

Installation Instructions

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IMPORTANT: Read these instructions completely before attempting to install the accessory electric heater.

The electric heater accessory is used on the following units:

UNIT		SIZE
50TC	580J	17-28

PACKAGE USAGE

ACCESSORY HEATER PART NUMBER	UNIT MODELS		HEATER/ BASE UNIT VOLTAGE	HEATER KW [†]	FAN DISCHARGE	STAGES
CRHEATER270A00	50TC-D17-28	558J*17-28	208/230-3-60	25	Horizontal	2
CRHEATER271A00	50TC-D17-28	558J*17-28	208/230-3-60	50	Horizontal	2
CRHEATER272A00	50TC-D17-28	558J*17-28	208/230-3-60	75	Horizontal	2
CRHEATER273A00	50TC-D17-28	558J*17-28	460/400-3-60/50	25/17.4	Horizontal	2
CRHEATER274A00	50TC-D17-28	558J*17-28	460/400-3-60/50	50/34.7	Horizontal	2
CRHEATER275A00	50TC-D17-28	558J*17-28	460/400-3-60/50	75/52	Horizontal	2
CRHEATER276A00	50TC-D17-28	558J*17-28	575-3-60	25	Horizontal	2
CRHEATER277A00	50TC-D17-28	558J*17-28	575-3-60	50	Horizontal	2
CRHEATER278A00	50TC-D17-28	558J*17-28	575-3-60	75	Horizontal	2
CRHEATER279A00	50TC-D17-28	558J*17-28	208/230-3-60	25	Vertical	2
CRHEATER280A00	50TC-D17-28	558J*17-28	208/230-3-60	50	Vertical	2
CRHEATER281A00	50TC-D17-28	558J*17-28	208/230-3-60	75	Vertical	2
CRHEATER282A00	50TC-D17-28	558J*17-28	460/400-3-60/50	25/17.4	Vertical	2
CRHEATER283A00	50TC-D17-28	558J*17-28	460/400-3-60/50	50/34.7	Vertical	2
CRHEATER284A00	50TC-D17-28	558J*17-28	460/400-3-60/50	75/52	Vertical	2
CRHEATER285A00	50TC-D17-28	558J*17-28	575-3-60	25	Vertical	2
CRHEATER286A00	50TC-D17-28	558J*17-28	575-3-60	50	Vertical	2
CRHEATER287A00	50TC-D17-28	558J*17-28	575-3-60	75	Vertical	2


[†] kW rated at 240, 480/400 and 600 volts

SAFETY CONSIDERATIONS

Installation and servicing of air-conditioning equipment can be hazardous due to system pressure and electrical components. Only trained and qualified service personnel should install, repair, or service air-conditioning equipment.

Untrained personnel can perform the basic maintenance functions. All other operations should be performed by trained service personnel. When working on air-conditioning equipment, observe precautions in the literature, tags and labels attached to the unit, and other safety precautions that may apply.

Follow all safety codes. Wear safety glasses and work gloves.

Recognize safety information. This is the safety-alert symbol . When you see this symbol on the unit and in instructions or manuals, be alert to the potential for personal injury.

Understand the signal words DANGER, WARNING, and CAUTION. These words are used with the safety-alert symbol. DANGER identifies the most serious hazards which **will** result in severe personal injury or death. WARNING signifies a hazard which **could** result in personal injury or death. CAUTION is used to identify unsafe practices which **may** result in minor personal injury or product and property damage. NOTE is used to highlight suggestions which **will** result in enhanced installation, reliability, or operation.

CRHEATER270A00-287A00

WARNING

PERSONAL INJURY AND EQUIPMENT DAMAGE HAZARD

Failure to follow this warning could result in personal injury and/or death and damage to equipment.

Field modification of electric heat staging may result in the overriding of electric heat safety switches and is prohibited.

GENERAL

This installation instruction covers accessory heaters CRHEATER270A through CRHEATER287A00. Each kit contains the heater module, wire ties, and 3-1/4-20 nuts. See Package Usage table for unit electrical data and kit usage.

NOTE: All vertical supply units with electric heat require a field-supplied 90-degree elbow. The elbow must be installed in the supply ductwork below the unit discharged connection.

NOTE: If Single Point power entry is desired when using a 75kW 208/230 volt heater, the single point accessory CRSINGLE056A00 must be used.

NOTE: For units equipped with a disconnect switch, the disconnect must be adequately sized for the electric heater. Refer to the unit's nameplate or the Product Data for the unit.

WARNING

ELECTRICAL SHOCK HAZARD

Failure to follow this warning could result in personal injury and/or death.

Before beginning any modification, disconnect power supply and install lockout tag before attempting to install the accessory. All wiring must comply with applicable national and local codes.

INSTALLATION

Heater Installation (All Units)

Perform the following procedure to install the accessory electric heaters:

1. Turn off power to the unit.
2. Remove electric heater section access panel, control box access panel, filter access panel, and blower access panel from base rooftop unit. (See Fig. 1.)

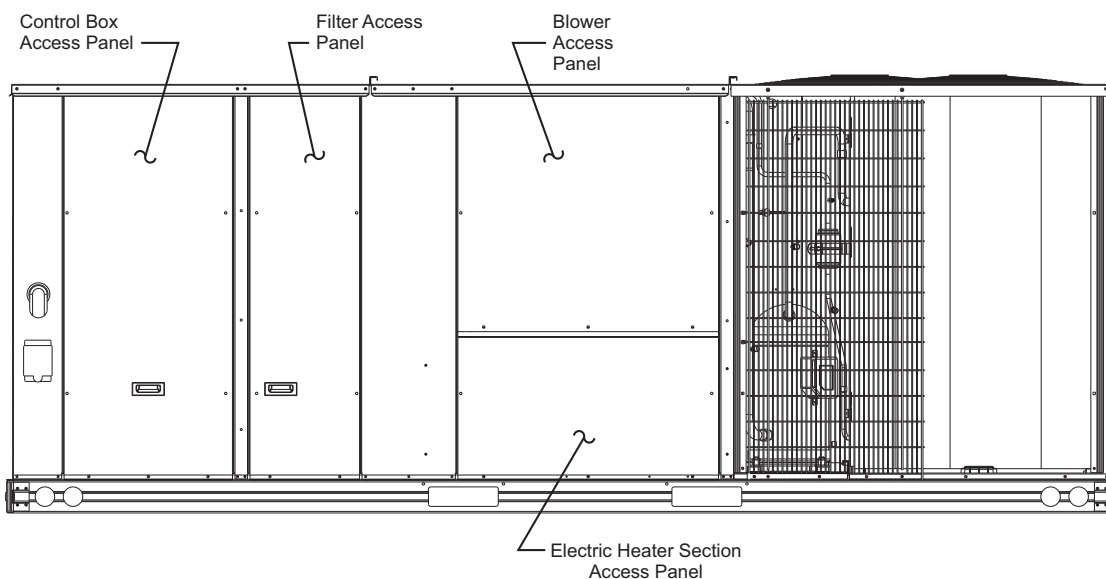


Fig. 1 - Typical Unit – Access Panel Locations

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⚠ CAUTION

EQUIPMENT DAMAGE HAZARD

Failure to follow this caution may result in damage to equipment.

When removing panels from the unit, be careful not to damage the roof or other surfaces with the panels.

⚠ CAUTION

CUT HAZARD

Failure to follow this caution may result in personal injury.

When removing access panels or performing maintenance functions inside your unit, be aware of sharp sheet metal parts and screws. Although special care is taken to reduce sharp edges to a minimum, be extremely careful when handling parts or reaching into the unit.

3. Remove the block-off plate and save screws. Remove post adjacent to control box and post located between filter access and blower access. (See Fig. 2.)
4. Insert heater assembly through opening where block-off plate was previously removed. Let back end of heaters slide along support rails beneath fan deck. (See Fig. 3.)
5. Slide heaters until completely installed such that heater controls are completely in the unit. Using screws saved from Step 3, secure heater assembly. (See Fig. 4.)
6. Route heater power wires through grommets in vertical fan deck support. (See Fig. 3.) Continue routing wires under coil and filter support through the bottom notched section of the control box. Avoid sheet metal edges and any protruding screws.

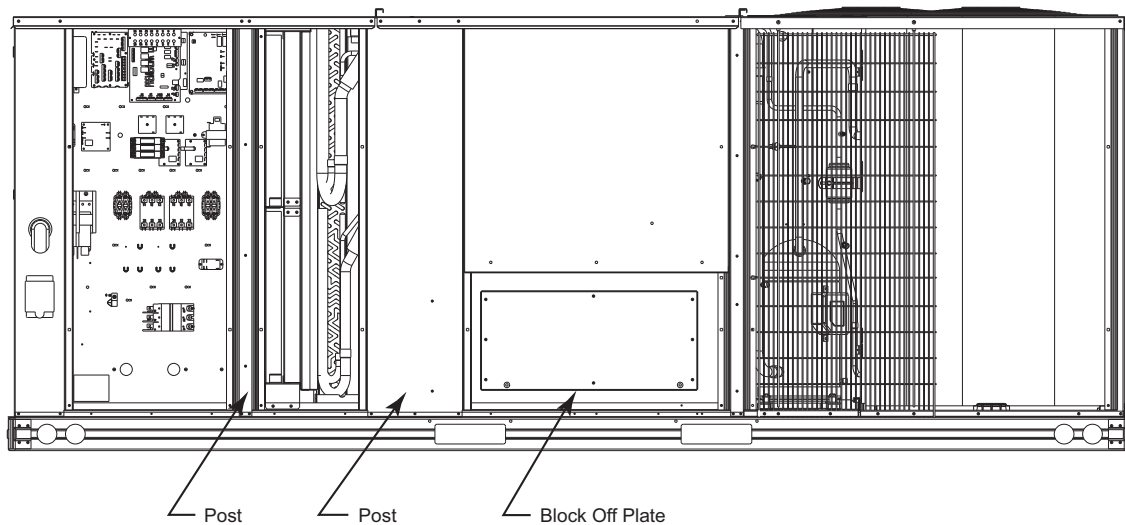


Fig. 2 - Block-Off Plate and Post Locations

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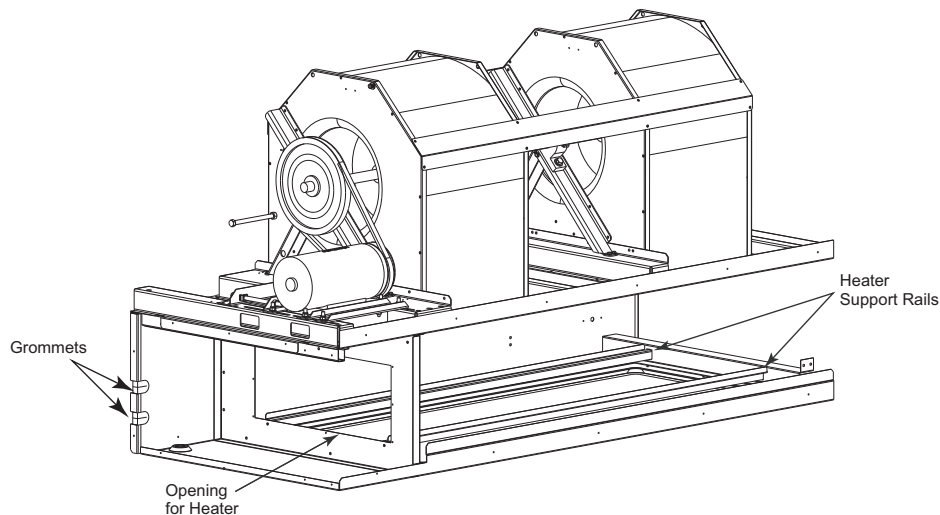
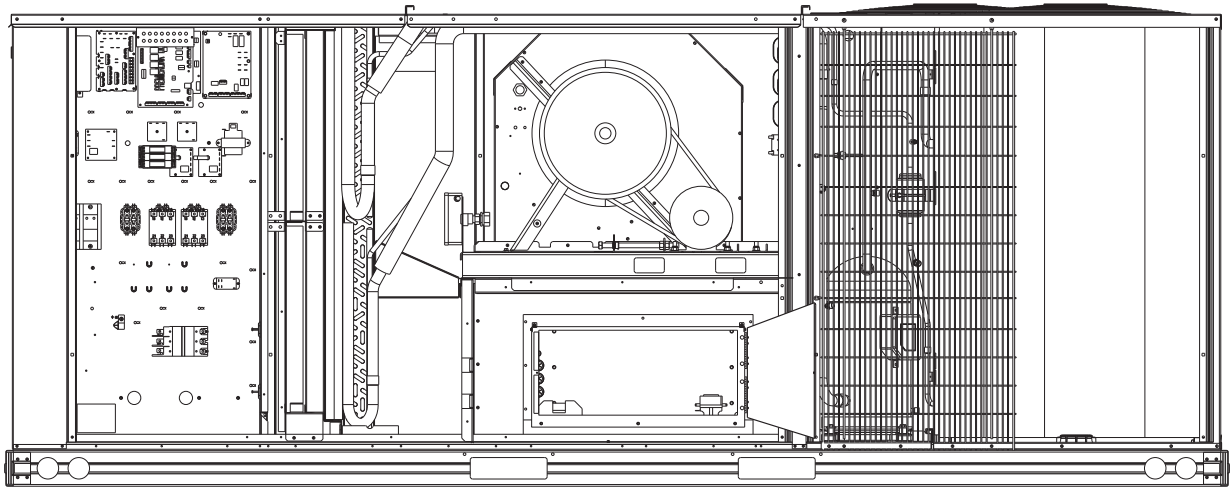


Fig. 3 - Opening for Electric Heater

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Fig. 4 - Electric Heater Accessory In Place (shown with Access Door Opened)

- Using 3-¹/₄-20 nuts, connect power wires to the load side of terminal block.

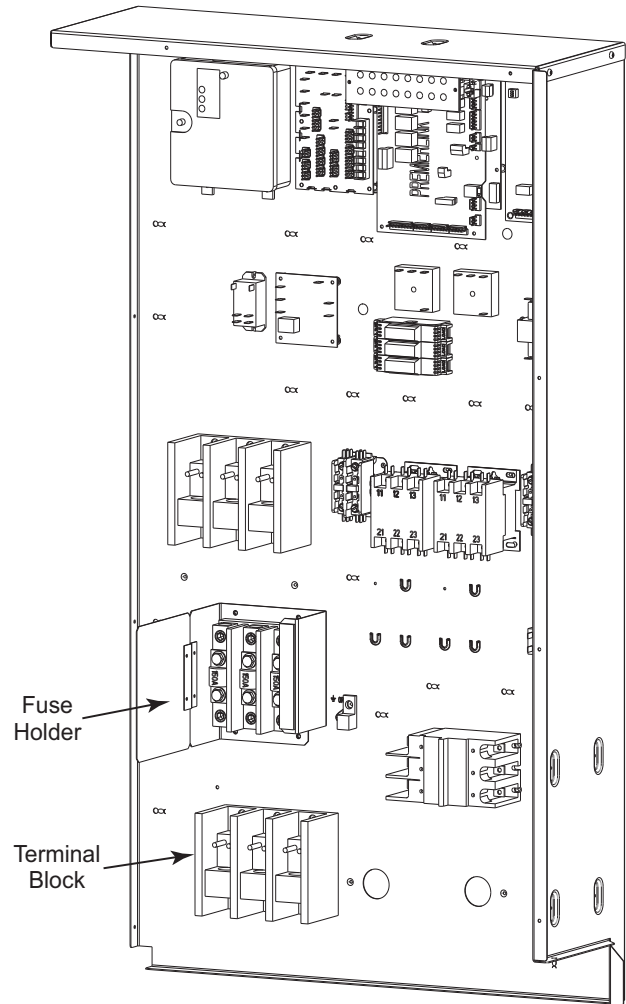
On 75kW 208/230 volt units: If single point power entry is desired, CRSINGLE056A00 kit must be used. Terminal block and fuse holder can be mounted using screws provided, locating the combination below unit terminal block. (See Fig. 5.) Heaters will be connected to the load side of the terminal block provided with kit. Load side of fuses to be connected to terminal block of main unit.

For dual power entry, purchase terminal block HY11UC313. Mount in pre-drilled holes using field-supplied fasteners. Connect power leads from heaters to field-supplied terminal block.

- Connect low voltage control plug from heater to the control plug from unit.
- Re-install posts previously removed. When re-installing screws insure that wires do not come into contact with screw tips.
- Re-install blower access, heater access, filter and control box access.
- Mark nameplate with a check mark next to heater installed.
- Complete the balance of the installation.

START-UP

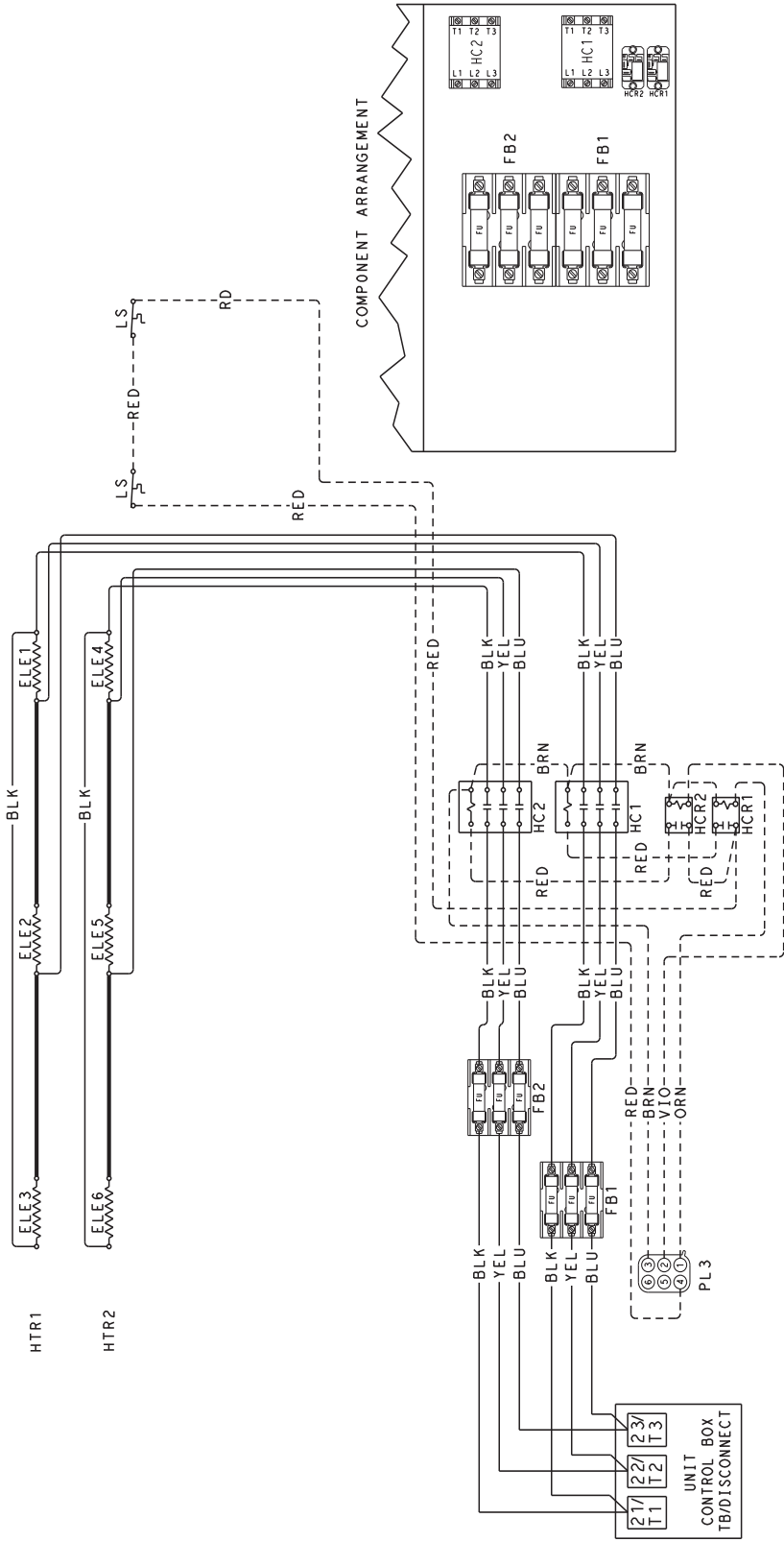
- Check electrical connections
- Turn thermostat to OFF position.
- Restore power to unit.
- Check voltage supply and match the reading against unit and heater nameplate.
- Slowly turn thermostat up until fan comes on. First stage of electric heat should be on depending on thermostat.
- Continue raising thermostat until stage 2 comes on.
- Set temperature to desired level or return thermostat to the OFF position.



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Fig. 5 - Single Point Installation

WIRING DIAGRAMS

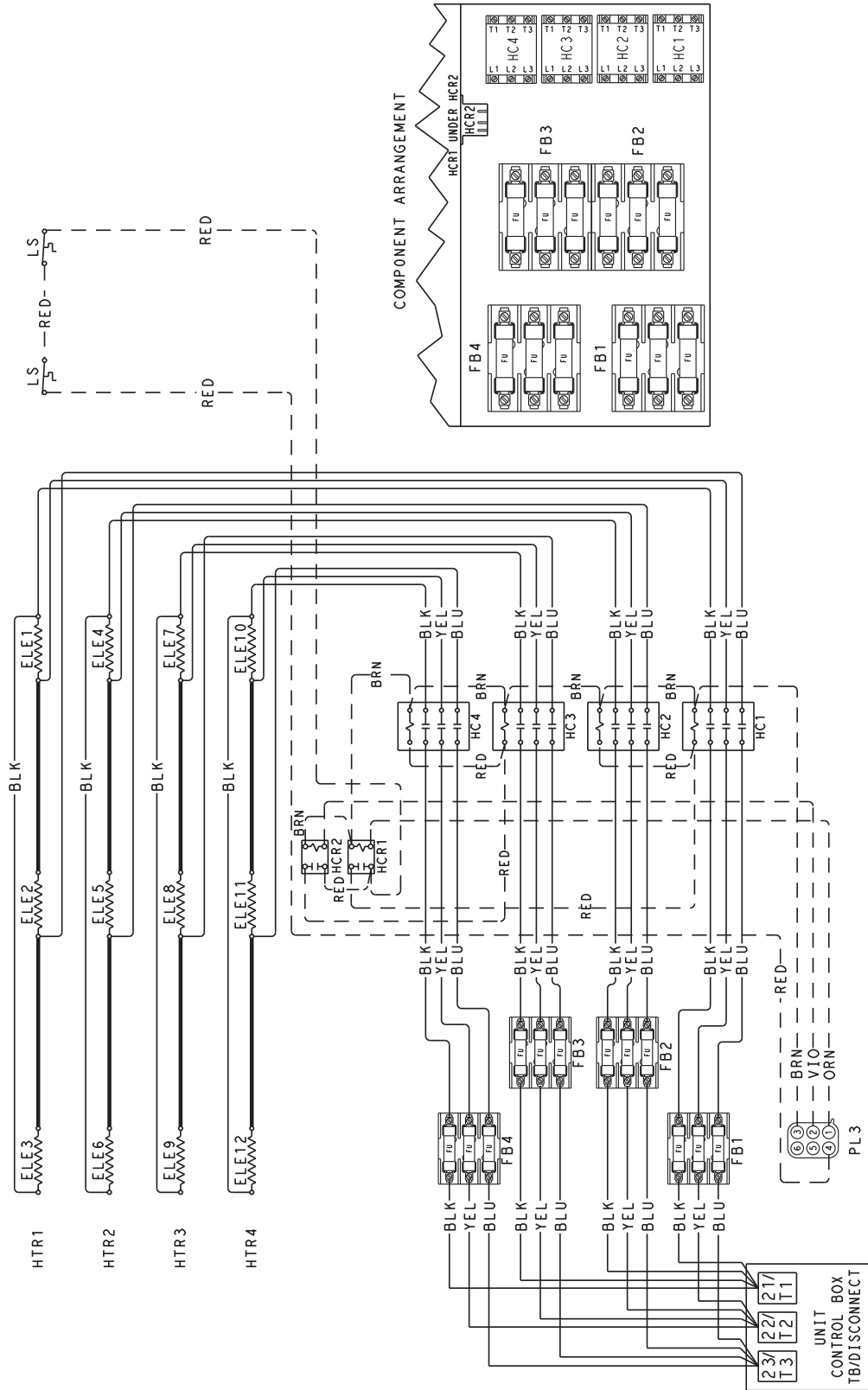


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Fig. 6 - CRHEATER270A00 and CRHEATER279A00 — 25 kW, 208/230 V, 60 Hz

CRHEATER270A00 - 287A00

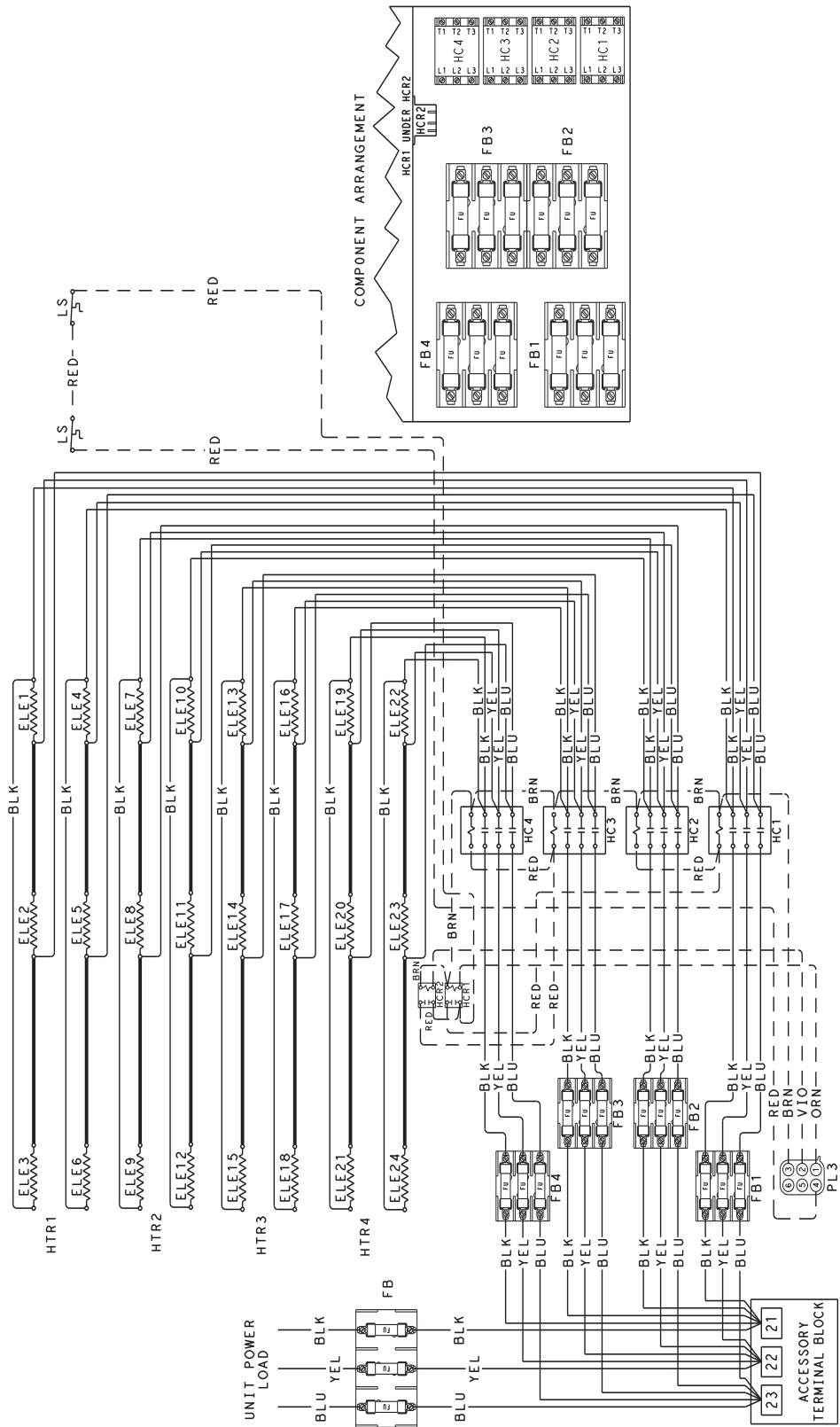
WIRING DIAGRAMS



C09533

Fig. 7 - CRHEATER271A00 and CRHEATER280A00 — 50 kW, 208/230 V, 60 Hz

WIRING DIAGRAMS



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Fig. 8 - CRHEATER272A00 and CRHEATER281A00 — 75 kW, 208/230 V, 60 Hz

CRHEATER270A00 - 287A00

WIRING DIAGRAMS

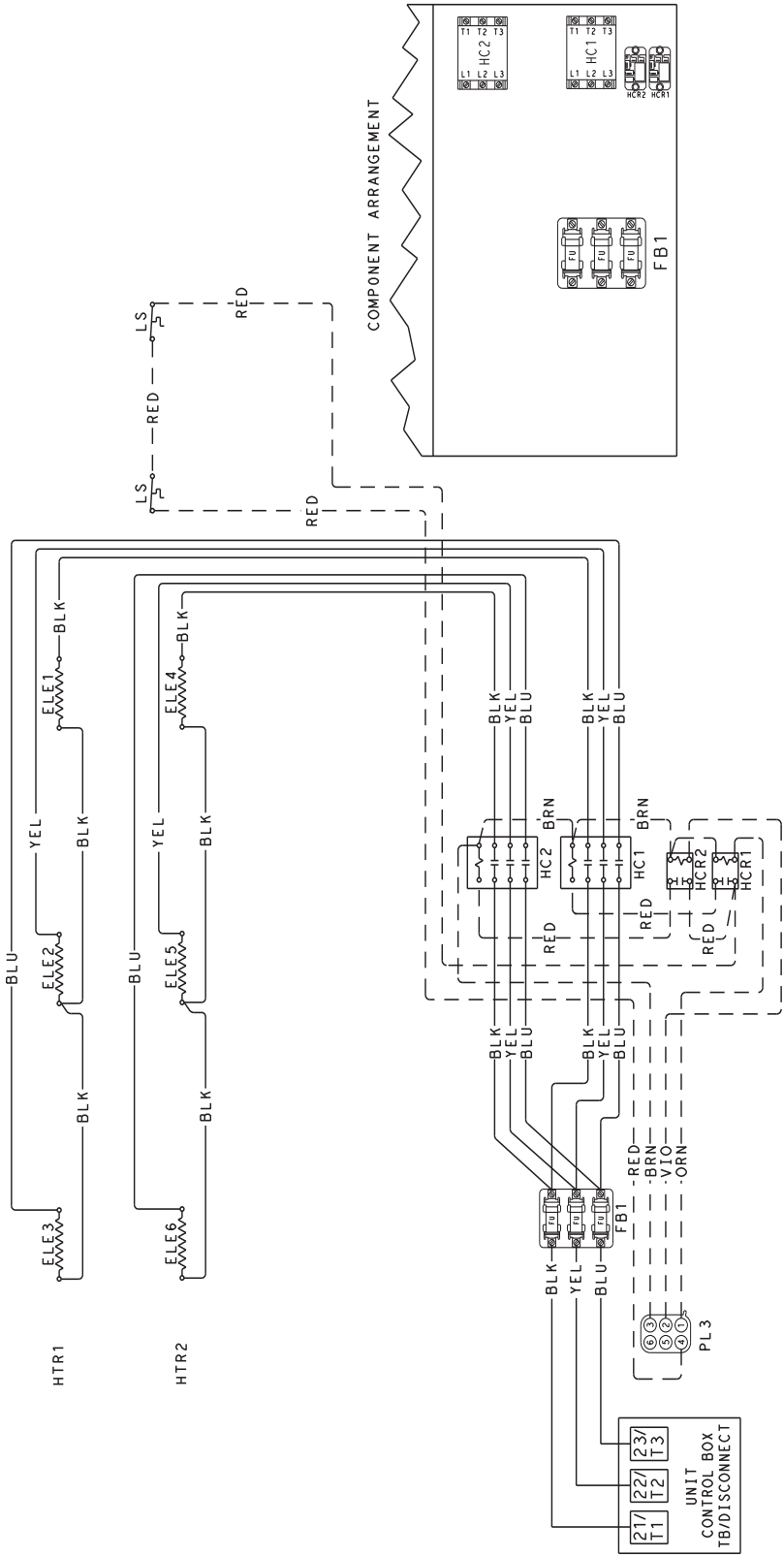
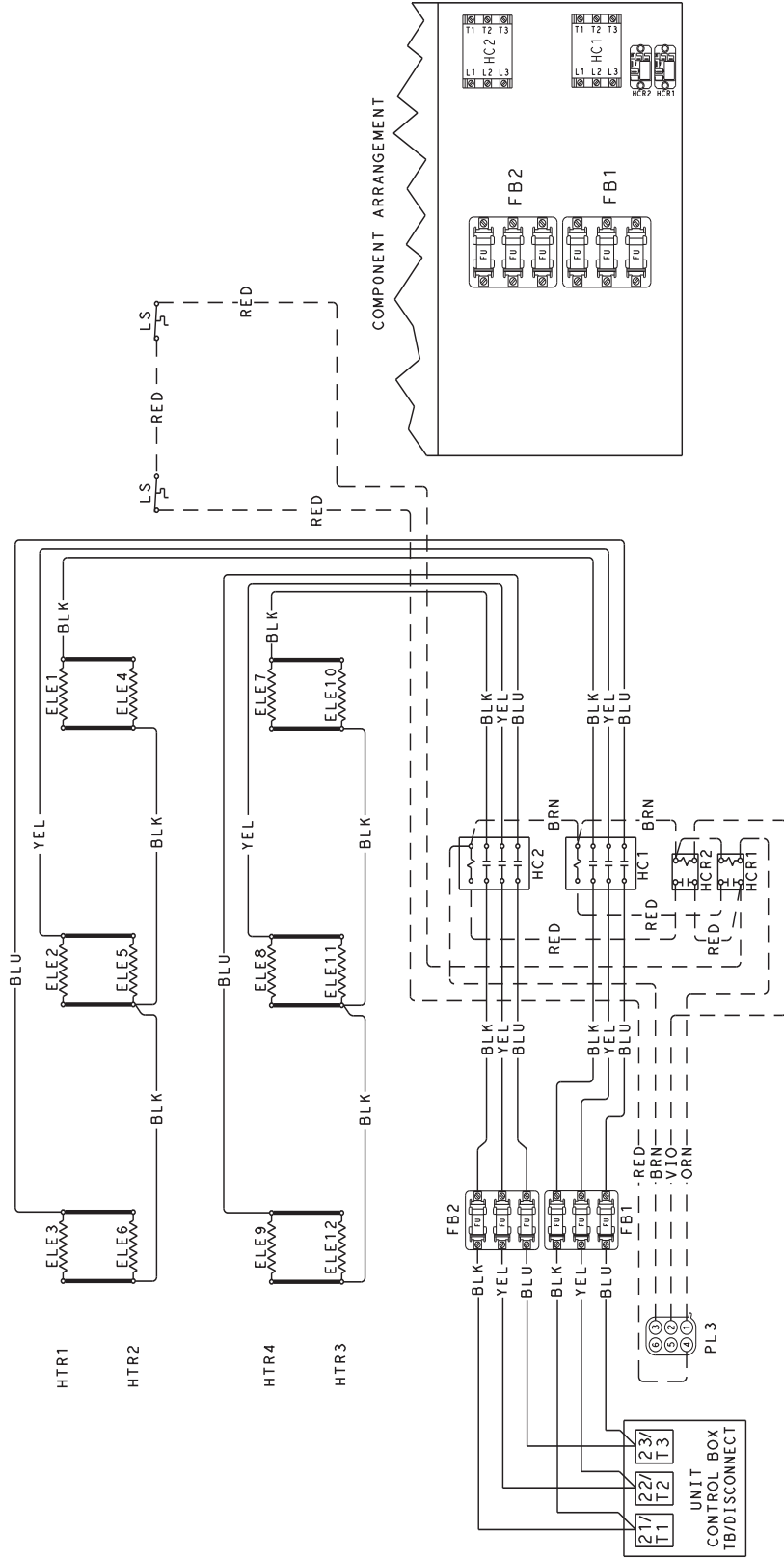


Fig. 9 - CRHEATER273A00 and CRHEATER282A00 —25/17.4 kW, 460/400 V, 60/50 Hz

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WIRING DIAGRAMS

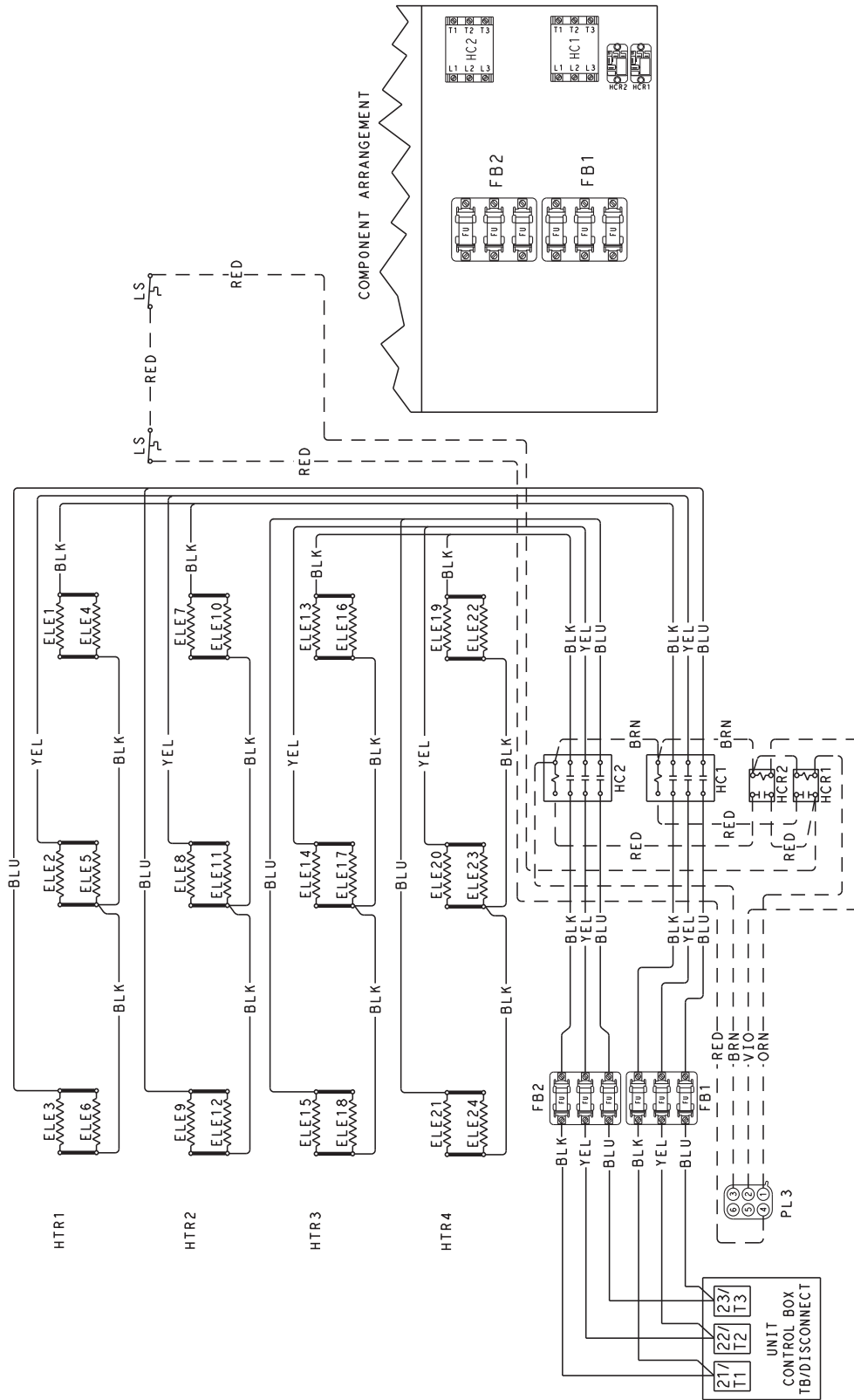


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Fig. 10 - CRHEATER274A00 and CRHEATER283A00 — 50/34.7 kW, 460/400 V, 60/50 Hz

CRHEATER270A00 - 287A00

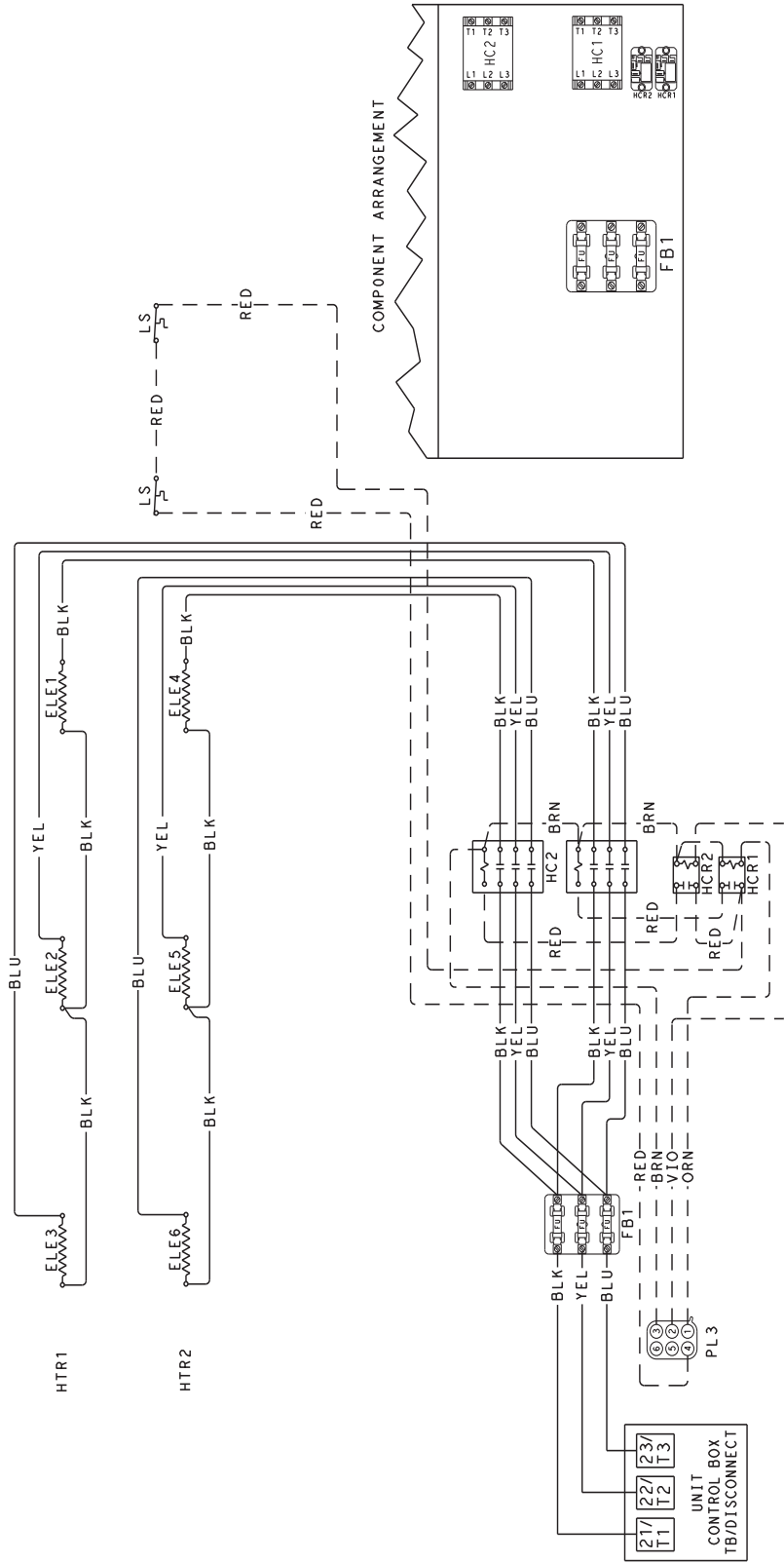
WIRING DIAGRAMS



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Fig. 11 - CRHEATER275A00 and CRHEATER284A00 — 75/52 kW, 460/400 V, 60/50 Hz

WIRING DIAGRAMS



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Fig. 12 - CRHEATER270A00 and CRHEATER285A00 — 25 KW, 575 V, 60 Hz

CRHEATER270A00 - 287A00

WIRING DIAGRAMS

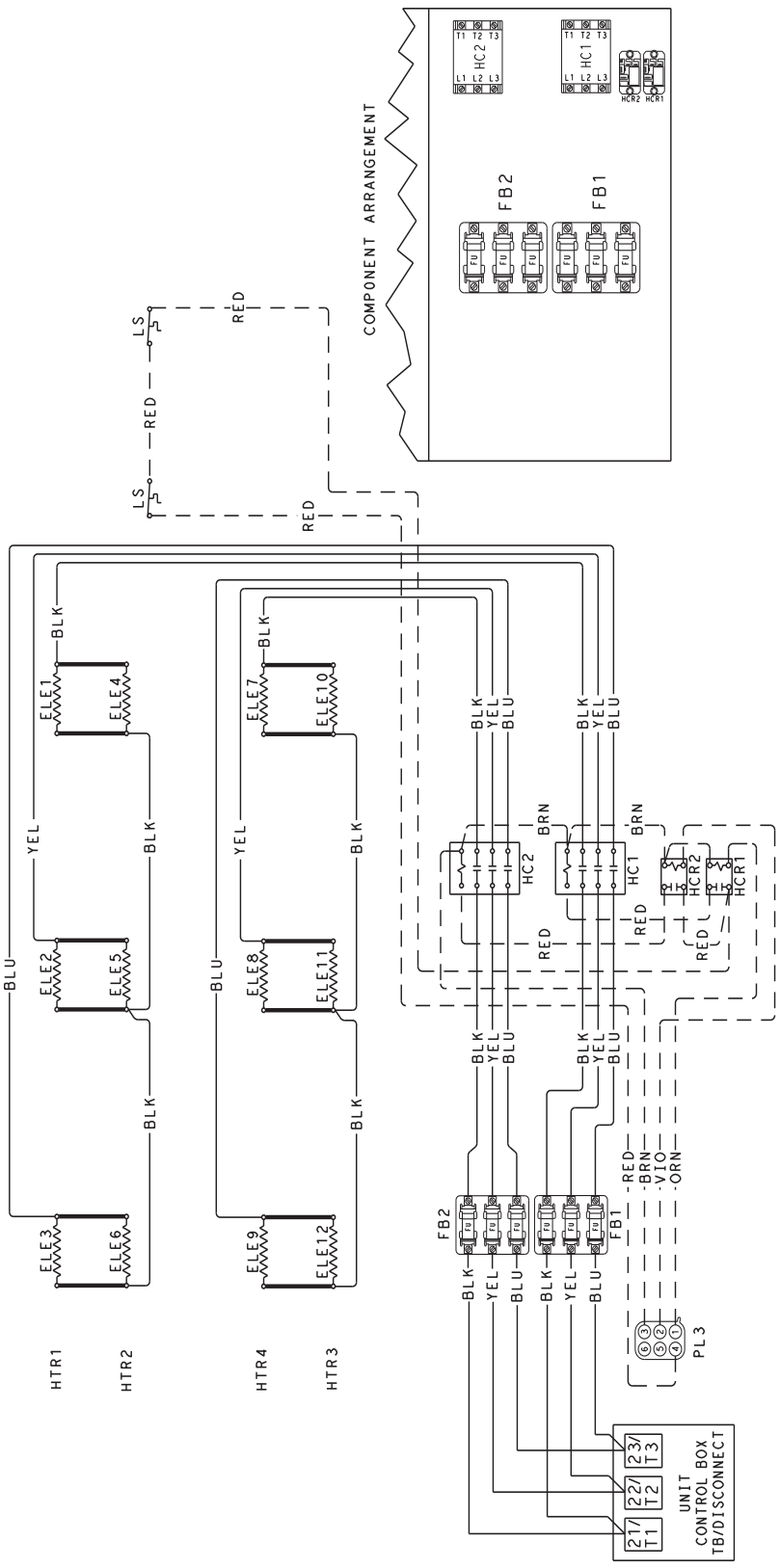
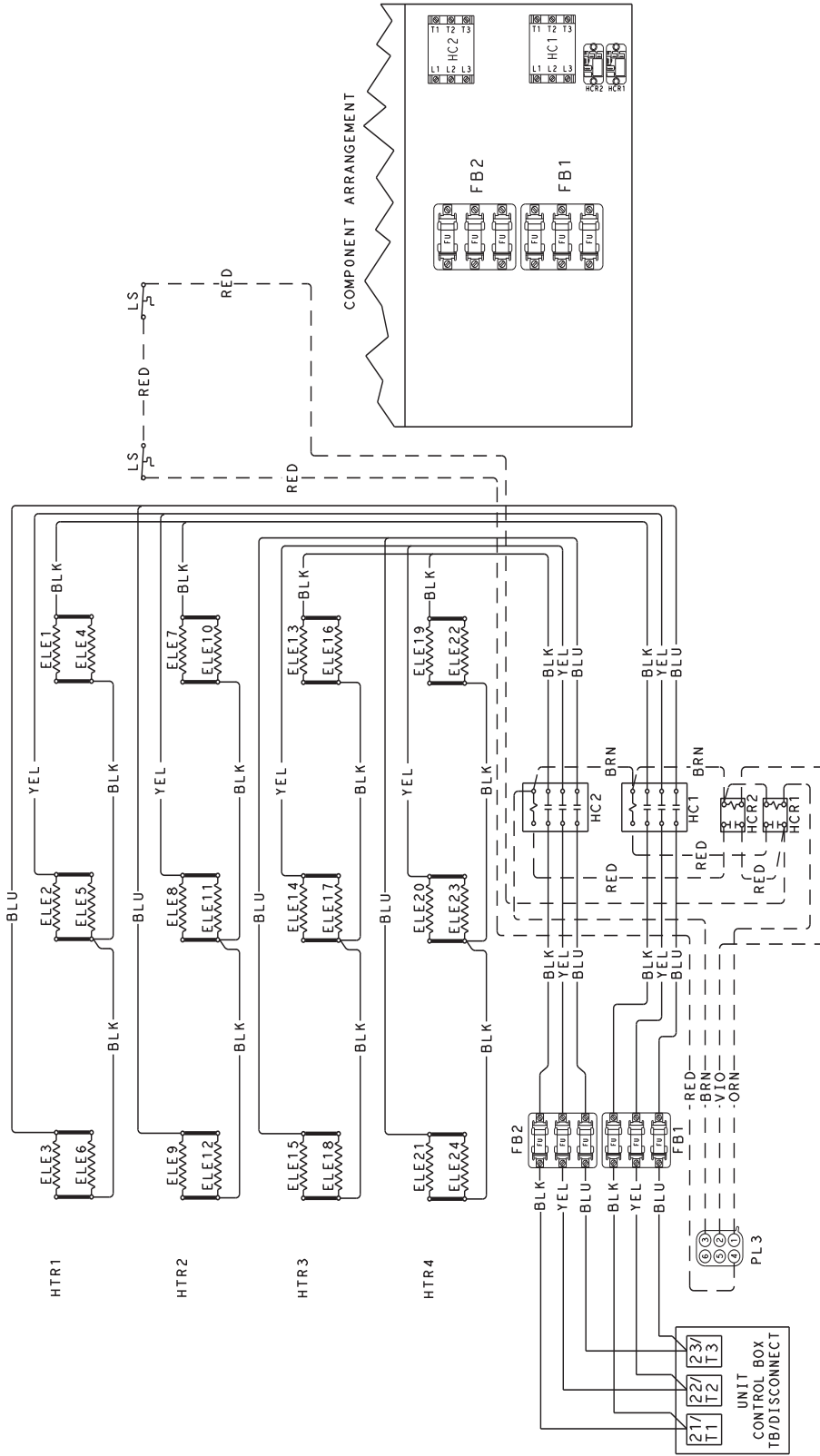


Fig. 13 - CRHEATER277A00 and CRHEATER286A00 — 50 KW, 575 V, 60 Hz

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WIRING DIAGRAMS



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Fig. 14 - CRHEATER278A00 and CRHEATER287A00 — 75 kW, 575 V, 60 Hz

CRHEATER270A00--287A00

CRHEATER270A00--287A00