QVANTUM

QVANTUM QG – C

Water–to–water apartment heat pump

The Qvantum QG–C water–to–water apartment heat pump is a compact system with a built–in pressure independent control valve (PiCV) that provides heating, cooling and domestic hot water.

It is ideally suited for ambient loop applications, where one unit is installed per property and all properties are connected to a shared ambient loop. This approach enables a decentralised system architecture typically used in new build apartment developments and 5th generation heat networks, offering a lower–cost alternative to shared boreholes. The QG has a wide operating envelope from –10°C to 40°C, making it suitable for a wide range of energy sources. With a selectable source side delta T, from 5°C to 10°C, specifiers can choose to optimise the systems operation based upon their design priorities.

HEATING EFFECT:

7kw
14kw

The QG delivers heating, cooling, and domestic hot water in a single 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 cheaper electricity or renewable surplus and is ready for flexible energy 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

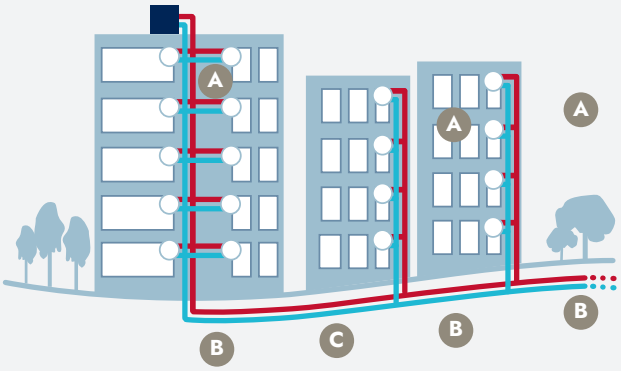
Integrated circulation pumps, hydraulic components, control system. not just space-saving but also makes installation simple and quick.

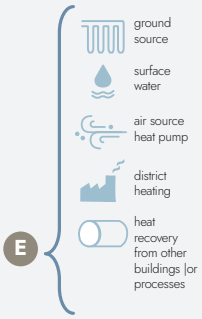
Refrigeration circuit

Hermetically sealed and contains only 152g of R290 – eliminating the need for leak detection or ventilation measures.

Servicing

Replaced and refurbished at our factory. with no need for refrigeration maintenance on site.





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 Multiple buildings can be interconnected.

D Centralised air source heat pumps balance the ambient loop temperature typically 20–30°C.

E Can be connected to more sources to create a lower temperature thermal network.

Features & benefits

- Ideal solution for 5th generation heat networks and individual ground source projects
- Wide operating envelope makes it suitable for any energy source
- Ultra-low r290 charge – no mitigation required
- Provides heating, cooling and domestic hot water
- Integrated thermal store
- Instantaneous domestic hot water for comfort and efficient legionella prevention
- 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
- Simple installation with low weight and compact dimensions
- Modular design which enables multiple installation options.

Qvantum QG–C

TECHNICAL DATA

The information provided in this document is believed to be accurate at the time of publication. Specifications, features, and availability are subject to change without notice
Date of issue: 02 / 2026

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–C		QG–7	QG–14
Heating efficiency and capacity GSHP conditions			
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
Source side DT min to max	°C	3 to 7	
Source side flow rate min to max	l/s	0.17 to 0.4	0.34 / 0.8
Heating efficiency and capacity Ambient loop conditions*			
Heating output / COP @S25 / W35	kW / COP	6.0 / 9.34	12.0 / 9.34
Heating output / COP @S25 / W45	kW / COP	6.0 / 7.14	12.0 / 7.14
Heating output / COP @S25 / W55	kW / COP	6.0 / 5.27	2.0 / 5.27
Cooling output / EER @ S25 / W7	kW / EER	6.0 / 5.52	12.0 / 5.52
Cooling output / EER @ S25 / W12	kW / EER	6.7 / 5.71	13.7 / 5.71
Source side DT min to max	°C	5 to 10	
Source side flow rate min to max	l/s	0.12 to 0.24	0.24 / 0.48
TECHNICAL DATA QG			
Operational range source side	°C	−10 to +40	
Operational range sink side	°C	20 to 80	
Electrical data			
Rated voltage	V – N – Hz	400 –3 ~ 50Hz / 230 –1 ~ 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	0.003	0.006
Refrigerant quantity	g	152	2 × 152
Weights and dimensions			
Dimensions (W x D x H)	mm	600 × 620 × 1850	
Weight – unfilled/filled	kg	180 / 355	237 / 412

*Nominal Capacity based upon 5K DT

At tap flow rate 10 l/min and an incoming cold water temperature of 10°C. * When operating mode additional hot water is active.

QVANTUM UK
London Office
Unit 5, Floor 3
25 Christopher Street
London
EC2A 2BS
0330 822 6643 | Qvantum.com/uk

QVANTUM