



MODEL EPAK ELECTRIC HEAT MODULE INSTALLATION INSTRUCTIONS FOR VERTICAL FAN COIL UNITS



NOTE: 10 kW module has only (1) heatsink and is located on the right-hand side.

NOTICE: Additional working spaces and clearances may be required per Section 110.26 of the 2002 Edition of the National Electric Code. Verify all applicable clearance requirements and local codes prior to installation.

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INTRODUCTION

The following terms are used throughout this manual to bring attention to the presence of potential hazards or important information concerning the product:

A DANGER

damage.

Indicates an imminently hazardous situation which, if not avoided, will result in death, serious injury or substantial property

A WARNING

Indicates an imminently hazardous situation which, if not avoided, could

result in death, serious injury or substantial property damage.

Indicates an imminently hazardous **A CAUTION** situation which, if not avoided, may result in minor injury or property damage.

NOTICE: Used to notify of special instructions on installation, operation or maintenance which are important to equipment but not related to personal injury hazards.

ELECTRICAL REQUIREMENTS

All wiring must be installed in accordance with the latest release of the National Electric Code, and any additional state/local codes. Verify that the electric heat module is correctly sized to the specified fan coil unit model number (see Table 1).

These Electric Heat Modules can **A WARNING** only be used in vertical units. Do not attempt to install in any other product other than those listed in Table 1.

A WARNING

Do not install the module if it has not been sized correctly.

Table 1— Heater Compatibility and Circuit Size

Electric Heat Module Heat Out	Heat Output	208/1/60		230/1/60		Fan Coil Unit
Model Number	@ 240 V	FLA	MCA	FLA	MCA	Model Number
AC-EPAK-10V	10kW	48	60	43	54	ESP-2430V
AC-EPAK-15V	15kW	72	90	65	82	ESP-3642V
AC-EPAK-20V	20kW	96	120	87	109	ESP-4860V

AIRFLOW REQUIREMENTS

For proper heat distribution, **A WARNING** minimum airflows must be maintained as shown in Table 2.

Table 2— Minimum Airflow Requirements (cfm)

Electric Heat Module Model Number	Nominal Airflow	Minimum Airflow	Fan Coil Unit Model Number
AC-EPAK-10V	550	440	ESP-2430V
AC-EPAK-15V	850	680	ESP-3642V
AC-EPAK-20V	1150	920	ESP-4860V

INSTALLATION

Improper installation, alteration, **A WARNING**

service or maintenance can cause property damage, injury or death. Read the installation instructions thoroughly before installing or servicing this equipment.

Do not alter the Electric Heat **A WARNING** Module in any way or damage to the unit and/or severe personal injury or death may occur!

1. Prior to installation, inspect the electric heat module for damage.

DO NOT INSTALL A DAMAGED HEATER INTO THE FAN COIL UNIT!

AWARNING Disconnect power source to the fan coil unit before installing or servicing the heater. Failure to do so could result in fatal electric shock or severe personal injury.

- 2. Remove the (3) drain-side access panels from the fan coil unit by removing the screws.
- 3. Attach the new large access panel to the heat module using small screws provided.
- Attach the (2) heater support brackets to the side of coil housing (as illustrated on cover). Brackets set in channel along the inside of cabinet surface.
- Insert heat module assembly into fan coil unit, leaving the module half way out to allow for ease of wiring.
- Fieldwire the interlock wiring (C & W2) from the heat module to fan coil unit control panel per Figure 1. Heater wiring should follow the float and anti-frost switch wiring through the "U" channel leading into the control box of the fan coil unit.
- 7. Connect duct sensor wires to T1 and T2 on heater panel as shown in **Figure 1**.

NOTICE: This unit senses the discharge air temperature and regulates it to a maximum temperature regardless of the load conditions.

- 8. Fully insert the heat module assembly into the fan coil unit and secure with replacement tinnerman clips and screws provided.
- Connect line voltage to terminals L1 and L2. Ensure the respective breaker or fuse ampacity matches those listed Table 1, or as shown on wiring diagram located inside heat module.
- 10. Check ALL wire connections for tightness.
- 11. Attach new, small access panel to top of fan coil unit.

ADDITIONAL NOTES:

- A. For heat/cool thermostats, it is necessary to use a thermostat designed to energize the fan circuit "G".
- B. To calculate kW at other voltages, use the following equation:
 kW = kW (rated at 240V) X (actual V/240)²
- C. Fan coil unit installed with or without electric heat module is ETL listed for zero clearance to combustibles, however, N.E.C. requires service clearance to electrical components.



NOTES:

- ALL FIELD WIRING TO BE IN ACCORDANCE WITH NATIONAL ELECTRIC CODE (NEC) AND LOCAL 1) BUILDING CODES.
- USE COPPER CONDUCTORS ONLY. 2)
- 3) FOR ELECTRIC HEAT - E MAY BE JUMPED TO W2 AT THERMOSTAT.
- 4) PROPER PRECAUTIONS SHOULD BE TAKEN TO MAINTAIN ADEQUATE AIR VOLUME.



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