COMMERCIAL SPLIT SYSTEM KITS AND ACCESSORIES

506952-02 10/2022

T3EH SERIES UNITS

INSTALLATION INSTRUCTIONS FOR T3EH SERIES ELECTRIC HEAT SECTIONS USED WITH EL072-240XA, ELA 072-240 AND TAA 072-240 SERIES UNITS

Shipping and Packing List

Package 1 of 1 contains:

- 1 Assembled electric heat section
- 1 Bag assembly containing 16 sheet-metal screws
- 1 Plastic bushing
- 3 Wiring diagrams

WARNING

Improper installation, adjustment, alteration, service or maintenance can cause property damage, personal injury or loss of life. Installation and service must be performed by a licensed professional HVAC installer or equivalent, service agency, or the gas supplier.

A CAUTION

As with any mechanical equipment, contact with sharp sheet metal edges can result in personal injury. Take care while handling this equipment and wear gloves and protective clothing.

WARNING



Electric Shock Hazard! – Disconnect all power supplies before servicing.

Replace all parts and panels before operating.

Failure to do so can result in death or electrical shock.

Requirements

Installation of electric heat sections must conform with standard in National Fire Protection Association (NFPA) Standard for Installation of Air Conditioning and Ventilation Systems NFPA No. 90A, Standard for the Installation of Residence Type Warm Air Heating and Air Conditioning System NFPA No. 90B, manufacturer's installation instructions and local municipal building codes.

Wiring must conform to the current National Electric Code ANSI/NFPA No. 70, or Canadian Electric Code Part I, CSA Standard C22.1, and local building codes. Refer to following wiring diagrams. See unit nameplate for minimum circuit ampacity and maximum over-current protection size.

Select the proper supply circuit conductors in accordance with tables 310-16 and 310-17 in the National Electric Code, ANSI/NFPA No. 70 or tables 1 through 4 in the Canadian Electric Code, Part I, CSA Standard C22.1.

Application

T3EH series heat sections are used as primary heaters for EL072-240XA, ELA 072-240 and TAA 072-240 series units. T3EH heat sections may be installed in either upflow or horizontal air discharge applications as illustrated in figures 4 through 8. The T3EH units are designed for indoor use only.

Installation

- 1 If the air handler unit has been previously installed, remove the duct from the supply air side of the blower coil unit.
- 2 If the air handler unit has not been installed, attach the supply side duct flanges provided with the air handler.
- 3 Remove the blower access panel.
- 4 Remove the blower coil knockout located beside the supply air blower opening. TAA location is shown in figures 1 through 3.
- 5 Install plastic bushing into knockout.
- 6 Align the electric heat section unit with the air handler unit. Align the grommet on the T3EH with the knockout as illustrated in figures 4 and 5 for the TAA units and figures 6 through 8 for the ELA/ELXA units.

NOTE - Refer to figures 10 through 17 for TAA Series wiring. Refer to figures 18 through 25 for ELA Series wiring. Refer to figures 26 through 33 for ELXA Series wiring.

- 7 Route the electric heat wiring through the grommet and knockout bushing to the coil blower control box as illustrated in figure 9.
- 8 Insert bottom flange of electric heater inside the supply duct flanges. Use the provided screws to secure the two cabinets together.



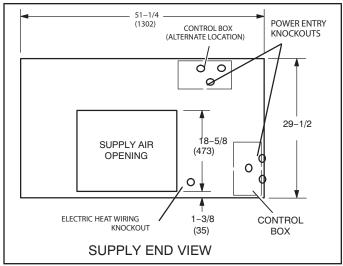


FIGURE 1. TAA 072 and 090 Knockout Location – Dimensions – inches (mm)

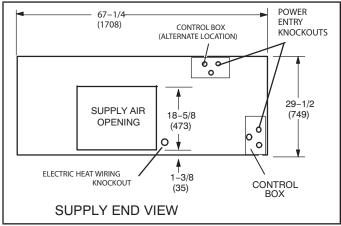


FIGURE 2. TAA 120 and 150 Knockout Location – Dimensions – inches (mm)

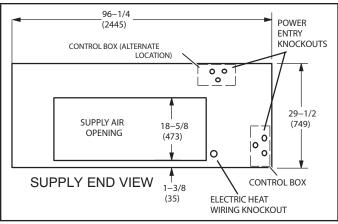


FIGURE 3. TAA 180 and 240 Knockout Location – Dimensions – inches (mm)

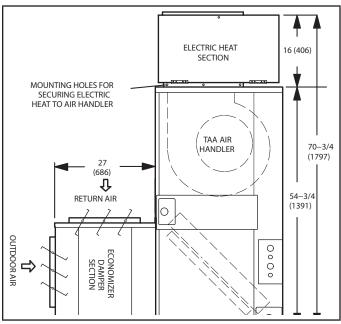


FIGURE 4. TAA Upflow Application – Dimensions – inches (mm)

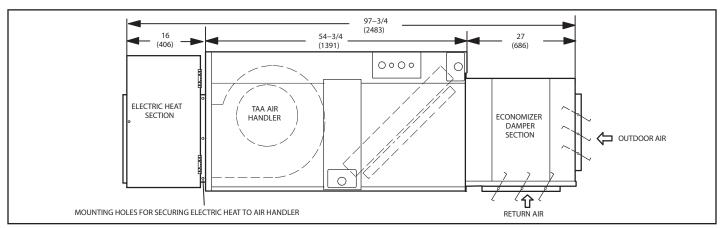


FIGURE 5. TAA Horizontal Application - Dimensions - inches (mm)

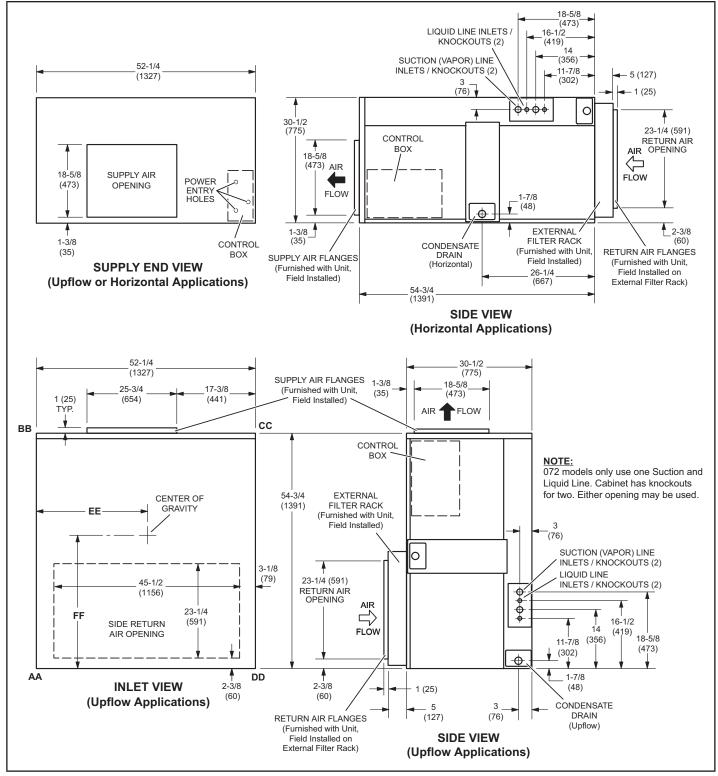


FIGURE 6. EL072-090XA and ELA 072-090 Unit Dimensions - inches (mm)

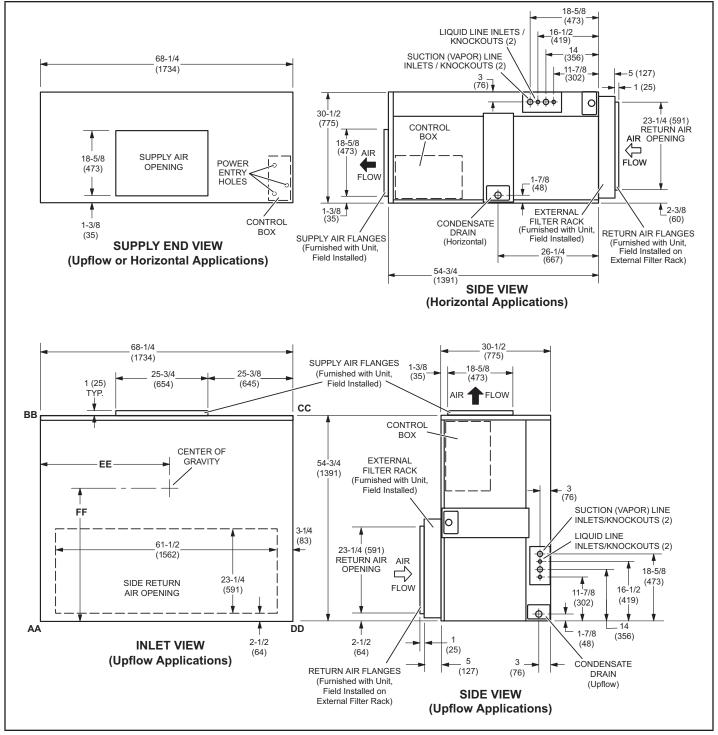


FIGURE 7. EL120-150XA and ELA 120-150 Unit Dimensions - inches (mm)

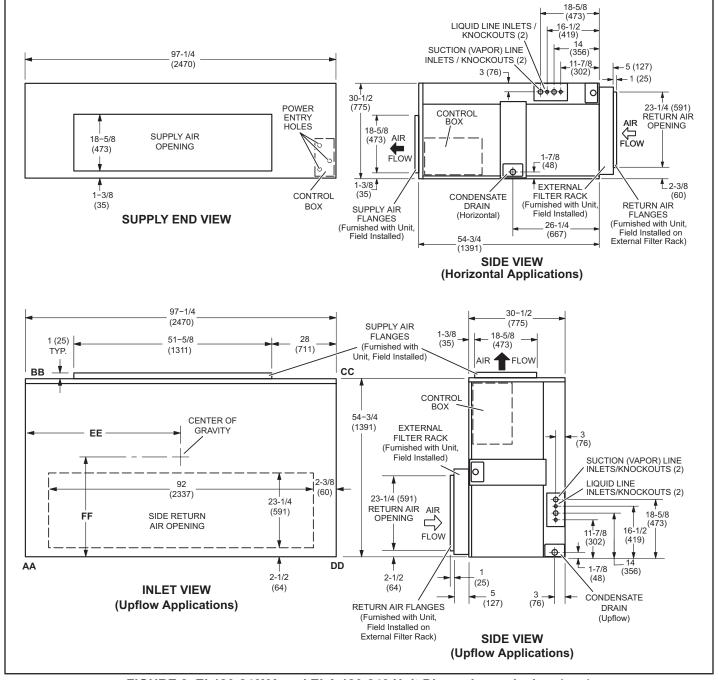


FIGURE 8. EL180-240XA and ELA 180-240 Unit Dimensions - inches (mm)

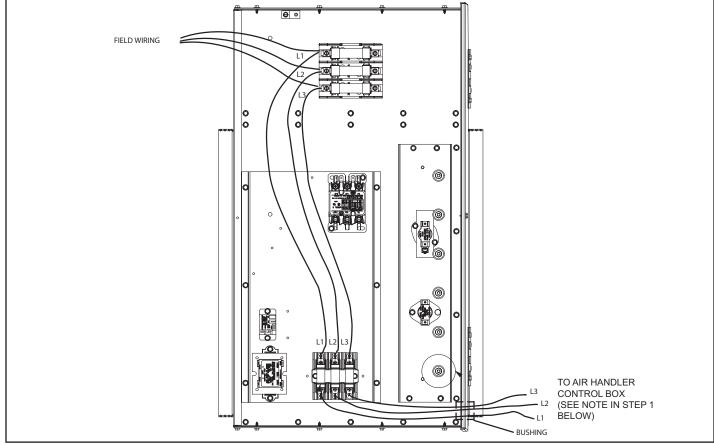


FIGURE 9. Typical Wire Routing

Electrical Connections

If you install the T3EH with an existing ELXA/ELA/TAA, you must change the power supply wiring if it is not already sized to carry the blower and electric heat load.

Remove the original power supply wires or disconnect the power source.

1 - The T3EH heat section contains the blower motor wiring harness and sub-fusing. Route the blower motor harness from the electric heat section through the knockout into the blower unit, and into the wiring makeup box.

NOTE - Route to K3 for TAA Series units and to TB13 for ELA072-240/EL072-240XA Series units.

- 2 See figures 10 through 33 for proper wiring. The T3EH electric heat section includes provisions for high and low voltage field wiring.
- 3 Route the low voltage wiring from the electric heater to the low voltage terminal strip in the ELXA/ELA/ TAA unit. Refer to wiring diagrams provided with the T3EH unit for details on wiring with a heat pump or AC.

Blower Speed Requirements

T3EH electric heat applications require specific blower air volumes. To determine unit CFM, refer to the ELXA/ELA/TAA series installation instruction.

Duct Connections

Refer to the ELXA/ELA/TAA series installation instruction and the ELXA/ELA/TAA heater installed nameplate for the proper duct connections and clearances.

Unit Start-Up (Heating Cycle)

Set the room sensor for the proper HEAT or AUTO operation, if you use a switching subbase. Close the disconnect switch and position the heat setpoint above room temperature.

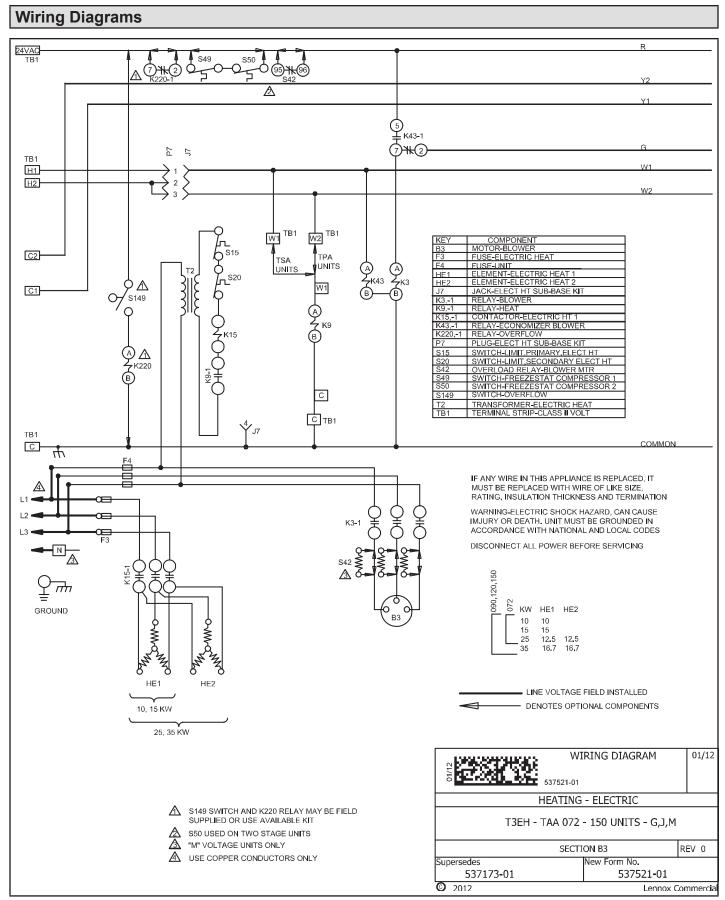


FIGURE 10. T3EH-10, 15, 25 and 35 (G, J and M Voltages) for use with TAA 072 through 150

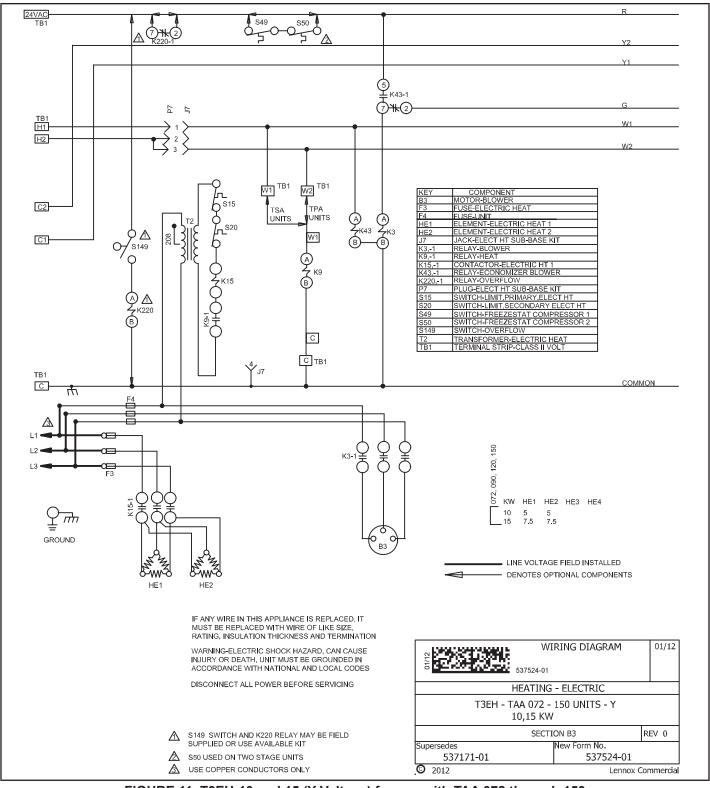


FIGURE 11. T3EH-10 and 15 (Y Voltage) for use with TAA 072 through 150

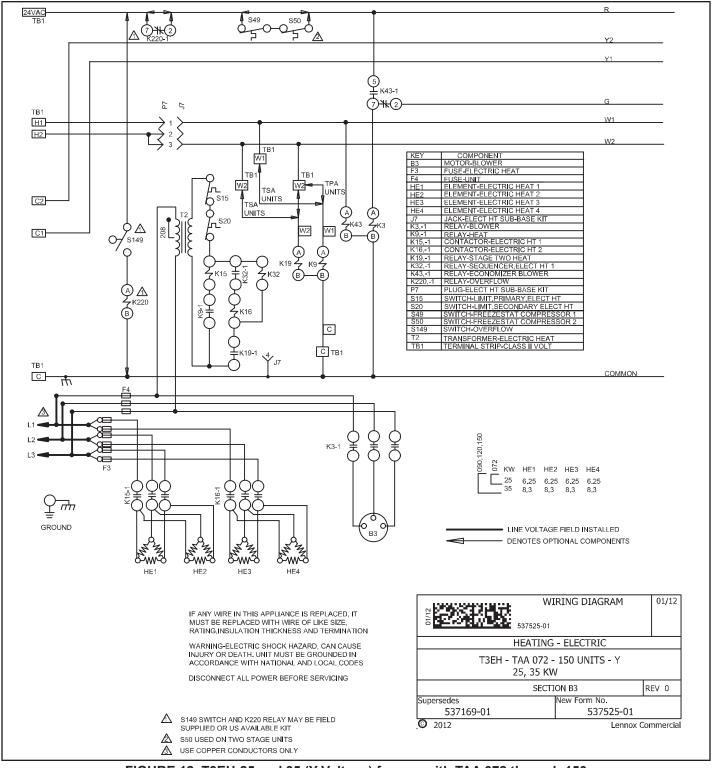


FIGURE 12. T3EH-25 and 35 (Y Voltage) for use with TAA 072 through 150

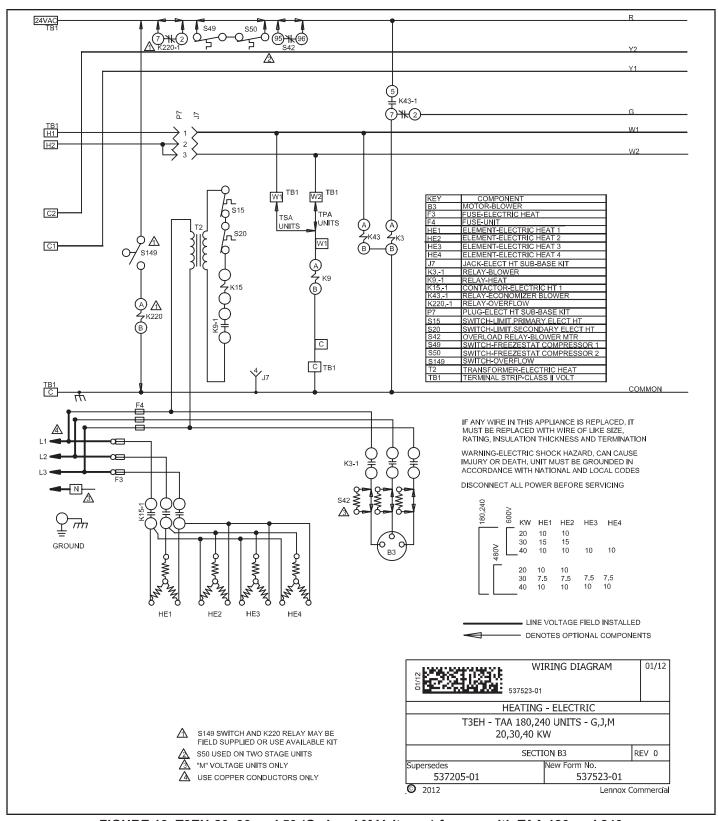


FIGURE 13. T3EH-20, 30 and 50 (G, J and M Voltages) for use with TAA 180 and 240

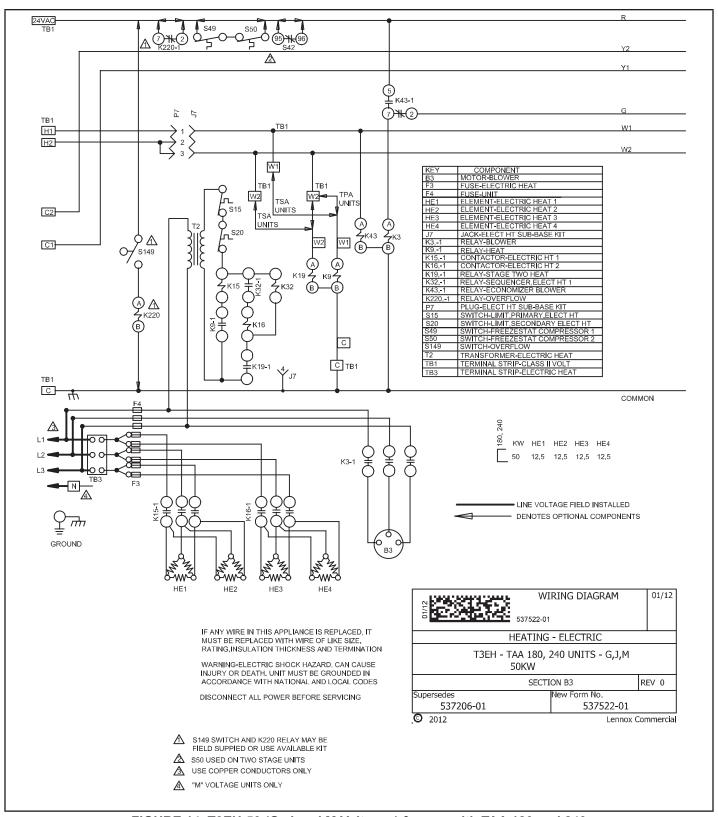


FIGURE 14. T3EH-50 (G, J and M Voltages) for use with TAA 180 and 240

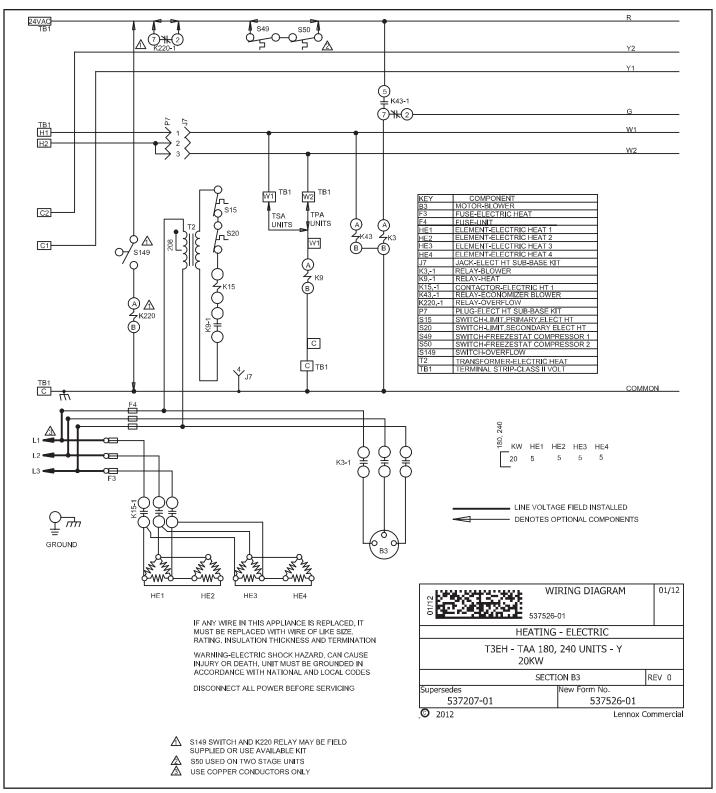


FIGURE 15. T3EH-20 (Y Voltage) for use with TAA 180 and 240

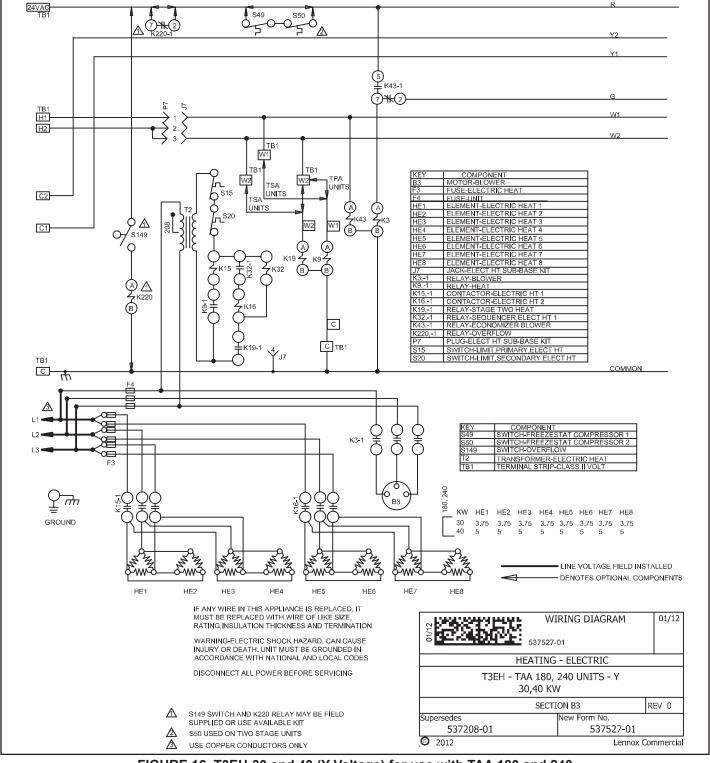


FIGURE 16. T3EH-30 and 40 (Y Voltage) for use with TAA 180 and 240

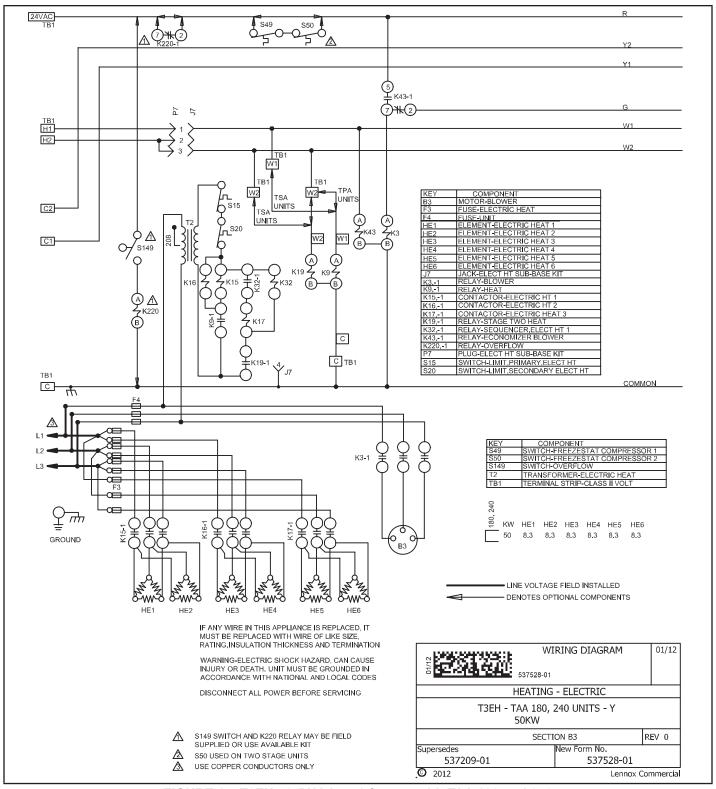


FIGURE 17. T3EH-50 (Y Voltage) for use with TAA 180 and 240

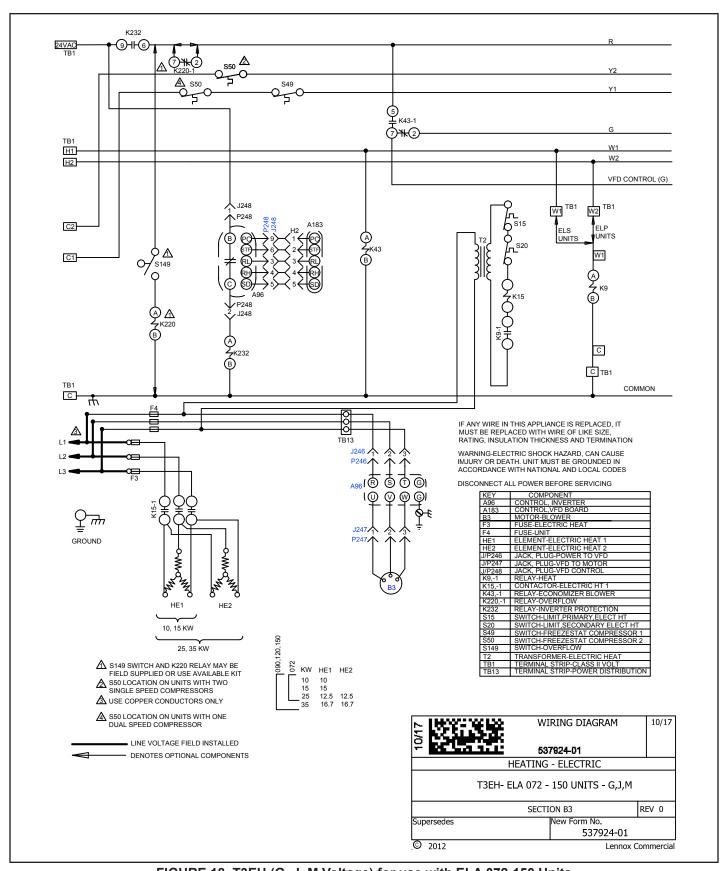


FIGURE 18. T3EH (G, J, M Voltage) for use with ELA 072-150 Units

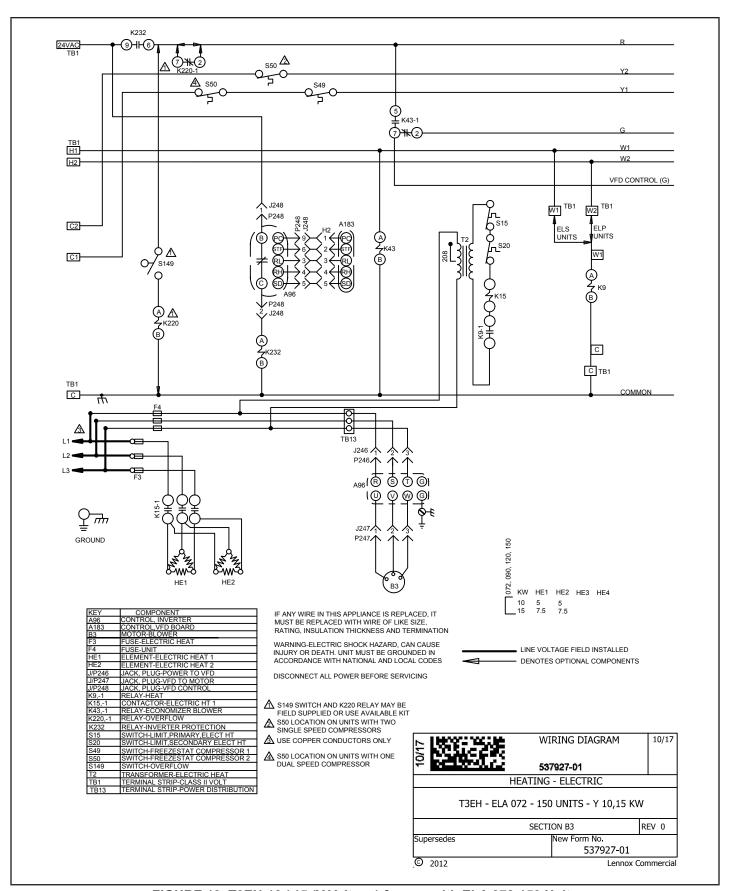


FIGURE 19. T3EH-10 / 15 (Y Voltage) for use with ELA 072-150 Units

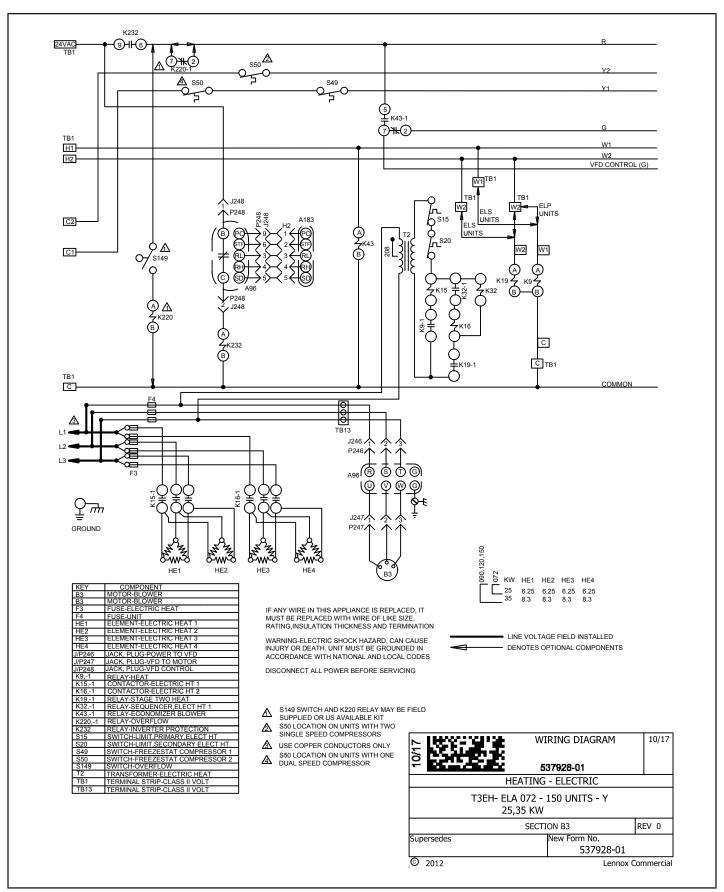


FIGURE 20. T3EH-25 / 35 (Y Voltage) for use with ELA 072-150 Units

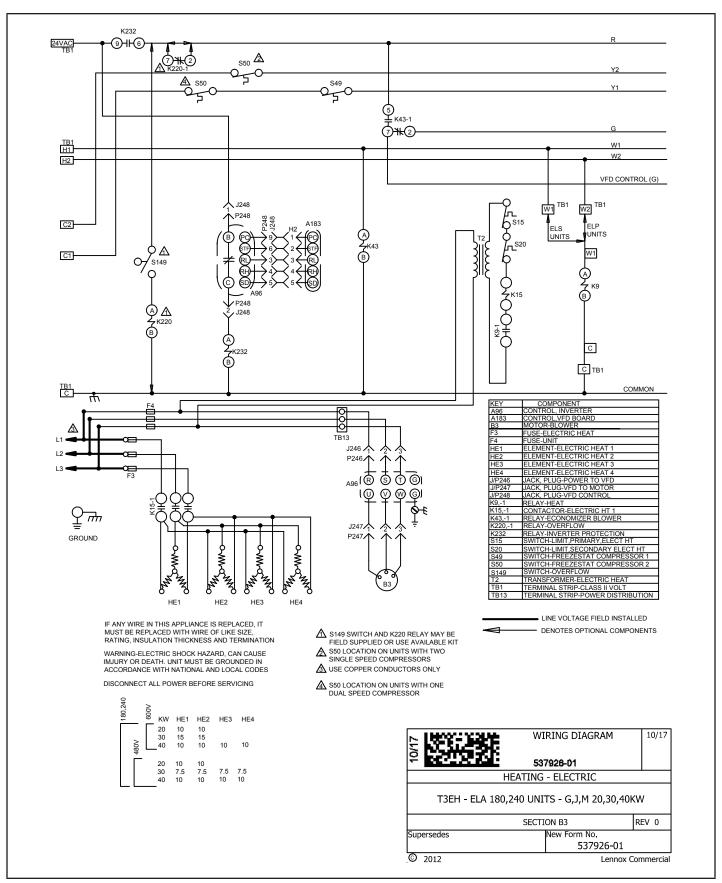


FIGURE 21. T3EH-20 / 30 / 40 (G, J, M Voltages) for use with ELA 180 and 240 Units

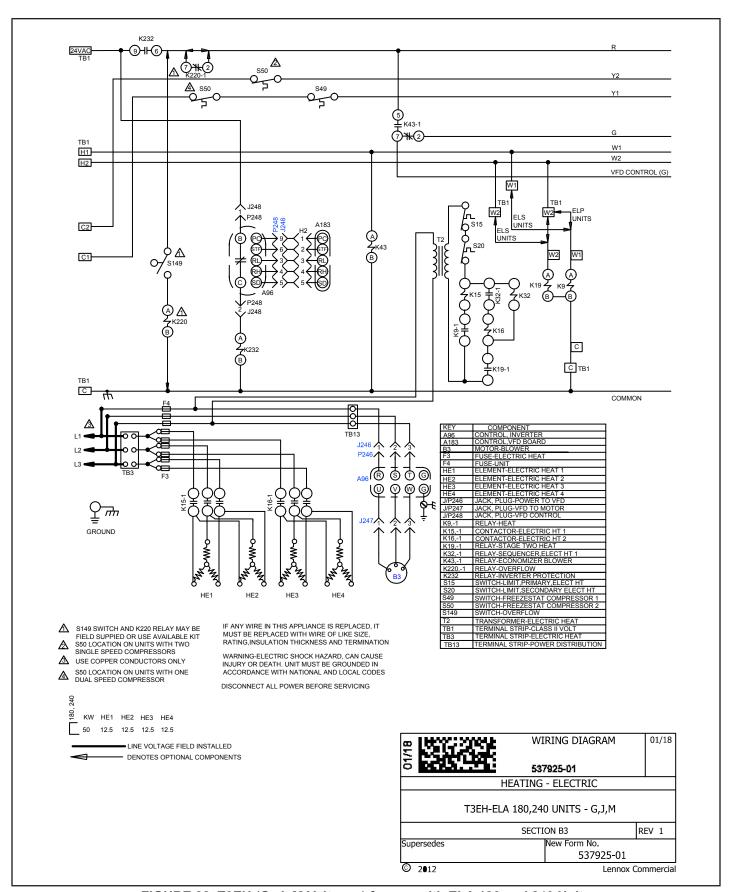


FIGURE 22. T3EH (G, J, M Voltages) for use with ELA 180 and 240 Units

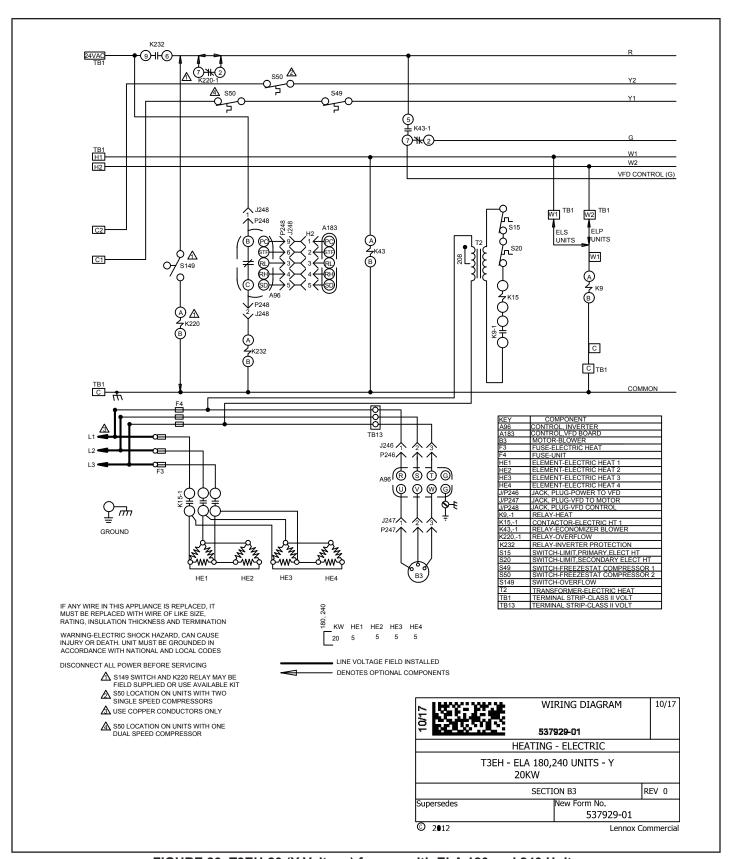


FIGURE 23. T3EH-20 (Y Voltage) for use with ELA 180 and 240 Units

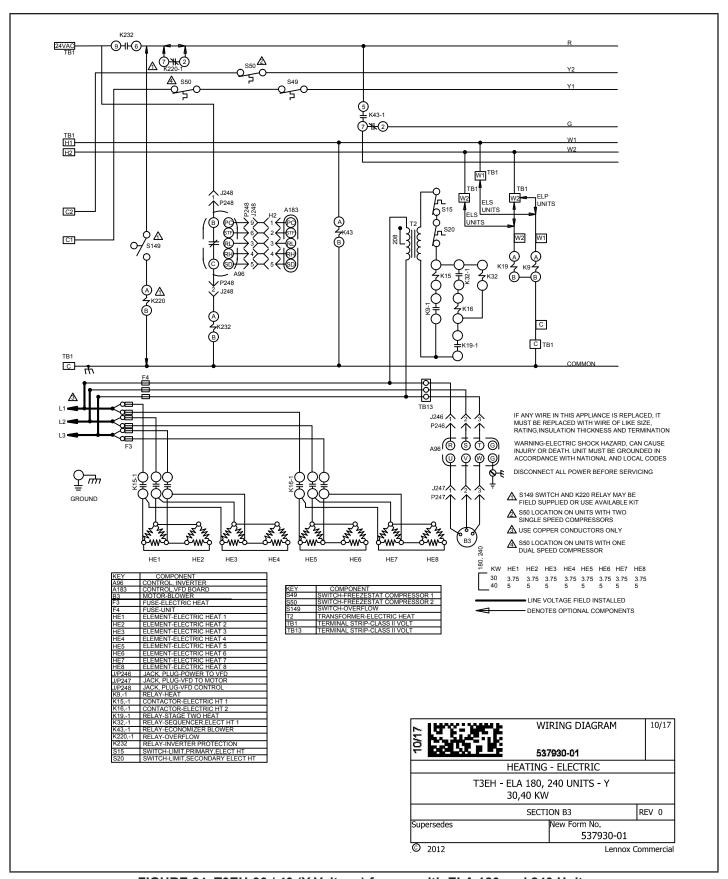


FIGURE 24. T3EH-30 / 40 (Y Voltage) for use with ELA 180 and 240 Units

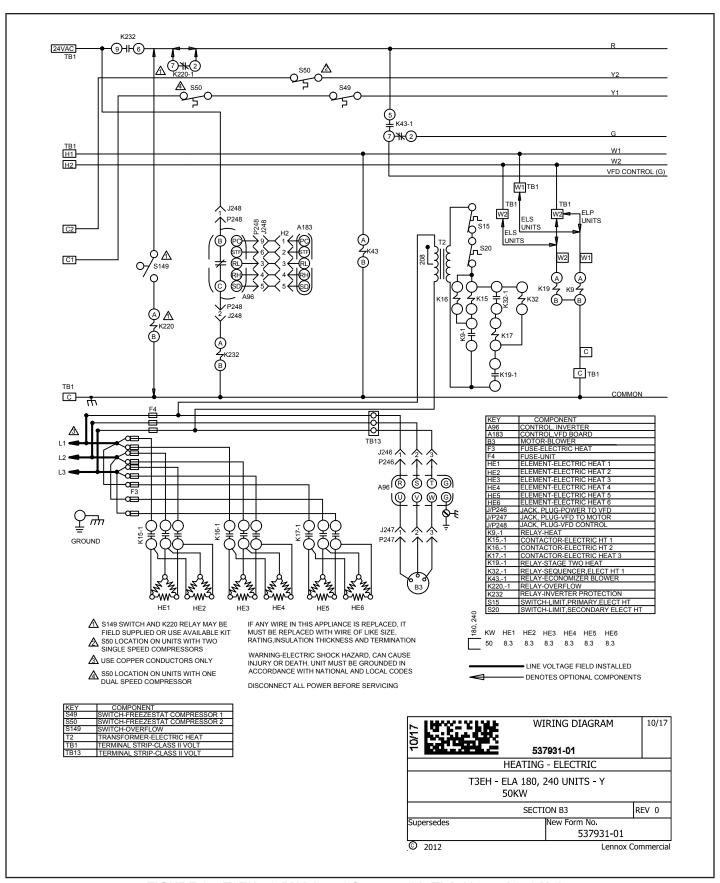


FIGURE 25. T3EH-50 (Y Voltage) for use with ELA 180 and 240 Units

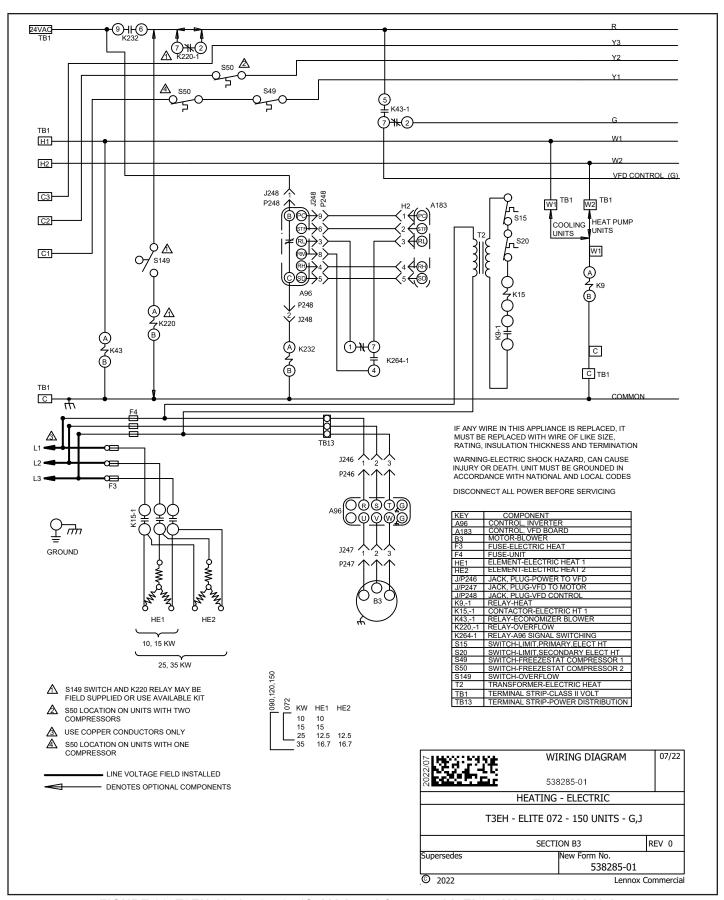


FIGURE 26. T3EH-10, 15, 25, 35 (G,J Voltage) for use with EL072XA - EL150XA Units

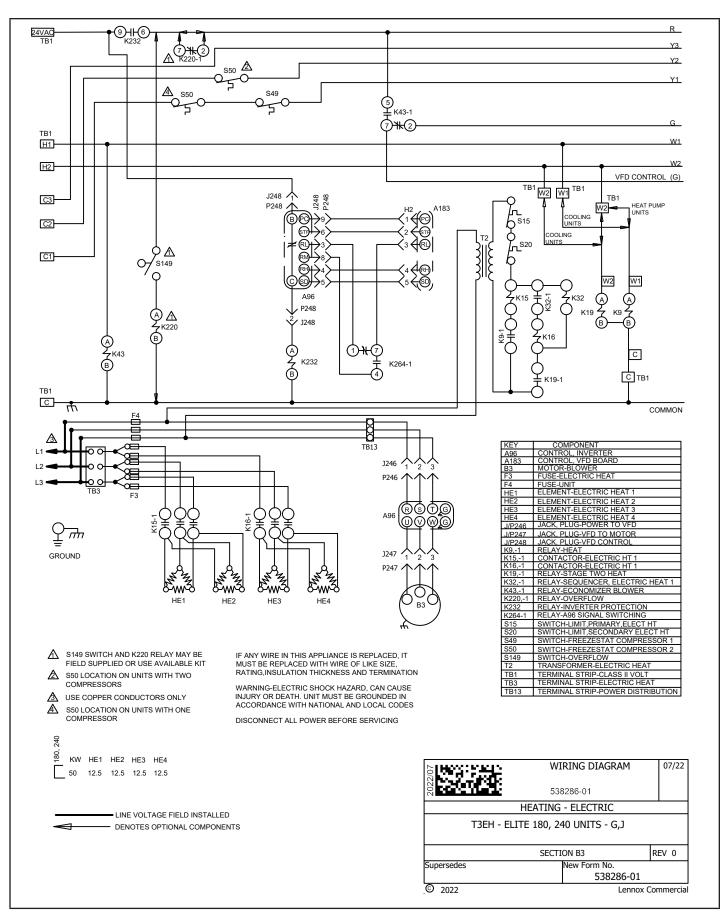


FIGURE 27. T3EH-50 (G,J Voltage) for use with EL180XA and EL240XA Units

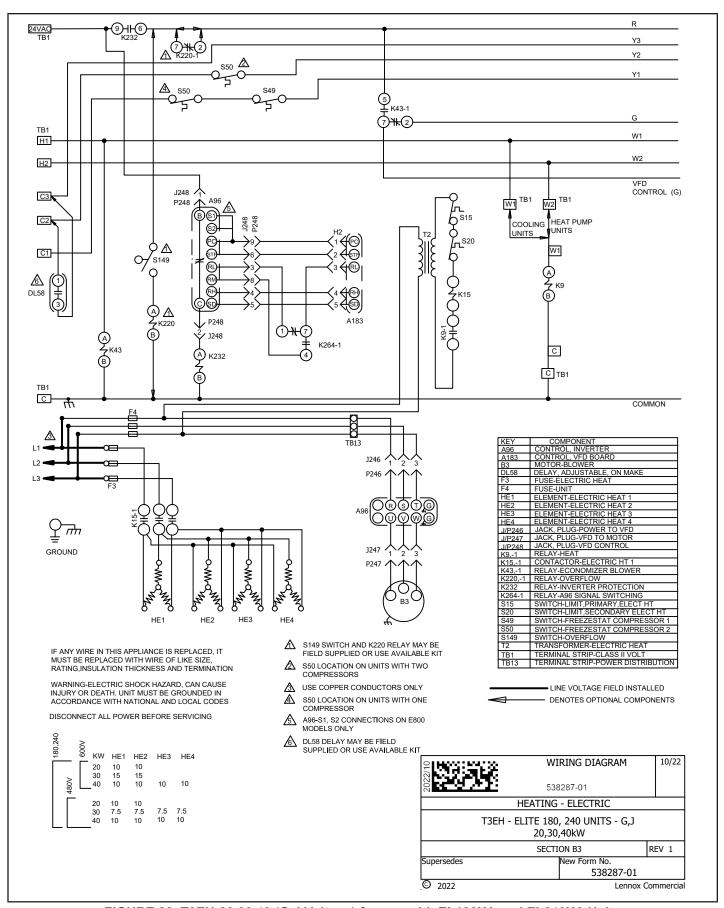


FIGURE 28. T3EH-20,30,40 (G,J Voltage) for use with EL180XA and EL240XA Units

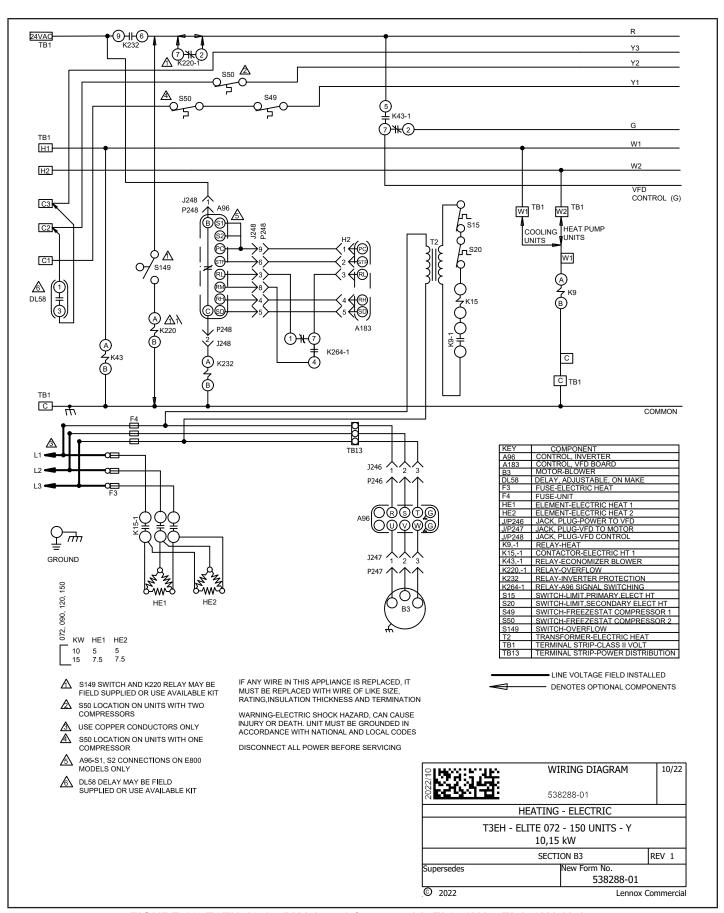


FIGURE 29. T3EH-10,15 (Y Voltage) for use with EL072XA - EL150XA Units

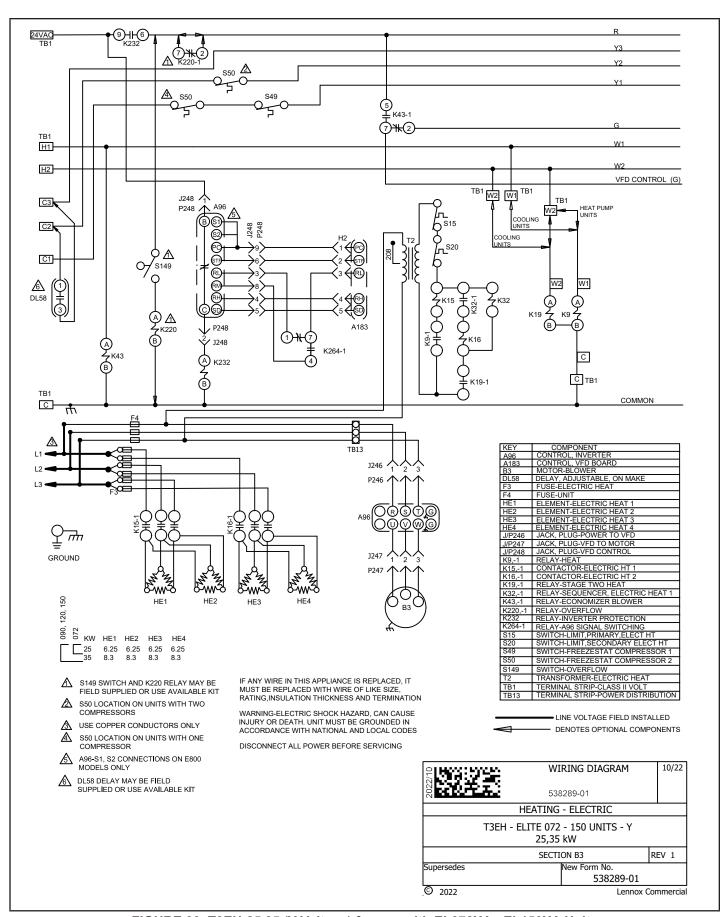


FIGURE 30. T3EH-25,35 (Y Voltage) for use with EL072XA - EL150XA Units

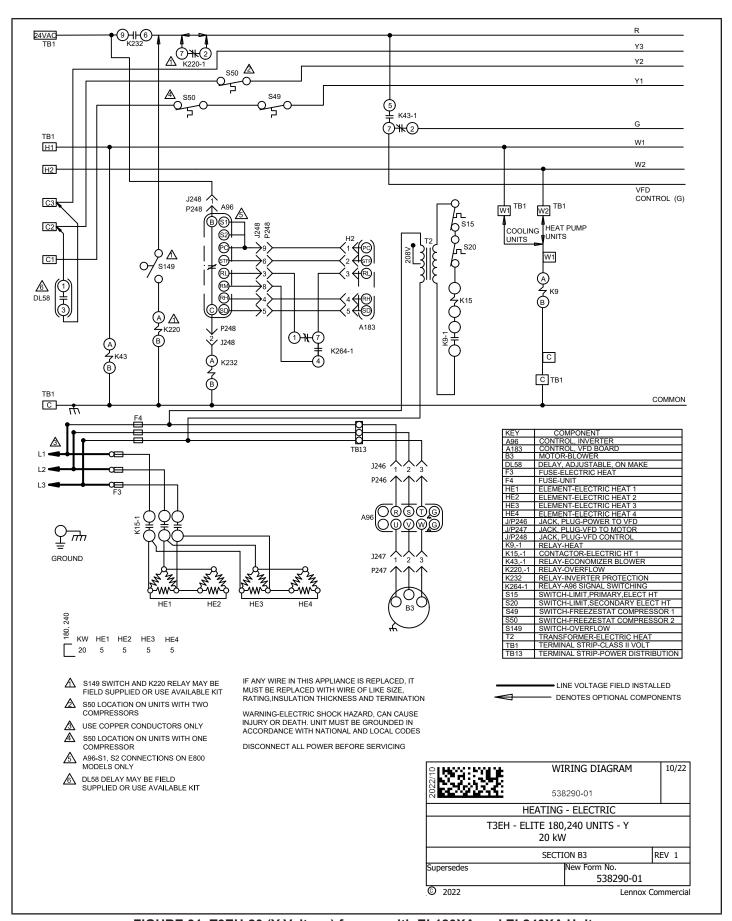


FIGURE 31. T3EH-20 (Y Voltage) for use with EL180XA and EL240XA Units

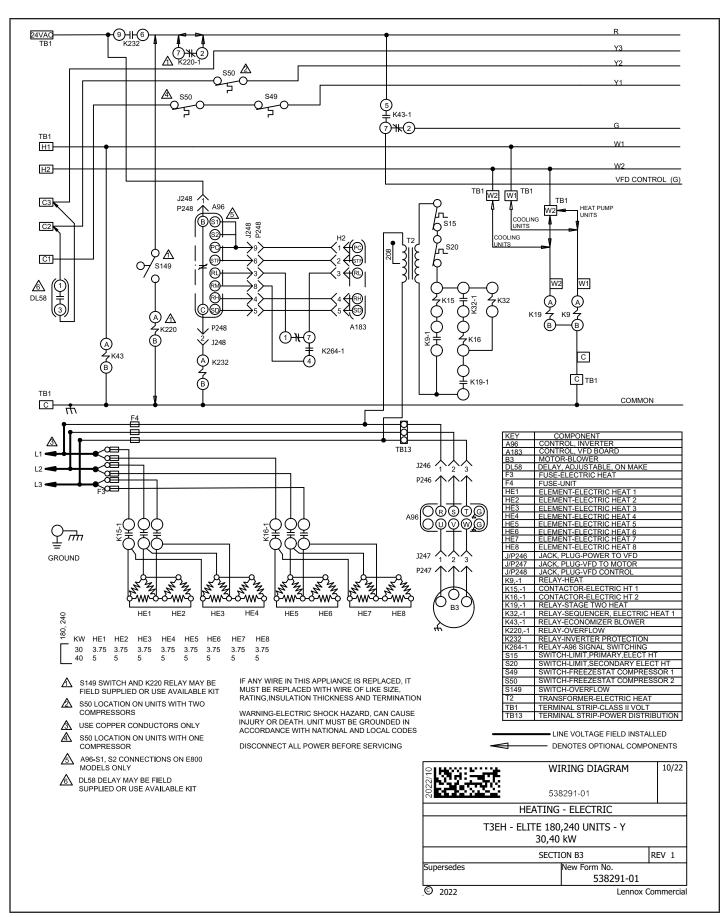


FIGURE 32. T3EH-30,40 (Y Voltage) for use with EL180XA and EL240XA Units

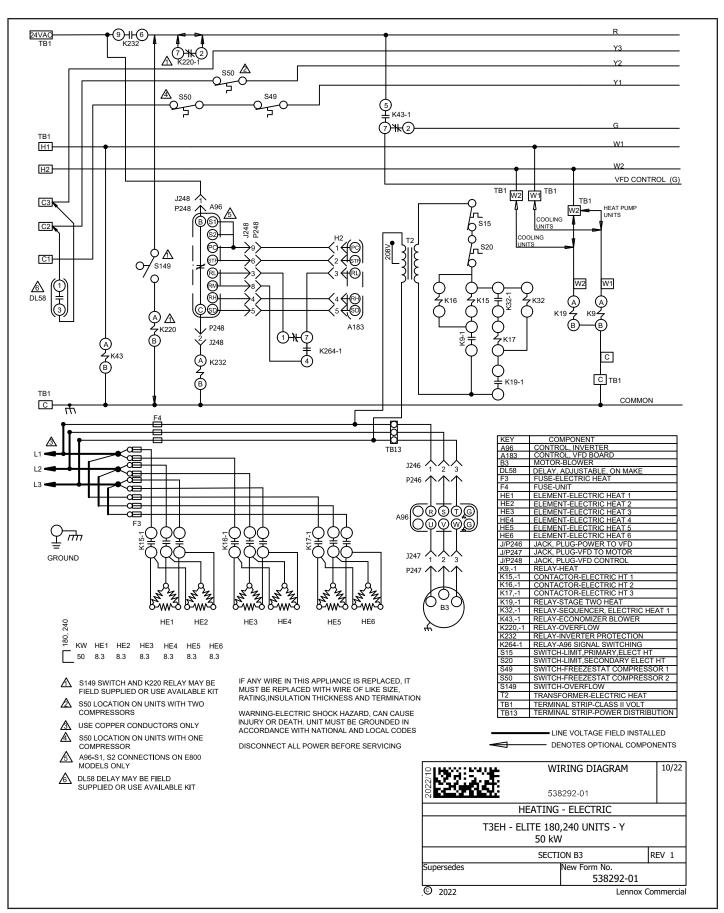


FIGURE 33. T3EH-50 (Y Voltage) for use with EL180XA and EL240XA Units

Electric Heat Section Dimensions – inches (mm)

