THP Hot Gas Defrost

60 Hz

HIGH PROFILE EVAPORATOR

PRODUCT DATA & INSTALLATION

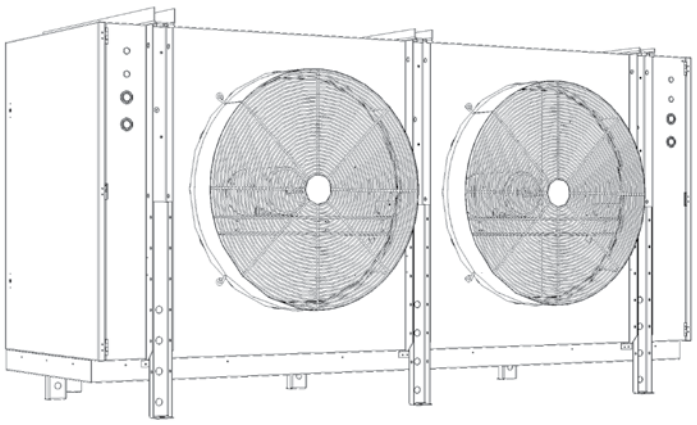
LOW & MEDIUM TEMPERATURE HOT GAS DEFROST

ELECTRICAL POWER: 208-230/3/60, 460/3/60, 575/3/60

Bulletin T30-THPHG-PDI-3

1081592

For the latest product updates and further information, visit **www.trentonrefrigeration.com**



INCLUDES RATINGS FOR LOW GWP REFRIGERANTS

CONTENTS

NOMENCLATURE

T HP 216 L E - T5 A - S B

T = Trenton

High Profile Evaporator

Nominal Capacity x 1000
(standard motor/fan blade) @ 10°F TD

Application Range
H = Hi / Medium Temp 7 FPI (0°F to 35°F Evap Temp)
M = Medium Temp 6 FPI (0°F to 35°F Evap Temp)
P = Medium Temp 4 FPI (0°F to 35°F Evap Temp)
L = Low Temp 6 FPI (-5°F to -40°F Evap Temp)
V = Low Temp 4 FPI (-5°F to -40°F Evap Temp)

Defrost
A = Air
E = Electric
T = 3 Pipe Hot Gas w/ Heater
G = Reverse Cycle Hot Gas w/ Heater
H = 3 Pipe Hot gas w/ Loop
R = Reverse Cycle Hot Gas w/ Loop

Throw Boosters:
N = None
B = Booster

Motor Option:
S = Standard
T = TEFC
E = ECM
V = High Velocity†
† Not available on above +15°F Evap. Temp. models

Generation
A = 1st

Voltage:
T3 = 208-230/3/60
T4 = 460/3/60
T5 = 575/3/60
T7 = 200-220/3/50
T9 = 380-400/3/50

STANDARD FEATURES

- Compatable with Low GWP Refrigerants
- Heavy gauge textured aluminum cabinet with galvanized steel hangers, support channels and end plates
- Hinged access panels with removable hinge pins and captive fasteners.
- Rugged heavy-gauge galvanized steel rail motor mount / support
- Stackable design
- Adjustable defrost termination thermostat
- Heater safety thermostat (on models with heaters)
- Drain pan heaters
- Fixed fan delay thermostat (all low temperature models)
- Adjustable fan delay thermostat (all medium temperature models)
- 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
- EC motors
- Hot gas drain pan loop
- TEFC motors
- Optional fin spacing
- Optional fin materials
- Optional coil coating

THP

CAPACITY DATA
STANDARD 6 F.P.I. MODELS

60Hz

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

Medium Temp. Models			068M#	081M#	092M#	108M#	123M#	135M#	162M#	181M#	221M#	243M#	271M#
Capacity BTUH *(WATTS)*	Evap Temp. 25°F *(-4°C)*	R407A	62470 *(18297)*	74800 *(21908)*	84180 *(24656)*	9940 *(29102)*	113160 *(33145)*	124200 *(36379)*	149000 *(43654)*	166500 *(48774)*	203300 *(59553)*	223600 *(65481)*	249300 *(73026)*
		R407C	64510 *(18894)*	77235 *(22622)*	86925 *(25460)*	10260 *(30051)*	116850 *(34226)*	128250 *(37565)*	152000 *(45078)*	169800 *(50364)*	207400 *(61494)*	228100 *(67616)*	254300 *(75407)*
		R404A R507	67900 *(19888)*	81300 *(23813)*	91500 *(26800)*	10800 *(31633)*	123000 *(36027)*	135000 *(39542)*	162000 *(47450)*	181000 *(53015)*	221000 *(64731)*	243000 *(71175)*	271000 *(79376)*
		R22	69260 *(20286)*	82930 *(24289)*	93330 *(27336)*	11020 *(32266)*	125500 *(36748)*	137700 *(40333)*	165200 *(48399)*	184600 *(54075)*	225400 *(66026)*	247900 *(72599)*	276400 *(80964)*
		R134a	65863 *(19291)*	78861 *(23099)*	88755 *(25996)*	10476 *(30684)*	119310 *(34946)*	130950 *(38356)*	157140 *(46027)*	175570 *(51425)*	214370 *(62789)*	235710 *(69040)*	262870 *(76995)*
Air Flow	CFM *(L/S)*		16800 *(7928)*	15600 *(7362)*	14700 *(6937)*	15900 *(7503)*	23400 *(11042)*	22000 *(10382)*	23900 *(11278)*	26100 *(12317)*	36300 *(17130)*	34800 *(16422)*	32000 *(15101)*
Refrigerant ** Charge R407A	LB. *(KG)*		*22 (10)*	*30 (13)*	*36 (17)*	*44 (20)*	*44 (20)*	*55 (25)*	*66 (30)*	*97 (44)*	*108 (50)*	*130 (59)*	*173 (78)*

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

Low Temp. Models			065L#	078L#	089L#	094L#	118L#	134L#	143L#	161L#	175L#	198L#	216L#	228L#
Capacity BTUH *(WATTS)*	Evap Temp. -20°F *(-29°C)*	R407A	59160 *(17326)*	71940 *(21073)*	81880 *(23983)*	86570 *(25357)*	108560 *(31797)*	123300 *(36109)*	131600 *(38534)*	148100 *(43384)*	161000 *(47157)*	182200 *(53354)*	198700 *(58205)*	209800 *(61439)*
		R407C	61090 *(17891)*	74290 *(21760)*	84550 *(24765)*	89395 *(26184)*	112100 *(32834)*	127300 *(37287)*	134200 *(39791)*	151100 *(44799)*	164200 *(48695)*	185800 *(55094)*	202700 *(60103)*	214000 *(63442)*
		R404A R507	64300 *(18833)*	78200 *(22905)*	89000 *(26068)*	94100 *(27562)*	118000 *(34562)*	134000 *(39249)*	143000 *(41885)*	161000 *(47157)*	175000 *(51258)*	198000 *(57994)*	216000 *(63266)*	228000 *(66781)*
		R22	65590 *(19210)*	79760 *(23363)*	90780 *(26589)*	95980 *(28113)*	120400 *(35253)*	136700 *(40034)*	145900 *(42723)*	164200 *(48100)*	178500 *(52283)*	202000 *(59154)*	220300 *(64531)*	232600 *(68117)*
		R134a	62371 *(18268)*	75854 *(22218)*	86330 *(25286)*	91277 *(26735)*	114460 *(33525)*	129980 *(38072)*	138710 *(40628)*	156170 *(45742)*	169750 *(49720)*	192060 *(56254)*	209520 *(61368)*	221160 *(64778)*
Air Flow	CFM *(L/S)*		18900 *(8919)*	17800 *(8400)*	16900 *(7975)*	15930 *(7517)*	26730 *(12614)*	25310 *(11944)*	23890 *(11274)*	26080 *(12307)*	38100 *(17979)*	36290 *(17125)*	34770 (16408)	32000 (15101)
Refrigerant ** Charge R407A	LB. *(KG)*		*23 (11)*	*32 (14)*	*40 (18)*	*47 (21)*	*47 (21)*	*59 (26)*	*70 (32)*	*105 (47)*	*92 (42)*	*116 (53)*	*130 (59)*	*173 (78)*

= T / G / H / R

Capacities rated using 10°F *(5.6°C)* TD & 100°F *(38°C)* liquid temperature.
Capacities at other TD within a range of 8 to 15 °F *(4.4 to 8.3°C)* are directly proportional to TD, or use formula: Capacity = Rated capacity ÷ 10 x TD.
For capacities at TD outside of range 8 to 15 °F *(4.4 to 8.3°C)*, or liquid temperature lower than 75°F *(24°)*, consult factory.
Capacities for R407A and R407C are based on mean temperature. Mean temperature is the average temperature between the saturated suction temperature and the temperature feeding the evaporator. For dew point ratings, consult factory.
Derate capacity by 0.92 and CFM by .85 for Throw Booster Option.

*** CAPACITY CORRECTION FACTORS FOR LOW TEMPERATURE UNITS**

SATURATED SUCTION TEMPERATURE °F *(°C)*	0 *(-17.8)*	-10 *(23.3)*	-20 *(-28.9)*	-30 *(-34.4)*	-40 *(-40)*
FACTOR	1.06	1.03	1.0	0.92	0.85

NO CORRECTION FACTOR REQUIRED FOR MEDIUM TEMP. UNITS

**** REFRIGERANT CHARGE CONVERSION FACTORS**

R407C	R404A	R507	R22	R134a
0.99	0.92	0.93	1.02	1.03

Average Air Throw - ft *(m)*†

STANDARD FAN AND MOTOR	OPTIONAL THROW BOOSTER
110 *(33)*	150 *(46)*

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

CAPACITY DATA
STANDARD 4 F.P.I. MODELS (cont'd)

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

Medium Temp. 4 FPI Models			059P#	072P#	083P#	091P#	109P#	122P#	137P#	150P#	164P#	200P#	222P#	256P#
Capacity BTUH (WATTS)	Evap Temp. 25°F (-4°C)	R407A	54280 (15899)	66240 (19402)	75990 (22258)	83720 (24522)	100280 (29372)	112200 (32875)	126000 (36917)	138000 (40420)	150900 (44193)	184000 (53894)	204200 (59822)	235500 (68983)
		R407C	56050 (16417)	68400 (20035)	78470 (22984)	86450 (25321)	103550 (30330)	115900 (33947)	128500 (38121)	140800 (41738)	153900 (45634)	187700 (55651)	208300 (61773)	240200 (71233)
		R404A R507	59000 (17281)	72000 (21089)	82600 (24194)	91000 (26654)	109000 (31926)	122000 (35734)	137000 (40127)	150000 (43935)	164000 (48036)	200000 (58580)	222000 (65024)	256000 (74982)
		R22	60180 (17627)	73440 (21511)	84250 (24678)	92820 (27187)	111200 (32565)	124400 (36449)	139700 (40930)	153000 (44814)	167300 (48997)	204000 (59752)	226400 (66324)	261100 (76482)
		R134a	57230 (16763)	69840 (20456)	80122 (23468)	88270 (25854)	105730 (30968)	118340 (34662)	132890 (38923)	145500 (42617)	159080 (46595)	194000 (56823)	215340 (63073)	248320 (72733)
Air Flow	CFM (L/S)		17500 (8258)	16500 (7786)	15600 (7362)	14800 (6984)	24800 (11703)	23400 (11042)	22300 (10523)	28600 (13496)	27500 (12977)	38100 (17979)	36600 (17272)	34400 (16233)
Refrigerant ** Charge R407A	LB. (KG)		22 (10)	30 (13)	36 (17)	44 (20)	44 (20)	55 (25)	62 (28)	81 (36)	97 (44)	108 (50)	130 (59)	173 (78)

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

Low Temp. 4 FPI Models			055V#	066V#	076V#	087V#	100V#	114V#	127V#	145V#	172V#	187V#	217V#
Capacity BTUH (WATTS)	Evap Temp. -20°F (-29°C)	R407A	50600 (15899)	60720 (19132)	69920 (22905)	80040 (25869)	92000 (32395)	104900 (35300)	116800 (36917)	133400 (43654)	158200 (52008)	172000 (58205)	199600 (65211)
		R407C	52250 (16417)	62700 (19756)	72200 (23652)	82650 (26712)	95000 (33451)	108300 (36452)	119100 (38121)	136100 (45078)	161400 (53704)	175400 (60103)	203600 (67338)
		R404A R507	55000 (17281)	66000 (20796)	76000 (24897)	87000 (28118)	100000 (35212)	114000 (38370)	127000 (40127)	145000 (47450)	172000 (56530)	187000 (63266)	217000 (70882)
		R22	56100 (17627)	67320 (21212)	77520 (25395)	88740 (28680)	102000 (35916)	116300 (39137)	129500 (40930)	147900 (48399)	175400 (57661)	190700 (64531)	221300 (72300)
		R134a	53350 (16763)	64020 (20172)	73720 (24150)	84390 (27274)	97000 (34156)	110580 (37219)	123190 (38923)	140650 (46027)	166840 (54834)	181390 (61368)	210490 (68756)
Air Flow	CFM (L/S)		19500 (9202)	18600 (8777)	17800 (8400)	17000 (8022)	27900 (13166)	26700 (12600)	25500 (12033)	27400 (12930)	38100 (17979)	36600 (17272)	34400 (16233)
Refrigerant ** Charge R407A	LB. (KG)		23 (11)	32 (14)	40 (18)	47 (21)	47 (21)	59 (26)	70 (32)	105 (47)	116 (53)	139 (59)	173 (78)

= T / G / H / R

Capacities rated using 10°F *(5.6°C)* TD & 100°F *(38°C)* liquid temperature.
Capacities at other TD within a range of 8 to 15 °F *(4.4 to 8.3°C)* are directly proportional to TD, or use formula: Capacity = Rated capacity ÷ 10 x TD.
For capacities at TD outside of range 8 to 15 °F *(4.4 to 8.3°C)*, or liquid temperature lower than 75°F *(24°)*, consult factory.
Capacities for R407A and R407C are based on mean temperature. Mean temperature is the average temperature between the saturated suction temperature and the temperature feeding the evaporator. For dew point ratings, consult factory.
Derate capacity by 0.92 and CFM by .85 for Throw Booster Option.

*** CAPACITY CORRECTION FACTORS FOR LOW TEMPERATURE UNITS**

SATURATED SUCTION TEMPERATURE °F *(°C)*	0 *(-17.8)*	-10 *(23.3)*	-20 *(-28.9)*	-30 *(-34.4)*	-40 *(-40)*
FACTOR	1.06	1.03	1.0	0.92	0.85

NO CORRECTION FACTOR REQUIRED FOR MEDIUM TEMP. UNITS

**** REFRIGERANT CHARGE CONVERSION FACTORS**

R407C	R404A	R507	R22	R134a
0.99	0.92	0.93	1.02	1.03

Average Air Throw - ft *(m)*†

STANDARD FAN AND MOTOR	OPTIONAL THROW BOOSTER
110 *(33)*	150 *(46)*

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

THP

ELECTRICAL DATA
STANDARD MODELS - 208-230/3/60

60Hz

MODEL	FPI	FAN MOTORS										DRAIN PAN HEATERS (IF APPLICABLE)			
				STANDARD				ECM							
		QTY	HP	MOTOR FLA TOTAL	WATTS	MCA (A)	MAX. FUSE (AMPS)	MOTOR FLA TOTAL	WATTS	MCA (A)	MAX. FUSE (AMPS)	WATTS	AMPS	MCA (A)	MAX. FUSE (AMPS)
THP068M#-T3A	6	2	1	9.6	2200	10.8	15	12.4	1740	14	20	7350	18.5	23.1	25
THP081M#-T3A		2	1	9.6	2200	10.8	15	12.4	1740	14	20	7350	18.5	23.1	25
THP092M#-T3A		2	1	9.6	2200	10.8	15	12.4	1740	14	20	7350	18.5	23.1	25
THP108M#-T3A		2	1.5	11.2	2880	15.1	20	12.4	2140	14	20	7350	18.5	23.1	25
THP123M#-T3A		3	1	14.4	3300	15.6	20	18.6	2610	20.2	25	10500	26.4	33.0	35
THP135M#-T3A		3	1	14.4	3300	15.6	20	18.6	2610	20.2	25	10500	26.4	33.0	35
THP162M#-T3A		3	1.5	16.8	4320	20.1	25	18.6	3210	20.2	25	10500	26.4	33.0	35
THP181M#-T3A		3+	1.5	16.8	4320	20.1	25	18.6	3210	20.2	25	10800	27.1	33.9	35
THP221M#-T3A		4	1.5	22.4	5760	30.1	35	24.8	4280	30.1	35	14100	35.4	44.2	50
THP243M#-T3A		4	1.5	22.4	5760	30.1	35	24.8	4280	30.1	35	14100	35.4	44.2	50
THP271M#-T3A		4	1.5	22.4	5760	30.1	35	24.8	4280	30.1	35	14100	35.4	44.2	50
THP065L#-T3A		2	1.5	11.2	2880	15.1	20	12.4	2140	14	20	7350	18.5	23.1	25
THP078L#-T3A		2	1.5	11.2	2880	15.1	20	12.4	2140	14	20	7350	18.5	23.1	25
THP089L#-T3A		2	1.5	11.2	2880	15.1	20	12.4	2140	14	20	7350	18.5	23.1	25
THP094L#-T3A		2	1.5	11.2	2880	15.1	20	12.4	2140	14	20	7350	18.5	23.1	25
THP118L#-T3A		3	1.5	16.8	4320	20.1	25	18.6	3210	20.2	25	10500	26.4	33.0	35
THP134L#-T3A		3	1.5	16.8	4320	20.1	25	18.6	3210	20.2	25	10500	26.4	33.0	35
THP143L#-T3A		3	1.5	16.8	4320	20.1	25	18.6	3210	20.2	25	10500	26.4	33.0	35
THP161L#-T3A		3+	1.5	16.8	4320	20.1	25	18.6	3210	20.2	25	10800	27.1	33.9	35
THP175L#-T3A		4	1.5	22.4	5760	30.1	35	24.8	4280	30.1	35	14100	35.4	44.2	50
THP198L#-T3A		4	1.5	22.4	5760	30.1	35	24.8	4280	30.1	35	14100	35.4	44.2	50
THP216L#-T3A		4	1.5	22.4	5760	30.1	35	24.8	4280	30.1	35	14100	35.4	44.2	50
THP228L#-T3A		4	1.5	22.4	5760	30.1	35	24.8	4280	30.1	35	14100	35.4	44.2	50
THP059P#-T3A	4	2	1	9.6	2200	10.8	15	12.4	1740	14	20	7350	18.5	23.1	25
THP072P#-T3A		2	1	9.6	2200	10.8	15	12.4	1740	14	20	7350	18.5	23.1	25
THP083P#-T3A		2	1	9.6	2200	10.8	15	12.4	1740	14	20	7350	18.5	23.1	25
THP091P#-T3A		2	1	9.6	2200	10.8	15	12.4	1740	14	20	7350	18.5	23.1	25
THP109P#-T3A		3	1	14.4	3300	15.6	20	18.6	2610	20.2	25	10500	26.4	33.0	35
THP122P#-T3A		3	1	14.4	3300	15.6	20	18.6	2610	20.2	25	10500	26.4	33.0	35
THP137P#-T3A		3	1	14.4	3300	15.6	20	18.6	2610	20.2	25	10500	26.4	33.0	35
THP150P#-T3A		3+	1.5	16.8	4320	20.1	25	18.6	3210	20.2	25	10800	27.1	33.9	35
THP164P#-T3A		3+	1.5	16.8	4320	20.1	25	18.6	3210	20.2	25	10800	27.1	33.9	35
THP200P#-T3A		4	1.5	22.4	5760	30.1	35	24.8	4280	30.1	35	14100	35.4	44.2	50
THP222P#-T3A		4	1.5	22.4	5760	30.1	35	24.8	4280	30.1	35	14100	35.4	44.2	50
THP256P#-T3A		4	1.5	22.4	5760	30.1	35	24.8	4280	30.1	35	14100	35.4	44.2	50
THP055V#-T3A		2	1.5	11.2	2880	15.1	20	12.4	2140	14	20	7350	18.5	23.1	25
THP066V#-T3A		2	1.5	11.2	2880	15.1	20	12.4	2140	14	20	7350	18.5	23.1	25
THP076V#-T3A		2	1.5	11.2	2880	15.1	20	12.4	2140	14	20	7350	18.5	23.1	25
THP087V#-T3A		2	1.5	11.2	2880	15.1	20	12.4	2140	14	20	7350	18.5	23.1	25
THP100V#-T3A		3	1.5	16.8	4320	20.1	25	18.6	3210	20.2	25	10500	26.4	33.0	35
THP114V#-T3A		3	1.5	16.8	4320	20.1	25	18.6	3210	20.2	25	10500	26.4	33.0	35
THP127V#-T3A		3	1.5	16.8	4320	20.1	25	18.6	3210	20.2	25	10500	26.4	33.0	35
THP145V#-T3A		3+	1.5	16.8	4320	20.1	25	18.6	3210	20.2	25	10800	27.1	33.9	35
THP172V#-T3A		4	1.5	22.4	5760	30.1	35	24.8	4280	30.1	35	14100	35.4	44.2	50
THP187V#-T3A		4	1.5	22.4	5760	30.1	35	24.8	4280	30.1	35	14100	35.4	44.2	50
THP217V#-T3A		4	1.5	22.4	5760	30.1	35	24.8	4280	30.1	35	14100	35.4	44.2	50

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

= T / G / H / R

THP

ELECTRICAL DATA
STANDARD MODELS - 460/3/60

60Hz

MODEL	FPI	FAN MOTORS										DRAIN PAN HEATERS (IF APPLICABLE)			
				STANDARD				ECM							
		QTY	HP	MOTOR FLA TOTAL	WATTS	MCA (A)	MAX. FUSE (AMPS)	MOTOR FLA TOTAL	WATTS	MCA (A)	MAX. FUSE (AMPS)	WATTS	AMPS	MCA (A)	MAX. FUSE (AMPS)
KHP068M#-T4A	6	2	1	4.8	2200	5.4	15	6.2	1740	7	15	7350	9.2	11.5	15
KHP081M#-T4A		2	1	4.8	2200	5.4	15	6.2	1740	7	15	7350	9.2	11.5	15
KHP092M#-T4A		2	1	4.8	2200	5.4	15	6.2	1740	7	15	7350	9.2	11.5	15
KHP108M#-T4A		2	1.5	5.6	2980	6.3	15	6.2	2140	7	15	7350	9.2	11.5	15
KHP123M#-T4A		3	1	7.2	3300	7.8	15	9.3	2610	10.1	15	10500	13.2	16.5	20
KHP135M#-T4A		3	1	7.2	3300	7.8	15	9.3	2610	10.1	15	10500	13.2	16.5	20
KHP162M#-T4A		3	1.5	8.4	4470	9.1	15	9.3	3210	10.1	15	10500	13.2	16.5	20
KHP181M#-T4A		3+	1.5	8.4	4470	9.1	15	9.3	3210	10.1	15	10800	13.6	16.9	20
KHP221M#-T4A		4	1.5	11.2	5960	15.1	20	12.4	4280	15.1	20	14100	17.7	22.1	25
KHP243M#-T4A		4	1.5	11.2	5960	15.1	20	12.4	4280	15.1	20	14100	17.7	22.1	25
KHP271M#-T4A		4	1.5	11.2	5960	15.1	20	12.4	4280	15.1	20	14100	17.7	22.1	25
KHP065L#-T4A		2	1.5	5.6	2980	6.3	15	6.2	2140	7	15	7350	9.2	11.5	15
KHP078L#-T4A		2	1.5	5.6	2980	6.3	15	6.2	2140	7	15	7350	9.2	11.5	15
KHP089L#-T4A		2	1.5	5.6	2980	6.3	15	6.2	2140	7	15	7350	9.2	11.5	15
KHP094L#-T4A		2	1.5	5.6	2980	6.3	15	6.2	2140	7	15	7350	9.2	11.5	15
KHP118L#-T4A		3	1.5	8.4	4470	9.1	15	9.3	3210	10.1	15	10500	13.2	16.5	20
KHP134L#-T4A		3	1.5	8.4	4470	9.1	15	9.3	3210	10.1	15	10500	13.2	16.5	20
KHP143L#-T4A		3	1.5	8.4	4470	9.1	15	9.3	3210	10.1	15	10500	13.2	16.5	20
KHP161L#-T4A		3+	1.5	8.4	4470	9.1	15	9.3	3210	10.1	15	10800	13.6	16.9	20
KHP175L#-T4A		4	1.5	11.2	5960	15.1	20	12.4	4280	15.1	20	14100	17.7	22.1	25
KHP198L#-T4A		4	1.5	11.2	5960	15.1	20	12.4	4280	15.1	20	14100	17.7	22.1	25
KHP216L#-T4A		4	1.5	11.2	5960	15.1	20	12.4	4280	15.1	20	14100	17.7	22.1	25
KHP228L#-T4A		4	1.5	11.2	5960	15.1	20	12.4	4280	15.1	20	14100	17.7	22.1	25
KHP059P#-T4A	4	2	1	4.8	2200	5.4	15	6.2	1740	7	15	7350	9.2	11.5	15
KHP072P#-T4A		2	1	4.8	2200	5.4	15	6.2	1740	7	15	7350	9.2	11.5	15
KHP083P#-T4A		2	1	4.8	2200	5.4	15	6.2	1740	7	15	7350	9.2	11.5	15
KHP091P#-T4A		2	1	4.8	2200	5.4	15	6.2	1740	7	15	7350	9.2	11.5	15
KHP109P#-T4A		3	1	7.2	3300	7.8	15	9.3	2610	10.1	15	10500	13.2	16.5	20
KHP122P#-T4A		3	1	7.2	3300	7.8	15	9.3	2610	10.1	15	10500	13.2	16.5	20
KHP137P#-T4A		3	1	7.2	3300	7.8	15	9.3	2610	10.1	15	10500	13.2	16.5	20
KHP150P#-T4A		3+	1.5	8.4	4470	9.1	15	9.3	3210	10.1	15	10800	13.6	16.9	20
KHP164P#-T4A		3+	1.5	8.4	4470	9.1	15	9.3	3210	10.1	15	10800	13.6	16.9	20
KHP200P#-T4A		4	1.5	11.2	5960	15.1	20	12.4	4280	15.1	20	14100	17.7	22.1	25
KHP222P#-T4A		4	1.5	11.2	5960	15.1	20	12.4	4280	15.1	20	14100	17.7	22.1	25
KHP256P#-T4A		4	1.5	11.2	5960	15.1	20	12.4	4280	15.1	20	14100	17.7	22.1	25
KHP055V#-T4A		2	1.5	5.6	2980	6.3	15	6.2	2140	7	15	7350	9.2	11.5	15
KHP066V#-T4A		2	1.5	5.6	2980	6.3	15	6.2	2140	7	15	7350	9.2	11.5	15
KHP076V#-T4A		2	1.5	5.6	2980	6.3	15	6.2	2140	7	15	7350	9.2	11.5	15
KHP087V#-T4A		2	1.5	5.6	2980	6.3	15	6.2	2140	7	15	7350	9.2	11.5	15
KHP100V#-T4A		3	1.5	8.4	4470	9.1	15	9.3	3210	10.1	15	10500	13.2	16.5	20
KHP114V#-T4A		3	1.5	8.4	4470	9.1	15	9.3	3210	10.1	15	10500	13.2	16.5	20
KHP127V#-T4A		3	1.5	8.4	4470	9.1	15	9.3	3210	10.1	15	10500	13.2	16.5	20
KHP145V#-T4A		3+	1.5	8.4	4470	9.1	15	9.3	3210	10.1	15	10800	13.6	16.9	20
KHP172V#-T4A		4	1.5	11.2	5960	15.1	20	12.4	4280	15.1	20	14100	17.7	22.1	25
KHP187V#-T4A		4	1.5	11.2	5960	15.1	20	12.4	4280	15.1	20	14100	17.7	22.1	25
KHP217V#-T4A		4	1.5	11.2	5960	15.1	20	12.4	4280	15.1	20	14100	17.7	22.1	25

NOTE: 3+ indicates 3-fan "long" configuration (see dimensional data for details)
= T / G / H / R

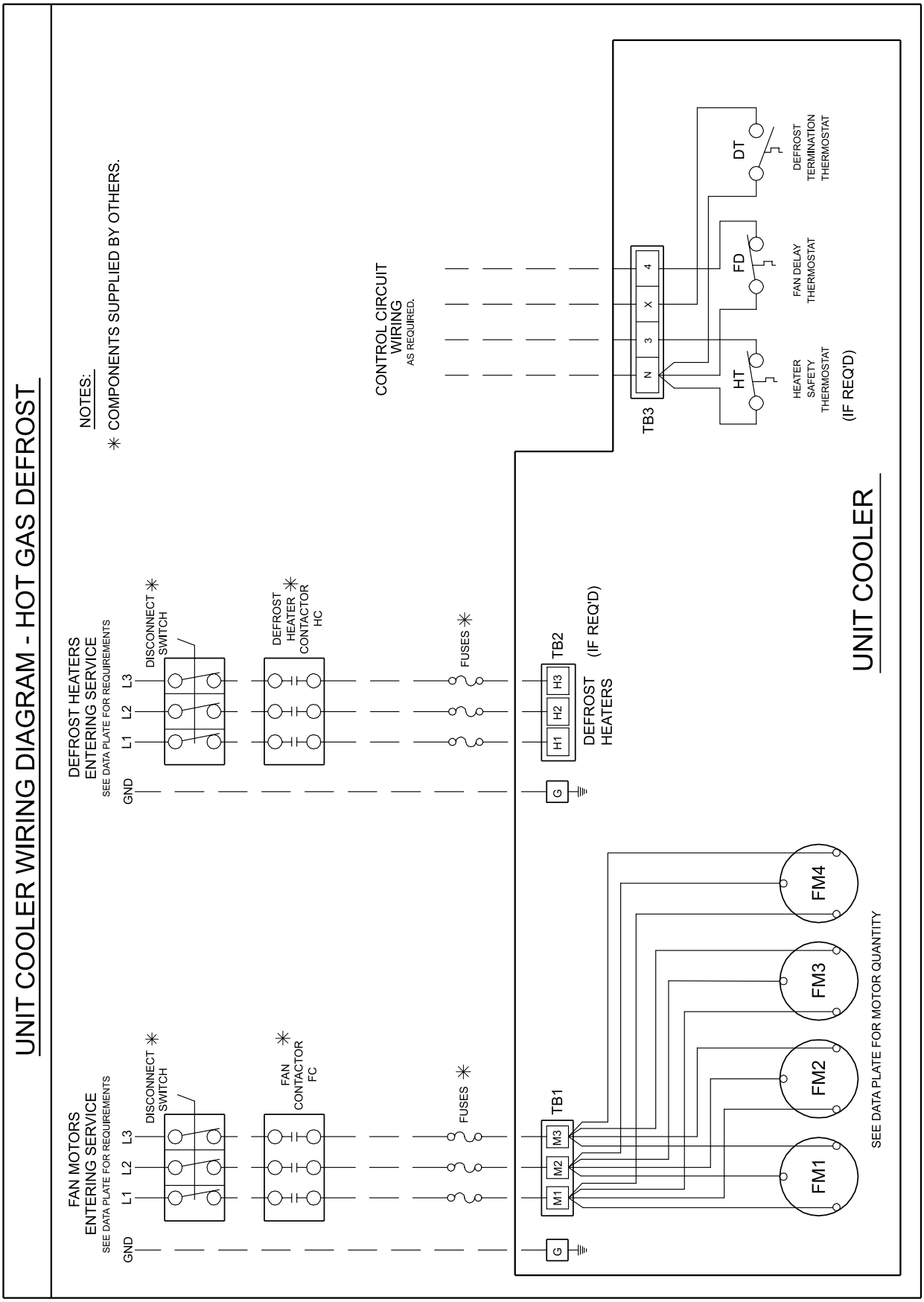
THP

ELECTRICAL DATA
STANDARD MODELS - 575/3/60

60Hz

MODEL	FPI	FAN MOTORS						DRAIN PAN HEATERS (IF APPLICABLE)			
		FAN MOTOR QTY	HP	MOTOR FLA TOTAL	WATTS	MCA (A)	MAX. FUSE (AMPS)	WATTS	AMPS	MCA (A)	MAX. FUSE (AMPS)
THP068M#-T5A	6	2	1	4.8	2180	5.4	15	7350	7.4	9.2	15
THP081M#-T5A		2	1	4.8	2180	5.4	15	7350	7.4	9.2	15
THP092M#-T5A		2	1	4.8	2180	5.4	15	7350	7.4	9.2	15
THP108M#-T5A		2	1.5	4.6	2860	5.2	15	7350	7.4	9.2	15
THP123M#-T5A		3	1	7.2	3270	7.8	15	10500	10.5	13.2	15
THP135M#-T5A		3	1	7.2	3270	7.8	15	10500	10.5	13.2	15
THP162M#-T5A		3	1.5	6.9	4290	7.5	15	10500	10.5	13.2	15
THP181M#-T5A		3+	1.5	6.9	4290	7.5	15	10800	10.8	13.6	15
THP221M#-T5A		4	1.5	9.2	5720	9.8	15	14100	14.2	17.7	20
THP243M#-T5A		4	1.5	9.2	5720	9.8	15	14100	14.2	17.7	20
THP271M#-T5A		4	1.5	9.2	5720	9.8	15	14100	14.2	17.7	20
THP065L#-T5A		2	1.5	4.6	2860	5.2	15	7350	7.4	9.2	15
THP078L#-T5A		2	1.5	4.6	2860	5.2	15	7350	7.4	9.2	15
THP089L#-T5A		2	1.5	4.6	2860	5.2	15	7350	7.4	9.2	15
THP094L#-T5A		2	1.5	4.6	2860	5.2	15	7350	7.4	9.2	15
THP118L#-T5A		3	1.5	6.9	4290	7.5	15	10500	10.5	13.2	15
THP134L#-T5A		3	1.5	6.9	4290	7.5	15	10500	10.5	13.2	15
THP143L#-T5A		3	1.5	6.9	4290	7.5	15	10500	10.5	13.2	15
THP161L#-T5A		3+	1.5	6.9	4290	7.5	15	10800	10.8	13.6	15
THP175L#-T5A		4	1.5	9.2	5720	9.8	15	14100	14.2	17.7	20
THP198L#-T5A		4	1.5	9.2	5720	9.8	15	14100	14.2	17.7	20
THP216L#-T5A		4	1.5	9.2	5720	9.8	15	14100	14.2	17.7	20
THP228L#-T5A		4	1.5	9.2	5720	9.8	15	14100	14.2	17.7	20
THP059P#-T5A	4	2	1	4.8	2180	5.4	15	7350	7.4	9.2	15
THP072P#-T5A		2	1	4.8	2180	5.4	15	7350	7.4	9.2	15
THP083P#-T5A		2	1	4.8	2180	5.4	15	7350	7.4	9.2	15
THP091P#-T5A		2	1	4.8	2180	5.4	15	7350	7.4	9.2	15
THP109P#-T5A		3	1	7.2	3270	7.8	15	10500	10.5	13.2	15
THP122P#-T5A		3	1	7.2	3270	7.8	15	10500	10.5	13.2	15
THP137P#-T5A		3	1	7.2	3270	7.8	15	10500	10.5	13.2	15
THP150P#-T5A		3+	1.5	6.9	4290	7.5	15	10800	10.8	13.6	15
THP164P#-T5A		3+	1.5	6.9	4290	7.5	15	10800	10.8	13.6	15
THP200P#-T5A		4	1.5	9.2	5720	9.8	15	14100	14.2	17.7	20
THP222P#-T5A		4	1.5	9.2	5720	9.8	15	14100	14.2	17.7	20
THP256P#-T5A		4	1.5	9.2	5720	9.8	15	14100	14.2	17.7	20
THP055V#-T5A		2	1.5	4.6	2860	5.2	15	7350	7.4	9.2	15
THP066V#-T5A		2	1.5	4.6	2860	5.2	15	7350	7.4	9.2	15
THP076V#-T5A		2	1.5	4.6	2860	5.2	15	7350	7.4	9.2	15
THP087V#-T5A		2	1.5	4.6	2860	5.2	15	7350	7.4	9.2	15
THP100V#-T5A		3	1.5	6.9	4290	7.5	15	10500	10.5	13.2	15
THP114V#-T5A		3	1.5	6.9	4290	7.5	15	10500	10.5	13.2	15
THP127V#-T5A		3	1.5	6.9	4290	7.5	15	10500	10.5	13.2	15
THP145V#-T5A		3+	1.5	6.9	4290	7.5	15	10800	10.8	13.6	15
THP172V#-T5A		4	1.5	9.2	5720	9.8	15	14100	14.2	17.7	20
THP187V#-T5A		4	1.5	9.2	5720	9.8	15	14100	14.2	17.7	20
THP217V#-T5A		4	1.5	9.2	5720	9.8	15	14100	14.2	17.7	20

NOTE: 3+ indicates 3-fan “long” configuration (see dimensional data for details)
= T / G / H / R


UNIT COOLER WIRING DIAGRAM - HOT GAS DEFROST
NOTES:
✳ COMPONENTS SUPPLIED BY OTHERS.
FAN MOTORS ENTERING SERVICE
SEE DATA PLATE FOR REQUIREMENTS
GND
L1 L2 L3
DISCONNECT ✳ SWITCH
FAN CONTACTOR FC ✳
FUSES ✳
TB1
M1 M2 M3
G
DEFROST HEATERS ENTERING SERVICE
SEE DATA PLATE FOR REQUIREMENTS
DISCONNECT ✳ SWITCH
DEFROST HEATER CONTACTOR HC ✳
FUSES ✳
TB2
H1 H2 H3
DEFROST HEATERS
(IF REQ'D)
CONTROL CIRCUIT WIRING
AS REQUIRED.
TB3
N 3 X 4
HT
HEATER SAFETY THERMOSTAT
(IF REQ'D)
FD
FAN DELAY THERMOSTAT
DT
DEFROST TERMINATION THERMOSTAT
UNIT COOLER
FM1
FM2
FM3
FM4
SEE DATA PLATE FOR MOTOR QUANTITY

HOT GAS PIPING

(STANDARD MODELS WITH ELECTRIC DRAIN PAN HEATER)

3 PIPE DEFROST WITH ELECTRIC DRAIN PAN HEATER

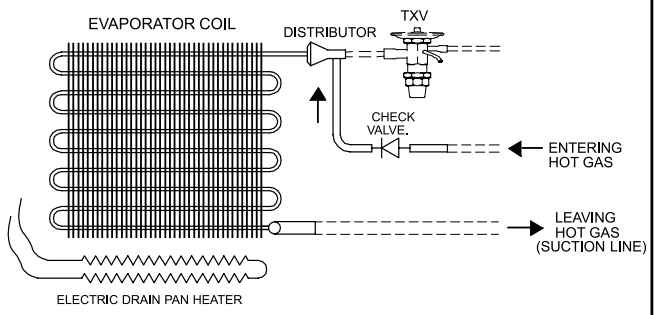


FIG. 1

REVERSE CYCLE DEFROST WITH ELECTRIC DRAIN PAN HEATER

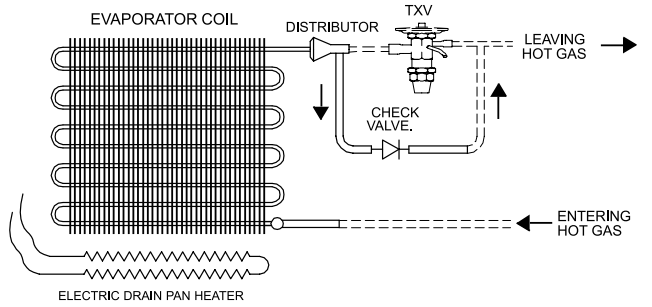


FIG. 2

HOT GAS PIPING

(MODELS WITH OPTIONAL HOT GAS DRAIN PAN LOOP)

3 PIPE DEFROST WITH HOT GAS DRAIN PAN LOOP

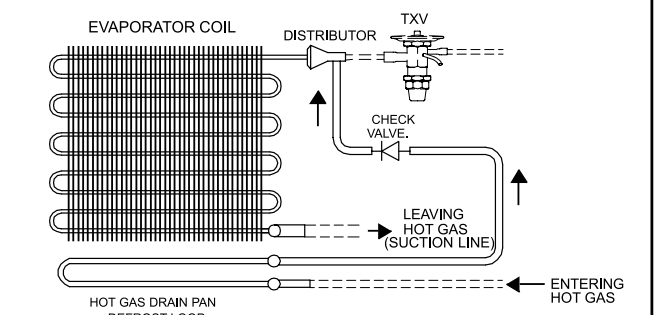


FIG. 3

REVERSE CYCLE DEFROST WITH HOT GAS DRAIN PAN LOOP

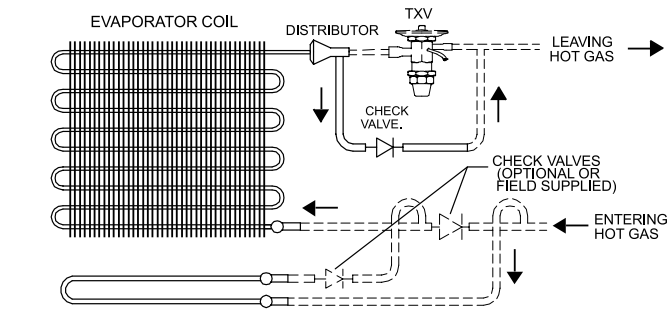
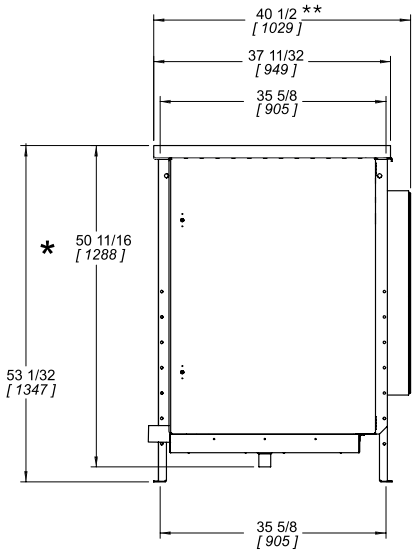
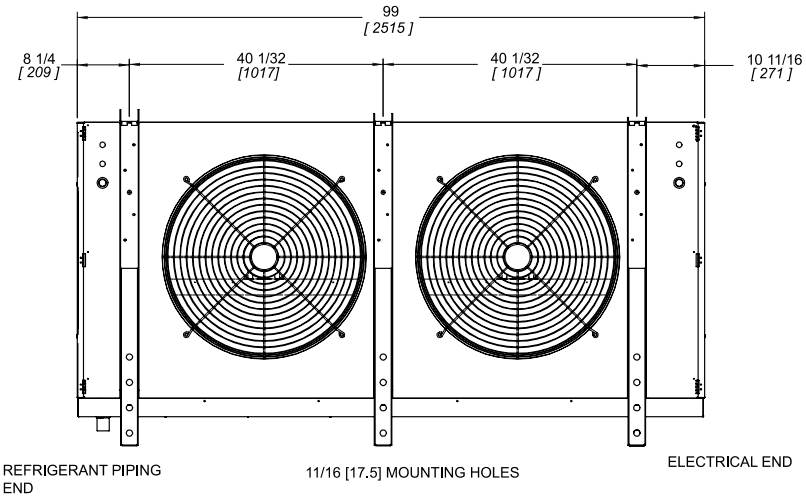


FIG. 4

2 Fan Models

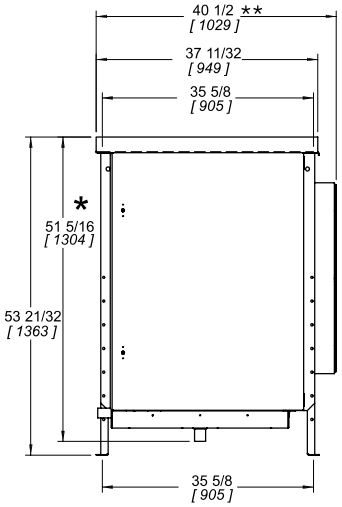


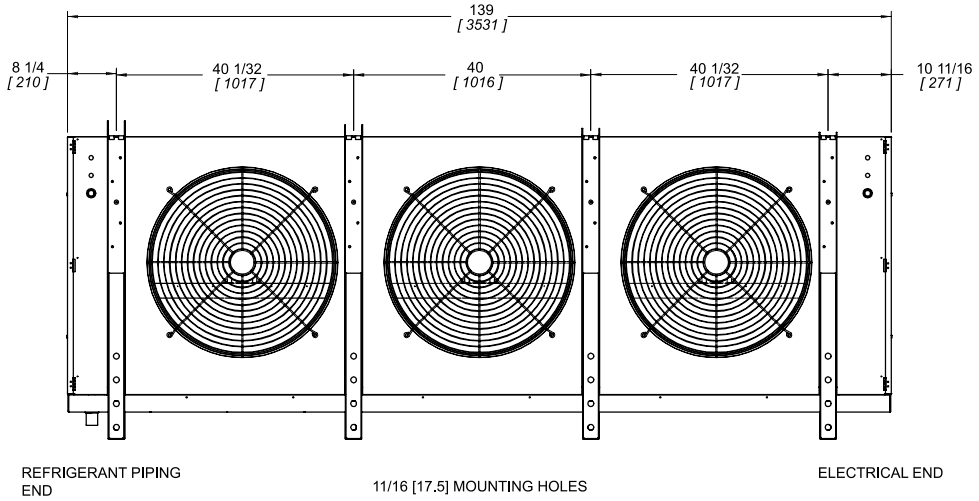


* Allow up to an additional 1-1/2" for hot gas loop option.

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

3 Fan Models



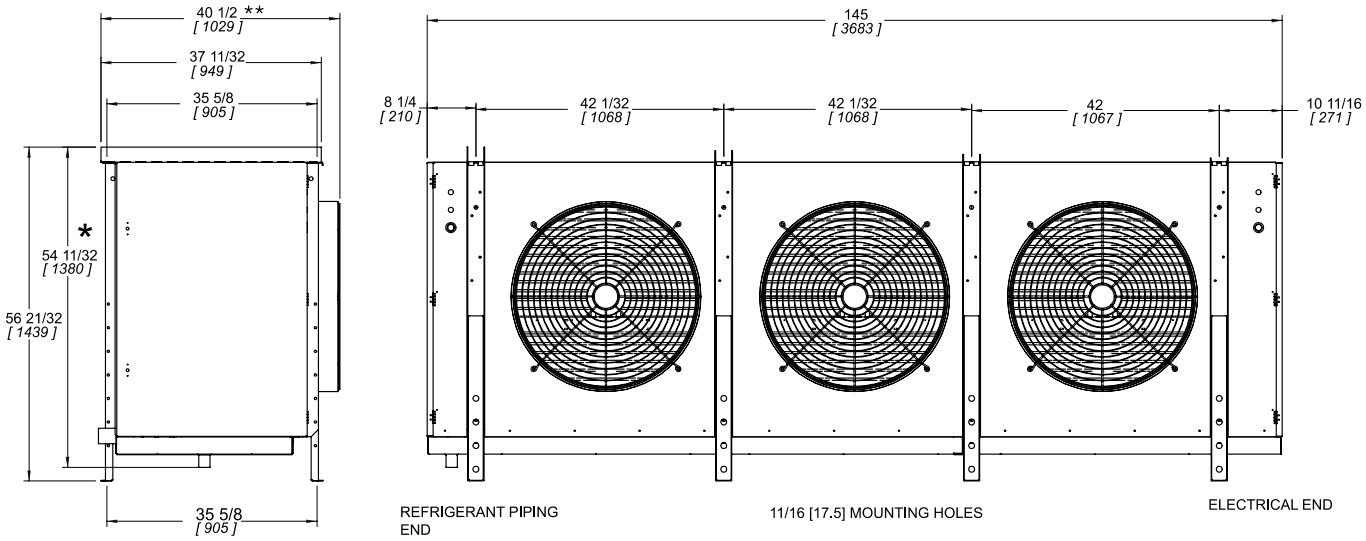


* Allow up to an additional 1-1/2" for hot gas loop option.

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

Drain connections 1-1/4" FPT.

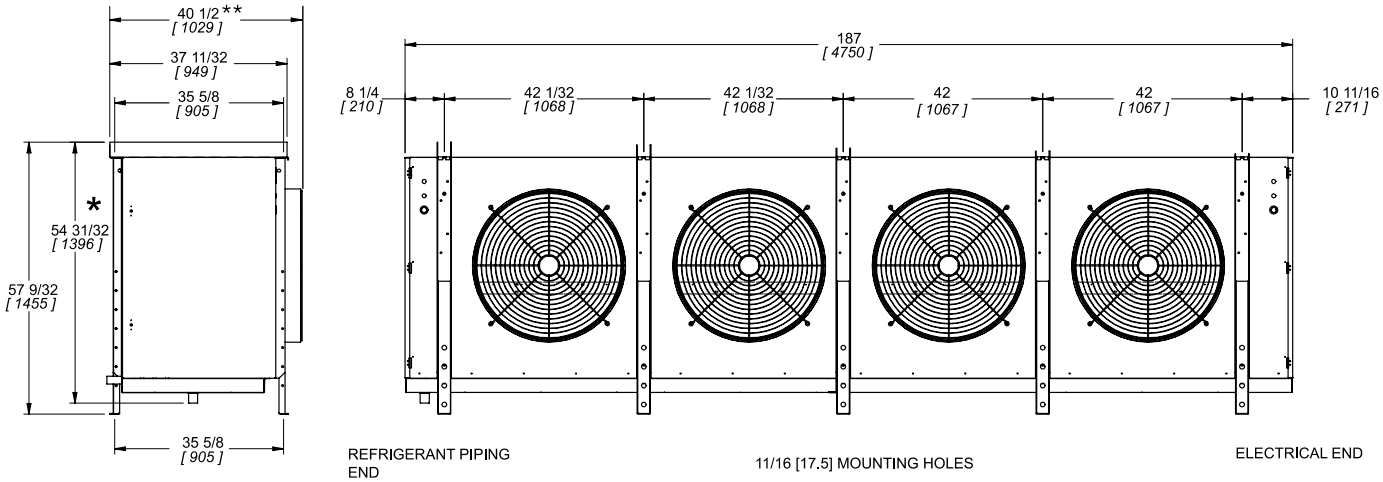
3 Fan (Long) Models



* Allow up to an additional 1-1/2" for hot gas loop option.

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

4 Fan Models



* Allow up to an additional 1-1/2" for hot gas loop option.

** 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		068M#	081M#	092M#	108M#	123M#	135M#	162M#	181M#	221M#	243M#	271M#
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)*
Side Port Conn. - 3 Pipe (OD Sweat)	Inches *(mm)*	7/8 *(22)*	1-1/8 *(29)*	1-1/8 *(29)*	1-1/8 *(29)*	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)*
Side Port Conn. - Reverse Cycle (OD Sweat)	Inches *(mm)*	7/8 *(22)*	1-1/8 *(29)*	1-1/8 *(29)*	1-1/8 *(29)*	1-1/8 *(29)*	1-1/8 *(29)*	1-1/8 *(29)*	1-1/8 *(29)*	1-1/8 *(29)*	1-1/8 *(29)*	1-3/8 *(35)*
Drain Pan Loop Conn. - (OD Sweat)	Inches *(mm)*	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)*	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		065L#	078L#	089L#	094L#	118L#	134L#	143L#	161L#	175L#	198L#	216L#	228L#
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)*	1-3/8 *(35)* **	1-5/8 *(41)*	1-5/8 *(41)*	1-5/8 *(41)*	1-5/8 *(41)*
Side Port Conn. - 3 Pipe (OD Sweat)	Inches *(mm)*	1-1/8 *(29)*	1-1/8 *(29)*	1-1/8 *(29)*	1-1/8 *(29)*	1-1/8 *(29)*	1-3/8 *(35)*	1-3/8 *(35)*	1-3/8 *(35)*	1-5/8 *(41)*	1-5/8 *(41)*	1-5/8 *(41)*	1-5/8 *(41)*
Side Port Conn. - Reverse Cycle (OD Sweat)	Inches *(mm)*	1-1/8 *(29)*	1-1/8 *(29)*	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)*
Drain Pan Loop Conn. - (OD Sweat)	Inches *(mm)*	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)* *	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)*	774 *(352)*	816 *(371)*	1049 *(477)*	1113 *(507)*	1177 *(535)*	1272 *(577)*	1452 *(659)*	1558 *(707)*	1664 *(755)*	1876 *(851)*

* Drain pan loop will have connections at opposite ends of the unit.
** Reverse Cycle 1-3/8 *(35)*, 3 -Pipe 1-5/8 *(41)*.
Note: Distributor and / or circuiting may change with each application.

SPECIFICATIONS - 4 F.P.I. MODELS

Medium Temperature Models - 4 F.P.I.

Medium Temp. 4 FPI Models		059P#	072P#	083P#	091P#	109P#	122P#	137P#	150P#	164P#	200P#	222P#	256P#
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)*
Side Port Conn. - 3 Pipe (OD Sweat)	Inches *(mm)*	7/8 *(25)*	7/8 *(25)*	7/8 *(25)*	1-1/8 *(29)*	1-1/8 *(29)*	1-1/8 *(29)*	1-1/8 *(29)*	1-1/8 *(29)*	1-1/8 *(29)*	1-3/8 *(35)*	1-3/8 *(35)*	1-3/8 *(35)*
Side Port Conn. - Reverse Cycle (OD Sweat)	Inches *(mm)*	7/8 *(25)*	7/8 *(25)*	7/8 *(25)*	1-1/8 *(29)*	1-1/8 *(29)*	1-1/8 *(29)*	1-1/8 *(29)*	1-1/8 *(29)*	1-1/8 *(29)*	1-1/8 *(29)*	1-1/8 *(29)*	1-3/8 *(35)*
Drain Pan Loop Conn. - (OD Sweat)	Inches *(mm)*	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)* *	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)*	774 *(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		055V#	066V#	076V#	087V#	100V#	114V#	127V#	145V#	172V#	187V#	217V#
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)*
Side Port Conn. - 3 Pipe (OD Sweat)	Inches *(mm)*	1-1/8 *(29)*	1-1/8 *(29)*	1-1/8 *(29)*	1-1/8 *(29)*	1-1/8 *(29)*	1-3/8 *(35)*	1-3/8 *(35)*	1-3/8 *(35)*	1-5/8 *(41)*	1-5/8 *(41)*	1-5/8 *(41)*
Side Port Conn. - Reverse Cycle (OD Sweat)	Inches *(mm)*	1-1/8 *(29)*	1-1/8 *(29)*	1-1/8 *(29)*	1-1/8 *(29)*	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)*
Drain Pan Loop Conn. - (OD Sweat)	Inches *(mm)*	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)*
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)*

* Drain pan loop will have connections at opposite ends of the unit.
** Reverse Cycle 1-3/8 *(35)*, 3 -Pipe 1-5/8 *(41)*.
Note: Distributor and / or circuiting may change with each application.

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.

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.

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.

THP

CAPACITY DATA
HIGH VELOCITY 6 F.P.I. MODELS

60Hz

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

Medium Temp. Models			068M#	081M#	092M#	108M#	123M#	135M#	162M#	181M#	221M#	243M#	271M#
Capacity BTUH *(WATTS)*	Evap Temp. 10°F *(-12°C)*	R407A	72680 *(21288)*	89240 *(26138)*	103040 *(30181)*	112240 *(32875)*	134320 *(39342)*	150900 *(44193)*	167400 *(49043)*	188600 *(55241)*	230900 *(67637)*	254800 *(74642)*	282400 *(82726)*
		R407C	75050 *(21982)*	92150 *(26990)*	106400 *(31165)*	115900 *(33947)*	138700 *(40625)*	155800 *(45634)*	170800 *(50643)*	192400 *(57043)*	235500 *(69842)*	259900 *(77076)*	288100 *(85424)*
		R404A R507	79000 *(23139)*	97000 *(28411)*	112000 *(32805)*	122000 *(35734)*	146000 *(42763)*	164000 *(48036)*	182000 *(53308)*	205000 *(60045)*	251000 *(73518)*	277000 *(81133)*	307000 *(89920)*
		R22	80580 *(23602)*	98940 *(28979)*	114240 *(33461)*	124440 *(36449)*	148900 *(43618)*	167300 *(48997)*	185600 *(54374)*	209100 *(61246)*	256000 *(74988)*	282500 *(82756)*	313100 *(91718)*
		R134a	76630 *(22445)*	94090 *(27559)*	108640 *(31821)*	118340 *(34662)*	141620 *(41480)*	159080 *(46595)*	176540 *(51709)*	198850 *(58244)*	243470 *(71312)*	268690 *(78699)*	297790 *(87222)*
Air Flow	CFM *(L/S)*		23800 *(11231)*	22800 *(10759)*	21700 *(10240)*	20800 *(9816)*	34200 *(16139)*	32600 *(15384)*	31200 *(14723)*	32900 *(15526)*	45500 *(21471)*	43800 *(20669)*	40900 *(19301)*
Refrigerant ** Charge R407A	LB. *(KG)*		*22 (10)*	*30 (13)*	*36 (17)*	*44 (20)*	*44 (20)*	*55 (25)*	*66 (30)*	*97 (44)*	*108 (50)*	*130 (59)*	*173 (78)*

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

Low Temp. Models			065L#	078L#	089L#	094L#	118L#	134L#	143L#	161L#	175L#	198L#	216L#	228L#
Capacity BTUH *(WATTS)*	Evap Temp. -20°F *(-29°C)*	R407A	62560 *(18324)*	79120 *(23174)*	86480 *(25330)*	96600 *(28295)*	115000 *(33684)*	135200 *(39612)*	150900 *(44193)*	165600 *(48504)*	168400 *(49313)*	196900 *(57667)*	220800 *(64672)*	232800 *(68176)*
		R407C	64600 *(18921)*	81700 *(23930)*	89300 *(26156)*	99750 *(29217)*	118750 *(34782)*	139650 *(40903)*	153900 *(45634)*	168900 *(50086)*	171800 *(50921)*	200800 *(59547)*	225200 *(66781)*	237500 *(70399)*
		R404A R507	68000 *(19917)*	86000 *(25189)*	94000 *(27533)*	105000 *(30755)*	125000 *(36613)*	147000 *(43056)*	164000 *(48036)*	180000 *(52722)*	183000 *(53601)*	214000 *(62681)*	240000 *(70296)*	253000 *(74104)*
		R22	69360 *(20315)*	87720 *(25693)*	95880 *(28084)*	107100 *(31370)*	127500 *(37345)*	149900 *(43917)*	167300 *(48997)*	183600 *(53776)*	186700 *(54673)*	218300 *(63935)*	244800 *(71702)*	258100 *(75586)*
		R134a	65960 *(19319)*	83420 *(24433)*	91180 *(26707)*	101850 *(29832)*	121250 *(35515)*	142590 *(41764)*	159080 *(46595)*	174600 *(51140)*	177510 *(51993)*	207580 *(60801)*	232800 *(68187)*	245410 *(71881)*
Air Flow	CFM *(L/S)*		23800 *(11231)*	22800 *(10759)*	21700 *(10240)*	20800 *(9816)*	34200 *(16139)*	32600 *(15384)*	31200 *(14723)*	32900 *(15526)*	47200 *(22274)*	45500 *(21471)*	43800 (20669)	40900 (19301)
Refrigerant ** Charge R407A	LB. *(KG)*		*23 (11)*	*32 (14)*	*40 (18)*	*47 (21)*	*47 (21)*	*59 (26)*	*70 (32)*	*105 (47)*	*92 (42)*	*116 (53)*	*130 (59)*	*173 (78)*

= T / G / H / R

Capacities rated using 10°F *(5.6°C)* TD & 100°F *(38°C)* liquid temperature.
Capacities at other TD within a range of 8 to 15 °F *(4.4 to 8.3°C)* are directly proportional to TD, or use formula: Capacity = Rated capacity ÷ 10 x TD.
For capacities at TD outside of range 8 to 15 °F *(4.4 to 8.3°C)*, or liquid temperature lower than 75°F *(24°)*, consult factory.
Capacities for R407A and R407C are based on mean temperature. Mean temperature is the average temperature between the saturated suction temperature and the temperature feeding the evaporator. For dew point ratings, consult factory.
Derate capacity by 0.92 and CFM by .85 for Throw Booster Option.

*** CAPACITY CORRECTION FACTORS FOR LOW TEMPERATURE UNITS**

SATURATED SUCTION TEMPERATURE °F *(°C)*	0 *(-17.8)*	-10 *(23.3)*	-20 *(-28.9)*	-30 *(-34.4)*	-40 *(-40)*
FACTOR	1.06	1.03	1.0	0.92	0.85

NO CORRECTION FACTOR REQUIRED FOR MEDIUM TEMP. UNITS

**** REFRIGERANT CHARGE CONVERSION FACTORS**

R407C	R404A	R507	R22	R134a
0.99	0.92	0.93	1.02	1.03

Average Air Throw - ft *(m)*†

STANDARD FAN AND MOTOR	OPTIONAL THROW BOOSTER
110 *(33)*	150 *(46)*

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

CAPACITY DATA
HIGH VELOCITY 4 F.P.I. MODELS (cont'd)

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

Medium Temp. 4 FPI Models			059P#	072P#	083P#	091P#	109P#	122P#	137P#	150P#	164P#	200P#	222P#	256P#
Capacity BTUH *(WATTS)*	Evap Temp. 10°F *(-12°C)*	R407A	62560 *(18324)*	79120 *(23174)*	86480 *(25330)*	96600 *(28295)*	115000 *(33684)*	135200 *(38692)*	150900 *(44193)*	165600 *(48504)*	168400 *(49313)*	196900 *(57667)*	220800 *(64672)*	232800 *(68176)*
		R407C	64600 *(18921)*	81700 *(23930)*	89300 *(26156)*	99750 *(29217)*	118750 *(34782)*	139650 *(39953)*	153900 *(45634)*	168900 *(50086)*	171800 *(50921)*	200800 *(59547)*	225200 *(66781)*	237500 *(70399)*
		R404A R507	68000 *(19917)*	86000 *(25189)*	94000 *(27533)*	105000 *(30755)*	125000 *(36613)*	147000 *(42056)*	164000 *(48036)*	180000 *(52722)*	183000 *(53601)*	214000 *(62681)*	240000 *(70296)*	253000 *(74104)*
		R22	69360 *(20315)*	87720 *(25693)*	95880 *(28084)*	107100 *(31370)*	127500 *(37345)*	149900 *(42897)*	167300 *(48997)*	183600 *(53776)*	186700 *(54673)*	218300 *(63935)*	244800 *(71702)*	258100 *(75586)*
		R134a	65960 *(19319)*	83420 *(24433)*	91180 *(26707)*	101850 *(29832)*	121250 *(35515)*	142590 *(40794)*	159080 *(46595)*	174600 *(51140)*	177510 *(51993)*	207580 *(60801)*	232800 *(68187)*	245410 *(71881)*
Air Flow	CFM *(L/S)*		24400 *(11514)*	23600 *(11137)*	22800 *(10759)*	21900 *(10335)*	35400 *(16705)*	34100 *(16092)*	32900 *(15526)*	35400 *(16705)*	34300 *(16186)*	47200 *(22274)*	45800 *(21613)*	43200 *(20386)*
Refrigerant ** Charge R407A	LB. *(KG)*		*22 (10)*	*30 (13)*	*36 (17)*	*44 (20)*	*44 (20)*	*55 (25)*	*62 (28)*	*81 (36)*	*97 (44)*	*108 (50)*	*130 (59)*	*173 (78)*

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

Low Temp. 4 FPI Models			055V#	066V#	076V#	087V#	100V#	114V#	127V#	145V#	172V#	187V#	217V#
Capacity BTUH *(WATTS)*	Evap Temp. -20°F *(-29°C)*	R407A	54280 *(15899)*	65320 *(19132)*	78200 *(22905)*	88320 *(25869)*	102120 *(32395)*	120500 *(35300)*	126000 *(36917)*	149000 *(43654)*	177600 *(52008)*	198700 *(58205)*	222600 *(65211)*
		R407C	56050 *(16417)*	67450 *(19756)*	80750 *(23652)*	91200 *(26712)*	105450 *(33451)*	124450 *(36452)*	128500 *(38121)*	152000 *(45078)*	181100 *(53704)*	202700 *(60103)*	227100 *(67338)*
		R404A R507	59000 *(17281)*	71000 *(20796)*	85000 *(24897)*	96000 *(28118)*	111000 *(35212)*	131000 *(38370)*	137000 *(40127)*	162000 *(47450)*	193000 *(56530)*	216000 *(63266)*	242000 *(70882)*
		R22	60180 *(17627)*	72420 *(21212)*	86700 *(25395)*	97920 *(28680)*	113200 *(35916)*	133600 *(39137)*	139700 *(40930)*	165200 *(48399)*	196900 *(57661)*	220300 *(64531)*	246800 *(72300)*
		R134a	57230 *(16763)*	68870 *(20172)*	82450 *(24150)*	93120 *(27274)*	107670 *(34156)*	127070 *(37219)*	132890 *(38923)*	157140 *(46027)*	187210 *(54834)*	209520 *(61368)*	234740 *(68756)*
Air Flow	CFM *(L/S)*		24400 *(11514)*	23600 *(11137)*	22800 *(10759)*	21900 *(10335)*	35400 *(16705)*	34100 *(16092)*	32900 *(15526)*	34300 *(16186)*	47200 *(22274)*	45800 *(21613)*	43200 *(20386)*
Refrigerant ** Charge R407A	LB. *(KG)*		*23 (11)*	*32 (14)*	*40 (18)*	*47 (21)*	*47 (21)*	*59 (26)*	*70 (32)*	*105 (47)*	*116 (53)*	*139 (59)*	*173 (78)*

= T / G / H / R

Capacities rated using 10°F *(5.6°C)* TD & 100°F *(38°C)* liquid temperature.
Capacities at other TD within a range of 8 to 15 °F *(4.4 to 8.3°C)* are directly proportional to TD, or use formula: Capacity = Rated capacity ÷ 10 x TD.
For capacities at TD outside of range 8 to 15 °F *(4.4 to 8.3°C)*, or liquid temperature lower than 75°F *(24°)*, consult factory.
Capacities for R407A and R407C are based on mean temperature. Mean temperature is the average temperature between the saturated suction temperature and the temperature feeding the evaporator. For dew point ratings, consult factory.
Derate capacity by 0.92 and CFM by .85 for Throw Booster Option.

*** CAPACITY CORRECTION FACTORS FOR LOW TEMPERATURE UNITS**

SATURATED SUCTION TEMPERATURE °F *(°C)*	0 *(-17.8)*	-10 *(23.3)*	-20 *(-28.9)*	-30 *(-34.4)*	-40 *(-40)*
FACTOR	1.06	1.03	1.0	0.92	0.85

NO CORRECTION FACTOR REQUIRED FOR MEDIUM TEMP. UNITS

**** REFRIGERANT CHARGE CONVERSION FACTORS**

R407C	R404A	R507	R22	R134a
0.99	0.92	0.93	1.02	1.03

Average Air Throw - ft *(m)*†

STANDARD FAN AND MOTOR	OPTIONAL THROW BOOSTER
110 *(33)*	150 *(46)*

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

THP

CAPACITY DATA
HIGH VELOCITY 6 F.P.I. MODELS

60Hz

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

Medium Temp. Models			068M#	081M#	092M#	108M#	123M#	135M#	162M#	181M#	221M#	243M#	271M#
Capacity BTUH *(WATTS)*	Evap Temp. 10°F *(-12°C)*	R407A	69920 *(20479)*	85560 *(25061)*	98440 *(28833)*	107640 *(31527)*	129720 *(37995)*	145400 *(42576)*	160100 *(46888)*	180300 *(52815)*	220800 *(64672)*	242900 *(71140)*	267700 *(78415)*
		R407C	72200 *(21147)*	88350 *(25878)*	101650 *(29773)*	111150 *(32556)*	133950 *(39234)*	150100 *(43964)*	163300 *(48417)*	183900 *(54538)*	225200 *(66781)*	247800 *(73460)*	273100 *(80972)*
		R404A R507	76000 *(22260)*	93000 *(27240)*	107000 *(31340)*	117000 *(34269)*	141000 *(41299)*	158000 *(46278)*	174000 *(50965)*	196000 *(57408)*	240000 *(70296)*	264000 *(77326)*	291000 *(85234)*
		R22	77520 *(22705)*	94860 *(27785)*	109140 *(31967)*	119340 *(34954)*	143800 *(42125)*	161200 *(47204)*	177500 *(51984)*	199900 *(58556)*	244800 *(71702)*	269300 *(78873)*	296800 *(86939)*
		R134a	73720 *(21592)*	90210 *(26423)*	103790 *(30400)*	113490 *(33241)*	136770 *(40060)*	153260 *(44890)*	168780 *(49436)*	190120 *(55686)*	232800 *(68187)*	256080 *(75006)*	282270 *(82677)*
Air Flow	CFM (*L/S*)		22300 *(10523)*	21200 *(10004)*	20100 *(9485)*	19200 *(9060)*	31700 *(14959)*	30100 *(14205)*	28700 *(13544)*	30200 *(14251)*	41900 *(19773)*	40300 *(19018)*	37500 *(17696)*
Refrigerant ** Charge R407A	LB. *(KG)*		*22 (10)*	*30 (13)*	*36 (17)*	*44 (20)*	*44 (20)*	*55 (25)*	*66 (30)*	*97 (44)*	*108 (50)*	*130 (59)*	*173 (78)*

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

Low Temp. Models			065L#	078L#	089L#	094L#	118L#	134L#	143L#	161L#	175L#	198L#	216L#	228L#
Capacity BTUH *(WATTS)*	Evap Temp. -20°F *(-29°C)*	R407A	60720 *(17785)*	76360 *(22366)*	83720 *(24522)*	93840 *(27486)*	111320 *(32606)*	129700 *(37995)*	144400 *(42306)*	158200 *(46349)*	162800 *(47696)*	189500 *(55510)*	211600 *(61978)*	223600 *(65481)*
		R407C	62700 *(18364)*	78850 *(23095)*	86450 *(25321)*	96900 *(28382)*	114950 *(33669)*	133950 *(39234)*	147300 *(43686)*	161400 *(47860)*	166100 *(49251)*	193300 *(57320)*	215800 *(63999)*	228100 *(67616)*
		R404A R507	66000 *(19331)*	83000 *(24311)*	91000 *(26654)*	102000 *(29876)*	121000 *(35441)*	141000 *(41299)*	157000 *(45985)*	172000 *(50379)*	177000 *(51843)*	206000 *(60337)*	230000 *(67367)*	243000 *(71175)*
		R22	67320 *(19718)*	84660 *(24797)*	92820 *(27187)*	104040 *(30474)*	123400 *(36150)*	143800 *(42125)*	160100 *(46905)*	175400 *(51387)*	180500 *(52880)*	210100 *(61544)*	234600 *(68714)*	247900 *(72599)*
		R134a	64020 *(18268)*	80510 *(22218)*	88270 *(25286)*	98940 *(26735)*	117370 *(33525)*	136770 *(38072)*	152290 *(40628)*	166840 *(45742)*	171690 *(49720)*	199820 *(56254)*	223100 *(61368)*	235710 *(64778)*
Air Flow	CFM (*L/S*)		22300 *(10523)*	21200 *(10004)*	20100 *(9485)*	19200 *(9060)*	31700 *(14959)*	30100 *(14204)*	28700 *(13544)*	30200 *(14251)*	43600 *(20575)*	41900 *(19773)*	40300 *(19018)*	37500 *(17696)*
Refrigerant ** Charge R407A	LB. *(KG)*		*23 (11)*	*32 (14)*	*40 (18)*	*47 (21)*	*47 (21)*	*59 (26)*	*70 (32)*	*105 (47)*	*92 (42)*	*116 (53)*	*130 (59)*	*173 (78)*

= T / G / H / R

Capacities rated using 10°F *(5.6°C)* TD & 100°F *(38°C)* liquid temperature.
Capacities at other TD within a range of 8 to 15 °F *(4.4 to 8.3°C)* are directly proportional to TD, or use formula: Capacity = Rated capacity ÷ 10 x TD.
For capacities at TD outside of range 8 to 15 °F *(4.4 to 8.3°C)*, or liquid temperature lower than 75°F *(24°)*, consult factory.
Capacities for R407A and R407C are based on mean temperature. Mean temperature is the average temperature between the saturated suction temperature and the temperature feeding the evaporator. For dew point ratings, consult factory.
Derate capacity by 0.92 and CFM by .85 for Throw Booster Option.

*** CAPACITY CORRECTION FACTORS FOR LOW TEMPERATURE UNITS**

SATURATED SUCTION TEMPERATURE °F *(°C)*	0 *(-17.8)*	-10 *(23.3)*	-20 *(-28.9)*	-30 *(-34.4)*	-40 *(-40)*
FACTOR	1.06	1.03	1.0	0.92	0.85

NO CORRECTION FACTOR REQUIRED FOR MEDIUM TEMP. UNITS

**** REFRIGERANT CHARGE CONVERSION FACTORS**

R407C	R404A	R507	R22	R134a
0.99	0.92	0.93	1.02	1.03

Average Air Throw - ft *(m)*†

STANDARD FAN AND MOTOR	OPTIONAL THROW BOOSTER
110 *(33)*	150 *(46)*

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

CAPACITY DATA
HIGH VELOCITY 4 F.P.I. MODELS (cont'd)

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

Medium Temp. 4 FPI Models			059P#	072P#	083P#	091P#	109P#	122P#	137P#	150P#	164P#	200P#	222P#	256P#
Capacity BTUH *(WATTS)*	Evap Temp. 10°F *(-12°C)*	R407A	59800 *(17516)*	74520 *(21827)*	83720 *(24522)*	93840 *(27486)*	111320 *(32606)*	129700 *(37995)*	141700 *(41498)*	146300 *(42845)*	162800 *(47696)*	193200 *(56588)*	216200 *(63325)*	252100 *(73835)*
		R407C	61750 *(18087)*	76950 *(22539)*	86450 *(25321)*	96900 *(28382)*	114950 *(33669)*	133950 *(39234)*	144500 *(42852)*	149200 *(44242)*	166100 *(49251)*	197100 *(58434)*	220500 *(65390)*	257100 *(76242)*
		R404A R507	65000 *(19039)*	81000 *(23725)*	91000 *(26654)*	102000 *(29876)*	121000 *(35441)*	141000 *(41299)*	154000 *(45107)*	159000 *(46571)*	177000 *(51843)*	210000 *(61509)*	235000 *(68832)*	274000 *(80255)*
		R22	66300 *(19420)*	82620 *(24200)*	92820 *(27187)*	104040 *(30474)*	123400 *(36150)*	143800 *(42125)*	157100 *(46009)*	162200 *(47502)*	180500 *(52880)*	214200 *(62739)*	239700 *(70209)*	279500 *(81860)*
		R134a	63050 *(18468)*	78570 *(23013)*	88270 *(25854)*	98940 *(28980)*	117370 *(34378)*	136770 *(40060)*	149380 *(43754)*	154230 *(45174)*	171690 *(50288)*	203700 *(59664)*	227950 *(66767)*	265780 *(77847)*
Air Flow	CFM *(L/S)*		23000 *(10854)*	22100 *(10429)*	21200 *(10004)*	20300 *(9580)*	33100 *(15620)*	31700 *(14959)*	30400 *(14346)*	32700 *(15431)*	31600 *(14912)*	43600 *(20575)*	42200 *(19914)*	39700 *(18734)*
Refrigerant ** Charge R407A	LB. *(KG)*		*22 (10)*	*30 (13)*	*36 (17)*	*44 (20)*	*44 (20)*	*55 (25)*	*62 (28)*	*81 (36)*	*97 (44)*	*108 (50)*	*130 (59)*	*173 (78)*

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

Low Temp. 4 FPI Models			055V#	066V#	076V#	087V#	100V#	114V#	127V#	145V#	172V#	187V#	217V#
Capacity BTUH *(WATTS)*	Evap Temp. -20°F *(-29°C)*	R407A	53360 *(15629)*	64400 *(18863)*	75440 *(22097)*	85560 *(25061)*	99360 *(29102)*	115900 *(33953)*	123300 *(36109)*	142600 *(41768)*	170200 *(49852)*	190400 *(55780)*	212500 *(62247)*
		R407C	55100 *(16139)*	66500 *(19478)*	77900 *(22817)*	88350 *(25878)*	102600 *(30051)*	119700 *(35060)*	125800 *(37287)*	145500 *(43130)*	173600 *(51478)*	194200 *(57599)*	216800 *(64277)*
		R404A R507	58000 *(16988)*	70000 *(20503)*	82000 *(24018)*	93000 *(27240)*	108000 *(31633)*	126000 *(36905)*	134000 *(39249)*	155000 *(45400)*	185000 *(54187)*	207000 *(60630)*	231000 *(67660)*
		R22	59160 *(17328)*	71400 *(20913)*	83640 *(24498)*	94860 *(27785)*	110200 *(32266)*	128500 *(37643)*	136700 *(40034)*	158100 *(46308)*	188700 *(55271)*	211100 *(61843)*	235600 *(69013)*
		R134a	56260 *(16478)*	67900 *(19888)*	79540 *(23297)*	90210 *(26423)*	104760 *(30684)*	122220 *(35798)*	129980 *(38072)*	150350 *(44038)*	179450 *(52561)*	200790 *(58811)*	224070 *(65630)*
Air Flow	CFM *(L/S)*		23000 *(10854)*	22100 (10429)	21200 *(10004)*	20300 *(9580)*	33100 *(15620)*	31700 *(14959)*	30400 *(14346)*	31600 *(14912)*	43600 *(20575)*	42200 *(19914)*	39700 *(18734)*
Refrigerant ** Charge R407A	LB. *(KG)*		*23 (11)*	*32 (14)*	*40 (18)*	*47 (21)*	*47 (21)*	*59 (26)*	*70 (32)*	*105 (47)*	*116 (53)*	*139 (59)*	*173 (78)*

= T / G / H / R

Capacities rated using 10°F *(5.6°C)* TD & 100°F *(38°C)* liquid temperature.
Capacities at other TD within a range of 8 to 15 °F *(4.4 to 8.3°C)* are directly proportional to TD, or use formula: Capacity = Rated capacity ÷ 10 x TD.
For capacities at TD outside of range 8 to 15 °F *(4.4 to 8.3°C)*, or liquid temperature lower than 75°F *(24°)*, consult factory.
Capacities for R407A and R407C are based on mean temperature. Mean temperature is the average temperature between the saturated suction temperature and the temperature feeding the evaporator. For dew point ratings, consult factory.
Derate capacity by 0.92 and CFM by .85 for Throw Booster Option.

*** CAPACITY CORRECTION FACTORS FOR LOW TEMPERATURE UNITS**

SATURATED SUCTION TEMPERATURE °F *(°C)*	0 *(-17.8)*	-10 *(23.3)*	-20 *(-28.9)*	-30 *(-34.4)*	-40 *(-40)*
FACTOR	1.06	1.03	1.0	0.92	0.85

NO CORRECTION FACTOR REQUIRED FOR MEDIUM TEMP. UNITS

**** REFRIGERANT CHARGE CONVERSION FACTORS**

R407C	R404A	R507	R22	R134a
0.99	0.92	0.93	1.02	1.03

Average Air Throw - ft *(m)*†

STANDARD FAN AND MOTOR	OPTIONAL THROW BOOSTER
110 *(33)*	150 *(46)*

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

THP

CAPACITY DATA
HIGH VELOCITY 6 F.P.I. MODELS

60Hz

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

Medium Temp. Models			068M#	081M#	092M#	108M#	123M#	135M#	162M#	181M#	221M#	243M#	271M#
Capacity BTUH *(WATTS)*	Evap Temp. 10°F *(-12°C)*	R407A	67160 *(19671)*	81880 *(23983)*	92920 *(27216)*	102120 *(29911)*	123280 *(36109)*	138000 *(40420)*	152700 *(44731)*	169300 *(49582)*	208800 *(61169)*	228200 *(66828)*	250200 *(73295)*
		R407C	69350 *(20313)*	84550 *(24765)*	95950 *(28104)*	105450 *(30886)*	127300 *(37287)*	142500 *(41738)*	155800 *(46190)*	172700 *(51199)*	213000 *(63164)*	232800 *(69007)*	255200 *(75686)*
		R404A R507	73000 *(21382)*	89000 *(26068)*	101000 *(29583)*	111000 *(32512)*	134000 *(39249)*	150000 *(43935)*	166000 *(48621)*	184000 *(53894)*	227000 *(66488)*	248000 *(72639)*	272000 *(79669)*
		R22	74460 *(21810)*	90780 *(26589)*	103020 *(30175)*	113220 *(33162)*	136700 *(40034)*	153000 *(44814)*	169300 *(49593)*	187700 *(54972)*	231500 *(67818)*	253000 *(74092)*	277400 *(81262)*
		R134a	70810 *(20741)*	86330 *(25286)*	97970 *(28696)*	107670 *(31537)*	129980 *(38072)*	145500 *(42617)*	161020 *(47162)*	178480 *(52277)*	220190 *(64493)*	240560 *(70460)*	263840 *(77279)*
Air Flow	CFM *(L/S)*		20400 *(9627)*	19200 *(9060)*	18300 *(8636)*	17500 *(8258)*	28900 *(13638)*	27500 *(12977)*	26300 *(12411)*	27300 *(12883)*	37800 *(17838)*	36300 *(17130)*	33700 *(15903)*
Refrigerant ** Charge R407A	LB. *(KG)*		*22 (10)*	*30 (13)*	*36 (17)*	*44 (20)*	*44 (20)*	*55 (25)*	*66 (30)*	*97 (44)*	*108 (50)*	*130 (59)*	*173 (78)*

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

Low Temp. Models			065L#	078L#	089L#	094L#	118L#	134L#	143L#	161L#	175L#	198L#	216L#	228L#
Capacity BTUH *(WATTS)*	Evap Temp. -20°F *(-29°C)*	R407A	59800 *(17516)*	72680 *(21288)*	80040 *(23443)*	89240 *(26138)*	107640 *(31527)*	124200 *(36379)*	138000 *(40420)*	149000 *(43654)*	156400 *(45810)*	180300 *(52815)*	199600 *(58474)*	211600 *(61978)*
		R407C	61750 *(18087)*	75050 *(21982)*	82650 *(24208)*	92150 *(26990)*	111150 *(32556)*	128250 *(37565)*	140800 *(41738)*	152000 *(45078)*	159500 *(47303)*	183900 *(54538)*	203600 *(60381)*	215800 *(63999)*
		R404A R507	65000 *(19039)*	79000 *(23139)*	87000 *(25482)*	97000 *(28411)*	117000 *(34269)*	135000 *(39542)*	150000 *(43935)*	162000 *(47450)*	170000 *(49793)*	196000 *(57408)*	217000 *(63559)*	230000 *(67367)*
		R22	66300 *(19420)*	80580 *(23602)*	88740 *(25992)*	98940 *(28979)*	119300 *(34954)*	137700 *(40333)*	153000 *(44814)*	165200 *(48399)*	173400 *(50789)*	199900 *(58556)*	221300 *(64830)*	234600 *(68714)*
		R134a	63050 *(18468)*	76630 *(22445)*	84390 *(24718)*	94090 *(27559)*	113490 *(33241)*	130950 *(38356)*	145500 *(42617)*	157140 *(46027)*	164900 *(48299)*	190120 *(55686)*	210490 *(61652)*	223100 *(65346)*
Air Flow	CFM *(L/S)*		20400 *(9627)*	19200 *(9060)*	18300 *(8636)*	17500 *(8258)*	28900 *(13638)*	27500 *(12977)*	26300 *(12411)*	27300 *(12883)*	39500 *(18640)*	37800 *(17838)*	36300 *(17130)*	33700 *(15903)*
Refrigerant ** Charge R407A	LB. *(KG)*		*23 (11)*	*32 (14)*	*40 (18)*	*47 (21)*	*47 (21)*	*59 (26)*	*70 (32)*	*105 (47)*	*92 (42)*	*116 (53)*	*130 (59)*	*173 (78)*

= T / G / H / R

Capacities rated using 10°F *(5.6°C)* TD & 100°F *(38°C)* liquid temperature.
Capacities at other TD within a range of 8 to 15 °F *(4.4 to 8.3°C)* are directly proportional to TD, or use formula: Capacity = Rated capacity ÷ 10 x TD.
For capacities at TD outside of range 8 to 15 °F *(4.4 to 8.3°C)*, or liquid temperature lower than 75°F *(24°)*, consult factory.
Capacities for R407A and R407C are based on mean temperature. Mean temperature is the average temperature between the saturated suction temperature and the temperature feeding the evaporator. For dew point ratings, consult factory.
Derate capacity by 0.92 and CFM by .85 for Throw Booster Option.

*** CAPACITY CORRECTION FACTORS FOR LOW TEMPERATURE UNITS**

SATURATED SUCTION TEMPERATURE °F *(°C)*	0 *(-17.8)*	-10 *(23.3)*	-20 *(-28.9)*	-30 *(-34.4)*	-40 *(-40)*
FACTOR	1.06	1.03	1.0	0.92	0.85

NO CORRECTION FACTOR REQUIRED FOR MEDIUM TEMP. UNITS

**** REFRIGERANT CHARGE CONVERSION FACTORS**

R407C	R404A	R507	R22	R134a
0.99	0.92	0.93	1.02	1.03

Average Air Throw - ft *(m)*†

STANDARD FAN AND MOTOR	OPTIONAL THROW BOOSTER
110 *(33)*	150 *(46)*

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

CAPACITY DATA
HIGH VELOCITY 4 F.P.I. MODELS (cont'd)

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

Medium Temp. 4 FPI Models			059P#	072P#	083P#	091P#	109P#	122P#	137P#	150P#	164P#	200P#	222P#	256P#
Capacity BTUH *(WATTS)*	Evap Temp. 10°F *(-12°C)*	R407A	57040 *(16707)*	70840 *(20749)*	80040 *(23443)*	89240 *(26138)*	106720 *(31258)*	123300 *(36109)*	135200 *(39612)*	138000 *(40420)*	153600 *(45001)*	183100 *(53624)*	204200 *(59822)*	235500 *(68983)*
		R407C	58900 *(17252)*	73150 *(21425)*	82650 *(24208)*	92150 *(26990)*	110200 *(32277)*	127300 *(37287)*	137900 *(40903)*	140800 *(41738)*	156700 *(46468)*	186800 *(55373)*	208300 *(61773)*	240200 *(71233)*
		R404A R507	62000 *(18160)*	77000 *(22553)*	87000 *(25482)*	97000 *(28411)*	116000 *(33976)*	134000 *(39249)*	147000 *(43056)*	150000 *(43935)*	167000 *(48914)*	199000 *(58287)*	222000 *(65024)*	256000 *(74982)*
		R22	63240 *(18523)*	78540 *(23004)*	88740 *(25992)*	98940 *(28979)*	118300 *(34656)*	136700 *(40034)*	149900 *(43917)*	153000 *(44814)*	170300 *(49892)*	203000 *(59453)*	226400 *(66324)*	261100 *(76482)*
		R134a	60140 *(17615)*	74690 *(21876)*	84390 *(24718)*	94090 *(27559)*	112520 *(32957)*	129980 *(38072)*	142590 *(41764)*	145500 *(42617)*	161990 *(47447)*	193030 *(56538)*	215340 *(63073)*	248320 *(72733)*
Air Flow	CFM *(L/S)*		21200 *(10004)*	20100 *(9485)*	19200 *(9060)*	18500 *(8730)*	30200 *(14251)*	28900 *(13638)*	27700 *(13072)*	29600 *(13968)*	28600 *(13496)*	39500 *(18640)*	38100 *(17979)*	35700 *(16847)*
Refrigerant ** Charge R407A	LB. *(KG)*		*22 (10)*	*30 (13)*	*36 (17)*	*44 (20)*	*44 (20)*	*55 (25)*	*62 (28)*	*81 (36)*	*97 (44)*	*108 (50)*	*130 (59)*	*173 (78)*

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

Low Temp. 4 FPI Models			055V#	066V#	076V#	087V#	100V#	114V#	127V#	145V#	172V#	187V#	217V#
Capacity BTUH *(WATTS)*	Evap Temp. -20°F *(-29°C)*	R407A	50600 *(14821)*	61640 *(18054)*	72680 *(21288)*	80960 *(23713)*	94760 *(27755)*	109500 *(32067)*	117800 *(34492)*	135200 *(39612)*	161000 *(47157)*	180300 *(52815)*	200600 *(58744)*
		R407C	52250 *(15305)*	63650 *(18643)*	75050 *(21982)*	83600 *(24486)*	97850 *(28661)*	113050 *(33112)*	120200 *(35616)*	137900 *(40903)*	164200 *(48695)*	183900 *(54538)*	204600 *(60659)*
		R404A R507	55000 *(16110)*	67000 *(19624)*	79000 *(23139)*	88000 *(25775)*	103000 *(30169)*	119000 *(34855)*	128000 *(37491)*	147000 *(43056)*	175000 *(51258)*	196000 *(57408)*	218000 *(63852)*
		R22	56100 *(16432)*	68340 *(20016)*	80580 *(23602)*	89760 *(26291)*	105100 *(30772)*	121400 *(35552)*	130600 *(38241)*	149900 *(43917)*	178500 *(52283)*	199900 *(58556)*	222400 *(65129)*
		R134a	53350 *(15627)*	64990 *(19035)*	76630 *(22445)*	85360 *(25002)*	99910 *(29264)*	115430 *(33809)*	124160 *(36366)*	142590 *(41764)*	169750 *(49720)*	190120 *(55686)*	211460 *(61936)*
Air Flow	CFM *(L/S)*		21200 *(10004)*	20100 *(9485)*	19200 *(9060)*	18500 *(8730)*	30200 *(14251)*	28900 *(13638)*	27700 *(13072)*	28600 *(13496)*	39500 *(18640)*	38100 *(17979)*	35700 *(16847)*
Refrigerant ** Charge R407A	LB. *(KG)*		*23 (11)*	*32 (14)*	*40 (18)*	*47 (21)*	*47 (21)*	*59 (26)*	*70 (32)*	*105 (47)*	*116 (53)*	*139 (59)*	*173 (78)*

= T / G / H / R

Capacities rated using 10°F *(5.6°C)* TD & 100°F *(38°C)* liquid temperature.
Capacities at other TD within a range of 8 to 15 °F *(4.4 to 8.3°C)* are directly proportional to TD, or use formula: Capacity = Rated capacity ÷ 10 x TD.
For capacities at TD outside of range 8 to 15 °F *(4.4 to 8.3°C)*, or liquid temperature lower than 75°F *(24°)*, consult factory.
Capacities for R407A and R407C are based on mean temperature. Mean temperature is the average temperature between the saturated suction temperature and the temperature feeding the evaporator. For dew point ratings, consult factory.
Derate capacity by 0.92 and CFM by .85 for Throw Booster Option.

*** CAPACITY CORRECTION FACTORS FOR LOW TEMPERATURE UNITS**

SATURATED SUCTION TEMPERATURE °F *(°C)*	0 *(-17.8)*	-10 *(23.3)*	-20 *(-28.9)*	-30 *(-34.4)*	-40 *(-40)*
FACTOR	1.06	1.03	1.0	0.92	0.85

NO CORRECTION FACTOR REQUIRED FOR MEDIUM TEMP. UNITS

**** REFRIGERANT CHARGE CONVERSION FACTORS**

R407C	R404A	R507	R22	R134a
0.99	0.92	0.93	1.02	1.03

Average Air Throw - ft *(m)*†

STANDARD FAN AND MOTOR	OPTIONAL THROW BOOSTER
110 *(33)*	150 *(46)*

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

THP ELECTRICAL DATA - HIGH VELOCITY MODELS - 208-230/3/60 60Hz

MODEL	FPI	FAN MOTORS						DRAIN PAN HEATERS (IF APPLICABLE)			
		FAN MOTOR QTY	HP	MOTOR FLA TOTAL	WATTS	MCA (A)	MAX. FUSE (AMPS)	WATTS	AMPS	MCA (A)	MAX. FUSE (AMPS)
THP068M#-T3A	6	2	3	18.4	5460	25.1	30	7350	18.5	23.1	25
THP081M#-T3A		2	3	18.4	5460	25.1	30	7350	18.5	23.1	25
THP092M#-T3A		2	3	18.4	5460	25.1	30	7350	18.5	23.1	25
THP108M#-T3A		2	3	18.4	5460	25.1	30	7350	18.5	23.1	25
THP123M#-T3A		3	3	27.6	8190	35.1	40	10500	26.4	33.0	35
THP135M#-T3A		3	3	27.6	8190	35.1	40	10500	26.4	33.0	35
THP162M#-T3A		3	3	27.6	8190	35.1	40	10500	26.4	33.0	35
THP181M#-T3A		3+	3	27.6	8190	35.1	40	10800	27.1	33.9	35
THP221M#-T3A		4	3	36.8	10920	45.1	50	14100	35.4	44.2	50
THP243M#-T3A		4	3	36.8	10920	45.1	50	14100	35.4	44.2	50
THP271M#-T3A		4	3	36.8	10920	45.1	50	14100	35.4	44.2	50
THP065L#-T3A		2	3	18.4	5460	25.1	30	7350	18.5	23.1	25
THP078L#-T3A		2	3	18.4	5460	25.1	30	7350	18.5	23.1	25
THP089L#-T3A		2	3	18.4	5460	25.1	30	7350	18.5	23.1	25
THP094L#-T3A		2	3	18.4	5460	25.1	30	7350	18.5	23.1	25
THP118L#-T3A		3	3	27.6	8190	35.1	40	10500	26.4	33.0	35
THP134L#-T3A		3	3	27.6	8190	35.1	40	10500	26.4	33.0	35
THP143L#-T3A		3	3	27.6	8190	35.1	40	10500	26.4	33.0	35
THP161L#-T3A		3+	3	27.6	8190	35.1	40	10800	27.1	33.9	35
THP175L#-T3A		4	3	36.8	10920	45.1	50	14100	35.4	44.2	50
THP198L#-T3A		4	3	36.8	10920	45.1	50	14100	35.4	44.2	50
THP216L#-T3A		4	3	36.8	10920	45.1	50	14100	35.4	44.2	50
THP228L#-T3A		4	3	36.8	10920	45.1	50	14100	35.4	44.2	50
THP059P#-T3A	4	2	3	18.4	5460	25.1	30	7350	18.5	23.1	25
THP072P#-T3A		2	3	18.4	5460	25.1	30	7350	18.5	23.1	25
THP083P#-T3A		2	3	18.4	5460	25.1	30	7350	18.5	23.1	25
THP091P#-T3A		2	3	18.4	5460	25.1	30	7350	18.5	23.1	25
THP109P#-T3A		3	3	27.6	8190	35.1	40	10500	26.4	33.0	35
THP122P#-T3A		3	3	27.6	8190	35.1	40	10500	26.4	33.0	35
THP137P#-T3A		3	3	27.6	8190	35.1	40	10500	26.4	33.0	35
THP150P#-T3A		3+	3	27.6	8190	35.1	40	10800	27.1	33.9	35
THP164P#-T3A		3+	3	27.6	8190	35.1	40	10800	27.1	33.9	35
THP200P#-T3A		4	3	36.8	10920	45.1	50	14100	35.4	44.2	50
THP222P#-T3A		4	3	36.8	10920	45.1	50	14100	35.4	44.2	50
THP256P#-T3A		4	3	36.8	10920	45.1	50	14100	35.4	44.2	50
THP055V#-T3A		2	3	18.4	5460	25.1	30	7350	18.5	23.1	25
THP066V#-T3A		2	3	18.4	5460	25.1	30	7350	18.5	23.1	25
THP076V#-T3A		2	3	18.4	5460	25.1	30	7350	18.5	23.1	25
THP087V#-T3A		2	3	18.4	5460	25.1	30	7350	18.5	23.1	25
THP100V#-T3A		3	3	27.6	8190	35.1	40	10500	26.4	33.0	35
THP114V#-T3A		3	3	27.6	8190	35.1	40	10500	26.4	33.0	35
THP127V#-T3A		3	3	27.6	8190	35.1	40	10500	26.4	33.0	35
THP145V#-T3A		3+	3	27.6	8190	35.1	40	10800	27.1	33.9	35
THP172V#-T3A		4	3	36.8	10920	45.1	50	14100	35.4	44.2	50
THP187V#-T3A		4	3	36.8	10920	45.1	50	14100	35.4	44.2	50
THP217V#-T3A		4	3	36.8	10920	45.1	50	14100	35.4	44.2	50

NOTE: 3+ indicates 3-fan "long" configuration (see dimensional data for details)
= T / G / H / R

THP ELECTRICAL DATA - HIGH VELOCITY MODELS - 460/3/60 60Hz

MODEL	FPI	FAN MOTORS						DRAIN PAN HEATERS (IF APPLICABLE)			
		FAN MOTOR QTY	HP	MOTOR FLA TOTAL	WATTS	MCA (A)	MAX. FUSE (AMPS)	WATTS	AMPS	MCA (A)	MAX. FUSE (AMPS)
THP068M#-T4A	6	2	3	8.8	5620	9.9	15	7350	9.2	11.5	15
THP081M#-T4A		2	3	8.8	5620	9.9	15	7350	9.2	11.5	15
THP092M#-T4A		2	3	8.8	5620	9.9	15	7350	9.2	11.5	15
THP108M#-T4A		2	3	8.8	5620	9.9	15	7350	9.2	11.5	15
THP123M#-T4A		3	3	13.2	8430	15.1	20	10500	13.2	16.5	20
THP135M#-T4A		3	3	13.2	8430	15.1	20	10500	13.2	16.5	20
THP162M#-T4A		3	3	13.2	8430	15.1	20	10500	13.2	16.5	20
THP181M#-T4A		3+	3	13.2	8430	15.1	20	10800	13.6	16.9	20
THP221M#-T4A		4	3	17.6	11240	20.1	25	14100	17.7	22.1	25
THP243M#-T4A		4	3	17.6	11240	20.1	25	14100	17.7	22.1	25
THP271M#-T4A		4	3	17.6	11240	20.1	25	14100	17.7	22.1	25
THP065L#-T4A		2	3	8.8	5620	9.9	15	7350	9.2	11.5	15
THP078L#-T4A		2	3	8.8	5620	9.9	15	7350	9.2	11.5	15
THP089L#-T4A		2	3	8.8	5620	9.9	15	7350	9.2	11.5	15
THP094L#-T4A		2	3	8.8	5620	9.9	15	7350	9.2	11.5	15
THP118L#-T4A		3	3	13.2	8430	15.1	20	10500	13.2	16.5	20
THP134L#-T4A		3	3	13.2	8430	15.1	20	10500	13.2	16.5	20
THP143L#-T4A		3	3	13.2	8430	15.1	20	10500	13.2	16.5	20
THP161L#-T4A		3+	3	13.2	8430	15.1	20	10800	13.6	16.9	20
THP175L#-T4A		4	3	17.6	11240	20.1	25	14100	17.7	22.1	25
THP198L#-T4A		4	3	17.6	11240	20.1	25	14100	17.7	22.1	25
THP216L#-T4A		4	3	17.6	11240	20.1	25	14100	17.7	22.1	25
THP228L#-T4A		4	3	17.6	11240	20.1	25	14100	17.7	22.1	25
THP059P#-T4A	4	2	3	8.8	5620	9.9	15	7350	9.2	11.5	15
THP072P#-T4A		2	3	8.8	5620	9.9	15	7350	9.2	11.5	15
THP083P#-T4A		2	3	8.8	5620	9.9	15	7350	9.2	11.5	15
THP091P#-T4A		2	3	8.8	5620	9.9	15	7350	9.2	11.5	15
THP109P#-T4A		3	3	13.2	8430	15.1	20	10500	13.2	16.5	20
THP122P#-T4A		3	3	13.2	8430	15.1	20	10500	13.2	16.5	20
THP137P#-T4A		3	3	13.2	8430	15.1	20	10500	13.2	16.5	20
THP150P#-T4A		3+	3	13.2	8430	15.1	20	10800	13.6	16.9	20
THP164P#-T4A		3+	3	13.2	8430	15.1	20	10800	13.6	16.9	20
THP200P#-T4A		4	3	17.6	11240	20.1	25	14100	17.7	22.1	25
THP222P#-T4A		4	3	17.6	11240	20.1	25	14100	17.7	22.1	25
THP256P#-T4A		4	3	17.6	11240	20.1	25	14100	17.7	22.1	25
THP055V#-T4A		2	3	8.8	5620	9.9	15	7350	9.2	11.5	15
THP066V#-T4A		2	3	8.8	5620	9.9	15	7350	9.2	11.5	15
THP076V#-T4A		2	3	8.8	5620	9.9	15	7350	9.2	11.5	15
THP087V#-T4A		2	3	8.8	5620	9.9	15	7350	9.2	11.5	15
THP100V#-T4A		3	3	13.2	8430	15.1	20	10500	13.2	16.5	20
THP114V#-T4A		3	3	13.2	8430	15.1	20	10500	13.2	16.5	20
THP127V#-T4A		3	3	13.2	8430	15.1	20	10500	13.2	16.5	20
THP145V#-T4A		3+	3	13.2	8430	15.1	20	10800	13.6	16.9	20
THP172V#-T4A		4	3	17.6	11240	20.1	25	14100	17.7	22.1	25
THP187V#-T4A		4	3	17.6	11240	20.1	25	14100	17.7	22.1	25
THP217V#-T4A		4	3	17.6	11240	20.1	25	14100	17.7	22.1	25

NOTE: 3+ indicates 3-fan "long" configuration (see dimensional data for details)
= T / G / H / R

THP ELECTRICAL DATA - HIGH VELOCITY MODELS - 575/3/60 60Hz

MODEL	FPI	FAN MOTORS						DRAIN PAN HEATERS (IF APPLICABLE)			
		FAN MOTOR QTY	HP	MOTOR FLA TOTAL	WATTS	MCA (A)	MAX. FUSE (AMPS)	WATTS	AMPS	MCA (A)	MAX. FUSE (AMPS)
THP068M#-T5A	6	2	3	7.2	5500	8.1	15	7350	7.4	9.2	15
THP081M#-T5A		2	3	7.2	5500	8.1	15	7350	7.4	9.2	15
THP092M#-T5A		2	3	7.2	5500	8.1	15	7350	7.4	9.2	15
THP108M#-T5A		2	3	7.2	5500	8.1	15	7350	7.4	9.2	15
THP123M#-T5A		3	3	10.8	8250	11.7	15	10500	10.5	13.2	15
THP135M#-T5A		3	3	10.8	8250	11.7	15	10500	10.5	13.2	15
THP162M#-T5A		3	3	10.8	8250	11.7	15	10500	10.5	13.2	15
THP181M#-T5A		3+	3	10.8	8250	11.7	15	10800	10.8	13.6	15
THP221M#-T5A		4	3	14.4	11000	15.3	20	14100	14.2	17.7	20
THP243M#-T5A		4	3	14.4	11000	15.3	20	14100	14.2	17.7	20
THP271M#-T5A		4	3	14.4	11000	15.3	20	14100	14.2	17.7	20
THP065L#-T5A		2	3	7.2	5500	8.1	15	7350	7.4	9.2	15
THP078L#-T5A		2	3	7.2	5500	8.1	15	7350	7.4	9.2	15
THP089L#-T5A		2	3	7.2	5500	8.1	15	7350	7.4	9.2	15
THP094L#-T5A		2	3	7.2	5500	8.1	15	7350	7.4	9.2	15
THP118L#-T5A		3	3	10.8	8250	11.7	15	10500	10.5	13.2	15
THP134L#-T5A		3	3	10.8	8250	11.7	15	10500	10.5	13.2	15
THP143L#-T5A		3	3	10.8	8250	11.7	15	10500	10.5	13.2	15
THP161L#-T5A		3+	3	10.8	8250	11.7	15	10800	10.8	13.6	15
THP175L#-T5A		4	3	14.4	11000	15.3	20	14100	14.2	17.7	20
THP198L#-T5A		4	3	14.4	11000	15.3	20	14100	14.2	17.7	20
THP216L#-T5A		4	3	14.4	11000	15.3	20	14100	14.2	17.7	20
THP228L#-T5A		4	3	14.4	11000	15.3	20	14100	14.2	17.7	20
THP059P#-T5A	4	2	3	7.2	5500	8.1	15	7350	7.4	9.2	15
THP072P#-T5A		2	3	7.2	5500	8.1	15	7350	7.4	9.2	15
THP083P#-T5A		2	3	7.2	5500	8.1	15	7350	7.4	9.2	15
THP091P#-T5A		2	3	7.2	5500	8.1	15	7350	7.4	9.2	15
THP109P#-T5A		3	3	10.8	8250	11.7	15	10500	10.5	13.2	15
THP122P#-T5A		3	3	10.8	8250	11.7	15	10500	10.5	13.2	15
THP137P#-T5A		3	3	10.8	8250	11.7	15	10500	10.5	13.2	15
THP150P#-T5A		3+	3	10.8	8250	11.7	15	10800	10.8	13.6	15
THP164P#-T5A		3+	3	10.8	8250	11.7	15	10800	10.8	13.6	15
THP200P#-T5A		4	3	14.4	11000	15.3	20	14100	14.2	17.7	20
THP222P#-T5A		4	3	14.4	11000	15.3	20	14100	14.2	17.7	20
THP256P#-T5A		4	3	14.4	11000	15.3	20	14100	14.2	17.7	20
THP055V#-T5A		2	3	7.2	5500	8.1	15	7350	7.4	9.2	15
THP066V#-T5A		2	3	7.2	5500	8.1	15	7350	7.4	9.2	15
THP076V#-T5A		2	3	7.2	5500	8.1	15	7350	7.4	9.2	15
THP087V#-T5A		2	3	7.2	5500	8.1	15	7350	7.4	9.2	15
THP100V#-T5A		3	3	10.8	8250	11.7	15	10500	10.5	13.2	15
THP114V#-T5A		3	3	10.8	8250	11.7	15	10500	10.5	13.2	15
THP127V#-T5A		3	3	10.8	8250	11.7	15	10500	10.5	13.2	15
THP145V#-T5A		3+	3	10.8	8250	11.7	15	10800	10.8	13.6	15
THP172V#-T5A		4	3	14.4	11000	15.3	20	14100	14.2	17.7	20
THP187V#-T5A		4	3	14.4	11000	15.3	20	14100	14.2	17.7	20
THP217V#-T5A		4	3	14.4	11000	15.3	20	14100	14.2	17.7	20

NOTE: 3+ indicates 3-fan "long" configuration (see dimensional data for details)
= T / G / H / R

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 MODELS WITH DRAIN PAN HEATERS**	1040164	
HEATER CLAMP: DRAIN PAN	**ALL MODELS WITH DRAIN PAN HEATERS**	1068168	

MODELS	DRAIN PAN HEATERS		
	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	1080894-001	1080894-001	1080894-002
123, 135, 162, 109, 122, 137, 118, 134, 143, 100, 114, 127	1080894-003	1080894-003	1080894-004
181, 150, 164, 161, 145	1080894-005	1080894-005	1080894-006
221, 243, 271, 200, 222, 256, 175, 198, 216, 228, 172, 187, 217	1080894-007	1080894-007	1080894-008

NOTES

FINISHED GOODS WARRANTY

The terms and conditions as described below in the General Warranty Policy cover all products manufactured by National Refrigeration.

GENERAL WARRANTY POLICY

Subject to the terms and conditions hereof, the Company warrants all Products, including Service Parts, manufactured by the Company to be free of defects in material or workmanship, under normal use and application for a period of one (1) year from the original date of installation, or eighteen (18) months from the date of shipment from the Company, whichever occurs first. Any replacement part(s) so supplied will be warranted for the balance of the product's original warranty. The part(s) to be replaced must be made available in exchange for the replacement part(s) and reasonable proof of the original installation date of the product must be presented in order to establish the effective date of the warranty, failing which, the effective date will be based upon the date of manufacture plus thirty (30) days. Any labour, material, refrigerant, transportation, freight or other charges incurred in connection with the performance of this warranty will be the responsibility of the owner at the current rates and prices then in effect. This warranty may be transferred to a subsequent owner of the product.

THIS WARRANTY DOES NOT COVER

(a) Damages caused by accident, abuse, negligence, misuse, riot, fire, flood, or Acts of God (b) damages caused by operating the product in a corrosive atmosphere (c) damages caused by any unauthorized alteration or repair of the system affecting the product's reliability or performance (d) damages caused by improper matching or application of the product or the product's components (e) damages caused by failing to provide routine and proper maintenance or service to the product (f) expenses incurred for the erecting, disconnecting, or dismantling the product (g) parts used in connection with normal maintenance, such as filters or belts (h) products no longer at the site of the original installation (i) products installed or operated other than in accordance with the printed instructions, with the local installation or building codes and with good trade practices (j) products lost or stolen.

No one is authorized to change this WARRANTY or to create for or on behalf of the Company any other obligation or liability in connection with the Product(s). There is no other representation, warranty or condition in any respect, expressed or implied, made by or binding upon the Company other than the above or as provided by provincial or state law and which cannot be limited or excluded by such law, nor will we be liable in any way for incidental, consequential, or special damages however caused.

The provisions of this additional written warranty are in addition to and not a modification of or subtraction from the statutory warranties and other rights and remedies provided by Federal, Provincial or State laws.

PROJECT INFORMATION

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

“AS BUILT” SERVICE PARTS LIST

Service Parts List
Label
To Be Attached
HERE

NATIONAL REFRIGERATION &
AIR CONDITIONING CANADA CORP.
159 Roy Blvd.
Brantford Ontario Canada N3R 7K1
PHONE: (519) 751-0444 800-463-9517
FAX (519) 753-1140 www.t-rp.com

Due to National Refrigeration’s policy of continuous product improvement, we reserve the right to make changes without notice.