

For the installer

Instructions for installation and servicing ecoTEC



Wall hung room sealed fan assisted condensing boiler

ecoTEC plus 612

ecoTEC plus 615

ecoTEC plus 618

ecoTEC plus 624

ecoTEC plus 630

ecoTEC plus 637

ecoTEC plus 824

ecoTEC plus 831

ecoTEC plus 837

ecoTEC pro 28

ecoTEC pro 24

2 Boiler specifications

2 Boiler specifications

2.1 Technical data

| Technical data | ecoTEC plus | | | ecoTEC pro | | Units |
|---|-----------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|---------------------------|
| | 824 | 831 | 837 | 24 | 28 | |
| CH heat output range | | | | | | |
| 80 °C flow/60 °C return | 6.7 - 19.0 | 8.7 - 24.0 | 12.0 - 28.0 | 6.7 - 19.0 | 9.0 - 24.0 | kW |
| 60 °C flow/40 °C return | 6.9 - 19.6 | 9.0 - 24.7 | 12.3 - 28.9 | 6.9 - 19.6 | 9.3 - 24.7 | kW |
| 50 °C flow/30 °C return | 7.1 - 20.2 | 9.2 - 25.5 | 12.7 - 29.7 | 7.1 - 20.2 | 9.6 - 25.5 | kW |
| 40 °C flow/30 °C return | 7.2 - 20.6 | 9.4 - 26.0 | 12.9 - 30.3 | 7.2 - 20.6 | 9.8 - 26.0 | kW |
| Maximum DHW output | 23.0 | 31.0 | 37 | 23.0 | 28.0 | kW |
| Maximum output for heating | 19 | 24 | 28 | 19 | 24 | kW |
| Minimum output | 6.7 | 8.7 | 12 | 6.7 | 9.0 | kW |
| Category | II _{2H3P} | | | | | |
| SEDBUK Band | A | A | A | A | A | Band |
| SAP Seasonal Efficiency | 91.1 | | | | | % |
| Inlet gas working pressure required (G20, natural gas) | 20 | | | | | mbar |
| Inlet gas working pressure required (G31, Propane) | 37 | | | | | mbar |
| Connected load (if needed, related to stored charge/water heating) at 15 °C and 1013 mbar | G20: 2.5 G31: 1.82 | G20: 3.3 G31: 2.46 | G20: 4.0 G31: 2.94 | G20: 2.5 G31: 1.82 | G20: 3.0 G31: 2.22 | m ³ /h kg/h |
| Exhaust mass rate | | | | | | |
| at minimum thermal load (40 °C flow/30 °C return) | 3.2 | 4.2 | 5.7 | 3.2 | 4.4 | g/s |
| at maximum thermal load (80 °C flow/60 °C return) | 10.7 | 14.4 | 17.1 | 10.7 | 13.0 | g/s |
| Exhaust temperature | | | | | | |
| at minimum thermal load (40 °C flow/30 °C return) | 40 | 40 | 40 | 40 | 40 | °C |
| at maximum thermal load (80 °C flow/60 °C return) | 74 | 83 | 70 | 74 | 74 | °C |
| NO _x class | 5 | | | | | |
| Protection class | IP X4D | | | | | |
| max. flow temperature | 85 | | | | | °C |
| Adjustable flow temperature | 30 - 85 | | | 40 - 85 | | °C |
| Default setting; max. 75 °C | 30 - 85 | | | 30 - 85 | | |
| Maximum CH system pressure | 3.0 | | | | | bar |
| Circulation water volume (ΔT=20 K) | 817 | 1032 | 1204 | 817 | 1032 | l/h |
| Approx. condensation volume at 50 °C flow/30 °C return heating | 1.8 | 2.2 | 2.9 | 1.8 | 2.2 | l/h |
| Pump delivery height | 250 | | | | | mbar |
| Minimum DHW flow rate | 1.5 | | | | | l/min |
| DHW flow rate ΔT=35 K rise | 9.4 | 12.7 | 15.2 | 9.4 | 11.5 | l/min |
| Appr. DHW flow rate at factory set temp. rise (ΔT=42 K) | 7.9 | 10.6 | 12.6 | 7.9 | 9.6 | l/min |
| Permitted DHW overpressure | 10 | | | | | bar |
| Mains water pressure required for max. flow rate | 0.5 | 0.75 | 0.75 | 0.5 | 0.5 | bar |
| Mains water pressure required for min. flow rate | 0.15 | | | | | bar |
| Hot water discharge temperature range | 35 - 65 | | | | | °C |
| Exhaust flue | 60/100 | | | | | mm |
| Flue categories | C13, C33, C43, C53, C83, B23, B33 | | | | | |
| 10 l expansion vessel pre-charge pressure | 0.75 | | | | | bar |
| Connections heating flow/return | 22 | | | | | mm |
| Gas inlet | 15 | | 22 | | 15 | mm |
| Pressure relief discharge pipework (min.) | 15 | | | | | mm |
| Condensate drain (min. internal drain) | 19 | | | | | mm |
| Dimensions (H x W x D) | 720 x 440 x 335 | 720 x 440 x 335 | 720 x 440 x 403 | 720 x 440 x 335 | 720 x 440 x 335 | mm |
| Weight (boiler only) | 35 | 38 | 44,5 | 34 | 37 | kg |
| Primary water content | 1.9 | 2.3 | 2.5 | 1.9 | 2.1 | l |
| Electrical supply voltage | 230/50 | | | | | V ~/Hz |
| Internal fuse (slow) main voltage | 2 | | | | | A |
| Power input | 110 | 125 | 140 | 110 | 115 | W |

Table 2.1 Technical data ecoTEC combination boiler

| Technical data | ecoTEC plus | | | | | | Units |
|---|-----------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|---------------------------|
| | 612 | 615 | 618 | 624 | 630 | 637 | |
| CH heat output range | | | | | | | |
| 80 °C flow/60 °C return | 4.9 - 12.0 | 4.9 - 15.0 | 6.7 - 18.0 | 8.7 - 24.0 | 10.0 - 30.0 | 12.0 - 37.0 | kW |
| 60 °C flow/40 °C return | 5.1 - 12.3 | 5.1 - 15.5 | 6.9 - 18.6 | 9.0 - 24.7 | 10.3 - 30.9 | 12.3 - 38.2 | kW |
| 50 °C flow/30 °C return | 5.2 - 12.7 | 5.2 - 15.9 | 7.1 - 19.1 | 9.2 - 25.5 | 10.6 - 31.8 | 12.7 - 39.3 | kW |
| 40 °C flow/30 °C return | 5.3 - 12.9 | 5.3 - 16.2 | 7.2 - 19.5 | 9.4 - 26.0 | 10.8 - 32.4 | 12.9 - 40.1 | kW |
| Category | II ₂ +3P | | | | | | |
| SEDBUK Band | A | A | A | A | A | A | Band |
| SAP Seasonal Efficiency | 91.2 | | | | | | % |
| Inlet gas working pressure required (G20, natural gas) | 20 | | | | | | mbar |
| Inlet gas working pressure required (G31, Propane) | 37 | | | | | | mbar |
| Connected load (if needed, related to stored charge/water heating) at 15 °C and 1013 mbar | G20: 1.3 G31: 0.95 | G20: 1.6 G31: 1.19 | G20: 1.9 G31: 1.43 | G20: 2.6 G31: 1.90 | G20: 3.2 G31: 2.38 | G20: 4.0 G31: 2.94 | m ³ /h kg/h |
| Exhaust mass rate | | | | | | | |
| at minimum thermal load (40 °C flow/30 °C return) | 2.3 | 2.3 | 3.2 | 4.2 | 4.8 | 5.7 | g/s |
| at maximum thermal load (80 °C flow/60 °C return) | 5.6 | 7.0 | 8.3 | 11.2 | 13.9 | 17.1 | g/s |
| Exhaust temperature | | | | | | | |
| at minimum thermal load (40 °C flow/30 °C return) | 40 | | | 40 | 40 | 40 | °C |
| at maximum thermal load (80 °C flow/60 °C return) | 70 | | | 75 | 83 | 70 | °C |
| NOx class | 5 | | | | | | |
| Protection class | IP X4D | | | | | | |
| max. flow temperature | 85 | | | | | | °C |
| Adjustable flow temperature Default setting: max. 75 °C | 30 - 85 | | | | | | °C |
| Maximum CH system pressure | 3.0 | | | | | | bar |
| Circulating water volume ($\Delta T=20$ K) | 516 | 645 | 774 | 1032 | 1290 | 1591 | l/h |
| Approx. condensation volume at 50 °C flow/30 °C return heating | 1.1 | 1.4 | 1.7 | 2.2 | 2.7 | 3.8 | l/h |
| Pump delivery height | 250 | | | | | 150 | mbar |
| Adjustable storage target value (15 °C at left stop, spare adjusting range 40 - 70 °C) | 15 - 70 | | | | | | °C |
| Exhaust flue | 60/100 | | | | | | mm |
| Flue categories | C13, C33, C43, C53, C83, B23, B33 | | | | | | |
| 10 l expansion vessel pre-charge pressure | 0.75 | | | | | | bar |
| Connections heating flow/return | 22 | | | | | | mm |
| Gas inlet | 15 | | | | | 22 | mm |
| Pressure relief discharge pipework (min.) | 15 | | | | | | mm |
| Condensate drain (min. internal drain) | 19 | | | | | | mm |
| Dimensions (H x W x D) | 720 x 440 x 335 | | | | 720 x 440 x 369 | 720 x 440 x 403 | mm |
| Weight (boiler only) | 35 | 35 | 35 | 37 | 38 | 40 | kg |
| Primary water content | 1.9 | 1.9 | 1.9 | 2.1 | 2.3 | 2.5 | l |
| Electrical supply voltage | 230/50 | | | | | | V ~/Hz |
| Internal fuse (slow) main voltage | 2 | | | | | | A |
| Power input | 100 | 110 | 100 | 110 | 110 | 140 | W |

Table 2.2 Technical data ecoTEC system boiler