

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	kilo WATTS	BTUH (000)	PHASE	VOLTS	AMPS	THERMOSTAT CONTROL VOLTAGE	MOTOR HP	CFM	TEMP. RISE	EFFECTIVE AIR THROW	SIZE	WT. (lbs.)
KFUH2004-1	3.8	12.8	1	208	18.3	24	1/5	832	15	60 ft.	Fig. A	57
KFUH2005-1	5	17.1	1	208	24	24	1/5	832	19	60 ft.	Fig. A	57
KFUH2008-1	8	27.3	1	208	38.5	24	1/5	1030	25	60 ft.	Fig. A	57
KFUH2010-1	10	34.1	1	208	48.1	24	1/5	1030	31	60 ft.	Fig. A	65
KFUH2012-1	12	40.9	1	208	57.7	24	1/3	1168	37	75 ft.	Fig. A	74
KFUH2015-1	15	51.2	1	208	72.1	24	1/3	1168	41	75 ft.	Fig. A	74
KFUH2018-1	17.3	58.8	1	208	83.2	24	1/3	1376	40	75 ft.	Fig. B	74
KFUH2020-1	20	68.3	1	208	96.2	24	1/2	1575	40	90 ft.	Fig. B	76
KFUH2025-1	25	85.3	1	208	120.2	24	1/2	1690	47	90 ft.	Fig. B	81
KFUH2030-1	30	102.4	1	208	144.2	24	3/4	1987	48	110 ft.	Fig. B	85
KFUH2404-1	4	13.6	1	240/208*	16.7 / 12.5*	24	1/5	832	15	60 ft.	Fig. A	57
KFUH2405-1	5	17.1	1	240/208*	20.8 / 15.6*	24	1/5	832	19	60ft.	Fig. A	57
KFUH2408-1	8	26.9	1	240/208*	33.3 / 25*	24	1/5	1030	25	60ft.	Fig. A	65
KFUH2410-1	10	34.1	1	240/208*	41.7 / 31.3*	24	1/5	1030	31	60ft.	Fig. A	65
KFUH2412-1	11.5	39.2	1	240/208*	50 / 37.5*	24	1/3	1168	37	75ft.	Fig. A	65
KFUH2415-1	15	51.2	1	240/208*	62.5 / 46.9*	24	1/3	1168	41	75ft.	Fig. A	74
KFUH2418-1	17.25	58.8	1	240/208*	72.1 / 54.1*	24	1/3	1376	40	75ft.	Fig. A	74
KFUH2420-1	20	68.3	1	240/208*	83.3 / 62.5*	24	1/2	1575	40	90ft.	Fig. B	76
KFUH2425-1	25	85.3	1	240/208*	104.2 / 78.1*	24	1/2	1690	47	90ft.	Fig. B	81
KFUH2430-1	30	102.4	1	240/208*	125 / 93.8*	24	3/4	1987	48	110ft.	Fig. B	85
KFUH2435-1	34.5	117.7	1	240/208*	143.8 / 107.8*	24	3/4	2154	51	110ft.	Fig. B	85
KFUH4804-1	4	13.7	1	480	8.3	24	1/5	832	15	60ft.	Fig. A	57
KFUH4805-1	5	17.1	1	480	10.4	24	1/5	832	19	60ft.	Fig. A	57

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Ordering Information - single phase (Continued)

MODEL	kilo WATTS	BTUH (000)	PHASE	VOLTS	AMPS	THERMOSTAT CONTROL VOLTAGE	MOTOR HP	CFM	TEMP. RISE	EFFECTIVE AIR THROW	SIZE	WT. (lbs.)
KFUH4808-1	8	27.3	1	480	16.7	24	1/5	1030	25	60ft.	Fig. A	57
KFUH4810-1	10	34.1	1	480	20.8	24	1/5	1030	31	60ft.	Fig. A	65
KFUH4812-1	12	41	1	480	25	24	1/3	1168	37	75ft.	Fig. A	74
KFUH4815-1	15	51.2	1	480	31.3	24	1/3	1168	41	75ft.	Fig. A	74
KFUH4818-1	17.3	58.9	1	480	36	24	1/3	1376	40	75ft.	Fig. A	74
KFUH4820-1	20	68.3	1	480	41.7	24	1/2	1575	40	90ft.	Fig. B	76
KFUH4825-1	25	85.3	1	480	52.1	24	1/2	1690	47	90ft.	Fig. B	81
KFUH4830-1	30	102.4	1	480	62.5	24	3/4	1987	48	110ft.	Fig. B	85
KFUH4835-1	34.5	117.7	1	480	71.9	24	3/4	2154	51	110ft.	Fig. B	85

Ordering Information - three phase

MODEL	kilo WATTS	BTUH (000)	PHASE	VOLTS	AMPS	THERMOSTAT CONTROL VOLTAGE	MOTOR HP	CFM	TEMP. RISE	EFFECTIVE AIR THROW	SIZE	WT. (lbs.)
KFUH2005-3	5	17.1	3	208	13.9	24	1/5	832	19	60 ft.	Fig. A	57
KFUH2008-3	8	25.6	3	208	22.2	24	1/5	1030	25	60 ft.	Fig. A	57
KFUH2010-3	10	34.1	3	208	27.7	24	1/5	1030	31	60 ft.	Fig. A	65
KFUH2012-3	12.4	42.3	3	208	34.4	24	1/3	1168	37	75 ft.	Fig. A	74
KFUH2015-3	15	51.2	3	208	41.6	24	1/3	1168	41	75 ft.	Fig. A	74
KFUH2020-3	20	68.3	3	208	55.5	24	1/2	1575	40	90 ft.	Fig. B	76
KFUH2025-3	25	85.3	3	208	69.4	24	1/2	1690	47	90 ft.	Fig. B	81
KFUH2030-3	30	102.4	3	208	83.2	24	3/4	1987	48	110 ft.	Fig. B	85
KFUH2040-3	40	136.5	3	208	111	24	2 X 1/2	1575	40	90 ft.	Fig. C	152
KFUH2050-3	50	170.6	3	208	138.7	24	2 X 1/2	1690	47	90 ft.	Fig. C	162
KFUH2060-3	60	204.8	3	208	166.4	24	2 X 3/4	1987	48	110ft.	Fig. C	170
KFUH2405-3	5	17.1	3	240/208*	12 / 19*	24	1/5	832	19	60ft.	Fig. A	57
KFUH2410-3	10	34.1	3	240/208*	24 / 18*	24	1/5	1030	31	60ft.	Fig. A	65
KFUH2412-3	12	40.9	3	240/208*	28.9 / 21.6*	24	1/3	1168	37	75ft.	Fig. A	74
KFUH2415-3	15	51.2	3	240/208*	36.1 / 27*	24	1/3	1168	41	75ft.	Fig. A	74
KFUH2418-3	17.3	58.8	3	240/208*	41.6 / 31.2*	24	1/3	1376	40	75ft.	Fig. A	74
KFUH2420-3	20	68.3	3	240/208*	48.1 / 36.1*	24	1/2	1575	40	90ft.	Fig. B	76
KFUH2425-3	25	85.3	3	240/208*	60.1 / 45.1*	24	1/2	1690	47	90ft.	Fig. B	81
KFUH2430-3	30	102.4	3	240/208*	72.1 / 54.1*	24	3/4	1987	48	110ft.	Fig. B	85
KFUH2435-3	34.5	117.7	3	240/208*	82.9 / 62.2*	24	3/4	2154	54	110ft.	Fig. B	85
KFUH2440-3	40	136.5	3	240/208*	96.2 / 72.1*	24	2 X 1/2	1575	40	90ft.	Fig. C	170
KFUH2450-3	50	170.7	3	240/208*	102.2 / 90.2*	24	2 X 1/2	1690	47	90ft.	Fig. C	162
KFUH2460-3	60	204.8	3	240/208*	144.3 / 108.2*	24	2 X 3/4	1987	48	110ft.	Fig. C	170
KFUH2470-3	70	238.9	3	240/208*	168.3 / 126.2*	24	2 X 3/4	2154	51	110ft.	Fig. C	170
KFUH4805-3	5	17.1	3	480	6	24	1/5	832	19	60ft.	Fig. A	57
KFUH4810-3	10	34.1	3	480	12	24	1/5	1030	31	60ft.	Fig. A	74
KFUH4812-3	12	40.9	3	480	14.4	24	1/3	1168	37	75ft.	Fig. A	74
KFUH4815-3	15	51.2	3	480	18	24	1/3	1168	41	75ft.	Fig. A	74
KFUH4818-3	17.3	58.8	3	480	20.8	24	1/3	1376	40	75ft.	Fig. A	74
KFUH4820-3	20	68.3	3	480	24.1	24	1/2	1575	40	90ft.	Fig. B	76
KFUH4825-3	25	85.3	3	480	30.1	24	1/2	1690	47	90ft.	Fig. B	81
KFUH4830-3	30	102.4	3	480	36.1	24	3/4	1987	48	110ft.	Fig. B	85
KFUH4835-3	34.5	117.7	3	480	41.5	24	3/4	2154	54	110ft.	Fig. B	85
KFUH4840-3	40	136.5	3	480	48.1	24	2 X 1/2	1575	40	90ft.	Fig. C	162
KFUH4850-3	50	170.7	3	480	60.1	24	2 X 1/2	1690	47	90ft.	Fig. C	152
KFUH4860-3	60	204.8	3	480	72.1	24	2 X 3/4	1987	48	110ft.	Fig. C	170
KFUH4870-3	70	238.9	3	480	84.1	24	2 X 3/4	2154	51	110ft.	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
-2TS	Factory Installed 2 Stage Thermostat - Requires -2S1 or -2S3
-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 40°F to 100°F
-T2	Factory Installed Stat (DPST). Temperature range 40°F to 100°F
-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-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
1E30N-910	55379	Thermostat 24V Mercury Free-Vertical 45°F-90°F	1.0

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.

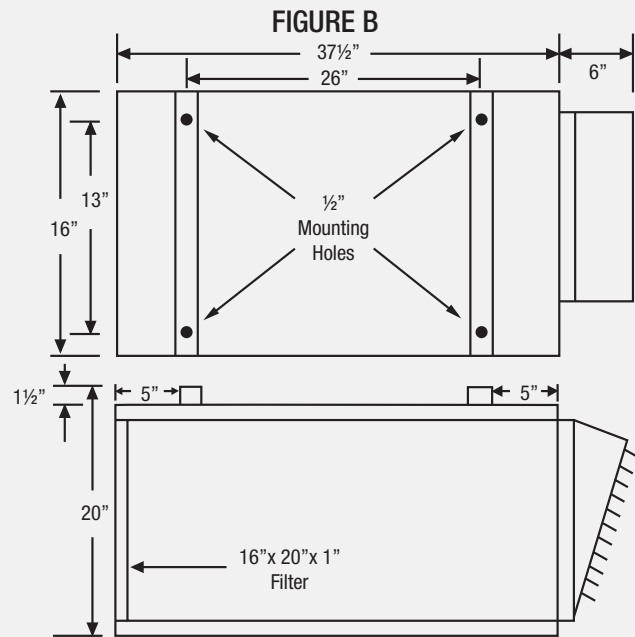
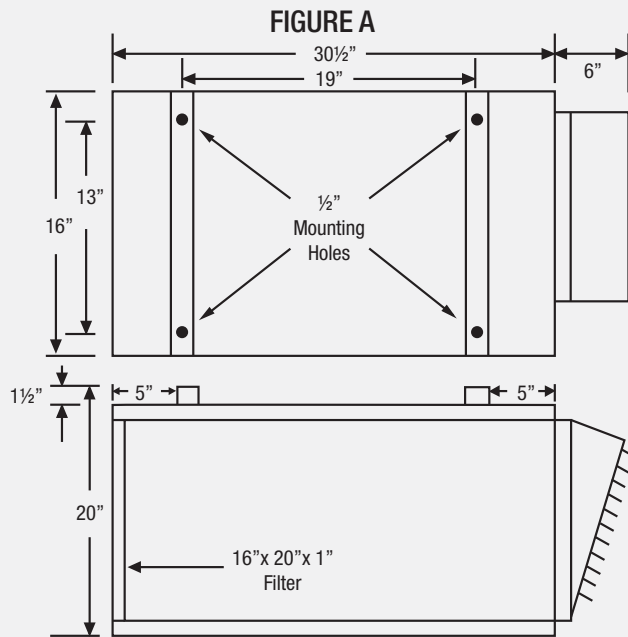
Limit Control: Integral automatic high temperature limit control in each heating element bank prevents the delivery of air at unsafe temperatures. 20-35 kW use a manual reset limit control to completely shut the unit heater off should overtemperature occur.

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

Approvals: UL (E41422)

High Air Velocity Unit Heater KFUH Series

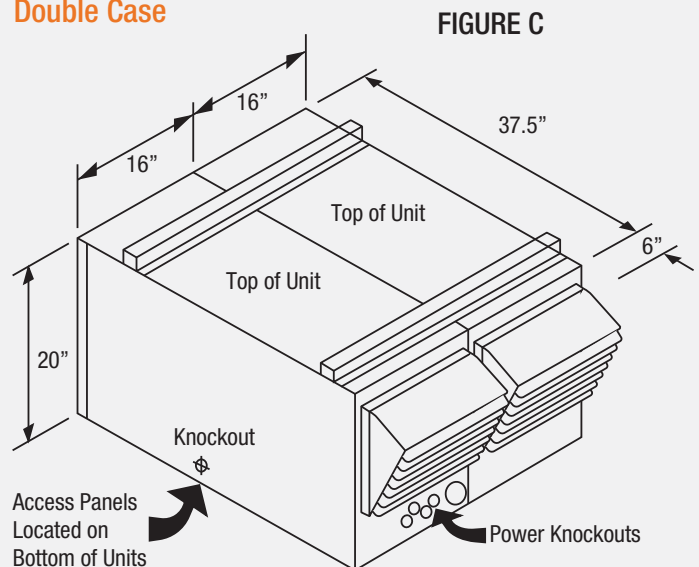
Dimensional Data



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.

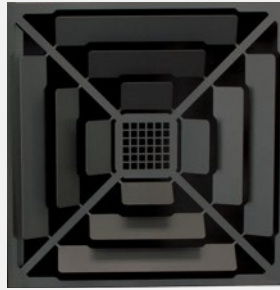
90-7R 9" Blower Wheel Diameter, 7" Wide

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

HP PSC Motor

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Diffusers



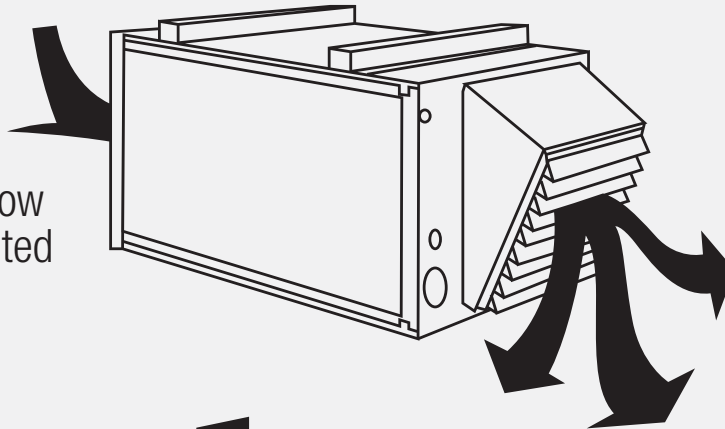
KFUH-90RD



KFUH-90D

Mounting

Horizontal Flow
Ceiling Mounted



Vertical Flow
Wall or
Post Mounted

