

Heating Hot water Renewables

ecoTEC plus 80, 100 and 120kW Wall-hung condensing boilers

Technical specifications



Key features and benefits

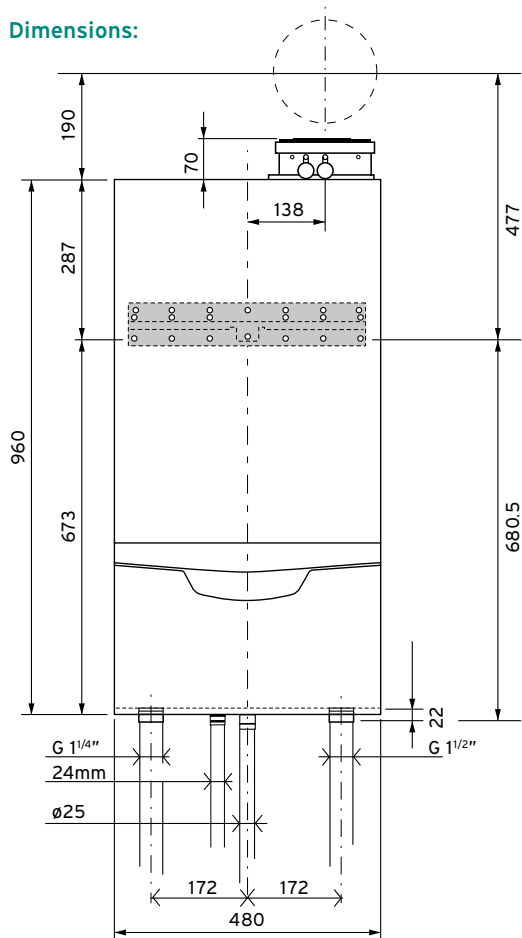
- High quality stainless steel heat exchanger offers more resistance to oxidation, seizing and corrosion
- Energy saving two-stage frost protection system
- Pressure sensor to monitor system pressure via diagnostics
- Full range of accessories available for a complete system solution
- ErP 'A' rated



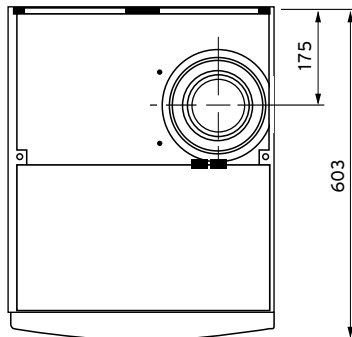
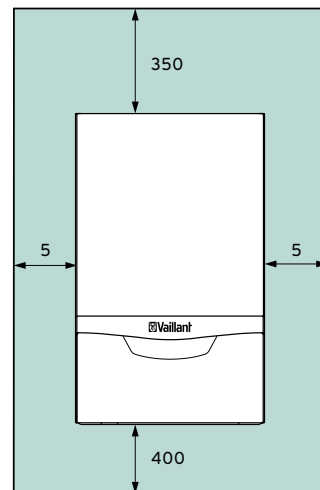
Technical data

ecoTEC plus 80, 100 and 120kW

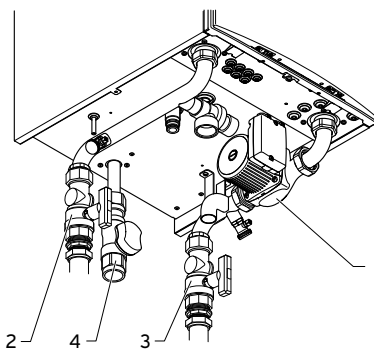
Dimensions:



Clearances:



Connections



- 1. Pump group
- 2. Heating flow
- 3. Heating return
- 4. Gas valve

A minimum of 500mm clearance in front of the boiler is required to enable easy access for servicing. This may be provided by an accessible door.

NOTE: All measurements are in millimeters unless stated otherwise

| Technical data | | Unit | ecoTEC 80kW | ecoTEC 100kW | ecoTEC 120kW |
|---|-------|-------------------|-------------|--------------|--------------|
| Article number | | | 0010010767 | 0010010780 | 0010010791 |
| Heat output range Natural gas G20 at 20mb | 80/60 | kW | 14.9 - 74.7 | 18.7 - 93.3 | 22.4 - 112.0 |
| | 50/30 | kW | 16.5 - 82.3 | 20.7 - 102.8 | 24.7 - 123.4 |
| Conversion to LPG G31 at 37mb (conversion by Vaillant Group Service) | 80/60 | kW | 37.4 - 74.7 | 46.7 - 93.3 | 56.0 - 112.0 |
| | 50/30 | kW | 41.2 - 82.3 | 51.4 - 102.8 | 61.7 - 123.4 |
| Maximum heat input (net) | | kW | 76.2 | 95.2 | 114.3 |
| Modulation ratio - N : 1 | | % | 5 : 1 (20%) | 5 : 1 (20%) | 5 : 1 (20%) |
| Energy-related Products | | band | A | A | A |
| Seasonal efficiency* | NG | % | 95.6 | 95.9 | 96.0 |
| Net efficiency 100% | 80/60 | % | 97.0 | 98.0 | 98.0 |
| Net efficiency 30% | 50/30 | % | 108.0 | 108.0 | 108.0 |
| Gas working pressure | NG | mbar | 20 | | |
| | LPG | mbar | 37 | | |
| Nominal gas consumption at 15°C 1013mb | NG | m ³ /h | 8.0 | 10.07 | 12.13 |
| | LPG | kg/h | 5.92 | 7.40 | 8.88 |
| NOx class 5 - 0% oxygen - dry | | mg/kWh | 39 | 36 | 38 |
| Minimum / maximum flow temperature | | °C | 35/85 | | |
| Nominal CH flow rate Δt = 20 K | | l/hr | 3440 | 4300 | 5160 |
| Pump head without check valve | | mbar | 730 | 610 | 500 |

*in accordance with the non-domestic building services compliance guide 2013

| Technical data | Unit | ecoTEC 80kW | ecoTEC 100kW | ecoTEC 120kW |
|--|------------|---|--------------|--------------|
| Pump head with check valve | mbar | 650 | 530 | 420 |
| Condensate (PH range 3.5-4.0) | l/hr | 12.8 | 16.0 | 19.2 |
| Standby loss $\Delta t = 50$ K | % | < 2 | | |
| Maximum power consumption | W | 345 | 355 | 355 |
| Standby power consumption | W | < 2 | | |
| Supply voltage / frequency / current | V / Hz / A | 230 / 50 / 4 | | |
| IP rating | | IP X 4D | | |
| Noise level - load EN 15036-1 dB(A) re1pW | Full | 54.4 | 62.3 | 60.6 |
| | Part | 33.8 | 36.3 | 37.8 |
| Dimensions - (H x W x D) | mm | 960 x 480 x 603 | | |
| Dry weight | kg | 68 | 86 | 90 |
| Internal water capacity (PH range 6.5-8.5) | l/hr | 17.0 | 23.7 | 22.5 |
| Concentric flue / air duct | mm | 110 / 160 | | |
| Connection size (B23p) | Ø mm | 110 | | |
| Certification for GB | | C13, C33, C43, C53, C93, B23, B23p, B53 | | |
| Maximum horizontal flue length | m | 22 | 20 | 11 |
| Maximum vertical flue length | m | 24 | 18 | 9 |
| Flue mass flow Q _{max} | NG g/s | 34.7 | 43.4 | 52.1 |
| Flue gas temperature minimum / maximum | °C | 40 / 85 | | |
| Fan pressure B23p in single | Pa | 150 | 200 | 200 |
| Fan duty B23p in cascade | Pa | 50 | | |
| Flow and return connections | BSP female | 1 1/4" | | |
| Gas connection | BSP female | 1" | | |
| Condensate connection pipe | Ø mm | 19 ID / 24 OD | | |
| Pressure relief valve size | BSP female | 1" | | |
| Minimum / maximum operating pressure | bar | 0.8 / 6.0 | | |
| High efficiency pump (required for each boiler) article number 0020175314 | EEl ≥ 0.23 | Available as an accessory | | |

Water quality

Before the installation of a new Vaillant boiler, we recommend thoroughly flushing the system to clear it of debris. The circulating water should then be treated with an inhibitor to ensure the system remains free of debris. The use of an inhibitor will also reduce water hardness, thus reducing corrosion and ensuring the boiler continues to perform at optimal levels. An inhibitor fitted to a system can increase the lifespan of the appliance. Omitting to maintain the correct levels of inhibitor could lead to failures that aren't covered by the Vaillant guarantee.

Additionally, all Vaillant ecoTEC plus boilers above 70kW should have a plate heat exchanger fitted. This applies to single and cascade systems. A plate heat exchanger maintains the boiler efficiency and improves the longevity of the boiler.

For full terms and conditions on fitting inhibitors and plate heat exchangers, please refer to the Vaillant Commercial website: www.vaillant.co.uk/commercial

Accessories

Vaillant has a full range of accessories including pumps, expansion vessels, plate heat exchangers, cascade rigs, vertical and horizontal flues and controls, all of which are compatible with ecoTEC 80, 100 and 120kW boilers. Please note it is mandatory for ecoTEC 80, 100 and 120kW to be fitted with a plate heat exchanger. For full details, see terms and conditions. Contact your local sales representative for more information.

For more information on the wide range of accessories available, please visit our website www.vaillant.co.uk/commercial

Customer service support contact details

Sales Support

Vaillant products are available to purchase from reputable heating merchants in the UK. To find contact details for your nearest Vaillant sales representative:

Telephone: 0345 602 0262

Technical Enquiries

For technical assistance:

Telephone: 0330 102 8570

Email: commercial@vaillant.co.uk

General Enquiries

If you have a general enquiry our friendly reception staff will happily point you in the right direction:

Telephone: 0345 602 2922

Specifiers

We can provide you with bespoke solutions to accommodate a variety of different installations. To discuss your requirements or find contact details for your nearest sales representative:

Telephone: 0345 602 0262

Website: www.vaillant.co.uk/specifiers

Commercial Systems Service

For commercial product aftersales, servicing and commissioning:

Telephone: 0207 022 0927

Email: commercial@vaillant.co.uk

Training Enquiries

Vaillant provides a range of training courses covering all of our products. For more information, please contact:

Telephone: 0345 601 8885

Email: training.enquiriesuk@vaillant-group.com



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