

# EVOMOD

500kW

**2** YEAR WARRANTY\*

Available in 250, 500, 750 and 1000 kW modules, the Evomod will achieve an output up to 1MW from a single unit solution together with a minimum footprint that enables the product to be installed where space is limited. Each module provides a maximum of 250 kW heat output and will modulate down through a sophisticated control system.



## FEATURES & BENEFITS

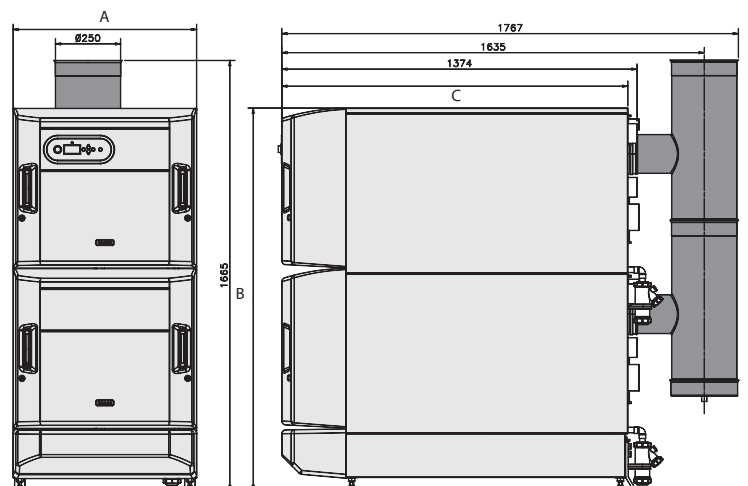
- Stainless steel heat exchanger
- Built in module diagnostics, sequencing and remote indication
- Plain text display for fast and easy use
- Single flue outlet, system, gas and electrical connections
- Up to 10:1 turndown: 500kW boiler can modulate down to just 46.7kW
- Easy access for servicing
- Minimum footprint with easy site handling and standard doorway access allowing simplified plant replacement
- NOx <40mg/kWh (Class 5) for maximum BREEAM points
- Up to 108.5% net efficiency (fully condensing)
- Single boiler control for all module options

## DIMENSIONS & CLEARANCES

| BOILER | DIM A | DIM B | DIM C |
|--------|-------|-------|-------|
| 500    | 710   | 1480  | 1339  |

The following minimum clearances must be maintained for operation and servicing:

- ↑ TOP: 300mm
- FRONT: 600mm
- ↔ SIDES: LH 400mm | RH 450mm
- ↓ REAR: 750mm



# EVOMOD 500kW

## TECHNICAL SPECIFICATIONS



### GENERAL

|                                |      |  |
|--------------------------------|------|--|
| Dry Weight                     | KG   | 420  |
| Boiler Dimensions              | mm   | 1480 (H)<br>x 710 (W)<br>x 1339 (D)                                      |
| Boiler Clearances              | mm   | Front: 600<br>Left Side: 400<br>Right Side: 450<br>Rear: 750<br>Top: 300 |
| Seasonal Efficiency            | %    | 95.9   |
| Min/Max Gas pressure (Nat Gas) | mbar | 17-20  |

### BURNER PRE MIX

|   |                   |                |
|---|-------------------|----------------|
| Fuel                                      | (Type G20)        | Natural Gas    |
| Fuel Consumption (Nat Gas)                | m <sup>3</sup> /h | 50.4           |
| Flame Protection                          |                   | Ionisation     |
| Ignition                                  |                   | Spark          |
| Boiler Output (Mean 70°C)                 | kW                | 46.7-465       |
| Boiler Output (Mean 40°C)                 | kW                | 51.4-505       |
| Boiler Input (Gross cv)                   | kW                | 523.2          |
| Gas Inlet Size                            |                   | 2"             |
| NOx Rating/emissions at 0% O <sub>2</sub> | mg/kWh            | Class 5 (39.7) |

### HYDRAULICS

|                                   |        |                     |
|-----------------------------------|--------|---------------------|
| Hydraulic Resistance (20°C ΔT)    | mbar   | 410                 |
| Nominal Flow Rate (20°C ΔT)       | l/s    | 6.0                 |
| Min Flow Rate (20°C ΔT) (MAX MOD) | l/s    | 1.2                 |
| Min Flow Temperature              | °C     | 30                  |
| Max Flow Temperature              | °C 80  | 80                  |
| Min Working Pressure              | bar    | 1                   |
| Max Working Pressure              | bar    | 6                   |
| Max Static Head Of Water          | metres | 61                  |
| Condensate Connection             | mm     | 21.5                |
| High Limit Set Point              | °C     | 105 flow, 95 return |
| Flow & Return Size                |        | 5" PN16             |
| Water Content                     | litres | 29.6                |

### FLUE/AIR INLET

|                            |                   |     |
|----------------------------|-------------------|-----|
| Flue Size                  | mm                | 250 |
| Flue Gas Volume            | m <sup>3</sup> /h | 783 |
| Flue Gas Temperature 80/60 | °C                | 105 |
| Max Flue Resistance        | Pa                | 80  |

### ELECTRICAL

|                       |      |                    |
|-----------------------|------|--------------------|
| Electrical Supply     |      | 230/240V 50Hz 1 Ph |
| Current (Max No Pump) | amp  | 3.09               |
| Power Consumption     | watt | 680                |
| Modulating Input      | V/dc | 0-10V              |
| Fuse Rating           | amp  | 2 x 5 Internal     |
| Controls Voltage      | V    | 230 or 0-10        |
| Insulation Class IP   |      | IP IP20            |

### CONTROL OPERATION

|                        |     |
|------------------------|-----|
| On/Off 0-10V DC        | Yes |
| OpenTherm              | No  |
| High Limit Protection  | Yes |
| Low Water Protection   | Yes |
| Volt Free Common Alarm | Yes |
| Boiler Run Indication  | Yes |

### OPTIONAL EXTRAS

|   |     |
|---|-----|
| Water and Gas Header Assembly package   | Yes |
| Water and Gas Header c/w Valves package | Yes |
| Water Connection Kit (250 only)         | Yes |
| Air Inlet Collar                        | Yes |



\*2 year warranty subject to Terms and Conditions. 2 years parts and labour warranty available subject to being commissioned by Ideal Boilers.

# GET A QUOTE

W: [IDEALCOMMERCIALBOILERS.COM](http://IDEALCOMMERCIALBOILERS.COM)  
E: [commercial@idealboilers.com](mailto:commercial@idealboilers.com)  
T: 0844 5436060

### OVERVIEW

The boilers must be fully automatically controlled, floor standing, fanned, super-efficient condensing appliances utilising a stainless steel heat exchanger and be suitable for connection to fully pumped open vented or sealed water systems. The boilers must be modular in design with each module capable of delivering 250kW.

### CONTROLS

The condensing boilers must have connectivity for common types of BMS integration including 0-10v and volt free connections. The boiler must be fully modulating with a 5:1 turndown ratio per 250kW module and include control features enabling set point adjustment, heating circuit control of one constant temperature and one DHW circuit or 2 constant temperature circuits, and safety lock out parameters including fault diagnosis for both boiler and external components such as sensors or pumps.

Boiler capabilities must include, with the use of external components, frost protection, weather or room compensation and system pump control.

### FLUE

The condensing boilers must be suitable for use with a room sealed flue or open flue applications including C13, C33 and B23 classifications. The flue outlet and air inlet must be situated at the rear of the boiler.

### HYDRAULIC

The condensing boiler must be suitable for connection to fully pumped open vented or sealed water systems. All hydraulic connections including flow return and condensate drain must be located on the rear of the boiler. Hydraulic connections must be uniform across the modules available in the range to ensure ease of installation and maintenance. The boiler must have a maximum operating pressure of 6 bar and be suitable for heating and indirect hot water systems.

### DIMENSIONS

The condensing boiler must fit within maximum permitted floor space of 0.95m<sup>2</sup> (when installed 1 module wide) or 1.91m<sup>2</sup> (when installed 2 modules wide).

### MOUNTING / POSITIONING

The condensing boilers will be floor standing.

### EFFICIENCY

The condensing boilers are capable of high seasonal efficiencies with a minimum requirement of 95.9% and low NOx emissions no greater than 39.7mg/kWh.

### APPROVALS

The boilers must be tested by BSI and conform to EN656, EN13856 and EN15417 for use with Natural Gas. Boilers are certified to meet the requirements of the EC Gas Appliance Directive, Boiler Efficiency Directive, EMC and Low Voltage Directive.

The manufacturer must be ISO 9001 accredited.

### SPECIFICATION

The boiler will be capable of flow rates for common systems using 20°C temperature differentials.

### SOURCING

The condensing boiler must be manufactured or finally assembled in the United Kingdom.

### WARRANTY

The boiler must be available with a 2 year warranty.