

AquaMaster Inverter Combi P

Ultra-compact R290 propane unit with integrated cylinder

All-in-one

Unique ground-to-water compact heat pump with minimum installation space (0.3 m²) required. Produced in both left and right configurations.

R290 propane refrigerant

The use of propane increases efficiency and, consequently, energy savings.

Total safety

With integral R290 leak detector and automatic shut down of the unit. Due to the design and minimal volume of the R290 there is no requirement for ventilation.



Efficient ground-to-water heat pump with an output up to 6 kW & integrated 150 litre cylinder. Ready for low-carbon & sustainable properties.



Only needs a small ground collector

Lowers overall total installation cost. Suitable for individual property installations or for installations with a shared ground collector.

Integrated stainless steel cylinder of 150 l

SHW temperature up to 65 °C. Anti-legionella function from compressor only. No backup heater required.

A⁺⁺⁽⁺⁾ Energy efficiency



R290 refrigerant



Heating water temperature up to 75 °C



Output up to 6 kW



Online control

MAIN HEAT PUMP BENEFITS SUMMARY

- All-in-one unit – significant savings on installation time and costs
- **Minimum space required – plant room of only 0.3 m²**
- Fast installation kit: expansion vessel, manometer, filter, fittings (optional equipment)



- Suitable for individual properties or for installations with a shared ground collector (proportional control of circulation pumps)
- **Extensive intelligent optional equipment:** internet connection (monitoring and logging), modbus/BMS, integrated MID electric meter or heat meter, communication with PV Inverter and Batteries, smart grid etc.
- Passive cooling module (optional equipment)



Integral brine and heating side pumps including 3-way valve

- Optional upgrade of brine side circulation pump with 2-port zone valve with proportional control for large shared ground loop installations



Stainless steel cylinder of 150 l

- SHW temperature up to 65 °C
- Max heating water temperature 75 °C
- **Anti-legionella function from compressor only.** No backup heater required

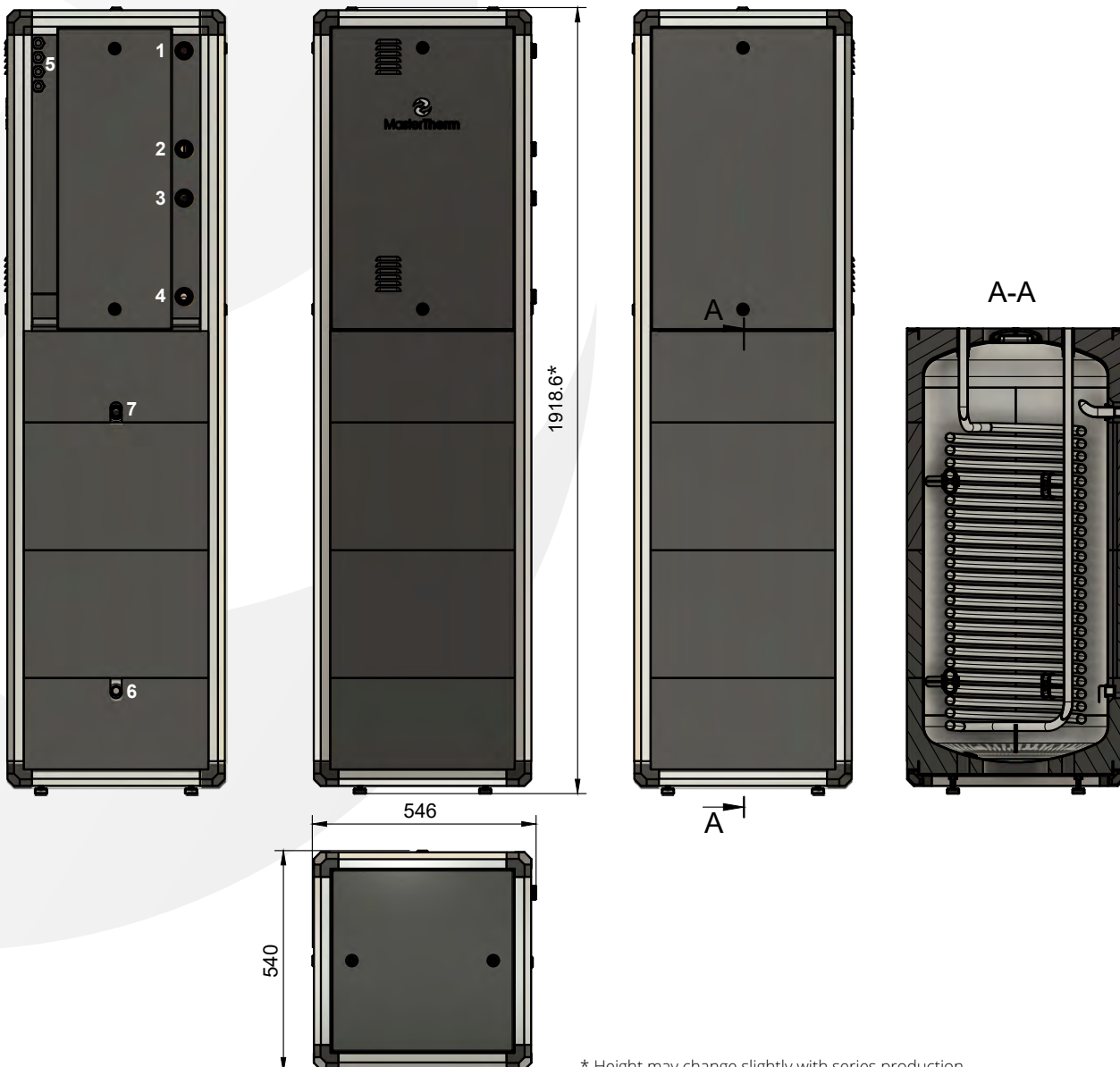




Model	Performance at B0W35	P-Design	Thermal loss of the object Q_z	Seasonal energy efficiency of heating at a 35 °C low temperature operation		Seasonal energy efficiency of heating at a 55 °C medium temperature operation		Maximum heating/hot water temperature	Order number (according to heating circuit control) + pricing			
	kW	kW	kW	SCOP	Class	SCOP	Class		°C	Regulation STANDARD (μPC)	EUR	Regulation PLUS (pCO5)
AquaMaster Inverter 17ICP	1-6	4	up to 6	4.87	A+++	3.76	A++	75 / 65	3AQ17ICP-0	8 890	3AQ17ICP-1	9 490

Designed for	single-circuit heating systems	multiple-circuit heating systems
Main heating circuit	yes	yes
Auxiliary heating circuit	-	independently 2 incl. mixing
Space temperature	in 1 zone	in 2 zones
Hot water treatment	yes	yes
Option	-	up to 6 heating circuits

- 1 - heating water outlet - 5/4"
- 2 - heating water inlet - 5/4"
- 3 - evaporator inlet - 5/4"
- 4 - evaporator outlet - 5/4"
- 5 - electrical connection
- 6 - SHW Inlet 1/2"ID
- 7 - SHW Outlet 1/2"ID



* Height may change slightly with series production.

TECHNICAL DATA AQ17ICP-1

Performances ¹	rps	60	60	60	60	60
		B0W35	B0W55	W10W35	W10W55	B5W35
Heating Capacity	kW	3.87	3.50	5.23	4.72	4.51
Cooling Capacity	kW	3.02	2.37	4.37	3.50	3.65
Power In ²	kW	0.90	1.18	0.91	1.27	0.91
COP	-	4.29	2.97	5.75	3.71	4.96
Operating Current	A	4.3	5.5	4.4	6.0	4.4

COMPRESSOR

Type	BLDC Inverter
Speed	15-90 rps
Charge POE oil	0.3 l
LRC ³	- A
Max. Op. Current	7.3 A

EVAPORATOR

Type	PHE
Material	AISI316
Water Flow (W/W)	0.35 kg/s
Minimum Flow	0.26 kg/s
Brine Flow (B/W)	0.26 kg/s
Minimum Flow	0.16 kg/s
Temp. Difference	3 K
Internal Volume	2.0 l
Max. Water Overp.	250 kPa
Max. Ref. Overp.	3.1 MPa
Pump Ext. Head	5.0 m
Pump Motor Max.	70 W

CONDENSER

Type	PHE
Material	AISI316
Water Flow	0.18 kg/s
Minimum Flow	0.09 kg/s
Temp. Difference	5 K
Internal Volume	2.0 l
Max. Water Overp.	250 kPa
Max. Ref. Overp.	3.1 MPa
Pump Ext. Head	5.0 m
Pump Motor Max.	70 W

REFRIGERANT CIRCUIT

Refrigerant	R290
Charge	0.190 kg
Release Charge ⁴	0.100 kg

AUX. HEATER (OPTION)

Heating Capacity	- kW
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SANITARY HOT WATER

storage volume	150 l
max. op. pressure	0.7 MPa

Controller	pCO5
EEV	Yes
Water Probe	Yes
SHW Probe/Output	Yes
Mixing Probe/Output	Yes, 2x
Outdoor Probe	Yes
Dynamic Set Point	Yes
Refrigerant Probe	2xPT

POWER SUPPLY

Voltage	1x230 V
Frequency	50 Hz
Max. Current	16 A
incl. auxiliary heater	- A

CONNECTIONS AND DIMENSIONS

Hot Water, Brine	1" "OD
He x Wi x De (⁵)	192x55x54(64) cm
Weight (Operating)	105(260) kg

LIMITS

W/B Overpressure	0.25 MPa
Ref. Overpressure	3.1 MPa
Brine Min/Max	-5/+20 °C
Water Min/Max	20/75 °C

1 B0W35, acc. to EN14511, at 60rps
 "B0" – Brine Inlet 0°C
 "W35" –Water Outlet 35°C

2 Effective Power acc. to EN14511

3 Locked Rotor Current

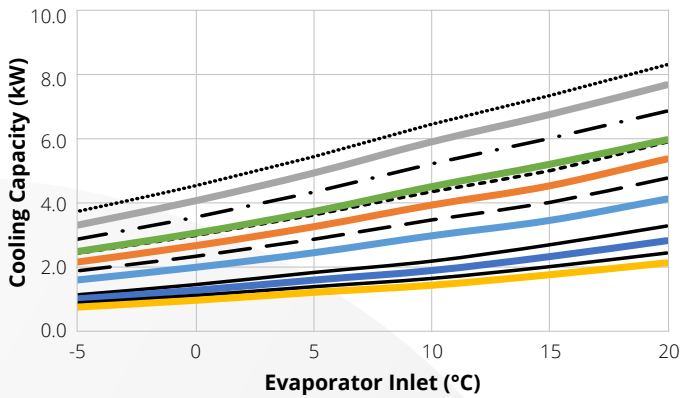
4 Acc. to IEC 60335-2-40

5 Including Expansion vessels (optional)

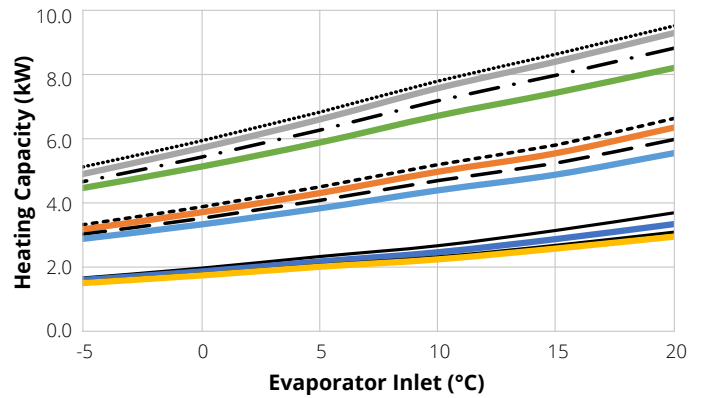


PERFORMANCE *

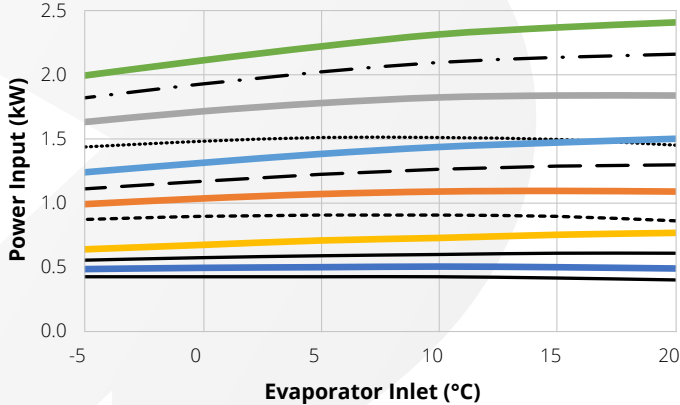
Cooling Capacity Tw=35/45/55/65°C



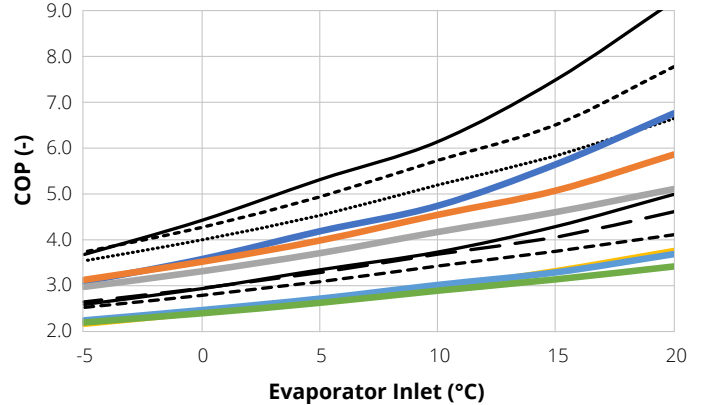
Heating Capacity Tw=35/45/55/65°C



Power Input Tw=35/45/55/65°C



COP Tw=35/45/55/65°C



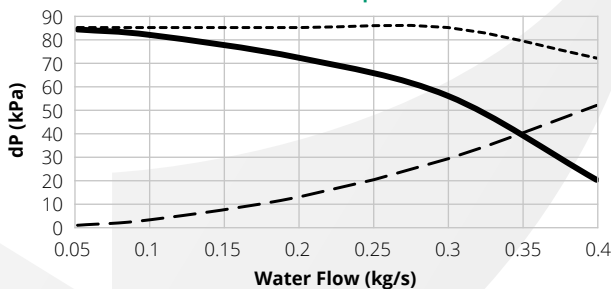
30rps/35°C 60rps/35°C 90rps/35°C 30rps/45°C 60rps/45°C 90rps/45°C 30rps/55°C 60rps/55°C 90rps/55°C 30rps/65°C 60rps/65°C 90rps/65°C

* Performance Tolerance ±10%

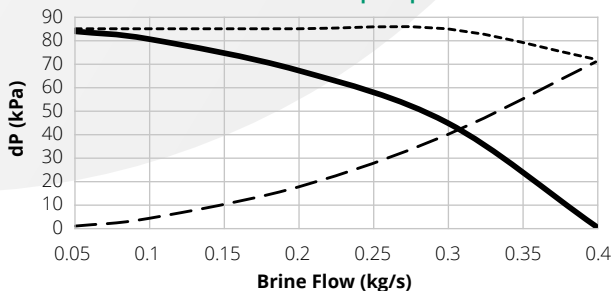
DIMENSIONS, CONNECTIONS

1 2 8 7 6 9 3 4

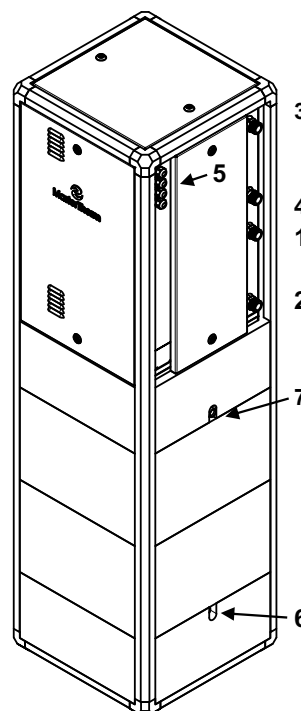
Unit Pressure Drop Condenser



Unit Pressure Drop Evaporator



--- dP unit dP pump ——— dP external



- 1. Brine Inlet 1" OD
- 2. Brine Outlet 1" OD
- 3. Hot Water Outlet 1" OD
- 4. Hot Water Inlet 1" OD
- 5. El. Bushings 2xPG29
- 6. SHW Inlet 1/2"ID
- 7. SHW Outlet 1/2"ID

VERSION 10/2023,
Ing. Jiří Jiránek,
Preliminary