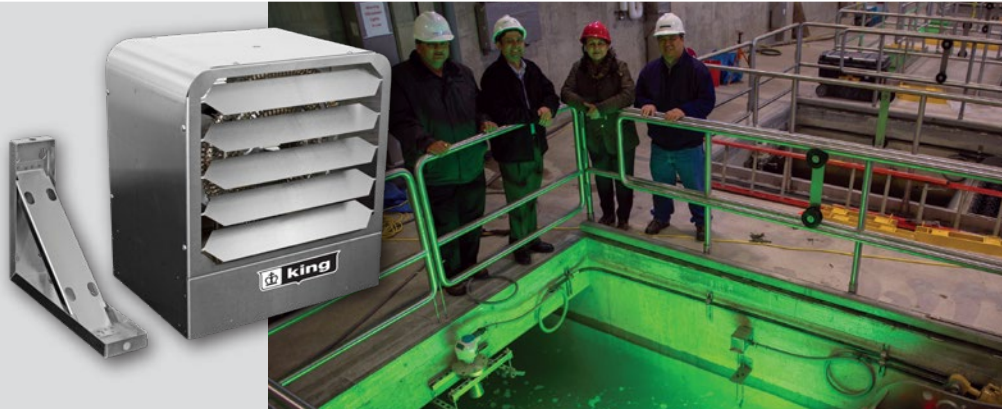


Stainless Steel Unit Heater KBS Series



Model Code:

KBS 48 10 -1 -T -B1 -CT24
A B C D E F G

A: Series
B: 20 - 208V, 24 - 240V
27 - 277V, 48 - 480V
C: KiloWatts
D: -1 Phase, -3 Phase
E: -T = Built-In Thermostat
F: -B1 = Bracket
G: -CT24 = Provision for 24V Remote Thermostat
(Thermostat purchased separately)



- 304 Stainless Steel Construction
- Permanent Lubricated Unit Bearing Motor
- N.E.M.A. 4 Enclosure
- For Areas Requiring Periodic Hose-Down
- Patented Smart Limit Protection®
- Universal Wall/Ceiling Bracket Included
- Adjustable Louvers to Direct Air
- High Mass Steel Fin Heat Exchanger
- 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.

Ordering Information - single phase - includes single pole thermostat

MODEL	UPC	KW	BTUH	PHASE	VOLTS	AMPS	**THERM. CONTROL VOLTAGE	MOTOR HP	CFM	TEMP. RISE	AIR THROW	MAX. MOUNT HEIGHT	SIZE	WT. (lbs.)	
208V	KBS2003-1-T-B1	22064	3	10.2	1	208	14.4	208	9W	400	40°	16ft.	8ft.	A	30.5
	KBS2005-1-T-B1	22125	5	17	1	208	24	208	9W	400	40°	16ft.	8ft.	A	30.5
	KBS2007-1-T-B2	20934	7.5	25.6	1	208	36.1	208	16W	600	40°	20ft.	9ft.	B	45.0
	KBS2010-1-T-B2	22148	10	34.1	1	208	48.1	208	25W	725	44°	24ft.	10ft.	B	45.0
	KBS2012-1-T-B2	22160	12.5	42.7	1	208	60.1	208	35W	825	48°	30ft.	11ft.	C	46.5
240V	KBS2403-1-T-B1	20889	3	10.2	1	240/208*	12.5/10.8*	24	9W	400	40°	16ft.	8ft.	A	30.5
	KBS2405-1-T-B1	20820	5	17	1	240/208*	20.8/18*	24	9W	400	40°	16ft.	8ft.	A	30.5
	KBS2407-1-T-B2	22138	7.5	25.6	1	240/208*	31.2/27*	24	16W	600	40°	20ft.	9ft.	B	45.0
	KBS2410-1-T-B2	22152	10	34.1	1	240/208*	41.6/36.1*	24	25W	725	44°	24ft.	10ft.	B	45.0
277V	KBS2412-1-T-B2	22160	12.5	42.7	1	240/208*	52/45.1*	24	35W	825	48°	30ft.	11ft.	C	46.5
	KBS2703-1-T-B1	22216	3	10.2	1	277	10.8	277	9W	400	40°	16ft.	8ft.	A	30.5
	KBS2705-1-T-B1	13281	5	17	1	277	18.1	277	9W	400	40°	16ft.	8ft.	A	30.5
	KBS2707-1-T-B2	55490	7.5	25.6	1	277	27	277	16W	600	40°	20ft.	9ft.	B	45.0
480V	KBS2710-1-T-B2	33157	10	34.1	1	277	36.1	277	25W	725	44°	24ft.	10ft.	B	45.0
	KBS4803-1-T-B1	19734	3	10.2	1	480	6.3	24	9W	400					30.5
	KBS4805-1-T-B1	19759	5	17	1	480	10.4	24	9W	400	40°	16ft.	8ft.	A	30.5
	KBS4807-1-T-B2	55491	7.5	25.6	1	480	15.6	24	16W	600	40°	20ft.	9ft.	B	45.0
	KBS4810-1-T-B2	55494	10	34.1	1	480	20.8	24	25W	725	44°	24ft.	10ft.	B	45.0

Maximum mounting height is manufacturer's recommendation *Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.

** 480V models include provision for 24V remote thermostat (thermostat purchased separately).

Ordering Information - three phase - includes single pole thermostat

MODEL	UPC	KW	BTUH	PHASE	VOLTS	AMPS	**THERM. CONTROL VOLTAGE	MOTOR HP	CFM	TEMP. RISE	AIR THROW	MAX. MOUNT HEIGHT	SIZE	WT. (lbs.)	
208V	KBS2012-3-T-B2	55501	12.5	42.7	3	208	34.6	208	35W	825	48°	30ft.	11ft.	C	46.5
	KBS2015-3-T-B2	55503	15	51.2	3	208	41.6	208	35W	925	51°	33ft.	12ft.	C	46.5
	KBS2020-3-T-B2	22174	20	68.3	3	208	55.5	208	50W	1100	57°	47ft.	13ft.	C	46.5
240V	KBS2412-3-T-B2	55502	12.5	42.7	3	240/208*	30/26*	24	35W	825	48°	30ft.	11ft.	C	46.5
	KBS2415-3-T-B2	55504	15	51.2	3	240/208*	36/31.2*	24	35W	925	51°	33ft.	12ft.	C	46.5
	KBS2420-3-T-B2	22175	20	68.3	3	240/208*	48.1/41.6*	24	50W	1100	57°	47ft.	13ft.	C	46.5

Maximum mounting height is manufacturer's recommendation *Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.

Stainless Steel Unit Heater KBS Series

Ordering Information - multi-phase - includes single pole thermostat

	MODEL	UPC	KW	BTUH	PHASE	VOLTS	AMPS	**THERM. CONTROL VOLTAGE	MOTOR HP	CFM	TEMP. RISE	AIR THROW	MAX. MOUNT HEIGHT	SIZE	WT. (lbs.)
208V	KBS2003-3MP-T-B2	19701	3	10.2	1-3	208	14.4 & 8.3	208	9W	400	40°	16ft.	8ft.	C	46.5
	KBS2005-3MP-T-B2	22006	5	17.1	1-3	208	24 & 13.9	208	9W	400	40°	16ft.	8ft.	C	46.5
	KBS2007-3MP-T-B2	22136	7.5	25.6	1-3	208	36.1 & 20.8	208	16W	600	40°	20ft.	9ft.	C	46.5
	KBS2010-3MP-T-B2	19767	10	34.1	1-3	208	48.1 & 27.7	208	25W	725	44°	24ft.	10ft.	C	46.5
240V	KBS2403-3MP-T-B2	55499	3	10.2	1-3	240/208*	12.5/7.2 & 14.4/8.3*	24	9W	400	40°	16ft.	8ft.	C	46.5
	KBS2405-3MP-T-B2	55500	5	17.1	1-3	240/208*	20.8/18 & 18/15.6*	24	9W	400	40°	16ft.	8ft.	C	46.5
	KBS2407-3MP-T-B2	22140	7.5	25.6	1-3	240/208*	31.2/27 & 18/15.6*	24	16W	600	40°	20ft.	9ft.	C	46.5
	KBS2410-3MP-T-B2	22152	10	34.1	1-3	240/208*	41.6/36.1 & 24/20.8*	24	25W	725	44°	24ft.	10ft.	C	46.5
480V	KBS4803-3MP-T-B2	19735	3	10.2	1-3	480	6.3/3.6	24	9W	400	40°	16ft.	8ft.	C	46.5
	KBS4805-3MP-T-B2	22129	5	17.1	1-3	480	10.4/6	24	9W	400	40°	16ft.	8ft.	C	46.5
	KBS4810-3MP-T-B2	22156	10	34.1	1-3	480	20.8/12	24	25W	725	44°	24ft.	10ft.	C	46.5
	KBS4812-3MP-T-B2	19783	12.5	42.7	1-3	480	26/15	24	35W	825	48°	30ft.	11ft.	C	46.5
	KBS4815-3MP-T-B2	22176	15	51.2	1-3	480	31.2/18	24	35W	925	51°	33ft.	12ft.	C	46.5
	KBS4820-3MP-T-B2	22177	20	68.3	1-3	480	41.6/24.1	24	50W	1100	57°	37 ft.	12ft.	E	55.0

Maximum mounting height is manufacturer's recommendation *Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.

** 480V models include provision for 24V remote thermostat (thermostat purchased separately).

Ordering Information - single phase - with provision for 24V remote thermostat (thermostat purchased separately)

	MODEL	UPC	KW	BTUH	PHASE	VOLTS	AMPS	**THERM. CONTROL VOLTAGE	MOTOR HP	CFM	TEMP. RISE	AIR THROW	MAX. MOUNT HEIGHT	SIZE	WT. (lbs.)
208V	KBS2003-1-B1-CT24	33558	3	10.2	1	208	14.4	24	9W	400	40°	16ft.	8ft.	A	30.5
	KBS2005-1-B1-CT24	33559	5	17	1	208	24	24	9W	400	40°	16ft.	8ft.	A	30.5
	KBS2007-1-B2-CT24	33560	7.5	25.6	1	208	48.1	24	16W	600	40°	20ft.	9ft.	B	45.0
	KBS2010-1-B2-CT24	33561	10	34.1	1	208	48.1	24	25W	725	44°	24ft.	10ft.	B	45.0
	KBS2012-1-B2-CT24	33562	12.5	42.7	1	208	60.1	24	35W	825	48°	30ft.	11ft.	C	46.5
240V	KBS2403-1-B1-CT24	33563	3	10.2	1	240/208*	12.5/10.8*	24	9W	400	40°	16ft.	8ft.	A	30.5
	KBS2405-1-B1-CT24	33564	5	17	1	240/208*	20.8/18*	24	9W	400	40°	16ft.	8ft.	A	30.5
	KBS2407-1-B2-CT24	33565	7.5	25.6	1	240/208*	31.2/27*	24	16W	600	40°	20ft.	9ft.	B	45.0
	KBS2410-1-B2-CT24	33566	10	34.1	1	240/208*	41.6/36.1*	24	25W	725	44°	24ft.	10ft.	B	45.0
277V	KBS2412-1-B2-CT24	33567	12.5	42.7	1	240/208*	52/45.1*	24	35W	825	48°	30ft.	11ft.	C	46.5
	KBS2703-1-B1-CT24	33568	3	10.2	1	277	10.8	24	9W	400	40°	20ft.	9ft.	A	30.5
	KBS2705-1-B1-CT24	33569	5	17	1	277	18.1	24	9W	400	40°	20ft.	9ft.	A	30.5
480V	KBS2707-1-B2-CT24	33570	7.5	25.6	1	277	27	24	16W	600	40°	20ft.	9ft.	B	45.0
	KBS2710-1-B2-CT24	33571	10	34.1	1	277	36.1	24	25W	725	40°	20ft.	9ft.	B	45.0
	KBS4803-1-B1	33572	3	10.2	1	480	6.3	24	9W	400					30.5
	KBS4805-1-B1	33573	5	17	1	480	10.4	24	9W	400	40°	20ft.	9ft.	A	30.5
	KBS4807-1-B2	33574	7.5	25.6	1	480	15.6	24	16W	600	40°	20ft.	9ft.	B	45.0
	KBS4810-1-B2	33575	10	34.1	1	480	20.8	24	25W	725	44°	24ft.	10ft.	B	45.0

Maximum mounting height is manufacturer's recommendation *Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.

** Factory set with provision for 24V Remote Thermostat (purchased separately)

Ordering Information - three phase - with provision for 24V remote thermostat (thermostat purchased separately)

	MODEL	UPC	KW	BTUH	PHASE	VOLTS	AMPS	**THERM. CONTROL VOLTAGE	MOTOR HP	CFM	TEMP. RISE	AIR THROW	MAX. MOUNT HEIGHT	SIZE	WT. (lbs.)
208V	KBS2012-3-B2-CT24	33576	12.5	42.7	3	208	34.6	24	35W	825	48°	30ft.	11ft.	C	46.5
	KBS2015-3-B2-CT24	33577	15	51.2	3	208	41.6	24	35W	925	51°	33ft.	12ft.	C	46.5
	KBS2020-3-B2-CT24	33578	20	68.3	3	208	55.5	24	50W	1100	57°	47ft.	13ft.	C	46.5
240V	KBS2412-3-B2-CT24	33579	12.5	42.7	3	240/208*	30/26*	24	35W	825	48°	30ft.	11ft.	C	46.5
	KBS2415-3-B2-CT24	33580	15	51.2	3	240/208*	36/31.2*	24	35W	925	51°	33ft.	12ft.	C	46.5
	KBS2420-3-B2-CT24	33581	20	68.3	3	240/208*	48.1/41.6*	24	50W	1100	57°	47ft.	13ft.	C	46.5

Maximum mounting height is manufacturer's recommendation *Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.

** Factory set with provision for 24V Remote Thermostat (purchased separately)

Stainless Steel Unit Heater KBS Series

Ordering Information - multi-phase - with provision for 24V remote thermostat (thermostat purchased separately)

	MODEL	UPC	KW	BTUH	PHASE	VOLTS	AMPS	**THERM. CONTROL VOLTAGE	MOTOR HP	CFM	TEMP. RISE	AIR THROW	MAX. MOUNT HEIGHT	SIZE	WT. (lbs.)
208V	KBS2003-3MP-B2-CT24	33582	3	10.2	1-3	208	14.4 & 8.3	24	9W	400	40°	16ft.	8ft.	C	46.5
	KBS2005-3MP-B2-CT24	33583	5	17.1	1-3	208	24 & 13.9	24	9W	400	40°	16ft.	8ft.	C	46.5
	KBS2007-3MP-B2-CT24	33584	7.5	25.6	1-3	208	36.1 & 20.8	24	16W	600	40°	20ft.	9ft.	C	46.5
	KBS2010-3MP-B2-CT24	33585	10	34.1	1-3	208	48.1 & 27.7	24	25W	725	44°	24ft.	10ft.	C	46.5
240V	KBS2403-3MP-B2-CT24	33586	3	10.2	1-3	240/208*	12.5/7.2 & 10.8/6.2*	24	9W	400	40°	16ft.	8ft.	C	46.5
	KBS2405-3MP-B2-CT24	33587	5	17.1	1-3	240/208*	20.8/12 & 18/10.4*	24	9W	400	40°	16ft.	8ft.	C	46.5
	KBS2407-3MP-B2-CT24	33588	7.5	25.6	1-3	240/208*	31.2/27 & 18/15.6*	24	16W	600	40°	20ft.	9ft.	C	46.5
	KBS2410-3MP-B2-CT24	33589	10	34.1	1-3	240/208*	41.6/36.1 & 24/20.8*	24	25W	725	44°	24ft.	10ft.	C	46.5
480V	KBS4803-3MP-B2	33590	3	10.2	1-3	480	6.3 & 3.6	24	9W	400	40°	16ft.	8ft.	C	46.5
	KBS4805-3MP-B2	33591	5	17.1	1-3	480	10.4 & 9.6	24	9W	400	40°	16ft.	8ft.	C	46.5
	KBS4807-3MP-B2	33592	7.5	25.6	1-3	480	15.6 & 9	24	16W	600	40°	20ft.	9ft.	C	46.5
	KBS4810-3MP-B2	33593	12.5	17.1	1-3	480	26 & 15	24	35W	825	48°	30ft.	11ft.	C	46.5
	KBS4815-3MP-B2	33594	15	17.1	1-3	480	18 & 12	24	35W	925	51°	33ft.	12ft.	C	46.5
	KBS4820-3MP-B2	33596	20	17.1	1-3	480	41.6 & 24.1	24	50W	1100	57°	37ft.	12ft.	E	55

Maximum mounting height is manufacturer's recommendation *Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V.

** Factory set with provision for 24V Remote Thermostat (Purchased Separately)

Replacement Accessories

MODEL	UPC#	DESCRIPTION	WT. (lbs)
KBB-1-SS	15254	Stainless Steel Mounting Bracket (Replacement) - Small	3
KBB-2-SS	15256	Stainless Steel Mounting Bracket (Replacement) - Large	4

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 1/4" 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.

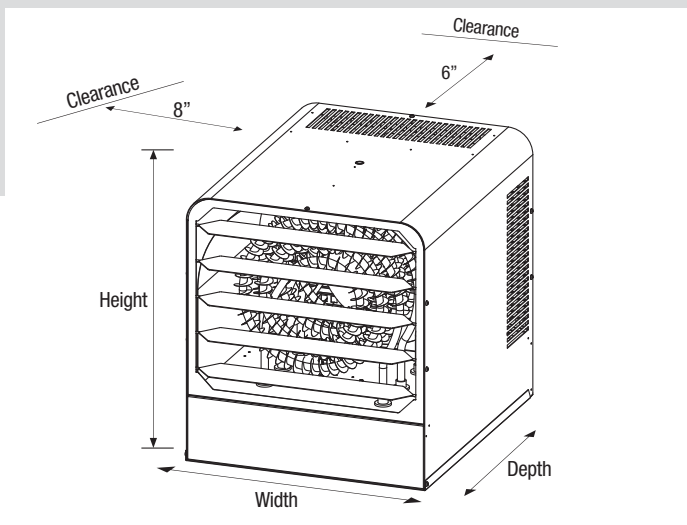
Aluminum Fan Blade: Axial flow-type mounted directly to the motor shaft for maximum efficiency.

Manual Reset Limit Electrically Held: 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.

Approvals: cULus



Dimensional Data

SIZE	HEIGHT	DEPTH	WIDTH
A	16.5"	11"	15"
B	16.5"	13.5"	15"
C	16.5"	18"	15"
E	20.5"	18"	15"