

IMAX XTRA EL 320kW









Features & Specification

The Imax Xtra EL range of condensing boilers is available in 10 models with outputs from 320 to 1240kW. Suitable for floor standing applications in either single or multiple installations.

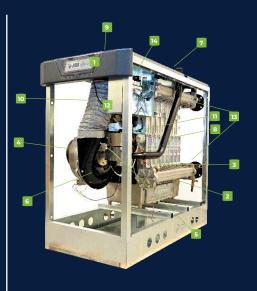
- Simple control interface with large backlit display
- · Volt free contacts
- 0-10V BMS operation standard
- Robust aluminium silicon alloy heat exchanger
- Suitable for single or multiple installations
- Up to 109.8% part load at 30% output
- · NOx <40mg/kWh
- · Natural Gas
- · ErP compliant



DIMENSIONS & CLEARANCES

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





BOILER ASSEMBLY

EXPLODED VIEW

(620kW MODEL SHOWN)

KEY

- 1. Control module
- 2. External condensate trap
- 3. Water pressure switch
- **4.** Fan
- **5.** Gas valve
- 6. Whirlwind
- 7. Gas inlet
- 8. Heat exchanger
- 9. Air inlet
- 10. Burner manifold
- 11. Air pressure switches
- 12. Ignition / detection electrode
- 13. Manifold Flow Return
- **14.** PCB

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TECHNICAL SPECIFICATIONS

GENERAL

| Dry Weight | kg | 417 |
|--|------|---|
| Boiler Dimensions | mm | 1485 (H) x 835 (W) x 1685 (D) |
| Boiler Clearances | mm | Front: 700 Left Side: 150 Right Side: 700 |
| | | Top: 700 |
| | | Rear:150† |
| Seasonal Efficiency (Building Regs L2) | % | 96.8 |
| Min/Max Gas pressure (Nat Gas) | mbar | 15-20 |
| Noise | dBA | <60 |

BURNER PRE MIX

| Fuel | (Type G20) | Natural Gas |
|----------------------------|------------|----------------|
| Fuel Consumption (Nat Gas) | m³/h | 32.2 |
| Flame Protection | | Ionisation |
| Ignition | | Spark |
| Boiler Output (Mean 70°C) | kW | 58.9-298.4 |
| Boiler Output (Mean 40°C) | kW | 66.7-323.1 |
| Boiler Input (Gross cv) | kW | 338.3 |
| Gas Inlet Size | | G2" |
| NOx Class | | Class 6 (39.1) |

HYDRAULICS

| Hydraulic Resistance (11°C ΔT) | mbar | 330 |
|-----------------------------------|--------|-----------------|
| Hydraulic Resistance (20°C ΔT) | mbar | 98 |
| Nominal Flow Rate (11°C ΔT) | I/s | 6.9 |
| Nominal Flow Rate (20°C ΔT) | I/s | 3.8 |
| Min Flow Rate (20°C ΔT) (MAX MOD) | I/s | 0.76 |
| Min Flow Temperature | °C | 30 |
| Max Flow Temperature | °C | 90 |
| Min Working Pressure | bar | 1 |
| Max Working Pressure | bar | 6 |
| Max Static Head Of Water | metres | 61.0 |
| Condensate Connection | mm | 21.5 |
| High Limit Set Point | °C | 100 flow, 100 |
| | | return 105 H/Ex |
| Flow & Return Size | | G3" |
| Water Content | litres | 47.3 |

FLUE/AIR INLET

| Flue Size | mm | 250 |
|----------------------------|------|-------|
| Flue Gas Volume | m³/h | 472.6 |
| Flue Gas Temperature 80/60 | °C | 50-63 |
| Max Flue Resistance | Pa | 100 |

ELECTRICAL

| Electrical Supply | | 230V - 50hz 1 Ph |
|-----------------------|------|------------------|
| Current (Max No Pump) | amp | 2.65 |
| Power Consumption | watt | 610 |
| Modulating Input | V/dc | 0-10V |
| Fuse Rating | amp | 7 |
| Controls Voltage | V | 24 or 240 |
| Insulation Class ID | | ID3O |

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 | Ves |

OPTIONAL EXTRAS

| Modulating Sequencer Kit, including DHW Tank Kit, Plant Room Sensor Kit, 6 Zone Expansion Kit | Yes |
|--|-----|
| Programmable Room Thermostat Kits | Yes |
| Outside Sensor Kit | Yes |
| DHW Tank Sensor Kit | Yes |
| Safety Interlock Kit | Yes |
| BACNet Gateway Kit | Yes |
| LONWorks Gateway Kit | Yes |
| MODBus Gateway Kit | Yes |
| Remote Access Kit | Yes |
| Pump Kits | Yes |
| Sealed System Services Flow Manifold Kit | Yes |
| Inlet Air Filter Kit | Yes |
| Condensate Pump Kit | Yes |
| Room Sealed Air Duct Kit | Yes |



^{*5} year heat exchanger warranty subject to terms and conditions. Terms & conditions available at idealheating.com 2 year parts and labour warranty as standard.

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SUGGESTED ENGINEERING SPECIFICATION

The Suggested Engineering Specification is wording designed for specifiers to copy and paste into their specifications to ensure inclusion of Ideal Commercial boilers.

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 must fit within maximum permitted floor space of $1.41 \, \text{m}^2$

MOUNTING

The condensing boilers will be floor standing.

EFFICIENCY

The condensing boilers are capable of high seasonal efficiencies with a minimum requirement of 96.8% and low NOx emissions no greater than 39.7mg/kWH.

APPROVALS

The boilers must be tested and certified by BSI to EN 15502 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 11° C to 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.

Please note that the above information is correct at time of publication. Ideal Heating has a policy of continuous development and therefore reserves the right to alter product specifications or any other details without prior notification.

