BIODOM BIOBLOCK

BIODOM

AIR TO WATER
DC Inverter Heat Pumps

SUPER PERFORMANCE

Heating
Cooling
Domestic hot water

SUPER ADVANTAGE

WiFi control
LCD Touch Tablet
Heating Curve Self Adaptation

SUPER EFFICIENCY

ALL-IN-ONE
Enamelled domestic hot water tank (230 l)

A+++ SCOP > 4,7 Advanced Control IQ2
Sound pressure level (A7/W35 - 5m): 30 dB(A)

BIODOM INVERTER HEAT PUMPS

CHARACTERISTIC FEATURES

The new **Biodom BioBlock** heat pumps have a new design, a larger touch screen, internet control and a new ALL-IN-ONE internal unit. A new, customized line has beautiful design and it provides easier installation.

The larger touch screen (9") provides more transparency and efficient control of the heat pump. Biodom BioBlock is a monobloc heat pump unit and the connection between HP and internal system is done thru water connection. All-In-ONE internal unit comes with built-in high quality enamelled domestic hot water tank with capacity of 230 l. This line of inverter technology also provides high efficiency, environmentally friendly and cost-effective heating, cooling and heating of sanitary water.

ECO^S

Smart function

Advanced heating curve function enable weatherdepend operation.

SCOP

A+++

Efficient operation with high coefficient of performance – excellent SCOP.

R32

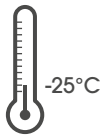
R32 is among the most environmentally friendly refrigerant gases; it is not detrimental to the ozone layer.

Silent operation

Low noise of the outdoor unit owing to the axial fan and compressor unit with controlled operating frequency.

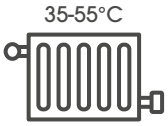
Touch screen LCD Tablet

User-friendly control unit.



Operation at environment temperature of down to -25°C

The system can successfully operate down to environment temperatures of -25°C.



Low/high temperature operation

It is appropriate for both floor heating and radiator heating system (with higher heating water requirements of up to 58°C).

Wi-Fi

LCD Tablet Wi-Fi enables easier and remote control over the heat pump and parallel higher savings. WiFi on board.

HCSA function

Heating Curve Self Adaptation. Biodom Bioblock HP is developed to self adopt its power to the heating or coooling needs of any building. It means no more heating curves changes during first year of operation.

Hybrid installation

Biodom Bioblock can controll Biodom pellet boiler and also a HP in the system that is designed for maximum efficiency of both heating sources

Remote software update

Biodom Bioblock is equiped with LCD Touch tablet which operates on Windows 10. It enables remote controlla and also remore software update of internal unit.

ERP ENERGY LABEL

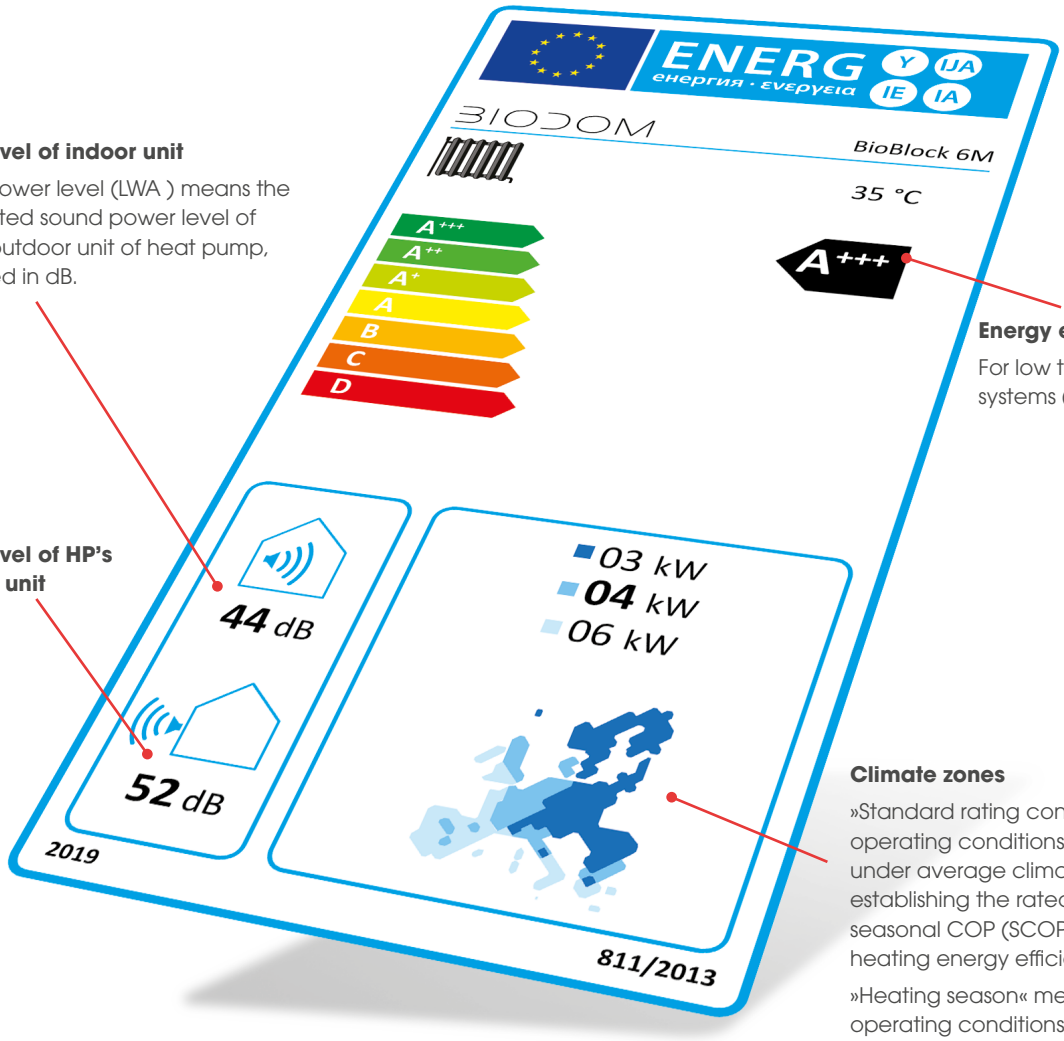
GIVES A CLEAR OVERVIEW OF HEAT PUMPS ENERGY EFFICIENCY LEVEL AND THEIR MAIN FEATURES

New EU regulation (valued from September 2015)

The combined effect new EU Regulation and Commission Regulation (EU) No 813/2013 of 2 August 2013 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for heat pumps for space heating is expected to result in estimated annual energy savings of around 1 900 PJ (about 45 Mtoe) by 2020, corresponding to about 110 Mt CO_2 emissions, compared to what would happen if no measures were taken.

Explanation of the ErP label for heating heat pumps

The rating system for space heating heat pumps classifies them into nine efficiency categories. The best energy e fficiency ca tegory is A+++. Category G identifies appliances with significantly poorer values. The energy efficiency categories for space heating heat pumps are based on a seasonal coefficient of performance (SCOP). This depends firstly on the climatic region and secondly on the potential heating system. Europe is divided for this purpose into three climatic regions. For radiators and floor heating systems, the different flow temperatures and possible energy efficiency categories are shown on the Energy Labels.



Noise level of indoor unit

Sound power level (LWA) means the A-weighted sound power level of indoor/outdoor unit of heat pump, expressed in dB.

Noise level of HP's outdoor unit

Energy efficiency class

For low temperature heating systems (floor heating).

Climate zones

»Standard rating conditions« means the operating conditions of heat pumps under average climate conditions for establishing the rated heat output, seasonal COP (SCOP) and water heating energy efficiency.

»Heating season« means a set of operating conditions for average, colder and warmer climate conditions, describing per bin the combination of outdoor temperatures and the number of hours these temperatures occur per season.

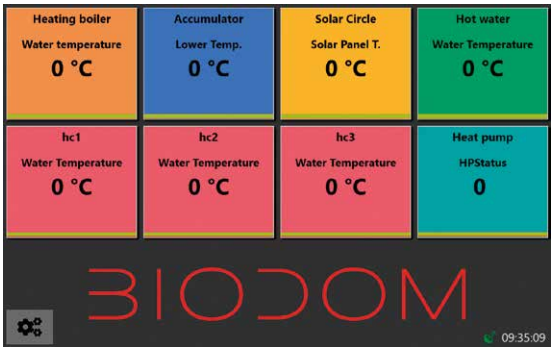
Heat pumps Biodom reach the highest level of energy efficiency and classify at A+++ energy class.

BIODOM IQ2

Suitable for New pellet boiler installations (enables advanced control) and new Hybrid installations (in connection with Heat pump Biodom).

Main components:

- 8" LCD Touch TABLET
- Advanced MUSO Controller
- Main electrical fuse and switch
- Electrical fuses
- Sensors (3 NTC and 2 PT 1000)
- External temperature sensor
- Heating circuit sensors



IQ2 control panel

Controls:

- Heating & Cooling and DHW
- 3 Heating circle (sensors included)
- Boiler (DSW)
- Buffer
- Solar
- Heat Pump BioBlock 6,9,12 M – **Hybrid installation**

Advantages:

- LCD Touch Tablet
- **Heating curve regulation** with outside temperature sensor (included in the set)
- **Heating curve self-adaptation (HCSA)** – with installation of room thermostat (like Biodom ROKO – not included in the set)
- Instant software installation
- Wifi - **Remote software update**
- Remote Start-up possible
- Wifi - **Remote access and control** (customer, technician, ...)
- Multy language platform (adaptable to any language)
- History of all important data (temperatures and other)
- Biodom Cloud

REGULATION SUPPORTS OF TWO INDEPENDENT HEATING CIRCUITS (HC) / COOLING CIRCUITS (CC)

REGULATION OF HC / CC *

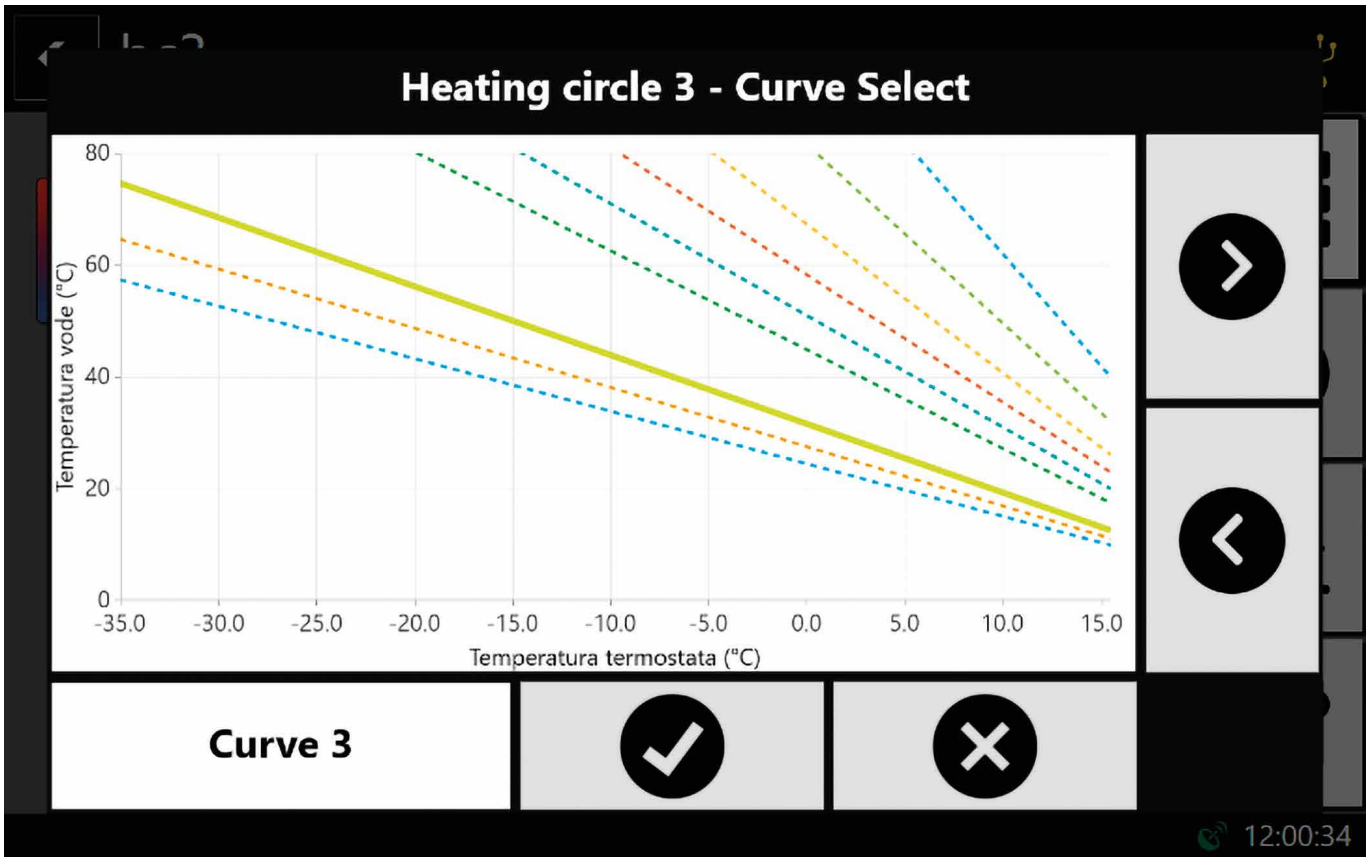
2 x mixing HC + 2 x mixing CC	2 x direct HC + 2 x direct CC	1 x direct HC + 1 x mixing HC + 1 x direct CC + 1 x mixing HC

* More combinations possible.

ADJUSTABLE HEATING CURVE WITH 9 preprogramed heating curves

The heating curve depends on the characteristics of the building being heated, which is the only warranty that the heat pump, regardless of the outdoor temperature, will always heat up the water to the lowest acceptable temperature. End user can very easily change or adopt 5 different setpoints of heating curve. The most important are C and D points (outdoor ambient temperature - 5°C to 5 °C).

The heating curve can be easily adjusted depending on the customer needs and heat losses of the building.

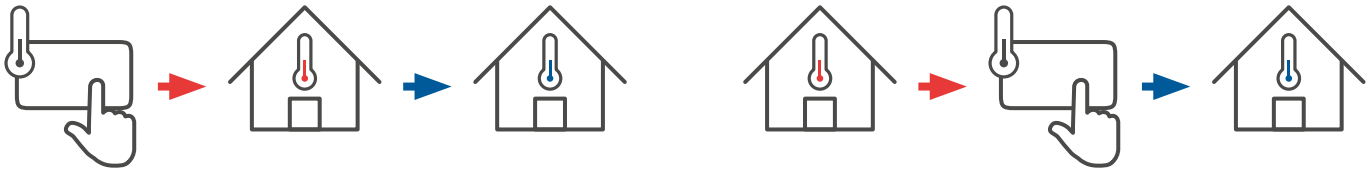


User can choose between 9 different heating curves - 0 is fixed, 1-4 floor heating, 5-8 radiator heating and 9 wall heating

AUTOMATIC OPERATION - HEATING/COOLING/DHW

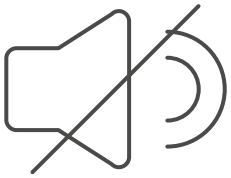
Heat pump can operate in 3 different modes: Heating / Cooling / DHW.
Intelligent control unit enable automatic switching between:

- heating and cooling mode
- heating and DHW mode
- cooling and DHW mode



SLEEP FUNCTION - SILENT OPERATION MODE

In this mode heat pump adjusts outlet water temperature or room temperature to save energy and lowers the operation noise by reducing the working speed of the compressor and fan motor for optimum sleeping comfort.



HCSA FUNCTION - HEATING CURVE SELF ADAPTATION

Instaler or user can choose between 9 different heating curves. HCSA function enables user in combination with external sensor and room thermostat Heating Curve Self Adaptation. It means that the HP will automaticaly find correct heating curve after few days of opeartion.

ADVANCED BIODOM CONTROLLER CAN CONTROL

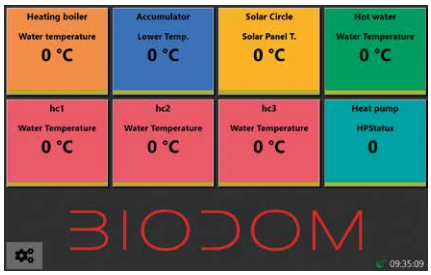
- 2 Additonal heating curves (fixed or mixing)
- Pellet boiler or stove biodom
- Any other heating source (gas, oil, wood, pellet boiler, ...)
- Solar
- Boiler (hot sanitary water)
- Buffer

HEAT PUMPS AIR-WATER

BIOBLOCK INVERTER HEAT PUMPS MONOBLOC SYSTEM ALL-IN-ONE

The air-water heat pump represents ecological and energysaving way of heating your home and sanitary water. BIODOM ALL-IN-ONE HEAT PUMP is a new, modern designed heat pump, with a big technological advantage. ALL-IN-ONE means a free-standing indoor unit with a built-in high quality enamelled domestic hot water tank with a capacity of 230 liters. The indoor unit has a built-in hot water storage tank, 3-way switch valve, additional electric water heater for sanitary water and safetyset. The installation is easier and less space is required. The built-in electric heater serves as a protection against legionella.

Biodom BioBlock 6M + ALL-IN-ONE



ErP energy class: A+++

$SCOP_{35°C}$ = 4,74

Heating capacity (min/max)*: 3,5/6,5 kW

El. input power (min/max)*: 0,758/1,4 1 kW

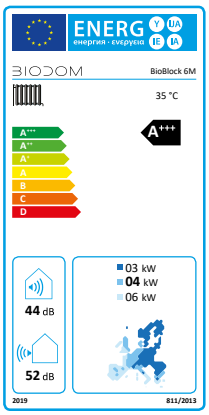
COP (A7/W35) (max): 4,7

Enamelled domestic hot water tank: 230 l

Indoor unit dimension: 600 x 1862 x 750 mm

Connection between indoor and outdoor unit: Water connection

**At condition A7/W35.*

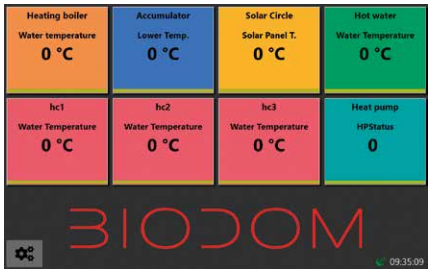


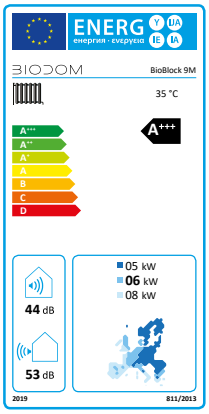
ALL-IN-ONE

HEAT PUMPS AIR-WATER

BIOBLOCK INVERTER HEAT PUMPS MONOBLOC SYSTEM ALL-IN-ONE

Biodom BioBlock 9M + ALL-IN-ONE





ErP energy class: A+++

$SCOP_{35°C}$ = 4,73

Heating capacity (min/max)*: 4,3/9,2 kW

El. input power (min/max)*: 0,92/2,1 kW

COP (A7/W35) (max): 4,7

Enamelled domestic hot water tank: 230 l

Indoor unit dimension: 600 x 1862 x 750 mm

Connection between indoor and outdoor unit: Water connection

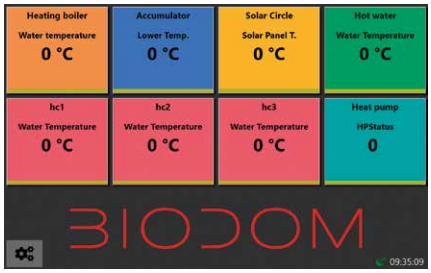
**At condition A7/W35.*

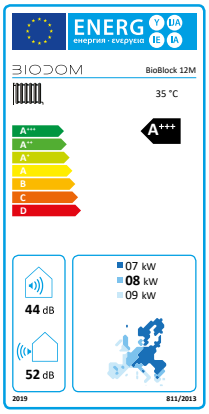
ALL-IN-ONE

HEAT PUMPS AIR-WATER

BIOBLOCK INVERTER HEAT PUMPS MONOBLOC SYSTEM ALL-IN-ONE

Biodom BioBlock 12M + ALL-IN-ONE





ErP energy class: A+++

$SCOP_{35°C}$ = 4,71

Heating capacity (min/max)*: 5,5/11,7 kW

El. input power (min/max)*: 1,1/2,7 kW

COP (A7/W35) (max): 4,9

Enamelled domestic hot water tank: 230 l

Indoor unit dimension: 600 x 1862 x 750 mm

Connection between indoor and outdoor unit: Water connection

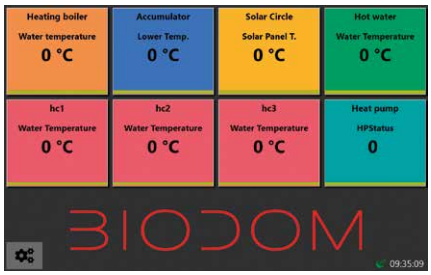
**At condition A7/W35.*

ALL-IN-ONE

HEAT PUMPS AIR-WATER

BIOBLOCK INVERTER HEAT PUMPS
MONOBLOC SYSTEM

Biodom
BioBlock 15M



ErP energy class: A+++

SCOP $_{35°C}$ = 4,71

Heating capacity (min/max)*: 6,00 /15,35 kW

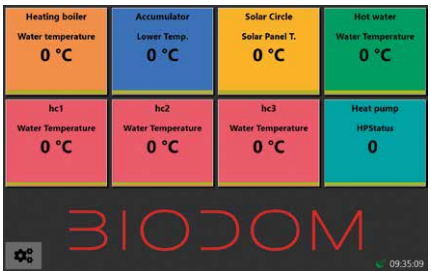
El. input power (min/max)*: 1,22/3,2 kW

COP (A7/W35) (max): 5,06

Connection between indoor and outdoor unit: Water connection

**At condition A7/W35.*

Biodom
BioBlock 19M



ErP energy class: A+++

SCOP $_{35°C}$ = 4,47

Heating capacity (min/max)*: 9,2 /18,5 kW

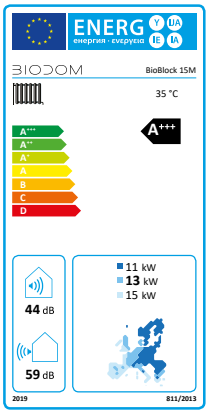
El. input power (min/max)*: 1,83/4,14 kW

COP (A7/W35) (max): 5,01

Connection between indoor and outdoor unit: Water connection

**At condition A7/W35.*

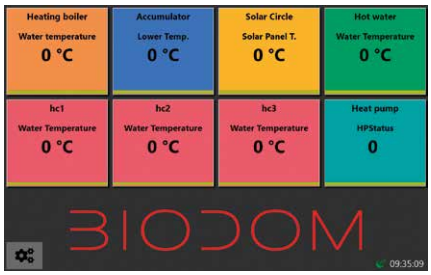
EVI Technology

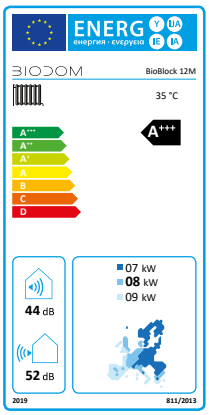


HEAT PUMPS AIR-WATER

BIOBLOCK INVERTER HEAT PUMPS
MONOBLOC SYSTEM

Biodom
BioBlock 12M





ErP energy class: A+++

SCOP $_{35°C}$ = 4,71

Heating capacity (min/max)*: 5,5/11,6 kW

El. input power (min/max)*: 1,1/2,7 kW

COP (A7/W35) (max): 4,9

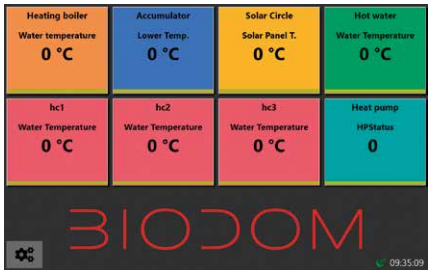
Connection between indoor and outdoor unit: Water connection

**At condition A7/W35.*

HEAT PUMPS AIR-WATER

BIOBLOCK INVERTER HEAT PUMPS
MONOBLOC SYSTEM

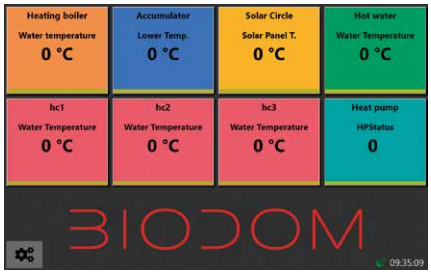
Biodom
BioBlock 9M



ErP energy class: A+++
SCOP $_{35°C}$ = 4,73
Heating capacity (min/max)*: 4,3/9,2 kW
El. input power (min/max)*: 0,92/2,1 kW
COP (A7/W35) (max): 4,7
Connection between indoor and outdoor unit: Water connection

**At condition A7/W35.*

Biodom
BioBlock 6M



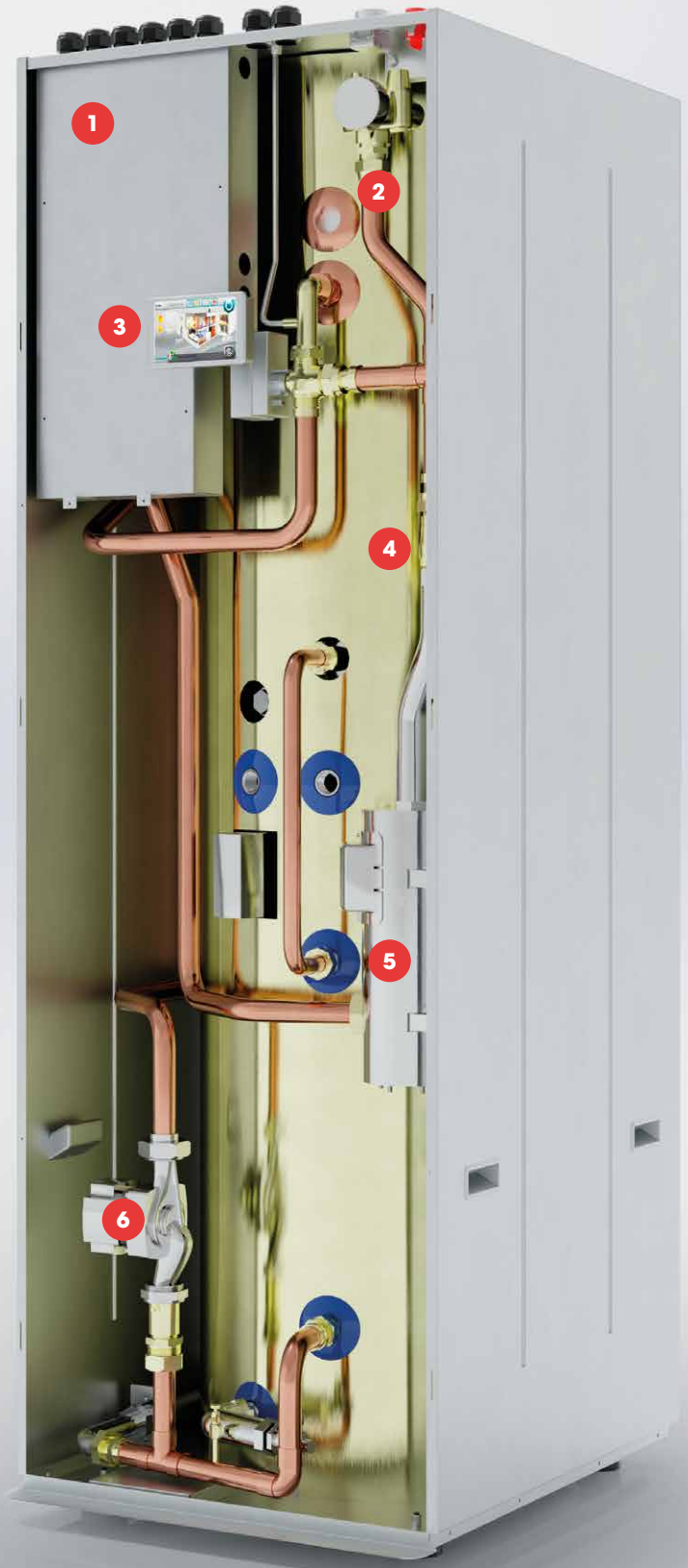
ErP energy class: A+++
SCOP $_{35°C}$ = 4,74
Heating capacity (min/max)*: 3,5/6,5 kW
El. input power (min/max)*: 0,76/1,41 kW
COP (A7/W35) (max): 4,7
Connection between indoor and outdoor unit: Water connection

**At condition A7/W35.*

MAIN COMPONENTS OF INDOOR UNIT - ALL-IN-ONE

Suitable for BIODOM BioBlock 6M / 9M / 12 M

1. Electro Box
2. Safety Group
3. LCD Touch Tablet with WiFi antenna
4. Three Way Valve
5. 6kW backup heater
6. Circulatiion Pump

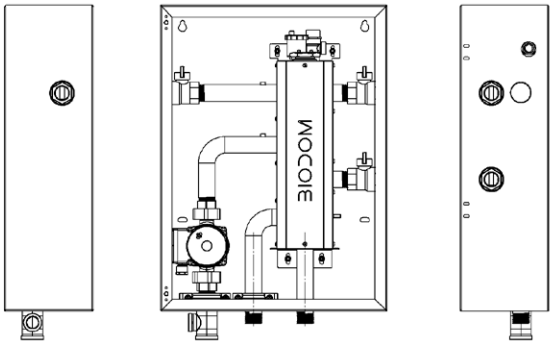


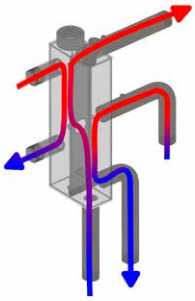
MAIN COMPONENTS OF INDOOR UNIT - BIOBOX S3

Suitable for BIODOM BioBlock 6M / 9M / 12M / 15M / 19M

Hydro Box:

- Hydraulic Switch
- ERP Ready Circulating pump
- Air vent, Check Valve





Hidraulic switch

In a hybrid system, where different heating devices are interconnected, the high and low temperature water supply must be kept separated. For example, if too hot water enters the heat pump, gas temperatures and pressures can rise to levels were alarms are reported. As an alternative to heat accumulator, Biodom has developed a special compact hot-cold water separator perform separation function in a very compact size, together with some additional features such as electric heaters and safety valves. By using this device, system becomes very compact and almost any high-temperature source, like oil gas, wood or pellet boilers can support heat pumps in critical conditions.

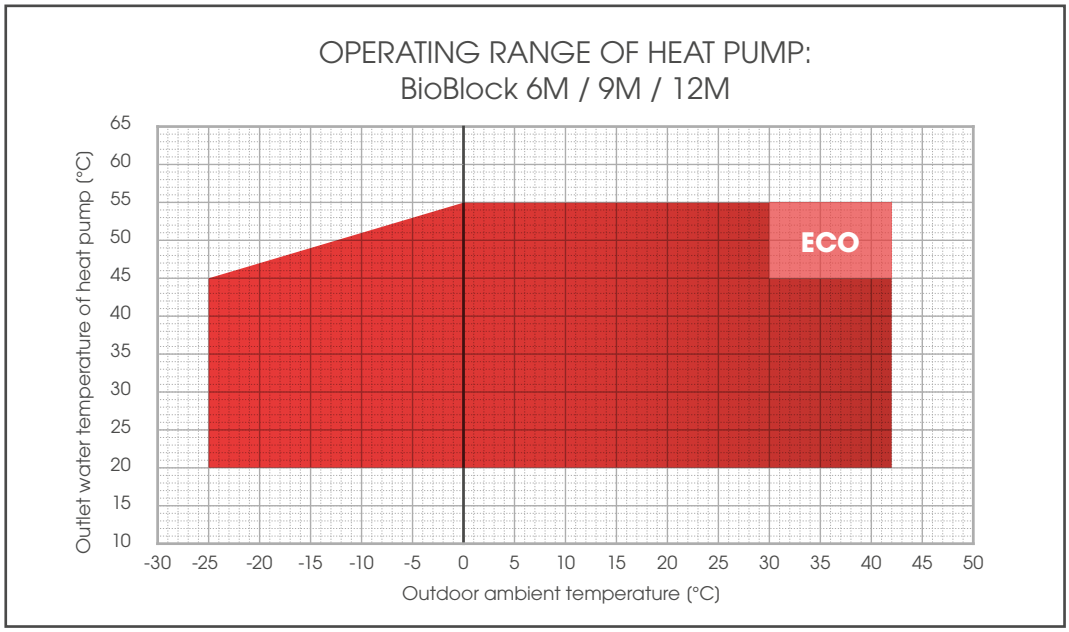
Electro Box:

- LCD Touch Tablet
- Main electrical switch
- Safety switches
- Advanced Controller MUSO

OPERATING RANGE OF HEAT PUMP

BioBlock 6M / 9M / 12M

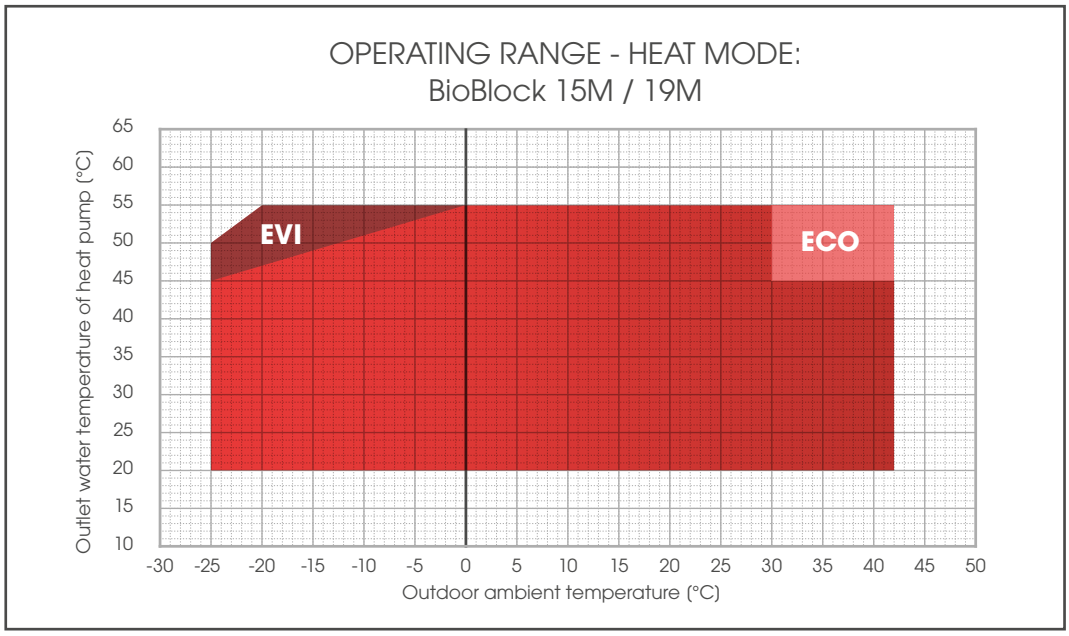
DC Inverter compressor is optimal solution for low and medium temperature aplications. ECO mode limitiation enable energy saving during the summer time - it also protect a working envelope of the most important component in heat pump - compressor.



OPERATING RANGE OF HEAT PUMP

BioBlock 15M / 19M

Special EVI INVERTER compressor enable high temperature working mode at very low outdoor ambient temperatures.



ECO mode:

Limited water temperature for energy saving in summer time.

EVI function:

Enables high temperature heating mode at very low outdoor ambient temperatures.

TECHNICAL SPECIFICATION

CE EMC RoHS

MODEL	Unit	BioBlock 6M + All-In-One	BioBlock 9M + All-In-One	BioBlock 12M + All-In-One
ErP Energy efficiency class		A+++	A+++	A+++
$SCOP_{35°C}$ (floor heating) EN 14825		4,74	4,73	4,71
HEATING MODE (A7/W35)				
Heating capacity*	kW	3,5 – 6,5	4,3 – 9,2	5,5 – 11,6
COPmax - Coefficient of Performance*		4,70	4,71	4,90
Rated input power*	kW	0,76 – 1,41	0,93 – 2,01	1,1 – 2,68
Max. temperature of heating water	°C	58	58	58
Operating range of heat pump - Heating (Ambient temperature)	°C	-25 to +45	-25 to +45	-25 to +45
DHW TANK				
Type / Volume (net)		Enamelled / 230 l	Enamelled / 230 l	Enamelled / 230 l
COOLING MODE (A35/W7)				
Cooling capacity**	kW	6,22 – 7,45	6,7 – 9,5	7,2 – 9,8
EERmax - Energy Efficiency Ratio**		4,05	4,23	3,90
Min. temperature of cooling water	°C	7	7	7
Operating range of heat pump - Cooling (Ambient temperature)	°C	0 to +65	0 to +65	0 to +65
POWER SUPPLY - SPECIFICATIONS				
Voltage	V/Hz/ph	220-240/50/1	220-240/50/1	220-240/50/1
Fuse for heat pump	A/type	1 X 1p/16A/C	1 X 1p/20A/C	1 X 1p/24A/C
Fuse for electrical flow heater	A/type	1 X 1p/16A/C	1 X 1p/20A/C	1 X 1p/24A/C
Fuse for electrical heater in DHW tank	A/type	1 x 1p/10A/C	1 x 1p/10A/C	1 x 1p/10A/C
REFRIGERANT SPECIFICATION				
Type / Mass of refrigerant	/	R32 / 0,9 Kg	R32 / 1,4 Kg	R32 / 1,8 Kg
Type of connection between indoor-outdoor unit		Water connection	Water connection	Water connection
Dimensions of water pipes connectors	Water	G1"	G1"	G1"
CONTROLLER				
Controller Type		LCD Touch Tablet	LCD Touch Tablet	LCD Touch Tablet
LCD Size		8"	8"	8"
Controller features		2x Mixing Heating Circuit + 2x Mixing Cooling Circuit + DHW Heating + Solar + Buffer	2x Mixing Heating Circuit + 2x Mixing Cooling Circuit + DHW Heating + Solar + Buffer	2x Mixing Heating Circuit + 2x Mixing Cooling Circuit + DHW Heating + Solar + Buffer
Wi-Fi module		Serial Integrated with WiFi Antenna	Serial Integrated with WiFi Antenna	Serial Integrated with WiFi Antenna
SOUND POWER AND SOUND PRESSURE LEVEL				
Sound power level LwA - Indoor unit	dB(A)	45	46	47
Sound power level LwA - Outdoor unit***	dB(A)	52	53	52
SOUND PRESSURE LEVEL ON DISTANCE				
Indoor unit - 1 m	dB(A)	37	37	37
Outdoor unit - 1 m	dB(A)	44	44	44
Outdoor unit - 5 m	dB(A)	30	30	30
Outdoor unit - 10 m	dB(A)	24	24	24
NET DIMENSIONS				
Indoor unit (WxHxD)	mm	600 x 1862 x750	600 x 1862 x 750	600 x 1862 x 750
Outdoor unit (WxHxD)	mm	1010 x 700 x 370	1165 x 845 x 370	1165 x 845 x 370
NET WEIGHT				
Indoor unit / Outdoor unit	kg	190 / 65	190 / 78	190 / 85
SERIAL INTEGRATED COMPONENTS				
Electrical flow heater	kW/ph	6 kW (1ph / 1 stage)	6 kW (1ph / 1 stage)	6 kW (1ph / 1 stage)
Circulation water pump - A energy class	type	Grundfos UPM Flex 25-75 180	Grundfos UPM Flex 25-75 180	Grundfos UPM Flex 25-75 180
Temperature Sensors		Serial Integrated - All	Serial Integrated - All	Serial Integrated - All
3-way diverting valve for DHW tank		Serial integrated	Serial integrated	Serial integrated

(*) Measured according to standard EN 14511. Heating condition: water inlet/outlet temperature 30°C/35°C, ambient temperature DB/WB 7°C/6°C.
(**) Measured according to standard EN 14511. Cooling condition: water inlet/outlet temperature 12°C/7°C and ambient temperature 35°C.
(***) Measured according to standard EN 12102.

TECHNICAL SPECIFICATION

CE EMC RoHS

MODEL	Unit	BioBlock 6M + BioBox S	BioBlock 9M + BioBox S	BioBlock 12M + BioBox S	BioBlock 15M + BioBox S	BioBlock 19M + BioBox S
ErP Energy efficiency class		A+++	A+++	A+++	A+++	A+++
$SCOP_{35°C}$ (floor heating) EN 14825		4,74	4,73	4,71	4,71	4,47
HEATING MODE (A7/W35)						
Heating capacity*	kW	3,5 – 6,5	4,3 – 9,2	5,5 – 11,6	6,00 - 15,35	9,2 - 18,5
COPmax - Coefficient of Performance*		4,70	4,71	4,90	5,06	5,01
Rated input power*	kW	0,76 – 1,41	0,93 – 2,01	1,1 – 2,68	1,22- 3,21	1,83- 4,14
Max. temperature of heating water	°C	58	58	58	58	58
Operating range of heat pump - Heating (Ambient temperature)	°C	-25 to +45	-25 to +45	-25 to +45	-25 to +45	-25 to +45
DHW TANK						
Type / Volume (net)		/	/	/	/	/
COOLING MODE (A35/W7)						
Cooling capacity**	kW	6,22 – 7,45	6,7 – 9,5	7,2 – 9,8	7.23/18.57	8,5 - 22,5
EERmax - Energy Efficiency Ratio**		4,05	4,23	3,90	3,78	3,58
Min. temperature of cooling water	°C	7	7	7	7	7
Operating range of heat pump - Cooling (Ambient temperature)	°C	0 to +65	0 to +65	0 to +65	0 to +65	0 to +65
POWER SUPPLY - SPECIFICATIONS						
Voltage	V/Hz/ph	220-240/50/1	220-240/50/1	220-240/50/1	380-420/50/3	380-420/50/3
Fuse for heat pump	A/type	1 x 1p/16A/C	1 x 1p/20A/C	1 x 1p/24A/C	1 x 3p/16A/C	1 x 3p/16A/C
Fuse for electrical flow heater	A/type	1 x 1p/16A/C	1 x 1p/20A/C	1 x 1p/24A/C	3 x 1p/10A/C	3 x 1p/10A/C
Fuse for electrical heater in DHW tank	A/type					
REFRIGERANT SPECIFICATION						
Type / Mass of refrigerant		R32 / 0,9 Kg	R32 / 1,4 Kg	R32 / 1,8 Kg	R32 / 2,55 Kg	R32 / 2,6 Kg
Type of connection between indoor-outdoor unit		Water connection	Water connection	Water connection	Water connection	Water connection
Dimensions of water pipes	Water	G1"	G1"	G1"	G1"-1/4"	G1"-1/4"
CONTROLLER						
Controller Type		LCD Touch Tablet	LCD Touch Tablet	LCD Touch Tablet	LCD Touch Tablet	LCD Touch Tablet
LCD Size		8"	8"	8"	8"	8"
Controller features		2x Mixing Heating Circuit + 2x Mixing Cooling Circuit + DHW Heating + Solar + Buffer	2x Mixing Heating Circuit + 2x Mixing Cooling Circuit + DHW Heating + Solar + Buffer	2x Mixing Heating Circuit + 2x Mixing Cooling Circuit + DHW Heating + Solar + Buffer	2x Mixing Heating Circuit + 2x Mixing Cooling Circuit + DHW Heating + Solar + Buffer	2x Mixing Heating Circuit + 2x Mixing Cooling Circuit + DHW Heating + Solar + Buffer
Wi-Fi module		Serial Integrated with WiFi Antenna	Serial Integrated with WiFi Antenna	Serial Integrated with WiFi Antenna	Serial Integrated with WiFi Antenna	Serial Integrated with WiFi Antenna
SOUND POWER AND SOUND PRESSURE LEVEL						
Sound power level LwA - Indoor unit	dB(A)	37	37	37	44	44
Sound power level LwA - Outdoor unit***	dB(A)	52	53	52	59	61
SOUND PRESSURE LEVEL ON DISTANCE:						
Indoor unit - 1 m	dB(A)	26	26	26	28	28
Outdoor unit - 1 m	dB(A)	44	44	44	48	50
Outdoor unit - 5 m	dB(A)	30	30	30	34	36
Outdoor unit - 10 m	dB(A)	24	24	24	28	30
NET DIMENSIONS						
Indoor unit (WxHxD)	mm	460 x 737 x 288	460 x 737 x 288	460 x 737 x 288	570 x 255 x 550	570 x 255 x 550
Outdoor unit (WxHxD)	mm	1010 x 700 x 370	1165 x 845 x 370	1165 x 845 x 370	1085 x 1450 x 390	1085 x 1450 x 390
NET WEIGHT						
Indoor unit / Outdoor unit	kg	29,5 / 65	29,5 / 78	29,5 / 85	29,5 / 120	25 / 130
SERIAL INTEGRATED COMPONENTS						
Electrical flow heater	kW/ph	/	/	/	/	/
Circulation water pump - A energy class	type	ERP – A energy class	ERP – A energy class	ERP – A energy class	ERP – A energy class	ERP – A energy class
Temperature Sensors		Serial Integrated - All	Serial Integrated - All	Serial Integrated - All	Serial Integrated - All	Serial Integrated - All
3-way diverting valve for DHW tank		/	/	/	/	/

(*) Measured according to standard EN 14511. Heating condition: water inlet/outlet temperature 30°C/35°C, ambient temperature DB/WB 7°C/6°C.
(**) Measured according to standard EN 14511. Cooling condition: water inlet/outlet temperature 12°C/7°C and ambient temperature 35°C.
(***) Measured according to standard EN 12102.

TECHNICAL SPECIFICATION OF HEAT PUMP BIOBLOCK

CE EMC RoHS

MODEL	Unit	BioBlock 6M	BioBlock 9M	BioBlock 12M	BioBlock 15M	BioBlock 19M
ErP Energy efficieny class		A+++	A+++	A+++	A+++	A+++
SCOP 35 °C (floor heating) EN 14825		4,74	4,73	4,71	4,71	4,47
HEATING MODE (A7 / W35)						
Heating capacity *	kW	3,5 – 6,5	4,3 – 9,2	5,5 – 11,6	6,00 – 15,35	9,2 – 18,5
COPmax – Coefficient of Performance *		4,70	4,71	4,90	5,06	5,01
Rated input power *	kW	0,76 – 1,41	0,93 – 2,01	1,1 – 2,68	1,22 – 3,21	1,83 – 4,4
Maks. Temperature of heating water	°C	58	58	58	58	58
Operating range of heat pump – Heating (Ambient temperature)	°C	-25 up to +45	-25 up to +45	-25 up to +45	-25 up to +45	-25 up to +45
COOLING MODE (A35 / W7)						
Cooling capacity **	kW	6,22 – 7,45	6,7 – 9,5	7,2 – 9,8	7,23 – 18,57	8,5 – 22,5
EERmax – Energy Efficiency Ratio **		4,05	4,23	3,90	3,78	3,58
Min. Temperature of cooling water	°C	7	7	7	7	7
Operating range of heat pump- cooling (Ambient temperature)	°C	0 up to +65	0 up to +65	0 up to +65	0 up to +65	0 up to +65
POWER SUPPLY – SPECIFICATIONS						
Voltage	V/Hz/ph	220-240/50/1	220-240/50/1	220-240/50/1	380-415/50/3	380-240/50/3
Fuse for heat pump	A/type	1 x 1p/16A/C	1 x 1p/16A/C	1 x 1p/16A/C	1 x 3p/16A/C	1 x 3p/16A/C
REFRIGERANT SPECIFICATION						
Type / Mass of refrigerant	/	R32 / 0,9 Kg	R32 / 1,4 Kg	R32 / 1,8 Kg	R32 / 2,55 Kg	R32 / 2,6 Kg
Type of connection between indoor- outdoor unit		Water connection	Water connection	Water connection	Water connection	Water connection
Dimesnions of water pipes	Water	Cu - ø22	Cu - ø28	Cu - ø28	1 ½"	1 ½"
SOUND POWER AND SOUND PRESSURE LEVEL						
Sound power level LwA – indoor unit	dB(A)	45	46	47	44	44
Sound power lewel LwA – outdoor unit ***	dB(A)	52	53	52	59	61
SOUND PRESSURE LEVEL ON DISTANCE						
Indoor unit - 1 m	dB(A)	37	37	37	28	28
Outdoor unit - 1 m	dB(A)	44	44	44	48	50
Outdoor unit - 5 m	dB(A)	30	30	30	34	36
Outdoor unit - 10 m	dB(A)	24	24	24	28	30
NET DIMENSIONS						
Outdoor unit (WxHxL)	mm	1010 x 700 x 370	1165 x 845 x 370	1165 x 845 x 370	1085 x 1450 x 390	1085 x 1450 x 390
NET WEIGHT						
Outdoor unit	kg	65	78	85	120	130

(*) Izmerjeno v skladu s standardom EN 14511. Stanje ogrevanja: temperatura vstopa / izstopa vode 30 ° C / 35 ° C, temperatura okolice DB / WB 7 ° C / 6 ° C.
(**) Izmerjeno v skladu s standardom EN 14511. Pogoji hlajenja: temperatura vstopa / izstopa vode 12 ° C / 7 ° C in temperatura okolice 35 ° C.
(***) Izmerjeno v skladu s standardom EN 12102.

HEAT PUMP
BIOBLOCK

TECHNICAL SPECIFICATION FOR UNIT ALL-IN-ONE

CE EMC RoHS

MODEL	Unit	All-In-One
DOMESTIC HOT WATER BOILER (DHW)		
Type / volume (net)		Enameled / 230 l
POWER SUPPLY - SPECIFICATIONS		
Voltage	V/Hz/ph	220-240/50/1
Fuse for eletrical flow heater	A/type	1 x 1p/16A/C
Fuse for electrical heater in DHW tank	A/type	1 x 1p/10A/C
CONTROLLER		
Controller Type		A dedicated controller BIODOM IQ2
LCD Tablet		Tablet WinIoT 8 inch 4 X USB, Touch, Ethernet, WiFi, remote access
Controller features		3x Mixing Heating Circuit + 1 x mixing Cooling Circuit + DHW heating + Solar + Buffer + Heat pump control+ additional source control
Wi-Fi module		Serial Integrated with WiFi Antenna
DIMENSIONS		
Indoor unit (WxHxL)	mm	600 x 1862 x 750
NET WEIGHT		
Indoor unit	kg	190 / 65
SERIAL INTEGRATED COMPONENTS		
Electrical flow heater	kW/ph	6 kW (1ph / 1 phase)
Electrical heater DSW	kW/ph	1.5kW 1 phase
Circulation water pump – a energy class	type	Grundfos UPM Flex 25-75 180
Temperature Sensors		ETK 20004 NTC Black
3-way diverting valve for DHW tank		Serial integrated

INDOOR UNIT
ALL-IN-ONE

TECHNICAL SPECIFICATION

CE EMC RoHS

MODEL	Unit	S3-1P	S3-3P	S3E-1P	S3E-3P
POWER SUPPLY- SPECIFICATIONS					
Voltage	V/Hz/ ph	220-240/50/1	220-240/50/1	220-240/50/1	400/50/3
Fuse for heat pump	A/type	1 x 1p/16A/C	1 x 1p/16A/C	1 x 1p/16A/C	3 X /16A/C
Fuse for electrical flow heater	A/type	✗*	✗*	2 x 1p/16A/C	2 X 1p/16A/C
Dimensions of water pipes		1'	1 1/2'	1'	1 1/2'
Hydraulic connections	Type	Heat pump/Additional boiler/System	Heat pump/Additional boiler/System	Heat pump/Additional boiler/System	Heat pump/Additional boiler/System
CONTROLLER					
Controller type		Dedicated controller BIODOM IQ2	Dedicated controller BIODOM IQ2	Dedicated controller BIODOM IQ2	Dedicated controller BIODOM IQ2
LCD tablet		Tablet WinIoT 8 inch 4 X USB, Touch, Ethernet, WiFi, remote access	Tablet WinIoT 8 inch 4 X USB, Touch, Ethernet, WiFi, remote access	Tablet WinIoT 8 inch 4 X USB, Touch, Ethernet, WiFi, remote access	Tablet WinIoT 8 inch 4 X USB, Touch, Ethernet, WiFi, remote access
Controller features		3x Mixing Heating Circuit + 1 Mixing Cooling Circuit + DHW Heating + Solar + Buffer + Control of the heat pump + Control of the additional source	3x Mixing Heating Circuit + 1 Mixing Cooling Circuit + DHW Heating + Solar + Buffer + Control of the heat pump + Control of the additional source	3x Mixing Heating Circuit + 1 Mixing Cooling Circuit + DHW Heating + Solar + Buffer + Control of the heat pump + Control of the additional source	3x Mixing Heating Circuit + 1 Mixing Cooling Circuit + DHW Heating + Solar + Buffer + Control of the heat pump + Control of the additional source
Wi-Fi module		Serial integrated	Serial integrated	Serial integrated	Serial integrated
SERIAL INTEGRATED COMPONENTS					
Electrical flow heater	kW/ ph	✗	✗	2 x 1kW	2 x 1.5kW
Circulation water pump - A energy class	Type	ERP – A energy class	ERP – A energy class	ERP – A energy class	ERP – A energy class
Temperature Sensors		✗	✗	ETK20003 - NTC 10m	ETK20003 - NTC 10m
Safety valve 2.5 bar DN 15		✓	✓	✓	✓
Temperature protection 95°C		✗	✗	✓	✓
DIMESIONS					
Indoor unit (W x H x L)	mm	460 x 737 x 288	460 x 737 x 288	460 x 737 x 288	460 x 737 x 288
NET WEIGHT					
Indoor unit	kg	34	34	34	34

(*) S3 without additional E, is the version without electric heater.

INDOOR UNIT
S3 AND S3E

TECHNICAL SPECIFICATION OF IQ2 ELECTRICAL CONTROL KIT

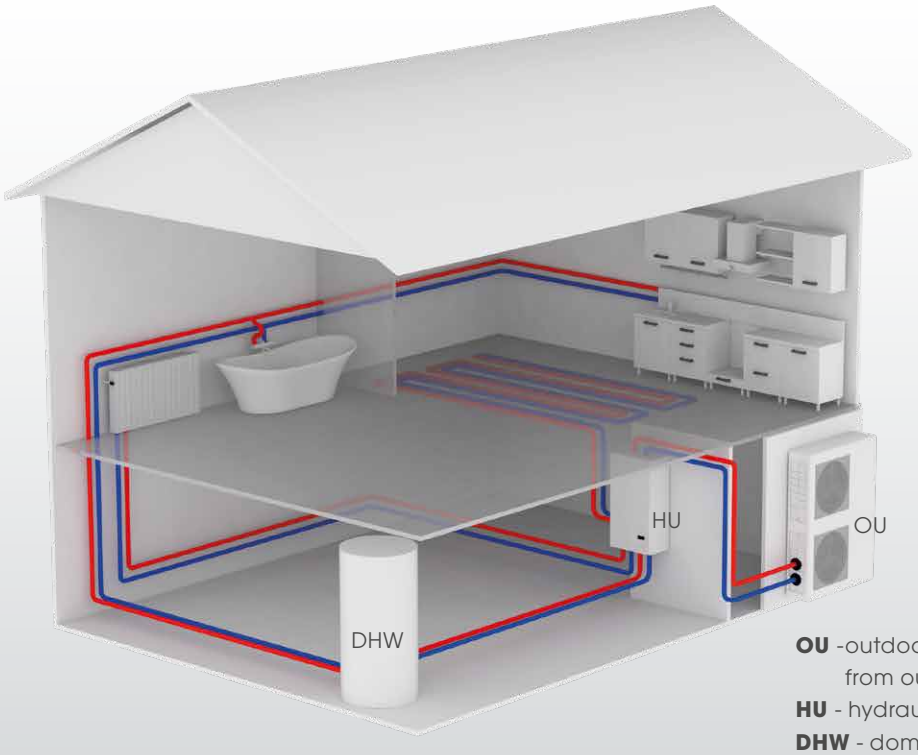
CE EMC RoHS

MODEL	Unit	IQ2
POWER SUPPLY - SPECIFICATIONS		
Voltage	V/Hz/ ph	220-240/50/1
Fuse for powering the tablet and IQ2	A/type	1 x 1p/10A/C
CONTROLLER		
Controller Type		Dedicated controller BIODOM IQ2
LCD tablet		Tablet WinIoT 8 inch 4 X USB, Touch, Ethernet, WiFi, additional access
Controller features		3x Mixing Heating Circuit + 1 Mixing Cooling Circuit + DHW Heating + Solar + Buffer + Control of the heat pump+ Control of te additioal source
Wi-Fi module		Serial integrated
DIMENSIONS		
Indoor unit (W x H x L)	mm	460 x 390 x 100
NET WIGHT		
Indoor unit elektrical box	kg	3,5
SERIAL INTEGRATED COMPONENTS		
Temperature Sensors		1x ETK 20003 NTC Grey 2x ETK 20002 NTC Yellow 1x ETK 20001 PTY

IQ2
ELECTRICAL
CONTROL KIT

EXAMPLE OF A HEATING SYSTEM WITH

A HEAT PUMP BIODOM BioBlock - Monoblock



OU -outdoor unit (capturing thermal energy from outdoor air)
HU - hydraulic unit (heatvgeneration)
DHW - domestic hot water tank

Quiet axial fan pumps big amounts of air to generate useful thermal energy in the heat pump's refrigerant system. Biodom BioBlock heat pump only generates as much heat as required by the heating system. Indoor Hydrobox unit redirects the heat to the heating circuits to the domestic hot water tank. Heat pump regulation is weather-dependent.

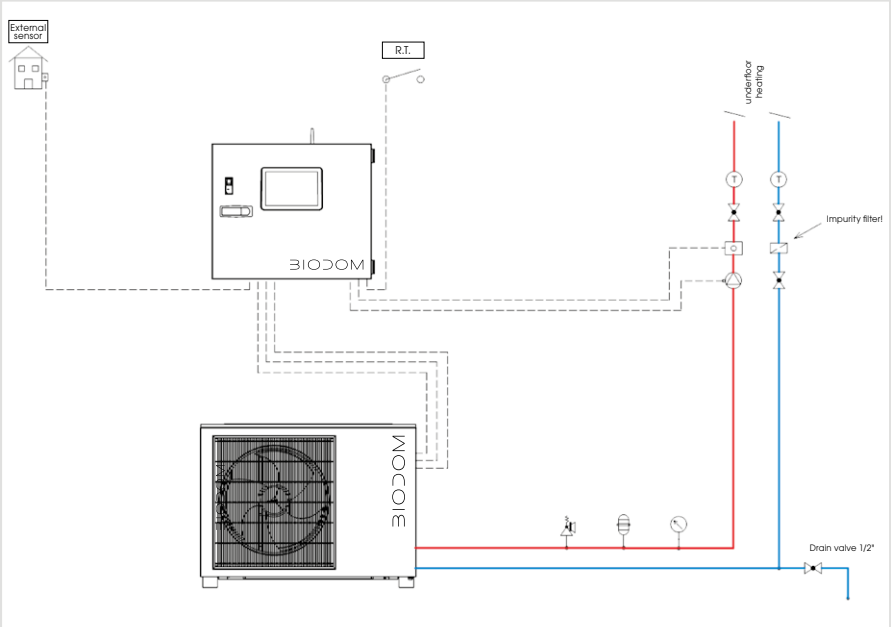
HEATING MODE

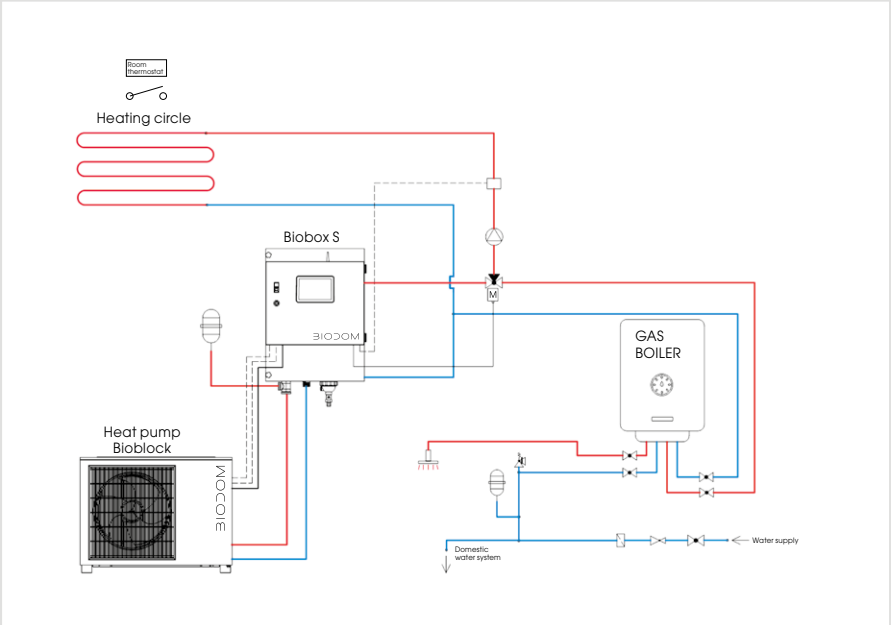
DOMESTIC HOT WATER

ACTIVE COOLING

DIAGRAM OF A HEATING SYSTEM

HEAT PUMP BIODOM BioBlock - Monoblock





KEY:

DHW Domestic hot water tank

MV1 Mixing valve 1 for radiators and fan coils

MV2 Mixing valve 2 for floor heating system

DV 3 – way switching valve for heating system and DHW tank

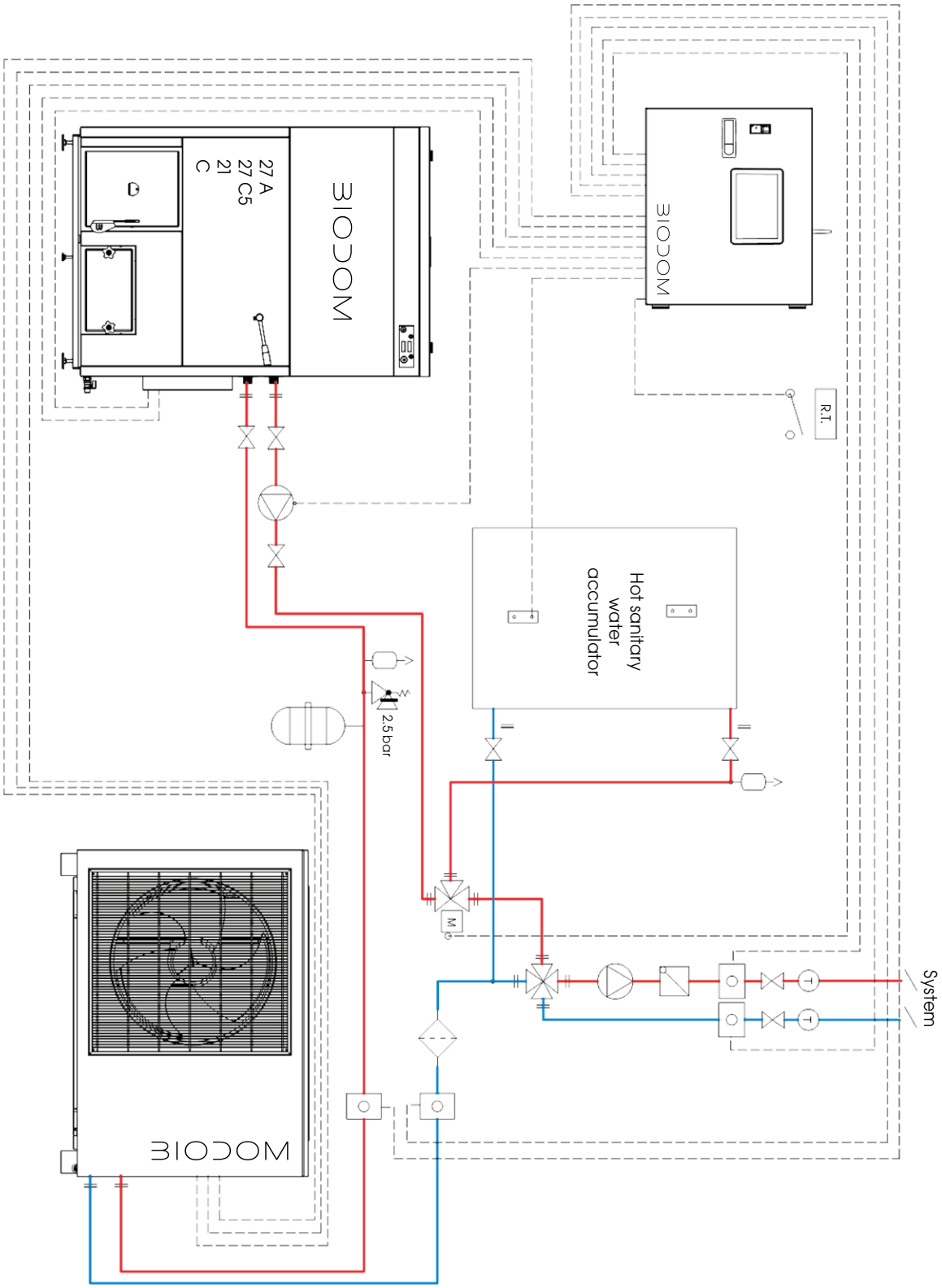
P0 Circulating pump for DHW tank and floor heating system

P1 Circulating pump for radiators and fan coils

P2 Circulating pump for floor heating system

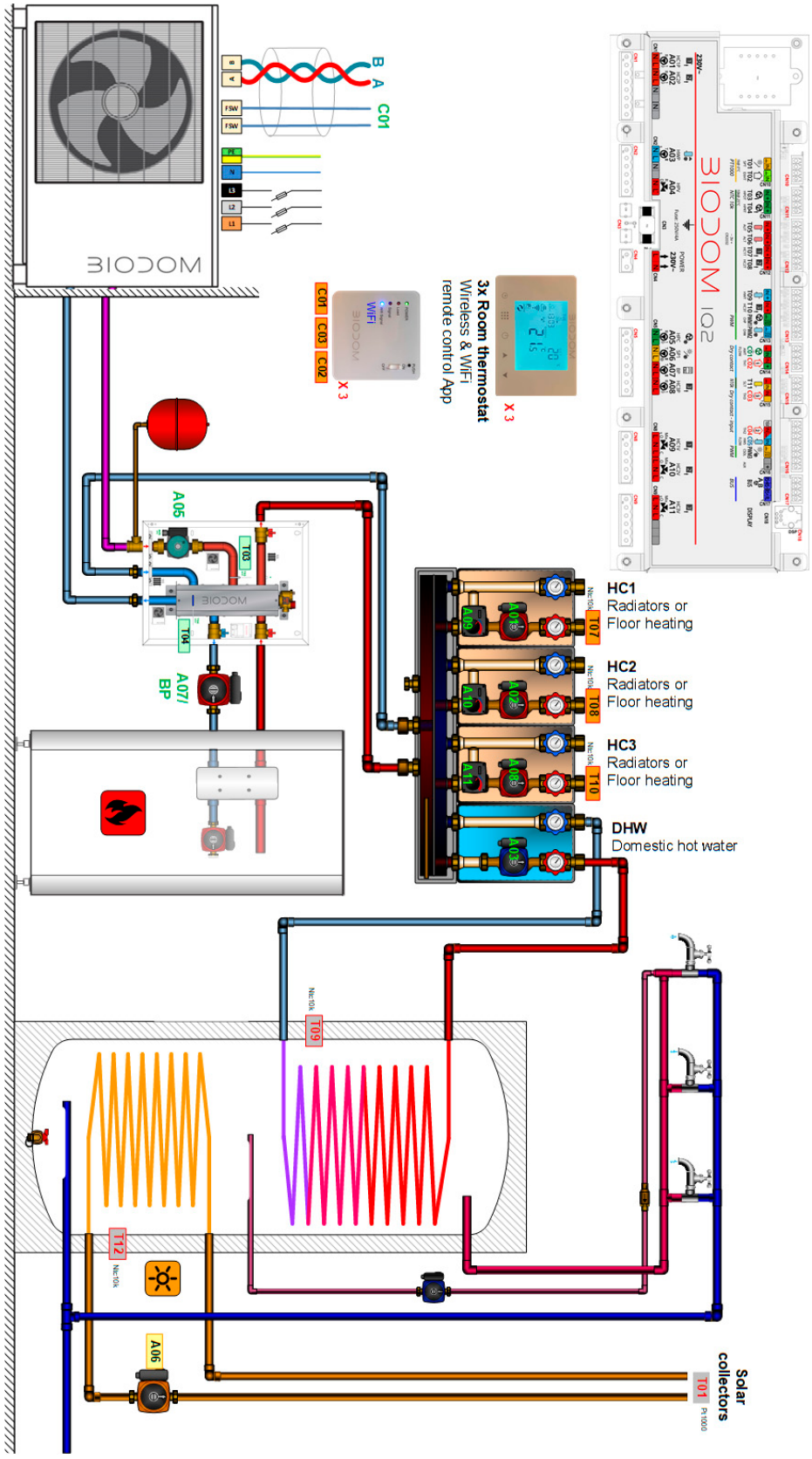
DIAGRAM OF A HEATING SYSTEM HYBRID

Heat Pump BioBlock 6M/9M/12M with Pellet boiler Biodom



BIODOM IQ2

Advanced control regulation with LCD Touch Tablet
What it can control and regulate?




BIODOM

OUR HISTORY

Environmentally friendly heating.

We began developing pellet boilers in 1999 and started our own series production and sales in 2004. We started on the Slovenian market and began expanding successfully abroad in 2005.

Currently, we export about 90% of our production. With the right approach and orderly organisation, we can continually achieve excellent results despite changes in the market.

We view the future with optimism and a sense that we can achieve every last goal that we set for ourselves. Or, maybe, we can even surpass them.

We focus all our energy on the development of biomass combustion plants. Our mission is based on the value of human resources and the usability of green energy, thanks to which we reduce monthly heating bills. Our vision is to become one of the leading companies on the international market for heating solutions.