

Aqua3

Industrial & Commercial CO₂ Heat Pump



TECHNICAL DATA

TECHNICAL DATA		OPERATING RANGE		
Machine type	Aqua3	Parameter	Min	Max
Refrigerant	CO ₂ (R744)	Inlet temp — hot side	30 °C	50 °C
No. of circuits	1	Outlet temp — hot side	35 °C	90 °C
Dry weight	1,290 kg	Inlet temp — cold side	-2 °C	20 °C
CO ₂ charge	50 – 60 kg ¹	Outlet temp — cold side	-7 °C	15 °C
Footprint L × W × H	2510 × 698 × 1929 mm			
Power supply	400 V / 3~ / 50 Hz			
Fuse size	100 A			

PERFORMANCE DATA · 50 Hz

#	GC In °C	GC Out °C	EVAP In °C	EVAP Out °C	Heating kW	Cooling kW	COP
1	30	50	7	2	75	55	3.34
2	30	50	12	7	84	64	3.74
3	30	50	20	15	88	68	4.24
4	35	55	10	5	76	55	3.32
5	35	60	12	7	77	56	3.20
6	40	70	-2	-7	55	33	2.28
7	40	70	5	0	65	42	2.55
8	40	70	12	7	74	49	2.78
9	40	70	20	15	80	57	3.10
10	50	60	5	0	55	23	2.12
11	50	60	12	7	62	39	2.39

¹ CO₂ refrigerant charge depends on operating conditions. Units supplied with CO₂ overpressure for factory testing.

PRODUCT DESCRIPTION

Frame & Housing

Galvanised sheet metal, painted. Panels open fully for complete access to all internal components.

Compressor

1× Bitzer semi-hermetic reciprocating compressor. Thermal protection, crankcase heater, optical oil level indicator, IQ-module envelope protection.

Plate Heat Exchangers

Stainless steel, insulated against condensate. Rated for high pressure and high outlet temperatures. Temperature probes for antifreeze protection and capacity control.

Controller

10" touch display with TeqControl software. Water temperature control, frost protection, high-pressure pre-alarm, remote ON/OFF, summer/winter mode.

Remote Monitoring

Integrated 5G monitoring via Carel Boss Micro. Supports Modbus RTU, Modbus TCP/IP, BACnet IP.

Safety Devices

High/low pressure switches, safety valves, antifreeze sensors, flow switches, compressor thermal overload protection, optical oil level indicator.

Envelope

