be **factory installed** as well as part of the same option.

- **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
BHP 048ME-T3E	1	208-230/3/60	TBA	TBA	TBA	TBA
BHP 056ME-T3E	1	208-230/3/60				
BHP 062ME-T3E	1	208-230/3/60				
BHP 095ME-T3E	2	208-230/3/60				
BHP 113ME-T3E	2	208-230/3/60				
BHP 125ME-T3E	2	208-230/3/60				
BHP 143ME-T3E	3	208-230/3/60				
BHP 168ME-T3E	3	208-230/3/60				
BHP 186ME-T3E	3	208-230/3/60				
BHP 227ME-T3E	4	208-230/3/60				
BHP 250ME-T3E	4	208-230/3/60				
BHP 048ME-T4E	1	460/3/60				
BHP 056ME-T4E	1	460/3/60				
BHP 062ME-T4E	1	460/3/60				
BHP 095ME-T4E	2	460/3/60				
BHP 113ME-T4E	2	460/3/60				
BHP 125ME-T4E	2	460/3/60				
BHP 143ME-T4E	3	460/3/60				
BHP 168ME-T4E	3	460/3/60				
BHP 186ME-T4E	3	460/3/60				
BHP 227ME-T4E	4	460/3/60				
BHP 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
BHP 041LE-T3E	1	208-230/3/60	TBA	TBA	TBA	TBA
BHP 049LE-T3E	1	208-230/3/60				
BHP 055LE-T3E	1	208-230/3/60				
BHP 083LE-T3E	2	208-230/3/60				
BHP 099LE-T3E	2	208-230/3/60				
BHP 110LE-T3E	2	208-230/3/60				
BHP 125LE-T3E	3	208-230/3/60				
BHP 149LE-T3E	3	208-230/3/60				
BHP 165LE-T3E	3	208-230/3/60				
BHP 188LE-T3E	4	208-230/3/60				
BHP 211LE-T3E	4	208-230/3/60				
BHP 041LE-T4E	1	460/3/60				
BHP 049LE-T4E	1	460/3/60				
BHP 055LE-T4E	1	460/3/60				
BHP 083LE-T4E	2	460/3/60				
BHP 099LE-T4E	2	460/3/60				
BHP 110LE-T4E	2	460/3/60				
BHP 125LE-T4E	3	460/3/60				
BHP 149LE-T4E	3	460/3/60				
BHP 165LE-T4E	3	460/3/60				
BHP 188LE-T4E	4	460/3/60				
BHP 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
BHP 035VE-T3E	1	208-230/3/60	TBA	TBA	TBA	TBA
BHP 043VE-T3E	1	208-230/3/60				
BHP 049VE-T3E	1	208-230/3/60				
BHP 071VE-T3E	2	208-230/3/60				
BHP 087VE-T3E	2	208-230/3/60				
BHP 098VE-T3E	2	208-230/3/60				
BHP 107VE-T3E	3	208-230/3/60				
BHP 130VE-T3E	3	208-230/3/60				
BHP 147VE-T3E	3	208-230/3/60				
BHP 168VE-T3E	4	208-230/3/60				
BHP 190VE-T3E	4	208-230/3/60				
BHP 035VE-T4E	1	460/3/60				
BHP 043VE-T4E	1	460/3/60				
BHP 049VE-T4E	1	460/3/60				
BHP 071VE-T4E	2	460/3/60				
BHP 087VE-T4E	2	460/3/60				
BHP 098VE-T4E	2	460/3/60				
BHP 107VE-T4E	3	460/3/60				
BHP 130VE-T4E	3	460/3/60				
BHP 147VE-T4E	3	460/3/60				
BHP 168VE-T4E	4	460/3/60				
BHP 190VE-T4E	4	460/3/60				

For info on matched
Bally condensing units,
 visit **b-rp.com/cu**

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

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



PRODUCT SUPPORT

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