

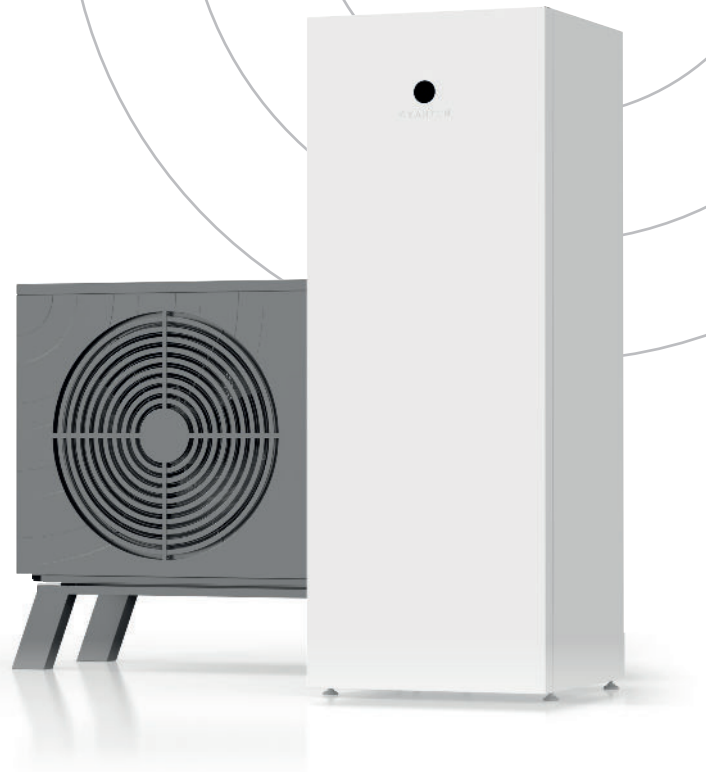
## QVANTUM QA Series

### Air source heat pump

The Quantum compact sized hydro unit, QH-XL, is a pre-plumbed indoor unit with all necessary functions and connections.

Domestic hot water is produced instantaneously with heat from the integrated buffer tank. The buffer tank can also be used to avoid energy peak prices for both heating and hot water. The hydro unit also has integrated support for active cooling.

The hydro unit is suitable for up to 15 kW heating applications. Combined with a Quantum QA R290 monobloc outdoor unit, it offers a complete air-to-water heat pump solution. The QA outdoor unit is available with heating capacities of 9 kW and 15 kW. It can also be combined with Quantum's wall mounted hydro unit QH-L to enable flexible installation layouts where space is scarce.



System efficiency class  
room heating, 35/55 °C.



Product's efficiency class  
and load profile for  
hot water.



#### ALL-IN-ONE

Integrated heating, cooling  
& hot water in one system



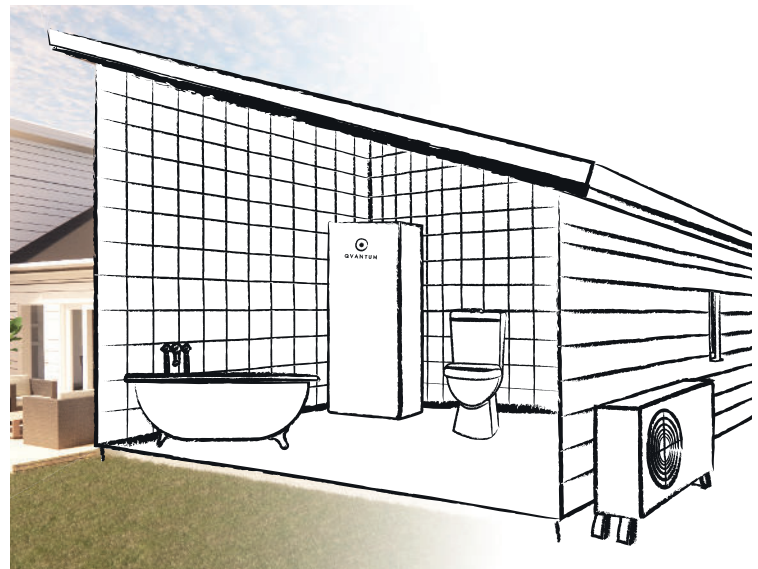
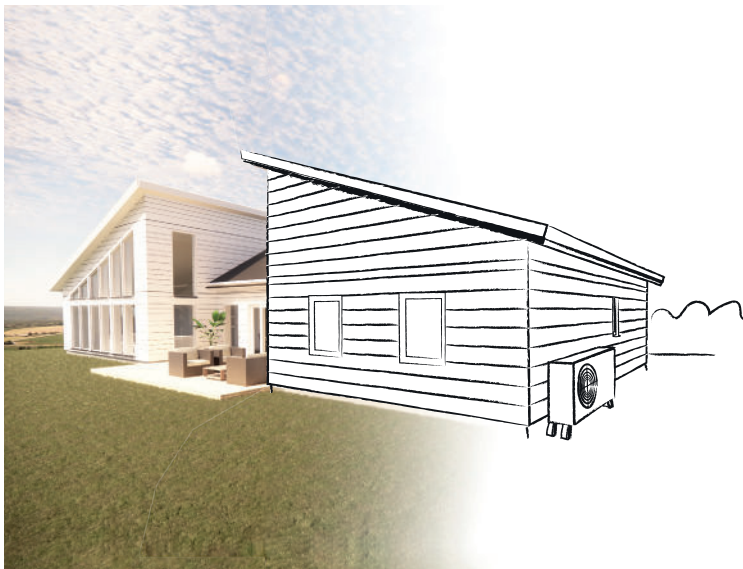
#### NATURAL REFRIGERANT

R290 – Ultra low GWP Refrigerant  
High supply temperature



#### Q CLOUD

Open API & smart algorithms  
– integrated connectivity



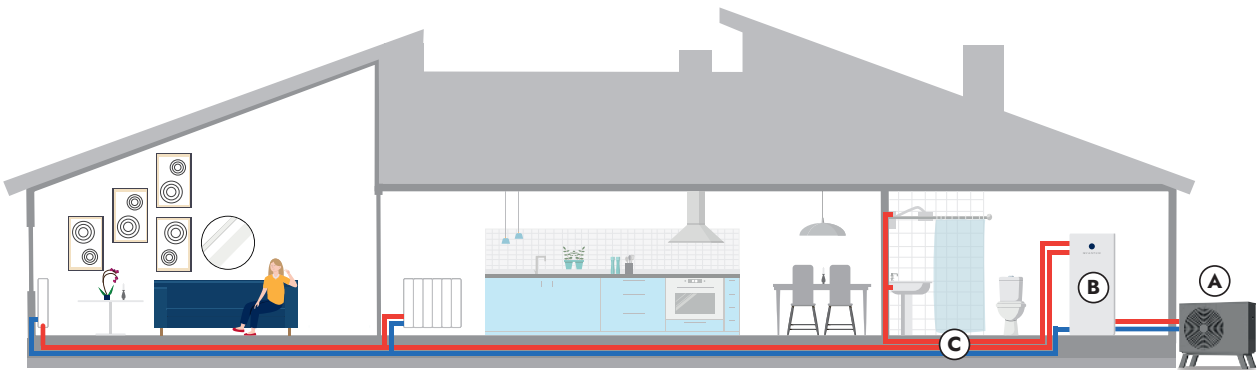
# HOW DOES AN AIR SOURCE HEAT PUMP WORK?

## PRINCIPLE

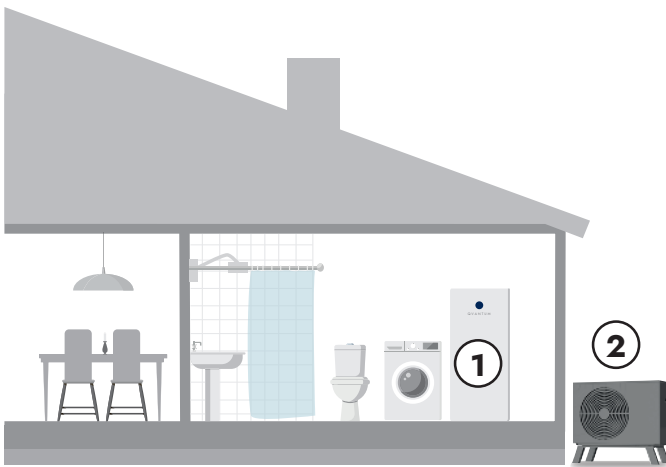
Heat pump technology is based on a very simple, well-known principle – the same as used in an ordinary refrigerator. By extracting heat energy from the outside air, even at lower temperatures, a Qvantum air source heat pump can supply your home with heating and domestic hot water. The process can also be reversed to provide cooling during the summer months.

A Qvantum air source system consists of an outdoor unit combined with an indoor unit. They work together to create a complete climate system that's easy to install, run and maintain. The integrated buffer tank makes it easy to install additional energy sources.

- A** Free energy from the outside air is captured by the outdoor unit.
- B** The heat circulates from the outdoor unit to the indoor unit, where the demand for heating, cooling or domestic hot water will be taken care of.
- C** The distribution of heating and cooling is managed by the indoor unit to accommodate the comfort demands of the home.



## INSTALLATION POSSIBILITIES



- 1** Indoor unit.
- 2** Outdoor unit.

## KEY FEATURES HYDRO UNIT

- All-in-one unit with all functions pre-plumbed.
- Support for active cooling as standard.
- Excellent serviceability through click-fittings.
- Suitable for up to 15kW heating capacity.
- Instantaneous domestic hot water for comfort as well as efficient legionella prevention.
- Future proof connectivity.
- Dedicated app for installers and advanced users.
- Integrated buffer tank that enables true energy peak price shaving for both hot water and heating.
- Suitable for single - and three phase connections.
- Simple installation through low weight and compact dimensions.
- Modular design which enables multiple installation options.

# FUTURE PROOF

Quantum HP series is designed for the needs of the future energy landscape. In an integrated way, both the hardware and the software are designed to be able to support increased thermal storage, increased flexibility, faster response times for electrical grid services and more. You connect to the system using Wi-Fi or Bluetooth and the supporting cloud with its open API, enable smart home management capabilities.

This makes it possible to let the heat pump optimise its operation to maximise synergies with your own PV installation, peak shifting to avoid high hourly electricity tariffs as well as with grid power and frequency control markets.

The system also enables predictive maintenance – this heat pump will let you know when it needs your attention.



# INSTALLATION FLEXIBILITY

Quantum QA-9 (M) Quantum QA-15 (M) The Quantum QA outdoor unit comes in heating capacities of 9 kW and 15 kW and can be combined with Quantum's modular floor standing and wall mounted hydro units to enable flexible installation layouts to fit available space and desired capacity.



PRELIMINARY TECHNICAL DATA		QA-9 AND QH-XL	QA-15 AND QH-XL
<b>Heating efficiency and capacity</b>			
Space heating efficiency class of the system 35°C / 55°C		A+++/A+++	
Space heating efficiency class 35°C / 55°C		A+++/A+++	
SCOP <sub>EN14825</sub> average climate, 35°C / 55°C		5,16/3,85	5,05/3,88
Nominal heating output <sub>(Pdesignh)</sub>	kW	5	10
Operational range source side		-25–43	
Operational range sink side		25–75	
<b>Electrical data</b>			
Rated voltage outdoor unit	V	230V 1N ~ 50Hz	400V 3N ~ 50Hz 230V 1N ~ 50Hz
Rated voltage indoor unit		400V 3N ~ 50Hz / 230V 1N ~ 50Hz / 230V 2N ~ 50Hz	
Max power immersion heater	kW	5.0 kW (three steps)	
<b>Sound (outdoor unit)</b>			
Sound effect level <sub>EN12102</sub> (LWA)	dB(A)	57	
<b>Hot water efficiency and capacity</b>			
Amount of hot water (40°C) <sub>EN16147</sub>	l	245	260
Efficiency class hot water heating / declared tap profile		A+/XL	
<b>Refrigerant circuit</b>			
Type of refrigerant (GWP)		R290 (3)	
CO <sub>2</sub> -equivalent	kg	1,5	2,55
Refrigerant quantity	kg	0,5	0,85
<b>Weight and dimensions</b>			
Dimensions outdoor unit (W x D x H)	mm	1 167 x 407 x 795	1 287 x 458 x 928
Dimensions hydro unit (W x D x H)	mm	600 x 600 x 1 595	
Weight outdoor unit	kg	80	160
Weight hydro unit	kg	115	115

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# HEAT PUMPS FOR SUSTAINABLE CITIES

## WE CHANGE THE WAY THE CITIES OF EUROPE ARE HEATED

Quantum, founded in Sweden in 1993, develops high-quality heat pumps for individual buildings and innovative heat pump-based solutions for densely populated areas to enable everybody to benefit from emission free heating and cooling. The company has deep knowledge in both heat pump technology and energy systems engineering and works in close collaboration with engineering consultants, installers, project developers and utilities.

**Quantum**

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