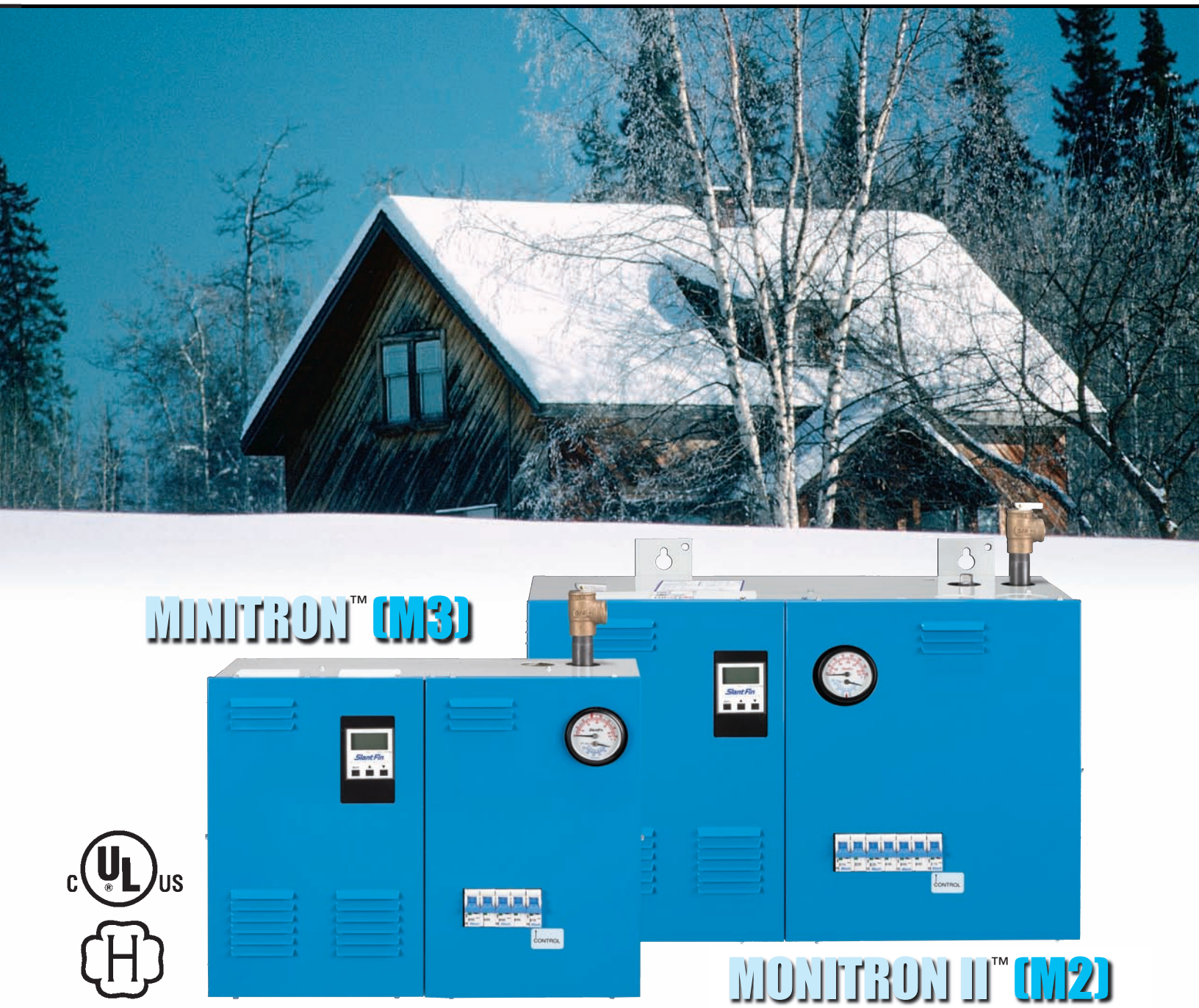
Slant/Fin

MONITRON II™/MINITRON™

CAST-IRON ELECTRIC BOILERS



MINITRON™ (M3)

MONITRON II™ (M2)

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A major answer to the changing heating-fuel situation.

M2 hot water models in nine sizes (27,301 to 136,506 Btuh) (8-40KW).
M3 hot water models in five sizes (27,301 to 68,000 Btuh) (8-20KW).

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

Slant/Fin 1949 2009
Celebrating 60 years of heating excellence

Slant/Fin®

MONITRON II / MINITRON™

CAST-IRON ELECTRIC BOILERS

Compact, easy to install for new or "standby" installations

Monitron II & Minitron combine the availability and dependability of electricity with the comfort and performance of conventional hydronic heating using baseboard, radiant or cast-iron radiators.

Monitron II/Minitron 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 II/Minitron 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 II/Minitron as a primary heating unit offers:

- The convenience of electricity and the comfort of hydronics.
- The elimination of a chimney.
- Competitive pricing with electric baseboard systems.
- Simple zoning by zone valves.

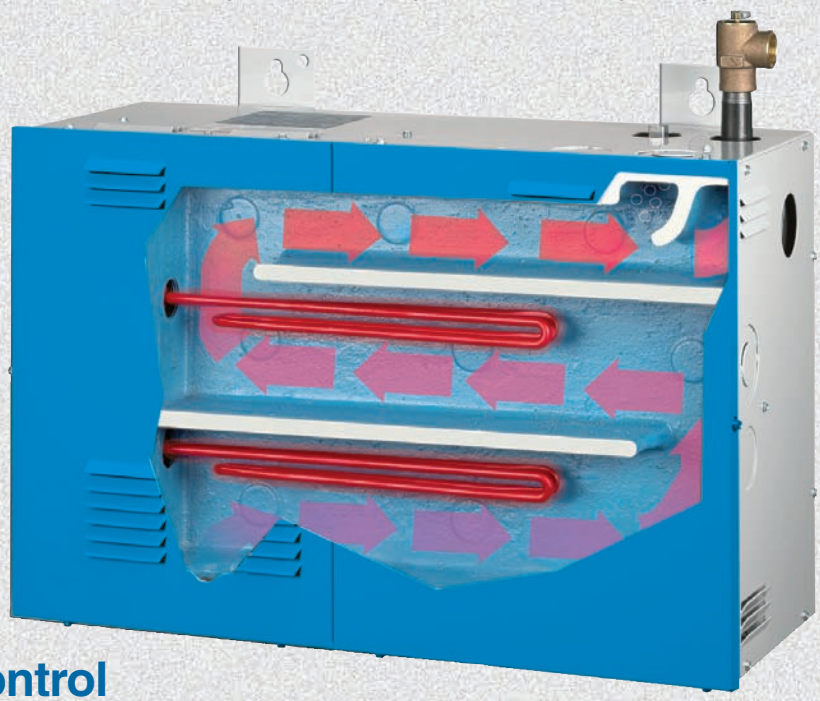
Monitron II/Minitron by Slant/Fin are the electronic-age boilers designed to save energy for new or existing heating systems.

- **One piece cast-iron heat exchanger.**
- **Built in air eliminator.**
- **Internal baffles improve heat transfer.**
- **Slant/Fin electronic 4 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.

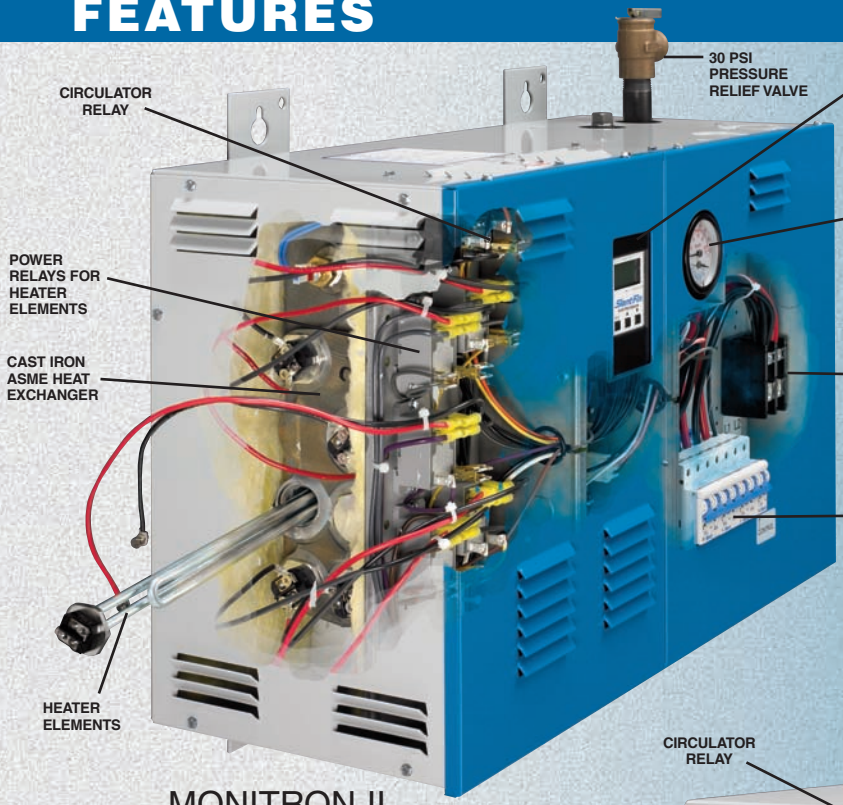
OPTIONAL MILD-WEATHER OPERATION

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-8M2 through EH-40M2 and Minitron models EH-8M3 through EH-20M3.

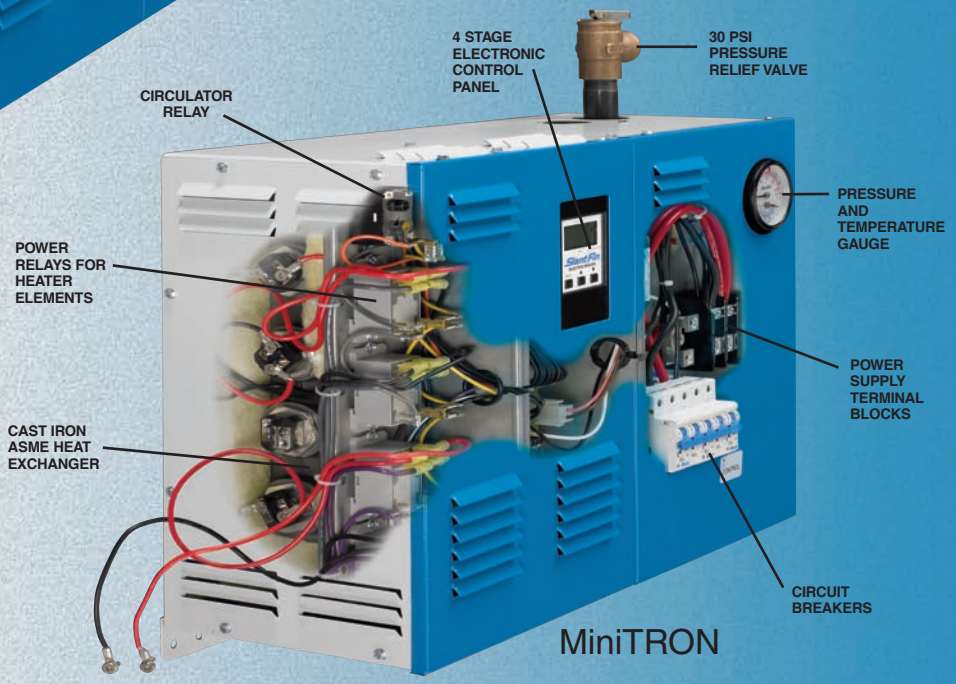
Standard equipment

- 4 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, ¾" (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

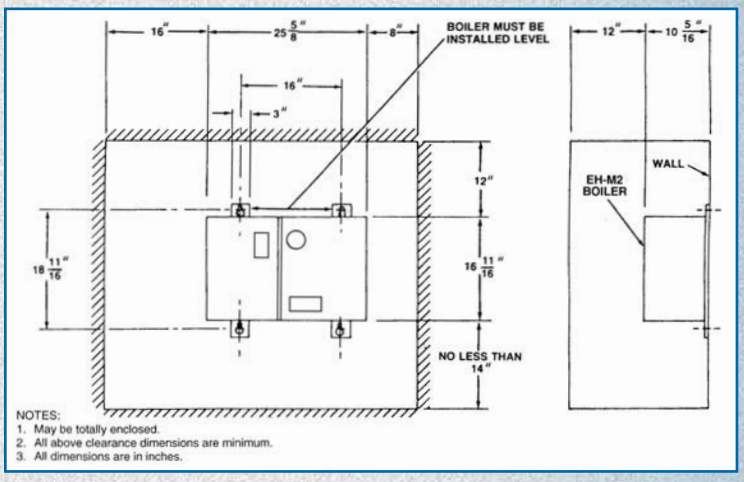


MONITRON II

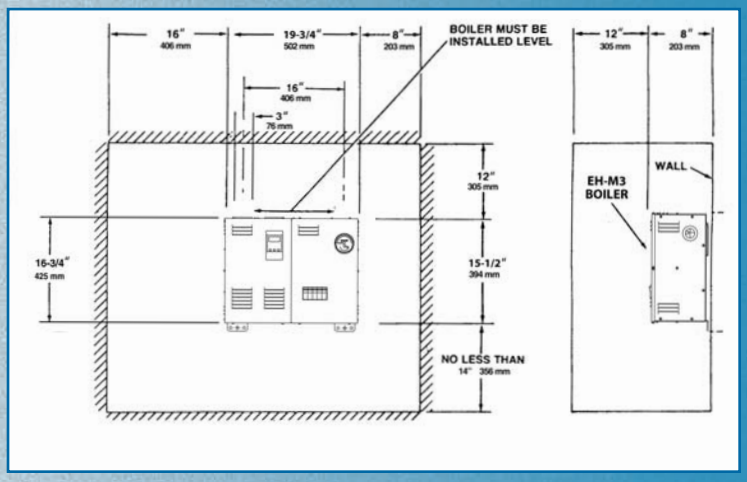


MiniTRON

DIMENSIONS



MONITRON II



MiniTRON

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 240 VAC	SINGLE PHASE D.O.E Capacity *(Btu/hr) at 240 VAC	Neutral Lug Size (AWG) Solid Cu	Neutral Lug Size (AWG) Stranded Cu	SINGLE PHASE — THREE WIRE Main Lug Size (AWG) CU	Grounding Lug Size (AWG) Cu	† ** Heater Amps at 240 VAC	THREE PHASE — FOUR WIRE 208/240 VAC WYE KW at 208 VAC	D.O.E Capacity (Btuh) at 208 VAC	Main Lug Size (AWG) CU	Grounding Lug Size (AWG) Cu	† Heater Amps at 208 VAC
EH-8M2/M3	8	27000	14-12	12	6-2/0	6-2/0	33	—	—	—	—	—
EH-10M2/M3	10	34000	14-12	12	6-2/0	6-2/0	42	—	—	—	—	—
EH-12M2/M3	12	41000	14-12	12	6-2/0	6-2/0	50	9.012	31000	6-2/0	6-2/0	43.4
EH-16M2/M3	16	55000	14-12	12	6-2/0	6-2/0	67	12.016	41000	6-2/0	6-2/0	‡57.8
EH-20M2/M3	20	68000	14-12	12	6-2/0	6-2/0	83	15.020	51000	6-2/0	6-2/0	‡72
EH-24M2	24	82000	14-12	12	6/2/0	6-2/0	100	18.024	62000	6-2/0	6-2/0	‡69
EH-28M2	28	96000	14-12	12	6-2/0	6-2/0	117	21.028	72000	6-2/0	6-2/0	‡69
EH-32M2	32	109000	14-12	12	6-2/0	6-2/0	133	24.032	82000	6-2/0	6-2/0	‡83
EH-40M2	40	137000	14-12	12	2-310 MCM	6-2/0	167	30.040	103000	6-2/0	6-2/0	‡108.3

* Multiply by 0.751 for values at 208 volts AC.
** Multiply by 0.867 for values at 208 volts AC.

† For total current add, to the value shown in the table, the current draw for circulator and/or zone valve transformer (10 Amp. max.),
‡ Leg with the highest value of line current of an unbalanced 3 phase load.

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

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

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

ELECTRICAL

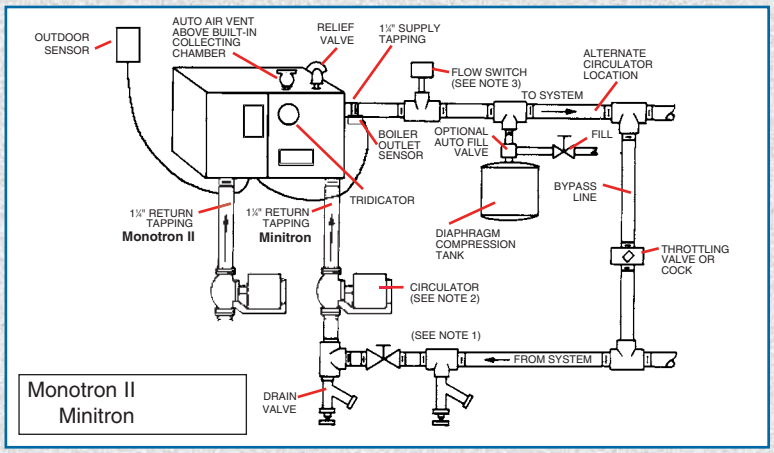
- Single branch circuit for 3 wire 120/208 V WYE, 120/240 Volt a.c. single phase, 60 Hz or for 4 wire 120/208V WYE three phase, 60Hz a.c. See note (1) below.
- Circulator relay 10 AMP Max, 120V a.c.

Note No. 1: Voltage of any line to ground cannot exceed 125 VAC.

- Heating elements: Low-density replaceable. Copper sheathed and silver brazed base.

TYPICAL PIPING DIAGRAM

FOR USE WITH TWO-WAY ZONE VALVES



NOTES:

1. 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.
2. Alternative circulator location could be installed on supply piping. Circulator should not be installed at lowest point of piping.
3. There should be no elbows, tees, or change of pipe size for at least 5 diameters of pipe size (see table below) upstream and downstream 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-8M2- EH-32M2	FS4-3T3-1	1 IN.	6 ½ IN.
EH-8M3- EH-20M3	FS4-3T3-1	1 IN.	6 ½ IN.

Slant/Fin® 1949 2009
Celebrating 60 years of heating excellence

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