



# Compact Fan Forced Cabinet Heater KCF Series



**Model Code:**

|     |       |     |    |    |    |    |      |
|-----|-------|-----|----|----|----|----|------|
| KCF | 2/3/4 | -24 | 20 | -1 | -R | -T | -DS1 |
| A   | B     | C   | D  | E  | F  | G  | H    |

**A: Series**  
**B: Length**  
**C: 20 - 208V 24 - 240V**  
**27 - 277V 48 - 480V**  
**D: Watts (20=2000 - 50=5000)**  
**E: -1 single phase -3 three phase**  
**F: Recess or Surface mount**  
**G: SP Stat**  
**H: Double Pole Disconnect Switch**

- Fan-Forced Heat
- Aluminum fin element
- Squirrel Cage Blower
- 1 or 3-phase
- Standard color: almond (-A)
- Ceramic Element
- 18 gauge cabinet
- Capillary tube limit
- Powder-coated
- 5-year limited warranty



## The KCF Series Cabinet Heater

The King heavy KCF cabinet heater can be placed almost anywhere. Typical uses are hall or entryways where a deep cabinet heater would be too intrusive. The slim design is great for schools, office, air terminals, auditoriums, apartments, restaurants, churches, factory's, theaters and other locations where a clean impact resistant 18 gauge construction and entry way or comfort heating is needed. The KCF uses the time tested ceramic core heating elements that King developed over 50 years ago and have a very long life. Available in a slim 4" surface mount or the recess in wall installation. A sub-base is available when installing close to the floor to fill the gap. Thermostats, Contactors and Disconnect switches are available as options. Textures powder coated finish in an almond color. KCF model adds quiet tangential fans in the bottom of the cabinet to help move the heated air out of the cabinet. KCF model is not for residential use unless you add the Manual reset limit option.



### Ordering Information

\*Add suffix 1-for single phase, 3-for three phase

\*Add suffix R-for recessed mount, S-for surface mount

|      | MODEL       | VOLTS | WATTS | (1ph) AMPS | (3ph) | BTUH(000) | #of BLOWERS | CFM | LENGTH | SHIP WEIGHT lbs |
|------|-------------|-------|-------|------------|-------|-----------|-------------|-----|--------|-----------------|
| 208V | KCF2-2020-* | 208   | 2000  | 9.6        | 5.6   | 6.8       | 1           | 70  | 24"    | 35              |
|      | KCF3-2030-* | 208   | 3000  | 14.4       | 8.3   | 10.2      | 2           | 140 | 36"    | 45              |
|      | KCF4-2040-* | 208   | 4000  | 19.2       | 11.1  | 13.6      | 3           | 210 | 48"    | 55              |
|      | KCF4-2050-* | 208   | 5000  | 24         | 13.9  | 17        | 3           | 210 | 48"    | 55              |
| 240V | KCF2-2420-* | 240   | 2000  | 8.3        | 4.8   | 6.8       | 1           | 70  | 24"    | 35              |
|      | KCF3-2430-* | 240   | 3000  | 12.5       | 7.2   | 10.2      | 2           | 140 | 36"    | 45              |
|      | KCF4-2440-* | 240   | 4000  | 16.7       | 9.6   | 13.6      | 3           | 210 | 48"    | 55              |
|      | KCF4-2450-* | 240   | 5000  | 20.8       | 12.0  | 17        | 3           | 210 | 48"    | 55              |
| 277V | KCF2-2720-* | 277   | 2000  | 7.2        | n/a   | 6.8       | 1           | 70  | 24"    | 35              |
|      | KCF3-2730-* | 277   | 3000  | 10.3       | n/a   | 10.2      | 2           | 140 | 36"    | 45              |
|      | KCF4-2740-* | 277   | 4000  | 14.4       | n/a   | 13.6      | 3           | 210 | 48"    | 55              |
|      | KCF4-2750-* | 277   | 5000  | 18         | n/a   | 17        | 3           | 210 | 48"    | 55              |
| 480V | KCF2-4820-* | 480   | 2000  | 4.2        | 2.4   | 6.8       | 1           | 70  | 24"    | 35              |
|      | KCF3-4830-* | 480   | 3000  | 6.5        | 3.6   | 10.2      | 2           | 140 | 36"    | 45              |
|      | KCF4-4840-* | 480   | 4000  | 8.3        | 4.8   | 13.6      | 3           | 210 | 48"    | 55              |
|      | KCF4-4850-* | 480   | 5000  | 10.4       | 6     | 17        | 3           | 210 | 48"    | 55              |

### Engineering Specifications

Contractor shall supply and install KCF Series cabinet heaters manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.

**Construction:** Heaters shall be constructed in 18 gauge galvanized Steel with epoxy powder-coated manufacturer's standard finish. A louvered front cover with intake and outlet grille will protect element area and provide ample air flow to dissipate heated air.

**Element:** The superior performance comes from the proven technology of the ceramic thermal storage heater core. A 7/8" diameter aluminum tube is filled with a special high density ceramic that stores the thermal energy. The oversized fins (4.875 in<sup>2</sup>) are made from durable (0.015" thick) high grade aluminum which produces better heat transfer than other elements. The benefit of the technology comes when the thermostat is turned off and the element continues to radiate heat. It also reduces temperature swings by heating and cooling more evenly. A fired refractory ceramic core with two large diameter Nickel Chromium

coils attached with high temperature stainless connectors and stranded Nickel wire, terminated in a junctionbox.

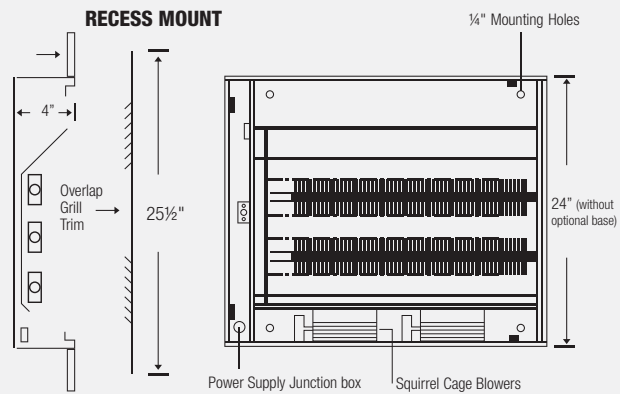
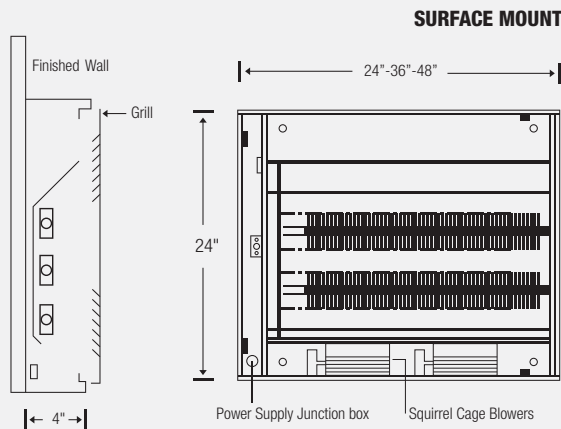
**Controls:** A built-in thermal cutout shall automatically shut off the heater in case of overheating. A built-in thermostat for temperature control will have a range from 40° - 95°F and be of the high accuracy capillary tube-type. Disconnect switch and contactors will be provided if necessary.

**Blower and Motor:** Up to 3 tangential cylindrical blowers, delivering 70 CFM each, shall be driven by a shaded pole, permanently lubricated, C-frame type motor with impedance protection and sealed bearings. Motors shall be the same voltage as the heater. All 480V units use 277V motors and contactors. This requires a neutral connection.

**Approvals:** cULus

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## Mounting Data

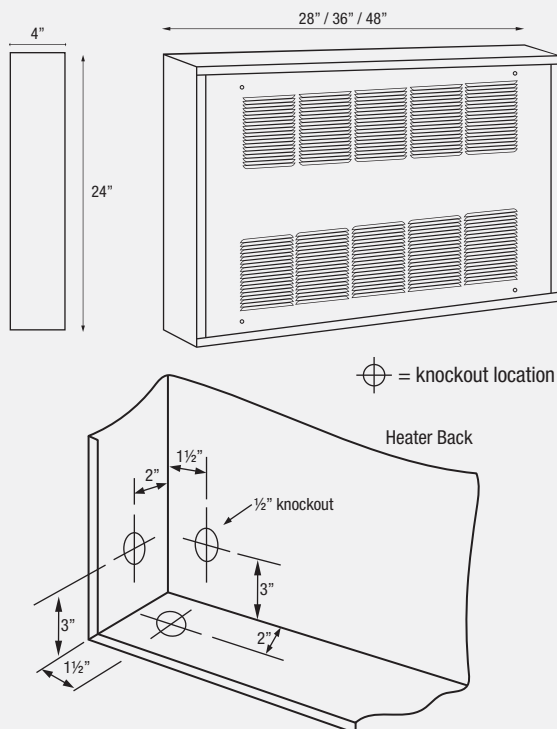


**MOUNTING NOTE:** 1" minimum mounting height from finished floor to allow clearance for the grill overlap.

## Control Options

- A line voltage terminal block can be provided for wiring to a remote line voltage thermostat.
- A power contactor with line voltage coil can be provided to remotely switch the heater.
- A power contactor and 24V transformer can be provided to remotely switch the heater.
- A 3-position switch can be provided for manual HEAT/FAN/OFF control.
- A 2-Pole Disconnect switch can be provided for 1-Phase heaters.
- A 3-Pole Disconnect can be provided for 3-Phase heaters.
- A floor sub-base can be provided for direct floor contact.
- A built-in 1-Pole thermostat can be provided for convenience.
- A built-in 2-Pole thermostat can be provided for convenience.
- A tamperproof built-in thermostat can be provided without a knob, temperature adjustments are made with a screw driver.

## Dimensional Data



## Control Options

| ADD SUFFIX | DESCRIPTION                                     |
|------------|---|
| -RT        | Line Voltage Terminal Block                     |
| -CX        | Power Contactor                                 |
| -RT24      | 24 Volt Contactor & Transformer                 |
| -3PS       | 3-Position Switch                               |
| -DS1       | Double Pole Disconnect Switch (1-Phase)         |
| -DS3       | Three Pole Disconnect Switch (3-Phase)          |
| -SB-24     | Subbase - 24", 2" tall, 3" deep                 |
| -SB-36     | Subbase - 36", 2" tall, 3" deep                 |
| -SB-48     | Subbase - 48", 2" tall, 3" deep                 |
| -T         | 25 Amp Single Pole Thermostat (not tamperproof) |
| -T2        | 25 Amp Double Pole Thermostat (not tamperproof) |
| -TP        | 25 Amp Tamperproof (stotted shaft), single pole |

## Highmass Ceramic Element

