

# Technical submittal



Product: **Modumax mk4 116/232V**

Project:

Customer:

Date:

- > Stainless steel heat exchanger
- > 10:1 turndown ratio
- > Capable of 40°C differential temperature
- > Operates up to 90°C maximum flow temperature
- > 10 bar rated heat cell
- > 10-year heat exchanger warranty
- > 7" colour touch screen
- > 93.1% gross seasonal efficiency
- > 232.5kW output @ 50/30°C
- > Fits in a footprint of 680 x 1082mm
- > Passes through a standard doorway
- > 34.3 mg/kWh NOx emissions (natural gas)
- > Noise on minimum modulation of less than 47dba
- > Built-in controls platform with sequence control and capable of controlling up to 16 boiler modules and hot water circuits.
- > British manufactured



|            | Modumax mk4 boiler model                                | Units      | 116/232V      |
|------------|---------------------------------------------------------|------------|---------------|
| ENERGY     | No. of modules                                          |            | 3             |
|            | Building regulations Part L seasonal efficiency         | % gross    | 93.1          |
|            | BS EN 15502 seasonal efficiency                         | % gross    | 93.4          |
|            | Boiler output 80/60°C, NG & LPG                         | kW         | 230.4         |
|            | Boiler output 50/30°C, NG & LPG                         | kW         | 232.5         |
|            | Boiler input (gross) – maximum, NG                      | kW         | 266           |
|            | Boiler input (gross) – maximum, LPG                     | kW         | 260.4         |
|            | Boiler input (net) – maximum, NG & LPG                  | kW         | 239.6         |
|            | Boiler output – minimum 80/60°C, NG & LPG               | kW         | 23.5          |
| WATER      | Water content                                           | litres     | 32            |
|            | System design flow rate @ 40°C ΔT rise                  | l/s        | 1.4           |
|            | Water side pressure loss @ 40°C ΔT rise                 | mbar       | 7             |
|            | System design flow rate @ 30°C ΔT rise                  | l/s        | 2             |
|            | Water side pressure loss @ 30°C ΔT rise                 | mbar       | 14            |
|            | System design flow rate @ 20°C ΔT rise                  | l/s        | 2.8           |
|            | Water side pressure loss @ 20°C ΔT rise                 | mbar       | 27            |
|            | System design flow rate @ 11°C ΔT rise                  | l/s        | 5.2           |
|            | Water side pressure loss @ 11°C ΔT rise                 | mbar       | 91            |
|            | Minimum water pressure                                  | barg       |               |
|            | Maximum water pressure                                  | barg       | 10            |
|            | Maximum flow temperature setting                        | °C         | 90            |
| GAS        | Gas flow rate, NG (G20) – maximum                       | m³/hr      | 25.4          |
|            | Gas flow rate, LPG (G31) – maximum                      | m³/hr      | 10            |
|            | Nominal inlet pressure, NG (LPG) - maximum              | mbar       | 20 (37)       |
|            | Maximum gas inlet pressure NG (LPG)                     | mbar       | 25 (45)       |
| FLUE       | Approx. flue gas volume @ 15°C, 8.75-9.25% CO2          | m³/hr      | 320           |
|            | Maximum flue gas temperature @ 80/60°C                  | °C         | 83            |
|            | Pressure at boiler flue connection                      | Pa<br>mbar | 150<br>1.5    |
|            | Dry NOx emission (0% excess oxygen, dry air free) – NG  | mg/kWh     | 34.3          |
| CONNECTION | Dry NOx emission (0% excess oxygen, dry air free) – LPG | mg/kWh     | 57.3          |
|            | Water flow/return connections                           | inches     | G1½" male     |
|            | Gas inlet connection pipe thread size                   | inches     | R1" male      |
|            | Nominal flue diameter (I/D)                             | mm         | 180           |
| ELECTRICS  | Condensate trap connection(s) (O/D)                     | mm         | 32            |
|            | Electrical supply                                       |            | 230V 1Ph 50Hz |
|            | Power consumption – maximum boiler modulation           | W          | 332           |
|            | Start current (per module)                              | Amp        | 1.2           |
|            | Run current (per module)                                | Amp        | 0.72          |
|            | Approx shipping weight                                  | kg         | 355           |
|            | Noise emission @1m @maximum modulation                  | Max dB (A) | 60            |
|            | Noise emission @1m @minimum modulation                  | Min dB (A) | 47            |

\*Dependent on ΔT – see full brochure

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## Dimensions and Clearances

