# Aqua Master Inverter

























# brine to water, water to water, inverter

Model	B0W35	B0W35 <sup>1)</sup>		W10W35		Seasonal heating energy efficiency - low-temperature operation 35°C				Seasonal heating energy efficiency - medium-temperature operation 55°C				Circuit breaker <sup>2)</sup>		Compressor, supply voltage	11/200	Leakage control of refrigerant circuit	(µРС)	PLUS (pCO5)
	Power kW	Power kW	СОР	Power kW	COP	Power kW <sup>4)</sup>	SCOP	ηs %	Class	Power kW <sup>4)</sup>	SCOP	ηs %	Class	3 phase units	1 phase units	3ph/1ph	(kg)	EP 517/2014	Price EUR EXW CZ	Price EUR EXW
AquaMaster Inverter-17I	1–5	2,95	4,3	3,79	5,51	5	4,65	179	A+++	4	3,53	133	A++	1x 20 A"B"	20A"B"	1x230/1x230 V~	60	no	on request	-
AquaMaster Inverter-22I	2–7	4,4	4,5	5,8	5,9	7	4,61	177	A+++	6	3,53	133	A++	1x 20 A"B"	20A"B"	1x230/1x230 V~	160	no	on request	on request
AquaMaster Inverter-26I	3–9	7,6	4,5	10,2	6,0	9	4,83	185	A+++	9	3,74	141	A++	1x 20 A"B"	20A"B"	1x230/1x230 V~	160	no	on request	on request
AquaMaster Inverter-30I	4–12	7,9	4,6	10,3	6,1	11	4,85	186	A+++	11	3,78	143	A++	1x 25 A"B"	25A"B"	1x230/1x230 V~	160	no	on request	on request
AquaMaster Inverter-37I	5–15	10,5	4,7	14,2	6,3	15	5,00	193	A+++	14	3,94	149	A++	3x 20 A"B"	32A"B"	3x400/1x230 V~	165	no	on request	on request
AquaMaster Inverter-45I	7–22	14,0	4,6	19,2	6,3	21	4,80	184	A+++	19	3,70	140	A++	3x 20 A"B"	32A"B"	3x400/1x230 V~	170	no	on request	on request
AquaMaster Inverter-60l	7–35	20,2	4,7	26,6	6,2	33	5,02	193	A+++	33	3,97	151	A+++	3x 32 A"B"	-	3x400 V~	180	no	-	on request
AquaMaster Inverter-90l	10-48	<b>31,3</b> <sup>3)</sup>	4,6	41,2 3)	5,9	44	4,87	187	A+++	43	3,87	147	A++	3x 40 A"B"	-	3x400 V~	200	no	-	on request

- <sup>1)</sup> Performance data according to ČSN EN 14 511, in accordance with the EHPA requirements for quality mark Q. B0W35 60 Hz antifreeze mixture 0 °C, water 35 °C, compressor frequency 60 Hz
- <sup>2</sup> Recommended value of el. Safety in basic equipment, without auxiliary electric boiler
- 3) Data for 901 at 90 Hz
- <sup>4)</sup> Design power at outdoor temperature -10 °C according to ČSN EN 14 825.

# **Options**

Internet HP control Master

**Full Cooling reversing** 

Passive Cooling module (for models: 22I-45I)

Terminal pAD temperature compensation

Terminal pADh floor cooling

Desuperheater

AQ Electric heater 4,5 kW / 6,0 kW / 7,5 kW

Expanded control module for PLUS version

Water to water version

Internal unit (silver or red colour)

DAI OOC

**RAL 3020** 

### Standard equipment

- ✓ Integrated graphic terminal PGD
- ✓ Variable output Inverter Compressor
- ✓ Equitherm control system MaR
- ✓ Electronically controlled coolant injection
- ✓ Main power supply switch
- ✔ Built-in circulator pumps for primary and secondary circuits

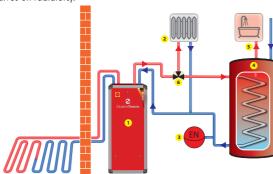
### **Features**

- ▶ Use for heating and cooling
- ► Continuous control of heating power
- ► Brine pump speed control
- ► The temperature of heating water to 60 °C
- ► Water / water version on request
- ▶ Quiet operation, No buffer tank required
- ► Control up to 6 heating circuits

Heat pump connected directly to the heating system with 3wv for domestic hot water (dhw) preparation.

1-heat pump, 2-heating system, 3-expansion vessel, 4-dhw tank with coil, 5-dhw outlet, 6-3way valve

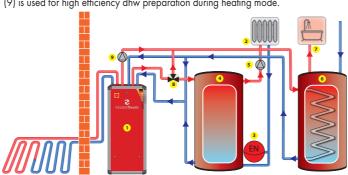
The heat pump [1] is directly connected to heating system. Heating water temperature is controlled according to a weather compensation curve. Production of hot water is a priority over the heating system by switching the 3wv (6) to the dhw tank (4). The heat pump increases the outlet water temperature until the requested dhw temperature is achieved, once achieved the heat pump switches the 3wv back to heating operation. This type of system is ideally suited to underfloor heating systems (ufh) but also systems with radiators with a large volume of heating water utilising our pAD room terminal. This solution limits the possibility of local zone control (independent loop ufh, thermostatic valves on radiators).



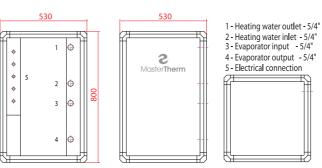
Heat pump connected to a buffer tank and 3wv to the domestic hot water cylinder (dhw) with desuperheater.

1-heat pump, 2-heating system, 3-expansion vessel, 4-buffer tank, 5-heating circulation pump, 6-dhw tank with coil, 7- dhw outlet, 8-3way valve, 9-desuper-heater circulation pump

Heat pump (1) connected to the heating system through a buffer tank (4) which has the function of thermal buffer and a low loss header. Heating water temperature is controlled according to a weather compensation curve. The flow to the heating system is controlled by the main heating circulation pump. Production of hot water is a priority over the heating system by switching the 3wv (8) to the dhw tank (6). The heat pump increases the outlet water temperature until the requested dhw temperature is achieved, once achieved the heat pump switches the 3wv back to heating operation. When dhw requested temperature is achieved the heat pump controller moves 3wv back to heating operation. The desuperheater (optional equipment) is a additional exchanger which harvests high potential energy from compressor outlet. An independent circuit with circulator pump (9) is used for high efficiency dhw preparation during heating mode.



### Dimensions and connections: AQ171



**STANDARD** eating circuits control (µPC) (pCO5) single-circuit heating systems multi-circuit Intended for heating systems Main heating circuit Yes 2 independent Secondary heating circuit No including mixing Room temperature In 1 zone In 2 zones SHW Yes Yes Up to 6 heating **Optional** No circuits

Model AQ221 to AQ601

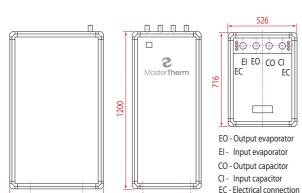
MasterTherm

Model AQ901

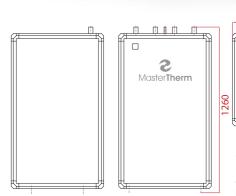


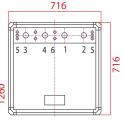
Dimensions and connections: AQ221 - AQ601:

Model AQ17I



## Dimensions and connections: AQ901





- 1 Heating water outlet 5/4"
- 2 Heating water inlet 5/4"
- 3 Evaporator input 5/4"
- 4 Evaporator output 5/4"
- 5 Electrical connection 6 - Desuperheater - 2x15mm