

12.5 Hydraulic resistance


Tab.77 Hydraulic resistance

| Heat exchanger size | Hydraulic resistance in mbar | | | | | | | | | | |
|---|------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| | ΔT 10 °C | ΔT 11 °C | ΔT 12 °C | ΔT 13 °C | ΔT 14 °C | ΔT 15 °C | ΔT 16 °C | ΔT 17 °C | ΔT 18 °C | ΔT 19 °C | ΔT 20 °C |
| 5 sections: Gas 320 Ace 285 Gas 620 Ace 570 | 452 | 374 | 314 | 267 | 231 | 201 | 177 | 156 | 140 | 125 | 113 |
| 6 sections: Gas 320 Ace 355 Gas 620 Ace 710 | 440 | 364 | 306 | 260 | 224 | 196 | 172 | 152 | 136 | 122 | 110 |
| 7 sections: Gas 320 Ace 430 Gas 620 Ace 860 | 480 | 397 | 333 | 284 | 245 | 213 | 188 | 166 | 148 | 133 | 120 |
| 8 sections: Gas 320 Ace 500 Gas 620 Ace 1000 | 440 | 364 | 306 | 260 | 224 | 196 | 172 | 152 | 136 | 122 | 110 |
| 9 sections: Gas 320 Ace 575 Gas 620 Ace 1150 | 500 | 413 | 347 | 296 | 255 | 222 | 195 | 173 | 154 | 139 | 125 |
| 10 sections: Gas 320 Ace 650 Gas 620 Ace 1300 | 520 | 430 | 361 | 308 | 265 | 231 | 203 | 180 | 160 | 144 | 130 |

12.6 Gas 320 Ace technical data

Tab.78 General

| Gas 320 Ace | | | | 285 | 355 | 430 | 500 | 575 | 650 |
|--------------------------------------|--|----|---------------------------|---------------|---------------|---------------|----------------|----------------|----------------|
| Number of sections | | | | 5 | 6 | 7 | 8 | 9 | 10 |
| Nominal output | P_n 80/60 °C | kW | min max ⁽¹⁾ | 51.1 260.7 | 64.8 326.7 | 78.6 394.8 | 91.5 461.0 | 105.5 530.4 | 118.7 600.9 |
| Nominal output | P_{nc} 70/50 °C | kW | max ⁽¹⁾ | 262.0 | 328.0 | 396.4 | 462.4 | 532.0 | 602.1 |
| Nominal output | P_{nc} 50/30 °C | kW | max ⁽¹⁾ | 278.8 | 350.3 | 424.5 | 497.1 | 573.5 | 651.5 |
| Nominal input | Q_{nh} (H_i) | kW | min max ⁽¹⁾ | 54 266 | 68 333 | 82 402 | 95 469 | 109 539 | 122 610 |
| Nominal input | Q_{nh} (H_s) | kW | min max ⁽¹⁾ | 60 295.6 | 75.6 370.0 | 91.1 446.7 | 105.6 521.1 | 121.1 598.9 | 135.6 677.8 |
| Full load central heating efficiency | P_n (H_i) 80/60 °C | % | | 98.0 | 98.1 | 98.2 | 98.3 | 98.4 | 98.5 |
| Full load central heating efficiency | P_n (H_i) 70/50 °C | % | | 98.5 | 98.5 | 98.6 | 98.6 | 98.7 | 98.7 |
| Full load central heating efficiency | H_i 50/30 °C | % | | 104.8 | 105.2 | 105.6 | 106.0 | 106.4 | 106.8 |
| Min load central heating efficiency | H_i Return temperature 60 °C | % | | 94.7 | 95.3 | 95.8 | 96.3 | 96.8 | 97.3 |
| Part load central heating efficiency | P_n (H_i) Return temperature 30 °C | % | | 109.2 | 109.0 | 108.8 | 108.6 | 108.3 | 108.1 |
| Full load central heating efficiency | P_n (H_s) 80/60 °C | % | | 88.3 | 88.4 | 88.5 | 88.6 | 88.6 | 88.7 |
| Full load central heating efficiency | P_n (H_s) 70/50 °C | % | | 88.7 | 88.7 | 88.8 | 88.8 | 88.9 | 88.9 |
| Full load central heating efficiency | H_s 50/30 °C | % | | 94.4 | 94.8 | 95.1 | 95.5 | 95.9 | 96.2 |

| Gas 320 Ace | | | | 285 | 355 | 430 | 500 | 575 | 650 |
|---|--------------------------------------|---|--|------|------|------|------|------|------|
| Min load central heating efficiency | H_s Return temperature 60 °C | % | | 85.3 | 85.9 | 86.3 | 86.8 | 87.2 | 87.7 |
| Part load central heating efficiency | $P_n (H_s)$ Return temperature 30 °C | % | | 98.4 | 98.2 | 98.0 | 97.8 | 97.6 | 97.4 |
| (1)  Factory setting | | | | | | | | | |

Tab.79 Gas and flue gas data

| Gas 320 Ace | | | | 285 | 355 | 430 | 500 | 575 | 650 |
|--|--|-------------------|------------|-------------|-------------|-------------|--------------|--------------|--------------|
| Gas inlet pressure | G20 | mbar | min max | 17 25 | 17 25 | 17 25 | 17 25 | 17 25 | 17 25 |
| Gas consumption | G20 | m ³ /h | min max | 5.7 28.1 | 7.2 35.2 | 8.7 42.5 | 10.1 49.6 | 11.5 57.0 | 12.9 64.6 |
| NOx annual emissions | G20 O ₂ = 0% (EN15502) | ppm | | 29 | 29 | 30 | 30 | 30 | 31 |
| NOx annual emissions | G20 H_i (EN15502) | mg/kWh | | 47 | 48 | 49 | 50 | 51 | 52 |
| NOx annual emissions | G20 H_s (EN15502) | mg/kWh | | 43 | 43 | 44 | 45 | 46 | 47 |
| NOx annual emissions | BREEAM H_s | mg/kWh | | 15 | 16 | 16 | 17 | 18 | 18 |
| | BREEAM | Credits | | 2 | 2 | 2 | 2 | 2 | 2 |
| Flue gas amount | | kg/h | min max | 91 448 | 115 561 | 138 677 | 160 790 | 184 907 | 205 1027 |
| Flue gas temperature | | °C | min max | 30 60 | 30 61 | 30 64 | 30 63 | 30 66 | 30 65 |
| Maximum counter pressure for flue gas outlet | | Pa | | 130 | 120 | 130 | 150 | 150 | 150 |
| Flue efficiency | (H_i) 80/60 °C Ambient temperature 20 °C | % | | 97.8 | 97.8 | 97.8 | 97.7 | 97.7 | 97.7 |
| Flue losses | (H_i) 80/60 °C Ambient temperature 20 °C | % | | 2.2 | 2.2 | 2.2 | 2.3 | 2.3 | 2.3 |

Tab.80 Central heating circuit data

| Gas 320 Ace | | | | 285 | 355 | 430 | 500 | 575 | 650 |
|--|----------------|-------------------|-----|------|------|------|------|------|------|
| Water content | | l | | 49 | 60 | 71 | 82 | 93 | 104 |
| Water operating pressure | | bar | min | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 |
| Water operating pressure | <i>PMS</i> | bar | max | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 |
| Water temperature | | °C | max | 110 | 110 | 110 | 110 | 110 | 110 |
| Operating temperature | | °C | max | 90 | 90 | 90 | 90 | 90 | 90 |
| Water flow | $\Delta T=11K$ | m ³ /h | max | 20.4 | 25.6 | 30.9 | 36.1 | 41.5 | 47.0 |
| Water flow at full load central heating | 80/60 °C | m ³ /h | nom | 11.1 | 13.9 | 16.8 | 19.6 | 22.5 | 22.5 |
| Water flow at full load central heating | 70/50 °C | m ³ /h | nom | 11.3 | 14.1 | 17.1 | 19.9 | 22.9 | 25.9 |
| Water flow at full load central heating | 50/30 °C | m ³ /h | nom | 12.0 | 15.1 | 18.3 | 21.4 | 24.7 | 28.1 |
| Water flow at minimum load central heating | 50/30 °C | m ³ /h | nom | 2.5 | 3.2 | 3.8 | 4.4 | 5.1 | 5.7 |
| Water flow at minimum load central heating | 70/30 °C | m ³ /h | nom | 1.3 | 1.6 | 1.9 | 2.2 | 2.5 | 2.8 |
| Water side pressure drop | $\Delta T=40K$ | mbar | | 34 | 33 | 36 | 33 | 38 | 39 |
| Water side pressure drop | $\Delta T=30K$ | mbar | | 60 | 59 | 64 | 59 | 67 | 69 |

| Gas 320 Ace | | | | 285 | 355 | 430 | 500 | 575 | 650 |
|--------------------------|------------------------------------|------|-------------------------------------|-----|-----|-----|-----|-----|-----|
| Water side pressure drop | $\Delta T=20K$ | mbar | | 113 | 110 | 120 | 110 | 125 | 130 |
| Water side pressure drop | $\Delta T=11K$ | mbar | | 374 | 364 | 397 | 364 | 413 | 435 |
| Standby loss | With heat exchanger insulation kit | W % | ($\Delta T = 30K$) ⁽¹⁾ | 464 | 479 | 493 | 508 | 522 | 537 |

(1) ΔT = (boiler temperature – ambient temperature).

Tab.81 Electrical data

| Gas 320 Ace | | | | 285 | 355 | 430 | 500 | 575 | 650 |
|--|-----------------------------------|-------|-----|--------|--------|--------|--------|--------|--------|
| Supply voltage | | V~/Hz | | 230/50 | 230/50 | 230/50 | 230/50 | 230/50 | 230/50 |
| Power consumption ⁽¹⁾ | Max input CH | W | max | 280 | 345 | 450 | 576 | 768 | 720 |
| Power consumption ⁽¹⁾ | Max input CH (<i>elmax</i>) | W | max | 280 | 345 | 450 | 576 | 768 | 720 |
| Power consumption ⁽¹⁾ | Min input CH | W | min | 52 | 57 | 64 | 72 | 68 | 60 |
| Power consumption ⁽¹⁾ | Min input CH (<i>elmin</i>) | W | min | 60 | 62 | 76 | 86 | 89 | 80 |
| Power consumption ⁽¹⁾ | standby (<i>P_{SB}</i>) | W | min | 10 | 9 | 10 | 10 | 10 | 10 |
| Electrical protection index ⁽²⁾ | | IP | | X1 | X1 | X1 | X1 | X1 | X1 |
| Fuse – main (power connector) | | (AT) | | 10 | 10 | 10 | 10 | 10 | 10 |
| Fuse – CU-GH13 | | (AT) | | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 |
| Fuse – CB-01 | | (AT) | | 6.3 | 6.3 | 6.3 | 6.3 | 6.3 | 6.3 |

(1) Without pump
(2) For a room-sealed system.

Tab.82 Other data

| Gas 320 Ace | | | | 285 | 355 | 430 | 500 | 575 | 650 |
|--|-----------------------|-------|-----|------|------|------|------|------|------|
| Total weight with packaging | Including control box | kg | | 436 | 470 | 505 | 572 | 608 | 645 |
| Total weight without packaging | Including control box | kg | | 366 | 400 | 435 | 497 | 533 | 570 |
| Weight of the split boiler | Heat exchanger side | kg | | 249 | 283 | 317 | 356 | 390 | 424 |
| Average acoustic level at a distance of 1 metre from the boiler ⁽¹⁾ | LpA | dB(A) | | 55.7 | 55.7 | 55.7 | 55.7 | 55.7 | 55.7 |
| Average acoustic level ⁽²⁾ | LwA | dB(A) | | 72.0 | 72.0 | 72.0 | 72.0 | 72.0 | 72.0 |
| Ambient temperature | | °C | max | 40 | 40 | 40 | 40 | 40 | 40 |

(1) For a sealed installation
(2) For a sealed installation

Tab.83 Technical parameters

| Gas 320 Ace | | | | 285 | 355 | 430 | 500 | 575 | 650 |
|--|----------------------|----|--|-------|-------|-------|-------|-------|-------|
| Condensing boiler | | | | Yes | Yes | Yes | Yes | Yes | Yes |
| Low-temperature boiler ⁽¹⁾ | | | | No | No | No | No | No | No |
| B1 boiler | | | | No | No | No | No | No | No |
| Cogeneration space heater | | | | No | No | No | No | No | No |
| Combination heater | | | | No | No | No | No | No | No |
| Rated heat output | <i>Prated</i> | kW | | 261 | 327 | 395 | 461 | 530 | 601 |
| Useful heat output at nominal heat output and high temperature operation ⁽²⁾ | <i>P₄</i> | kW | | 260.7 | 326.7 | 394.8 | 461.0 | 530.4 | 600.9 |
| Useful heat output at 30% of rated heat output and low temperature regime ⁽¹⁾ | <i>P₁</i> | kW | | 87.1 | 108.9 | 131.2 | 152.8 | 175.1 | 197.8 |

| Gas 320 Ace | | | 285 | 355 | 430 | 500 | 575 | 650 |
|---|-----------------|-----------|-------|-------|-------|-------|-------|-------|
| Seasonal space heating energy efficiency | η_s | % | - | - | - | - | - | - |
| Useful efficiency at rated heat output and high temperature regime ⁽²⁾ | η_4 | % | 88.3 | 88.4 | 88.5 | 88.6 | 88.7 | 88.7 |
| Useful efficiency at 30% of rated heat output and low temperature regime ⁽¹⁾ | η_1 | % | 98.4 | 98.2 | 98.0 | 97.8 | 97.6 | 97.4 |
| Auxiliary electricity consumption | | | | | | | | |
| Full load | el_{max} | kW | 0.280 | 0.345 | 0.450 | 0.576 | 0.768 | 0.720 |
| Part load | el_{min} | kW | 0.060 | 0.062 | 0.076 | 0.086 | 0.089 | 0.080 |
| Standby mode | P_{SB} | kW | 0.010 | 0.009 | 0.010 | 0.010 | 0.010 | 0.010 |
| Other items | | | | | | | | |
| Standby heat loss | P_{stby} | kW | - | - | - | - | - | - |
| Ignition burner power consumption | P_{ign} | kW | - | - | - | - | - | - |
| Annual energy consumption | Q_{HE} | kWh GJ | - | - | - | - | - | - |
| Sound power level, indoors | L_{WA} | dB | 78 | 78 | 81 | 81 | 81 | 81 |
| Emissions of nitrogen oxides | NO _x | mg/kWh | 43 | 43 | 44 | 45 | 46 | 47 |
| (1) Low temperature means 30 °C for condensing boilers, 37 °C for low temperature boilers and 50 °C (at heater inlet) for other heating appliances. | | | | | | | | |
| (2) High temperature operation means 60 °C return temperature at heater inlet and 80 °C feed temperature at heater outlet. | | | | | | | | |




See
Refer to the back cover for contact details.

12.7 Gas 620 Ace technical data

Tab.84 General

| Gas 620 Ace | | | | 570 | 710 | 860 | 1000 | 1150 | 1300 |
|--------------------------------------|-------------------------------------|----|---------------------------|---------------|----------------|----------------|-----------------|-----------------|-----------------|
| Number of sections | | | | 2x5 | 2x6 | 2x7 | 2x8 | 2x9 | 2x10 |
| Nominal output | P_n 80/60 °C | kW | min max ⁽¹⁾ | 75.8 521.4 | 86.7 653.3 | 122.6 789.5 | 122.3 922.1 | 148.1 1060.8 | 165.4 1201.7 |
| Nominal output | P_{nc} 70/50 °C | kW | max ⁽¹⁾ | 524.0 | 656.3 | 792.7 | 924.9 | 1064.0 | 1204.1 |
| Nominal output | P_{nc} 50/30 °C | kW | max ⁽¹⁾ | 557.5 | 700.6 | 849.0 | 994.3 | 1147.0 | 1303.0 |
| Nominal input | $Q_{nh}(H_i)$ | kW | min max ⁽¹⁾ | 80 532 | 91 666 | 128 804 | 127 938 | 153 1078 | 170 1220 |
| Nominal input | $Q_{nh}(H_s)$ | kW | min max ⁽¹⁾ | 88.9 591.1 | 101.1 740.0 | 142.2 893.3 | 141.1 1042.2 | 170.0 1197.8 | 188.9 1355.6 |
| Full load central heating efficiency | $P_n(H_i)$ 80/60 °C | % | | 98.0 | 98.1 | 98.2 | 98.3 | 98.4 | 98.5 |
| Full load central heating efficiency | $P_n(H_i)$ 70/50 °C | % | | 98.5 | 98.5 | 98.6 | 98.6 | 98.7 | 98.7 |
| Full load central heating efficiency | H_i 50/30 °C | % | | 104.8 | 105.2 | 105.6 | 106.0 | 106.4 | 106.8 |
| Min load central heating efficiency | H_i Return temperature 60 °C | % | | 94.7 | 95.3 | 95.8 | 96.3 | 96.8 | 97.3 |
| Part load central heating efficiency | $P_n(H_i)$ Return temperature 30 °C | % | | 109.2 | 109.0 | 108.8 | 108.6 | 108.3 | 108.1 |
| Full load central heating efficiency | $P_n(H_s)$ 80/60 °C | % | | 88.3 | 88.4 | 88.5 | 88.6 | 88.6 | 88.7 |
| Full load central heating efficiency | $P_n(H_s)$ 70/50 °C | % | | 88.7 | 88.7 | 88.8 | 88.8 | 88.9 | 88.9 |
| Full load central heating efficiency | H_s 50/30 °C | % | | 94.4 | 94.8 | 95.1 | 95.5 | 95.9 | 96.2 |

| Gas 620 Ace | | | | 570 | 710 | 860 | 1000 | 1150 | 1300 |
|---|--------------------------------------|---|--|------------|------------|------------|-------------|-------------|-------------|
| Min load central heating efficiency | H_s Return temperature 60 °C | % | | 85.3 | 85.9 | 86.3 | 86.8 | 87.2 | 87.7 |
| Part load central heating efficiency | $P_n (H_s)$ Return temperature 30 °C | % | | 98.4 | 98.2 | 98.0 | 97.8 | 97.6 | 97.4 |
| (1)  Factory setting | | | | | | | | | |

Tab.85 Gas and flue gas data

| Gas 620 Ace | | | | 570 | 710 | 860 | 1000 | 1150 | 1300 |
|--|--|-------------------|------------|-------------|-------------|--------------|--------------|---------------|---------------|
| Gas inlet pressure | G20 | mbar | min max | 17 25 | 17 25 | 17 25 | 17 25 | 17 25 | 17 25 |
| Gas consumption | G20 | m ³ /h | min max | 8.5 56.3 | 9.6 70.5 | 13.5 85.1 | 13.4 99.3 | 16.2 114.1 | 18.0 129.1 |
| NOx annual emissions | G20 O ₂ = 0% (EN15502) | ppm | | 29 | 29 | 30 | 30 | 30 | 31 |
| NOx annual emissions | G20 H_i (EN15502) | mg/kWh | | 47 | 48 | 49 | 50 | 51 | 52 |
| NOx annual emissions | G20 H_s (EN15502) | mg/kWh | | 43 | 43 | 44 | 45 | 46 | 47 |
| NOx annual emissions | BREEAM H_s | mg/kWh | | 15 | 16 | 16 | 17 | 18 | 18 |
| | BREEAM | Credits | | 2 | 2 | 2 | 2 | 2 | 2 |
| Flue gas amount | | kg/h | min max | 135 896 | 153 1121 | 216 1354 | 214 1579 | 258 1815 | 286 2054 |
| Flue gas temperature | | °C | min max | 30 60 | 30 61 | 30 64 | 30 63 | 30 66 | 30 65 |
| Maximum counter pressure for flue gas outlet | | Pa | | 130 | 120 | 130 | 150 | 150 | 150 |
| Flue efficiency | (H_i) 80/60 °C Ambient temperature 20 °C | % | | 97.8 | 97.8 | 97.8 | 97.7 | 97.7 | 97.7 |
| Flue losses | (H_i) 80/60 °C Ambient temperature 20 °C | % | | 2.2 | 2.2 | 2.2 | 2.3 | 2.3 | 2.3 |

Tab.86 Central heating circuit data

| Gas 620 Ace | | | | 570 | 710 | 860 | 1000 | 1150 | 1300 |
|--|-------------------------------------|-------------------|-----|------------|------------|------------|-------------|-------------|-------------|
| Water content | | l | | 98 | 120 | 142 | 164 | 186 | 208 |
| Water operating pressure | | bar | min | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 |
| Water operating pressure | <i>PMS</i> | bar | max | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 |
| Water temperature | | °C | max | 110 | 110 | 110 | 110 | 110 | 110 |
| Operating temperature | | °C | max | 90 | 90 | 90 | 90 | 90 | 90 |
| Water flow | $\Delta T=11K$ | m ³ /h | max | 40.8 | 51.2 | 61.8 | 72.2 | 83.1 | 94.1 |
| Water flow at full load central heating | 80/60 °C | m ³ /h | nom | 22.2 | 27.8 | 33.6 | 39.2 | 45.1 | 51.0 |
| Water flow at full load central heating | 70/50 °C | m ³ /h | nom | 22.6 | 28.3 | 34.1 | 39.8 | 45.8 | 51.9 |
| Water flow at full load central heating | 50/30 °C | m ³ /h | nom | 24.0 | 30.2 | 36.6 | 42.8 | 49.4 | 56.1 |
| Water flow at minimum load central heating | 50/30 °C | m ³ /h | nom | 3.7 | 4.3 | 6.0 | 5.9 | 7.1 | 7.9 |
| Water flow at minimum load central heating | 70/30 °C | m ³ /h | nom | 1.9 | 2.1 | 3.0 | 3.0 | 3.6 | 4.0 |
| Water side pressure drop | $\Delta T=40K$, per heat exchanger | mbar | | 34 | 33 | 36 | 33 | 38 | 39 |

| Gas 620 Ace | | | | 570 | 710 | 860 | 1000 | 1150 | 1300 |
|--------------------------|-------------------------------------|------|-------------------------------------|-----|-----|-----|------|------|------|
| Water side pressure drop | $\Delta T=30K$, per heat exchanger | mbar | | 60 | 59 | 64 | 59 | 67 | 69 |
| Water side pressure drop | $\Delta T=20K$, per heat exchanger | mbar | | 113 | 110 | 120 | 110 | 125 | 130 |
| Water side pressure drop | $\Delta T=11K$, per heat exchanger | mbar | | 374 | 364 | 397 | 364 | 413 | 435 |
| Standby loss | With heat exchanger insulation kit | W | ($\Delta T = 30K$) ⁽¹⁾ | 928 | 958 | 986 | 1016 | 1044 | 1074 |

(1) ΔT = (boiler temperature – ambient temperature).

Tab.87 Electrical data

| Gas 620 Ace | | | | 570 | 710 | 860 | 1000 | 1150 | 1300 |
|--|-----------------------------------|-------|-----|--------|--------|--------|--------|--------|--------|
| Supply voltage | | V~/Hz | | 230/50 | 230/50 | 230/50 | 230/50 | 230/50 | 230/50 |
| Power consumption ⁽¹⁾ | Max input CH | W | max | 560 | 690 | 900 | 1152 | 1536 | 1440 |
| Power consumption ⁽¹⁾ | Max input CH (<i>elmax</i>) | W | max | 560 | 690 | 900 | 1152 | 1536 | 1440 |
| Power consumption ⁽¹⁾ | Min input CH | W | min | 120 | 124 | 160 | 166 | 178 | 148 |
| Power consumption ⁽¹⁾ | Min input CH (<i>elmin</i>) | W | min | 120 | 124 | 152 | 172 | 178 | 160 |
| Power consumption ⁽¹⁾ | standby (<i>P_{SB}</i>) | W | min | 20 | 18 | 20 | 20 | 20 | 20 |
| Electrical protection index ⁽²⁾ | | IP | | X1 | X1 | X1 | X1 | X1 | X1 |
| Fuse – main (power connector) | | (AT) | | 10 | 10 | 10 | 10 | 10 | 10 |
| Fuse – CU-GH13 | | (AT) | | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 |
| Fuse – CB-01 | | (AT) | | 6.3 | 6.3 | 6.3 | 6.3 | 6.3 | 6.3 |

(1) Without pump
(2) For a room-sealed system.

Tab.88 Other data

| Gas 620 Ace | | | | 570 | 710 | 860 | 1000 | 1150 | 1300 |
|--|-----------------------|-------|-----|------|------|------|------|------|------|
| Total weight with packaging | Including control box | kg | | 851 | 915 | 981 | 1111 | 1179 | 1249 |
| Total weight without packaging | Including control box | kg | | 711 | 775 | 841 | 961 | 1029 | 1099 |
| Weight of the split boiler | Heat exchanger side | kg | | 249 | 283 | 317 | 356 | 390 | 424 |
| Average acoustic level at a distance of 1 metre from the boiler ⁽¹⁾ | LpA | dB(A) | | 58.1 | 58.1 | 58.1 | 57.8 | 57.8 | 57.8 |
| Average acoustic level ⁽²⁾ | LwA | dB(A) | | 75.0 | 75.0 | 75.0 | 75.0 | 75.0 | 75.0 |
| Ambient temperature | | °C | max | 40 | 40 | 40 | 40 | 40 | 40 |

(1) For a sealed installation
(2) For a sealed installation

Tab.89 Technical parameters

| Gas 620 Ace | | | | 570 | 710 | 860 | 1000 | 1150 | 1300 |
|---------------------------------------|---------------|----|--|-----|-----|-----|------|------|------|
| Condensing boiler | | | | Yes | Yes | Yes | Yes | Yes | Yes |
| Low-temperature boiler ⁽¹⁾ | | | | No | No | No | No | No | No |
| B1 boiler | | | | No | No | No | No | No | No |
| Cogeneration space heater | | | | No | No | No | No | No | No |
| Combination heater | | | | No | No | No | No | No | No |
| Rated heat output | <i>Prated</i> | kW | | 521 | 653 | 790 | 922 | 1061 | 1202 |

| Gas 620 Ace | | | 570 | 710 | 860 | 1000 | 1150 | 1300 |
|---|------------|-----------|------------|------------|------------|-------------|-------------|-------------|
| Useful heat output at nominal heat output and high temperature operation ⁽²⁾ | P_4 | kW | 521.4 | 653.3 | 789.5 | 922.1 | 1060.8 | 1201.7 |
| Useful heat output at 30% of rated heat output and low temperature regime ⁽¹⁾ | P_1 | kW | 174.3 | 217.8 | 262.4 | 305.6 | 350.3 | 395.6 |
| Seasonal space heating energy efficiency | η_s | % | - | - | - | - | - | - |
| Useful efficiency at rated heat output and high temperature regime ⁽²⁾ | η_4 | % | 88.3 | 88.4 | 88.5 | 88.6 | 88.7 | 88.7 |
| Useful efficiency at 30% of rated heat output and low temperature regime ⁽¹⁾ | η_1 | % | 98.4 | 98.2 | 98.0 | 97.8 | 97.6 | 97.4 |
| Auxiliary electricity consumption | | | | | | | | |
| Full load | el_{max} | kW | 0.560 | 0.690 | 0.900 | 1.152 | 1.536 | 1.440 |
| Part load | el_{min} | kW | 0.120 | 0.124 | 0.152 | 0.172 | 0.178 | 0.160 |
| Standby mode | P_{SB} | kW | 0.020 | 0.018 | 0.020 | 0.020 | 0.020 | 0.020 |
| Other items | | | | | | | | |
| Standby heat loss | P_{stby} | kW | - | - | - | - | - | - |
| Ignition burner power consumption | P_{ign} | kW | - | - | - | - | - | - |
| Annual energy consumption | Q_{HE} | kWh GJ | - | - | - | - | - | - |
| Sound power level, indoors | L_{WA} | dB | 81 | 81 | 85 | 85 | 85 | 85 |
| Emissions of nitrogen oxides | NO_X | mg/kWh | 43 | 43 | 44 | 45 | 46 | 47 |
| (1) Low temperature means 30 °C for condensing boilers, 37 °C for low temperature boilers and 50 °C (at heater inlet) for other heating appliances. | | | | | | | | |
| (2) High temperature operation means 60 °C return temperature at heater inlet and 80 °C feed temperature at heater outlet. | | | | | | | | |

**See**

Refer to the back cover for contact details.

12.8 BLE Smart Antenna technical data

Tab.90 Technical data

| | |
|--------------------------|-------------------|
| Bluetooth frequency band | 2400 – 2483.5 MHz |
| Bluetooth power | +5 dBm |