Electric Furnace KFS endura PRO™

Model Code:

KFS	24	20	1	2S1	ECM
A	B	C	D	E	F

- A: Series
- B: 24 - 240V
- C: Kilowatts
- D: 1-phase
- E: 2 Stage
- F: ECM Motor

ECO ENERGY SAVING

c UL us LISTED

- Energy efficient motor
- 2 stage comfort heating 15% savings
- Down flow or up flow
- Sequenced heating elements
- Quiet sound insulated cabinet
- 16" x 20" x 1" inlet filter
- Welded cabinet design
- Horizontal or vertical mount
- Mobile home approved
- Breaker disconnects
- Baked enamel finish
- Extended life
- 24 Volt control
- Fan only relay
- 5 Year limited warranty

MADE IN USA

The KFS endura PRO™

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. Quiet operation and Multi-position mounting allows you to put it almost anywhere it will fit. Whether it is commercial, residential or process heating, this air furnace will do the job and give years of excellent maintenance-free service.

Motor Features

- Energy Saver
- AFUE 100% (Energy Guide Rating) Most Efficient
- 3 speeds available
- Designed for extended life
- Efficiency up to 80%
- 60 second time delay
- Up to 33% greater efficiency with Endura Pro motor
- Up to 200% greater efficiency with Endura Pro motor in constant fan mode

Heating Features

- 2-Stage Elements & control
- Ni-Chrome Elements
- More even heating

endura PRO™
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Engineering Specifications

Contractor shall supply and install KFS Series electric furnaces manufactured by King Electrical Mfg. Company. Furnaces shall be of the wattage and voltage as indicated on the plans.

Transformer: Each furnace is equipped with a heavy duty low voltage (40 VA) transformer for the thermostat control circuit.

Time Delay Sequencer: Actuates heating element banks to minimize electrical surges in compliance with E.E.I. and N.E.M.A. standards.

Heating Elements: Quick heating, long life Ni-Chrome elements are sized to provide proper watt density for maximum heat dissipation.

Terminal Block: For field wiring (optional special order) KFSTB Single Strike Connection. Takes multiple circuits into a single feed.

Air Filter: Convenient access for replacement of standard 16" x 20" x 1" filter. Do not use pleated filters.

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 and 240 volt KFS models have 60 amp circuit breakers. 480, 208 and 240 volt KF models have terminal blocks. Internal 60 amp fusing is provided for KF models over 48 amps.

Limit Control: Integral automatic high temperature limit control in each heating element bank prevents the delivery of air at unsafe temperatures. 20-35 KW models use a manual reset limit control to completely shut the furnace off should an unsafe temperature occur. Summer fan only operation. Fan can be run independently from heating. Mobile Home approved.

Unique Fan Orifice: Louver directs air over all heating elements and side walls evenly ensuring longer life performance.

Low Voltage Terminal Block: 24 Volt control screw terminals.

Approvals: cULus (E48864) USA and Canada

King Electrical Manufacturing Company / 9131 10th Avenue South, Seattle, WA 98108 / phone 206.762.0400 / fax 206.763.7738 / www.king-electric.com

Electric Furnace KFS endura PRO

Ordering Information

Refer to model KFS for dimensions

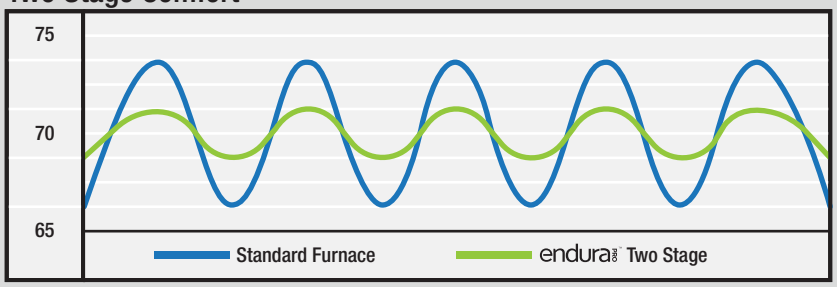
MODEL	VOLTS	PHASE	STAGE 1	STAGE 2	WATTAGE	BTU	WIRES	AMPS
KFS2408-1-2S1-ECM	240V	-1Ph	4 kW	4 kW	8 kW	27.3	#6/2	37
KFS2410-1-2S1-ECM	240V	-1Ph	5 kW	5 kW	10 kW	34.1	#6/2	45
KFS2412-1-2S1-ECM	240V	-1Ph	5.75 kW	5.75 kW	11.5 kW	39.2	#8/2- #10/2	51.3
KFS2415-1-2S1-ECM	240V	-1Ph	5 kW	10 kW	15 kW	51.2	#6/2- #10/2	65.9
KFS2418-1-2S1-ECM	240V	-1Ph	5.75 kW	11.5	18 kW	58.8	#8/2- #6/2	75.2
KFS2420-1-2S1-ECM	240V	-1Ph	10 kW	10 kW	20 kW	68.3	#6/2- #6/2	86
KFS2425-1-2S1-ECM	240V	-1Ph	15kW	10 kW	25 kW	85.3	#6/2-#6/2-#10/2	107
KFS2430-1-2S1-ECM	240V	-1Ph	15 kW	15kW	30 kW	102.4	#6/2-#6/2- #6/2	128.2

TWO STAGE COMFORT *Why 2 Stage is Better*

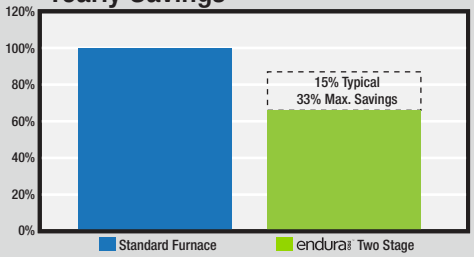
2 Stage controlled Furnaces allow you to use less energy during mild Spring and Fall temperatures. It's like having a smaller furnace installed just for spring and fall, then when winter hits you have the reserve power of the second heating stage to fight off the cold weather. It also has the benefit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

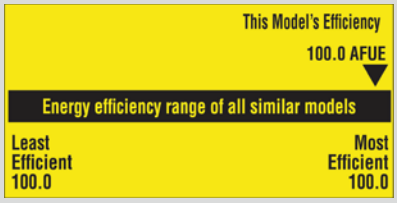


Yearly Savings



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

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



Air Flow Chart

FURNACE SIZE	BLOWER WIDTH	24 VOLT MOTOR TERMINAL	CFM (STATIC) 0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8
Small (4-18 KW) 30.5" tall	**9"** 1/5 HP ECM **Standard**	1	1090	980	940	890	840	920	800	760
		2, 4	1260	1090	1040	980	930	890	810	780
		3, 5	1370	1260	1220	1170	1120	1090	1080	990
	10" 1/3 HP ECM **Optional**	1	1700	1680	1670	1660	1650	1640	1630	1620
		2, 4	1810	1800	1790	1750	1740	1730	1720	1710
		3, 5	1960	1940	1930	1910	1870	1860	1850	1830
Large (20-35 KW) 37.5" tall	**9"** (KFS2420A)	1	1160	1120	1090	1050	1020	990	960	850
		2, 4	1310	1230	1200	1150	1120	1050	990	910
		3, 5	1480	1410	1390	1270	1240	1180	1120	1040
	10" Standard	1	1860	1850	1840	1830	1820	1810	1790	1740
		2, 4	2000	1980	1960	1940	1930	1920	1910	1900
		3, 5	2120	2100	2070	2050	2030	2020	2010	2000

Air Filter Size: 16" x 20" x 1" on both furnace sizes