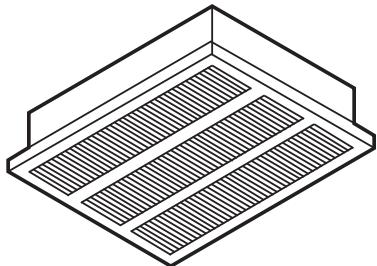




A Marley Engineered Products Brand
470 Beauty Spot Rd. E, Bennettsville, SC 29512

**SUBMITTAL SHEET
EFF SERIES
HEAVY DUTY CEILING
MOUNTED HEATERS**



CAPACITIES

1500 TO 4800W
120V, 208V, 240V, 277V,
347V, 480V, 600V
See Selection Chart
Note: 480volt heaters are 3 phase only.

JOB NAME: _____

LOCATION: _____

ARCHITECT: _____

ENGINEER: _____

CONTRACTOR: _____

SUBMITTED BY: _____

DATE: _____

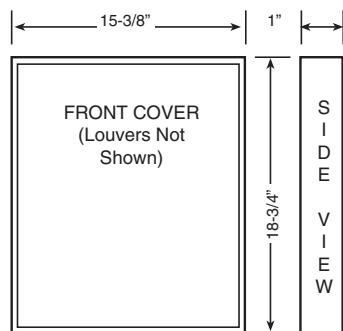
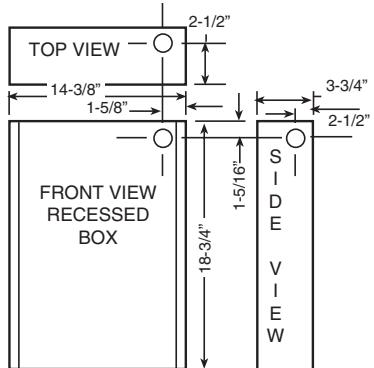
ACCESSORIES & CONTROLS



A Marley Engineered Products Brand

470 Beauty Spot Rd. E, Bennettsville, SC 29512

DIMENSIONS



SELECTION CHART

CATALOG NO.	VOLTS	WATTS*	BTU/HR	PHASE	AMPS
EFF1500	120	1500	5120	1	12.5
EFF3007	277	3000/1500	10,239	1	10.8
EFF4008	208	4000/2000	13,652	1	19.2
EFF4004	240	4000/2000	13,652/10,239	1	16.7/14.4
	208	3000/1500	10,239/5,120		14.4/7.2
EFF4007	277	4000/2000	13,652/6,826	1	14.4/12.5
	240	3000/1500	10,239/5,120		12.5/6.2
EFF4804	240/208	4800/3600	16,382/12,287	1	20.0/17.3
EFF4807	277/240	4800/3600	16,382/12,287	1	17.3/15.0
EFF3003	347	3000	10,239	1	8.6
EFF3006	600	3000	10,239	1	5.0
EFF4003	347	4000	13,652	1	11.5
EFF4006	600	4000	13,652	1	6.7
EFF4803	347	4800	16,382	1	13.8
EFF4806	600	4800	16,382	1	8
EFF48483	480	4800	16,382	3	5.8
EFF48483LV**	480	4800	16,382	3	5.8

* Factory wired at higher wattage.

** Includes 24V Control Relay.

ACCESSORIES & CONTROLS

CATALOG NO.	DESCRIPTION
EFFSM	Surface Mounting Frame
EFFR2 (24V)	Low Voltage Time Delay Relay, 45 - 60 seconds to close when energized. Uses remote 24V or 120V power source
EFFR12 (120V)	
EFFTB	T-bar Frame Kit
EFFT1	Single-pole Thermostat (field Installed)
EFFT2	Double-pole Thermostat (field Installed)
EFFTR4	208/240V Primary Transformer/24V Secondary Control Relay
EFFTR7	277V Primary Transformer/24V Secondary Control Relay

ARCHITECT'S & ENGINEER'S SPECIFICATIONS **

The heating equipment shall include a ceiling mounted EFF electric automatic fan-forced heater suitable for large area heating as manufactured by QMark, A Marley Engineered Products Brand, Bennettsville, SC. The heater shall be designed for ceiling surface, recess or T-Bar mounting. Heaters shall be UL Listed.

HEATER ASSEMBLY: The heater assembly, which fits in the back box, shall consist of a fan panel upon which is mounted all of the operational parts of the heater.

HEATING ELEMENT: The heating element shall be of the non-glowing design consisting of 80/20 NiCh resistance wire enclosed in a steel sheath to which plate fins are copper brazed. It shall be warranted for 5 years.

FAN AND FAN MOTOR: The fan shall be five-bladed aluminum. The fan motor shall be totally enclosed.

FAN DELAY SWITCH: Fan control shall be of bi-metallic, snap-action type and shall activate fan after heating element reaches operating temperature. The fan shall continue to operate after the thermostat is satisfied and until the heating element is cool.

THERMAL CUTOUT: A thermal cutout shall be built into the system to shut off the heater in the event of overheating.

DISCONNECT SWITCH: A double-pole single throw disconnect switch shall be mounted on the back box for positive

disconnect of power supply. It will be completely concealed behind the faceplate.

BACK BOX: The back box shall be designed for duty as a recessed rough-in box either masonry or frame installations, and is also used with the surface mounting frame in surface mounting installations. The back box shall be 20-gauge galvanized steel and shall contain knockouts through which power leads are brought.

FACEPLATE: The louvered faceplate shall be of 14 gauge cold-rolled steel, phosphatized, then electrostatically painted Navajo White by a powder coat process. A 1/4-inch mesh screen shall be installed beneath the faceplate to deter the insertion of foreign objects. The face plate shall be secured to the heating unit with tamper-resistant screws.

THREE-PIECE DESIGN: The heater shall be made up of a back box, a heater assembly and a faceplate.

OPTIONS:

THERMOSTAT: The optional tamper-resistant thermostat shall be of the bi-metallic, snap-action type with enclosed contacts. It shall be completely concealed behind the faceplate to become tamper-resistant (EFFT1 or EFFT2).

LOW VOLTAGE TIME DELAY RELAYS: 24 volt and 120 volt low voltage time delay relays are available as optional

equipment to control 208, 240 or 277 volt heaters (with an external supplied 24 or 120 volt control circuit) in conjunction with central energy control systems. The built-in thermostat can then be used as one of the thermostats in an automatic night set back operation. (EFFR2 or EFFT12)

LOW VOLTAGE

TRANSFORMER/RELAYS: (Primary or Secondary) Transformer/Relays shall be available as optional equipment to control 208, 240 or 277 volt heaters (with single point supply connection and internal supplied 24 volt control circuit) in conjunction with central energy control systems. The built-in thermostat can then be used as one of the thermostats in an automatic night set back operation. (EFFTR4 OR EFFT7)

SURFACE MOUNTING FRAME: The surface mounting frame, designed to allow full surface mounting, shall be of 14 gauge cold-rolled steel, phosphatized, then electrostatically painted by a powder coat process. (EFFSM)

T-BAR FRAME: For T-Bar mounting, a 14 gauge cold-rolled steel frame, phosphatized and electrostatically painted by a powder coat process, shall be available. Frame shall be designed to mount in a standard 2' x 2' ceiling grid. (EFFTB)

** QMark reserves the right to change specifications without prior notice.