



EWMAR-NESS



# MaxTherm

## HEAT PUMPS

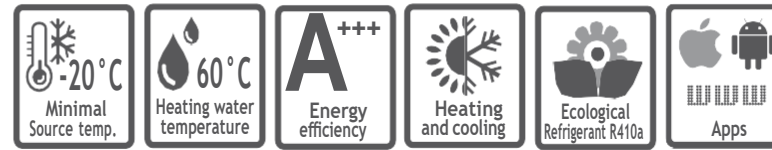
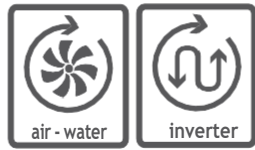
► *Catalogue*



2023

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# NEW BoxAir Inverter



model	A7W35		A7W35 60Hz <sup>1)</sup>		A2W35 60Hz		A-7W35 80Hz		A-15W35 90Hz		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 3ph/1ph	Weight (kg)	Leakage control of refrigerant circuit EP 517/2014	STANDARD (µPC) Price EUR	PLUS (pCO5) Price EUR
	Power (kW)	Heat loss Qz (kW)	Power (kW)	COP	Power (kW)	COP	Power (kW)	COP	Power (kW)	COP	Power (kW) <sup>3)</sup>	SCOP	ηs %	Class	Power (kW) <sup>3)</sup>	SCOP	ηs %	Class	3 phase units	1 phase units					
BoxAir 22I	2-7	do 5,5	4,9	4,7	3,6	3,5	3,6	2,8	3,2	2,6	5	4,18	172	A++	4	3,22	130	A++	16A"B"	20A"B"	1x230/1x230 V-	115	ne	on req.	on.req.
BoxAir 26I	3-9	do 8,5	8,1	4,8	5,8	3,5	5,5	2,8	5,1	2,5	7	4,39	168	A++	6	3,35	126	A++	20A"B"	20A"B"	1x230/1x230 V-	120	ne	on req.	on.req.
BoxAir 30I	5-12	do 10	8,65	5,2	6,25	3,8	6,0	2,9	5,3	2,4	8	4,48	187	A+++	7	3,44	141	A++	25A"B"	25A"B"	1x230/1x230 V-	155	ne	on req.	on.req.
BoxAir 37I	5-17	do 13	11,5	4,7	8,8	3,7	8,7	2,8	8,2	2,3	11	4,43	176	A+++	10	3,45	137	A++	25A"B"	25A"B"	3x400/1x230 V-	165	ne	on req.	on.req.
BoxAir 45I	7-22	do 16	15,3	4,7	10,6	3,5	11,1	2,75	9,8	2,2	13	4,37	172	A+++	12	3,47	136	A++	32A"B"	32A"B"	3x400/1x230 V-	165	ne	on req.	on.req.

- 1) Performance data according to ČSN EN 14 511, in accordance with the EHPA requirements for quality mark Q. A7W35 60 Hz - air 7 °C, water 35 °C, compressor frequency 60 Hz
- 2) Recommended value of el. 3x400V fuse, incl. Auxiliary integrated electric boiler. The units 22I, 26I and 30I can also be connected to a 1x230V network with 40A"B(22I), resp. 50A"B(26I, 30I).
- 3) Design power at outdoor temperature -10 °C according to ČSN EN 14 825.

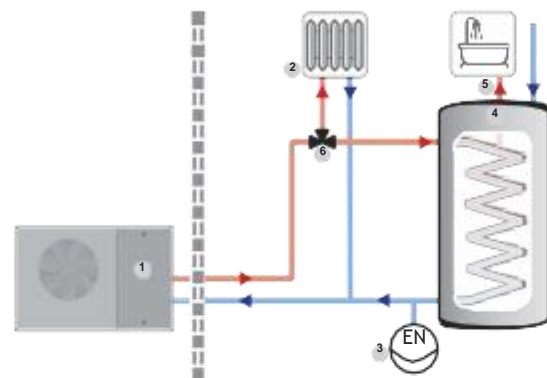
Options	Order code	Price EUR
Internet connection - WIFI, ethernet, only with touch screen pGDx	10ICON	on req.
Full cooling mode (for air/water HP)	10CH	on req.
Terminal pAD - temperature compensation for next heat. circuit	10PAD	on req.
Terminal pADh - temperature compensation for next heat. circuit with dew point watching (floor cooling)	10PADH	on req.
Extended control module (up to 6 heat. circuits+SHW, for PLUS v. only)	10EK	on req.
Energy meter 3x65A, display, MID	10EM65AMID	on req.
Heat pump colour on demand, RAL code	10CO	on req.
Silver colour RAL 9006		FOC

Standard equipment
✓ pGDx touch screen with room thermostat functionality
✓ New ultra-quiet fans with stepless speed control
✓ Equitherm control system MaR
✓ Built-in immersion heater and circulation pump
✓ Electronically controlled coolant injection

Features
▶ Outdoor compact - NEW DESIGN
▶ Use for heating, cooling and SHW heating
▶ The temperature of heating water to 60 °C
▶ Outdoor temperature range from +40 °C to -20 °C
▶ Easy installation without opening the cooling circuit
▶ Low demand on the volume of heating water in heating system
▶ Possibility to control up to 6 heating circuits and SHW heating
▶ Remote access and online service diagnostics
▶ Cascade connection support
▶ Minimum demands on interior spaces
▶ Zero noise level inside the building
▶ New condensate drain solution

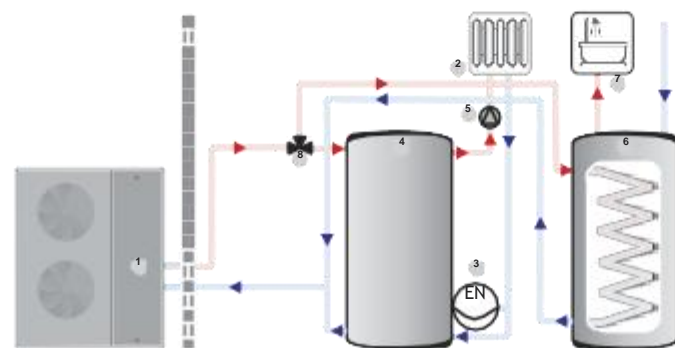
Heat pump connected directly to the heating system with 3wv for domestic hot water (dhw) preparation. 1-heat pump, 2-heating system, 3-expansion vessel, 4-dhw tank with coil, 5-dhw outlet, 6-3way valve

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).

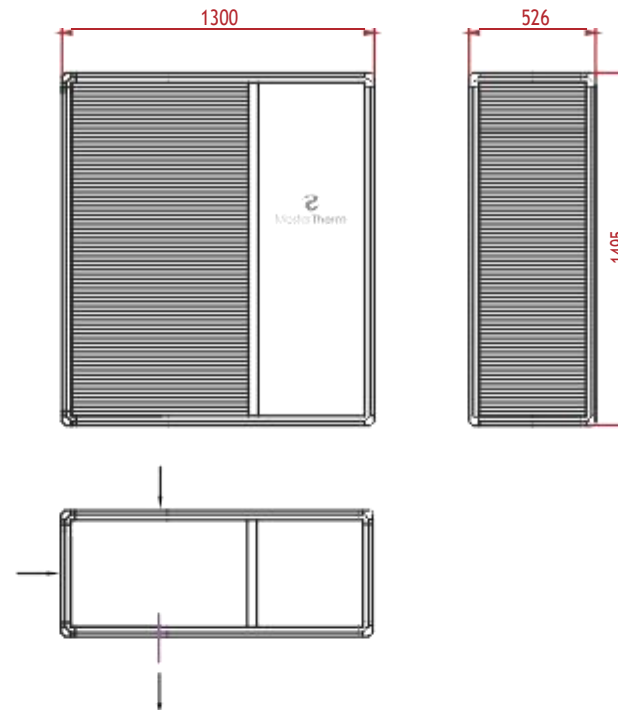


Heat pump connected to a buffer tank and 3wv to the domestic hot water cylinder (dhw) 1-heat pump, 2-heating system, 3-expansion vessel, 4-buffer tank, 5-heating circulator pump, 6-dhw tank with coil, 7-dhw outlet, 8-3way valve

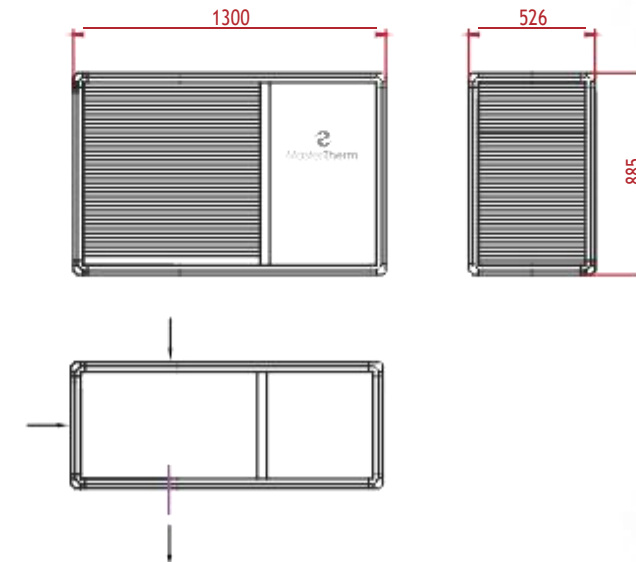
Heat pump (1) connected to the heating system through a buffer tank (4) which has the function of thermal buffer and a low loss header. Heating water temperature is controlled according to a weather compensation curve. The flow to the heating system is controlled by the main heating circulation pump. 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. This solution is ideally suited to systems with low heat buffering capacity and systems that require independent room zone control. Additionally, this type of system has the ability to integrate a secondary source of heat into the buffer tank (4) such as a wood stove with back boiler.



Dimensions and connections: BA30I and BA45I:



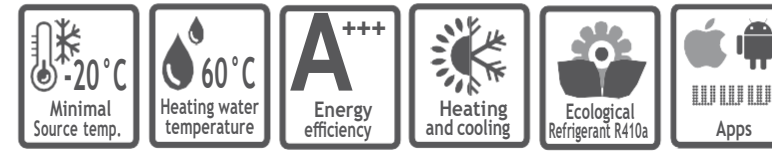
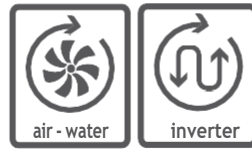
Dimensions and connections: BA22I and BA26I



Heating circuits control	STANDARD (µPC)	PLUS (pCO5)
Intended for	single-circuit heating systems	multi-circuit heating systems
Main heating circuit	Yes	Yes
Secondary heating circuit	-	2 independent including mixing
Room temperature	In 1 zone	In 2 zones
SHW	Yes	Yes
Optional	-	Up to 6 heating circuits



# BoxAir Inverter



model	A7W35	Heat loss Qz (kW)	A7W35 60Hz <sup>1)</sup>		A2W35 60Hz		A-7W35 80Hz		A-15W35 90Hz		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 3ph/1ph	Weight (kg)	Leakage control of refrigerant circuit EP 517/2014	STANDARD (µPC)	PLUS (pCO5)
	Power (kW)		Power (kW)	COP	Power (kW)	COP	Power (kW)	COP	Power (kW)	COP	Power (kW) <sup>3)</sup>	SCOP	ηs %	Class	Power (kW) <sup>3)</sup>	SCOP	ηs %	Class	3 phase units	1 phase units				Price EUR	Price EUR
BoxAir 221	2-7	do 5,5	4,9	4,7	3,6	3,5	3,6	2,8	3,2	2,6	5	4,18	172	A++	4	3,22	130	A++	16A"B"	20A"B"	1x230/1x230 V-	115	ne	on req.	on req.
BoxAir 261	3-9	do 8,5	8,1	4,8	5,8	3,5	5,5	2,8	5,1	2,5	7	4,39	168	A++	6	3,35	126	A++	20A"B"	20A"B"	1x230/1x230 V-	120	ne	on req.	on req.
BoxAir 301	5-12	do 10	8,65	5,2	6,25	3,8	6,0	2,9	5,3	2,4	8	4,48	187	A+++	7	3,44	141	A++	25A"B"	25A"B"	1x230/1x230 V-	155	ne	on req.	on req.
BoxAir 371	5-17	do 13	11,5	4,7	8,8	3,7	8,7	2,8	8,2	2,3	11	4,43	176	A+++	10	3,45	137	A++	25A"B"	25A"B"	3x400/1x230 V-	165	ne	on req.	on req.
BoxAir 451	7-22	do 16	15,3	4,7	10,6	3,5	11,1	2,75	9,8	2,2	13	4,37	172	A+++	12	3,47	136	A++	32A"B"	32A"B"	3x400/1x230 V-	165	ne	on req.	on req.

<sup>1)</sup> Performance data according to ČSN EN 14 511, in accordance with the EHPA requirements for quality mark Q. A7W35 60 Hz - air 7 °C, water 35 °C, compressor frequency 60 Hz

<sup>2)</sup> Recommended value of el. 3x400V fuse, incl. Auxiliary integrated electric boiler. The units 221, 261 and 301 can also be connected to a 1x230V network with 40A"B" (221), resp. 50A"B" (261, 301).

<sup>3)</sup> Design power at outdoor temperature -10 °C according to ČSN EN 14 825.

Options	Order code	Price EUR
Internet connection - WIFI, ethernet, only with touch screen pGDx	10ICON	on req.
Full cooling mode (for air/water HP)	10CH	on req.
Terminal pAD - temperature compensation for next heat. circuit	10PAD	on req.
Terminal pADh - temperature compensation for next heat. circuit with dew point watching (floor cooling)	10PADH	on req.
Extended control module (up to 6 heat. circuits+SHW, for PLUS v. only)	10EK	on req.
Energy meter 3x65A, display, MID	10EM65AMID	on req.
Heat pump colour on demand, RAL code	10CO	on req.
Silver colour RAL 9006		FOC
RAL 9006		

## Standard equipment

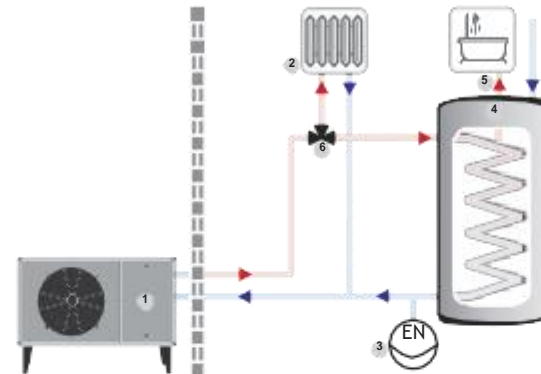
- ✓ pGDx touch screen with room thermostat functionality
- ✓ New ultra-quiet fans with stepless speed control
- ✓ Equitherm control system MaR
- ✓ Built-in immersion heater and circulation pump
- ✓ Electronically controlled coolant injection

## Features

- ▶ Outdoor compact
- ▶ Use for heating, cooling and SHW heating
- ▶ The temperature of heating water to 60 °C
- ▶ Outdoor temperature range from +40 °C to -20 °C
- ▶ Easy installation without opening the cooling circuit
- ▶ Low demand on the volume of heating water in heating system
- ▶ Possibility to control up to 6 heating circuits and SHW heating
- ▶ Remote access and online service diagnostics
- ▶ Cascade connection support
- ▶ Minimum demands on interior spaces
- ▶ Zero noise level inside the building
- ▶ New condensate drain solution

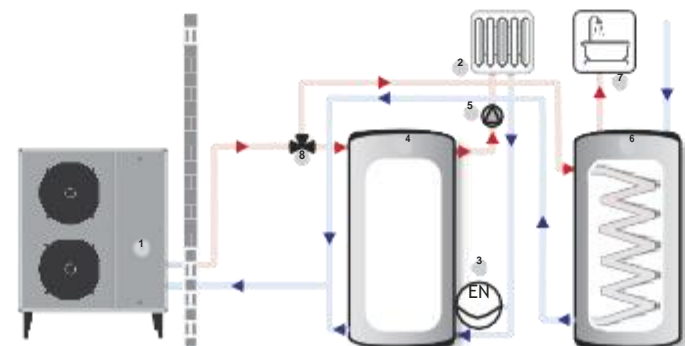
Heat pump connected directly to the heating system with 3wv for domestic hot water (dhw) preparation. 1-heat pump, 2-heating system, 3-expansion vessel, 4-dhw tank with coil, 5-dhw outlet, 6-3way valve

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).

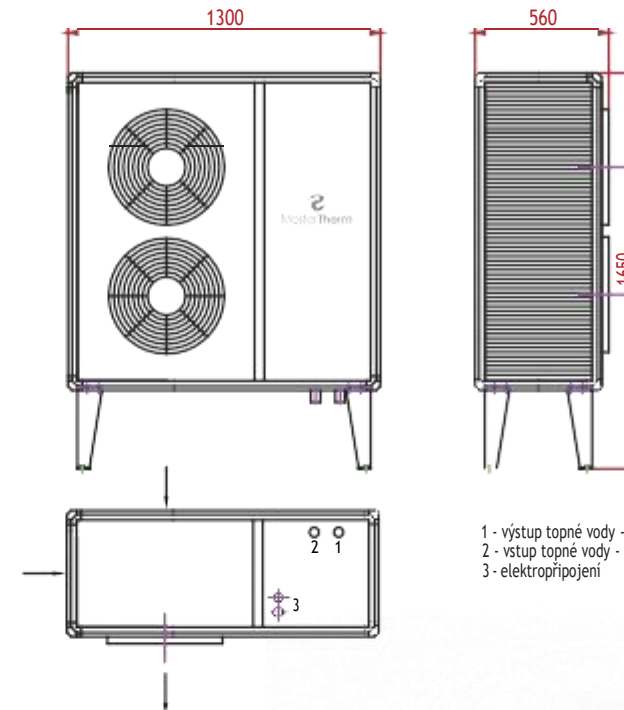


Heat pump connected to a buffer tank and 3wv to the domestic hot water cylinder (dhw) 1-heat pump, 2-heating system, 3-expansion vessel, 4-buffer tank, 5-heating circulator pump, 6-dhw tank with coil, 7- dhw outlet, 8-3way valve

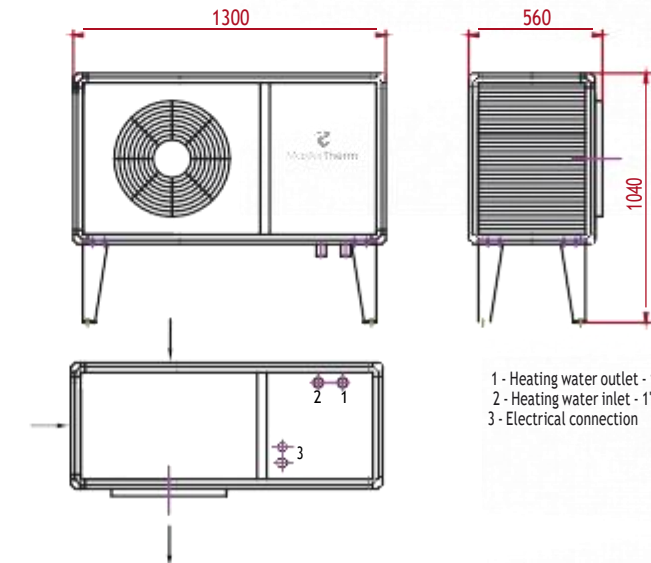
Heat pump (1) connected to the heating system through a buffer tank (4) which has the function of thermal buffer and a low loss header. Heating water temperature is controlled according to a weather compensation curve. The flow to the heating system is controlled by the main heating circulation pump. 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. This solution is ideally suited to systems with low heat buffering capacity and systems that require independent room zone control. Additionally, this type of system has the ability to integrate a secondary source of heat into the buffer tank (4) such as a wood stove with back boiler.



## Dimensions and connections: BA301 and BA451:



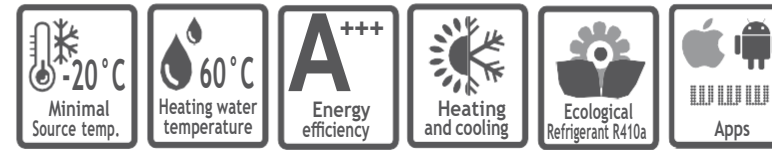
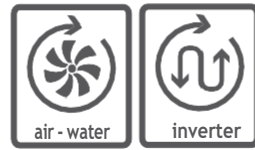
## Dimensions and connections: BA221 and BA261



Heating circuits control	STANDARD (µPC)	PLUS (pCO5)
Intended for	single-circuit heating systems	multi-circuit heating systems
Main heating circuit	Yes	Yes
Secondary heating circuit	-	2 independent including mixing
Room temperature	In 1 zone	In 2 zones
SHW	Yes	Yes
Optional	-	Up to 6 heating circuits



# NEW BoxAir Inverter Split



Model	A7W35		A7W35 60Hz <sup>1)</sup>		A2W35 60Hz		A-7W35 80Hz		A-15W35 90Hz		Seasonal heating energy efficiency - low-temperature operation 35 °C				Seasonal heating energy efficiency - medium-temperature operation 55 °C				Circuit breake <sup>2)</sup>		Compressor, supply voltage 3ph/1ph	Size h x w x d (mm)	Weight (kg)	Leakage control of refrigerant circuit EP 517/2014	Price EUR
	Power (kW)	Heat loss Qz (kW)	Power (kW)	COP	Power (kW)	COP	Power (kW)	COP	Power (kW)	COP	Power (kW) <sup>3)</sup>	SCOP	ηs %	Class	Power (kW) <sup>3)</sup>	SCOP	ηs %	třída	3 phase units	1 phase units					
BoxAir-22IS	2-7	do 5,5	4,9	4,7	3,6	3,5	3,6	2,8	3,2	2,6	5	4,18	172	A++	4	3,22	130	A++	16A"B"	20A"B"	1x230/1x230 V-	1200x526x716	160	no	on req.
BoxAir-26IS	3-9	do 8,5	8,1	4,6	5,6	3,5	5,5	2,8	5,1	2,4	7	4,39	168	A++	6	3,35	126	A++	20A"B"	20A"B"	1x230/1x230 V-	1200x526x716	165	no	on req.
BoxAir-37IS	5-17	do 13	11,5	4,7	8,8	3,7	+8,7	2,8	8,2	2,3	11	4,43	176	A+++	10	3,45	137	A++	25A"B"		3x400 V-	1200x526x716	165	no	on req.
BoxAir-45IS	7-22	do 16	15,3	4,7	10,6	3,5	11,1	2,75	9,8	2,2	13	4,37	172	A+++	12	3,47	136	A++	32A"B"		3x400 V-	1200x526x716	170	no	on req.

- Performance data according to ČSN EN 14511, in accordance with the EHPA requirements for quality mark Q. A7W35 60Hz - air 7 °C, water 35 °C, compressor frequency 60 Hz
- Recommended value of el. 3x400V fuse, incl. Auxiliary integrated electric boiler. The units can also be connected to a 1x230V network with 40A"B"(22I), resp. 50A"B"(26I).
- Design power at outdoor temperature -10 °C according to ČSN EN 14825.

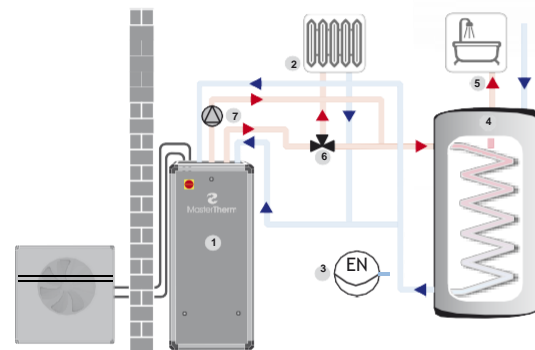
Options	Order code	Price EUR
Internet connection - WIFI, ethernet, only with touch screen pGDx	10ICON	on req.
Full cooling mode (for air/water HP)	10CH	on req.
Desuperheater for highly efficient SHW heating	10DESUP	on req.
Terminal pAD - temperature compensation for next heat. circuit	10PAD	on req.
Terminal pADh - temperature compensation for next heat. circuit with dew point watching (floor cooling)	10PADH	on req.
Extended control module (up to 6 heat. circuits+SHW, for PLUS v. only)	10EK	on req.
Energy meter 3x65A, display, MID	10EM65AMID	on req.
Heat pump colour on demand, RAL code - external or internal unit	10CO	on req.
Silver colour RAL 9006		FOC
Console for hanging the outdoor units on the wall		FOC
RAL 9006		

- ### Standard equipment
- ✓ pGDx touch screen with room thermostat functionality
  - ✓ Variable output Inverter Compressor
  - ✓ New ultra-quiet fans with stepless speed control
  - ✓ Equitherm control system MaR
  - ✓ Built-in immersion heater and circulation pump
  - ✓ Electronically controlled coolant injection

- ### Features
- ▶ Split construction - NEW DESIGN
  - ▶ Use for heating, cooling and SHW heating
  - ▶ The temperature of heating water to 60 °C
  - ▶ Outdoor temperature range from +40 °C to -20 °C
  - ▶ Distance between indoor and outdoor unit up to 15 m
  - ▶ Low demand on the volume of heating water in heating system
  - ▶ Possibility to control up to 6 heating circuits and SHW heating
  - ▶ Remote access and online service diagnostics
  - ▶ Cascade connection support
  - ▶ Outdoor unit without compressor - extremely quiet
  - ▶ New condensate drain solution

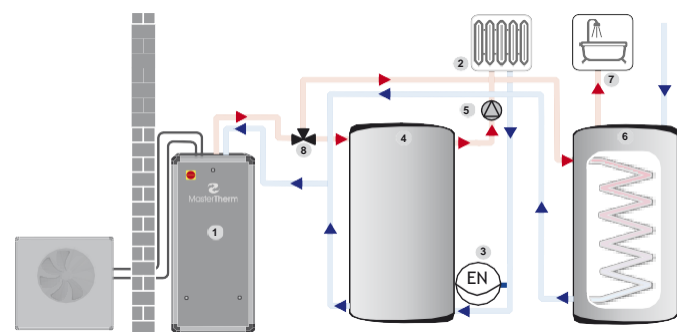
Heat pump connected directly to the heating system with 3wv for domestic hot water (dhw) preparation. 1-heat pump, 2-heating system, 3-expansion vessel, 4-dhw tank with coil, 5-dhw outlet, 6-3way valve, 7-desuperheater circulator pump

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. The desuperheater (optional equipment) is an 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. This solution limits the possibility of local zone control (independent loop ufh, thermostatic valves on radiators).

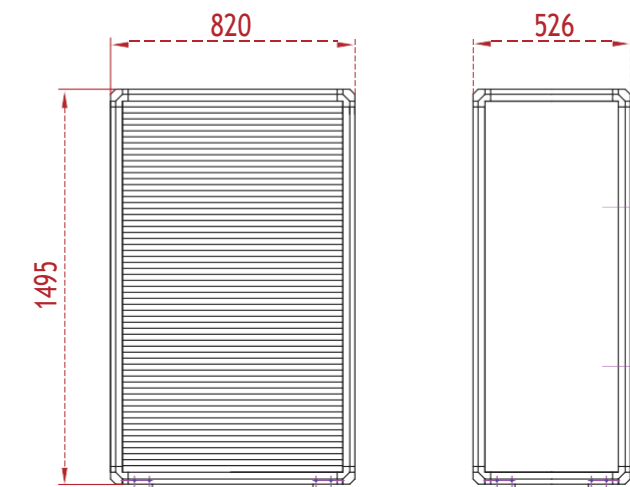


Heat pump connected to a buffer tank and 3wv to the domestic hot water cylinder (dhw) 1-heat pump, 2-heating system, 3-expansion vessel, 4-buffer tank, 5-heating circulator pump, 6-dhw tank with coil, 7-dhw outlet, 8-3way valve

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). The desuperheater (optional equipment) is an additional exchanger which harvests high potential energy from compressor outlet. An independent circuit with circulator



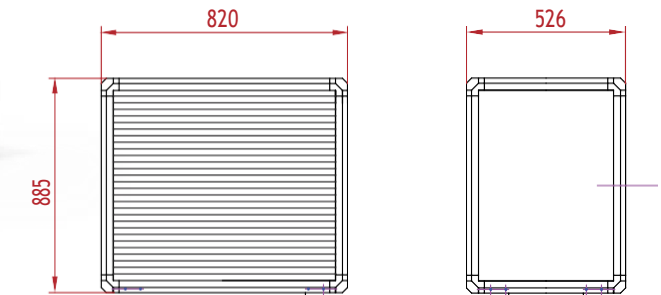
External unit BA37IS and 45IS:



1 - Refrigerant  
2 - Power supply

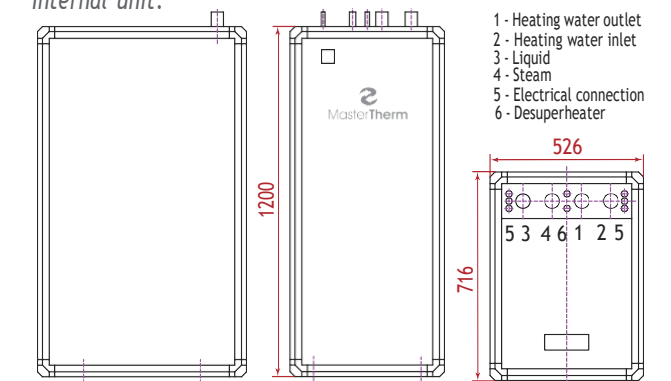
Heating circuits control	PLUS (pCO5)
Intended for	multi-circuit heating systems
Main heating circuit	Yes
Secondary heating circuit	2 independent including mixing
Room temperature	In 2 zones
SHW	Yes

External unit BA22IS and 26IS:



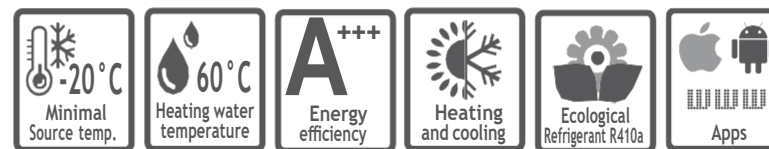
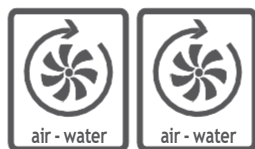
1 - Refrigerant  
2 - Power supply

Internal unit:



1 - Heating water outlet  
2 - Heating water inlet  
3 - Liquid  
4 - Steam  
5 - Electrical connection  
6 - Desuperheater

# NEW BoxAir Inverter Split Combi



Model	A7W35	Heat loss Qz (kW)	A7W35 60Hz <sup>1)</sup>		A2W35 60Hz		A-7W35 80Hz		A-15W35 90Hz		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 3ph/1ph	Size h x w x d (mm)	Weight (kg)	Leakage control of refrigerant circuit EP 517/2014	Price EUR
	Power (kW)		Power (kW)	COP	Power (kW)	COP	Power (kW)	COP	Power (kW)	COP	Power (kW) <sup>3)</sup>	SCOP	ηs %	Class	Power (kW) <sup>3)</sup>	SCOP	ηs %	Class	3 phase units	1 phase units					
BoxAir-22ISC	2-7	do 5,5	4,9	4,7	3,6	3,5	3,6	2,8	3,2	2,6	5	4,18	172	A++	4	3,22	130	A++	16A"B"	20A"B"	1x230/1x230 V-	1850x690x650	260	no	on req.
BoxAir-26ISC	3-9	do 8,5	8,1	4,6	5,6	3,5	5,5	2,8	5,1	2,4	7	4,39	168	A++	6	3,35	126	A++	20A"B"	20A"B"	1x230/1x230 V-	1850x690x650	265	no	on req.
BoxAir-37ISC	5-17	do 13	11,5	4,7	8,8	3,7	8,7	2,8	8,2	2,3	11	4,43	176	A+++	10	3,45	137	A++	25A"B"		3x400 V-	1850x690x650	275	no	on req.

1) Performance data according to ČSN EN 14 511, in accordance with the EHPA requirements for quality mark Q. A7W35 60Hz - air 7 °C, water 35 °C, compressor frequency 60 Hz  
 2) Recommended value of el. 3x400V fuse, incl. Auxiliary integrated electric boiler. The units can also be connected to a 1x230V network with 40A"B" (22I), resp. 50A"B" (26I).  
 3) Design power at outdoor temperature -10 °C according to ČSN EN 14 825.

Options	Order code	Price EUR
Internet connection - WIFI, ethernet, only with touch screen pGDx	10ICON	on req.
Full cooling mode (for air/water HP)	10CH	on req.
Desuperheater for highly efficient SHW heating	10DESUP	on req.
Terminal pAD - temperature compensation for next heat. circuit	10PAD	on req.
Terminal pADh - temperature compensation for next heat. circuit with dew point watching (floor cooling)	10PADH	on req.
Extended control module (up to 6 heat. circuits+SHW, for PLUS v. only)	10EK	on req.
Energy meter 3x65A, display, MID	10EM65AMID	on req.
Heat pump colour on demand, RAL code	10CO	on req.
Silver colour RAL 9006		FOC
Console for hanging the outdoor units on the wall		FOC
RAL 9006		

### Standard equipment

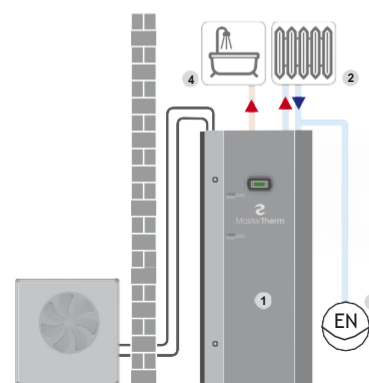
- ✓ Stainless steel tray with a capacity of 170 l with integrated solar exchanger
- ✓ pGDx touch screen with room thermostat functionality
- ✓ Variable output Inverter Compressor
- ✓ New ultra-quiet fans with stepless speed control
- ✓ Equitherm control system MaR
- ✓ Built-in immersion heater and circulation pump
- ✓ Electronically controlled coolant injection

### Features

- ▶ Fully equipped machinery room on area 0,4 m<sup>2</sup> only
- ▶ Split construction - NEW DESIGN
- ▶ Use for heating, cooling and SHW heating
- ▶ The temperature of heating water to 60 °C
- ▶ Outdoor temperature range from +40 °C to -20 °C
- ▶ Distance between indoor and outdoor unit up to 15 m
- ▶ Low demand on the volume of heating water in heating system
- ▶ Possibility to control up to 6 heating circuits and SHW heating
- ▶ Remote access and online service diagnostics
- ▶ Cascade connection support
- ▶ Outdoor unit without compressor - extremely quiet
- ▶ New condensate drain solution

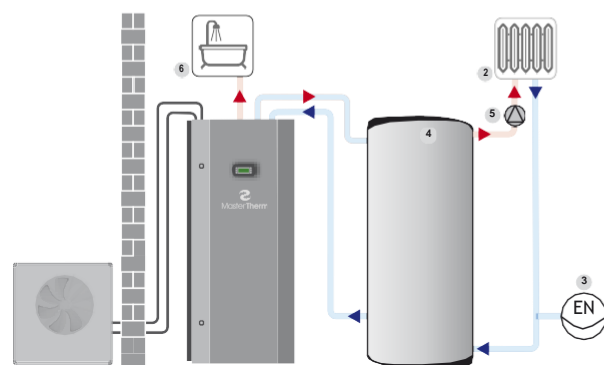
### Heat pump connected directly to the heating system with in-built 170l dhw cylinder

**1-heat pump, 2-heating system, 3-expansion vessel, 7-dhw outlet**  
 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 and is prepared via the internal cylinder. 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 with in-built 170l dhw cylinder

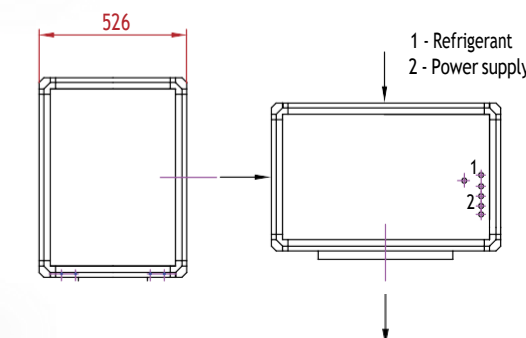
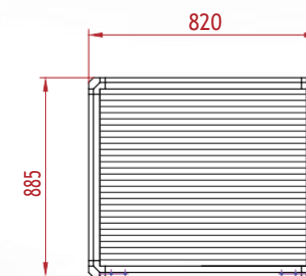
**1-heat pump, 2-heating system, 3-expansion vessel, 4- buffer tank, 5- heating circulation pump, 7-dhw outlet**  
 Heat pump (1) connected to the heating system through a buffer tank (4) which has the function of thermal buffer and a low loss header. Heating water temperature is controlled according 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 and is prepared via the internal cylinder. This solution is ideally suited to systems with low heat buffering capacity and systems that require independent room zone control. Additionally, this type of system has the ability to integrate a secondary source of heat into the buffer tank (4) such as a wood stove with back boiler.



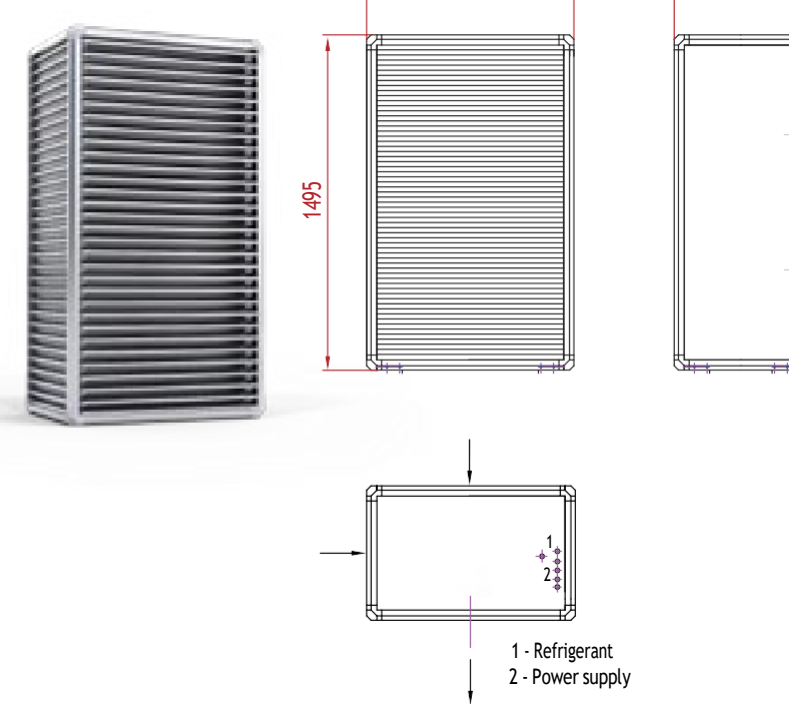
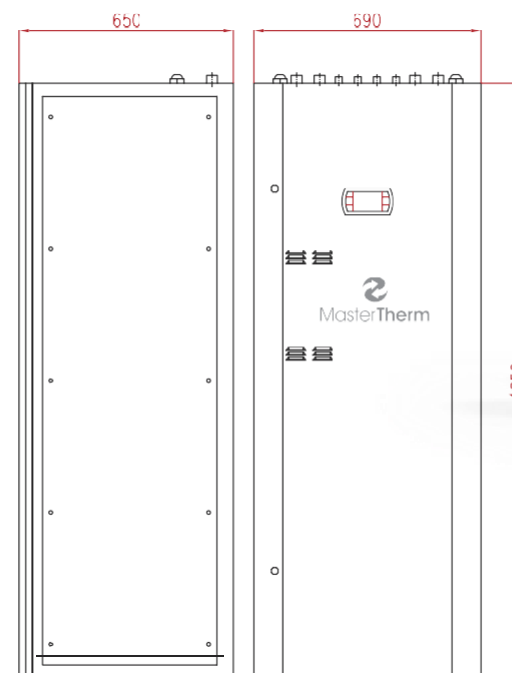
Internal unit:



External unit: BA22ISC and BA26ISC

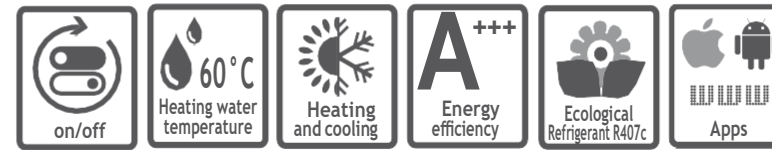
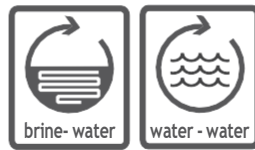


External unit: BA37ISC



Heating circuits control	PLUS (pCO5)
Intended for	multi-circuit heating systems
Main heating circuit	Yes
Secondary heating circuit	2 independent including mixing
Room temperature	In 2 zones
SHW	Yes

# AquaMaster



Model	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 3ph/1ph	Weight (kg)	Leakage control of refrigerant circuit EP 517/2014	STANDARD (µPC) Price EUR	PLUS (pCO5) Price EUR
	Power (kW)	COP	Power (kW)	COP	Power (kW) <sup>3)</sup>	SCOP	ηs %	Class	Power (kW) <sup>3)</sup>	SCOP	ηs %	Class	3 phase units	1 phase units					
AquaMaster_22Z	7,8	4,5	10,4	5,9	8	4,50	172	A++	7	3,17	117	A+	3x 9A"C"	20A"C"	3x400/1x230 V-	140	no	on req.	on req.
AquaMaster_26Z	10,1	4,4	13,3	5,7	10	4,34	166	A++	9	3,11	116	A+	3x 13A"C"	25A"C"	3x400/1x230 V-	160	no	on req.	on req.
AquaMaster_30Z	11,4	4,4	14,9	5,5	11	4,29	164	A++	11	3,10	116	A+	3x 13A"C"	32A"C"	3x400/1x230 V-	165	no	on req.	on req.
AquaMaster_37Z	14,1	4,3	18,4	5,4	14	4,46	170	A++	13	3,16	118	A+	3x 16A"C"	32A"C"	3x400/1x230 V-	180	no	on req.	on req.
AquaMaster_45Z	17,2	4,4	22,5	5,5	17	4,61	176	A++	16	3,19	120	A+	3x 16A"C"	-	3x400 V-	190	no	on req.	on req.
AquaMaster_60Z	23,1	4,2	31,2	5,4	23	4,27	163	A++	22	3,14	118	A+	3x 25A"C"	-	3x400 V-	245	no	-	on req.
AquaMaster_75Z	28,2	4,1	37,7	5,2	28	4,25	162	A++	26	3,11	116	A+	3x 25A"C"	-	3x400 V-	255	no	-	on req.
AquaMaster_90Z	33,2	4,3	45,0	5,4	33	4,42	169	A++	30	3,10	116	A+	3x 32A"C"	-	3x400 V-	275	no	-	on req.
AquaMaster_120.2Z	46,8	4,2	64,6	5,6	47	4,51	172	A++	43	3,22	121	A+	3x 50A"C"	-	3x400 V-	420	yes	-	on req.
AquaMaster_150.2Z	57,7	4,2	79,3	5,6	57	4,38	167	A++	52	3,19	119	A+	3x 50A"C"	-	3x400 V-	420	yes	-	on req.
AquaMaster_180.2Z	64,4	4,1	90,9	5,5	64	4,50	172	A++	61	3,35	126	A++	3x 64A"C"	-	3x400 V-	420	yes	-	on req.
AquaMaster_240.2Z	91,5	4,7	121,6	6,1	93	5,44	210	A+++	75	3,81	145	A++	3x 63A"C"	-	3x400 V-	420	yes	-	on req.

1) Performance data according to ČSN EN 14 511. B0W35 - antifreeze mixture 0 °C, water 35 °C.  
 2) Recommended value of el. 3x 400 V fuse as standard, without auxiliary electric boiler  
 3) Design power at outdoor temperature -10 °C according to ČSN EN 14 825.

Options	Order code	Price EUR
Internet connection - WIFI, ethernet, only with touch screen pGDx	10ICON	on req.
Full cooling - reversing (AQ22Z - AQ90Z)	1AQZR	on req.
Passive cooling module (AQ22Z - AQ37Z)	10PC	on req.
Components set for external passive cooling (AQ45Z - 90Z)	10PCEXT	on req.
Desuperheater for highly efficient SHW heating	10DESUP	on req.
Terminal pAD - temperature compensation for next heat. circuit	10PAD	on req.
Terminal pADh - temperature compensation for next heat. circuit with dew point watching (floor cooling)	10PADH	on req.
Three phase relay	10SF	on req.
Softstart - prices are in accessories catalogue		
Extended control module (up to 6 heating circuits + SHW, for PLUS v. only)	10EK	on req.
Energy meter 3x65A, display, MID	10EM65AMID	on req.
AQ electric heater 4,5kW/6kW/7,5kW	10EKOT45/60/75	on req.
Water to water version	10AQWW	FOC,-
Silver colour RAL 9006		FOC,-

### Standard equipment

- ✓ pGDx touch screen with room thermostat functionality
- ✓ Electronic circulation pumps on both sides (except AQ240.2Z)
- ✓ Equitherm control system MaR
- ✓ Built-in electrical switchboard with protection of all components
- ✓ Electronically controlled coolant injection

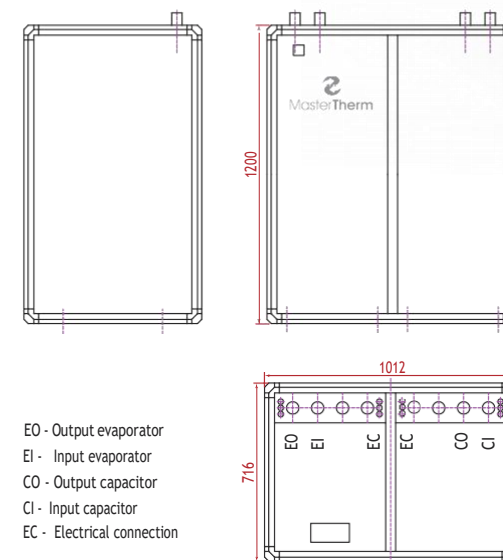
### Features

- ▶ Use for heating, cooling and SHW heating
- ▶ Active or passive cooling or combination thereof
- ▶ The temperature of heating water to 60 °C
- ▶ Very quiet operation
- ▶ Possibility to control up to 6 heating circuits and SHW heating
- ▶ Water/water construction on request
- ▶ Connection to vertical or horizontal ground collector
- ▶ Cascade connection support
- ▶ Remote access and online service diagnostics

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-desuperheater 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 an 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.

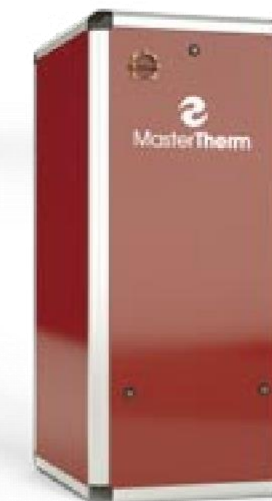


Dimensions and connections 120.2Z - 180.2Z<sup>4)</sup>:

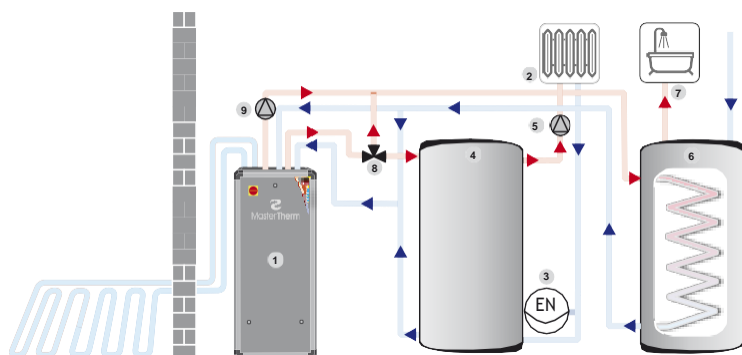
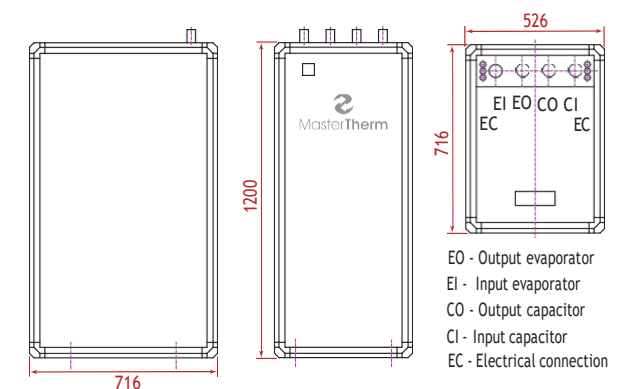


<sup>4)</sup> AQ240.2Z - dimensions identical, connection rear 2 "see technical data sheet

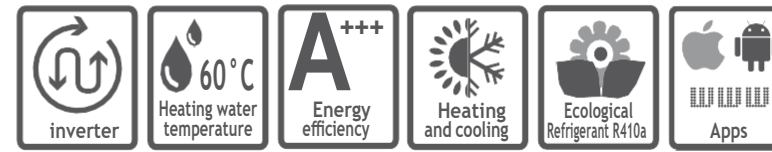
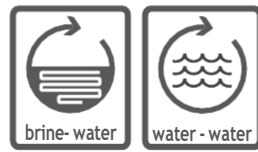
Heating circuits control	STANDARD (µPC)	PLUS (pCO5)
Intended for	single-circuit heating systems	multi-circuit heating systems
Main heating circuit	Yes	Yes
Secondary heating circuit	-	2 independent including mixing
Room temperature	In 1 zone	In 2 zones
SHW	Yes	Yes
Optional	-	Up to 6 heating circuits



Dimensions and connections: 22Z - 90Z



# AquaMaster Inverter



Model	BOW35		BOW35 <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 3ph/1ph	hmotnost (kg)	Leakage control of refrigerant circuit EP 517/2014	STANDARD (µPC) Price EUR	PLUS (pCO5) Price EUR
	Power kW	Power kW	COP	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					
AquaMaster Inverter-17l	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 req.	-
AquaMaster Inverter-22l	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 req.	on req.
AquaMaster Inverter-26l	3-9	7,6	4,5	10,2	6,0	9	4,83	185	A+++	8	3,74	141	A++	1x 20 A"B"	20A"B"	1x230/1x230 V-	160	no	on req.	on req.
AquaMaster Inverter-30l	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 req.	on req.
AquaMaster Inverter-37l	5-15	10,5	4,7	14,2	6,3	15	5,00	193	A+++	14	3,94	151	A+++	3x 20 A"B"	32A"B"	3x400/1x230 V-	165	no	on req.	on req.
AquaMaster Inverter-45l	7-22	14,0	4,6	19,2	6,3	21	4,80	184	A+++	19	3,70	151	A+++	3x 20 A"B"	32A"B"	3x400/1x230 V-	170	no	on req.	on req.
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 req.
AquaMaster Inverter-90l	10-48	31,3 <sup>3)</sup>	4,6	41,2 <sup>3)</sup>	5,9	44	4,87	187	A+++	42	3,87	150	A+++	3x 40 A"B"	-	3x400 V-	200	no	-	on req.

1) Performance data according to ČSN EN 14511, in accordance with the EHPA requirements for quality mark Q. BOW35 60 Hz - antifreeze mixture 0 °C, water 35 °C, compressor frequency 60 Hz | 2) Recommended value of el. Safety in basic equipment, without auxiliary electric boiler | 3) Data for 90l at 90 Hz | 4) Design power at outdoor temperature -10 °C according to ČSN EN 14 825.

Options	Order code	Price EUR
Internet connection - WIFI, ethernet, only with touch screen pGDx	10ICON	on req.
Full cooling - reversing (AQ22Z - AQ90Z)	1AQZR	on req.
Passive cooling module (AQ22Z - AQ37Z)	10PC	on req.
Components set for external passive cooling (AQ45Z - 90Z)	10PCEXT	on req.
Desuperheater for highly efficient SHW heating)	10DESUP	on req.
Terminal pAD - temperature compensation for next heat. circuit	10PAD	on req.
Terminal pADh - temperature compensation for next heat. circuit with dew point watching (floor cooling)	10PADH	on req.
Extended control module (up to 6 heating circuits + SHW, for PLUS v. only)	10EK	on req.
Energy meter 1x25A, display, MID (AQ17l - AQ30l)	10EM25AMID	on req.
Energy meter 3x65A, display, MID	10EM65AMID	on req.
AQ electric heater 4,5kW/6kW/7,5kW	10EKOT45/60/75	on req.
Water to water version	10AQWW	FOC,-
Silver colour RAL 9006		FOC,-

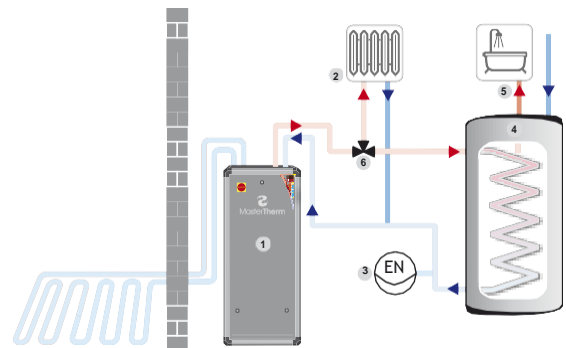
### Standard equipment

- ✓ pGDx touch screen with room thermostat functionality
- ✓ Variable output Inverter Compressor
- ✓ Electronic circulation pumps with continuous speed control
- ✓ Equitherm control system MaR
- ✓ Built-in electrical switchboard with protection of all components
- ✓ Electronically controlled coolant injection

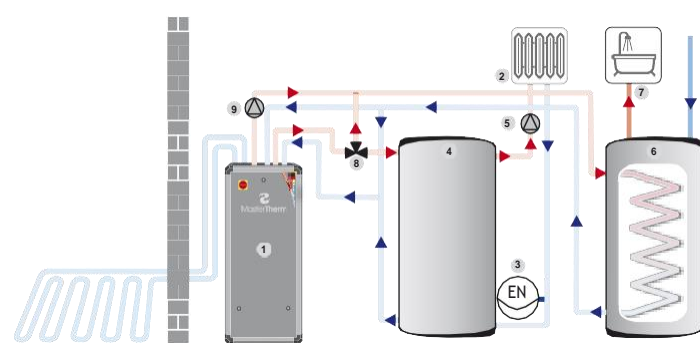
### Features

- ▶ Use for heating, cooling and SHW heating
- ▶ Active or passive cooling or combination thereof
- ▶ Continuous flow control of primary circuit
- ▶ The temperature of heating water to 64 °C
- ▶ Very quiet operation
- ▶ Possibility to control up to 6 heating circuits and SHW heating
- ▶ Water/water construction on request
- ▶ Connection to vertical or horizontal ground collector
- ▶ Cascade connection support
- ▶ Remote access and online service diagnostics

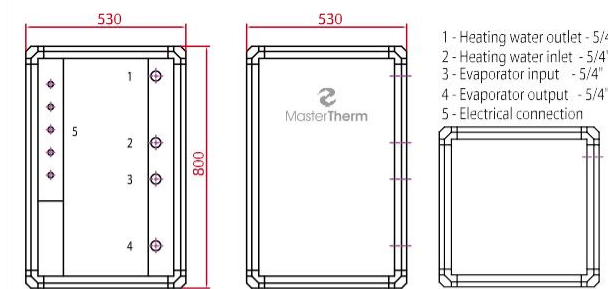
Heat pump connected directly to the heating system with 3wv for domestic hot water (dhw) preparation. 1-heat pump, 2-heating system, 3-expansion vessel, 4-dhw tank with coil, 5-dhw outlet, 6-3way valve. The heat pump (1) is directly connected to heating system. Heating water temperature is controlled 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-desuperheater 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 an 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: AQ17l



Model AQ17l

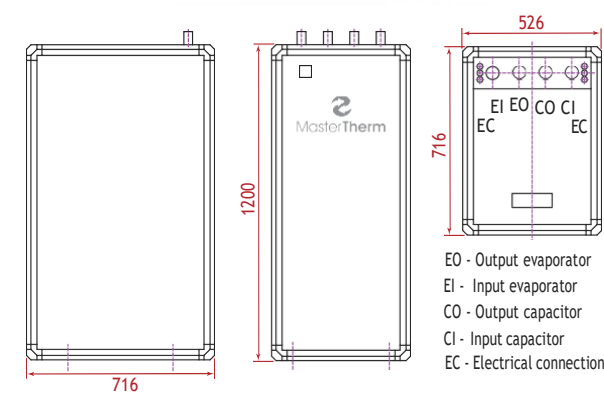


Model AQ22l to AQ60l

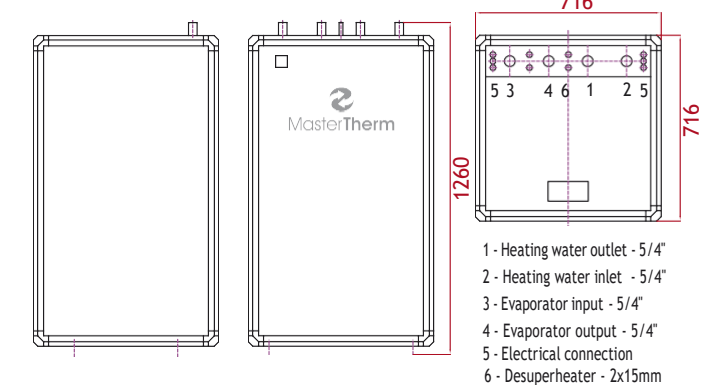


Model AQ90l

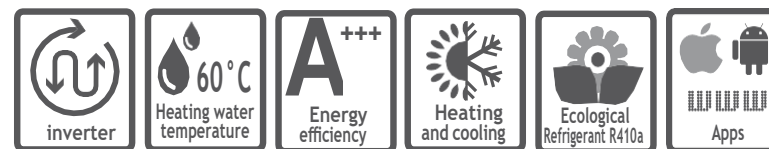
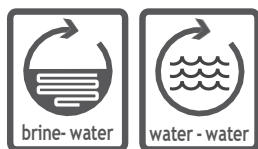
### Dimensions and connections: AQ22l - AQ60l:



### Dimensions and connections: AQ90l



# AquaMaster Inverter Combi



Model	BOW35	BOW35 <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 3ph/1ph	Weight (kg)	Leakage control of refrigerant circuit EP 517/2014	STANDARD (µPC) Price EUR	PLUS (pCO5) Price EUR
	Power kW	Power kW	COP	Power kW <sup>3)</sup>	COP	Power kW	SCOP	ηs %	Class	Power kW <sup>3)</sup>	SCOP	ηs %	Class	3 phase units	1 phase units					
AquaMaster Inverter 22IC	2-7	4,4	4,5	5,8	5,9	7	4,61	177	A+++	6	3,53	133	A++	1x20 A"B"	20A"B"	1x230/1x230 V-	270	no	on req.	on req.
AquaMaster Inverter 26IC	3-9	7,6	4,5	10,2	6,0	9	4,63	185	A+++	8	3,74	141	A++	1x20 A"B"	20A"B"	1x230/1x230 V-	270	no	on req.	on req.
AquaMaster Inverter 30IC	4-12	7,9	4,6	10,3	6,1	11	4,85	186	A+++	11	3,78	143	A++	1x25 A"B"	20A"B"	1x230/1x230 V-	275	no	on req.	on req.
AquaMaster Inverter 37IC	5-15	10,5	4,7	14,2	6,3	15	5,00	193	A+++	14	3,94	151	A+++	3x20 A"B"	25A"B"	1x230/1x230 V-	280	no	on req.	on req.

- 1) Performance data according to ČSN EN 14 511, in accordance with the EHPA requirements for quality mark Q. BOW35 60Hz - antifreeze mixture 0 °C, water 35 °C, compressor frequency 60Hz  
 2) Recommended value of el. 3x400V fuse with basic equipment incl. Electric boiler.  
 The 22IC and 30 ICs can also be connected to a 1x230V grid with 40A "B" (22IC) 50A "B" (30IC)  
 3) Design power at outdoor temperature -10 °C according to ČSN EN 14 825.

Options	Order code	Price EUR
Internet connection - WIFI, ethernet, only with touch screen pGDx	10ICON	on req.
Passive cooling module (AQ22Z - AQ37Z)	10PC	on req.
Terminal pAD - temperature compensation for next heat. circuit	10PAD	on req.
Terminal pADh - temperature compensation for next heat. circuit with dew point watching (floor cooling)	10PADH	on req.
Extended control module (up to 6 heating circuits + SHW, for PLUS v. only)	10EK	on req.
Energy meter 1x25A, display, MID (AQ171 - AQ301)	10EM25AMID	on req.
Energy meter 3x65A, display, MID	10EM65AMID	on req.
AQ electric heater 4,5kW/6kW/7,5kW	10EKOT45/60/75	on req.
Water to water version	10AQWW	on req.
Silver colour RAL 9006		FOC,-
RAL 9006		

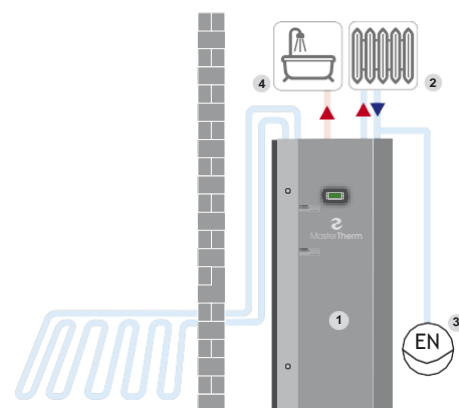
- ### Standard equipment
- ✓ Stainless steel tray with a capacity of 170 l with integrated solar exchanger
  - ✓ pGDx touch screen with room thermostat functionality
  - ✓ Special compressor with variable speed control
  - ✓ Electronic circulation pumps with continuous speed control
  - ✓ Equitherm control system MaR
  - ✓ Built-in electrical switchboard with protection of all components
  - ✓ Electronically controlled coolant injection

- ### Features
- ▶ Fully equipped machinery room on area 0,4 m<sup>2</sup>
  - ▶ Use for heating, cooling and SHW heating
  - ▶ Passive cooling possibility
  - ▶ Continuous flow control of primary circuit
  - ▶ High efficiency hot water heating, heating water temperature up to 60 °C
  - ▶ Very quiet operation
  - ▶ Possibility to control up to 6 heating circuits and SHW heating
  - ▶ Water/water construction on request
  - ▶ Connection to vertical or horizontal ground collector
  - ▶ Cascade connection support
  - ▶ Remote access and online service diagnostics

Heat pump connected directly to the heating system with in-built 170l dhw cylinder.

1-heat pump, 2-heating system, 3-expansion vesel, 7-dhw outlet

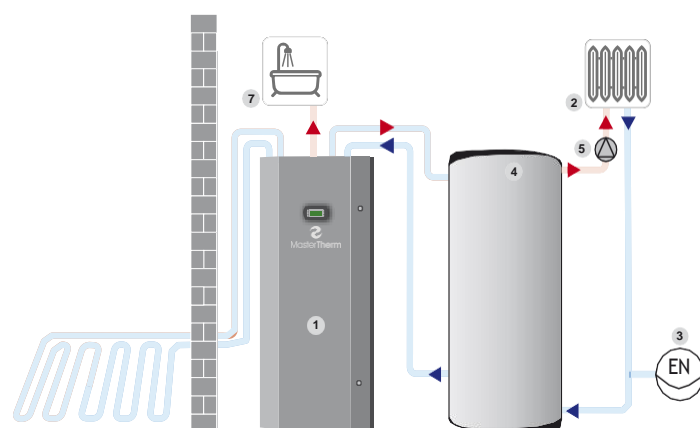
The heat pump (1) is directly connected to heating system. Heating water temperature is controlled according to a weather compensation curve. Production of hot water is a priority over the heating system and is prepared via the internal cylinder. This type of system is ideally suited to underfloor heating 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).



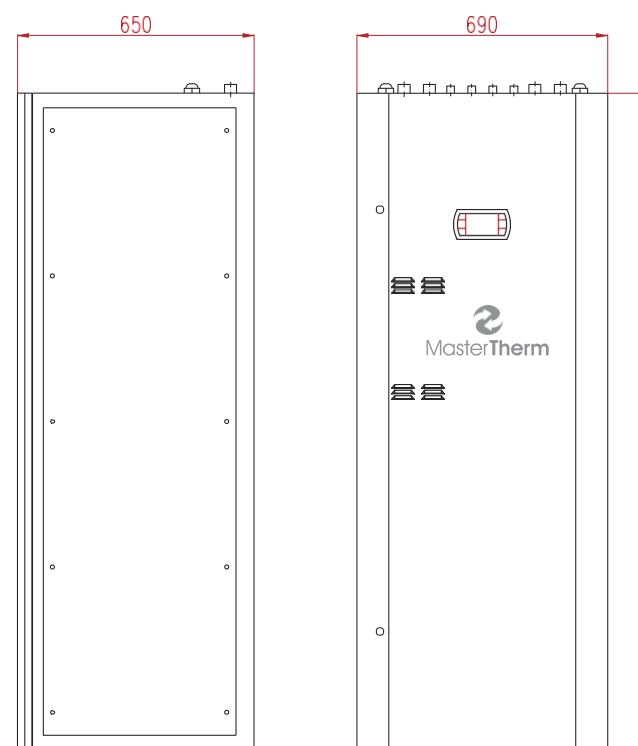
Heat pump connected to a buffer tank with in-built 170l dhw cylinder.

1-heat pump, 2-heating system, 3-expansion vessel, 4- buffer tank, 5- heating circulation pump, 7- dhw outlet

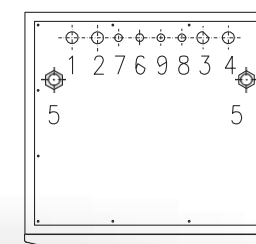
Heat pump (1) connected to the heating system through a buffer tank (4) which has the function of thermal buffer and a low loss header. Heating water temperature is controlled according to a weather compensation curve. The flow to the heating system is controlled by the main heating circulation pump. Production of hot water is a priority over the heating system and is prepared via the internal cylinder. This solution is ideally suited to systems with low heat buffering capacity and systems that require independent room zone control. Additionally, this type of system has the ability to integrate a secondary source of heat into the buffer tank (4) such as a wood stove with back boiler.



Dimensions and connections:



- 1 - Water / Mix Input
- 2 - Water / Mix Output
- 3 - Heating water outlet
- 4 - Heating water inlet
- 5 - Electrical connection
- 6 - HW Input
- 7 - HW Output
- 8 - CW Input
- 9 - CW Output

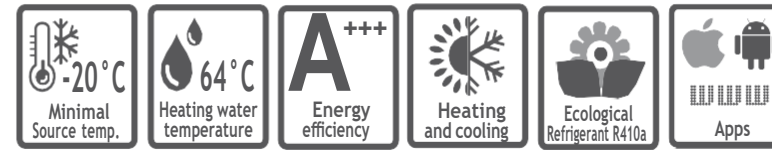
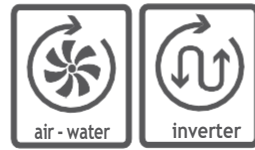


Heating circuits control	STANDARD (µPC)	PLUS (pCO5)
Intended for	single-circuit heating systems	multi-circuit heating systems
Main heating circuit	Yes	Yes
Secondary heating circuit	-	2 independent including mixing
Room temperature	In 1 zone	In 2 zones
SHW	Yes	Yes
Optional	-	Up to 6 heating circuits





# HEAT PUMPS FOR LARGE OBJECTS



Model	A7W35		A7W35		A2W35		A-7W35		A-15W35		Seasonal heating energy efficiency - low-temperature operation 35 °C				Seasonal heating energy efficiency - medium-temperature operation 55 °C				Max. heating water temperature (°C)	Circuit breaker <sup>2)</sup>	Compressor, supply voltage 3ph/1ph	Weight (kg)	Leakage control of refrigerant circuit EP 517/2014	Price EUR	
	Power kW	Heat loss Qz (kW)	Power (kW)	COP	Power (kW)	COP	Power (kW)	COP	Power (kW)	COP	Power (kW) <sup>3)</sup>	SCOP	ηs %	Class	Power (kW) <sup>3)</sup>	SCOP	ηs %	Class							
<b>BoxAir Inverter (compact, inverter)</b>		60 Hz		60 Hz		90 Hz		120 Hz																	
<b>BA60I</b>	10-35	do 28	22,3	4,84	15,7	3,60	18,0	2,68	20,6	2,30	23	4,50	177	A+++	22	3,45	135	A++	64	40A"B"	3x400V	275	yes	on req.	
<b>BoxAir Inverter Split (split, inverter)</b>		60 Hz		60 Hz		90 Hz		120 Hz																	
<b>BA60IS</b>	10-35	do 28	22,3	4,84	15,7	3,60	18,0	2,68	20,6	2,30	23	4,50	177	A+++	22	3,45	135	A++	64	25A"B"	3x400V	200+80	yes	on req.	
<b>BoxAir (compact, on-off)</b>																									
<b>BA75Z</b>	30,8	do 31	30,8	4,0	23,2	3,2	18,5	2,6			31	3,61	141	A+	30	2,92	114	A+	55	40A"B"	3x400V	275	yes	on req.	
<b>EasyMaster (split, on-off)</b>																									
<b>EM60Z</b>	24,6	do 25	24,6	4,1	18,8	3,2	15,0	2,7			25	3,56	140	A+	24	2,86	111	A+	55	25A"B"	3x400V	200+80	yes	on req.	
<b>EM75Z</b>	30,8	do 31	30,8	4,0	23,2	3,2	18,5	2,6			31	3,61	141	A+	30	2,92	114	A+	55	25A"B"	3x400V	200+80	yes	on req.	

1) Performance data according to ČSN EN 14 511, in accordance with the EHPA requirements for quality mark Q.  
 A7W35 60 Hz - air 7 °C, water 35 °C, compressor frequency 60 Hz  
 2) Recommended value of el. 3x400V fuse, incl. Auxiliary integrated electric boiler.  
 3) Design power at outdoor temperature -10 °C according to ČSN EN 14 825.

Options	Order code	Price EUR
Internet connection - WIFI, ethernet, only with touch screen pGDx	10ICON	on req.
Full cooling mode (for air/water HP)	10CH	on req.
Terminal pAD - temperature compensation for next heat. circuit	10PAD	on req.
Terminal pADh - temperature compensation for next heat. circuit with dew point watching (floor cooling)	10PADH	on req.
Three phase relay (for on-off models)	10SF	on req.
Softstart - prices are in accessories catalogue		
Extended control module (up to 6 heating circuits + SHW, for PLUS v. only)	10EK	on req.
Energy meter 3x65A, display, MID	10EM65AMID	on req.
Heat pump colour on demand, RAL code - external or internal unit	10CO	on req.
Silver colour RAL 9006		FOC,-
<b>For models EM60Z, EM75Z and BA60IS:</b>		
External electric heater 7,5 + 7,5 kW	10ETA1M15	on req.
External electric heater 12 + 18 kW	10ETA1M30	on req.
Desuperheater for highly efficient SHW heating	10DESUP	on req.
RAL 9006		

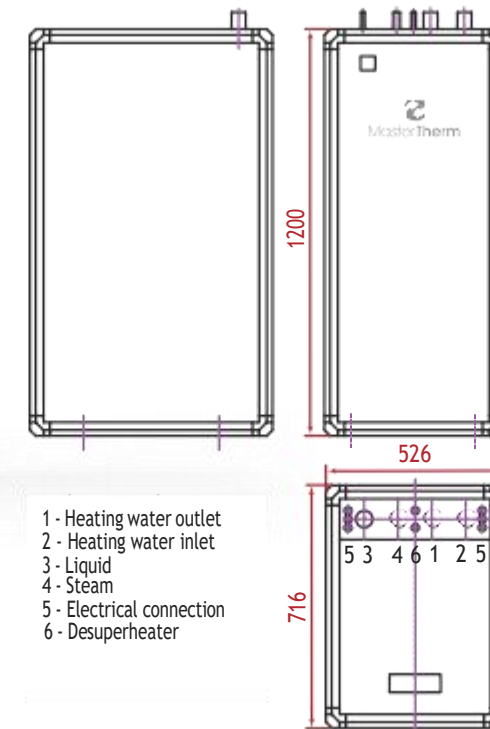
Standard equipment
✓ Electric boiler 7,5+7,5 kW (for model BA60I and BA75Z)
✓ pGDx touch screen with room thermostat functionality
✓ Electronically controlled coolant injection
✓ New low-noise fan
✓ Equitherm control system MaR
✓ Variable output Inverter Compressor (BA60I, BA60IS)
✓ Built-in circulation pump



BA60IS, EM60Z-75Z (split)

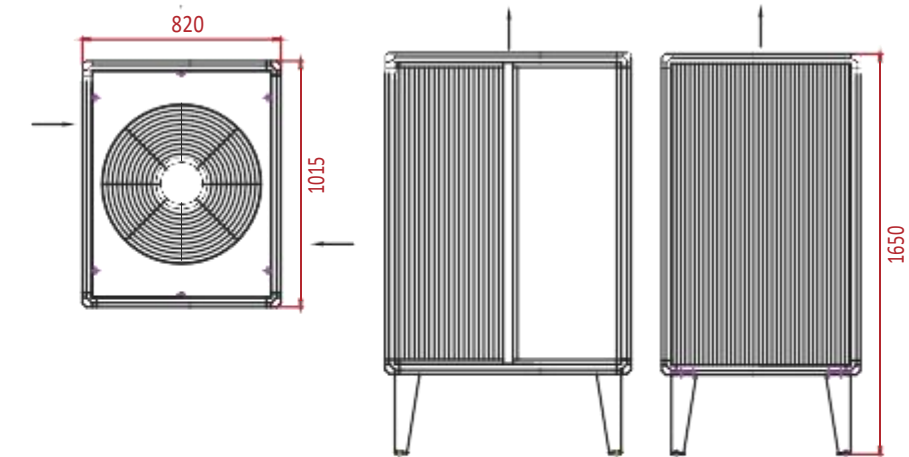
Features
▶ Use for heating and cooling
▶ The temperature of heating water to (BA60I a BA60IS)
▶ Temperatures range from +40 °C do -20 °C
▶ Very easy installation
▶ Quiet operation
▶ Control up to 6 heating circuits
▶ Cascade control Master Lan
▶ Possibility of remote control and monitoring
▶ Communication protocol ModBUS RTU
▶ Power up to 35 kW (A7W35) per one compressor circuit

Internal unit BA60IS, EM60Z and EM75Z:

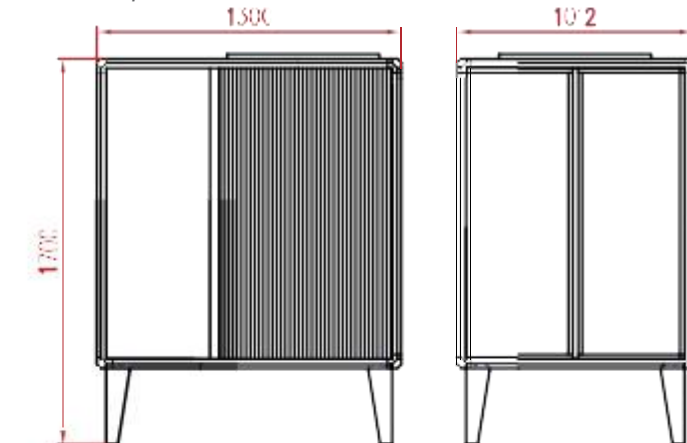


- 1 - Heating water outlet
- 2 - Heating water inlet
- 3 - Liquid
- 4 - Steam
- 5 - Electrical connection
- 6 - Desuperheater

External unit BA60IS, EM60Z and EM75Z:



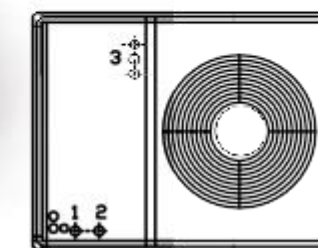
Compact unit BA60I and BA75Z:



- 1 - Heating water outlet
- 2 - Heating water inlet
- 3 - Electrical connection

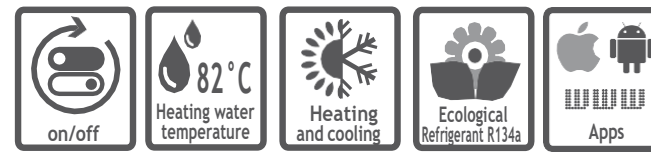
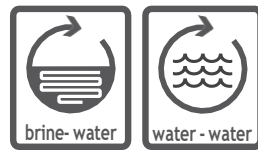


BA60I, BA75Z (compact)



# AQ ZHX

## FOR COOLING AND HEAT RECOVERY



Model	BOW35		W10/W35		W40/W65		Max. heating water temperature (°C)	Circuit breaker	Compressor	Refrigerant	Weight (kg)	Leakage control of refrigerant circuit EP 517/2014	Price EUR
	Power kW	COP	Power kW	COP	Power kW	COP							
AQ40ZHX	13,80	3,94	19,62	5,57	38,56	5,92	82	3x20A"C"	scroll 3x400 V	R134a 4,2 kg	230	no	on req.
AQ50ZHX	18,59	4,19	26,1	5,82	51,30	6,19	82	3x25A"C"	scroll 3x400 V	R134a 4,4 kg	230	no	on req.
AQ60ZHX	23,39	4,09	32,91	5,61	63,58	5,76	82	3x32A"C"	scroll 3x400 V	R134a 4,4 kg	230	no	on req.
AQ75ZHX	28,24	4,13	39,47	5,67	76,31	5,86	82	3x40A"C"	scroll 3x400 V	R134a 6,0 kg	400	no	on req.
AQ100.2ZHX	37,18	4,09	52,21	5,69	96,78	5,78	82	3x50A"C"	scroll 3x400 V	R134a 10 kg	400	yes	on req.

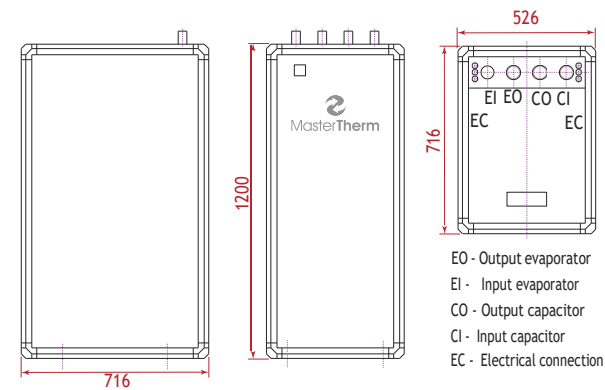
Options	Order code	Price EUR
Internet connection - WIFI, ethernet, only with touch screen pGDx	10ICON	on req.
Desuperheater for highly efficient SHW heating	10DESUP	on req.
Extended control module (up to 6 heating circuits + SHW, for PLUS v. only)	10EK	on req.
Energy meter 3x65A, display, MID	10EM65AMID	on req.
Silver colour RAL 9006		FOC,-
RAL 9006		

- Standard equipment**
- ✓ Built-in circulation pumps
  - ✓ Cascade control Master Lan
  - ✓ pGDx touch screen with room thermostat functionality
  - ✓ Electronically controlled coolant injection
  - ✓ Built-in electrical switchboard with component protection

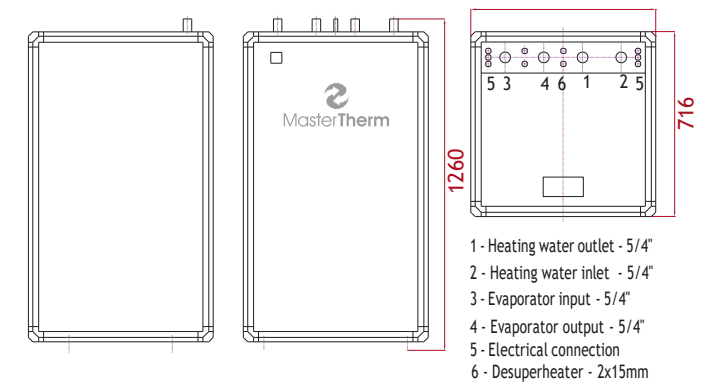
- Features**
- ▶ The temperature of heating water to 82 °C
  - ▶ The temperature of source water 45 °C
  - ▶ Easy installation
  - ▶ Very quiet operation
  - ▶ Control up to 6 heating circuits
  - ▶ Possibility of remote control and monitoring
  - ▶ Communication protocol ModBUS RTU



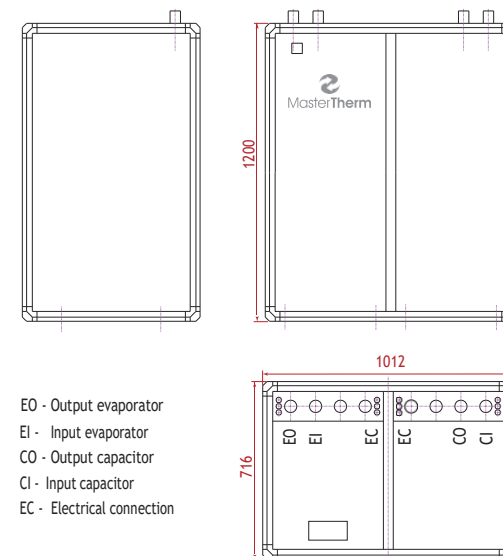
Dimensions and connections: AQ40ZHX - AQ50ZHX



Dimensions and connections: AQ60ZHX



Dimensions and connections: AQ75ZHX - AQ100ZHX



## Optional HP equipment specification



# Visualization of heat pump installation

using augmented reality in a tablet or phone

### ► Internet connection = MaxTherm ON-LINE

It enables data connection of the heat pump to the central server of the manufacturer via the Internet (Wi-Fi or UTP cable). It offers remote control via a web interface or applications for smartphones (iOS or Android) and service diagnostics and monitoring of the heat pump operation by the service department.

### ► Cooling mode by reversing

With this option the heat pump can be operated in reversing mode and in the summer living spaces of the house can be cooled by "compressor". Depending on the type of heat pump the heat is dissipated into the surrounding air, ground or water. Cooling water must be treated with an antifreeze liquid. For ground-water heat pumps the range of models for which this option can be ordered is listed.

### ► Passive cooling module

Option of ground-water heat pumps for direct heat dissipation from the interior to the ground collector (flat or vertical). It enables extremely economical summer cooling without the need for compressor work. It supports thermal regeneration of ground collectors after the heating season. In the stated range of models this option is built into the heat pump, for bigger models is this option as an external solution.

### ► Desuperheater for highly efficient SHW heating

An integrated option-device which uses a separate hydraulic circuit to remove the heat of superheated steam at the outlet of the compressor. It is usually used for highly efficient SHW preparation. If the heat pump compressor is in operation (in both heating and cooling mode) part of its heat energy is permanently discharged to the SHW cylinder.

### ► Extended control module

Increases the number of regulated heating circuits of PLUS controller up to a total of 6 (from the basic 2 heating circuits).

### ► Room terminal for heating circuit

Room terminal with temperature sensor for placing in the reference room of the secondary heating circuit (only for PLUS controller). The main function is comfortable temperature setting in the heated/cooled zone of the secondary circuit. The installation of the terminal can be replaced by supplying a room temperature sensor only. Settings can then be made on the main panel of the heat pump or via internet.

### ► Room terminal for heating circuit with humidity sensor

Room terminal with temperature and humidity sensor for placing in the reference room of the secondary heating circuit (only for PLUS controller). In cooling mode it allows you to control the cooling water temperature so that the dew point temperature in the room is not exceeded and humidity does not condense. It is mainly used for cooling by floor or wall systems.

### ► Modifications for internal installation of the evaporator

The outdoor evaporator of the air-water split heat pump is being replaced by an evaporator type for installation inside the building. It enables installation of air-water heat pump inside the building (Indoor Split) with the supply and exhaust of outdoor air by an insulated air ducts.

### ► Three phase relayi

Protects 3-phase ON-OFF compressors against damage due to the opposite direction of operation in the event of a random change in phase sequence.

### ► Softstart

Reduces the starting current when ON-OFF heat pump compressor starts. Inverter technology eliminates the need for softstart.

### ► Integrated electricity meter 1x25A, 3x65A, 1x100A

Built in electricity meter for measuring electricity consumption. LCD panel, MID certification, data transfer to the heat pump controller.

### ► Electric boiler 4,5 kW / 6,0 kW / 7,5 kW

Built in bivalent respectively emergency heat source for ground-water or water-water heat pumps (electric boiler for air-water heat pumps is part of the basic equipment).

### ► Water-water design

The water-water heat pump for the use of groundwater or surface water is equipped with a more resistant evaporator against sediment (coax) and modified electrical construction.

### ► Color choice according to the RAL swatch

The outdoor housing of the heat pump will be delivered in an individually selected color according to the RAL swatch.



1

Install free application and select the heat pump according to your requirements.

2

Click on "Show in AR" and scan the floor until the heat pump appears.

3

You can move, rotate heat pump or change its color.

4

In description of each heat pump you will find information about size, color, components, etc.



Augmented Reality Application

[www.ewmar.com.pl](http://www.ewmar.com.pl)

# Control via internet

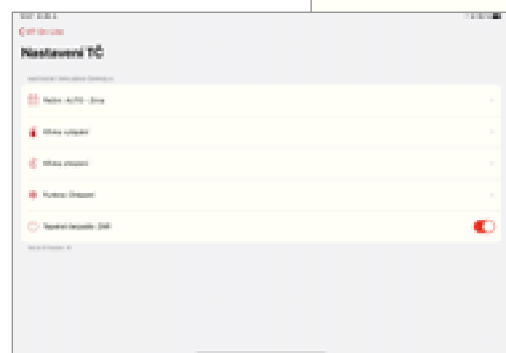
using a computer, tablet or phone

## Advantages of new internet connection:

- Extremely easy connection of the heat pump to the internet
- Convenient heat pump control including all heating circuits and SHW
- Access from anywhere via web interface
- On-line automatic monitoring - reporting of error conditions
- Control using the app. from computers, tablets and smartphones
- No fixed fees for static IP address
- No router and internal network setup



You can try control from smartphone or tablet now!  
Download applications from the App Store or Google play (Android Market).  
After installing the application enter the following information in the connection dialog.  
Name: demo / Password: mt-demo



# NEW, USER FRIENDLY CONTROL OF YOUR MAX THERM HEAT PUMP



The pGDx touch screen is new main control panel for all Max Therm heat pumps. Pleasant graphical design will guide you through clear setting which is easy and intuitive. New touch screen is now additionally equipped with room temperature and humidity sensor and integrates the function of a room device to control the temperature of the heated / cooled space.

## Basic characteristics:

- 4,3" touch screen with a resolution of 480x272 pixels and its own 1GHz processor
- the functions of the room terminal unit in reference room and main control display of the heat pump combined into one device
- clear control, easy adjustment of room temperature and hot water temperature with the + and - buttons
- if the function of room terminal unit is not required touch screen can be built into the heat pump or located in the machinery room
- it is possible to assign room terminal panels or temperature sensors of heating circuits to the display and control everything from one place
- internet communication with secured cloud server is used for remote access to the heat pump and for online service diagnostics
- allows ethernet and WiFi internet connection as well
- supports online upgrades and allows continuous development of functionality
- graphical design unified with web interface and Max Therm mobile applications available for Android and iOS
- supports other useful functions such as communication within the so-called Smart Grids for efficient management of electricity production and consumption

With new pDGx control panel and internet connection your Max Therm heat pump will be ready for the future!

[www.ewmar.com.pl](http://www.ewmar.com.pl)  
[pompy@ewmar.com.pl](mailto:pompy@ewmar.com.pl)

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