

# GA Line AY Series Thermal Modules and Thermal-Links

## Outdoor Modular Heaters

### Heating

#### Thermal Modules for outdoor installation.

The Robur AY00-119 Heater is designed for outdoor installation requiring no protection from adverse weather conditions. An individual module offers a nominal heating output of 110,900 BTU/h with hot water supply temperatures up to 185 °F. The modular heater links are mounted on steel rails and are mechanically and electrically pre-assembled by Robur to operate as one integrated system.

Packages with up to five modules are available, offering heating outputs up to 554,500 BTU/h. These heating systems

satisfy larger heating requirements with modularity, redundancy and staging capability.

Ideal for custom residential, commercial or industrial applications.



#### Use Heating

##### Technical characteristics

- Forced draft, atmospheric combustion chamber for outdoor installation.
- Pre-mixed burner with electronic ignition.
- Highest possible outdoor combustion efficiency - G.U.E. 86%.

**Heating Capacity** From 110,900 to 554,500 BTU/h with multiple units.

#### Main Applications

Hot water production up to 185 °F for heating and/or sanitary use.

**Main Advantage** Boiler for outdoor installation with ambient operating temperature down to -20 °F, complete with pump and burner activation control to assist with freeze protection.

#### Additional Advantages

- **Single Phase Power.**
- **Easy coupling** with other Robur heating and cooling units.
- **Easy operation** through a single optional Direct Digital Controller (DDC) for heating control and staging. DDC can control up to 16 individual units on a common water loop circuit.
- **Flexible heating and staging** thanks to the independent operation of each unit.
- **Easy Maintenance.**

#### Control and safety devices

The heater module includes:

- flue temperature limit switch (manual reset);
- high temperature limit switch (auto reset);
- safety relief valve;
- differential air pressure switch;
- ignition control box;
- dual gas valve;
- hot water flow switch.

**PERFORMANCE RATINGS - HEATING <sup>(1)</sup>**

		AY00-119	AY00-238	AY00-357	AY00-476	AY00-595
Heating capacity <sup>(2)</sup>	BTU/h	110,900	221,800	332,700	443,600	554,500
Gas input	BTU/h	129,000	258,000	387,000	516,000	645,000
Ambient operating temperature	maximum	°F	116.6	116.6	116.6	116.6
	minimum	°F	-20.6	-20	-20	-20
Hot water temperature	maximum outlet (to hydronic system)	°F	185	185	185	185
	maximum inlet (to unit)	°F	167	167	167	167
Nominal hot water flow	GPM	8.81	17.6	26.4	35.2	44.0

**ELECTRICAL RATINGS <sup>(1)</sup>**

Required voltage, 60 Hz, single phase <sup>(3)</sup>	V	208-230				
Operating consumption <sup>(4)</sup>	kW	0.076	0.152	0.228	0.304	0.380

**PHYSICAL DATA <sup>(1)</sup>**

Pressure drop	Feet of Head / PSI <sub>g</sub>	8.3 / 3.6	(8.97 / 3.92)			
Operating weight	pounds	220	738	1,047	1,318	1,708

Please contact Robur Corporation for equipment Dimensions

<sup>(1)</sup> All illustrations and specifications contained herein are based on the latest information available at the time of publication.

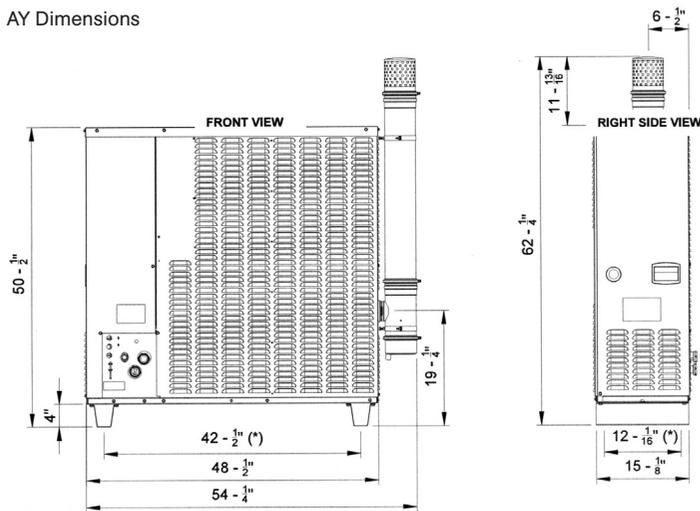
<sup>(4)</sup> May vary by ± 10% as function of both power supply and electrical motor input tolerance.

<sup>(2)</sup> Heating capacity at nominal water temperature conditions: outlet 176 °F, inlet 151 °F.

**Due to continuous product innovation and development, Robur reserves the right to change product specifications without prior notice.**

<sup>(3)</sup> Units are factory-wired for 208-230 volts operation.

**AY Dimensions**



**AY119 Hydronic System: Typical Installation Arrangement**  
(External Components not included with Robur Unit)

