QVANTUM

QVANTUM QG

Water-to-water heat pump

The Qvantum QG is a high-efficiency ground source heat pump delivered as a compact unit with a built-in source-side pump.

It is ideally suited for communal ground source heat pump systems, where one QG7 or QG14 unit is installed per property and all dwellings are connected to a shared borehole network. This approach reduces the overall number of boreholes required through diversity, making it a cost-effective solution for multi-property developments.

HEATING EFFECT:

7kw
14kw

The QG delivers heating, cooling, and domestic hot water in a single integrated unit.

Thermal battery

Featuring an accumulator tank that acts as a thermal battery with storage of up to 90°C.

FlexReady® functionality and API connectivity

It optimises energy use by operating during periods of low electricity prices or renewable surplus and is prepared for flexibility markets.

Heat Exchanger

Domestic hot water is produced instantly via a heat exchanger, eliminating legionella risk and simplifying water quality requirements.

Like all Qvantum heat pumps, the QG is designed to be as easy to service and maintain as possible.

High degree of integration

Integrated circulation pumps, hydraulic components, control system, not just space-saving but also makes installation simple and quick.

Refrigeration circuit

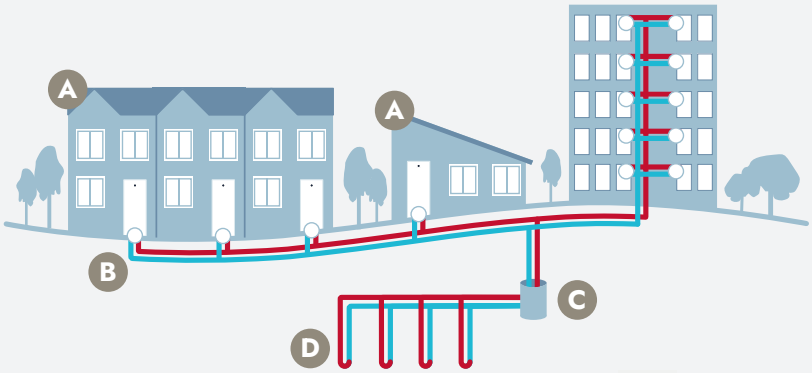
Hermetically sealed ultra low refrigerant volume – eliminating the need for leak detection or ventilation measures.

Servicing

Removable compressor module – Replaced and refurbished at our factory, with no need for refrigeration maintenance on site.

Typical applications

Suitable for both houses and apartments, retrofits and new build shared ground loop networks, as well as ground source projects for individual homes



- **A** Each dwelling has a water-source heat pump to provide heating and hot water.
- **B** All dwellings are connected to a shared ambient loop.
- **C** Boreholes are connected to dwellings via a manifold.
- **D** Vertical boreholes collect renewable, low grade heat from the ground.

Features & benefits

- Ideal solution for communal ground source heat pump systems and individual ground source projects
- Provides heating, cooling and domestic hot water
- Integrated thermal store
- Instantaneous domestic hot water for comfort and efficient legionella prevention
- Over-the-air updates for futureproof connectivity
- Pre-plumbed packaged system with no outdoor unit for faster installation
- Compact footprint makes it suitable for retrofit and new-build
- Easy to use Qvantum app also supports remote diagnostics
- Available as 7kW and 14kW
- Active cooling available as standard, passive cooling module option can be supplied built in to the QG7

Qvantum QG

TECHNICAL DATA

Product's efficiency class room heating, 35/55°C

Product's efficiency class and load profile for hot water

Natural refrigerant R290.

TECHNICAL DATA		QG-7	QG-14
Heating efficiency and capacity			
The product's efficiency class room heating, average climate 35 / 55 °C		A+++/ A+++	A+++/ A+++
Efficiency class hot water heating/declared tap profile		A+ / XL	A+ / XL
SCOP $_{(EN14825)}$ average climate, 35°C/55°C		4.96 / 3.97	4.96 / 3.97
Nominal heating output $_{(Pdesignh)}$	kW	6	12
Operationa range source side	°C	-10 to +40	
Operational range sink side	°C	20 to 80	
Electrical data			
Rated voltage	V	400V 3N ~ 50Hz / 230V 1N ~ 50Hz	
Max power immersion heater	kW	5.0 kW (1+2+2)	
Sound data			
Sound power level $_{(LW(A))\ EN12102}$	dB(A)	39	41
Hot water efficiency and capacity			
Amount of domestic hot water 40°C $_{EN16147}$*	l	255	275
Max amount of domestic hot water (40 °C)**	l	350	
Refrigerant circuit			
Type of refrigerant (GWP)		R290 (0.02)	
CO_2 equivalent	kg	0.003kg	0.006kg
Refrigerant quantity	g	152	2 × 152
Weight and dimensions			
Dimensions (W x D x H)	mm	600 × 620 × 1850	
Weight	kg	180 / 355	237 / 412

*At tap flow rate 10 l/min and an incoming cold water temperature of 10°C.

** When operating mode Additional hot water is active.