

# EVOMAX

## 40kW

**5** YEAR WARRANTY\*



Available in outputs of 30, 40, 60, 80, 100, 120 and 150kW, the Evomax is designed to ensure all installation requirements can be achieved. There is also an LPG Evomax range from 30 - 80 kW for off mains installations.

### FEATURES & BENEFITS

- Robust cast aluminium silicon alloy heat exchanger
- In-built commissioning and fault diagnostics
- Volt free contacts and BMS operation standard
- Meets Building Regulations (Part L2)
- Compact size - small footprint
- High 5:1 turndown
- Up to 107.5% net efficiency (fully condensing)
- Fits through standard doorways
- Conventional or room sealed flue options
- Direct weather compensation option
- NOx <40mg/kWh (Class 5)

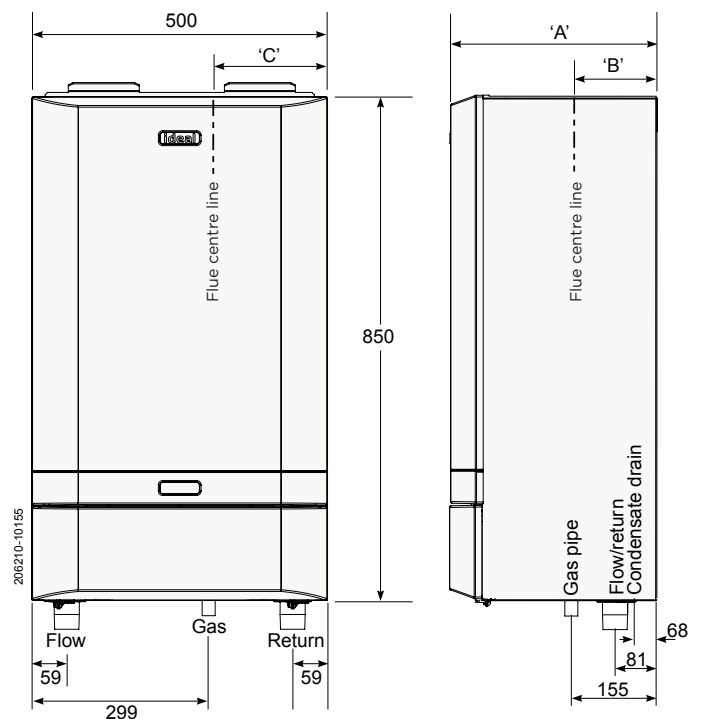
### DIMENSIONS & CLEARANCES

BOILER	DIM A	DIM B	DIM C
40	360	130	118

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



CLEARANCE BETWEEN MULTIPLE BOILER INSTALLATIONS: **25mm**



All dimensions in mm

# EVOMAX 40kW

## TECHNICAL SPECIFICATIONS



### GENERAL

Dry Weight	KG	49
Boiler Dimensions	mm	850 (H) x 500 (W) x 360 (D)
Boiler Clearances	mm	Front: 450 Side: 25 Below: 300
Full Load	%	89.6
Part Load	%	97.8
Seasonal Efficiency	%	96.2
Min/Max Gas pressure (Nat Gas)	mbar	17.5-20.0

### BURNER PRE MIX

Fuel	(Type G20)	Natural Gas
Fuel Consumption (Nat Gas)	m <sup>3</sup> /h	4.3
Flame Protection		Ionisation
Ignition		Spark
Boiler Output (Mean 70°C)	kW	8-40
Boiler Output (Mean 40°C)	kW	8.5-42
Boiler Input (Gross cv)	kW	44.9
Gas Inlet Size		G $\frac{3}{4}$ "
Weighted Power Level	dB(A)	53
NOx Rating/emissions at 0% O <sub>2</sub>	mg/kWh	Class 5 (39.1)

### HYDRAULICS

Hydraulic Resistance (11°C ΔT)	mbar	875
Hydraulic Resistance (20°C ΔT)	mbar	225
Nominal Flow Rate (11°C ΔT)	l/s	0.868
Nominal Flow Rate (20°C ΔT)	l/s	0.478
Min Flow Rate (20°C ΔT) (MAX MOD)	l/s	0.09
Min Flow Temperature	°C	30
Max Flow Temperature	°C	82
Min Working Pressure	bar	0.3
Max Working Pressure	bar	4
Max Static Head Of Water	metres	40.7
Condensate Connection	mm	25
High Limit Set Point	°C	105 flow, 95 return
Flow & Return Size		G1 $\frac{1}{4}$ "
Water Content	litres	3

### FLUE/AIR INLET

Flue Size	mm	80/125 Concentric or Open Flue
Flue Gas Volume	m <sup>3</sup> /h	63.4
Flue Gas Temperature 80/60	°C	70
O/F Max Counter Pressure Diff	Pa	225
B/F Max Counter Pressure Diff	Pa	200

### ELECTRICAL

Electrical Supply		230/240V 50Hz 1 Ph
Current (Max No Pump)	amp	0.98
Power Consumption	watt	207
Modulating Input	V/dc	0-10V or OpenTherm
Fuse Rating	amp	4
Controls Voltage	V	230 or Low
Insulation Class IP		IP20

### CONTROL OPERATION

On/Off 0-10V DC	Yes
OpenTherm	Yes
High Limit Protection	Yes
Low Water Protection	Yes
Volt Free Common Alarm	Yes
Boiler Run Indication	Yes

### OPTIONAL EXTRAS

Multi Boiler Frame & Header Kits	Yes
Modulating Sequencer Kit	Yes
Programmable Room Thermostat Kit	Yes
Outside Sensor Kit	Yes
Tank Sensor Kit	Yes
Room Sensor Kit	Yes
Safety Interlock Kit	Yes
Pump Kit	Yes
Universal Sequencer Kit	Yes



\*5 year warranty subject to Terms and Conditions. 5 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, wall mounted, fanned, super-efficient condensing appliances utilising an aluminium silicon alloy heat exchanger and be suitable for connection to fully pumped open vented or sealed water systems.

## CONTROLS

The condensing boilers must have connectivity for all common types of BMS integration including 0-10v, volt free and OpenTherm connections. Additional modules may be used for BACnet, LONWorks and MODBUS gateways. Where no BMS is present a modulating sequencer must be available.

The boiler must be fully modulating with a 5:1 turndown ratio 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 combined flue outlet and air inlet must be situated on the top of the boiler.

## HYDRAULIC

The condensing boiler must be and 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 bottom of the boiler. Hydraulic connections must be uniform across the outputs available in the range to ensure ease of installation and maintenance in mixed output cascades. 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 range must have a universal compact width and height across the range to ensure mixed output cascades maintain the same universal configuration. Maximum permitted wall area of 0.43m<sup>2</sup>.

## MOUNTING

The condensing boilers can be installed either on the wall or into a prefabricated floor mounted frame. Wall brackets must be located at the top of the boiler and visible from the front to aid installation.

## EFFICIENCY

The condensing boilers are capable of high seasonal efficiencies with a minimum requirement of 96.2% and low NOx emissions no greater than 39.8mg/kWh for natural gas and 80mg/kWh for LPG.

30, 40 and 60kW models must have a Seasonal Space Heating Energy Efficiency of A.

## APPROVALS

The boiler must be tested and certified to; EN 483, EN 677, PREN 15420, BSEN 15417, BSEN 656, BSEN 60335-2-102, BSEN 55014-1 and BSEN 55014-2 for use with Natural Gas & LPG. 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 30, 40, 60 and 80kW boiler will be capable of flow rates for common systems using either 11°C, 15°C or 20°C temperature differentials.
- The 100kW boiler will be capable of flow rates for common systems using either 15°C or 20°C temperature differentials.
- The 120 and 150kW 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.

## CASCADE

The boiler must be configurable up to 6 boilers (max 600kW) in cascade using a prefabricated frame and header kit.

## WARRANTY

The boiler must be available with a 5 year warranty.