

# Specification Data Sheet - Mini-Boiler™

## STANDARD EQUIPMENT

### Staging - EMB-S-\*

- Supply water sensing
- Regulates to front panel selected temperature
- Temperature range 90° F to 160° F
- Staging indicator lights
- DC Power Relays
- Hi-limits: 1<sup>st</sup> - automatic reset at 190° F  
2<sup>nd</sup> - 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)

### Modulating - EMB-H-\*

- Same as EMB-S-\* PLUS
- Modulates at a tighter temperature control
- Temperature range 90° F to 180° F

## WATER FLOW REQUIREMENTS (MINIMUM 1 GPM 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-S-1	.75†	2.83†	.01	.003	.37†	1.39†	.003	.001	.25†	1.89†	.003	.001
EMB-S-2	1.7	6.43	.01	.006	.85†	3.21†	.02	.006	.56†	2.11†	.004	.001
EMB-S-4	3.41	12.88	.08	.024	1.70	6.42	.04	.012	1.13	4.27	.02	.006
EMB-*-5	3.07	11.60	.06	.018	1.53	5.78	.02	.006	1.02	3.85	.02	.006
EMB-*-7	4.78	18.06	.12	.036	2.39	9.03	.06	.01	1.59	6.01	.02	.006
EMB-*-9	6.14	23.20	.23	.07	3.07	11.60	.10	.03	2.04	7.71	.06	.018

\* = S or H

†Result below minimum required flow of boiler, make sure system design provides minimum flow requirements of boiler.

Note: Head Loss based on 110° F return temperature.

## ELECTRIC SUPPLY

Model	Volts	Watts	Amps	kW	Phase	Btu/h	CB
EMB-S-1	120	1,100	9.17	1.1	1-60	3,754	N/A
EMB-S-2	120	2,500	20.83	2.5	1-60	8,532	N/A
EMB-S-4	120	5,000	41.67	5	1-60	17,065	N/A
EMB-*-5	240	4,500	18.75	4.5	1-60	15,358	30A
EMB-*-7	240	7,000	29.17	7	1-60	23,891	45A
EMB-*-9	240	9,000	37.5	9	1-60	30,717	60A

\* = S or H

## SHIPPING WEIGHT

Model	Weight (lbs)
EMB-S-1	44
EMB-S-2	44
EMB-S-4	44
EMB-*-5	45
EMB-*-7	46
EMB-*-9	46

## CLEARANCES

	MINIMUM CLEARANCE FROM COMBUSTIBLE SURFACES		SUGGESTED MINIMUM SERVICE CLEARANCE	
BACK	0 INCH	0 MM	0 INCH	0 MM
LEFT	1 INCH	25 MM	6 INCHES	152 MM
RIGHT	1 INCH	25 MM	6 INCHES	152 MM
FRONT	1 INCH	25 MM	24 INCHES	610 MM
TOP	1 INCH	25 MM	24 INCHES	610 MM
BOTTOM	REQUIRED CLEARANCE - 18 INCHES/450 MM			



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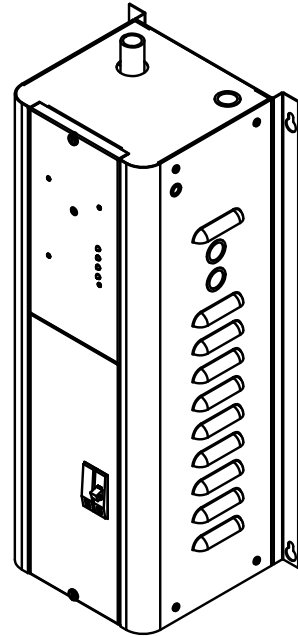
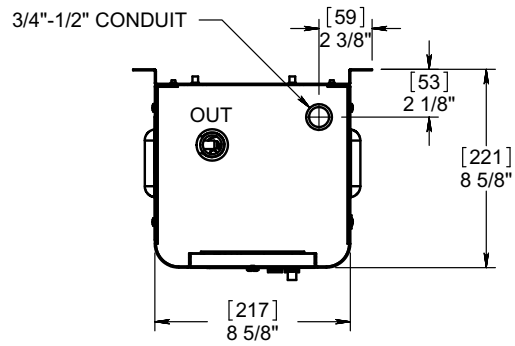


ELECTRO INDUSTRIES, INC.

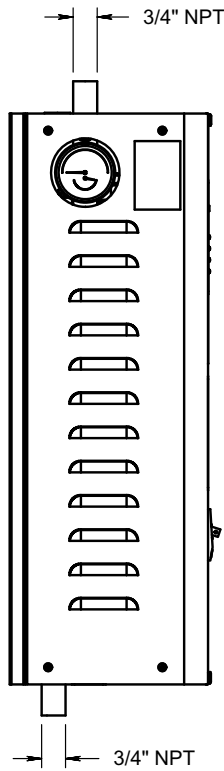
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# MINI-BOILER, EMB-(H,S)-\*

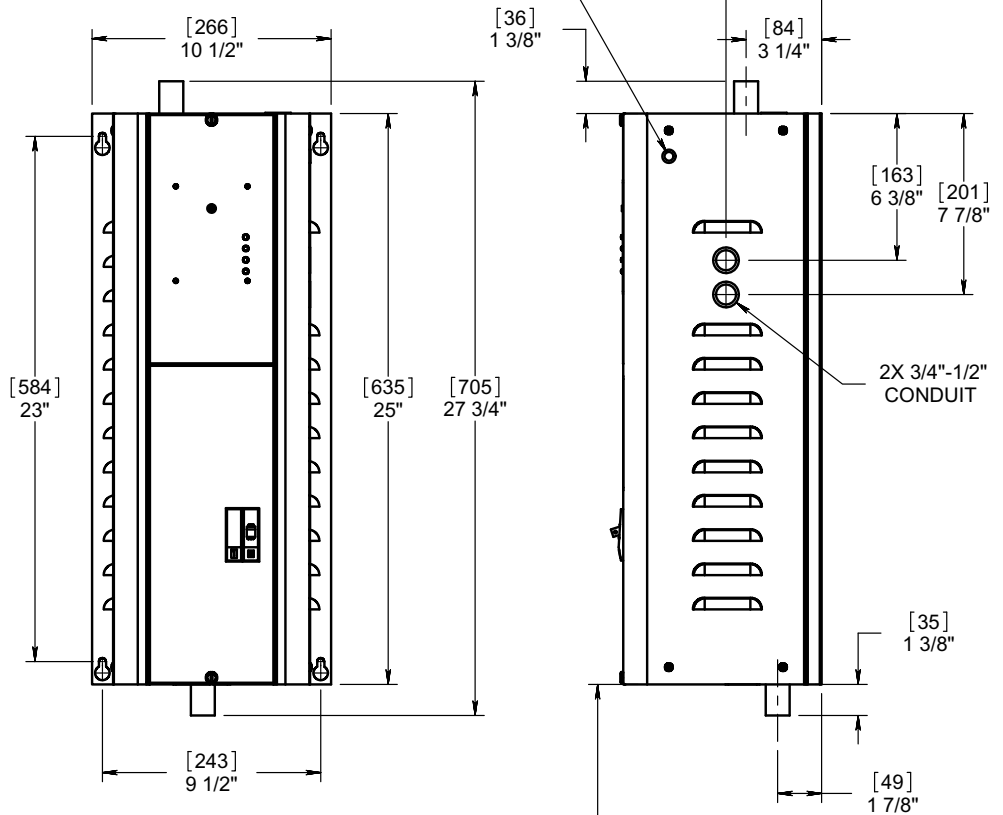
Hydronic Boilers  
 Submittal Data



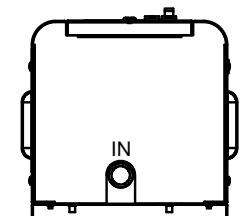
MOUNT THIS END UP



3/8" THERMOSTAT WIRE OPENING



[457] MINIMUM CLEARANCE  
 18" FROM FLOOR



DIMENSIONS ARE:  
 [mm]  
 IN