



50HJ,TJ,TFF008-014
 50TFQ,TJQ008-012
 7½ to 12½ Tons
Accessory Electric Heater and Single Point Box
 50 Hz, CE Units

Installation Instructions



Part Numbers: CRHEATER120A00 through CRHEATER123A00
 CRSINGLE018A00 through CRSINGLE024A00

GENERAL

Electric heater assembly consists of:

- 1 — Heater module
- 4 — Screws
- 1 — Wiring label

Single point kit consists of:

- 1 — Single point box
- 1 — Bushing
- 5 — Screws
- 1 — Bracket and conduit drip boot assembly

NOTE: Accessory package part number and heater part number are the same with the exception of the ninth position. The accessory package will have a “1” and the heater will have a “0”.

INSTALLATION

⚠ WARNING

Turn off power to unit.

1. Remove electric heater modules and single point box from packaging and inspect for damage.
2. Remove indoor and outdoor access panels. See Fig. 1.
3. Remove control box cover and center post. Save screws. See Fig. 2.
4. Remove the single point box cover. Secure single point box to the underside of the control box with the 2 screws provided (Fig. 3).
5. Secure the conduit drip boot bracket assembly to the back of the single point box with 2 of the screws provided (Fig. 4). The channel portion of the bracket assembly extends to the top panel behind the control box. Secure all wires to bracket with field-supplied wire tie as shown in Fig. 4.
6. Remove heater cover(s) from heater mounting bracket. Save screws. Install heater flange, then install single module electric heat option in location 1 (nearest the single point box). See Fig. 2 or 5.

NOTE: Modules CRHEATER121A00 and CRHEATER122A00 are keyed and must be installed in location 1 even when used as part of a 2-module option (Fig. 5).

7. Fasten heater module to heater mounting bracket with the 4 screws saved from Step 6 (Fig. 3).

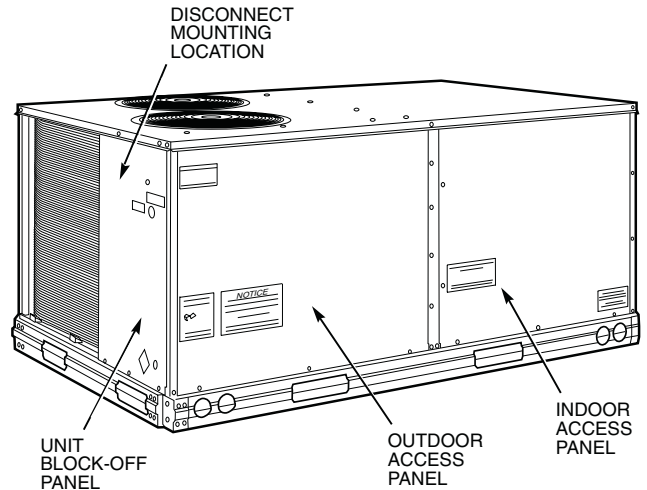


Fig. 1 — Typical Access Panel Location

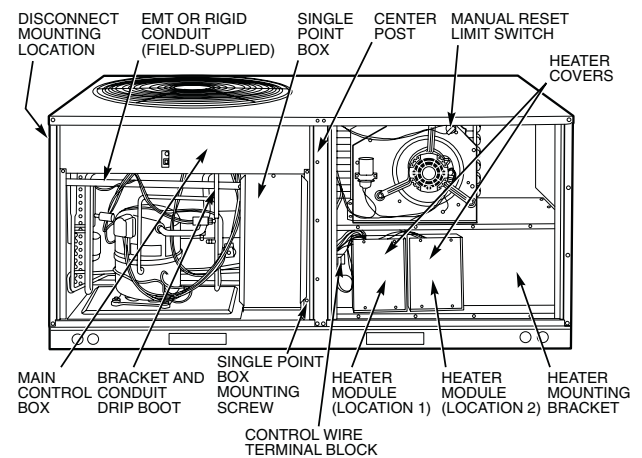


Fig. 2 — Typical Component Location

Manufacturer reserves the right to discontinue, or change at any time, specifications or designs without notice and without incurring obligations.

8. Route power wires from heater module(s) through the foam bushing in the center partition and into the single point box (Fig. 3).
9. Install bushing in hole between control box and single point box. Route unit power pigtails through bushing (Fig. 3).
10. Refer to Fig. 6 and 7 to determine appropriate power wiring figure for wiring single point box. See Tables 1-3 for electrical information.
11. Run control wires from heater module(s) to the control wire terminal block located next to the heater module(s). Connect the control wires as shown in Fig. 8.

HEAT PUMP UNITS — The electric heat is internally wired as the second stage of heat.

ELECTRIC COOLING UNITS — Electric cooling units with 2 electric heater modules can be wired for one- or 2-stage options as shown in Fig. 8. Connect single module heater option control wire (violet) to TB4 terminal 1.

12. Replace the center post and secure the single point box to the center post with one screw (Fig. 2).
13. Remove knockouts for appropriate size conduit from unit block-off panel and single point box. Install conduit (rigid or electrometallic tubing) through conduit drip boot as shown in Fig. 4. Drip boot will accept conduit sizes 19 to 38 mm ($3/4$ in. to $1\frac{1}{2}$ in.). The drip boot eliminates the need for water-tight conduit fittings at the single point box.

NOTE: Supply wiring must comply with all local requirements.

14. Place adhesive-backed wiring label on flanged side of heater cover.
15. Fasten heater cover to heater module with 2 screws provided with heater. Flanges of cover should face out.
16. Set manual reset limit switch by depressing button located between the terminals on the switch. Refer to Fig. 2 for switch location.
17. Close single point box cover and secure with one screw.
18. Replace control box cover, using remainder of screws saved from Step 3.
19. Replace indoor and outdoor panels with screws saved from Step 2.
20. Turn on unit power.

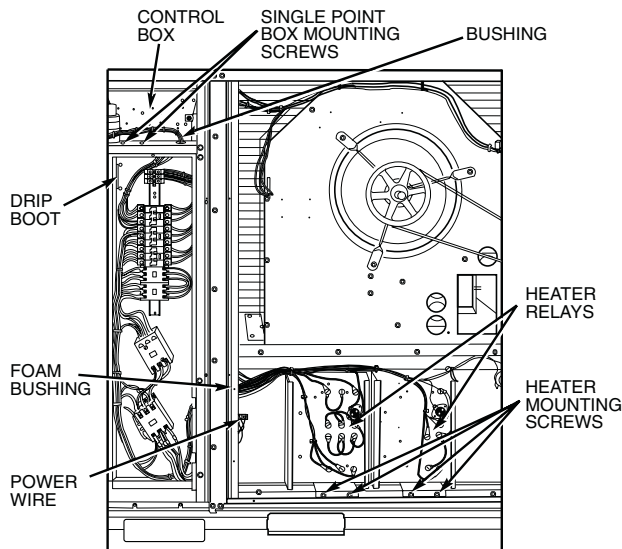


Fig. 3 — Typical Single Point Kit Installation

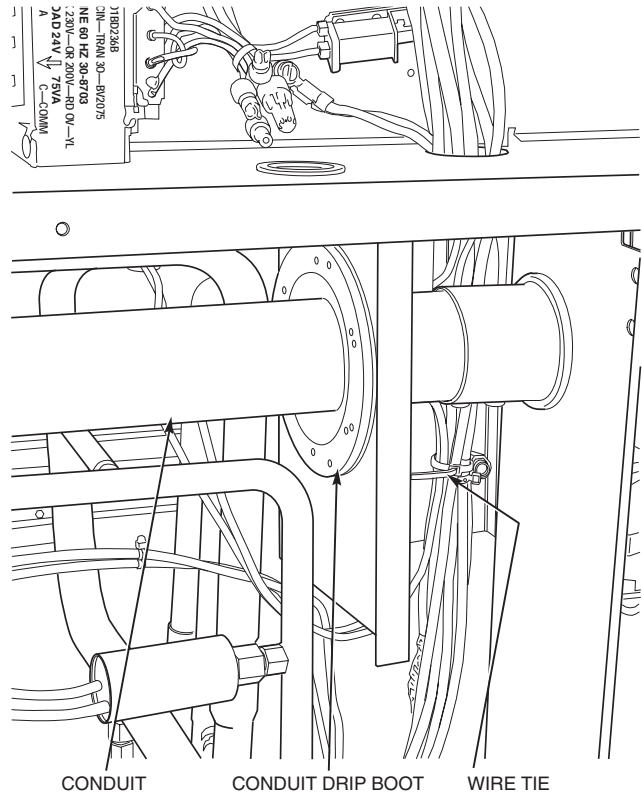


Fig. 4 — Typical Conduit Installation

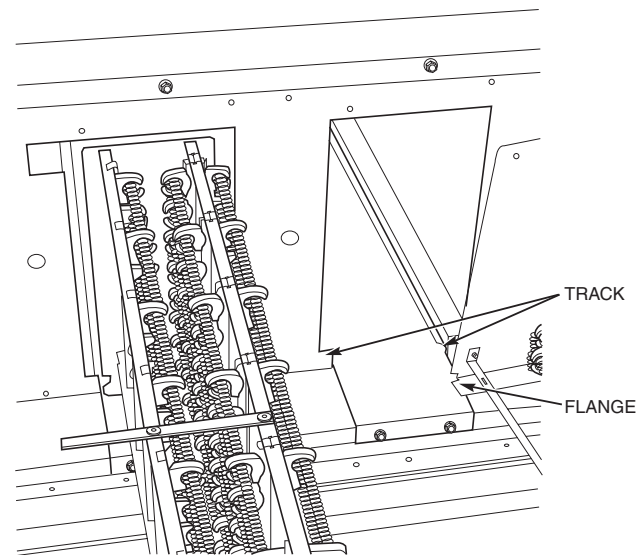


Fig. 5 — Typical Module Installation

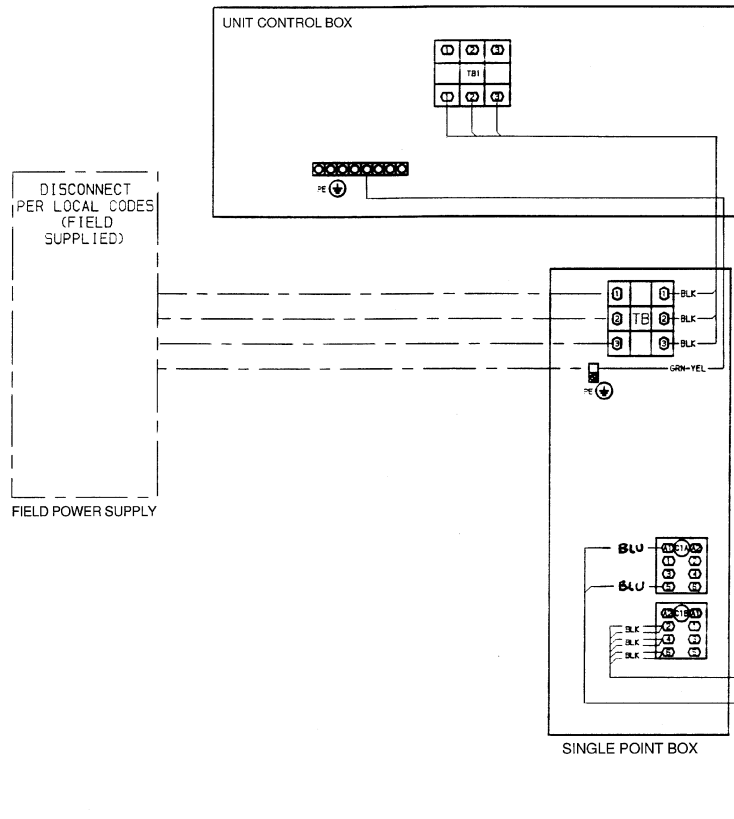


Fig. 6 — Electric Heater Power Wiring Connections — Single Module Heat Option

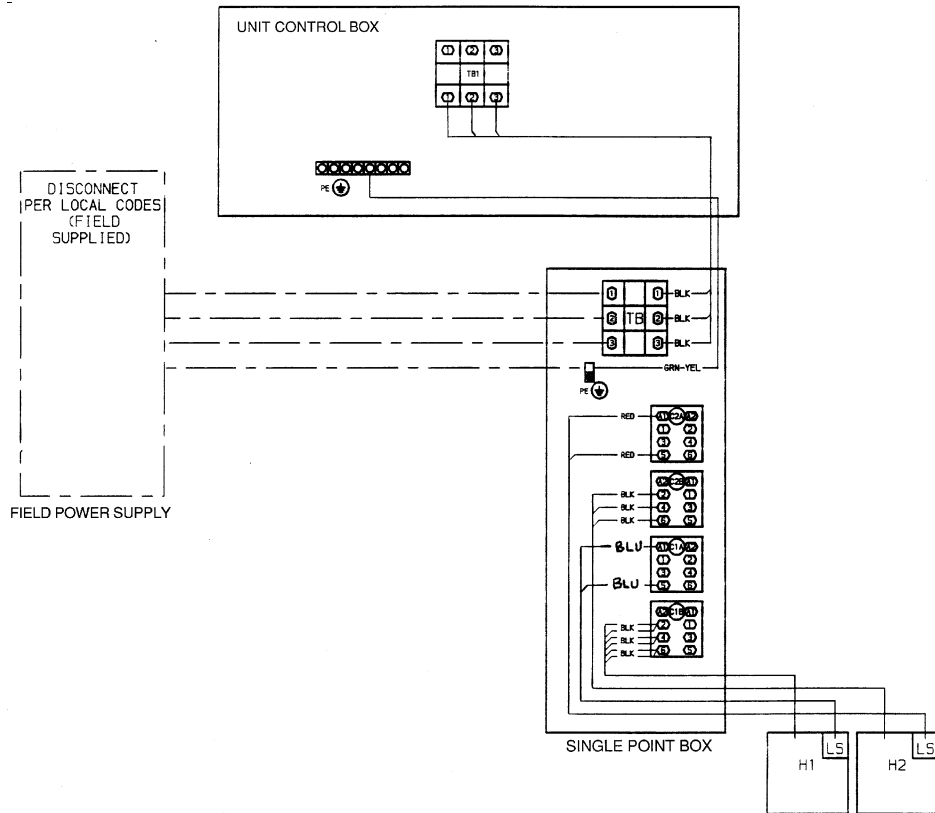
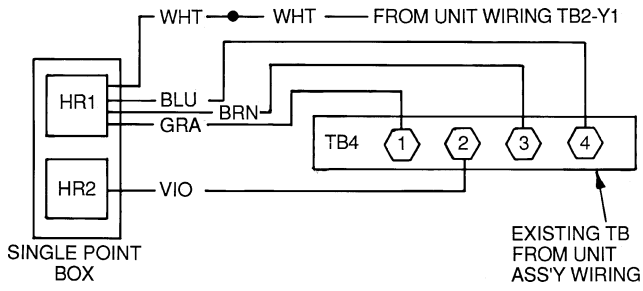
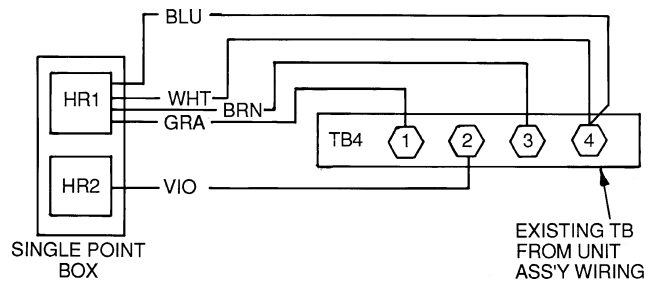


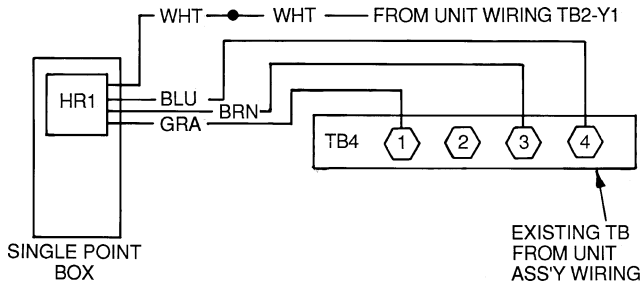
Fig. 7 — Electric Heater Power Wiring Connections — 2-Module Heat Option



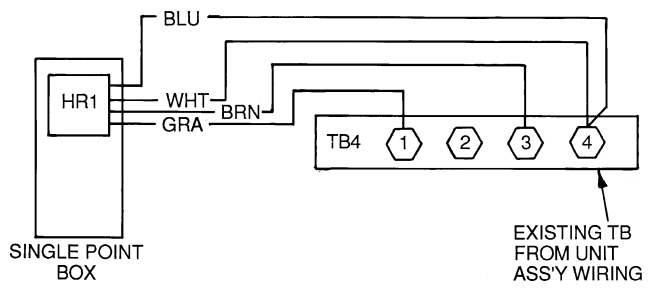
**ELECTRIC COOLING UNITS —
2-MODULE HEAT OPTIONS**



**HEAT PUMP UNITS —
2-MODULE HEAT OPTIONS**



**ELECTRIC COOLING UNIT —
SINGLE MODULE HEAT OPTION**



**HEAT PUMP UNIT —
SINGLE MODULE HEAT OPTION**

Fig. 8 — Control Wiring

Table 1 — 50HJ Electric Heater Packages — 400 V, 3-Phase

UNIT SIZE 50HJ	ACCESSORY HEATER PACKAGE MODEL NUMBER CRHEATER - - - - -	HEATER kW*	SINGLE POINT BOX PART NUMBER CRSINGLE - - - - - †	HEATER FLA	MINIMUM CIRCUIT AMPS	MAX FUSE	MINIMUM UNIT DISCONNECT		UNIT kW
							FLA	LRA	
008	—	—	—	—	19.0	25	20	121	7.5
	123A00	9.6	018A00	13.9	21.7	25	20	121	11.6
	120A00	11.4	018A00	16.5	24.9	30	23	121	13.4
	121A00	19.3	018A00	27.8	39.1	40	36	121	21.3
	122A00	22.9	019A00	33.1	45.6	50	42	121	24.9
	121A00 and 123A00	28.9	020A00	41.8	56.6	60	52	121	30.9
009	—	—	—	—	23.1	30	24	132	9.4
	123A00	9.6	018A00	13.9	21.7	30	24	132	11.6
	120A00	11.4	018A00	16.5	24.9	30	24	132	13.9
	121A00	19.3	018A00	27.8	39.1	40	36	132	21.3
	122A00	22.9	019A00	33.1	45.6	50	42	132	24.9
	121A00 and 123A00	28.9	020A00	41.8	56.6	60	52	132	30.9
012	—	—	—	—	28.5	35	30	169	11.4
	120A00	11.4	021A00	16.5	28.5	35	30	169	13.7
	121A00	19.3	021A00	27.8	40.8	45	38	169	21.6
	122A00	22.9	022A00	33.1	47.3	50	44	169	25.2
	121A00 and 123A00	28.9	023A00	41.8	58.2	60	54	169	31.2
	120A00 and 122A00	34.3	024A00	50.1	68.6	70	63	169	36.9
014	—	—	—	—	35.0	40	37	189	13.9
	120A00	11.4	021A00	16.5	35.0	40	37	189	13.9
	121A00	19.3	021A00	27.8	40.8	45	38	189	21.6
	122A00	22.9	022A00	33.1	47.3	50	44	189	25.2
	121A00 and 123A00	28.9	023A00	41.8	58.8	60	54	189	31.2
	120A00 and 122A00	34.3	024A00	50.1	68.6	70	63	189	36.9

LEGEND

- MCA** — Minimum Circuit Ampacity
- MOCP** — Maximum Overcurrent Protection
- NEC** — National Electrical Code (U.S.A. Standard)
- UL** — Underwriters' Laboratories (U.S.A. Standard)

*Heater capacity (kW) is based on heater voltage of 400 v. If power distribution voltage to unit varies from rated heater voltage, heater kW will vary accordingly. Refer to Product Data literature for details.

†Accessory single point box must be used with accessory electric heat package as indicated.

NOTES:

1. All values shown for MCA, MOCP, and fuse are calculated per UL 1995 and comply with the NEC.
2. The MCA, MOCP, and fuse values shown are based on the selection of the standard indoor-fan motor.
3. The kW values of some 2-stage heater combinations may be different than the sum of the individual heaters. Heater amps are based on UL 1995 and wires are sized in accordance with NEC 424.22.

Table 2 — 50TJ Electric Heater Packages — 400 V, 3-Phase

UNIT SIZE 50TFF, 50TJ	ACCESSORY HEATER PACKAGE MODEL NUMBER CRHEATER - - - - - †	HEATER kW*	SINGLE POINT BOX PART NUMBER CRSINGLE - - - - - †	HEATER FLA	MINIMUM CIRCUIT AMPS	MAX FUSE	MINIMUM UNIT DISCONNECT		UNIT kW
							FLA	LRA	
008	—	—	—	—	17.8	20	19	99	9.5
	123A00	9.6	018A00	13.9	20.7	25	19	99	11.1
	120A00	11.4	018A00	16.5	23.9	25	22	99	12.9
	121A00	19.3	018A00	27.8	38.1	40	35	99	20.8
	122A00	22.9	019A00	33.1	44.6	45	41	99	24.4
	121A00 and 123A00	28.9	020A00	41.8	55.5	60	57	99	30.4
009	—	—	—	—	20.5	25	21	115	10.3
	123A00	9.6	018A00	13.9	20.7	25	21	115	11.1
	120A00	11.4	018A00	16.5	23.9	25	22	115	12.9
	121A00	19.3	018A00	27.8	38.1	40	35	115	20.8
	122A00	22.9	019A00	33.1	44.6	45	41	115	24.4
	121A00 and 123A00	28.9	020A00	41.8	55.5	60	51	115	30.4
012	—	—	—	—	24.0	30	25	133	11.2
	120A00	11.4	021A00	16.5	24.9	30	25	133	13.4
	121A00	19.3	021A00	27.8	39.1	40	36	133	21.3
	122A00	22.9	022A00	33.1	45.6	45	42	133	24.9
	121A00 and 123A00	28.9	023A00	41.8	56.5	60	52	133	30.9
	120A00 and 122A00	34.3	024A00	50.1	66.9	70	62	133	36.6
014	—	—	—	—	29.4	35	31	190	15.9
	120A00	11.4	021A00	16.5	29.4	35	31	190	15.9
	121A00	19.3	021A00	27.8	40.8	45	38	190	21.8
	122A00	22.9	022A00	33.1	47.3	50	44	190	25.2
	121A00 and 123A00	28.9	023A00	41.8	52.8	60	54	190	31.2
	120A00 and 122A00	34.3	024A00	50.1	68.6	70	63	190	36.9

LEGEND

- MCA** — Minimum Circuit Ampacity
- MOCP** — Maximum Overcurrent Protection
- NEC** — National Electrical Code (U.S.A. Standard)
- UL** — Underwriters' Laboratories (U.S.A. Standard)

*Heater capacity (kW) is based on heater voltage of 400 v. If power distribution voltage to unit varies from rated heater voltage, heater kW will vary accordingly. Refer to Product Data literature for details.

†Accessory single point box must be used with accessory electric heat package as indicated.

NOTES:

1. All values shown for MCA, MOCP, and fuse are calculated per UL 1995 and comply with the NEC.
2. The MCA, MOCP, and fuse values shown are based on the selection of the standard indoor-fan motor.
3. The kW values of some 2-stage heater combinations may be different than the sum of the individual heaters. Heater amps are based on UL 1995 and wires are sized in accordance with NEC 424.22.

Table 3 — 50TJQ Electric Heater Packages — 400 V, 3-Phase

→ UNIT SIZE 50TFQ, 50TJQ	ACCESSORY HEATER PACKAGE MODEL NUMBER CRHEATER - - - - -	HEATER kW*	SINGLE POINT BOX PART NUMBER CRSINGLE - - - - - †	HEATER FLA	MINIMUM CIRCUIT AMPS	MAX FUSE	MINIMUM UNIT DISCONNECT		UNIT kW
							FLA	LRA	
008	—	—	—	—	19.8	20	21	108	7.4
	123A00	9.6	018A00	13.9	37.2	40	37	122	17.4
	120A00	11.4	018A00	16.5	40.5	45	40	125	19.2
	121A00	19.3	018A00	27.8	54.7	60	53	136	27.1
	122A00	22.9	019A00	33.1	61.2	70	59	141	30.7
	121A00 and 123A00	28.9	020A00	41.8	71.9	80	69	150	36.8
009	—	—	—	—	20.0	20	21	129	9.1
	123A00	9.6	018A00	13.9	37.4	40	37	143	18.1
	120A00	11.4	018A00	16.5	40.8	45	40	146	20.9
	121A00	19.3	018A00	27.8	54.9	60	53	157	27.8
	122A00	22.9	019A00	33.1	61.4	70	59	162	31.4
	121A00 and 123A00	28.9	020A00	41.8	72.1	80	69	171	37.5
012	—	—	—	—	25.3	30	26	152	11.0
	120A00	11.4	021A00	16.5	46.1	50	46	169	21.4
	121A00	19.3	021A00	27.8	60.2	70	59	180	29.3
	122A00	22.9	022A00	33.1	66.7	70	65	186	32.9
	121A00 and 123A00	28.9	023A00	41.8	77.4	80	74	194	39.0
	120A00 and 122A00	34.3	024A00	50.1	87.9	90	84	203	44.7

LEGEND

- MCA** — Minimum Circuit Ampacity
- MOCP** — Maximum Overcurrent Protection
- NEC** — National Electrical Code (U.S.A. Standard)
- UL** — Underwriters' Laboratories (U.S.A. Standard)

*Heater capacity (kW) is based on heater voltage of 400 v. If power distribution voltage to unit varies from rated heater voltage, heater kW will vary accordingly. Refer to Product Data literature for details.

†Accessory single point box must be used with accessory electric heat package as indicated.

NOTES:

1. All values shown for MCA, MOCP, and fuse are calculated per UL 1995 and comply with the NEC.
2. The MCA, MOCP, and fuse values shown are based on the selection of the standard indoor-fan motor.
3. The kW values of some 2-stage heater combinations may be different than the sum of the individual heaters. Heater amps are based on UL 1995 and wires are sized in accordance with NEC 424.22.

