



# Comfort Heating Solutions

Industrial Heaters • Residential Heaters • Commercial Heaters • Garage Heaters • Marine Heaters • Hydronic Fan Heaters • Electric Furnaces • Thermostats





QUALITY IS KING

ELECTRIC HEATER

MANUFACTURING

EST. 1958 - SEATTLE, WA

KING-ELECTRIC.COM

## King: a technology leader.

Since 1958 King Electrical Manufacturing Company has been a leader in the heating industry, with several innovative patents. In this age of corporate conglomeration, big business, and a global economy, King is still proudly family-owned.

In our over 50 years of business we have seen exciting changes in the comfort and convenience of heating products. Technology has improved to create exciting new possibilities for innovations in heating systems. King continues to emphasize research and development, product quality, and genuine pride to ensure that our customers enjoy the best heating solutions possible.

Residential, commercial or industrial electric heat: at King we anticipate your needs and provide you with the best products and solutions!



**Wall Heater Pg. 1-2**



**W Series Wall Heater**  
120, 208, 240V / 500-2400W  
• Open Coil & Economy



**Wall Heater Pg. 3-4**



**WHF Series Wall Heater**  
120, 208, 240V / 500-2400W  
• Open Coil, Squirrel Cage



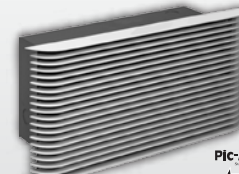
**Wall Heater Pg. 5-7**



**PAW Series Wall Heater**  
120, 208, 240, 277V / 250-2250W  
• Selectable Wattage



**Wall Heater Pg. 8**



**PAW Ultra Wall Heater**  
120, 208, 240, 277V / 250-2250W  
• Selectable Wattage



**Wall Heater Pg. 9-10**



**WHF-HM Series High Wall Heater**  
120, 208, 240V / 500-2400W  
• Mount 6FT. From Floor



**Wall Heater Pg. 11-12**



**SL Series Surface Mount Heater**  
120, 208, 240V / 250-2250W  
• Zero Clearance



**Wall Heater Pg. 13-14**



**EFW Series Economy Large Wall Heater**  
120, 208, 240V / 2000-4800W



**Wall Heater Pg. 15-16**



**LPW Series Large Wall Heater**  
120, 208, 240, 277V / 1250-4500W  
• Selectable Wattage



**Wall Heater Pg. 17-18**



**LPWA Series Architectural Heater**  
120, 208, 240, 277V / 1500-4500W



**Wall Heater Pg. 19-20**



**LPVV Series Vandal Resistant Heater**  
120, 208, 240, 277V / 500-1500W



**Specialty Heater Pg. 21-22**



**KT Series Kickspace Heater**  
120, 240/208V / 375-1500W



**Specialty Heater Pg. 23-24**



**KTW Series Kickspace Heater**  
120, 240V / 250-1500W  
• Vertical or Horizontal Mount



**Ceiling Heater Pg. 25**



**WHFC Series Ceiling Heater**  
120, 208, 240V / 500-1500W



**Ceiling Heater Pg. 26**



**LPWC Series Ceiling Heater**  
120, 208, 240, 277V / 1250-4000W



**Ceiling Heater Pg. 27-29**



**KDS Series Ceiling Diffuser**  
208, 240, 277, 480V / 2-10KW



**Baseboard Heater Pg. 30-32**



**K Series Baseboard Heater**  
120, 208, 240, 277V / 375-2500W



**Baseboard Heater Pg. 33-34**



**CB Series Ceramic Baseboard Heater**  
120, 208, 240V / 350-1500W  
• High Mass Ceramic Element



**Radiant Heater Pg. 35-36**



**KCV Series Cove Heater**  
120, 208, 240V / 250-1500W



**Elec. Thermostat Pg. 37-38**



**ATMOS Series Electronic Programmable**  
120/240V / 16A / Single/Double Pole



**Elec. Thermostat Pg. 39**



**SIMPLSTAT Series Personalized Presets**  
120/240V / 16A / Single/Double Pole



**Elec. Thermostat Pg. 40**



ES & ESP Series  
Electronic Thermostats  
120 & 208/240V / 22A

**Elec. Thermostat Pg. 41**



K202E  
Electronic Thermostat  
120, 208/240V / 16A

**Mech. Thermostat Pg. 42**



K101 & K102  
Line Voltage Thermostat  
120, 208, 240, 277V / 22A

**Cooling Thermostat Pg. 42**



K101-C  
Line Voltage Thermostat  
120, 208, 240, 277V / 22A

**Specialty Thermostat Pg. 43**



EP-3 Series  
Low Voltage Programmable  
24V

**Specialty Thermostat Pg. 43**



1F56W/1F57/1E30  
Low Voltage Thermostats  
24V

**Specialty Thermostat Pg. 43**



TF115  
N.E.M.A. 4X  
120, 208, 240, 277, 480V / 25A

**Portable Heater Pg. 45**



PSH1215T Yellow Jacket  
Portable Shop Heater  
120V / 1500W

**Portable Heater Pg. 46**



PSH2440TB Yellow Jacket  
Portable Shop Heater  
240V / 4000W

**Garage Heater Pg. 47**



PGH2448-ETB ECO2S Series  
Portable Utility Heater  
240V / 3600/4800W  
• Electronic Control, 2 Stage

**Garage Heater Pg. 47**



PGH2440TB / PGH2448TB  
Portable Utility Heater  
240V / 4000/4800W

**Garage Heater Pg. 48-49**



EKB Series  
Garage/Shop Heater  
120, 208, 240V / 1920-5000W

**Unit Heater Pg. 50-51**



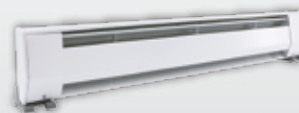
KBP Series Unit Heater  
120, 208, 240, 277, 480V / 950-6000W  
• Selectable Wattage

**Unit Heater Pg. 52-53**



KB ECO2S Series  
Electronic Unit Heater  
208, 240V / 3.3-12.5KW  
• 2 Stage

**Portable Heater Pg. 54**



KP Series  
Portable Baseboard  
120V / 1000W

**Portable Heater Pg. 55**



KP1215-ECO  
ECO Portable Baseboard  
120V / 750/1500W  
• 2 Stage

**Portable Heater Pg. 56**



PH-2  
Portable Ceramic Fan Heater  
120V / 750/1500W

**Portable Heater Pg. 56**



PH-16 Comfort Cube  
Portable Ceramic Fan Heater  
120V / 750/1500W

**Portable Heater Pg. 57**



PHM-1  
Portable Utility Heater  
120V / 1300/1500W

**Portable Heater Pg. 57**



PHTR-9  
Portable Radiant Heater  
120V / 600/1200W

**Portable Heater Pg. 58**


PUH1215T  
Portable Utility Heater  
120V / 750/1500W

**Portable Heater Pg. 59**

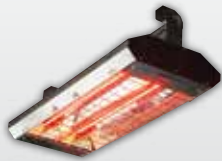

HFC1215  
Portable Heater  
120V / 750/1500W

**Specialty Heater Pg. 60**

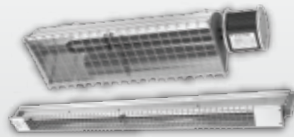

U Series   
Pumphouse Heater  
120, 240V / 62-1000W  
• Available in Stainless Steel

**Radiant Heater Pg. 61**


RSH1215  
Radiant Heater  
120V / 750/1500W  
• With Cord & Plug

**Radiant Heater Pg. 62-66**


RH Series  
Radiant Heater  
120, 208, 240, 480, 575V / 1.6-11.4KW

**Radiant Heater Pg. 67-68**


OK Series  
Radiant Heater  
120, 208, 240, 480V / 1.6-5KW

**Cabinet Heater Pg. 69-71**


KCF Series / Safe Touch  
Fan Forced Cabinet Heater  
208, 240, 277, 480V / 2000-5000W  
208, 240, 277, 480V / 500-2000W

**Cabinet Heater Pg. 72-73**


KCC Series   
Convection Cabinet Heater  
208, 240, 277, 480V / 2000-5000W

**Cabinet Heater Pg. 74-76**


KCA Series Cabinet Heater  
208, 240, 277, 480V / 1-24KW

**Cabinet Heater Pg. 77-78**


KLA Series  
Architectural Cabinet Heater  
208, 240, 277V / 1500-6000W

**Cabinet Heater Pg. 79-80**


KLI Series  
Architectural Cabinet Heater  
208, 240, 277V / 1500-6000W  
• Slope Top

**Draft Barrier Pg. 81-82**


SB Series Draft Barrier  
120, 208, 240, 277V / 400-2500W  
• Low Profile(3"x5"), 250W/FT.

**Draft Barrier Pg. 83-85**


LB Series Draft Barrier  
120, 208, 240, 277V / 376-5000W  
• Large(5"x7"), 500W/FT.

**Draft Barrier Pg. 86-87**


KDBA Series  
Architectural Draft Barrier  
120, 208, 240, 277V / 225-2500W  
• Low Profile

**Draft Barrier Pg. 88-89**


KDIA Series  
Architectural Draft Barrier  
120, 208, 240, 277V / 225-2500W  
• Slope Top

**Unit Heater Pg. 91-92**


KBP Series Unit Heater  
120, 208, 240, 277, 480V / 950-6000W  
• Selectable Wattage

**Unit Heater Pg. 93-94**


KB ECO2S Series  
Electronic Unit Heater  
208, 240V / 3.3-12.5KW  
• 2 Stage

**Unit Heater Pg. 95-98**


KB Series  
Horizontal Unit Heater  
208, 240, 277, 480V / 3.3-66KW

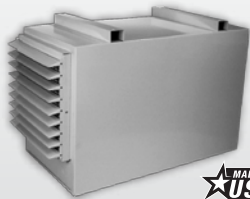
**Unit Heater Pg. 99-100**


KBS Series  
Stainless Steel Unit Heater  
208, 240, 277, 480V / 3-20KW

**Unit Heater Pg. 101-103**


KFUH Series  
High Capacity Unit Heater  
208, 240, 480V / 3-34.5KW

**Unit Heater Pg. 104-106**



**CK Series Plenum Heater**  
208, 240, 480V / 3.3-33KW



**Unit Heater Pg. 107-110**



**CKL Series Plenum Heater**  
208, 240, 480V / 30-240KW

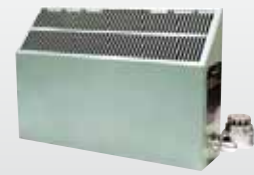


**Explosion-Proof Pg. 111-114**



**FX5 Series Explosion-Proof Heater**  
120, 208, 240, 277, 380, 400, 415, 480, 600V  
2.5-35KW

**Explosion-Proof Pg. 115-117**



**CX1 Series Explosion-Proof Heater**  
120, 208, 240, 277, 380, 400, 415, 480, 600V  
1.2-7.6KW

**Portable Heater Pg. 118**



**PKB Yellow Jacket Series Industrial Portable Utility Heater**  
208, 240, 480V / 10-30KW



**Portable Heater Pg. 119-120**



**PCK Series Industrial Portable Unit Heater**  
480V / 20KW



**Electric Furnaces Pg. 121-126**



**KF, KFS, KFS endura Series Electric Furnace**  
240V / 8-30KW  
- 2 Stage



**Marine Heater Pg. 127-128**



**PAW-SS Series Stainless Steel Marine Heater**  
120, 208, 240, 277V / 250-2250W



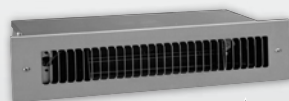
**Marine Heater Pg. 129**



**DAW-SS Series Stainless Steel Marine Heater**  
120, 208, 240, 277V / 250-2250W



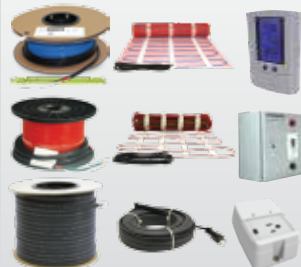
**Marine Heater Pg. 130**



**MKT-SS Series Stainless Steel Marine Heater**  
120, 240V / 375-1500W



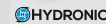
**Electric Heating Cable Pg. 131**



**Hydronic Draft Barrier Pg. 133-136**



**HLB & HSB Series Draft Barrier**



**Hydronic Heater Pg. 137**



**H Series Small Hydronic Heater**  
120V / 1800 to 10,500 BTU



**Hydronic Heater Pg. 138-139**



**HT Series Kick-Space Hydronic Heater**  
120V / 1700 to 9950 BTU



**Hydronic Heater Pg. 140**



**HM/HME Series Medium Hydronic Heater**  
120V / 4960 to 18,700 BTU



**Hydronic Heater Pg. 141**



**HL/HLE Series Large Hydronic Heater**  
120V / 6700 to 27,250 BTU



**Hydronic Thermostat Pg. 142**



**HW Series Non Prog. Elec. Thermostat**  
120V / 12.5A

For Hydronic Heaters

**Hydronic Thermostat Pg. 142**



**HWP Series Prog. Electronic Thermostat**  
120V / 12.5A

For Hydronic Heaters

**Boiler Conversion Pg. 143**



**HI Series Boiler Conversion**  
208, 240, 277V / 563-2250W



**TV Rough-In Pg. 144**



**TVR Series TV Rough-In Mounting System**



# Wall Heater W Series



### Model Code:

W	12	10	-T2
A	B	C	D
<b>A: Series</b>			
<b>B: 12 - 120V 24 - 240V</b>			
<b>20 - 208V</b>			
<b>C: Watts (500 to 2000)</b>			
<b>D: Thermostat (optional)</b>			



- Nichrome Open-Coil Element
- C-Frame Motor
- 4-Blade Aluminum Fan
- Patented Smart Limit Protection®
- 20 gauge powder-coated grill
- Standard color: white (Almond color optional)
- 20 gauge electro-galvanized steel recess can
- Wall can with QuickSet™ stud alignment tabs
- Dual wattage & available in 120, 208, 240 Volts
- 1-year limited warranty



## The “W” Wall Heater

The W Heater was designed to be the highest quality economy heater on the market. It is commonly used in apartment construction or as supplemental heat in single family homes. By combining an efficient impeller style fan with a NiChrome heating element, the W heater delivers instant heat in even the draftiest locations. For use with a wall thermostat or in-built thermostat. A powder-coated, surface mounted wall-can may be purchased separately. The wall can shall be 20 gauge electro-galvanized steel and contain knockouts through which power leads are brought. The wall can shall be able to mount directly to wall studs in new or existing construction. The wall can shall be provided with QuickSet™ stud alignment tabs, used for maintaining proper depth during new installation. The wall can shall be supplied with a factory installed ground wire. Clearance: 6” to a side all, 4” from floor minimum.

### Ordering Information \*Add suffix -A for optional almond color

	MODEL	UPC	VOLTS	WATTS	AMPS	SHIP WEIGHT lbs
<b>120V</b>	W1210	12706	120	1000 or 500	8.3 or 4.2	8
	W1212	12709	120	1200 or 600	5 or 2.5	8
	W1215	12712	120	1500 or 750	12.5 or 6.3	8
<b>208V</b>	W2010	18907	208	1000 or 500	4.8 or 2.4	8
	W2015	12782	208	1500 or 750	7.2 or 3.6	8
	W2020	12719	208	2000 or 1000	9.6 or 4.8	8
	W2410	12721	240	1000 or 500	4.1 or 2.1	8
<b>240V</b>	W2412	12725	240	1200 or 600	5 or 2.5	8
	W2415	12727	240	1500 or 750	6.25 or 3.1	8
	W2420	12730	240	2000 or 1000	8.3 or 4.2	8

## Engineering Specifications

Contractor shall supply and install W Series in-wall mounted forced-air electric heaters manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.

**Ratings:** Wattages of 500 to 2,000 at 120, 208 or 240 Volts are available. Heaters shall provide air movement at 85 CFM.

**Fan and Motor:** Motor shall be shaded pole, permanently lubricated, C-frame type with impedance protection and sealed bearings. Motors shall be the same voltage as the heater. The motor and all wiring shall be totally isolated from the heating chamber for protection from heated air. The motor shall be equipped with a dynamically balanced four-blade aluminum impeller fan, located in the upper portion of the heat box, and shall provide a down-flow heating pattern.

**Elements:** Assemblies shall be constructed of coiled Nickel Chromium alloy, corrosion-resistant wire strung through a minimum of four rows of mica insulator. Element assemblies shall have factory provided connection to allow field modification to 50% wattage at time of installation.

**Smart Limit Thermal Protection:** Turns off heater during any unsafe temperatures on inlet or outlet and will only reset if power is interrupted for 10 minutes. Simply turning thermostat down below set point will reset. Exclusive King design and patented for US and Canada under #6,748,163 B2 and #2,393,882

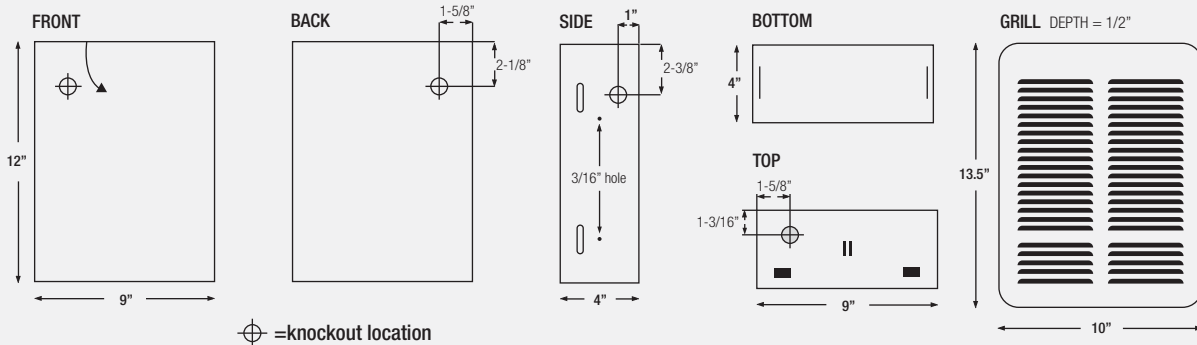
**Wall Can with QuickSet™ stud alignment tabs:** The wall can shall be 20 gauge electro-galvanized steel and contain knockouts through which power leads are brought. The wall can shall be able to mount directly to wall studs in new or existing construction. The wall can shall be provided with QuickSet™ stud alignment tabs, used for maintaining proper depth during new installation. The wall can shall be supplied with a factory installed ground wire. Clearance: 6” to a side all, 4” from floor minimum.

**Grill:** The grill shall be a louvered, one-piece design with rounded edges on all four sides, with rounded corners to prevent snags from contact with other materials. The grill shall be epoxy powder-coated in the color specified by manufacturer.

**Approvals:** cULus (E41422)

# Wall Heater W Series

## Dimensional Data



**MINIMUM CLEARANCE:** Zero clearance to insulation 4" above floor 6" from adjacent wall

## Options

ADD SUFFIX	DESCRIPTION	WEIGHT
-A	Almond Color	8
-I	Interior and Grill Only (no wall can)	6
-H	Interior Only (no can or grill)	6
-T	Factory Installed Single Pole Thermostat Kit	8
-T2	Factory Installed Double Pole thermostat Kit	8

## Accessories

MODEL	UPC	DESCRIPTION	WEIGHT
UIC	12640	Recess Wall Can	3.5
UICF	12540	Recess Can with Flange (remodel)	4
WSC	19202	Surface Can - White 13.5" L x 10" W x 4" H	4
WSC-A	19203	Surface Can - Almond 13.5" L x 10" W x 4" H	4
WG-ALMOND	12785	Grill - Almond	4
WOG	19200	10" W x 17" H Retrofit Grill	3
WOG-A	18605	10" W x 17" H Retrofit Grill-Almond	3
TKIT-1BW	20654	Built-in Single Pole Single Throw Thermostat Kit, Bright White	0.5
TKIT-2BW	20655	Built-in Double Pole Single Throw Thermostat Kit, Bright White	0.5
TKIT-1	11058	Built-in Single Pole Single Throw Thermostat Kit, Almond	0.5
TKIT-2	11059	Built-in Double Pole Single Throw Thermostat Kit, Almond	0.5

WSC



WOG



Exploded View





# Wall Heater WHF Series



**Model Code:**

WHF	12	10	-A	-H	-I
A	B	C	D	E	F

**A:** Wall Heater  
**B:** 12 - 120V 24 - 240V  
 20 - 208V  
**C:** Watts (500 to 2400)  
**D:** Color **E:** Interior Only  
**F:** Interior & Grille



- NiChrome Open-Coil Element
- Squirrel Cage Blower
- Whisper Quiet
- Patented Smart Limit Protection®
- 20 gauge powder-coated grill
- Standard color: bright white (Almond color optional)
- C-Frame Motor
- 20 gauge electro-galvanized steel recess can with
- Wall can with QuickSet™ stud alignment tabs
- Dual Wattage & available in 120, 208, or 240 Volts
- 1-year limited warranty



## The WHF Wall Heater

The WHF heater offers extreme value by combining the rapid heat transfer of a NiChrome element with the performance of a squirrel cage blower. This makes for a relatively quiet heater without the added cost of a high mass element like the Pic-A-Watt®. It is commonly used as the first upgrade in apartment construction and is an excellent choice for bathrooms because of the instant heat from the wire element. The wall can shall be 20 gauge electro-galvanized steel and contain knockouts through which power leads are brought. The wall can shall be able to mount directly to wall studs in new or existing construction. The wall can shall be provided with QuickSet™ stud alignment tabs, used for maintaining proper depth during new installation. The wall can shall be supplied with a factory installed ground wire. Clearance: 6" to a side all, 4" from floor minimum.

### Ordering Information \*Add suffix -A for optional almond color

	MODEL	UPC	VOLTS	WATTS	AMPS	SHIP WEIGHT
120V	WHF1210	12012	120	500 • 1000	4.2-8.4	8 lbs
	WHF1212	12015	120	600 • 1200	5-10	8 lbs
	WHF1215	12018	120	750 • 1500	6.25-12.5	8 lbs
208V	WHF2010	12445	208	500 • 1000	2.4-4.8	8 lbs
	WHF2015	12447	208	750 • 1500	3.6-7.2	8 lbs
	WHF2020	12453	208	1000 • 2000	4.8-9.6	8 lbs
240V	WHF2410	12027	240	500 • 1000	2.1-4.2	8 lbs
	WHF2412	12215	240	600 • 1200	2.5-5	8 lbs
	WHF2415	12033	240	750 • 1500	3.1-6.2	8 lbs
	WHF2420	12036	240	1000 • 2000	4.2-8.4	8 lbs

## Engineering Specifications

Contractor shall supply and install WHF Series in-wall mounted forced-air electric heaters manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.

**Ratings:** Heaters shall be available in wattages of 500 to 2,000 at 120, 208, or 240 Volts

**Blower and Motor:** A whisper quiet tangential blower, delivering 75 CFM, 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. The motor and all wiring shall be totally isolated from the heating chamber for protection from heated air.

**Thermal Overload:** Heaters shall be equipped with King's patented thermal overload Smart Limit Protection®, which disconnects elements and motor in the event normal operating temperatures are exceeded. If thermal overload trips due to abnormal operating temperatures, thermal overload shall remain open until manually reset by turning the heater off for 15 minutes. Automatic reset of thermal overloads, which allow the element to continue to cycle under abnormal conditions, will not be accepted.

**Elements:** Element assemblies shall be constructed of coiled nickel chromium alloy, corrosion resistant wire strung through a minimum of four rows of mica insulator. Element assemblies shall have factory provided connection to allow field modification to 50% wattage at time of installation.

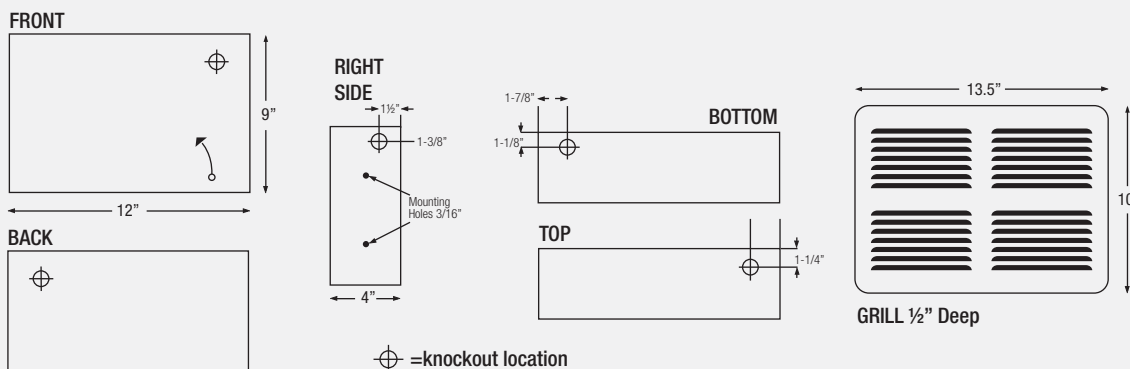
**Wall Can:** The wall can shall be 20 gauge electro-galvanized steel and shall contain knockouts. The wall can shall be provided with a depth gauge, extending the full length of the wall can. The wall can shall be supplied with a factory installed ground-wire. Minimum clearance 4" to floors and 6" to sidewalls. Zero clearance to combustibles material in the wall.

**Grill:** The grill shall be a louvered, one-piece design with rounded edges on all four sides, with rounded corners to prevent snags from contact with other materials. The grill shall be epoxy powder-coated in the color specified by the manufacturer

**Approvals:** cULus (E41422)

# Wall Heater WHF Series

## Dimensional Data



**MINIMUM CLEARANCE:** Zero clearance to insulation 4" above floor 6" from adjacent wall

## Options

ADD SUFFIX	DESCRIPTION	WEIGHT lbs
-A	Almond Color	8.0
-H	Interior Only (no can or grill)	6.0
-I	Interior and Grill Only (no wall can)	6.0

## Accessories

MODEL	UPC	DESCRIPTION	WEIGHT lbs
UIC	12640	Recess Wall Can	3.5
UICF	12540	Recess Can with Flange (remodel)	4.0
WHSC	19204	Surface Can - White 13.5" H x 10.125" W x 4" D	4.0
WHSC-ALMOND	19205	Surface Can - Almond 13.5" H x 10.125" W x 4" D	4.0
WHFG	12520	Grill - White	2.0
WHFG-ALMOND	12530	Grill - Almond	2.5
WHFG17W13H	12523	Oversize Grill 13"H x 17"W	3.5
TKIT-1BW	20654	Built-in Single Pole Single Throw Thermostat Kit, Bright White	0.5
TKIT-2BW	20655	Built-in Double Pole Single Throw Thermostat Kit, Bright White	0.5
TKIT-1	11058	Built-in Single Pole Single Throw Thermostat Kit, Almond	0.5
TKIT-2	11059	Built-in Double Pole Single Throw Thermostat Kit, Almond	0.5

WHSC



WHFG17W13H



Exploded View



# Wall Heater PAW Series



**Pic-A-Watt**  
Steel Fin Element



### Model Code:

PAW	12	15	-I	-RF
A	B	C	D	E
A: Wall Heater				
B: 12 - 120V 24 - 240V 20 - 208V 27 - 277V				
C: Watts (250 to 2250)				
D: Interior & Grill				
E: Right Hand Feed				



- Pic-A-Watt® Element
- Squirrel Cage Blower
- C-Frame Motor
- Patented Smart Limit Protection®
- Whisper Quiet
- Multiple wattages 250-2250
- 20 gauge powder-coated grill
- Wall can with QuickSet™ stud alignment tabs
- Standard color: white (optional almond color available)
- 120, 208, 240, or 277 Volts
- 5 Year Warranty



## The PAW Series

**The Original Multi-Watt steel fin heater and our most popular heater for single family residences** and upscale condominiums. King's exclusive Pic-A-Watt steel fin element allows customers to select from a range of wattage options, tailoring the heater to an area's specific heating requirements. Perfect for large living areas yet whisper quiet enough for bedrooms. The premium combination of an efficient high-mass steel element and whisper quiet squirrel cage blower, offers top of the class performance and years of trouble-free operation. PAW comes with five year warranty and 20+ year history of reliability. For best results use with an electronic line voltage wall thermostat. Also available with a built-in thermostat. The wall can shall be 20 gauge electro-galvanized steel and contain knockouts through which power leads are brought. The wall can shall be able to mount directly to wall studs in new or existing construction. The wall can shall be provided with QuickSet™ stud alignment tabs, used for maintaining proper depth during new installation. The wall can shall be supplied with a factory installed ground wire. Clearance: 6" to a side all, 4" from floor minimum.

### Ordering Information

MODEL	UPC	VOLTS	WATTS	AMPS	SHIP WEIGHT lbs
PAW1215	16303	120	250•500•750•1000•1250•1500	2.1-12.5	9.5
PAW2022	00512	208	500•750•1000•1250•1500•1750•2250	2.4-10.8	9.5
PAW2422	16300	240	500•750•1000•1250•1500•1750•2250	2.1-9.4	9.5
PAW2720	16302	277	1000 • 2000	3.6-7.2	9.5

## Engineering Specifications

*Contractor shall supply and install PAW Series in-wall forced-air electric heaters manufactured by King Electrical Mfg. Company, of the wattage and voltage as indicated on the plans.*

**Ratings:** Heaters shall be available in wattages of 250 to 2,250 at 120, 208, 240, or 277 Volts.

**Blower and Motor:** A whisper quiet tangential blower, delivering 75 CFM, 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.

**Elements:** Element assemblies shall consist of three steel sheathed heating tubes in a furnace-brazed, plate-finned, block design. Each sheathed tube shall contain coiled Ni-Chrome wire embedded in an insulator of Magnesium Oxide. The element assembly shall provide up to seven (7) possible wattage configurations available for selection during field installation. The use of external resistors, diodes, or other weak links to obtain multiple wattages will not be acceptable.

**Thermal Overload:** Heaters shall be equipped with King's patented thermal overload Smart Limit Protection®, which disconnects elements

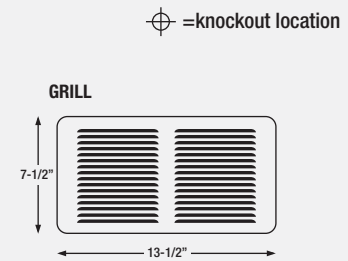
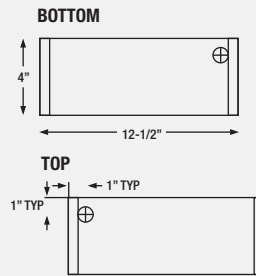
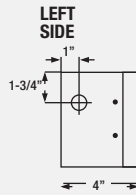
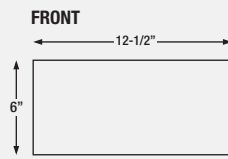
and motor in the event normal operating temperatures are exceeded. If thermal overload trips due to abnormal operating temperatures, thermal overload shall remain open until manually reset by turning the heater off for 15 minutes. Automatic reset of thermal overloads, which allow the element to continue to cycle under abnormal conditions, will not be accepted.

**Grill:** The grill shall be a louvered, one-piece design with rounded edges on all four sides, with rounded corners to prevent snags from contact with other materials. The grill shall be epoxy powder-coated in white or almond.

**Wall Can:** The wall can shall be 20 gauge electro-galvanized steel and shall contain a minimum of three (3) knockouts. The wall can shall have a depth gauge indicator, and a factory installed, insulated and stranded copper ground-wire. Minimum 4" clearance to floors and 6" sidewalls. Zero clearance to combustibles in the wall.

**Approvals:** cULus (E41422)

## Dimensional Data



## Options

ADD SUFFIX	DESCRIPTION	WEIGHT lbs
-A	Almond Color	9.5
-I	Interior and Grill Only (no wall can)	7.5
-H	Interior Only (no can or grill)	7.5
-U	ULTRA GRILL Custom Bar Grill (not available with built-in thermostat)	12.0
-RF	Right Hand Feed	9.7
-SS	Stainless Steel Grill	9.6
-OGA	13" H x 13.5" W Retrofit Grill	10.0
-OGB	8.5" H x 17" W Retrofit Grill	10.0

## Accessories

MODEL	UPC	DESCRIPTION	WEIGHT lbs
PAWIC	00515	Recess Wall Can	2.5
PAWF	16319	Recess Can with Flange (remodel)	2.0
PAWS	16305	PIC-A-WATT® Surface Can - White 13.5" L x 4.5" W x 7.5" H	5.5
PAWS-A	19298	PIC-A-WATT® Surface Can - Almond 13.5" L x 4.5" W x 7.5" H	5.5
PAWG	16304	Grill - White	1.0
PAWG-ALMOND	16335	Grill - Almond	1.0
PAWG-SS	16330	Grill - Stainless Steel	1.0
PAWOG-A	00555	13" H x 13.5" W x .5" D Retrofit Grill	3.0
PAWOG-B	00560	8.5" H x 17" W x .5" D Retrofit Grill	3.0
ULTRA-W	18740	Ultra Grill - White	4.0
ULTRA-A	18745	Ultra Grill - Almond	4.0
TKIT-1BW	20654	Built-in Single Pole Single Throw Thermostat Kit, Bright White	0.5
TKIT-2BW	20655	Built-in Double Pole Single Throw Thermostat Kit, Bright White	0.5
TKIT-1	11058	Built-in Single Pole Single Throw Thermostat Kit, Almond	0.5
TKIT-2	11059	Built-in Double Pole Single Throw Thermostat Kit, Almond	0.5

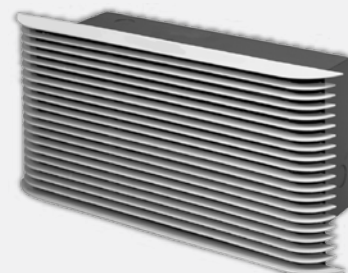
### MINIMUM CLEARANCE

Zero clearance to insulation 4" above floor 6" from adjacent wall



## PAW ULTRA

Upgrade any PAW series heater with the ultra grill. Its sleek and modern design compliments more luxurious spaces.



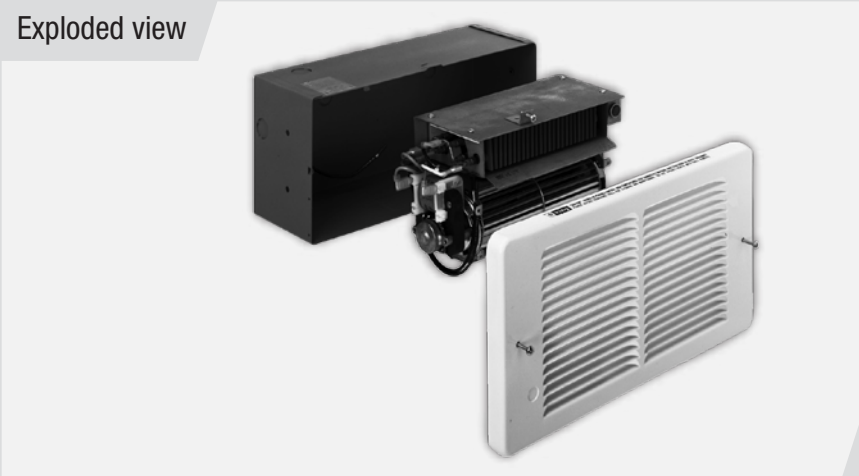
# Wall Heater PAW Series



**Pic-A-Watt**  
Steel Fin Element

## Options & Accessories

Exploded view



PAWS

Surface Wall Enclosure



13.5" L x 4.5" W x 7.5" H

PAWOG-B

Oversize Grill



8.5" H x 17" W

PAWG-SS

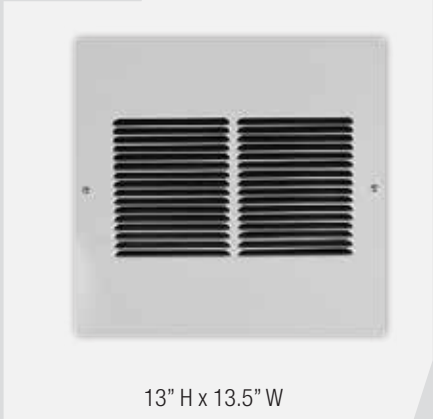
Stainless Steel



7.125" H x 13.625" W

PAWOG-A

Oversize Grill



13" H x 13.5" W

ULTRA Grill



7.25" H x 15.875" W

TKIT Thermostat For Wall Heaters



# Wall Heater PAW Ultra Series



**Pic-A-Watt**  
Steel Fin Element



### Model Code:

PAW	12	15	-U
A	B	C	D
A: Wall Heater			
B: 12 - 120V 24 - 240V 20 - 208V 27 - 277V			
C: Watts (250 to 2250)			
D: ULTRA Grill			



- Ultra Grill
- Patented Smart Limit Protection®
- Standard color: white (optional almond color available)
- Pic-A-Watt® Element
- Whisper Quiet
- Multiple wattages 250-2250
- 120, 208, 240, 277 Volts
- Squirrel Cage Blower
- C-Frame Motor
- 16 gauge powder-coated grill
- 5 Year Warranty

## The PAW Ultra Series

**Make a bold statement with the PAW ULTRA series heater.** Adding modern sophistication to our original Pic-A-Watt multi-watt steel fin heater with its sleek modern grill design, the ULTRA is ideal for upscale condominiums and luxury residences. King's exclusive Pic-A-Watt steel fin element allows customers to select from a range of wattage options, tailoring the heater to an area's specific heating requirements. Perfect for large living areas yet whisper quiet enough for bedrooms. The premium combination of an efficient high-mass steel element and whisper quiet squirrel cage blower, offers top of the class performance and years of trouble-free operation. PAW comes with five year warranty and 20+ year history of reliability. For use with an electronic line voltage wall thermostat.

### Ordering Information

MODEL	UPC	VOLTS	WATTS	AMPS	SHIP WEIGHT lbs
PAW1215-U	18700	120	250•500•750•1000•1250•1500	2.1-12.5	9.5
PAW2022-U	18710	208	500•750•1000•1250•1500•1750•2250	2.4-10.8	9.5
PAW2422-U	18720	240	500•750•1000•1250•1500•1750•2250	2.1-9.4	9.5
PAW2720-U	22241	277	1000•2000	3.6-7.2	9.5

\*See PAW Series page for dimensional data

## Engineering Specifications

*Contractor shall supply and install PAW Ultra Series in-wall forced-air electric heaters manufactured by King Electrical Mfg. Company, of the wattage and voltage as indicated on the plans.*

**Ratings:** Heaters shall be available in wattages of 250 to 2,250 at 120, 208, 240, or 277 Volts.

**Blower and Motor:** A whisper quiet tangential blower, delivering 75 CFM, 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.

**Elements:** Element assemblies shall consist of three steel sheathed heating tubes in a furnace-brazed, plate-finned, block design. Each sheathed tube shall contain coiled Ni-Chrome wire embedded in an insulator of Magnesium Oxide. The element assembly shall provide up to seven (7) possible wattage configurations available for selection during field installation. The use of external resistors, diodes, or other weak links to obtain multiple wattages will not be acceptable.

**Thermal Overload:** Heaters shall be equipped with King's patented thermal overload Smart Limit Protection®, which disconnects elements

and motor in the event normal operating temperatures are exceeded.

If thermal overload trips due to abnormal operating temperatures, thermal overload shall remain open until manually reset by turning the heater off for 15 minutes. Automatic reset of thermal overloads, which allow the element to continue to cycle under abnormal conditions, will not be accepted.

**Grill:** The grill shall be a louvered with multiple linear steel bars secured to a steel back plate, with rounded sides to prevent snags with other materials. The grill shall be epoxy power-coated in white or almond.

**Wall Can:** The wall can shall be 20 gauge electro-galvanized steel and shall contain a minimum of three (3) knockouts. The wall can shall have a depth gauge indicator, and a factory installed, insulated and stranded copper ground-wire. Minimum 4" clearance to floors and 6" sidewalls. Zero clearance to combustibles in the wall.

**Approvals:** cULus (E41422)

# High Wall Heater WHF-HM Series



### Model Code:

WHF-HM	12	10	-A
A	B	C	D

A: Wall Heater  
 B: 12 - 120V 24 - 240V  
 20 - 208V  
 C: Watts (500 to 2000)  
 D: Color



- Mounts 6 feet above the floor
- Squirrel Cage Blower
- Whisper Quiet
- Ni-chrome Open-Coil Element
- Patented Smart Limit Protection\*
- 20 gauge powder-coated grill
- Standard color: bright white
- C-Frame Motor
- 20 gauge electrogalvanized steel recess can with
- Wall can with QuickSet™ stud alignment tabs
- 120, 208, or 240 volts
- Dual Wattage

## The WHF-HM Wall Heater

The WHF-HM High Mount heater is designed for applications to be mounted 6' above the floor. It is commonly used where wall space is limited. The high wall mounting allows you to use absolutely any wall in a room without affecting the furniture or decor placement. The WHF-HM provides extreme value by combining an open coil Ni-chrome wire element and squirrel cage blower. For maximum comfort and efficiency, an electronic wall thermostat is recommended. The wall can shall be 20 gauge electro-galvanized steel and contain knockouts through which power leads are brought. The wall can shall be able to mount directly to wall studs in new or existing construction. The wall can shall be provided with QuickSet™ stud alignment tabs, used for maintaining proper depth during new installation. The wall can shall be supplied with a factory installed ground wire. Clearance: 6" to a side all, 4" from floor minimum.

### Ordering Information

\*Add suffix -A for optional almond color

	MODEL	UPC	VOLTS	WATTS	AMPS	SHIP WEIGHT
120V	WHF1210-HM	20722	120	500 • 1000	4.2-8.4	8 lbs
	WHF1212-HM	20723	120	600 • 1200	5-10	8 lbs
	WHF1215-HM	20724	120	750 • 1500	6.25-12.5	8 lbs
208V	WHF2010-HM	20725	208	500 • 1000	2.4-4.8	8 lbs
	WHF2015-HM	20726	208	750 • 1500	3.6-7.2	8 lbs
	WHF2020-HM	20727	208	1000 • 2000	4.8-9.6	8 lbs
240V	WHF2410-HM	20728	240	500 • 1000	2.1-4.2	8 lbs
	WHF2412-HM	20729	240	600 • 1200	2.5-5	8 lbs
	WHF2415-HM	20730	240	750 • 1500	3.1-6.2	8 lbs
	WHF2420-HM	20731	240	1000 • 2000	4.2-8.4	8 lbs

## Engineering Specifications

Contractor shall supply and install WHF-HM Series in-wall mounted forced-air electric heaters manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.

**Ratings:** Heaters shall be available in wattages of 500 to 2,000 at 120, 208, or 240 Volts

**Blower and Motor:** A whisper quiet tangential blower, delivering 75 CFM, 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. The motor and all wiring shall be totally isolated from the heating chamber for protection from heated air.

**Thermal Overload:** Heaters shall be equipped with King's patented thermal overload Smart Limit Protection®, which disconnects elements and motor in the event normal operating temperatures are exceeded. If thermal overload trips due to abnormal operating temperatures, thermal overload shall remain open until manually reset by turning the heater off for 15 minutes. Automatic reset of thermal overloads, which allow the element to continue to cycle under abnormal conditions, will not be accepted.

**Elements:** Element assemblies shall be constructed of coiled nickel chromium alloy, corrosion resistant wire strung through a minimum of four rows of mica insulator. Element assemblies shall have factory provided connection to allow field modification to 50% wattage at time of installation.

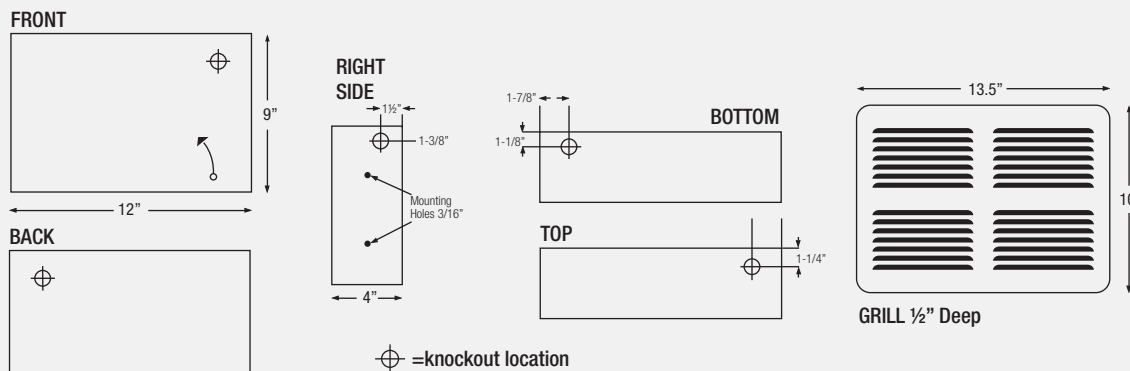
**Wall Can:** The wall can shall be 20 gauge electrogalvanized steel and shall contain knockouts. The wall can shall be provided with a depth gauge, extending the full length of the wall can. The wall can shall be supplied with a factory installed groundwire. Minimum clearance 72" to floors, 6" to sidewalls, and 4" to the ceiling. Zero clearance to down flow.

**Grill:** The grill shall be a louvered, one-piece design with rounded edges on all four sides, with rounded corners to prevent snags from contact with other materials. The grill shall be epoxy powder-coated in the color specified by the manufacturer

**Approvals:** cULus (E41422)

# High Wall Heater WHF-HM Series

## Dimensional Data



## Options

ADD SUFFIX	DESCRIPTION	WEIGHT lbs
-A	Almond Color	8.0

## Accessories

MODEL	UPC	DESCRIPTION	WEIGHT lbs
UIC	12640	Recess Wall Can	3.5
WHSC	19204	Surface Can - White 13.5" H x 10.125" W x 4" D	4.0
WHSC-ALMOND	19205	Surface Can - Almond 13.5" H x 10.125" W x 4" D	4.0
TKIT-1BW	20654	Built-in Single Pole Single Throw Thermostat Kit, Bright White	0.5
TKIT-2BW	20655	Built-in Double Pole Single Throw Thermostat Kit, Bright White	0.5
TKIT-1	11058	Built-in Single Pole Single Throw Thermostat Kit, Almond	0.5
TKIT-2	11059	Built-in Double Pole Single Throw Thermostat Kit, Almond	0.5

## WHSC



## Exploded View





# Surface Mount Heater SL Series



### Model Code:

SL	12	15
A	B	C

A: Series  
 B: 12 - 120V 24 - 240V  
 20 - 208V  
 C: Watts (250 to 2250)



- Baseboard Replacement
- Whisper Quiet
- Pic-A-Watt® Element
- Squirrel Cage Blower
- Zero Clearance to the floor
- C-Frame Motor
- Patented Smart Limit Protection®
- Multiple Wattages
- Surface Mount
- 20 Gauge powder coated grill
- Standard Color: bright white
- 120, 208 or 240 volts
- 5-year limited warranty



## The SL - Surface Mount Wall Heater

The Slim Line heater was specifically designed as a space-saving replacement for baseboard heaters, allowing you to reclaim up to 8 linear feet of valuable wall space. The unique slim surface-mounted wall can allows the heater to be mounted directly in contact with the finished floor (unlike other fan heaters that require to be installed at least 4" above the floor). The Pic-A-Watt® feature allows a customers to select from a range of wattage options, tailoring the heater to an area's specific heating requirements. Baseboard conversion made simple. 2 foot baseboard = 500W; 3 feet = 750W; 4 feet = 1000W; 5 feet = 1250W; 6 feet = 1500W; 8 feet = 1750W; 10 feet = 2250W. Same quiet and reliable design as the original PAW heater but in an easy-to install surface mounted package. For use with a field installed wall thermostat or factory installed in-built thermostat.

### Ordering Information

MODEL	UPC	VOLTS	WATTS	AMPS	SHIP WEIGHT lbs
SL1215	19550	120	250•500•750•1000•1250•1500	2.1-12.6	11
SL2022	19555	208	500•750•1000•1250•1500•1750•2250	2.4-10.8	11
SL2422	19560	240	500•750•1000•1250•1500•1750•2250	2.1-9.4	11

### Engineering Specifications

*Contractor shall supply and install SL Series wall surface-mounted forced air electric heaters manufactured by King Electrical Mfg. Company of the wattage and voltage as indicated on the plans.*

**Ratings:** Heaters shall be available in wattages of 250 to 2,250 at 120, 208 or 240 volts. The heater shall be approved for surface mounting with zero clearance from the floor.

**Blower and Motor:** A tangential cylindrical blower, delivering 75 CFM, 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.

**Elements:** Element assemblies shall consist of three steel sheathed heating tubes in a furnace-brazed, plate-finned, block design. Each sheathed tube shall contain coiled Ni-Chrome wire, embedded in an insulator of Magnesium Oxide. The element assembly shall provide up to seven (7) possible wattage configurations available for selection during field installation. The use of external resistors, diodes, or other weak links to obtain multiple wattages will not be accepted.

**Thermal Overload:** Heaters shall be equipped with King's patented

thermal overload Smart Limit Protection®, which disconnects elements and motor in the event normal operating temperatures are exceeded. If thermal overload trips due to abnormal operating temperatures, thermal overload shall remain open until manually reset by turning the heater off for 15 minutes. Automatic reset of thermal overloads, which allow the element to continue to cycle under abnormal conditions, will not be accepted.

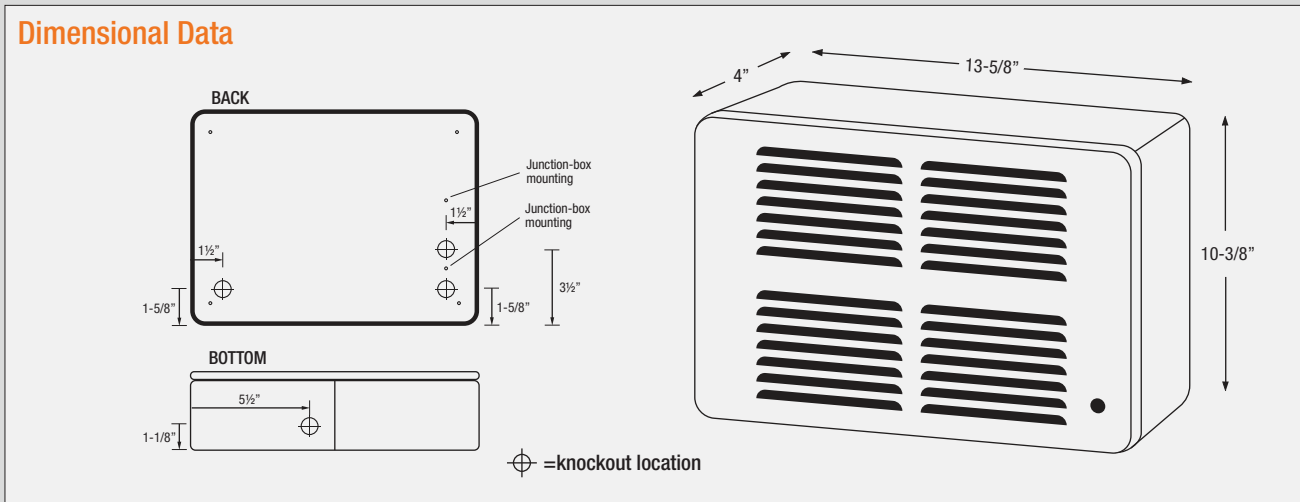
**Surface Can:** The surface can shall be 20 gauge electro-galvanized steel and shall contain a minimum of three (3) knockouts. The surface can shall be epoxy powder coated and contain a stranded ground-wire. Minimum clearance to floors is 0" and 6" to any sidewall.

**Grill:** The grill shall be a louvered, one-piece design with rounded edges on all four sides, with rounded corners to prevent snags from contact with other materials. The grille shall be epoxy powder-coated in the color specified on the plans.

**Approvals:** cULus (E41422)

# Surface Mount Heater SL Series

## Dimensional Data



**RECLAIM YOUR HOME**

Standard Baseboard Heater      New Slimline Space Saving Heater

*With the Slimline Fan Heater by*

## Accessories

MODEL	UPC	DESCRIPTION	WEIGHT lbs
SLT-1	19562	Single Pole Single Throw Thermostat Kit	0.5
SLT-2	19564	Double Pole Single Throw Thermostat Kit	0.5

# Economy Large Wall Heater EFW Series



**Model Code:**

EFW	24	40	-A	-I	-T
A	B	C	D	E	F

**A: Series**  
**B: 12 - 120V 24 - 240V 20 - 208V**  
**C: Watts (2000 to 4800)**  
**D: Color**  
**E: Interior & Grill**  
**F: Thermostat (optional)**



- NiChrome Open-Coil Element
- Cast Aluminum Motor
- 5-Blade Aluminum Fan
- Auto-Reset Safety Limit  
Standard color: white
- (optional almond color available)
- 20 gauge powder-coated grill
- Available in 120, 208, 240 volts
- 1-year limited warranty



## The EFW Wall Heater

The EFW heater is designed to be a very affordable, large wattage wall heater. It is commonly used in apartment construction to heat rooms up to 400 square feet, or where a remote thermostat is required on a 4000 Watt-style heater. The NiChrome open-coil element dissipates heat quickly. The 4-Pole cast aluminum unit bearing motor is permanently lubricated for years of trouble-free service. Intended to be used with wall mounted or built-in thermostat.

### Ordering Information

	MODEL	UPC	VOLTS	WATTS	AMPS	SHIP WEIGHT lbs
<b>120V</b>	EFW1220	19400	120	2000	16.7	16
	EFW1230	19406	120	3000	25	16
	EFW2020	19410	208	2000	9.6	16
<b>208V</b>	EFW2030	19413	208	3000	14.4	16
	EFW2040	19416	208	4000	19.2	16
	EFW2420	19455	240/208	2000/1500	8.3/7.2	16
<b>240V</b>	EFW2430	19424	240/208	3000/2250	12.5/10.9	16
	EFW2440	19427	240/208	4000/3000	16.6/14.4	16

### Engineering Specifications

*Contractor shall supply and install EFW Series in-wall mounted forced-air electric heaters manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.*

**Motor:** Heavy-duty cast aluminum 4 pole unit bearing, permanently lubricated with 10cc oil reservoir, 1440 RPM. Enclosed impedance protected with intake air cooling motor for increased bearing life.

**Fan:** High efficiency, dynamically balanced 5-blade aluminum fan. 185 CFM.

**Elements:** Element assemblies shall be constructed of coiled Nickel Chromium alloy, corrosion-resistant wire strung through a minimum of four rows of mica insulator. Element assemblies shall have factory provided connection to allow field modification to 50% wattage at time of installation.

**Auto Reset Safety Limit:** The thermal cutout turns off power to the heater in the event of overheating and automatically resets when temperature returns to normal.

**Wall-box:** 20 gauge electro-galvanized steel with factory installed ground-wire. Minimum 4" clearance to floors and 6" to sidewalls. Zero clearance to insulation in the wall. Recommended 10" clearance to floors and 16" to sidewalls.

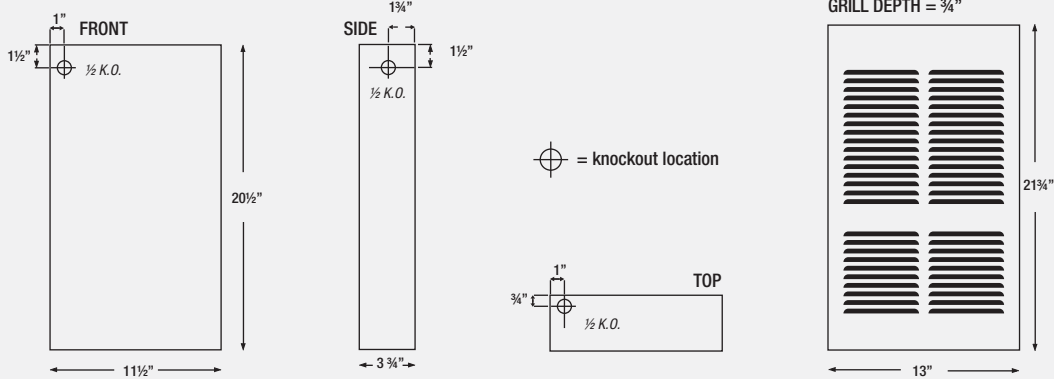
**Grill:** 20 gauge steel finished in a gloss white, powder-coated paint. Optional Almond color.

**Options:** 1-Pole or 2-Pole built-in thermostat 45-80°F operating range, retrofit grill, and surface wall-box.

**Approvals:** cCSAus

# Economy Large Wall Heater EFW Series

## Dimensional Data



## Options

ADD SUFFIX	DESCRIPTION	WEIGHT lbs
-A	Almond Color	16
-I	Interior and Grill Only (no wall can)	14
-H	Interior Only (no wall can or grill)	11
-T	Factory Installed Single Pole Thermostat Kit	16
-T2	Factory Installed Double Pole Thermostat Kit	16

## Accessories

MODEL	UPC	DESCRIPTION	WEIGHT lbs
UWIC	12590	Recess Wall Can	6.5
UWSA	12599	Surface Can - White	7.5
UWSA-A	12595	Surface Can - Almond	7.5
EFWG	19439	Grill - White	3.0
EFWG-A	19440	Grill - Almond	3.0
EFWOG	19442	21 3/4" H x 15 1/2" W Oversize Grill - White	4.0
EFWOG-A	19441	21 3/4" H x 15 1/2" W Oversize Grill - Almond	4.0
EFWOG-XL	19443	21 3/4" H x 16 1/2" W Oversize Grill	6.5
EFT-1	19445	Single Pole 22 Amp Thermostat Kit	0.5
EFT-2	19448	Double Pole 22 Amp Thermostat Kit	0.5
LPW-TPC	18174	Tamper-proof Cover for Controls 3 1/4" x 3 1/4" x 18 3/4"	1.5

EFT-1



UWSA



### MINIMUM CLEARANCE

Zero clearance to insulation  
10" above floor, 6" from  
adjacent wall



EFWOG



### Exploded View



# Large Wall Heater LPW Series



**Pic-A-Watt**  
Steel Fin Element



### Model Code:

LPW 24 45 -T -A -OG  
A B C D E F

**A: Series**  
**B: 12 - 120V 24 - 240V**  
**20 - 208V 27 - 270V**  
**C: Watts (1250 to 4500)**  
**D: Thermostat (optional)**  
**E: Color**  
**F: Retrofit Grill**



- Pic-A-Watt® Element
- Multiple Wattage Options
- Long life Unit Bearing Motor
- Patented Smart Limit Protection®
- 5-Blade Aluminum Fan
- 20 gauge powder-coated grill
- Selector Switch: Fan/Heat/Off
- Standard color: white
- (optional almond color available)
- 120, 208, 240, or 277 Volts
- 5-year limited warranty



## The LPW Large Wall Heater

**The LPW offers higher output than our industry leading PAW heater.** King's exclusive dual Pic-A-Watt steel fin elements allow customers to select from a range of wattage options, tailoring the heater to an area's specific heating requirements. With up to 4500W, this is our most popular large wall heater, used in both residential and commercial applications. Standard with a 3-position selector switch, it has a fan delay to help dissipate heat from the high-mass steel plate fin elements thereby prolonging heater life and increasing energy efficiency. The high quality built-in thermostat has degrees on the label so temperature selection is easy and accurate.

### Ordering Information

\*Add suffix -A for optional Almond color

MODEL	UPC	VOLTS	WATTS	AMPS	SHIP WEIGHT lbs
LPW1227T	18187	120	1250•1500•1750•2000•2250•2750	10.4-22.9	19
LPW2045T	18161	208	2250•2750•3000•3250•3500•3750•4000•4500	10.8-21.6	19
LPW2445T	18160	240/208	2250•2750•3000•3250•3500•3750•4000•4500	9.4-18.8	19
LPW2740T	18163	277	2000•3000•4000	7.2-14.4	19

\*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.

## Engineering Specifications

*Contractor shall supply and install LPW Series in-wall mounted forced-air electric heaters manufactured by King Electrical Mfg. Company, of the wattage and voltage as indicated on the plans.*

**Motor:** Heavy-duty, cast iron, unit bearing, permanently lubricated with 20cc oil reservoir, 1440 RPM. Enclosed impedance protected with intake air cooling motor for increased bearing life.

**Fan:** High efficiency, dynamically balanced 5-blade aluminum fan. 185 CFM.

**Thermostat:** 1-Pole built-in thermostat 45-80°F operating range.

**Elements:** Element assemblies shall consist of three steel sheathed heating tubes in a furnace-brazed, plate-finned, block design. Each sheathed tube shall contain coiled Ni-Chrome wire, embedded in an insulator of Magnesium Oxide. The element assembly shall provide up to seven (7) possible wattage configurations available for selection during field installation. The use of external resistors, diodes, or other weak links to obtain multiple wattages will not be accepted.

**Thermal Overload:** Heaters shall be equipped with King's patented thermal overload Smart Limit Protection®, which disconnects elements and motor in the event normal operating temperatures are exceeded. If thermal overload trips due to abnormal operating temperatures, thermal overload shall remain open until manually reset by turning the heater off for 15 minutes.

**Fan / Heat / Off Switch:** 3-position switch provides heating and summer fan-only operation. The DPST off switch provides a "positive off" that disconnects all ungrounded conductors.

**Wall-box:** 20 gauge electro-galvanized steel with factory installed ground-wire. Minimum 4" clearance to floors and 6" to sidewalls. Zero clearance to combustibles in the wall. Recommended 10" clearance to floors and 16" to sidewalls.

**Grill:** 20 gauge steel finished in a gloss white, powder-coated paint.

**Options:** Wired for remote thermostat, retrofit grill, and surface wall-box.

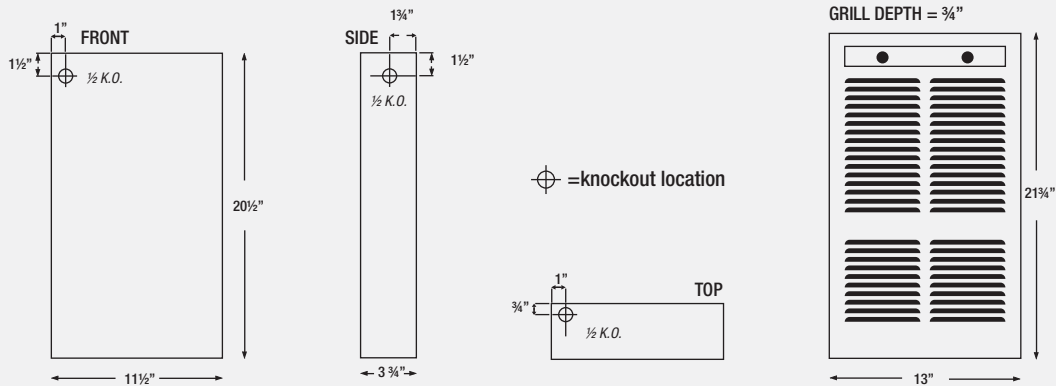
**Approvals:** cULus

# Large Wall Heater LPW Series



**Pic-A-Watt**  
Steel Fin Element

## Dimensional Data



## Options

ADD SUFFIX	DESCRIPTION	WEIGHT lbs
-A	Almond Color	19
-I	Interior and Grill Only (no wall can)	15
-H	Interior Only (no wall can or grill)	15
-T	Factory Installed Single Pole Thermostat Kit	19.5
-OG	Retrofit Grill	24

## Accessories

MODEL	UPC	DESCRIPTION	WEIGHT lbs
UWIC	12590	Recess Wall Can	6.5
UWSA	12599	Surface Can - White	7.5
UWSA-A	12595	Surface Can - Almond	7.5
LPWG	18171	Grill - White	4.5
LPWG-A	18285	Grill - Almond	4.5
LPWOG	18159	21 3/4" H x 15 1/2" W Oversize Grill - White	6.0
LPWOG-XL	18184	21 3/4" H x 16 1/2" W Oversize Grill	6.5
LPW-TPC	18174	Tamper-proof Cover for Controls 3 1/4" x 3 1/4" x 18 3/4"	1.5
LPT-1	18155	Single Pole Single Throw Thermostat Kit (replacement only)	0.6

LPW-TPC



LPWOG

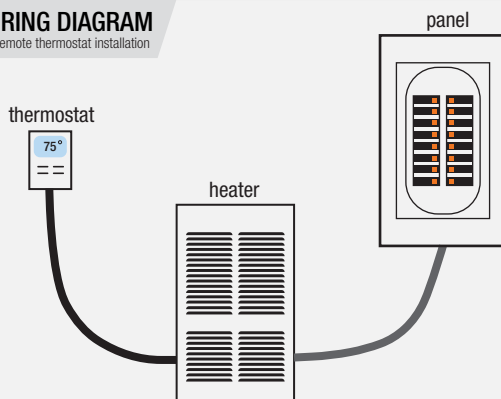


UWSA



## WIRING DIAGRAM

for remote thermostat installation



Power must be routed to the heater first, and then to the remote thermostat. This is due to the fan delay circuit needed to cool the element on shut down.

## Exploded View



# Architectural Heater LPWA Series



**Pic-A-Watt**  
Steel Fin Element



**Model Code:**

LPWA	24	45	-TP
A	B	C	D
A: Series			
B: 12 - 120V 24 - 240V			
20 - 208V 27 - 270V			
C: Watts (1500 to 4500)			
D: Thermostat (optional)			



Pic-A-Watt  
Steel Fin Element



- Pic-A-Watt® Element
- Tamper Resistant
- Long life Unit Bearing Motor
- 5-Blade Aluminum Fan
- Patented Smart Limit Protection®
- Multiple wattages
- Extruded aluminum grill
- Selector Switch: Fan/Heat/Off
- 120, 208, 240, or 277 Volts
- Standard color silver, bronze & white optional
- 5-year limited warranty



## The LPWA Architectural Heater

**Entryways, corridors and all public areas are best heated with the LPWA Series.** The heavy duty grill and frame can withstand heavy traffic and abuse. Tamper-resistant screws prevent unauthorized disassembly of the grill. Controls are recessed out-of-reach of fiddling fingers. High wattage and airflow capacities replenish entryways and hallways to prevent drafts from entering the building's core.

### Ordering Information \*Add suffix -BZ for dark bronze, and -W for white

	MODEL	UPC	VOLTS	WATTS	AMPS	SHIP WEIGHT lbs
<b>120V</b>	LPWA1215	18370	120	1500	12.5	24
	LPWA1220	18372	120	2000	16.7	24
	LPWA1227	18250	120	2750	22.9	24
	LPWA2020	18374	208	2000	9.6	24
<b>208V</b>	LPWA2030	18376	208	3000	14.4	24
	LPWA2040	18251	208	4000	19.2	24
	LPWA2045	18240	208	4500	21.6	24
	LPWA2420	18378	240/208	2000/1500	8.3/7.2	24
<b>240V</b>	LPWA2430	18380	240/208	3000/2250	12.5/10.9	24
	LPWA2440	18382	240/208	4000/3000	16.6/14.4	24
	LPWA2445	18193	240/208	4500/3375	18.75/16.3	24
<b>277V</b>	LPWA2720	18384	277	2000	7.2	24
	LPWA2730	18386	277	3000	10.8	24
	LPWA2740	18252	277	4000	14.4	24

\*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.

## Engineering Specifications

*Contractor shall supply and install LPWA Series in-wall mounted forced-air electric heaters manufactured by King Electrical Mfg. Company, of the wattage and voltage as indicated on the plans*

**Grill:** Heavy duty extruded 12 gauge aluminum provides high impact resistance to damage. Grill is attached with tamper-proof screws (hex socket/pinned). All controls are easily accessed through grill with slotted screwdriver. Standard color is anodized silver. Dark bronze or white is available.

**Elements:** Element assemblies shall consist of steel sheathed heating tubes in a furnace-brazed, plate finned, block design. Each sheathed tube shall contain a coiled Ni-Chrome wire embedded in an insulator of Magnesium Oxide. The element assembly shall provide the specific wattage as indicated.

**Optional Built-in Thermostat:** Single Pole factory installed hydraulic capillary tube with precision control. Operating range 40°F to 90°F. Thermostat is tamper-proof to prevent unauthorized adjustment.

**Fan / Heat / Off Switch:** Tamper-proof 3-position switch provides heating and summer fan-only operation. The DPST off switch provides a "positive off" that disconnects all ungrounded conductors. Controls are easily accessed through grill with slotted screwdriver.

**Thermal Overload:** Heaters shall be equipped with King's patented thermal overload Smart Limit Protection®, which disconnects elements and motor in the event normal operating temperatures are exceeded. If thermal overload trips due

to abnormal operating temperatures, thermal overload shall remain open until manually reset by turning the heater off for 15 minutes.

**Fan Delay Switch:** The fan continues to operate after the thermostat shuts off in order to remove the residual heat left in the elements.

**Unit Bearing Motor:** Permanently lubricated cast iron motor with enclosed rotor provides long-lasting, trouble-free operation and a 20cc oil reservoir. Thermally protected. 1300 RPM.

**Wall box:** 20 gauge electro-galvanized steel. Factory installed ground-wire. Minimum 4" clearance to floors and 6" to sidewalls. Zero clearance to combustibles in the wall. Recommended 10" clearance to floors and 16" to sidewalls.

# Architectural Heater LPWA Series



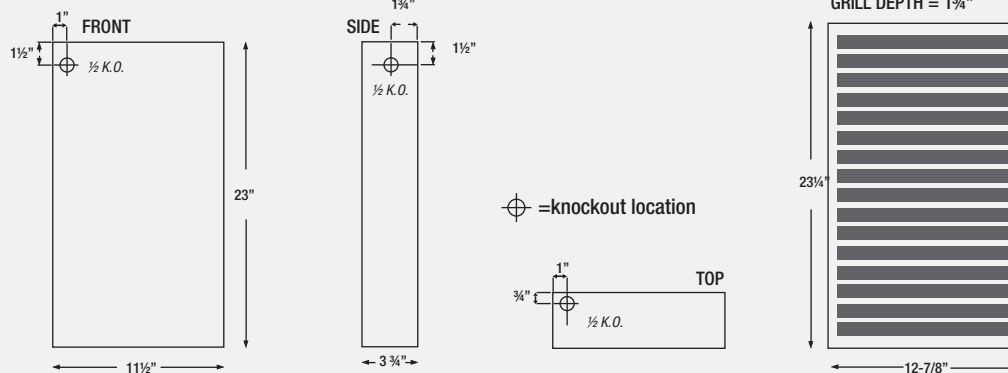
**Pic-A-Watt**  
Steel Fin Element

**Thermal Overload:** Heaters shall be equipped with King's patented thermal overload Smart Limit Protection®, which disconnects elements and motor in the event normal operating temperatures are exceeded.

**Optional Circuit Breaker / Disconnect:** 20 Amp or 30 Amp  
**Control:** Transformer Relay 24V  
**Approvals:** cULus

## Dimensional Data

**MINIMUM CLEARANCE:** Zero clearance to insulation recommended 10" above floor 6" from adjacent wall surface



## Options

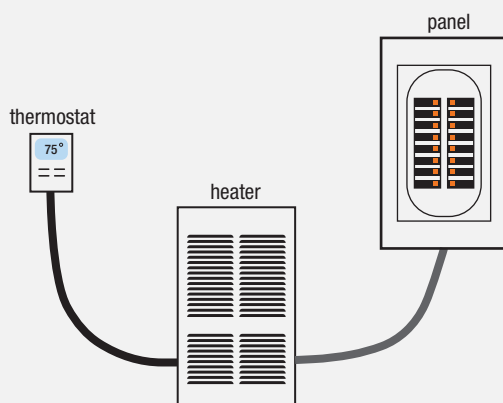
ADD SUFFIX	DESCRIPTION	WEIGHT lbs
-BZ	Grill - Bronze	24
-W	Grill - White	24
-CT24	Transformer that converts 208, 240 and 277 Volts to 24 Volt Control Remote Circuit {add power contactor (-C) for 3kW - 5kW 1-Phase models}	24.5
-S	Surface Can Included	24
-TP	Factory Installed Tamper-proof Thermostat	24
-CB2	20 Amp Double Pole Circuit Breaker / Disconnect	0.5
-CB3	30 Amp Double Pole Circuit Breaker / Disconnect	0.5

## Accessories

MODEL	UPC	DESCRIPTION	WEIGHT lbs
LPWAIC	18200	Architectural Recess Wall Can	6.5
LPWASA	18197	Surface Can Silver	5
LPWASA-B	18202	Surface Can Bronze	5
LPWASA-W	18201	Surface Can White	5
LPWAG	18158	LPWA Series Grill - Anodized Aluminum	7
LPWA-TP	18140	Tamper-proof Thermostat Replacement	2

## WIRING DIAGRAM

for remote thermostat installation



Power must be routed to the heater first, and then to the remote thermostat. This is due to the fan delay circuit needed to cool the element on shut down

## Colors

Standard





# Vandal Resistant Heater LPVV Series



**Model Code:**

LPVV	24	15	-TP
A	B	C	D
<b>A: Series</b>			
<b>B: 12 - 120V 24 - 240V</b>			
<b>20 - 208V 27 - 270V</b>			
<b>C: Watts (500 to 1500)</b>			
<b>D: Thermostat (optional)</b>			



- Pic-A-Watt® Element
- Impact/Vandal Resistant
- Cast Iron Motor
- 5-Blade Aluminum Fan
- Patent Smart Limit Protection®
- Multiple Wattages
- 3/16" Plate Steel grill
- Selector Switch: Fan/Heat/Off
- Available in 120, 208, 240, or 277 Volts
- 5-year limited warranty



## The LPVV Vandal Resistant Heater

High traffic areas, such as detention areas, public rest rooms, rest areas, and any public areas needing vandal resistance are best heated with the LPVV Series. The heavy grill and 3/16" solid steel frame can withstand heavy impact and abuse. Tamper-resistant screws prevent unauthorized disassembly of the grill. Controls are recessed out of reach of fiddling fingers. Moderate wattage and high airflow capacities replenish entryways and hallways to prevent drafts from entering the building's core. Minimum and maximum security level 3 & 4.

### Ordering Information

\*Add suffix -BZ for Bronze finish

MODEL	UPC	VOLTS	WATTS	AMPS	SHIP WEIGHT lbs
LPVV1215	18286	120	1250 • 1500	10.4-12.5	24
LPVV2015	18287	208	500•750•1000•1500	2.4-7.2	24
LPVV2415	18288	240/208	500•750•1000•1500	2.1-6.3	24
LPVV2715	18289	277	500•750•1000•1500	1.8-5.4	24

\*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.

### Engineering Specifications

*Contractor shall supply and install LPVV Vandal Resistant Series in-wall mounted forced-air electric heater manufactured by King Electrical Mfg. Company, of the wattage and voltage as indicated on the plans.*

**Grill:** Heavy 3/16" thick plate with 5/16" hole pattern grille provides high impact resistance to damage. Grill is attached with tamper-proof 1/4"-20 screws (hex socket/pinned). All controls are accessed through grill with slotted screwdriver. Standard color is white. Optional dark bronze available.

**Elements:** Element assemblies shall consist of steel sheathed heating tubes in a furnace brazed, plate-finned, block design. Each sheathed tube shall contain coiled Ni-Chrome wire embedded in an insulator of Magnesium Oxide. The element assembly shall provide wattage configurations available for selection during field installation. The use of external resistors, diodes, or other weak links to obtain multiple wattages will not be accepted.

**Optional Built-in Thermostat:** Single Pole factory installed hydraulic capillary tube with precision control. Operating range 40°F to 90°F. Thermostat is tamper-proof to prevent unauthorized adjustment.

**Fan Delay Switch:** The fan continues to operate after the thermostat shuts off in order to remove the residual heat remaining in the elements.

**Fan / Heat / Off Switch:** Tamper-proof 3-position switch provides heating and summer fan-only operation. The DPST off switch provides a "positive off" that disconnects all ungrounded conductors. Controls are accessed through grill with slotted screwdriver.

**Unit Bearing Motor:** Permanently lubricated cast iron motor with enclosed rotor provides long-lasting, trouble-free operation and a 20cc oil reservoir. Thermally protected. 1300 RPM.

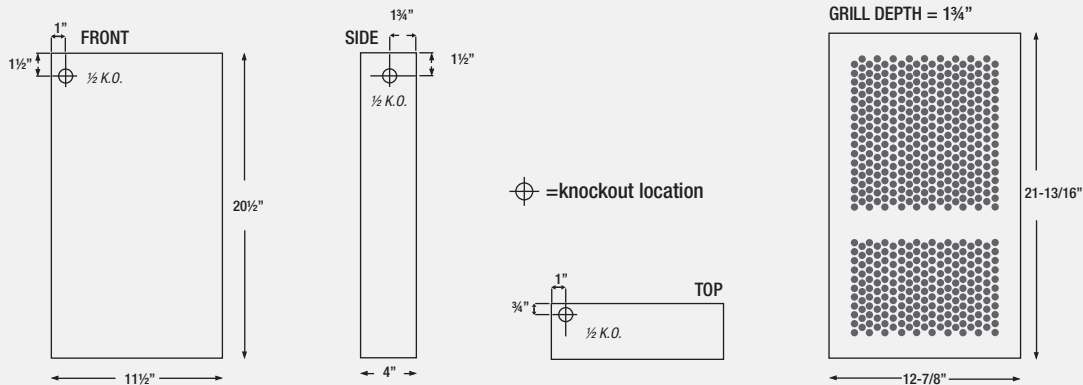
**Thermal Overload:** Heaters shall be equipped with King's patented thermal overload Smart Limit Protection®, which disconnects elements and motor in the event normal operating temperatures are exceeded. If thermal overload trips due to abnormal operating temperatures, thermal overload shall remain open until manually reset by turning the heater off for 15 minutes.

**Wall-box:** 20 gauge electro-galvanized steel with 18 gauge reinforcements. Factory installed ground-wire. Minimum 4" clearance to floors and 6" to sidewalls. Zero clearance to combustibles in the wall. Recommended 10" clearance to floors and 16" to sidewalls. Optional Circuit Breaker / Disconnect

**Approvals:** cULus

# Vandal Resistant Heater LPVV Series

## Dimensional Data



## Options/Accessories

ADD SUFFIX	DESCRIPTION	WEIGHT lbs
BRONZE	Grill - Bronze	24
WHITE	Grill - White	24
-CT24	Transformer that converts 208, 240 and 277 Volts to 24 Volt Control Circuit {add power contactor (-C) for 3kW - 5kW 1-Phase models}	24.5
-TP	Factory Installed Tamper-proof Thermostat	24
-CB	Circuit Breaker / Disconnect 20A	0.5

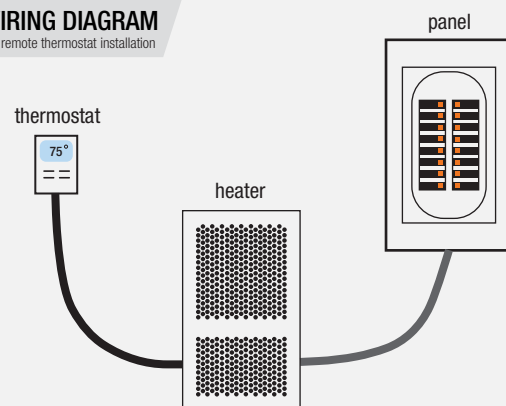
MODEL	UPC	DESCRIPTION	WEIGHT lbs
UWICV	12593	Recess Wall Can	6.5
LPWSAV	12594	Surface Mount Wall Box White	6.5
LPWSAV-BZ	12596	Surface Mount Wall Box Bronze	3.0

## Exploded View



## WIRING DIAGRAM

for remote thermostat installation



Power must be routed to heater first, then to remote thermostat.

## Tamper-proof Screw



# Kickspace Heater KT Series



### Model Code:

KT	12	10	-T
A	B	C	D

A: Series  
 B: 12 - 120V 24 - 240V  
 C: Watts (500 to 1500)  
 D: Thermostat (optional)



- Open Coil Nichrome Elements
- C-Frame Motor
- Squirrel Cage Blower
- Patented Smart Limit Protection\*
- 20 Gauge Powder Coated Grill
- Dual Wattage
- Standard Color: white
- Optional almond, black, & stainless steel
- 120 or 240 volts
- Low Profile
- 1-year limited warranty



## The KT Kickspace Heater

This narrow profile heater is only 3½" tall and specifically designed to conveniently fit under kitchen or bathroom cabinets, providing warm air for cold bathroom or kitchen. Valuable floor and wall space is saved. The optional KTG-24W Retrofit Grill allows for easy replacement of older kickspace heaters. Install heater and fit with long grill to cover existing cutout. For applications other than kickspace use KTG-OL Grill. Check floor covering manufacturer's recommendation for acceptable surface temperature.

### Ordering Information

	MODEL	UPC	VOLTS	WATTS	AMPS	SHIP WEIGHT lbs
<b>120V</b>	KT1210	12256	120	1000 or 500	8.3 or 4.2	8.5
	KT1212	12259	120	1200 or 600	10 or 5	8.5
	KT1215	12262	120	1500 or 750	12.5 or 6.3	8.5
<b>240/ 208V</b>	KT2410	12271	240 / 208	1000 or 500 / 750 or 375	4.2 or 2.1 / 3.6 or 1.8	8.5
	KT2412	12272	240 / 208	1200 or 600 / 900 or 450	5 or 2.5 / 4.3 or 2.2	8.5
	KT2415	12277	240 / 208	1500 or 750 / 1125 or 562	6.3 or 3.2 / 5.4 or 2.7	8.5

\*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.

## Engineering Specifications

*Contractor shall supply and install KT Series limited space-mounted forced air electric heaters manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.*

**Ratings:** Heaters shall be available in wattages of 500 to 1,500 at 120 Volts or dual rated from 208 Volts to 240 Volts.

**Blower and Motor:** A tangential cylindrical blower, delivering 70 CFM, 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.

**Elements:** Element assemblies shall be dual element construction of coiled Nickel Chromium alloy, corrosion resistant wire strung through a minimum of four rows of mica insulator. Element assemblies shall have factory provided connection to allow field modification to 50% wattage at time of installation.

**Grill:** The grill shall be a louvered, one-piece design. The grill shall be epoxy powder-coated in the color specified on the plans.

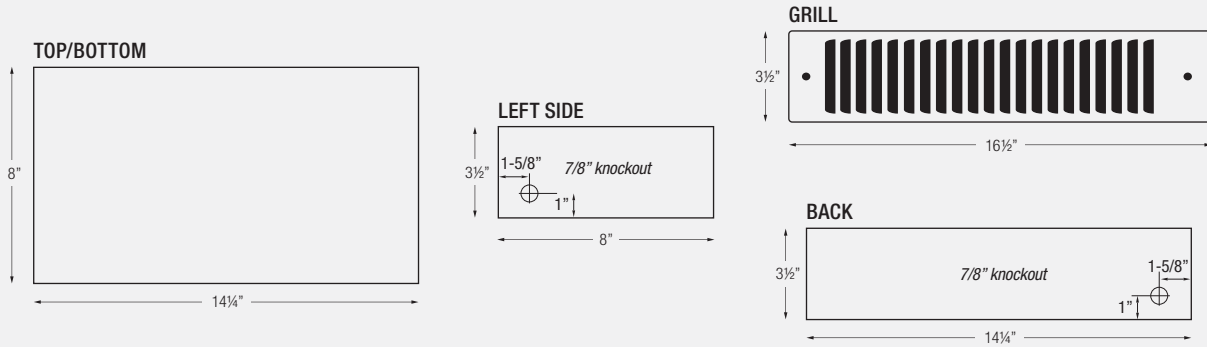
**Thermal Overload:** Heaters shall be equipped with King's patented thermal overload Smart Limit Protection®, which disconnects elements and motor in the event normal operating temperatures are exceeded. If thermal overload trips due to abnormal operating temperatures, thermal overload shall remain open until manually reset by turning the heater off for fifteen minutes. Automatic reset of thermal overloads, which allow the element to continue to cycle under abnormal conditions, will not be accepted.

**Wall Can:** The wall can shall be 20 gauge electrogalvanized steel and contain knockouts. The wall can shall be supplied with a factory installed ground wire. Zero Clearance to floors and 6" to sidewalls.

**Approvals:** cULus (E41422)

# Kickspace Heater KT Series

## Dimensional Data



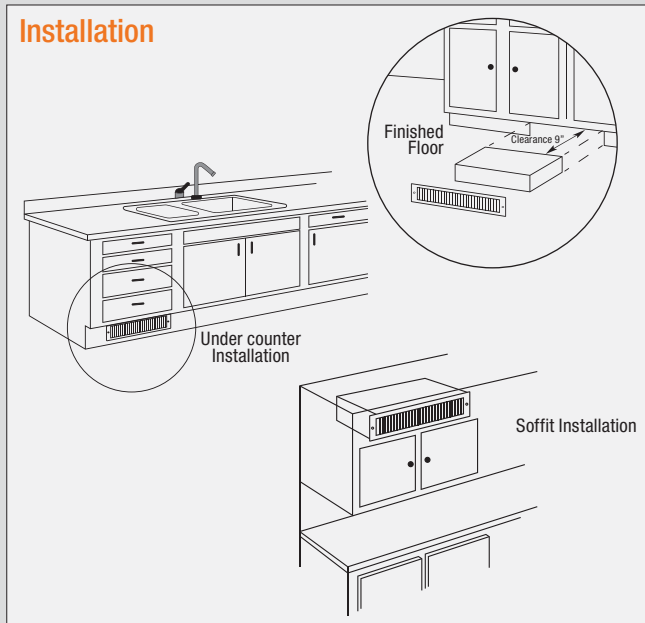
## Options

ADD SUFFIX	DESCRIPTION	WEIGHT lbs
-A	Almond color grill	8.5
-B	Black color grill	8.5
-SS	Stainless steel grill	8.5

## Accessories

MODEL	UPC	DESCRIPTION	WEIGHT lbs
KTG	12295	KT Grill - White	1
KTG-A	12296	KT Grill - Almond	1
KTG-B	12297	KT Grill - Black	1
KTG-SS-3-1/2	12267	SS Grille Standard – 3-1/2" X 16-1/2" (No Overlap)	1.1
KTG-SS	12269	KT Grill - Stainless Steel - 4-1/2" X 16-1/2"	1.1
KTG-OL	12275	KT Series Overlap Grill - White - 4-1/2" X 16-1/2"	1
KTG-24W	12276	Retrofit Grill - White 24" X 3 3/8"	1
TKIT-1BW	20654	Built-in Single Pole Single Throw Thermostat Kit, Bright White	0.5
TKIT-2BW	20655	Built-in Double Pole Single Throw Thermostat Kit, Bright White	0.5
TKIT-1	11058	Built-in Single Pole Single Throw Thermostat Kit, Almond	0.5
TKIT-2	11059	Built-in Double Pole Single Throw Thermostat Kit, Almond	0.5

## Installation



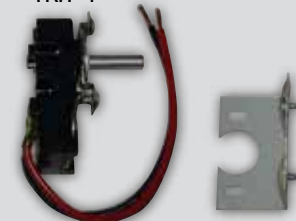
KTG-OL



KTG-24W



TKIT-1



# Multi-Watt Horizontal/Vertical Heater KTW Series



Convertible design for both vertical and horizontal applications

**Model Code:**

KTW	12	15	-HLS	-RGB	-T
A	B	C	D	E	F

A: Series  
 B: 12 - 120V 24 - 240V  
 C: Watts (250 to 1500)  
 D: High/Low Switch  
 E: Grill Style  
 F: Thermostat (optional)



- Triple Coil Nichrome Element
- C-Frame Motor
- Squirrel Cage Blower
- Patented Smart Limit Protection®
- 20 Gauge Powder Coated Grill
- 7 Wattages in one heater
- Standard Color: Black, (optional almond, white or stainless)
- Low Profile
- 120 or 240 volts
- 2-year limited warranty



## Horizontal / Vertical Heater

**King introduces another first.** The only convertible cabinet heater that can be installed either vertically or horizontally on the market. This narrow profile heater is only 3-5/8" tall and specifically designed to fit into kitchen or bathroom cabinets, providing warm comfortable air for a cold bathrooms or kitchens saving valuable floor and wall space. For application other than kickspace, use the KTW-TG Grill.

### Ordering Information

	MODEL	UPC	COLOR	VOLTS	WATTS	AMPS	SHIP WEIGHT lbs
120V	KTW1215-RGB	20597	BLACK	120	1500	12.5	11
	KTW1215-HLS-TGW	20599	WHITE	120	1500	12.5	11
	KTW1215-HLS-TGSS	20601	STAINLESS STEEL	120	1500	12.5	11
	KTW1215-HLS-NG	20611	NO GRILLE	120	1500	12.5	10
240V	KTW2415-RGB	20598	BLACK	240/208	1500/1125	6.3/5.5	11
	KTW2415-HLS-TGW	20600	WHITE	240/208	1500/1125	6.3/5.5	11
	KTW2415-HLS-NG	20612	NO GRILLE	240/208	1500/1125	6.3/5.5	10

\*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.

### Engineering Specifications

Contractor shall supply and install, KTW Series limited space forced-air electric heaters, manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and Voltage as indicated on the plans.

**Ratings:** Heaters shall be available in wattages of 250 to 1,500, at 120 volts or dual rated from 208 volts to 240 volts.

**Blower and Motor:** A tangential cylindrical blower, delivering 70 CFM, 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.

**Elements:** Element assemblies shall have a 3-wattage element construction of coiled nickel chromium, alloy corrosion resistant wire strung with a minimum of two rows of muscovite insulator. Element assemblies shall have factory provided connection to allow field modification of wattage at time of installation.

**Thermal Overload:** Heaters shall be equipped with King's patented thermal overload Smart Limit Protection®, which disconnects elements and motor in the event normal operating temperatures are exceeded.

If thermal overload trips due to abnormal operating temperatures, thermal overload shall remain open until manually reset by turning the heater off for fifteen minutes. Automatic reset of thermal overloads, which allow the element to continue to cycle under abnormal conditions, will not be accepted.

**Hi/Lo selector switch:** Wattage can be adjusted from 250-1250 watts in the low position and 750-1500 watts in the hi position.

**Wall Can:** The wall can shall be 20-gauge steel and shall contain two 1/2" knockouts for power leads. The wall can shall be supplied with a factory installed grounding wire.

**Grill:** The grill shall be louvered, one piece design. The grill shall be epoxy powder coated in the color specified on the plans or stainless steel.

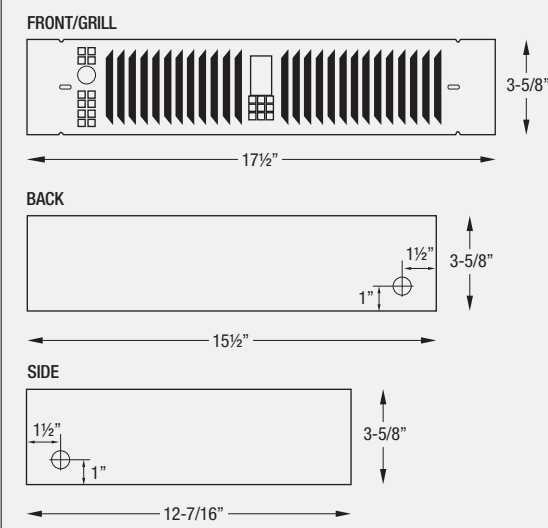
**Approval:** cULus (E41422)

# Multi-Watt Horizontal/Vertical Heater KTW Series

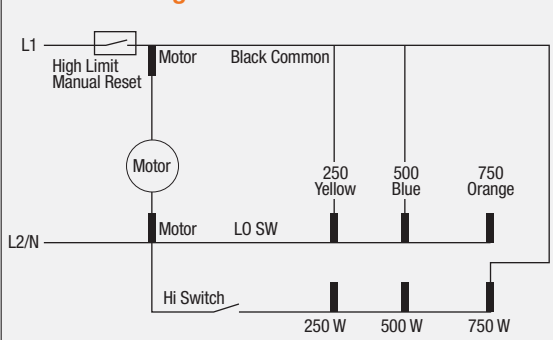
## Accessories \*Separately Packaged

MODEL	UPC	DESCRIPTION	WEIGHT lbs
KTW-HLS	20576	Hi-Lo wattage Selector Switch Kit Assembly	0.4
KTW-RGA	20577	Recess Grill, Almond	1.0
KTW-RGB	20578	Recess Grill, Black	1.0
KTW-RGSS	20579	Recess Grill, Stainless Steel	1.0
KTW-RGW	20580	Recess Grill, White	1.0
KTW-TGA	20581	Trim Grill, Almond	1.0
KTW-TGB	20582	Trim Grill, Black	1.0
KTW-TGSS	20583	Trim Grill, Stainless Steel	1.0
KTW-TGW	20584	Trim Grill, White	1.0
TKIT-1BW	20654	Built-in Single Pole Single Throw Thermostat Kit, Bright White	0.5
TKIT-2BW	20655	Built-in Double Pole Single Throw Thermostat Kit, Bright White	0.5
TKIT-1	11058	Built-in Single Pole Single Throw Thermostat Kit, Almond	0.5
TKIT-2	11059	Built-in Double Pole Single Throw Thermostat Kit, Almond	0.5

## Dimensional Data



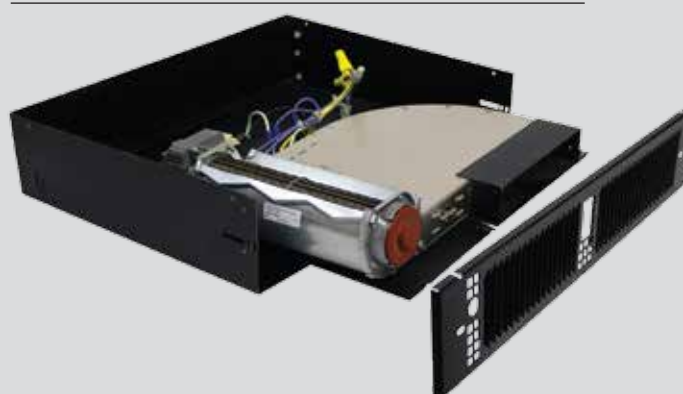
## Electrical Diagram



## Location for Heater: KTW

This heater has been designed to allow it to be recessed at floor level in the toe space of cabinets or under counters or at the base of walls.

## Internal View of the KTW

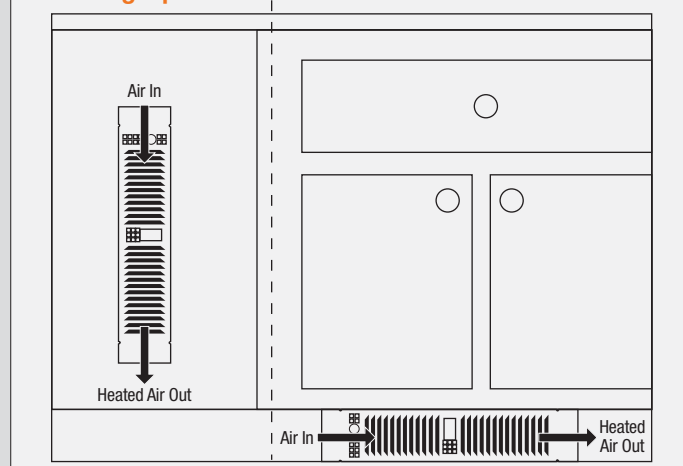


## Minimum Clearance In Wall, Vertical Installation

When placed in a wall or a filler section of a cabinet.

Front	Top	Bottom	Sides
36"	0"	2"	0"
91cm	0cm	5cm	0cm

## Mounting Options



## Minimum Clearance In Toe Space Installation

When placed in a wall or a filler section of a cabinet.

Front	Top	Bottom	Sides
36"	0"	0"	6"
91cm	0cm	0cm	15.24cm

# Ceiling Heater WHFC Series



**Model Code:**

WHFC	12	10
A	B	C

A: Wall Heater  
B: 12 - 120V 24 - 240V  
C: Watts (500 to 1500)



- Nichrome Open-Coil Element
- C-Frame Motor
- Squirrel Cage Blower
- Patented Smart Limit Protection\*
- Whisper quiet
- Ceiling mount
- Dual wattage
- Recess can with QuickSet™ stops
- Powder coated grill
- Standard color: white (almond optional)
- 3-year limited warranty



## The WHFC Ceiling Heater

This value-priced ceiling heater provides all of the features offered by the original WHF but adds the benefits of a ceiling mounted design. Its extreme value comes from combining the rapid heat transfer of a NiChrome element with the performance of a squirrel cage blower.

### Ordering Information

	MODEL	UPC	VOLTS	WATTS	AMPS	SHIP WEIGHT
120V	WHFC1210	12208	120	500 • 1000	4.2-8.4	8 lbs
	WHFC1212	12532	120	600 • 1200	5-10	8 lbs
	WHFC1215	12210	120	750 • 1500	6.25-12.5	8 lbs
240V	WHFC2410	12202	240/208	500 • 1000	2.1-4.2	8 lbs
	WHFC2515	12200	240/208	750 • 1500	3.13-6.25	8 lbs

\*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.

### Options / Accessories

ADD SUFFIX	DESCRIPTION	WEIGHT lbs
-A	Almond Color	8.0
-I	Interior and Grill Only (no wall can)	6.0

MODEL	UPC	DESCRIPTION	WEIGHT lbs
WHIC-C	12650	Ceiling Recess Can	3.5
WHSC-C	12230	Surface Can - White	4.0
WHFG	12520	Grill - White	2.0

## Engineering Specifications

Contractor shall supply and install WHFC Series ceiling-mounted forced-air electric heaters manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.

**Ratings:** Heaters shall be available in wattages of 500 to 1,500 at 120, 208, or 240 Volts.

**Blower and Motor:** A tangential cylindrical blower, delivering 70 CFM, 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. The motor and all wiring shall be totally isolated from the heating chamber for protection from heated air.

**Elements:** Element assemblies shall be constructed of coiled Nickel Chromium alloy, corrosion resistant wire strung through a minimum of four rows of mica insulator. Element assemblies shall have factory provided connection to allow field modification to 50% wattage at time of installation.

**Thermal Overload:** Heaters shall be equipped with King's patented thermal overload Smart Limit Protection®, which disconnects elements and motor in the event normal operating temperatures are exceeded.

If thermal overload trips due to abnormal operating temperatures, thermal overload shall remain open until manually reset by turning the heater off for 15 minutes. Automatic reset of thermal overloads, which allow the element to continue to cycle under abnormal conditions, will not be accepted. U.S. PATENT #6,748,163 B2 • CIPO PATENT #2,393,882

**Ceiling Surface Can:** The can shall be 20 gauge electrogalvanized steel and shall contain knockouts. The can shall be provided with a depth gauge, extending the full length of the can. The can shall be supplied with a factory installed groundwire.

**Grill:** The grill shall be a louvered, one-piece design with rounded edges on all four sides, with rounded corners to prevent snags from contact with other materials. The grill shall be epoxy powder-coated in the color specified by manufacturer.

**Approvals:** cULus (E41422)

# Large Ceiling Heater LPWC Series



**Model Code:**

LPW	12	27	C
A	B	C	D

A: Ceiling Heater  
 B: 12 - 120V 24 - 240V  
 20 - 208V 27 - 277V  
 C: Watts (1250 to 4500)  
 D: C - Ceiling  
 G - Ground



- Pic-A-Watt® Element
- Long life unit bearing motor
- 5-Bladed Aluminum fan
- Patented Smart Limit Protection®
- Multiple wattages
- Ceiling mount
- Standard color: white (almond optional)
- 20 gauge powder-coated grill
- 120, 208, 240, or 277 volts
- 5-year limited warranty



## Large Pic-A-Watt Ceiling Heater

**Designed for commercial and industrial applications**, the LPWC offers a high-capacity, heavy-duty ceiling heater where wall space is not available. King's exclusive dual Pic-A-Watt steel fin elements allow customers to select from a range of wattage options, tailoring the heater to an area's specific heating requirements. Available wattages range between 1250 to 4500 watts. It has a fan delay to help dissipate heat from the steel plate fin elements thereby prolonging heater life and increasing energy efficiency.

### Ordering Information / Options & Accessories

\*Add suffix -A for optional almond color

	MODEL	UPC	VOLTS	WATTS	AMPS	SHIP WEIGHT
120V	LPW1227C	18188	120	1250•1500•1750•2000•2250•2750	10.4-22.9	19 lbs
	LPW1227C-G	18170	120	1250•1500•1750•2000•2250•2750	10.4-22.9	25 lbs
208V	LPW2040C	22232	208	2250•2750•3000•3250•3500•3750•4000	10.8-19.2	19 lbs
	LPW2040C-G	22235	208	2250•2750•3000•3250•3500•3750•4000	10.8-19.2	25 lbs
240V	LPW2445C	18164	240	2250•2750•3000•3250•3500•3750•4000•4500	9.4-16.7	19 lbs
	LPW2445C-G	18175	240	2250•2750•3000•3250•3500•3750•4000•4500	9.4-16.7	25 lbs
277V	LPW2740C	18192	277	2000•3000•4000	7.2-14.4	19 lbs
	LPW2740C-G	18177	277	2000•3000•4000	7.2-14.4	25 lbs

ADD SUFFIX	UPC	DESCRIPTION	WEIGHT
-I	N/A	Interior and Grille Only (no wall can)	15 lbs
-H	N/A	Interior Only (no can or grille)	15 lbs
-G	N/A	Panel for Grid T-Bar Only - 23-3/4" x 23-3/4"	25 lbs
UWSA-C	12598	Ceiling Surface Can	7.5 lbs
UWIC-C	12592	Ceiling Recess Can For Advance Install	6.5 lbs

## Engineering Specifications

*Contractor shall supply and install LPW Series ceiling-mounted forced-air electric heaters manufactured by King Electrical Mfg. Co. of the wattage and voltage as indicated on the plans.*

**Motor:** Permanently lubricated, unit bearing motor. 20cc of oil. Enclosed motor for long-lasting, trouble-free operation. Thermally protected. 1300 RPM.

**Fan:** High efficiency, dynamically balanced, 5-bladed aluminum impeller fan. 185 CFM.

**Elements:** 3 steel sheathed heating tubes in a furnace-brazed, plate-finned, block design containing coiled Ni-Chrome wire embedded in a Magnesium Oxide insulator. Assembly provides up to 7 possible wattage configurations available for field installation selection. The use of external resistors, diodes, or other weak links to obtain multiple wattages will not be accepted.

**Thermal Overload:** Heaters shall be equipped with King's patented thermal overload Smart Limit Protection, which disconnects elements and motor in the event normal operating temperatures are exceeded. If thermal overload shall remain open until manually reset by turning the heater off for fifteen minutes.

**Fan Delay Switch:** Fan continues to operate after thermostat shuts off to remove residual heat left in element.

**Wall-box:** 20 GA electro-galvanized steel. Factory installed ground wire. Zero clearance to insulation. Optional surface box.

**Grill:** 20 gauge steel finished in a gloss white powder-coated paint.

**Approvals:** cULus (E41422)

\*See LPW product page for Dimensional Data



# Commercial Ceiling Heater KDS Series



## Model Code:

KDS	A	24	20
A	B	C	D

**A: Series**  
**B: A=Surface R=Recessed mount**  
**C: 20 - 208V 24 - 240V**  
**27 - 277V 48 - 480V**  
**D: Watts (20=2000 - 100=10000)**  
**E: -1 single phase -3 three phase**



- Totally enclosed fan and lifetime-lubricated ball bearing motor
- Three stainless steel tubular heating elements with aluminum fins
- High-limit temperature control with automatic reset
- Fan delay purges heater of residual heat
- Installation recessed into a T-bar ceiling for ODSR units
- Installation surface mounted for ODSA or ODSB units
- Recommended installation height: 8-12 ft. (2.4-3.6m)
- Standard color: white (-BW) (Almond optional)
- Built-in contactor for: all units at 347V, 480V, 600V, all units from 5-10 kW, and all units at 3-Phase
- Continuous circulation controlled by a built in switch (with power-on indicator light (-CV))
- 208V, 240V, 277V, 347V, 480V, 600V, 1 or 3-Phase
- Standard finish: epoxy/polyester powder paint
- Outlet grill made of flat ribbon wire
- 1-year warranty against defects, 10-year on element

## The KDS Series Ceiling Heater

**Designed for ceiling mount, this unit heater provides a high level of comfort.** Driven by a powerful motor, the fan creates circulation by blowing downward warm air accumulation near ceilings.

## Specifications

*Contractor shall supply and install KDS Series electric heaters of the wattage and voltage as indicated on the plans.*

**Color:** Standard: white, almond. Optional: metallic silver, bronze, metallic charcoal, textured black, beige-grey, aluminum, semi-gloss black. Custom colors available upon request.

**Finish:** Standard: epoxy/polyester powder paint.

**Voltage:** 208V, 240V, 277V, 347V, 480V, 600V, 1 or 3 phase.

**Construction:** Grille made of flat ribbon wire. High-limit temperature control with automatic reset.

**Fan:** Totally enclosed and lifetime-lubricated ball bearing motor. Fan delay purges heater of residual heat.

**Heating element:** Three stainless steel tubular heating elements with aluminum fins.

**Warranty:** 1-year warranty against defects. 10-year warranty on the heating elements.

**Control:** Line voltage control standard. Built-in 240V contactor for: all units from 5 to 10kW, all units at 347V, 480V, 600V, all units at 3-phase. 24V and 120V control circuit available. Built-in tamperproof thermostat available. 24V relay (with or without transformer) available. Continuous circulation controlled by a built-in switch with power-on indicator light available (-CV). Any remote thermostat or relay must be connected to the heater control terminal block. 4

**Installation:** Recommended height: between 8 ft. (2.4 m) and 12 ft. (3.6 m). Recessed into insulated or T-bar ceiling (KDSR). Surface mounting (KDSA and KDSB).

**Application:** Apartment building, commercial building, drop ceiling, stairwell, garage.

# Commercial Ceiling Heater KDS Series

## Ordering Information \*Add suffix -A for optional almond color

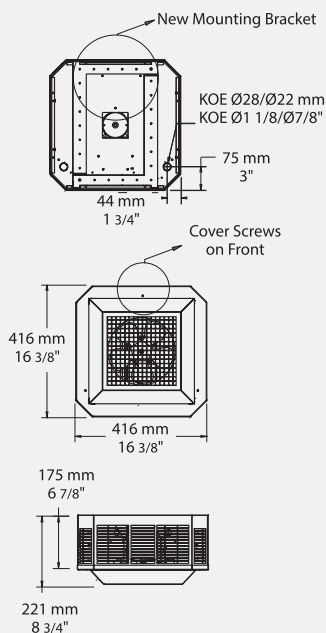
	<b>SURFACE MODEL KDSA</b>	<b>UPC</b>	<b>RECESS MODEL KDSR</b>	<b>UPC</b>	<b>SURFACE MODEL KDSB</b>	<b>UPC</b>	<b>VOLTS 1ph</b>	<b>WATTS</b>
<b>240V</b>	KDSAU2420	30850	KDSRU2420	30906			240	2000
	KDSAU2430	30852	KDSRU2430	30908			240	3000
	KDSAU2440	30854	KDSRU2440	30910			240	4000
	KDSAU2450	30856	KDSRU2450	30912			240	5000
					KDSBU2475	30962	240	7500
					KDSBU24100	30964	240	10000
<b>208V</b>	KDSAU2020	30858	KDSRU2020	30914			208	2000
	KDSAU2030	30860	KDSRU2030	30916			208	3000
	KDSAU2040	30862	KDSRU2040	30918			208	4000
	KDSAU2050	30864	KDSRU2050	30920			208	5000
					KDSBU2075	30966	208	7500
					KDSBU20990	30968	208	9900
<b>277V</b>	KDSAU2720	30866	KDSRU2720	30922			277	2000
	KDSAU2730	30868	KDSRU2730	30924			277	3000
	KDSAU2740	30870	KDSRU2740	30926			277	4000
	KDSAU2750	30872	KDSRU2750	30928			277	5000
					KDSBU2775	30970	277	7500
					KDSBU27100	30972	277	10000
<b>480V</b>	KDSAU4820	30874	KDSRU4820	30930			480	2000
	KDSAU4830	30876	KDSRU4830	30932			480	3000
	KDSAU4840	30878	KDSRU4840	30934			480	4000
	KDSAU4850	30880	KDSRU4850	30936			480	5000
					KDSBU4875	30974	480	7500
					KDSBU48100	30976	480	10000
	<b>SURFACE MODEL KDSA</b>	<b>UPC</b>	<b>RECESS MODEL KDSR</b>	<b>UPC</b>	<b>SURFACE MODEL KDSB</b>	<b>UPC</b>	<b>VOLTS 3ph</b>	<b>WATTS</b>
<b>240V</b>	KDSAU2420-3	30882	KDSRU2420-3	30938			240	2000
	KDSAU2430-3	30884	KDSRU2430-3	30940			240	3000
	KDSAU2440-3	30886	KDSRU2440-3	30942			240	4000
	KDSAU2450-3	30888	KDSRU2450-3	30944			240	5000
					KDSBU2475-3	30978	240	7500
					KDSBU24100-3	30980	240	10000
<b>208V</b>	KDSAU2020-3	30890	KDSRU2020-3	30946			208	2000
	KDSAU2030-3	30892	KDSRU2030-3	30948			208	3000
	KDSAU2040-3	30894	KDSRU2040-3	30950			208	4000
	KDSAU2050-3	30896	KDSRU2050-3	30952			208	5000
					KDSBU2075-3	30982	208	7500
					KDSBU20990-3	30984	208	9900
<b>480V</b>	KDSAU4820-3	30898	KDSRU4820-3	30954			480	2000
	KDSAU4830-3	30900	KDSRU4830-3	30956			480	3000
	KDSAU4840-3	30902	KDSRU4840-3	30958			480	4000
	KDSAU4850-3	30904	KDSRU4850-3	30960			480	5000
					KDSBU4875-3	30986	480	7500
					KDSBU48100-3	30988	480	10000

# Commercial Ceiling Heater KDS Series

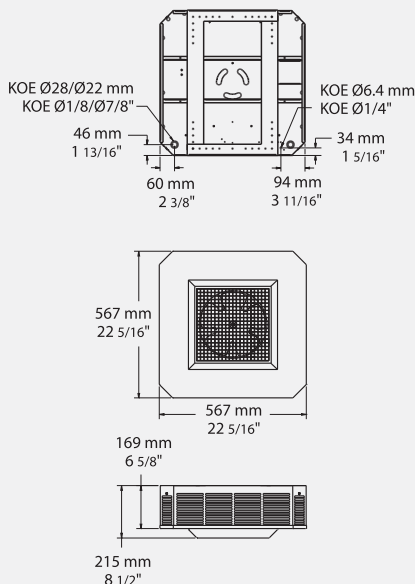
## Dimensional Data

⊕ = knockout location

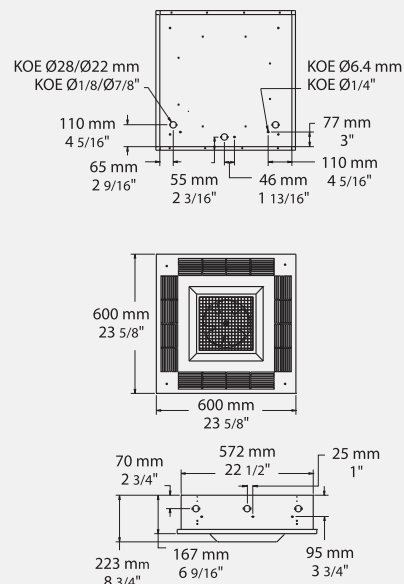
**KDSR - Surface**  
2-5kW, 25 lbs (11.4 kg)



**KDSB - Surface**  
7.5-10kW, 34 lbs (15.5 kg)



**KDSR - Recessed**  
2-5kW, 31 lbs (14.1 kg)



## Control Options

MODEL	DESCRIPTION
Product no-RT	Factory installed 24V relay with transformer
Product no-R	Factory installed 24V relay without transformer
KDS-RT	24V relay with transformer kit
KDS-120	Factory installed 120V control circuit
KDS-R	24V relay without transformer kit
KDS-R / CV-24	Factory installed summer fan 24V remote control + pilot light (switch not included)
KDS-R / CV-240	Factory installed summer fan 240V remote control + pilot light (switch not included)
KDS-T-BAR	Adapter for T-bar ceiling (KDSA)(kit)
KDS-CV	Factory installed summer fan switch + pilot light
KDS-DIS20	Factory installed disconnect switch 277V and less, double pole, 20 Amp
KDS-DIS40	Factory installed disconnect switch 600V max, three pole, 40 Amp
KDS-DIS80	Factory installed disconnect switch 600V, three pole, 80 Amp
KDS-T-AV	Built-in tamper-proof thermostat kit
Product no-T-AV	Factory installed built-in tamper-proof thermostat kit

## Options

ADD SUFFIX	DESCRIPTION
-A	Almond color
-AE	Metallic Silver color (10% up-charge applies)
-BG	Beige-Grey color (10% up-charge applies)
-BZ	Bronze color (10% up-charge applies)
-CM	Metallic Charcoal color (10% up-charge applies)
-NR	Textured Black color (10% up-charge applies)
-AL	Aluminum color (10% up-charge applies)
-NL	Semi-Gloss Black (10% up-charge applies)

# Baseboard Heater K Series



**Model Code:**

4	K	24	10	-BW
A	B	C	D	E

**A: Length**  
**B: Series**  
**C: Volts**  
**D: Watts (375 to 2400)**  
**E: Color (-BW) Bright White (-A) almond**  
**F: -HAL**

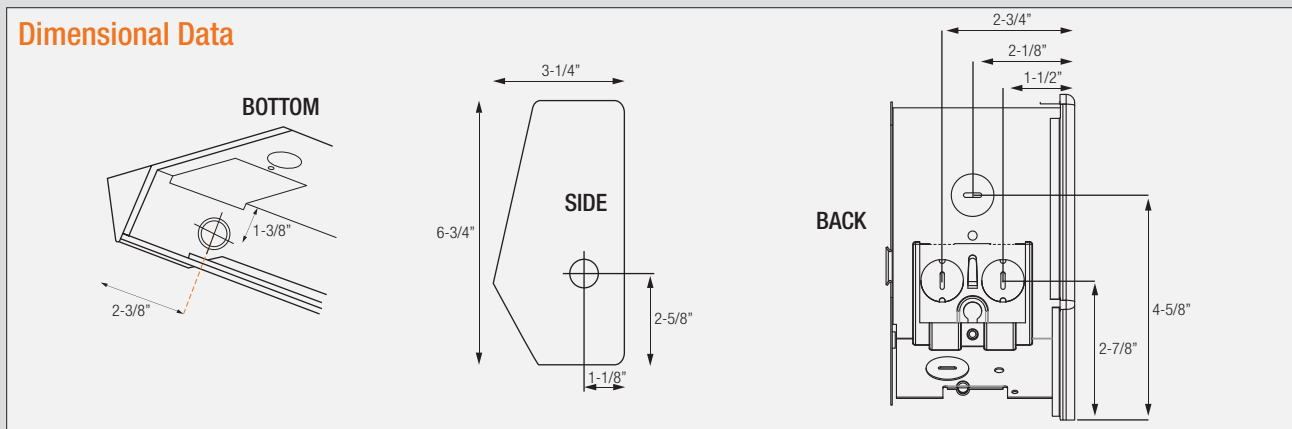


- Aluminum Ribbon Fin Element
- Full Length Safety Cutout
- Crushproof Element
- Natural Convection Heat
- Back wire design
- Built-in clamps coming soon
- Baked enamel finish
- Dent resistant die form cover
- 120, 208, 240 or 277 volts
- Standard color: bright white (optional almond color)
- 1-year limited warranty

## The K Series Baseboard Heater

**Baseboard heaters** are an economical way to provide heat. They are typically used in apartment construction and other rental properties because of low initial cost and maintenance. Quality components guarantee a long-lasting, reliable heater. Standard color is bright white. Almond color available. Institutional grade 18 gauge front covers and 22 gauge back cans are available for special applications. All other specifications are the same as the standard heater.

### Dimensional Data



## Engineering Specifications

*Contractor shall supply and install K Series electric convection baseboard heaters manufactured by King Electrical Mfg. Company of the wattage, voltage and length indicated on the plans.*

### Construction:

- The heater shall take room air in the bottom (lower front) and discharge it through the top front.
- The heater back, bottom, and top shall be fabricated from electro-galvanized 22 gauge steel. Front panels shall be fabricated from 22 gauge electro-galvanized steel, ribbed longitudinally for extra strength and have center support to resist impact loads.
- The heater casing shall have modern rounded ends and corners to provide a smooth appearance, finished with a baked enamel.
- The heater shall be provided with a continuous capillary sensor tube for thermal protection, extending the full length of the heating element, rated at 175° F, and be a fail-safe type.

- The heater shall have a 44 cubic inch junction box at both ends, furnished with five 1/2" knockouts located on the back, bottom, and side.
- Heater elements shall consist of high quality 80% Nickel and 20% Chromium alloy corrosion-resistant wire completely surrounded by Magnesium Oxide and enclosed in a rust-resistant sheath. Ribbon aluminum finning shall be compression welded to the sheathed element to provide chimney-type flue for heat transfer.
- Heaters shall be supplied with a one year limited warranty.

### Rating and Approval:

- The heaters shall be available in ratings from 375 through 1,500 Watts at 120 Volts, and 375 to 2,400 Watts at 208-240 and 277 Volts.
- The heaters shall be available in 187 or 250 Watts per lineal foot.
- cULus (E29778)

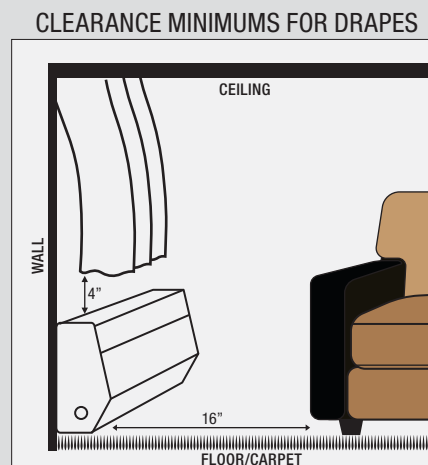
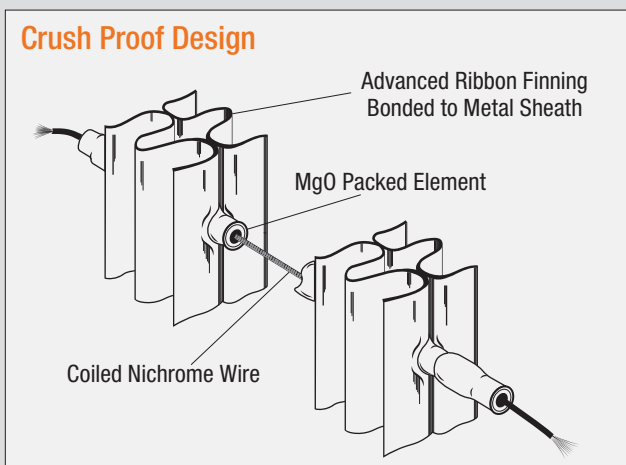
# Baseboard Heater K Series

**Ordering Information** Standard models Add suffix -A for optional almond color. Add suffix -HAL for high altitude

	MODEL	UPC	VOLTS	WATTS	AMPS	LENGTH	SHIP WEIGHT lbs
<b>120V</b>	2K1205BW	11362	120	500	4.2	27"	6.5
	3K1207BW	11366	120	750	6.3	3 ft.	8
	4K1210BW	11370	120	1000	8.3	4 ft.	10.5
	5K1212BW	11374	120	1250	10.4	5 ft.	13
	6K1215BW	11378	120	1500	12.5	6 ft.	15
<b>208V</b>	2K2005BW	11382	208	500	2.4	27"	6.5
	3K2007BW	11386	208	750	3.6	3 ft.	8
	4K2010BW	11390	208	1000	4.8	4 ft.	10.5
	5K2012BW	11394	208	1250	6.0	5 ft.	13
	6K2015BW	11398	208	1500	7.2	6 ft.	15
<b>240V</b>	8K2020BW	11402	208	2000	9.6	8 ft.	19
	8K2024BW	11441	208	2400	11.5	8 ft.	19
	2K2405BW	11410	240/208	500/375	2.1/1.8	27"	6.5
	3K2407BW	11414	240/208	750/563	3.1/2.7	3 ft.	8
	4K2410BW	11418	240/208	1000/750	4.2/3.7	4 ft.	10.5
<b>277V</b>	5K2412BW	11422	240/208	1250/938	5.2/4.5	5 ft.	13
	6K2415BW	11426	240/208	1500/1125	6.3/5.5	6 ft.	15
	8K2420BW	11434	240/208	2000/1500	8.3/7.2	8 ft.	19
	8K2424BW	11437	240/208	2400/1800	10.0/8.7	8 ft.	19
	2K2403BW	11442	277	500	1.8	27"	6.5
	3K2405BW	11446	277	750	2.7	3 ft.	8
	4K2407BW	11452	277	1000	3.6	4 ft.	10.5
	5K2410BW	11456	277	1250	4.5	5 ft.	13
	6K2412BW	11460	277	1500	5.4	6 ft.	15
	8K2415BW	11464	277	2000	7.2	8 ft.	19
	8K2418BW	11468	277	2400	9.0	8 ft.	19

**Ordering Information** \*Low Density: 187 Watts per foot Add suffix -A for optional almond color. Add suffix -HAL for high altitude

MODEL	UPC	VOLTS	WATTS	AMPS	LENGTH	SHIP WEIGHT lbs
2K2405BW	11410	208	375	1.8	27"	6.5
3K2407BW	11414	208	563	2.7	3 ft.	8
4K2410BW	11418	208	750	3.6	4 ft.	10.5
5K2412BW	11422	208	938	4.5	5 ft.	13
6K2415BW	11426	208	1125	5.4	6 ft.	15
7K2418BW	11430	208	1313	6.3	7 ft.	19
8K2420BW	11434	208	1500	7.2	8 ft.	19
8K2424BW	11437	208	1800	9.0	8 ft.	19
2K2403BW	11442	240	375	1.6	27"	6.5
3K2405BW	11446	240	563	2.3	3 ft.	8
4K2407BW	11452	240	750	3.1	4 ft.	10.5
5K2410BW	11456	240	938	3.9	5 ft.	13
6K2412BW	11460	240	1125	4.7	6 ft.	15
8K2415BW	11464	240	1500	6.3	8 ft.	19
8K2418BW	11468	240	1800	7.8	8 ft.	19



# Baseboard Heater Accessories K & CB Series

## Accessories

MODEL	UPC	DESCRIPTION	WEIGHT lbs
BKC-BW	11474	Corner Connector - Bright White	1.5
BKR120BW	11494	Duplex Cover Plate (includes 120V receptacle) - Bright White (See below)	0.5
BKLT120BW*	11481	Load Transfer Cover Plate (Heat/Cool/Off) 120V - Bright White	0.5
BKLT240BW*	11483	Load Transfer Cover Plate (Heat/Cool/Off) 240V - Bright White	0.5
BKCB1BW	11532	3-3/4" Relay Control Box - Bright White	1.5
BKCB2BW	11534	7-1/8" Dual Relay Control Box - Bright White	3.0
BKT1BW	11484	Built-In Thermostat Kit (SPST) - Bright White (5 Pack)	0.6
BKT1BW-TP	11542	Built-In Tamperproof Stat Kit (SPST) - Bright White (5 Pack)	0.3
BKT2BW	11488	Built-In Thermostat Kit (DPST) - Bright White (5 Pack)	0.5
BKT2BW-TP	11544	Built-In Tamperproof Stat Kit (DPST) - Bright White (5 Pack)	0.6
-HAL	N/A	High Altitude Limit for Baseboards used over 6500 feet	N/A

\*Requires BKCB1 Control box, order separately.

## Shield Options \* Specify Color: Almond or White NON Cancel-able - NON Returnable item (NCNR)

MODEL	UPC	DESCRIPTION	WEIGHT lbs
SHIELD-33"	10290	Heater Shield for 27" Baseboard	6
SHIELD-42"	10291	Heater Shield for 3' Baseboard	7
SHIELD-54"	10292	Heater Shield for 4' Baseboard	8.5
SHIELD-66"	10293	Heater Shield for 5' Baseboard	10
SHIELD-78"	10294	Heater Shield for 6' Baseboard	11
SHIELD-102"	10295	Heater Shield for 8' Baseboard	14

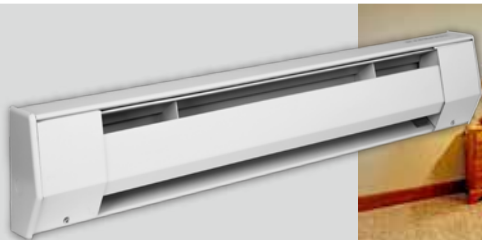
## Cover Options \* Specify Color: Almond or White NON Cancel-able - NON Returnable item (NCNR)

MODEL	UPC	DESCRIPTION	WEIGHT lbs
BB-18ga Cover 2'	52054	18 Gauge Cover for 27" Baseboard	1.5
BB-18ga Cover 3'	52056	18 Gauge Cover for 3' Baseboard	2
BB-18ga Cover 4'	52058	18 Gauge Cover for 4' Baseboard	2.6
BB-18ga Cover 5'	52060	18 Gauge Cover for 5' Baseboard	3.65
BB-18ga Cover 6'	52062	18 Gauge Cover for 6' Baseboard	4
BB-18ga Cover 8'	52064	18 Gauge Cover for 8' Baseboard	5.3

## Thermostats, Options & Accessories



# Ceramic Core Baseboard Heater CB Series



### Model Code:

2	CB	240	-3	BW
A	B	C	D	E

- A: Length
- B: Series
- C: 12 - 120V 24 - 240V  
20 - 208V
- D: Watts (350 to 1500)
- E: Color (BW) bright white  
(A) Almond
- F: -HAL (High Altitude Limit)



- High Mass Ceramic Heat-core
- Natural Convection Heat
- Low Density Heat
- Quiet Running
- Fluid-free design
- Standard color: bright white
- (optional almond color available)
- Available in three voltages  
120V / 208V / 240V
- 5 year limited warranty



## The CB Ceramic Core Baseboard Heater

This baseboard is very different from the standard baseboard. King's high mass ceramic element has over 50 years of proven performance; it is an excellent alternative to costly and temperamental water or oil-filled baseboard heaters. The ceramic core will continue to heat the room even after the unit turns off. It will never leak or explode due to high pressure build-up typical in fluid-filled baseboards. The low surface temperature and rugged construction make this a very durable heater suitable for everyday use. If safety, lower surface temperatures and an economical price are your concern, this fluid-less design is the baseboard of choice.

### Ordering Information

\* Add suffix (-A) for optional Almond finish

Note: Over 8500 ft Altitude 210 degree high limits will need to be used.

	MODEL	UPC	VOLTS	WATTS	AMPS	LENGTH	SHIP WEIGHT lbs
120V	2CB1203BW	11205	120	350	2.9	27"	7
	3CB1205BW	11215	120	500	4.2	3 ft.	8
	4CB1207BW	11225	120	750	6.3	4 ft.	10.5
	5CB1210BW	11235	120	1000	8.3	5 ft.	13
	6CB1215BW	11245	120	1250	10.4	6 ft.	16
208V	2CB2003BW	11255	208	350	1.7	27"	7
	3CB2005BW	11265	208	500	2.4	3 ft.	8
	4CB2007BW	11275	208	750	3.6	4 ft.	10.5
	5CB2010BW	11285	208	1000	4.8	5 ft.	13
	6CB2012BW	11290	208	1250	6.0	6 ft.	16
240V	8CB2015BW	11300	208	1500	7.2	8 ft.	20.5
	2CB2403BW	11310	240	350	1.5	27"	7
	3CB2405BW	11320	240	500	2.1	3 ft.	8
	4CB2407BW	11330	240	750	3.1	4 ft.	10.5
	5CB2410BW	11340	240	1000	4.2	5 ft.	13
	6CB2412BW	11350	240	1250	5.2	6 ft.	16
	8CB2415BW	11360	240	1500	6.3	8 ft.	20.5

\*Refer to accessories page for options

## Engineering Specifications

Contractor shall supply and install CB ceramic baseboard heaters, manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.

**Typical Application:** The rugged construction makes this a very durable heater suitable as a primary heat source for everyday use.

**Element:** The superior performance comes from the proven technology of the ceramic 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.

**Safety:** The large heating element and low watt density produce low surface temperatures making it very safe.

**Thermal Cutout:** A continuous capillary sensor extends the full length of the baseboard, turning the element off when an over temperature condition occurs. Automatically resets when the normal temperature returns. Optional manual reset available.

**Construction:** Expansion noise is eliminated by welding the junction boxes and element hangers to the baseboard case. 22 gauge steel adds strength across the entire length of the baseboard.

**Quick Wiring:** Identical junction boxes with knockouts in the rear, side and bottom allow the baseboard to be wired from either end. One screw makes quick access to the wiring compartment.

**Exterior:** Durable baked enamel finish. Colors include standard bright white with almond as an option. Custom colors are available upon request. Commercial Construction: Optional 18 gauge front cover for commercial use.

**Options:** Single Pole or Double Pole unit-mount thermostat 45°-80°F.

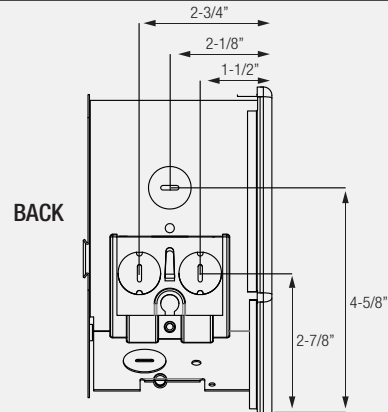
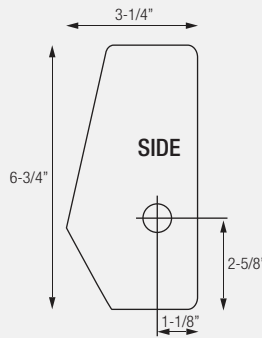
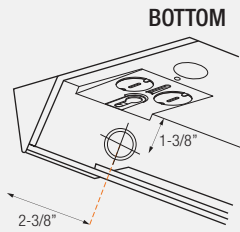
**Quiet:** The low temperature element heats cleanly and quietly.

**Warranty:** 5 year product warranty.

**Approvals:** cULus (E29778)

# Ceramic Core Baseboard Heater CB Series

## Dimensional Data



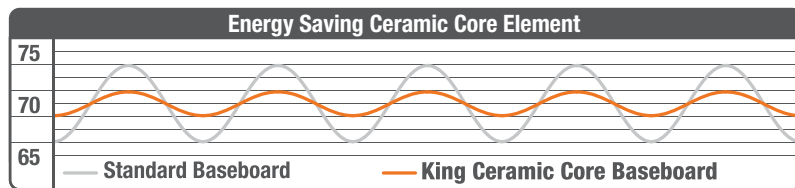
## Over 50 years of Proven Performance

### King's High Mass Ceramic Core Element

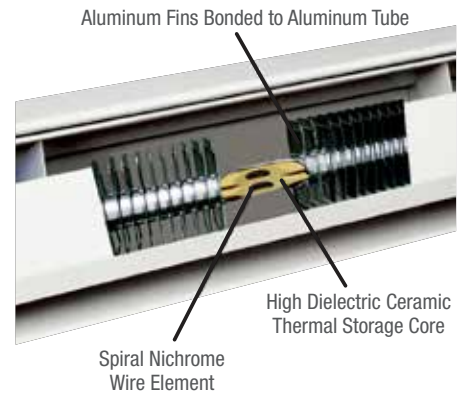
#### Ceramic Core Element (Liquid-Free Design)

The ceramic core acts as a heat sink turning the electrical energy into thermal storage. When the thermostat shuts off, the retained heat continues transferring into the room saving you on your electric bill.

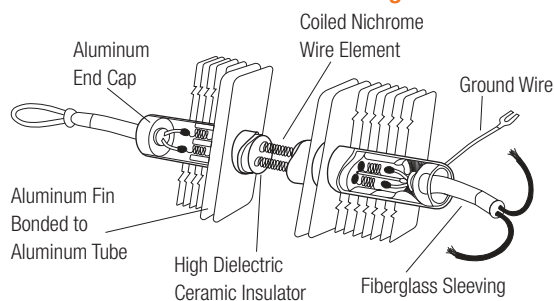
The Model CB produces gentle warmth that does not scorch or dry out the air in the room. This heater is often recommended for people with allergies or sinus problems.



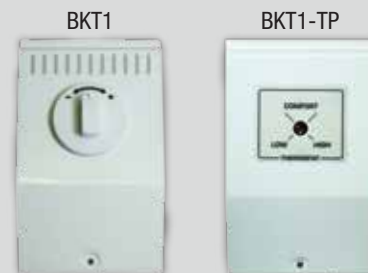
\*Reduces temperature swings



#### Ceramic Core Element Diagram



#### Standard & Tamperproof Built-in Thermostats





# Cove Heater KCV Series



### Model Code:

KCV	12	10
A	B	C

A: Series  
 B: 12 - 120V 20 - 208V  
 24 - 240V  
 C: Watts (250 - 1500)



- Radiant & Convection Heat
- Long Life Elements
- Silent Running
- Junction box at each end
- Extruded aluminum front panel
- Powder coated high temp. finish
- Easy surface-mount installation
- Ribbed front for maximum surface radiation
- Open-back design for maximum convection
- 1/2" diameter knockouts for 1/2" conduit
- Standard color: almond (white optional)
- 2-year limited warranty



## The KCV Series Cove Heater

The KCV cove heater is a radiant heater that also produces convection heat by heating the air similar to a baseboard. By combining the quick comfort of radiant heat along with the sustained warmth of convection heat, warm air is uniformly dispersed throughout the room. The cove heater is mounted near the ceiling, eliminating furniture placement problems. Surface temperatures are lower than baseboard or fan heaters, making a pleasant form of heat similar to older ceiling cable heating systems. With no moving parts this heater is quiet and maintenance free. Typical uses are day care centers, assisted living housing, housing developments, laundry rooms, bathrooms, bedrooms.

### Ordering Information

	MODEL	UPC	VOLTS	COLOR	WATTS	AMPS	LENGTH	SHIP WEIGHT lbs
	KCV1202	11801	120	ALMOND	250	2.1	24"	5.5
	KCV1202W	11802	120	WHITE	250	2.1	24"	5.5
	KCV1204	11800	120	ALMOND	450	3.8	34"	6.7
	KCV1204W	11799	120	WHITE	450	3.8	34"	6.7
	KCV1206	11803	120	ALMOND	600	5.0	47"	9.3
	KCV1206W	11804	120	WHITE	600	5.0	47"	9.3
	KCV1207	11806	120	ALMOND	750	6.3	59"	11.2
	KCV1207W	11807	120	WHITE	750	6.3	59"	11.2
<b>120V</b>	KCV1209	11808	120	ALMOND	900	7.5	71"	11.2
	KCV1209W	11809	120	WHITE	900	7.5	71"	11.2
	KCV1210	11812	120	ALMOND	1050	8.6	83"	15.3
	KCV1210W	11813	120	WHITE	1050	8.6	83"	15.3
	KCV1212	11815	120	ALMOND	1200	10.0	94"	16.8
	KCV1212W	11814	120	WHITE	1200	10.0	94"	16.8
	KCV1215	11810	120	ALMOND	1500	12.5	118"	26.0
	KCV1215W	11811	120	WHITE	1500	12.5	118"	26.0
	KCV2004	11816	208	ALMOND	450	2.2	34"	6.7
	KCV2004W	11818	208	WHITE	450	2.2	34"	6.7
	KCV2006	11817	208	ALMOND	600	2.9	47"	9.3
	KCV2006W	11825	208	WHITE	600	2.9	47"	9.3
	KCV2007	11819	208	ALMOND	750	3.6	59"	11.2
	KCV2007W	11826	208	WHITE	750	3.6	59"	11.2
	KCV2009	11820	208	ALMOND	900	4.3	71"	13.1
	KCV2009W	11828	208	WHITE	900	4.3	71"	13.1
<b>208V</b>	KCV2010	11821	208	ALMOND	1050	5.0	83"	15.3
	KCV2010W	11829	208	WHITE	1050	5.0	83"	15.3
	KCV2012	11822	208	ALMOND	1200	5.8	94"	16.8
	KCV2012W	11831	208	WHITE	1200	5.8	94"	16.8
	KCV2015	11823	208	ALMOND	1500	7.2	118"	21.2
	KCV2015W	11832	208	WHITE	1500	7.2	118"	21.2
	KCV2018	11795	208	ALMOND	1800	8.7	118"	21.2
	KCV2018W	11796	208	WHITE	1800	8.7	118"	21.2

# Cove Heater KCV Series

## Ordering Information

240V

MODEL	UPC	VOLTS	COLOR	WATTS	AMPS	LENGTH	SHIP WEIGHT lbs
KCV2404	11824	240/208	ALMOND	450/338	1.9/1.7	34"	6.7
KCV2404W	11834	240/208	WHITE	450/338	1.9/1.7	34"	6.7
KCV2406	11827	240/208	ALMOND	600/450	2.5/2.2	47"	9.3
KCV2406W	11835	240/208	WHITE	600/450	2.5/2.2	47"	9.3
KCV2407	11830	240/208	ALMOND	750/563	3.1/2.7	59"	11.2
KCV2407W	11837	240/208	WHITE	750/563	3.1/2.7	59"	11.2
KCV2409	11833	240/208	ALMOND	900/675	3.8/3.3	71"	13.1
KCV2409W	11840	240/208	WHITE	900/675	3.8/3.3	71"	13.1
KCV2410	11836	240/208	ALMOND	1050/788	4.4/3.8	83"	15.3
KCV2410W	11841	240/208	WHITE	1050/788	4.4/3.8	83"	15.3
KCV2412	11839	240/208	ALMOND	1200/900	5.0/4.4	94"	16.8
KCV2412W	11838	240/208	WHITE	1200/900	5.0/4.4	94"	16.8
KCV2415	11842	240/208	ALMOND	1500/1125	6.3/5.5	118"	26.0
KCV2415W	11844	240/208	WHITE	1500/1125	6.3/5.5	118"	26.0
KCV2418	11843	240/208	ALMOND	1800/1350	7.5/6.5	118"	26.0
KCV2418W	11798	240/208	WHITE	1800/1350	7.5/6.5	118"	26.0

\*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.

## Engineering Specifications

### Construction:

- Constructed of extruded aluminum with a maximum cross section thickness of .962".
- With sawtooth profile to increase radiating surface area.
- Open on top and bottom for maximum convection heating room air.
- With 32 cubic inch junction box at both ends, furnished with 1/2" knockouts on back and top.
- Ni-Chrome wire embedded in Magnesium Oxide powder enclosed and sealed in aluminum sheath.

- Element wattage density of approximately 150 watts per linear foot.
- With full length back case constructed of 22 gauge electrogalvanized steel with baked enamel finish.
- Two year limited warranty.

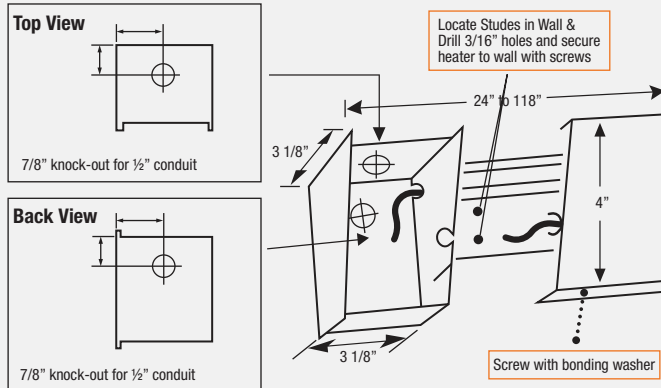
### Ratings and Approvals:

- The heaters shall be available in ratings from 250 - 1500 watts at 120 and 208/240 Volts.
- cULus

### Accessories/Options

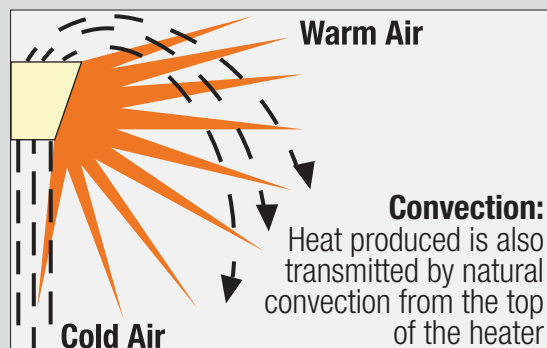
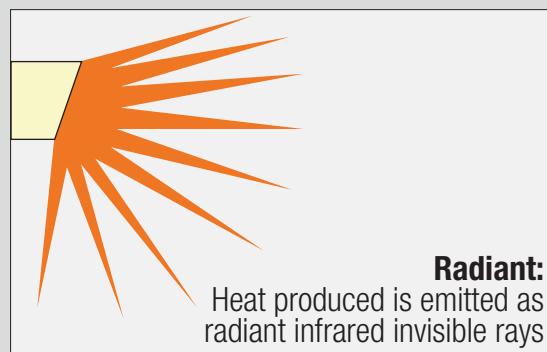
MODEL	DESCRIPTION	WEIGHT lbs
KCVT-1R	Single Pole Right side wiring	.25
KCVT-1L	Single Pole left side wiring	.25
KCVT-2R	Double Pole Right side wiring	.25
KCVT-2L	Double Pole Left side wiring	.25
-W	White	N/A

### Dimensional Data

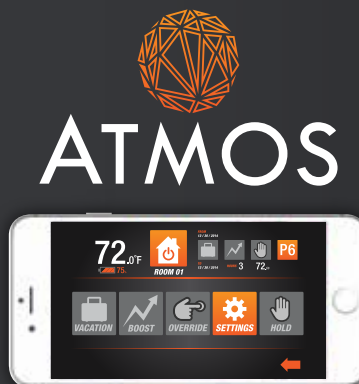


### MINIMUM CLEARANCE

Heaters are not to be mounted closer than 2 1/2" from drywall ceiling or 6" from vinyl or drop ceiling.  
Heaters to be mounted at least 6 feet from floor.



# Bluetooth Elec. Prog. Therm. ATMOS Series



- Programmable with Atmos Smart Phone App
- Single pole battery powered or double pole line voltage
- Back-lit display for easy viewing
- Temperature range 41° - 90°F (5° - 32°C)
- Program 4 or 6 time periods for maximum flexibility

- Electronic sensing for accurate temperature control ( $\pm 1^\circ\text{F}$ )
- For use on baseboard, fan forced & radiant electric heaters
- Large back-lit buttons allow easy adjustment & programming
- Mounts directly to a 2x4 inch vertical electrical outlet box



## The ATMOS Bluetooth Enabled Thermostat & Smart Phone App

Bluetooth Enabled: King's Atmos Bluetooth enabled thermostat combines the latest in Bluetooth technology with a sleek modern design, offering unparalleled user control. It's highly accurate sensing technology saves up to 28% on heating costs. This feature achieves higher comfort levels with reduced temperature swings as compared to economy models. With its simple, intuitive smart phone app interface you can control all thermostats in your home with ease.

**Bluetooth:** Range is 30 to 60 ft. depending on wall construction.

### Ordering Information

MODEL	UPC	DESCRIPTION
ATMOS1-B	10394	1P Bluetooth Programmable Electronic Thermostat, AA Battery Powered (included) 120/240V
ATMOS2-2	10395	2P Bluetooth Programmable Electronic Thermostat, 240V

### Engineering Specifications

**Temperature Range:** 41° - 90°F (5° - 32°C) **Accuracy:** +1° F  
**Max Power:** 2640W @ 120VAC (16A) (ATMOS1-B Only)  
**Max Power:** 4576W @ 208VAC (16A)  
**Max Power:** 5280W @ 240VAC (16A)  
**Sensing Element:** Electronic



## Smart Phone iPhone or Android App




- ✓ Connect Via Bluetooth For Convenient Programming & Use
- ✓ Easy To Navigate Menus For Quick Programming
- ✓ Control Multiple Thermostats For Total Home Control
- ✓ Available for Android and iOS.



# Bluetooth Elec. Prog. Therm. ATMOS Series



## *In-Home mobility*

Convenient  **Bluetooth** connectivity allows for total user comfort and control throughout the home. With the **ATMOS** smart phone app, you can adjust the temperature of your thermostat from the comfort of the couch. The climate of your home will become a customized atmosphere that you control, or let **ATMOS** do it for you.



## *Comfort just a click away*

The **ATMOS** menu & interface were designed to create an excellent experience for all users. Including password protection to block unauthorized users from making unwanted changes. Each menu is easy to navigate and includes large buttons, allowing for quick and simple programming of all your custom settings. Making changes is no longer a hassle. Going on vacation, simply pre-schedule your Vacation Mode Settings. With **ATMOS**, your home is in good hands.



## *Infinite Possibilities*

While using **ATMOS**, total home control becomes your reality. The app allows the user to control multiple thermostats, with no limit, throughout the home. **ATMOS** thermostats are programmable with up to six time periods in a day. By selecting Boost Mode, the current period can be extended up to 3 additional hours, without altering the programmed schedule. Let **ATMOS** find new possibilities in your home.



## *Changes made easy*

Manually override your programmed settings at any time with the app or directly through the thermostat. Your presets will still retain the same settings, and the override temperature will only remain until the end of the current period. However, by activating Hold Mode, you can lock the current temperature for any duration until manually changed. **ATMOS** gives your home the comfort that you deserve.

# Personalized Presets SIMPLSTAT Series



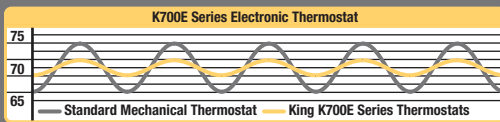
## SIMPLSTAT



- 3 programmable presets (Home / Away / Sleep)
- Single pole battery powered or double pole line voltage
- Large back-lit Display for easy viewing
- Temperature range 41° - 95°F (5° - 35°C)
- Clean, beveled style suits any décor
- Electronic sensing for accurate temperature control (±1°F)
- For use on baseboard, fan forced & radiant electric heaters
- Large back-lit buttons allow easy temperature adjustment
- Fully vented cover allows air sensing in all directions
- Mounts directly to a single gang vertical electrical outlet box
- 1-year limited warranty

### The SIMPLSTAT Electronic Thermostat with Personalized Presets

No Programming Required. Featuring a user-friendly interface of 3 oversized, back-lit preset temperature buttons that can be personalized (Home / Away / Sleep). Simply press the custom comfort preset button that applies and have confidence that the room will reach optimal temperature within minutes. Combining industry leading temperature sensing technology with a modern sleek design, King's K700E series achieves lower energy consumption with higher comfort levels by reducing temperature swings as compared to economy models.



#### Ordering Information

MODEL	UPC	DESCRIPTION
K702E-2	10393	208/240V, 2P Line Voltage Electronic Thermostat
K701E-B	10392	120/208/240V, 1P AA Battery Powered Electronic Thermostat (Batteries included)

#### Engineering Specifications

**Temperature Range:** 41° - 95°F (5° - 35°C) **Accuracy:** ±1° F  
**Max Power:** 1920W @ 120VAC (16A) \*K701E-B Only  
**Max Power:** 3328W @ 208VAC (16A)  
**Max Power:** 3840W @ 240VAC (16A)  
**Sensing Element:** Electronic



### SIMPLSTAT Interface

#### Push Button To Select Status



**Home**

70°



**Away**

55°



**Sleep**

60°

\*Default Settings

Simple, Real-Time Control. Simply press the custom comfort temperature button that applies and have confidence that the room will reach optimal temperature within minutes. Right out of the box, use the factory-default temperatures or personalize by simply updating the defaults with new personalized comfort settings.



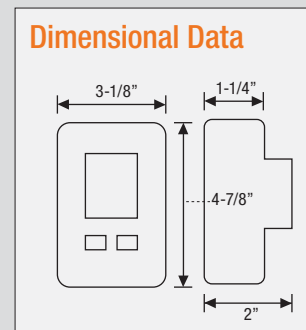
# Electronic Thermostat ES120/ES230/ESP230



**ES120  
ES230**  
Non Programmable



**ESP230**  
Programmable



- ES saves up to 15% on your heating costs
- ESP saves up to 28% on your heating costs
- Even temperature control
- 3-wire installation
- LCD display of room temperature
- Red LED Heater ON Indicator
- Comfort Color Back light Display (Red at 75°F / Blue at 65°F)
- Electronic temperature sensing is the most accurate technology
- 3 minute cycle rate reduces temperature swings and increases comfort at all control settings
- Complies with all codes requiring anticipated or electronic thermostats
- Single pole design with third wire to power display
- Shallow design allows more wiring room inside full electrical boxes
- Available in 120V or 208/240V
- System On/Off switch
- 1 year warranty

## Ordering Information

MODEL	UPC	TYPE	WIRE LEADS	VOLTS	AMPS	TEMP. RANGE
ES120-R	10372	Electronic Line Voltage	3 Wire	120	22	40°F-95°F
ES230-R	10374	Electronic Line Voltage	3 Wire	208/240	22	40°F-95°F
ESP230	10374	7-Day Programmable	3 Wire	208/240	22	44°F-95°F
ESP230-R	10372	7-Day Programmable	3 Wire	208/240	22	44°F-95°F

## The ES Electronic Thermostat

This line voltage thermostat is one of-a-kind in features then improved with memory backup for power outages. All the features you want with only two buttons. Simple has always been better. Two keys on the front control the temperature up and down. With comfort color back lighting and an on/off switch to control the illumination and system. Comfort color back light display is blue at 65°F and red at 75°F and varies in color between making it quick and easy to know your temperature. The illuminated LCD display can be read across the room making it easy to see at night. Simple, accurate control is the goal of the ES model. No fancy programming, just dependable temperature control for your home, saving money on your heating bills.

### ES Technical Specifications

- Temperature Range:** 40°F - 95°F (4°-35°C)
- Temperature Default:** Your saved setting
- Display Format:** LCD
- Illumination:** Blue/Red LED
- Sample Rate:** Every 60 seconds
- Room Temp. Display:** Large LCD
- Delay:** 3 minutes on or off
- Accuracy:** NEMA TEST 1.5°F @ 22 Amps, 1.4°F @ 16 Amps, 1.2°F @ 10 Amps, 0.9°F @ 4.2 Amps
- Power Source:** 120 VAC (ES120), 208/240 VAC (ES230), 50 - 60Hz
- Battery Backup**
  - 22 Amps at 240V, 5280 Watts
  - 22 Amps at 208V, 4576 Watts
  - 22 Amps at 120V, 2640 Watts
  - Wire leads #12 AWG
  - 40°F to 95°F set point range
  - Electronically anticipated
- 120V or 208/240V models only
- Digital thermometer/set point
- Meets energy requirements
- Three wire installation
- Snap action relay built-in
- 30 Amp relay
- 3 min. delay between cycles
- For use on all types of electric heaters, fan-forced, baseboard, radiant, etc.
- Single button operation
- Thermistor sensor
- Contemporary styling
- LCD display
- 1.5 degrees maximum
- 3/4" depth into wire box
- On/Off switch for back light
- On/Off switch for system

## The ESP Electronic Programmable

This thermostat took years to develop and has become a popular model. All the features you want without too many buttons. Simple is always better. We have added backlighting to the full-size display and an on/off switch to control the illumination. On the front two simple buttons control the temperature up and down, while all the programming keys are hidden under the front cover, protected from wandering, unauthorized fingers. Comfort and convenience is always our primary goal at King.

### ESP Technical Specifications

- Temperature Range:** 44°F - 95°F (7°-35°C)
- Temperature Default:** Your saved setting
- Display Format:** LCD
- Illumination:** Green LED
- Sample Rate:** Every 60 seconds
- Room Temp. Display:** Large LCD
- Delay:** 3 minutes on or off
- Accuracy:** NEMA TEST 1.5°F @ 22 Amps, 1.4°F @ 16 Amps, 1.2°F @ 10 Amps, 0.9°F @ 4.2 Amps
- Power Source:** 208/240 VAC (ES230), 50 - 60Hz
  - 22 Amps at 240V, 5280 Watts
  - 22 Amps at 208V, 4576 Watts
  - 22 Amps at 120V, 2640 Watts
  - Wire leads #12 AWG
  - 44°F to 95°F set point range
  - Electronically anticipated
- 120V or 208/240V models only
- Digital thermometer/set point
- Meets energy requirements
- Three wire installation
- Snap action relay built-in
- 30 Amp relay
- 3/4" depth into wire box
- Single button operation
- Thermistor sensor
- Contemporary styling
- LCD display
- 1.5 degrees maximum
- 3 min. delay between cycles
- For use on all types of electric heaters, fan-forced, baseboard, radiant, etc.
- On/Off switch for backlight
- On/Off switch for system
- Battery backup

# Electronic Thermostat TEMP360° Series



**TEMP 360°**  
Electronic Thermostat



- Double Pole line voltage (4 wire)
- 120V or 208/240V selectable by jumper
- 16 AMP Max (Resistive)
- Electronic sensing for accurate temperature control ( $\pm 1^\circ\text{F}$ ,  $\pm 0.5^\circ\text{C}$ )
- Temperature range 40° - 90°F (5°C-30°C)
- Includes °C and °F control dial
- 2-pole OFF button
- Indicator light for heat on
- Clean, beveled style suits any decor
- Mount on standard junction box
- Temperature Lock™ limiter features gives the option to set maximum temperature of 75°F (24°C)
- Fully vented cover allows air sensing in all directions
- For use on baseboard, fan forced & radiant electric heaters
- 1-year limited warranty

## The TEMP 360° Electronic Thermostat

Use the K202E to control baseboards, fan forced and radiant electric heaters. 120V or 208/240V. The electronic sensor offers the most accurate temperature control available, keeping the room within 1°F of the set temperature. Standard mechanical thermostats have a greater margin for inaccurate measurement, which can leave temperatures to vary by 5°F or more. Easily regulate energy consumption and keep energy costs low by installing the K202E thermostat.



75°F maximum temperature limiter feature guarantees room temperature never exceeds 75°F. Ideal for property managers or users with children, making sure that the heat will not go above 75°F if the dial is accidentally turned.

### Ordering Information

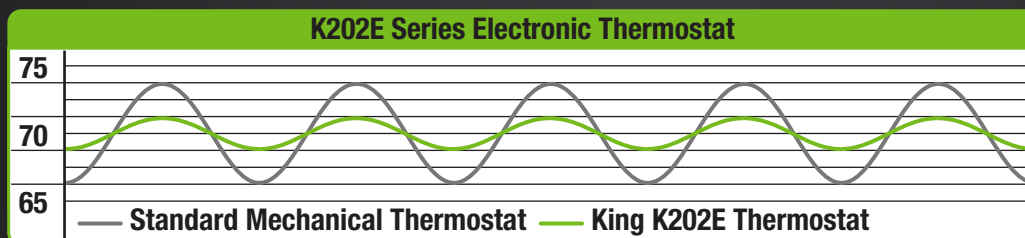
MODEL	UPC	DESCRIPTION
K202E	10391	2P Electronic Thermostat, 120, 208/240V

### Engineering Specifications

**Temperature Range:** 40° - 90°F (5° - 30°C) **Accuracy:** +1° F  
**Max Power:** 1920W @ 120VAC (16A)  
**Max Power:** 3328W @ 208VAC (16A)  
**Max Power:** 3840W @ 240VAC (16A)  
**Sensing Element:** Electronic



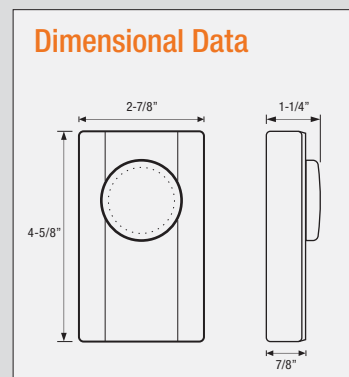
## TEMP360° Maximum Comfort



### Maximum Comfort/Lower Energy:

Combining industry leading temperature sensing technology with a modern sleek design, King's K202E achieves lower energy consumption with higher comfort levels by reducing temperature swings as compared to economy models.

# Line Voltage Thermostat K101, K102 & K101-C



- Clean, beveled style suits any decor
- Sits flush against wall
- Includes °C and °F control dials
- Bi-metal mechanical sensing element
- Operates 41° - 90° F ( 3°- 32°C)
- Mounts directly to a 2x4 inch vertical electrical outlet box
- Large knob allows easy adjustment to all temperatures
- Single or Double Pole (positive off) available
- No ground wire design
- 1-year limited warranty



## The K101 & K102 Series Thermostats

The K101 & K102 Series thermostats have a larger, more sensitive, mechanical bi-metal sensor that improves temperature accuracy to  $\pm 3^\circ$  F. This feature achieves a better comfort level with a reduced temperature swing as compared to economy models. Modern appearance with large knob for easy adjustments. No ground wire required, making installation fast and easy.

## The K101-C Cooling Thermostat

The K101-C cooling thermostat has a larger, more sensitive, bi-metal sensor that improves temperature accuracy to  $\pm 3^\circ$  F. This feature achieves a better comfort level with a reduced temperature swing as compared to other mechanical thermostat models. Modern appearance with large knob for easy adjustments. No ground wire required, making installation fast and easy. For cooling only.

### Ordering Information

MODEL	UPC	DESCRIPTION
K101	20576	Single Pole - WHITE
K101-R	20626	Single Pole - WHITE, RETAIL
K101A	20525	Single Pole - ALMOND
K102	20623	Double Pole - WHITE
K102-R	20627	Double Pole - WHITE, RETAIL
K102A	20624	Double Pole - ALMOND
K101-C	20631	Single Pole - WHITE, Cooling Only

### Specifications

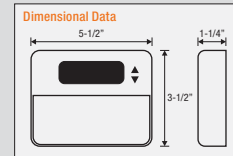
- Temperature Range:** 41° F-90° F (5° C- 32° C)
- Accuracy:**  $\pm 3^\circ$  F (1.6°C)
- Max Power:** 2640W@ 120VAC (22A)
- Max Power:** 4576W@208VAC (22A)
- Max Power:** 5280W@ 240VAC (22A)
- Max Power:** 4986W@ 277VAC (22A)
- Sensing Element:** Bi-metal mechanical



# Specialty Thermostats EP3 - 1F56W/1F57/1E30 - N.E.M.A. 4X



**EP-3 Series**  
**Electronic Programmable Thermostat**



- Preprogrammed: energy saving 5-1-1 schedule, four time periods per day
- Separate baseplate to aid installation
- Battery operated: allows maximum system compatibility (two "AA" batteries included)
- Energy usage monitor: keeps track of actual operational time
- Hold mode operation: allows for manual operation. May be used for vacation setback
- Detailed wiring diagrams and instructions
- 1-year limited warranty

## Ordering Information

MODEL	UPC	VOLTS	TYPE	TEMP. RANGE
EP-3	10370	24	Programmable, LCD Display - white	50°F - 90°F

## Specifications

**Temperature Range:** 50°F to 90°F (10°C to 32°C)

**Electrical Load Limit:** 1.0 Amps at 24 VAC / DC

**Compressor Protection Delay:** 4 minutes

**Temperature Display:** Selectable Celsius or Fahrenheit

**Time Display:** Selectable 12 or 24 hour

**Temperature Differential Fahrenheit:**

Preset: = 3° : 2° above, 1° below set point

Selectable: 1° to 18° : +0° to 9°, -0° to 9°.

**Temperature Adjustment:** 1°

**Display Range:** 32°F to 99°F, ±2°F

**Control Range:** 44° to 95°F (7°C - 35°C)

**Heating Unit Switch:** E - Fan controlled by thermostat;

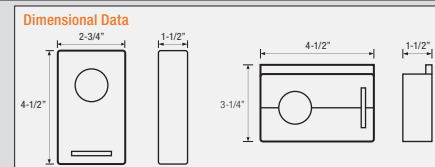
G - Fan controlled by heating unit

**System Switch:** 3 position (COOL - OFF - HEAT)

**Fan Switch:** 2 position (ON - AUTO)



**1F56W/1F57/1E30 Series**  
**Low Voltage Thermostats**



- Heating and cooling anticipators provide narrow differential control of room temperature
- Snap-on cover with clear faceplate
- Accessories available: adapter plates to allow mounting to vertical or horizontal junction boxes and to cover wall blemishes
- Removable faceplate for easy cleaning
- Beige case with gold and black dial
- 1 year warranty

## Ordering Information

MODEL	UPC	VOLTS	TYPE	TEMP. RANGE
1E30-910	19000	24	Mercury Free, Vertical Mount - beige	50°F to 90°F
1F56W-444	19010	24	Mercury Free, Heat / Cool / Fan, Horizontal - white	50°F to 90°F
1F57-312	19015	24	Two Stage Heat Plus Fan Only	50°F to 90°F

## Specifications

**Temperature Range:** 50°F to 90°F (10°C to 32°C)

**Temperature Default:** 55°F or 68°F (13°C or 20°C)

**Display:** 5° increments

**Rate:** 2 cycles per hour

**Accuracy:** ±3°F

**Power Source:** 24 VAC

• Three wire installation

• Snap action switch

• Flexible wire leads

• 50° to 90°F (10°C - 32°C)

• Anticipated (resistor style)

• Large bi-metal sensor

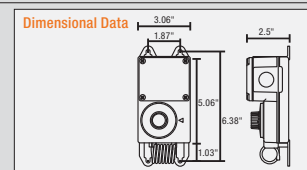
• Meets most energy codes

• For use on all types of electric heater relays; fan-forced, baseboard, radiant

with 24 Volt control circuits



**TF115 NEMA 4X**  
**Industrial Control**



- One control for heating & cooling, makes use centralized & easy.
- Large, visible dial, making set point temperatures clear.
- UL listed & CSA certified.
- Rugged, weather resistant enclosure, enabling placement most anywhere.
- Tolerates moist conditions, performs despite water spray, high humidity, airborne contaminates & moderately corrosive conditions.
- Enclosures comply with N.E.C. Article 547, giving code compliance peace-of-mind.
- Built from corrosion resistant materials, allowing long life & reliable performance in most demanding climates.

## Ordering Information

MODEL	UPC	TYPE	VOLTS	AMPS	TEMP. RANGE
TF115	19150	N.E.M.A. 4X Heating or Cooling Thermostat - Single Pole, Double Throw	120/240/277/480	25	40°F-100°F

## Specifications

**Amperage:**

Full load -25 Amps at 120/240/277VAC;

**Control:** One stage heat or cool

**Switch:** single pole double throw

**Construction:** 2-piece weather resistant plastic enclosure and stainless steel exposed parts.

**Ground:** Leadwire

**Listing:** U.L., C.S.A. & N.E.M.A.

**Temp:** 40° - 100°F (4°C - 38°C)

• N.E.M.A. 4X enclosure complies with N.E.C. Article 547 when used with appropriate watertight connections.

• Rugged weather-resistant enclosure made of corrosion resistant materials for long life.

• One control for both heating and cooling applications

• Low mass, high surface area of stainless steel coiled sensor provides rapid response to temperature change.

• Multi-positional mounting offers flexibility in either new or existing installations.

# Selecting The Right Portable Utility/Shop Heater

Utility and shop heaters are intended to heat smaller spaces or be used as a temporary or spot heating. Typically you will use these in a smaller space for comfort heating or when you don't want to heat up the whole garage but just yourself in a specific work area of a larger garage.

## Your Structure

The key to comfort heating a space is to keep the heat you are making. Good insulation creates comfortable spaces and lower energy usage. Windows and door seal kits can reduce cold air entering or warm air leaving. Caulking cracks and gaps in the building will help the heater do a better job keeping the heat inside the building.

## Sizing

1500 watts for 200 sq. ft., 4000 watts for 500 sq. ft., 4800 for 600 sq. ft. This is with good insulation. Lower insulation will require you to have more than one heater in a space. For spot heating a person typically the 4800 watt heater will do the best job. For dry out applications of construction sites and paint the lower 4000 watt units with high airflow and lower heat work best.

## Ceiling Height

The higher the ceiling the less effective a portable heater is. Hot air rises to the roof very quickly when an undersized heater is placed into a large space. This would be to heat a person only at a close range and not intended to heat the building. 8 to 10 ft. in height is the maximum for the 4000 to 4800 watt range of portables for comfort heating and 8 ft. for the 1500 watt units.

## Horizontal Mount

Smaller rooms can be heated by one unit heater. Where two walls are exposed heaters should be mounted as shown below. In larger rooms, units should be located so air streams wipe exposed walls without blowing at them. Units should be located so the airstream of one supports that of another thus setting up a circulatory air movement. (Distance between units to be approximately 1 times published air throw). Units should not be mounted horizontally in areas having ceiling heights in excess of 10 to 12 feet.

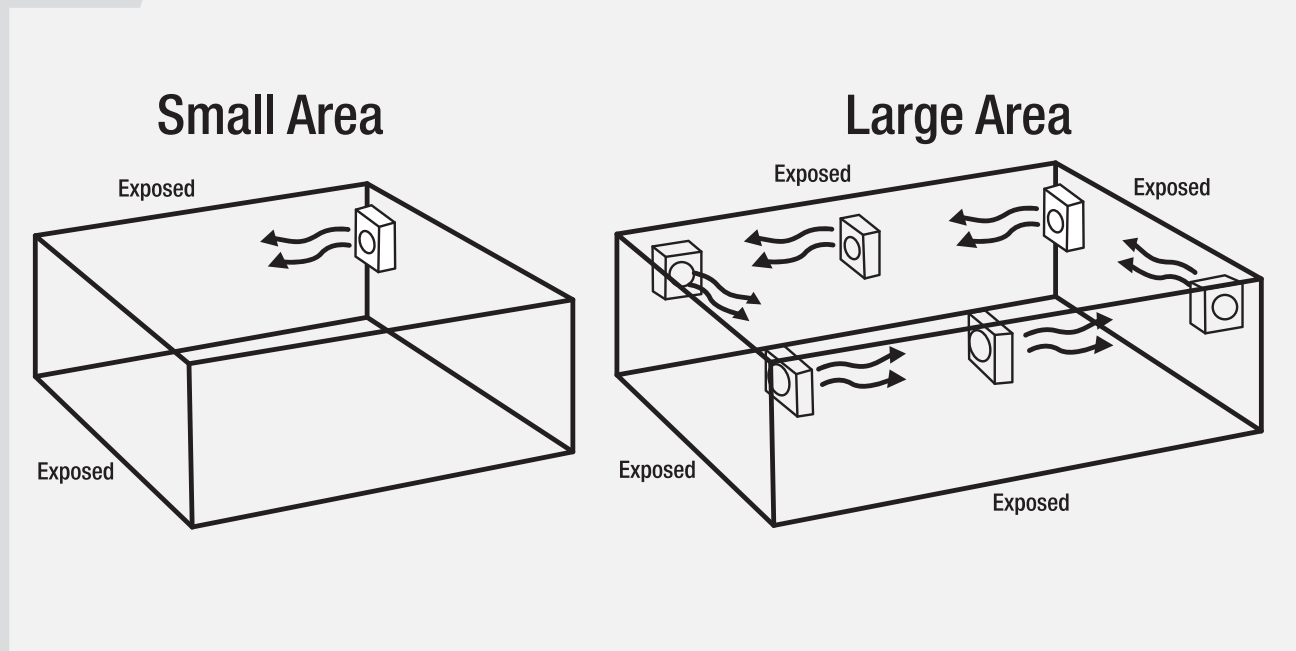
## Vertical Mount

Units should be mounted vertically in high bay areas where they may not otherwise interfere with assorted material or handling equipment. Heaters should be situated to provide free air circulation. Size and selection of units should be based on recommended mounting height. Unit heaters are frequently used to combat cold air inrush when loading dock doors are opened. For such applications, one or more units should be arranged to blow warm air vertically in front of opening.

## Mounting Limitations

Unit heaters should not be used in potentially explosive atmospheres. The finish is not intended for direct salt spray exposure in marine applications or the highly corrosive atmospheres of swimming pools, chemical storage bins, etc. Please refer to the factory for explosion proof or marine application heater information. Do not install unit heaters above recommended maximum mounting height. See chart for height information. Obstructions must not block unit heater air inlet or discharge. To prevent possible injury heaters must be mounted at least 6 feet above the floor to prevent accidental contact with heating element or fan blade.

### Horizontal



# Portable Shop Heater PSH1215



**Model Code:**

PSH	12	15	T
A	B	C	D
A: Series			
B: 12 - 120V			
C: Watts (1500)			
D: T - Thermostat			

**Yellow Jacket Mini™**



- Built-in thermostat
- On/off switch
- Adjustable tilt control
- Stainless steel heating element
- 6 Foot Cord with 15 Amp plug
- Comfort grip handle
- Auto-Reset safety limit
- Power indicator light
- Permanently lubricated motor
- Durable scratch and rust resistant finish
- 1-year limited warranty

## The PSH1215T Portable Shop Heater

The PSH1215T is a rugged portable heater designed to provide supplemental heat at an affordable price. Perfectly suited for personal use applications and small workshops/worksites. The convenient 6 foot cord allows greater mobility to areas needing heat. Easily set the desired temperature with the built-in thermostat. Sure stop high-limit temperature control provides overheat protection. Standard color: yellow body, black grill and handle. 1 year warranty.

### Ordering Information

MODEL	UPC	VOLTS	WATTS	AMPS	Plug Type
PSH1215T	20634	120	1500	12.5	120V Plug

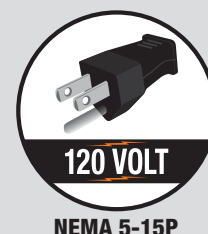


### Specifications

BTU.....	5100B
Watts.....	1500W
Power (Volts).....	120V~60Hz
Amps.....	12.5 A
Cord Length.....	6 ft.
Switch.....	ON / OFF
Air Flow.....	216 CFM

### Minimum Clearance

front.....	3 ft.
top.....	1 ft.
sides.....	1 ft.
rear.....	1 ft.



# Portable Shop Heater PSH2440



**Model Code:**

PSH	24	40	T	B
A	B	C	D	E

A: Series  
 B: 24 - 240V  
 C: Watts (4000)  
 D: T - Thermostat  
 E: B - Bracket

**Yellow Jacket Junior**



- Standard color: Yellow with black accents
- Includes both comfort grip & storage handle
- High limit temperature control with manual reset
- 300 CFM fan
- Stainless steel tubular heating element
- Built-in thermostat (45-85°F)
- Standard finish epoxy/polyester paint
- Handle may be used as a reel for the electric cable
- Mounting bracket for wall or ceiling installation included
- Power indicating light
- 3 pronged 20A 250 VAC outlet required
- 6 ft. (2m) cord NEMA 6-20P
- 51° F temperature rise
- Auto fan delay
- 1-year limited warranty

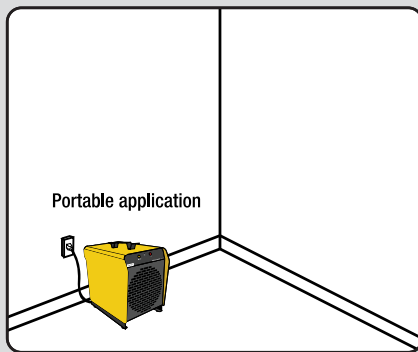
## The PSH Portable Shop Heater

The PSH is a high power portable heater designed to provide a back-up heating source at an affordable price. Perfectly suited for the workshop, garage or construction sites. The convenient 6 foot cord allows greater mobility to areas needing heating, while the handle serves as a reel for the cord when not in use. Easily set the desired temperature with the built-in thermostat. Sure stop high-limit temperature control with manual reset provides overheat protection. With a 300 CFM fan, heat is dispersed efficiently. Standard color: Yellow. 240 Volt Single Phase. 1-year warranty.

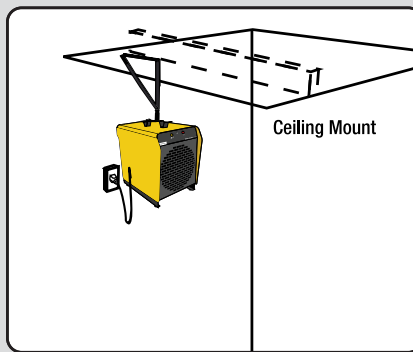
### Ordering Information

MODEL	UPC	VOLTS	WATTS	AMPS	Plug Type
PSH2440TB	20637	240/208	4,000/3,000	16/14	NEMA #6-20P

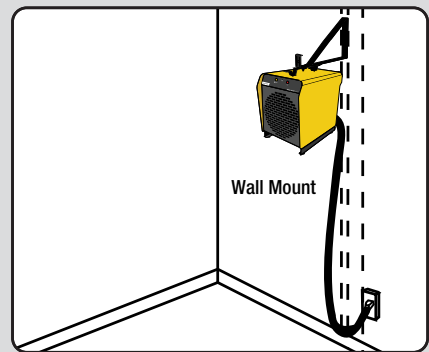
## Easy Installation



Place on the floor and plug into 20 Amp outlet



Mount bracket to ceiling joist and attach heater



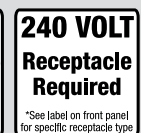
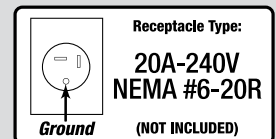
Mount bracket to wall stud and attach heater

### Specifications

BTU.....	13,000B
Watts.....	3,750W
Heating Area (ft <sup>2</sup> ).....	450 ft <sup>2</sup>
Power (Volts).....	240V~60Hz
Amps.....	16 A
Heat Settings 1.....	On/Off
Heat Settings 2.....	Thermostat

### Minimum Clearance

front.....	3 ft.
top.....	1 ft.
sides.....	1 ft.
rear.....	1 ft.



# Portable Utility Heater PGH Series



Receptacle Type:  
30A-250V  
NEMA #6-30R  
Ground (NOT INCLUDED)

NOT 120 VOLT  
WILL NOT operate on 120V household receptacles

240 VOLT  
Receptacle  
Required  
\*See label on front panel for specific receptacle type

**Model Code:**

PGH	24	48	-ETB
A	B	C	D

A: Series  
B: 24 - 240V  
C: Watts (4800)  
D: ETB - Electronic  
Thermostat & Bracket



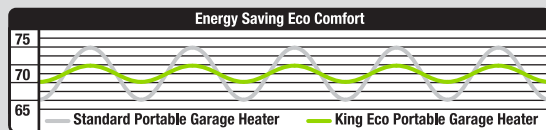
- ECO2S Controller
- Energy efficient 2-stage heating
- Fan only Mode
- Timer Mode (1-9 Hours)
- Remote control with wall-mount holder included
- Large LED display
- SureStop™ Limit Protection
- Stainless Steel tube elements
- 6 foot cord
- Carrying handle with built-in cord storage
- Universal wall/ceiling bracket included
- Limited 1-year warranty

## The ECO2S 2-Stage Portable Garage Heater with IR Remote Control

The ECO2S PGH Series portable garage heater offers unparalleled performance, energy efficiency and user control by incorporating another King innovation, the in-built ECO2S electronic thermostat with remote control. Offering energy efficient 2-stage heating, with ECO mode that automatically uses the lowest wattage needed to heat the room, integrated fan only and timer modes, as well as a remote control for simple operation. The included universal wall / ceiling bracket and convenient 6 foot cord, allows for greater mobility to areas needing heat. The SureStop™ high-temperature limit, with auto-rest provides protection from overheating.

### Ordering Information

MODEL	UPC	VOLTS	WATTS	AMPS	Plug Type
PGH2448-ETB	20980	240/208	4800/3600	20/17	30A-250V NEMA 6-30P



\*4800W  
Receptacle Type:  
30A-250V  
NEMA #6-30R  
Ground (NOT INCLUDED)

\*4000W  
Receptacle Type:  
20A-240V  
NEMA #6-20R  
Ground (NOT INCLUDED)

NOT 120 VOLT  
WILL NOT operate on 120V household receptacles

240 VOLT  
Receptacle  
Required  
\*See label on front panel for specific receptacle type

**Model Code:**

PGH	24	48	T	B
A	B	C	D	E

A: Series  
B: 24 - 240V  
C: Watts (4000) (4800)  
D: T - Thermostat  
E: B - Bracket



- In-built thermostat and On/Off Switch
- SureStop™ Limit Protection
- Auto-reset Fan Delay increases efficiency
- Stainless Steel tube elements
- 6 foot cord
- Carrying handle with built-in cord storage
- Universal wall / ceiling bracket included
- Durable scratch and rust resistant finish
- Limited 1-year warranty

## The PGH Series Portable Garage Heater

The PGH Series is a rugged portable heater designed to provide a high capacity heating source at an affordable price. Perfectly suited for workshops, garages or construction sites. Easily set the desired temperature with the in-built mechanical thermostat. Offering a SureStop™ high temperature-limit, with auto-rest providing protection from overheating.

### Ordering Information

MODEL	UPC	VOLTS	WATTS	AMPS	Plug Type
PGH2448TB*	20984	240/208	4800/3600	20/17	30A-250V NEMA 6-30P <sup>+</sup>
PGH2440TB*	20998	240/208	4000/3000	16/14	20A -240V NEMA 6-20P <sup>++</sup>

\*Does not come with electronic control or remote

# Garage/Shop Heater EKB Series



### Model Code:

EKB	24	40	TB
A	B	C	D
A: Series			
B: 12 - 120V, 20 - 208V 24 - 240V			
C: Watts (5000)			
D: TB- Thermostat & Bracket			



- Quick heat element
- Long life unit bearing motor
- Patented Smart Limit® protection
- Aluminum fan blade
- Built-in thermostat
- Universal mounting bracket
- Standard color: black textured finish
- Safety sensor on each element
- 1-year limited warranty



## The EKB Garage/Shop Heater

**The EKB is designed to be an affordable, high-capacity garage / shop heater.** Combining King's patented Smart Limit safety technology with dual NiChrome coil elements for rapid heat transfer, the EKB is ideal for many residential applications. The flow-through design efficiently moves air by pulling air from the back and sides of the heater and discharges it out the front, easily heating a large space. The built-in thermostat has a temperature range from 40 to 85 degrees. The universal mounting bracket can be wall or ceiling mounted at a minimum of 6 feet above the floor. Good air distribution and comfort is achieved by swiveling the bracket to specific work areas.

### Ordering Information

	MODEL	UPC	VOLTS	WATTS	AMPS	WIRE	BREAKER SIZE	TEMP RISE	HEATING SQ FT
120V	EKB1230TB	16506	120	2850	24	10-2 w/ground	30 Amp 1 pole	40	500
	EKB1220TB	16507	120	1920	16	12-2 w/ground	20 Amp 1 pole	40	300
208V	EKB2050TB	16501	208	5000	24	10-2 w/ground	30 Amp 2 pole	80	750
	EKB2040TB	16503	208	3750	18	10-2 w/ground	30 Amp 2 pole	70	600
	EKB2030TB	16505	208	2850	14	12-2 w/ground	20 Amp 2 pole	50	500
240V	EKB2450TB	16500	240	5000	20	10-2 w/ground	30 Amp 2 pole	80	750
	EKB2440TB	16502	240	3850	16	12-2 w/ground	20 Amp 2 pole	70	600
	EKB2430TB	16504	240	2850	12	14-2 w/ground	15 Amp 2 pole	50	500

### Engineering Specifications

**Heating Elements:** Rigid Muscovite Mica construction with 80-20 NiChrome heating wire provides quick heating without cold air start ups, heat is wiped from elements as fans slows to a stop. Manual reset Safety sensor on each element.

**Thermostat:** Factory installed single pole operation range 40 to 85 degrees F.

**Unit Bearing Motor:** Permanently lubricated, cast aluminum unit bearing, 6-watt output 4 pole motor, 1550 rpm, 20 cc oil supply.

**Mounting Bracket:** 18 ga steel, multiple mounting options - ceiling/wall.

**CFM:** 270 Maximum

**Thermal Overload:** Heaters shall be equipped with King's patented thermal overload Smart Limit Protection®, which disconnects elements and motor in the event normal operating temperatures are exceeded. If thermal overload trips due to abnormal operating temperatures, thermal overload shall remain open until manually reset by turning the heater off for 15 minutes. U.S. PATENT #6,748,163 B2 • CIPO PATENT #2,393,882

**Case:** 22 ga steel, inlet and outlet perforation, special side and top safety air inlets.

**Exterior:** Durable textured finish.

**Approval:** cULus (E41422)

# Garage/Shop Heater EKB Series

## Dimensional Data

### EKB Unit Heater

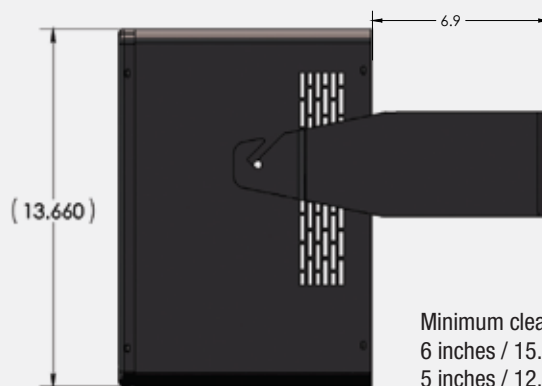
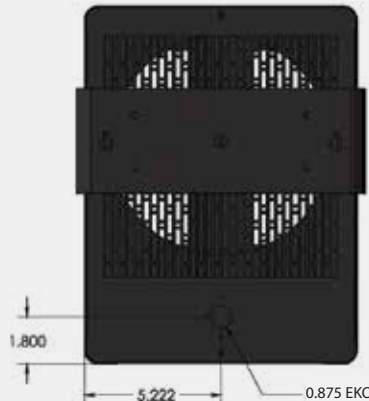
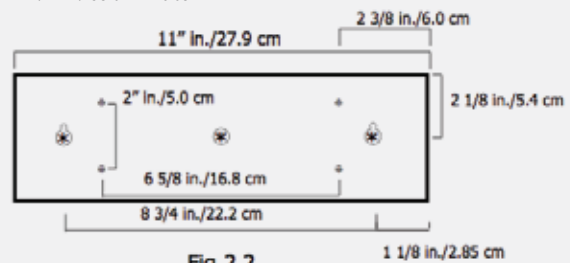


Heater case size  
w/o bracket  
Height: 13 5/8 in. / 34.6 cm  
Width: 10 3/8 in. / 26.35 cm  
Depth: 9 3/9 in. / 24.76 cm

Maximum Outside Dims  
W/bracket and stat  
Height: 18 3/4 in. / 47.62 cm  
Width: 11 3/8 in. / 28.90 cm  
Depth: 10 5/8 in. / 26.98 cm

### Bracket Information

Hole Sizes  
\* 1/2 in. / 1.27 cm 3 holes  
+ 1/4 in. / .63 cm 4 holes



Minimum clearances from walls and ceiling  
6 inches / 15.24 cm to the side  
5 inches / 12.7 cm from the back  
2 inches / 5.08 cm from ceiling  
Never point heater at ceiling  
Maintain clearance of at least 3 ft. in front of heat outlet

### MINIMUM CLEARANCE

From combustibles: 18" from front,  
2" from top, 6" from sides  
and 5" from rear.

# Compact Unit Heater KBP Series



**Model Code:**

KBP	24	07	T
A	B	C	D

A: Series  
 B: 12 - 120V 24 - 240V  
 20 - 208V 27 - 277V  
 C: Watts (900 to 6000)  
 D: T - Thermostat



- Pic-A-Watt® Element
- Multiple wattage selection
- Long life cast iron motor
- Aluminum fan blade
- High Accuracy Built-in thermostat
- Powder-coated, textured finish
- Fan delay
- Auto-reset limit
- Universal (wall/ceiling) mounting bracket
- Selector switch—fan/heat/off
- 5-year limited warranty

## Multiple Wattage Unit Heater

The KBP is the industry standard for multi-wattage garage / shop heaters. Designed for rugged performance, the flow-through design efficiently moves air by pulling air from the back of the heater and discharges it out the front, easily heating a large space. With high quality components suitable for both residential and commercial applications, it comes standard with a 3-position switch and an accurate built-in thermostat. The integral fan delay continues to dissipate heat from the elements during the cool down period, maximizing the heat exchange in the room. King's exclusive dual Pic-A-Watt steel fin elements allow customers to select from a range of wattage options, tailoring the heater to an area's specific heating requirements.

### Ordering Information

MODEL	UPC	VOLTS	PHASE	WATTAGE	AMPS
KBP1230	15191	120	1	2850•1900•950	24
KBP2406	15190	240	1	5700•4750•3800•2850•1900•950	24
KBP2006-3MP**	15193	208	1-3	5700•2850	27/16
KBP2406-3MP**	15188	240*	1-3	5700•2850	24/14
KBP2704	15187	277	1	4000•3000•2000•1000	15
KBP4804-3MP**	15196	480***	1-3	4160	9/5
KBP4806-3MP**	15197	480***	1-3	6000	13/8

\*Approved for 208V operation. Heater will draw 13% less Amps and 25% less wattage \*\*3-Phase units do not have Heat / Fan / Off \*\*\*480 Volt models are 24 Volt control  
 Minimum clearance from combustibles: 18" from front, 2" from top, 6" from sides and 5" from rear.

### Engineering Specifications

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

**Pic-A-Watt Heating Element:** Exclusive King multi-tap element allows field adjustment to several wattages at time of installation. Steel sheath elements of various resistance are copper brazed to steel plate fins producing a multi-wattage heating element.

**Built-in Thermostat:** Single pole factory installed hydraulic capillary tube thermostat for precision heating control. Operating range 40° to 90° F.

**Fan/Heat/Off Switch:** 3-position switch provides heating and summer fan only operation.

**Fan Delay Switch:** The fan continues to operate after the thermostat shuts off in order to remove the residual heat left in the elements. Power must not be interrupted.

**CFM:** 270

**Universal Mounting Bracket:** Combination ceiling/wall bracket is included with every heater.

**Unit Bearing Motor:** Permanently lubricated, long life, unit bearing 4-Pole motor with 20 cc of oil. Enclosed rotor provides long-lasting, trouble-free operation. Thermally protected. 1300 RPM.

**Auto-Reset Thermal Limit Control:** Heater shuts off when an over temperature condition exists and automatically resets when the normal operating temperature returns.

**Tested:** UL 2021

**Approval:** cCSAus



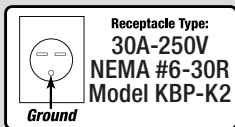
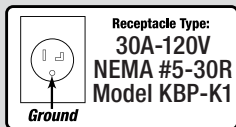
# Compact Unit Heater KBP Series



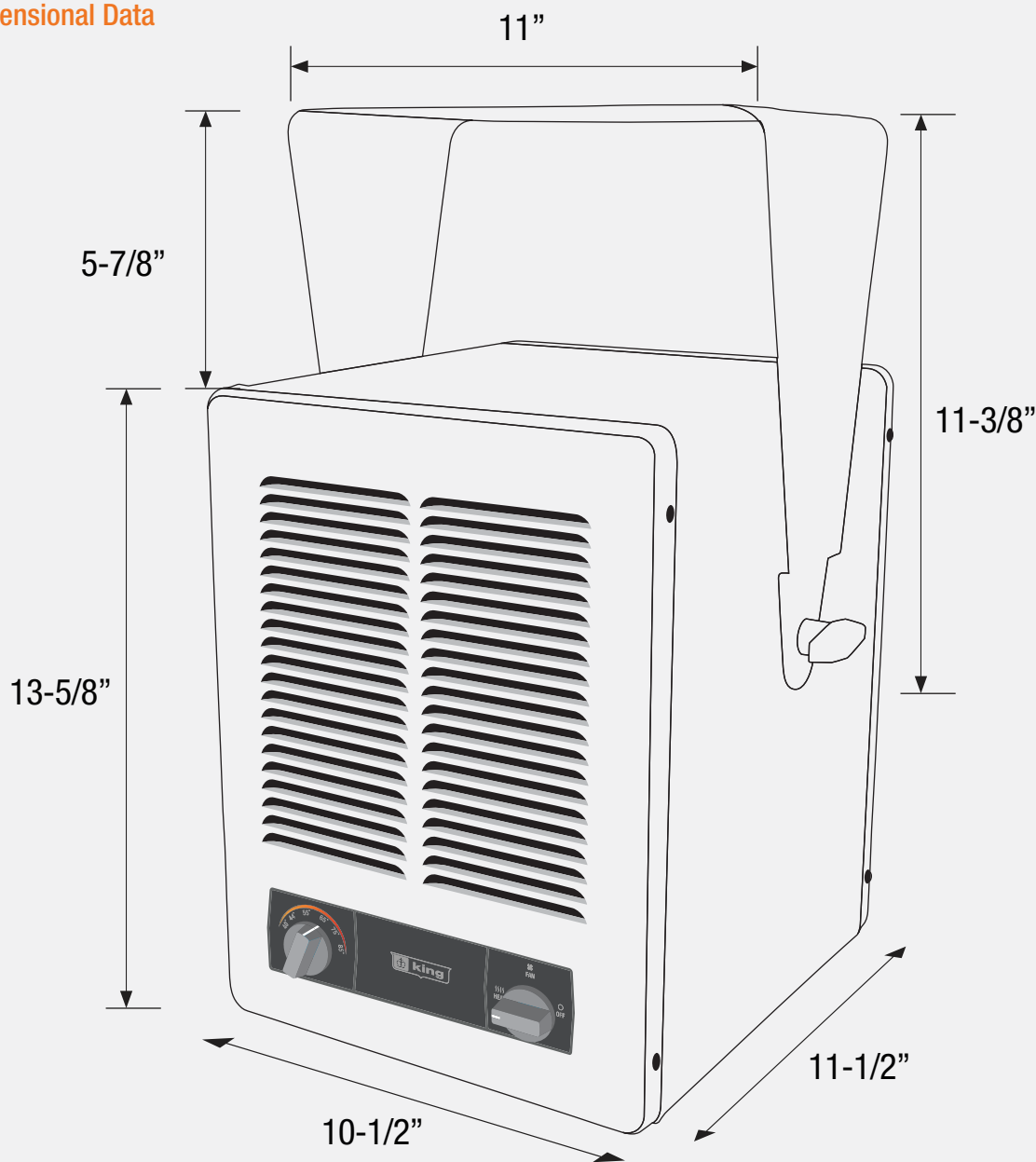
## Accessories

MODEL	UPC	PHASE	WEIGHT (lbs.)
KBP-K1	15198	6 ft. cord/handle kit - 120V, 1-Phase, 30 Amp (Receptacle included. See below)	2
KBP-K2	15199	6 ft. cord/handle kit - 240V, 1-Phase, 30 Amp (Receptacle included. See below)	2
KBP-RT	N/A	Provision for remote thermostat (line voltage)	N/A
*KBP-RTL1	N/A	Provision for remote thermostat - 1-Phase (24V)	N/A
*KBP-RTL3	N/A	Provision for remote thermostat - 3-Phase (24V)	N/A

\*Factory installed only - Heat/Fan/Off activated at unit only - can not operate remotely



## Dimensional Data



# Electronic Unit Heater KB ECO2S Series



**Model Code:**

KB	24	04	-1	-B2	-ECO
A	B	C	D	E	F

**A: Series**  
**B: 20 - 208V, 24 - 240/208V**  
**C: kiloWatts ( 4 - 15 )**  
**D: -1 = Single Phase**  
**E: -B2 = Universal Bracket**  
**F: -ECO = Electronic Control**



- ECO2S Electronic Controller
- Energy efficient 2-Stage Heating
- Remote Control Included
- Large LED Display
- Fan Only and Timer Modes
- Auto Reset High Limit
- Unit Bearing Motor
- Standard Color: Textured Gray with Black Louvers
- Adjustable Louvers
- Spiral Finned Heat Elements
- Universal Bracket Included
- 5-year limited warranty



## ECO2S 2-Stage Unit Heater with IR Remote Control

The ECO2S KB series unit heaters offers unparalleled performance, energy efficiency and user control by incorporating another **King innovation**, the in-built ECO2S electronic thermostat with remote control. Offering energy efficient 2-stage heating, with Eco mode that automatically uses the lowest wattage needed to heat the room, integrated fan only and timer modes, as well as a remote control for simple operation. Designed for use as primary or supplemental heat sources in warehouses, stores or large garages spaces. Spiral steel elements and high CFM ensure even air distribution producing cooler element operation which prolongs the life of the heater. By combining the highest quality components, with a dynamically balanced fan blade, the KB ECO2S unit heater will provide years of trouble-free service and keep heating bills to a minimum. Includes universal wall/ceiling bracket for simple installation.

### ECO2S Electronic Controller Features:

- Electronic control for accuracy
- Energy-saving automatic 2-stage heating
- Large LED display
- Remote control and wall bracket included
- Thermostat timer mode (1-9 Hours)
- Fan only mode
- Built-In fan delay



### Engineering Specifications

*Contractor shall supply and install KB ECO2S Series unit heaters manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.*

**Construction:** All exterior and interior metal enclosure parts are made from 20 gauge electrogalvanized Steel with a rust inhibiting baked enamel finish. Smooth rounded corners and protective edge trim give an attractive modern appearance.

**Adjustable Outlet Louver:** Louvers direct air up or down as needed for the heating application. Rear Intake Screen: Heavy gauge steel screen protects against foreign objects making accidental contact with the rotating fan blade.

**Spiral Fin Elements:** The metal sheath element is copper brazed with spiral fins then molded into a coil configuration. This combination produces the best heat transfer while eliminating the potential for hot spots by positioning the element in the maximum airflow stream.

**Totally Enclosed Fan Motor:** Permanently lubricated long life unit bearing motor with 20cc of oil. Epoxy-coated motor with enclosed rotor resists moisture and corrosion for long-lasting, trouble-free operation.

**Aluminum Fan Blade:** 5 blade fan mounted directly to the motor shaft for maximum efficiency.

**Auto-Reset Thermal Cutout:** Power is disconnected from the element if an overheated condition occurs. The fan continues to run to dissipate excess heat from the element. The element is re-energized automatically when the normal operating temperature returns.

**Electronic Control:** Up, down temperature mode. Start/Stop. Standard on all heaters. The control voltage is equal to the line voltage (208, 240) for 5kW models. Over 5kW the line voltage control is operating the contactors.

**Easy Installation:** A quick access panel located on the bottom of the heater allows for quick wiring and easy maintenance for the life of the heater. Includes universal wall/ceiling bracket for simple installation.

**Approvals:** cULus (E41422)

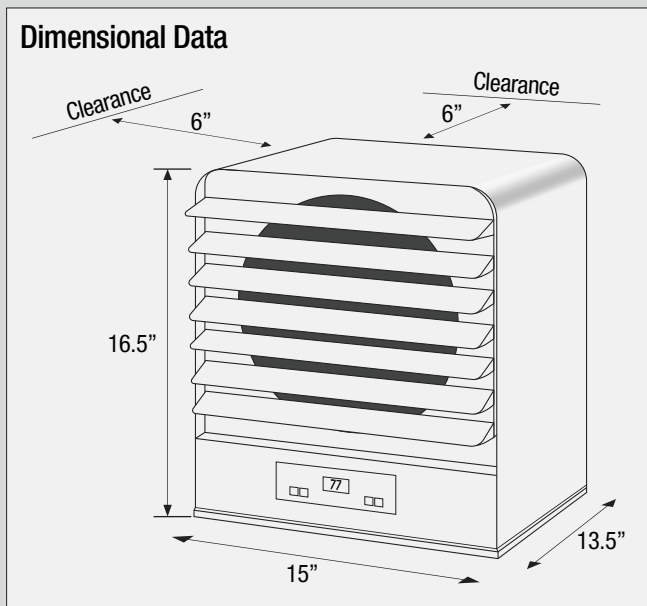
# Electronic Unit Heater KB ECO2S Series

## Ordering Information

MODEL	UPC	kilo WATTS	BTUH	PHASE	VOLTS	AMPS	MOTOR HP	CFM	TEMP. RISE	AIR THROW	MAX MOUNT HEIGHT	WT. (lbs.)
KB2404-1-B2-ECO	22037	4	13.5	1	240/208	16.6/14.4	5W	400	38°F	15 ft.	8 ft.	28.5
KB2004-1-B2-ECO	22045	4	13.5	1	208	19.2	5W	400	38°F	15 ft.	8 ft.	28.5
KB2405-1-B2-ECO	22038	5	17	1	240/208	20.8/18	9W	400	40°F	16 ft.	8 ft.	28.5
KB2005-1-B2-ECO	22046	5	17	1	208	24	9W	400	40°F	16 ft.	8 ft.	28.5
KB2406-1-B2-ECO	22039	6	20.5	1	240/208	25/21.6	9W	400	45°F	16 ft.	8 ft.	28.5
KB2006-1-B2-ECO	22047	6	20.5	1	208	28.8	9W	400	45°F	16 ft.	8 ft.	28.5
KB2407-1-B2-ECO	22040	7.5	25.6	1	240/208	31.2/27	16W	600	40°F	20 ft.	9 ft.	28.5
KB2007-1-B2-ECO	22048	7.5	25.6	1	208	36.1	16W	600	40°F	20 ft.	9 ft.	29
KB2410-1-B2-ECO	22042	10	34.1	1	240/208	41.6/36.1	25W	725	44°F	24 ft.	10 ft.	42
KB2010-1-B2-ECO	22050	10	34.1	1	208	48.1	25W	725	44°F	24 ft.	10 ft.	34
KB2412-1-B2-ECO	22043	12.5	42.7	1	240/208	52/45.1	35W	825	48°F	30 ft.	11 ft.	32
KB2012-1-B2-ECO	22051	12.5	42.7	1	208	60.1	35W	825	48°F	30 ft.	11 ft.	32
KB2415-1-B2-ECO	22044	15	51.2	1	240/208	62.5/54.1	35W	925	51°F	33 ft.	12 ft.	37
KB2015-1-B2-ECO	22052	15	51.2	1	208	72.1	35W	925	51°F	33 ft.	12 ft.	37

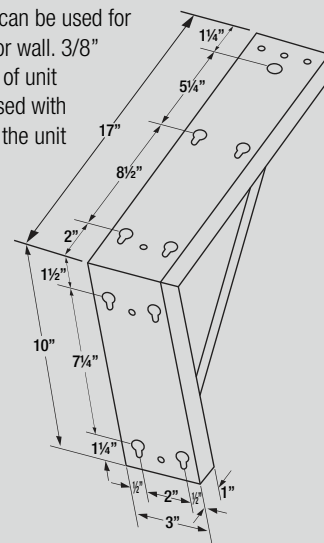
\*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.

### Dimensional Data

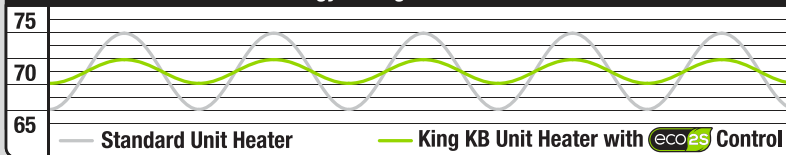


### • KBB-2 Wall/Ceiling Bracket Included

Unit heater brackets can be used for mounting on ceiling or wall. 3/8" threaded hole on top of unit heater can also be used with threaded rod to drop the unit closer to the floor.

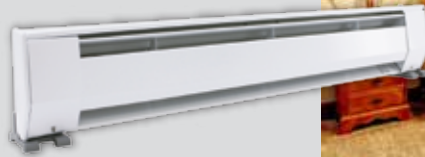


### Energy Saving Eco Comfort



\*Reduces temperature swings

# Portable Baseboard KP Series



### Model Code:

KP	12	10
A	B	C
A: Series		
B: Volts 120V		
C: Watts 1000		



- Aluminum finned element
- Convection Heat
- All angle tip-over switch
- 6 ft. cord w/ grounded plug, 120V
- Baked enamel finish
- Molded base feet
- Carrying handle on back
- Standard Color: white
- Full length safety cutout
- Quiet running
- Pilot light
- Built in thermostat
- 1-year limited warranty

## The KP Series Portable Baseboard Heater

A portable baseboard is an easy way to add supplementary heat to any room. Baseboards are quiet and trouble-free. A tip-over switch is standard so if the heater is knocked over it will automatically shut off. A built-in thermostat and a 6 foot, 3-wire grounded outlet plug for additional safety are provided. This heater is so rugged it is approved for U.S. government contracts.

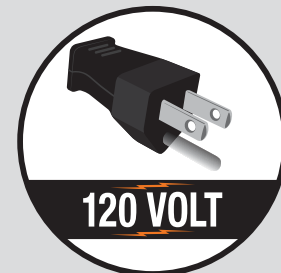
### Ordering Information

MODEL	UPC	VOLTS	WATTS	AMPS	LENGTH	SHIP WEIGHT lbs
KP1210	10142	120	1000	8.3	4 ft.	11.5
KPH1210	10143	120	1000	8.3	3 ft.	9.0

### Engineering Specifications

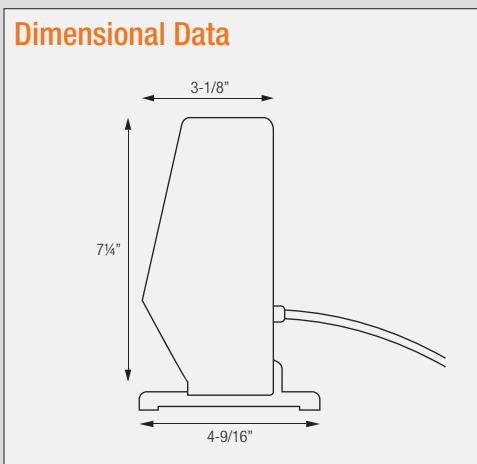
Approvals: UL (E29778)

### Plug Configurations

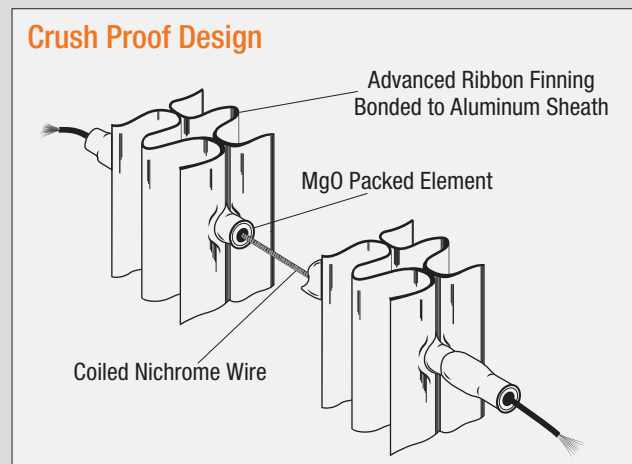


NEMA 5-15P

### Dimensional Data

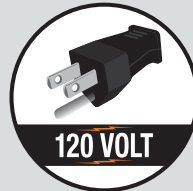


### Crush Proof Design



# 2 Stage ECO Portable Baseboard KP1215-ECO

750/1500 Watt 2-Stage Heating



NEMA 6-15P



Model Code:

KP	12	15	-ECO
A	B	C	D

A: Series  
 B: 12 - 120V  
 C: Watts (1500)  
 D: Energy Saving ECO-stat



- Dual Wattage 750/1500W Element
- 2-Stage, Energy saving ECO-stat
- ECO-indicating lights
- High temperature limit
- Lighted ON/OFF power switch
- 6 foot cord with grounded plug
- All angle tip-over switch
- White finish/Gray trim
- Quiet and efficient convection heat
- Convenient carry handle on back
- With rounded corners and wide base feet
- 1-year limited warranty



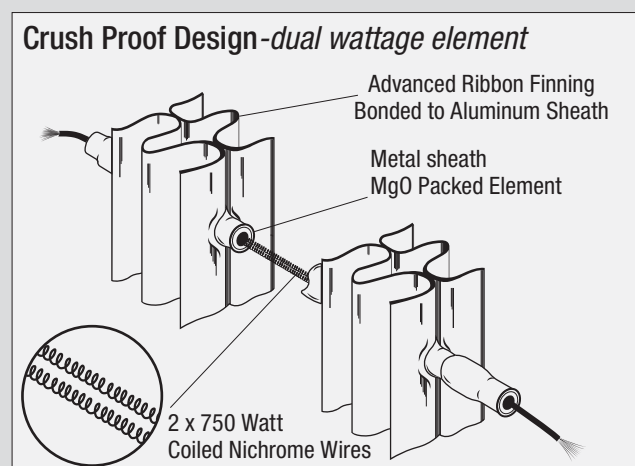
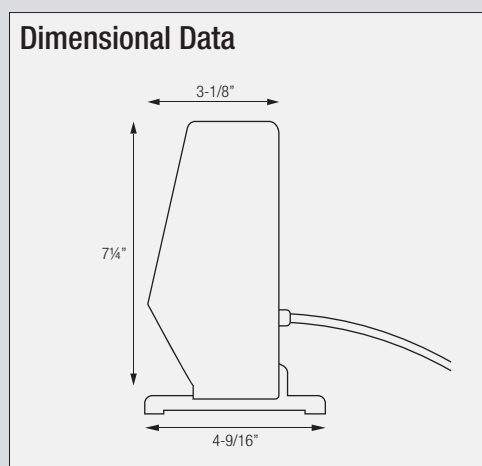
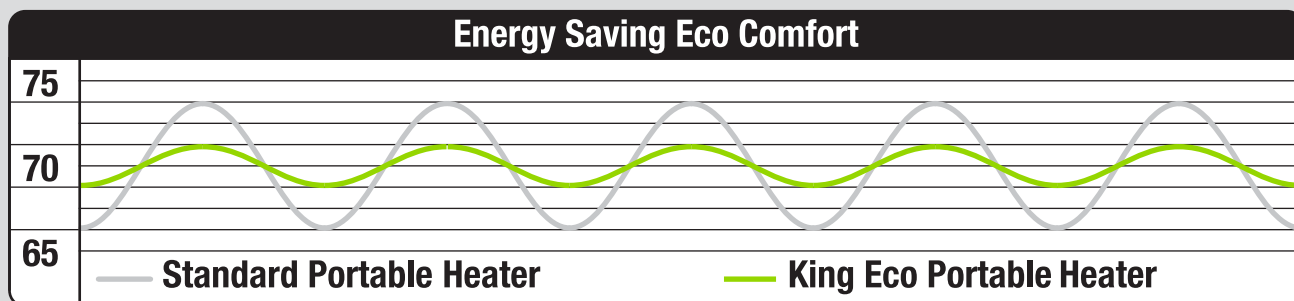
## The KP1215-ECO Portable Baseboard Heater

King Electric's KP1215-ECO with EcoStat automatically uses the lowest wattage required to heat the room, reducing energy consumption. The EcoStat ensures consistent comfort by minimizing room temperature swings. In a cold room it utilizes full power to heat a room quickly. Once the desired temperature is achieved, the heater automatically reduces the wattage to maintain the room temperature. Maximum comfort is achieved.

### Ordering Information

MODEL	UPC	VOLTS	WATTS	LENGTH	BTUH	AMPS	PLUG TYPE	WEIGHT (lbs.)
KP1215-ECO	20794	120	750/1500	5 FT.	2560/5120	6.25-12.5	120V Plug	11.5

### KP1215-ECO



# Portable Heater PH-2

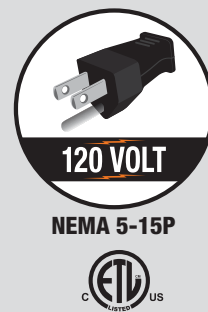


## Specifications

BTU..... 5120  
 Watts..... 750/1500W  
 Power..... 120V~60Hz  
 Amps..... 12.5 A  
 Heat Settings..... 2  
 Cord Length..... 6 ft.

## Minimum Clearance

front.....3 ft.  
 top..... 1 ft.  
 sides.....1 ft.  
 rear..... 1 ft.



- 4 position switch, fan only/low/high/off
- Ceramic heating element
- 6 foot cord 120V plug
- Safety tip-over switch
- Adjustable thermostat
- Comfort grip handle on back
- Overheat Protection
- Power indicator light
- 1-year limited warranty

## The PH-2 Portable Ceramic Fan Heater

The PH-2 portable ceramic heater with thermostat delivers comfortable warmth wherever it's needed most. This portable ceramic heater has 2 heat settings with a thermostat that helps regulate the heat automatically. The PH-2 is equipped with a Summer fan feature as well. This portable heater warms, cools and circulates air through out any room.

### Ordering Information

MODEL	UPC	VOLTS	WATTS	AMPS	Plug Type
PH-2	20986	120	750/1500	12.5	120V Plug

**Dimensions**  
 10¾"h x 7½"w x 5½"d

# Portable Heater PH-16

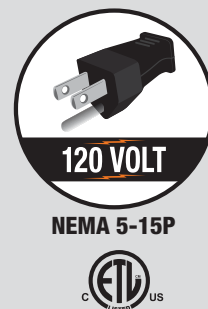


## Specifications

BTU..... 5120  
 Watts..... 750/1500W  
 Power..... 120V~60Hz  
 Amps..... 12.5 A  
 Heat Settings..... 2  
 Cord Length..... 6 ft.

## Minimum Clearance

front.....3 ft.  
 top..... 1 ft.  
 sides.....1 ft.  
 rear..... 1 ft.



- 4 position switch, fan only/low/high/off
- Ceramic heating element
- 6 foot cord 120V plug
- Safety tip-over switch
- Adjustable thermostat
- Comfort grip handle on back
- Overheat Protection
- Power indicator light
- 1-year limited warranty

## The PH-16 Portable Ceramic Fan Heater

The PH-16 portable ceramic heater with thermostat delivers comfortable warmth wherever it's needed most. This portable ceramic heater has 2 heat settings with a thermostat that helps regulate the heat automatically. The PH-16 is equipped with a Summer fan feature as well. This portable heater warms, cools and circulates air through out any room.

### Ordering Information

MODEL	UPC	VOLTS	WATTS	AMPS	Plug Type
PH-16	20989	120	750/1500	12.5	120V Plug

**Dimensions**  
 7¾"h x 71/8"w x 71/8"d

# Milkhouse Heater PHM-1

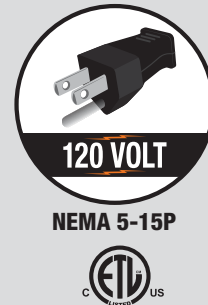


## Specifications

BTU..... 5120  
 Watts..... 1300/1500W  
 Power..... 120V~60Hz  
 Amps..... 12.5 A  
 Heat Settings..... 2  
 Cord Length..... 6 ft.

## Minimum Clearance

front.....3 ft.  
 top..... 1 ft.  
 sides.....1 ft.  
 rear..... 1 ft.



- 4 position switch, fan only/low/high/off
- Ni-chrome heating element
- 6 foot cord 120V grounded plug
- 2 heat settings 1300/1500 watts
- Safety tip-over switch
- Adjustable thermostat
- Convenient carrying handle
- Power indicator light
- Overheat Protection
- Durable powder coated steel housing
- 1-year limited warranty

## The PHM-1 Portable Milkhouse Heater

The PHM-1 portable utility heater is a durable heater designed for use in garage/shop applications, where supplemental heat is needed. The PHM-1 portable utility heater is a durable heater designed for use in garage/shop applications, where supplemental heat is needed. It features a rugged and durable metal housing. The easy-to-use thermostat lets you adjust heat to the perfect level for your space. For safety, an internal switch automatically cuts off power if heater accidentally tips, falls or overheats.

### Ordering Information

MODEL	UPC	VOLTS	WATTS	AMPS	Plug Type
PHM-1	20992	120	1300/1500	12.5	120V Plug

**Dimensions**  
 15¾" h x 9¾" w x 7½" d

# Portable Radiant Tower Heater PHTR-9

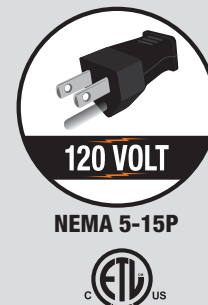


## Specifications

BTU..... 4100  
 Watts..... 600/1200W  
 Power..... 120V~60Hz  
 Amps..... 10 A  
 Heat Settings..... 2  
 Cord Length..... 6 ft.

## Minimum Clearance

front.....3 ft.  
 top..... 1 ft.  
 sides.....1 ft.  
 rear..... 1 ft.



- 2 heat settings 600/1200W
- Dual quartz radiant tower heater
- 6 foot cord 120V plug
- Safety tip-over switch
- Adjustable thermostat
- Comfort grip handle on back
- Durable powder coated steel grill stays cool to the touch
- Overheat Protection
- Power indicator light
- 1-year limited warranty

## The PHTR-9 Portable Radiant Tower Heater

The PHTR-9 Dual quartz radiant tower heater has reflective heating technology that replicates the sun's healthy rays, directly warming the object or person in front of the heater. As the temperature of the heated surface rises, the warming effect is felt throughout the air and surrounding areas. Reflective heaters are great for open or large rooms, and actually save you energy by warming objects and not the entire room. Reflective heating is both safe and healthy—it produces no odors, chemicals or fumes and doesn't stir up dust. Remarkably efficient, our heater uses less power to create the same amount of heat as traditional heaters. Equipped with safety tip-over switch and overheat auto-off protection, the heater is safe and reliable.

### Ordering Information

MODEL	UPC	VOLTS	WATTS	AMPS	Plug Type
PHTR-9	20999	120	600/1200	5-10	120V Plug

**Dimensions**  
 22¼" h x 11" w x 7½" d

# Portable Utility Heater PUH Series



**Model Code:**

PUH	12	15	T
A	B	C	D
A: Series			
B: 12 - 120V			
C: Watts (1500)			
D: T - Thermostat			



- Built-in thermostat (45°-85°F)
- Dual On/off rocker switches (750W ea.)
- 6 foot cord with 15A plug
- 120V (750W/1500W)
- Rugged metal case
- Comfort grip handle
- Ceramic heating elements
- Power indicator light
- Permanently lubricated motor ensures long life
- Durable scratch and rust resistant finish
- 1-year limited warranty

## The PUH1215T Portable Utility Heater

The PUH1215T personal utility heater is designed to provide a back-up heating source at an affordable price.

The convenient 6 foot cord allows greater mobility to areas needing heat. Easily set the desired temperature with the built-in thermostat. The auto-reset high-limit temperature control provides overheat protection. Standard color: grey body, black grill and handle. 1 year limited warranty.

### Ordering Information

### Dimensions

7½" h x 6½" w x 5" d

MODEL	UPC	VOLTS	WATTS	AMPS	Plug Type
PUH1215T	20982	120	750/1500	12.5	120V Plug

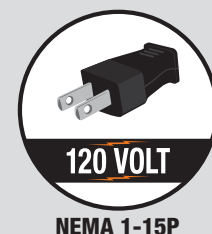


### Specifications

BTU.....	5100B
Watts.....	750W / 1500W
Power (Volts).....	120V~60Hz
Amps.....	12.5 A
Cord Length.....	6 ft.
Switch.....	(2) 750/1500 ON/OFF
Air Flow.....	216 CFM Fan

### Minimum Clearance

front.....	3 ft.
top.....	1 ft.
sides.....	1 ft.
rear.....	1 ft.





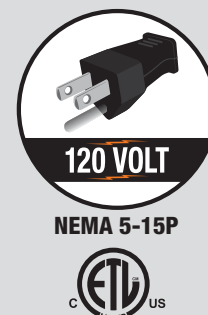
# Portable Heater HFC1215



**Model Code:**

HFC	12	15
A	B	C

A: Series  
B: Volts (120)  
C: Watts (1500)



- Squirrel Cage Blower
- C-Frame Motor
- Open-Coil Element
- Automatic thermostat
- Secondary unit protection: one shot fuse
- Two heat settings: 750/1500 Watts
- Low temperature thermostat setting
- Metal case & grille, powder-coated finish
- 8 foot, 3-conductor grounded power cord
- Standard color: two-tone light gray / dark gray grille
- Fan-only setting
- Manual reset limit
- 1 year limited warranty

## The HFC1215 Portable Heater

This small, quiet desktop portable is intended for use in the RV and marine environment for quick heating and freeze protection. A 750 Watt setting, along with a low temperature thermostat setting, allows this portable to be used for freeze protection. The 1500 Watt setting allows it to be a comfort heater. An 8 ft. grounded cord makes it convenient to reach distant power outlets.

### Ordering Information

### Dimensions

4½" h x 10" w x 9½" d

MODEL	UPC	VOLTS	WATTS	AMPS	LENGTH OF CORD	WT. (lbs.)
HFC1215	01200	120	750/1500	6.25/12.5	8 ft.	6

### Control Features

Thermostat



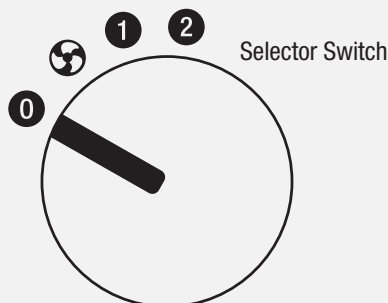
Heat on Indicator

0 = OFF

FAN ONLY

1 = 750 Watts

2 = 1500 Watts



Engineered for Marine Environments



# Pumphouse Heater U Series



Stainless shown



### Model Code:

U 24 10  
A B C

A: Series  
B: 24 - 240V  
C: Watts (1000)  
D: -SS  
Stainless Steel



Rated for damp locations

- ETL listed for use in damp locations
- Available in stainless steel
- Designed to meet requirements outlined in ASSE-1060
- Built-in thermostat with frost protection (40° to 90°F)
- Stainless Steel Element
- Standard baked enamel protective coating
- Built in mounting bracket
- Convection/Radiant Heat
- Vertical or Horizontal Mount
- 1-year limited warranty



## The U Series Pumphouse Heater

The U Series heater is designed to reduce moisture from mechanical equipment and keep pumps, valves, and farm machinery from freezing. Having the radiant heat absorbed by the metal equipment makes this heater more effective than convection heaters. The built-in thermostat turns off when the ambient temperature is safely above freezing. An optional 304 Stainless Steel (Add-SS to the model number) version helps prevent corrosion associated with high moisture locations like pump houses. A steel guard helps keep foreign objects away from the element. This heater is simple and reliable with no moving parts to wear out or maintain, making it an inexpensive choice for freeze protection. Specifically designed to operate in both vertically and horizontally positions.

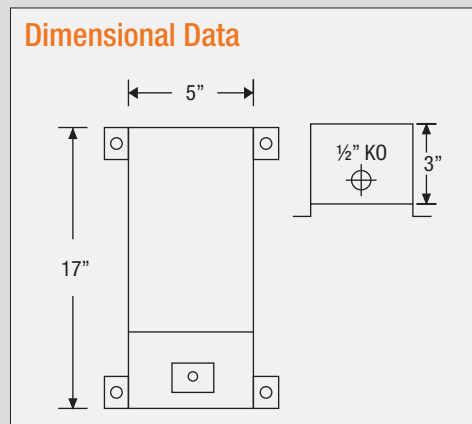
### Ordering Information

	MODEL	UPC#	VOLTAGE	WATTAGE	WEIGHT lbs
	U2425	12612	120	62	4
	U2450	12615	120	125	4
	U2475	12618	120	187	4
<b>120V</b>	U24100	12621	120	250	4
	U1250	12605	120	500	4
	U1275	12606	120	750	4
	U12100	12609	120	1000	4
	U2425	12612	240	250	4
<b>240V</b>	U2450	12615	240	500	4
	U2475	12618	240	750	4
	U24100	12621	240	1000	4

Add -SS for stainless steel construction

\*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.

### Dimensional Data



## Engineering Specifications

Contractor shall supply and install U Pump House series radiant heaters manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.

**Element:** 304 or 840 Stainless Steel.

**Thermostat:** Built-in snap action with a range of 40° to 90°F.

**Safety Limit:** Capillary tube running the full length of the element provides over-temperature protection then automatically resets when temperature drops.

**Enclosure:** Steel case with an expanded steel metal element shield (optional 20 gauge 304 Stainless Steel on -SS model).

**Safety Standard:** cETLus

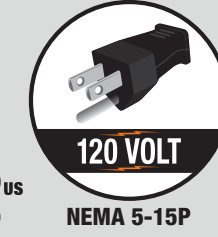
# Radiant Heater RSH1215



**Model Code:**

RSH	12	15
A	B	C

A: Series  
B: 12 - 120V  
C: Watts (1500)



- 1500W Infrared quartz heating tube
- For dry locations only
- 6 foot cord 120V grounded plug
- Anti-freeze function
- Adjustable thermostat
- Overheat Protection
- Durable extruded aluminum housing
- Wall or ceiling mount bracket included
- 1-year limited warranty

## The RSH1215 Infrared Quartz Heater

The RSH1215 1500W Infrared quartz heater has the ability to transfer heat to a person or object without heating the surrounding air. The RSH1215 is commonly used for indoor or outdoor covered spaces spot heating. Perfect for garages, covered patios, or workshops. The universal wall and ceiling mounting bracket is easy to install and angle is adjustable to suit your needs.

Ordering Information						Dimensions
<b>MODEL</b>	<b>UPC</b>	<b>VOLTS</b>	<b>WATTS</b>	<b>AMPS</b>	<b>Plug Type</b>	7½" h x 34½" w x 3¾" d
RSH1215	20983	120	1500	12.5	120V Plug	

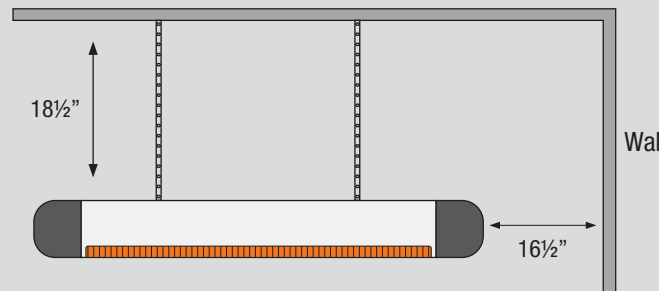
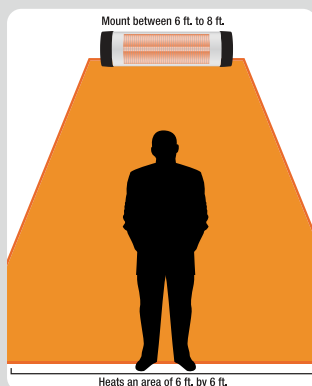
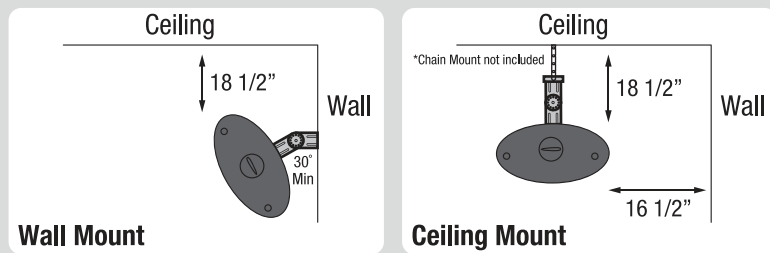
### Accessories

MODEL	UPC	DESCRIPTION	WEIGHT
RLAMP1215	20981	REPLACEMENT LAMPS	1

### Specifications

Watts.....	1500W
Power (Volts).....	120V~60Hz
Amps.....	12.5 A
Cord Length.....	6 ft.
Heat Settings.....	1
Approvals.....	

### Easy Installation



Locate stud in ceiling or wall and securely fasten bracket. Attach heater to bracket, adjust to desired position and tighten down. Must have minimum 72" clearance from the floor.

# Commercial Radiant Heater RH Series



### Model Code:

RH	33	B	1	B	25W
A	B	C	D	E	F

**A: Series**  
**B: Length**  
**C: Housing Color**  
 B-Black, S-Stainless  
**D: Lamp Quantity**  
**E: Volts** A=120, B=208  
 C=240, D=480, E=575  
**F: Wattage**



- Black powder-coat aluminized steel housing
- Optional stainless steel housing
- 0° to 45° adjustable brackets included
- Gold colored anodized aluminum reflectors
- Wide, symmetrical design
- Coiled tungsten filament in sealed quartz tube
- Porcelain end caps
- Instantaneous heat-up & cool-down
- Clear or optional glare reducing ruby quartz
- ETL Listed for indoor & outdoor applications
- Commercial/Industrial Approval
- Tested to CSA 22.2 #46 - M1988, UL 2021, 1997

## The RH Radiant Heater Series

**RH Series radiant heaters** have the ability to transfer heat to a person or object without heating the surrounding air. Commonly used for indoor and outdoor application such as restaurant patios, parking garages, work stations, valet waiting areas, vestibules and airport/hospital entrances. RH series heaters are Ideal for any application requiring total or supplemental (spot) heating in commercial and industrial areas.

### Models In Stock

LAMP COLOR	LAMP TYPE	BLACK (POWDER COAT)	UPC	VOLTS	WATTS	BTUH	AMPS	LAMP PART#	WT. (lbs.)
CLEAR (WHITE)	SINGLE LAMP	RH-33B1-B25W	32411	208	2,500	8,530	12.02	EL-072	19
CLEAR (WHITE)	SINGLE LAMP	RH-33B1-C25W	32412	240	2,500	8,530	10.42	EL-074	19
CLEAR (WHITE)	DOUBLE LAMP	RH-24B2-B16W	32425	208	3,200	10,919	15.38	EL-071	20
CLEAR (WHITE)	DOUBLE LAMP	RH-24B2-C16W	32426	240	3,200	10,919	13.33	EL-073	20
CLEAR (WHITE)	DOUBLE LAMP	RH-33B2-B25W	32428	208	5,000	17,061	24.04	EL-072	26
CLEAR (WHITE)	DOUBLE LAMP	RH-33B2-C25W	32429	240	5,000	17,061	20.83	EL-074	26
CLEAR (WHITE)	TRIPLE LAMP	RH-33B3-G25W †	32444	480	7,500	24,909	15.63	EL-076	32

### Models Available for Special Order Single Lamp Models

LAMP COLOR	BLACK (POWDER COAT)	UPC	STAINLESS STEEL	UPC	VOLTS	WATTS	BTUH	AMPS	LAMP PART#	WT. (lbs.)
CLEAR (WHITE)	RH-24B1-A16W	32407	RH-24S1-A16W	32453	120	1,600	5,459	13.3	EL-070	15
CLEAR (WHITE)	RH-24B1-B16W	32408	RH-24S1-B16W	32454	208	1,600	5,459	7.69	EL-071	15
CLEAR (WHITE)	RH-24B1-C16W	32409	RH-24S1-C16W	32455	240	1,600	5,459	6.67	EL-073	15
CLEAR (WHITE)	RH-24B1-G16W	32410	RH-24S1-G16W	32456	480	1,600	5,459	3.33	EL-075	15
CLEAR (WHITE)	RH-33B1-B25W	32411	RH-33S1-B25W	32457	208	2,500	8,530	12.02	EL-072	19
CLEAR (WHITE)	RH-33B1-C25W	32412	RH-33S1-C25W	32458	240	2,500	8,530	10.42	EL-074	19
CLEAR (WHITE)	RH-33B1-G25W	32413	RH-33S1-G25W	32459	480	2,500	8,530	5.21	EL-076	19
CLEAR (WHITE)	RH-46B1-G36W †	32414	RH-46S1-G36W †	32460	480	3,650	12,454	7.6	EL-077	24
CLEAR (WHITE)	RH-46B1-H38W †	32415	RH-46S1-H38W †	32461	575	3,800	12,966	6.61	EL-078	24
REDUCED GLARE (RUBY)	RH-24B1-A16R	32416	RH-24S1-A16R	32462	120	1,600	5,459	13.3	EL-080	15
REDUCED GLARE (RUBY)	RH-24B1-B16R	32417	RH-24S1-B16R	32463	208	1,600	5,459	7.69	EL-081	15
REDUCED GLARE (RUBY)	RH-24B1-C16R	32418	RH-24S1-C16R	32464	240	1,600	5,459	6.67	EL-083	15
REDUCED GLARE (RUBY)	RH-24B1-G16R	32419	RH-24S1-G16R	32465	480	1,600	5,459	3.33	EL-085	15
REDUCED GLARE (RUBY)	RH-33B1-B25R	32420	RH-33S1-B25R	32466	208	2,500	8,530	12.02	EL-082	19
REDUCED GLARE (RUBY)	RH-33B1-C25R	32421	RH-33S1-C25R	32467	240	2,500	8,530	10.42	EL-084	19
REDUCED GLARE (RUBY)	RH-33B1-G25R	32422	RH-33S1-G25R	32468	480	2,500	8,530	5.21	EL-086	19
REDUCED GLARE (RUBY)	RH-46B1-G36R †	32423	RH-46S1-G36R †	32469	480	3,650	12,454	7.6	EL-087	24
REDUCED GLARE (RUBY)	RH-46B1-H38R †	32424	RH-46S1-H38R †	32470	575	3,800	12,966	6.61	EL-088	24

# Commercial Radiant Heater RH Series

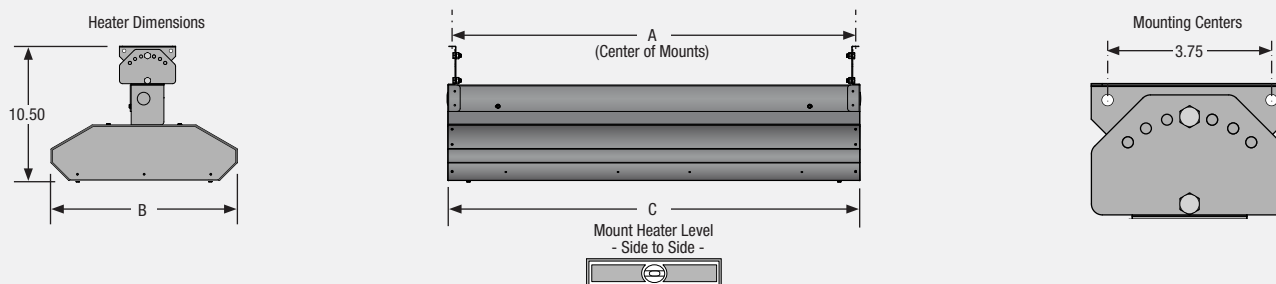
## Dual Lamp Models

LAMP COLOR	BLACK (POWDER COAT)	UPC	STAINLESS STEEL	UPC	VOLTS	WATTS	BTUH	AMPS	LAMP PART#	WT. (lbs.)
CLEAR (WHITE)	RH-24B2-B16W	32425	RH-24S2-B16W	32471	208	3,200	10,919	15.38	EL-071	20
CLEAR (WHITE)	RH-24B2-C16W	32426	RH-24S2-C16W	32472	240	3,200	10,919	13.33	EL-073	20
CLEAR (WHITE)	RH-24B2-G16W	32427	RH-24S2-G16W	32473	480	3,200	10,919	6.67	EL-075	20
CLEAR (WHITE)	RH-33B2-B25W	32428	RH-33S2-B25W	32474	208	5,000	17,061	24.04	EL-072	26
CLEAR (WHITE)	RH-33B2-C25W	32429	RH-33S2-C25W	32475	240	5,000	17,061	20.83	EL-074	26
CLEAR (WHITE)	RH-33B2-G25W	32430	RH-33S2-G25W	32476	480	5,000	17,061	10.42	EL-076	26
CLEAR (WHITE)	RH-46B2-G36W †	32431	RH-46S2-G36W †	32477	480	7,300	24,909	15.21	EL-077	32
CLEAR (WHITE)	RH-46B2-H38W †	32432	RH-46S2-H38W †	32478	575	7,600	25,932	13.22	EL-078	32
REDUCED GLARE (RUBY)	RH-24B2-B16R	32433	RH-24S2-B16R	32479	208	3,200	10,919	15.38	EL-081	20
REDUCED GLARE (RUBY)	RH-24B2-C16R	32434	RH-24S2-C16R	32480	240	3,200	10,919	13.33	EL-083	20
REDUCED GLARE (RUBY)	RH-24B2-G16R	32435	RH-24S2-G16R	32481	480	3,200	10,919	6.67	EL-085	20
REDUCED GLARE (RUBY)	RH-33B2-B25R	32436	RH-33S2-B25R	32482	208	5,000	17,061	24.04	EL-082	26
REDUCED GLARE (RUBY)	RH-33B2-C25R	32437	RH-33S2-C25R	32483	240	5,000	17,061	20.83	EL-084	26
REDUCED GLARE (RUBY)	RH-33B2-G25R	32438	RH-33S2-G25R	32484	480	5,000	17,061	10.42	EL-086	26
REDUCED GLARE (RUBY)	RH-46B2-G36R †	32439	RH-46S2-G36R †	32485	480	7,300	24,909	15.21	EL-087	32
REDUCED GLARE (RUBY)	RH-46B2-H38R †	32440	RH-46S2-H38R †	32486	575	7,600	25,932	13.22	EL-088	32

## Triple Lamp Models

LAMP COLOR	BLACK (POWDER COAT)	UPC	STAINLESS STEEL	UPC	VOLTS	WATTS	BTUH	AMPS	LAMP PART#	WT. (lbs.)
CLEAR (WHITE)	RH-24B3-B16W	32441	RH-24S3-B16W	32487	208	4,800	16,378	23.08	EL-071	25
CLEAR (WHITE)	RH-24B3-C16W	32442	RH-24S3-C16W	32488	240	4,800	16,378	20	EL-073	25
CLEAR (WHITE)	RH-24B3-G16W	32443	RH-24S3-G16W	32489	480	4,800	16,378	10	EL-075	25
CLEAR (WHITE)	RH-33B3-G25W †	32444	RH-33S3-G25W †	32490	480	7,500	24,909	15.63	EL-076	32
CLEAR (WHITE)	RH-46B3-G36W †	32445	RH-46S3-G36W †	32491	480	10,950	37,636	22.81	EL-077	40
CLEAR (WHITE)	RH-46B3-H38W †	32446	RH-46S3-H38W †	32492	575	11,400	38,898	19.83	EL-078	40
REDUCED GLARE (RUBY)	RH-24B3-B16R	32447	RH-24S3-B16R	32493	208	4,800	16,378	23.08	EL-081	25
REDUCED GLARE (RUBY)	RH-24B3-C16R	32448	RH-24S3-C16R	32494	240	4,800	16,378	20	EL-083	25
REDUCED GLARE (RUBY)	RH-24B3-G16R	32449	RH-24S3-G16R	32495	480	4,800	16,378	10	EL-085	25
REDUCED GLARE (RUBY)	RH-33B3-G25R †	32450	RH-33S3-G25R †	32496	480	7,500	24,909	15.63	EL-086	32
REDUCED GLARE (RUBY)	RH-46B3-G36R †	32451	RH-46S3-G36R †	32497	480	10,950	37,636	22.81	EL-087	40
REDUCED GLARE (RUBY)	RH-46B3-H38R †	32452	RH-46S3-H38R †	32498	575	11,400	38,898	19.83	EL-088	40

## Dimensional Data



## Physical Dimensions

MODEL	A	B	C
RH-24-X1	23½"	9¼"	24"
RH-24-X2	23½"	15"	24"
RH-24-X3	23½"	20¾"	24"
RH-33-X1	32½"	9¼"	33"
RH-33-X2	32½"	15"	33"
RH-33-X3	32½"	20¾"	33"
RH-46-X1	45½"	9¼"	46"
RH-46-X2	45½"	15"	46"
RH-46-X3	45½"	20¾"	46"

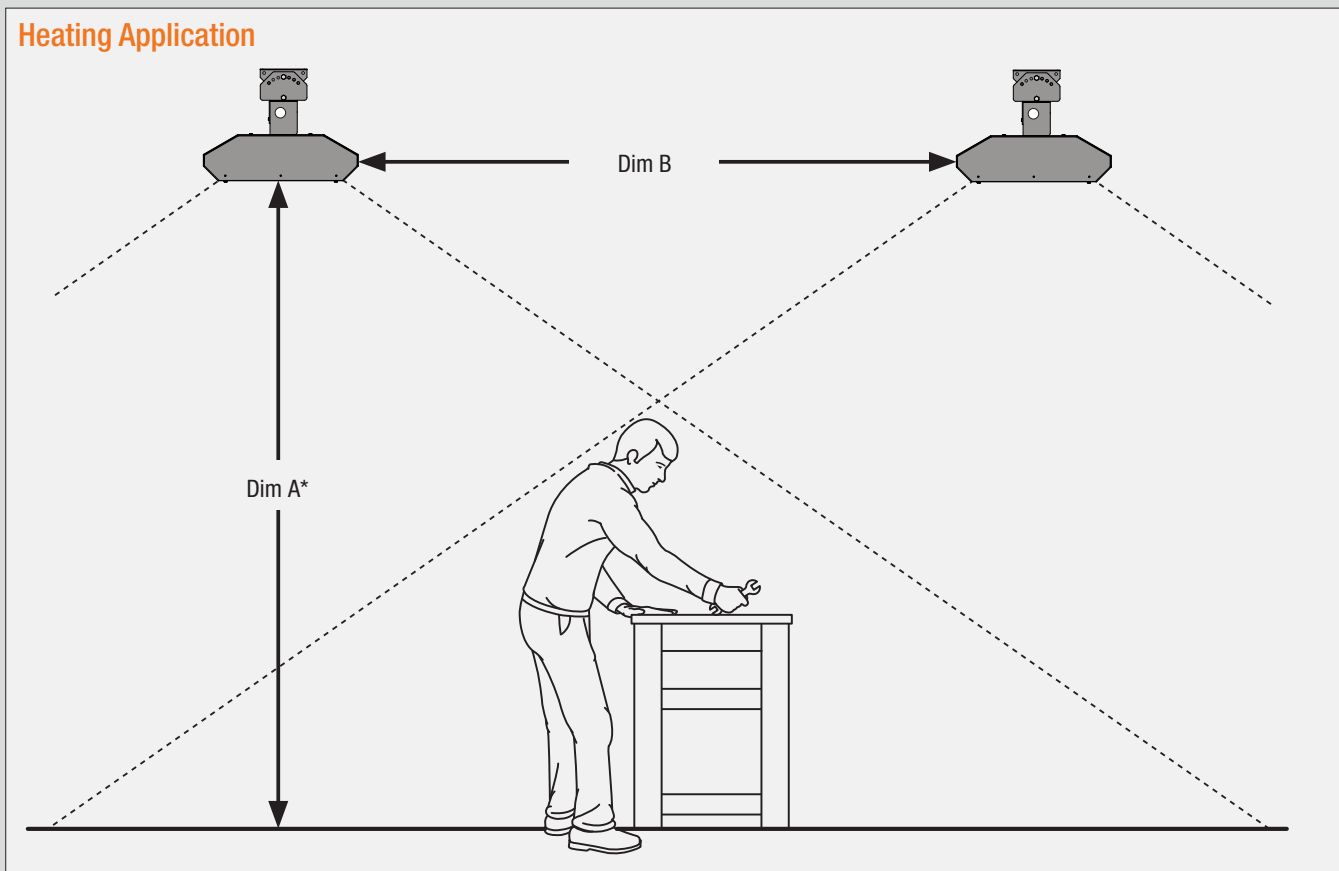
# Commercial Radiant Heater RH Series

## RH Series Basic Heating Application Chart

SERIES	LAMP QTY.	RECOMMEND MOUNTING HEIGHT (Dim A)	RECOMMENDED DISTANCE BETWEEN HEATERS (Dim B)	APPROX. SQ. FT. COVERAGE	APPROX. WATTS PER SQ. FT.
RH-24	1	7 to 9 FT.	2 to 7 FT.	200	4
RH-24	2	7 to 9 FT.	3 to 9 FT.	200	8
RH-24	3	8 to 10 FT.	4 to 11 FT.	300	8
RH-33	1	7 to 9 FT.	3 to 9 FT.	200	6
RH-33	2	8 to 10 FT.	4 to 11 FT.	300	8
RH-33	3	8 to 10 FT.	5 to 13 FT.	300	11
RH-46	1	8 to 10 FT.	4 to 11 FT.	300	7 to 10
RH-46	2	10 to 14 FT.	5 to 13 FT.	500	8 to 12
RH-46	3	10 to 15 FT.	6 to 15 FT.	500	12 to 18

\*Clearance to combustibles published in the RH Series Installation, Operation, Maintenance and Parts Manuals and on safety labels must be maintained at all times. Factory recommended mounting heights are listed as a guideline. If infrared heaters are mounted too low or too high, they may result in discomfort or lack of heat.

## Heating Application



## Replacement Lamp Elements

MODEL	UPC	VOLTS	WATTS	FOR USE WITH	LAMP LENGTH	WEIGHT
EL-070A	32610	120	1,600	A16W	21" (533 mm)	2 lbs (0.9 kg)
EL-071A	32611	208	1,600	B16W	20" (533 mm)	2 lbs (0.9 kg)
EL-072A	32612	208	2,500	B25W	30" (762 mm)	3 lbs (1.4 kg)
EL-073A	32613	240	1,600	C16W	21" (533 mm)	2 lbs (0.9 kg)
EL-074A	32614	240	2,500	C25W	30" (762 mm)	3 lbs (1.4 kg)
EL-075A	32615	480	1,600	G16W	21" (533 mm)	2 lbs (0.9 kg)
EL-076A	32616	480	2,500	G25W	30" (762 mm)	3 lbs (1.4 kg)
EL-077A	32617	480	3,650	G36W	43" (1092 mm)	4 lbs (1.8 kg)
EL-078A	32618	575	3,800	H38W	43" (1092 mm)	4 lbs (1.8 kg)

# Commercial Radiant Heater RH Series

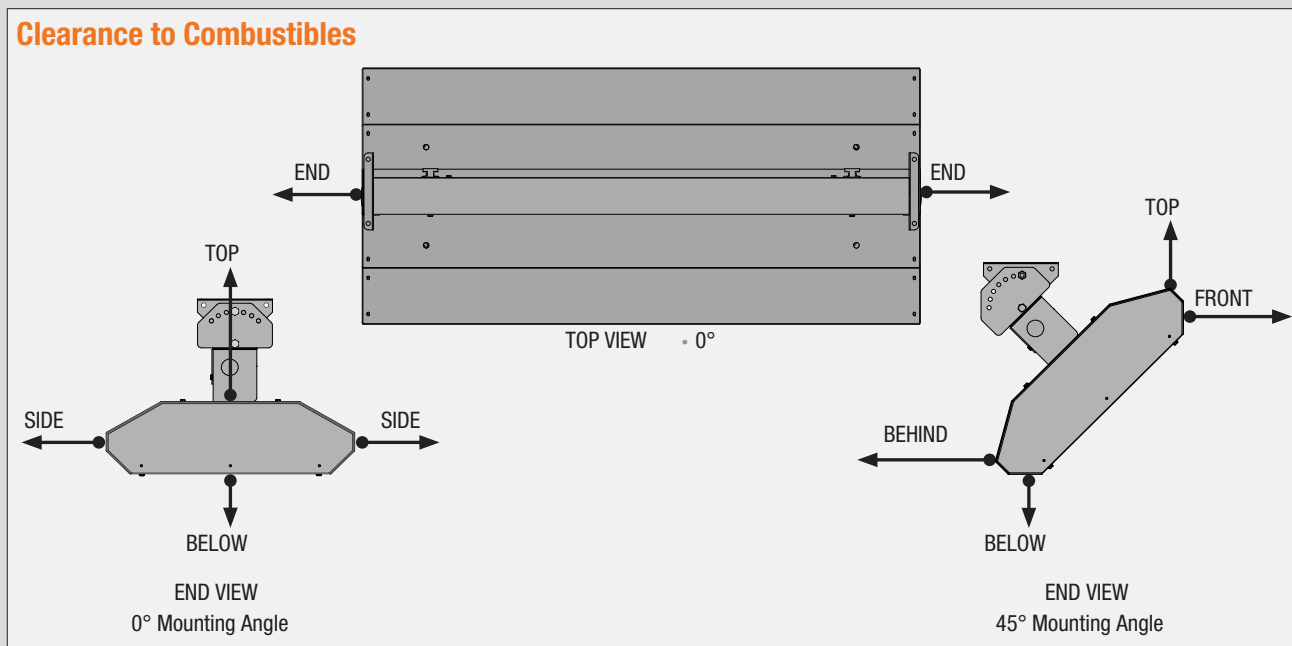
## Clearance to Combustibles in Inches

Model Wattage	Mounting Angle	Side		End	Top	Below
		Front	Behind*			
1,600	0°	24	24	24	6	40
	45°	40	24	24	10	40
2,500	0°	24	24	24	6	46
	45°	46	24	24	10	46
3,200	0°	24	24	24	6	56
	45°	56	24	24	10	56
3,650 3,800	0°	24	24	24	6	62
	45°	62	24	24	10	62
4,800	0°	24	24	24	6	72
	45°	72	24	24	10	72
5,000	0°	24	24	24	6	72
	45°	72	24	24	10	72
7,300	0°	24	24	24	6	84
	45°	84	24	24	10	84
7,500 7,600	0°	24	24	24	6	84
	45°	84	24	24	10	84
10,950 11,400	0°	24	24	24	6	96
	45°	96	24	24	10	96

\*A minimum clearance of 36 inches must be maintained from behind another heater

**NOTE:** Ensure that building materials with a low heat tolerance (i.e, awnings, fabrics, plastics, sprinklers, insulation, etc.) are protected against degradation. This may require the heater to be mounted at a distance in excess of the published clearances to combustibles. Contact the material manufacturer for specific details.

## Clearance to Combustibles



# Commercial Radiant Heater RH Series

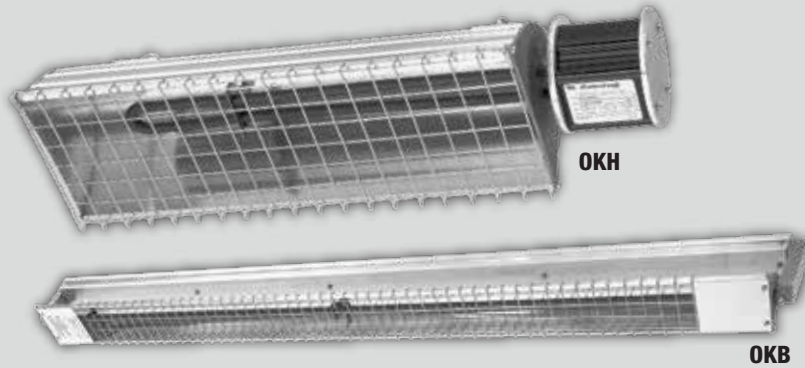
## Accessories

\*Highlighted models are in stock, others are available for special order.

MODEL	UPC	DESCRIPTION	WEIGHT
EL-1WG33	32576	Wire guard fits 33" single element.	4 lbs (1.8 kg)
EL-2WG24	32578	Wire guard fits 24" double element.	4 lbs (1.8 kg)
EL-2WG33	32579	Wire guard fits 33" double element.	5 lbs (2.3 kg)
EL-3WG33	32582	Wire guard fits 33" triple element.	7 lbs (3.2 kg)
EL-1FR33	32585	Recessed mount fits 33" single element	7 lbs (3.2 kg)
EL-2FR24	32587	Recessed mount fits 24" double element	7 lbs (3.2 kg)
EL-2FR33	32588	Recessed mount fits 33" double element	10 lbs (4.5 kg)
SMWC-36	32597	Variable heat controller 208/240 Volt; 15 Amp. 3600 Watts max.	3 lbs (1.5 kg)
EL-1WG24	32575	Wire guard fits 24" single element.	3 lbs (1.4 kg)
EL-1WG46	32577	Wire guard fits 46" single element.	5 lbs (2.3 kg)
EL-2WG46	32580	Wire guard fits 46" double element.	6 lbs (2.7 kg)
EL-3WG24	32581	Wire guard fits 24" triple element.	6 lbs (2.7 kg)
EL-3WG46	32583	Wire guard fits 46" triple element.	8 lbs (3.6 kg)
EL-1FR24	32584	Recessed mount fits 24" single element	5 lbs (2.3 kg)
EL-1FR46	32586	Recessed mount fits 46" single element	13 lbs (5.9 kg)
EL-2FR46	32589	Recessed mount fits 46" double element	15 lbs (6.8 kg)
EL-3FR24	32590	Recessed mount fits 24" triple element	16 lbs (7.3 kg)
EL-3FR33	32591	Recessed mount fits 33" triple element	19 lbs (8.6 kg)
EL-3FR46	32592	Recessed mount fits 46" triple element	21 lbs (9.5 kg)
PLQ	32593	Clearance Safety Limit Sign. 24 ga. aluminum 10" x 7". Sign is designed to be hung or adhered at clearance to combustible limit. Repeats clearance warnings.	1 lb (0.5 kg)
CE-40-24	32594	Contactors with enclosures. Ideal switching device for use with other control equipment. NEMA 1 Enclosures. Magnetic contactor with Load rating up to 600V Max., 3-Pole, 40 amps. 24 volt coil. Overload protection must be additionally provided.	8 lbs (3.6 kg)
CE-60-24	32595	Contactors with enclosures. Ideal switching device for use with other control equipment. NEMA 1 Enclosures. Magnetic contactor with Load rating up to 600V Max., 3-Pole, 60 amps. 24 volt coil. Overload protection must be additionally provided.	14 lb (6.4 kg)
SMWC-18	32596	Variable heat controller 120 Volt; 15 Amp. 1800 Watts max.	3 lbs (1.5 kg)
SCR208-30-1	32598	SCR controller. Single-phase 208/240 Volt. 30 Amp max. Enclosure Included	15 lbs (7kg)
SCR208-30-3	32599	SCR controller. Three-phase 208/240 Volt. 30 Amp max. Enclosure Included	40 lbs (18kg)
SCR208-80-3	32600	SCR controller. Three-phase 208/240 Volt. 80 Amp max. Enclosure Included	50 lbs (23kg)
SCR480-30-3	32601	SCR controller. Three-phase 480 Volt. 30 Amp max. Enclosure Included	40 lbs (18kg)
SCR480-80-3	32602	SCR controller. Three-Phase 480 Volt. 80 Amp max. Enclosure Included	50 lbs (23kg)
SCR-MA-AO	32603	Add-on option for SCR Series controllers to allow 4-20 ma control.	
SCR-DCV-AO	32604	dd-on option for SCR Series controllers to allow 2-10 Volts DC control.	
TH-1A66	32605	Heater thermostat with 40-85°F range. Double line break when positive off. For use on heaters up to 277V. 22 amps at 120 or 240 VAC non-inductive; 18 amps at 277 VAC non-inductive. Common thermostat when amperage permits.	2 lbs (0.9 kg)
VHC-3	32606	Variable heat controller suitable for up to a 3kW of infrared heater at 208- 240V supply. Integral ON/OFF switch. Fully adjustable power setting. High reliability triac used. Must be mounted in a protected area.	2 lbs (0.9 kg)
MS-3	32607	Motion sensor utilizes passive infrared technology to detect heat radiation of moving human bodies and will activate for a user-determined time period (2-18 mins.) Suitable for up to 3kW at 240V. Manual ON/OFF override. Waterproof (IP55). For wall or ceiling mount.	1 lb (0.5 kg)
TC-6	32608	Push button timer control. Suitable for up to 6kW of infrared heaters at 208-240V supply. Electronic soft start - extends lamp life. Tamper-proof Push Button. Fully adjustable time delay from 5 to 70 minutes. Red LED indicator when active. Waterproof (IP55 rated).	2 lbs (0.9 kg)
LCD-3H	32609	Energy saving snow switch allows heater operation only when required during snowfall and when temperatures remains closed for 1-hour hold-on time after precipitation has stopped. 24VAC required for operation and switches 24VAC signal. One device can operate multiple units. Must use in conjunction with a contactor.	2 lbs (0.9 kg)



# Industrial Radiant Heater OK Series



**Model Code:**

OKB	59	3	C6	-120V
A	B	C	D	E

**A: Series**  
H = 45° Pattern  
B = 60° Pattern  
**B: Length**  
**C: Watts**  
**D: 60° Reflector**  
**E: Volts**



- Radiant Heat
- Incoloy® element
- Extruded aluminum housing
- Mounting hooks (OKH only)
- 60° spread
- Indoor or outdoor
- OKB: Anodized reflector
- OKB: Tilting swivel bracket
- OKB: Set screw adjustment
- OKB: Eyebolts for chain mounting
- OKB: Use 90°C wire
- OKH: Hairpin Incoloy® sheathed element
- OKH: Moisture resistant housing
- OKH: Sliding mounting pads

## The OK Radiant Heater Series

The major benefit of infrared heating is its ability to transfer heat to a person or object without heating the surrounding air. The OKB is commonly used for indoor spot heating applications where a great amount of heat is not required and where the mounting height is relatively low. Example installations include churches, garages, and indoor pools. The OKH is excellent for indoor and outdoor areas with increased density. For example: racetracks and other outdoor stadiums, parking garage ramps, aircraft hangars and high bay industrial buildings.

### Ordering Information

MODEL	PATTERN SPREAD	WATTS	UPC	TYPE	VOLTS	AMPS	MOUNTING HEIGHT	COVERAGE			LENGTH	WIDTH	HEIGHT	WT. LBS.
								WIDTH	LENGTH	SQ. FT.				
OKH191H6R-120V	45°	1600	11650	Hairpin Element	120	13.3	7 ft.	4.6"	5.6"	25.7	23.5"	7"	5"	11
							8 ft.	5.8"	6.6"	37.8				
							9 ft.	6.9"	7.6"	52.3				
							10 ft.	8.1"	8.6"	69.1				
OKH191H6R-240V	45°	1600	11655	Hairpin Element	240	6.6	11 ft.	9.2"	9.6"	88.1	23.5"	7"	5"	11
							8 ft.	5.8"	9.2"	52.9				
							9 ft.	6.9"	10.2"	70.4				
							10 ft.	8.1"	11.2"	90.2				
OKB593C6-208V	60°	3000	11665	Single Element	208	14.4	11 ft.	9.2"	12.2"	112.2	61.5"	4.25"	5"	4
							12 ft.	10.4"	13.2"	136.6				
							13 ft.	11.5"	14.2"	163.3				
							10 ft.	8.1"	11.2"	90.2				
OKB593C6-240V	60°	3000	11660	Single Element	240	12.5	11 ft.	9.2"	12.2"	112.2	61.5"	4.25"	5"	4
							12 ft.	10.4"	13.2"	136.6				
							13 ft.	11.5"	14.2"	163.3				
							10 ft.	8.1"	11.2"	90.2				
OKB593C6-480V	60°	3000	11670	Single Element	480	6.25	11 ft.	9.2"	12.2"	112.2	61.5"	4.25"	5"	4
							12 ft.	10.4"	13.2"	136.6				
							13 ft.	11.5"	14.2"	163.3				
							10 ft.	8.1"	11.2"	90.2				
OKB595E6-208V	60°	5000	11680	Double Element	208	24	11 ft.	9.2"	12.2"	112.2	61.5"	4.25"	5"	4
							12 ft.	10.4"	13.2"	136.6				
							13 ft.	11.5"	14.2"	163.3				
							14 ft.	12.7"	15.2"	192.3				
OKB595E6-240V	60°	5000	11675	Double Element	240	20.8	15 ft.	13.8"	16.2"	223.6	61.5"	4.25"	5"	4
							16 ft.	15"	17.2"	257.1				
							10 ft.	8.1"	11.2"	90.2				
							11 ft.	9.2"	12.2"	112.2				
OKB595E6-480V	60°	5000	11685	Double Element	480	10.4	11 ft.	9.2"	12.2"	112.2	61.5"	4.25"	5"	4
							12 ft.	10.4"	13.2"	136.6				
							13 ft.	11.5"	14.2"	163.3				
							14 ft.	12.7"	15.2"	192.3				

### Engineering Specifications

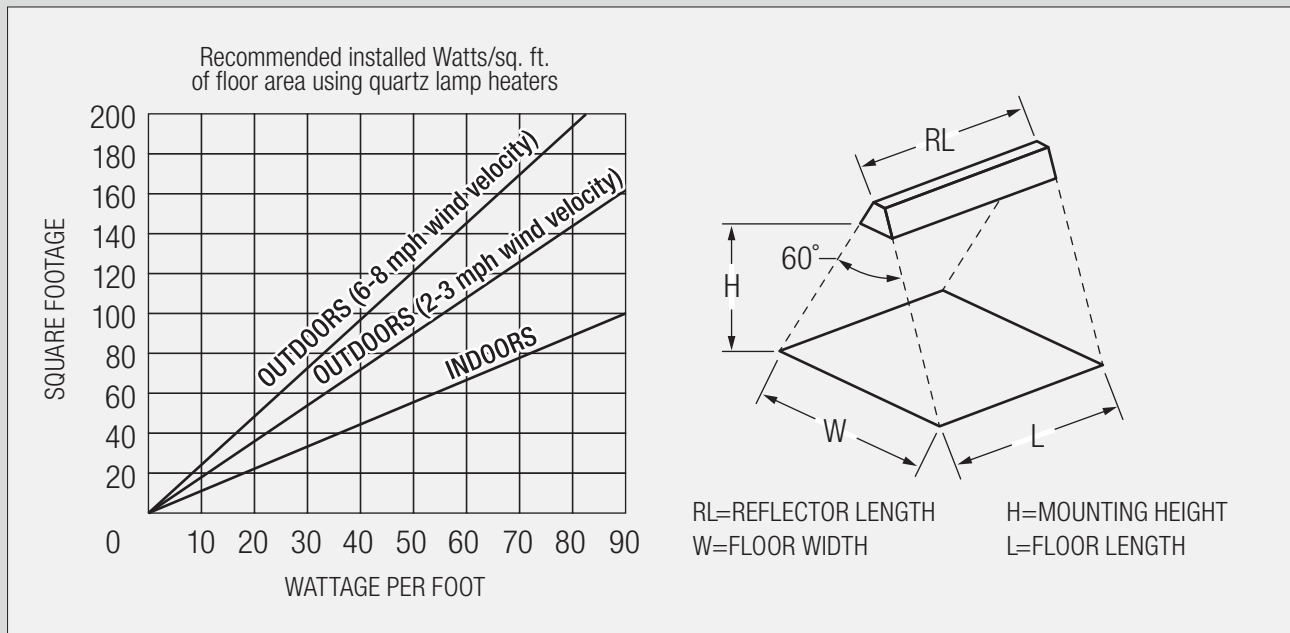
Contractor shall supply and install OK Series radiant heaters by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.

**Element:** Shall be of Ni-Chrome wire embedded in Magnesium Oxide with an Incoloy® metal sheath.

**Junction Box:** Will be extruded Aluminum and provided with heater O-ring seals which may be used to seal off junctionbox from moisture (included on OKH units only). OKB units shall have single or dual Incoloy® elements and shall swivel to direct radiant pattern to best meet the needs of application. For indoor use only.

**Mounting:** Shall be provided by means of 2 eyehooks per heater.

# Industrial Radiant Heater OK Series



Use the table above to choose the proper mounting height, heated space coverage and desired temperature rise. For example: a warehouse that is 40°F with a work space area of 135ft<sup>2</sup> needs to be 60°F to make workers comfortable. This requires a temperature rise of 20°F. Referring to the table we find that the OKB at 3000 Watts mounted at 12 feet would provide the required coverage. Note the coverage area and temperature rise are calculated at 3 feet above floor level. This means a heater mounted 10 feet high from the floor would produce values in the table measured 7 feet vertically down from the fixture.

**DANGER: Take precautions to ensure combustable materials are kept a safe distance away, 24 inches minimum.**

## Minimum Space Clearings

WALL	END	CEILING	FLOOR	BETWEEN
24"	24"	24"	72"	36"

# 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.

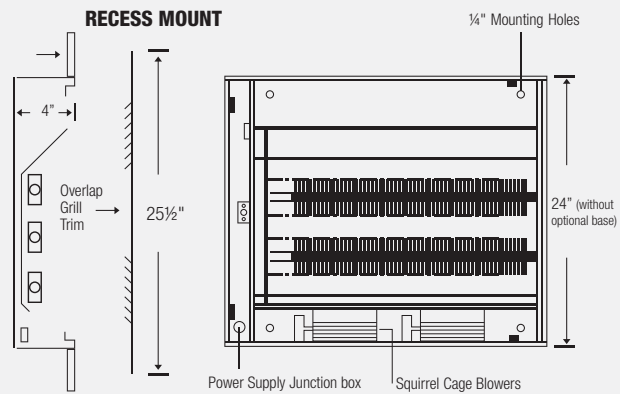
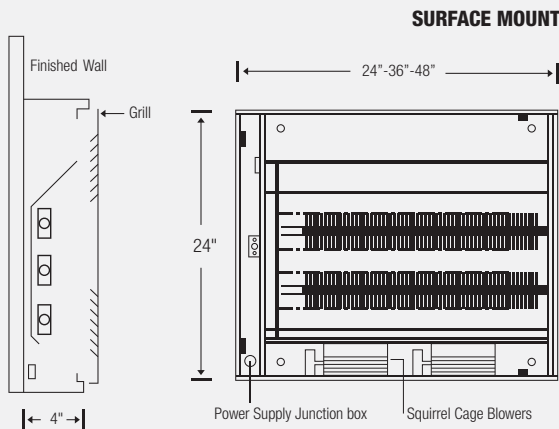
**Controls:** A built-in thermal cutout shall automatically shut off the heater in case of overheating. A built-in thermostat for temperature control will have a range from 40° - 95°F and be of the high accuracy capillary tube-type. Disconnect switch and contactors will be provided if necessary.

**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

# Compact Fan Forced Cabinet Heater KCF Series

## Mounting Data

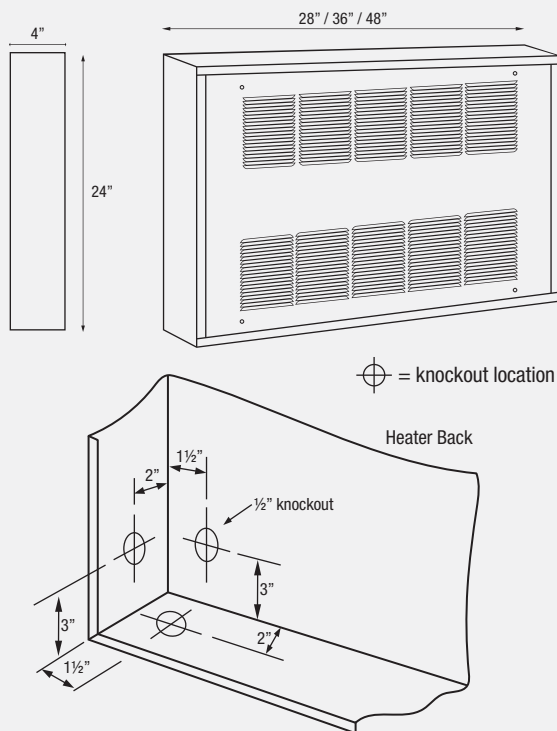


**MOUNTING NOTE:** 1" minimum mounting height from finished floor to allow clearance for the grill overlap.

## 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.

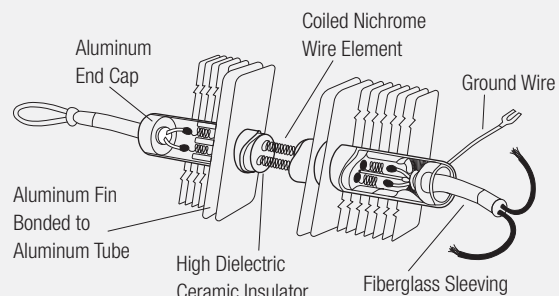
## Dimensional Data



## 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



# Safe Touch 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**

- 125°F Max Surface Temperature
- Ceramic Element
- Squirrel Cage Blower
- Powder-coated
- Fan-Forced Heat
- Aluminum fin element
- Capillary tube limit
- Standard color: almond (-A)
- 18 gauge cabinet
- 1 or 3-phase
- 5-year limited warranty



## The KCF Series Safe Touch Cabinet Heater

The KCF Safe Touch heater is intended for areas that are required to have surface temperatures below 125 degrees F. These areas are typically, day care centers, memory care centers, common areas where wheel chair patients may be placed or anywhere a temperature of an electric heater over 125 degrees could cause someone to accidentally burn themselves over time. Many older care centers have implemented this type of heater replacing the old style high wattage baseboards as it has been enforced by inspectors and required by code to keep their patients safe. Heavy duty front covers and our Ceramic Core heating element makes this a long lasting heater with virtually no maintenance required. Optional: Sub-base for mounting close to the floor, inbuilt thermostat factory or tamperproof thermostat may be installed. Heaters can be ganged together to work on one thermostat if higher output is required. Not for residential use unless the manual reset option is added.



**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	#of BLOWERS	CFM	LENGTH	SHIP WEIGHT lbs
<b>208V</b>	KCF2-2005-*	208	500	2.4	1.4	1.7	1	70	24"	35
	KCF3-2007-*	208	750	3.6	2.1	2.6	1	70	24"	35
	KCF4-2015-*	208	1500	7.2	4.2	5.1	2	140	36"	45
	KCF4-2020-*	208	2000	9.6	5.6	6.8	3	210	48"	55
<b>240V</b>	KCF2-2405-*	240	500	2.1	1.2	1.7	1	70	24"	35
	KCF3-2407-*	240	750	3.1	1.8	2.6	1	70	24"	35
	KCF4-2415-*	240	1500	6.3	3.6	5.1	2	140	36"	45
	KCF4-2420-*	240	2000	8.3	4.8	6.8	3	210	48"	55
<b>277V</b>	KCF2-2705-*	277	500	1.8	n/a	1.7	1	70	24"	35
	KCF3-2707-*	277	750	2.7	n/a	2.6	1	70	24"	35
	KCF4-2715-*	277	1500	5.4	n/a	5.1	2	140	36"	45
	KCF4-2720-*	277	2000	7.2	n/a	6.8	3	210	48"	55
<b>480V</b>	KCF2-4805-*	480	500	1.0	0.6	1.7	1	70	24"	35
	KCF3-4807-*	480	750	1.6	0.9	2.6	1	70	24"	35
	KCF4-4815-*	480	1500	3.1	1.8	5.1	2	140	36"	45
	KCF4-4820-*	480	2000	4.2	2.4	6.8	3	210	48"	55

\*Refer to KCF or dimensions, control options, mounting data.

## Engineering Specifications

Contractor shall supply and install KCF Series Safe Touch 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

# Compact Convection Cabinet Heater KCC Series



**Model Code:**

KCC	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

- Convection Heat
- Quiet Running
- Aluminum fin element
- Powder-coated
- Standard color: almond (-A)
- Ceramic Element
- 18 gauge cabinet
- 1 or 3-phase
- Capillary tube limit
- 5-year limited warranty



## The KCC Series Cabinet Heater



The King heavy KCC 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 KCC 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.

### 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)	LENGTH	SHIP WEIGHT lbs
208V	KCC2-2020-*	208	2000	9.6	5.6	6.8	24"	30
	KCC3-2030-*	208	3000	14.4	8.3	10.2	36"	40
	KCC4-2040-*	208	4000	19.2	11.1	13.6	48"	50
	KCC4-2050-*	208	5000	24	13.9	17	48"	50
240V	KCC2-2420-*	240	2000	8.3	4.8	6.8	24"	30
	KCC3-2430-*	240	3000	12.5	7.2	10.2	36"	40
	KCC4-2440-*	240	4000	16.7	9.6	13.6	48"	50
	KCC4-2450-*	240	5000	20.8	12.0	17	48"	50
277V	KCC2-2720-*	277	2000	7.2	n/a	6.8	24"	30
	KCC3-2730-*	277	3000	10.3	n/a	10.2	36"	40
	KCC4-2740-*	277	4000	14.4	n/a	13.6	48"	50
	KCC4-2750-*	277	5000	18	n/a	17	48"	50
480V	KCC2-4820-*	480	2000	4.2	2.4	6.8	24"	30
	KCC3-4830-*	480	3000	6.5	3.6	10.2	36"	40
	KCC4-4840-*	480	4000	8.3	4.8	13.6	48"	50
	KCC4-4850-*	480	5000	10.4	6	17	48"	50

## Engineering Specifications

*Contractor shall supply and install KCC 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.

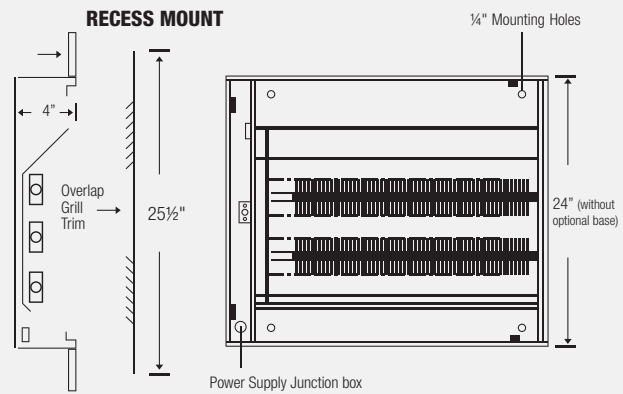
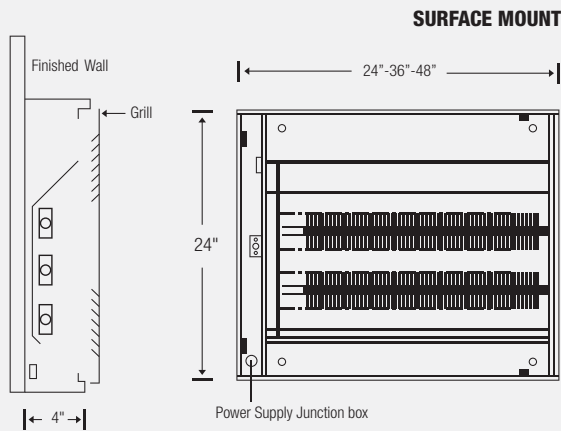
It also reduces temperature swings by heating and cooling more evenly. A fired refractory ceramic core with two large diameter Nickel Chromium coils attached with high temperature Nickel connectors and stranded Nickel wire, terminated in a junctionbox.

**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 switches in junctionbox will be provided if necessary.

**Approvals:** cULus

# Compact Convection Cabinet Heater KCC Series

## Mounting Data

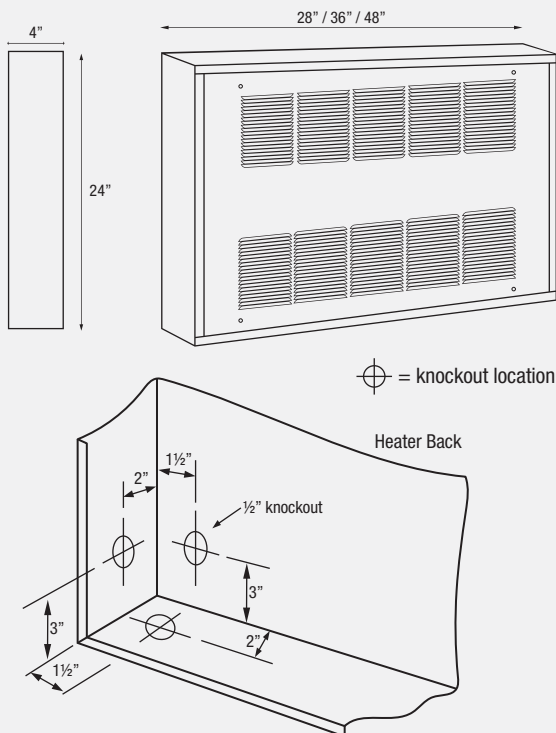


**MOUNTING NOTE:** 1" minimum mounting height from finished floor to allow clearance for the grill overlap.

## 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.

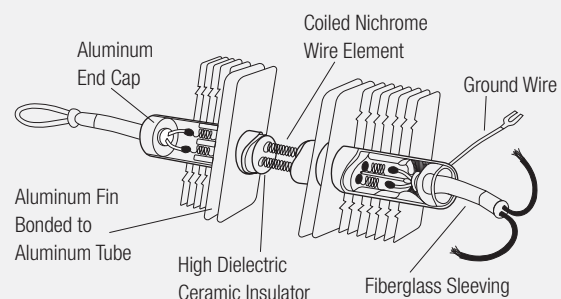
## Dimensional Data



## 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



# Commercial Cabinet Heater KCA Series



### Model Code:

KCA	20	02	-3
A	B	C	D

**A: Series**  
**B: Volts 20-208V 24-240V 27-277V 48-480V**  
**C: Watts (2000-24000)**  
**D: -1 phase -3 phase**

- Tubular heating element with fins
- 240V/208V factory-lubricated motor (1/15 hp)
- Direct drive, variable speed squirrel-cage fan operating at 48dBA at low speed and 50 dBA at high speed
- 208V, 240V, 277V, 347V, 480V, 600V, 1 or 3-Phase
- 1 year warranty against defects
- Available in 4 lengths: 28" (711mm), 48" (1219"), 66" (1676mm), 80" (2032mm)
- High-limit temperature control with automatic reset
- Field changeable air inlet and outlet
- Maximum mounting height: 10 ft. (3m)
- Standard color: white (-BW)
- Fan delay
- 18 gauge steel
- Extruded aluminum grill
- 240V control circuit included
- Wide range of control options
- Multi-position mounting (surface, semi-recessed, recessed)

## The KCA Series Cabinet Heater

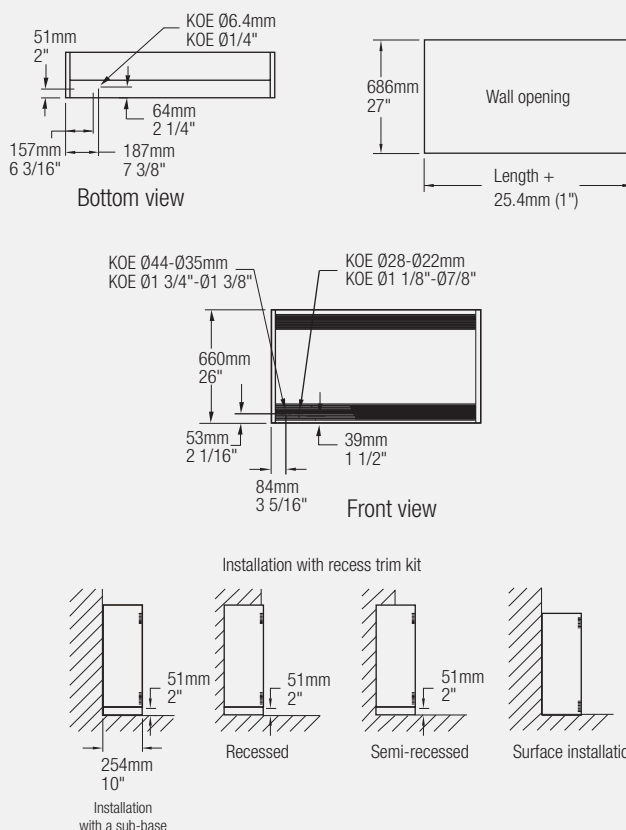
The KCA Cabinet Unit Heater offers a wide range of power ratings, voltage and control options in four cabinet sizes.

Most installations benefit from the heater's custom advantages. The cabinet heater can be mounted on the floor, wall or ceiling. It can also be recessed (wall or ceiling) as required. The fans are powered by 2-speed motors (Hi / Low option) with permanently lubricated sleeve bearings for many years of trouble-free service. The blower wheel is mounted directly on the motor shaft, which reduces the noise level. No belts or bearing blocks are required for the blowers.

### Accessories

MODEL	DESCRIPTION
<b>Sub-base 2"</b>	
KCA-SO-28	28" (711 mm) cabinet
KCA-SO-48	48" (1219 mm) cabinet
KCA-SO-66	66" (1676 mm) cabinet
KCA-SO-80	80" (2032 mm) cabinet
<b>Recess trim kit 2"</b>	
KCA-CR-28	28" (711 mm) cabinet
KCA-CR-48	48" (1219 mm) cabinet
KCA-CR-66	66" (1676 mm) cabinet
KCA-CR-80	80" (2032 mm) cabinet
<b>Air filter (wall mount only)</b>	
KCA-FI-28	28" (711 mm) cabinet
KCA-FI-48	48" (1219 mm) cabinet
KCA-FI-66	66" (1676 mm) cabinet
KCA-FI-80	80" (2032 mm) cabinet
<b>Washable air filter (wall installation only)</b>	
KCA-FIW-28	28" (711 mm) cabinet
KCA-FIW-48	48" (1219 mm) cabinet
KCA-FIW-66	66" (1676 mm) cabinet
KCA-FIW-80	80" (2032 mm) cabinet
<b>Special back plate (kit)</b>	
KCA-DU-28	28" (711 mm) cabinet
KCA-DU-48	48" (1219 mm) cabinet
KCA-DU-66	66" (1676 mm) cabinet
KCA-DU-80	80" (2032 mm) cabinet

### Dimensional Data





# Commercial Cabinet Heater KCA Series

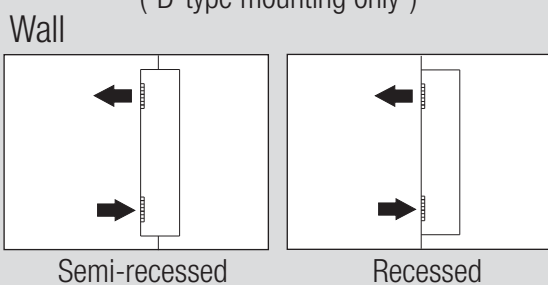
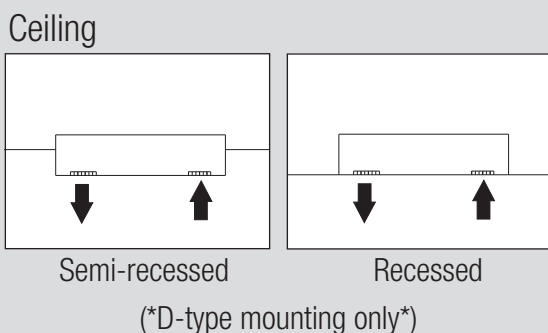
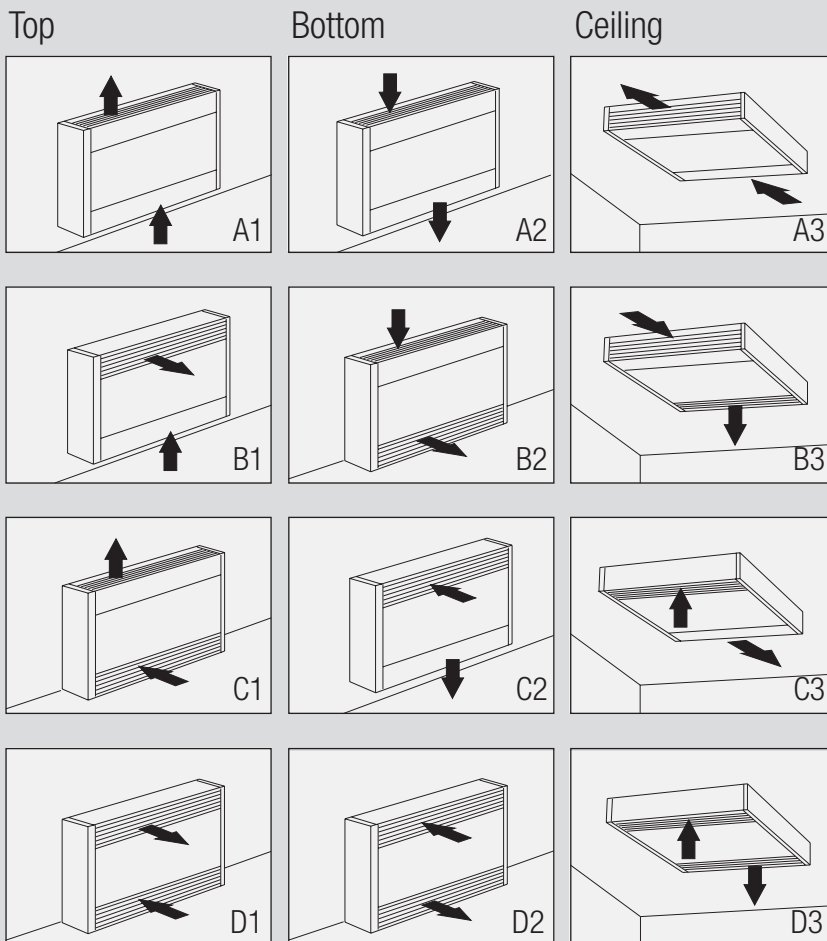
## Ordering Information

MODEL	VOLTS	(Hi)	WATTS	(Lo)	(Hi)	CFM	(Lo)	LENGTH	SHIP WEIGHT lbs
KCAU2002-3*	208 (3ph)	2000	1333	250	200	28 in	115		
KCAU2003-3*	208 (3ph)	3000	1000	250	200	28 in	115		
KCAU2004-3*	208 (3ph)	4000	2667	250	200	28 in	115		
KCAU2005-3*	208 (3ph)	5000	3333	250	200	28 in	115		
KCAU2006-3*	208 (3ph)	6000	4000	250	200	28 in	115		
KCAU2008-3*	208 (3ph)	8000	5333	500	400	48 in	146		
KCAU2010-3	208 (3ph)	10000	6667	500	400	48 in	146		
KCAU2012-3	208 (3ph)	12000	8000	500	400	48 in	146		
KCAU2015-3	208 (3ph)	15000	10000	750	600	66 in	210		
KCAU2018-3	208 (3ph)	18000	12000	750	600	66 in	210		
KCAU2020-3	208 (3ph)	20000	13333	1000	800	80 in	240		
KCAU2024-3	208 (3ph)	24000	16000	1000	800	80 in	240		
KCAU2402-1	240 (1ph)	2000	1333	250	200	28 in	115		
KCAU2403-1	240 (1ph)	3000	1000	250	200	28 in	115		
KCAU2404-1	240 (1ph)	4000	2667	250	200	28 in	115		
KCAU2405-1	240 (1ph)	5000	3333	250	200	28 in	115		
KCAU2406-1	240 (1ph)	6000	4000	250	200	28 in	115		
KCAU2408-1	240 (1ph)	8000	5333	500	400	48 in	146		
KCAU2410-1	240 (1ph)	10000	6667	500	400	48 in	146		
KCAU2412-1	240 (1ph)	12000	8000	500	400	48 in	146		
KCAU2415-1	240 (1ph)	15000	10000	750	600	66 in	210		
KCAU2418-1	240 (1ph)	18000	12000	750	600	66 in	210		
KCAU2420-1	240 (1ph)	20000	13333	1000	800	80 in	240		
KCAU2424-1	240 (1ph)	24000	16000	1000	800	80 in	240		
KCAU2402-3	240 (3ph)	2000	1333	250	200	28 in	115		
KCAU2403-3	240 (3ph)	3000	1000	250	200	28 in	115		
KCAU2404-3	240 (3ph)	4000	2667	250	200	28 in	115		
KCAU2405-3	240 (3ph)	5000	3333	250	200	28 in	115		
KCAU2406-3	240 (3ph)	6000	4000	250	200	28 in	115		
KCAU2408-3	240 (3ph)	8000	5333	500	400	48 in	146		
KCAU2410-3	240 (3ph)	10000	6667	500	400	48 in	146		
KCAU2412-3	240 (3ph)	12000	8000	500	400	48 in	146		
KCAU2415-3	240 (3ph)	15000	10000	750	600	66 in	210		
KCAU2418-3	240 (3ph)	18000	12000	750	600	66 in	210		
KCAU2420-3	240 (3ph)	20000	13333	1000	800	80 in	240		
KCAU2424-3	240 (3ph)	24000	16000	1000	800	80 in	240		
KCAU2702-1	277 (1ph)	2000	1333	250	200	28 in	115		
KCAU2703-1	277 (1ph)	3000	1000	250	200	28 in	115		
KCAU2704-1	277 (1ph)	4000	2667	250	200	28 in	115		
KCAU2705-1	277 (1ph)	5000	3333	250	200	28 in	115		
KCAU2706-1	277 (1ph)	6000	4000	250	200	28 in	115		
KCAU2708-1	277 (1ph)	8000	5333	500	400	48 in	146		
KCAU2710-1	277 (1ph)	10000	6667	500	400	48 in	146		
KCAU2712-1	277 (1ph)	12000	8000	500	400	48 in	146		
KCAU4802-3*	480 (3ph)	2000	1333	250	200	28 in	115		
KCAU4803-3*	480 (3ph)	3000	1000	250	200	28 in	115		
KCAU4804-3*	480 (3ph)	4000	2667	250	200	28 in	115		
KCAU4805-3*	480 (3ph)	5000	3333	250	200	28 in	115		
KCAU4806-3*	480 (3ph)	6000	4000	250	200	28 in	115		
KCAU4808-3*	480 (3ph)	8000	5333	500	400	48 in	146		
KCAU4810-3*	480 (3ph)	10000	6667	500	400	48 in	146		
KCAU4812-3*	480 (3ph)	12000	8000	500	400	48 in	146		
KCAU4815-3*	480 (3ph)	15000	10000	750	600	66 in	210		
KCAU4818-3*	480 (3ph)	18000	12000	750	600	66 in	210		
KCAU4820-3*	480 (3ph)	20000	13333	1000	800	80 in	240		
KCAU4824-3*	480 (3ph)	24000	16000	1000	800	80 in	240		

Add suffix (-A) for almond, (-AE) for Metallic Silver, (-BG) for Beige-Grey, (-BZ) for Bronze, (-CM) for Metallic Charcoal, (-NR) for Textured Black, (-AL) for Aluminum, (-NL) for Semi-Gloss Black  
 \* 1-ph available upon request, 2000W to 6000W only (change the 3 to a 1 in the product number).

# Commercial Cabinet Heater KCA Series

## Mounting Applications



### Control Options

MODEL	DESCRIPTION
KCA-RT	24V relay with transformer
KCA-R	24V relay without transformer
KCA-RV	Factory Installed 24V fan relay
KCA-RH/L	Factory Installed 24V relay (Hi / Lo)
KCA-RO/O	Factory Installed 24V relay (On / Off)
KCA-T-AV	Single-pole tamperproof thermostat
KCA-T2S	2-Stage tamperproof thermostat
KCA-DIS40	Factory Installed disconnect switch, 40A
KCA-DIS80	Factory Installed disconnect switch, 80A
KCA-IV	Factory Installed On / Auto switch
KCA-HL	Factory Installed Hi / Low switch
KCA-O/O*	On / Off switch
KCA-AF***	Fresh air inlet
KCA-AFM***	Power operated fresh air inlet

\*\*\*Do not install built-in thermostat with these options

# Architectural Convection Cabinet Heater KLA Series



### Model Code:

KLA	20	15	-3	-690
A	B	C	D	E

**A: Series**  
**B: Volts (12=120, 20=208, 24=240, 27=270)**  
**C: Watts (15=1500)**  
**D: Phase (1 or 3)**  
**E: Length in mm (-690=690mm)**

- 3 steel tubular heating elements with aluminum fins
- Front fresh air inlet; top warm air outlet or front (-FR)
- Standard Watt density of 1000W/ft. (3280W/m)
- Low Watt density of 750W/ft. (2460W/m)
- Linear high-limit temperature control with automatic reset
- Standard color: bright white (optional almond color available)
- 20 Gauge Steel Cabinet
- Available in 120, 208, 240, 277 or 600 Volts, 1 Or 3 phase
- 1-year warranty against defects



## The KLA Series Cabinet Heater

Features a maximum power rating of 6000W, the KLA unit is designed for large commercial spaces. This natural convection unit with its architectural design is perfect for areas requiring lots of heat without fan noise. Several options are also available for wall-to-wall installation. In addition, units with front warm air outlet (option -FR) can be completely recessed. Perfect for hospitals or daycares. King highly recommends use of a wall thermostat for greater comfort. **NOT FOR RESIDENTIAL USE.**

### Ordering Information Standard models (1000W/ft)

WATTS	240V/208V	208V (1 ph)	UPC	208V (3 ph)	UPC	240V/208V	UPC	277V	UPC	LENGTH	WT. (lbs.)
2000	2000/1500W	KLA2020-1	31108	KLA2020-3	31118	KLA2420-1	31128	KLA2720-1	31138	27 3/16	37
3000	3000/2250W	KLA2030-1	31110	KLA2030-3	31120	KLA2430-1	31130	KLA2730-1	31140	37 3/16	47
4000	4000/3000W	KLA2040-1	31112	KLA2040-3	31122	KLA2440-1	31132	KLA2740-1	31142	47 3/16	57
5000	5000/3750W	KLA2050-1	31114	KLA2050-3	31124	KLA2450-1	31134	KLA2750-1	31144	57 3/16	67
6000	6000/4500W	KLA2060-1	31116	KLA2060-3	31126	KLA2460-1	31136	KLA2760-1	31146	65 3/16	79

### Ordering Information Low density models (750W/ft)

WATTS	208V (1 ph)	UPC	208V (3 ph)	UPC	240V	UPC	277V	UPC	LENGTH	WT. (lbs.)
1500	KLA2015-1-690	31148	KLA2015-3-690	31156	KLA2415-1-690	31164	KLA2715-1-690	31172	27 3/16	37
2250	KLA2022-1-944	31150	KLA2022-3-944	31158	KLA2422-1-944	31166	KLA2722-1-944	31174	37 3/16	47
3000	KLA2030-1-1198	31152	KLA2030-3-1198	31160	KLA2430-1-1198	31168	KLA2730-1-1198	31176	47 3/16	57
4500	KLA2045-1-1655	31154	KLA2045-3-1655	31162	KLA2445-1-1655	31170	KLA2745-1-1655	31178	65 3/16	79

## Specifications

Contractor shall supply and install KLA Series electric heaters of the wattage and voltage as indicated on the plans.

**Color:** Standard: white, almond. Optional: metallic silver, bronze, metallic charcoal, textured black, beige-grey, aluminum, semi-gloss black. Custom colors available upon request.

**Finish:** Standard: epoxy/polyester powder paint.

**Voltage:** 208V, 240/208V, 277V, 347V, 600V, 1 or 3-phase.

**Construction:** 20-gauge steel cabinet. 16-gauge steel front cover. Extruded aluminum bar grilles prevent insertion of foreign objects. Front fresh air inlet; top warm air outlet or front (-FR). Clean back available (-BD). Linear high-limit temperature control with automatic reset.

**Heating element:** Three stainless steel tubular heating elements with aluminum fins. Floating heating elements on high-temperature bushings, eliminating expansion noises.

**Watt density:** Standard watt density. Low watt density.

**Control:** Built-in tamperproof thermostat available. Mechanical, electronic or pneumatic relays available. Note: Single-pole thermostat is for 1-phase model only. King highly recommends to use an electronic wall thermostat for greater comfort.

**Installation:** Not for residential use in the United States. Wall or floor mounted installation. Front outlet (-FR) models may be recessed. Mounting holes spaced on 2 in. (51 mm) intervals for ease of installation. Variety of accessories available for wall-to-wall installation. Pedestal kit or sub-base available.

**Warranty:** 1-year warranty against defects.

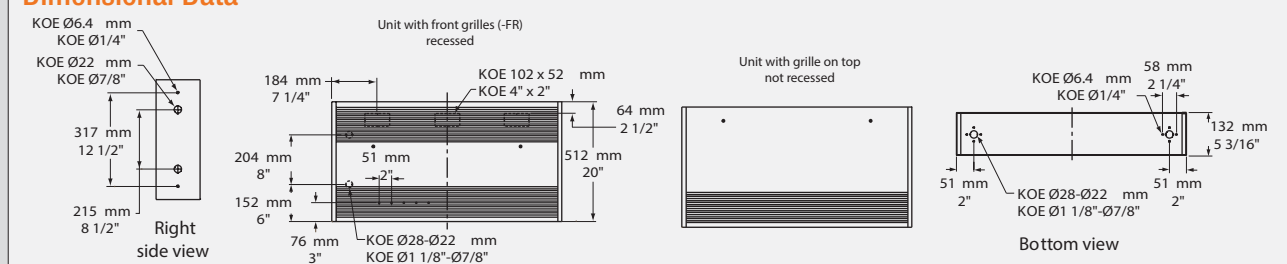
**Application:** Commercial building, hospital, daycare center.

# Architectural Convection Cabinet Heater KLA Series

## Options

ADD SUFFIX	DESCRIPTION
-BW	Bright White
-A	Almond Color
-AE	Metallic Silver
-BG	Beige-Grey
-BZ	Bronze
-CM	Metallic Charcoal)
-NR	Textured Black
-AL	Aluminum
-NL	Semi-Gloss Black
-FR	Front outlet models may be recessed
-BD	Clean back

## Dimensional Data



## Control Options

MODEL	DESCRIPTION
KLA-T-AV	Single-pole tamperproof thermostat 30A, 250V max. - 15A, 600V max.
KLA-T2-AV	Double-pole tamperproof thermostat 30A, 250V max. - 15A, 600V max.
KLA-CTT	Single-pole relay, coil (240V), 25A, 240V - 12.5A, 600V
KLA-CTT2	Double-pole relay, coil (240V) 25A, 240V - 12.5A, 600V
KLA-R	Single-pole relay, coil (24V) 22A, 208V, 240V - 22A, 208V
KLA-R2	Double-pole relay, coil (24V) 25A, 240V - 12.5A, 600V
KLA-RT-208	Single-pole relay, coil (24V) Transformer (208V / 24V) - 4500W, 208V / 22A
KLA-RT-240	Single-pole relay, coil (24V) Transformer (240V / 24V) - 5200W, 240V / 22A
KLA-RT-277	Single-pole relay, coil (24V) Transformer (277V / 24A) - 5200W, 277V / 19A
KLA-TRF208/24-50	Transformer, 208V / 24V - 50VA
KLA-TRF240/24-50	Transformer, 240 / 24V - 50VA
KLA-TRF277/24-50	Transformer, 277V / 24V - 50VA
KLA-TRF277/240-50	Transformer, 277V / 240V - 50VA
KLA-PM	Factory installed pneumatic relay, 20A / 600V max.
KLA-CTR	Control box (width: 12")
KLA-DIS40	Factory installed disconnect switch 600V, three-pole, 40A

## Accessories

MODEL	DESCRIPTION	DIMENSIONS (in)
KLA-CI	Corner (interior and exterior)	
KLA-PE	Pedestal kit (2)	3 (height)
KLA-S0-27	Sub-base	27 3/16
KLA-S0-37	Sub-base	37 3/16
KLA-S0-47	Sub-base	47 3/16
KLA-S0-57	Sub-base	57 3/16
KLA-S0-65	Sub-base	65 3/16
KLA-CR-27	Recess trim kit	27 3/16
KLA-CR-37	Recess trim kit	37 3/16
KLA-CR-47	Recess trim kit	47 3/16
KLA-CR-57	Recess trim kit	57 3/16
KLA-CR-65	Recess trim kit	65 3/16
KLA-SV-27	Empty cabinet	27 3/16
KLA-SV-37	Empty cabinet	37 3/16
KLA-SV-47	Empty cabinet	47 3/16
KLA-SV-57	Empty cabinet	57 3/16
KLA-SV-65	Empty cabinet	65 3/16
KLA-MC-12***	Filler section	12
KLA-MC-24***	Filler section	24
KLA-MC-36***	Filler section	36
Product no-BD	Factory installed clean back	
Product no-FR	Factory installed front warm air outlet	

\*\*\* Filler sections can be cut on workplace. Includes ends and wall supports.

# Architectural Convection Cabinet Heater KLI Series



**Model Code:**

KLI	20	15	-3	-690
A	B	C	D	E

**A: Series**  
**B: Volts (12=120, 20=208, 24=240, 27=270)**  
**C: Watts (15=1500)**  
**D: Phase (1 or 3)**  
**E: Length in mm (-690=690mm)**

- 3 steel tubular heating elements with aluminum fins
- Front fresh air inlet; top warm air outlet or front (-FR)
- Standard Watt density of 1000W/ft. (3280W/m)
- Low Watt density of 750W/ft. (2460W/m)
- Linear high-limit temperature control with automatic reset
- Standard color: bright white (optional almond color available)
- 20 Gauge Steel Cabinet
- Available in 120, 208, 240, 277 or 600 Volts, 1 Or 3 phase
- 1-year warranty against defects



## The KLI Series Cabinet Heater

The KLI series units offer all of the advantages of the KLA convector heater with the added characteristic of a sloped top which prevents objects from being placed on them. These natural convection heaters are well suited for applications requiring a power rating of 6000W without fan noise. Several options are also available for wall-to-wall installation. Perfect for hospitals or daycares.

**NOT APPROVED FOR RESIDENTIAL USE.**

### Ordering Information Standard models (1000W/ft)

WATTS	240V/208V	208V (1 ph)	UPC	208V (3 ph)	UPC	240V/208V	UPC	277V	UPC	LENGTH	WT. (lbs.)
2000	2000/1500W	KLI2020-1	31180	KLI2020-3	31190	KLI2420-1	31200	KLI2720-1	31210	27 3/16	37
3000	3000/2250W	KLI2030-1	31182	KLI2030-3	31192	KLI2430-1	31202	KLI2730-1	31212	37 3/16	47
4000	4000/3000W	KLI2040-1	31184	KLI2040-3	31194	KLI2440-1	31204	KLI2740-1	31214	47 3/16	57
5000	5000/3750W	KLI2050-1	31186	KLI2050-3	31196	KLI2450-1	31206	KLI2750-1	31216	57 3/16	67
6000	6000/4500W	KLI2060-1	31188	KLI2060-3	31198	KLI2460-1	31208	KLI2760-1	31218	65 3/16	79

### Ordering Information Low density models (750W/ft)

WATTS	208V (1 ph)	UPC	208V (3 ph)	UPC	240V	UPC	277V	UPC	LENGTH	WT. (lbs.)
1500	KLI2015-1-690	31220	KLI2015-3-690	31228	KLI2415-1-690	31236	KLI2715-1-690	31244	27 3/16	37
2250	KLI2022-1-944	31222	KLI2022-3-944	31230	KLI2422-1-944	31238	KLI2722-1-944	31246	37 3/16	47
3000	KLI2030-1-1198	31224	KLI2030-3-1198	31232	KLI2430-1-1198	31240	KLI2730-1-1198	31248	47 3/16	57
4500	KLI2045-1-1655	31226	KLI2045-3-1655	31234	KLI2445-1-1655	31242	KLI2745-1-1655	31250	65 3/16	79

## Specifications

Contractor shall supply and install KLI Series electric heaters of the wattage and voltage as indicated on the plans.

**Color:** Standard: white, almond. Optional: metallic silver, bronze, metallic charcoal, textured black, beige-grey, aluminum, semi-gloss black. Custom colors available upon request.

**Finish:** Standard: epoxy/polyester powder paint.

**Voltage:** 208V, 240/208V, 277V, 347V, 600V, 1 or 3-phase.

**Construction:** 20-gauge steel cabinet. 16-gauge steel front cover. Extruded aluminum bar grilles prevent insertion of foreign objects. Front fresh air inlet; top warm air outlet. Clean back available (-BD). Linear high-limit temperature control with automatic reset.

**Heating element:** Three stainless steel tubular heating elements with aluminum fins. Floating elements on high-temperature nylon bushings eliminating expansion noises.

**Watt density:** Standard watt density. Low watt density.

**Control:** Built-in tamperproof thermostat available. Mechanical, electronic or pneumatic relays available. Note: Single-pole thermostat is for 1-phase model only. King highly recommends to use an electronic wall thermostat for greater comfort.

**Installation:** Not for residential use in the United States. Wall or floor mounted installation. Mounting holes spaced on 2 in. (51 mm) intervals for ease of installation. Variety of accessories available for wall-to-wall installation. Pedestal kit or sub-base available.

**Warranty:** 1-year warranty against defects.

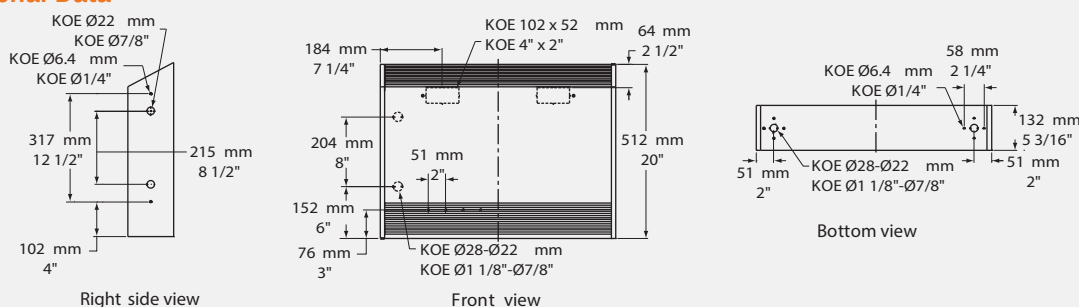
**Application:** Commercial building, hospital, daycare center.

# Architectural Convection Cabinet Heater KLI Series

## Options

ADD SUFFIX	DESCRIPTION
-BW	Bright White
-A	Almond Color
-AE	Metallic Silver
-BG	Beige-Grey
-BZ	Bronze
-CM	Metallic Charcoal)
-NR	Textured Black
-AL	Aluminum
-NL	Semi-Gloss Black
-FR	Front outlet models may be recessed
-BD	Clean back

## Dimensional Data



## Control Options

MODEL	DESCRIPTION
KLI-T-AV	Single-pole tamperproof thermostat 30A, 250V max. - 15A, 600V max.
KLI-T2-AV	Double-pole tamperproof thermostat 30A, 250V max. - 15A, 600V max.
KLI-CTT	Single-pole relay, coil (240V), 25A, 240V - 12.5A, 600V
KLI-CTT2	Double-pole relay, coil (240V) 25A, 240V - 12.5A, 600V
KLI-R	Single-pole relay, coil (24V) 22A, 208V, 240V - 22A, 208V
KLI-R2	Double-pole relay, coil (24V) 25A, 240V - 12.5A, 600V
KLI-RT-208	Single-pole relay, coil (24V) Transformer (208V / 24V) - 4500W, 208V / 22A
KLI-RT-240	Single-pole relay, coil (24V) Transformer (240V / 24V) - 5200W, 240V / 22A
KLI-RT-277	Single-pole relay, coil (24V) Transformer (277V / 24A) - 5200W, 277V / 19A
KLI-TRF208/24-50	Transformer, 208V / 24V - 50VA
KLI-TRF240/24-50	Transformer, 240 / 24V - 50VA
KLI-TRF277/24-50	Transformer, 277V / 24V - 50VA
KLI-TRF277/240-50	Transformer, 277V / 240V - 50VA
KLI-PM	Factory installed pneumatic relay, 20A / 600V max.
KLI-CTR	Control box (width: 12")
KLI-DIS40	Factory installed disconnect switch 600V, three-pole, 40A

## Accessories

MODEL	DESCRIPTION	DIMENSIONS (in)
KLI-CI	Corner (interior and exterior)	
KLI-PE	Pedestal kit (2)	3 (height)
KLI-SO-27	Sub-base	27 3/16
KLI-SO-37	Sub-base	37 3/16
KLI-SO-47	Sub-base	47 3/16
KLI-SO-57	Sub-base	57 3/16
KLI-SO-65	Sub-base	65 3/16
KLI-SV-27	Empty cabinet	27 3/16
KLI-SV-37	Empty cabinet	37 3/16
KLI-SV-47	Empty cabinet	47 3/16
KLI-SV-57	Empty cabinet	57 3/16
KLI-SV-65	Empty cabinet	65 3/16
KLI-MC-12***	Filler section	12
KLI-MC-24***	Filler section	24
KLI-MC-36***	Filler section	36
Product no-BD	Factory installed clean back	

\*\*\* Filler sections can be cut on workplace. Includes ends and wall supports.

# Draft Barriers SB Series



**Model Code:**

SB	F	-ST	2	24	03
A	B	C	D	E	F
<b>A: Series</b>					
<b>B: Optional front intake</b>					
<b>C: -ST (Slope Top)</b>					
<b>D: Length</b>					
<b>E: Volts: 12=120V 20=208V 24=240V 27=277V</b>					
<b>F: Watts (400 - 2500)</b>					

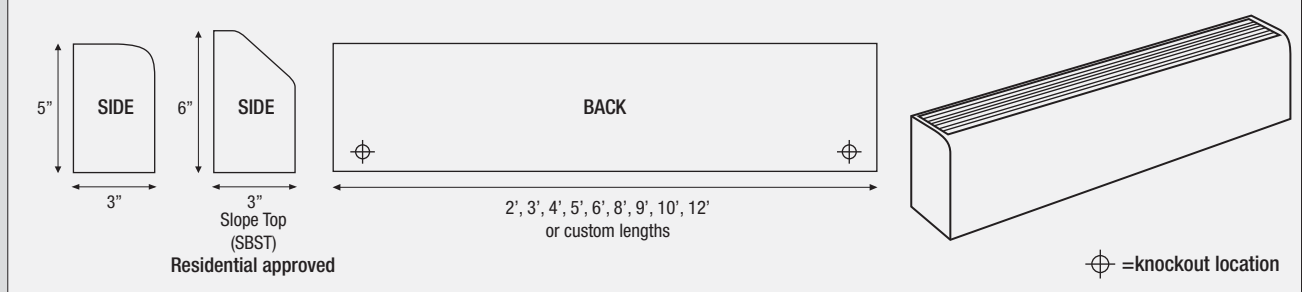


- Full length thermal limit switch
- 14 gauge front and back
- Two piece all aluminum
- Convection Heat
- Silent Running
- Extended backs and fronts available
- 4" junction-boxes at each end
- 3/4" EMT raceway standard
- 3" D x 5" H cabinet size
- Available in gray, almond, bronze, white, & black
- Multiple heater sections on common back
- Custom cabinet lengths, 2-12 feet in 1/16" increments
- SBST approved for residential use
- 1/2" and 3/4" knockouts
- 1-year limited warranty

## The SB Series Draft Barrier

**Convection heat becomes an architectural finishing touch** in the sleek appearance and continuous look of this heater. An anodized aluminum finish is available (purchasing requirements may apply) with standard colors including white, gray, black, tan and bronze. Controls can be mounted conveniently in either end of the heater. Feed-through wiring is provided by a built-in wire-way running the entire length of the heater. End caps are required on standalone installation. Residential version requires a slope top. If you need a heater suitable for architectural, commercial and/or industrial use, this is it.

### Dimensional Data



Smooth back available when pedestal mounted and back can be seen.  
\*Approved for residential use

### Engineering Specifications

- Model SB Architectural Draft Barriers shall be 5" H and 3" D. The front cover shall be 14 gauge extruded aluminum construction suitable for architectural, commercial and industrial use with 1/4" pencil-proof intake and discharge grilles. The one-piece cover shall be extruded for maximum strength and shall be available in lengths up to 12 feet.
- The cover shall be linear mount to the 14 gauge heater back with no visible fasteners. The 14 gauge heater back shall be suitable for mullion-to-mullion mounting.
- Standard painted finishes or optional anodizing shall be provided as specified by the architect. Color matching to architect's specifications are available as optional finishes.
- Heat sections from 2 - 10 feet are available. All heaters shall contain 3/4" EMT built-in raceway with factory wiring to provide field wiring from either end when optional controls are not included.
- 1/2" and 3/4" knockouts shall be provided in the side and rear of the heater junction-box to permit end-to-end wiring.
- All blank sections shall be fully enclosed to allow branch circuit wiring. All heaters shall contain a full length thermal overheat protector with automatic reset. Wattages shall be available from 100 to 250 Watts per foot. Heating elements shall be tubular stainless steel or aluminum tubing with aluminum fins mechanically bonded to ensure efficient heat transfer.
- Element fin temperature shall not exceed 350°F to ensure long element life. Elements shall be center anchored and free-floating in nylon bushings at each end.
- Control sections are 6" or 12" for pneumatic relay, transformer relay, fused disconnect or duplex receptacle. Optional built-in heater controls shall include thermostats (single and double pole) and disconnect switches.
- Built-in controls shall be tamper-proof and shall be adjustable with a blade screwdriver through the discharge louver.
- All heaters are Underwriters Laboratories listed
- Tested under UL **Safety Standard UL#1042**

# Draft Barriers SB Series

**Ordering Information** \*Also available in 120V, 208V, and 277 Volts

STANDARD		FRONT INTAKE		VOLTS	WATTS	LENGTH	NOMINAL WATTS / FT.
MODEL	UPC	MODEL	UPC				
SB22404	14428	SBF22404	14464	240	400	2'	200
SB22405	14430	SBF22405	14466	240	500	2'	250
SB32406	14432	SBF32406	14468	240	600	3'	200
SB32407	14434	SBF32407	14470	240	750	3'	250
SB42408	14436	SBF42408	14472	240	800	4'	200
SB42410	14438	SBF42410	14474	240	1000	4'	250
SB52410	14440	SBF52410	14476	240	1000	5'	200
SB52412	14442	SBF52412	14478	240	1250	5'	250
SB62412	14444	SBF62412	14480	240	1200	6'	200
SB62415	14446	SBF62415	14482	240	1500	6'	250
SB72414	14448	SBF72414	14484	240	1400	7'	200
SB72417	14450	SBF72417	14486	240	1750	7'	250
SB82416	14452	SBF82416	14488	240	1600	8'	200
SB82420	14454	SBF82420	14490	240	2000	8'	250
SB92420	14456	SBF92420	14492	240	2000	9'	200
SB92422	14458	SBF92422	14494	240	2250	9'	250
SB102420	14460	SBF102420	11496	240	2000	10'	200
SB102425	14462	SBF102425	14498	240	2500	10'	250

## Accessories

MODEL	DESCRIPTION
SB-100BS	1FT. Blank Section
SB-200BS	2FT. Blank Section
SB-300BS	3FT. Blank Section
SB-400BS	4FT. Blank Section
SB-500BS	5FT. Blank Section
SB-600BS	6FT. Blank Section
SB-700BS	7FT. Blank Section
SB-800BS	8FT. Blank Section
SB-900BS	9FT. Blank Section
SB1000BS	10FT. Blank Section

## Options

MODEL	DESCRIPTION
SB-IC	Inside Corner
SB-OC	Outside Corner
SB-EC	REQUIRED End Cap (Specify right or left) 1/2"
SB-SP	Splice Plate
SB-WT	Wall Trim
SB-MESH	1/4" Wire mesh under discharge grille
SB-PD-FM	Pedestals (field mounting)

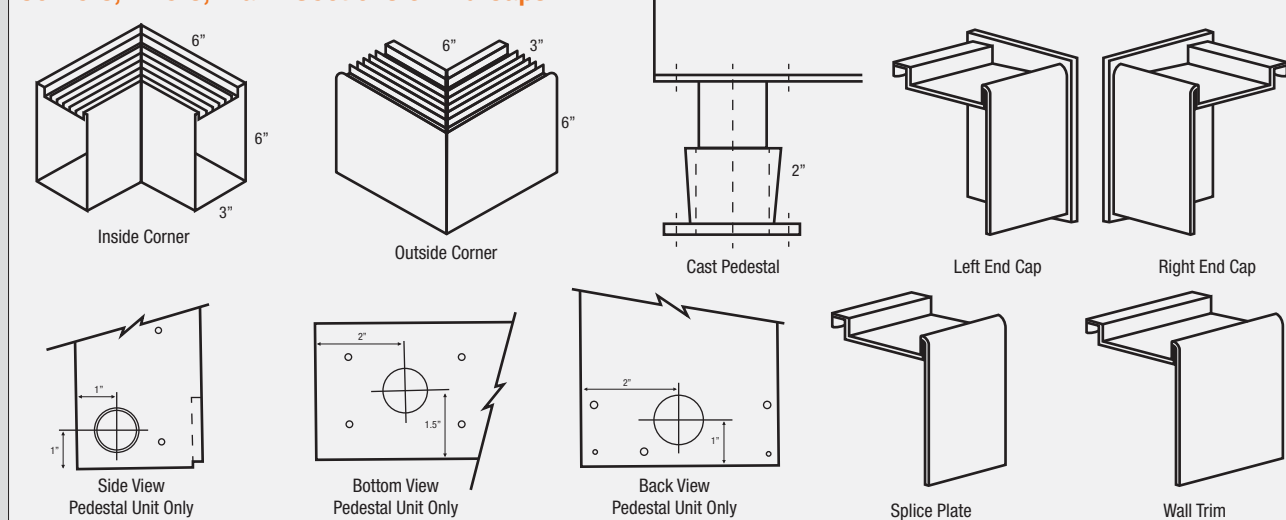
## Control Sections

MODEL	DESCRIPTION
SBCS-TS	Thermostat Section - SPST, 20 Amp, 277 Volts
SBCS-TSDS	Thermostat Disconnect Switch Section, 20 Amp
SBCS-TSR	Thermostat Relay Switch, 20 Amp
SBCS-TSDSR	Thermostat Disconnect Switch, Relay Section, 20 Amp
SBCS-DS	Disconnect Switch, Section, 20 Amp
SBCS-R	Relay Section - SPST, 20 Amp, 277 Volt
SBCS-RDS	Relay, Disconnect Switch Section, 20 Amp
SBCS-TR	Xformer Relay Section - SPST, 25 Amp, 277 V, 24V Control
SBCS-TRDS	Transformer Relay, Disconnect Switch Section, 20 Amp
SBCS-PE	PE Relay, SPST, 20 Amp
SBCS-DS-FUSED	Disconnect Switch, with 20 Amp fuse and fuse block

## Integral Controls

MODEL	DESCRIPTION
ITS	Integral Stat 25 Amp, SPST-120-277 Volts - STD-LF or RT
ITD	Integral Stat 20 Amp, DPST-208-240 Volts - STD-LF or RT
IDS	Integral Disconnect Switch 20 Amp, 120-277 V - STD-RT side

## Corners, Fillers, Blank Sections & End Caps





# Draft Barriers LB Series



### Model Code:

LB	F	2	24	03
A	B	C	D	E

A: Series  
 B: Optional front intake  
 C: Length  
 D: Volts: 12=120V 20=208V  
 24=240V 27=277V  
 E: Watts (376 - 5000)

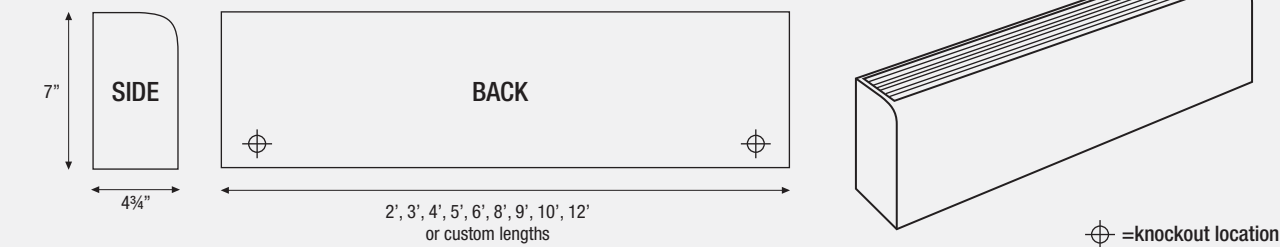


- Full length thermal limit switch
- 14 gauge front and back
- Two piece all aluminum
- Convection Heat
- Quiet Running
- Extended backs and fronts available
- 4" junction-boxes at each end
- ¾" EMT raceway standard
- 7" H x 5" D cabinet size
- Available in gray, almond, bronze, white, & black
- Multiple heater sections on common back
- Custom cabinet lengths, 2-12 feet in 1/16" increments
- ½" and ¾" knockouts
- 1-year limited warranty

## The LB Series Draft Barrier

This draft heater is used for tall glass walls or complete heating of large commercial spaces. The sleek lines complement any commercial building. Feed-through wire-ways help provide continuous wall-to-wall warmth. Controls can be conveniently mounted in either end of the heater or in a separate section. Heated sections can be anywhere within the case. End caps are required on stand alone installation. Custom paint colors are available. Optional anodized finishes can match window finishes. Suitable for industrial and commercial uses.

### Dimensional Data



\*Smooth back available when pedestal mounted and back can be seen.

### Engineering Specifications

- Model LB Architectural Draft Barriers shall be 7" H and 5" D. The front cover shall be 12 gauge extruded aluminum construction suitable for architectural, commercial and industrial use with ¼" pencil-proof intake and discharge grilles. The one-piece cover shall be extruded for maximum strength and available in lengths up to 12 feet.
- The cover shall be linear mount to the 12 gauge heater back with no visible fasteners. The 12 gauge heater back shall be suitable for mullion-to-mullion mounting.
- Standard painted finishes or optional anodizing shall be provided as specified by the architect. Color matching to architect's specifications are available as optional finishes.
- Heat sections from 2 -10 feet are available. All heaters shall contain ¾" EMT built-in raceway with factory wiring to provide field wiring from either end when optional controls are not included.
- ½" and ¾" knockouts shall be provided in the side and rear of the heater junction-box to permit end-to-end wiring. All blank sections shall be fully enclosed to allow branch circuit wiring.
- All heaters shall contain a full length thermal overheat protector with automatic reset. Wattages shall be available from 100 to 500 Watts per foot. Heating elements shall be tubular stainless steel or aluminum tubing with aluminum fins mechanically bonded to ensure efficient heat transfer.
- Element fin temperature shall not exceed 350°F to ensure long element life. Elements shall be center anchored and free-floating in nylon bushings at each end.
- Control sections are 6" or 12" for pneumatic relay, transformer relay, fused disconnect or duplex receptacle. Optional built-in heater controls shall include thermostats (single and double pole) and disconnect switches.
- Built-in controls shall be tamper-proof and shall be adjustable with a blade screwdriver through the discharge louver.
- All heaters are Underwriters Laboratories listed.
- Tested under UL Safety Standard UL#1042.

# Draft Barriers LB Series

## Ordering Information

\*Also available in 120V, 208V, and 277 Volts

STANDARD MODEL	UPC	FRONT INTAKE MODEL	UPC	VOLTS	WATTS	LENGTH	NOMINAL WATTS / FT.
LB22403	14300	LBF22403	14364	240	376	2'	188
LB22405	14302	LBF22405	14366	240	500	2'	250
LB22407	14304	LBF22407	14368	240	750	2'	350
LB22410	14306	LBF22410	14370	240	1000	2'	500
LB32405	14308	LBF32405	14372	240	564	3'	188
LB32407	14310	LBF32407	14374	240	750	3'	250
LB32411	14312	LBF32411	14376	240	1125	3'	350
LB32415	14314	LBF32415	14378	240	1500	3'	500
LB42407	14316	LBF42407	14380	240	750	4'	188
LB42410	14318	LBF42410	14382	240	1000	4'	250
LB42415	14320	LBF42415	14384	240	1500	4'	350
LB42420	14322	LBF42420	14386	240	2000	4'	500
LB52409	14324	LBF52409	14388	240	940	5'	188
LB52412	14326	LBF52412	14390	240	1250	5'	250
LB52418	14328	LBF52418	14392	240	1875	5'	350
LB52425	14330	LBF52425	14394	240	2500	5'	500
LB62411	14332	LBF62411	14396	240	1125	6'	188
LB62415	14334	LBF62415	14398	240	1500	6'	250
LB62422	14336	LBF62422	14400	240	2250	6'	350
LB62430	14338	LBF62430	14402	240	3000	6'	500
LB82415	14340	LBF82415	14404	240	1500	8'	188
LB82420	14342	LBF82420	14406	240	2000	8'	250
LB82430	14344	LBF82430	14408	240	3000	8'	350
LB82440	14346	LBF82440	14410	240	4000	8'	500
LB92416	14348	LBF92416	14412	240	1692	9'	188
LB92422	14350	LBF92422	14414	240	2250	9'	250
LB92433	14352	LBF92433	14416	240	3375	9'	350
LB92455	14354	LBF92445	14418	240	4500	9'	500
LB102418	14356	LBF102418	14420	240	1875	10'	188
LB102425	14358	LBF102425	14422	240	2500	10'	250
LB102437	14360	LBF102437	14424	240	3750	10'	350
LB102450	14362	LBF102450	14426	240	5000	10'	500

\*Do not install less than 1-1/2" above floor on bottom air intake style.

# Draft Barriers LB Series

## Accessories

MODEL	DESCRIPTION
LB-100BS	1FT. Blank Section
LB-200BS	2FT. Blank Section
LB-300BS	3FT. Blank Section
LB-400BS	4FT. Blank Section
LB-500BS	5FT. Blank Section
LB-600BS	6FT. Blank Section
LB-700BS	7FT. Blank Section
LB-800BS	8FT. Blank Section
LB-900BS	9FT. Blank Section
LB1000BS	10FT. Blank Section

## Options

MODEL	DESCRIPTION
LB-IC	Inside Corner
LB-OC	Outside Corner
LB-EC	REQUIRED End Cap (Specify right or left) 1/2"
LB-SP	Splice Plate
LB-WT	Wall Trim
LB-MESH	1/4" Wire mesh under discharge grill
LB-PD-FM	Pedestals (field mounting)

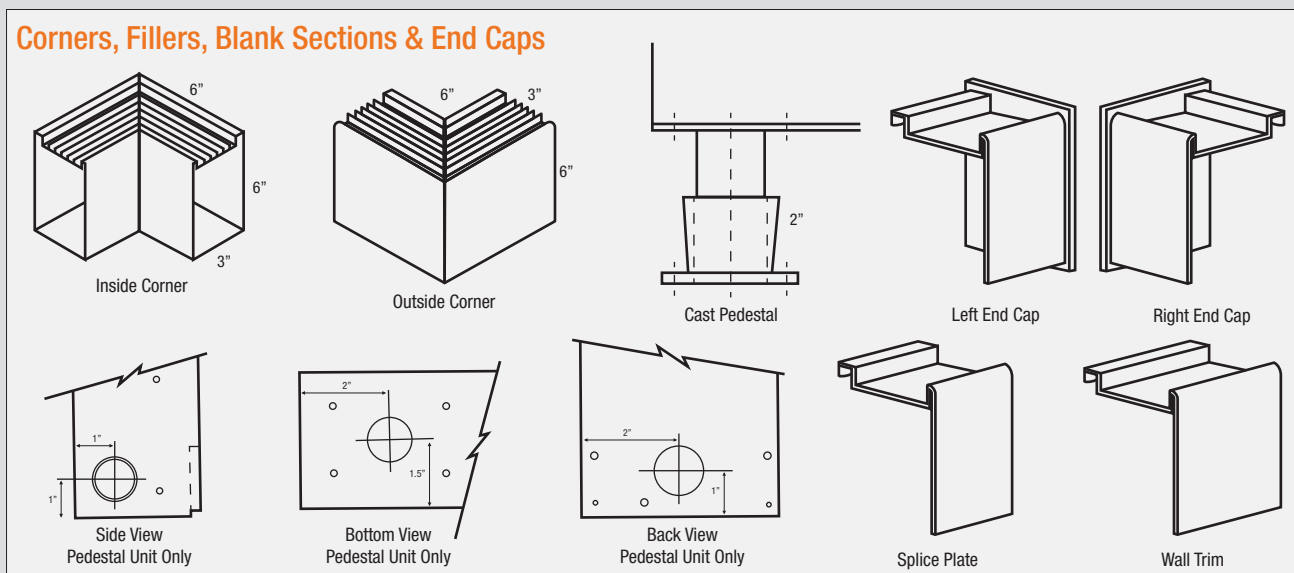
## Control Sections

MODEL	DESCRIPTION
LBCS-R	Relay Section - SPST, 20 Amp, 277 Volt
LBCS-RDS	Relay, Disconnect Switch Section, 20 Amp
LBCS-TR	Xformer Relay Section - SPST, 25 Amp, 277 V, 24V Control
LBCS-TRDS	Transformer Relay, Disconnect Switch Section, 20 Amp
LBCS-PE	PE Relay, SPST, 20 Amp
LBCS-DS-FUSED	Disconnect Switch, with 20 Amp fuse and fuse block

## Integral Controls

MODEL	DESCRIPTION
ITS	Integral Stat 25 Amp, SPST-120-277 Volts - STD-LF or RT
ITD	Integral Stat 20 Amp, DPST-208-240 Volts - STD-LF or RT
IDS	Integral Disconnect Switch 20 Amp, 120-277 V - STD-RT side
LBCS-TS	Thermostat Section - SPST, 20 Amp, 277 Volts
LBCS-TSDS	Thermostat Disconnect Switch Section, 20 Amp
LBCS-TSR	Thermostat Relay Switch, 20 Amp
LBCS-TSDSR	Thermostat Disconnect Switch, Relay Section, 20 Amp
LBCS-DS	Disconnect Switch, Section, 20 Amp

## Corners, Fillers, Blank Sections & End Caps



# Architectural Draft Barrier KDBA Series



### Model Code:

KDBA A	12 B	040 C	-731 D
<b>A: Series</b>			
<b>B: Volts (12=120, 24=240, 27=270)</b>			
<b>C: Watts (040=400)</b>			
<b>D: Length in mm (-731=731mm)</b>			

- Steel Tubular Heating Elements With Aluminum Fins
- Front fresh air inlet or bottom (-BAI); top warm air outlet
- Standard Watt density of 275W/ft. (900W/m)
- Low Watt density of 200W/ft. (650W/m)
- Linear high-limit temperature control with automatic reset
- Standard color: bright white epoxy/polyester powder paint
- 18 Gauge Steel Cabinet
- Available in 120, 208, 240, 277, 347 or 600 Volts, 1 phase
- 1-year warranty against defects



## The KDBA Series Draft Barrier

**A compact, economical draft barrier.** Made from steel the KDBA draft barrier is an economical alternative to the aluminum model, yet offering comparable performance. With it's rectangular shape, the KDBA is perfect for wall-to-wall installations.

### Ordering Information

Standard models (275W/ft)

WATTS	240V/208V	208V (1 ph)	UPC	208V (3 ph)	UPC	240V/208V	UPC	277V	UPC	LENGTH	WT. (lbs.)
500	500/375	KDBA12050	31552	KDBA20050	31562	KDBA24050	31580	KDBA27050	31598	28 13/16	10.5
750	750/563	KDBA12075	31554	KDBA20075	31564	KDBA24075	31582	KDBA27075	31600	38 13/16	12.7
1000	1000/750	KDBA12100	31556	KDBA20100	31566	KDBA24100	31584	KDBA27100	31602	49 1/16	14.9
1250	1250/938	KDBA12125	31558	KDBA20125	31568	KDBA24125	31586	KDBA27125	31604	58 9/16	17
1500	1500/1125	KDBA12150	31560	KDBA20150	31570	KDBA24150	31588	KDBA27150	31606	67 1/4	18.8
1750	1750/1313			KDBA20175	31572	KDBA24175	31590	KDBA27175	31608	76 9/16	20.8
2000	2000/1500			KDBA20200	31574	KDBA24200	31592	KDBA27200	31610	85 3/8	22.7
2250	2250/1688			KDBA20225	31576	KDBA24225	31594	KDBA27225	31612	94 3/16	24.6
2500	2500/1875			KDBA20250	31578	KDBA24250	31596	KDBA27250	31314	103 3/8	26.6

### Ordering Information

Low density models (200W/ft)

WATTS	240V/208V	120V	UPC	208V	UPC	240V/208V	UPC	277V	UPC	LENGTH	WT. (lbs.)
400	400/225	KDBA12040-731	31616	KDBA20040-731	31628	KDBA24040-731	31646	KDBA27040-731	31664	28 13/16	10.5
600	600/375	KDBA12060-985	31618	KDBA20060-985	31630	KDBA24060-985	31648	KDBA27060-985	31666	38 13/16	12.7
800	800/563	KDBA12080-1246	31620	KDBA20080-1246	31632	KDBA24080-1246	31650	KDBA27080-1246	31668	49 1/16	14.9
1000	1000/750	KDBA12100-1487	31622	KDBA20100-1487	31634	KDBA24100-1487	31652	KDBA27100-1487	31670	58 9/16	17
1200	1200/938	KDBA12120-1708	31624	KDBA20120-1708	31636	KDBA24120-1708	31654	KDBA27120-1708	31672	67 1/4	18.8
1600	1600/1125	KDBA12160-2168	31626	KDBA20160-2168	31638	KDBA24160-2168	31656	KDBA27160-2168	31674	85 3/8	22.7
1800	1800/1313			KDBA20180-2393	31640	KDBA24180-2393	31658	KDBA27180-2393	31676	94 3/16	24.6
2000	2000/1500			KDBA20200-2625	31642	KDBA24200-2625	31660	KDBA27200-2625	31678	103 3/8	26.6
2250	2250/1688			KDBA20225-2625	31644	KDBA24225-2625	31662	KDBA27225-2625	31680	103 3/8	26.6

## Specifications

*Contractor shall supply and install KDBA Series electric heaters of the wattage and voltage as indicated on the plans.*

**Color:** Standard: white, almond. Optional: metallic silver, bronze, metallic charcoal, textured black, beige-grey, aluminum, semi-gloss black. Custom colors available.

**Finish:** Standard: epoxy/polyester powder paint. Optional: steel plated.

**Voltage:** 120V, 208V, 240V/208V, 277V, 347V, 600V, 50/60 Hz, 1-phase.

**Construction:** 16-gauge steel front cover. 18-gauge satin coat steel cabinet.

Screw assembly for added strength. Full length built-in wireway. Front fresh air inlet or bottom (-BAI); top warm air outlet. Clean back available (-BD). Linear high-limit temperature control with automatic reset. High altitude version available (-HA). End caps included.

**Heating Element:** Stainless steel tubular heating element with aluminum fins.

Floating heating element on high-temperature nylon bushings eliminating expansion noises.

**Watt Density:** Standard watt density. Low watt density.

**Control:** Built-in thermostat available with a control knob or tamperproof. Mechanical, electronic or pneumatic relays available (installed on the right end only). King highly recommends the use of an electronic wall thermostat for greater comfort.

**Installation:** Heater must be installed at least 2 in. from finished floor (for -BAI option). Mounting holes spaced on 4 in. intervals for ease of installation. Wall or floor mounted installation. Variety of accessories available for wall-to-wall installation. Pedestal kit available.

**Warranty:** 1-year warranty against defects.

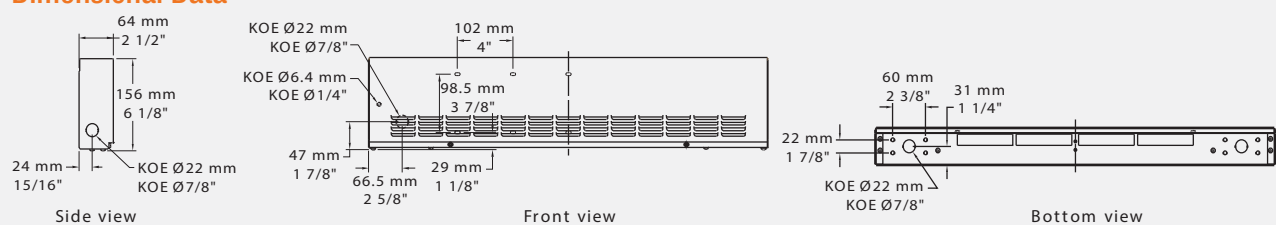
**Application:** Commercial building, office building, hospital, daycare center, private residence.

# Architectural Draft Barrier KDBA Series

## Options

ADD SUFFIX	DESCRIPTION
-BW	Bright White
-A	Almond Color
-AE	Metallic Silver
-BG	Beige-Grey
-BZ	Bronze
-CM	Metallic Charcoal
-NR	Textured Black
-AL	Aluminum
-NL	Semi-Gloss Black
-FR	Front outlet models may be recessed
-HA	High altitude version linear high-limit temperature control with automatic reset
-BAI	Bottom fresh air inlet

## Dimensional Data



## Control Options

MODEL	DESCRIPTION
KDBA-T-AV (1-3)	Single-pole tamperproof thermostat adjustable with a screwdriver 120V, 208V, 240V/25A, 277V/10A
KDBA-T2-AV (1-2)	Double-pole tamperproof thermostat adjustable with a screwdriver 120V, 208V, 240V/25A, 277V/10A
KDBA-T (1-3)	Single-pole thermostat with control knob 120V, 208V, 240V/25A, 277V/10A
KDBA-T2 (1-2)	Double-pole thermostat with control knob 120V, 208V, 240V/25A, 277V/10A
KDBA-RT-120	24V relay with transformer - 120V, 25A
KDBA-RT-208	24V relay with transformer - 208V/22A
KDBA-RT-240	24V relay with transformer - 240V/22A
KDBA-RT-277	24V relay with transformer - 277V/19A
KDBA-R	24V relay without transformer 120V, 208V, 240V/22A, 277V/19A
KDBA-TRIAC-347	Factory installed 24V electronic relay 15A, 347V and less
KDBA-TRIAC-347T	Factory installed 24V electronic relay with transformer - 15A, 208V to 347V max.
KDBA-PM	Factory installed pneumatic relay - 20A, 480V max.
KDBA/KDIA-DIS	Factory installed disconnect switch 20A, 277V max.

- 1) Setting range: 40°F to 100°F (5°C to 37°C)
- 2) "Off" position
- 3) Thermostat connect will remain open down to -31°F (-35°C) when set at its minimum

## Accessories

MODEL	DESCRIPTION	DIMENSIONS (in)
KDBA-CI	Inside corner	4
KDBA-CE	Outside corner	4
KDBA/KDIA-PE	Round pedestal kit (2)	3
KDBA/KDIA-PEC	Square-shaped pedestal kit (2)	2
KDBA-JT	Splice plate	2
KDBA-JT-PE	Contour splice plate for BD option and/or heater with pedestals	2
Product no-HA	Factory installed linear high-limit temperature control for high altitude (6000 ft. to 8200 ft.)	
Product no-BD	Factory installed clean back	
KDBA-SV-XX	Empty cabinet with length XX mm	
Product no-BAI	Factory installed bottom fresh air inlet with smooth front panel	

# Architectural Draft Barrier KDIA Series



### Model Code:

KDIA	24	250
A	B	C
<b>A: Series</b>		
<b>B: 12=120V 20=208V</b>		
<b>24=240/208V 27=277V</b>		
<b>C: Watts (50=500 - 250=2500)</b>		



- Steel Tubular Heating Elements With Aluminum Fins
- Front fresh air inlet or bottom (-BAI); top warm air outlet
- Standard Watt density of 275W/ft. (900W/m)
- Low Watt density of 200W/ft. (650W/m)
- Linear high-limit temperature control with automatic reset
- Standard color: bright white epoxy/polyester powder paint
- 18 Gauge Steel Cabinet
- Available in 120, 208, 240, 277, 347 or 600 Volts, 1 phase
- 1-year warranty against defects

## The KDIA Series Slope-Top Architectural Draft Barrier

The KDIA Series is an economical sloped top draft barrier. The KDIA draft barrier is specifically designed with a sloped top to eliminate use of the unit as a shelf or seat. Made from steel, the KDIA is an economical alternative to the aluminum sloped top model, yet offering comparable performance. This sloped top draft barrier takes up less space and is well suited for areas where space is limited.

### Ordering Information - Standard Models (275W/FT)

WATTS	240V/208V	120V	UPC	208V	UPC	240V/208V	UPC	277V	UPC	LENGTH	WT. (lbs.)
500	500/375	KDIA12050	31682	KDIA20050	31692	KDIA24050	31710	KDIA27050	31728	28 13/16	11.6
750	750/563	KDIA12075	31684	KDIA20075	31694	KDIA24075	31712	KDIA27075	31730	38 13/16	15.1
1000	1000/750	KDIA12100	31686	KDIA20100	31696	KDIA24100	31714	KDIA27100	31732	49 1/16	18.7
1250	1250/938	KDIA12125	31688	KDIA20125	31698	KDIA24125	31716	KDIA27125	31734	58 9/16	22
1500	1500/1125	KDIA12150	31690	KDIA20150	31700	KDIA24150	31718	KDIA27150	31736	67 1/4	25
1750	1750/1313			KDIA20175	31702	KDIA24175	31720	KDIA27175	31738	76 9/16	28.3
2000	2000/1500			KDIA20200	31704	KDIA24200	31722	KDIA27200	31740	85 3/8	31.3
2250	2250/1688			KDIA20225	31706	KDIA24225	31724	KDIA27225	31742	94 3/16	34.4
2500	2500/1875			KDIA20250	31708	KDIA24250	31726	KDIA27250	31744	103 3/8	37.6

### Ordering Information - Low Density (200W/FT)

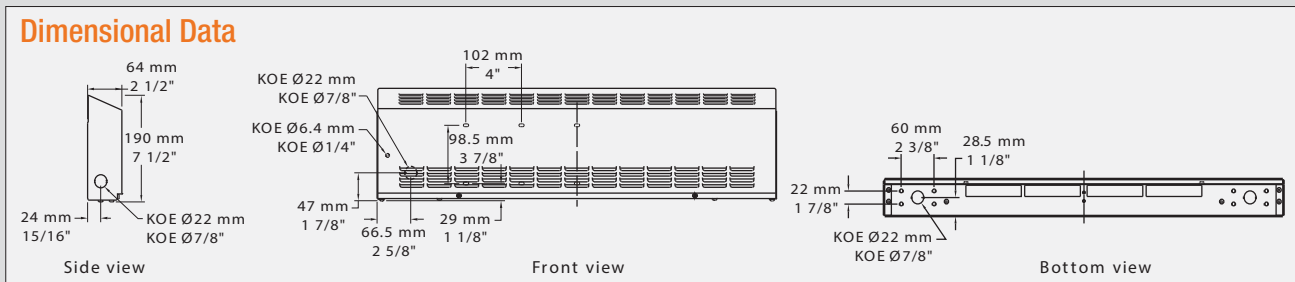
WATTS	240V/208V	120V	UPC	208V	UPC	240V/208V	UPC	277V	UPC	LENGTH	WT. (lbs.)
400	400/225	KDIA12040-731	31746	KDIA20040-731	31758	KDIA24040-731	31776	KDIA27040-731	31794	28 13/16	11.6
600	600/375	KDIA12060-985	31748	KDIA20060-985	31760	KDIA24060-985	31778	KDIA27060-985	31796	38 13/16	15.1
800	800/563	KDIA12080-1246	31750	KDIA20080-1246	31762	KDIA24080-1246	31780	KDIA27080-1246	31798	49 1/16	18.7
1000	1000/750	KDIA12100-1487	31752	KDIA20100-1487	31764	KDIA24100-1487	31782	KDIA27100-1487	31800	58 9/16	22
1200	1200/938	KDIA12120-1708	31754	KDIA20120-1708	31766	KDIA24120-1708	31784	KDIA27120-1708	31802	67 1/4	25
1600	1600/1125	KDIA12160-2168	31756	KDIA20160-2168	31768	KDIA24160-2168	31786	KDIA27160-2168	31804	85 3/8	28.3
1800	1800/1313			KDIA20180-2393	31770	KDIA24180-2393	31788	KDIA27180-2393	31806	94 3/16	31.3
2000	2000/1500			KDIA20200-2625	31772	KDIA24200-2625	31790	KDIA27200-2625	31808	103 3/8	34.4
2250	2250/1688			KDIA20225-2625	31774	KDIA24225-2625	31792	KDIA27225-2625	31810	103 3/8	37.6

# Architectural Draft Barrier KDIA Series

## Options

ADD SUFFIX	DESCRIPTION
-BW	Bright White
-A	Almond Color
-AE	Metallic Silver
-BG	Beige-Grey
-BZ	Bronze
-CM	Metallic Charcoal)
-NR	Textured Black
-AL	Aluminum
-NL	Semi-Gloss Black
-FR	Front outlet models may be recessed
-HA	High altitude version linear high-limit temperature control with automatic reset
-BAI	Bottom fresh air inlet

## Dimensional Data



## Control Options

MODEL	DESCRIPTION
KDIA-T-AV (1-3)	Single-pole tamperproof thermostat adjustable with a screwdriver 120V, 208V, 240V/25A, 277V/10A
KDIA-T2-AV (1-2)	Double-pole tamperproof thermostat adjustable with a screwdriver 120V, 208V, 240V/25A, 277V/10A
KDIA-T (1-3)	Single-pole thermostat with control knob 120V, 208V, 240V/25A, 277V/10A
KDIA-T2 (1-2)	Double-pole thermostat with control knob 120V, 208V, 240V/25A, 277V/10A
KDIA-RT-120	24V relay with transformer - 120V, 25A
KDIA-RT-208	24V relay with transformer - 208V/22A
KDIA-RT-240	24V relay with transformer - 240V/22A
KDIA-RT-277	24V relay with transformer - 277V/19A
KDIA-R	24V relay without transformer 120V, 208V, 240V/22A, 277V/19A
KDIA-TRIAC-347	Factory installed 24V electronic relay 15A, 347V and less
KDIA-TRIAC-347T	Factory installed 24V electronic relay with transformer - 15A, 208V to 347V max.
KDIA-PM	Factory installed pneumatic relay - 20A, 480V max.
KDIA/KDIA-DIS	Factory installed disconnect switch 20A, 277V max.

## Accessories

MODEL	DESCRIPTION	DIMENSIONS (in)
KDBA-CI	Inside corner	4
KDBA-CE	Outside corner	4
KDBA/KDIA-PE	Round pedestal kit (2)	3
KDBA/KDIA-PEC	Square-shaped pedestal kit (2)	2
KDBA-JT	Splice plate	2
KDBA-JT-PE	Contour splice plate for BD option and/or heater with pedestals	2
Product no-HA	Factory installed linear high-limit temperature control for high altitude (6000 ft. to 8200 ft.)	
Product no-BD	Factory installed clean back	
KDBA-SV-XX	Empty cabinet with length XX mm	
Product no-BAI	Factory installed bottom fresh air inlet with smooth front panel	

# Selecting The Proper Unit Heater

To obtain the best performance from King unit heaters use this chart for proper heater selection. To determine which type of unit is best note the ceiling height and room size. In addition to the air throw capabilities of each type of unit heater, wall and ceiling insulation must be considered when determining wattage requirements. The most common error of unit heater selection is installing a unit designed for low ceiling application on a high ceiling. In this application heat is unable to circulate properly to the floor – the result: unsatisfactory comfort or performance level. Following this guide allows correct unit heater selection for the determined space and environment. With correct selection and placement this King unit heater will provide years of high performance heating.

## Application Tips

First, calculate heating loads in the conventional way using the N.E.M.A. handbook or ASHRAE guide. Next, determine quantity and size of heaters to be used. In instances where large groups of people are normally settled in the same location use a large number of smaller kW heaters (Example: people on a production line or skilled machine operations). By utilizing heaters in this manner one can best distribute uniform heat, prevent hot drafts, reduce potential noise levels and balance the electrical operating demand. When considering warehouse areas or storage rooms where heat distribution and constant temperatures are less important, use fewer heaters of higher capacity. To maintain uniform heat and reduce stratified air it is recommended that the total CFM of the units turn the air over approximately 3 times per hour.

## Horizontal Mount

Smaller rooms can be heated by one unit heater. Where two walls are exposed heaters should be mounted as shown below. In larger rooms, units should be located so air streams wipe exposed walls without blowing at them. Units should be located so the airstream of one supports that of another thus setting up a circulatory air movement. (Distance between units to be approximately 1 times published air throw). Units should not be mounted horizontally in areas having ceiling heights in excess of 10 to 12 feet.

## Vertical Mount

Units should be mounted vertically in high bay areas where they may not otherwise interfere with assorted material or handling equipment. Heaters should be situated to provide free air circulation. Size and selection of units should be based on recommended mounting height. Unit heaters are frequently used to combat cold air inrush when loading dock doors are opened. For such applications, one or more units should be arranged to blow warm air vertically in front of opening.

## Dual Mounting

Where square footage is large and comfort essential, both horizontal and vertical installations may best serve your requirements.

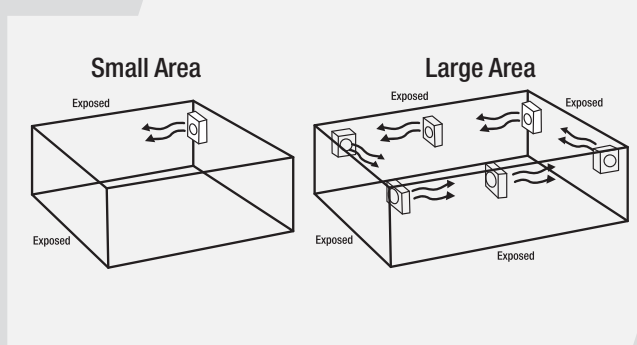
## Mounting Limitations

Unit heaters should not be used in potentially explosive atmospheres. The finish is not intended for direct salt spray exposure in marine applications or the highly corrosive atmospheres of swimming pools, chemical storage bins, etc. Please refer to the factory for explosion proof or marine application heater information. Do not install unit heaters above recommended maximum mounting height. See chart for height information. Obstructions must not block unit heater air inlet or discharge. To prevent possible injury heaters must be mounted at least 6 feet above the floor to prevent accidental contact with heating element or fan blade.

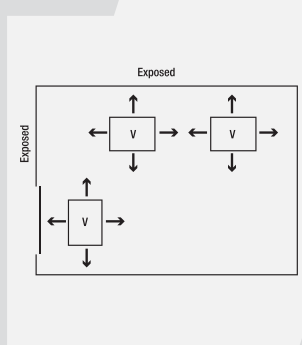
## Selection

CEILING HEIGHT	UNDER 8 FEET	10 FEET	12 FEET	13 FEET AND OVER
250 Sq. Ft.	N/A	KBP	KBP	KFUH
1000 Sq. Ft.	KBP	KBP	KBP / KB	KFUH
2000 Sq. Ft.	KBP / KB	KBP / KB	KB / KFUH	KFUH
3000 Sq. Ft.	KB	KB	KFUH	KFUH
5000 Sq. Ft.	KB	KFUH	KFUH	KFUH
10,000 Sq. Ft.	KB	KFUH	KFUH	KFUH

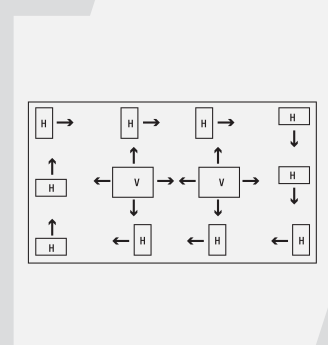
### Horizontal



### Vertical



### Dual





# Compact Unit Heater KBP Series



**Model Code:**

KBP	24	07	T
A	B	C	D

A: Series  
 B: 12 - 120V 24 - 240V  
 20 - 208V 27 - 277V  
 C: Watts (900 to 6000)  
 D: T - Thermostat



- Pic-A-Watt® Element
- Multiple wattage selection
- Long life cast iron motor
- Aluminum fan blade
- High Accuracy Built-in thermostat
- Powder-coated, textured finish
- Fan delay
- Auto-reset limit
- Universal (wall/ceiling) mounting bracket
- Selector switch—fan/heat/off
- 5-year limited warranty

## Multiple Wattage Unit Heater

The KBP is the industry standard for multi-wattage garage / shop heaters. Designed for rugged performance, the flow-through design efficiently moves air by pulling air from the back of the heater and discharges it out the front, easily heating a large space. With high quality components suitable for both residential and commercial applications, it comes standard with a 3-position switch and an accurate built-in thermostat. The integral fan delay continues to dissipate heat from the elements during the cool down period, maximizing the heat exchange in the room. King's exclusive dual Pic-A-Watt steel fin elements allow customers to select from a range of wattage options, tailoring the heater to an area's specific heating requirements.

### Ordering Information

MODEL	UPC	VOLTS	PHASE	WATTAGE	AMPS
KBP1230	15191	120	1	2850•1900•950	24
KBP2406	15190	240	1	5700•4750•3800•2850•1900•950	24
KBP2006-3MP**	15193	208	1-3	5700•2850	27/16
KBP2406-3MP**	15188	240*	1-3	5700•2850	24/14
KBP2704	15187	277	1	4000•3000•2000•1000	15
KBP4804-3MP**	15196	480***	1-3	4160	9/5
KBP4806-3MP**	15197	480***	1-3	6000	13/8

\*Approved for 208V operation. Heater will draw 13% less Amps and 25% less wattage \*\*3-Phase units do not have Heat / Fan / Off \*\*\*480 Volt models are 24 Volt control  
 Minimum clearance from combustibles: 18" from front, 2" from top, 6" from sides and 5" from rear.

### Engineering Specifications

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

**Pic-A-Watt Heating Element:** Exclusive King multi-tap element allows field adjustment to several wattages at time of installation. Steel sheath elements of various resistance are copper brazed to steel plate fins producing a multi-wattage heating element.

**Built-in Thermostat:** Single pole factory installed hydraulic capillary tube thermostat for precision heating control. Operating range 40° to 90° F.

**Fan/Heat/Off Switch:** 3-position switch provides heating and summer fan only operation.

**Fan Delay Switch:** The fan continues to operate after the thermostat shuts off in order to remove the residual heat left in the elements. Power must not be interrupted.

**CFM:** 270

**Universal Mounting Bracket:** Combination ceiling/wall bracket is included with every heater.

**Unit Bearing Motor:** Permanently lubricated, long life, unit bearing 4-Pole motor with 20 cc of oil. Enclosed rotor provides long-lasting, trouble-free operation. Thermally protected. 1300 RPM.

**Auto-Reset Thermal Limit Control:** Heater shuts off when an over temperature condition exists and automatically resets when the normal operating temperature returns.

**Tested:** UL 2021

**Approval:** cCSAus

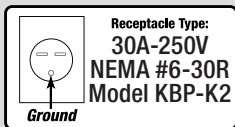
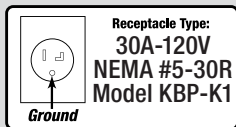
# Compact Unit Heater KBP Series



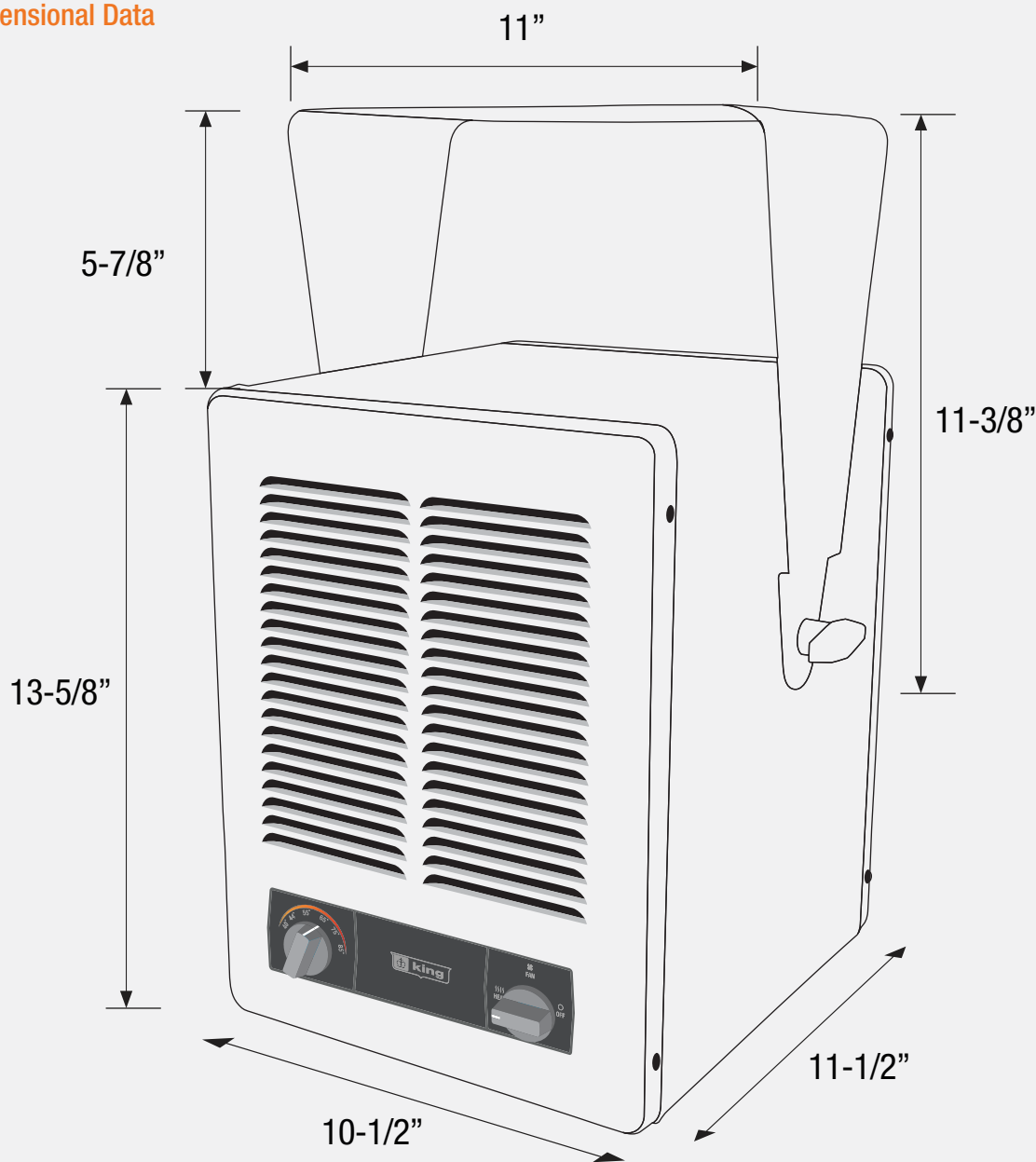
## Accessories

MODEL	UPC	PHASE	WEIGHT (lbs.)
KBP-K1	15198	6 ft. cord/handle kit - 120V, 1-Phase, 30 Amp (Receptacle included. See below)	2
KBP-K2	15199	6 ft. cord/handle kit - 240V, 1-Phase, 30 Amp (Receptacle included. See below)	2
KBP-RT	N/A	Provision for remote thermostat (line voltage)	N/A
*KBP-RTL1	N/A	Provision for remote thermostat - 1-Phase (24V)	N/A
*KBP-RTL3	N/A	Provision for remote thermostat - 3-Phase (24V)	N/A

\*Factory installed only - Heat/Fan/Off activated at unit only - can not operate remotely



## Dimensional Data



# Electronic Unit Heater KB ECO2S Series



**Model Code:**

KB	24	04	-1	-B2	-ECO
A	B	C	D	E	F

**A: Series**  
**B: 20 - 208V, 24 - 240/208V**  
**C: kiloWatts ( 4 - 15 )**  
**D: -1 = Single Phase**  
**E: -B2 = Universal Bracket**  
**F: -ECO = Electronic Control**



- ECO2S Electronic Controller
- Energy efficient 2-Stage Heating
- Remote Control Included
- Large LED Display
- Fan Only and Timer Modes
- Auto Reset High Limit
- Unit Bearing Motor
- Standard Color: Textured Gray with Black Louvers
- Adjustable Louvers
- Spiral Finned Heat Elements
- Universal Bracket Included
- 5-year limited warranty



## ECO2S 2-Stage Unit Heater with IR Remote Control

The ECO2S KB series unit heaters offers unparalleled performance, energy efficiency and user control by incorporating another **King innovation**, the in-built ECO2S electronic thermostat with remote control. Offering energy efficient 2-stage heating, with Eco mode that automatically uses the lowest wattage needed to heat the room, integrated fan only and timer modes, as well as a remote control for simple operation. Designed for use as primary or supplemental heat sources in warehouses, stores or large garages spaces. Spiral steel elements and high CFM ensure even air distribution producing cooler element operation which prolongs the life of the heater. By combining the highest quality components, with a dynamically balanced fan blade, the KB ECO2S unit heater will provide years of trouble-free service and keep heating bills to a minimum. Includes universal wall/ceiling bracket for simple installation.

### ECO2S Electronic Controller Features:

- Electronic control for accuracy
- Energy-saving automatic 2-stage heating
- Large LED display
- Remote control and wall bracket included
- Thermostat timer mode (1-9 Hours)
- Fan only mode
- Built-In fan delay



### Engineering Specifications

*Contractor shall supply and install KB ECO2S Series unit heaters manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.*

**Construction:** All exterior and interior metal enclosure parts are made from 20 gauge electrogalvanized Steel with a rust inhibiting baked enamel finish. Smooth rounded corners and protective edge trim give an attractive modern appearance.

**Adjustable Outlet Louver:** Louvers direct air up or down as needed for the heating application. Rear Intake Screen: Heavy gauge steel screen protects against foreign objects making accidental contact with the rotating fan blade.

**Spiral Fin Elements:** The metal sheath element is copper brazed with spiral fins then molded into a coil configuration. This combination produces the best heat transfer while eliminating the potential for hot spots by positioning the element in the maximum airflow stream.

**Totally Enclosed Fan Motor:** Permanently lubricated long life unit bearing motor with 20cc of oil. Epoxy-coated motor with enclosed rotor resists moisture and corrosion for long-lasting, trouble-free operation.

**Aluminum Fan Blade:** 5 blade fan mounted directly to the motor shaft for maximum efficiency.

**Auto-Reset Thermal Cutout:** Power is disconnected from the element if an overheated condition occurs. The fan continues to run to dissipate excess heat from the element. The element is re-energized automatically when the normal operating temperature returns.

**Electronic Control:** Up, down temperature mode. Start/Stop. Standard on all heaters. The control voltage is equal to the line voltage (208, 240) for 5kW models. Over 5kW the line voltage control is operating the contactors.

**Easy Installation:** A quick access panel located on the bottom of the heater allows for quick wiring and easy maintenance for the life of the heater. Includes universal wall/ceiling bracket for simple installation.

**Approvals:** cULus (E41422)

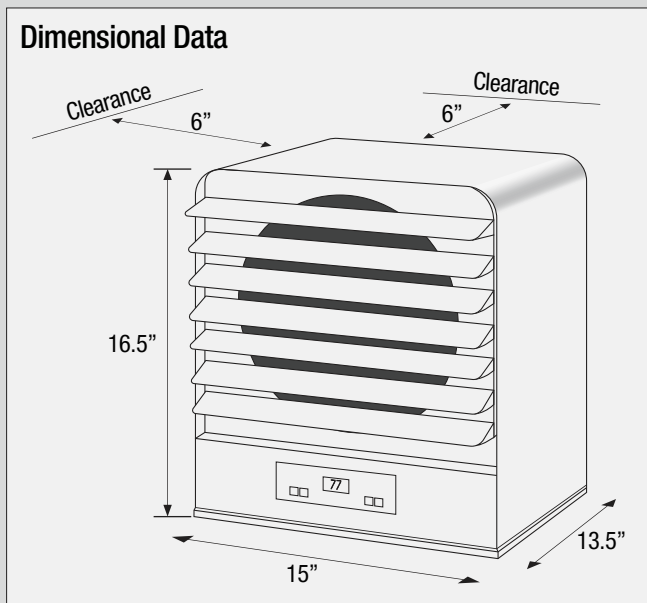
# Electronic Unit Heater KB ECO2S Series

## Ordering Information

MODEL	UPC	kilo WATTS	BTUH	PHASE	VOLTS	AMPS	MOTOR HP	CFM	TEMP. RISE	AIR THROW	MAX MOUNT HEIGHT	WT. (lbs.)
KB2404-1-B2-ECO	22037	4	13.5	1	240/208	16.6/14.4	5W	400	38°F	15 ft.	8 ft.	28.5
KB2004-1-B2-ECO	22045	4	13.5	1	208	19.2	5W	400	38°F	15 ft.	8 ft.	28.5
KB2405-1-B2-ECO	22038	5	17	1	240/208	20.8/18	9W	400	40°F	16 ft.	8 ft.	28.5
KB2005-1-B2-ECO	22046	5	17	1	208	24	9W	400	40°F	16 ft.	8 ft.	28.5
KB2406-1-B2-ECO	22039	6	20.5	1	240/208	25/21.6	9W	400	45°F	16 ft.	8 ft.	28.5
KB2006-1-B2-ECO	22047	6	20.5	1	208	28.8	9W	400	45°F	16 ft.	8 ft.	28.5
KB2407-1-B2-ECO	22040	7.5	25.6	1	240/208	31.2/27	16W	600	40°F	20 ft.	9 ft.	28.5
KB2007-1-B2-ECO	22048	7.5	25.6	1	208	36.1	16W	600	40°F	20 ft.	9 ft.	29
KB2410-1-B2-ECO	22042	10	34.1	1	240/208	41.6/36.1	25W	725	44°F	24 ft.	10 ft.	42
KB2010-1-B2-ECO	22050	10	34.1	1	208	48.1	25W	725	44°F	24 ft.	10 ft.	34
KB2412-1-B2-ECO	22043	12.5	42.7	1	240/208	52/45.1	35W	825	48°F	30 ft.	11 ft.	32
KB2012-1-B2-ECO	22051	12.5	42.7	1	208	60.1	35W	825	48°F	30 ft.	11 ft.	32
KB2415-1-B2-ECO	22044	15	51.2	1	240/208	62.5/54.1	35W	925	51°F	33 ft.	12 ft.	37
KB2015-1-B2-ECO	22052	15	51.2	1	208	72.1	35W	925	51°F	33 ft.	12 ft.	37

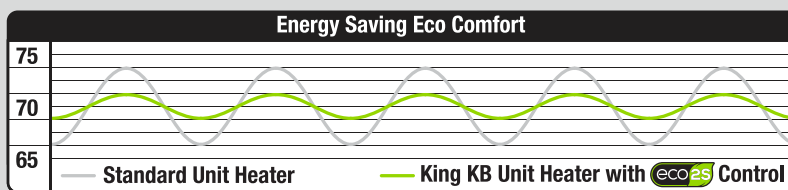
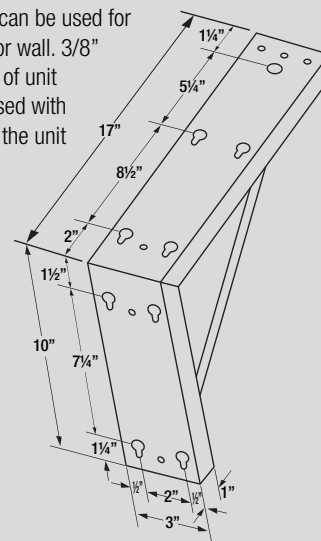
\*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.

### Dimensional Data



### • KBB-2 Wall/Ceiling Bracket Included

Unit heater brackets can be used for mounting on ceiling or wall. 3/8" threaded hole on top of unit heater can also be used with threaded rod to drop the unit closer to the floor.



\*Reduces temperature swings

# Heavy Duty Unit Heater KB Series



### Model Code:

KB	48	10	-1	-B1	T
A	B	C	D	E	F
<b>A: Series</b>					
<b>B: 20 - 208V, 24 - 240/208V 27 - 277V, 48 - 480V</b>					
<b>C: kiloWatts (4-66)</b>					
<b>D: -1 = Single Phase -3 = Three Phase</b>					
<b>E: -B1 = Bracket</b>					
<b>F: T = Thermostat</b>					



- Spiral finned element
- Long life unit bearing motor
- Auto Reset Limit
- Aluminum fan blade
- Built-in thermostat option
- Standard color: almond
- High-temp safety limit
- Universal mounting bracket included
- Tested to UL standards for safety
- Adjustable louvers
- 5-year limited warranty



## The KB Horizontal Unit Heater

King's KB series unit heaters are designed for use as primary or supplemental heat sources in large or exposed areas, including high-rise buildings, stores, warehouses, garages, water treatment and fire room vaults to prevent freezing. Spiral finned steel elements and high CFM ensure even air distribution producing cooler element operation, prolonging heater life. By combining the highest quality components, with a dynamically balanced fan blade, the KB unit heater will provide years of trouble-free service. Includes universal wall/ceiling bracket for simple installation.

### Factory Installed Options

**Power Contactor:** Standard on heaters above 5kW and on all 3-Phase models; optional on 2 to 5kW 1-Phase heaters.

**24 Volt Control:** Standard on 480V heaters; optional on all other heaters.

**Mounting:** Standard universal bracket made from heavy gauge Steel. Low profile optional.

**Rough Service:** 5 lugs are provided to securely mount heater in heavy industrial applications or marine vessels where vibration and movement are a concern. Includes 5-hole bracket.

### Control Options

- 1-Pole or 2-Pole thermostat temperature indicated label with 44°F energy code setting
- Built-in two-stage thermostat on single phase heaters
- Summer fan switch
- 3-position switch (Heat-Off-Fan)
- Pilot light (power On indication)
- Padlocking disconnect
- Wall-mounted thermostat line or low voltage
- Optional ECO2S Energy-saving automatic 2-stage heating with remote

*NOTE: Multiple heaters can be controlled by a single thermostat if phasing is coordinated in the control wiring.*

## Engineering Specifications

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

**Construction:** All exterior and interior metal enclosure parts are made from 20 gauge electrogalvanized Steel with a rust inhibiting baked enamel finish. Smooth rounded corners and protective edge trim give an attractive modern appearance.

**Adjustable Outlet Louver:** Louvers direct air up or down as needed for the heating application.

**Rear Intake Screen:** Heavy gauge steel screen protects against foreign objects making accidental contact with the rotating fan blade.

**Spiral Fin Elements:** The metal sheath element is copper brazed with spiral fins then molded into a coil configuration. This combination produces the best heat transfer while eliminating the potential for hot spots by positioning the element in the maximum airflow stream.

**Totally Enclosed Fan Motor:** Permanently lubricated long life, unit bearing with 20cc of oil. Epoxy-coated motor with enclosed rotor resists moisture and corrosion for long-lasting, trouble-free operation.

**Staging:** Two-Stage operation is available as an optional feature.

**Aluminum Fan Blade:** Axial flow-type fan mounted directly to the motor shaft for maximum efficiency.

**Auto-Reset Thermal Cutout:** Power is disconnected from the element if an overheated condition occurs. The fan continues to run to dissipate excess heat from the element. The element is re-energized automatically when the normal operating temperature returns.

**Internal Controls:** Magnetic contactors are standard on all 480V heaters, all 208V/1-Phase, 240V/1-Phase, 277V/1-Phase heaters above 6kW, and all 3-Phase heaters. The control voltage is equal to the line voltage (208, 240 or 277) except for 480V models where a transformer is provided for 24V control. Over 5kW the line voltage control is operating the contactor coil only and will draw only 1 Amp. See page 64 for control voltages.

**Fusing:** Internal circuit fusing is provided when the heater ampacity exceeds 48 Amps to comply with N.E.C. standards. A fan delay is provided standard on models 12.5-kW and above to dissipate residual heat from the heating elements.

**Easy Installation:** A quick access panel located on the bottom of the heater allows for quick wiring and easy maintenance for the life of the heater. Includes universal wall/ceiling bracket for simple installation.

**Approvals:** cULus (E41422)

# Heavy Duty Unit Heater KB Series

## Ordering Information - single phase

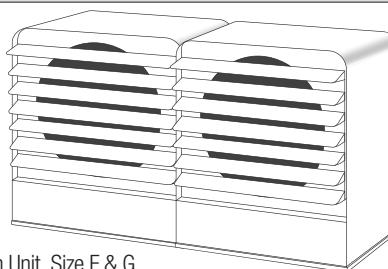
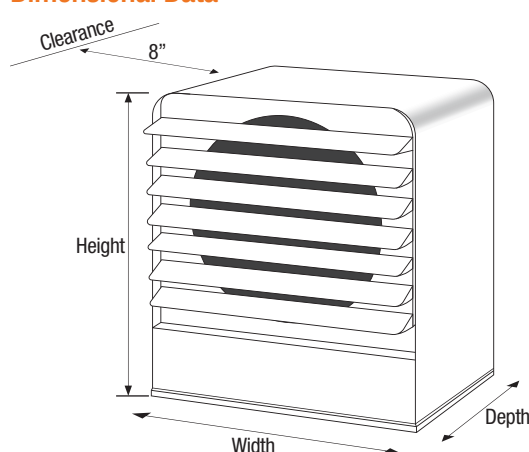
MODEL	UPC	KW	BTUH	PHASE	VOLTS	AMPS	**THERMOSTAT CONTROL VOLTAGE	MOTOR HP	CFM	TEMP. RISE	AIR THROW	MAX. MOUNT HEIGHT	SIZE	WT. (lbs.)
KB2003-1-B1	13292	3	10.2	1	208	14.4	208	5W	400	37°	15ft.	8ft.	A	30.5
KB2403-1-B1	13300	3	10.2	1	240	12.5	240	5W	400	37°	15ft.	8ft.	A	30.5
KB2004-1-B1	20928	4	13.5	1	208	19.2	208	5W	400	38°	15ft.	8ft.	A	30.5
KB2404-1-B1	13354	4	13.5	1	240/208	16.6/14.4	240	5W	400	38°	15ft.	8ft.	A	30.5
KB2704-1-B1	13361	4	13.5	1	277	14.4	277	5W	400	38°	15ft.	8ft.	A	30.5
KB4804-1-B1	22091	4	13.5	1	480	8.3	24	5W	400	38°	15ft.	8ft.	A	30.5
KB2005-1-B1	13366	5	17	1	208	24	208	9W	400	40°	16ft.	8ft.	A	30.5
KB2405-1-B1	13374	5	17	1	240/208	20.8/18	240	9W	400	40°	16ft.	8ft.	A	30.5
KB2705-1-B1	15240	5	17	1	277	18.1	277	9W	400	40°	16ft.	8ft.	A	30.5
KB4805-1-B1	13388	5	17	1	480	10.4	24	9W	400	40°	16ft.	8ft.	A	30.5
KB2006-1-B1	22092	6	20.5	1	208	28.8	208	9W	400	45°	16ft.	8ft.	A	30.5
KB2406-1-B1	13424	6	20.5	1	240/208	25/21.6	240	9W	400	45°	16ft.	8ft.	C	30.5
KB2706-1-B1	22093	6	20.5	1	277	21.6	277	9W	400	45°	16ft.	8ft.	C	30.5
KB4806-1-B1	22094	6	20.5	1	480	12.5	24	9W	400	45°	16ft.	8ft.	C	30.5
KB2007-1-B2	22242	7.5	25.6	1	208	36.1	208	16W	600	40°	20ft.	9ft.	C	45.0
KB2407-1-B2	22243	7.5	25.6	1	240/208	31.2/27	240	16W	600	40°	20ft.	9ft.	C	45.0
KB2707-1-B2	22095	7.5	25.6	1	277	27	277	16W	600	40°	20ft.	9ft.	C	45.0
KB4807-1-B2	22244	7.5	25.6	1	480	15.6	24	16W	600	40°	20ft.	9ft.	C	45.0
KB2010-1-B2	13538	10	34.1	1	208	48.1	208	25W	725	44°	24ft.	10ft.	C	45.0
KB2410-1-B2	13546	10	34.1	1	240/208	41.6/36.1	240	25W	725	44°	24ft.	10ft.	C	45.0
KB2710-1-B2	13554	10	34.1	1	277	36.1	277	25W	725	44°	24ft.	10ft.	C	45.0
KB4810-1-B2	13560	10	34.1	1	480	20.8	24	25W	725	44°	24ft.	10ft.	C	45.0
KB2012-1-B2	13616	12.5	42.7	1	208	60.1	208	35W	825	48°	30ft.	11ft.	C	45.0
KB2412-1-B2	13624	12.5	42.7	1	240/208	52/45.1	240	35W	825	48°	30ft.	11ft.	C	45.0
KB2712-1-B2	22096	12.5	42.7	1	277	45.1	277	35W	825	48°	30ft.	11ft.	C	45.0
KB4812-1-B2	22097	12.5	42.7	1	480	26	24	35W	825	48°	30ft.	11ft.	C	45.0
KB2015-1-B2	13672	15	51.2	1	208	72.1	208	35W	925	51°	33ft.	12ft.	C	45.0
KB2415-1-B2	22098	15	51.2	1	240/208	62.5/54.1	240	35W	925	51°	33ft.	12ft.	C	45.0
KB2715-1-B2	22099	15	51.2	1	277	54.2	277	35W	925	51°	33ft.	12ft.	C	45.0
KB4815-1-B2	22100	15	51.2	1	480	31.3	24	35W	925	51°	33ft.	12ft.	C	45.0

\*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.

Maximum mounting height is manufacturer's recommendation

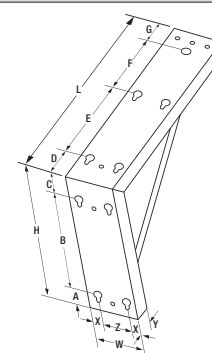
\*\*Over 5kw line voltage control is operating the contactor coil only, and will draw under 1 amp.

### Dimensional Data



Twin Unit Size F & G

HEATER SIZE	HEIGHT	DEPTH	WIDTH
A	16.5"	11"	15"
B	16.5"	18"	15"
C	16.5"	13.5"	15"
D	18.5"	18"	15"
E	20.5"	18"	15"
F	18.5"	18"	30"
G	20.5"	18"	30"



### KBB-1 & KBB-2

Unit heater brackets can be used for mounting on ceiling or wall. 3/8" threaded hole on top of unit heater can also be used with threaded rod to drop the unit closer to the floor. Refer to bracket selection chart.

# Heavy Duty Unit Heater KB Series

## Ordering Information - three phase

MODEL	UPC	KW	BTUH	PHASE	VOLTS	AMPS	**THERM. CONTROL VOLTAGE	MOTOR HP	CFM	TEMP. RISE	AIR THROW	MAX. MOUNT HEIGHT	*SIZE	WT. (lbs.)
KB2003-3MP-B2	13296	3	10.2	1-3	208	14.4/8.3	208	5W	400	37°	14ft.	8ft.	B	45.0
KB2403-3MP-B2	22101	3	10.2	1-3	240/208	12.5/7.2	240	5W	400	37°	14ft.	8ft.	B	45.0
KB4803-3MP-B2	13318	3	10.2	1-3	480	6.3	24	5W	400	37°	14ft.	8ft.	B	45.0
KB2005-3MP-B2	13370	5	17.1	1-3	208	24 & 13.9	208	9W	400	40°	16ft.	8ft.	B	45.0
KB2405-3MP-B2	22102	5	17.1	1-3	240/208	20.8/18 & 18/15.6	240	9W	400	40°	16ft.	8ft.	B	45.0
KB4805-3MP-B2	13392	5	17.1	1-3	480	10.4 & 6	24	9W	400	40°	16ft.	8ft.	B	45.0
KB2007-3MP-B2	13450	7.5	25.6	1-3	208	36.1 & 20.8	208	16W	600	40°	20ft.	9ft.	B	46.5
KB2407-3MP-B2	13458	7.5	25.6	1-3	240/208	31.2/27 & 18/15.6	240	16W	600	40°	20ft.	9ft.	B	46.5
KB4807-3MP-B2	13472	7.5	25.6	1-3	480	15.6 & 24	24	16W	600	40°	20ft.	9ft.	B	46.5
KB2009-3MP-B2	22103	9	30.7	1-3	208	43.2 & 24.9	208	16W	725	42°	24ft.	9ft.	B	46.5
KB2409-3MP-B2	13526	9	30.7	1-3	240/208	37.5/32.5 & 21.6/18.7	240	16W	725	42°	24ft.	9ft.	B	46.5
KB4809-3MP-B2	13534	9	30.7	1-3	480	18.7 & 10.6	24	16W	725	42°	24ft.	9ft.	B	46.5
KB2010-3MP-B2	13542	10	34.1	1-3	208	27.7	208	25W	725	44°	24ft.	10ft.	B	46.5
KB2410-3MP-B2	13550	10	34.1	1-3	240/208	41.6/36.1 & 24/20.8	240	25W	725	44°	24ft.	10ft.	B	46.5
KB4810-3MP-B2	13564	10	34.1	1-3	480	20.8 & 12	24	25W	725	44°	24ft.	10ft.	B	46.5
KB2012-3MP-B2	13620	12.5	42.7	1-3	208	34.6	208	35W	825	48°	30ft.	11ft.	B	46.5
KB2412-3MP-B2	13632	12.5	42.7	1-3	240/208	30/26	240	35W	825	48°	30ft.	11ft.	B	46.5
KB4812-3MP-B2	13644	12.5	42.7	1-3	480	26 & 15	24	35W	825	48°	30ft.	11ft.	B	46.5
KB2015-3MP-B2	13676	15	51.2	1-3	208	41.6	208	35W	925	51°	33ft.	12ft.	B	46.5
KB2415-3MP-B2	13688	15	51.2	1-3	240/208	36/31.2	240	35W	925	51°	33ft.	12ft.	B	46.5
KB4815-3MP-B2	22104	15	51.2	1-3	480	18	24	35W	925	51°	33ft.	12ft.	B	46.5
KB2020-3-B2	13734	20	68.3	3	208	55.5	208	50W	1100	57°	47ft.	13ft.	D	47.5
KB2420-3-B2	13738	20	68.3	3	240/208	48.1/41.6	240	50W	1100	57°	47ft.	13ft.	D	47.5
KB4820-3-B2	22105	20	68.3	3	480	24	24	50W	1100	57°	47ft.	13ft.	D	47.5
KB2025-3-B2	22106	24	85.3	3	208	69.4	208	1/4HP / 50W	1350	58°	41ft.	14ft.	E	60.5
KB2425-3-B2	13784	24	85.3	3	240/208	60.1/52.1	240	1/4HP / 50W	1350	58°	41ft.	14ft.	D	60.5
KB4825-3-B2	22107	24	85.3	3	480	30.1	24	1/4HP / 50W	1350	58°	41ft.	14ft.	D	60.5
KB2030-3-B2	13806	30	102.4	3	208	83.3	208	1/4HP	1800	53°	48ft.	15ft.	E	60.5
KB2430-3-B2	13810	30	102.4	3	240/208	72.1/62.5	240	1/4HP	1800	53°	48ft.	15ft.	E	60.5
KB4830-3-B2	13816	30	102.4	3	480	24	24	1/4HP	1800	53°	48ft.	15ft.	E	60.5
KB2040-3-B2	22108	40	136.5	3	208	111	208	(2) 50W	2200	57°	53ft.	15ft.	F	60.5
KB2440-3-B2	22109	40	136.5	3	240/208	96.2/83.3	240	(2) 50W	2200	57°	53ft.	15ft.	F	60.5
KB4840-3-B2	22110	40	136.5	3	480	48.1	24	(2) 50W	2200	57°	53ft.	15ft.	F	60.5
KB2050-3-B2	22111	50	170.6	3	208	138.8	208	(2) 50W	2400	65°	58ft.	15ft.	F	60.5
KB2450-3-B2	22112	50	170.6	3	240/208	120.2/104.2	240	(2) 50W	2400	65°	58ft.	15ft.	F	60.5
KB4850-3-B2	22113	50	170.6	3	480	60.1	24	(2) 50W	2400	65°	58ft.	15ft.	F	60.5
KB2460-3-B2	22114	60	204.8	3	240/208	144.3/125	240	(2) 1/4HP	2700	70°	65ft.	18ft.	G	60.5
KB4860-3-B2	22115	60	204.8	3	480	79.5	24	(2) 1/4HP	2700	70°	65ft.	18ft.	G	60.5

6" minimum clearance to walls and ceilings.

Over 5KW line voltage control is operating the contactor coil only, and will draw under 1 AMP.

\*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.

## Field Mount Accessories

MODEL	UPC	DESCRIPTION	WT. (lbs.)
KBB-1	15192	Universal Wall/Ceiling Small Mounting Bracket (for heaters with size A heaters)	3
KBB-2	15195	Universal Wall/Ceiling Large Mounting Bracket (for heaters with size B, C, D and E) (Use 2 brackets for size F & G)	4
KBB-4	15351	Rough Service or Low Profile Mounting Bracket for any heater (2 each required for size F and G)*	4
KBT	15189	Capillary Bulb-Style Thermostat Kit (single pole single throw) 25 Amp	.5
KBT-2	18209	Capillary Bulb-Style Thermostat Kit (double pole single throw) 25 Amp	.5

# Heavy Duty Unit Heater KB Series

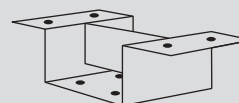
## Bracket Selection Chart

BRACKET #	HEATER KW SIZE USED WITH	BRACKET DIMENSIONS												
		L	W	H	A	B	C	D	E	F	G	X	Y	Z
KBB-1	3 to 7.5 kW (1 phase)	12½"	3"	10"	1¼"	7¼"	1½"	1¾"	5½"	4"	1¼"	½"	1"	2"
KBB-2	10 to 15 kW (1 phase) 3 to 30 kW (3 phase)	17"	3"	10"	1¼"	7¼"	1½"	2"	8½"	5¼"	1¼"	½"	1"	2"

## Factory Options

ADD SUFFIX:	DESCRIPTION
-T	1-Pole Unit Mounted Thermostat (temperature range 40°F - 100°F)
-T2	2-Pole Unit Mounted Thermostat (temperature range 40°F - 100°F) 6kW and higher
-TP	Tamperproof Thermostat with Slotted Shaft
-B1	Mounting Bracket KBB-1 (included with heater size A and C)
-B2	Mounting Bracket KBB-2 (included with heater size B, D and E)
-SF	Summer Fan Switch
-SFR	Control Relay and 24V Transformer for Remote Summer Fan Operation
-3PS	3-Position Switch (Heat / Fan / Off)
-PL	Pilot Light (power ON indication)
-CX	Power Contactor for 3 kW - 5kW 1-Phase Models (Line Voltage Coil)
-CT24	Transformer that Converts 208, 240 and 277 Volts to 24 Volt Control Circuit (add power contactor (-CX) for 3 kW - 5kW 1-Phase models)
-CT120	Same as (-CT24) except 120 Volt Control Components (add power contactor (-CX) for 3kW - 5kW 1-Phase models)
-DS40	40 Amp, 3-Pole Disconnect Switch w/ Padlock Provision
-DS60	60 Amp, 3-Pole Disconnect Switch w/ Padlock Provision
-DS80	80 Amp, 3-Pole Disconnect Switch w/ Padlock Provision
-DS100	100 Amp, 3-Pole Disconnect Switch w/ Door Interlock and Padlock Provision
-2S1	2-Stage Control for Single Phase Models Only. No 3 Phase Models
-5MT	5 Mounting Weld Nuts Provided on Heater for Rough Service Use (includes KBB-4 5 hole bracket)
-5MT2	Rough Service Mounting Holes (4 each) fabricated into top of each heater to accept KBB-4 Mounting Brackets (2 each KBB-4 included)

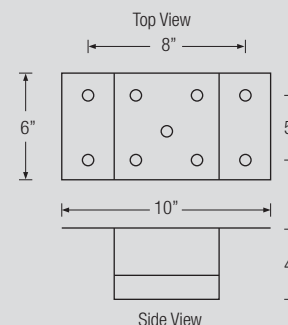
## Rough Service / Low Profile • KBB-4 Mounting Bracket



This bracket is manufactured in a Low Profile design with 5 mounting holes. *When using this bracket for Low Ceiling Profile installation use center hole only.*

Option **(-5MT)** is for *rough service support*. Request this option at the time of order placement. The heater will have four mounting holes fabricated into the top.

Attach bracket using the four outside mounting holes to provide a rigid mount. The price of option **(-5MT)** includes the KBB-4 bracket. This is ideal for use on ships, containers or any application where the heater will experience vibration.



## Upgrade to ECO2S 2-Stage Controller with IR Remote Control



### ECO2S Electronic Controller Features:

- Electronic control for accuracy
- Energy-saving automatic 2-stage heating
- Large LED display
- Remote control and wall bracket included
- Thermostat timer mode (1-9 Hours)
- Fan only mode
- Built-In fan delay



The ECO2S KB controller adds unparalleled performance, energy efficiency and user control by incorporating another King innovation, the in-built ECO2S electronic thermostat with remote control. Offering energy efficient 2-stage heating, with Eco mode that automatically uses the lowest wattage needed to heat the room, integrated fan only and timer modes, as well as a remote control for simple operation. Note: All 1-phase ECO2S models use a size C heater case.

### Factory Installed Options

ADD SUFFIX	UPC	DESCRIPTION
KB1-ECO*	22078	Electronic controller for 1-phase heater
KB3-ECO*	22079	Electronic controller for 3-phase heater

\*Includes heating thermostat with 2 stage control, timer, fan delay, cooling thermostat with summer fan, and IR remote



# Stainless Steel Unit Heater KBS Series



### Model Code:

KBS	48	10	-1
A	B	C	D
A: Series			
B: 20 - 208V, 24 - 240V			
27 - 277V, 48 - 480V			
C: KiloWatts			
D: -1 Phase, -3 Phase			



- 18 gauge stainless steel case
- Adjustable discharge louvers
- Auto-reset limit
- Long life unit bearing motor
- Padlock disconnect
- Heat-Fan-Off switch
- Spiral finned element
- Totally enclosed motor
- Pilot light
- Aluminum fan blade
- N.E.M.A. 4 enclosure
- 2-year limited warranty

## The KBS Stainless Steel Unit Heater

**KBS unit heaters are specially constructed** for heating of, and freeze protection in, dirty, dusty or corrosive areas requiring periodic washing or hose-down. Typical places of use are: waste water treatment plants, car/truck washes, cement plants, steel mills or such, canneries and dairy facilities, ship and marine docks, fish processors and load banks for generators. The heater is constructed from 18-gauge type 304 Stainless Steel and elements making it extremely corrosion resistant. The N.E.M.A. 4 wiring compartment is sealed and gasketed making it water tight. All optional control components are U.L. listed for use in N.E.M.A. 4 enclosures.

### Factory Installed Options

**Fan Delay:** Standard above 11kW

**Power Contactor:** (when not standard)

**24 Volt Control:** (when not standard)

**120 Volt Control:** Control components modified to accept external 120V control.

**Mounting:** Universal mounting

bracket made from Stainless Steel included.

Low profile rough service bracket available.

**Rough Service:** 5 weld nuts provided

to securely mount heater in heavy industrial applications or marine vessels where vibration and movement is a concern.

### NEMA 4 Control Options:

- SPST or DPDT thermostat
- Two stage thermostat (single phase only)
- Summer fan switch
- 3-position switch (Heat-Fan-Off)
- Pilot light (power on indicator)
- Padlock disconnect

## Engineering Specifications

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

**Stainless Steel Construction:** All exterior and interior metal enclosure parts are made from 18 gauge type 304 Stainless Steel. All fasteners and hardware are Stainless Steel.

**Adjustable Outlet Louver:** Stainless Steel louvers direct air up or down as needed for the heating application.

**Rear Intake Screen:** Heavy gauge Stainless Steel screen protects against foreign objects making accidental contact with the rotating fan blade.

**N.E.M.A. 4 Enclosure:** Every electrical component in the wiring compartment is sealed with a polyurethane adhesive. The bottom access panel is sealed with a ¼" high density polyurethane gasket. This provides excellent protection against corrosion, windblown dust, dirt, and rain, splashing water and hose-directed water. All optional control accessories are N.E.M.A. 4 rated.

**Stainless Steel Spiral Fin Elements:** The metal sheath element is brazed with spiral fins then molded in to a coil configuration. This combination produces the best heat transfer while eliminating the potential for hot spots by positioning the element in the maximum air flow stream. Stainless steel increases element life in extremely corrosive environments such as waste water treatment plants.

**Totally Enclosed Fan Motor:** Permanently lubricated, long life unit bearing coated motor with enclosed rotor resists moisture and corrosion for long-lasting, trouble-free operation.

**Aluminum Fan Blade:** Axial flow-type mounted directly to the motor shaft for maximum efficiency.

**Auto-Reset Thermal Cutout:** Power is disconnected from the heater if an overheated condition occurs. The heater is re-energized automatically when the normal operating temperature returns.

**Internal Controls:** Magnetic contactors are standard on all 480V heaters, all 208V/1-Phase, 240V/1-Phase, 277V/1-Phase heaters above 5kW, and all 3-Phase heaters. The control voltage is equal to the line voltage (208, 240 or 277) except for 480V models where a transformer is provided for 24V control. Over 5kW the line voltage control is operating the contactor coil only and will draw only 1 Amp.

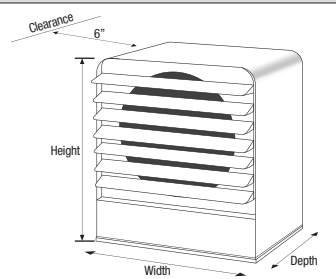
**Fusing:** Internal circuit fusing is provided when the heater ampacity exceeds 48 Amps to comply with UL standards. A fan delay is provided standard on models 12.5-kW and above to dissipate residual heat from the heating elements.

**Optional Coated Fan Blade:** Extra corrosion protection.

**Approvals:** cULus

### \*Dimensions

SIZE	HEIGHT	DEPTH	WIDTH
A	16.5"	11"	15"
B	16.5"	18"	15"
C	18.5"	11"	15"
D	18.5"	18"	15"
E	20.5"	18"	15"



### Accessories

MODEL	DESCRIPTION	UPC#	WT. (lbs)
KBB-1-SS	Mounting Bracket - Small	15254	3
KBB-2-SS	Mounting Bracket - Large	15256	4
KBB-4-SS	Mounting Bracket - low profile 5 hole	15257	4
TF115	Single Pole Wall Mount Thermostat	19150	1
	N.E.M.A. 4X - 25A SPDT		

# Stainless Steel Unit Heater KBS Series

## Ordering Information

MODEL	UPC	KW	BTUH	PHASE	VOLTS	AMPS	**THERM. CONTROL VOLTAGE	MOTOR HP	CFM	TEMP. RISE	AIR THROW	MAX. MOUNT HEIGHT	*SIZE	WT. (lbs.)
KBS2003-1-B1	22118	3	10.2	1	208	14.4	208	5W	400	37°	15ft.	8ft.	A	30.5
KBS2403-1-B1	22217	3	10.2	1	240	12.5	240	5W	400	37°	15ft.	8ft.	A	30.5
KBS2703-1-B1	22218	3	10.2	1	277	10.8	277	5W	400	37°	15ft.	8ft.	A	30.5
KBS2005-1-B1	22124	5	17	1	208	24	208	9W	400	40°	16ft.	8ft.	A	30.5
KBS2405-1-B1	20847	5	17	1	240/208	20.8/18	240	9W	400	40°	16ft.	8ft.	A	30.5
KBS2705-1-B1	22127	5	17	1	277	18.1	277	9W	400	40°	16ft.	8ft.	A	30.5
KBS4805-1-B1	22128	5	17	1	480	10.4	24	9W	400	40°	16ft.	8ft.	A	30.5
KBS2007-1-B1	22133	7.5	25.6	1	208	36.1	208	16W	600	40°	20ft.	9ft.	C	45.0
KBS2407-1-B1	22137	7.5	25.6	1	240/208	31.2/27	240	16W	600	40°	20ft.	9ft.	C	45.0
KBS2707-1-B1	22219	7.5	25.6	1	277	27	277	16W	600	40°	20ft.	9ft.	C	45.0
KBS4807-1-B1	22142	7.5	25.6	1	480	15.6	24	16W	600	40°	20ft.	9ft.	C	45.0
KBS2010-1-B2	22147	10	34.1	1	208	48.1	208	25W	725	44°	24ft.	10ft.	C	45.0
KBS2410-1-B2	22151	10	34.1	1	240/208	41.6/36.1	240	25W	725	44°	24ft.	10ft.	C	45.0
KBS2710-1-B2	22154	10	34.1	1	277	36.1	277	25W	725	44°	24ft.	10ft.	C	45.0
KBS4810-1-B2	22155	10	34.1	1	480	20.8	24	25W	725	44°	24ft.	10ft.	C	45.0
KBS2012-1-B2	22159	12.5	42.7	1	208	60.1	208	35W	825	48°	30ft.	11ft.	C	45.0
KBS2412-1-B2	22163	12.5	42.7	1	240/208	52/45.1	240	35W	825	48°	30ft.	11ft.	C	45.0
KBS2020-3-B2	22173	20	68.3	3	208	55.5	208	50W	1100	57°	47ft.	13ft.	D	47.5
KBS2420-3-B2	20849	20	68.3	3	240/208	48.1/41.6	240	50W	1100	57°	47ft.	13ft.	D	47.5
KBS4820-3-B2	20852	20	68.3	3	480	24	24	50W	1100	57°	47ft.	13ft.	D	47.5
KBS2025-3-B2	22220	24	85.3	3	208	69.4	208	1/4HP / 50W	1350	58°	41ft.	14ft.	E	60.5
KBS2425-3-B2	22179	24	85.3	3	240/208	60.1/52.1	240	1/4HP / 50W	1350	58°	41ft.	14ft.	D	60.5
KBS4825-3-B2	22221	24	85.3	3	480	30.1	24	1/4HP / 50W	1350	58°	41ft.	14ft.	D	60.5
KBS2030-3-B2	22181	30	102.4	3	208	83.3	208	1/4HP	1800	53°	48ft.	15ft.	E	60.5
KBS2430-3-B2	22183	30	102.4	3	240/208	72.1/62.5	240	1/4HP	1800	53°	48ft.	15ft.	E	60.5
KBS4830-3-B2	22185	30	102.4	3	480	24	24	1/4HP	1800	53°	48ft.	15ft.	E	60.5
KBS2003-3MP-B2	22119	3	10.2	1-3	208	14.4/8.3	208	5W	400	37°	14ft.	8ft.	B	45.0
KBS2403-3MP-B2	22222	3	10.2	1-3	240/208	12.5/7.2	240	5W	400	37°	14ft.	8ft.	B	45.0
KBS4803-3MP-B2	22120	3	10.2	1-3	480	6.3	24	5W	400	37°	14ft.	8ft.	B	45.0
KBS2005-3MP-B2	22126	5	17.1	1-3	208	24 & 13.9	208	9W	400	40°	16ft.	8ft.	B	45.0
KBS2405-3MP-B2	22223	5	17.1	1-3	240/208	20.8/18 & 18/15.6	240	9W	400	40°	16ft.	8ft.	B	45.0
KBS4805-3MP-B2	20850	5	17.1	1-3	480	10.4 & 6	24	9W	400	40°	16ft.	8ft.	B	45.0
KBS2007-3MP-B2	22135	7.5	25.6	1-3	208	36.1 & 20.8	208	16W	600	40°	20ft.	9ft.	B	46.5
KBS2407-3MP-B2	22139	7.5	25.6	1-3	240/208	31.2/27 & 18/15.6	240	16W	600	40°	20ft.	9ft.	B	46.5
KBS4807-3MP-B2	20717	7.5	25.6	1-3	480	15.6 & 24	24	16W	600	40°	20ft.	9ft.	B	46.5
KBS2010-3MP-B2	22149	10	34.1	1-3	208	27.7	208	25W	725	44°	24ft.	10ft.	B	46.5
KBS2410-3MP-B2	20848	10	34.1	1-3	240/208	41.6/36.1 & 24/20.8	240	25W	725	44°	24ft.	10ft.	B	46.5
KBS4810-3MP-B2	20851	10	34.1	1-3	480	20.8 & 12	24	25W	725	44°	24ft.	10ft.	B	46.5
KBS2012-3MP-B2	22161	12.5	42.7	1-3	208	34.6	208	35W	825	48°	30ft.	11ft.	B	46.5
KBS2412-3MP-B2	22164	12.5	42.7	1-3	240/208	30/26	240	35W	825	48°	30ft.	11ft.	B	46.5
KBS4812-3MP-B2	22166	12.5	42.7	1-3	480	26 & 15	24	35W	825	48°	30ft.	11ft.	B	46.5
KBS2015-3MP-B2	22169	15	51.2	1-3	208	41.6	208	35W	925	51°	33ft.	12ft.	B	46.5
KBS2415-3MP-B2	22171	15	51.2	1-3	240/208	36/31.2	240	35W	925	51°	33ft.	12ft.	B	46.5
KBS4815-3MP-B2	22224	15	51.2	1-3	480	18	24	35W	925	51°	33ft.	12ft.	B	46.5
KBS4820-3MP-B2	20852	20	68.3	1-3	480	41.6/24.1	24	50W	1100	57°	37 ft.	12ft.	B	48.0

### Options

SUFFIX	DESCRIPTION
-T	1-Pole Unit Mounted Thermostat (temperature range 40°F - 100°F)
-2TS	2-Stage Thermostat (Single Phase models only)
-B1	Mounting Bracket KBB-1 (included with heater size A and C)
-B2	Mounting Bracket KBB-2 (included with heater size B, D and E)
-SF	Summer Fan Switch
-SFR	Control Relay and 24V Transformer for Remote Summer Fan Operation
-3PS	3-Position Switch (Heat / Fan / Off)
-PL	Pilot Light (power ON indication)

### Options

SUFFIX	DESCRIPTION
-CX	Power Contactor for 3 kW - 5kW 1-Phase Models (Line Voltage Coil)
-CT24	Transformer that Converts 208, 240 and 277 Volts to 24 Volt Control Circuit (add power contactor (-CX) for 3 kW-5kW 1-Phase models)
-DS40	40 Amp, 3-Pole Disconnect Switch w/ Padlock Provision
-DS60	60 Amp, 3-Pole Disconnect Switch w/ Padlock Provision
-DS80	80 Amp, 3-Pole Disconnect Switch w/ Padlock Provision
-5MT	5 Mounting Weld Nuts Provided on Heater for Rough Service Use (includes KBB-4 5 hole bracket)

# High Air Velocity Unit Heater KFUH Series



### Model Code:

KFUH	48	10	-3
A	B	C	D

A: Series

B: 20 - 208V 24 - 240V  
48 - 480V

C: Kilowatts

D: 1 or 3-phase



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

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



- 5-year limited warranty

## 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:** 208 and 240 volt unit heaters are equipped with circuit breakers to provide internal circuit protection when heater exceeds 48 amps. 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.

## 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:** 208 and 240 volt KFUH models have 60 amp circuit breakers with single strike terminal block. 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)

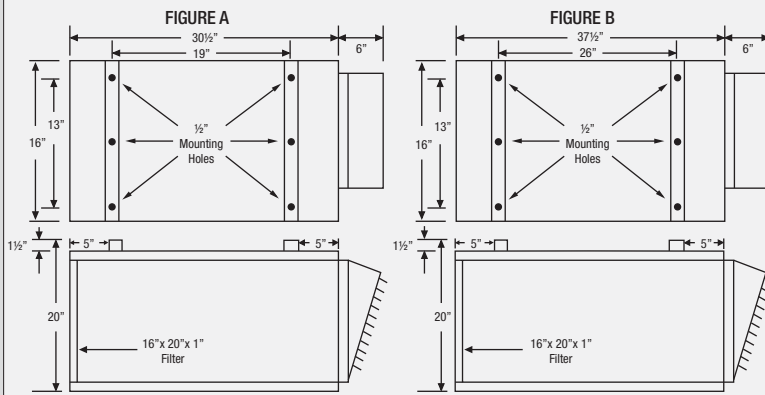
# High Air Velocity Unit Heater KFUH Series

## Ordering Information

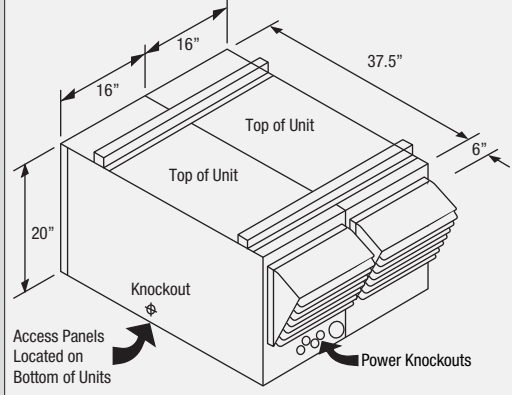
MODEL	VOLTS	kilo watts	BTUH	AMPS	# of ELEMENTS	MOTOR HP	TEMPERATURE RISE (° F)			SIZE	WT. (lbs)
							LOW	MED	HIGH		
KFUH2003-1	208	3	10.2	14.4	1	1/5	12°	11°	9°	Fig. A	57
KFUH2404-1	240	4	13.6	16.7	1	1/5	16°	15°	13°	Fig. A	57
KFUH2005-1	208	5	17.1	24	1	1/5	20°	18°	16°	Fig. A	57
KFUH2405-1	240	5	17.1	20.8	1	1/5	20°	18°	16°	Fig. A	57
KFUH4805-1	480	5	17.1	10.4	1	1/5	20°	18°	16°	Fig. A	57
KFUH2006-1	208	6	20.5	25	2	1/5	24°	22°	19°	Fig. A	57
KFUH2408-1	240	8	26.9	33.3	2	1/5	33°	29°	25°	Fig. A	65
KFUH2010-1	208	10	34.1	48	2	1/5	41°	37°	32°	Fig. A	65
KFUH2410-1	240	10	34.1	41.7	2	1/5	41°	37°	32°	Fig. A	65
KFUH4810-1	480	10	34.1	20.8	2	1/5	41°	37°	32°	Fig. A	65
KFUH2412-1	240	11.5	39.2	47.9	2	1/5	47°	42°	36°	Fig. A	65
KFUH4812-1	480	11.5	39.2	23.9	2	1/5	47°	42°	36°	Fig. A	65
KFUH2015-1	208	15	51.2	72.1	3	1/5	61°	55°	47°	Fig. A	74
KFUH2415-1	240	15	51.2	62.5	3	1/5	61°	55°	47°	Fig. A	74
KFUH4815-1	480	15	51.2	31.2	3	1/5	61°	55°	47°	Fig. A	74
KFUH2418-1	240	17.25	58.8	82.9	3	1/5	70°	63°	55°	Fig. A	74
KFUH4818-1	480	17.25	58.8	35.9	3	1/5	70°	63°	55°	Fig. A	74
KFUH2020-1	208	20	68.3	96.2	4	1/3	57°	51°	41°	Fig. B	76
KFUH2420-1	240	20	68.3	83.3	4	1/3	57°	51°	41°	Fig. B	76
KFUH4820-1	480	20	68.3	41.7	4	1/3	57°	51°	41°	Fig. B	76
KFUH2025-1	208	25	85.3	120.2	5	1/3	72°	63°	51°	Fig. B	81
KFUH2425-1	240	25	85.3	104.2	5	1/3	72°	63°	51°	Fig. B	81
KFUH4825-1	480	25	85.3	52.1	5	1/3	72°	63°	51°	Fig. B	81
KFUH2030-1	208	30	102.4	144.2	6	1/3	86°	76°	62°	Fig. B	85
KFUH2430-1	240	30	102.4	125	6	1/3	86°	76°	62°	Fig. B	85
KFUH4830-1	480	30	102.4	62.5	6	1/3	86°	76°	62°	Fig. B	85
KFUH2435-1	240	34.5	117.7	143.7	6	1/3	99°	87°	71°	Fig. B	85
KFUH4835-1	480	34.5	117.7	71.8	6	1/3	99°	87°	71°	Fig. B	85

MODEL	VOLTS	kilo watts	BTUH	AMPS	# of ELEMENTS	MOTOR HP	TEMPERATURE RISE (° F)			SIZE	WT. (lbs)
							LOW	MED	HIGH		
KFUH2405-3	240	5	17.1	13	3	1/5	30°	25°	20°	Fig. A	74
KFUH4805-3	480	5	17.1	7	3	1/5	30°	25°	20°	Fig. A	74
KFUH2009-3	208	9	30.7	21.6	3	1/5	37°	33°	28°	Fig. A	74
KFUH2410-3	240	10	34.1	24.1	3	1/5	41°	37°	32°	Fig. A	74
KFUH4810-3	480	10	34.1	12	3	1/5	41°	37°	32°	Fig. A	74
KFUH2012-3	208	11.25	38.4	31.2	3	1/5	46°	41°	35°	Fig. A	74
KFUH2412-3	240	12	40.9	28.9	3	1/5	49°	44°	38°	Fig. A	74
KFUH4812-3	480	12	40.9	14.4	3	1/5	49°	44°	38°	Fig. A	74
KFUH2015-3	208	15	51.2	41.6	3	1/5	61°	55°	47°	Fig. A	74
KFUH2415-3	240	15	51.2	36.1	3	1/5	61°	55°	47°	Fig. A	74
KFUH4815-3	480	15	51.2	18.1	3	1/5	61°	55°	47°	Fig. A	74
KFUH2418-3	240	17.25	58.8	43.3	3	1/5	70°	63°	55°	Fig. A	74
KFUH4818-3	480	17.25	58.8	20.7	3	1/5	70°	63°	55°	Fig. A	74
KFUH2420-3	240	20	68.3	48	4	1/5	57°	51°	41°	Fig. B	85
KFUH4820-3	480	20	68.3	24	4	1/5	57°	51°	41°	Fig. B	85
KFUH2022-3	208	22.5	76.8	62.5	6	1/3	64°	56°	46°	Fig. B	85
KFUH2424-3	240	24	81.6	57.7	6	1/3	69°	61°	49°	Fig. B	85
KFUH4824-3	480	24	81.6	28.8	6	1/3	69°	61°	49°	Fig. B	85
KFUH2030-3	208	30	102.4	83.3	6	1/3	86°	76°	62°	Fig. B	85
KFUH2430-3	240	30	102.4	72.2	6	1/3	86°	76°	62°	Fig. B	85
KFUH4830-3	480	30	102.4	36.1	6	1/3	86°	76°	62°	Fig. B	85
KFUH2435-3	240	34.5	117.7	82.9	6	1/3	99°	87°	71°	Fig. B	85
KFUH4835-3	480	34.5	117.7	41.5	6	1/3	99°	87°	71°	Fig. B	85

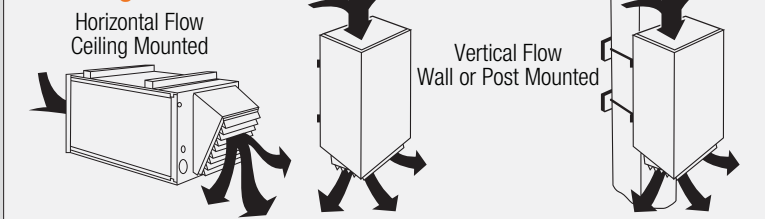
### Dimensional Data



### Dual Mounting



### Mounting



### Diffusers



### Options

ADD SUFFIX:	DESCRIPTION
-2S1	2 Stage Control 1-Phase models
-2S3	2 Stage Control 3-Phase models (5 kW increments only)
-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 <sup>3</sup>	3.4	775	570	860	630	1000 <sup>1</sup>	735
	380 / 460 <sup>1</sup>	1.7						
1/3	230 <sup>3</sup>	3.2	1100 <sup>2</sup>	810	1250	920	1540 <sup>2</sup>	1130
	380 / 460 <sup>2</sup>	1.7						
1/2	230 <sup>3</sup>	3.8	1250	920	1540	1130	1750 <sup>3</sup>	1285
	380 / 460 <sup>1</sup>	1.9						
Motor Wire Color			RED	BLUE	BLACK			

\*Air Volume=Ft.<sup>3</sup> Per Minute (CFM) \*Air Velocity=Ft. Per Minute (FPM)

<sup>1</sup>Single speed (high), <sup>2</sup>Two speed (High/Low), <sup>3</sup>Three speed (Low/Med/High)

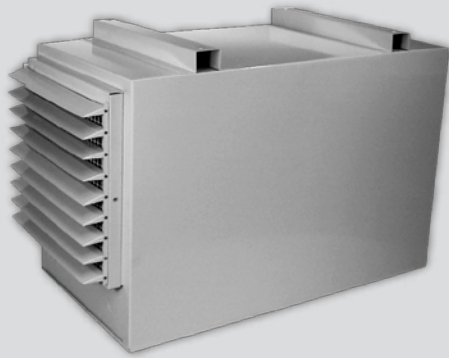
### KFUH DIFFUSER OPTIONS

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

### 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-1/2HP	NA	Upgrade to 1/2 HP Motor & Blower for 20-35KW units	N/A
KFUH-ECM	NA	Upgrade to ECM Motor 1/3 HP	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

# Plenum Rated Unit Heater CK Series



## Model Code:

CK	48	10	-3
A	B	C	D

### A: Series

B: 20 - 208V 24 - 240V

48 - 480V

C: Kilowatts

D: 1 or 3-phase



- Spiral Finned Element
- Dual Inlet Blower
- Totally Enclosed motor
- N.E.M.A. 12 construction
- Adjustable louver hood
- Available in 208, 240 & 480 volt
- 18GA steel enclosure
- 24V Control
- Horizontal/Vertical Mount
- Can be ducted
- Fan only relay
- 3-year limited warranty



## Concealed Space Use - Zero Clearance

The CK model is a special application heater approved for use in concealed areas of buildings such as an area between a finished ceiling and drop ceiling, in an open plenum or in a ducted system. It is specifically designed for high-rise and office buildings, factories, auto body shops, food processing plants, plating shops, and machine shops. It is engineered to withstand dirty, dusty, moist or even mildly corrosive environments, and rated for zero clearance mounting against any surface.

**Not intended for use where flammable vapors, gases, liquids or other combustibles are, or may be present.**

### Factory Installed Options

**Thermostat:** A N.E.M.A. 4X thermostat.

**120 Volt Control:** Control components modified to accept 120V control. A circuit outboard supply is customer provided.

**Element Step Control:** 2-Stage control. For improved energy management additional steps can be added (refer to table).

**Disconnect Switch:** Available with a 3-Pole non-fused disconnect with a padlock provision.

**Motor HP Upgrades:** Standard models are listed with motors that will provide sufficient CFM for the kW they are designed for. Where additional CFM is required a larger motor and blower can be provided.

**No Diffuser:** Used when heater will be connected to ductwork or use an alternate diffuser.

**Remote Fuse Panel:** Available when heater is mounted in an inaccessible area allowing fuses to be located in an electrical closet where they can be easily serviced.

### Engineering Specifications

*Contractor shall supply and install CK Series plenum heaters manufactured by King Electrical Mfg. Company.*

*Heaters shall be of the wattage and voltage as indicated on the plans.*

**Construction:** The heater case is fabricated from high tensile 18 gauge electrogalvanized steel that is welded together forming a durable unibody cabinet. Heater is finished with a rust inhibiting epoxy coating.

**Adjustable Outlet Louver:** Louvers direct air up or down as needed for the heating application.

**Intake and Discharge Screen:** Heavy gauge steel screen protects against foreign objects entering the heater. A 1" x 16" x 20" filter is provided to prevent dirt and dust build up in the heater.

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

**N.E.M.A. 12 Wiring Compartment:** The wiring compartment is sealed with a 1/4" high density polyurethane gasket. This provides excellent protection against moisture, dust and dirt from invading the electrical components and wiring. All optional control accessories are N.E.M.A. 12 rated.

**Spiral Fin Elements:** The metal sheath element is brazed with spiral fins and then formed into a coil configuration. This combination produces the best heat transfer while eliminating the potential for hot spots by positioning the element in the maximum airflow stream.

**Blower & Motor:** Totally enclosed outdoor ball bearing fan motor. Permanently lubricated, class B insulation, auto-protected, permanent split capacitor and 60°C ambient. Large capacity dual-inlet blower handles high static pressure and moves large air volume.

Motor leads are enclosed in a sealtite raceway to prolong equipment life and reduce maintenance.

**Air Intake Temperature Control:** A built-in thermostat located at the intake blower is factory set at 100°F which prevents the heater from operating when the ambient temperature exceeds this limit. This will prevent the heater from wasting energy and is an extra measure of safety.

**Auto-Reset Thermal Cutout:** Power is disconnected from the element if an overheated condition occurs. The fan continues to run to dissipate excess heat from the element. The element is re-energized automatically when the normal operating temperature returns.

**Internal Controls:** Magnetic contactors are standard on all units. A transformer is provided for 24 Volt control. This enables the customer to use a standard low voltage thermostat. Subcircuit fusing is provided when the heater ampacity exceeds 48 Amps to comply with UL standards. A fan delay is provided standard on models above 11kW to dissipate residual heat from the heating elements.

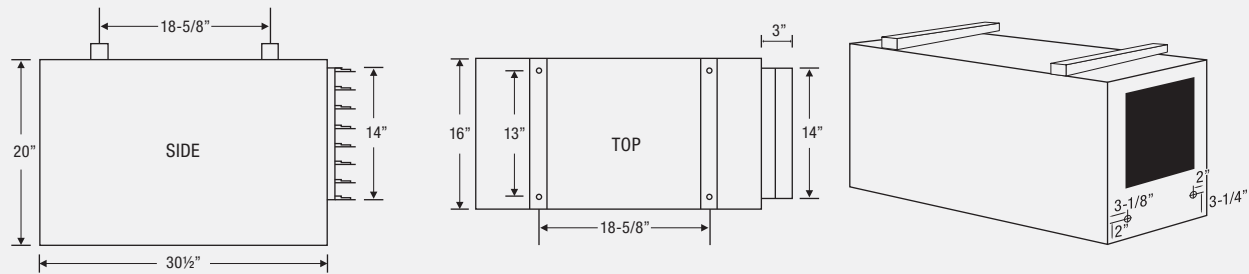
**Easy Wiring:** A large wiring compartment with easy access allows for quick installation.

**Mounting:** CK heater comes with two brackets welded on top to be hung from the ceiling or beam using threaded rod.

**Approvals:** ETL

# Plenum Rated Unit Heater CK Series

## Dimensional Data



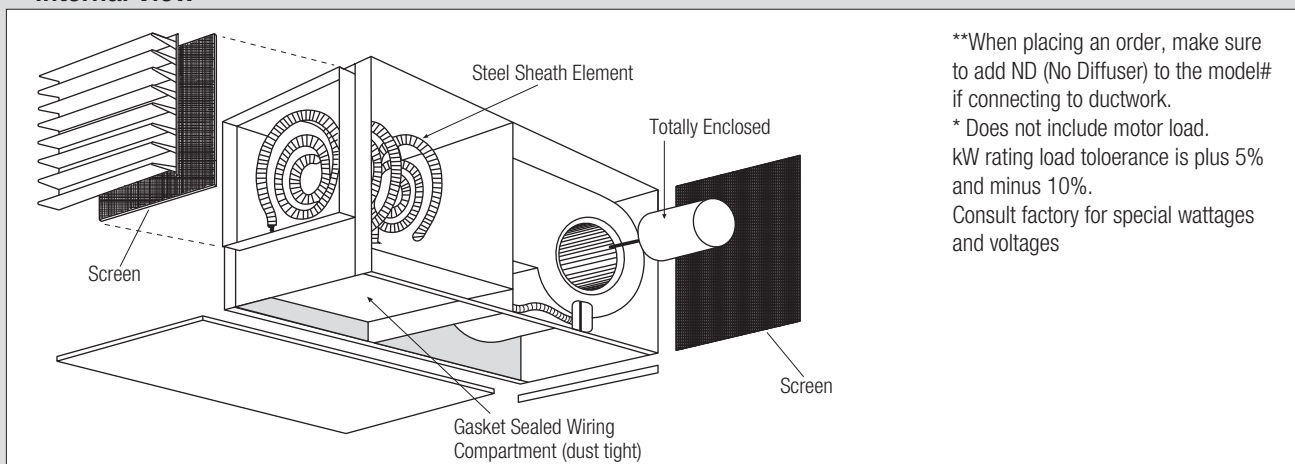
## Ordering Information

\*Suffix -1 = single phase & Suffix -3 = 3 phase

	MODEL	KILOWATTS	BTUH(000)	VOLTS	AMPS	MOTOR HP	CFM	TEMP. RISE °F	WEIGHT lbs
<b>208V</b>	CK2003-1	3.3	10	208	14.4	N/A	600	17.4°	75
	CK2005-1	5	17	208	24	N/A	600	26.3°	75
	CK2007-1	7.5	23.9	208	33.6	1/4	1000	23.7°	80
	CK2010-1	10	34.1	208	48.1	1/4	1000	31.6°	80
	CK2012-1	12.5	41	208	57.7	1/4	1000	39.5°	85
	CK2015-1	15	51.2	208	72.1	1/4	1000	47.4°	85
	CK2003-3	3	10	208	8.3	N/A	600	17.4°	90
	CK2005-3	5	17.1	208	13.8	N/A	600	26.3°	90
	CK2007-3	7.5	23.9	208	19.5	1/4	1000	23.7°	90
	CK2010-3	10	34.1	208	27.8	1/4	1000	31.6°	90
	CK2012-3	12.5	41	208	33.3	1/4	1000	39.5°	90
	CK2015-3	15	51.2	208	41.6	1/4	1000	47.4°	90
	CK2020-3	20	68.3	208	55.5	1/2	1250	50.6°	95
	CK2025-3	25	85.3	208	69.4	1/2	1250	63.2°	95
	CK2030-3	30	102.4	208	83.3	1/2	1500	63.2°	100
<b>240V</b>	CK2403-1	3.3	10	240	12.5	N/A	600	17.4°	75
	CK2405-1	5	17	240	20.8	N/A	600	26.3°	75
	CK2407-1	7.5	23.9	240	29.2	1/4	1000	23.7°	80
	CK2410-1	10	34.1	240	41.7	1/4	1000	31.6°	80
	CK2412-1	12.5	41	240	50	1/4	1000	39.5°	85
	CK2415-1	15	51.2	240	62.5	1/4	1000	47.4°	85
	CK2403-3	3	10	240	7.2	N/A	600	17.4°	90
	CK2405-3	5	17.1	240	12.1	N/A	600	26.3°	90
	CK2407-3	7.5	23.9	240	16.9	1/4	1000	23.7°	90
	CK2410-3	10	34.1	240	24.1	1/4	1000	31.6°	90
	CK2412-3	12.5	41	240	28.9	1/4	1000	39.5°	90
	CK2415-3	15	51.2	240	36.1	1/4	1000	47.4°	90
	CK2420-3	20	68.3	240	48.1	1/2	1250	50.6°	95
	CK2425-3	25	85.3	240	60.1	1/2	1250	63.2°	95
	CK2430-3	30	102.4	240	72.2	1/2	1500	63.2°	100
CK2433-3	33	112.6	240	79.5	1/2	1500	84.3°	120	
<b>480V</b>	CK4805-1	5	17	480	10.4	1/4	1000	15.8°	75
	CK4807-1	7.5	23.9	480	14.6	1/4	1000	23.7°	80
	CK4810-1	10	34.1	480	20.8	1/4	1000	31.6°	80
	CK4812-1	12.5	41	480	25	1/4	1000	39.5°	85
	CK4815-1	15	51.2	480	31.1	1/4	1000	47.4°	85
	CK4805-3	5	17.1	480	6	1/4	1000	15.8°	90
	CK4807-3	7.5	23.9	480	8.4	1/4	1000	23.7°	90
	CK4810-3	10	34.1	480	12	1/4	1000	31.6°	90
	CK4812-3	12.5	41	480	14.5	1/4	1000	39.5°	90
	CK4815-3	15	51.2	480	18	1/4	1000	47.4°	90
	CK4820-3	20	68.3	480	24.1	1/2	1250	50.6°	95
	CK4825-3	25	85.3	480	30.1	1/2	1250	63.2°	95
	CK4830-3	30	102.4	480	36.1	1/2	1500	63.2°	100
	CK4833-3	33	112.6	480	39.7	1/2	1500	84.3°	120

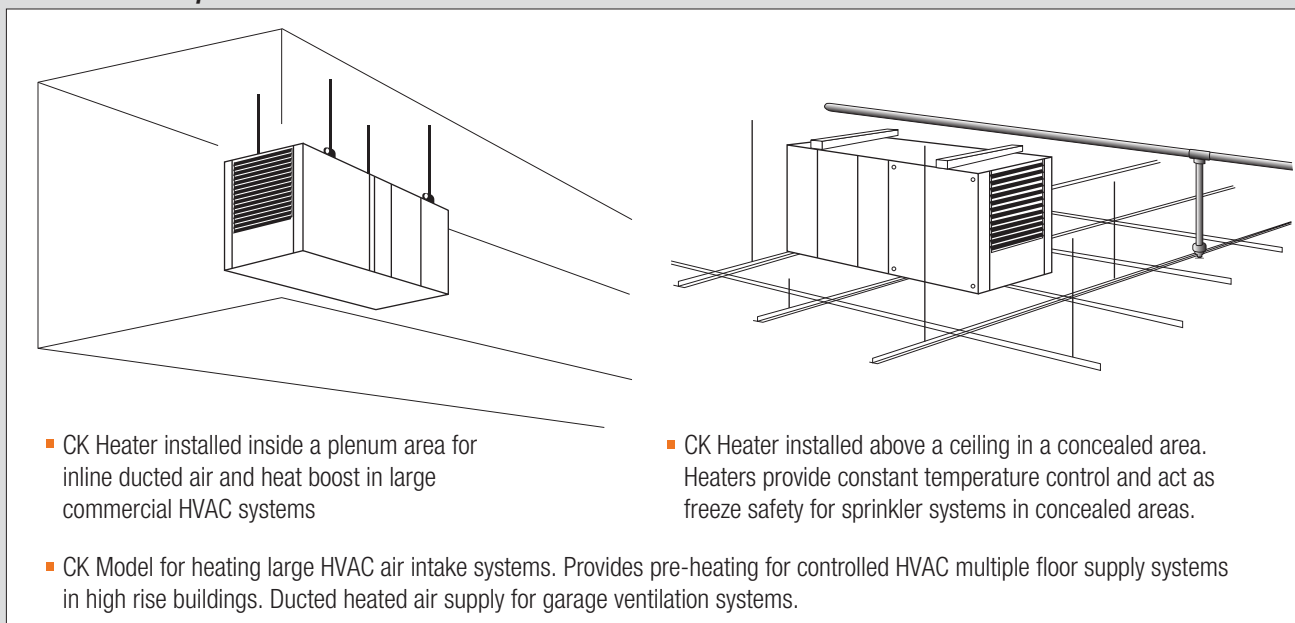
# Plenum Rated Unit Heater CK Series

## Internal View



\*\*When placing an order, make sure to add ND (No Diffuser) to the model# if connecting to ductwork.  
 \* Does not include motor load. kW rating load tolerance is plus 5% and minus 10%.  
 Consult factory for special wattages and voltages

## Installation Options



- CK Heater installed inside a plenum area for inline ducted air and heat boost in large commercial HVAC systems
- CK Model for heating large HVAC air intake systems. Provides pre-heating for controlled HVAC multiple floor supply systems in high rise buildings. Ducted heated air supply for garage ventilation systems.
- CK Heater installed above a ceiling in a concealed area. Heaters provide constant temperature control and act as freeze safety for sprinkler systems in concealed areas.

## Options

ADD SUFFIX	DESCRIPTION
-T	NEMA 4X Single Pole Thermostat
-C120	120V Control
-1/4HP	Substitute 1/4 HP Motor (1000 CFM)
-1/3HP	Substitute 1/3 HP Motor (1250 CFM)
-1/2HP	Substitute 1/2 HP Motor (1500 CFM)
-3/4HP	Substitute 3/4 HP Motor (2000 CFM)
-DS40	40 Amp 3-Pole Lockable Disconnect Switch

ADD SUFFIX	DESCRIPTION
-DS60	60 Amp 3-Pole Lockable Disconnect Switch
-DS80	80 Amp 3-Pole Lockable Disconnect Switch
-DS100	100 Amp 3-Pole Disconnect Switch
-SSR25	Solid State Relays (25 Amp Maximum) with 0-10V SCR
-SSR45	Solid State Relays (45 Amp Maximum)
-C1025	Modulating Thermostat for SSR Control
-220068	Duct Sensor for Modulating Thermostat
-ND	NO DIFFUSER



# Large Plenum Rated Heater CKL Series



## Model Code:

CKL	48	24	3	8	10
A	B	C	D	E	F

A: Series  
 B: 20 - 208V 24 - 240V  
 48 - 480V  
 C: Kilowatts  
 D: 1 or 3-phase  
 E: Stages  
 F: CFM



- Spiral Finned Element
- Dual inlet blower
- Totally enclosed motor
- N.E.M.A. 12 construction
- Filter racks
- 208/240/480 Volt
- Fixed louver hood
- 12GA enclosure
- Element step control
- Can be ducted
- 24V Control
- 3-year limited warranty



## The CKL Series Plenum Heater

**This special application unit heater** is approved for use in concealed areas of buildings. It is specifically designed for highrise and office buildings, factories, auto body shops, food processing plants, plating shops and machine shops. This heater may be installed in inaccessible areas such as between a concrete ceiling and a drop tile ceiling, in a open plenum or ducted system. The heater is designed to withstand a dirty, dusty, moist or mildly corrosive environment. The heater is not intended for use where flammable vapors, gases, liquids or other combustibles are, or may be, present.

### Factory Installed Options

**120 Volt Control:** Control components modified to accept 120V control. A circuit outboard supply is customer provided.

**Element Step Control:** For improved energy management additional steps can be added (refer to table).

**Disconnect Switch:** Available with a 3-Pole non-fused disconnect with door interlocking feature and a padlock provision.

**Motor HP Upgrades:** Standard models are listed with motors that will provide sufficient CFM for the kW they are designed for. Where additional CFM is required a larger motor can be provided. Up to 7.5 HP.

**Remote Fuse Panel:** Available when heater is mounted in an inaccessible area allowing fuses to be located in an electrical closet where they can be easily serviced.

## Engineering Specifications

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

**Construction:** The heater case is fabricated from 12 gauge high tensile electro-galvanized Steel forming a durable unibody cabinet. Heater is finished with a rust inhibiting epoxy coating.

**Air Outlet Louver:** Fixed louvers

**Intake and Discharge Screen:** Heavy gauge Steel screen protects against foreign objects entering the heater. A filter is provided to prevent dirt and dust build-up in the heater.

**Air Filter:** Convenient access for replacement of standard filter. Filter not included.

**N.E.M.A. 12 Wiring Compartment:** The wiring compartment is sealed with a 1/4" high density polyurethane gasket. This provides excellent protection against moisture, dust and dirt from invading the electrical components and wiring. All optional control accessories are N.E.M.A. 12 rated.

**Spiral Fin Elements:** The metal sheath element is brazed with spiral fins then molded in to a coil configuration. This combination produces the best heat transfer while eliminating the potential for hot spots by positioning the element in the maximum airflow stream.

**Blower & Motor:** Totally enclosed outdoor ball bearing fan motor. Permanently lubricated, class B insulation, auto-protected, permanent split capacitor and 60° C ambient. Large capacity dual inlet blower handles high static pressure and moves large air volume.

Motor leads are enclosed in a sealtight raceway to prolong equipment life and reduce maintenance.

**Air Intake Temperature Control:** A built-in thermostat located at the intake blower is factory set at 100°F which prevents the heater from operating when the ambient temperature exceeds this limit. This will prevent the heater from wasting energy and is an extra measure of safety.

**Auto-Reset Thermal Cutout:** Power is disconnected from the heater if an overheated condition occurs. The element is re-energized automatically when the normal operating temperature returns.

**Internal Controls:** Magnetic contactors are standard on all units. A transformer is provided for 24 Volt control. This enables the customer to use a standard low voltage thermostat. Sub circuit fusing is provided when the heater ampacity exceeds 48 Amps to comply with UL standards. A fan delay is provided standard on all models to dissipate residual heat from the heating elements.

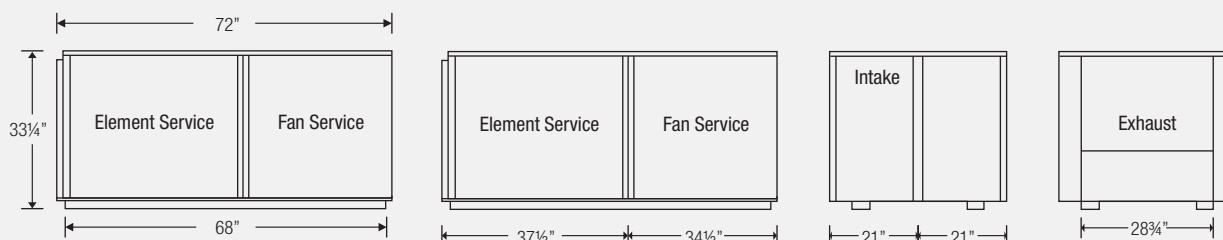
**Easy Wiring:** A large wiring compartment with easy access allows for quick installation.

**Mounting:** The CKL heater comes with frame mounts.

**Approvals:** ETL

# Large Plenum Rated Heater CKL Series

## Dimensional Data Exhaust Opening 30" x 20" Filter Size 20" x 30" x 2"



## Ordering Information

MODEL	PHASE	KILO WATTS	BTUH(000)	VOLTS	AMPS	STAGES	CFM	STATIC PRESSURE	MOTOR HP	MOTOR AMPS	TEMP. RISE °F	WEIGHT lbs
CKL2030-1-3-3	1	30	102.4	208	144.2	3	3000	.25"	2	3.1	31.6°	600
CKL2430-1-3-3	1	30	102.4	240	125	3	3000	.25"	2	3.1	31.6°	600
CKL4830-1-3-3	1	30	102.4	480	62.5	2	3000	.25"	2	3.1	31.6°	600
CKL2040-1-4-3	1	40	136.5	208	192.3	4	3000	.25"	2	3.1	42.1°	650
CKL2440-1-4-3	1	40	136.5	240	166.7	4	3000	.25"	2	3.1	42.1°	650
CKL4840-1-2-3	1	40	136.5	480	83.3	2	3000	.25"	2	3.1	42.1°	650
CKL2060-1-6-3	1	60	204.8	208	288.5	6	3000	.45"	2	3.1	63.2°	650
CKL2460-1-6-3	1	60	204.8	240	250	6	3000	.45"	2	3.1	63.2°	650
CKL4860-1-3-3	1	60	204.8	480	125	3	3000	.45"	2	3.1	63.2°	650
CKL2080-1-8-3.3	1	80	273	208	384.6	8	3000	.5"	2	3.1	76.6°	700
CKL2480-1-8-3.3	1	80	273	240	333.3	8	3000	.5"	2	3.1	76.6°	700
CKL4880-1-4-3.3	1	80	273	480	166.7	4	3000	.5"	2	3.1	76.6°	700
CKL2030-3-2-3	3	30	102.4	208	83.3	2	3000	.25	2	3.1	31.6°	600
CKL2430-3-2-3	3	30	102.4	240	72.2	2	3000	.25	2	3.1	31.6°	600
CKL4830-3-1-3	3	30	102.4	480	36.1	1	3000	.25	2	3.1	31.6°	600
CKL2040-3-3-3	3	40	136.5	208	111	3	3000	.25"	2	3.1	42.1°	650
CKL2440-3-2-3	3	40	136.5	240	96.2	2	3000	.25"	2	3.1	42.1°	650
CKL4840-3-2-3	3	40	136.5	480	48.1	2	3000	.25"	2	3.1	42.1°	650
CKL2060-3-4-3	3	60	204.8	208	166.5	4	3000	.45"	2	3.1	63.2°	650
CKL2460-3-3-3	3	60	204.8	240	144.3	3	3000	.45"	2	3.1	63.2°	650
CKL4860-3-2-3	3	60	204.8	480	72.2	2	3000	.45"	2	3.1	63.2°	650
CKL2080-3-5-3.3	3	80	273	208	222.1	5	3300	.5"	2	3.1	76.6°	700
CKL2480-3-4-3.3	3	80	273	240	192.5	4	3300	.5"	2	3.1	76.6°	700
CKL4880-3-3-3.3	3	80	273	480	96.2	3	3300	.5"	2	3.1	76.6°	700
CKL20100-3-6-4.1	3	100	341.3	208	277.6	6	4100	.6"	3	4.4	77.1°	850
CKL24100-3-5-4.1	3	100	341.3	240	240.6	5	4100	.6"	3	4.4	77.1°	850
CKL48100-3-4-4.1	3	100	341.3	480	120.3	4	4100	.6"	3	4.4	77.1°	850
CKL20120-3-7-5	3	120	409.6	208	333.1	7	5000	.7"	3	4.4	75.8°	850
CKL24120-3-6-5	3	120	409.6	240	288.7	6	5000	.7"	3	4.4	75.8°	850
CKL48120-3-4-5	3	120	409.6	480	144.3	4	5000	.7"	3	4.4	75.8°	850
CKL24140-3-7-5.8	3	140	477.8	240	336.8	7	5800	.75"	3	4.4	76.3°	900
CKL48140-3-5-5.8	3	140	477.8	480	168.4	5	5800	.75"	3	4.4	76.3°	900
CKL24160-3-8-6.6	3	160	546.1	240	384.9	8	6600	.8"	3	4.4	76.6°	950
CKL48160-3-6-6.6	3	160	546.1	480	192.5	6	6600	.8"	3	4.4	76.6°	950
CKL48180-3-6-7.5	3	180	614.3	480	216.5	6	7500	.9"	5	6.9	75.8°	1000
CKL48200-3-7-8.3	3	200	682.6	480	240.6	7	8300	.95"	5	6.9	76.2°	1000
CKL48220-3-8-9.2	3	220	750.9	480	264.6	8	9200	1"	5	6.9	75.5°	1000
CKL48240-3-8-10	3	240	819.1	480	288.7	8	10000	1.2"	5	6.9	75.8°	1000

\*\*When placing an order, make sure to add ND (No Diffuser) to the model# if connecting to ductwork. \* Does not include motor load.  
kW rating load tolerance is plus 5% and minus 10%. Consult factory for special wattages and voltages

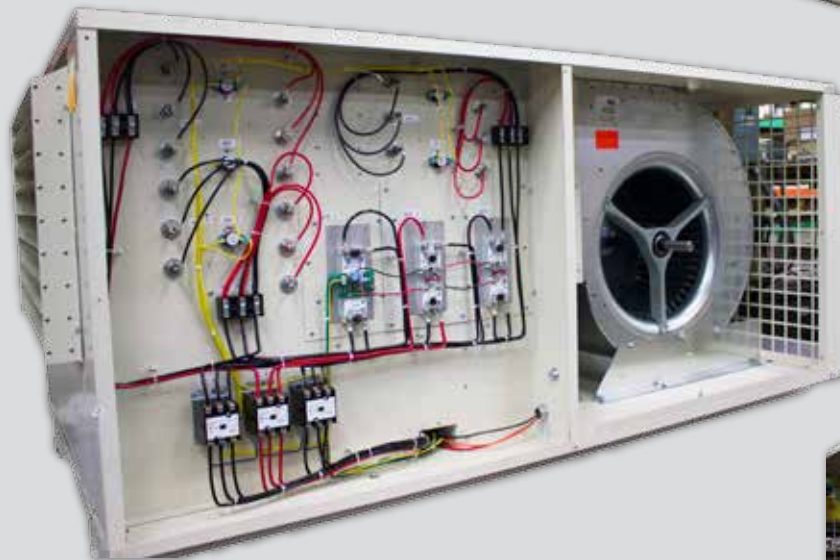
### BLOWER SPECIFICATIONS

- 1) Quiet forward curve, double inlet, dynamically balanced wheels.
- 2) Galvanized housing and wheels for increased corrosion resistance.
- 3) Keyed wheels, keyed shaft extensions and sealed ball bearings for higher horsepower motors.
- 4) 18" wheel for a maximum of 7.5 HP motor.
- 5) Airflows up to 10,000 CFM (see performance data chart above for SP up to 3.75" WG)
- 6) Galvanized mounting supports, vibro-pads and heavyduty mounting hardware.
- 7) Belt drive allows field adjustment of blower RPM to adjust for changes in system SP.

# Large Plenum Rated Heater CKL Series

## Internal View

Front View



Motor & Blower



### OPTIONS

STAGES	Increase # of Stages on Model Number
CFM	Increase CFM on Model Number

### ADD SUFFIX: DESCRIPTION

STEP CONTROL	8 Stage Step Controller
SOLID STATE RELAY STEP CONTROL	8 Stage Step Controller w/ Vernier Control
CKL-RFP100	100 Amp Remote Fuse Panel
CKL-RFP200	200 Amp Remote Fuse Panel
CKL-RFP400	400 Amp Remote Fuse Panel

# Large Plenum Rated Heater CKL Series

**Air Performance Data CKL Plenum Heater - STATIC PRESSURE (inches. WG)**

CFM	.25		.50		.75		1.00		1.25		1.50		1.75		2.00		2.25		2.50		2.75		3.00		3.25		3.50		3.75					
	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP				
3,000	298	.25	411	.45	508	.69	588	.93	660	1.19	724	1.47	785	1.74	836	2.25	889	2.55	935	3.16	988	3.50	1,028	3.85	1,067	4.20	1,094	4.58	1,104	4.96	1,130	5.37	1,145	5.78
3,500	310	.32	414	.54	504	.79	684	1.06	656	1.35	724	1.47	785	1.74	836	2.25	889	2.55	935	3.16	988	3.50	1,028	3.85	1,067	4.20	1,094	4.58	1,104	4.96	1,130	5.37	1,145	5.78
4,000	322	.42	419	.65	505	.91	682	1.21	652	1.52	719	1.66	780	1.95	836	2.25	889	2.55	935	3.16	988	3.50	1,028	3.85	1,067	4.20	1,094	4.58	1,104	4.96	1,130	5.37	1,145	5.78
4,500	337	.53	428	.78	509	1.06	682	1.37	650	1.70	714	1.88	776	2.17	831	2.49	884	2.82	935	3.16	988	3.50	1,028	3.85	1,067	4.20	1,094	4.58	1,104	4.96	1,130	5.37	1,145	5.78
5,000	353	.67	439	.93	515	1.23	685	1.55	651	1.09	712	2.09	771	2.41	826	2.76	879	3.10	929	3.46	977	3.82	1,023	4.20	1,067	4.58	1,104	4.96	1,130	5.37	1,145	5.78		
5,500	369	.84	452	1.12	524	1.43	691	1.76	654	2.12	712	2.35	769	2.69	823	3.04	875	3.41	925	3.78	972	4.17	1,018	4.56	1,062	4.96	1,104	4.96	1,130	5.37	1,145	5.78		
6,000	387	1.03	465	1.33	535	1.65	699	2.00	659	2.38	715	2.64	769	2.99	822	3.36	872	3.75	921	4.14	968	4.54	1,013	4.95	1,057	5.37	1,094	5.81	1,130	5.37	1,145	5.78		
6,500	x	x	480	1.58	547	1.82	708	2.28	666	2.67	719	2.97	772	3.34	823	3.72	872	4.12	919	4.53	965	4.95	1,009	5.38	1,052	5.81	1,094	5.81	1,130	5.37	1,145	5.78		
7,000	x	x	496	1.86	560	2.22	719	2.59	676	2.00	726	3.33	777	3.72	826	4.12	873	4.53	919	4.96	964	5.38	1,007	5.84	1,049	5.84	1,090	5.84	1,130	5.37	1,145	5.78		
7,500	x	x	513	2.17	575	2.55	731	2.95	685	3.36	735	3.74	783	4.15	831	4.56	876	4.99	921	5.43	964	5.88	1,007	5.84	1,048	5.84	1,088	5.84	1,130	5.37	1,145	5.78		
8,000	x	x	x	x	590	2.93	745	3.34	696	3.77	745	4.19	792	4.62	837	5.05	881	5.49	925	5.88	967	6.37	1,069	6.37	1,048	6.37	1,088	6.37	1,130	5.37	1,145	5.78		
8,500	x	x	x	x	605	3.05	758	3.48	700	4.23	758	4.69	801	5.13	845	5.58	888	5.96	930	6.37	971	6.87	1,011	6.87	1,048	6.87	1,088	6.87	1,130	5.37	1,145	5.78		
9,000	x	x	x	x	622	3.81	764	4.29	722	4.73	768	5.23	812	5.69	855	6.07	896	6.46	937	6.87	976	7.38	1,011	7.38	1,048	7.38	1,088	7.38	1,130	5.37	1,145	5.78		
9,500	x	x	x	x	x	x	689	4.79	730	5.28	781	5.81	824	6.27	866	6.66	908	7.05	949	7.46	989	7.85	1,029	8.24	1,069	8.24	1,110	8.24	1,150	7.74	1,165	6.24		
10,000	x	x	x	x	x	x	705	5.37	751	5.88	795	6.37	837	6.87	877	7.26	919	7.65	805	8.04	847	8.43	887	8.81	929	9.15	969	9.50	1,011	9.81	1,033	10.12	1,064	10.43

**AIR PERFORMANCE CHART SYMBOLS**

- x Performance is below 10% static efficiency
- + Performance is unstable, not recommended

† Exceeds 5 HP Motor

# Explosion-Proof Heater Model FX5



## Model Code:

FX5	480	3	60	350	W
A	B	C	D	E	F
A: Model Series, 5th Generation					
B: 208V, 240V, 480V, 600V					
C: 1-Phase, 3-Phase					
D: 50 Hertz, 60 Hertz					
E: Heater Kilowatts					
F: Welded Core					



- Rated for Class 1, Div. 1 & 2 applications
- Explosion proof motor
- Aluminum fan
- High temperature limit
- Multiple wattages available
- Wall or ceiling mount
- 14 gauge powder coated steel
- 3-year limited warranty

## Explosion-Proof Heater

**FX5 heaters are cULus certified for use in hazardous locations.** They are designed for the harshest environments such as: dry indoor industrial applications, oil refineries, petrochemical plants, pulp and paper mills, grain elevators, hazardous waste storage facilities, wastewater treatment plants, etc., where specific explosive gases or dusts may be present. The FX5 offers a larger junction box for easier installation, additional limit controls and a heavy duty core. The heater core assembly is contained in a sturdy, epoxy-coated 14-gauge steel cabinet, which also carries the motor and fan assembly. Adjustable louvres allow directional control of the airflow. A narrow gap, two-piece fan guard is provided to shield all moving parts. All fasteners are zinc plated for corrosion protection. FX heaters are built to last. All FX products are subjected to exhaustive technical analysis and testing during design and development, and are manufactured under a registered quality assurance program. As a result, they have consistently proven their safety and reliability. For hazardous location heating, rely on the King FX5 heater for the most dependable, trouble-free service available. Suitable for the following hazardous location classifications: •Class I, Divisions 1 & 2, Groups C & D, •Class II, Divisions 1 & 2, Groups E, F & G, •Class I, Zones 1 & 2, Groups IIA & IIB, •Temperature Code T3B 165°C (329°F)

## Engineering Specifications

*Contractor shall supply and install FX5 Series unit heaters manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.*

**Hazardous Locations Classifications:** Class I, Divisions 1 & 2, Group C & D  
• Class II, Divisions 1 & 2, Group E, F & G • Class I, Zones 1 & 2, Group IIA & IIB • Temperature Code T3B 165°C (329°F)

**Motor Type:** Explosion-proof. Thermally protected. Permanently lubricated ball bearings.

**Fan:** Aluminum blade. Steel spider and hub with 5/8" (15 mm) bore.

**Fan Guard:** Split design with close wire spacing. 1/4" (6.3 mm) diameter probe will not enter.

**Mounting Holes:** Four 9/16" (14 mm) diameter holes at the top of heater.

**Heating Elements:** Long-life metal-sheathed elements (Propylene Glycol).

**Temperature High-Limit:** Automatic reset type, snap-action bimetal, open on temperature rise. Rated 100,000 cycles at 10 amp, handles 0.128 amps, plus an additional ambient high limit.

**Control Circuit:** 120V, 0.128 amps, 15VA. (Grounded).

**Optional Built-In Thermostat:** Explosion-proof 2°C to 28°C (36°F to 82°F).

**Control Transformer:** Multiple voltage primary, 120V secondary, 25VA.

**Contactors:** 40 or 75 amp. Rated for 500,000 mechanical operations. 120V, 15VA coil (separately fuse-protected).

**Cabinet Material:** 14-gauge (0.075" / 1 mm) epoxy powder coated steel.

Optional Heresite® coating available for corrosive atmospheres with an optional stainless-steel casing.

**Core:** HD Core

**Conduit Material:** Heavy wall, 0.122" (3 mm), steel

**Overpressure Protection:** Preset 100psig (690kPa) pressure relief valve, aluminum body, no serviceable parts.

**Operational Temperature Range:** -20°C to 40°C (-4°F to 104°F)

**Junction Box (HxWxD):** 10.25" (230 mm) x 8.00" (180 mm) x 9.12" (205 mm).

**Field Connection:** Two 1" NPT

**Weight (for 15kW unit):** 168 lbs (76.36 kgs)

**Weight With Disconnect (for 15kW unit):** 180 lbs (81.82 kgs)

**Optional Built-In Disconnect Switch:** DS5 uses x-Max® construction

**Optional Pilot Light:** Explosion-proof light fixture with replaceable bulb

**Optional 3-Way Switch:** Explosion-proof 3 position fan switch (on, off, fan only)

**WARRANTY:** Under normal use the Company warrants to the purchaser that defects in material or workmanship will be repaired or replaced without charge for a period of 36 months from date of shipment. Any claim for warranty must be reported to the sales office where the product was purchased for authorized repair or replacement within the terms of this warranty.

Note:(\*) Exceeds the 48 amp. circuit limit of NEC 424-22 (\*) 480 1 Phase units are certified Class I, Div. 1, Group D and Class II, Div.1, Groups F and G.

Minimum conductor size for 30°C (86°F) ambient. Derate conductor for ambient temperature. Use minimum 90°C (194°F) insulation.

Heater is functioning normally if at rated voltage the amp draw is within 10% of the value in this table.

Operation at lower voltage will result in reduced heat output and amp draw.

# Explosion-Proof Heater Model FX5

**Ordering Information - Performance Data for 60 Hertz FX5, Temperature Code T3B 165°C (329°F)**

MODEL	VOLTS	PHASE	NOMINAL WATTAGE (kW)	AMPS	OPTIONAL BUILT-IN DISCONNECT SWITCH	AIR TEMP. RISE	BTU/HR
FX5-208160-030	208	1	3	14.4	DS5	11.2°F (6.2°C)	10,250
FX5-208360-030	208	3	3	8.3	DS5	11.2°F (6.2°C)	10,250
FX5-240160-030	240	1	3	12.5	DS5	11.2°F (6.2°C)	10,250
FX5-240360-030	240	3	3	7.2	DS5	11.2°F (6.2°C)	10,250
FX5-480160-030 <sup>1</sup>	480	1	3	6.3	DS5	11.2°F (6.2°C)	10,250
FX5-480360-030	480	3	3	3.6	DS5	11.2°F (6.2°C)	10,250
FX5-600360-030	600	3	3	2.9	DS5	11.2°F (6.2°C)	10,250
FX5-208160-050	208	1	5	24.0	DS5	18.6°F (10.3°C)	17,050
FX5-208360-050	208	3	5	13.9	DS5	18.6°F (10.3°C)	17,050
FX5-240160-050	240	1	5	20.8	DS5	18.6°F (10.3°C)	17,050
FX5-240360-050	240	3	5	12.0	DS5	18.6°F (10.3°C)	17,050
FX5-480160-050 <sup>1</sup>	480	1	5	10.4	DS5	18.6°F (10.3°C)	17,050
FX5-480360-050	480	3	5	6.0	DS5	18.6°F (10.3°C)	17,050
FX5-600360-050	600	3	5	4.8	DS5	18.6°F (10.3°C)	17,050
FX5-208160-075	208	1	7.5	36.1	DS5	27.9°F (15.5°C)	25,600
FX5-208360-075	208	3	7.5	20.8	DS5	27.9°F (15.5°C)	25,600
FX5-240160-075	240	1	7.5	31.3	DS5	27.9°F (15.5°C)	25,600
FX5-240360-075	240	3	7.5	18.0	DS5	27.9°F (15.5°C)	25,600
FX5-480160-075 <sup>1</sup>	480	1	7.5	15.6	DS5	27.9°F (15.5°C)	25,600
FX5-480360-075	480	3	7.5	9.0	DS5	27.9°F (15.5°C)	25,600
FX5-600360-075	600	3	7.5	7.2	DS5	27.9°F (15.5°C)	25,600
FX5-208160-100*	208	1	10	48.1	NOT AVAILABLE	37.2°F (20.6°C)	34,100
FX5-208360-100	208	3	10	27.8	DS5	37.2°F (20.6°C)	34,100
FX5-240160-100	240	1	10	41.7	DS5	37.2°F (20.6°C)	34,100
FX5-240360-100	240	3	10	24.1	DS5	37.2°F (20.6°C)	34,100
FX5-480160-100 <sup>1</sup>	480	1	10	20.8	DS5	37.2°F (20.6°C)	34,100
FX5-480360-100	480	3	10	12.0	DS5	37.2°F (20.6°C)	34,100
FX5-600360-100	600	3	10	9.6	DS5	37.2°F (20.6°C)	34,100
FX5-240160-150*	240	1	15	62.5	NOT AVAILABLE	27.1°F (15.1°C)	51,200
FX5-240360-150	240	3	15	36.1	DS5	27.1°F (15.1°C)	51,200
FX5-480160-150 <sup>1</sup>	480	1	15	31.3	DS5	27.1°F (15.1°C)	51,200
FX5-480360-150	480	3	15	18.0	DS5	27.1°F (15.1°C)	51,200
FX5-600360-150	600	3	15	14.4	DS5	27.1°F (15.1°C)	51,200
FX5-480160-200 <sup>1</sup>	480	1	20	41.7	DS5	36.1°F (20.1°C)	68,250
FX5-480360-200	480	3	20	24.1	DS5	36.1°F (20.1°C)	68,250
FX5-600360-200	600	3	20	19.2	DS5	36.1°F (20.1°C)	68,250
FX5-480360-250	480	3	25	30.1	DS5	22.0°F (12.2°C)	68,250
FX5-600360-250	600	3	25	24.1	DS5	36.1°F (20.1°C)	68,250
FX5-480360-300	480	3	30	36.1	DS5	26.4°F (14.6°C)	102,350
FX5-600360-300	600	3	30	28.9	DS5	26.4°F (14.6°C)	102,350
FX5-480360-350	480	3	35	42.1	DS5	30.7°F (17.1°C)	119,450
FX5-600360-350	600	3	35	33.7	DS5	30.7°F (17.1°C)	119,450

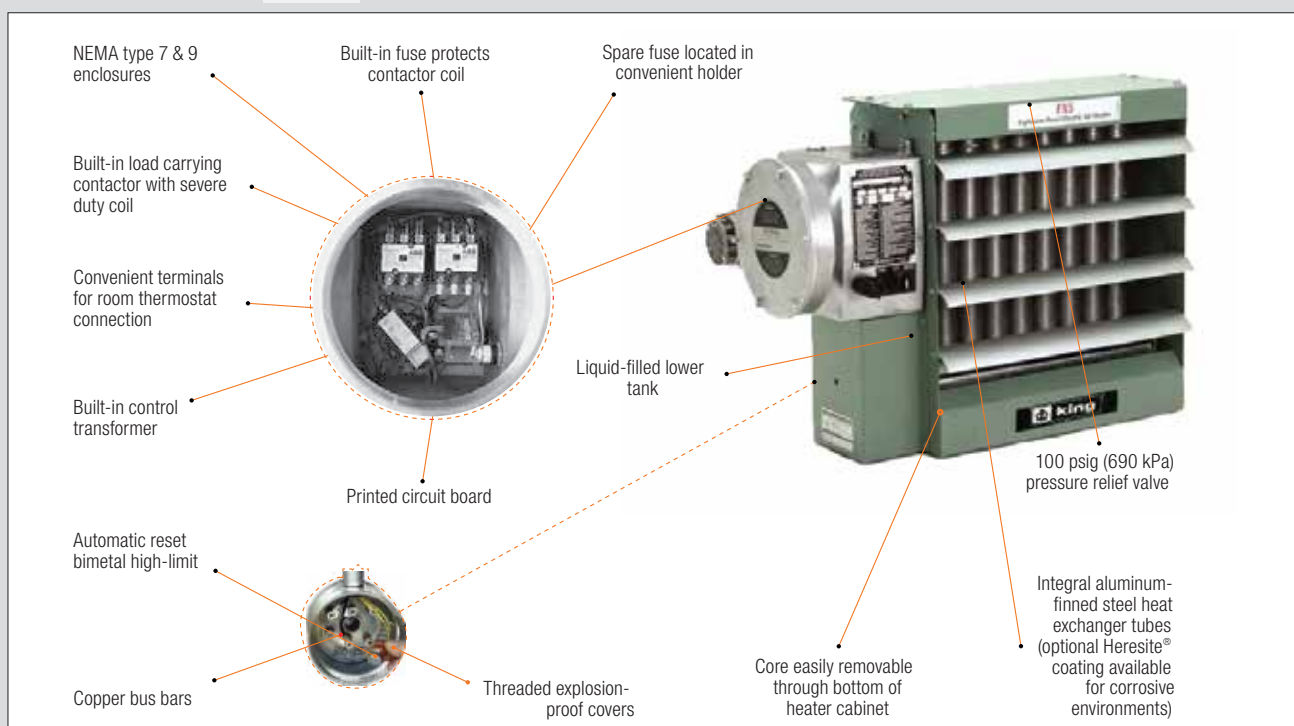
## Options

ADD SUFFIX	DESCRIPTION
-T	Built-in thermostat.
-D	Built-in disconnect switch.
-P	Built-in pilot light.
-S	3-way switch.
-H	High "off" (deenergized) ambient temperatures.
-C	Heresite
-A	Stainless-steel cabinet.

# Explosion-Proof Heater Model FX5

Ordering Information - Performance Data for 50 Hertz FX5, Temperature Code T3B 165°C (329°F)

MODEL	VOLTS	PHASE	NOMINAL WATTAGE (kW)	AMPS	OPTIONAL BUILT-IN DISCONNECT SWITCH	AIR TEMP. RISE	BTU/HR
FX5-220150-025	220	1	2.5	11.4	DS5	11.2°F (6.3°C)	8,550
FX5-220150-042	220	1	4.2	19.1	DS5	19.0°F (10.5°C)	14,350
FX5-220150-063	220	1	6.3	28.6	DS5	28.5°F (15.7°C)	21,500
FX5-220150-084	220	1	8.4	38.2	DS5	37.8°F (21.1°C)	28,700
FX5-220150-126*	220	1	12.6	57.3	NOT AVAILABLE	27.5°F (15.2°C)	43,000
FX5-230150-028	230	1	2.8	12.2	DS5	12.5°F (7.0°C)	9,550
FX5-230150-046	230	1	4.6	20.0	DS5	20.7°F (11.5°C)	16,000
FX5-230150-069	230	1	6.9	30.0	DS5	31.1°F (17.2°C)	23,550
FX5-230150-138*	230	1	13.8	59.9	NOT AVAILABLE	30.1°F (16.6°C)	47,100
FX5-380350-025	380	3	2.5	3.8	DS5	11.2°F (6.3°C)	8,550
FX5-380350-042	380	3	4.6	6.4	DS5	19.0°F (10.5°C)	14,350
FX5-380350-063	380	3	8.4	9.6	DS5	28.5°F (15.7°C)	21,500
FX5-380350-084	380	3	6.3	12.8	DS5	37.8°F (21.1°C)	28,700
FX5-380350-125	380	3	12.5	19.0	DS5	27.5°F (15.2°C)	43,000
FX5-380350-209	380	3	20.9	31.8	DS5	22.0°F (12.1°C)	71,350
FX5-400350-028	400	3	2.8	4.0	DS5	12.5°F (7.0°C)	9,550
FX5-400350-046	400	3	4.6	6.6	DS5	20.7°F (11.5°C)	15,700
FX5-400350-069	400	3	6.9	10.0	DS5	31.1°F (17.2°C)	23,550
FX5-400350-093	400	3	9.3	13.4	DS5	42.0°F (23.2°C)	31,750
FX5-400350-139	400	3	13.9	20.1	DS5	30.2°F (16.7°C)	74,450
FX5-400350-185	400	3	18.5	26.7	DS5	40.2°F (22.3°C)	63,150
FX5-400350-231	400	3	23.1	33.3	DS5	24.2°F (13.5°C)	78,850
FX5-415350-037	415	3	3.7	5.1	DS5	16.6°F (9.2°C)	12,650
FX5-415350-075	415	3	7.5	10.4	DS5	33.8°F (18.7°C)	25,600
FX5-415350-149	415	3	14.9	20.7	DS5	32.5°F (18.1°C)	50,850
FX5-415350-224	415	3	22.4	31.2	DS5	23.5°F (13.1°C)	76,450
FX5-440350-042	440	3	4.2	5.5	DS5	19.0°F (10.5°C)	14,350
FX5-440350-084	440	3	8.4	11.0	DS5	37.8°F (21.1°C)	28,700
FX5-440350-168	440	3	16.8	27.5	DS5	36.5°F (20.3°C)	57,350
FX5-440350-209	440	3	20.9	27.5	DS5	22.1°F (12.2°C)	71,350



# Explosion-Proof Heater Model FX5

## Specifications - 60 Hertz FX5

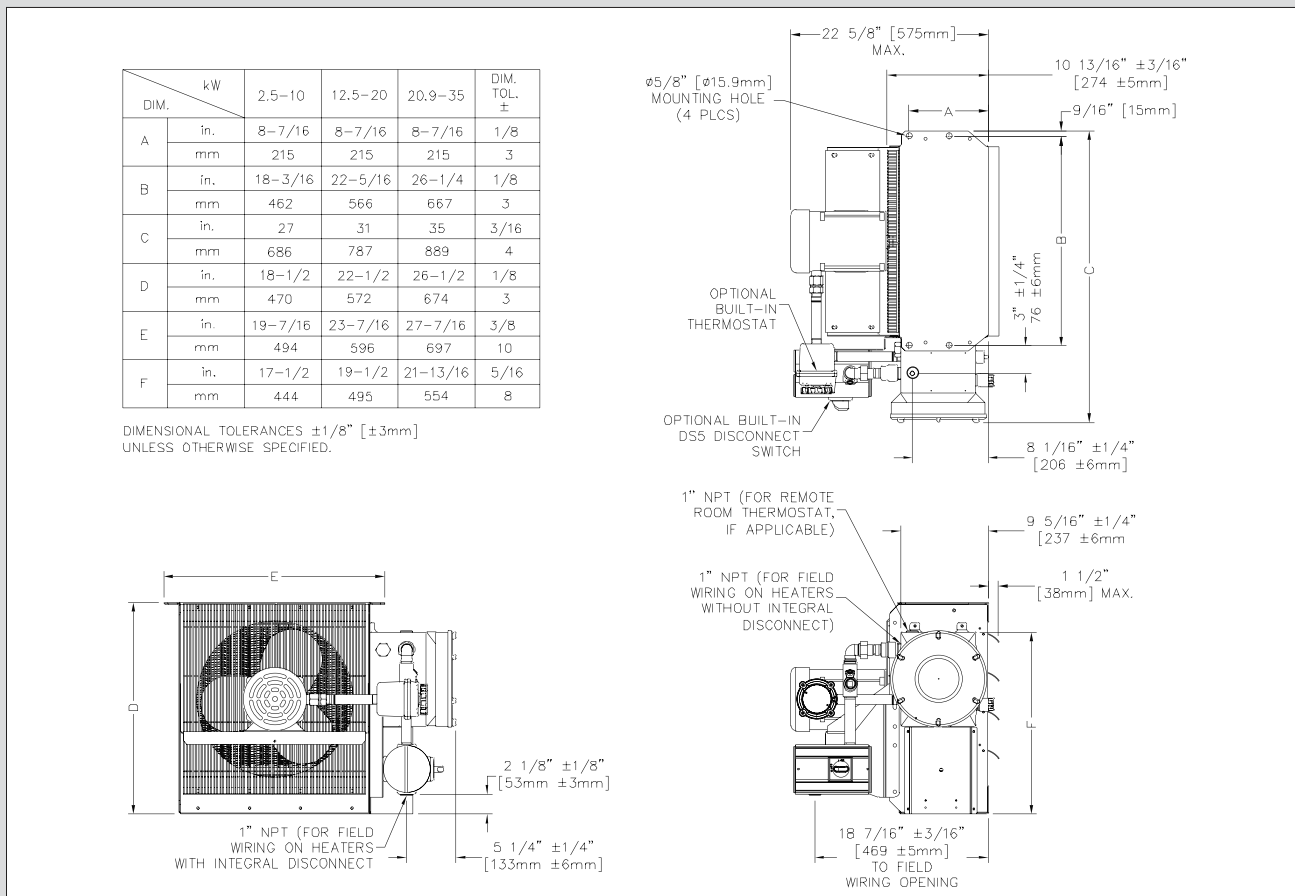
NOMINAL WATTAGE (kW)	MAX. ALTITUDE (FT)	AIR DELIVERY @70°F (CFM)	HORIZONTAL THROW (FT)	MAX. MOUNTING HEIGHT (FT)	MOTOR POWER (W)	MOTOR SPEED (RPM)	FAN DIAMETER (in)	NET WEIGHT (lbs)		SHIPPING WEIGHT (lbs)	
								WITH DS5	WITHOUT DS5	WITH DS5	WITHOUT DS5
3	12,000	850	30	10	373	1,725	12	152	140	206	194
5	8,000	850	30	10	373	1,725	12	152	140	206	194
7.5	10,000	850	30	10	373	1,725	12	152	140	206	194
10	7,000	850	30	10	373	1,725	12	152	140	206	194
15	10,000	1,750	40	10	373	1,725	16	180	168	230	218
20	7,000	1,750	40	10	373	1,725	16	180	168	230	218
25	10,000	3,600	70	20	373	1,725	20	213	201	264	252
30	7,000	3,600	70	20	373	1,725	20	213	201	264	252
35	6,000	3,600	70	20	373	1,725	20	213	201	264	252

Manufacturer reserves the right to replace motors with suitable alternate. Weights are an approximate maximum

## Specifications - 50 Hertz FX5

NOMINAL WATTAGE (kW)	MAX. ALTITUDE (FT)	AIR DELIVERY @70°F (CFM)	HORIZONTAL THROW (FT)	MAX. MOUNTING HEIGHT (FT)	MOTOR POWER (W)	MOTOR SPEED (RPM)	FAN DIAMETER (in)	NET WEIGHT (lbs)		SHIPPING WEIGHT (lbs)	
								WITH DS5	WITHOUT DS5	WITH DS5	WITHOUT DS5
2.5	12,000	700	25	10	187	1,437	12	152	140	206	194
3.7 & 4.2	8,000	700	25	10	187	1,437	12	152	140	206	194
6.3 & 7.5	10,000	700	25	10	187	1,437	12	152	140	206	194
8.4	7,000	700	25	10	187	1,437	12	152	140	206	194
12.5 & 12.6	10,000	1,450	35	10	187	1,437	16	180	168	230	218
14.9 & 16.7	7,000	1,450	35	10	187	1,437	16	180	168	230	218
20.9	10,000	3,000	60	20	187	1,437	16	213	201	264	252
22.4	7,000	3,000	60	20	187	1,437	16	213	201	264	252

Manufacturer reserves the right to replace motors with suitable alternate. Weights are an approximate maximum





# Explosion-Proof Heater Model CX1



## Model Code:

CX1	220	1	60	012	T2A	IIB	T
A	B	C	D	E	F	G	H

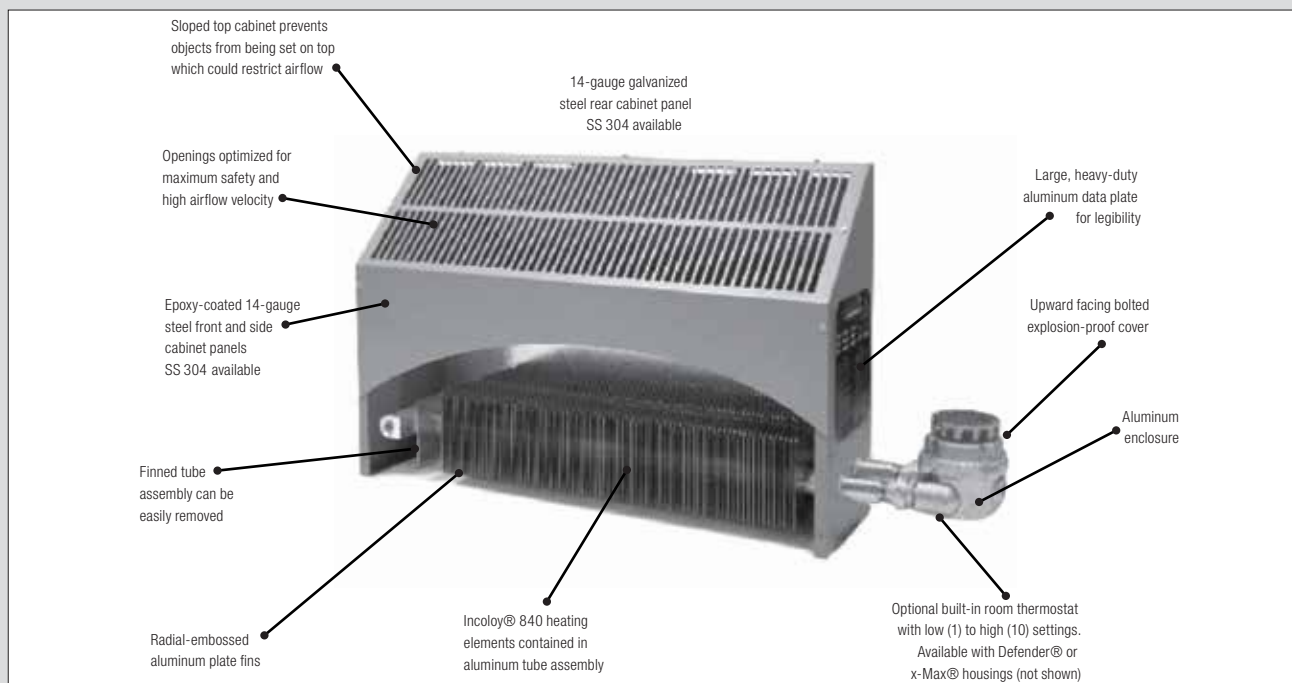
**A:** Model Series  
**B:** 120, 208, 240, 277, 380, 400, 415, 480, 600 volt options  
**C:** 1-Phase  
**D:** 50 Hertz, 60 Hertz  
**E:** Heater Kilowatts  
**F:** Rated Area (Temperature)  
 T2a=536°F, T3=392°F  
**G:** T-Code (Grouping) IIB=Group C & D  
 IIC=Group A, B, C & D  
**H:** T=Built-In Thermostat



- Sloped-top cabinet
- No exposed copper or brass
- High-velocity airflow
- 14GA steel cabinet
- Available with stainless-steel construction
- One of the shortest cabinet lengths available
- Optional built-in thermostat
- Incoloy® 840 heating elements
- Radial-embossed aluminum plate fins
- Galvanized steel mounting brackets
- IP55 moisture ingress protection
- Approvals - Groups A, B, C, D; IIA, IIB & IIC; available

## CX1 Explosion-Proof Heater

For hazardous locations heating, rely on the Ruffneck™ CX1 ProVector® for the most dependable, trouble-free service available. Explosion-proof air heaters were designed to satisfy the demanding requirements of the oil and gas well drilling industry. The harsh operating conditions of this application require the utmost in heater reliability.



## Engineering Specifications

*Contractor shall supply and install CX1 Series explosion-proof heaters by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.*

### Hazardous Location Classifications

**Without Built-in Thermostat:** Defender® housing Class I, Div. 1 & 2, Groups B, C, & D; Zones 1 & 2, Groups IIA, IIB + H,x-Max® housing Class I, Div. 1 & 2, Groups A, B, C, & D; Zones 1 & 2, Groups IIA, IIB, & IIC.

**With Built-in Thermostat:** XCT Defender® thermostat: Class I, Div. 1 & 2, Groups C & D; Zones 1 & 2, Groups IIA & IIB XT thermostat: Class I, Div. 1 & 2, Groups A, B, C, & D; Zones 1 & 2, Groups IIA, IIB, & IIC.

**Enclosure:** Defender® housing is cast aluminum with bolt on cover. Groups IIB, x-Max® housing is extruded aluminum with two screwed on covers. The x-Max® housing offers IP55 moisture ingress protection. Groups IIC.

**Mounting Brackets:** Two 14-gauge (0.075" / 12 mm) galvanized steel brackets for standard cabinet. Stainless-steel brackets provided with optional stainless-steel cabinet.

**Heating Elements:** Two Incoloy® 840 sheathed elements

**Temperature Code Rating:** Temperature Code T2A - 536°F (280°C) or T3 - 392°F (200°C).

**Temperature Limitations:** Operational: -49°F to 104°F (-45°C to 40°C)  
 Storage: -49°F to 176°F (-45°C to 80°C). Optional up to 300°F (149°C) available.

**Cabinet Material:** 14-gauge (0.075" / 1.90mm) epoxy coated steel with galvanized rear panel. Optional - 14-gauge 304 stainless-steel cabinet and mounting hardware available

# Explosion-Proof Heater Model CX1

## Ordering Information - Performance Data for CX1 ProVector®

MODEL	kW (BTU/hr)	UNIT VOLTAGE (VOLTS)	BASIC UNIT	GAS GROUP				SUPPLY WIRE SIZE (AWG)***	UNIT CURRENT (AMPS)	MAX. CIRCUIT FUSE (AMPS)*	CABINET LENGTH in(mm)	TEMP. CODE
				IIB+H2 W/O T'STAT	IIB W/ T'STAT	IIC W/O T'STAT	IIC W/ T'STAT					
CX1-120160-012-T3	1.2	120	•	•	•	•	•	12	10.0	15	31.3 (796)	T3
CX1-120160-018-T3	1.8	120	•	•	•	•	•	12	15.0	20	31.3 (796)	T3
CX1-208160-012-T3	1.2	208	•	•	•	•	•	12	5.8	15	31.3 (796)	T3
CX1-208160-018-T3	1.8	208	•	•	•	•	•	12	8.7	15	31.3 (796)	T3
CX1-208160-036-T3**	3.6	208	•	•	•	•	•	12	17.3	20	49.5 (1256)	T3
CX1-208160-048-T2A	4.8	208	•	•	•	•	•	8	23.1	25	49.5 (1256)	T2A
CX1-208160-076-T2A	7.6	208	•	•	•	•	•	8	36.5	40	59.5 (1511)	T2A
CX1-240160-012-T3	1.2	240	•	•	•	•	•	12	5.0	15	31.3 (796)	T3
CX1-240160-018-T3	1.8	240	•	•	•	•	•	12	7.5	15	31.3 (796)	T3
CX1-240160-036-T3**	3.6	240	•	•	•	•	•	12	15.0	20	49.5 (1256)	T3
CX1-240160-048-T2A	4.8	240	•	•	•	•	•	10	20.0	25	49.5 (1256)	T2A
CX1-240160-076-T2A	7.6	240	•	•	•	•	•	8	31.7	35	59.5 (1511)	T2A
CX1-277160-012-T3	1.2	277	•	•	•	•	•	12	4.3	15	31.3 (796)	T3
CX1-277160-018-T3	1.8	277	•	•	•	•	•	12	6.5	15	31.3 (796)	T3
CX1-277160-036-T3**	3.6	277	•	•	•	•	•	12	13.0	15	49.5 (1256)	T3
CX1-277160-048-T2A	4.8	277	•	•	•	•	•	12	17.3	20	49.5 (1256)	T2A
CX1-277160-076-T2A	7.6	277	•	•	•	•	•	8	27.4	30	59.5 (1511)	T2A
CX1-380160-0075-T3	0.75	380	•	•	•	•	•	12	2.0	15	31.3 (796)	T3
CX1-380160-0113-T3	1.13	380	•	•	•	•	•	12	3.0	15	31.3 (796)	T3
CX1-380160-012-T3	1.2	380	•	•	•	•	•	12	3.2	15	31.3 (796)	T3
CX1-380160-018-T3	1.8	380	•	•	•	•	•	12	4.7	15	31.3 (796)	T3
CX1-380160-0226-T2A	2.26	380	•	•	•	•	•	12	5.9	15	31.3 (796)	T2A
CX1-380160-0301-T3	3.01	380	•	•	•	•	•	12	7.9	15	49.5 (1256)	T3
CX1-380160-036-T3**	3.6	380	•	•	•	•	•	12	9.5	15	49.5 (1256)	T3
CX1-380160-0476-T2A	4.76	380	•	•	•	•	•	10	12.5	15	59.5 (1511)	T2A
CX1-380160-048-T2A	4.8	380	•	•	•	•	•	12	12.6	15	49.5 (1256)	T2A
CX1-380160-076-T2A	7.6	380	•	•	•	•	•	10	20.0	25	59.5 (1511)	T2A
CX1-400160-0083-T3	0.83	400	•	•	•	•	•	12	2.1	15	31.3 (796)	T3
CX1-400160-012-T3	1.2	400	•	•	•	•	•	12	3.0	15	31.3 (796)	T3
CX1-400160-0125-T3	1.25	400	•	•	•	•	•	12	3.1	15	31.3 (796)	T3
CX1-400160-018-T3	1.8	400	•	•	•	•	•	12	4.5	15	31.3 (796)	T3
CX1-400160-025-T2A	2.5	400	•	•	•	•	•	12	6.3	15	31.3 (796)	T2A
CX1-400160-0333-T3	3.33	400	•	•	•	•	•	12	8.3	15	49.5 (1256)	T3
CX1-400160-036-T3**	3.6	400	•	•	•	•	•	12	9.0	15	49.5 (1256)	T3
CX1-400160-048-T2A	4.8	400	•	•	•	•	•	12	12.0	15	49.5 (1256)	T2A
CX1-400160-0528-T2A	5.28	400	•	•	•	•	•	10	13.2	15	59.5 (1511)	T2A
CX1-400160-076-T2A	7.6	400	•	•	•	•	•	10	19.0	20	59.5 (1511)	T2A
CX1-415160-009-T3	0.9	415	•	•	•	•	•	12	2.2	15	31.3 (796)	T3
CX1-415160-012-T3	1.2	415	•	•	•	•	•	12	2.9	15	31.3 (796)	T3
CX1-415160-0135-T3	1.35	415	•	•	•	•	•	12	3.3	15	31.3 (796)	T3
CX1-415160-018-T3	1.8	415	•	•	•	•	•	12	4.3	15	31.3 (796)	T3
CX1-415160-0269-T2A	2.69	415	•	•	•	•	•	12	6.5	15	31.3 (796)	T2A
CX1-415160-0359-T3	3.59	415	•	•	•	•	•	12	8.7	15	49.5 (1256)	T3
CX1-415160-036-T3**	3.6	415	•	•	•	•	•	12	8.7	15	49.5 (1256)	T3
CX1-415160-048-T2A	4.8	415	•	•	•	•	•	12	11.6	15	49.5 (1256)	T2A
CX1-415160-0568-T2A	5.68	415	•	•	•	•	•	10	13.7	15	59.5 (1511)	T2A
CX1-415160-076-T2A	7.6	415	•	•	•	•	•	10	18.3	20	59.5 (1511)	T2A
CX1-480160-012-T3	1.2	480	•	•	•	•	•	12	2.5	15	31.3 (796)	T3
CX1-480160-018-T3	1.8	480	•	•	•	•	•	12	3.8	15	31.3 (796)	T3
CX1-480160-036-T3**	3.6	480	•	•	•	•	•	12	7.5	15	49.5 (1256)	T3
CX1-480160-048-T2A	4.8	480	•	•	•	•	•	12	10.0	15	49.5 (1256)	T2A
CX1-480160-076-T2A	7.6	480	•	•	•	•	•	10	15.8	20	59.5 (1511)	T2A
CX1-600160-012-T3	1.2	600	•	•	•	•	•	12	2.0	15	31.3 (796)	T3
CX1-600160-018-T3	1.8	600	•	•	•	•	•	12	3.0	15	31.3 (796)	T3
CX1-600160-036-T3**	3.6	600	•	•	•	•	•	12	6.0	15	49.5 (1256)	T3
CX1-600160-048-T2A	4.8	600	•	•	•	•	•	12	8.0	15	49.5 (1256)	T2A
CX1-600160-076-T2A	7.6	600	•	•	•	•	•	12	12.7	15	59.5 (1511)	T2A

# Explosion-Proof Heater Model CX1

All units are single phase

\*Or equivalent breaker as per local electrical inspection authority requirements.

\*\* For 3.6 kW heaters rated T3 cabinet length is 49.5" (1256mm). 3.6 kW heaters rated T2A cabinet length is 31.3" (796mm)

\*\*\* Ensure supply wire size adheres to applicable local and national electrical codes

## Notes

1. Heater is functioning normally if, at rated voltage, the current draw is within 10% of the value in this table.

2. Operation at lower voltages than rated will result in reduced output and current draw.

Actual Output (kW) = [(Supply Voltage)<sup>2</sup> ÷ (Rated Voltage)<sup>2</sup>] × Rated Unit Wattage (kW)

3. Add suffix "T" for optional built-in thermostat. Thermostat not available on IIB + H models.

4. Add suffix "H" for high-temperature ambient storage option. High temperature storage option is not available with thermostat option. Not available on IIB models.

5. For IIB model with XCT built-in thermostat - Class I, Div. 1 & 2, Groups C & D; Zones 1 & 2, Groups IIA and IIB

6. For IIC model with XT built-in thermostat - Class I, Div. 1 & 2, Groups A,B,C & D; Zones 1 & 2, Groups IIA, IIB, IIC

7. IIC Grouping units come with x-Max® housing

8. Remote mounted, Defender, explosion-proof room thermostats are not suitable for Group B & IIC applications

9. Remote contactors are required on all 600V heaters, and heaters with a current draw greater than 22 amps

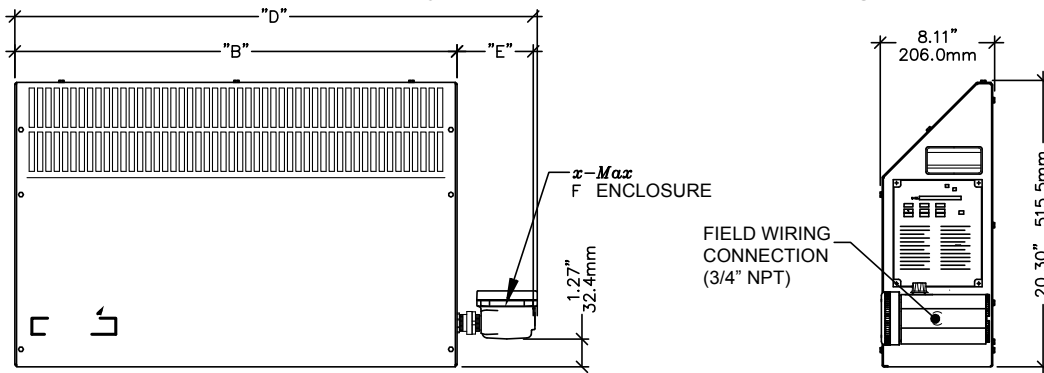
(supplied & installed by others), when utilizing XT-311 remote thermostat.

10. Temperature code ratings: T2A - 536°F (280°C), T3 - 392°F (200°C)

## Specifications

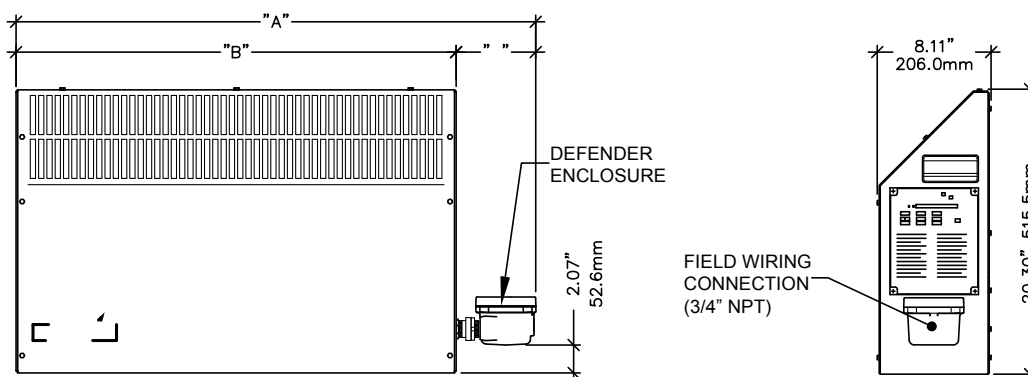
NOMINAL WATTAGE (kW)	CABINET LENGTH "B"	NET WEIGHT (lbs)	SHIPPING WEIGHT (lbs)
0.75 - 2.69 & 3.6 (T2a)	31.3	55.3	65
3.01 - 3.59 & 3.6 (T3) & 4.8	49.4	80.7	92.8
4.76, 5.28 - 7.6	59.5	95	105

### CX1 ProVector® Physical Dimensions with x-Max® housing



HEATER KW RATING	"D" DIMENSION		"B" DIMENSION	"E" DIMENSION	
	W/ EXTENSION	WITH EXTENSION		W/ EXTENSION	WITH EXTENSION
0.75 - 2.69, 3.6 (T2A)	37.6" 954mm	39.6" 1007mm	31.34" 796.0mm	6.2" 158mm	8.3" 211mm
3.01 - 3.59, 3.6 (T3), 4.8	55.7" 1414mm	57.8" 1467mm	49.45" 1256.0mm	6.2" 158mm	8.3" 211mm
4.76, 5.28 - 7.6	67.7" 1669mm	67.8" 1722mm	59.49" 1511.0mm	6.2" 158mm	8.3" 211mm

### CX1 ProVector® Physical Dimensions with Defender® housing



HEATER KW RATING	"A" DIMENSION		"B" DIMENSION	"E" DIMENSION	
	W/ EXTENSION	WITH EXTENSION		W/ EXTENSION	WITH EXTENSION
0.75 - 2.69, 3.6 (T2A)	36.9" 938mm	39.0" 991mm	31.34" 796.0mm	.6" 142mm	7.7" 195mm
3.01 - 3.59, 3.6 (T3), 4.8	55.7" 1398mm	57.1" 1461mm	49.45" 1256.0mm	5.6" 142mm	7.7" 195mm
4.76, 5.28 - 7.6	67.7" 1653mm	67.2" 1706mm	59.49" 1511.0mm	.6" 142mm	7.7" 195mm

Notes: Heaters with built-in thermostat come with tube extensions.

# Industrial Portable Utility Heater PKB Series



### Model Code:

PKB	20	10	-1
A	B	C	D
A: Series			
B: 12 - 120V, 24 - 240V 48 - 480V			
C: Watts (1500)			
D: T - Thermostat			



- Long life spiral finned heating elements
- Long life unit bearing motor
- Durable 20-gauge steel enclosure
- High visibility safety yellow
- Built-in thermostat (40°-100°F)
- Fan only switch
- 6ft. SO cord (no plug)
- Dual carrying handles
- Cord storage feature
- Heavy duty 16 gauge wheel base
- High limit thermal cutout safety device
- Non-Mercury tip over switch
- 2-year limited warranty



## The PKB Yellow Jacket Portable Unit Heater

The King Yellow Jacket portable unit heater is constructed to hold up to the rigorous demands of a jobsite or industrial facility. It is the best heat source to assist in dry-out applications where dry electric heat is preferred to propane or kerosene space heaters. In addition, electric heat has no odor, flame or carbon monoxide. The high CFM and low temperature rise are also key features to make the Yellow Jacket the best solution for temporary large capacity heating applications.

### Ordering Information

	MODEL	KW	BTUH	PHASE	VOLTS	AMPS	CFM
<b>208V</b>	PKB2010-1	10	34.1	1	208	48.1	825
	PKB2015-1	15	51.2	1	208	72.1	825
	PKB2010-3	10	34.1	3	208	27.7	825
	PKB2015-3	15	51.2	3	208	41.6	825
	PKB2020-3	20	68.3	3	208	55.5	1100
	PKB2030-3	30	102.4	3	208	83.3	1350
<b>240/ 208V</b>	PKB2410-1	10/7.5	34.1	1	240/208	41.6/36.1	825
	PKB2415-1	15/11.25	51.2	1	240/208	62.5/54.1	825
	PKB2410-3	10/7.25	34.1	3	240/208	24/20.8	825
	PKB2415-3	15/11.25	51.2	3	240/208	36/31.2	825
	PKB2420-3	20/15	68.3	3	240/208	48.1/41.6	1100
	PKB2430-3	30/22.5	102.4	3	240/208	72.1/62.5	1350
<b>480V</b>	PKB4810-1	10	34.1	1	480	20.8	825
	PKB4815-1	15	51.2	1	480	31.3	825
	PKB4810-3	10	34.1	3	480	12	825
	PKB4815-3	15	51.2	3	480	18	825
	PKB4820-3	20	68.3	3	480	24	1100
	PKB4830-3	30	102.4	3	480	36.1	1350

### Specifications

Construction..... 20 gauge steel  
 Elements..... Spiral Finned  
 Louvers..... Adjustable  
 Fan Blade..... Aluminum  
 Cord Length..... 6 ft. (no plug)  
 Motor..... Unit Bearing  
 Approvals..... ETL (517271) & (30314521)

### Minimum Clearance

front.....3 ft.  
 top..... 1 ft.  
 sides.....1 ft.  
 rear..... 1 ft.

### Options

-SB OPTIONAL 6" BASE, NO WHEELS

# Industrial Portable Unit Heater PCK Series


**Model Code:**
**PCK 48 20 -3 -T -DT -YJ**  
**A B C D E F G**
**A: Series**  
**B: 20 - 208V, 24 - 240V**  
**48-480V**  
**C: kiloWatts (10 - 30)**  
**D: -1 = Single Phase**  
**-3 = Three Phase**  
**E: -T = Thermostat**  
**F: -DT =**  
**G: -YJ = Yellow Jacket**


Outdoor rating optional

- Built-in thermostat
- 24V control for heat or fan only
- steel spiral finned elements
- Long life 3R cast iron motor
- N.E.M.A. 12 gasket construction
- 12" duct collar suitable for flexible dust hoses
- Convenient carrying handles
- Optional frame
- High visibility Yellow Jacket high tensile 18GA steel enclosure
- Large capacity dual-inlet blower handles high static pressure & moves large air volumes (1500 CFM)
- 95 lbs. without frame, 125 lbs. with industrial frame

## PCK Industrial Portable Unit Heater

The King PCK "Yellow Jacket" Industrial portable unit heater is constructed to hold up to the rigorous demands of a jobsite or industrial facility. This unit heater is the very BEST heat source to assist in complete "Dry-out" applications, where dry electric heat is preferred to propane or kerosene space heaters. In addition, electric heat omits absolutely no odor, flame or carbon monoxide. The high CFM and moderate temperature rise are also key features to make this unit heater the very best solution for temporary large capacity heating and dry-out applications. Comes standard with a 12" collar for adding a flexible duct to extend the heated air to where it is needed. The -IF (Industrial Frame) complies with the FAA's Airport regulations of 18 inch above the ground for air inlet of the heater to reduce the jet fuel vapor being drawn in. An Outdoor rain proof rating can be added to the portable unit heater by adding the -OR (Outdoor Rating) to the Model number. This will allow you to place the heater outside in the rain and feed heated air into a building structure, plane, container, apartment, ship or any work area requiring heated dry fresh air and not take up space in the work area. The -OR option adds an intake rain baffle and electrical compartment rain cover and is UL approved for Outdoor Use. Many options are available. We can build one for your application.

### Ordering Information

	MODEL	UPC	kiloWATTS	VOLTS	PHASE
<b>208V</b>	PCK2010-1	22186	10	208	1
	PCK2010-3	22187	10	208	3
	PCK2015-1	22188	15	208	1
	PCK2015-3	22189	15	208	3
	PCK2020-3	22190	20	208	3
	PCK2025-3	22191	25	208	3
	PCK2030-3	22192	30	208	3
<b>240V</b>	PCK2410-1	22193	10	240	1
	PCK2410-3	22194	10	240	3
	PCK2415-1	22195	15	240	1
	PCK2415-3	22196	15	240	3
	PCK2420-3	22197	20	240	3
	PCK2425-3	22198	25	240	3
	PCK2430-3	22199	30	240	3
<b>480V</b>	PCK4810-3	22200	10	480	3
	PCK4815-3	22201	15	480	3
	PCK4820-3	22202	20	480	3
	PCK4825-3	22203	25	480	3
	PCK4830-3	22204	30	480	3

### Accessories

MODEL	UPC	DESCRIPTION
PCK-IF	22205	HEAVY DUTY INDUSTRIAL STEEL FRAME
PCK-IFCS	22206	CORD STORAGE SHELF
PCK-OR	22207	OUTDOOR RATING INLET RAIN BAFFLE W/ ELECTRICAL AND CORD COVER
RT100	22208	REMOTE THERMOSTAT W/100 FT. CORD

Optional heavy duty 1" x 2" steel frame for protection, convenient stackable storage and mobility from job site to job site.

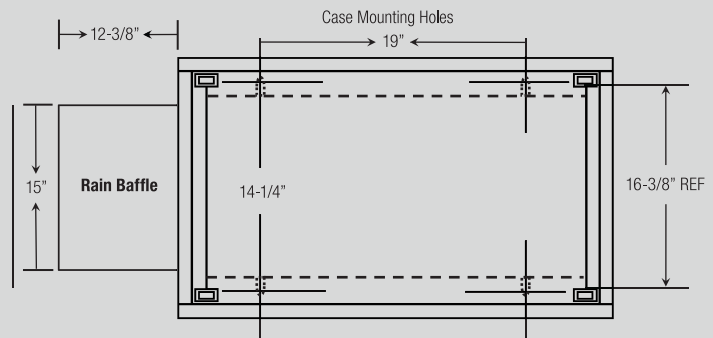
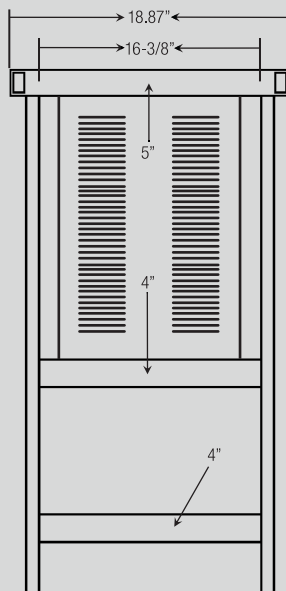
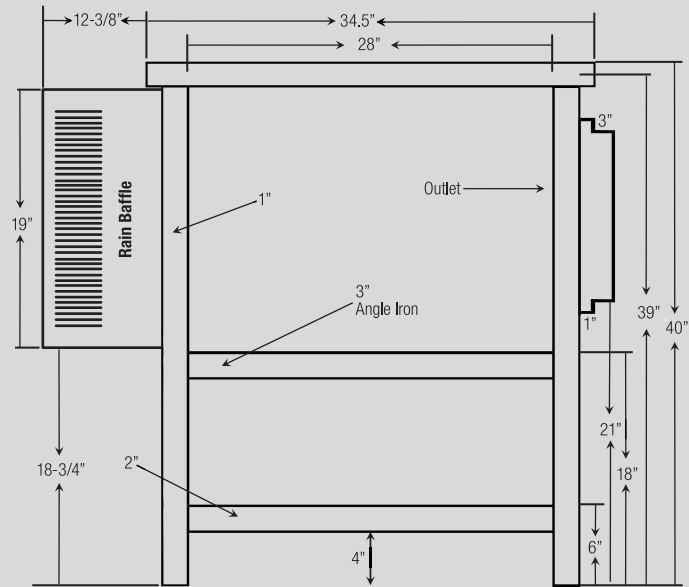
# Industrial Portable Unit Heater PCK Series



Shown with industrial steel frame and cord storage tray

## Dimensional Data

#	QUANTITY	DESCRIPTION
1	4	1 X 2 X 39 Rect. tubing
2	2	1 X 2 X 28 Rect. tubing
4	4	1 X 2 X 16-3/8 Rect. tubing
5	2	1 X 2 X 18-3/8 Rect. tubing
3	2	2 X 2 X 30 Angle



Shown with ducting



Shown with short steel frame 25-1/2"



Outdoor rating inlet rain baffle with electrical and cord cover

# Electric Furnace KF/KFS Series



### Model Code:

KFS	20	20	1
A	B	C	D

A: Series  
 B: 20 - 208V 24 - 240V  
 48 - 480V  
 C: Kilowatts  
 D: 1 or 3-phase

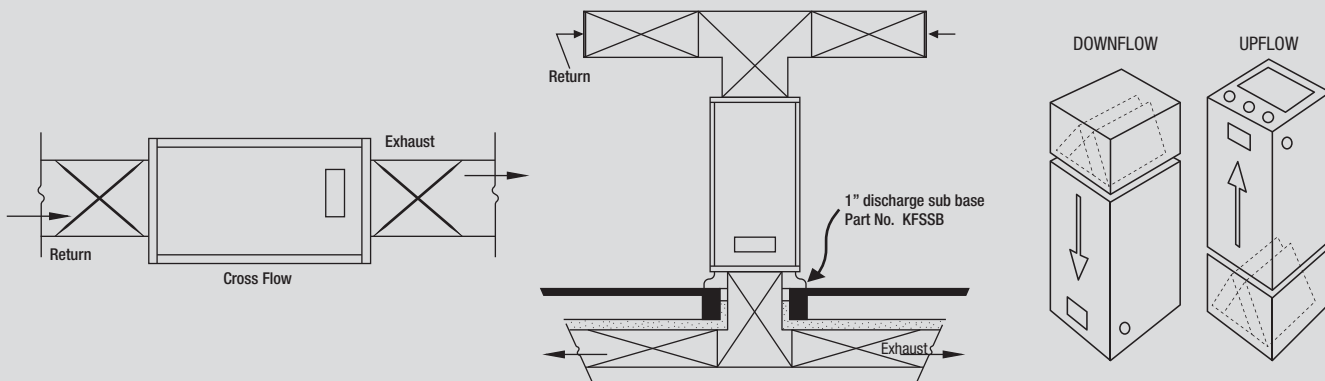


- Heavy duty open-coil element
- Direct drive motor
- Up to 3-speed motor
- Standard 24 Volt control
- Horizontal or vertical mount
- Insulated discharge cabinet
- Baked enamel finish
- Fan relay
- Silent contactors
- Sequenced elements
- Dual inlet blower
- 60 Amp disconnect protection (KFS)
- Manual reset limit on 20 kW and larger
- Welded galvanized steel construction
- Thermally protected motor
- Replaceable filter
- Mobile home approved



## The KFS Series Electric Furnace

The KFS Series furnace is the quietest and most compact unit available in its class. Ideal for residential applications, and yet powerful enough for commercial and process heating applications as well. It's the perfect choice for both new and replacement installations. The compact design allows it to be installed in either upflow, downflow or horizontal applications. Featuring a maintenance free blower, an insulated cabinet for quiet operation, and heavy gauge coiled nickel-chromium wire heating elements, the KFS furnace will provide years of trouble-free operation.



## 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 (24 Volt) transformer for the thermostat control circuit.

**Contact or Time Delay Sequencer:** Actuates heating element banks at random intervals 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 by fan-forced air convection currents.

**Terminal Block:** For field wiring (optional special order) KFSTB

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

**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 use a manual reset limit control to completely shut the furnace off should an over temperature occur.

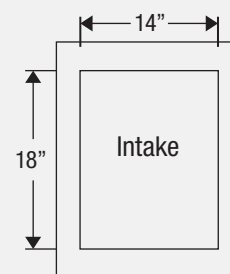
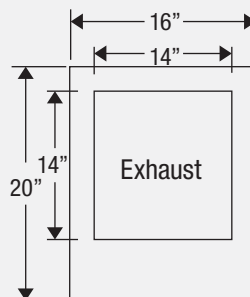
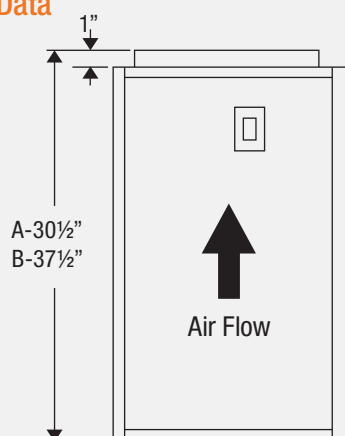
**Fan Relay:** Heavy-duty dual speed fan relay is standard with furnaces for air conditioning or summer fan operation.

**Low Voltage Terminal Block:** 24 Volt control screw terminals

**Approvals:** UL (E48864)

# Electric Furnace KF/KFS Series

## Dimensional Data



The height of the KFS furnace is the only dimension that changes. Please refer to selection chart to determine the size of the unit.

## Accessories

MODEL	UPC	DESCRIPTION	WEIGHT(lbs.)
KFS-4PJB	20185	* 4-Pole Jumper Bar - 15kW to 20kW	.05
KFS-6PJB	20184	* 6-Pole Jumper Bar - 25kW to 30kW	.05
KFSSB	20182	1" discharge sub base	5
KFS-Q02C	20181	Small Cooling Cabinet 16" L x 22" W x 19 1/2" H - 13 lbs.	25
KFS-Q03C	20180	Large Cooling Cabinet 18" L x 22" W x 19 1/2" H - 15 lbs.	25
KFS-DT	20186	Transition from 14" x 14" Outlet to 12" round	25

\* For single strike connection

## DIMENSIONAL CLEARANCE

Cabinet Sides	1 in.
Cabinet Front	0 in.
Exhaust duct within 3 feet of furnace	1 in.
Return Air Plenum	0 in.

## Options

ADD SUFFIX:	DESCRIPTION
-JB	15 kW to 30 kW, 1-Phase
-1/3HP	1/3 HP Motor & Blower - 3 kW to 18 kW
-1/2HP	1/2 HP Motor & Blower - 3 kW to 35 kW
-2S1	Two Stage Control, 1-Phase Models (see quick selection guide)
-2S3	Two Stage Control, 3-Phase Models (5 kW increments only)
*-3S1	Three Stage Control, 1-Phase Models
-1/5 ECM	1/5 hp Electronically Controlled Motor
-1/3 ECM	1/3 hp Electronically Controlled Motor

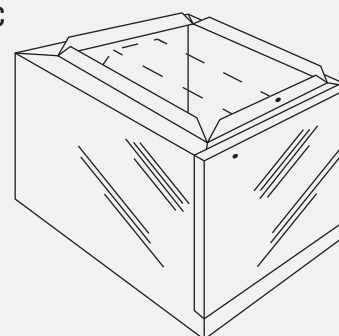
## Factory Installed Options

ADD SUFFIX:	DESCRIPTION
-DS40	40 Amp, 3-Pole Disconnect Switch w/ Padlock Provision
-DS60	60 Amp, 3-Pole Disconnect Switch w/ Padlock Provision
-DS80	80 Amp, 3-Pole Disconnect Switch w/ Padlock Provision

## Air Flow Chart

MOTOR HP (rpm)	MOTOR SPEED								
	MOTOR LOAD		LOW		MED		HIGH		
	VOLTAGE	AMPS	CFM	FPM	CFM	FPM	CFM	FPM	
1/5 (1075 rpm)	230 380 / 460 <sup>1</sup>	3.4 1.7	775	570	860	630	1000 <sup>1</sup>	735	
1/3 (1075 rpm)	230 380 / 460 <sup>2</sup>	3.2 1.7	1100 <sup>2</sup>	810	1250	920	1540 <sup>2</sup>	1130	
1/2 (1075 rpm)	230 380 / 460 <sup>2</sup>	3.8 1.9	1250	920	1540	1130	1750 <sup>3</sup>	1285	
MOTOR WIRE COLOR			RED		BLUE		BLACK		
*Air Volume = Cubic Feet Per Minute (CFM)				*Air Velocity = Feet Per Minute (FPM)					
<sup>1</sup> Single speed only			<sup>2</sup> Low & High speed only		<sup>3</sup> High speed only				

## Q02C

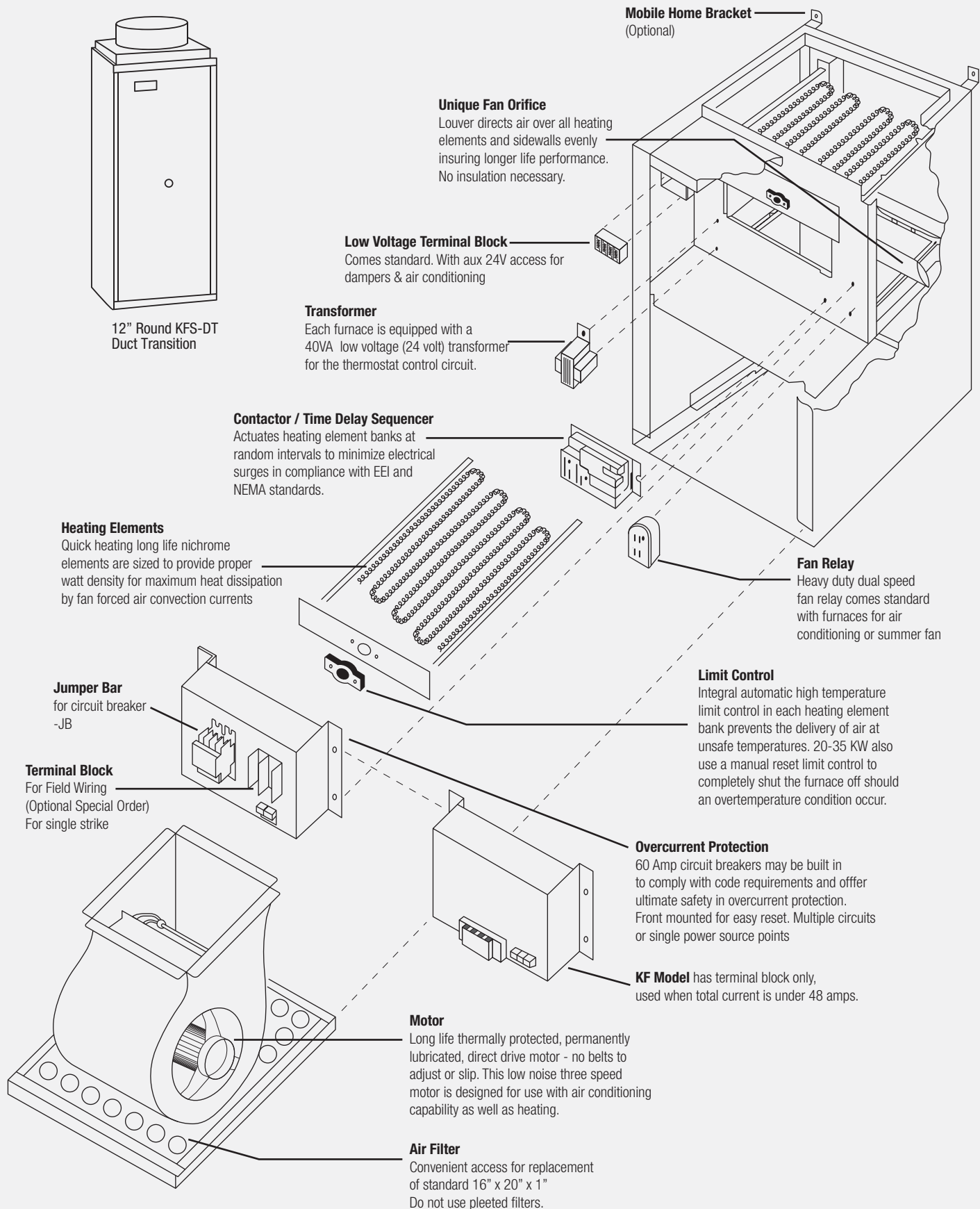


	LENGTH	WIDTH	HEIGHT	WEIGHT
<b>Q02C</b>	16	22	19.5	13
<b>Q03C</b>	18	22	19.5	15



# Electric Furnace KF/KFS Series

## Internal Diagram - *exploded view*





# Electric Furnace KFS endura<sup>PRO</sup>



**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**



- 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



## The KFSendura<sup>PRO</sup>

**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<sup>PRO</sup>**  
 Trademark of Genteq®

### 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

# Electric Furnace KFS endura<sup>PRO</sup>

**Ordering Information** Refer to model KFS for dimensions

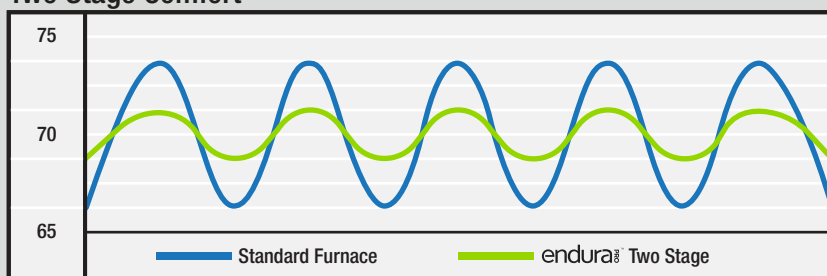
MODEL	VOLTS	PHASE	STAGE 1	STAGE 2	WATTAGE	BTU	WIRES	AMPS
KFS2408-1-2S1-ECM	240V	-1Ph	4 kW	4 kW	8 kW	27.3	#6/2	37
KFS2410-1-2S1-ECM	240V	-1Ph	5 kW	5 kW	10 kW	34.1	#6/2	45
KFS2412-1-2S1-ECM	240V	-1Ph	5.75 kW	5.75 kW	11.5 kW	39.2	#8/2- #10/2	51.3
KFS2415-1-2S1-ECM	240V	-1Ph	5 kW	10 kW	15 kW	51.2	#6/2- #10/2	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*

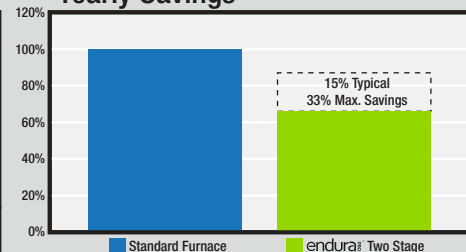
2 Stage controlled Furnaces allow you to use less energy during mild Spring and Fall temperatures. It's like having a smaller furnace installed just for spring and fall, then when winter hits you have the reserve power of the second heating stage to fight off the cold weather. It also has the benefit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

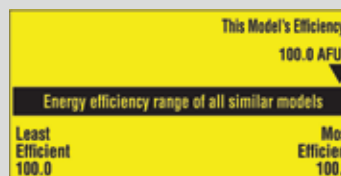


### Yearly Savings



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" 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" 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

# Stainless Steel PAW Series



**Pic-A-Watt**  
Steel Fin Element



**Model Code:**

PAW	12	15	-SS	-ST
A	B	C	D	E
<b>A: Series</b>				
<b>B: Volts: 12=120V 20=208V 24=240V 27=277V</b>				
<b>C: Watts (250 - 2250)</b>				
<b>D: Stainless Steel</b>				
<b>E: Slope Top</b>				



- 304 Stainless Steel Enclosure
- Pic-A-Watt® Element
- Multiple wattages
- Flange-mount wall can
- Manual reset high limit
- C-Frame Motor
- Squirrel Cage Blower
- Patented Smart Limit Protection®
- Whisper quiet
- Slope top
- Approved for inspected vessels
- 3-year limited warranty



## The Stainless Steel PAW Series

**The heater of choice in the boating industry.** This is the only electric heater specifically designed to be used in marine applications. It has all the great features of the Pic-A-Watt® heater (including a stainless steel grill, wall can and interior) enabling it to stand up to the corrosive environment on saltwater boats. The wall can is flanged for recess mounting into a wood bulkhead. Consult factory or review catalog for other models, including a high-efficiency motor and a Dial-A-Watt™ switch allowing you to change the wattage with a grill-mounted selector switch.

### Ordering Information

\*Add suffix -ST for Slope Top Surface Can (required when surface-mounting on inspected vessels)

MODEL	UPC	VOLTS	WATTS	AMPS	SHIP WEIGHT lbs
PAW1215-SS	16315	120V	250•500•750•1000•1250•1500	2.1-12.5	9.5
PAW2022-SS	00516	208V	500•750•1000•1250•1500•1750•2250	2.4-10.8	9.5
PAW2422-SS	16313	240V	500•750•1000•1250•1500•1750•2250	2.1-9.4	9.5
PAW2720-SS	00518	277V	1000•2000	3.6-7.2	9.5

## Engineering Specifications

*Contractor shall supply and install PAW Stainless Steel Series in-wall mounted forced-air electric heaters manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.*

**Construction:** The heater wall can and heat box assembly will be of 20 gauge 304 stainless steel and have a depth gauge label on top of the wall can. Flanges on each side of the wall can will aid in mounting to wooden bulkheads. All fasteners are stainless steel or nickel plated. If surface mounting on a inspected vessel an angled top can will be used.

**Ratings:** Heaters shall be available in wattages of 250 to 2,250 at 120, 208, 240, or 277 Volts.

**Blower and Motor:** A tangential cylindrical blower, delivering 65 CFM, 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.

**Elements:** Element assemblies shall consist of three steel sheathed heating tubes in a furnace-brazed, plate-finned, block design. Each sheathed tube shall contain coiled Ni-Chrome wire embedded in an insulator of Magnesium Oxide. The element assembly shall provide up to seven (7) possible wattage configurations available for selection during field installation. The use of external resistors, diodes, or other weak links to obtain multiple wattages will not be accepted.

**Thermal Overload:** Heaters shall be equipped with King's patented thermal overload Smart Limit Protection®, which disconnects elements and motor in the event normal operating temperatures are exceeded. If thermal overload trips due to abnormal operating temperatures, thermal overload shall remain open until manually reset by turning the heater off for fifteen minutes. Automatic reset of thermal overloads, which allow the element to continue to cycle under abnormal conditions, will not be accepted.

**Wall Can:** The wall can shall be 20 gauge stainless steel and shall contain a minimum of three (3) knockouts through which power leads are brought. The wall can shall have a depth gauge or flange and a factory installed Copper ground-wire. Minimum 4" clearance to floors and 6" to sidewalls. Zero clearance to combustibles in wall.

**Grill:** The grill shall be a louvered, one-piece design with square corners on all four sides. The grill shall be clear epoxy powder-coated.

**Approval:** Heaters shall be listed and approved by Underwriters Laboratories or equal.

## Options

### ADD SUFFIX

-ST

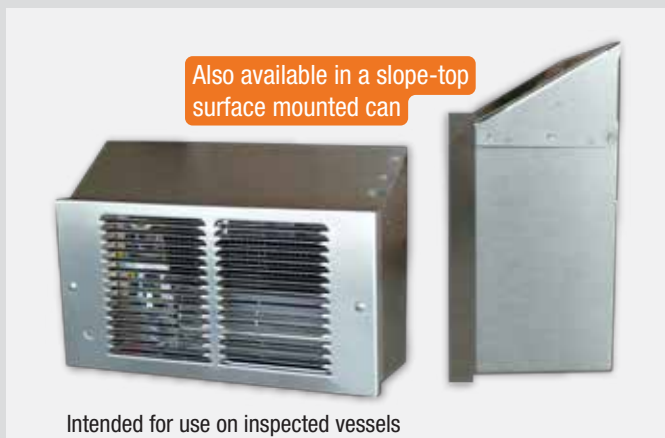
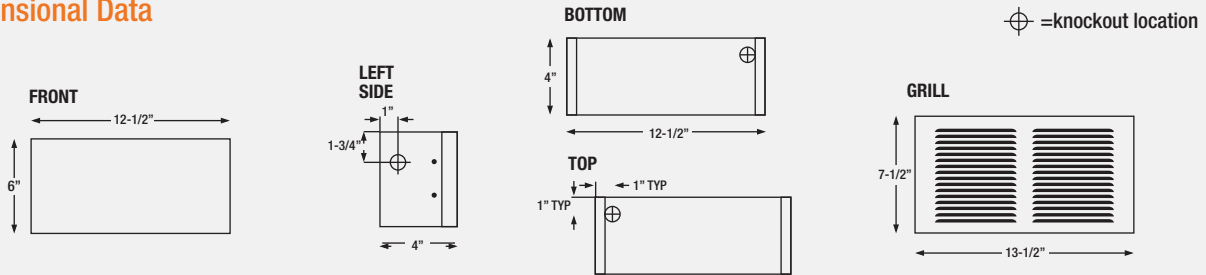
### DESCRIPTION

Adds slope top wall can. Required on inspected vessels.

## Accessories

MODEL	UPC	DESCRIPTION	SHIP WEIGHT lbs
PAWF-SS	16318	Bulkhead Can with Flange - Stainless Steel. Inspected vessel.	2
PAWS-SS	16317	Recessed Surface Can - Stainless Steel	2
PAWG-SS	16330	Marine Grille - Stainless Steel	2
PT-1-SS	16309	Single Pole Thermostat Kit	.5
PT-2-SS	16311	Double Pole Thermostat Kit	.5

## Dimensional Data



### MINIMUM CLEARANCE

Zero clearance to insulation 4" above floor 6" from adjacent wall

# Stainless Steel DAW Series



**Pic-A-Watt**  
Steel Fin Element



**Model Code:**

DAW	12	15	-SS
A	B	C	D

A: Series  
 B: Volts: 12=120V 20=208V  
 24=240V 27=277V  
 C: Watts (250 - 2250)  
 D: Stainless Steel



- Select from up to 7 wattages with switch on grill
- Pic-A-Watt® Element
- 304 Stainless Steel Enclosure
- C-Frame Motor
- Squirrel Cage Blower
- Whisper Quiet
- Green pilot light indicates heat is on
- 20 gauge clear powder-coated grill
- Multiple wattage selection
- Flange-mount wall can
- Smart Limit Protection®
- 1-Pole or 2-Pole unit mount thermostat 45° - 80°F
- 120, 208, or 240 Volts



## The Stainless Steel DAW Series

**A heater unique to King featuring the ability to choose the wattage needed.** A heavy-duty industrial switch mounted on the grill allows quick and easy choice of up to 7 different heat settings. Use where higher wattage is not required during unoccupied periods. Typical installations are toll booths, motor home/RVs, pleasure craft and cabins. By providing air movement and dry heat, musty, moldy odors are reduced and interior fabric life is maximized. Utilizing a lower wattage provides winter freeze protection with the bonus of energy savings. During RV use the heater load (Amperage) can be adjusted to the receptacle or cord size. This prevents damage to plugs and receptacles due to overloading. During lay-up periods, wattage can be adjusted to the correct level. Quiet operating tangential cylindrical (squirrel cage) blower and commercial grade element make the Dial-A-Watt™ the heater of choice for people on the move.

### Ordering Information

MODEL	UPC	VOLTS	WATTS	AMPS	SHIP WEIGHT lbs
DAW1215-SS	19251	120	250•500•750•1000•1250•1500	2.1-12.5	9
DAW2022-SS	19208	208	500•750•1000•1250•1500•1750•2250	2.4-10.8	9
DAW2422-SS	19252	240	500•750•1000•1250•1500•1750•2250	2.1-9.4	9

Refer to Stainless Steel PAW Series for dimensions and accessories

### Engineering Specifications

*Contractor shall supply and install, DAW Stainless Steel Series wallmounted forced-air electric heaters manufactured by King Electrical Mfg. Company, of the wattage and voltage as indicated on the plans.*

**Ratings:** Heaters shall be available in wattages of 250 to 2,250 at 120, 208, or 240 Volts.

**Blower and Motor:** A tangential cylindrical blower, delivering 65 CFM, 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.

**Elements:** Element assemblies shall consist of steel sheathed heating tubes in a furnace brazed, plate-finned, block design. Each sheathed tube shall contain coiled a Ni-Chrome wire embedded in an insulator of Magnesium Oxide.

**Thermal Overload:** Heaters shall be equipped with thermal overload Smart Limit Protection®, which disconnects elements and motor in the event normal operating temperatures are exceeded. If thermal overload trips due to abnormal operating temperatures, thermal overload shall

remain open until manually reset by turning the heater off for fifteen minutes. Automatic reset of thermal overloads, which allow the element to continue to cycle under abnormal conditions, will not be accepted.

**Wall Can:** The wall can shall be stainless steel and shall contain a minimum of three (3) knockouts. The wall can shall have a depth gauge or flange mount, and a factory installed Copper groundwire. Minimum 4" clearance to floors and 6" to sidewalls. Zero clearance to combustibles in the wall.

**Grill:** 304 brushed stainless steel, clear powder coating.

**Selector Switch:** Shall provide up to 7 wattage settings adjustable from switch on front of heater.

**Indicator:** Light designates heater is operating.

**Approval:** Heaters shall be listed and approved by Underwriters Laboratories or equal.

# Stainless Steel<sup>MKT</sup> Series



### Model Code:

MKT	12	10	-SS
A	B	C	D

A: Series  
 B: Volts: 12=120V 20=208V  
 24=240V  
 C: Watts (375 - 1500)  
 D: Stainless Steel



- 304 Stainless steel construction
- Low profile
- Open-coil element
- Squirrel Cage Blower
- C-Frame Motor
- Stainless steel grill
- Overlap grill
- Patented Smart Limit Protection®
- 1-year limited warranty



## The Stainless Steel<sup>MKT</sup> Series

**This low-profile kick space heater fits where standard heaters cannot.** Stainless steel construction makes it ideally suited where corrosion resistance is needed such as marine vessels or other high humidity areas. A typical marine vessel application is mounting through a bulkhead or plywood cabinet. The oversize grill (photo) is standard. For under-counter applications check the accessories table for the appropriate grill.

### Ordering Information

	MODEL	UPC	VOLTS	WATTS	AMPS	SHIP WEIGHT lbs
120V	MKT1210-SS	11007	120	1000 or 500	8.3 or 4.2	8
	MKT1215-SS	11014	120	1500 or 750	12.5 or 6.3	8
240V	MKT2410-SS	11001	240	1000 or 500/750 or 375	4.2 or 2.1/3.2 or 1.6	8
	MKT2415-SS	11008	240	1500 or 750/1125 or 562	6.3 or 3.2/4.7 or 2.4	8

Refer to KT Series heater for dimensional data

### Accessories

MODEL	UPC	DESCRIPTION	SHIP WEIGHT lbs
KTG-SS	12269	Stainless Steel Grill 4-1/2" (Surface)	1
MKT-1-SS	11010	Single Pole Single Throw Thermostat Kit	.6
MKT-2-SS	11011	Double Pole single Throw Thermostat Kit	.6
KTG-SS-3-1/2	12267	SS Grille Standard – 3-1/2" X 16-1/2" (No Overlap) (Recess)	1.1

## Engineering Specifications

*Contractor shall supply and install MKT Series limited space-mounted forced-air electric heaters manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.*

**Motor:** Thermally protected and permanently lubricated.

**Fan:** Tangential (squirrel cage) blower provides whisper-quiet operation at 70 CFM.

**Element:** Dual wattage element allows for field adjustment. Made from Ni-Chrome alloy open-coil wire wrapped around a mica insulator.

**Thermal Cutout:** Safety limit turns off power to the element if it overheats and automatically resets.

**Thermal Overload:** Heaters shall be equipped with thermal overload Smart Limit Protection®, which disconnects elements and motor in the event normal operating temperatures are exceeded.

If thermal overload trips due to abnormal operating temperatures, thermal overload shall remain open until manually reset by turning the heater off for fifteen minutes. Automatic reset of thermal overloads, which allow the element to continue to cycle under abnormal conditions, will not be accepted.

**Wall-box:** 20 gauge type 304 brushed stainless steel. All fasteners and hardware are stainless steel. Zero clearance to floors and 6" to sidewalls. Zero clearance to combustibles.

**Grill:** 20 gauge 304 stainless steel, clear epoxy finish.

**Options:** 1-Pole or 2-Pole unit-mount thermostat 45 - 80°F operating range and overlap grill.



# Electric Heating Cable

## Electric Heating Cable

King offers a wide range of electric heating cable. Request a catalog or visit our website for a full list of products, specifications & installation.



### Electric In-Floor Heat

- FC Series Electric In-Floor Cable
- FCM Series Electric In-Floor Mat
- Thermostats
- FC/FCM Accessories



### Thermal Storage

- TC Series Thermal Storage Cable
- TCM Series Thermal Storage 24", 30" & 36" Mats
- Thermostats



### Electric Snow Melt

- SC Series Snow Melt Cable
- SCM Series Snow Melt 208V Mat
- SCM Series Snow Melt 240V Mat



### Pipe Freeze Protection

- SRP Series Self-Regulating Pre-Assembled Heating Cable
- CWP Series Constant Wattage Pipe Trace Heating Cable
- SR Series Self-Regulating Pipe Trace Heating Cable



### Roof/Gutter De-Icing

- SRP Series Self-Regulating Pre-Assembled De-Icing Heating Cable
- CWR Series Constant Wattage De-Icing Heating Cable
- CWR Series IceFree Controller
- SR Series Self-Regulating De-Icing Heating Cable



### Controls & Sensors

- SnowFree™ Controller Snow Melt System Kit
- PYRO Snow Melt/De-Icing System
- PYRO Pipe Trace System
- SR/SRP Accessories
- Roof/Drain De-Icing System
- Roof & Gutter De-Icing Controls
- Pipe Freeze Protection
- Snow Melt Controls

# Hydronic Heaters

## HYDRONIC

Heat only the rooms which need it, borrowing heat from any hot water source.

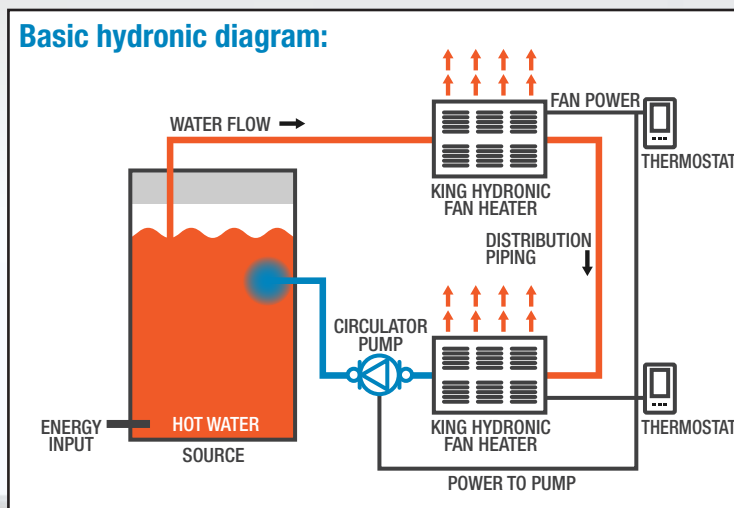
- ✓ Compatible with typical hot water sources
- ✓ Reduce utility bills with individual room control
- ✓ Built with high quality components
- ✓ Quiet operation
- ✓ More free space: no furnace room needed
- ✓ Approved for use with potable water (HWPT required)

### How does King's hydronic system work?

The concept is simple: Redirect existing hot water rather than expend energy to create a new heat source. King's hydronic heating system uses hot water from your hot water tank (any hot water source — gas, electric, solar, etc.), passes it through highly efficient radiant heat plates, and returns the hot water to your tank. Inside the heater, a gentle fan draws room-temperature air across the radiant plates where the air is warmed before being pushed back out into the room. But the real magic is in our thermostat system, which maintains consistent individual room temperatures while using the smallest amount of energy possible.

### Why King's hydronic system makes sense today:

- Utilizes a hot water system already in place
- Minimal floor space used — no furnace footprint
- Single room temperature control lowers cost
- Less temperature fluctuation than typical systems
- Easier to install than forced air ducting
- One less sub on job
- Minimal components to install, uses flexible hot-water lines
- Maximized energy savings with ECM fan and two-step thermostat
- Near-silent operation, smooth, consistent, comfortable room heat
- High-quality, American-made construction means low maintenance
- Works with typical hot water energy source: gas, electric, solar, etc.



King's hydronic system offers cost-saving zone control, heat source sharing, near silent operation, quality construction, and easy installation.



# Hydronic Draft Barrier HLB Series



### Model Code:

HLB	F	2
A	B	C

A: Series  
 B: F- Front intake  
 T- Bottom intake  
 C: Length

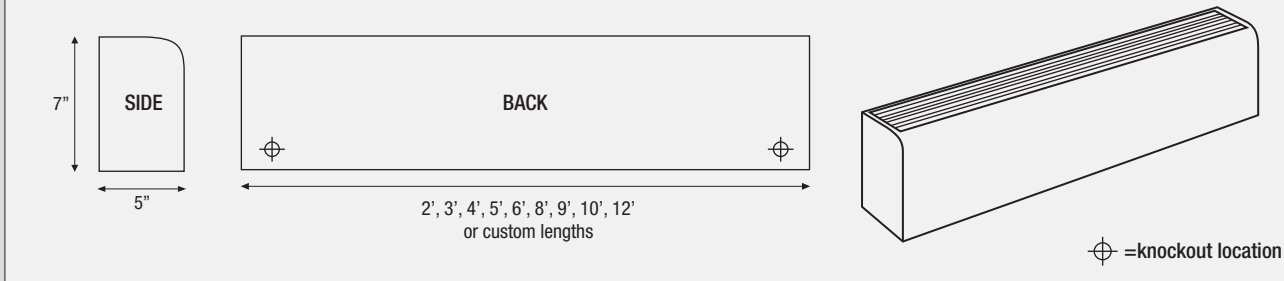


- Bottom intake, top discharge HLBT
- Front intake, top discharge HLBF
- 12GA extruded aluminum front & back
- Snap fit 2 piece construction
- Painted and anodized finishes
- Valve compartments are 6" or 12"
- 3/4" and 1" copper tubes available
- 400 to 1000 BTUH ratings (per foot)
- Multiple sections on one common back
- 1/4" pencil proof discharge grill
- Aluminum fins for quick heat
- LB is 5"W x 7"H
- 1-year limited warranty

## The HLB Series Hot Water Draft Barrier

**MODEL HLB residential/commercial hydronic baseboards** offers superior performance, beauty and versatility that is combined with strength and durability. Softline baseboard provides a gentle curtain of warmth along cold outside walls. No drafts and no cold spots. It is ideal for residential, apartment and commercial applications. Painting after installation does not affect the operation. The heavy gauge back plate design assures perfect alignment of the enclosure, and holds the front panel firmly in place. The unique patented heating element for models HLB are available in 3/4" and 1/2" copper tube sizes. HLB baseboard is available completely factory assembled, in coded cartons, in lengths of 2 through 10 feet. Model HLB is available in seven standard colors. Anodized finishes are also available.

### Dimensional Data



## Engineering Specifications

*Design draft barriers shall be 7" high and 5" wide. The front cover shall be one piece 12 gauge aluminum construction suitable for architectural, commercial and industrial use, with 1/4" pencil proof top discharge. The one piece cover shall be extruded aluminum for maximum strength and shall be available in lengths to 12". The front cover shall snap fit to the 12 gauge back cover with no screw heads or assembly fasteners. The 12 gauge back cover shall be suitable for mullion to mullion mounting. Standard painted finishes shall be provided.*

**Element:** Heat sections from 2' to 10' are available. Furnish and install model emb or slit type heating element. The element shall be manufactured with 1/2", 3/4" and 1" nominal copper tubing with .010" thick aluminum fins, having full collars for uniform spacing and optimum thermal contact. Fins shall be mechanically bonded to the copper tube. One end of each element shall be expanded to accept the unexpanded end of another tube without coupling.

**Element mount bracket:** Element bracket is constructed of 16 gauge galvanized steel and are mounted to the backplate for noiseless expansion of element. Designed for easy installation into pre-punched mounting holes. Elements are supplied with nylon brackets for noiseless expansion.

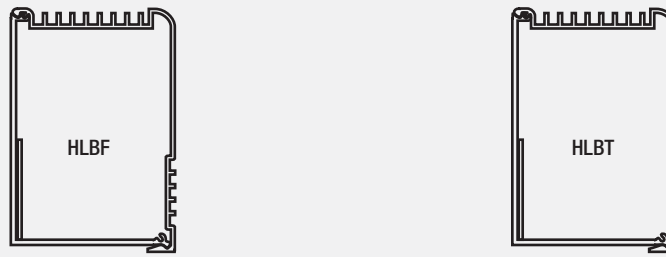
**Installation features:** Model HLB construction allows simple, snap-fit installation. The back plate which houses the heating element assembly is simply attached to the wall surface at the desired height and the front cover enclosure is then snapped into place.

**Pedestal features:** Model HLBT-PD, HLBF-PD, HSBST-PD shall have 2" adjustable pedestals and the heater back will be painted to match the front cover. 1" of adjustment is available on the cast iron pedestal.

**Pedestal quantities:** 2 on 1', 2', 3', 4', 5', 6' / 3 on 7', 8', 9', 10'

# Hydronic Draft Barrier HLB Series

## Side View



## Ordering Information

FRONT INTAKE		BOTTOM INTAKE		LENGTH
MODEL	UPC	MODEL	UPC	
HLBF-2	32516	HLBT-2	32551	2'
HLBF-3	32517	HLBT-3	32552	3'
HLBF-4	32518	HLBT-4	32553	4'
HLBF-5	32519	HLBT-5	32554	5'
HLBF-6	32520	HLBT-6	32555	6'
HLBF-7	32521	HLBT-7	32556	7'
HLBF-8	32522	HLBT-8	32557	8'
HLBF-9	32523	HLBT-9	32558	9'
HLBF-10	32524	HLBT-10	32559	10'

Louvers on blank sections not punched unless otherwise spec.

Add suffix -pd to catalog number for pedestal style heater. Pedestals can be field mounted.

All valve compartments are 6" or 12" long. Price is the same for 6" or 12". Dimensions shown on inside and outside corners are wall dimensions.

Anodize finishes available, consult factory. Finished backs are available.

Units are furnished with factory installed element support.

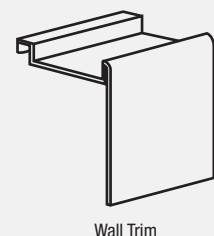
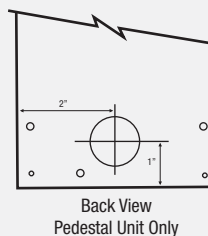
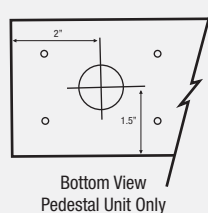
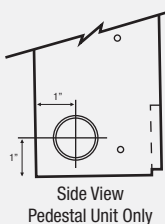
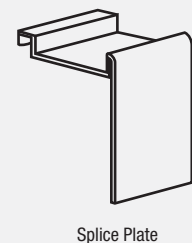
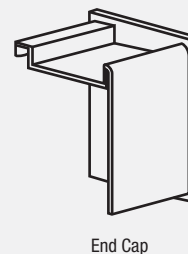
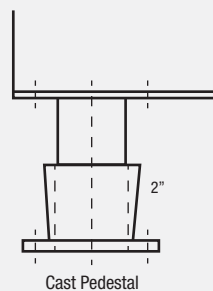
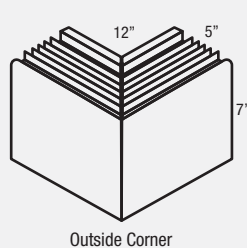
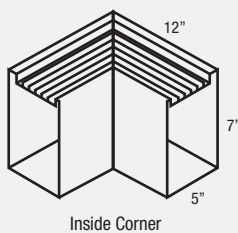
## Accessories

FRONT INTAKE		BOTTOM INTAKE		DESCRIPTION	LENGTH
MODEL	UPC	MODEL	UPC		
HLBF-IC	32525	HLBT-IC	32560	INSIDE CORNER	6"
HLBF-OC	32526	HLBT-OC	32561	OUTSIDE CORNER	6"
HLBF-SP	32528	HLBT-SP	32563	SPLICE PLATE	2"
HLBF-WT	32529	HLBF-WT	32564	WALL TRIM	4"
HLBF-VC	32530	HLBT-VC	32565	VALVE COMPANMENT	12"
HLBF-EC	32527	HLBT-EC	32562	END CAP (SPECIFY RT OR LT)	
HLB-MESH	32531			1/4" WIREMESH UNDER DISCHARGE GRILL	
HSB-PD	32515			PEDESTALS	

## Elements (Sold Separately)

MODEL	UPC	DESCRIPTION	LENGTH
HSLT-3/4"	32534	3/4" COPPER TUBE FINNED ELEMENT	2'-10'
HSLT-1"	32535	1" COPPER TUBE FINNED ELEMENT	7-10'

## Corners, Fillers, Blank Sections & End Caps



# Hydronic Draft Barrier HSB Series



### Model Code:

HSB A	F B	2 C
A: Series		
B: F- Front intake T- Bottom intake		
ST- Slope top, bottom intake		
C: Length		

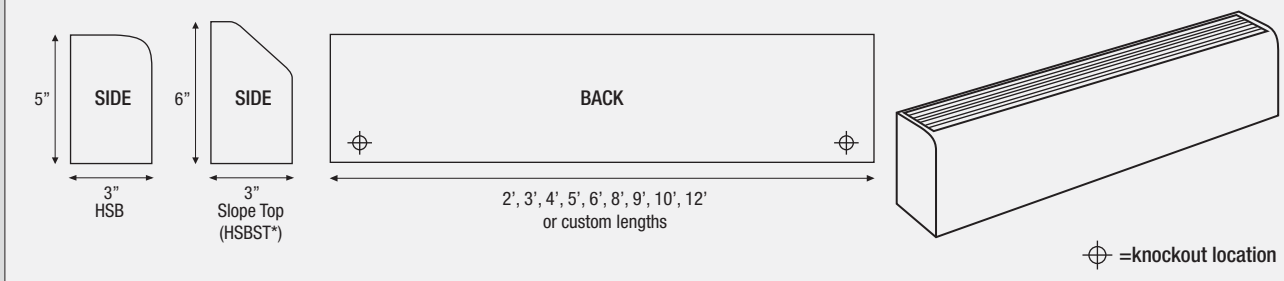


- Bottom intake, top discharge HSBT
- Front intake, top discharge HSBF
- Slope top, bottom intake HSBST (12GA)
- 14GA extruded aluminum front & back
- Snap fit 2 piece construction
- Valve compartments are 6" or 12"
- 3/4" and 1" copper tubes available
- 400 to 1000 BTUH ratings (per foot)
- HSB is 3"W x 5"H, HSBST is 3"W x 6"H
- 1/4" pencil proof discharge grill
- Multiple sections on one common back
- 1-year limited warranty

## The HSB Series Hot Water Draft Barrier

**MODEL HSB residential/commercial hydronic baseboards** offers superior performance, beauty and versatility that is combined with strength and durability. Softline baseboard provides a gentle curtain of warmth along cold outside walls. No drafts and no cold spots. It is ideal for residential, apartment and commercial applications. Painting after installation does not affect the operation. The heavy gauge back plate design assures perfect alignment of the enclosure, and holds the front panel firmly in place. The unique patented heating element for models HSB are available in 3/4" and 1/2" copper tube sizes. HSB baseboard is available completely factory assembled, in coded cartons, in lengths of 2 through 10 feet. Model HSB is available in seven standard colors. Anodized finishes are also available.

### Dimensional Data



Smooth back available when pedestal mounted and back can be seen.  
 \*Approved for residential use

## Engineering Specifications

*HSB Draft Barriers shall be 5" or 6" high and 3" wide. The front cover shall be 14 gauge (12GA, HSBST) aluminum construction suitable for architectural, commercial and industrial use with 1/4" pencil proof top and discharge. The one piece cover shall be extruded aluminum for maximum strength and shall be available in lengths to 14". The front cover shall snap fit to the back cover with no screw heads or assembly fasteners. The back cover shall be suitable for mullion to mullion mounting. Standard painted finishes shall be provided.*

**Element:** Heat sections from 2' to 10' are available. Furnish and install model HEMB or HSLT type heating element. The element shall be manufactured with 3/4" and 1" nominal copper tubing with .010" thick aluminum fins, having full collars for uniform spacing and optimum thermal contact. Fins shall be mechanically bonded to the copper tube. One end of each element shall be expanded to accept the unexpanded end of another tube without coupling.

**Element mount bracket:** Element bracket is constructed of 16 gauge galvanized steel and are mounted to the backplate for noiseless expansion of element. Designed for easy installation into pre-punched mounting holes. Elements are supplied with nylon brackets for noiseless expansion.

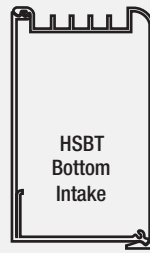
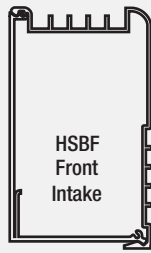
**Installation features:** Model HSB construction allows simple, snap-fit installation. The back plate which houses the heating element assembly is simply attached to the wall surface at the desired height and the front cover enclosure is then snapped into place.

**Pedestal features:** Model HSBT-PD, HSBF-PD, HSBST-PD shall have 2" adjustable pedestals and the heater back will be painted to match the front cover. 1" of adjustment is available on the cast iron pedestal.

**Pedestal quantities:** 2 on 1', 2', 3', 4', 5', 6' / 3 on 7', 8', 9', 10'

# Hydronic Draft Barrier HSB Series

## Side View



## Ordering Information

FRONT INTAKE		BOTTOM INTAKE		SLOPE TOP		LENGTH
MODEL	UPC	MODEL	UPC	MODEL	UPC	
HSBF-2	32499	HSBT-2	32536	HSBST-2	32566	2'
HSBF-3	32500	HSBT-3	32537	HSBST-3	32567	3'
HSBF-4	32501	HSBT-4	32538	HSBST-4	32568	4'
HSBF-5	32502	HSBT-5	32539	HSBST-5	32569	5'
HSBF-6	32503	HSBT-6	32540	HSBST-6	32570	6'
HSBF-7	32504	HSBT-7	32541	HSBST-7	32571	7'
HSBF-8	32505	HSBT-8	32542	HSBST-8	32572	8'
HSBF-9	32506	HSBT-9	32543	HSBST-9	32573	9'
HSBF-10	32507	HSBT-10	32544	HSBST-10	32574	10'

Louvers on blank sections not punched unless otherwise spec.

Add suffix -pd to catalog number for pedestal style heater. Pedestals can be field mounted.

All valve compartments are 6" or 12" long. Price is the same for 6" or 12". Dimensions shown on inside and outside corners are wall dimensions.

Anodize finishes available, consult factory. Finished backs are available.

Units are furnished with factory installed element support.

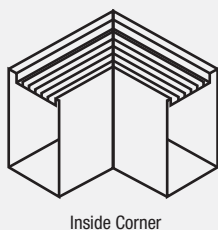
## Accessories

FRONT INTAKE		BOTTOM INTAKE		DESCRIPTION	LENGTH
MODEL	UPC	MODEL	UPC		
HSBF-IC	32508	HSBT-IC	32545	INSIDE CORNER	6"
HSBF-OC	32509	HSBT-OC	32546	OUTSIDE CORNER	6"
HSBF-SP	32511	HSBT-SP	32548	SPLICE PLATE	2"
HSBF-WT	32512	HSBT-WT	32549	WALL TRIM	4"
HSBF-VC	32513	HSBT-VC	32550	VALVE COMPARTMENT	12"
HSBF-EC	32510	HSBT-EC	32547	END CAP (SPECIFY RT OR LT)	
HSB-MESH	32514			1/4" WIREMESH UNDER DISCHARGE GRILL	
HSB-PD	32515			PEDESTALS	

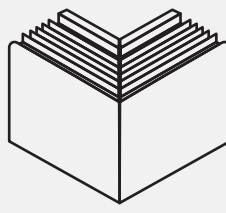
## Elements (Sold Separately)

MODEL	UPC	DESCRIPTION	LENGTH
HSLT-3/4"	32534	3/4" COPPER TUBE FINNED ELEMENT	2'-10'
HSLT-1"	32535	1" COPPER TUBE FINNED ELEMENT	7-10'

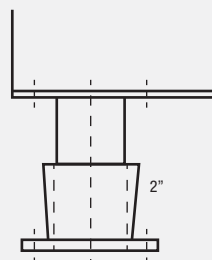
## Corners, Fillers, Blank Sections & End Caps



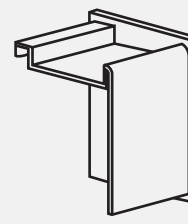
Inside Corner



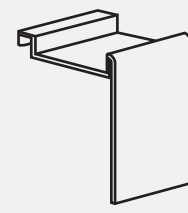
Outside Corner



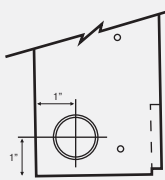
Cast Pedestal



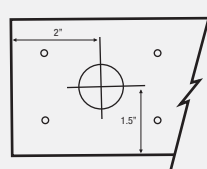
End Cap



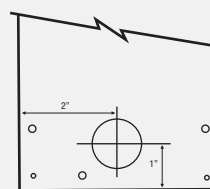
Splice Plate



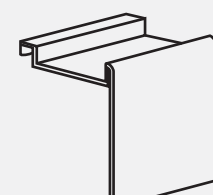
Side View  
Pedestal Unit Only



Bottom View  
Pedestal Unit Only



Back View  
Pedestal Unit Only



Wall Trim

# Small Hydronic Heater H-Series



### Model Code:

H	6	12	6/8	AS-FS	GW
A	B	C	D	E	F

A: H Series Hot Water  
 B: Number of copper tubes in coil  
 C: Voltage 12 = 120 Volt  
 D: 6,000 Btu heat output @ 140°F  
 8,000 Btu heat output @ 160°F  
 E: Aqua Stat / Fan Switch  
 F: Grill color



- Tangential Blowers
- 1/2" Trade size copper tubes
- Easy motor removal for maintenance
- Hi / Off / Lo fan switch
- Fast Coil Heating
- Flow-through design
- Permanently lubricated motor
- Use HW series thermostats
- Quiet Operation
- 4 or 8 Aluminum fins per inch
- Powder-coated white grill
- 2-year limited warranty

## The H-Series Small Hydronic Heater - 1,800 to 10,500 BTU

King's H Series small hydronic heater uses the energy from a building's hot water source to offer efficient, whisper quiet operation and the ability to reduce utility bills with individual thermostat room control. By installing hydronic systems in every room, you can easily heat only the areas in use and conserve energy. Designed to fit neatly between standard wall studs, this in-wall heater provides out of the way positioning ideal for use in bedrooms, bathrooms, and laundry rooms. Provides 1800 to 10,500 Btu heat output.

### Ordering Information

Model Number	Volts	Can Size	Grill Size
H412 – all versions	120	9½" h x 14¾" w x 4¾" d	10½" h x 15¾" w x 7/8" d
H612 – all versions	120	11" h x 14¾" w x 4¾" d	12½" h x 15¾" w x 7/8" d

MODEL	FINS PER INCH	FT. OF WATER PRESSURE DROP @ 2 GPM	Btu@2GPM	120°F 48°C	140°F* 60°C	160°F* 71°C	180°F 82°C	200°F 93°C MAX.	AMPS	RPM	CFM
H412 2/3	4	.36	High Speed	1,800	2,500	3,600	3,500	4,100	.54	2000	80
H412 2/3	4	.36	Low Speed	1,200	1,400	1,700	2,000	2,300	.51	1750	50
H412 3/4	8	.36	High Speed	2,200	3,100	4,000	4,800	6,100	.54	2000	80
H412 3/4	8	.36	Low Speed	1,200	1,800	2,400	3,000	3,800	.51	1750	50
H612 4/5	4	.54	High Speed	3,600	4,700	5,800	7,100	8,500	.48	2550	120
H612 4/5	4	.54	Low Speed	3,200	4,000	5,000	6,100	7,300	.40	1850	105
H612 6/8	8	.54	High Speed	4,100	6,000	7,600	9,100	10,500	.48	2500	120
H612 6/8	8	.54	Low Speed	3,700	5,200	6,500	7,900	9,600	.40	1850	105

\*most common water temperature range

Coils are made of copper alloy 122 manufactured to ATSM B-75 specifications. Brazing alloy is AWS-BCUP2 for use with potable water systems.

Electrical circuit size: 15 amp maximum.

BTU ratings based on 68° entering air. To calculate 1 GPM, multiply by 0.95. To calculate 4 GPM, multiply by 1.05.

## Engineering Specifications

Contractor shall supply and install H Series hydronic fan heaters manufactured by King Electrical Mfg. Co., Seattle, Washington.

**Motor:** 2 speed shaded pole impedance protected. Permanently lubricated. Bronze bearings.

**Blower:** Tangential blower to provide 50 or 120 CFM of air. Quiet operation of less than 53 dB A weighted scale at high speed. Easily removed for service. Bronze, not plastic, bearings.

**Coils:** 1/2" ID Copper tubes with Aluminum fins of no more than 8 fins per inch for free flow of air and maximum circulation of air and water. Tested at 300 PSI for leaks. Copper tube used in coil is Alloy 122 made to ASTM B-75 specifications. For potable water use.

**Grill:** 20 gauge mild Steel, louvered with Nickel-plated grill screws. Powder-coated in white.

**Wall Can:** 20 gauge mild Steel, electro-galvanized to resist corrosion. 1/2" knockout in bottom of can and QuickSet™ bend out mounting tabs for fast installation.

**Fan Switch:** 3 position fan switch High / Off / Low. Rated at 10 Amps with wire leads and insulated ¼" quick connects.

**Terminal Board:** All electrical connections will terminate at a phenolic terminal board with ¼" male brass blades for easy wiring.

**Water Connections:** 1/2" ID bare Copper tubes de-burred. Tested at 300 PSI for leaks. Clean out tubes for water connection.

**Approvals:** ETL (3131491PRT-001). All King heaters are tested to UL 1995 Standards. Approved for USA and Canada. CSA/C22.2.

# Hydronic Kickspace Heater HT Series



**Model Code:**

HT	4	12	2/3	AS	GW
A	B	C	D	E	F

**A: Series**  
**B: Number of Copper Tubes in Coil**  
**C: 12 - 120V**  
**D: BTU Heat Output**  
**E: Aqua Stat**  
**F: Grille White, Almond or Black color**



- Tangential Blowers
- Fast Coil Heating
- Quiet Operation
- 1/2" Trade size copper tubes
- Flow-through design
- 4 or 8 Aluminum fins per inch
- Easy motor removal for maintenance
- Permanently lubricated motor
- Powder-coated white grill
- Hi / Off / Lo fan switch
- Use HW series thermostats
- 1 Year Warranty

## The HT Series Hydronic Kickspace Heater

King's HT Series Kickspace hydronic heater uses the energy from a building's existing hot water source to offer efficient, whisper quiet operation and the ability to reduce utility bills with individual room control. By installing hydronic heaters in every room, you can easily heat only the areas in use and conserve energy. Uniquely designed to add heat to areas of the home previously thought not possible. With a compact, space-saving design the HT heater can be inconspicuously installed in the kick-space area at the base of kitchen and bathroom cabinets, under window sills or even in stair risers, providing warmth and comfort to formerly troublesome areas. Provides 1700 to 9950 BTU heat output.

### Ordering Information

MODEL	FINS PER INCH	FT. OF WATER PRESSURE DROP @ 2 GPM	AMPS	RPM	CFM	BTUH@2GPM	TEMPERATURE				
							120°	140°*	160°*	180°	200° MAX.
HT412 2/3	8	0.36	0.54	2000	83	High Speed	1,700	2,500	3,400	4,600	5,200
HT412 2/3	8	0.36	0.51	1800	76	Low Speed	1,600	2,400	3,200	4,000	5,000
HT612 4/5	8	0.54	0.54	2000	83	High Speed	2,800	4,000	5,100	6,900	8,200
HT612 4/5	8	0.54	0.51	1800	76	Low Speed	2,400	3,250	4,350	6,000	6,500
HT812 5/7	8	0.72	0.54	2000	83	High Speed	3,675	5,000	6,600	7,500	9,950
HT812 5/7	8	0.72	0.51	1800	76	Low Speed	3,200	4,300	5,400	7,000	8,400

\*Aqua Stat not required when using a King HW series hydronic thermostat with fan start-up delay. In-built Aqua Stat (AS) is available, consult factory for price and availability. Coils are made of copper alloy 122 manufactured to ATSM B-75 specifications. Brazing alloy is AWS-BCUP2 for use with potable water systems.

Electrical circuit size: 15 amp maximum.

BTU ratings based on 68° entering air. To calculate 1 GPM, multiply by 0.95. To calculate 4 GPM, multiply by 1.05.

Grille colors available in White (-GW) or Black (-GB) or Almond (-GA). Add suffix to end of model number.

MODEL	CONTROLS		GRILLES			WATER TEMPERATURE		VOLTS	AMPS
	AQUA STAT	FAN SWITCH	WHITE	ALMOND	BLACK	140°F/60°C	160°F/72°C		
HT412 2/3	AS	FS	GW	GA	GB	2500	3400	120	0.36
HT612 4/5	AS	FS	GW	GA	GB	4000	5100	120	0.36
HT812 5/7	AS	FS	GW	GA	GB	5000	6600	120	0.54

## Engineering Specifications

Contractor shall supply and install H Series hydronic fan heaters manufactured by King Electrical Mfg. Co., Seattle, Washington.

**Motor:** 2 speed shaded pole impedance protected. Permanently lubricated. Bronze bearings.

**Blower:** Tangential blower to provide 83 CFM or 76 CFM of air. Quiet operation of less than 53 dB A weighted scale at high speed. Easily removed for service. Bronze, not plastic, bearings.

**Coils:** 1/2" trade size Copper tubes with Aluminum fins of no more than 4 fins per inch for free flow of air and maximum circulation of air and water. Tested at 300 PSI for leaks. Bleed valve to purge air. Copper tube used in coils is Alloy 122 made to ASTM B-75 specifications.

**Grill:** 20 gauge mild Steel, louvered with Nickel-plated grill screws. Powder-coated in white.

**Wall Can:** 20 gauge mild Steel, electro-galvanized to resist corrosion. 1/2" knockout in bottom of can and QuickSet™ bend out mounting tabs for fast installation.

**Fan Switch:** 3 position fan switch High / Off / Low. Rated at 10 Amps with wire leads and insulated 1/4" quick connects.

**Terminal Board:** All electrical connections will terminate at a phenolic terminal board with 1/4" male brass blades for easy wiring.

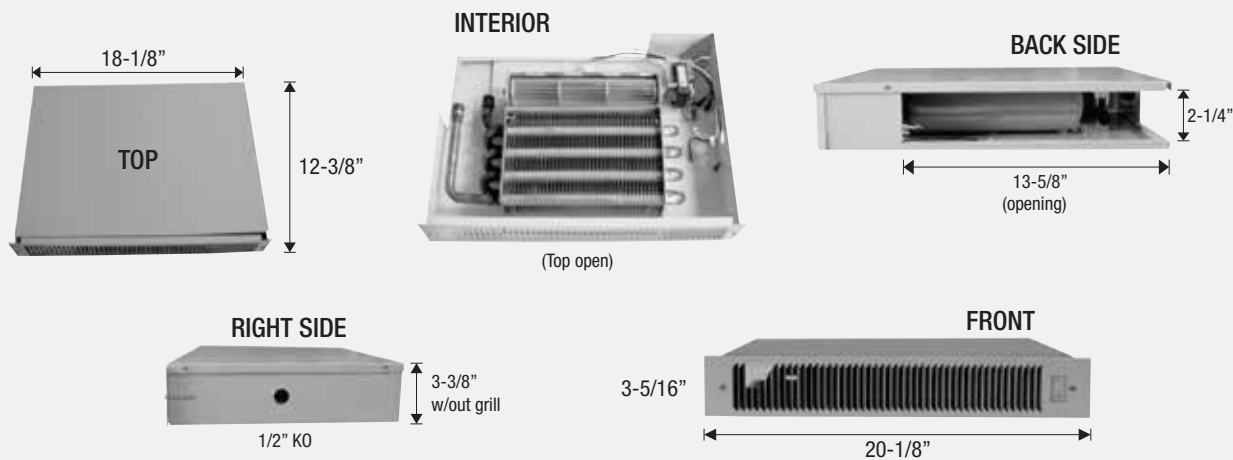
**Water Connections:** 5/8" bare Copper tubes de-burred. Tested at 300 PSI for leaks. Clean out tubes for water connection.

**Approvals:** cETLus. . All King heaters are tested to UL 1995 Standards. Approved for USA and Canada. CSA/C22.2.



# Hydronic Kickspace Heater HT Series

## Dimensional Data

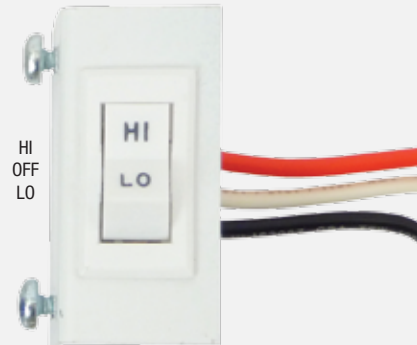


## Aquastat



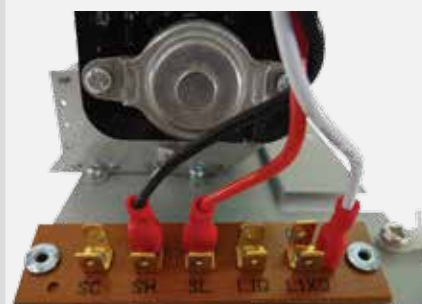
The optional **aqua stat** component makes sure the water temperature is over 115° before the fan is turned on.

## 3-Position Switch



All models include a pre-wired, clear, easy-to-read terminal board with wiring diagram.

## Terminal Board



The optional fan speed switch allows fan speeds of high, low and a center "off" position.

# Medium Hydronic Heater HM/HME Series



**Model Code:**

HM	8	12	6/9	AS-FS	GW
A	B	C	D	E	F

**A:** Series  
**B:** Number of Copper Tubes in Coil  
**C:** 12 - 120V  
**D:** BTU Heat Output  
**E:** Aqua Stat / Fan Switch  
**F:** Grill White or Black color



- Tangential Blowers
- 1/2" Trade size copper tubes
- Easy motor removal for maintenance
- Hi / Off / Lo fan switch
- Fast Coil Heating
- Flow-through design
- Permanently lubricated motor
- Use HW series thermostats
- Quiet Operation
- 4 or 8 Aluminum fins per inch
- Powder-coated white grill
- 2-year limited warranty

## HM / HME Series Hydronic Medium Heater - 4,960 to 18,700 BTU

King's HM / MHE Series medium hydronic heater uses the energy from a building's existing hot water source to offer efficient, whisper quiet operation and the ability to reduce utility bills with individual room control. By installing hydronic heaters in every room, you can easily heat only the areas in use and conserve energy. Designed to fit neatly between standard wall studs, this in-wall heater provides out of the way positioning ideal for use in bedrooms, bathrooms, and laundry rooms. For use in both residential and commercial applications. Provides 4960 to 18,700 Btu heat output.

Model Number	Volts	Can Size				Grill Size		
HM & HME 812 & 1012 – all versions	120	21 3/4" h x 14 1/4" w x 4 3/4" d				23 1/4" h x 15 1/2" w x 3 3/4" d		
MODEL	Water Pressure Drop at 2 GPM	120°F 48°C	140°F* 60°C	160°F* 71°C	180°F 82°C 200°F MAX	Motor Hi/Lo CFM	Decibels at 3-ft distance	Hi/Lo: Amps Hi/Lo: Watts
HM812 6/9	.72	4800 Btu 3300 Btu	6250 Btu 4900 Btu	9500 Btu 7100 Btu	13700 Btu 11000 Btu	3 watt output 250 / 150CFM	Hi 55 dbA Lo 52 dbA	.30 / .29 Amps 36 / 34.8 Watts
HM812 8/11	.72	6000 Btu 4800 Btu	8550 Btu 7100 Btu	11200 Btu 8000 Btu	14800 Btu 11000 Btu	5 watt output 375 / 220 CFM	Hi 62 dbA Lo 58 dbA	.42 / .38 Amps 50.4 / 45.6 Watts
HM1012 10/13	.90	7500 Btu 5500 Btu	10000 Btu 7900 Btu	13500 Btu 9750 Btu	16600 Btu 12000 Btu	3 watt output 250 / 150CFM	Hi 55 dbA Lo 52 dbA	.30 / .29 Amps 36 / 34.8 Watts
HM1012-11/15	.90	8812 Btu 6600 Btu	11700 Btu 8800 Btu	15500 Btu 11600 Btu	18700 Btu 14000 Btu	5 watt output 375 / 220 CFM	Hi 62 dbA Lo 58 dbA	.42 / .38 Amps 50.4 / 45.6 Watts
Energy saver ECM Motor		Water Pressure Drop at 2 GPM	120°F 48°C	140°F* 60°C	160°F* 71°C	180°F 82°C	Progressive CFM	Energy Saver Hi/Lo: Amps Hi/Lo: Watts
HME 812-8/11		.72	6000 Btu 4800 Btu	8550 Btu 7100 Btu	11200 Btu 8000 Btu	14800 Btu 11000 Btu	150 to 375 High 150 to 250 Low	Hi 57 / 54 dbA Lo 54 / 51 dbA .06 / .04 Amps 7.2 / 4.8 Watts
HME1012-11/15		.90	8812 Btu 6600 Btu	11700 Btu 8800 Btu	15500 Btu 11600 Btu	18700 Btu 14000 Btu	150 to 375 High 150 to 250 Low	Hi 63 / 60 dbA Lo 54 / 51 dbA .09 / .06 Amps 10.8 / 7.2 Watts

\*most common water temperature range. Coils are made of copper alloy 122 manufactured to ATSM B-75 specifications. Brazing alloy is AWS-BCUP2 for use with potable water systems. Electrical circuit size: 15 amp maximum. BTU ratings based on 68° entering air. To calculate 1 GPM, multiply by 0.95. To calculate 4 GPM, multiply by 1.05.

## Engineering Specifications

Contractor shall supply and install HM/HME Series hydronic fan heaters manufactured by King Electrical Mfg. Co., Seattle, Washington.

**Motor:** 2 speed shaded pole impedance protected. Permanently lubricated. Bronze bearings.

**Blower:** Tangential blower to provide 150-375 CFM of air. Quiet operation of less than 53 dB A weighted scale at high speed. Easily removed for service. Bronze, not plastic, bearings.

**Coils:** 1/2" OD Copper tubes with Aluminum fins of no more than 4 fins per inch for free flow of air and maximum circulation of air and water. Tested at 300 PSI for leaks. Bleed valve to purge air. Copper tube used in coils is Alloy 122 made to ASTM B-75 specifications.

**Grill:** 20 gauge mild Steel, louvered with Nickel-plated grille screws. Powder-coated in white.

**Wall Can:** 20 gauge mild Steel, electro-galvanized to resist corrosion. 1/2" knockout in bottom of can and QuickSet™ bend out mounting tabs for fast installation.

**Fan Switch:** 3 position fan switch High / Off / Low. Rated at 10 Amps with wire leads and insulated 1/4" quick connects.

**Terminal Board:** All electrical connections will terminate at a phenolic terminal board with 1/4" male brass blades for easy wiring.

**Water Connections:** 1/2" bare Copper tubes de-burred. Tested at 300 PSI for leaks. Clean out tubes for water connection.

**Approvals:** ETL (3131491PRT-001). All King heaters are tested to UL 1995 Standards. Approved for USA and Canada. CSA/C22.2.

# Large Hydronic Heater HL/HLE Series



**Model Code:**

HL	10	12	8/11	AS-FS	GW
A	B	C	D	E	F

A: Series  
 B: Number of Copper Tubes in Coil  
 C: 12 - 120V  
 D: BTU Heat Output  
 E: Aqua Stat / Fan Switch  
 F: Grill White or Black color

- Tangential Blowers
- Fast Coil Heating
- Quiet Operation
- 1/2" Trade size copper tubes
- Flow-through design
- 4 or 8 Aluminum fins per inch
- Easy motor removal for maintenance
- Permanently lubricated motor
- Powder-coated white grill
- Hi / Off / Lo fan switch
- Use HW series thermostats
- 2-year limited warranty

## HL / HLE Series Large Hydronic Heater - 6,700 to 27,250 BTU

King's HL HLE Series large hydronic heater uses the energy from a building's existing hot water source to offer efficient, whisper quiet operation and the ability to reduce utility bills with individual room control. By installing hydronic heaters in every room, you can easily heat only the areas in use and conserve energy. Designed to fit neatly between standard wall studs, this in-wall heater provides out of the way positioning ideal for use in public areas, corridors, entry ways and large rooms or hallways. For use in both residential and commercial applications. Provides 6700 to 27,250 BTU heat output. Recommended 17 BTU per square foot for new construction.

MODEL	FT. OF WATER PRESSURE DROP @ 2 GPM	120°F 48°C	140°F* 60°C	160°F* 71°C	180°F 82°C 200°F MAX	Motor Hi/Lo CFM	Decibels at 3-ft distance	Hi/Lo: Amps Hi/Lo: Watts
HL & HLE 1012 & 1412 – all versions      120      24¾"h x 14 ¼"w x 4¾"d      26¼"h x 15½"w x ¾"d								
HL1012 8/11	.90	6000 BTU 4700 BTU	8550 BTU 6200 BTU	11100 BTU 8000 BTU	14800 BTU 11000 BTU	3 watt output 250 / 150CFM	Hi 57/55 dbA Lo 54/52 dbA	.30 / .29 Amps 36 / 34.8 Watts
HL1012 10/13	.90	7500 BTU 5500 BTU	10000 BTU 8000 BTU	13500 BTU 9750 BTU	16600 BTU 12000 BTU	3 watt output 250 / 150CFM	Hi 57/55 dbA Lo 54/52 dbA	.30 / .29 Amps 36 / 34.8 Watts
HL1012-11/15	.90	8812 BTU 6600 BTU	11700 BTU 8800 BTU	15500 BTU 11600 BTU	18700 BTU 14000 BTU	5 watt output 375 / 220 CFM	Hi 64/62 dbA Lo 60/58 dbA	.42 / .38 Amps 50.4 / 45.6 Watts
HL1412-15/20	1.2	10600 BTU 7400 BTU	15500 BTU 11600 BTU	20000 BTU 15000 BTU	26000 BTU 19500 BTU	5 watt output 375 / 220 CFM	Hi 64/62 dbA Lo 60/58 dbA	.42 / .38 Amps 50.4 / 45.6 Watts
HL1412-20/25	1.2	17000 BTU 13000 BTU	20000 BTU 16800 BTU	24050 BTU 19100 BTU	27250 BTU 22500 BTU	9 watt output 375 / 220 CFM	Hi 64/62 dbA Lo 60/58 dbA	.42 / .38 Amps 50.4 / 45.6 Watts
<b>Energy saver ECM Motor</b>	<b>FT. OF WATER PRESSURE DROP @ 2 GPM</b>	<b>120°F 48°C</b>	<b>140°F* 60°C</b>	<b>160°F* 71°C</b>	<b>180°F 82°C</b>	<b>Progressive CFM</b>	<b>Decibels at 3-ft distance</b>	<b>Energy saver Hi/Lo: Amps Hi/Lo: Watts</b>
HLE 1012-11/15	.90	8812 BTU 6600 BTU	11700 BTU 8800 BTU	15500 BTU 11600 BTU	18700 BTU 14000 BTU	150 to 375 High 150 to 250 Low	Hi 57/55 dbA Lo 54/52 dbA	.06 / .04 Amps 7.2 / 4.8 Watts
HLE 1412-15/20	1.2	10600 BTU 8812 BTU	15500 BTU 11700 BTU	20000 BTU 15500 BTU	26000 BTU 18700 BTU	150 to 375 High 150 to 250 Low	Hi 63/61 dbA Lo 54/52 dbA	.09 / .06 Amps 10.8 / 7.2 Watts

\*most common water temperature range. Coils are made of copper alloy 122 manufactured to ATSM B-75 specifications. Brazing alloy is AWS-BCUP2 for use with potable water systems. Electrical circuit size: 15 amp maximum. BTU ratings based on 68° entering air. To calculate 1 GPM, multiply by 0.95. To calculate 4 GPM, multiply by 1.05.

## Engineering Specifications

Contractor shall supply and install HL/HLE Series hydronic fan heaters manufactured by King Electrical Mfg. Co., Seattle, Washington.

**Motor:** 2 speed shaded pole impedance protected. Permanently lubricated. Bronze bearings.

**Blower:** Tangential blower to provide 150 to 375 CFM of air. Quiet operation of less than 53 dBA weighted scale at high speed. Easily removed for service. Bronze, not plastic, bearings.

**Coils:** 1/2" ID Copper tubes with Aluminum fins of no more than 4 fins per inch for free flow of air and maximum circulation of air and water. Tested at 300 PSI for leaks. Bleed valve to purge air. Copper tube used in coils is Alloy 122 made to ASTM B-75 specifications.

**Grill:** 20 gauge mild Steel, louvered with Nickel-plated grille screws. Powder-coated in white.

**Wall Can:** 20 gauge mild Steel, electrogalvanized to resist corrosion. 1/2" knockout in bottom of can and QuickSet™ bend out mounting tabs for fast installation.

**Fan Switch:** 3 position fan switch High / Off / Low. Rated at 10 Amps with wire leads and insulated ¼" quick connects.

**Terminal Board:** All electrical connections will terminate at a phenolic terminal board with ¼" male brass blades for easy wiring.

**Water Connections:** 1/2" bare Copper tubes de-burred. Tested at 300 PSI for leaks. Clean out tubes for water connection.

**ECM Motor:** We program the motor to start at slowly and quietly at 50% of its maximum speed. Over a 3 to 5 minute period, if the room is not reaching the set point it will slowly ramp up to 100% airflow to heat the room. It not only saves energy but also makes a large output heater have a soft quiet start, yet can increase to its maximum output and sound level over time while not disturbing residents.

**Approvals:** ETL (3131491PRT-001). All King heaters are tested to UL 1995 Standards. Approved for USA and Canada. CSA/C22.2.

# Hydronic Thermostat HW, HWP & HWPT

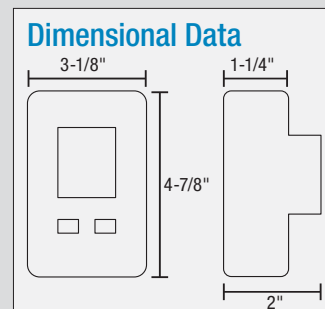


**HW120**  
Non Programmable  
For Hydronic Heaters



**HWP120**  
Programmable  
For Hydronic Heaters

**HWPT120**  
Programmable  
Adds Timer for Pump



- Save up to 15% on your heating costs (HW)
- Save up to 28% on your heating costs (HWP/HWPT)
- Even temperature control
- Pre-programmed
- LCD backlight display with temperature
- Green backlight display
- Push button temp. settings
- 1 year warranty
- Electronic temperature sensing is the most accurate technology
- 3 minute cycle rate reduces temperature swings and increases comfort at all control settings
- Complies with all codes requiring anticipated or electronic thermostats
- Single pole design with third wire to power display
- Shallow design allows more wiring room inside full electrical boxes
- 2 circuits, 1 minute delay on 2nd circuit
- HWPT adds pump exersizer for potable water applications



## Ordering Information

MODEL	UPC	TYPE	WIRE LEADS	VOLTS	AMPS	TEMP. RANGE
HW120	19048	Electronic Line Voltage	4 Wire	120	12.5	40°F-95°F
HWP120	19047	7 Day Independent Electronic Programmable	4 Wire	120	12.5	44°F-95°F
HWPT120	19049	7 Day Ind. Elec. Prog. w/ 15 min. pump timer every 24 hrs.	4 Wire	120	12.5	44°F-95°F

## The HW Non Prog. Electronic Thermostat

The **HW (hot water) Series** was intended for use as a 2 circuit thermostat controlling a circuit pump and fan on a hydronic coil heating system, though it could be used when needing a 2 circuit control with 1 minute delay on the second circuit. This control solves the historic problem of using a standard 22 Amp bi-metal heating thermostat on a hydronic system which require high Amp loads to be accurate. Without a load they will not shut off properly, continuing to circulate hot water when not needed. This control positively controls both circuits creating energy savings and superior comfort control, while providing excellent hydronic control.

## The HWP Programmable Electronic Thermostat

**Adds 7 independent day programming** with 4 times and temperature settings per day to save energy and also start system before you get home.

## The HWPT Programmable Electronic Thermostat

**Programmable features plus it adds a 15 minute pump exersizer** every 24 hours as required by code on potable water heating systems. First cycle will start in 12 hours from the power on time so that all cycling will happen at night.

### HW Technical Specifications

**Temperature Range:**  
40°F to 95°F (4°C - 35°C)  
**Temperature Default:**  
Your saved setting  
**Display Format:** LCD  
**Display Size:** Large Format  
**Sample Rate:** Every 60 seconds  
**Delay On or Off:** 3 minutes  
**Heat Indicator:** Radiant  
**Relay Rating:** 12.5 Amps  
**Accuracy:** ± .9°F @ 1500W  
**Maximum Amps:** 12.5 res. per pole  
**Maximum Watts:** 3000 @ 240V  
2600 @ 208V - 1500 @ 120V per pole  
**Minimum Watts:** 0  
**Power Source:** 120VAC, 50-60Hz  
• 12.5 Amps per circuit.

- Four wire installation.
- Snap action relays.
- Wire leads #16 AWG.
- 3/4" depth into wire box.
- 40°F to 95°F (4°C - 35°C) set point range.
- Thermistor sensor.
- Digital thermometer/set point.
- Large LCD display.
- Meets energy code requirements.
- 1.2 degrees differential.
- 3 min. delay between cycles.
- 1 min. delay between circuits.
- For use on hydronic fan coils.
- On/Off switch for green backlight & system.
- Battery backup.

### HWP/HWPT Technical Specifications

**Temperature Range:**  
44°F to 95°F (7°C - 35°C)  
**Temperature Default:**  
Your saved setting  
**Display Format:** LCD  
**Display Size:** Large Format  
**Sample Rate:** Every 60 seconds  
**Delay On or Off:** 3 minutes  
**Heat Indicator:** LCD "heater on"  
**Relay Rating:** 12.5 Amps  
**Accuracy:** ± .9°F @ 2000W  
**Maximum Amps:** 12.5 resistive  
**Maximum Watts:** 3000 @ 240V  
2600 @ 208V - 1500 @ 120V  
**Minimum Watts:** 0  
**Power Source:** 120VAC, 50-60Hz  
• 12.5 Amps per circuit.

- Four wire installation.
- Snap action relays.
- Wire leads #16 AWG.
- 3/4" depth into wire box.
- 44°F to 95°F (7°C - 35°C) set point range.
- Thermistor sensor.
- Digital thermometer/set point.
- Large LCD display.
- Meets energy code requirements.
- 1.2 degrees differential.
- 3 min. delay between cycles.
- 1 min. delay between circuits.
- For use on hydronic fan coils.
- On/Off switch for green backlight & system.
- Battery backup.
- HWPT adds exersizer pump timer.

# Hydronic To Electric Conversion HI Series



**Model Code:**

HI	4	24	22
A	B	C	D

A: Series  
B: Length  
C: Volts (24=240)  
D: Watts



- Maintains historical building features
- Tenants can now be billed independently
- 3 aluminum ribbon heating elements
- ETL approved
- Increase comfort with zone control
- No boiler technician required
- Natural convection
- Full length limit
- Integrate with building management systems
- Simple and easy to install
- Custom sizes available
- Built in J box
- 1-year limited warranty

## Boiler Conversion: Steam or Hot Water to Electric Systems

Converting your existing steam or hot water heating system is easy with the King electric heating unit! It is ETL approved for any appropriate sized steam heating cabinet – and there are countless sizes to fit your radiator cabinets! No need to remove the steam coil, just add the electric unit to the cabinet, a remote mount thermostat and tenant can now be billed for the heating and boiler can be dismantled.

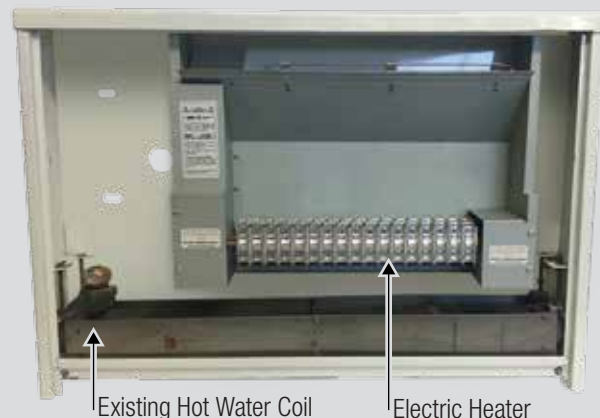
### There are three standard interior cabinet sizes to accommodate your retrofit!

MODEL	VOLTS	WATTS	MIN. REQ. CABINET SPACE	INSTALLED HEATER SECTION
HI2-	208/240	563/844	29" x 20" x 4¼"	18" x 14" x 3¾"
HI3-	208/240	844/1126	40" x 20" x 4¼"	31" x 14" x 3¾"
HI4-	208/240/277	1500/1687/2250	49" x 20" x 4¼"	42" x 14" x 3¾"

Without Conversion



With Conversion



# TV Rough-In TVR Series



- Fastened directly to studs
- Sturdy 14-gauge mounting bracket
- Adjustable trim ring for 1/2" or 5/8" drywall
- Mounting hardware for rough-in and TV
- Option cover, sold separately
- Rough-in dimensions 23-3/8" by 13-5/8"
- All A/C line power converges in one
- UL-approved divided junction box
- Dual voltage junction box

## Rough-in mounting system for flat screen television

**Make fast, simple work of flatscreen installation.** Finally, a solution to age-old dilemma of confusion between line-voltage electricians and low-voltage installers. The TVR flat-screen premount bracket system becomes a simple, effective, easily-understood touchpoint for framers, electricians, and general contractors. Once the TVR flat-screen premount bracket is in place, all AC power, HDMI, and audio cables are terminated at the two-compartment junction box, ready for final trim-out. Using the TVR ensures that all potential elements are located properly, ready for a fast installation. The TVR pre-mount flat screen control center is the most comprehensive, efficient, and cost effective way to prepare for and install a flat screen.

### Ordering Information

MODEL	UPC	DESCRIPTION	WEIGHT (lbs)
TVR01	20585	TV MOUNTING BRACKET, ROUGH-IN BACK PLATE, HARDWARE KIT	11.8
TVR01B	20586	DUAL VOLTAGE JUNCTION BOX AND MTG BRACKET	1.95
TVR01C	20587	OPTIONAL TVR COVER PLATE	5.3



*Fast and easy: The back plate installs directly to the framing studs during the rough-in construction phase.*



*The TVR adjusts to fit any manufacturer's TV bracket (as shown) and offers a wide range of adjustment for final placement.*



*The optional cover can be installed to neatly cover the TVR mounting plate when not in use.*



*All connections hidden, leaving both contractor and homeowner feeling great.*

# Warranty Information

## Warranty Information

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The warranties herein set forth are in lieu of all other warranties expressed or implied, and shall not apply to any accessory not part of the product. King Electrical Mfg. Company will repair or replace, without charge to the original owner, any product found to be defective or malfunctioning within the warranty period.

## Heaters Warranty Period

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**One Year:** EFW-Series, EKB Garage Heater, HSB & HLB Hot Water Baseboards, K-Series Baseboard, KAWH-Series Heaters, KCA, KLA & KLI Cabinet Heaters, KCB, KDIA & KDBA Draft Barriers, KDS-Series Ceiling Heaters, KT-Kickspace, LB & SB Draft Barriers, MKT Series, OK-Series Radiant Heaters, 120V Portable Fan Heaters, 240V Portable Shop/Garage Heaters, 120V Portable Baseboards, RH Radiant Heater, RSH Radiant Heaters, Thermostats and Controls, TVR Mount, U-Series Pump House Heater, W-Series.

**Two Year:** H-Series Hydronic Fan Heaters, HI-Series Boiler Conversion Heaters, KBS Unit Heaters, KCV Cove Heaters, KTW In-Counter Heater, LPWV Vandal Resistant, PKB Portable Unit Heaters,

**Three Year:** CK & CKL Plenum heaters, PAW-SS Stainless Steel Heater, PCK Portable Heaters, PZ-Series, WHF Series, WHF-HM High Mount Heater, WHFC Ceiling Heater, PAW-SS Stainless Steel Heater, PZ-Series.

**Five Year:** CB Ceramic Baseboards, DAW-Series, KB Unit Heaters, KBP-Series, KCC & KCF Cabinet Heaters, KF & KFS Electric Furnaces, KFUH Unit Heaters, LPW-Series LPWA-Series, LPWC-Series, PAW-Series, SL-Series.

### Heating Cable Warranty Period:

**One Year:** CWP & CWR, Thermostats and Controls.

**Two Year:** SR & SRP

**Ten Year:** TC & TCM, SC & SCM

**Twenty Year:** FC & FCM

**Warranty Terms:** This warranty requires the owner or his agent install the equipment in accordance with the National Electrical Code, any other applicable heating or electrical codes and the manufacturer's installation instructions. It further requires that reasonable and necessary maintenance be performed on the unit. Failure of proper maintenance by owner will void the warranty in its entirety. The company is not liable for any actions it deems to be abuse or misuse of the product. The Company shall not be liable for consequential damages arising with respect to the product, whether based upon negligence, tort, strict liability or contract. No other written or oral warranty applies, nor any warranties by Representatives, Dealers, Employees of King or any other person. King Manufacturing can be contacted by phone at 800-603-5464, fax 206-763-7738 or website [www.king-electric.com](http://www.king-electric.com). The company's minimum liability shall not in any case exceed the purchase price for the product claimed to be defective.

**In Case of Product Failure:** Contact King Electrical Mfg. at 800-603-5464. The owner will be required to provide, within the designated warranty period, the following information: model number, date of purchase, and a complete description of the problem encountered with product. Upon receipt of the aforementioned, the company will reply to the owner within a period not to exceed fifteen (15) working days, and will provide the action to be taken by owner. The customer shall be responsible for all costs incurred in the removal or reinstallation of products, including, but not limited to labor costs, and shipping costs incurred to return products to King Manufacturing. At their discretion, King Manufacturing will decide to either repair or replace the product, with no charge to the owner, with return freight paid by King.

**Technical Support:** 206-762-0400 extension 2

# How To Select The Right Size Heater

## How To Select The Right Size Heater

### Confirm Your Voltage

Before selecting an electric heater, determine if the power supply is 120 volt or 240 volt.

#### How to check your voltage:

- The most accurate way to check your voltage supply is with a voltmeter.  
WARNING: This test needs to be performed with the circuit breaker 'On'. If you are uncomfortable working with live electrical circuits, please consult an electrician.
- If you're replacing an old heater, identify voltage on the old heater label.
- Check your circuit breaker to identify either Single Pole 120 volt or Double Pole 240 volt.

### Size Your Heater – Room Wattage Requirements

Simply follow the chart below to determine the wattage requirements for a particular room.

#### Step 1: Measure your room

Select the square footage closest to the room size you want to heat.

- Rooms with greater than average window space, increase wattage by 50%
- If wattage recommendation falls between two heaters, select the heater with higher wattage

#### Step 2: Age of Home

- Refer to the column with the age of your home.

#### General Requirements:

King Electric recommends approximately 6 watts per square foot for newer homes and 10 watts per square foot for older homes. It is recommended to add 2 watts per square foot for homes located in higher than average elevations or extreme cold climates.

### Wattage Selection Guide

Square Footage of Room	Newer Home Watts* (6W/SqFt)	Older Home Watts**(10W/SqFt)
50	300	500
75	450	750
100	600	1000
125	750	1250
150	900	1500
175	1050	1750
200	1200	2000
225	1350	2250
250	1500	2500
275	1650	2750
300	1800	3000
325	1950	3250
350	2100	3500
375	2250	3750
400	2400	4000

(BTU = WATTS X 3.412)

\*Newer home - Mostly 1980's to present, R19 walls, R30 floors and ceilings, standard windows thermal pane, 8 ft ceilings

\*\*Older home - Prior to 1980, R11 walls, R19 ceilings, single pane windows, 9 ft ceilings



# Select The Right Type Of Heater

## How To Select The Right Type Of Heater

### Fan heater or baseboard?

**Space:** A baseboard heater takes up more wall space than a fan-forced heater which can cause problems placing furniture. (For example: a 2250 Watt Pic-A-Watt® heater will provide as much heat as a 9 foot baseboard.)

**Comfort:** A fan-forced heater will heat a room within a few minutes whereas a baseboard will require 30 to 40 minutes. A fan-forced heater will also maintain a more even temperature because the fan will circulate air around the room. This reduces the severity of hot/cold temperature swings.

**Noise:** A baseboard heater has no moving parts and therefore is quieter than a fan heater. The small Pic-A-Watt® heater uses a squirrel cage blower which makes it almost inaudible.

**Efficiency:** A 1500 Watt baseboard uses the same amount of electrical power as a 1500 Watt fan heater. The difference is a fan heater gives more even heat throughout the room thereby reducing air stratification (hot air rising and not mixing with the cooler floor air). This process makes you feel cooler causing you to turn the baseboard thermostat to a higher temperature setting whereby it runs more often thus using more electric power than the same size fan heater. Every 1° a thermostat is turned up will raise a power bill 3.1%. As such, a baseboard set to 75°F will cost you 15.5% more than a fan heater set to 70°F.

### Which fan heater to choose?

**Use:** If the heater will run often and be used as primary heating for the home King recommends using heaters with steel elements such as the Pic-A-Watt®. These elements carry a five year warranty and will hold up to the rigors of everyday use. For supplemental or occasional use open-coil elements work fine. If budgetary constraints are of primary importance open-coil heaters are the least expensive.

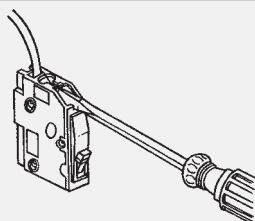
**Noise:** A propeller-type fan will make more noise than a squirrel cage fan. Open-coil elements make more noise than steel mass elements (Pic-A-Watt®) due to the rate of heat exchange with the air. For large rooms, two small heaters will be quieter than one large heater.

## How To Size The Heating Circuit

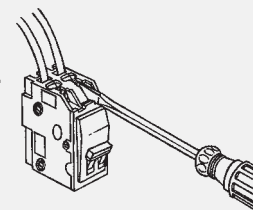
AMPS	VOLTS	WATTS	WIRE SIZE	CIRCUIT PROTECTION
12	120	1,440	#14/2	15 Amp – 1-Pole
16	120	1,920	#12/2	20 Amp – 1-Pole
12	240	2,880	#14/2	15 Amp – 2-Pole
16	240	3,840	#12/2	20 Amp – 2-Pole
24	240	5,760	#10/2	30 Amp – 2-Pole
32	240	7,680	#8/2	40 Amp - 2 Pole

- According to the National Electric Code heating circuits are considered a continuous load and therefore must be derated by 20%.  
(For example: a 20 Amp heating circuit cannot have more than 16 Amps of load connected.)
- 120 Volt heaters require 1-Pole circuit breakers; 240 Volt heaters need 2-Pole breakers.
- Use 2-wire cable with ground (Romex™ or BX).
- When placing multiple heaters on a circuit do not exceed the wattage listed for the corresponding wire and circuit breaker size.  
(For example: 2-1000W & 1-1500W, 240V heaters = 3500 Watts total. These 3 heaters would require 12/2 wire and a 20 Amp 2-Pole breaker if they were to all be placed on the same circuit. If more heaters are needed either run a new circuit or increase the wire and breaker size to accommodate the load.)
- A 1500 Watt heater will cost the same to run whether it is 120 or 240 Volt. 240 Volt heating circuits are more common because, as the chart shows, you can place more heaters on a 20 Amp 240 Volt circuit (maximum of 3840 Watts) versus a 120 Volt circuit (maximum of 1920 Watts).
- 120 and 240 Volt heaters are not interchangeable. A 240 Volt heater run at 120 Volt will produce 25% of the rated wattage. A 120 Volt heater run at 240 Volt will be destroyed and poses a severe fire hazard.
- What voltage are my heaters?

One breaker indicates 120 Volt is feeding your heater.



Two breakers tied together indicates a 240 Volt circuit feeding your heater.



# Total Amperage Rating Chart

Total Amperage Rating Chart										
Power KW	120V (1)	208V (1)	208V (3)	240V (1)	240V (3)	277V (1)	480V (1)	480V (3)	600V (1)	600V (3)
0.3	2.50	1.45	0.83	1.25	0.72	1.09	0.63	0.36	0.50	0.29
0.4	3.34	1.92	1.11	1.67	0.97	1.45	0.84	0.49	0.67	0.39
0.5	4.17	2.41	1.39	2.09	1.21	1.81	1.05	0.61	0.84	0.49
0.6	5.00	2.89	1.66	2.50	1.45	2.17	1.25	0.72	1.00	0.58
0.75	6.25	3.61	2.09	3.13	1.81	2.71	1.57	0.91	1.25	0.72
0.8	6.67	3.85	2.23	3.34	1.93	2.89	1.67	0.97	1.34	0.77
1	8.34	4.81	2.78	4.17	2.41	3.61	2.09	1.21	1.67	0.97
1.2	10.00	5.77	3.34	5.00	2.89	4.34	2.50	1.45	2.00	1.16
1.25	10.42	6.01	3.47	5.21	3.01	4.52	2.61	1.51	2.09	1.21
1.4	11.67	6.73	3.89	5.84	3.38	5.06	2.92	1.40	2.34	1.35
1.5	12.50	7.22	4.17	6.25	3.61	5.42	3.13	1.81	2.50	1.45
1.6	13.34	7.70	4.45	6.67	3.86	5.78	3.34	1.93	2.67	1.54
1.75	14.59	8.42	4.87	7.30	4.22	6.32	3.65	2.11	2.92	1.69
2	16.67	9.62	5.56	8.34	4.82	7.22	4.17	2.41	3.34	1.93
2.25	18.75	10.82	6.25	9.38	5.42	8.13	4.69	2.71	3.75	2.17
2.5	20.84	12.02	6.95	10.42	6.02	9.03	5.21	3.01	4.17	2.41
3	25.00	14.43	8.34	12.50	7.23	10.83	6.25	3.61	5.00	2.89
4	33.34	19.23	11.12	16.67	9.64	14.44	8.34	4.82	6.67	3.86
4.5	37.50	21.64	12.50	18.75	10.84	16.25	9.38	5.42	7.50	4.34
5	41.67	24.04	13.90	20.84	12.05	18.05	10.42	6.02	8.34	4.82
6	50.00	28.85	16.68	25.00	14.45	21.66	12.50	7.23	10.00	5.78
7.5	62.50	36.06	20.84	31.25	18.06	27.08	15.63	9.03	12.50	7.23
8	66.67	38.47	22.23	33.34	19.27	28.88	16.67	9.64	13.34	7.71
9	75.00	43.27	25.01	37.50	21.68	32.49	18.75	10.84	15.00	8.67
10	83.34	48.08	27.79	41.67	24.09	36.11	20.84	12.05	16.67	9.64
12	100.00	57.70	33.25	50.00	28.90	43.33	25.00	14.45	20.00	11.56
14	116.67	67.31	38.91	58.33	33.72	50.54	29.17	16.86	23.33	13.49
15	125.00	72.12	41.69	62.50	36.13	54.16	31.25	18.06	25.00	14.45
18	150.00	86.54	50.02	75.00	43.35	64.99	37.50	21.68	30.00	17.34
20	166.67	96.16	55.58	83.34	48.17	72.21	41.67	24.09	33.34	19.27
24	200.00	115.39	66.69	100.00	57.80	86.65	50.00	28.90	40.00	23.12
25	208.34	120.20	69.48	104.17	60.21	90.26	52.09	30.11	41.67	24.09
30	250.00	144.23	83.37	125.00	72.25	108.31	62.50	36.13	50.00	28.90
35	291.67	168.27	97.27	145.84	84.30	126.36	72.92	42.15	58.34	33.72
40	333.34	192.31	111.16	166.67	96.34	144.41	83.34	48.17	66.67	38.54
45	375.00	216.35	125.06	187.50	108.38	162.46	93.75	54.19	75.00	43.35
50	416.67	240.39	138.95	208.34	120.43	180.51	104.17	60.21	83.34	48.17
55	458.34	264.43	152.85	229.17	132.47	198.56	114.59	66.24	91.67	52.99
60	500.00	288.47	166.75	250.00	144.51	216.61	125.00	72.25	100.00	57.80
66	550.00	317.31	183.20	275.00	158.77	238.68	137.50	79.39	110.00	63.51

(1) Single Phase, (3) Three Phase

# Heater Care And Information

## Taking Care Of Your Heating System

At the start of each heating season clean and inspect each heater. **It is extremely important to remember to turn off the power at the circuit breaker before attempting any installation, maintenance or repairs. Failure to do so may result in serious electrical shock, burns or possible death.** Remove the grille on fan heaters. Clean any dust or lint from inside the heater with a vacuum cleaner, compressed air or soft bristle brush. Check that the fan spins freely. Between 5-10 years you may want to upgrade your thermostat, as the sensing element may not be as accurate as when new. The most accurate thermostat is listed as an anticipated model. If, in the future, you decide to remodel or add rooms to your home, you won't have to worry about the size of your heating system. With electric heat you can add to the heating system, in large or small increments.

## Zone Control

Thermostat settings are a matter of personal preference. A few days of adjustments will help you determine the setting that is comfortable for you. Most people keep their living quarters at 68 to 72°F (20 to 22°C) and sleeping areas at 65°F (18°C). For energy conservation and financial savings it is wise to set living area thermostats back at night, but not below 60°F (16°C).

## Temperature Versus Cost

When setting your thermostat, you may want to consider the relative cost of various temperatures. The chart at right shows how much higher your heating bill may be if you like temperatures warmer than 70°F (21°C).

	-3.1%	+3.1%	+6.2%	+9.4%	+12.5%	+15.6%	+18.7%	+21.9%	+25.0%	+28.0%	+31.0%
69°F	70°F	71°F	72°F	73°F	74°F	75°F	76°F	77°F	78°F	79°F	80°F
20.5°C	21.1°F	21.6°C	22.2°C	22.7°C	23.3°C	23.8°C	24.4°C	25°C	25.5°C	26.1°C	26.6°C

## Ohm's Law

The relationship between Wattage (heat) output and the applied Voltage of electric resistance heating elements is determined by a precise physical rule defined as Ohm's Law which states that the current in a resistance heating element is directly proportional to the applied Voltage. Ohm's Law is traditionally expressed as:

$$I = E/R$$

Where: **I** = Amperes (Current)

**E** = Voltage

**R** = Ohms (Resistance)

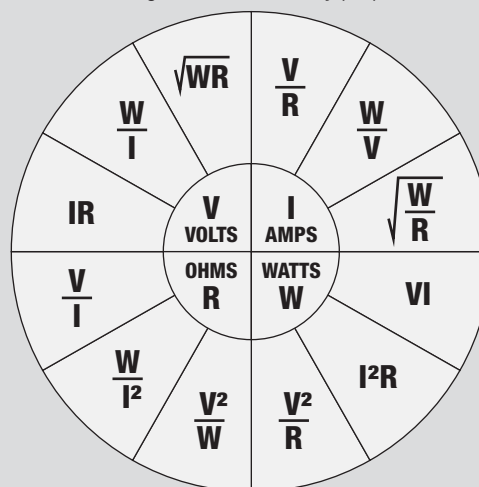
The same equation using the conventional abbreviation for voltage is:

$$I = V/R$$

Where: **I** = Amperes (Current)

**V** = Voltage

**R** = Ohms (Resistance)



An unknown electrical value can be derived by using any two known values in one of the variations of Ohm's Law.

<b>VOLTS</b> $Volts = \sqrt{Watts \times Ohms}$	<b>AMPERES</b> $Amperes = \frac{Volts}{Ohms}$	<b>OHMS</b> $Ohms = \frac{Volts}{Amperes}$	<b>WATTS</b> $Watts = Volts \times Amperes$
$Volts = \frac{Watts}{Amperes}$	$Amperes = \frac{Watts}{Volts}$	$Ohms = \frac{Watts}{Amperes^2}$	$Watts = Amperes^2 \times Ohms$
$Volts = Amperes \times Ohms$	$Amperes = \sqrt{\frac{Watts}{Ohms}}$	$Ohms = \frac{Volts^2}{Watts}$	$Watts = \frac{Volts^2}{Ohms}$

# Commonly Asked Questions/Glossary

## Commonly Asked Questions:

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**Q. Will the room heat up faster if I put the thermostat on 90 degrees when I get home?**

**A.** No. The thermostat is just an on-off switch that is temperature sensitive. The heater is either on or off.

**Q. My baseboards are on outside walls, should fan heaters be also?**

**A.** No. A fan heater, recessed into an outside wall, will create extra heat loss and air leakage for that room. An inside wall, facing a cold window, is the best location.

**Q. My thermostat is above my fan-heater. Why?**

**A.** The fan heater blows warm air away from itself and into the room. By the time the warm air has recirculated and reached the thermostat above the heater, a comfortable room temperature has been achieved.

**Q. Will my electric bill be lower if I use 120 volt heaters?**

**A.** No. Same size 120 volt and 240 volt heaters will use the same amount of power, measured in watts or kilowatts. Your electric company charges by kilowatt hours.

**Q. Should I clean my heater?**

**A.** Yes. Once a year you must clean and inspect your heaters. Please refer to the section "Taking Care of Your Heating System" on the previous page. You may request a copy of the operation & maintenance for your heater if you have lost it.

**Q. Why does my new heater produce smoke when I turn it on?**

**A.** In the manufacturing process, a light lubricant is used, which will burn when the heater is energized. The smoke will stop after the heater has fully heated. There is no cause for alarm. It is recommended to open a window during initial operations.

**Q. If I need to replace my heater, can I use a higher wattage heater?**

**A.** Your electrical system was sized for the original heater's wattage. A smaller wattage heater would be OK, but a larger wattage heater may create a hazard.

**Q. Are King heaters actually made in Seattle, Washington?**

**A.** Yes. Since 1958 we have made quality residential, commercial and industrial heating products in the same location.

## Glossary

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**Open Coil Element:** An open-coil element using Nickel-Chromium wire that can handle very high temperatures. The coiled wire maximizes the surface area for efficient heat transfer.

**Dual Open Coil Element:** Same as above, except the element wattage can be reduced in half by cutting one of the element wires.

**Pic-A-Watt Element:** The core of the King heating line. Developed in 1988 it has worked flawlessly ever since. It is made from steel elements brazed onto steel plate fins making for a long-lasting maintenance-free heater. The multiple wattage feature allows the exact wattage needed for any room to be selected.

**Ceramic Element:** This core is made of extruded ceramic insulators that increase thermal mass helping improve even heating. The liquid-free design increases safety.

**Spiral Steel Fin Element:** These steel element tubes have continuous fins that spin to create one of the highest quality, longest-lasting elements on earth.

**C-Frame Motor:** C-Frame motors are inexpensive and commonly used in appliances. King motors contain a large oil reservoir that helps prolong the motor life and reduce maintenance.

**Efficiency Motor:** A unit bearing motor is a heavy-duty long-lasting motor. It uses a fraction of the energy that a C-Frame motor does, thereby saving you money on heating bills. This motor typically runs 15–20 years and never requires oiling. It is either long-lasting cast iron or standard economy-cast aluminum.

**Aluminum Fan Blade:** King uses aluminum fan blades which are noncombustible. The fan is an impeller type: it draws room air into the heater and then blows out heated air.

**Squirrel Cage Blower:** A long cylindrical blower that keeps the heater quiet. Recommended for areas where heater noise would be unwelcome, such as bedrooms and dens.

**Built-In Thermostat:** The heater comes with factory installed thermostat.

**Smart Limit Protection:** Patented safety system shuts the heater off if an overheat condition occurs. Reset is allowed by turning off the thermostat.

**Stainless Steel:** An excellent 304 grade, corrosion-resistant stainless steel. Perfect for chemical or saltwater environments.

**Radiant Heat:** A radiant heater provides sun-like warmth. The heat radiates from the heating element warming objects that are nearby.

**Convection Heat:** This type of heater has no fans, instead heating by the natural process of warm air rising off the element. Place on outside walls to prevent cold window drafts.

**Hydronic:** The newest heaters in the King product line, using the warmth of hot water circulating from a home's hot water tank or boiler.

**Quiet Running:** The quietest heaters in the King product line.

# A Brief History



**1956:** In 1956 the electricity industry launched the “Live Better Electrically” (LBE) campaign, featuring a young Ronald Reagan touting the benefits of clean electricity, with the goal of converting American homes to 100% electric power.

**1958:** By 1958, electric heat was seen as a new frontier. Robert E. Wilson, founder of King Electrical MFG Co. wanted to be part of this new revolution and saw the opportunity to bring high quality all electric heating products to the market. Typical heating systems (coal, oil, and kerosene) were usually dirty, smoky and smelled terrible. Electric heat was the new, clean, flameless heating system, eliminating foul-smelling fuels and requiring no maintenance. After a successfully landing a military housing contract to outfit 5,000 military family homes, King’s electric baseboard heater was born. The public embraced it and millions of homes replaced their huge basement furnace with small baseboard heaters under the windows.

**1963:** Business was booming and soon KING outgrew its small factory location in South Park, a south Seattle suburb. Seattle had just hosted the 1962 World’s Fair giving millions of Americans their first look at the Pacific Northwest. After the fair one of the international pavilion buildings was moved to a lot close to KING; offices were added and the new KING factory was born.



**1968:** By 1968, over 30 different manufacturers of electric heat had launched into the business. Many innovations came and went, but only the strongest would survive. King introduces the KB unit heater and KCC cabinet heater product lines.

**1970s:** KING continued to expand distribution by adding warehouses across the United States to expedite delivery to a rapid growing market share. The international market steadily increased and several large distributors were set up in Canada, South America, and various other countries. King introduces the KFS electric furnace product line.

**1984:** The first small fan heaters (W series) were developed, again shifting the way Americans heat their homes. With improved air circulation and a compact design, these heaters were quickly becoming the industry standard.

**1986:** Everything changed with the invention of the Pic-A-Watt® series of heaters. A new class of heaters, that allowed customers to select the exact wattage, tailoring the heater to an area’s specific heating requirements. An industry first.

**1999:** King develops and introduces the soon to be patented Smart Limit Protection (SLP) safety limit. The safety standard of the industry today.



**2007:** A big year for KING. Dean Wilson, is named CEO and daily management of the business is now run by brothers Dean, Brad and RJ Wilson. As most competitors move production offshore, KING makes the decision to significantly invest in new automated equipment to keep production in the USA. The C5 Tourette press is purchased allowing for 24/7 sheet metal production. King introduces line of electronic thermostats, the first thermostats in the market designed and built by a heating manufacturer.



**2008:** KING Electric expands product line to include fan-forced hydronic heating.

**2010:** Construction is finished on 40 sqft warehouse and distribution center in Seattle, WA. King launches comprehensive line of Electric Heating Cables.

**2013:** King launches new industry leading line of Garage Heaters, effectively creating a new category for the electric heat market. King purchases second C5 machine, effectively doubling sheet metal production capacity.

**2015:** KING launches EcoIQ 2-Stage unit heaters – Rugged Unit Heater. Smart Controls. KING launches the ATMOS, Bluetooth enabled thermostats for line voltage heaters. After more than 55 years of manufacturing high-quality American-made electric heaters, we can not forget our partners in the field that make KING what it is today. To all of the electrical distributors and electricians that have supported us over the years, we say Thank You.

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Industrial Heaters • Residential Heaters • Commercial Heaters • Garage Heaters • Marine Heaters • Hydronic Fan Heaters • Electric Furnaces • Thermostats

## King: a technology leader.

Since 1958 King Electrical Manufacturing Company has been a leader in the heating industry, with several innovative patents. In this age of corporate conglomeration, big business, and a global economy, King is still proudly family-owned.

In our over 50 years of business we have seen exciting changes in the comfort and convenience of heating products. Technology has improved to create exciting new possibilities for innovations in heating systems. King continues to emphasize research and development, product quality, and genuine pride to ensure that our customers enjoy the best heating solutions possible.

Residential, commercial or industrial electric heat: at King we anticipate your needs and provide you with the best products and solutions!

