QAHV-N560YA-HPB

HOT WATER HEAT PUMP



ecodan pro

HOT WATER HEAT PUMP – DHW

GWP of 1

For outdoor installation

Heating Capacity: 40kW

The EcodanPro QAHV is optimised for the production of potable hot water. Producing high flow temperature up to 90°C, is suitable for commercial and industrial applications.

Utilising natural CO_2 refrigerant, the QAHV provides one of the lowest environmental impacts when generating hot water. It is engineered to perform in New Zealand's harsh conditions, and being an inverter heat pump, it does so extremely efficiently. By adopting Mitsubishi Electric's unique technology, the QAHV ensures highly reliable performance as well as high heating capacity even at low outdoor temperature.

High Efficiency Performance

3.88 COP*1

3.65 COP*2

Low Noise Operation

From 56dBA*1 (SPL)

High Flow Temperatures

90°C

Key Features

Utilises Natural CO_2 Refrigerant

QAHV adopts environmentally friendly and highly effective CO_2 (R744) as its refrigerant, with zero Ozone Depletion Potential (ODP) and has a Global Warming Potential (GWP) of 1. CO_2 gives the QAHV a small carbon footprint with the added benefit of enabling higher flow temperatures up to 90°C.

High Efficiency

Utilising advanced technology, control systems and supercritical natural CO_2 refrigerant, the QAHV operates highly efficiently and with minimal environmental impact.

Quiet Performance

With 40kW+ of capacity available, the QAHV is incredibly quiet. Its small footprint and low noise levels make the QAHV perfect for populated areas in high demand for hot water.

High Temperature Supply

Operating in a single pass configuration, the QAHV has the ability to lift water up to 90°C at flow rates up to 30L/min.

Unique Design

QAHV utilises a twisted and spiral gas cooler, with 3 refrigerant pipes wound around the water pipe. The unique design is intended to maximise the surface area between water and refrigerant to maximise the heat transfer within the unit.

Stable Heating at Low Temperatures

The QAHV utilises Mitsubishi Electric's Flash Injection Technology to provide its full heating capacity of 40kW even at ambient temperatures as low as -3°C. The unit can also operate to supply 90°C hot water in ambient temperatures as low as -25°C.

Coastal Protection Treatment

Available in both standard and coastal protection models, you can rest assured that the QAHV will withstand some of New Zealand's harshest conditions and continue to efficiently operate for many years to come.

Capacity Range

VERSION	DESCRIPTION	HEATING CAPACITY
QAHV-N560YA-HPB	STANDARD MODEL	40kW
QAHV-N560YA-HPB-BS	COASTAL PROTECTION MODEL	40kW

*1 Under normal heating conditions at the outdoor temp, 16°CDB/12°CWB (60.8°FDB/53.6°FWB), the outlet water temperature 65°C (149°F), and the inlet water temperature 17°C (62.6°F)

*2 Under normal heating conditions at the outdoor temp, 7°CDB/6°CWB (44.6°FDB/42.8°FWB), the outlet water temperature 65°C (149°F), and the inlet water temperature 9°C (48.2°F)

*3 Measured 1m from the unit in an anechoic chamber.

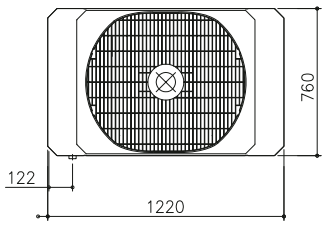
Specifications

QAHV-N560YA-HPB

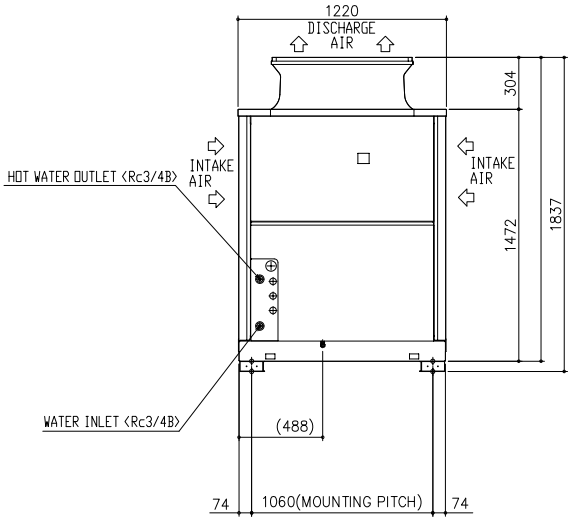
			QAHV-N560YA-HPB
POWER SUPPLY			3-PHASE 4-WIRE 380-400-415V 50Hz
CAPACITY*1	OUTPUT	kW	40
	POWER INPUT	kW	10.31
	CURRENT INPUT	A	17.8-16.9-16.3
	COP	kW/kW	3.88
CAPACITY*2	OUTPUT	kW	40
	POWER INPUT	kW	10.97
	CURRENT INPUT	A	20.0-19.0-18.3
	COP	kW/kW	3.65
CAPACITY*3	OUTPUT	kW	40
	POWER INPUT	kW	11.6
	CURRENT INPUT	A	20.4-19.4-18.7
	COP	kW/kW	3.44
TEMPERATURE RANGE	OUTLET WATER TEMPERATURE	°C	55-90°C (WHEN THE SECONDARY SIDE CONTROL IS ENABLED: 55-80°C)
	AIR TEMPERATURE	°C	-25 ~ 43°C
SOUND PRESSURE LEVEL*4		dB(A)	56
WATER PIPE DIAMETER AND TYPE	INLET	mm(in.)	19.05(RC 3/4"), SCREW PIPE
	OUTLET	mm(in.)	19.05(RC 3/4"), SCREW PIPE
EXTERNAL DIMENTIONS HxWxD		mm	1837 (1777 NOT INCLUDING LEGS) x 1220 x 760
NET WEIGHT		kg(lbs)	400
REFRIGERANT	TYPE AND ORIGINAL CHARGE		CO_2 (R744) 6.5kg

(1) Under normal heating conditions at the outdoor temp, 16°CDB/12°CWB (60.8°FDB/53.6°FWB), the outlet water temperature 65°C (149°F), and the inlet water temperature 17°C (62.6°F).
(2) Under normal heating conditions at the outdoor temp, 7°CDB/6°CWB (44.6°FDB/42.8°FWB), the outlet water temperature 65°C (149°F), and the inlet water temperature 9°C (48.2°F).
(3) Under normal heating conditions at the outdoor temp, 7°CDB/6°CWB (44.6°FDB/42.8°FWB), the outlet water temperature 65°C (149°F), and the inlet water temperature 15°C (59.0°F).
(4) Measured 1m from the unit in an anechoic chamber.

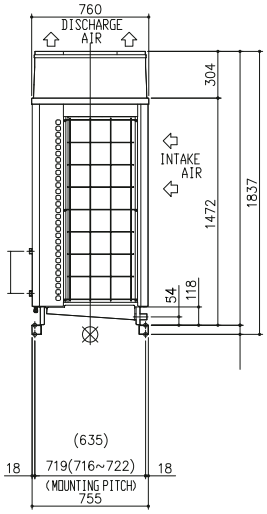
Top View



Front View



Side View



Optional Extras

- TW-TH16 Temperature Sensors
- Q-1SCK Secondary Side Kit
- PAR-W31MAA Controller
- MelcoBEMS Mini BMS Interface

For more information please visit our website
or call our Applied Products Sales Team.
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