Specification Data Sheet - Mini-Boiler™ Series

STANDARD EQUIPMENT

Staging - EMB-R*-*

- Supply water sensing
- Regulates to front panel selected temperature
- Temperature range 90° F to 160° F
- Staging indicator lights
- DC power relays
- Hi-limits: 1st - automatic reset at 190° F
  2nd - manual reset at 205° F
- Circulator switching relay - 10-amp maximum
- Thermostat or end switch connection (R and W)
- Utility load control provisions
- 1 gl. steel vessel ASME "H" Stamp (20-year warranty)
- Supply temperature/pressure gauge
- Safety relief valve (30 PSI)
- Conforms to: UL STD.UL834/Certified to: CSA STD.C22.2#165

Modulating - EMB-M*-*

- Same as EMB-R*-* *PLUS*
- Modulates for tighter temperature control
- Temperature range 90° F to 180° F
- Hi-limits: 1st - automatic reset at 200° F
  2nd - manual reset at 205° F

WATER FLOW REQUIREMENTS (MINIMUM 0.3 GPM PER KW WATER FLOW THROUGH BOILER)

Model	Water Temperature Rise											
	Flow - 10° F/6° C		Head Loss		Flow - 20° F/11° C		Head Loss		Flow - 30° F/16° C		Head Loss	
	gpm	lpm	ft	m	gpm	lpm	ft	m	gpm	lpm	ft	m
EMB-**-01	.75	2.83	.008	.002	.37	1.39	.002	.001	.25	1.89	.001	.000
EMB-**-03	1.7	6.43	.043	.013	.85	3.21	.010	.003	.56	2.11	.005	.001
EMB-**-05	3.07	11.60	.139	.042	1.53	5.78	.035	.011	1.02	3.85	.015	.005
EMB-**-07	4.78	18.06	.336	.102	2.39	9.03	.084	.026	1.59	6.01	.038	.011
EMB-**-09	6.14	23.20	.554	.169	3.07	11.60	.139	.042	2.04	7.71	.062	.019
EMB-M*-12	7.8	29.53	.987	.301	3.92	14.84	.246	.075	2.6	9.84	.109	.033

* = R1 or M2 Note: Head Loss based on 120° F supply temperature.

ELECTRIC SUPPLY

Model	Volts	Phase	kW	Watts	Btu/h	Amps	CB
EMB-**-01	120	1-60	1.1	1,100	3,753	9.2	N/A
EMB-**-03	120	1-60	2.5	2,500	8,530	20.8	N/A
EMB-**-05	240/208	1-60	5/3.7	5,000/3,750	17,065/12,798	18.8/16.3	30A
EMB-**-07	240/208	1-60	7/5.3	7,000/5,300	23,884/18,088	29.2/25.3	45A
EMB-**-09	240/208	1-60	9/7.0	9,000/7,000	30,708/23,891	37.5/32.5	60A
EMB-M*-12	240/208	1-60	12/8.6	12,000/8,600	40,944/30,759	50.0/43.3	45A,45A

* = R1 or M2

CLEARANCES

	MINIMUM CLEARANCE		SUGGESTED MINIMUM SERVICE CLEARANCE	
LEFT	1 INCH	26 MM	12 INCHES	305 MM
RIGHT	1 INCH	26 MM	12 INCHES	305 MM
BACK	0 INCHES	0 MM	0 INCHES	0 MM
FRONT	1 INCH	26 MM	21 INCHES	534 MM
TOP	1 INCH	26 MM	14 INCHES	356 MM
BOTTOM	1 INCH	26 MM	14 INCHES	356 MM
SURROUNDING AMBIENT TEMPERATURE MUST NOT EXCEED 90°F/32°C				

UNIT WEIGHT

Model	Weight (lbs)	Model	Weight (lbs)
EMB-**-01	50	EMB-**-07	50
EMB-**-03	50	EMB-**-09	50
EMB-**-05	50	EMB-M*-12	50

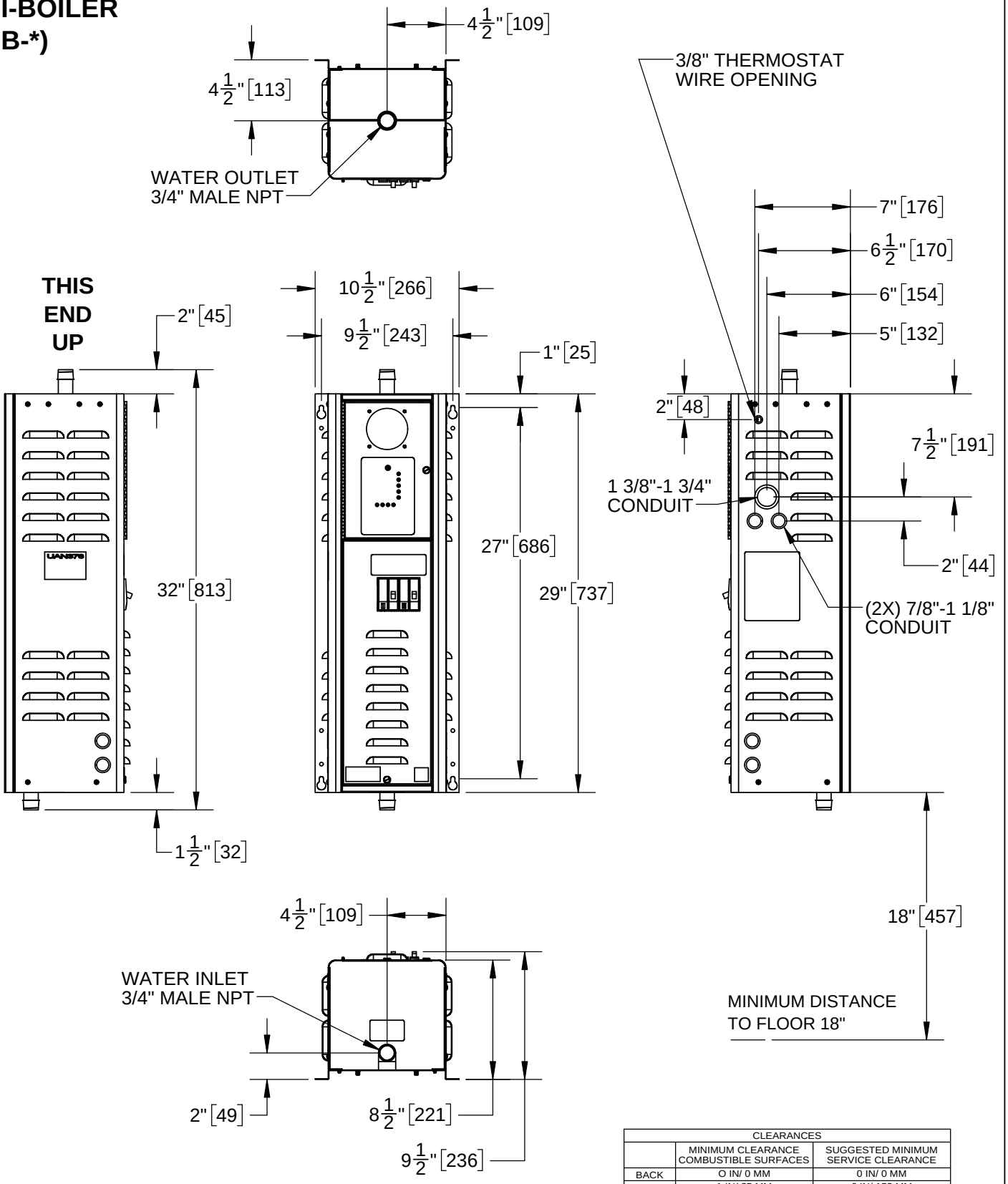
* = R1 or M2

Intertek

All specifications subject to ELECTRO INDUSTRIES STANDARD TERMS AND CONDITIONS, download at www.electromn.com/terms.pdf.

ELECTRO INDUSTRIES
Monticello, MN · 800.922.4138 · www.electromn.com

ELECTRO INDUSTRIES, INC
MINI-BOILER
(EMB-*)



CLEARANCES		
	MINIMUM CLEARANCE COMBUSTIBLE SURFACES	SUGGESTED MINIMUM SERVICE CLEARANCE
BACK	O IN/ 0 MM	0 IN/ 0 MM
LEFT	1 IN/ 25 MM	6 IN/ 152 MM
RIGHT	1 IN/ 25 MM	6 IN/ 152 MM
FRONT	1 IN/ 25 MM	24 IN/ 610 MM
TOP	1 IN/ 25 MM	24 IN/ 610 MM
BOTTOM	REQUIRED CLEARANCE - 18 IN/ 457 MM	

NOTES:
1. DIMENSIONS SHOWN IN INCHES & [MM]

NAME	DATE						
DRAWN: NP	07/19/22	ALL DIMENSIONS ARE IN INCHES TOLERANCES AS SHOWN OR: TWO-PLACE DECIMAL: ±.020 THREE-PLACE DECIMAL: ±.010	SCALE: 1:10	DESCRIPTION: MINI-BOILER (EMB-*) 1.4kW-12kW 120V-240V ARCAT CAD DETAILS	Electro Industries, Inc. Monticello, MN 55362 (763)295-4138	MATERIAL: -	FINISH: -
CHECKED						PROJECT: -	PART NUMBER: -
APPROVED		PROPRIETARY AND CONFIDENTIAL NOTE: THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ELECTRO INDUSTRIES INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ELECTRO INDUSTRIES INC. IS PROHIBITED.			DO NOT SCALE DRAWING	STATUS: Production	REV: A DOCUMENT NUMBER: BL309 SHEET: 1/1