

High Air Velocity Unit Heater KFUH endura^{PRO}



Model Code:

KFUH	24	10	-1
A	B	C	D

A: Series
B: 20 - 208V 24 - 240V
C: Kilowatts
D: 1 or 3-phase



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

- Energy efficient ECM motor
- Horizontal or Vertical Mount
- Can be ducted on intake and outlet
- 2-Stage comfort heating 15% Savings
- Adjustable louver hood (sold separately)
- Can be ducted on intake and outlet
- Heavy duty open coil element
- Quiet switching relays
- 24 Volt control
- Dual inlet industrial blower
- Replaceable intake filter
- Fan-only relay
- 5-year limited warranty



The KFUH endura^{PRO} High Air Velocity Unit Heater

ENERGY SAVINGS meets MAXIMUM COMFORT with the ENDURA PRO ECM Motor & 2 Stage Heating

The Endura Pro Model adds a state of the art electronically controlled motor and 2 heating stages for added comfort and Maximum Energy Savings. 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, ECM 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: 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.

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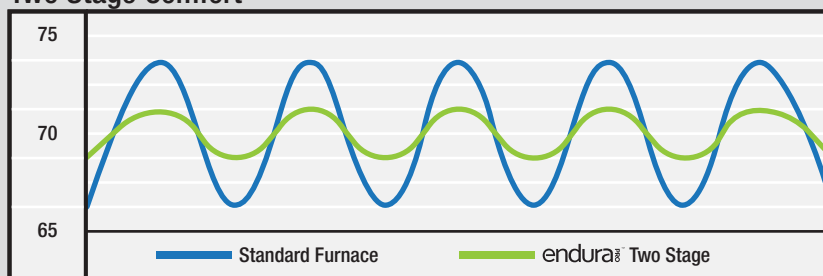
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TWO STAGE COMFORT Why 2 Stage is Better

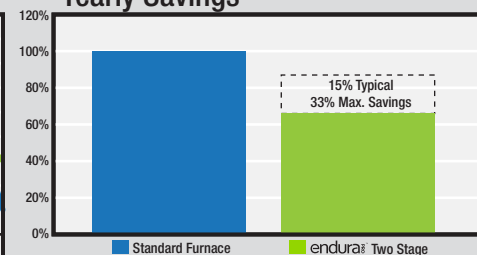
2 Stage controlled Furnaces allow you to use less energy during mild Spring and Fall temperatures. It's like having a smaller furnace installed just for spring and fall, then when winter hits you have the reserve power of the second heating stage to fight off the cold weather. It also has the benefit of creating more even comfort temperatures.

Note: The Furnace will run a percentage longer to reach the room temperature so the Endura Pro motors efficiency is key to getting the most out of your Furnace.

Two Stage Comfort

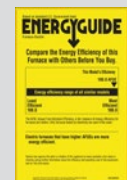
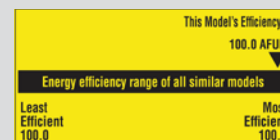


Yearly Savings



The Endura Pro is more efficient and will save you up to 33% more per year versus standard furnace motors

- Designed for extended life
- Cooler operating temperature
- Energy efficient
- 3 speeds
- Improved reliability
- 15% 2 Stage



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Ordering Information

MODEL	VOLTS	kilo		AMPS	STAGE		PHASE	# of ELEMENTS	MOTOR HP	TEMPERATURE RISE (°F)			SIZE	WT. (lbs)
		watts	BTUH		1	2				LOW	MED	HIGH		
KFUH2003-1-ECM	208	3	10.2	14.4	3 kW	*N/A	1	1	1/5	12°	11°	9°	Fig. A	57
KFUH2005-1-ECM	208	5	17.1	24	5 kW	*N/A	1	1	1/5	20°	18°	16°	Fig. A	57
KFUH2006-1-2S1-ECM	208	6	20.5	25	3 kW	3 kW	1	2	1/5	24°	22°	19°	Fig. A	57
KFUH2010-1-2S1-ECM	208	10	34.1	48	5 kW	5 kW	1	2	1/5	41°	37°	32°	Fig. A	65
KFUH2015-1-2S1-ECM	208	15	51.2	72.1	10 kW	5 kW	1	3	1/5	61°	55°	47°	Fig. A	74
KFUH2020-1-2S1-ECM	208	20	68.3	96.2	10 kW	10 kW	1	4	1/3	57°	51°	41°	Fig. B	76
KFUH2025-1-2S1-ECM	208	25	85.3	120.2	15 kW	10 kW	1	5	1/3	72°	63°	51°	Fig. B	81
KFUH2030-1-2S1-ECM	208	30	102.4	144.2	20 kW	10 kW	1	6	1/3	86°	76°	62°	Fig. B	85
KFUH2404-1-ECM	240	4	13.6	16.7	4 kW	*N/A	1	1	1/5	16°	15°	13°	Fig. A	57
KFUH2405-1-ECM	240	5	17.1	20.8	5 kW	*N/A	1	1	1/5	20°	18°	16°	Fig. A	57
KFUH2408-1-2S1-ECM	240	8	26.9	33.3	4 kW	4 kW	1	2	1/5	33°	29°	25°	Fig. A	65
KFUH2410-1-2S1-ECM	240	10	34.1	41.7	5 kW	5 kW	1	2	1/5	41°	37°	32°	Fig. A	65
KFUH2412-1-2S1-ECM	240	11.5	39.2	47.9	5.75 kW	5.75 kW	1	2	1/5	47°	42°	36°	Fig. A	65
KFUH2415-1-2S1-ECM	240	15	51.2	62.5	10 kW	5 kW	1	3	1/5	61°	55°	47°	Fig. A	74
KFUH2418-1-2S1-ECM	240	17.25	58.8	82.9	11.5 kW	5.75 kW	1	3	1/5	70°	63°	55°	Fig. A	74
KFUH2420-1-2S1-ECM	240	20	68.3	83.3	10 kW	10 kW	1	4	1/3	57°	51°	41°	Fig. B	76
KFUH2425-1-2S1-ECM	240	25	85.3	104.2	15 kW	10 kW	1	5	1/3	72°	63°	51°	Fig. B	81
KFUH2430-1-2S1-ECM	240	30	102.4	125	20 kW	10 kW	1	6	1/3	86°	76°	62°	Fig. B	85
KFUH2435-1-2S1-ECM	240	34.5	117.7	143.7	23 kW	11.5 kW	1	6	1/3	99°	87°	71°	Fig. B	85
KFUH2009-3-ECM	208	9	30.7	21.6	9 kW	*N/A	3	3	1/5	37°	33°	28°	Fig. A	74
KFUH2012-3-2S3-ECM	208	11.5	38.4	31.2	7.5 kW	3.75 kW	3	3	1/5	46°	41°	35°	Fig. A	74
KFUH2015-3-2S3-ECM	208	15	51.2	41.6	10 kW	5 kW	3	3	1/5	61°	55°	47°	Fig. A	74
KFUH2022-3-2S3-ECM	208	22.5	76.8	62.5	15 kW	7.5 kW	3	6	1/3	64°	56°	46°	Fig. B	85
KFUH2030-3-2S3-ECM	208	30	102.4	83.3	20 kW	10 kW	3	6	1/3	86°	76°	62°	Fig. B	85
KFUH2405-3-ECM	240	5	17.1	13	5 kW	*N/A	3	3	1/5	30°	25°	20°	Fig. A	74
KFUH2410-3-2S3-ECM	240	10	34.1	24.1	5 kW	5 kW	3	3	1/5	41°	37°	32°	Fig. A	74
KFUH2412-3-ECM	240	11.5	40.9	28.9	12 kW	*N/A	3	3	1/5	49°	44°	38°	Fig. A	74
KFUH2415-3-2S3-ECM	240	15	51.2	36.1	10 kW	5 kW	3	3	1/5	61°	55°	47°	Fig. A	74
KFUH2418-3-ECM	240	17.25	58.8	43.3	17.25 kW	*N/A	3	3	1/5	70°	63°	55°	Fig. A	74
KFUH2420-3-2S3-ECM	240	20	68.3	48	15 kW	5 kW	3	4	1/5	57°	51°	41°	Fig. B	85
KFUH2430-3-2S3-ECM	240	30	102.4	72.2	20 kW	10 kW	3	6	1/3	86°	76°	62°	Fig. B	85
KFUH2435-3-2S3-ECM	240	34.5	117.7	82.9	23 kW	11.5 kW	3	6	1/3	99°	87°	71°	Fig. B	85

* Not Available in 2-Stage

Options

ADD SUFFIX:	DESCRIPTION
-DS40	40 Amp, 3-Pole Non-Fused Locking Disconnect Switch
-DS60	60 Amp, 3-Pole Non-Fused Locking Disconnect Switch
-DS80	80 Amp, 3-Pole Non-Fused Locking Disconnect Switch
-DS100	100 Amp, 3-Pole Non-Fused Locking Disconnect Switch
-T	1-Pole Thermostat

Air Flow Delivery Chart

MOTOR HP	MOTOR SPEED							
	MOTOR LOAD		LOW		MED		HIGH	
	VOLTS	AMPS	CFM	FPM	CFM	FPM	CFM	FPM
1/5	230 ³	3.4	775	570	860	630	1000 ¹	735
	380 / 460 ¹	1.7						
1/3	230 ³	3.2	1100 ²	810	1250	920	1540 ²	1130
	380 / 460 ²	1.7						
Motor Wire Color			RED	BLUE	BLACK			

*Air Volume=FT.³ Per Minute (CFM) *Air Velocity=FT. Per Minute (FPM)
¹Single speed (high), ²Two speed (High/Low), ³Three speed (Low/Med/High)

KFUH Diffuser Options

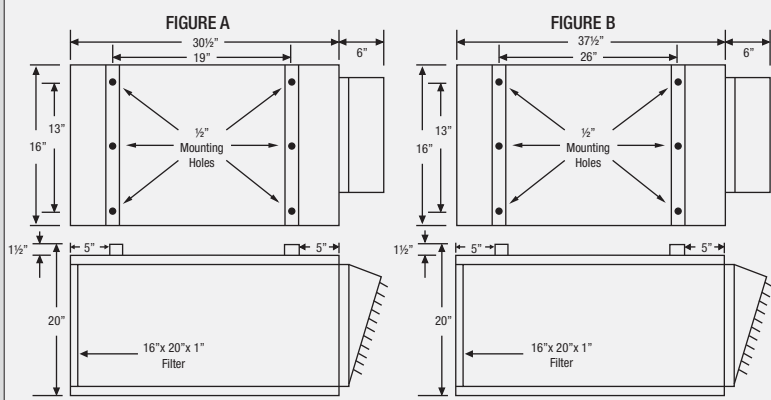
MODEL	UPC	DESCRIPTION	WEIGHT (lbs.)
KFUH-DIFFUSER	15741	Standard KFUH Air Diffuser	5.0
KFUH-ND	15725	No Diffuser, 1" duct collar only discharge side for connection to 14" x 14" duct	N/A
KFUH-RD	15743	Radial diffuser for wide pattern heat dispersion	4.0
KFUH-90D	15728	Right angle elbow (90°) diffuser with adjustable louvers	15.0
KFUH-90RD	15729	Right angle elbow (90°) with radial diffuser	14.0

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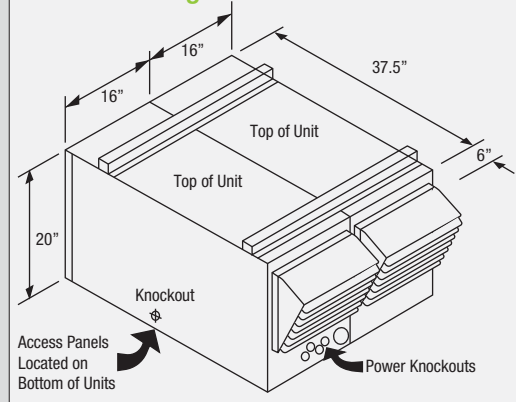
KFUH Factory Installed Options

MODEL	UPC	DESCRIPTION	WEIGHT (lbs.)
KFUH-1/3HP	NA	Upgrade to 1/3 HP Motor & Blower for 3-18KW units	N/A
KFUH-T	15747	Factory Installed Stat (SPST). Temperature range 40°F to 100°F	N/A
KFUH-2TS	15707	Factory Installed Stat (DPST). Temperature range 40°F to 100°F	N/A
KFUH-SF	15708	Factory Installed Summer Fan Switch	N/A
KFUH-2S1	15714	Control Relays & Contactor for 2-Stage Element Control, 1-Phase heaters. Available on certain models.	N/A
KFUH-2S3	15716	Control Relays & Contactor for 2-Stage Element Control, 3-Phase heaters. Available on certain models.	N/A
K-DS40	NA	Factory Installed 40 Amp, 3-Pole Non-Fused Locking Disconnect Switch	N/A
K-DS60	NA	Factory Installed 60 Amp, 3-Pole Non-Fused Locking Disconnect Switch	NA
K-DS80	NA	Factory Installed 80 Amp, 3-Pole Non-Fused Locking Disconnect Switch	N/A
K-DS100	NA	Factory Installed 100 Amp, 3-Pole Non-Fused Locking Disconnect Switch	N/A
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

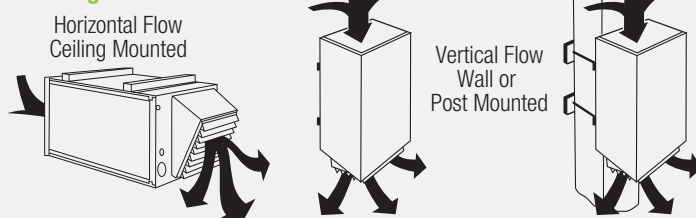
Dimensional Data



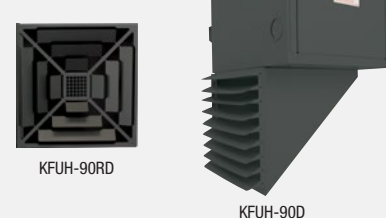
Dual Mounting



Mounting



Diffusers



Engineering Specifications

Contractor shall supply and install KFUH Endura Pro 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: Energy Saving, Long life, thermally protected, permanently lubricated, direct drive Endura Pro motor—no belts to adjust or slip.

This low noise, 3 speed motor is designed for use with air conditioning capability as well as heating. Very quiet operating. 60 second fan delay.

Overcurrent Protection: 208 & 240 volt KFUH models have 60 amp circuit breakers with 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)