# Virdis Energy

## Rendamax R600 Floor Standing Water Heater

Brochure

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# R600 EVO Water Heater – Flexible for every application

### A new standard

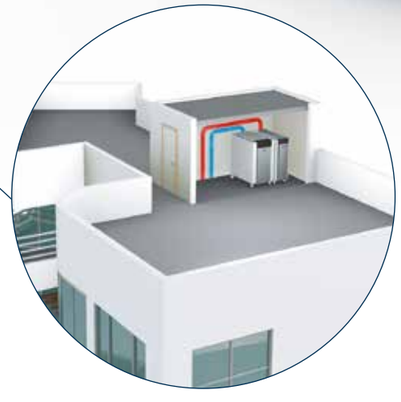
**The R600 EVO represents a significant step forward in heating technology. With extremely flexible configurations, clever design and a range of models available, the water heater is perfect for a variety of commercial applications. It is time to discover the next generation of floor standing water heaters.**


### Comprehensive control features

A clear text display with integrated master-slave cascade functionality (up to 8 water heaters) makes commissioning simple. Plus, upgradable module capacity provides straightforward connections for additional heating zones, solar system or external heat sources.


### Wider applications

With an 8 bar max. water pressure, the water heater is compatible with higher buildings without the need for hydraulic system separation. Plus, a 30K flow/ return temperature differential allows easier integration with district heating systems while maintaining optimum efficiency.

### Lightweight construction

By utilising low water content technology, the water heater can be easily installed on a rooftop – while also delivering superb response times and reduced running costs.


### Compact dimensions

All models are designed to pass through standard 760 mm wide doors. The range comprises 7 models with 2 widths.

### Flexible configurations

The inspection glass and ignition electrode can be fitted on either side of the water heater, allowing a more flexible positioning on site.

### Easy transportation

The water heater is supplied with cargo wheels, allowing it to be easily manoeuvred on site. After positioning, the water heater can be levelled and lifted from its cargo wheels by adjusting the feet.

### Simple commissioning

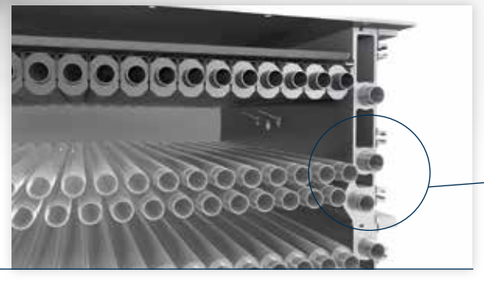
An integrated flue gas damper and rear flue connection provides an installer-friendly arrangement.

# R600 EVO Water Heater – Designed for challenging environments

**The burner**
**R600 EVO's Water Heater's advanced burner design provides the most technologically advanced and best performing unit on the market.**

**Unique premix-burner system**
A fully modulating, water-cooled cold flame burner utilises a one-of-a-kind system to provide reliable and robust performance.


**Low emissions**
The water-cooled cold flame burner and the optimised combustion zone achieve extremely low NOx and CO emissions, which already comply with NOx class 6 requirements.

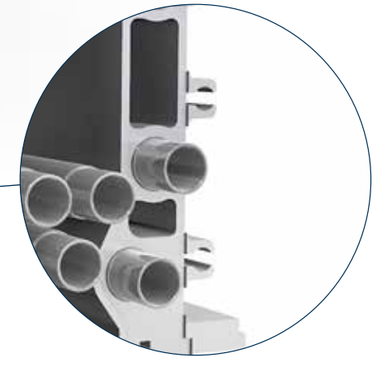


**Water cooled combustion chamber**
A carefully engineered hydroforming process fixes the cooling tubes inside the sidewalls, providing the highest possible thermal conductivity.

**The heat exchanger**
**R600 EVO Water Heater has a stainless steel heat exchanger built for challenging working conditions. It is specifically designed for optimised efficiency and performance during its entire lifetime.**

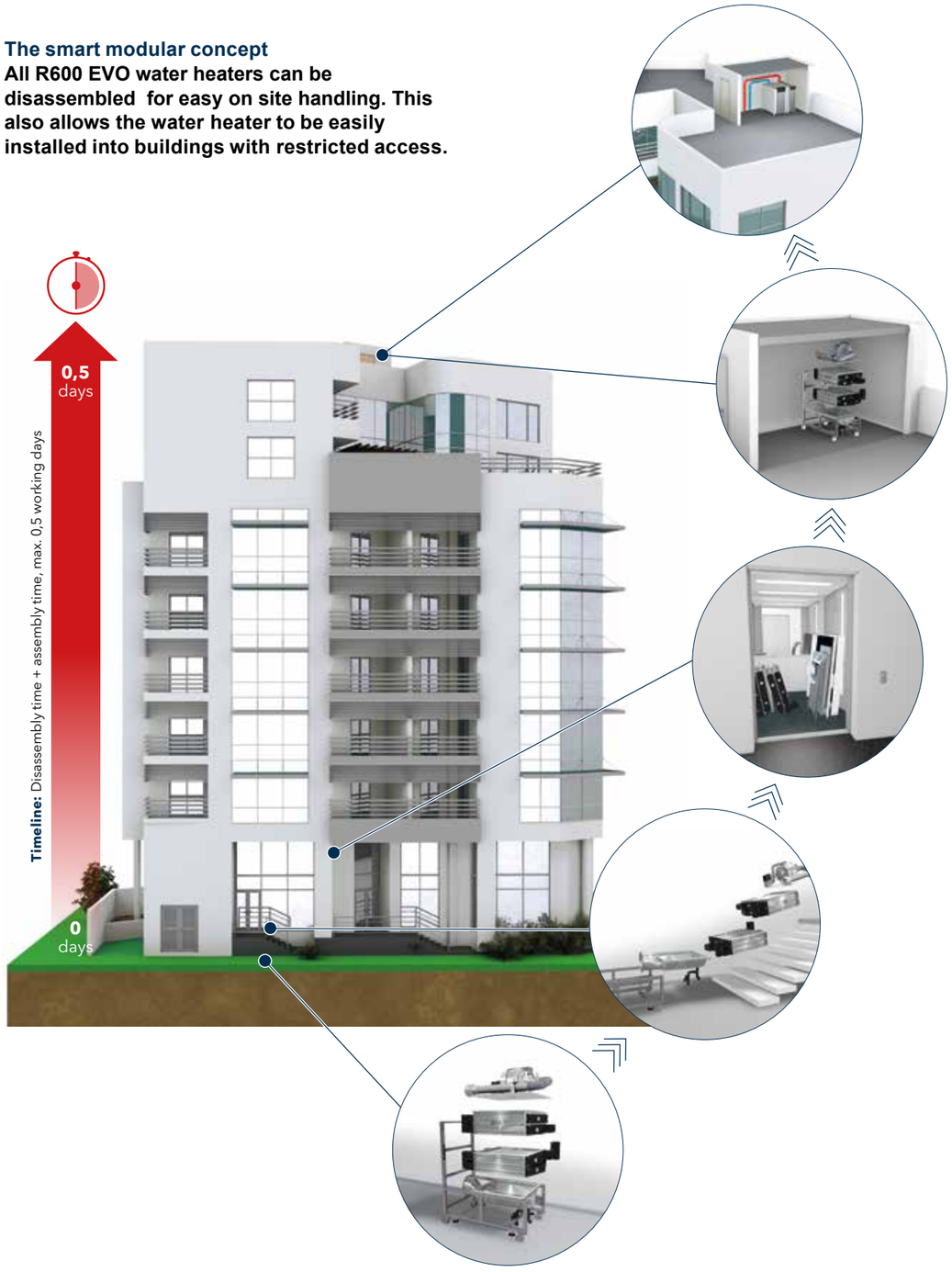
**Lifetime high efficiency**
By combining the unique premix-burner/ heat exchanger system with the optimised controls, R600 EVO Water Heater provides impressive lifetime high efficiencies of up to 98 %.

**Stainless steel laser welded fin tube**
Advanced robot laser welding technology ensures superb heat transfer between the fins and the tube.



# Easy installation

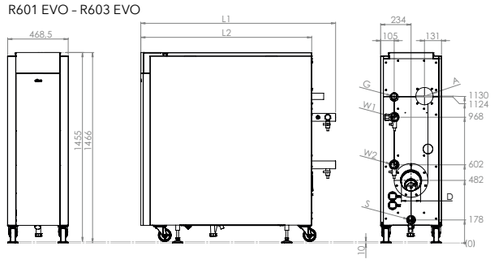
**The smart modular concept**
**All R600 EVO water heaters can be disassembled for easy on site handling. This also allows the water heater to be easily installed into buildings with restricted access.**



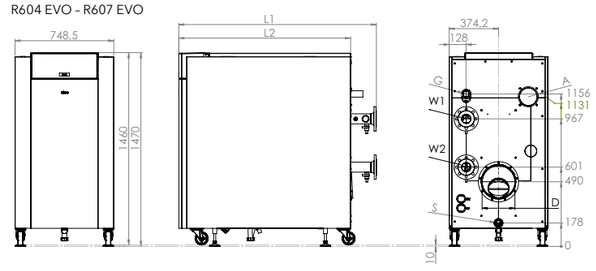

# Technical data R600 EVO Water Heater

| R600 EVO | | R601 EVO | R602 EVO | R603 EVO | R604 EVO | R605 EVO | R606 EVO | R607 EVO |
|---|---|---|---|---|---|---|---|---|
| Nominal heat output at 80/60 °C | kW | 142,3 | 190,4 | 237,6 | 285,7 | 381,3 | 476,7 | 540,2 |
| Minimum heat output at 80/60 °C | kW | 31,3 | 42,0 | 47,0 | 56,5 | 75,2 | 94,6 | 120,0 |
| Nominal heat output at 50/30 °C | kW | 149,4 | 199,9 | 249,7 | 300,3 | 401,1 | 503,2 | 572,8 |
| Minimum heat output at 50/30 °C | kW | 35,1 | 47,0 | 52,9 | 63,6 | 85,0 | 106,1 | 133,4 |
| Nominal heat input Hi full load | kW | 145,0 | 194,0 | 242,0 | 291,0 | 388,0 | 485,0 | 550,0 |
| Minimum heat input Hi min. load | kW | 32,2 | 43,1 | 48,4 | 58,2 | 77,6 | 97,0 | 122,2 |
| Efficiency at 80/60 °C full load | % | 98,2 | 98,2 | 98,2 | 98,2 | 98,3 | 98,3 | 98,2 |
| Efficiency at 50/30 °C min. load | % | 109,2 | 109,2 | 109,4 | 109,4 | 109,5 | 109,4 | 109,2 |
| Efficiency at 40/30 °C min. load | % | 110,0 | 110,0 | 110,3 | 110,3 | 110,3 | 110,3 | 110,5 |
| Annual efficiency (NNG 40/30 °C) | % | 110,4 | 110,4 | 110,4 | 110,4 | 110,4 | 110,4 | 110,3 |
| NOx level (EN15502) | mg/kWh | 28 | 28 | 27 | 27 | 26 | 29 | 31 |
| Flue gas temperature at 80/60 °C full load | °C | 75 | 75 | 75 | 75 | 75 | 75 | 76 |
| Max. permissible flue resistance | Pa | 200 | 200 | 200 | 160 | 400 | 300 | 400 |
| Water pressure max./min. | bar | 8/1 | 8/1 | 8/1 | 8/1 | 8/1 | 8/1 | 8/1 |
| Maximum temperature setpoint | °C | 90 | 90 | 90 | 90 | 90 | 90 | 90 |
| Water flow at ΔT=10K | m³/h | 12,1 | 16,2 | 20,3 | 24,4 | 32,5 | 40,7 | 46,1 |
| Hydraulic resistance at ΔT=10K | kPa | 45 | 107 | 125 | 48 | 129 | 137 | 228 |
| Water flow at ΔT=20K | m³/h | 6,1 | 8,1 | 10,1 | 12,2 | 16,3 | 20,3 | 23,1 |
| Hydraulic resistance at ΔT=20K | kPa | 11 | 27 | 31 | 12 | 32 | 34 | 57 |
| Water flow at ΔT=30K | m³/h | 4,0 | 5,4 | 6,8 | 8,1 | 10,8 | 13,6 | 15,4 |
| Hydraulic resistance at ΔT=30K | kPa | 5 | 12 | 14 | 5 | 14 | 15 | 25 |
| Electrical connection | V | 230/400 | 230/400 | 230/400 | 230/400 | 230/400 | 230/400 | 230/400 |
| Electrical power consumption (excl. pump) | W | 176 | 267 | 286 | 230 | 504 | 620 | 676 |
| Noise level | dB(A) | 70,3 | 70,3 | 70,3 | 70,3 | 77,3 | 77,3 | 77,3 |
| Water content | l | 27,0 | 31,0 | 35,0 | 61,0 | 68,0 | 75,0 | 82,0 |
| Weight (empty) | kg | 290 | 332 | 336 | 434 | 496 | 540 | 595 |
| **Dimensions** | | | | | | | | |
| Water connections (W1/W2) | – | R2" | R2" | R2" | DN65 PN16 | DN65 PN16 | DN65 PN16 | DN65 PN16 |
| Gas connection (G) | – | R1½" | R1½" | R1½" | R1½" | R1½" | R2" | R2" |
| Flue gas connection (D) | mm | 150 | 150 | 200 | 200 | 250 | 250 | 250 |
| Air intake connection (A) (for room sealed use) | mm | 130 | 130 | 130 | 130 | 130 | 150 | 150 |
| Condensate connection (S) | mm | 32 | 32 | 32 | 32 | 32 | 32 | 32 |
| Boiler length with water connection (L1) | mm | 1349 | 1499 | 1649 | 1348 | 1496 | 1646 | 1769 |
| Boiler length without water connection (L2) | mm | 1165 | 1315 | 1465 | 1152 | 1302 | 1452 | 1602 |

R601 EVO – R603 EVO




R604 EVO – R607 EVO



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