

# Argo

## "AT" SERIES C ELECTRIC BOILERS

### Save Money, Save Space, Save the Environment!

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



**ABSOLUTE EFFICIENCY. TOTAL COMFORT!**



## "AT" SERIES C ELECTRIC BOILERS



**A Better Heating Value – An Argo "AT" of steady, even radiant heat without all the**

### **Save Money, Save Space, Save the Environment!**

The Argo "AT" Series C Electric Boiler is 100% efficient. The average fuel utilization efficiency (AFUE) of a 15 year old propane or oil-fired boiler is around 82%. If you have a boiler that is 82% efficient, 18% of what you pay for fuel each year goes to waste.

In addition to lower heating bills, converting to an Argo "AT" Series C Electric Boiler 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!

Once installed, the Argo "AT" does not require any combustion adjustments or heat exchanger and vent pipe cleaning, reducing annual maintenance costs.

That all adds up quick and is a lot to consider as a homeowner.

The Argo "AT" Series C 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 Argo "AT" you get the maximum amount of heating capability in a minimum amount of space.

Plus with an Argo Electric Boiler you not only save green, you go green with a zero emissions, green home heating alternative! The Argo "AT" Series C Electric Boiler even features an advanced load management control that allows you the option of giving your utility remote control of the boiler, reducing peak demands.

### **Application Flexibility**

Whether you are looking for a direct replacement for an existing electric boiler or converting from propane gas or oil; the Argo "AT" Series C is ideal for radiant system applications requiring special temperature settings and for use as a back-up heat source for solar applications. The Argo "AT" Series C is available in 2 or 4 Element & Modular Boiler Configurations.

- 2 Element (4 Capacities from 6 kW to 12 kW)
- 4 Element (4 Capacities from 12 kW to 24kW)
- Modular Boiler Configurations (40 kW+ for light commercial applications utilizing multiple boilers)

### **Reliability**

The Argo "AT" Series C Boiler features a proven one piece cast iron heat exchanger backed by a 20 year Heat Exchanger Warranty.



# *Argo "AT" Series C Electric Boiler can provide your family with all the benefits of electric heating at a fraction of the costs associated with propane or oil-fired hot water boilers.*

The Argo "AT" Electric Boiler can be used for both higher water temperature systems up to 180°F or lower water temperature systems settings down to 90°F. The low set-point capability makes the boiler ideal for radiant floor heating systems.

Heating systems that require both a high water temperature in combination with a low water temperature are no problem for the Argo "AT" Series C Boiler. The advanced microprocessor control allows the installer to have two different temperature settings for a wide range of applications including use as a back-up heat source for solar.

## **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 (similar to your car's spark plugs) so run time is balanced across all elements for longevity.
- **No Short-Cycling:** The Argo "AT" Series C 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.

## **Standard Features**

- Diagnostic indicator lights
- LED display with 3 button user interface and error code messaging with audible alarm
- Element staging with rotation
- Dual set points for high/low temperature operation
- Dry fire protection on initial startup
- Terminal connections for adding a flow sensor and low water cutoff
- Load management terminal connection
- Circulator pump terminal with pump exercising
- Three wire thermostat connection and anti-short cycle timer

## **Safety**

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

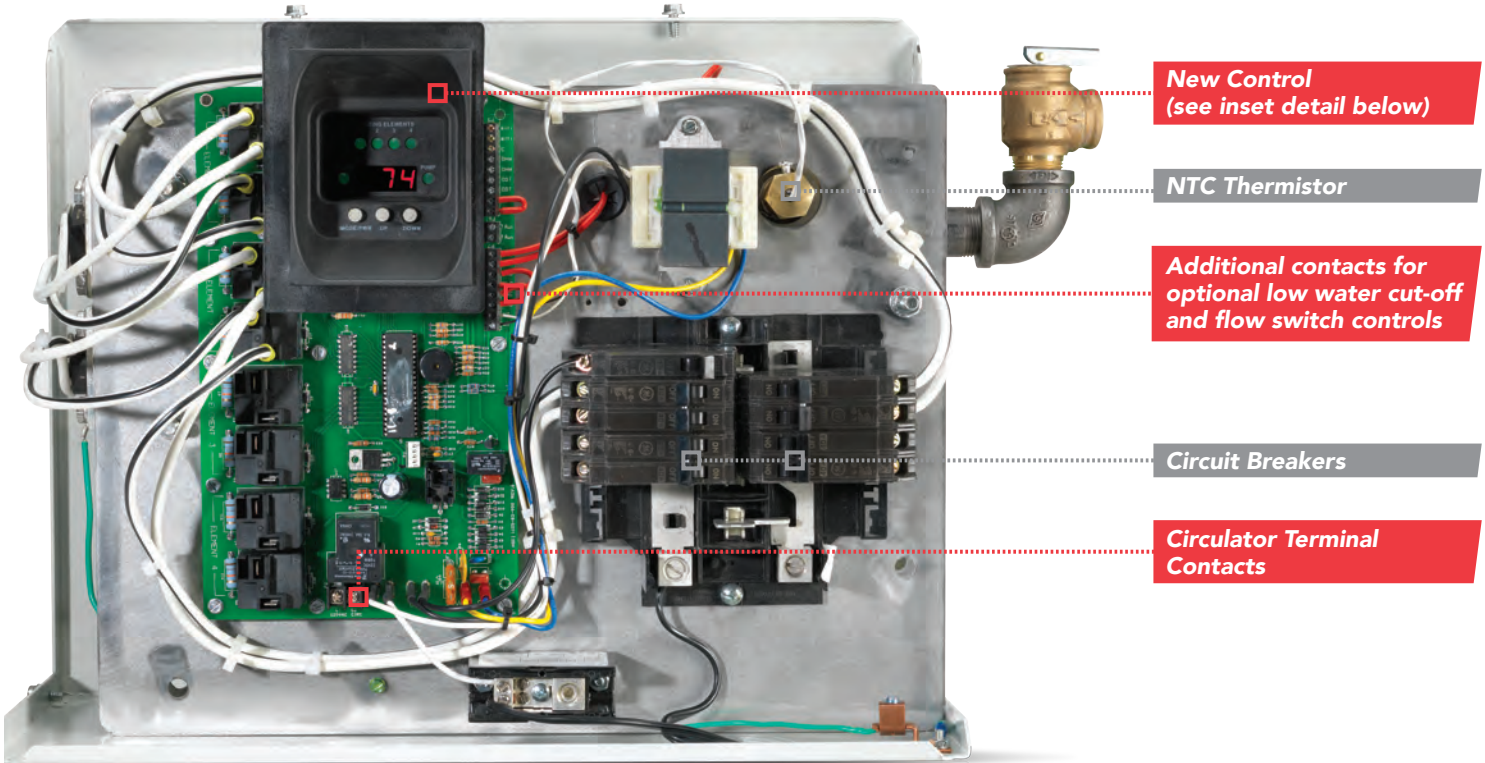
- Built in brown out protection and safety monitoring (During a brownout condition the control board senses the incoming voltage and will shut down the unit to prevent circuit damage. The boiler automatically resets when the voltage is back to normal. The boiler also utilizes an auto reset fuse on the 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

## **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 – Argo "AT" installation is as simple and efficient as the boiler itself!



# "AT" SERIES C 4-ELEMENT ELECTRIC BOILER



**New 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 C 4-ELEMENT ELECTRIC BOILER **INSET DETAIL**

**ABSOLUTE EFFICIENCY.**

**TOTAL COMFORT!**

Advanced microprocessor control energizes only the elements needed to satisfy demand, reducing electricity costs.



**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

# Argo "AT" SERIES C ELECTRIC BOILERS RESIDENTIAL / LIGHT COMMERCIAL

## FLOW RATES

### "AT" SERIES C - 2-ELEMENT BOILER

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

### "AT" SERIES C - 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° FΔT

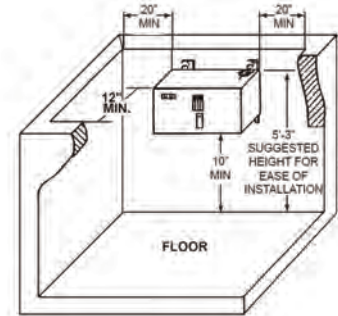
## "AT" SERIES C BOILER DIMENSIONS



### DIMENSIONS

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

## BOILER LOCATION & CLEARANCE DIMENSIONS



### INLET & OUTPUT PIPE SIZE

1-1/4" NPT  
3.2 cm

### APPROXIMATE SHIPPING WEIGHT

70 lbs  
32 kg

## "AT" SERIES C - 2-ELEMENT BOILER

Model	Boiler Size Nominal (kW)	Operating Voltage (AC)*	New Heat Output BTU/hr	Power Input Watts	Total Heating Element Amps	Number of Elements	Element Size (Watts)	Minimum Circuit Ampacity (1)	Suggested Breaker (Amps) (2)
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 C - 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 C - 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.

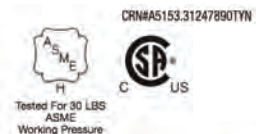
(A) 2 Piece Boiler System consisting of (1) AT1243 & (1) AT1644

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

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

Specifications subject to change without notice.

Optional Equipment: Argo zoning relays and zone valve control panels.





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