



Dunkirk Boilers AT Electric Boiler- Submittal



Engineer: _____

Project Name: _____

Project Location: _____

Contractor: _____



APPLICATION:

Electric hot water boiler for indoor installation. Wall mounted. All boilers are factory assembled with controls and wiring, and test fired to ensure dependable performance.

CERTIFICATION AND APPROVALS:

AT Series Electric Boiler is manufactured and tested in accordance with American Society of Mechanical Engineers (ASME) and certified by Canadian Standards Association (CSA). Registered with National Board BPVI, and Massachusetts Board. Cast Iron heat exchanger is tested for maximum allowable working pressure of 30 psig in accordance with ASME boiler and pressure vessel code, section IV, rules for construction of heating boilers. A 30 psig safety relief valve is shipped standard.

BOILERS INCLUDE:

- Mounting hardware
- Three character LED display
- Three button User Interface
- Error code display
- Element Staging and Rotation
- Dual set points for comfort heating and domestic hot water
- Setting for Fahrenheit or Centigrade temperature scales
- Water temperature heating range 90°-180°F (32-82°C)
- Dry fire protection
- Connections for flow sensor and low water cutoff
- Load management control connection with auxiliary heat source connection
- Freeze protection
- Circulator pump terminals
- 40 VA transformer
- Three wire thermostat connection
- Audible alarm
- Pump exercising



Manufactured by:
ECR International Inc.
2201 Dwyer Avenue, Utica, NY 13501
Tel. 800 325 5479
www.ecrinternational.com
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- Relay contact monitoring
- Non-Volatile memory

- Heat Exchanger:
 - ▶ One piece

- Electrical
 - ▶ 208/240 vac, 1 ph, 60 Hz

- Other:
 - ▶ Field supplied Anti-Scald valve is required for Domestic Hot Water Supply.

- Warranty
 - ▶ Factory Standard Warranty is 20 years on heat exchanger, one year on parts.



Clearances ⁽¹⁾ Required distances measured from boiler. ⁽²⁾ Service, proper operation clearance recommendation.			Combustible Materials & Service (Required) ^{(1) (2)}	
	Top		16 in (40.6 cm)	
	Left Side		20 in (50.8 cm)	
	Right Side		20 in (50.8 cm)	
	Front		12 in (30.5 cm)	
	Back		0 in (0 cm)	
	Bottom		10 in (25.4 cm)	
Connections AT Boiler	1¼ in NPT Heating Supply & Return			
Relief Valve	3/4 in NPT			
Flow Rate	“AT” Series - 2 Element Boiler			
	kW Capacity		Minimum Flow Rate (gpm)*	
	6		2.0	
	8		2.7	
	10		3.4	
	12		4.1	
	“AT” Series - 4 Element Boiler			
	kW Capacity		Minimum Flow Rate (gpm)*	
	12		4.1	
	16		5.5	
	20		6.8	
24		8.2		
Dimension/Weights	Model	Width	Height	
	AT Boiler	18 ⁵ / ₈ in	14 ⁵ / ₈ in	
		22.9 cm	37.1 cm	

* Flow rate based on 20°ΔT



AT Boiler Electrical Specifications

Operating at 240 Vac

"AT" Series - 2 Element Boiler

Model	Boiler Size Nominal kW	Voltage (ac)	Output Power (Watts)	Output Power Btu/h	Amperage 240 Vac	Element Size (Watts) at 240 Vac	Number Elements	Accessory Load (A)	Total Amps	MCA	MOP	*Recommended Wire		
												60°C (140°F) AWG	75°C (167°F) AWG	90°C (194°F) AWG
AT0623	6	240	6,000	20,500	25.0	3,000	2	6	31.0	38.8	40.0	8	8	10
AT0824	8	240	8,000	27,300	33.3	4,000	2	6	39.3	49.2	50.0	6	8	8
AT1025	10	240	10,000	34,100	41.7	5,000	2	6	47.7	59.6	60.0	4	6	6
AT1226	12	240	12,000	41,000	50.0	6,000	2	6	56.0	70.0	70.0	4	4	6

"AT" Series - 4 Element Boiler

AT1243	12	240	12,000	41,000	50.0	3,000	4	6	56.0	70.0	70.0	4	4	6
AT1644	16	240	16,000	54,600	66.7	4,000	4	6	72.7	90.8	100.0	2	3	4
AT2045	20	240	20,000	68,200	83.3	5,000	4	6	89.3	111.7	125.0	1/0	2	2
AT2446	24	240	24,000	82,000	100.0	6,000	4	6	106.0	132.5	150.0	2/0	1/0	1

Operating at 208 Vac

"AT" Series - 2 Element Boiler

Model	Boiler Size Nominal kW	Voltage (ac)	Output Power (Watts)	Output Power Btu/h	Amperage 240 Vac	Element Size (Watts) at 240 Vac	Number Elements	Accessory Load (A)	Total Amps	MCA	MOP	*Recommended Wire		
												60°C (140°F) AWG	75°C (167°F) AWG	90°C (194°F) AWG
AT0623	6	208	4,507	15,400	21.7	3,000	2	6	27.7	34.6	35.0	8	10	10
AT0824	8	208	6,009	20,500	28.9	4,000	2	6	34.9	43.6	45.0	6	8	8
AT1025	10	208	7,511	25,600	36.1	5,000	2	6	42.1	52.6	60.0	6	6	8
AT1226	12	208	9,013	30,800	43.3	6,000	2	6	49.3	61.7	70.0	4	6	6

"AT" Series - 4 Element Boiler

AT1243	12	208	9,013	30,800	43.3	3,000	4	6	49.3	61.7	70.0	4	6	6
AT1644	16	208	12,018	41,000	57.8	4,000	4	6	63.8	79.7	80.0	3	4	4
AT2045	20	208	15,200	51,200	72.2	5,000	4	6	78.2	97.8	100.0	1	3	3
AT2446	24	208	18,027	61,600	86.7	6,000	4	6	92.7	115.8	125.0	1/0	1	2

MCA = Minimum Circuit Ampacity

MOP = Maximum Over-current protection

*Recommended Field Wire Size per NEC Table 310.16

Not more than three (3) current carrying conductors in raceway

Based on ambient temperature of 30°C (86°F). Other ambient temperatures see NEC or CEC for correction factors.

Use Copper conductors only.

Recommended use only Class B or C type wire

Check with latest version of NEC and local codes. NEC/CEC and local codes for compliance in your area.

Assuming 60°C (140°F) wire will be used for connections to boiler rated at 80 amperes or less, and 75°C (167°F) wire will be used with boiler rated at more than 80 amperes.

Manufactured by:

ECR International Inc.

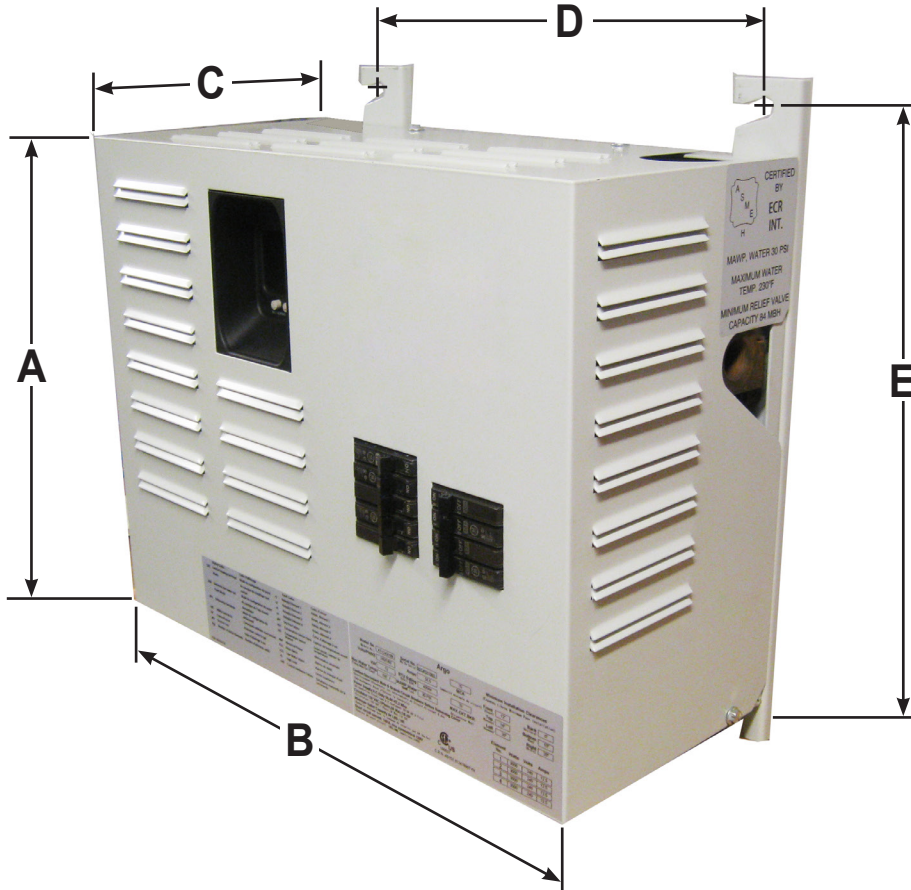
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"AT" SERIES BOILER DIMENSIONS



Dimensions					Inlet & Outlet Pipe Size	Approximate Shipping Wt.
A	B	C	D	E		
14 ⁵ / ₈ in	18 ⁵ / ₈ in	9 ¹ / ₃₂ in	14 ³ / ₈ in CL	16 ¹⁵ / ₃₂ in CL	1 ¹ / ₄ NPT	70 lbs.

All specifications subject to change without notice.



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