

Electronic Unit Heater KB Platinum Series



Model Code:

KB	48	10	-1	-P	-FB
A	B	C	D	E	F

A: Series
**B: 20 - 208V, 24 - 240/208V
 27 - 277V, 48 - 480V**
C: kiloWatts (4-66)
**D: -1 = Single Phase
 -3 = Three Phase
 -3MP = 1-3 Phase**
E: -B1 = Platinum Controller
F: FB = Fuse Block



- Electronic temperature controller
- Large LED display
- Remote control included
- Fan Only & Timer modes
- Patented Smart Limit Protection®
- Adjustable louvers
- Unit bearing motor
- Spiral finned heat elements
- Standard color: Textured gray
- Universal mounting bracket included
- 5-year limited warranty



The KB Platinum Horizontal Unit Heater

King's KB Platinum series unit heaters are the most full-featured unit heaters on the market, with in-built electronic thermostat for accuracy and remote control for simple operation. With integrated summer fan only and thermostat timer mode, the KB Platinum has you covered. 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 Platinum unit heater will provide years of trouble-free service. Includes universal wall/ceiling bracket for simple installation.

Platinum Electronic Controller Features

- Electronic control for accuracy
- Thermostat timer mode (1-9 Hours)
- Summer Fan only mode
- Large LED display
- Built-In fan delay
- Remote control and wall bracket included



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.

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

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.

Automatically reset of thermal overloads, which allow the element to continue to cycle under abnormal conditions, will not be accepted.

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)

Electronic Unit Heater KB Platinum Series

Ordering Information - single phase

MODEL	UPC	KW	BTUH	PHASE	VOLTS	AMPS	MOTOR HP	CFM	TEMP. RISE	AIR THROW	MAX. MOUNT HEIGHT	*SIZE	WT. (lbs.)
KB2003-1-P	13312	3	10.2	1	208	14.4	9W	400	37°	15ft.	8ft.	A	30.5
KB2403-1-P	13313	3	10.2	1	240/208	12.5	9W	400	37°	15ft.	8ft.	A	30.5
KB2703-1-P	13314	3	10.2	1	277	10.8	9W	400	38°	15ft.	8ft.	A	30.5
KB2004-1-P	13315	4	13.5	1	208	19.2	9W	400	38°	15ft.	8ft.	A	30.5
KB2404-1-P	13316	4	13.5	1	240/208	16.7/14.4	9W	400	38°	15ft.	8ft.	A	30.5
KB2704-1-P	13317	4	13.5	1	277	14.4	9W	400	38°	15ft.	8ft.	A	30.5
KB2005-1-P	13323	5	17	1	208	24.0	16W	400	40°	16ft.	8ft.	A	30.5
KB2405-1-P	13324	5	17	1	240/208	20.8/18	9W	400	40°	16ft.	8ft.	A	30.5
KB2705-1-P	13325	5	17	1	277	18.1	9W	400	40°	16ft.	8ft.	A	30.5
KB2007-1-P	13326	7.5	25.6	1	208	36.1	25W	600	40°	20ft.	9ft.	B	45.0
KB2407-1-P	13327	7.5	25.6	1	240/208	31.3/27	16W	600	40°	20ft.	9ft.	B	45.0
KB2707-1-P	13328	7.5	25.6	1	277	27.1	16W	600	40°	20ft.	9ft.	B	45.0
KB2010-1-P	13329	9.98	34.1	1	208	48.0	35W	725	44°	24ft.	10ft.	B	45.0
KB2410-1-P	13330	10	34.1	1	240/208	41.6/36.1	25W	725	44°	24ft.	10ft.	B	45.0
KB2710-1-P	13331	10	34.1	1	277	36.1	25W	725	44°	24ft.	10ft.	B	45.0
KB2012-1-P-FB	13404	12.5	42.7	1	208	60.1	50W	825	48°	30ft.	11ft.	C	45.0
KB2412-1-P-FB	13405	12.5	42.7	1	240/208	52.1/45.1	35W	825	48°	30ft.	11ft.	C	45.0
KB2015-1-P-FB	13406	15	51.2	1	208	72.1	50W	925	51°	33ft.	12ft.	C	45.0
KB2415-1-P-FB	13407	15	51.2	1	240/208	62.5/54.1	50W	925	51°	33ft.	12ft.	C	45.0
KB2003-3MP-P	13332	3	10.2	1-3	208	14.4/8.3	9W	400	37°	14ft.	8ft.	C	45.0
KB2403-3MP-P	13333	3	10.2	1-3	240/208	62.5/54.1	9W	400	37°	14ft.	8ft.	C	45.0
KB4803-3MP-P	13348	3	10.2	1-3	480	6.3/3.6	9W	400	37°	14ft.	8ft.	C	45.0
KB2005-3MP-P	13334	5	17.1	1-3	208	24 & 13.9	16W	400	40°	16ft.	8ft.	C	45.0
KB2405-3MP-P	13335	5	17.1	1-3	240/208	20.8/18 & 18/15.6	16W	400	40°	16ft.	8ft.	C	45.0
KB4805-3MP-P	13349	5	17.1	1-3	480	10.4 & 6.0	9W	400	40°	16ft.	8ft.	C	45.0
KB2007-3MP-P	13336	7.5	25.6	1-3	208	36.1 & 20.8	25W	600	40°	20ft.	9ft.	C	46.5
KB2407-3MP-P	13337	7.5	25.6	1-3	240/208	31.2/27 & 18/15.6	16W	600	40°	20ft.	9ft.	C	46.5
KB4807-3MP-P	13350	7.5	25.6	1-3	480	31.3/18.1	35W	925	51°	33ft.	12ft.	C	46.5
KB2410-3MP-P	13338	10	34.1	1-3	240/208	41.7/36.1 & 24.1/20.8	25W	725	44°	24ft.	10ft.	C	46.5
KB4810-3MP-P	13351	10	34.1	1-3	480	20.8 & 12	25W	725	44°	24ft.	10ft.	C	46.5
KB4812-3MP-P	13401	12.5	42.7	1-3	480	26 & 15	35W	825	48°	30ft.	11ft.	C	46.5
KB4815-3MP-P	13402	15	51.2	1-3	208	41.6	20W	925	51°	33ft.	12ft.	C	46.5
KB2010-3MP-P	13343	9.98	47.9	3	208	27.7	35W	825	48°	30ft.	11ft.	C	46.5
KB2012-3-P	13344	12.5	42.7	3	208	34.7	50W	825	48°	30ft.	11ft.	C	46.5
KB2412-3-P	13345	12.5	42.7	3	240/208	30.1/26	35W	825	48°	30ft.	11ft.	C	46.5
KB2015-3-P	13346	15	51.2	3	208	41.7	50W	925	51°	33ft.	12ft.	C	46.5
KB2415-3-P	13347	15	51.2	3	240/208	36.1/31.2	50W	925	51°	33ft.	12ft.	C	46.5
KB2020-3-P-FB	13408	20	68.3	3	208	55.6	1/4 HP	1100	57°	47ft.	13ft.	D	47.5
KB2420-3-P-FB	13409	20	68.3	3	240/208	48.2/41.6	1/4 HP	1100	57°	47ft.	13ft.	D	47.5
KB4820-3-P	13416	20	68.3	3	480	24.1	2/4 HP	1100	57°	47ft.	13ft.	D	47.5
*KB2025-3-P-FB	13417	25	68.3	3	208	69.5	(2) 50W	1100	57°	47ft.	13ft.	E	47.5
*KB2425-3-P-FB	13418	25	68.3	3	240/208	60.2/52.1	(2) 35W	1350	58°	41ft.	14ft.	E	60.5
*KB4825-3-P	13439	25	68.3	3	480	30.1	(2) 35W	1350	58°	41ft.	14ft.	E	60.5
*KB2030-3-P-FB	13419	30	102.4	3	208	83.4	(2) 50W	1800	53°	48ft.	15ft.	E	60.5
*KB2430-3-P-FB	13420	30	102.4	3	240/208	72.3/62.5	(2) 50W	1800	53°	48ft.	15ft.	E	60.5
*KB4830-3-P	13440	30	102.4	3	480	36.1	(2) 50W	1800	53°	48ft.	15ft.	E	60.5
*KB2440-3-P-FB	13438	40	136.5	3	240	96.3/83.3	(2) 1/4 HP	2200	57°	53ft.	15ft.	F	60.5
*KB4840-3-P-FB	13441	40	136.5	3	480	48.2	(2) 1/4 HP	2200	57°	53ft.	15ft.	F	60.5

Maximum mounting height is manufacturer's recommendation

*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V. *2-Stage heating

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Field Mount Options

ADD SUFFIX:	UPC	DESCRIPTION
DS32	13480	Disconnect Switch, Field Installed Kit, 32 AMP, 600V
DS63	13481	Disconnect Switch, Field Installed Kit, 63 AMP, 600V
DS80	13482	Disconnect Switch, Field Installed Kit, 80 AMP, 600V
DS100	13483	Disconnect Switch, Field Installed Kit, 100 AMP, 600V

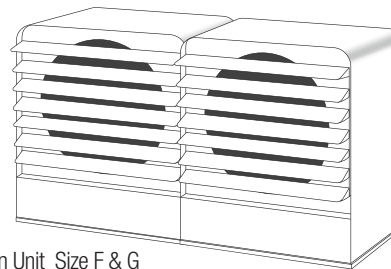
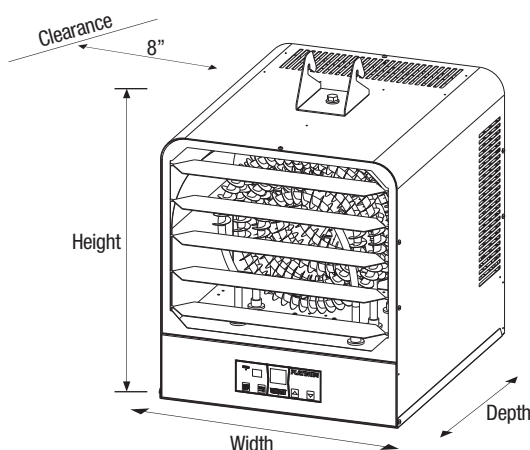
Replacement Accessories

MODEL	UPC	DESCRIPTION	WT. (lbs.)
KBB-1P	13484	Replacement Universal Wall/Ceiling Small Mounting Bracket (for heaters with size A heaters)	3
KBB-2P	13485	Replacement Universal Wall/Ceiling Large Mounting Bracket (for heaters with size B, C, D and E) (Use 2 brackets for size F & G)	4
KBHS	13486	Replacement Hook Swivel	0.420
KBHK	13487	Replacement Hardware Kit	0.120
61747	61747	Platinum Replacement Infrared Remote Control	0.125

Bracket Selection Chart

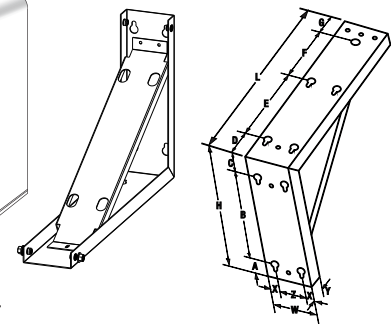
BRACKET #	HEATER KW SIZE USED WITH	BRACKET DIMENSIONS												
		L	W	H	A	B	C	D	E	F	G	X	Y	Z
KBB-1P	3 to 7.5 kW (1 phase)	12½"	3"	10"	1¼"	7¼"	1½"	1¾"	5½"	4"	1¼"	½"	1"	2"
KBB-2P	10 to 15 kW (1 phase) 3 to 30 kW (3 phase)	17"	3"	10"	1¼"	7¼"	1½"	2"	8½"	5¼"	1¼"	½"	1"	2"

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.

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.

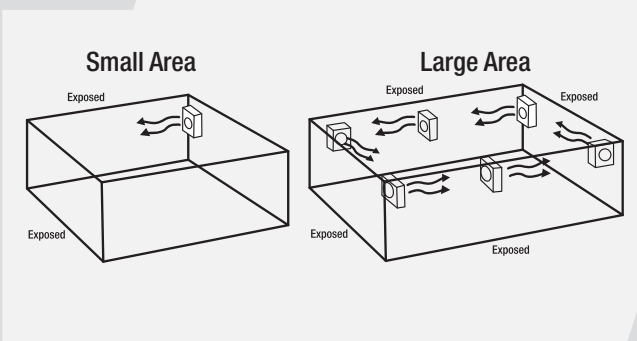
Mounting Limitations

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.

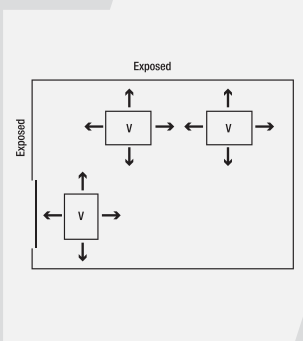
Selection

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

