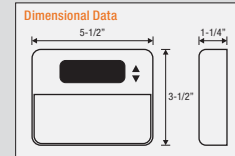


Specialty Thermostats EP3-1F56W/1F57/1E30 - N.E.M.A. 4X



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;

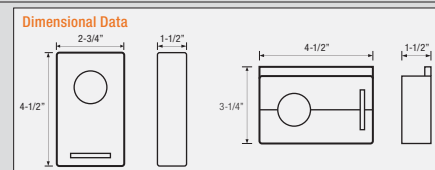
G - Fan controlled by heating unit

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

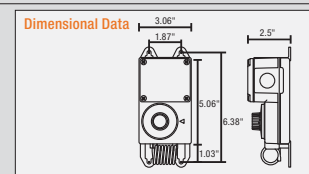
• Meets most energy codes

• 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.

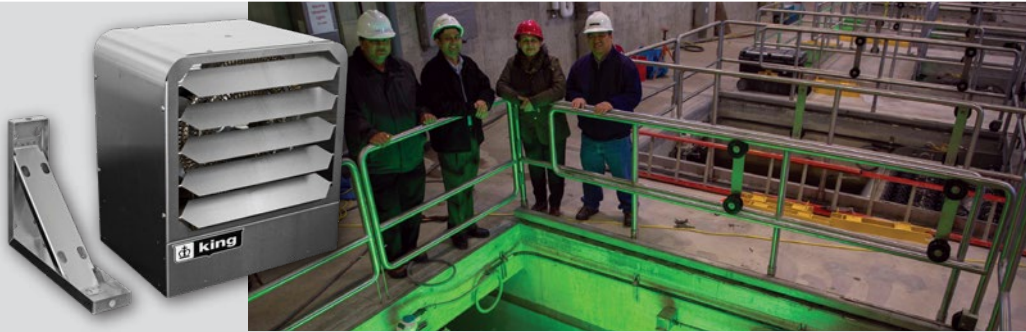
• Rugged weather-resistant enclosure made of corrosion resistant materials for long life.

• 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.

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
- 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)

Mounting: Universal mounting bracket made from Stainless Steel included.

NEMA 4 Control Options:

- SPST thermostat
- Two stage thermostat (single phase only)
- Summer fan switch
- 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 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.

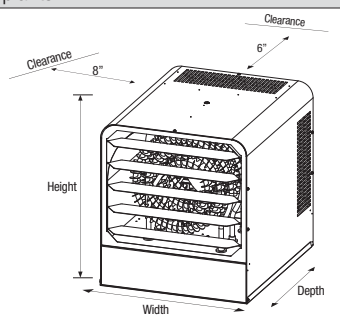
Internal Controls: Magnetic contactors are standard on all 480V heaters, all 208V/1-Phase, 240V/1-Phase, 277V/1-Phase heaters above 5kW, and all 3-Phase heaters. The control voltage is equal to the line voltage (208, 240 or 277) except for 480V models where a transformer is provided for 24V control. 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

*Dimensions

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"



Accessories

MODEL	DESCRIPTION	UPC#	WT. (lbs)
KBB-1-SS	Mounting Bracket - Small	15254	3
KBB-2-SS	Mounting Bracket - Large	15256	4
TF115	Single Pole Wall Mount Thermostat N.E.M.A. 4X - 25A SPDT	19150	1