

## Technical submittal



Date:

Products: Purewell Variheat mk2 PV110c

Project: Customer:

ustomer:

- Cast iron heat exchanger
- 3:1 turndown ratio
- 6 bar rated heat cell
- 10-year heat exchanger warranty
- 95.8% gross seasonal efficiency
- 99.8kW output @80/60°C
- Fits in a footprint of 534 x 865mm
- Passes through a standard doorway
- 39.1mg/kWh NOx emissions (natural gas)
- Noise at maximum modulation of 53dba
- Built-in controls platform with sequence control and capable of controlling up to 16 boiler modules and hot water circuits.
- Suitable for open vented and pressurised heating systems
- Volt-free contacts for remote signalling included



|            | Purewell Variheat mk2 boiler models                                | Units      | PV110c              |
|------------|--|------------|---------------------|
|            | Building regulations - seasonal efficiency                         | (%) gross  | 95.8                |
|            | ErP efficiency rating (modules $\leq 70  \text{kW}$ only)          |            | N/A                 |
|            | Boiler output (non-condensing) mean 70°C - maximum                 | kW         | 99.8                |
|            | Boiler output (non-condensing) mean 70°C - minimum                 | kW         | 33.3                |
| rgy        | Boiler output (condensing) mean 40°C - maximum                     | kW         | 110                 |
| Energy     | Boiler output (condensing) mean 40°C - minimum                     | kW         | 36.37               |
|            | Gross boiler input - maximum                                       | kW         | 115                 |
|            | Gross boiler input - minimum                                       | kW         | 38.3                |
|            | Net boiler input - maximum   | kW         | 103.5               |
|            | Net boiler input - minimum   | kW         | 34.5                |
|            | Water content  | litres     | 8                   |
|            | System design flow rate @ $20^{\circ}C \Delta T$ rise              | l/s        | 1.3                 |
| Nater      | Water side pressure loss @ 20°C $\Delta T$ rise                    | mbar       | 72                  |
| Wa         | System design flow rate @ $11^{\circ}$ C $\Delta T$ rise           | l/s        | 2.4                 |
|            | Water side pressure loss @ 11°C ∆T rise                            | mbar       | 244                 |
|            | Maximum water pressure   | bar g      | 6                   |
|            | Gas flow rate natural gas (G20) - maximum                          | m³/hr      | 10.9                |
| Gas        | Nominal inlet pressure natural gas (G20) - maximum                 | mbar       | 20                  |
|            | Maximum gas inlet pressure natural gas (G20)                       | mbar       | 25                  |
|            | Flue Gas Flow Rate@ 15°C, 9.5% CO <sub>2</sub>                     | m³/hr      | 137                 |
| <b>a</b> ) | Approx. flue gas temperature @ 50/30°C                             | °C         | 45                  |
| Flue       | Approx. flue gas temperature @ 80/60°C                             | °C         | 65                  |
| _          | Pressure at boiler flue spigot @full load                          | Pa         | 100                 |
|            | Dry NOx emission (0% excess oxygen, dry air free) European Class 6 | mg/kWh     | 39.1                |
| o          | Water flow/return connections                                      | inches     | R2"                 |
| Connection | Gas inlet connection pipe thread size                              | inches     | R1"                 |
| Cor        | Nominal flue diameter (I/D)  | mm         | 150                 |
| Electrics  | Electrical supply  |            | 230 V 1 Ph<br>50 Hz |
| ţ          | Power consumption @maximum   | W          | 94                  |
| E          | IEC power outlet power consumption @ maximum                       | W          | 460                 |
|            | Start current and run current                                      | Amp        | 0.54                |
|            | Approx shipping weight   | kg         | 195                 |
|            | Noise emission @1 m and @maximum boiler modulation                 | Max dB (A) | 53                  |
|            | CO <sub>2</sub> (±0.25%) - maximum                                 | %          | 9.5                 |
|            | CO, (±0.25%) - minimum   | %          | 9.5                 |



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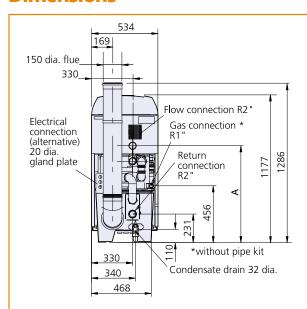


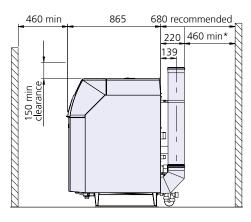
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## **Dimensions**





\*Rear clearance required when using Hamworthy pipe kits.

Note: Do not run trunking or pipework across the top of the boiler. Access is required top and front for servicing.

| Dimensions (mm) | Ref. | PV110c |
|-----------------|------|--------|
| Flow connection | А    | 647    |