

High Profile Unit Cooler

PRODUCT DATA & INSTALLATION

Bulletin B30-BHPE-PDI-50

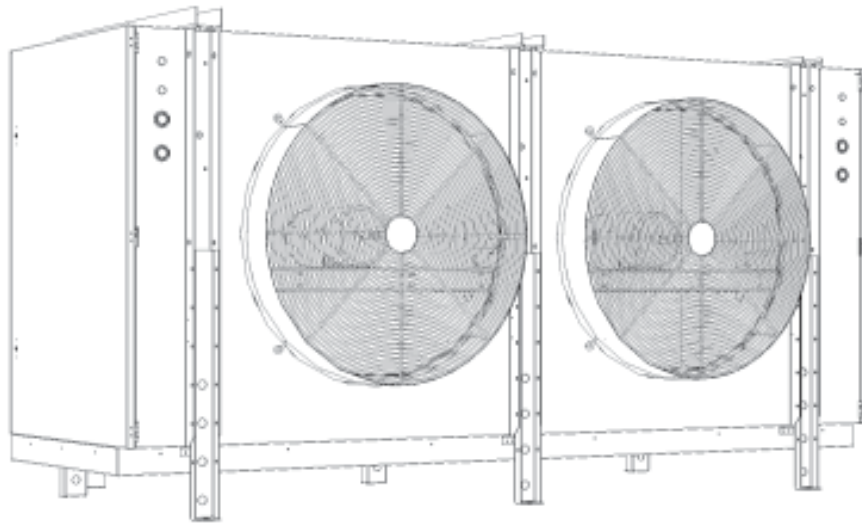
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Low & Medium Temp.
Electric Defrost



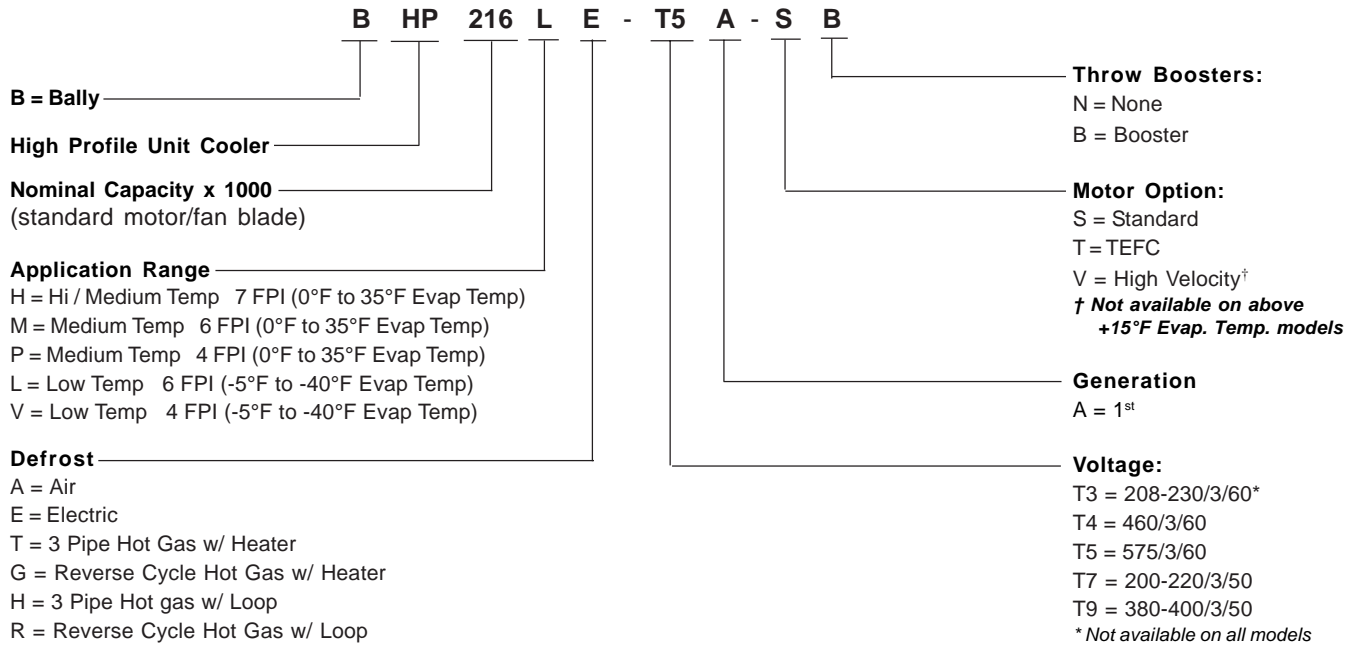
Electrical Power:
200-220/3/50, 380-400/3/60



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NOMENCLATURE



STANDARD FEATURES

- Heavy gauge textured aluminum cabinet with galvanized steel hangers, support channels and end plates
- Hinged access panels with removable hinge pins and captive fasteners.
- Hinged drain pan with removable hinge pins
- Rugged heavy-gauge galvanized steel rail motor mount / support
- Stackable design
- Adjustable defrost termination thermostat
- Heater safety thermostat
- Fixed fan delay thermostat (all low temperature models)
- Adjustable fan delay thermostat (all medium temperature models)
- Improved heater clamping eliminates potential heater creepage
- Schrader fitting and external equalizer line
- Factory installed solenoid valve wire harness
- Unit shipped upright for convenient handling and quick installation.

OPTIONAL FEATURES

- Factory mounted TX valve, solenoid valve and thermostat
- Throw boosters
- Insulated drain pan
- 3 HP 1750 RPM motor with cast aluminum fan blade ideal for blast applications
- TEFC motors
- Optional fin spacing
- Optional fin materials
- Optional coil coating

CAPACITY DATA - STANDARD MODELS

50Hz

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

Medium Temp. Models			068ME	081ME	092ME	108ME	123ME	135ME	162ME	181ME	221ME	243ME	271ME
Capacity BTUH (WATTS)	Evap Temp. °F (°C)	25 (-3.9)	62500 (18306)	74800 (21909)	84200 (24662)	99400 (29114)	113200 (33156)	124200 (36378)	149000 (43642)	166500 (48768)	203300 (59547)	223600 (65492)	249300 (73020)
		10 (-12.2)	61300 (17955)	73300 (21470)	82500 (24164)	97400 (28528)	110900 (32483)	121700 (35646)	146000 (42763)	163200 (47801)	199200 (58346)	219100 (64174)	244300 (71555)
Air Flow	CFM (L/S)		13900 (6559)	12900 (6088)	12200 (5757)	13200 (6229)	19400 (9155)	18300 (8636)	19800 (9344)	21700 (10240)	30100 (14204)	28900 (13638)	26600 (12553)
Refrigerant Charge *	LB. (KG)		20 (9)	27 (12)	33 (15)	40 (18)	40 (18)	50 (23)	60 (27)	88 (40)	98 (45)	118 (54)	157 (71)

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

Low Temp. Models			065LE	078LE	089LE	094LE	118LE	134LE	143LE	161LE	175LE	198LE	216LE	228LE
Capacity BTUH (WATTS)	Evap Temp. °F (°C)	0 (-17.8)	66100 (19361)	80400 (23549)	91500 (26800)	96800 (28353)	121300 (35529)	137800 (40362)	147000 (43056)	165500 (48475)	179900 (52693)	203600 (59634)	222100 (65053)	234400 (68656)
		-10 (-23.3)	63300 (18541)	77000 (22553)	87600 (25658)	92600 (27123)	116200 (34035)	131900 (38634)	140800 (41240)	158500 (46425)	172300 (50467)	194900 (57086)	212600 (62271)	224400 (65727)
		-20 (-26.1)	59156 (17327)	71944 (21072)	81880 (23983)	86572 (25357)	108560 (31797)	123280 (36109)	131560 (38534)	148120 (43384)	161000 (47157)	182160 (53355)	198720 (58205)	209760 (61439)
		-30 (-34.4)	55000 (16110)	66800 (19566)	76100 (22290)	80400 (23549)	100900 (29554)	114500 (33537)	122200 (35792)	137600 (40303)	149600 (43818)	169200 (49559)	184600 (54069)	194900 (57086)
		-40 (-40)	50100 (14674)	60900 (17838)	69400 (20327)	73300 (21470)	92000 (26947)	104400 (30579)	111400 (32629)	125500 (36759)	136400 (39952)	154300 (45194)	168300 (49295)	177700 (52048)
Air Flow	CFM (L/S)		15700 (7409)	14800 (6984)	14000 (6607)	13200 (6229)	22200 (10476)	21000 (9910)	19800 (9344)	21600 (10193)	31600 (14912)	30100 (14204)	28900 (13638)	26600 (12553)
Refrigerant Charge **	LB. (KG)		21 (10)	29 (13)	36 (16)	43 (19)	43 (19)	54 (24)	64 (29)	95 (43)	84 (38)	105 (48)	118 (54)	157 (71)

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

Medium Temp. Models			059PE	072PE	083PE	091PE	109PE	122PE	137PE	150PE	164PE	200PE	222PE	256PE
Capacity BTUH (WATTS)	Evap Temp. °F (°C)	25 (-3.9)	54300 (15904)	66200 (19390)	76000 (22260)	83700 (24516)	100300 (29378)	112200 (32863)	126000 (36905)	138000 (40420)	150900 (44199)	184000 (53894)	204200 (59810)	235500 (68978)
		10 (-12.2)	53200 (15582)	64900 (19009)	74500 (21821)	82000 (24018)	98300 (28792)	110000 (32219)	123500 (36173)	135200 (39600)	147900 (43320)	180300 (52810)	200100 (58609)	230800 (67601)
Air Flow	CFM (L/S)		14500 (6843)	13700 (6465)	12900 (6088)	12300 (5804)	20600 (9721)	19400 (9155)	18500 (8730)	23700 (11184)	22800 (10759)	31600 (14912)	30400 (14346)	28600 (13496)
Refrigerant Charge *	LB. (KG)		20 (9)	27 (12)	33 (15)	40 (18)	40 (18)	50 (23)	56 (25)	74 (33)	88 (40)	98 (45)	118 (54)	157 (71)

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

Low Temp. Models			055VE	066VE	076VE	087VE	100VE	114VE	127VE	145VE	172VE	187VE	217VE
Capacity BTUH (WATTS)	Evap Temp. °F (°C)	0 (-17.8)	56600 (16578)	67900 (19888)	78100 (22875)	89500 (26215)	102800 (30110)	117200 (34328)	130600 (38253)	149100 (43671)	176800 (51785)	192300 (56325)	223100 (65346)
		-10 (-23.3)	54100 (15846)	65000 (19039)	74800 (21909)	85600 (25072)	98400 (28821)	112200 (32863)	125000 (36613)	142700 (41797)	169300 (49588)	184100 (53923)	213600 (62563)
		-20 (-26.1)	50600 (14821)	60720 (17785)	69920 (20480)	80040 (23444)	92000 (26947)	104880 (30719)	116840 (34222)	133400 (39073)	158240 (46348)	172040 (50391)	199640 (58475)
		-30 (-34.4)	47000 (13766)	56400 (16520)	65000 (19039)	74400 (21792)	85500 (25043)	97400 (28528)	108500 (31780)	123900 (36290)	147000 (43056)	159800 (46805)	185500 (54333)
		-40 (-40)	42900 (12565)	51400 (15055)	59200 (17340)	67800 (19859)	77900 (22817)	88800 (26010)	99000 (28997)	113000 (33098)	134000 (39249)	145700 (42676)	169100 (49529)
Air Flow	CFM (L/S)		16200 (7645)	15400 (7267)	14800 (6984)	14100 (6654)	23200 (10948)	22200 (10476)	21200 (10004)	22700 (10712)	31600 (14912)	30400 (14346)	28600 (13496)
Refrigerant Charge **	LB. (KG)		21 (10)	29 (13)	36 (16)	43 (19)	43 (19)	54 (24)	64 (29)	95 (43)	105 (48)	126 (57)	157 (71)

* Estimated, based on R404A at +25° S.S.T. with coil 30% full.

** Estimated, based on R404A at -20° S.S.T. with coil 30% full.

Derate capacity by 0.92 and CFM by .85 for Throw Booster Option.

Average Air Throw - ft (m)†

STANDARD FAN AND MOTOR	OPTIONAL THROW BOOSTER
90 (27)	125 (38)

† Measured in open space. Actual throw may be less in real applications.

ELECTRICAL DATA STANDARD MODELS - 200-220/3/50

50Hz

MODEL	FPI	FAN MOTORS					DEFROST HEATERS									
		FAN MOTOR QTY	HP	MOTOR FLA TOTAL	MCA (A)	MAX. FUSE (AMPS)	WATTS	CIRCUIT #1			CIRCUIT #2			CIRCUIT #3		
								AMPS	MCA (A)	MAX. FUSE (AMPS)	AMPS	MCA (A)	MAX. FUSE (AMPS)	AMPS	MCA (A)	MAX. FUSE (AMPS)
BHP068ME-T7A	6	2	1	9.6	10.8	15	17936	26.5	33.1	35	26.5	33.1	35	-	-	-
BHP081ME-T7A		2	1	9.6	10.8	15	22420	31.0	38.8	40	31.0	38.8	40	-	-	-
BHP092ME-T7A		2	1	9.6	10.8	15	29146	39.8	49.8	50	39.8	49.8	50	-	-	-
BHP108ME-T7A		2	1.5	11.8	13.3	15	29146	39.8	49.8	50	39.8	49.8	50	-	-	-
BHP123ME-T7A		3	1	14.4	15.6	20	32020	44.3	55.4	60	44.3	55.4	60	-	-	-
BHP135ME-T7A		3	1	14.4	15.6	20	41626	37.8	47.3	50	37.8	47.3	50	37.8	47.3	50
BHP162ME-T7A		3	1.5	17.7	19.2	25	41626	37.8	47.3	50	37.8	47.3	50	37.8	47.3	50
BHP181ME-T7A		3+	1.5	17.7	19.2	25	42822	38.9	48.6	50	38.9	48.6	50	38.9	48.6	50
BHP221ME-T7A		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BHP243ME-T7A		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BHP271ME-T7A		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BHP065LE-T7A		2	1.5	11.8	13.3	15	17936	26.5	33.1	35	26.5	33.1	35	-	-	-
BHP078LE-T7A		2	1.5	11.8	13.3	15	22420	31.0	38.8	40	31.0	38.8	40	-	-	-
BHP089LE-T7A		2	1.5	11.8	13.3	15	29146	39.8	49.8	50	39.8	49.8	50	-	-	-
BHP094LE-T7A		2	1.5	11.8	13.3	15	29146	39.8	49.8	50	39.8	49.8	50	-	-	-
BHP118LE-T7A		3	1.5	17.7	19.2	25	32020	44.3	55.4	60	44.3	55.4	60	-	-	-
BHP134LE-T7A		3	1.5	17.7	19.2	25	41626	37.8	47.3	50	37.8	47.3	50	37.8	47.3	50
BHP143LE-T7A		3	1.5	17.7	19.2	25	41626	37.8	47.3	50	37.8	47.3	50	37.8	47.3	50
BHP161LE-T7A		3+	1.5	17.7	19.2	25	42822	38.9	48.6	50	38.9	48.6	50	38.9	48.6	50
BHP175LE-T7A		4	1.5	23.6	25.1	30	43000	42.6	53.3	60	42.6	53.3	60	33.9	42.4	50
BHP198LE-T7A		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BHP216LE-T7A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
BHP228LE-T7A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
BHP059PE-T7A	4	2	1	9.6	10.8	15	17936	26.5	33.1	35	26.5	33.1	35	-	-	-
BHP072PE-T7A		2	1	9.6	10.8	15	22420	31.0	38.8	40	31.0	38.8	40	-	-	-
BHP083PE-T7A		2	1	9.6	10.8	15	29146	39.8	49.8	50	39.8	49.8	50	-	-	-
BHP091PE-T7A		2	1	9.6	10.8	15	29146	39.8	49.8	50	39.8	49.8	50	-	-	-
BHP109PE-T7A		3	1	14.4	15.6	20	32020	44.3	55.4	60	44.3	55.4	60	-	-	-
BHP122PE-T7A		3	1	14.4	15.6	20	41626	37.8	47.3	50	37.8	47.3	50	37.8	47.3	50
BHP137PE-T7A		3	1	14.4	15.6	20	41626	37.8	47.3	50	37.8	47.3	50	37.8	47.3	50
BHP150PE-T7A		3+	1.5	17.7	19.2	25	42822	38.9	48.6	50	38.9	48.6	50	38.9	48.6	50
BHP164PE-T7A		3+	1.5	17.7	19.2	25	42822	38.9	48.6	50	38.9	48.6	50	38.9	48.6	50
BHP200PE-T7A		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BHP222PE-T7A		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BHP256PE-T7A		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BHP055VE-T7A		2	1.5	11.8	13.3	15	17936	26.5	33.1	35	26.5	33.1	35	-	-	-
BHP066VE-T7A		2	1.5	11.8	13.3	15	22420	31.0	38.8	40	31.0	38.8	40	-	-	-
BHP076VE-T7A		2	1.5	11.8	13.3	15	29146	39.8	49.8	50	39.8	49.8	50	-	-	-
BHP087VE-T7A		2	1.5	11.8	13.3	15	29146	39.8	49.8	50	39.8	49.8	50	-	-	-
BHP100VE-T7A		3	1.5	17.7	19.2	25	32020	44.3	55.4	60	44.3	55.4	60	-	-	-
BHP114VE-T7A		3	1.5	17.7	19.2	25	41626	37.8	47.3	50	37.8	47.3	50	37.8	47.3	50
BHP127VE-T7A		3	1.5	17.7	19.2	25	41626	37.8	47.3	50	37.8	47.3	50	37.8	47.3	50
BHP145VE-T7A		3+	1.5	17.7	19.2	25	42822	38.9	48.6	50	38.9	48.6	50	38.9	48.6	50
BHP172VE-T7A		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BHP187VE-T7A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
BHP217VE-T7A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

NOTE: 3+ indicates 3-fan "long" configuration (see dimensional data for details)

ELECTRICAL DATA STANDARD MODELS - 380-400/3/50

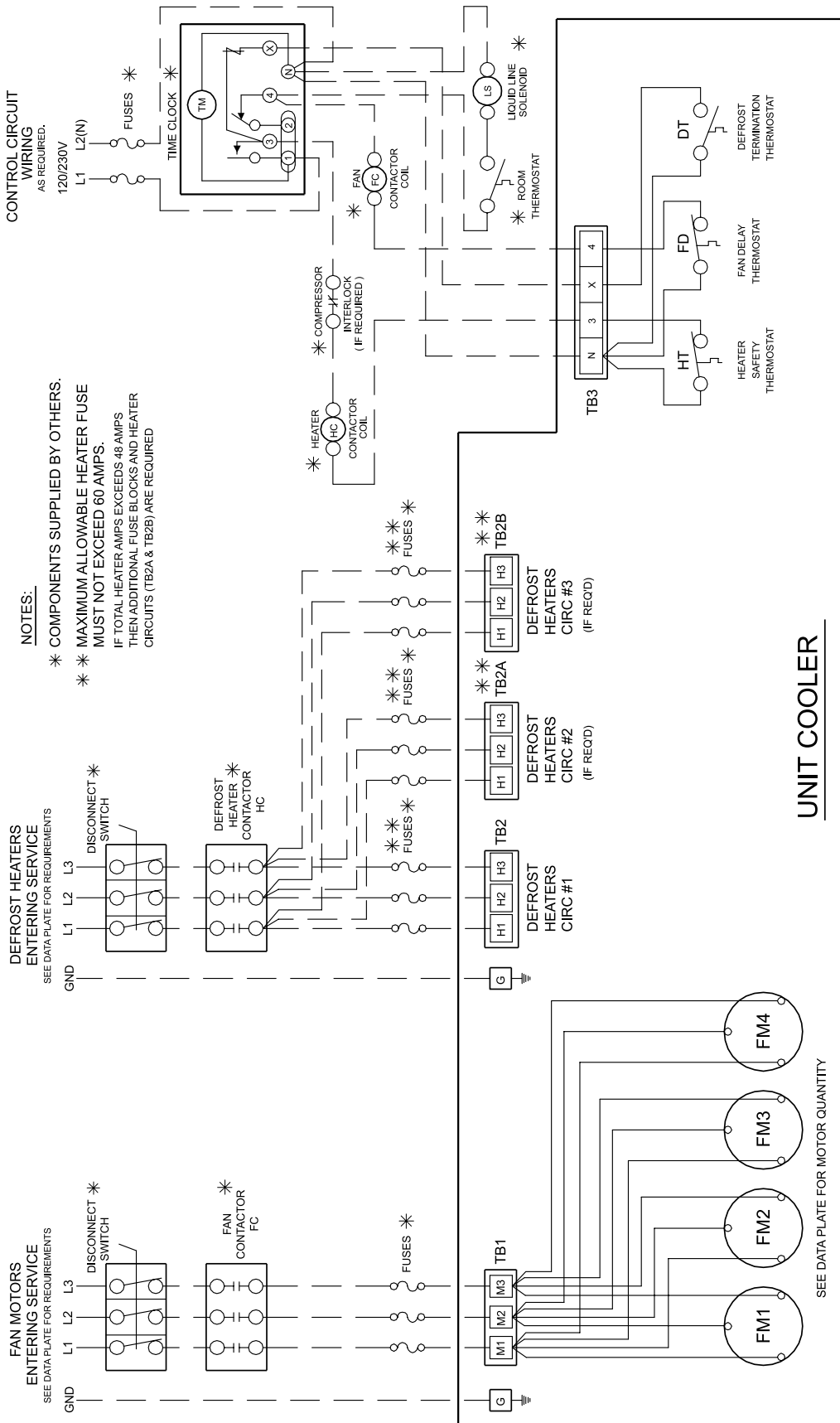
50Hz

MODEL	FPI	FAN MOTORS					DEFROST HEATERS							
		FAN MOTOR QTY	HP	MOTOR FLA TOTAL	MCA (A)	MAX. FUSE (AMPS)	CIRCUIT #1				CIRCUIT #2			
							WATTS	AMPS	MCA (A)	MAX. FUSE (AMPS)	AMPS	MCA (A)	MAX. FUSE (AMPS)	
BHP068ME-T9A	6	2	1	4.2	4.7	15	14816	24.1	30.1	35	-	-	-	
BHP081ME-T9A		2	1	4.2	4.7	15	18520	28.2	35.3	40	-	-	-	
BHP092ME-T9A		2	1	4.2	4.7	15	24076	36.2	45.3	50	-	-	-	
BHP108ME-T9A		2	1.5	5	5.6	15	24076	36.2	45.3	50	-	-	-	
BHP123ME-T9A		3	1	6.3	6.8	15	26460	40.2	50.3	60	-	-	-	
BHP135ME-T9A		3	1	6.3	6.8	15	34398	28.8	36.0	40	22.9	28.6	30	
BHP162ME-T9A		3	1.5	7.5	8.1	15	34398	28.8	36.0	40	22.9	28.6	30	
BHP181ME-T9A		3+	1.5	7.5	8.1	15	35386	29.7	37.1	40	23.6	29.5	30	
BHP221ME-T9A		4	1.5	10.0	10.6	15	46202	38.7	48.4	50	30.8	38.5	40	
BHP243ME-T9A		4	1.5	10.0	10.6	15	46202	38.7	48.4	50	30.8	38.5	40	
BHP271ME-T9A		4	1.5	10.0	10.6	15	53310	46.2	57.8	60	38.7	48.4	50	
BHP065LE-T9A		6	2	1.5	5.0	5.6	15	14816	24.1	30.1	35	-	-	-
BHP078LE-T9A			2	1.5	5.0	5.6	15	18520	28.2	35.3	40	-	-	-
BHP089LE-T9A			2	1.5	5.0	5.6	15	24076	36.2	45.3	50	-	-	-
BHP094LE-T9A			2	1.5	5.0	5.6	15	24076	36.2	45.3	50	-	-	-
BHP118LE-T9A			3	1.5	7.5	8.1	15	26460	40.2	50.3	60	-	-	-
BHP134LE-T9A			3	1.5	7.5	8.1	15	34398	28.8	36.0	40	22.9	28.6	30
BHP143LE-T9A			3	1.5	7.5	8.1	15	34398	28.8	36.0	40	22.9	28.6	30
BHP161LE-T9A			3+	1.5	7.5	8.1	15	35386	29.7	37.1	40	23.6	29.5	30
BHP175LE-T9A			4	1.5	10.0	10.6	15	35540	30.8	38.5	40	30.8	38.5	40
BHP198LE-T9A			4	1.5	10.0	10.6	15	46202	38.7	48.4	50	30.8	38.5	40
BHP216LE-T9A			4	1.5	10.0	10.6	15	46202	38.7	48.4	50	30.8	38.5	40
BHP228LE-T9A	4		1.5	10.0	10.6	15	53310	46.2	57.8	60	38.7	48.4	50	
BHP059PE-T9A	4		2	1	4.2	4.7	15	14816	24.1	30.1	35	-	-	-
BHP072PE-T9A			2	1	4.2	4.7	15	18520	28.2	35.3	40	-	-	-
BHP083PE-T9A			2	1	4.2	4.7	15	24076	36.2	45.3	50	-	-	-
BHP091PE-T9A			2	1	4.2	4.7	15	24076	36.2	45.3	50	-	-	-
BHP109PE-T9A			3	1	6.3	6.8	15	26460	40.2	50.3	60	-	-	-
BHP122PE-T9A			3	1	6.3	6.8	15	34398	28.8	36.0	40	22.9	28.6	30
BHP137PE-T9A			3	1	6.3	6.8	15	34398	28.8	36.0	40	22.9	28.6	30
BHP150PE-T9A			3+	1.5	7.5	8.1	15	35386	29.7	37.1	40	23.6	29.5	30
BHP164PE-T9A			3+	1.5	7.5	8.1	15	35386	29.7	37.1	40	23.6	29.5	30
BHP200PE-T9A			4	1.5	10.0	10.6	15	46202	38.7	48.4	50	30.8	38.5	40
BHP222PE-T9A		4	1.5	10.0	10.6	15	46202	38.7	48.4	50	30.8	38.5	40	
BHP256PE-T9A		4	1.5	10.0	10.6	15	53310	46.2	57.8	60	38.7	48.4	50	
BHP055VE-T9A		4	2	1.5	5.0	5.6	15	14816	24.1	30.1	35	-	-	-
BHP066VE-T9A			2	1.5	5.0	5.6	15	18520	28.2	35.3	40	-	-	-
BHP076VE-T9A			2	1.5	5.0	5.6	15	24076	36.2	45.3	50	-	-	-
BHP087VE-T9A			2	1.5	5.0	5.6	15	24076	36.2	45.3	50	-	-	-
BHP100VE-T9A			3	1.5	7.5	8.1	15	26460	40.2	50.3	60	-	-	-
BHP114VE-T9A			3	1.5	7.5	8.1	15	34398	28.8	36.0	40	22.9	28.6	30
BHP127VE-T9A			3	1.5	7.5	8.1	15	34398	28.8	36.0	40	22.9	28.6	30
BHP145VE-T9A			3+	1.5	7.5	8.1	15	35386	29.7	37.1	40	23.6	29.5	30
BHP172VE-T9A			4	1.5	10.0	10.6	15	46202	38.7	48.4	50	30.8	38.5	40
BHP187VE-T9A			4	1.5	10.0	10.6	15	46202	38.7	48.4	50	30.8	38.5	40
BHP217VE-T9A	4		1.5	10.0	10.6	15	53310	46.2	57.8	60	38.7	48.4	50	

NOTE: 3+ indicates 3-fan "long" configuration (see dimensional data for details)

WIRING DIAGRAM

UNIT COOLER WIRING DIAGRAM - ELECTRIC DEFROST



CONTROL CIRCUIT WIRING
AS REQUIRED,
120/230V

NOTES:

- * COMPONENTS SUPPLIED BY OTHERS.
- * MAXIMUM ALLOWABLE HEATER FUSE IF TOTAL HEATER AMPS EXCEEDS 48 AMPS THEN ADDITIONAL FUSE BLOCKS AND HEATER CIRCUITS (TB2A & TB2B) ARE REQUIRED

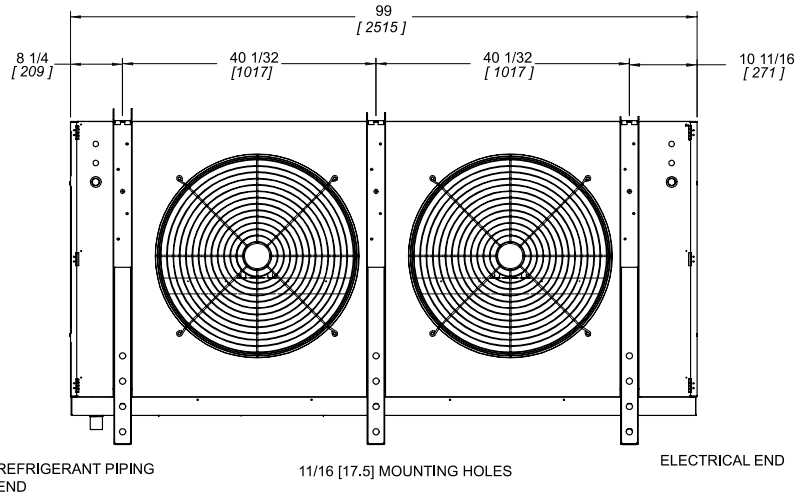
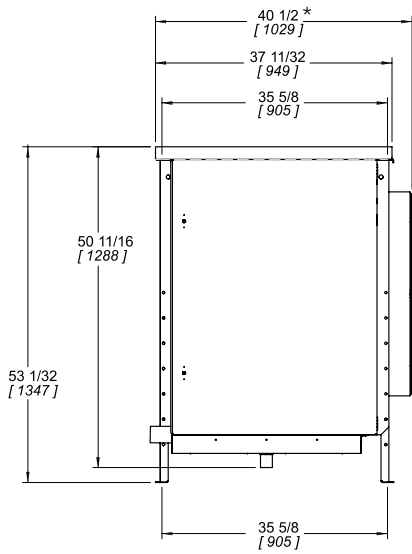
DEFROST HEATERS ENTERING SERVICE
SEE DATA PLATE FOR REQUIREMENTS

FAN MOTORS ENTERING SERVICE
SEE DATA PLATE FOR REQUIREMENTS

UNIT COOLER
SEE DATA PLATE FOR MOTOR QUANTITY

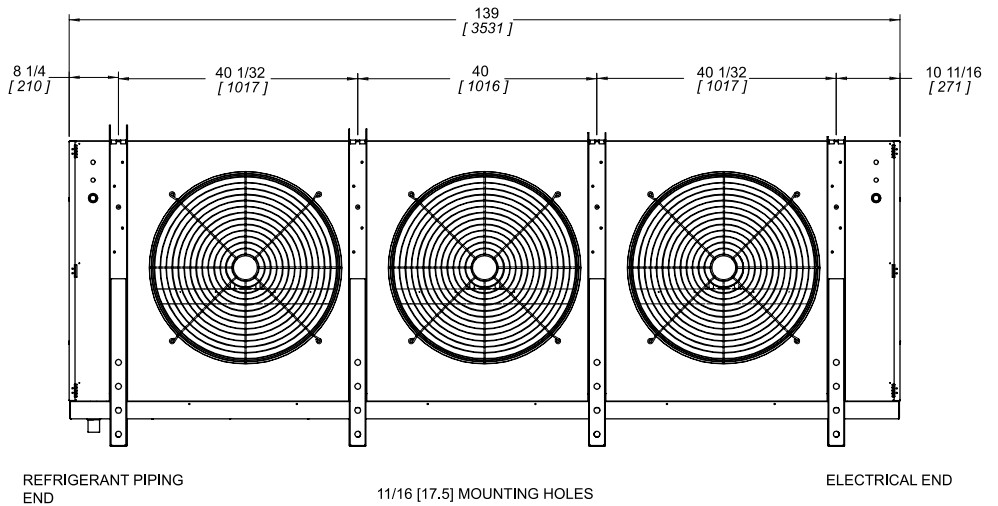
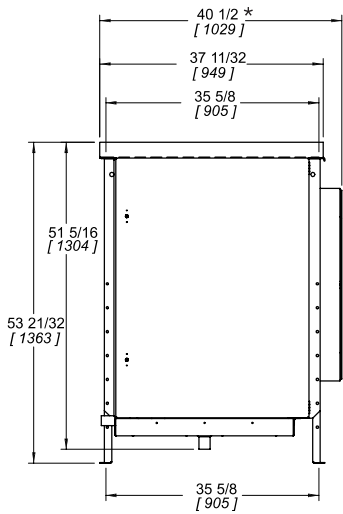
DIMENSIONAL DATA

2 Fan Models



* Add 15" (381) when optional Throw Booster used.

3 Fan Models

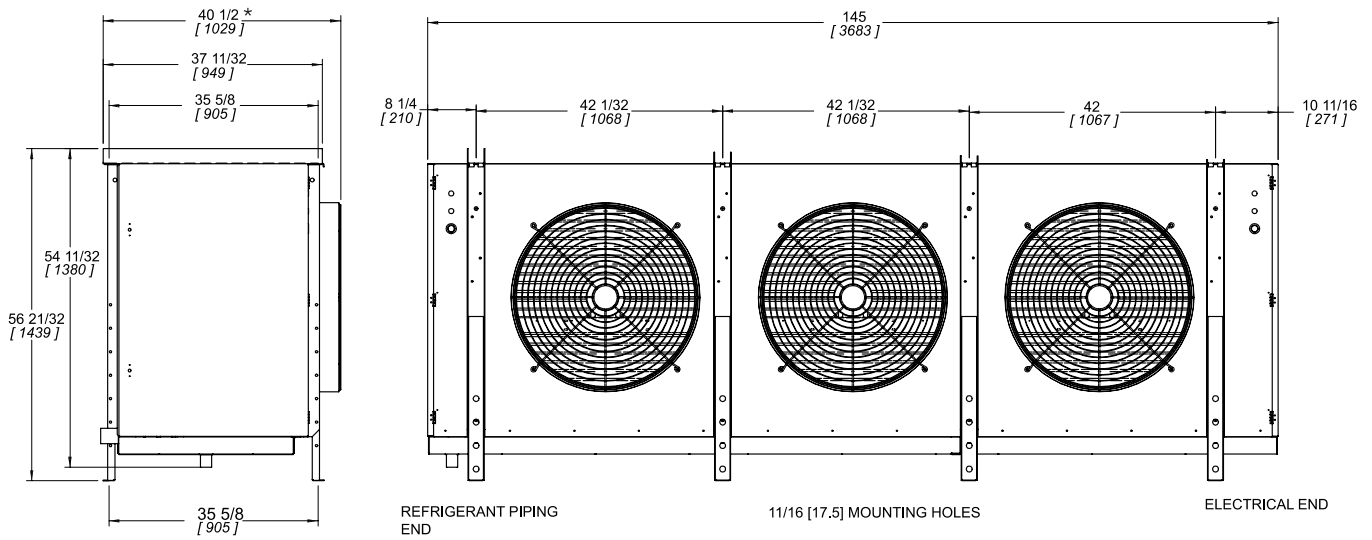


* Add 15" (381) when optional Throw Booster used.

Drain connections 1-1/4" FPT.

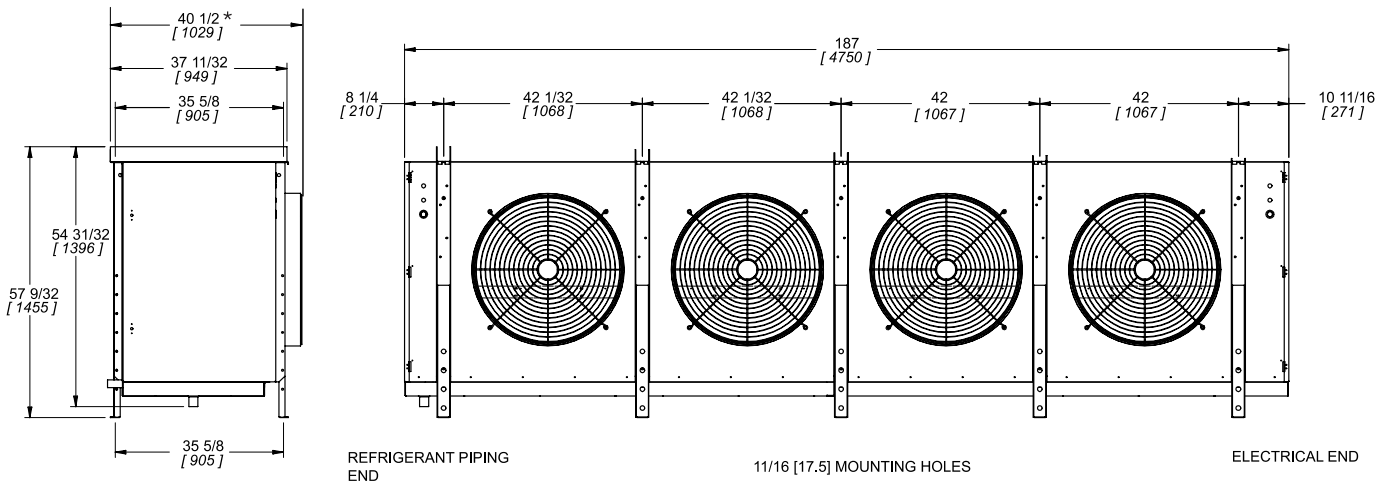
DIMENSIONAL DATA

3 Fan (Long) Models



* Add 15" (381) when optional Throw Booster used.

4 Fan Models



* Add 15" (381) when optional Throw Booster used.

Drain connections 1-1/4" FPT.

SPECIFICATIONS - 6 F.P.I. MODELS

Medium Temperature Models - 6 F.P.I.

Medium Temp. 6 FPI Models		068ME	081ME	092ME	108ME	123ME	135ME	162ME	181ME	221ME	243ME	271ME
Number Of Fans		2	2	2	2	3	3	3	3	4	4	4
Distributor Conn. (OD Sweat)	Inches (mm)	1-1/8 (29)	1-3/8 (35)	1-3/8 (35)	1-3/8 (35)	1-3/8 (35)	1-3/8 (35)	1-3/8 (35)	1-3/8 (35)	1-3/8 (35)	1-3/8 (35)	1-5/8 (41)
Suction Conn. (OD Sweat)	Inches (mm)	1-3/8 (35)	1-5/8 (41)	1-5/8 (41)	2-1/8 (54)	2-1/8 (54)	2-1/8 (54)	2-1/8 (54)	2-1/8 (54)	2-5/8 (67)	2-5/8 (67)	2-5/8 (67)
Approx. Net Weight	LB. (KG)	689 (313)	731 (332)	774 (352)	816 (371)	1049 (477)	1113 (507)	1177 (535)	1272 (577)	1558 (707)	1664 (755)	1876 (851)

Low Temperature Models - 6 F.P.I.

Low Temp. 6 FPI Models		065LE	078LE	089LE	094LE	118LE	134LE	143LE	161LE	175LE	198LE	216LE	228LE
Number Of Fans		2	2	2	2	3	3	3	3	4	4	4	4
Distributor Conn. (OD Sweat)	Inches (mm)	1-3/8 (35)	1-3/8 (35)	1-3/8 (35)	1-3/8 (35)	1-3/8 (35)	1-5/8 (41)	1-5/8 (41)	1-5/8 (41)	1-5/8 (41)	1-5/8 (41)	1-5/8 (41)	1-5/8 (41)
Suction Conn. (OD Sweat)	Inches (mm)	2-1/8 (54)	2-1/8 (54)	2-1/8 (54)	2-1/8 (54)	2-5/8 (67)	2-5/8 (67)	2-5/8 (67)	2-5/8 (67)	2-5/8 (67)	3-1/8 (80)	3-1/8 (80)	3-1/8 (80)
Approx. Net Weight	LB. (KG)	689 (313)	731 (332)	744 (352)	816 (371)	1049 (477)	1113 (507)	1177 (535)	1272 (577)	1452 (659)	1558 (707)	1664 (755)	1876 (851)

SPECIFICATIONS - 4 F.P.I. MODELS

Medium Temperature Models - 4 F.P.I.

Medium Temp. 4 FPI Models		059PE	072PE	083PE	091PE	109PE	122PE	137PE	150PE	164PE	200PE	222PE	256PE
Number Of Fans		2	2	2	2	3	3	3	3	3	4	4	4
Distributor Conn. (OD Sweat)	Inches (mm)	1-1/8 (29)	1-1/8 (29)	1-1/8 (29)	1-3/8 (35)	1-3/8 (35)	1-3/8 (35)	1-3/8 (35)	1-3/8 (35)	1-3/8 (35)	1-3/8 (35)	1-3/8 (35)	1-5/8 (41)
Suction Conn. (OD Sweat)	Inches (mm)	1-3/8 (35)	1-5/8 (41)	1-5/8 (41)	1-5/8 (41)	2-1/8 (54)	2-1/8 (54)	2-1/8 (54)	2-1/8 (54)	2-1/8 (54)	2-5/8 (67)	2-5/8 (67)	2-5/8 (67)
Approx. Net Weight	LB. (KG)	689 (313)	731 (332)	744 (352)	816 (371)	1049 (477)	1113 (507)	1177 (535)	1272 (577)	1452 (659)	1558 (707)	1664 (755)	1876 (851)

Low Temperature Models - 4 F.P.I.

Low Temp. 4 FPI Models		055VE	066VE	076VE	087VE	100VE	114VE	127VE	145VE	172VE	187VE	217VE
Number Of Fans		2	2	2	2	3	3	3	3	4	4	4
Distributor Conn. (OD Sweat)	Inches (mm)	1-3/8 (35)	1-3/8 (35)	1-3/8 (35)	1-3/8 (35)	1-3/8 (35)	1-5/8 (41)	1-5/8 (41)	1-3/8 (35)	1-5/8 (41)	1-5/8 (41)	1-5/8 (41)
Suction Conn. (OD Sweat)	Inches (mm)	2-1/8 (54)	2-1/8 (54)	2-1/8 (54)	2-1/8 (54)	2-5/8 (67)	2-5/8 (67)	2-5/8 (67)	2-5/8 (67)	2-5/8 (67)	3-1/8 (80)	3-1/8 (80)
Approx. Net Weight	LB. (KG)	678 (307)	710 (322)	742 (337)	784 (356)	1018 (461)	1071 (485)	1124 (510)	1219 (552)	1505 (683)	1601 (726)	1780 (808)

INSTALLATION INSTRUCTIONS

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

INSPECTION

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

IMPORTANT: Remember, you, the consignee, must make any claim necessary against the transportation company. Shipping damage or missing parts, when discovered at the outset, will prevent later unnecessary and costly delays.

If damage or loss during transport is evident, make claim to carrier, as this will be their responsibility, not the manufacturer's.

Should carton be damaged, but damage to equipment is not obvious, a claim should be filed for "concealed damage" with the carrier.

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

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

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 unit does not draw air in, or blow directly out, through an opened door and that the product does not obstruct the free circulation of air. Consideration should be given to the coil location in order to minimize the piping run length to the condensing unit and floor drain

CLEARANCES

This evaporator draws air through the coil and discharges air from the fan side, and thus adequate clearance should be made on the entering face of the coil to ensure even unrestricted air flow through the coil. This distance should be equal to the height of the coil or more.

Ensure enough room is left at the ends of the coil for servicing.

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).

Insulated copper tube should be run from the drain connection, sloping at least 4" (102mm) per foot. A trap located outside of the room should be provided to prevent warm air entering through the tubing. Connection should be made to proper drainage facilities that comply with local regulations.

If room temperatures are below freezing, it is necessary to heat the drain line to prevent condensate from freezing in the drain line. Electric heating cable or electric tape (by others) is used for this purpose. The drain line heater should be connected for continuous operation; it is also recommended that the drain line be insulated. A heat output of 20 watts per lineal foot of 1" (25mm) drain line in a 0°F (-18 °C) room is usually satisfactory. 115 volt cable and tape is available from your local refrigeration wholesaler. Two 115 volts heaters (by others) of the same wattage may be wired in series for use on 230 volt system

INSTALLATION INSTRUCTIONS

PIPING

Refrigerant line sizes are important and may not be the same size as the coil connections (depends on the length of run). If in doubt, consult "Recommended refrigerant line sizes" charts.

WIRING

Wire system in accordance with governing standards and local codes. Enclosed typical wiring diagrams are for reference only. Refer to unit data plate for operating current, minimum ampacity and maximum fuse sizing for fan motors.

NOTE: Electrical wiring is to be sized in accordance with minimum ampacity rating.

For ease of identifying the proper wiring terminals, unit wiring is colour 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 20 °F (-6.7 °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 is of an adjustable type, and proper adjustment is required.

The **defrost termination control** is adjustable and may be set at a minimum of 40 °F (4.4 °C) (fully CW) to a maximum of 75 °F (23.8 °C) (fully CCW). Normal setting is 55 °F (12.8 °C). This can be increased if the defrost heaters are terminated too soon (frost still left) or if terminated too long (steaming of coil). Time clock should be set for a fail-safe termination of approximately 45 minutes.

A hinged end panel provides quick access to the electrical compartment.

SYSTEM CHECK

Before Start-Up:

1. All wiring should be in accordance with local codes.
2. All refrigerant lines should be properly sized.
3. Electric defrost systems should include a liquid line solenoid valve.
4. Thorough evacuation and dehydration has been performed.
5. The suction, discharge and receiver service valves must be open.
6. The system should include a liquid line 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. If necessary, temporarily by-pass fan delay control to run fans until room temp is lowered. (Run jumper wire from terminal N to F on circuit terminal block).
2. Check the compressor oil level to ensure the correct oil charge.
3. Be sure that the expansion valve is properly set to provide the correct amount of superheat (should be around 70% of operating T.D.)
4. Heavy moisture loads are usually encountered when starting the system for the first time. If the coil temperature is below freezing, this will cause a rapid build-up of frost on the coil. During the initial pull down, frost build-up should be watched and defrosted manually as required.
5. Check for proper evaporator fan blade rotation.

MAINTENANCE

1. Periodic checking and cleaning of the coil surface when necessary should be done, using a whisk or brush. Drain pans are hinged to provide convenient access to the inside coil surface (except hot gas loop pans).
2. Ensure coil and pan does not have any excessive ice build-up from improper defrost operation. Any build-up of ice can cause fins and refrigerant tubes to be crushed. When replacing heater elements, first remove heater slot covers and heater clips
3. Motors are permanently lubricated type and require no further lubrication.

CAPACITY DATA - HIGH VELOCITY MODELS

50Hz

Medium Temperature - 6 F.P.I. with 3 HP Motor @ 0" External Static Pressure

Medium Temp. Models		068ME	081ME	092ME	108ME	123ME	135ME	162ME	181ME	221ME	243ME	271ME	
Capacity BTUH (WATTS)	Evap Temp. °F (°C)	10 (-12.2)	72700 (21294)	89200 (26127)	103000 (30169)	112200 (32863)	134300 (39336)	150900 (44199)	167400 (49031)	188600 (55241)	230900 (67631)	254800 (74631)	282400 (82715)
	Air Flow CFM (L/S)		19800 (9344)	18900 (8919)	18000 (8494)	17300 (8164)	28400 (13402)	27100 (12788)	25900 (12222)	27300 (12883)	37800 (17838)	36400 (17177)	33900 (15997)
Refrigerant Charge *	LB. (KG)	20 (9)	27 (12)	33 (15)	40 (18)	40 (18)	50 (23)	60 (27)	88 (40)	98 (45)	118 (54)	157 (71)	

Low Temperature - 6 F.P.I. with 3 HP Motor @ 0" External Static Pressure

Low Temp. Models		065LE	078LE	089LE	094LE	118LE	134LE	143LE	161LE	175LE	198LE	216LE	228LE	
Capacity BTUH (WATTS)	Evap Temp. °F (°C)	0 (-17.8)	69900 (20474)	88400 (25892)	96700 (28323)	108000 (31633)	128500 (37638)	151100 (44257)	168600 (49383)	185100 (54216)	188200 (55124)	220000 (64438)	246800 (72288)	260100 (76183)
		-10 (-23.3)	66900 (19595)	84700 (24809)	92500 (27093)	103400 (30286)	123100 (36056)	144700 (42383)	161400 (47274)	177200 (51902)	180100 (52751)	210700 (61714)	236300 (69212)	249100 (72961)
		-20 (-26.1)	62560 (18324)	79120 (23174)	86480 (25330)	96600 (28294)	115000 (33684)	135240 (39612)	150880 (44193)	165600 (48504)	168360 (49313)	196880 (57666)	220800 (64672)	232760 (68175)
		-30 (-34.4)	58100 (17017)	73500 (21528)	80300 (23520)	89700 (26273)	106800 (31282)	125600 (36788)	140200 (41065)	153800 (45048)	156400 (45810)	182900 (53571)	205100 (60074)	216200 (63325)
		-40 (-40)	53000 (15524)	67000 (19624)	73200 (21440)	81800 (23959)	97400 (28528)	114500 (33537)	127800 (37433)	140300 (41094)	142600 (41768)	166800 (48856)	187000 (54772)	197100 (57731)
		Air Flow CFM (L/S)	19800 (9344)	18900 (8919)	18000 (8494)	17300 (8164)	28400 (13402)	27100 (12788)	25900 (12222)	27300 (12883)	39200 (18498)	37800 (17838)	36400 (17177)	33900 (15997)
Refrigerant Charge **	LB. (KG)	21 (10)	29 (13)	36 (16)	43 (19)	43 (19)	54 (24)	64 (29)	95 (43)	84 (38)	105 (48)	118 (54)	157 (71)	

Medium Temperature - 4 F.P.I. with 3 HP Motor @ 0" External Static Pressure

Medium Temp. Models		059PE	072PE	083PE	091PE	109PE	122PE	137PE	150PE	164PE	200PE	222PE	256PE	
Capacity BTUH (WATTS)	Evap Temp. °F (°C)	10 (-12.2)	61600 (18043)	76400 (22378)	86500 (25336)	98400 (28821)	115000 (33684)	135200 (39600)	148100 (43378)	151800 (44462)	172000 (50379)	200600 (58756)	226300 (66283)	265000 (77619)
	Air Flow CFM (L/S)		20300 (9580)	19600 (9249)	18900 (8919)	18200 (8589)	29400 (13874)	28300 (13355)	27300 (12883)	29400 (13874)	28500 (13449)	39200 (18498)	38000 (17932)	35900 (16941)
Refrigerant Charge *	LB. (KG)	20 (9)	27 (12)	33 (15)	40 (18)	40 (18)	50 (23)	56 (25)	74 (33)	88 (40)	98 (45)	118 (54)	157 (71)	

Low Temperature - 4 F.P.I. with 3 HP Motor @ 0" External Static Pressure

Low Temp. Models		055VE	066VE	076VE	087VE	100VE	114VE	127VE	145VE	172VE	187VE	217VE	
Capacity BTUH (WATTS)	Evap Temp. °F (°C)	0 (-17.8)	60700 (17779)	73000 (21382)	87400 (25599)	98700 (28909)	114100 (33420)	134700 (39454)	140900 (41270)	166600 (48797)	198400 (58111)	222100 (65053)	248800 (72874)
		-10 (-23.3)	58100 (17017)	69900 (20474)	83700 (24516)	94500 (27679)	109300 (32014)	129000 (37784)	134900 (39512)	159500 (46718)	190000 (55651)	212600 (62271)	238200 (69769)
		-20 (-26.1)	54300 (15904)	65320 (19132)	78200 (22905)	88320 (25869)	102120 (29911)	120520 (35300)	126040 (36917)	149040 (43654)	177560 (52007)	198720 (58205)	222640 (65211)
		-30 (-34.4)	50400 (14762)	60700 (17779)	72600 (21265)	82000 (24018)	94900 (27796)	112000 (32805)	117100 (34299)	138500 (40567)	165000 (48329)	184600 (54069)	206800 (60572)
		-40 (-40)	46000 (13473)	55300 (16197)	66200 (19390)	74800 (21909)	86500 (25336)	102100 (29905)	106800 (31282)	126200 (36964)	150400 (44052)	168300 (49295)	188600 (55241)
		Air Flow CFM (L/S)	20300 (9580)	19600 (9249)	18900 (8919)	18200 (8589)	29400 (13874)	28300 (13355)	27300 (12883)	28500 (13449)	39200 (18498)	38000 (17932)	35900 (16941)
Refrigerant Charge **	LB. (KG)	21 (10)	29 (13)	36 (16)	43 (19)	43 (19)	54 (24)	64 (29)	95 (43)	105 (48)	126 (57)	157 (71)	

* Estimated, based on R404A at +25° S.S.T. with coil 30% full.

** Estimated, based on R404A at -20° S.S.T. with coil 30% full.

Derate capacity by 0.92 and CFM by .85 for Throw Booster Option.

Average Air Throw - ft (m)†

STANDARD FAN AND MOTOR	OPTIONAL THROW BOOSTER
115 (35)	95 (29)

† Measured in open space. Actual throw may be less in real applications.

CAPACITY DATA - HIGH VELOCITY MODELS

50Hz

Medium Temperature - 6 F.P.I. with 3 HP Motor @ .25" External Static Pressure

Medium Temp. Models			068ME	081ME	092ME	108ME	123ME	135ME	162ME	181ME	221ME	243ME	271ME
Capacity BTUH (WATTS)	Evap Temp. °F (°C)	10 (-12.2)	69900 (20474)	85600 (25072)	98400 (28821)	107600 (31516)	129700 (37989)	145400 (42588)	160100 (46893)	180300 (52810)	220800 (64672)	242900 (71145)	267700 (78409)
		Air Flow	CFM (L/S)	18500 (8730)	17600 (8305)	16700 (7881)	15900 (7503)	26300 (12411)	25000 (11798)	23800 (11231)	25100 (11845)	34800 (16422)	33400 (15761)
Refrigerant Charge *	LB. (KG)		20 (9)	27 (12)	33 (15)	40 (18)	40 (18)	50 (23)	60 (27)	88 (40)	98 (45)	118 (54)	157 (71)

Low Temperature - 6 F.P.I. with 3 HP Motor @ .25" External Static Pressure

Low Temp. Models			065LE	078LE	089LE	094LE	118LE	134LE	143LE	161LE	175LE	198LE	216LE	228LE
Capacity BTUH (WATTS)	Evap Temp. °F (°C)	0 (-17.8)	67900 (19888)	85300 (24984)	93600 (27415)	104900 (30725)	124400 (36437)	145000 (42471)	161400 (47274)	176800 (51785)	182000 (53308)	211800 (62036)	236500 (69271)	249900 (73196)
		-10 (-23.3)	65000 (19039)	81700 (23930)	89600 (26244)	100400 (29407)	119100 (34884)	138800 (40655)	154600 (45282)	169300 (49588)	174200 (51023)	202800 (59400)	226400 (66313)	239200 (70062)
		-20 (-26.1)	60720 (17785)	76360 (22366)	83720 (24522)	93840 (27486)	111320 (32606)	129720 (37995)	144440 (42306)	158240 (46348)	162840 (47696)	189520 (55510)	211600 (61978)	223560 (65481)
		-30 (-34.4)	56400 (16520)	70900 (20767)	77800 (22788)	87200 (25541)	103400 (30286)	120500 (35294)	134200 (39307)	147000 (43056)	151300 (44316)	176100 (51580)	196600 (57584)	207700 (60835)
		-40 (-40)	51400 (15055)	64700 (18951)	70900 (20767)	79500 (23286)	94300 (27620)	109900 (32190)	122300 (35822)	134000 (39249)	137900 (40391)	160500 (47010)	179200 (52488)	189400 (55475)
		Air Flow	CFM (L/S)	18500 (8730)	17600 (8305)	16700 (7881)	15900 (7503)	26300 (12411)	25000 (11798)	23800 (11231)	25100 (11845)	36200 (17083)	34800 (16422)	33400 (15761)
Refrigerant Charge **	LB. (KG)		21 (10)	29 (13)	36 (16)	43 (19)	43 (19)	54 (24)	64 (29)	95 (43)	84 (38)	105 (48)	118 (54)	157 (71)

Medium Temperature - 4 F.P.I. with 3 HP Motor @ .25" External Static Pressure

Medium Temp. Models			059PE	072PE	083PE	091PE	109PE	122PE	137PE	150PE	164PE	200PE	222PE	256PE
Capacity BTUH (WATTS)	Evap Temp. °F (°C)	10 (-12.2)	59800 (17515)	74500 (21821)	83700 (24516)	93800 (27474)	111300 (32600)	129700 (37989)	141700 (41504)	146300 (42851)	162800 (47684)	193200 (56588)	216200 (63325)	252100 (73840)
		Air Flow	CFM (L/S)	19100 (9013)	18300 (8636)	17600 (8305)	16800 (7928)	27500 (12977)	26300 (12411)	25200 (11892)	27100 (12788)	26200 (12364)	36200 (17083)	35000 (16517)
Refrigerant Charge *	LB. (KG)		20 (9)	27 (12)	33 (15)	40 (18)	40 (18)	50 (23)	56 (25)	74 (33)	88 (40)	98 (45)	118 (54)	157 (71)

Low Temperature - 4 F.P.I. with 3 HP Motor @ .25" External Static Pressure

Low Temp. Models			055VE	066VE	076VE	087VE	100VE	114VE	127VE	145VE	172VE	187VE	217VE
Capacity BTUH (WATTS)	Evap Temp. °F (°C)	0 (-17.8)	59700 (17486)	72000 (21089)	84300 (24691)	95600 (28001)	111000 (32512)	129600 (37960)	137800 (40362)	159400 (46688)	190200 (55710)	212800 (62329)	237500 (69564)
		-10 (-23.3)	57100 (16725)	68900 (20181)	80700 (23637)	91500 (26800)	106300 (31135)	124000 (36320)	131900 (38634)	152600 (44697)	182100 (53337)	203800 (59693)	227400 (66605)
		-20 (-26.1)	53400 (15641)	64400 (18863)	75440 (22096)	85560 (25061)	99360 (29103)	115920 (33953)	123280 (36109)	142600 (41768)	142600 (49852)	170200 (55780)	190440 (62247)
		-30 (-34.4)	49600 (14528)	59800 (17515)	70100 (20532)	79500 (23286)	92300 (27035)	107700 (31545)	114500 (33537)	132500 (38809)	158100 (46307)	158100 (51814)	176900 (57818)
		-40 (-40)	45200 (13239)	54500 (15963)	63900 (18716)	72500 (21235)	84200 (24662)	98200 (28763)	104400 (30579)	120800 (35382)	144200 (42236)	144200 (47245)	161300 (52722)
		Air Flow	CFM (L/S)	19100 (9013)	18300 (8636)	17600 (8305)	16800 (7928)	27500 (12977)	26300 (12411)	25200 (11892)	27100 (12788)	26200 (12364)	36200 (17083)
Refrigerant Charge **	LB. (KG)		21 (10)	29 (13)	36 (16)	43 (19)	43 (19)	54 (24)	64 (29)	95 (43)	105 (48)	126 (57)	157 (71)

* Estimated, based on R404A at +25° S.S.T. with coil 30% full.

** Estimated, based on R404A at -20° S.S.T. with coil 30% full.

Derate capacity by 0.92 and CFM by .85 for Throw Booster Option.

Average Air Throw - ft (m)†

STANDARD FAN AND MOTOR	OPTIONAL THROW BOOSTER
115 (35)	95 (29)

† Measured in open space. Actual throw may be less in real applications.

CAPACITY DATA - HIGH VELOCITY MODELS

50Hz

Medium Temperature - 6 F.P.I. with 3 HP Motor @ .50" External Static Pressure

Medium Temp. Models			068ME	081ME	092ME	108ME	123ME	135ME	162ME	181ME	221ME	243ME	271ME
Capacity BTUH (WATTS)	Evap Temp. °F (°C)	10 (-12.2)	67200 (19683)	81900 (23989)	92900 (27210)	102100 (29905)	123300 (36115)	138000 (40420)	152700 (44726)	169300 (49588)	208800 (61158)	228200 (66840)	250200 (73284)
		Air Flow	CFM (L/S)	16900 (7975)	15900 (7503)	15200 (7173)	14500 (6843)	24000 (11326)	22800 (10759)	21800 (10287)	22700 (10712)	31400 (14818)	30100 (14204)
Refrigerant Charge *	LB. (KG)		20 (9)	27 (12)	33 (15)	40 (18)	40 (18)	50 (23)	60 (27)	88 (40)	98 (45)	118 (54)	157 (71)

Low Temperature - 6 F.P.I. with 3 HP Motor @ .50" External Static Pressure

Low Temp. Models			065LE	078LE	089LE	094LE	118LE	134LE	143LE	161LE	175LE	198LE	216LE	228LE	
Capacity BTUH (WATTS)	Evap Temp. °F (°C)	0 (-17.8)	66800 (19566)	81200 (23783)	89500 (26215)	99700 (29202)	120300 (35236)	138800 (40655)	154200 (45165)	166600 (48797)	174800 (51199)	201500 (59019)	223100 (65346)	236500 (69271)	
		-10 (-23.3)	64000 (18746)	77800 (22788)	85600 (25072)	95500 (27972)	115200 (33742)	132900 (38926)	147700 (43261)	159500 (46718)	167300 (49002)	192900 (56500)	219200 (62563)	226400 (66313)	
		-20 (-26.1)	59800 (17515)	72680 (21288)	80040 (23444)	89240 (26138)	107640 (31528)	124200 (36378)	138000 (40420)	149040 (43654)	156400 (45810)	180320 (52816)	199640 (58475)	211600 (61978)	
		-30 (-34.4)	55600 (16285)	67500 (19771)	74400 (21792)	82900 (24281)	100000 (29290)	115400 (33801)	128200 (37550)	138500 (40567)	145300 (42558)	167500 (49061)	185500 (54333)	196600 (57584)	
		-40 (-40)	50700 (14850)	61600 (18043)	67800 (19859)	75600 (22143)	91200 (26712)	105200 (30813)	116900 (34240)	126200 (36964)	132500 (38809)	152700 (44726)	169100 (49529)	179200 (52488)	
		Air Flow	CFM (L/S)	16900 (7975)	15900 (7503)	15200 (7173)	14500 (6843)	24000 (11326)	22800 (10759)	21800 (10287)	22700 (10712)	32800 (15478)	31400 (14818)	30100 (14204)	28000 (13213)
Refrigerant Charge *	LB. (KG)		21 (10)	29 (13)	36 (16)	43 (19)	43 (19)	54 (24)	64 (29)	95 (43)	84 (38)	105 (48)	118 (54)	157 (71)	

Medium Temperature - 4 F.P.I. with 3 HP Motor @ .50" External Static Pressure

Medium Temp. Models			059PE	072PE	083PE	091PE	109PE	122PE	137PE	150PE	164PE	200PE	222PE	256PE
Capacity BTUH (WATTS)	Evap Temp. °F (°C)	10 (-12.2)	57000 (16695)	70800 (20737)	80000 (23432)	89200 (26127)	106700 (31252)	123300 (36115)	135200 (39600)	138000 (40420)	153600 (44989)	183100 (53630)	204200 (59810)	235500 (68978)
		Air Flow	CFM (L/S)	17600 (8305)	16700 (7881)	15900 (7503)	15400 (7267)	25100 (11845)	24000 (11326)	23000 (10854)	24600 (11609)	23700 (11184)	32800 (15478)	31600 (14912)
Refrigerant Charge *	LB. (KG)		20 (9)	27 (12)	33 (15)	40 (18)	40 (18)	50 (23)	56 (25)	74 (33)	88 (40)	98 (45)	118 (54)	157 (71)

Low Temperature - 4 F.P.I. with 3 HP Motor @ .50" External Static Pressure

Low Temp. Models			055VE	066VE	076VE	087VE	100VE	114VE	127VE	145VE	172VE	187VE	217VE	
Capacity BTUH (WATTS)	Evap Temp. °F (°C)	0 (-17.8)	56600 (16578)	68900 (20181)	81200 (23783)	90500 (26507)	105900 (31018)	122400 (35851)	131600 (38546)	151100 (44257)	179900 (52693)	201500 (59019)	224100 (65639)	
		-10 (-23.3)	54100 (15846)	66000 (19331)	77800 (22788)	86600 (25365)	101400 (29700)	117100 (34299)	126000 (36905)	144700 (42383)	172300 (50467)	192900 (56500)	214600 (62856)	
		-20 (-26.1)	50600 (14821)	61640 (18054)	72680 (21288)	80960 (23713)	94760 (27755)	109480 (32067)	117760 (34492)	135240 (39612)	161000 (47157)	180320 (52816)	200560 (58744)	
		-30 (-34.4)	47000 (13766)	57300 (16783)	67500 (19771)	75200 (22026)	88000 (25775)	101700 (29788)	109400 (32043)	125600 (36788)	149600 (43818)	167500 (49061)	186300 (54567)	
		-40 (-40)	42900 (12565)	52200 (15289)	61600 (18043)	68600 (20093)	80300 (23520)	92700 (27152)	99700 (29202)	114500 (33537)	136400 (39952)	152700 (44726)	169900 (49764)	
		Air Flow	CFM (L/S)	17600 (8305)	16700 (7881)	15900 (7503)	15400 (7267)	25100 (11845)	24000 (11326)	23000 (10854)	24600 (11184)	23700 (11184)	32800 (15478)	31600 (14912)
Refrigerant Charge *	LB. (KG)		21 (10)	29 (13)	36 (16)	43 (19)	43 (19)	54 (24)	64 (29)	95 (43)	105 (48)	126 (57)	157 (71)	

* Estimated, based on R404A at +25° S.S.T. with coil 30% full.

** Estimated, based on R404A at -20° S.S.T. with coil 30% full.

Derate capacity by 0.92 and CFM by .85 for Throw Booster Option.

Average Air Throw - ft (m)†

STANDARD FAN AND MOTOR	OPTIONAL THROW BOOSTER
115 (35)	95 (29)

† Measured in open space. Actual throw may be less in real applications.

ELECTRICAL DATA - HIGH VELOCITY MODELS - 200-220/3/50

50Hz

MODEL	FPI	FAN MOTORS					DEFROST HEATERS									
		FAN MOTOR QTY	HP	MOTOR FLA TOTAL	MCA (A)	MAX. FUSE (AMPS)	WATTS	CIRCUIT #1			CIRCUIT #2			CIRCUIT #3		
								AMPS	MCA (A)	MAX. FUSE (AMPS)	AMPS	MCA (A)	MAX. FUSE (AMPS)	AMPS	MCA (A)	MAX. FUSE (AMPS)
BHP068ME-T7A	6	2	3	19.6	22.1	30	17936	26.5	33.1	35	26.5	33.1	35	-	-	-
BHP081ME-T7A		2	3	19.6	22.1	30	22420	31.0	38.8	40	31.0	38.8	40	-	-	-
BHP092ME-T7A		2	3	19.6	22.1	30	29146	39.8	49.8	50	39.8	49.8	50	-	-	-
BHP108ME-T7A		2	3	19.6	22.1	30	29146	39.8	49.8	50	39.8	49.8	50	-	-	-
BHP123ME-T7A		3	3	29.4	31.9	40	32020	44.3	55.4	60	44.3	55.4	60	-	-	-
BHP135ME-T7A		3	3	29.4	31.9	40	41626	37.8	47.3	50	37.8	47.3	50	37.8	47.3	50
BHP162ME-T7A		3	3	29.4	31.9	40	41626	37.8	47.3	50	37.8	47.3	50	37.8	47.3	50
BHP181ME-T7A		3+	3	29.4	31.9	40	42822	38.9	48.6	50	38.9	48.6	50	38.9	48.6	50
BHP221ME-T7A		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BHP243ME-T7A		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BHP271ME-T7A		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BHP065LE-T7A		2	3	19.6	22.1	30	17936	26.5	33.1	35	26.5	33.1	35	-	-	-
BHP078LE-T7A		2	3	19.6	22.1	30	22420	31.0	38.8	40	31.0	38.8	40	-	-	-
BHP089LE-T7A		2	3	19.6	22.1	30	29146	39.8	49.8	50	39.8	49.8	50	-	-	-
BHP094LE-T7A		2	3	19.6	22.1	30	29146	39.8	49.8	50	39.8	49.8	50	-	-	-
BHP118LE-T7A		3	3	29.4	31.9	40	32020	44.3	55.4	60	44.3	55.4	60	-	-	-
BHP134LE-T7A		3	3	29.4	31.9	40	41626	37.8	47.3	50	37.8	47.3	50	37.8	47.3	50
BHP143LE-T7A		3	3	29.4	31.9	40	41626	37.8	47.3	50	37.8	47.3	50	37.8	47.3	50
BHP161LE-T7A		3+	3	29.4	31.9	40	42822	38.9	48.6	50	38.9	48.6	50	38.9	48.6	50
BHP175LE-T7A		4	3	39.2	41.7	50	43000	42.6	53.3	60	42.6	53.3	60	33.9	42.4	50
BHP198LE-T7A		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BHP216LE-T7A		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BHP228LE-T7A		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BHP059PE-T7A	4	2	3	19.6	22.1	30	17936	26.5	33.1	35	26.5	33.1	35	-	-	-
BHP072PE-T7A		2	3	19.6	22.1	30	22420	31.0	38.8	40	31.0	38.8	40	-	-	-
BHP083PE-T7A		2	3	19.6	22.1	30	29146	39.8	49.8	50	39.8	49.8	50	-	-	-
BHP091PE-T7A		2	3	19.6	22.1	30	29146	39.8	49.8	50	39.8	49.8	50	-	-	-
BHP109PE-T7A		3	3	29.4	31.9	40	32020	44.3	55.4	60	44.3	55.4	60	-	-	-
BHP122PE-T7A		3	3	29.4	31.9	40	41626	37.8	47.3	50	37.8	47.3	50	37.8	47.3	50
BHP137PE-T7A		3	3	29.4	31.9	40	41626	37.8	47.3	50	37.8	47.3	50	37.8	47.3	50
BHP150PE-T7A		3+	3	29.4	31.9	40	42822	38.9	48.6	50	38.9	48.6	50	38.9	48.6	50
BHP164PE-T7A		3+	3	29.4	31.9	40	42822	38.9	48.6	50	38.9	48.6	50	38.9	48.6	50
BHP200PE-T7A		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BHP222PE-T7A		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BHP256PE-T7A		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BHP055VE-T7A		2	3	19.6	22.1	30	17936	26.5	33.1	35	26.5	33.1	35	-	-	-
BHP066VE-T7A		2	3	19.6	22.1	30	22420	31.0	38.8	40	31.0	38.8	40	-	-	-
BHP076VE-T7A		2	3	19.6	22.1	30	29146	39.8	49.8	50	39.8	49.8	50	-	-	-
BHP087VE-T7A		2	3	19.6	22.1	30	29146	39.8	49.8	50	39.8	49.8	50	-	-	-
BHP100VE-T7A		3	3	29.4	31.9	40	32020	44.3	55.4	60	44.3	55.4	60	-	-	-
BHP114VE-T7A		3	3	29.4	31.9	40	41626	37.8	47.3	50	37.8	47.3	50	37.8	47.3	50
BHP127VE-T7A		3	3	29.4	31.9	40	41626	37.8	47.3	50	37.8	47.3	50	37.8	47.3	50
BHP145VE-T7A		3+	3	29.4	31.9	40	42822	38.9	48.6	50	38.9	48.6	50	38.9	48.6	50
BHP172VE-T7A		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BHP187VE-T7A		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BHP217VE-T7A		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

NOTE: 3+ indicates 3-fan "long" configuration (see dimensional data for details)

ELECTRICAL DATA - HIGH VELOCITY MODELS - 380-400/3/50

50Hz

MODEL	FPI	FAN MOTORS					DEFROST HEATERS						
		FAN MOTOR QTY	HP	MOTOR FLA TOTAL	MCA (A)	MAX. FUSE (AMPS)	CIRCUIT #1				CIRCUIT #2		
							WATTS	AMPS	MCA (A)	MAX. FUSE (AMPS)	AMPS	MCA (A)	MAX. FUSE (AMPS)
BHP068ME-T9A	6	2	3	9.6	10.8	15	14816	24.1	30.1	35	-	-	-
BHP081ME-T9A		2	3	9.6	10.8	15	18520	28.2	35.3	40	-	-	-
BHP092ME-T9A		2	3	9.6	10.8	15	24076	36.2	45.3	50	-	-	-
BHP108ME-T9A		2	3	9.6	10.8	15	24076	36.2	45.3	50	-	-	-
BHP123ME-T9A		3	3	14.4	15.6	20	26460	40.2	50.3	60	-	-	-
BHP135ME-T9A		3	3	14.4	15.6	20	34398	28.8	36.0	40	22.9	28.6	30
BHP162ME-T9A		3	3	14.4	15.6	20	34398	28.8	36.0	40	22.9	28.6	30
BHP181ME-T9A		3+	3	14.4	15.6	20	35386	29.7	37.1	40	23.6	29.5	30
BHP221ME-T9A		4	3	19.2	20.4	25	46202	38.7	48.4	50	30.8	38.5	40
BHP243ME-T9A		4	3	19.2	20.4	25	46202	38.7	48.4	50	30.8	38.5	40
BHP271ME-T9A		4	3	19.2	20.4	25	53310	46.2	57.8	60	38.7	48.4	50
BHP065LE-T9A		2	3	9.6	10.8	15	14816	24.1	30.1	35	-	-	-
BHP078LE-T9A		2	3	9.6	10.8	15	18520	28.2	35.3	40	-	-	-
BHP089LE-T9A		2	3	9.6	10.8	15	24076	36.2	45.3	50	-	-	-
BHP094LE-T9A		2	3	9.6	10.8	15	24076	36.2	45.3	50	-	-	-
BHP118LE-T9A		3	3	14.4	15.6	20	26460	40.2	50.3	60	-	-	-
BHP134LE-T9A		3	3	14.4	15.6	20	34398	28.8	36.0	40	22.9	28.6	30
BHP143LE-T9A		3	3	14.4	15.6	20	34398	28.8	36.0	40	22.9	28.6	30
BHP161LE-T9A		3+	3	14.4	15.6	20	35386	29.7	37.1	40	23.6	29.5	30
BHP175LE-T9A		4	3	19.2	20.4	25	35540	30.8	38.5	40	30.8	38.5	40
BHP198LE-T9A		4	3	19.2	20.4	25	46202	38.7	48.4	50	30.8	38.5	40
BHP216LE-T9A		4	3	19.2	20.4	25	46202	38.7	48.4	50	30.8	38.5	40
BHP228LE-T9A	4	3	19.2	20.4	25	53310	46.2	57.8	60	38.7	48.4	50	
BHP059PE-T9A	4	2	3	9.6	10.8	15	14816	24.1	30.1	35	-	-	-
BHP072PE-T9A		2	3	9.6	10.8	15	18520	28.2	35.3	40	-	-	-
BHP083PE-T9A		2	3	9.6	10.8	15	24076	36.2	45.3	50	-	-	-
BHP091PE-T9A		2	3	9.6	10.8	15	24076	36.2	45.3	50	-	-	-
BHP109PE-T9A		3	3	14.4	15.6	20	26460	40.2	50.3	60	-	-	-
BHP122PE-T9A		3	3	14.4	15.6	20	34398	28.8	36.0	40	22.9	28.6	30
BHP137PE-T9A		3	3	14.4	15.6	20	34398	28.8	36.0	40	22.9	28.6	30
BHP150PE-T9A		3+	3	14.4	15.6	20	35386	29.7	37.1	40	23.6	29.5	30
BHP164PE-T9A		3+	3	14.4	15.6	20	35386	29.7	37.1	40	23.6	29.5	30
BHP200PE-T9A		4	3	19.2	20.4	25	46202	38.7	48.4	50	30.8	38.5	40
BHP222PE-T9A		4	3	19.2	20.4	25	46202	38.7	48.4	50	30.8	38.5	40
BHP256PE-T9A		4	3	19.2	20.4	25	53310	46.2	57.8	60	38.7	48.4	50
BHP055VE-T9A		2	3	9.6	10.8	15	14816	24.1	30.1	35	-	-	-
BHP066VE-T9A		2	3	9.6	10.8	15	18520	28.2	35.3	40	-	-	-
BHP076VE-T9A		2	3	9.6	10.8	15	24076	36.2	45.3	50	-	-	-
BHP087VE-T9A		2	3	9.6	10.8	15	24076	36.2	45.3	50	-	-	-
BHP100VE-T9A		3	3	14.4	15.6	20	26460	40.2	50.3	60	-	-	-
BHP114VE-T9A		3	3	14.4	15.6	20	34398	28.8	36.0	40	22.9	28.6	30
BHP127VE-T9A		3	3	14.4	15.6	20	34398	28.8	36.0	40	22.9	28.6	30
BHP145VE-T9A		3+	3	14.4	15.6	20	35386	29.7	37.1	40	23.6	29.5	30
BHP172VE-T9A		4	3	19.2	20.4	25	46202	38.7	48.4	50	30.8	38.5	40
BHP187VE-T9A		4	3	19.2	20.4	25	46202	38.7	48.4	50	30.8	38.5	40
BHP217VE-T9A	4	3	19.2	20.4	25	53310	46.2	57.8	60	38.7	48.4	50	

NOTE: 3+ indicates 3-fan "long" configuration (see dimensional data for details)

SERVICE PARTS

STD. MOTORS - 60/50 Hz	MODELS	ODP PART#	TEFC PART#
1 HP 850 RPM 208-230/3/60 (200-220/3/50)	068, 081, 092, 123, 059, 072, 083, 091, 109, 122, 135, 137	1080737	1080741
1.5 HP 1140 RPM 208-230/3/60 (200-220/3/50)	108, 162, 181, 221, 243, 271, 150, 164, 200, 222, 256 PLUS ALL 'L' & 'V' MODELS	1080739	1080743
1 HP 850 RPM 460/3/60 (380-400/3/50)	068, 081, 092, 123, 059, 072, 083, 091, 109, 122, ,135, 137	1080737	1080741
1.5 HP 1140 RPM 460/3/60 (380-400/3/50)	108, 162, 181, 221, 243, 271, 150, 164, 200, 222, 256 PLUS ALL 'L' & 'V' MODELS	1080739	1080743
1 HP 850 RPM 575/3/60	068, 081, 092, 123, 059, 072, 083, 091, 109, 122, 135, 137	1080738	1080742
1.5 HP 1140 RPM 575/3/60	108, 162, 181, 221, 243, 271, 150, 164, 200, 222, 256 PLUS ALL 'L' & 'V' MODELS	1080740	1080744
OPTIONAL 3 HP TEFC MOTORS - 60/50 Hz	MODELS	PART#	
3 HP 1750 RPM 208-230/3/60 (200-220/3/50)	ALL	1080747	
3 HP 1750 RPM 460/3/60 (380-400/3/50)	ALL	1080747	
3 HP 1750 RPM 575/3/60	ALL	1080748	
FAN BLADES	MODELS	PART#	
FOR 1 HP MOTORS	068, 081, 092, 123, 059, 072, 083, 091, 109, 122, 135, 137	1080749	
FOR 1.5 HP MOTORS	108, 162, 181, 221, 243, 271, 150, 164, 200, 222, 256 PLUS ALL 'L' & 'V' MODELS	1080750	
FOR 3 HP MOTORS	ALL	1080751	
MISC.	MODELS	PART#	
FAN GUARD	ALL	1078534	
OPTIONAL THROW BOOSTER	ALL	1078526	
TERMINAL BLOCK - MOTORS	ALL	1045017	
TERMINAL BLOCK - HEATERS	ALL	1077747	
TERMINAL BLOCK - CONTROL CIRCUIT	ALL	1070060	
FIXED FAN DELAY	ALL 'L' and 'V' MODELS	1040240	
ADJUSTABLE FAN DELAY	ALL 'M' and 'P' MODELS	1073641	
ADJUSTABLE DEFROST TERMINATION	ALL	1048610	
HEATER SAFETY	ALL	1040164	
FACE HEATER CLIP	068, 081, 092, 108, 123, 135, 162, 059, 072, 083, 091, 109, 122, 137, 065, 078, 089, 094, 118, 134, 143, 055, 066, 076, 087, 100, 114, 127	1080834	
FACE HEATER CLIP	181, 221, 243, 271, 150, 164, 200, 222, 256, 161, 175, 198, 216, 228, 145, 172, 187, 217	1040201	
HEATER CLAMP: COIL	068, 081, 092, 108, 123, 135, 162, 059, 072, 083, 091, 109, 122, 137, 065, 078, 089, 094, 118, 134, 143, 055, 066, 076, 087, 100, 114, 127	1081508 & 1081787	
HEATER CLAMP: COIL	181, 221, 243, 271, 150, 164, 200, 222, 256, 161, 175, 198, 216, 228, 145, 172, 187, 217	1078832	
HEATER CLAMP: DRAIN PAN	ALL	1068168	

SERVICE PARTS

MODELS	COIL FACE HEATERS			DRAIN PAN HEATERS		
	230V/200-220V (230V HEATER)	460V/380-400V (2-230V HEATERS IN SERIES)	575V (2-288V HEATERS IN SERIES)	230V/200-220V (230V HEATER)	460V/380-400V (2-230V HEATERS IN SERIES)	575V (2-288V HEATERS IN SERIES)
068, 081, 092, 108, 059, 072, 083, 091, 065, 078, 089, 094, 055, 066, 076, 087	1080835-001	1080835-001	1080835-002	1080894-001	1080894-001	1080894-002
123, 135, 162, 109, 122, 137, 118, 134, 143, 100, 114, 127	1080835-003	1080835-003	1080835-004	1080894-003	1080894-003	1080894-004
181, 150, 164, 161, 145	1080835-005	1080835-005	1080835-006	1080894-005	1080894-005	1080894-006
221, 243, 271, 200, 222, 256, 175, 198, 216, 228, 172, 187, 217	1080835-007	1080835-007	1080835-008	1080894-007	1080894-007	1080894-008

PROJECT INFORMATION

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



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