

# High Air Velocity Unit Heater KFUH Series



### Model Code:

KFUH	48	10	-3
A	B	C	D

A: Series

B: 48 - 480V

C: Kilowatts

D: 1 or 3-phase



Shown with KFUH DIFFUSER.  
KFUH DIFFUSER required for  
this heater and is sold separately

- Heavy duty open coil element
- Adjustable louver hood (sold separately)
- Ductable on intake & outlet
- Fan-only relay
- Direct drive air over type motor
- 22 gauge steel
- 24 Volt control
- 5-year limited warranty
- Dual inlet industrial blower
- Quiet switching relays
- Diffuser must be ordered separately
- Horizontal or Vertical Mount
- Replaceable intake filter
- ECM Motor (optional)

## The KFUH High Air Velocity Unit Heater

The KFUH series commercial unit heater is an efficient, dependable unit heater perfectly suited for high ceiling applications such as warehouses, parking garages and docks. The 3-speed, high-capacity motor and blower quietly delivers large volumes of air ranging from 775 to 1540 CFM minimum. With welded mounting channels on the unit, the heater may be mounted at any angle. Safety screens are provided at both the air intake and discharge aperture. The intake filter is replaceable. Thermostat may be ordered separately.

**FIELD WIRING:** 480 Volt unit heaters do not have circuit breakers but are fused when internal protection is required over 48 Amps.

Terminal blocks are supplied for field wiring on all units. Consult the National Electric Code for proper wire size and service circuit breaker protection.

**CONTROL WIRING:** Connect low voltage thermostat to terminals R and W on the low voltage terminal block. For fan only operation connect terminals R and G with a switch or thermostat fan switch.

Unit shown with standard diffuser model # KFUH DIFFUSER ordered separately. Additional diffusers are located on the 3rd page of this specification sheet.

### Ordering Information- single phase

	MODEL	VOLTS	kilo watts	BTUH	AMPS	PHASE	ELEMENTS	MOTOR HP	# of SIZE	WT. (lbs)
208-V	KFUH2004-1	208	3.8	12.8	18	1	1	1/5	Fig. A	57
	KFUH2005-1	208	5.0	17.1	24	1	1	1/5	Fig. A	57
	KFUH2008-1	208	8.0	27.3	38.5	1	2	1/5	Fig. A	57
	KFUH2010-1	208	10	34.1	48.1	1	2	1/5	Fig. A	65
	KFUH2012-1	208	12	40.9	57.7	1	3	1/3	Fig. A	74
	KFUH2015-1	208	15	51.2	72.1	1	3	1/3	Fig. A	74
	KFUH2018-1	208	17.3	58.8	82.9	1	4	1/3	Fig. B	74
	KFUH2020-1	208	20	68.3	96.2	1	4	1/2	Fig. B	76
	KFUH2025-1	208	25	85.3	120.2	1	5	3/4	Fig. B	81
	KFUH2030-1	208	25	102.4	144.2	1	6	3/4	Fig. B	85
240-V	KFUH2404-1	240/208*	4	13.7	16.7	1	1	1/5	Fig. A	57
	KFUH2405-1	240/208*	5	17.1	20.8	1	1	1/5	Fig. A	57
	KFUH2408-1	240/208*	8	27.3	33.3	1	2	1/5	Fig. A	57
	KFUH2410-1	240/208*	10	34.1	41.7	1	2	1/5	Fig. A	65
	KFUH2412-1	240/208*	12	50	50	1	2	1/3	Fig. A	65
	KFUH2415-1	240/208*	15	51.2	62.5	1	3	1/3	Fig. A	74
	KFUH2418-1	240/208*	17.3	58.9	71.9	1	3	1/3	Fig. A	74
	KFUH2420-1	240/208*	20	68.3	83.3	1	4	1/2	Fig. B	76
	KFUH2425-1	240/208*	25	85.3	104.2	1	5	1/2	Fig. B	81
	KFUH2430-1	240/208*	30	102.4	125	1	6	3/4	Fig. B	85
	KFUH2435-1	240/208*	34.5	117.7	143.8	1	6	3/4	Fig. B	85
	KFUH4804-1	480	4	13.7	8.3	1	1	1/5	Fig. A	57
	KFUH4805-1	480	5	17.1	10.4	1	1	1/5	Fig. A	57

# High Air Velocity Unit Heater KFUH Series

## Ordering Information- single phase (Continued)

	MODEL	VOLTS	kilo watts	BTUH	AMPS	PHASE	ELEMENTS	MOTOR HP	# of SIZE	WT. (lbs)
480-V	KFUH4808-1	480	8	27.3	16.7	1	2	1/5	Fig. A	57
	KFUH4810-1	480	10	34.1	20.8	1	2	1/5	Fig. A	65
	KFUH4812-1	480	12	41	25	1	3	1/3	Fig. A	74
	KFUH4815-1	480	15	51.2	31.3	1	3	1/3	Fig. A	74
	KFUH4818-1	480	17.3	58.9	35.9	1	3	1/3	Fig. A	74
	KFUH4820-1	480	20	68.3	41.7	1	4	1/2	Fig. B	76
	KFUH4825-1	480	20	85.3	52.1	1	5	1/2	Fig. B	81
	KFUH4830-1	480	30	102.4	62.5	1	6	3/4	Fig. B	85
	KFUH4835-1	480	34.5	102.4	71.9	1	6	3/4	Fig. B	85

## Ordering Information- three phase

	MODEL	VOLTS	kilo watts	BTUH	AMPS	PHASE	ELEMENTS	MOTOR HP	# of SIZE	WT. (lbs)
208-V	KFUH2005-3	208	5	17.1	13.9	3	1	1/5	Fig. A	57
	KFUH2007-3	208	7.5	25.6	20.8	3	2	1/5	Fig. A	57
	KFUH2010-3	208	10	34.1	27.8	3	2	1/5	Fig. A	65
	KFUH2012-3	208	12.4	42.3	34.4	3	3	1/3	Fig. A	74
	KFUH2015-3	208	15	51.2	41.7	3	3	1/3	Fig. A	74
	KFUH2020-3	208	20	68.3	55.6	3	4	1/2	Fig. B	76
	KFUH2025-3	208	25	85.3	69.5	3	5	3/4	Fig. B	81
	KFUH2030-3	208	30	102.4	83.4	3	6	3/4	Fig. B	85
	KFUH2040-3	208	40	136.5	111.2	3	8	2 x 3/4	Fig. C	152
	KFUH2050-3	208	50	170.6	139	3	10	2 x 3/4	Fig. C	162
KFUH2060-3	208	60	204.8	166.7	3	12	2 x 3/4	Fig. C	170	
240-V	KFUH2405-3	240/208*	5	17.1	12	3	1	1/5	Fig. A	57
	KFUH2410-3	240/208*	10	34.1	24.1	3	2	1/5	Fig. A	65
	KFUH2412-3	240/208*	12	40.9	28.9	3	3	1/3	Fig. A	74
	KFUH2415-3	240/208*	15	51.2	36.1	3	3	1/3	Fig. A	74
	KFUH2418-3	240/208*	17.3	58.8	41.5	3	3	1/3	Fig. A	74
	KFUH2420-3	240/208*	20	68.3	48.2	3	4	1/2	Fig. B	85
	KFUH2425-3	240/208*	25	85.3	60.2	3	5	1/2	Fig. B	81
	KFUH2430-3	240/208*	30	102.4	72.3	3	6	3/4	Fig. B	85
	KFUH2435-3	240/208*	34.5	117.7	83.1	3	6	3/4	Fig. B	85
	KFUH2440-3	240/208*	40	136.5	96.3	3	8	2 x 3/4	Fig. C	170
480-V	KFUH2450-3	240/208*	50	170.7	120.4	3	10	2 x 3/4	Fig. C	162
	KFUH2460-3	240/208*	60	204.8	144.5	3	12	2 x 3/4	Fig. C	170
	KFUH2470-3	240/208*	70	238.9	168.6	3	12	2 x 3/4	Fig. C	170
	KFUH4805-3	480	5	17.1	6	3	1	1/5	Fig. A	57
	KFUH4810-3	480	10	34.1	12	3	2	1/5	Fig. A	65
	KFUH4812-3	480	12	40.9	14.5	3	3	1/3	Fig. A	74
	KFUH4815-3	480	15	51.2	18.1	3	3	1/3	Fig. A	74
	KFUH4818-3	480	17.3	58.8	20.8	3	3	1/3	Fig. A	74
	KFUH4820-3	480	20	68.3	24.1	3	4	1/2	Fig. B	76
	KFUH4825-3	480	25	85.3	30.1	3	5	1/2	Fig. B	81
KFUH4830-3	480	30	102.4	36.1	3	6	3/4	Fig. B	85	
KFUH4835-3	480	34.5	117.7	41.5	3	6	3/4	Fig. B	85	
KFUH4840-3	480	40	136.5	48.2	3	8	2 x 3/4	Fig. C	152	
KFUH4850-3	480	50	170.7	60.2	3	10	2 x 3/4	Fig. C	162	
KFUH4860-3	480	60	204.8	72.3	3	12	2 x 3/4	Fig. C	170	
KFUH4870-3	480	70	238.9	84.3	3	12	2 x 3/4	Fig. C	170	

# High Air Velocity Unit Heater KFUH Series

## Factory Installed Options

ADD SUFFIX:	DESCRIPTION
-2S1	2 Stage Control 1-Phase models
-2S3	2 Stage Control 3-Phase models (5 kW increments only)
-DS32	Factory Installed 32 Amp, 3-Pole Non-Fused Locking Disconnect Switch
-DS63	Factory Installed 63 Amp, 3-Pole Non-Fused Locking Disconnect Switch
-DS80	Factory Installed 80 Amp, 3-Pole Non-Fused Locking Disconnect Switch
-DS100	Factory Installed 100 Amp, 3-Pole Non-Fused Locking Disconnect Switch
-T	Factory Installed Stat SPST. Temperature range 40F to 100F
-2TS	Factory Installed Stat (DPST). Temperature range 40F to 100F
-SF	Factory Installed Summer Fan Switch

## KFUH Diffuser Options & Accessories

MODEL	UPC	DESCRIPTION	WEIGHT (lbs.)
KFUH-DIFFUSER	15741	Standard KFUH Air Diffuser	5.0
KFUH-ND	15725	No Diffuser, 1" duct collar only discharge side for connection to 14" x 14" duct	N/A
KFUH-RD	15743	Radial diffuser for wide pattern heat dispersion	4.0
KFUH-90D	15728	Right angle elbow (90°) diffuser with adjustable louvers	15.0
KFUH-90RD	15729	Right angle elbow (90°) with radial diffuser	14.0
1E30-910	19000	Wall mount thermostat, 24V, range 50°- 90°	1.0
KFUH-PTBL	17216	Kit to make KFUH Portable. Includes casters and mounting bracket (No Cord)	N/A

## Engineering Specifications

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

**Transformer:** Each unit is equipped with a heavy duty low voltage (24 Volt) transformer for the thermostat control circuit.

**Heating Elements:** Quick heating, long life Ni-Chrome elements are sized to provide proper watt density for maximum heat dissipation by fan-forced air convection currents.

**Terminal Block:** For single strike field wiring.

**Low Voltage Terminal Block:** For 24 Volt control.

**Air Filter:** Convenient access for replacement of standard 16" x 20" x 1" filter.

**Motor:** Long life, 48 frame capacitor run, thermally protected, permanently lubricated, direct drive motor (no belts to adjust or slip). This low noise, up to 3-speed motor is designed for maintenance-free operation.

**Overcurrent Protection:** 480 volt models have single strike terminal block. Units over 48 amps have 60 amp fusing.

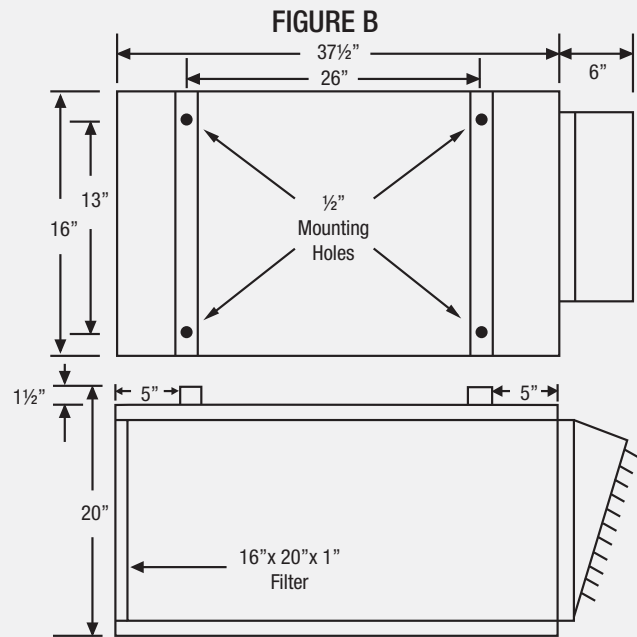
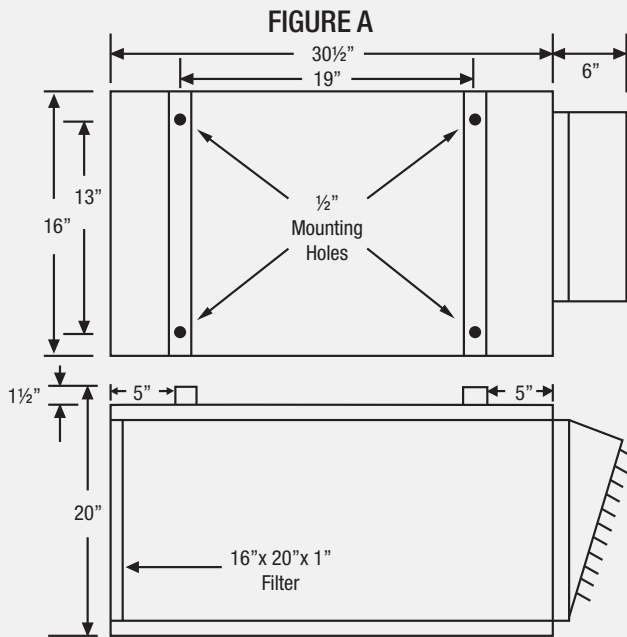
**Limit Control:** Integral automatic high temperature limit control in each heating element bank prevents the delivery of air at unsafe temperatures. 20-35 kW use a manual reset limit control to completely shut the unit heater off should overtemperature occur.

**Fan Relay:** Heavy duty fan relay standard with summer fan operation.

**Approvals:** UL (E41422)

# High Air Velocity Unit Heater KFUH Series

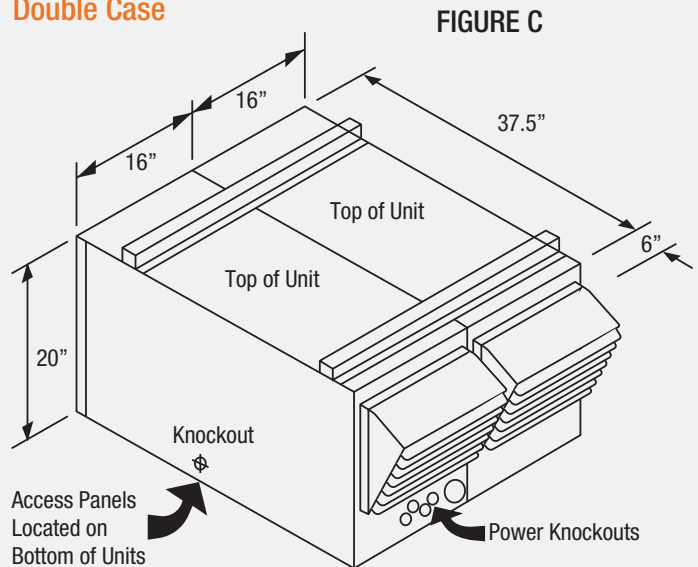
## Dimensional Data



## Air Flow Chart

MODEL	KW	HP	BLOWER	CFM	RISE (F)
KFUH**04	4	1/5	90-7R	832	15
KFUH**05	5	1/5	90-7R	832	19
KFUH**07	7.5	1/5	90-7R	1030	23
KFUH**08	8	1/5	90-7R	1030	25
KFUH**10	10	1/5	90-7R	1030	31
KFUH**12	12.5	1/3	90-7R	1168	37
KFUH**15	15	1/3	90-7R	1168	41
KFUH**18	17.5	1/3	90-7R	1376	40
KFUH**20	20	1/2	100-8T	1575	40
KFUH**25	25	1/2	100-8T	1690	47
KFUH**30	30	3/4	100-8T	1987	48
KFUH**35	35	3/4	100-8T	2154	51

## Double Case



(1) \*\* Represents the voltage, 20=208V, 24=240V, 48=480V. Voltage of the KF/KFS unit does not affect the data in this table.

90-7R 9" Blower Wheel Diameter, 7" Wide

100-8T 10" Blower Wheel Diameter, 8" Wide

HP PSC Motor

# High Air Velocity Unit Heater KFUH Series

## Diffusers



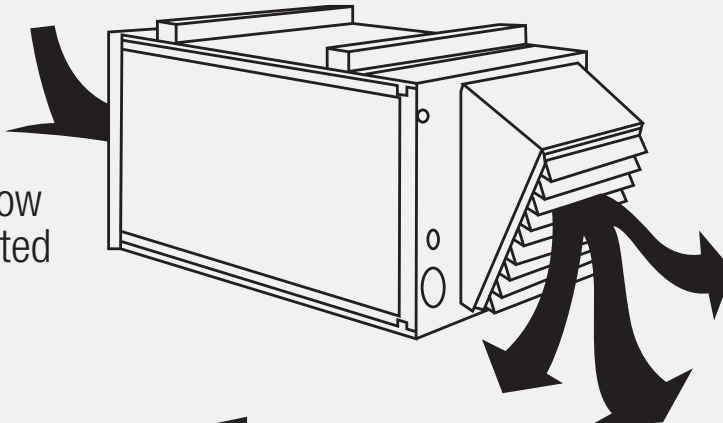
KFUH-90RD



KFUH-90D

## Mounting

Horizontal Flow  
Ceiling Mounted



Vertical Flow  
Wall or  
Post Mounted

