



# AT SERIES ELECTRIC BOILERS

DEPENDABLE COMFORT  
SUPERIOR DESIGN



**A Better Heating Value!**  
Residential & Light Commercial

- 100% Efficient
- Compact Light Weight Wall Hung Design (70 lbs)
- Zero Emissions, Green Alternative  
(No Fossil Fuel, No Chimney, No Carbon Monoxide)
- Ideal for home heating systems, radiant system applications requiring special temperature settings and for use as a back-up heat source for solar and heat pump applications.
- Advanced Microprocessor Control: Safely and efficiently controls the elements by monitoring the relay contacts that power the elements.
- Proven one piece cast iron heat exchanger backed by a 20 year limited warranty.



ECO Friendly



Assembled in the USA

**Innovative. Efficient. Dependable. Dunkirk**



[www.dunkirk.com](http://www.dunkirk.com)  
PN 240013729 Rev. [06/16/23]

## ABSOLUTE EFFICIENCY - TOTAL COMFORT

The AT Series Electric Boiler is 100% efficient. No wasted energy. This means no fossil fuel and no chimney. You save on fuel delivery, storage tank (including: tank maintenance, repairs and insurance), and there is no chimney maintenance or repair costs!

The AT Series Electric Boiler features a small compact wall mount design that weighs in at just 70 pounds. Why not get rid of that 500 pound clunker of a conventional boiler taking up valuable real estate in your basement? With the AT Series Boiler you get the maximum amount of heating capability in a minimum amount of space.

### Key Features

- An Advanced Microprocessor Control: Elements energize individually, with additional elements energizing as needed to meet demand, thus reducing electrical costs. The start-up element is rotated so run time is balanced across all elements for longevity.
- No Short-Cycling: The AT Series utilizes a sensor connected to a probe in an immersion well to determine demand. This configuration transmits water temperature back to the control board allowing the unit to efficiently maintain steady, even heat using only the elements needed to meet demand. This eliminates the cost and inconvenience of short cycling.
- An Advanced Load Managing Controller: Gives you the option to allow your utility or electric co-op to remotely control the boiler, reducing peak demands.

### Safety

With the AT Series Electric Boiler, no combustion takes place so no harmful carbon monoxide is produced. Additional safety features include:

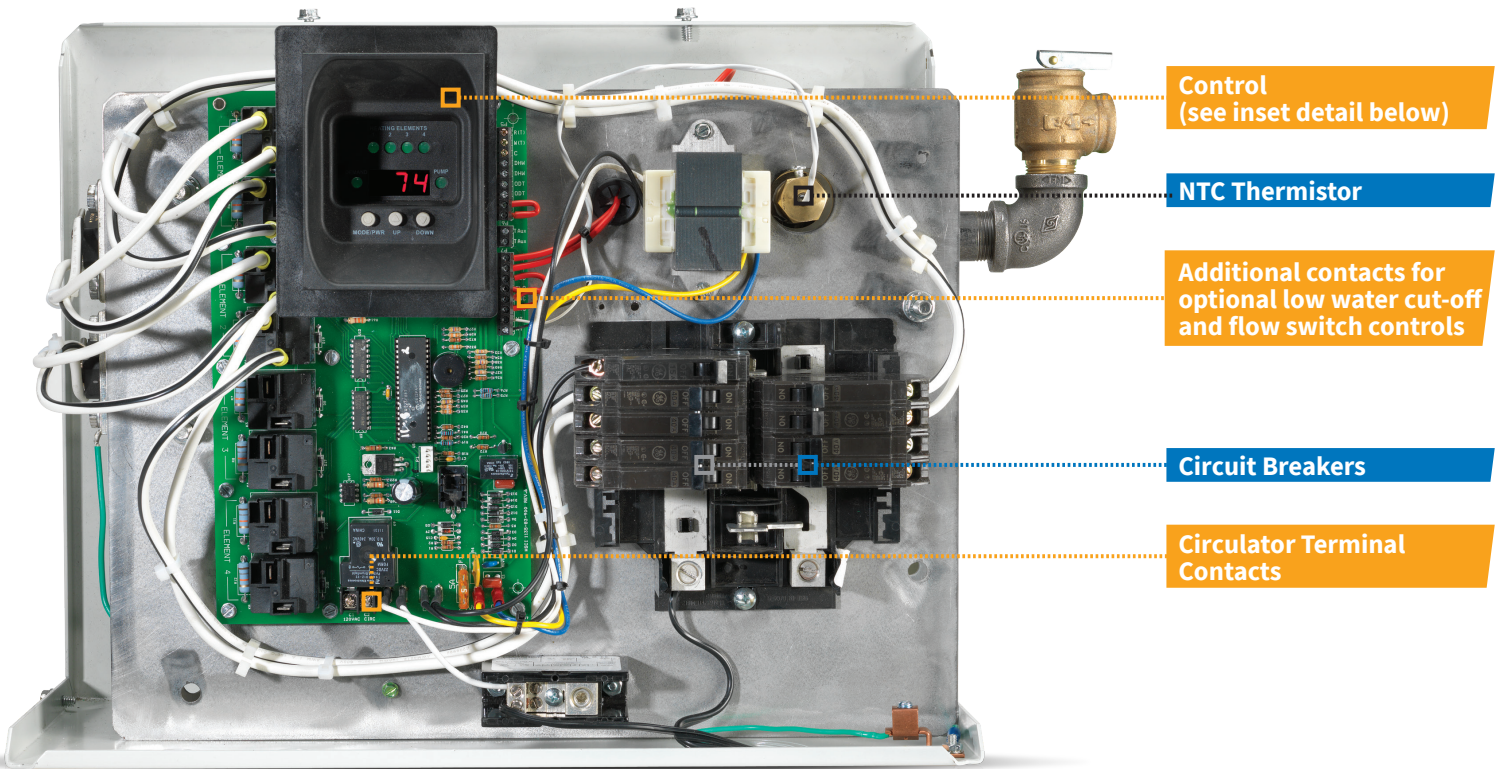
- Built in brown out protection and safety monitoring (During a brownout condition the control board senses the incoming voltage and will shut down the unit to prevent circuit damage. The boiler automatically resets when the voltage is back to normal. The boiler also utilizes an auto reset fuse on the control board as well as a replaceable fuse for the low voltage wiring. This protects the board in the event of higher than normal power.)
- Operating limit with back-up high limit protection
- Relays per element and audible alarm/fault codes





# AT SERIES

## 4-ELEMENT ELECTRIC BOILER



Control  
(see inset detail below)

NTC Thermistor

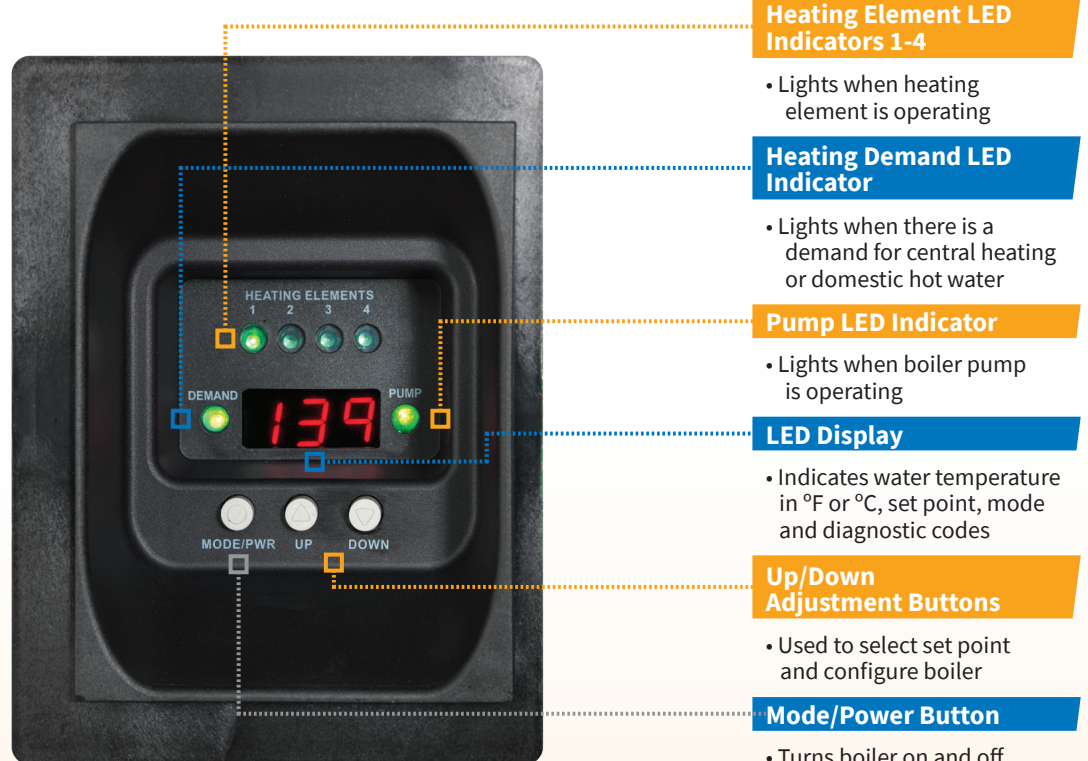
Additional contacts for  
optional low water cut-off  
and flow switch controls

Circuit Breakers

Circulator Terminal  
Contacts

# AT SERIES

## 4-ELEMENT ELECTRIC BOILER INSET DETAIL



Heating Element LED  
Indicators 1-4

- Lights when heating element is operating

Heating Demand LED  
Indicator

- Lights when there is a demand for central heating or domestic hot water

Pump LED Indicator

- Lights when boiler pump is operating

LED Display

- Indicates water temperature in °F or °C, set point, mode and diagnostic codes

Up/Down  
Adjustment Buttons

- Used to select set point and configure boiler

Mode/Power Button

- Turns boiler on and off, selects mode and configuration settings

### Easy Installation

- With a weight and footprint that is considerably less than a conventional gas or oil-fired boiler, no gas or oil connections, no vent piping and no chimney required.
- AT Series installation is as simple and efficient as the boiler itself!

# PRODUCT SPECIFICATIONS



## FLOW RATES

### AT SERIES - 2-ELEMENT BOILER

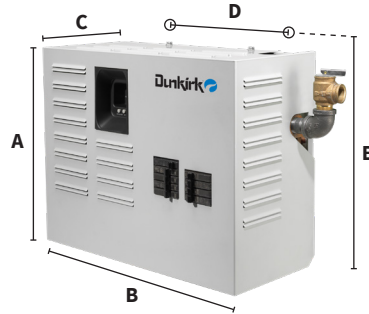
kW Capacity	Min. Flow Rate (GPM)*
6	2.0
8	2.7
10	3.4
12	4.1

### AT SERIES - 4-ELEMENT BOILER

kW Capacity	Min. Flow Rate (GPM)*
12	4.1
16	5.5
20	6.8
24	8.2

\*Flow Rate based on 20° FAT

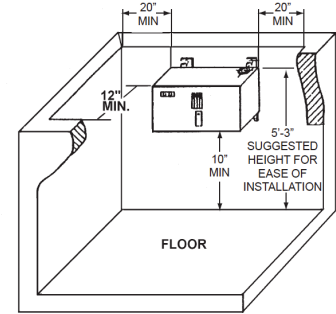
## AT SERIES BOILER DIMENSIONS



### DIMENSIONS

A	B	C	D	E
14- <sup>3</sup> / <sub>8</sub> " 37.1 cm	18- <sup>5</sup> / <sub>8</sub> " 47.3 cm	9- <sup>1</sup> / <sub>2</sub> " 22.9 cm	14- <sup>3</sup> / <sub>8</sub> " 36.5 cm	16- <sup>15</sup> / <sub>32</sub> " 41.8 cm

## BOILER LOCATION & CLEARANCE DIMENSIONS



### INLET & OUTPUT PIPE SIZE

1-<sup>1</sup>/<sub>2</sub>" NPT  
3.2 cm

### APPROXIMATE SHIPPING WEIGHT

70 lbs  
32 kg

## AT SERIES - 2-ELEMENT BOILER

Model	Boiler Size Nominal (kW)	Operating Voltage (AC)*	Net Heat Output BTU/hr	Power Input Watts	Total Heating Element Amps	Number of Elements	Element Size (Watts)	Minimum Circuit Ampacity <sup>(1)</sup>	Suggested Breaker (Amps) <sup>(2)</sup>
AT062310C	6	240	20,500	6,000	25.0	2	3,000	38.8	40
AT082410C	8	240	27,300	8,000	33.3	2	4,000	49.2	50
AT102510C	10	240	34,100	10,000	41.7	2	5,000	59.6	60
AT122610C	12	240	41,000	12,000	50.0	2	6,000	70.0	70

## AT SERIES - 4-ELEMENT BOILER

AT124310C	12	240	41,000	12,000	50.0	4	3,000	70.0	70
AT164410C	16	240	54,600	16,000	66.7	4	4,000	90.8	100
AT204510C	20	240	68,200	20,000	83.3	4	5,000	111.7	125
AT244610C	24	240	82,000	24,000	100.0	4	6,000	132.5	150

## AT SERIES - 4-ELEMENT BOILER

AT280010C (A)	28	240	95,600*	-	-	-	-	-	-
AT320010C (B)	32	240	109,200*	-	-	-	-	-	-
AT400010C (C)	40	240	136,400*	-	-	-	-	-	-

\*NOTE: Ratings are based on 240 operating voltage. Refer to the IOM for reduced ratings based on 208 operating voltage.

### STANDARD EQUIPMENT:

Painted Steel Jacket, Mounting Brackets, Neon Indicator Lights, Safety Limit Control (High Limit - Fixed Temp), Gasket, Heating Element, Control Board, NTC Thermistor, Neutral Terminal Block, Ground Connection Lug, Relief Valve - 30 p.s.i., Temperature/Pressure Gauge, Cast Iron Heat Exchanger 2 or 4 Element, Control Panel Assembly 2 or 4 Element. Circuit Breaker 15A - 1 Pole, Element Circuit Breaker 40A - 2 Pole, and Load Center Assembly.

(1) Allows for 6A control and accessory load in addition to heat load.

(2) Actual wire and breakers need to be sized based on specific installation requirements in accordance with National Electrical Code (NEC), Canadian Electrical Code (CEC) and local codes (where applicable).

\* 2 Piece Boiler System - Ratings are combined system values. Reference individual boiler specifications.

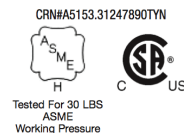
(A) 2 Piece Boiler System consisting of (1) AT1243 & (1) AT1644

(B) 2 Piece Boiler System consisting of (2) AT1644

(C) 2 Piece Boiler System consisting of (2) AT2045



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All specifications subject to change without notice.  
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