



High Profile Evaporator

60
Hz

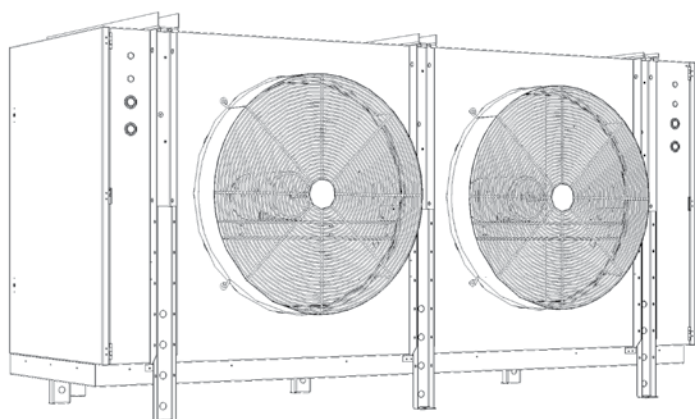
PRODUCT DATA & INSTALLATION

Bulletin K30-KHPHG-PDI-3
Part # 1081591

Low & Medium Temp.
Hot Gas Defrost

Electrical Power:
208-230/3/60, 460/3/60, 575/3/60

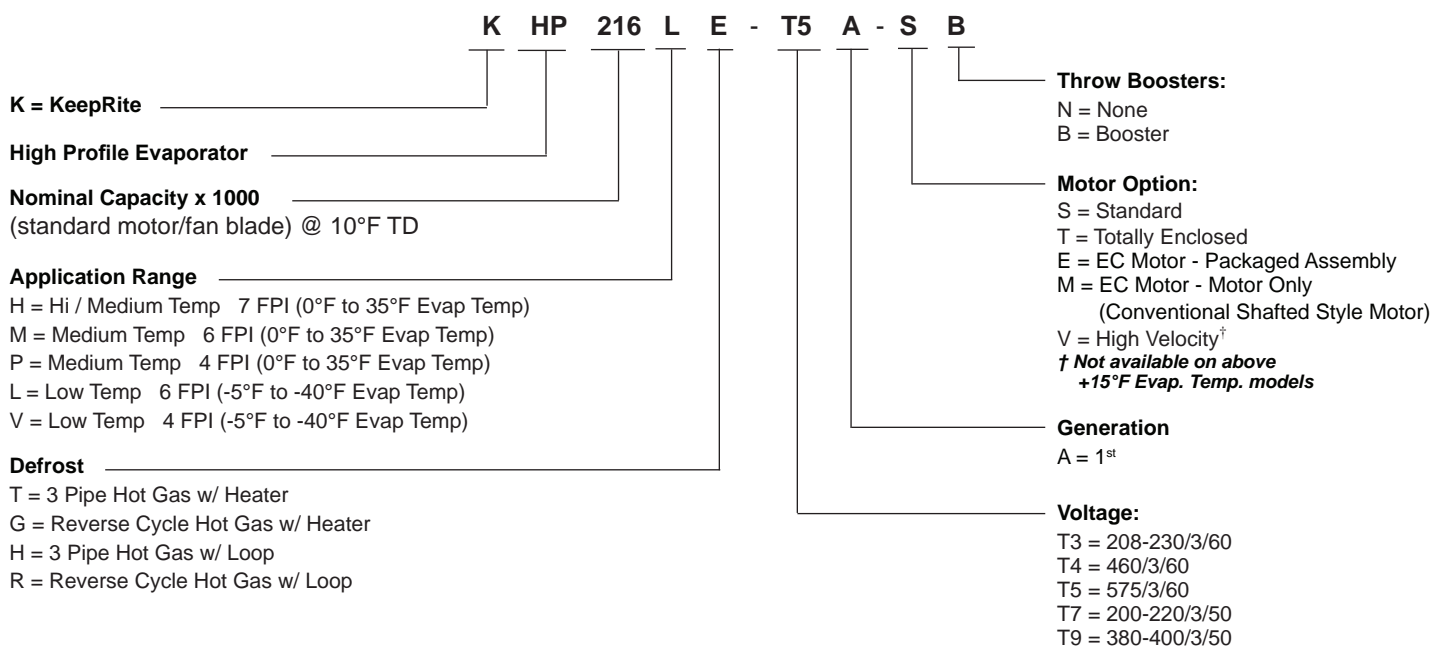
	PRODUCT SUPPORT	scan:
	web: k-rp.com/khp	
	email: evaps@k-rp.com	
	call: 1-844-893-3222 x520	



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NOMENCLATURE



STANDARD FEATURES

- Compatible 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.

AVAILABLE OPTIONS

- 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 (shafted motor only or packaged) available in two speed or variable speed (Title 24) operation, or controls by others
- Hot gas drain pan loop
- Totally Enclosed motors
- Optional fin spacing
- Optional fin materials
- Optional coil coating

KHP

**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	64510	77240	86930	102600	116850	128250	153900	171950	209950	230850	257450
		R448A	(18895)	(22624)	(25462)	(30052)	(34226)	(37565)	(45078)	(50364)	(61495)	(67616)	(75407)
		R407C	61110	73170	82350	97200	110700	121500	145800	162900	198900	218700	243900
		R404A	(17899)	(21432)	(24120)	(28470)	(32424)	(35588)	(42705)	(47714)	(58258)	(64058)	(71439)
		R507	67900	81300	91500	108000	123000	135000	162000	181000	221000	243000	271000
		(19888)	(23813)	(26800)	(31633)	(36027)	(39542)	(47450)	(53015)	(64731)	(71175)	(79376)	
	R22	64510	77240	86930	102600	116850	128250	153900	171950	209950	230850	257450	
		(18895)	(22624)	(25462)	(30052)	(34226)	(37565)	(45078)	(50364)	(61495)	(67616)	(75407)	
	R134a	61110	73170	82350	97200	110700	121500	145800	162900	198900	218700	243900	
		(17899)	(21432)	(24120)	(28470)	(32424)	(35588)	(42705)	(47714)	(58258)	(64058)	(71439)	
Air Flow	CFM (L/S)	16800 (7929)	15600 (7362)	14700 (6938)	15900 (7504)	23400 (11044)	22000 (10383)	23900 (11280)	26100 (12318)	36300 (17132)	34800 (16424)	32000 (15102)	
Refrigerant ** Charge R407A	LB. (KG)	22 (10)	30 (14)	36 (16)	44 (20)	44 (20)	55 (25)	66 (30)	97 (44)	108 (49)	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	61090	74290	84550	89400	112100	127300	135850	152950	166250	188100	205200	216600
		R448A	(17893)	(21760)	(24765)	(26185)	(32834)	(37286)	(39791)	(44799)	(48695)	(55095)	(60103)	(63442)
		R407C	57870	70380	80100	84690	106200	120600	128700	144900	157500	178200	194400	205200
			16950	20614	23461	24806	31106	35324	37696	42441	46132	52195	56940	60103
		R404A	64300	78200	89000	94100	118000	134000	143000	161000	175000	198000	216000	228000
		(18834)	(22905)	(26068)	(27562)	(34562)	(39249)	(41885)	(47157)	(51258)	(57994)	(63267)	(66782)	
	R22	61090	74290	84550	89400	112100	127300	135850	152950	166250	188100	205200	216600	
		(17893)	(21760)	(24765)	(26185)	(32834)	(37286)	(39791)	(44799)	(48695)	(55095)	(60103)	(63442)	
	R134a	57870	70380	80100	84690	106200	120600	128700	144900	157500	178200	194400	205200	
		(16950)	(20614)	(23461)	(24806)	(31106)	(35324)	(37696)	(42441)	(46132)	(52195)	(56940)	(60103)	
Air Flow	CFM (L/S)	18900 (8920)	17800 (8401)	16900 (7976)	15930 (7518)	26730 (12615)	25310 (11945)	23890 (11275)	26080 (12308)	38100 (17981)	36290 (17127)	34770 (16410)	32000 (15102)	
Refrigerant ** Charge R407A	LB. (KG)	23 (10)	32 (15)	40 (18)	47 (21)	47 (21)	59 (27)	70 (32)	105 (48)	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°C), consult factory.

Capacities for R448A, 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.

For R449A, use R448A data.

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**

R448A	R407C	R404A	R507	R22	R134a
0.96	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)

60Hz

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	56050	68400	78470	86450	103550	115900	130150	142500	155800	190000	210900	243200
		R448A	(16417)	(20034)	(22984)	(25321)	(30330)	(33947)	(38121)	(41738)	(45634)	(55651)	(61773)	(71234)
		R407C	53100	64800	74340	81900	98100	109800	123300	135000	147600	180000	199800	230400
		R404A	(15553)	(18980)	(21774)	(23989)	(28734)	(32161)	(36115)	(39542)	(43232)	(52722)	(58522)	(67484)
		R507	59000	72000	82600	91000	109000	122000	137000	150000	164000	200000	222000	256000
		(17281)	(21089)	(24194)	(26654)	(31926)	(35734)	(40127)	(43935)	(48036)	(58580)	(65024)	(74983)	
		R22	56050	68400	78470	86450	103550	115900	130150	142500	155800	190000	210900	243200
		(16417)	(20034)	(22984)	(25321)	(30330)	(33947)	(38121)	(41738)	(45634)	(55651)	(61773)	(71234)	
		R134a	53100	64800	74340	81900	98100	109800	123300	135000	147600	180000	199800	230400
		(15553)	(18980)	(21774)	(23989)	(28734)	(32161)	(36115)	(39542)	(43232)	(52722)	(58522)	(67484)	
Air Flow	CFM (L/S)	17500 (8259)	16500 (7787)	15600 (7362)	14800 (6985)	24800 (11704)	23400 (11044)	22300 (10524)	28600 (13498)	27500 (12979)	38100 (17981)	36600 (17273)	34400 (16235)	
Refrigerant ** Charge	LB. (KG)	22 (10)	30 (14)	36 (16)	44 (20)	44 (20)	55 (25)	62 (28)	81 (37)	97 (44)	108 (49)	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	52250	62700	72200	82650	95000	108300	120650	137750	163400	177650	206150
		R448A	(15304)	(18365)	(21147)	(24208)	(27826)	(31721)	(35339)	(40347)	(47860)	(52034)	(60382)
		R407C	49500	59400	68400	78300	90000	102600	114300	130500	154800	168300	195300
		R404A	(14499)	(17398)	(20034)	(22934)	(26361)	(30052)	(33479)	(38224)	(45341)	(49295)	(57204)
		R507	55000	66000	76000	87000	100000	114000	127000	145000	172000	187000	217000
		(16110)	(19331)	(22261)	(25482)	(29290)	(33391)	(37198)	(42471)	(50379)	(54773)	(63560)	
		R22	52250	62700	72200	82650	95000	108300	120650	137750	163400	177650	206150
		(15304)	(18365)	(21147)	(24208)	(27826)	(31721)	(35339)	(40347)	(47860)	(52034)	(60382)	
		R134a	49500	59400	68400	78300	90000	102600	114300	130500	154800	168300	195300
		(14499)	(17398)	(20034)	(22934)	(26361)	(30052)	(33479)	(38224)	(45341)	(49295)	(57204)	
Air Flow	CFM (L/S)	19500 (9203)	18600 (8778)	17800 (8401)	17000 (8023)	27900 (13167)	26700 (12601)	25500 (12035)	27400 (12931)	38100 (17981)	36600 (17273)	34400 (16235)	
Refrigerant ** Charge	LB. (KG)	23 (10)	32 (15)	40 (18)	47 (21)	47 (21)	59 (27)	70 (32)	105 (48)	116 (53)	139 (63)	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°C), consult factory.

Capacities for R448A, 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.

For R449A, use R448A data.

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

R448A	R407C	R404A	R507	R22	R134a
0.96	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.



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

60Hz

MODEL KHP	FPI	FAN MOTORS										DRAIN PAN HEATERS (IF APPLICABLE)				
		QTY	HP	STANDARD				ECM *				WATTS	AMPS	MCA (A)	MAX. FUSE (AMPS)	
				MOTOR FLA TOTAL	WATTS	MCA (A)	MAX. FUSE (AMPS)	MOTOR FLA TOTAL	WATTS	MCA (A)	MAX. FUSE (AMPS)					
068M#-T3A	6	2	1	9.6	2200	10.8	15	12.4	1740	14	20	7350	18.5	23.1	25	
081M#-T3A		2	1	9.6	2200	10.8	15	12.4	1740	14	20	7350	18.5	23.1	25	
092M#-T3A		2	1	9.6	2200	10.8	15	12.4	1740	14	20	7350	18.5	23.1	25	
108M#-T3A		2	1.5	11.2	2880	15.1	20	12.4	2560	14	20	7350	18.5	23.1	25	
123M#-T3A		3	1	14.4	3300	15.6	20	18.6	2610	20.2	25	10500	26.4	33.0	35	
135M#-T3A		3	1	14.4	3300	15.6	20	18.6	2610	20.2	25	10500	26.4	33.0	35	
162M#-T3A		3	1.5	16.8	4320	20.1	25	18.6	3840	20.2	25	10500	26.4	33.0	35	
181M#-T3A		3+	1.5	16.8	4320	20.1	25	18.6	3840	20.2	25	10800	27.1	33.9	35	
221M#-T3A		4	1.5	22.4	5760	30.1	35	24.8	5120	30.1	35	14100	35.4	44.2	50	
243M#-T3A		4	1.5	22.4	5760	30.1	35	24.8	5120	30.1	35	14100	35.4	44.2	50	
271M#-T3A		4	1.5	22.4	5760	30.1	35	24.8	5120	30.1	35	14100	35.4	44.2	50	
065L#-T3A		2	1.5	11.2	2880	15.1	20	12.4	2560	14	20	7350	18.5	23.1	25	
078L#-T3A		2	1.5	11.2	2880	15.1	20	12.4	2560	14	20	7350	18.5	23.1	25	
089L#-T3A		2	1.5	11.2	2880	15.1	20	12.4	2560	14	20	7350	18.5	23.1	25	
094L#-T3A		2	1.5	11.2	2880	15.1	20	12.4	2560	14	20	7350	18.5	23.1	25	
118L#-T3A		3	1.5	16.8	4320	20.1	25	18.6	3840	20.2	25	10500	26.4	33.0	35	
134L#-T3A		3	1.5	16.8	4320	20.1	25	18.6	3840	20.2	25	10500	26.4	33.0	35	
143L#-T3A		3	1.5	16.8	4320	20.1	25	18.6	3840	20.2	25	10500	26.4	33.0	35	
161L#-T3A		3+	1.5	16.8	4320	20.1	25	18.6	3840	20.2	25	10800	27.1	33.9	35	
175L#-T3A		4	1.5	22.4	5760	30.1	35	24.8	5120	30.1	35	14100	35.4	44.2	50	
198L#-T3A		4	1.5	22.4	5760	30.1	35	24.8	5120	30.1	35	14100	35.4	44.2	50	
216L#-T3A		4	1.5	22.4	5760	30.1	35	24.8	5120	30.1	35	14100	35.4	44.2	50	
228L#-T3A		4	1.5	22.4	5760	30.1	35	24.8	5120	30.1	35	14100	35.4	44.2	50	
059P#-T3A		4	2	1	9.6	2200	10.8	15	12.4	1740	14	20	7350	18.5	23.1	25
072P#-T3A			2	1	9.6	2200	10.8	15	12.4	1740	14	20	7350	18.5	23.1	25
083P#-T3A			2	1	9.6	2200	10.8	15	12.4	1740	14	20	7350	18.5	23.1	25
091P#-T3A			2	1	9.6	2200	10.8	15	12.4	1740	14	20	7350	18.5	23.1	25
109P#-T3A			3	1	14.4	3300	15.6	20	18.6	2610	20.2	25	10500	26.4	33.0	35
122P#-T3A	3		1	14.4	3300	15.6	20	18.6	2610	20.2	25	10500	26.4	33.0	35	
137P#-T3A	3		1	14.4	3300	15.6	20	18.6	2610	20.2	25	10500	26.4	33.0	35	
150P#-T3A	3+		1.5	16.8	4320	20.1	25	18.6	3840	20.2	25	10800	27.1	33.9	35	
164P#-T3A	3+		1.5	16.8	4320	20.1	25	18.6	3840	20.2	25	10800	27.1	33.9	35	
200P#-T3A	4		1.5	22.4	5760	30.1	35	24.8	5120	30.1	35	14100	35.4	44.2	50	
222P#-T3A	4		1.5	22.4	5760	30.1	35	24.8	5120	30.1	35	14100	35.4	44.2	50	
256P#-T3A	4		1.5	22.4	5760	30.1	35	24.8	5120	30.1	35	14100	35.4	44.2	50	
055V#-T3A	2		1.5	11.2	2880	15.1	20	12.4	2560	14	20	7350	18.5	23.1	25	
066V#-T3A	2		1.5	11.2	2880	15.1	20	12.4	2560	14	20	7350	18.5	23.1	25	
076V#-T3A	2		1.5	11.2	2880	15.1	20	12.4	2560	14	20	7350	18.5	23.1	25	
087V#-T3A	2		1.5	11.2	2880	15.1	20	12.4	2560	14	20	7350	18.5	23.1	25	
100V#-T3A	3		1.5	16.8	4320	20.1	25	18.6	3840	20.2	25	10500	26.4	33.0	35	
114V#-T3A	3		1.5	16.8	4320	20.1	25	18.6	3840	20.2	25	10500	26.4	33.0	35	
127V#-T3A	3		1.5	16.8	4320	20.1	25	18.6	3840	20.2	25	10500	26.4	33.0	35	
145V#-T3A	3+		1.5	16.8	4320	20.1	25	18.6	3840	20.2	25	10800	27.1	33.9	35	
172V#-T3A	4		1.5	22.4	5760	30.1	35	24.8	5120	30.1	35	14100	35.4	44.2	50	
187V#-T3A	4		1.5	22.4	5760	30.1	35	24.8	5120	30.1	35	14100	35.4	44.2	50	
217V#-T3A	4		1.5	22.4	5760	30.1	35	24.8	5120	30.1	35	14100	35.4	44.2	50	

NOTES:
 3+ indicates 3-fan "long" configuration (see dimensional data for details)
 # = T / G / H / R
 * = data is same for either "E" or "M" models (see nomenclature, page 2)



ELECTRICAL DATA STANDARD MODELS - 460/3/60

60Hz

MODEL KHP	FPI	FAN MOTORS										DRAIN PAN HEATERS (IF APPLICABLE)				
		QTY	HP	STANDARD				ECM *				WATTS	AMPS	MCA (A)	MAX. FUUSE (AMPS)	
				MOTOR FLA TOTAL	WATTS	MCA (A)	MAX. FUUSE (AMPS)	MOTOR FLA TOTAL	WATTS	MCA (A)	MAX. FUUSE (AMPS)					
068M#-T4A	6	2	1	4.8	2200	5.4	15	6.2	1740	7	15	7350	9.2	11.5	15	
081M#-T4A		2	1	4.8	2200	5.4	15	6.2	1740	7	15	7350	9.2	11.5	15	
092M#-T4A		2	1	4.8	2200	5.4	15	6.2	1740	7	15	7350	9.2	11.5	15	
108M#-T4A		2	1.5	5.6	2980	6.3	15	6.2	2560	7	15	7350	9.2	11.5	15	
123M#-T4A		3	1	7.2	3300	7.8	15	9.3	2610	10.1	15	10500	13.2	16.5	20	
135M#-T4A		3	1	7.2	3300	7.8	15	9.3	2610	10.1	15	10500	13.2	16.5	20	
162M#-T4A		3	1.5	8.4	4470	9.1	15	9.3	3840	10.1	15	10500	13.2	16.5	20	
181M#-T4A		3+	1.5	8.4	4470	9.1	15	9.3	3840	10.1	15	10800	13.6	16.9	20	
221M#-T4A		4	1.5	11.2	5960	15.1	20	12.4	5120	15.1	20	14100	17.7	22.1	25	
243M#-T4A		4	1.5	11.2	5960	15.1	20	12.4	5120	15.1	20	14100	17.7	22.1	25	
271M#-T4A		4	1.5	11.2	5960	15.1	20	12.4	5120	15.1	20	14100	17.7	22.1	25	
065L#-T4A		6	2	1.5	5.6	2980	6.3	15	6.2	2560	7	15	7350	9.2	11.5	15
078L#-T4A			2	1.5	5.6	2980	6.3	15	6.2	2560	7	15	7350	9.2	11.5	15
089L#-T4A			2	1.5	5.6	2980	6.3	15	6.2	2560	7	15	7350	9.2	11.5	15
094L#-T4A			2	1.5	5.6	2980	6.3	15	6.2	2560	7	15	7350	9.2	11.5	15
118L#-T4A			3	1.5	8.4	4470	9.1	15	9.3	3840	10.1	15	10500	13.2	16.5	20
134L#-T4A			3	1.5	8.4	4470	9.1	15	9.3	3840	10.1	15	10500	13.2	16.5	20
143L#-T4A			3	1.5	8.4	4470	9.1	15	9.3	3840	10.1	15	10500	13.2	16.5	20
161L#-T4A			3+	1.5	8.4	4470	9.1	15	9.3	3840	10.1	15	10800	13.6	16.9	20
175L#-T4A			4	1.5	11.2	5960	15.1	20	12.4	5120	15.1	20	14100	17.7	22.1	25
198L#-T4A			4	1.5	11.2	5960	15.1	20	12.4	5120	15.1	20	14100	17.7	22.1	25
216L#-T4A			4	1.5	11.2	5960	15.1	20	12.4	5120	15.1	20	14100	17.7	22.1	25
228L#-T4A			4	1.5	11.2	5960	15.1	20	12.4	5120	15.1	20	14100	17.7	22.1	25
059P#-T4A			4	2	1	4.8	2200	5.4	15	6.2	1740	7	15	7350	9.2	11.5
072P#-T4A	2			1	4.8	2200	5.4	15	6.2	1740	7	15	7350	9.2	11.5	15
083P#-T4A	2			1	4.8	2200	5.4	15	6.2	1740	7	15	7350	9.2	11.5	15
091P#-T4A	2			1	4.8	2200	5.4	15	6.2	1740	7	15	7350	9.2	11.5	15
109P#-T4A	3	1		7.2	3300	7.8	15	9.3	2610	10.1	15	10500	13.2	16.5	20	
122P#-T4A	3	1		7.2	3300	7.8	15	9.3	2610	10.1	15	10500	13.2	16.5	20	
137P#-T4A	3	1		7.2	3300	7.8	15	9.3	2610	10.1	15	10500	13.2	16.5	20	
150P#-T4A	3+	1.5		8.4	4470	9.1	15	9.3	3840	10.1	15	10800	13.6	16.9	20	
164P#-T4A	3+	1.5		8.4	4470	9.1	15	9.3	3840	10.1	15	10800	13.6	16.9	20	
200P#-T4A	4	1.5		11.2	5960	15.1	20	12.4	5120	15.1	20	14100	17.7	22.1	25	
222P#-T4A	4	1.5		11.2	5960	15.1	20	12.4	5120	15.1	20	14100	17.7	22.1	25	
256P#-T4A	4	1.5		11.2	5960	15.1	20	12.4	5120	15.1	20	14100	17.7	22.1	25	
055V#-T4A	4	2		1.5	5.6	2980	6.3	15	6.2	2560	7	15	7350	9.2	11.5	15
066V#-T4A		2		1.5	5.6	2980	6.3	15	6.2	2560	7	15	7350	9.2	11.5	15
076V#-T4A		2		1.5	5.6	2980	6.3	15	6.2	2560	7	15	7350	9.2	11.5	15
087V#-T4A		2		1.5	5.6	2980	6.3	15	6.2	2560	7	15	7350	9.2	11.5	15
100V#-T4A		3		1.5	8.4	4470	9.1	15	9.3	3840	10.1	15	10500	13.2	16.5	20
114V#-T4A		3		1.5	8.4	4470	9.1	15	9.3	3840	10.1	15	10500	13.2	16.5	20
127V#-T4A		3		1.5	8.4	4470	9.1	15	9.3	3840	10.1	15	10500	13.2	16.5	20
145V#-T4A		3+		1.5	8.4	4470	9.1	15	9.3	3840	10.1	15	10800	13.6	16.9	20
172V#-T4A		4	1.5	11.2	5960	15.1	20	12.4	5120	15.1	20	14100	17.7	22.1	25	
187V#-T4A		4	1.5	11.2	5960	15.1	20	12.4	5120	15.1	20	14100	17.7	22.1	25	
217V#-T4A		4	1.5	11.2	5960	15.1	20	12.4	5120	15.1	20	14100	17.7	22.1	25	

NOTES:
 3+ indicates 3-fan "long" configuration (see dimensional data for details)
 # = T / G / H / R
 * = data is same for either "E" or "M" models (see nomenclature, page 2)



ELECTRICAL DATA STANDARD MODELS - 575/3/60

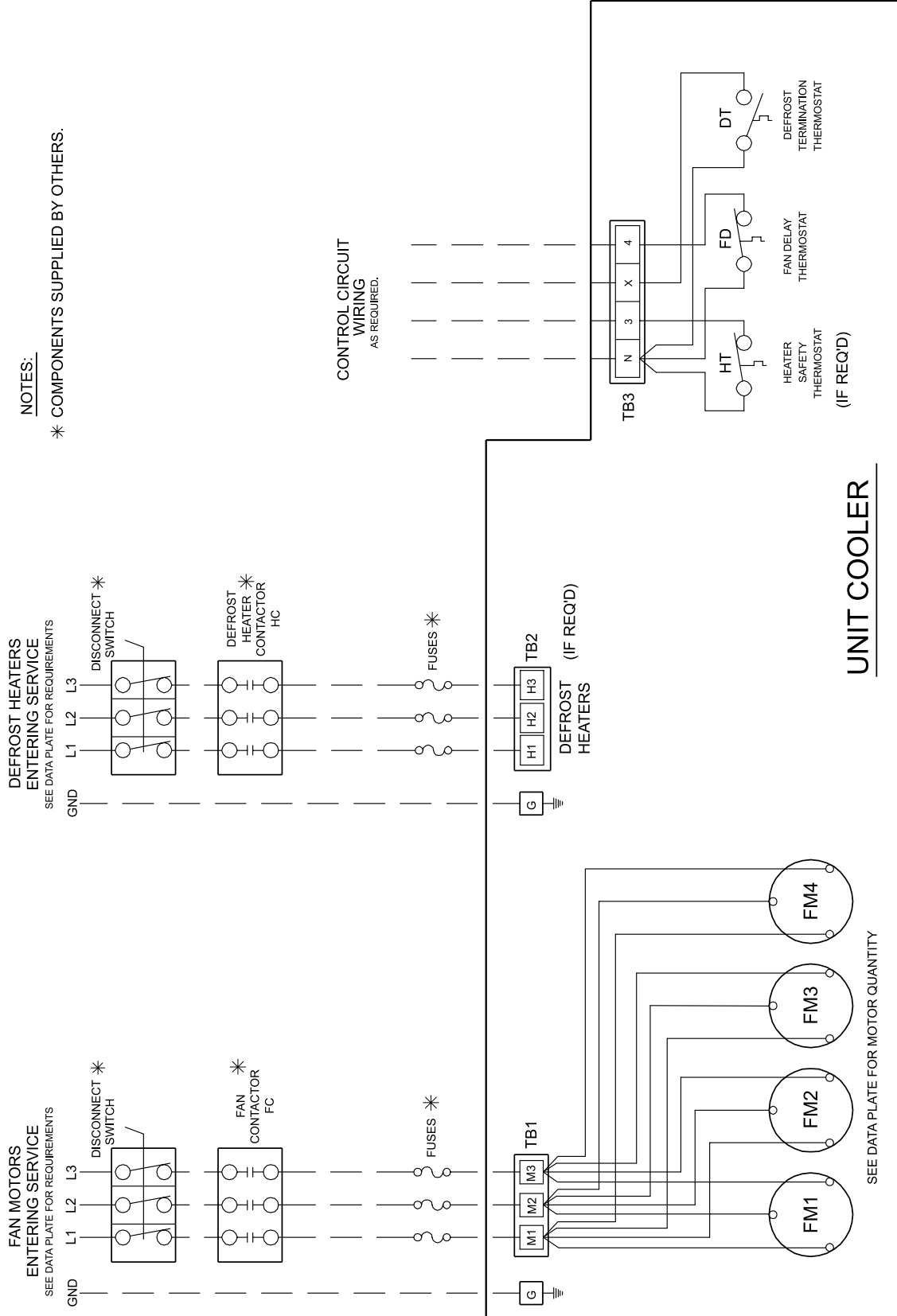
60Hz

MODEL KHP	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)	
068M#-T5A	6	2	1	4.8	2180	5.4	15	7350	7.4	9.2	15	
081M#-T5A		2	1	4.8	2180	5.4	15	7350	7.4	9.2	15	
092M#-T5A		2	1	4.8	2180	5.4	15	7350	7.4	9.2	15	
108M#-T5A		2	1.5	4.6	2860	5.2	15	7350	7.4	9.2	15	
123M#-T5A		3	1	7.2	3270	7.8	15	10500	10.5	13.2	15	
135M#-T5A		3	1	7.2	3270	7.8	15	10500	10.5	13.2	15	
162M#-T5A		3	1.5	6.9	4290	7.5	15	10500	10.5	13.2	15	
181M#-T5A		3+	1.5	6.9	4290	7.5	15	10800	10.8	13.6	15	
221M#-T5A		4	1.5	9.2	5720	9.8	15	14100	14.2	17.7	20	
243M#-T5A		4	1.5	9.2	5720	9.8	15	14100	14.2	17.7	20	
271M#-T5A		4	1.5	9.2	5720	9.8	15	14100	14.2	17.7	20	
065L#-T5A		2	1.5	4.6	2860	5.2	15	7350	7.4	9.2	15	
078L#-T5A		2	1.5	4.6	2860	5.2	15	7350	7.4	9.2	15	
089L#-T5A		2	1.5	4.6	2860	5.2	15	7350	7.4	9.2	15	
094L#-T5A		2	1.5	4.6	2860	5.2	15	7350	7.4	9.2	15	
118L#-T5A		3	1.5	6.9	4290	7.5	15	10500	10.5	13.2	15	
134L#-T5A		3	1.5	6.9	4290	7.5	15	10500	10.5	13.2	15	
143L#-T5A		3	1.5	6.9	4290	7.5	15	10500	10.5	13.2	15	
161L#-T5A		3+	1.5	6.9	4290	7.5	15	10800	10.8	13.6	15	
175L#-T5A		4	1.5	9.2	5720	9.8	15	14100	14.2	17.7	20	
198L#-T5A		4	1.5	9.2	5720	9.8	15	14100	14.2	17.7	20	
216L#-T5A		4	1.5	9.2	5720	9.8	15	14100	14.2	17.7	20	
228L#-T5A		4	1.5	9.2	5720	9.8	15	14100	14.2	17.7	20	
059P#-T5A		4	2	1	4.8	2180	5.4	15	7350	7.4	9.2	15
072P#-T5A			2	1	4.8	2180	5.4	15	7350	7.4	9.2	15
083P#-T5A			2	1	4.8	2180	5.4	15	7350	7.4	9.2	15
091P#-T5A			2	1	4.8	2180	5.4	15	7350	7.4	9.2	15
109P#-T5A			3	1	7.2	3270	7.8	15	10500	10.5	13.2	15
122P#-T5A	3		1	7.2	3270	7.8	15	10500	10.5	13.2	15	
137P#-T5A	3		1	7.2	3270	7.8	15	10500	10.5	13.2	15	
150P#-T5A	3+		1.5	6.9	4290	7.5	15	10800	10.8	13.6	15	
164P#-T5A	3+		1.5	6.9	4290	7.5	15	10800	10.8	13.6	15	
200P#-T5A	4		1.5	9.2	5720	9.8	15	14100	14.2	17.7	20	
222P#-T5A	4		1.5	9.2	5720	9.8	15	14100	14.2	17.7	20	
256P#-T5A	4		1.5	9.2	5720	9.8	15	14100	14.2	17.7	20	
055V#-T5A	2		1.5	4.6	2860	5.2	15	7350	7.4	9.2	15	
066V#-T5A	2		1.5	4.6	2860	5.2	15	7350	7.4	9.2	15	
076V#-T5A	2		1.5	4.6	2860	5.2	15	7350	7.4	9.2	15	
087V#-T5A	2		1.5	4.6	2860	5.2	15	7350	7.4	9.2	15	
100V#-T5A	3		1.5	6.9	4290	7.5	15	10500	10.5	13.2	15	
114V#-T5A	3		1.5	6.9	4290	7.5	15	10500	10.5	13.2	15	
127V#-T5A	3		1.5	6.9	4290	7.5	15	10500	10.5	13.2	15	
145V#-T5A	3+		1.5	6.9	4290	7.5	15	10800	10.8	13.6	15	
172V#-T5A	4		1.5	9.2	5720	9.8	15	14100	14.2	17.7	20	
187V#-T5A	4		1.5	9.2	5720	9.8	15	14100	14.2	17.7	20	
217V#-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

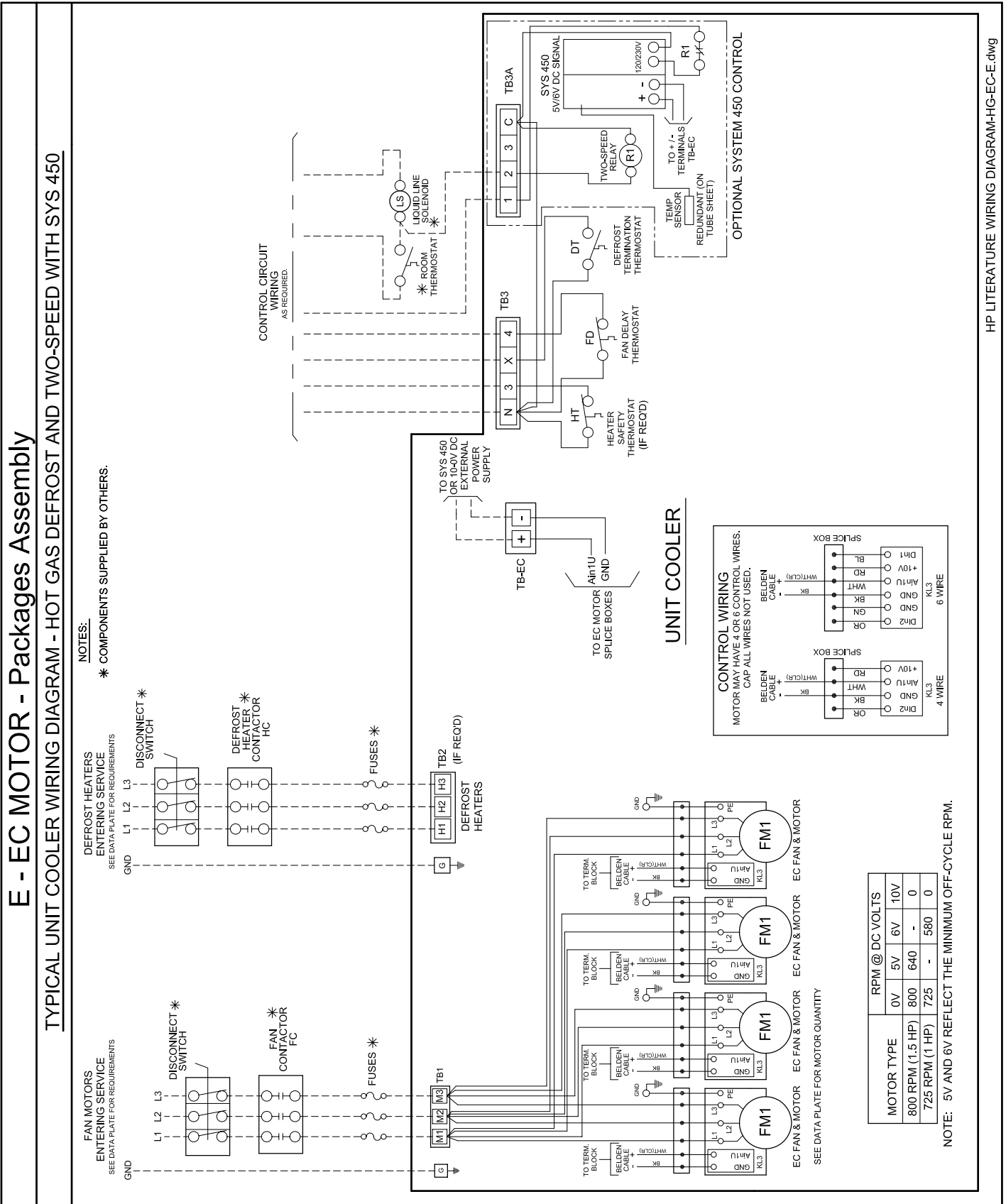
WIRING DIAGRAM STANDARD UNITS

UNIT COOLER WIRING DIAGRAM - HOT GAS DEFROST



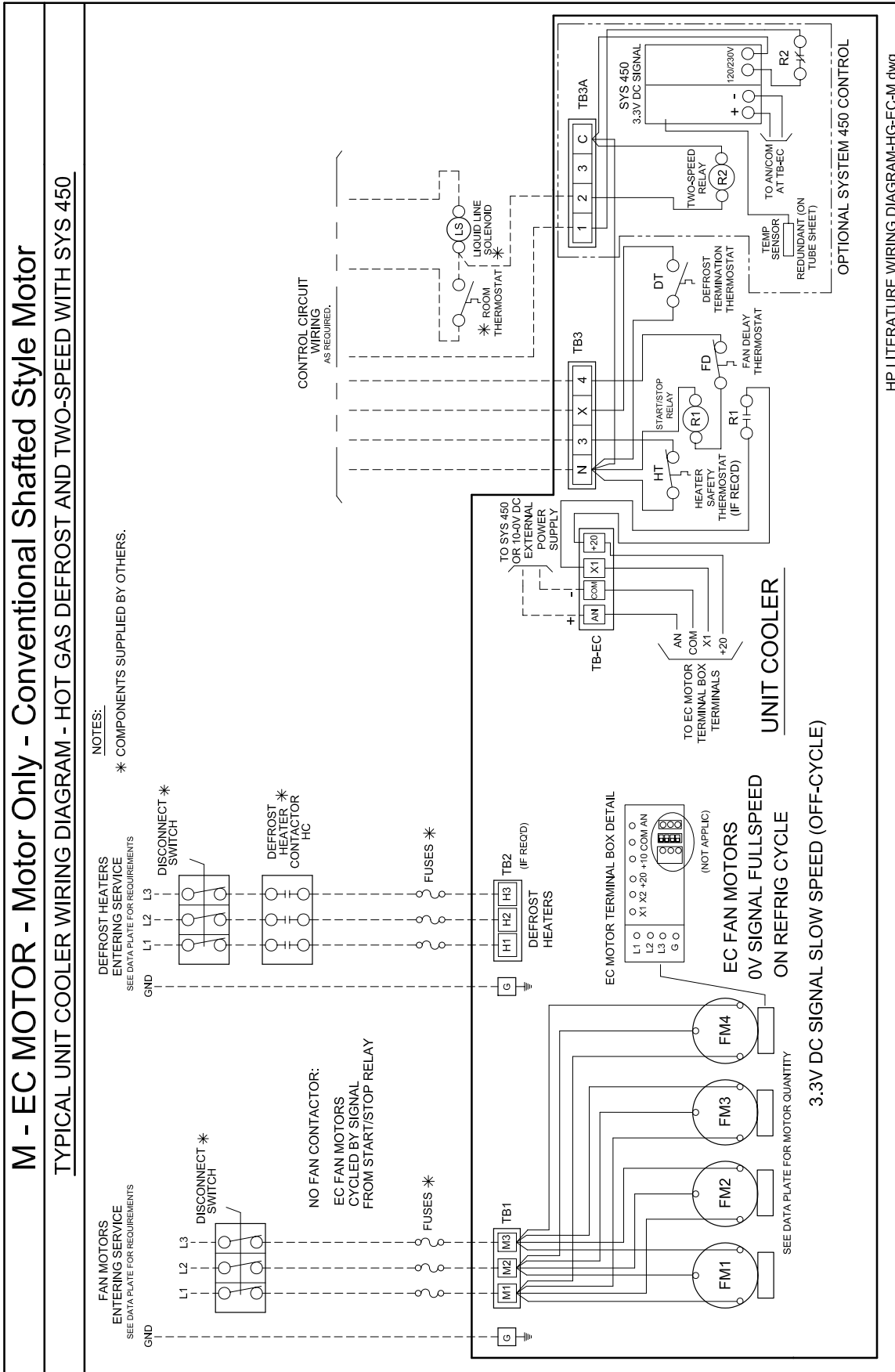
WIRING DIAGRAM

"E" - EC Motor - Packaged Assembly

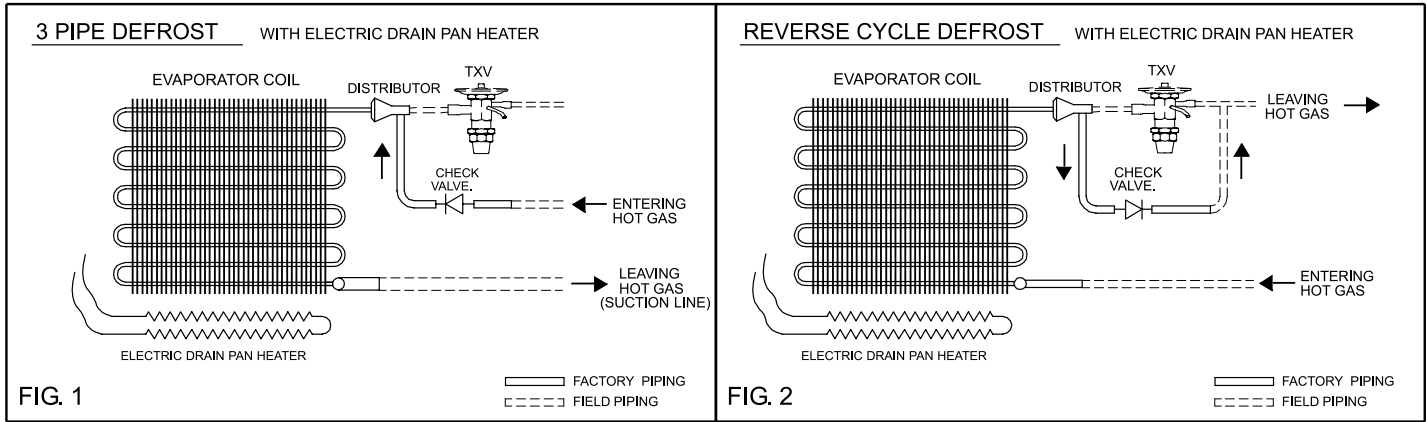


WIRING DIAGRAM

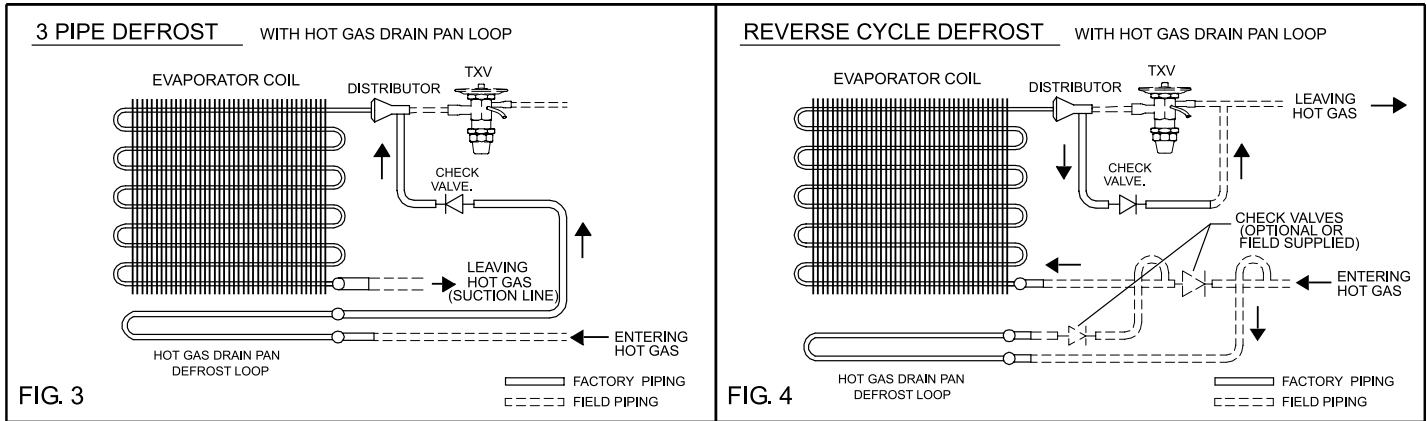
“M” - EC Motor - Motor Only (Conventional Shafted Style Motor)



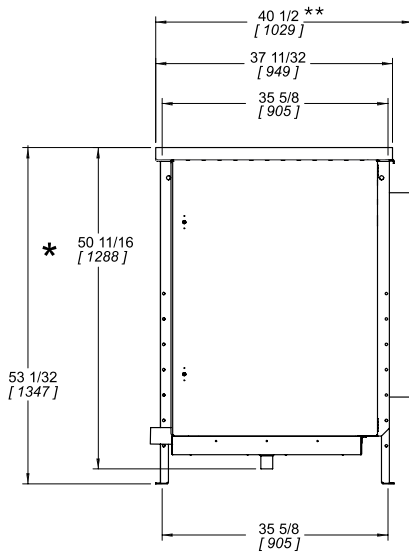
HOT GAS PIPING
(STANDARD MODELS WITH ELECTRIC DRAIN PAN HEATER)



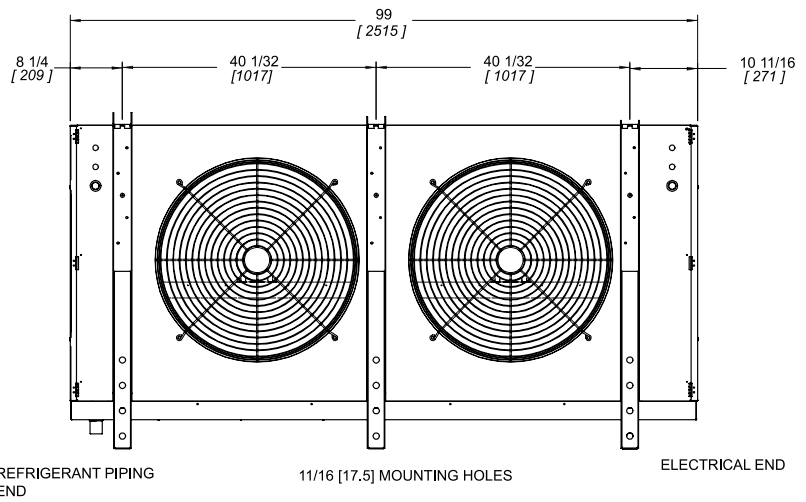
HOT GAS PIPING
(MODELS WITH OPTIONAL HOT GAS DRAIN PAN LOOP)



2 Fan Models

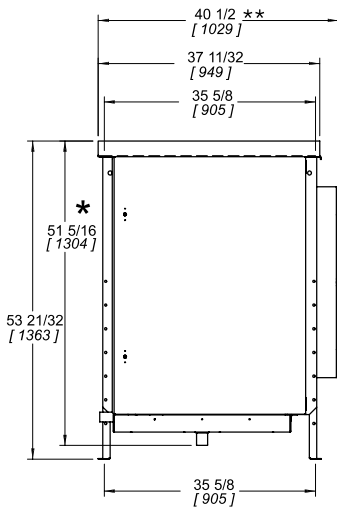


* Allow up to an additional 1-1/2" for hot gas loop option.

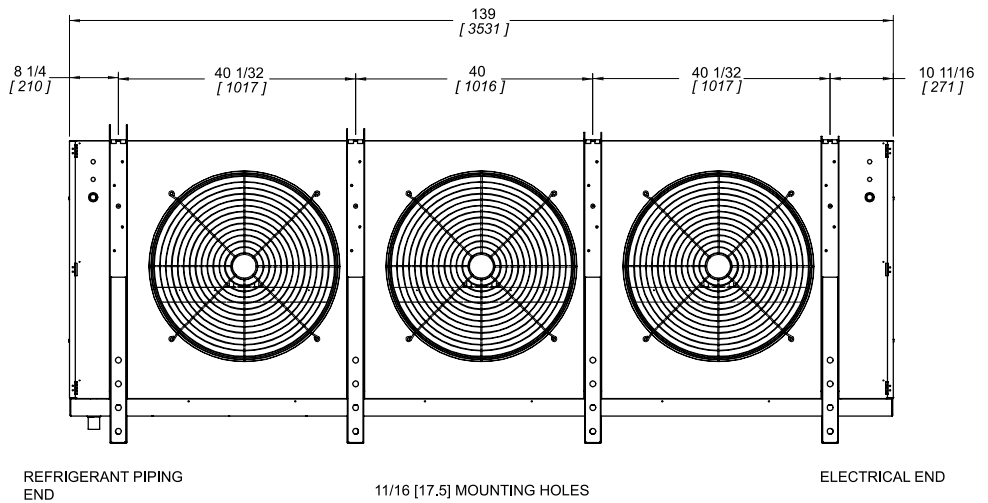


** Add 15" (381) when optional Throw Booster used.

3 Fan Models



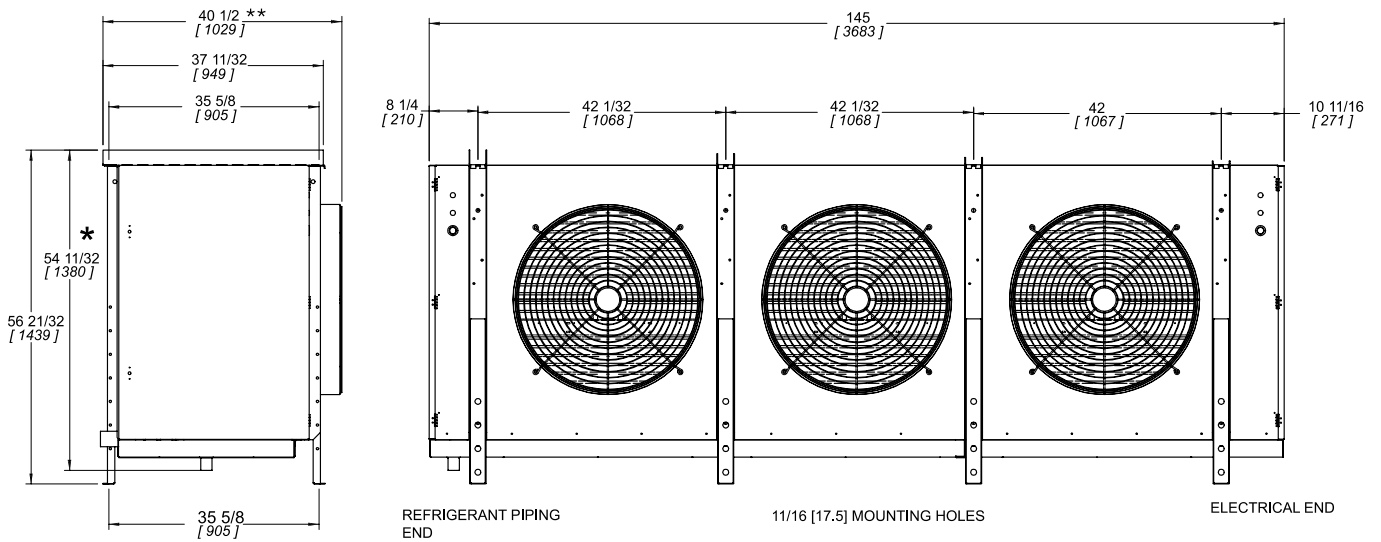
* Allow up to an additional 1-1/2" for hot gas loop option.



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

Drain connections 1-1/4" FPT.

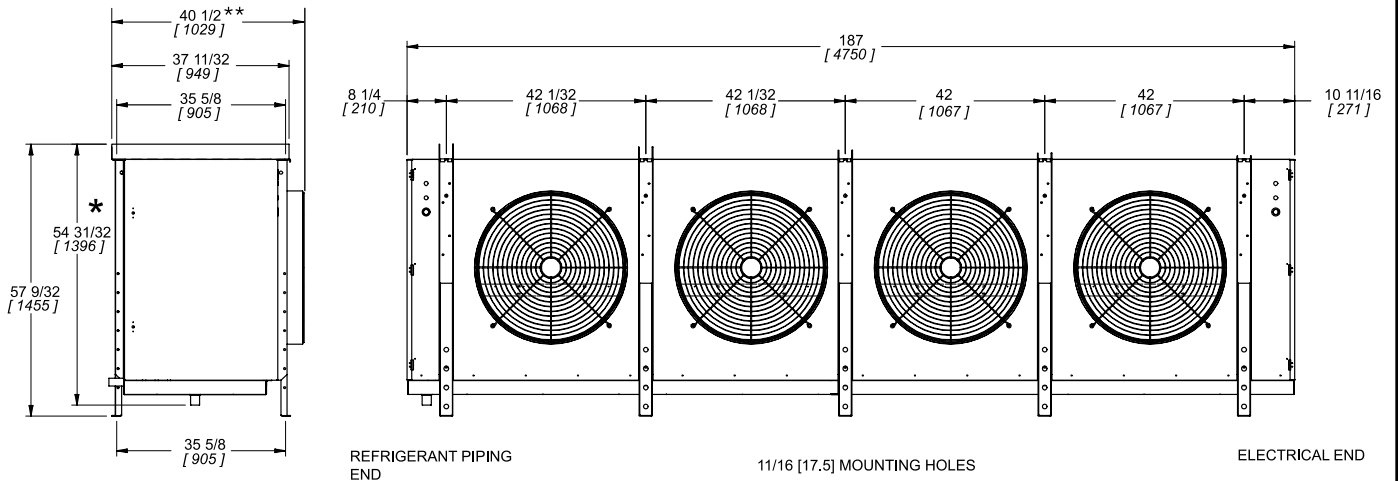
3 Fan (Long) Models



* 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

60Hz

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

60Hz

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.



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	75050	92150	106400	115900	138700	155800	172900	194750	238450	263150	291650
		R448A	(21982)	(26991)	(31165)	(33947)	(40625)	(45634)	(50643)	(57043)	(69842)	(77077)	(85425)
		R407C	71100	87300	100800	109800	131400	147600	163800	184500	225900	249300	276300
		R404A	79000	97000	112000	122000	146000	164000	182000	205000	251000	277000	307000
		R507	(23139)	(28411)	(32805)	(35734)	(42764)	(48036)	(53308)	(60045)	(73518)	(81134)	(89921)
		R22	75050	92150	106400	115900	138700	155800	172900	194750	238450	263150	291650
		(21982)	(26991)	(31165)	(33947)	(40625)	(45634)	(50643)	(57043)	(69842)	(77077)	(85425)	
		R134a	71100	87300	100800	109800	131400	147600	163800	184500	225900	249300	276300
			(20825)	(25570)	(29524)	(32161)	(38487)	(43232)	(47977)	(54040)	(66166)	(73020)	(80929)
Air Flow	CFM (L/S)	23800 (11232)	22800 (10760)	21700 (10241)	20800 (9816)	34200 (16141)	32600 (15385)	31200 (14725)	32900 (15527)	45500 (21474)	43800 (20671)	40900 (19303)	
Refrigerant ** Charge R407A	LB. (KG)	22 (10)	30 (14)	36 (16)	44 (20)	44 (20)	55 (25)	66 (30)	97 (44)	108 (49)	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	64600	81700	89300	99750	118750	139650	155800	171000	173850	203300	228000	240350
		R448A	(18921)	(23930)	(26156)	(29217)	(34782)	(40904)	(45634)	(50086)	(50921)	(59547)	(66782)	(70399)
		R407C	61200	77400	84600	94500	112500	132300	147600	162000	164700	192600	216000	227700
		R404A	68000	86000	94000	105000	125000	147000	164000	180000	183000	214000	240000	253000
		R507	(19917)	(25190)	(27533)	(30755)	(36613)	(43056)	(48036)	(52722)	(53601)	(62681)	(70296)	(74104)
		R22	64600	81700	89300	99750	118750	139650	155800	171000	173850	203300	228000	240350
		(18921)	(23930)	(26156)	(29217)	(34782)	(40904)	(45634)	(50086)	(50921)	(59547)	(66782)	(70399)	
		R134a	61200	77400	84600	94500	112500	132300	147600	162000	164700	192600	216000	227700
			(17926)	(22671)	(24779)	(27679)	(32951)	(38751)	(43232)	(47450)	(48241)	(56413)	(63267)	(66694)
Air Flow	CFM (L/S)	23800 (11232)	22800 (10760)	21700 (10241)	20800 (9816)	34200 (16141)	32600 (15385)	31200 (14725)	32900 (15527)	47200 (22276)	45500 (21474)	43800 (20671)	40900 (19303)	
Refrigerant ** Charge R407A	LB. (KG)	23 (10)	32 (15)	40 (18)	47 (21)	47 (21)	59 (27)	70 (32)	105 (48)	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°C), consult factory.

Capacities for R448A, 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.

For R449A, use R448A data.

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

** REFRIGERANT CHARGE CONVERSION FACTORS

R448A	R407C	R404A	R507	R22	R134a
0.96	0.99	0.92	0.93	1.02	1.03

NO CORRECTION FACTOR REQUIRED FOR MEDIUM TEMP. UNITS

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)

60Hz

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	63650	78850	89300	101650	118750	139650	152950	156750	177650	207100	233700	273600
		R448A	(18643)	(23095)	(26156)	(29773)	(34782)	(40904)	(44799)	(45912)	(52034)	(60660)	(68451)	(80138)
		R407C	60300	74700	84600	96300	112500	132300	144900	148500	168300	196200	221400	259200
		R404A	(17662)	(21880)	(24779)	(28206)	(32951)	(38751)	(42441)	(43496)	(49295)	(57467)	(64848)	(75920)
		R507	67000	83000	94000	107000	125000	147000	161000	165000	187000	218000	246000	288000
		(19624)	(24311)	(27533)	(31340)	(36613)	(43056)	(47157)	(48329)	(54773)	(63852)	(72054)	(84356)	
	R22	63650	78850	89300	101650	118750	139650	152950	156750	177650	207100	233700	273600	
	(18643)	(23095)	(26156)	(29773)	(34782)	(40904)	(44799)	(45912)	(52034)	(60660)	(68451)	(80138)		
	R134a	60300	74700	84600	96300	112500	132300	144900	148500	168300	196200	221400	259200	
	(17662)	(21880)	(24779)	(28206)	(32951)	(38751)	(42441)	(43496)	(49295)	(57467)	(64848)	(75920)		
Air Flow	CFM (L/S)	24400	23600	22800	21900	35400	34100	32900	35400	34300	47200	45800	43200	
	(11516)	(11138)	(10760)	(10336)	(16707)	(16093)	(15527)	(16707)	(16188)	(22276)	(21615)	(20388)		
Refrigerant ** Charge	R407A	LB. (KG)	22 (10)	30 (14)	36 (16)	44 (20)	44 (20)	55 (25)	62 (28)	81 (37)	97 (44)	108 (49)	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	56050	67450	80750	91200	105450	124450	130150	153900	183350	205200	229900
		R448A	(16417)	(19756)	(23652)	(26713)	(30886)	(36452)	(38121)	(45078)	(53703)	(60103)	(67338)
		R407C	53100	63900	76500	86400	99900	117900	123300	145800	173700	194400	217800
		R404A	(15553)	(18716)	(22407)	(25307)	(29261)	(34533)	(36115)	(42705)	(50877)	(56940)	(63794)
		R507	59000	71000	85000	96000	111000	131000	137000	162000	193000	216000	242000
		(17281)	(20796)	(24897)	(28119)	(32512)	(38370)	(40127)	(47450)	(56530)	(63267)	(70882)	
	R22	56050	67450	80750	91200	105450	124450	130150	153900	183350	205200	229900	
	(16417)	(19756)	(23652)	(26713)	(30886)	(36452)	(38121)	(45078)	(53703)	(60103)	(67338)		
	R134a	53100	63900	76500	86400	99900	117900	123300	145800	173700	194400	217800	
	(15553)	(18716)	(22407)	(25307)	(29261)	(34533)	(36115)	(42705)	(50877)	(56940)	(63794)		
Air Flow	CFM (L/S)	24400	23600	22800	21900	35400	34100	32900	34300	47200	45800	43200	
	(11516)	(11138)	(10760)	(10336)	(16707)	(16093)	(15527)	(16188)	(22276)	(21615)	(20388)		
Refrigerant ** Charge	R407A	LB. (KG)	23 (10)	32 (15)	40 (18)	47 (21)	47 (21)	59 (27)	70 (32)	105 (48)	116 (53)	139 (63)	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°C), consult factory.

Capacities for R448A, 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.

For R449A, use R448A data.

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

**** REFRIGERANT CHARGE CONVERSION FACTORS**

R448A	R407C	R404A	R507	R22	R134a
0.96	0.99	0.92	0.93	1.02	1.03

NO CORRECTION FACTOR REQUIRED FOR MEDIUM TEMP. UNITS

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 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	72200	88350	101650	111150	133950	150100	165300	186200	228000	250800	276450	
		R448A	(21147)	(25878)	(29773)	(32556)	(39234)	(43964)	(48417)	(54538)	(66782)	(73460)	(80973)	
		R407C	68400	83700	96300	105300	126900	142200	156600	176400	216000	237600	261900	261900
		R404A	(20034)	(24516)	(28206)	(30843)	(37169)	(41651)	(45868)	(51668)	(63267)	(69593)	(76711)	(76711)
		R507	76000	93000	107000	117000	141000	158000	174000	196000	240000	264000	291000	291000
		(22261)	(27240)	(31340)	(34269)	(41299)	(46278)	(50965)	(57409)	(70296)	(77326)	(85234)	(85234)	(85234)
		R22	72200	88350	101650	111150	133950	150100	165300	186200	228000	250800	276450	
		(21147)	(25878)	(29773)	(32556)	(39234)	(43964)	(48417)	(54538)	(66782)	(73460)	(80973)	(80973)	
		R134a	68400	83700	96300	105300	126900	142200	156600	176400	216000	237600	261900	
		(20034)	(24516)	(28206)	(30843)	(37169)	(41651)	(45868)	(51668)	(63267)	(69593)	(76711)	(76711)	
Air Flow	CFM (L/S)	22300 (10524)	21200 (10005)	20100 (9486)	19200 (9061)	31700 (14961)	30100 (14206)	28700 (13545)	30200 (14253)	41900 (19775)	40300 (19019)	37500 (17698)		
Refrigerant ** Charge R407A	LB. (KG)	22 (10)	30 (14)	36 (16)	44 (20)	44 (20)	55 (25)	66 (30)	97 (44)	108 (49)	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	62700	78850	86450	96900	114950	133950	149150	163400	168150	195700	218500	230850
		R448A	(18365)	(23095)	(25321)	(28382)	(33669)	(39234)	(43686)	(47860)	(49251)	(57321)	(63999)	(67616)
		R407C	59400	74700	81900	91800	108900	126900	141300	154800	159300	185400	207000	218700
		R404A	(17398)	(21880)	(23989)	(26888)	(31897)	(37169)	(41387)	(45341)	(46659)	(54304)	(60631)	(64058)
		R507	66000	83000	91000	102000	121000	141000	157000	172000	177000	206000	230000	243000
		(19331)	(24311)	(26654)	(29876)	(35441)	(41299)	(45986)	(50379)	(51844)	(60338)	(67367)	(71175)	(71175)
		R22	62700	78850	86450	96900	114950	133950	149150	163400	168150	195700	218500	230850
		(18365)	(23095)	(25321)	(28382)	(33669)	(39234)	(43686)	(47860)	(49251)	(57321)	(63999)	(67616)	
		R134a	59400	74700	81900	91800	108900	126900	141300	154800	159300	185400	207000	218700
		(17398)	(21880)	(23989)	(26888)	(31897)	(37169)	(41387)	(45341)	(46659)	(54304)	(60631)	(64058)	
Air Flow	CFM (L/S)	22300 (10524)	21200 (10005)	20100 (9486)	19200 (9061)	31700 (14961)	30100 (14206)	28700 (13545)	30200 (14253)	43600 (20577)	41900 (19775)	40300 (19019)	37500 (17698)	
Refrigerant ** Charge R407A	LB. (KG)	23 (10)	32 (15)	40 (18)	47 (21)	47 (21)	59 (27)	70 (32)	105 (48)	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°C), consult factory.

Capacities for R448A, 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.

For R449A, use R448A data.

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

R448A	R407C	R404A	R507	R22	R134a
0.96	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)

60Hz

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	61750	76950	86450	96900	114950	133950	146300	151050	168150	199500	223250	260300
		R448A	(18087)	(22539)	(25321)	(28382)	(33669)	(39234)	(42851)	(44243)	(49251)	(58434)	(65390)	(76242)
		R407C	58500	72900	81900	91800	108900	126900	138600	143100	159300	189000	211500	246600
		R404A	(17135)	(21353)	(23989)	(26888)	(31897)	(37169)	(40596)	(41914)	(46659)	(55358)	(61949)	(72229)
		R507	65000	81000	91000	102000	121000	141000	154000	159000	177000	210000	235000	274000
		R22	(19039)	(23725)	(26654)	(29876)	(35441)	(41299)	(45107)	(46571)	(51844)	(61509)	(68832)	(80255)
	R134a	61750	76950	86450	96900	114950	133950	146300	151050	168150	199500	223250	260300	
		(18087)	(22539)	(25321)	(28382)	(33669)	(39234)	(42851)	(44243)	(49251)	(58434)	(65390)	(76242)	
	R134a	58500	72900	81900	91800	108900	126900	138600	143100	159300	189000	211500	246600	
		(17135)	(21353)	(23989)	(26888)	(31897)	(37169)	(40596)	(41914)	(46659)	(55358)	(61949)	(72229)	
Air Flow	CFM (L/S)	23000	22100	21200	20300	33100	31700	30400	32700	31600	43600	42200	39700	
		(10855)	(10430)	(10005)	(9581)	(15621)	(14961)	(14347)	(15433)	(14914)	(20577)	(19916)	(18736)	
Refrigerant ** Charge R407A	LB. (KG)	22 (10)	30 (14)	36 (16)	44 (20)	44 (20)	55 (25)	62 (28)	81 (37)	97 (44)	108 (49)	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	55100	66500	77900	88350	102600	119700	127300	147250	175750	196650	219450
		R448A	(16139)	(19478)	(22817)	(25878)	(30052)	(35060)	(37286)	(43130)	(51477)	(57599)	(64277)
		R407C	52200	63000	73800	83700	97200	113400	120600	139500	166500	186300	207900
		R404A	(15289)	(18453)	(21616)	(24516)	(28470)	(33215)	(35324)	(40860)	(48768)	(54568)	(60894)
		R507	58000	70000	82000	93000	108000	126000	134000	155000	185000	207000	231000
		R22	(16988)	(20503)	(24018)	(27240)	(31633)	(36906)	(39249)	(45400)	(54187)	(60631)	(67660)
	R134a	55100	66500	77900	88350	102600	119700	127300	147250	175750	196650	219450	
		(16139)	(19478)	(22817)	(25878)	(30052)	(35060)	(37286)	(43130)	(51477)	(57599)	(64277)	
	R134a	52200	63000	73800	83700	97200	113400	120600	139500	166500	186300	207900	
		(15289)	(18453)	(21616)	(24516)	(28470)	(33215)	(35324)	(40860)	(48768)	(54568)	(60894)	
Air Flow	CFM (L/S)	23000	22100	21200	20300	33100	31700	30400	31600	43600	42200	39700	
		(10855)	(10430)	(10005)	(9581)	(15621)	(14961)	(14347)	(14914)	(20577)	(19916)	(18736)	
Refrigerant ** Charge R407A	LB. (KG)	23 (10)	32 (15)	40 (18)	47 (21)	47 (21)	59 (27)	70 (32)	105 (48)	116 (53)	139 (63)	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°C), consult factory.

Capacities for R448A, 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.

For R449A, use R448A data.

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

** REFRIGERANT CHARGE CONVERSION FACTORS

R448A	R407C	R404A	R507	R22	R134a
0.96	0.99	0.92	0.93	1.02	1.03

NO CORRECTION FACTOR REQUIRED FOR MEDIUM TEMP. UNITS

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 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	69350	84550	95950	105450	127300	142500	157700	174800	215650	235600	258400
		R448A	(20313)	(24765)	(28104)	(30886)	(37286)	(41738)	(46191)	(51199)	(63164)	(69008)	(75686)
		R407C	65700	80100	90900	99900	120600	135000	149400	165600	204300	223200	244800
		R404A	(19244)	(23461)	(26625)	(29261)	(35324)	(39542)	(43759)	(48504)	(59840)	(65376)	(71702)
		R507	73000	89000	101000	111000	134000	150000	166000	184000	227000	248000	272000
		(21382)	(26068)	(29583)	(32512)	(39249)	(43935)	(48622)	(53894)	(66489)	(72640)	(79669)	
	R22	69350	84550	95950	105450	127300	142500	157700	174800	215650	235600	258400	
		(20313)	(24765)	(28104)	(30886)	(37286)	(41738)	(46191)	(51199)	(63164)	(69008)	(75686)	
	R134a	65700	80100	90900	99900	120600	135000	149400	165600	204300	223200	244800	
		(19244)	(23461)	(26625)	(29261)	(35324)	(39542)	(43759)	(48504)	(59840)	(65376)	(71702)	
Air Flow	CFM (L/S)	20400 (9628)	19200 (9061)	18300 (8637)	17500 (8259)	28900 (13639)	27500 (12979)	26300 (12412)	27300 (12884)	37800 (17840)	36300 (17132)	33700 (15905)	
Refrigerant ** Charge R407A	LB. (KG)	22 (10)	30 (14)	36 (16)	44 (20)	44 (20)	55 (25)	66 (30)	97 (44)	108 (49)	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	61750	75050	82650	92150	111150	128250	142500	153900	161500	186200	206150	218500
		R448A	(18087)	(21982)	(24208)	(26991)	(32556)	(37565)	(41738)	(45078)	(47304)	(54538)	(60382)	(63999)
		R407C	58500	71100	78300	87300	105300	121500	135000	145800	153000	176400	195300	207000
		R404A	(17135)	(20825)	(22934)	(25570)	(30843)	(35588)	(39542)	(42705)	(44814)	(51668)	(57204)	(60631)
		R507	65000	79000	87000	97000	117000	135000	150000	162000	170000	196000	217000	230000
		(19039)	(23139)	(25482)	(28411)	(34269)	(39542)	(43935)	(47450)	(49793)	(57409)	(63560)	(67367)	
	R22	61750	75050	82650	92150	111150	128250	142500	153900	161500	186200	206150	218500	
		(18087)	(21982)	(24208)	(26991)	(32556)	(37565)	(41738)	(45078)	(47304)	(54538)	(60382)	(63999)	
	R134a	58500	71100	78300	87300	105300	121500	135000	145800	153000	176400	195300	207000	
		(17135)	(20825)	(22934)	(25570)	(30843)	(35588)	(39542)	(42705)	(44814)	(51668)	(57204)	(60631)	
Air Flow	CFM (L/S)	20400 (9628)	19200 (9061)	18300 (8637)	17500 (8259)	28900 (13639)	27500 (12979)	26300 (12412)	27300 (12884)	39500 (18642)	37800 (17840)	36300 (17132)	33700 (15905)	
Refrigerant ** Charge R407A	LB. (KG)	23 (10)	32 (15)	40 (18)	47 (21)	47 (21)	59 (27)	70 (32)	105 (48)	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°C), consult factory.

Capacities for R448A, 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.

For R449A, use R448A data.

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

R448A	R407C	R404A	R507	R22	R134a
0.96	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)

60Hz

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	58900	73150	82650	92150	110200	127300	139650	142500	158650	189050	210900	243200	
		R448A	(17252)	(21426)	(24208)	(26991)	(32278)	(37286)	(40904)	(41738)	(46469)	(55373)	(61773)	(71234)	
		R407C	55800	69300	78300	87300	104400	120600	132300	135000	150300	150300	179100	199800	230400
			(16344)	(20298)	(22934)	(25570)	(30579)	(35324)	(38751)	(39542)	(44023)	(52459)	(58522)	(67484)	
		R404A	62000	77000	87000	97000	116000	134000	147000	150000	167000	199000	222000	256000	
		R507	(18160)	(22553)	(25482)	(28411)	(33977)	(39249)	(43056)	(43935)	(48915)	(58287)	(65024)	(74983)	
	R22	58900	73150	82650	92150	110200	127300	139650	142500	158650	189050	210900	243200		
		(17252)	(21426)	(24208)	(26991)	(32278)	(37286)	(40904)	(41738)	(46469)	(55373)	(61773)	(71234)		
	R134a	55800	69300	78300	87300	104400	120600	132300	135000	150300	179100	199800	230400		
		(16344)	(20298)	(22934)	(25570)	(30579)	(35324)	(38751)	(39542)	(44023)	(52459)	(58522)	(67484)		
Air Flow	CFM (L/S)	21200 (10005)	20100 (9486)	19200 (9061)	18500 (8731)	30200 (14253)	28900 (13639)	27700 (13073)	29600 (13970)	28600 (13498)	39500 (18642)	38100 (17981)	35700 (16849)		
Refrigerant ** Charge	LB. (KG)	22 (10)	30 (14)	36 (16)	44 (20)	44 (20)	55 (25)	62 (28)	81 (37)	97 (44)	108 (49)	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	52250	63650	75050	83600	97850	113050	121600	139650	166250	186200	207100	
		R448A	(15304)	(18643)	(21982)	(24487)	(28660)	(33112)	(35617)	(40904)	(48695)	(54538)	(60660)	
		R407C	49500	60300	71100	79200	92700	107100	115200	132300	157500	176400	196200	196200
			(14499)	(17662)	(20825)	(23198)	(27152)	(31370)	(33742)	(38751)	(46132)	(51668)	(57467)	
		R404A	55000	67000	79000	88000	103000	119000	128000	147000	175000	196000	218000	
		R507	(16110)	(19624)	(23139)	(25775)	(30169)	(34855)	(37491)	(43056)	(51258)	(57409)	(63852)	
	R22	52250	63650	75050	83600	97850	113050	121600	139650	166250	186200	207100		
		(15304)	(18643)	(21982)	(24487)	(28660)	(33112)	(35617)	(40904)	(48695)	(54538)	(60660)		
	R134a	49500	60300	71100	79200	92700	107100	115200	132300	157500	176400	196200		
		(14499)	(17662)	(20825)	(23198)	(27152)	(31370)	(33742)	(38751)	(46132)	(51668)	(57467)		
Air Flow	CFM (L/S)	21200 (10005)	20100 (9486)	19200 (9061)	18500 (8731)	30200 (14253)	28900 (13639)	27700 (13073)	29600 (13970)	28600 (13498)	39500 (18642)	38100 (17981)	35700 (16849)	
Refrigerant ** Charge	LB. (KG)	23 (10)	32 (15)	40 (18)	47 (21)	47 (21)	59 (27)	70 (32)	105 (48)	116 (53)	139 (63)	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°C), consult factory.

Capacities for R448A, 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.

For R449A, use R448A data.

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

**** REFRIGERANT CHARGE CONVERSION FACTORS**

R448A	R407C	R404A	R507	R22	R134a
0.96	0.99	0.92	0.93	1.02	1.03

NO CORRECTION FACTOR REQUIRED FOR MEDIUM TEMP. UNITS

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.



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

60Hz

MODEL KHP	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)
068M#-T3A	6	2	3	18.4	5460	25.1	30	7350	18.5	23.1	25
081M#-T3A		2	3	18.4	5460	25.1	30	7350	18.5	23.1	25
092M#-T3A		2	3	18.4	5460	25.1	30	7350	18.5	23.1	25
108M#-T3A		2	3	18.4	5460	25.1	30	7350	18.5	23.1	25
123M#-T3A		3	3	27.6	8190	35.1	40	10500	26.4	33.0	35
135M#-T3A		3	3	27.6	8190	35.1	40	10500	26.4	33.0	35
162M#-T3A		3	3	27.6	8190	35.1	40	10500	26.4	33.0	35
181M#-T3A		3+	3	27.6	8190	35.1	40	10800	27.1	33.9	35
221M#-T3A		4	3	36.8	10920	45.1	50	14100	35.4	44.2	50
243M#-T3A		4	3	36.8	10920	45.1	50	14100	35.4	44.2	50
271M#-T3A		4	3	36.8	10920	45.1	50	14100	35.4	44.2	50
065L#-T3A		2	3	18.4	5460	25.1	30	7350	18.5	23.1	25
078L#-T3A		2	3	18.4	5460	25.1	30	7350	18.5	23.1	25
089L#-T3A		2	3	18.4	5460	25.1	30	7350	18.5	23.1	25
094L#-T3A		2	3	18.4	5460	25.1	30	7350	18.5	23.1	25
118L#-T3A		3	3	27.6	8190	35.1	40	10500	26.4	33.0	35
134L#-T3A		3	3	27.6	8190	35.1	40	10500	26.4	33.0	35
143L#-T3A		3	3	27.6	8190	35.1	40	10500	26.4	33.0	35
161L#-T3A		3+	3	27.6	8190	35.1	40	10800	27.1	33.9	35
175L#-T3A		4	3	36.8	10920	45.1	50	14100	35.4	44.2	50
198L#-T3A		4	3	36.8	10920	45.1	50	14100	35.4	44.2	50
216L#-T3A		4	3	36.8	10920	45.1	50	14100	35.4	44.2	50
228L#-T3A		4	3	36.8	10920	45.1	50	14100	35.4	44.2	50
059P#-T3A		4	2	3	18.4	5460	25.1	30	7350	18.5	23.1
072P#-T3A	2		3	18.4	5460	25.1	30	7350	18.5	23.1	25
083P#-T3A	2		3	18.4	5460	25.1	30	7350	18.5	23.1	25
091P#-T3A	2		3	18.4	5460	25.1	30	7350	18.5	23.1	25
109P#-T3A	3		3	27.6	8190	35.1	40	10500	26.4	33.0	35
122P#-T3A	3		3	27.6	8190	35.1	40	10500	26.4	33.0	35
137P#-T3A	3		3	27.6	8190	35.1	40	10500	26.4	33.0	35
150P#-T3A	3+		3	27.6	8190	35.1	40	10800	27.1	33.9	35
164P#-T3A	3+		3	27.6	8190	35.1	40	10800	27.1	33.9	35
200P#-T3A	4		3	36.8	10920	45.1	50	14100	35.4	44.2	50
222P#-T3A	4		3	36.8	10920	45.1	50	14100	35.4	44.2	50
256P#-T3A	4		3	36.8	10920	45.1	50	14100	35.4	44.2	50
055V#-T3A	2		3	18.4	5460	25.1	30	7350	18.5	23.1	25
066V#-T3A	2		3	18.4	5460	25.1	30	7350	18.5	23.1	25
076V#-T3A	2		3	18.4	5460	25.1	30	7350	18.5	23.1	25
087V#-T3A	2		3	18.4	5460	25.1	30	7350	18.5	23.1	25
100V#-T3A	3		3	27.6	8190	35.1	40	10500	26.4	33.0	35
114V#-T3A	3		3	27.6	8190	35.1	40	10500	26.4	33.0	35
127V#-T3A	3		3	27.6	8190	35.1	40	10500	26.4	33.0	35
145V#-T3A	3+		3	27.6	8190	35.1	40	10800	27.1	33.9	35
172V#-T3A	4		3	36.8	10920	45.1	50	14100	35.4	44.2	50
187V#-T3A	4		3	36.8	10920	45.1	50	14100	35.4	44.2	50
217V#-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



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

60Hz

MODEL KHP	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)	
068M#-T4A	6	2	3	8.8	5620	9.9	15	7350	9.2	11.5	15	
081M#-T4A		2	3	8.8	5620	9.9	15	7350	9.2	11.5	15	
092M#-T4A		2	3	8.8	5620	9.9	15	7350	9.2	11.5	15	
108M#-T4A		2	3	8.8	5620	9.9	15	7350	9.2	11.5	15	
123M#-T4A		3	3	13.2	8430	15.1	20	10500	13.2	16.5	20	
135M#-T4A		3	3	13.2	8430	15.1	20	10500	13.2	16.5	20	
162M#-T4A		3	3	13.2	8430	15.1	20	10500	13.2	16.5	20	
181M#-T4A		3+	3	13.2	8430	15.1	20	10800	13.6	16.9	20	
221M#-T4A		4	3	17.6	11240	20.1	25	14100	17.7	22.1	25	
243M#-T4A		4	3	17.6	11240	20.1	25	14100	17.7	22.1	25	
271M#-T4A		4	3	17.6	11240	20.1	25	14100	17.7	22.1	25	
065L#-T4A		2	3	8.8	5620	9.9	15	7350	9.2	11.5	15	
078L#-T4A		2	3	8.8	5620	9.9	15	7350	9.2	11.5	15	
089L#-T4A		2	3	8.8	5620	9.9	15	7350	9.2	11.5	15	
094L#-T4A		2	3	8.8	5620	9.9	15	7350	9.2	11.5	15	
118L#-T4A		3	3	13.2	8430	15.1	20	10500	13.2	16.5	20	
134L#-T4A		3	3	13.2	8430	15.1	20	10500	13.2	16.5	20	
143L#-T4A		3	3	13.2	8430	15.1	20	10500	13.2	16.5	20	
161L#-T4A		3+	3	13.2	8430	15.1	20	10800	13.6	16.9	20	
175L#-T4A		4	3	17.6	11240	20.1	25	14100	17.7	22.1	25	
198L#-T4A		4	3	17.6	11240	20.1	25	14100	17.7	22.1	25	
216L#-T4A		4	3	17.6	11240	20.1	25	14100	17.7	22.1	25	
228L#-T4A		4	3	17.6	11240	20.1	25	14100	17.7	22.1	25	
059P#-T4A		4	2	3	8.8	5620	9.9	15	7350	9.2	11.5	15
072P#-T4A			2	3	8.8	5620	9.9	15	7350	9.2	11.5	15
083P#-T4A			2	3	8.8	5620	9.9	15	7350	9.2	11.5	15
091P#-T4A			2	3	8.8	5620	9.9	15	7350	9.2	11.5	15
109P#-T4A			3	3	13.2	8430	15.1	20	10500	13.2	16.5	20
122P#-T4A	3		3	13.2	8430	15.1	20	10500	13.2	16.5	20	
137P#-T4A	3		3	13.2	8430	15.1	20	10500	13.2	16.5	20	
150P#-T4A	3+		3	13.2	8430	15.1	20	10800	13.6	16.9	20	
164P#-T4A	3+		3	13.2	8430	15.1	20	10800	13.6	16.9	20	
200P#-T4A	4		3	17.6	11240	20.1	25	14100	17.7	22.1	25	
222P#-T4A	4		3	17.6	11240	20.1	25	14100	17.7	22.1	25	
256P#-T4A	4		3	17.6	11240	20.1	25	14100	17.7	22.1	25	
055V#-T4A	2		3	8.8	5620	9.9	15	7350	9.2	11.5	15	
066V#-T4A	2		3	8.8	5620	9.9	15	7350	9.2	11.5	15	
076V#-T4A	2		3	8.8	5620	9.9	15	7350	9.2	11.5	15	
087V#-T4A	2		3	8.8	5620	9.9	15	7350	9.2	11.5	15	
100V#-T4A	3		3	13.2	8430	15.1	20	10500	13.2	16.5	20	
114V#-T4A	3		3	13.2	8430	15.1	20	10500	13.2	16.5	20	
127V#-T4A	3		3	13.2	8430	15.1	20	10500	13.2	16.5	20	
145V#-T4A	3+		3	13.2	8430	15.1	20	10800	13.6	16.9	20	
172V#-T4A	4		3	17.6	11240	20.1	25	14100	17.7	22.1	25	
187V#-T4A	4		3	17.6	11240	20.1	25	14100	17.7	22.1	25	
217V#-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



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

60Hz

MODEL KHP	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)
068M#-T5A	6	2	3	7.2	5500	8.1	15	7350	7.4	9.2	15
081M#-T5A		2	3	7.2	5500	8.1	15	7350	7.4	9.2	15
092M#-T5A		2	3	7.2	5500	8.1	15	7350	7.4	9.2	15
108M#-T5A		2	3	7.2	5500	8.1	15	7350	7.4	9.2	15
123M#-T5A		3	3	10.8	8250	11.7	15	10500	10.5	13.2	15
135M#-T5A		3	3	10.8	8250	11.7	15	10500	10.5	13.2	15
162M#-T5A		3	3	10.8	8250	11.7	15	10500	10.5	13.2	15
181M#-T5A		3+	3	10.8	8250	11.7	15	10800	10.8	13.6	15
221M#-T5A		4	3	14.4	11000	15.3	20	14100	14.2	17.7	20
243M#-T5A		4	3	14.4	11000	15.3	20	14100	14.2	17.7	20
271M#-T5A		4	3	14.4	11000	15.3	20	14100	14.2	17.7	20
065L#-T5A		2	3	7.2	5500	8.1	15	7350	7.4	9.2	15
078L#-T5A		2	3	7.2	5500	8.1	15	7350	7.4	9.2	15
089L#-T5A		2	3	7.2	5500	8.1	15	7350	7.4	9.2	15
094L#-T5A		2	3	7.2	5500	8.1	15	7350	7.4	9.2	15
118L#-T5A		3	3	10.8	8250	11.7	15	10500	10.5	13.2	15
134L#-T5A		3	3	10.8	8250	11.7	15	10500	10.5	13.2	15
143L#-T5A		3	3	10.8	8250	11.7	15	10500	10.5	13.2	15
161L#-T5A		3+	3	10.8	8250	11.7	15	10800	10.8	13.6	15
175L#-T5A		4	3	14.4	11000	15.3	20	14100	14.2	17.7	20
198L#-T5A		4	3	14.4	11000	15.3	20	14100	14.2	17.7	20
216L#-T5A		4	3	14.4	11000	15.3	20	14100	14.2	17.7	20
228L#-T5A	4	3	14.4	11000	15.3	20	14100	14.2	17.7	20	
059P#-T5A	4	2	3	7.2	5500	8.1	15	7350	7.4	9.2	15
072P#-T5A		2	3	7.2	5500	8.1	15	7350	7.4	9.2	15
083P#-T5A		2	3	7.2	5500	8.1	15	7350	7.4	9.2	15
091P#-T5A		2	3	7.2	5500	8.1	15	7350	7.4	9.2	15
109P#-T5A		3	3	10.8	8250	11.7	15	10500	10.5	13.2	15
122P#-T5A		3	3	10.8	8250	11.7	15	10500	10.5	13.2	15
137P#-T5A		3	3	10.8	8250	11.7	15	10500	10.5	13.2	15
150P#-T5A		3+	3	10.8	8250	11.7	15	10800	10.8	13.6	15
164P#-T5A		3+	3	10.8	8250	11.7	15	10800	10.8	13.6	15
200P#-T5A		4	3	14.4	11000	15.3	20	14100	14.2	17.7	20
222P#-T5A		4	3	14.4	11000	15.3	20	14100	14.2	17.7	20
256P#-T5A		4	3	14.4	11000	15.3	20	14100	14.2	17.7	20
055V#-T5A		2	3	7.2	5500	8.1	15	7350	7.4	9.2	15
066V#-T5A		2	3	7.2	5500	8.1	15	7350	7.4	9.2	15
076V#-T5A		2	3	7.2	5500	8.1	15	7350	7.4	9.2	15
087V#-T5A		2	3	7.2	5500	8.1	15	7350	7.4	9.2	15
100V#-T5A		3	3	10.8	8250	11.7	15	10500	10.5	13.2	15
114V#-T5A		3	3	10.8	8250	11.7	15	10500	10.5	13.2	15
127V#-T5A		3	3	10.8	8250	11.7	15	10500	10.5	13.2	15
145V#-T5A		3+	3	10.8	8250	11.7	15	10800	10.8	13.6	15
172V#-T5A		4	3	14.4	11000	15.3	20	14100	14.2	17.7	20
187V#-T5A		4	3	14.4	11000	15.3	20	14100	14.2	17.7	20
217V#-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

PROJECT INFORMATION

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


PRODUCT SUPPORT

web: k-rp.com/khp
email: evaps@k-rp.com
call: 1-844-893-3222 x520


TROUBLESHOOTING


email: troubleshooting@k-rp.com
call: 1-844-893-3222 x529


SERVICE PARTS


web: k-rp.com/parts
email: parts@k-rp.com
call: 1-844-893-3222 x501


WARRANTY

web: k-rp.com/warranty
email: warranty@k-rp.com
call: 1-844-893-3222 ext. 501


ORDERS

email: orders@k-rp.com
call: 1-844-893-3222 x501


SHIPPING

email: shipping@k-rp.com
call: 1-844-893-3222 x503

“AS BUILT” SERVICE PARTS LIST

Service Parts List
Label
To Be Attached
HERE



NATIONAL REFRIGERATION &
AIR CONDITIONING CANADA CORP.
159 ROY BLVD., BRANTFORD, ON, N3R 7K1



1-800-463-9517 (519) 751-0444
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