

STAINLESS STEEL

KBS
SERIES

3000 WATTS TO 20,000 WATTS
CEILINGS UNDER 12 FT



FEATURES:

- 16 GA. Stainless Steel
- Spiral Steel Fin Element
- Cast Iron Motor
- Aluminum Fan Blade
- Adjustable Discharge Louvers
- Monel Element
- Totally Enclosed Motor
- Nema 4 Enclosure
- Control Options
- Auto-Reset Thermal Cutout
- Optional Heavy Gauge Case
- Optional Stainless Steel Bird Screen
- Optional 3-Position Switch (Heat-Off-Fan)
- Optional Two Stage Thermostat
- Optional Pilot Light (Power On Indication)
- Optional Door Interlocking Disconnect



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Shown with 5 Hole Mount

KBS unit heaters are constructed for specialty heating and freeze protection in areas requiring periodic washing or hose-down cleaning of equipment due to dirty, dusty and corrosive environments. The heater is constructed from 16 GA. type 304 stainless steel throughout and Monel #400 elements making it extremely corrosion resistant. The Nema 4 wiring compartment is sealed and gasketed making it water tight. All

the optional control components are UL listed for use in Nema 4 enclosures. This heater is intended for the following applications:

- Waste Water Treatment Plants
- Car and Truck Washes
- Cement Plants, Steel Mills, and other Heavy Industries
- Canneries and Dairy Facilities
- Ship and Marine Docks
- Fish Processors
- Load Bank for Generators

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 16 GA. 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.

Nema 4 Enclosure: Every electrical component in the wiring compartment is sealed with a polyurethane adhesive. The bottom access panel is sealed with a 1/4" Poron high density polyurethane gasket. This provides excellent protection against corrosion, wind-blown dust, dirt, and rain, splashing water and hose-directed water. All optional control accessories are nema 4X rated.

Monel Spiral Fin Elements: The metal sheath element is brazed with spiral fins and 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 maxi-

mum airflow stream. Monel alloy #400 composed of 66.5% Ni and 31.5% Cu increases element life in extremely corrosive environments such as Waste Water Treatment Plants.

Totally Enclosed Fan Motor: Permanently lubricated cast iron epoxy 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 over heated condition occurs. The heater is reenergized automatically when the normal operating temperature returns.

Controls: Magnetic contactors are standard on all 480V heaters, all 208V-1Ø, 240V-1Ø, 277V-1Ø heaters 6 KW and above, and all 3Ø 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. Subcircuit fusing is provided when heater ampacity exceeds 48 amps to comply with NEC 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.

Factory Installed Options

Heavy Gauge Case: 16 GA. stainless steel can be provided for extra enclosure strength in severe duty applications.

Stainless Steel Bird Screen: Applied to discharge outlet for additional protection from foreign objects.

Fan Delay: (when not standard)

Power Contactor: (when not standard)

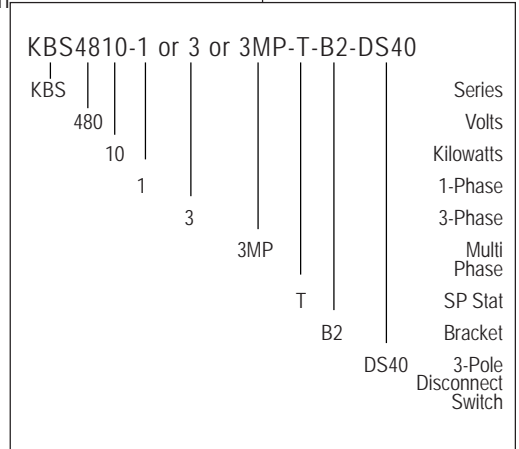
24 Volt Control: (when not standard)

120 Volt Control: Control components modified to accept 120V control.

Mounting: Choose universal or low profile ceiling bracket made from Stainless Steel.

Rough Service: 5 weld nuts are provided to securely mount heater in heavy industrial applications or marine vessels where vibration and movement is a concern.

MODEL CODE:



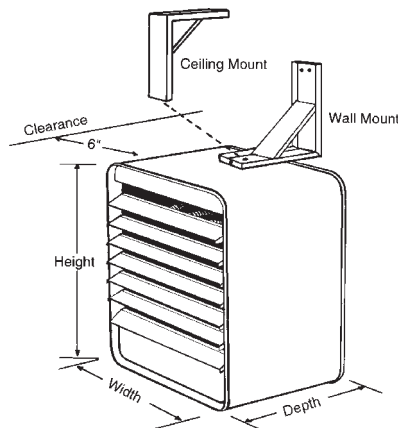
Nema 4 Control Options:

- SPST or DPDT Thermostat
- Two Stage Thermostat
- Summer Fan Switch
- 3-Position Switch (Heat-Off-Fan)
- Pilot Light (power on indicating)
- Door Interlocking Disconnect

QUICK SELECTION CHART:

KILO-WATTS	PHASE	208V			240V			277V			480V		
		MODEL	UPC #093319 PART NO.	WEIGHT (lbs)	MODEL	UPC #093319 PART NO.	WEIGHT (lbs)	MODEL	UPC #093319 PART NO.	WEIGHT (lbs)	MODEL	UPC #093319 PART NO.	WEIGHT (lbs)
3	1	KBS2003-1	19700	25	KBS2403-1	19713	25	KBS2703-1	19706	25	KBS4803-1	19709	28
	3	KBS2003-3MP	19703	25	KBS2403-3MP	19714	25				KBS4803-3MP	19710	28
5	1	KBS2005-1	19712	25	KBS2405-1	19715	25	KBS2705-1	19718	25	KBS4805-1	19721	28
	3	KBS2005-3MP	19748	32	KBS2405-3MP	19751	32				KBS4805-3MP	19754	35
7.5	1	KBS2007-1	19724	29	KBS2407-1	19727	29	KBS2707-1	19730	29	KBS4807-1	19733	32
	3	KBS2007-3MP	19757	42	KBS2407-3MP	19760	42				KBS4807-3MP	19763	45
10	1	KBS2010-1	19736	32	KBS2410-1	19739	32	KBS2710-1	19742	32	KBS4810-1	19745	35
	3	KBS2010-3MP	19766	42	KBS2410-3MP	19769	42				KBS4810-3MP	19772	45
KBS2012-3MP		19775	42	KBS2412-3MP	19778	42				KBS4812-3MP	19781	45	
KBS2015-3MP		19784	46	KBS2415-3MP	19787	46				KBS4815-3MP	19790	49	
20		KBS2020-3	19793	46	KBS2420-3	19796	46				KBS4820-3MP	19799	49

HEATER SIZE	DIMENSIONS		
	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 #093319 PART NO.	WEIGHT
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	SP Wall Mount Stat Nema 4X	19150	1

TECHNICAL DATA CHART:

 380V 3Ø Heaters are available
in most KW ratings.

CATALOG NO.	KW	BTUH (000)	Ø	VOLTS	AMPS		CONTROL VOLTAGE	MOTOR HP	CFM	TEMP RISE	AIR THROW	*SIZE	WT (LBS.)
					1-PH	3-PH							
KBS2003-1	3	11	1	208	14.4		208	3 Watt	300	35°	14ft	A	25
KBS2403-1				240/208	12.5/10.8		240						25
KBS2703-1				277	10.8		277						25
KBS4803-1				480	6.2		24						28
KBS2005-1	5	17.1	1	208	24.0		208	9 Watt	400	40°	16ft	A	25
KBS2405-1				240/208	20.8/18		240						25
KBS2705-1				277	18.1		277						25
KBS4805-1				480	10.4		24						28
KBS2007-1	7.5	25.6	1	208	36.1		208	16 Watt	600	40°	20ft	B	29
KBS2407-1				240/208	31.2/27		240					29	
KBS2707-1				277	27.0		277					29	
KBS4807-1				480	15.6		24					32	
KBS2010-1	10	34.1	1	208	48.1		208	25 Watt	725	44°	24ft	B	32
KBS2410-1				240/208	41.6/36.1		240						32
KBS2710-1				277	36.1		277						32
KBS4810-1				480	20.8		24						35
KBS2005-3MP	5	17.1	1-3	208	24.0	13.9	208	9 Watt	400	40°	16ft	B	32
KBS2405-3MP				240/208	20.8/18	12/10.4	240						32
KBS4805-3MP				480	10.4	6.0	24						35
KBS2007-3MP	7.5	25.6	1-3	208	36.1	20.8	208	16 Watt	600	40°	20ft	B	42
KBS2407-3MP				240/208	31.2/27	18/15.6	240						42
KBS4807-3MP				480	15.6	9.0	24						45
KBS2010-3	10	34.1	1-3	208		27.8	208	25 Watt	725	44°	24ft	B	42
KBS2410-3MP				240/208	41.6/36.1	24/20.8	240						42
KBS4810-3MP				480	20.8	12.0	24						45
KBS2012-3	12.5	42.7	1-3	208		34.6	208	35 Watt	825	48°	30ft	B	42
KBS2412-3				240/208		30/26	240						42
KBS4812-3MP				480	26.0	15.0	24						45
KBS2015-3	15	51.2	1-3	208		41.6	208	35 Watt	925	51°	33ft	B	46
KBS2415-3				240/208		36/31.2	240						46
KBS4815-3MP				480	31.2	18.0	24						49
KBS2420-3	20	68.3	3	240/208		48.1/41.6	240	50 Watt	1100	57°	37ft	B	46
KBS4820-3MP				480	41.6	24.1	24						49

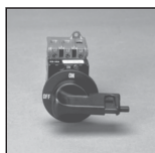
*Refer to DIMENSIONS Chart on previous page.
Heater will draw 13% less amps 25% less wattage.
Note: Consult factory for special wattages and/or voltages.
Rated KW load tolerance of plus 5% minus 10%.

OPTIONS:

ADD SUFFIX:	DESCRIPTION
-T	1-Pole Unit Mounted Thermostat
-B1	Adds Bracket to Box - For Heater W/ KBB-1-SS
-B2	Adds Bracket to Box - For Heater W/ KBB-2-SS
-SF	Summer Fan Switch - For Fan Only Operation
-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 KB2 through KB5, 1-Phase Models (Line Voltage Coil)
-CT24	Converts 208, 240 & 277 Volts to 24V Control. (Add Power Contactor for KB2 through KB5, 1-Phase Models)
-CT120	120V Control Circuit Components. (Add Power Contactor for KB2 through KB5, 1-Phase Models)
-DS40	40 AMP, 3-Pole Disconnect Switch with Door Interlock and Padlock Provision.
-DS60	60 AMP, 3-Pole Disconnect Switch with Door Interlock and Padlock Provision.
-DS80	80 AMP, 3-Pole Disconnect Switch with Door Interlock and Padlock Provision.
-5MT	For Five Hole Mounting for Rough Service



Corrosion resistance for high moisture or chemical treatment areas.

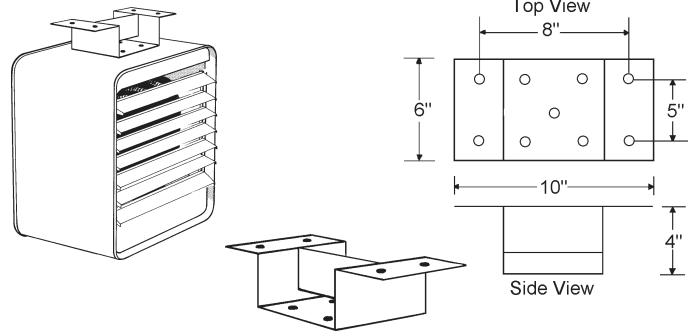


Disconnects can be specified in 40, 60 or 80 amp ratings with door interlock and padlock provision.

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 the center hole only. When **rough service support** is necessary, order the Option -5MT (when ordering your unit heater). The heater will have four mount-

ing 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 that will cause the heater to experience vibration.



RAINTIGHT, WEATHER RESISTANT, N.E.M.A. 4X THERMOSTAT

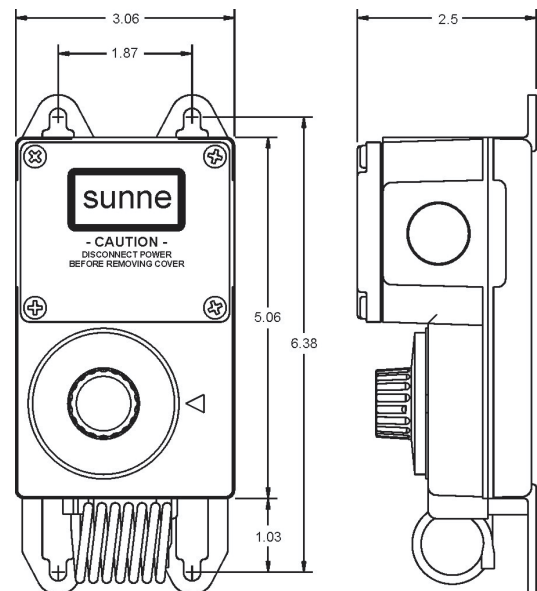
FEATURES:

- 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.
- Low mass, high surface area of stainless steel coiled sensor provides rapid response to temperature change.
- Large, readily visible dial with 40°-100°F temperature range.
- Multi-positional mounting offers flexibility in either new or existing installations.
- One control for both heating and cooling applications.
- Underwriters Laboratories (U.L.) listed and CSA Certified.



The TF115 N.E.M.A. 4X Thermostat is designed specifically for use in National Electrical Code (N.E.C.) Article 547 applications requiring a rugged, weather resistant, durable control for both heating and cooling (ventilation) in agricultural, industrial and commercial environments. The TF115 is suitable for use in poultry houses, hog houses, livestock barns, brooder houses, and greenhouses as well as factories, warehouses, garages, and gymnasiums.

DIMENSIONS



SELECTION:

RATING	120 VAC	240 VAC	277 VAC	480 VAC
FULL LOAD	16.0 AMP	12.0 AMP	10.0 AMP	
LOCKED ROTOR	80.0 AMP	60.0 AMP	50.0 AMP	
NON-INDUCTIVE	25.0 AMP	25.0 AMP	22.0 AMP	5.0 AMP
PILOT DUTY	125 VA	125 VA	125 VA	125 VA