

**Slant/Fin**

# MONITRON DELUXE SERIES

## CAST-IRON ELECTRIC BOILERS



Look for our  
**Hydronic Explorer app**  
on iTunes, Google Play and at  
[www.hydronicexplorer.com](http://www.hydronicexplorer.com)  
(Works on iPad, iPhone & Android devices)



### MONITRON DELUXE (M3)



Slant/Fin is a member  
of the USGBC.  
USGBC focuses on practices  
that increase a building's  
efficiency to harvest and use  
water, energy and materials.



**A major answer to the changing heating-fuel situation.**

M3 hot water models in five sizes (27,000 to 60,000 Btuh) (8-20KW).  
M2 hot water models in four sizes (82,000 to 137,000 Btuh) (24-40KW).

Before purchasing this appliance, read important energy cost and efficiency information available from your contractor.



**Slant/Fin®**

# MONITRON DELUXE SERIES™

## CAST-IRON ELECTRIC BOILERS

Compact, easy to install for new or “standby” installations

**Monitron Deluxe EH-M2/M3 combine the availability and dependability of electricity with the comfort and performance of conventional hydronic heating using baseboard, radiant or cast-iron radiators.**

**Monitron Deluxe Series as a replacement unit:** Works with virtually any existing hot water hydronic radiation system. Although rated in kilowatts, it is also clearly identified by BTU output.

**Monitron Deluxe Series as a standby unit:** Particularly suitable for commercial and industrial facilities, or office buildings which can't risk down-time with their existing heating equipment. If oil or gas is temporarily unavailable, the owner easily switches the heating system to the electric boiler.

**Monitron Deluxe Series as a primary heating unit offers:**

- The convenience of electricity and the comfort of hydronics.
- No chimney required.
- Competitive pricing with electric baseboard systems.
- Simple zoning by zone valves.

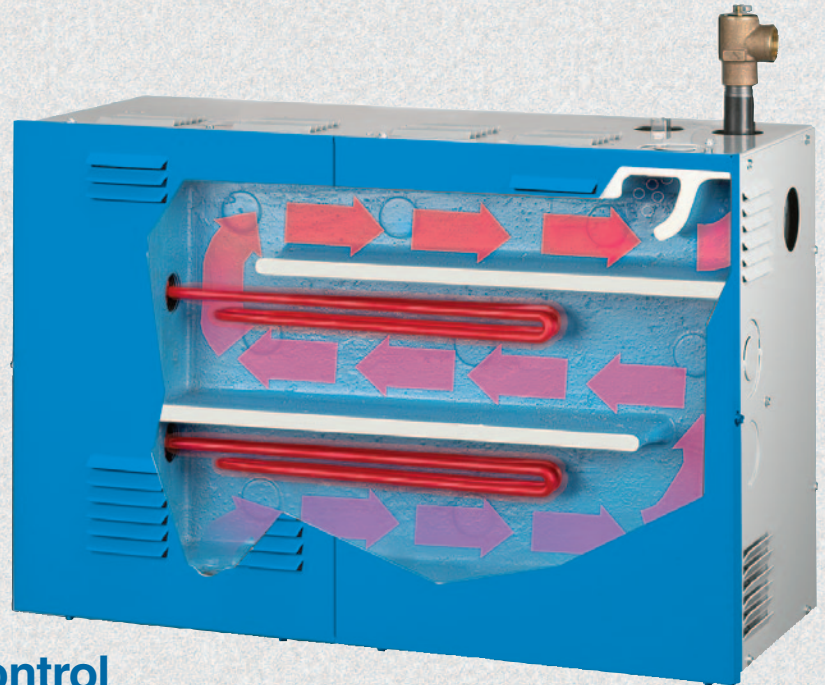
Monitron II/Minitron III by Slant/Fin are the electronic-age boilers designed to save energy for new or existing heating systems.

- One piece cast-iron heat exchanger.
- Built in air eliminator.
- Internal baffles improve heat transfer.
- Slant/Fin electronic Multi-stage control

The Slant/Fin boiler temperature control is an efficient boiler operator with digital LED display with backlight, a boiler pump output and an alarm.

#### Features:

- Set point operation
- Outdoor reset with DHW priority
- External control through BMS signal
- And much more



## Energy saving electronic control

### NORMAL OPERATIONS

When the thermostat calls for heat, the circulator turns on and the first electric heater bank is energized. The circulator continues operating until the room thermostat is satisfied. A flow switch supplied by Slant/Fin or others is required. It prevents the elements from being energized unless the circulator is operating. This avoids element burnout.

### OPTIONAL MILD-WEATHER OPERATION

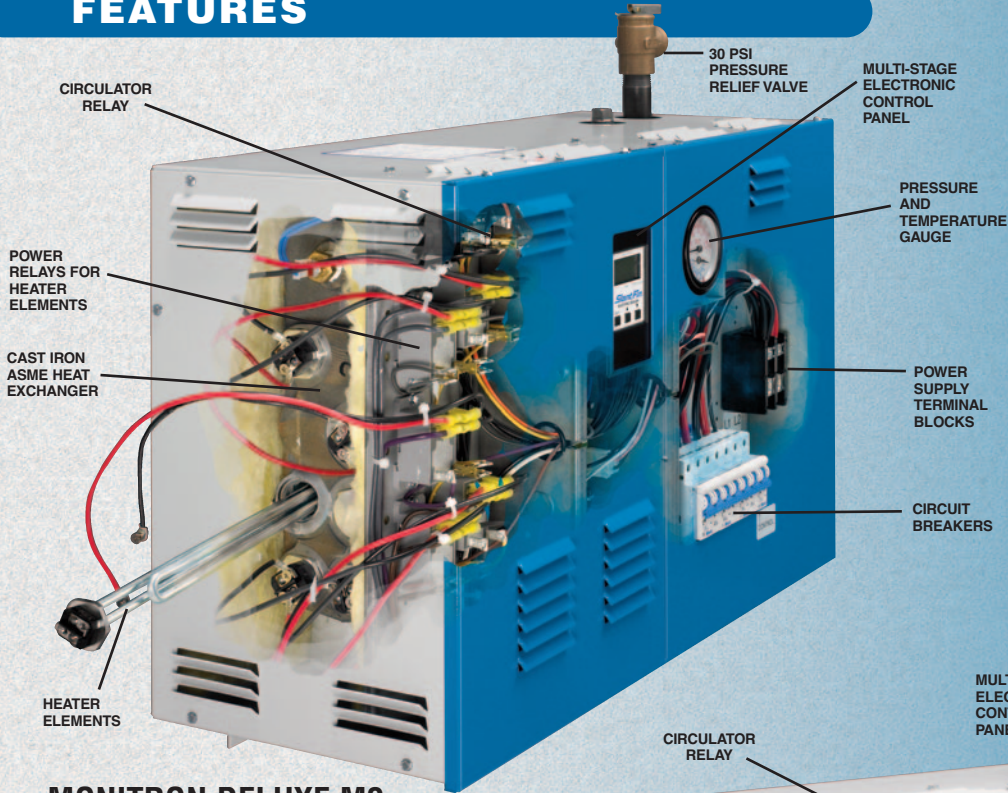
Mild-weather energy savings are made possible through the use of a warm weather shut-down feature of the control. This energy-saving feature is standard on Monitron II models EH-24M2 through EH-40M2 and Minitron III models EH-8M3 through EH-20M3.

## Standard equipment

- Multi-stage electronic control
- Pressure and temperature gauge
- Safety relief valve (unmounted)
- Circulator relay and heater power relays
- Circuit breaker (one or two heaters per breaker)
- Drain cock, 3/4" (packed separately)
- Built-in air separator

- Cast-iron ASME approved heat exchanger
- Terminal blocks for circulator, thermostat, flow switch, temperature sensors and remote signal input.
- Complete jacketing
- U.L. listed, ASME authorized
- Flow switch. Not included with, but necessary on all models
- Circuit breaker for circulator and control circuit.

# FEATURES


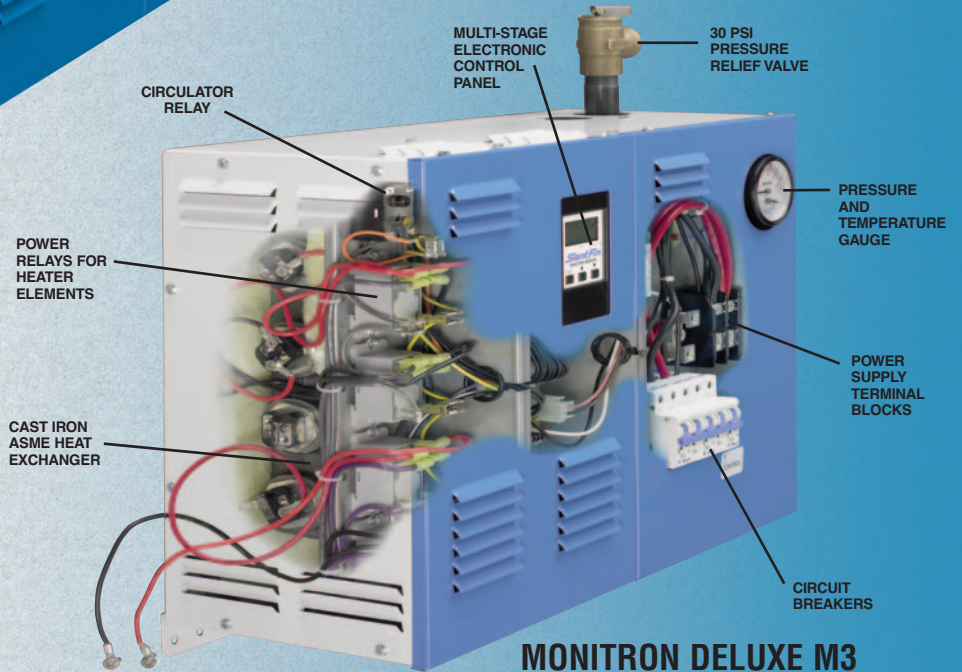


**MONITRON DELUXE M2**

**THIS MODEL ENERGYGUIDE**

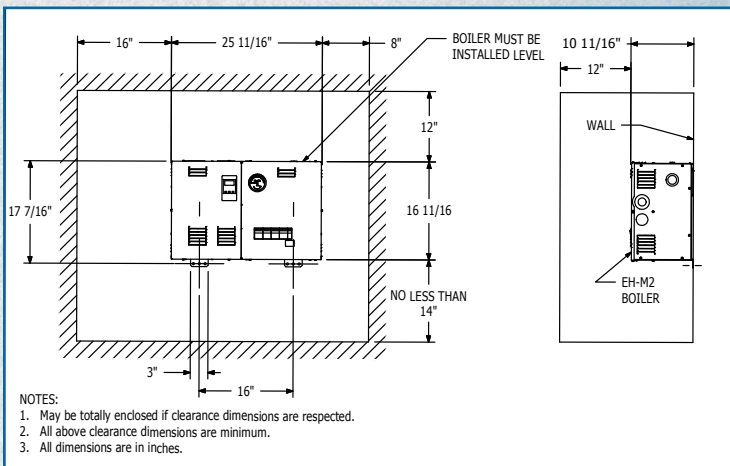
**100% EFFICIENT**

Scan QR code with smartphone app to download energy guide label for this product.

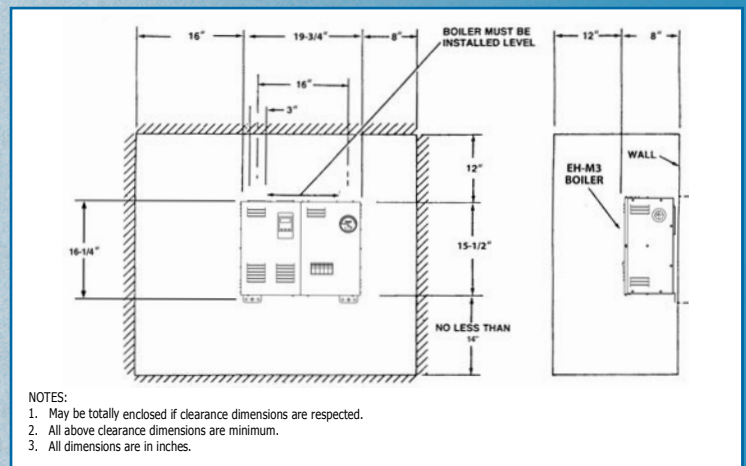



**MONITRON DELUXE M3**

# DIMENSIONS



**MONITRON DELUXE M2**



**MONITRON DELUXE M3**

**NOTES:** 1. May be totally enclosed if clearance dimensions are respected. 2. All clearance dimensions are minimum. 3. All dimensions are in inches.

# RATINGS AND SPECIFICATIONS

Boiler Model No.	SINGLE PHASE ± KW at 208 VAC	SINGLE PHASE KW at 240 VAC	SINGLE PHASE D.O.E Capacity (Btu/hr) at 208 VAC	SINGLE PHASE D.O.E Capacity (Btu/hr) at 240 VAC	Neutral Lug Size (AWG)		SINGLE PHASE — THREE WIRE			THREE PHASE — FOUR WIRE 120/208 VAC WYE				
					Solid Cu	Stranded Cu	Main Lug Size (AWG) CU	Grounding Lug Size (AWG) Cu	† ** Heater Amps at 240 VAC	KW at 208 VAC	D.O.E Capacity (Btu/h) at 208 VAC	Main Lug Size (AWG) CU	Grounding Lug Size (AWG)	† Heater Amps at 208 VAC
EH-8M3	6	8	21000	27000	14-12	12	6-2/0	6-2/0	33	—	—	—	—	—
EH-10M3	7.5	10	26000	34000	14-12	12	6-2/0	6-2/0	42	—	—	—	—	—
EH-12M3	9	12	31000	41000	14-12	12	6-2/0	6-2/0	50	9.012	31000	6-2/0	6-2/0	43.4
EH-16M3	12	16	41000	55000	14-12	12	6-2/0	6-2/0	67	12.016	41000	6-2/0	6-2/0	‡ 57.8
EH-20M3	15	20	51000	68000	14-12	12	6-2/0	6-2/0	83	15.020	51000	6-2/0	6-2/0	‡ 72
EH-24M2	18	24	62000	82000	14-12	12	6-2/0	6-2/0	100	18.024	62000	6-2/0	6-2/0	‡ 69
EH-28M2	21	28	72000	96000	14-12	12	6-2/0	6-2/0	117	21.028	72000	6-2/0	6-2/0	‡ 69
EH-32M2	24	32	82000	109000	14-12	12	6-2/0	6-2/0	133	24.032	82000	6-2/0	6-2/0	‡ 83
EH-40M2	30	40	103000	137000	14-12	12	2-310 MCM	6-2/0	167	30.040	103000	6-2/0	6-2/0	‡ 108.3

\*\* Multiply by 0.867 for values at 208 volts AC.

‡ Leg with the highest value of line current of an unbalanced 3 phase load.

† For total current add, to the value shown in the table, the current draw for circulator (3 Amp. max.).

## Specify Model as follows: Model Number. Single or three Phase Voltage.

“135M2” for single phase, 3 wire, 120V/208V WYE, 120V/240V (see note (1) below) with control circuit breaker.  
 “345M2” for three phase, 4 wire, 120V/208V WYE. (see note (1) below) with control circuit breaker.

Example: EH-20-135M2=20KW boiler for single phase 3 wire, 120V/208V, 120V/240V, with EM-10 boiler control.

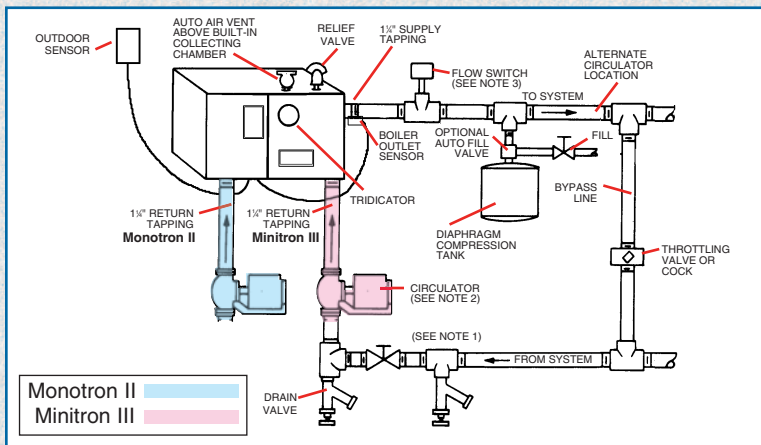
## ELECTRICAL

- Single branch circuit for 3 wire 120/208 V WYE, 120/240 Volt a.c. single phase, 60 Hz or for 4 wire 120/208V WYE three phase, 60Hz a.c. See note (1) below.
- Heating elements: Low-density replaceable. Copper sheathed and silver brazed base.

**ELECTRICAL NOTES:** 1. Voltage of any line to ground cannot exceed 125 VAC.

# TYPICAL PIPING DIAGRAM

FOR USE WITH TWO-WAY ZONE VALVES



## PIPING NOTES:

- Optional blocking gate valve and hose end valve used (with drain valve) for fast fill and purge of system. **IMPORTANT** Close bypass line valve (if used) during purging.
- Alternative circulator location could be installed on supply piping. Circulator should not be installed at lowest point of piping.
- There should be no elbows, tees, or change of pipe size for at least 5 diameters of pipe size (see table below) upstream and down-stream of flow switch.

Boiler Model	Flow Switch McDonnell & Miller No.	Pipe Size	Minimum Length of Straight Pipe Upstream and Down-Stream of Flow Switch
EH-40M2	FS8W	1 ¼ IN.	8 ½ IN.
EH-24M2- EH-32M2	FS4-3T3-1	1 IN.	6 ½ IN.
EH-8M3- EH-20M3	FS4-3T3-1	1 IN.	6 ½ IN.



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