

Air-source split heat pumps for heating, cooling and domestic hot water

Alya WH, Alya FS and Alya FS Slim



Baxi split-system air-source heat pumps offer is made of 3 ranges:

Alya WH (wall mounting), **Alya FS** (floor standing) and **Alya FS Slim** (floor standing, compact dimensions).

Alya WH/FS: air-source split heat pumps with eco-friendly R32 refrigerant gas



Alya WH and Alya FS are air-source heat pumps for heating, cooling, and domestic hot water production, operating with **eco-friendly R32 refrigerant fluid (GWP = 675)**:

- **Alya WH** is characterized by a **wall-mounted internal unit** with an elegant and compact design, ideal for installations in **limited spaces** in detached and semi-detached houses. It can be connected to an indirect tank for domestic hot water production.
- **Alya FS** stands out for its internal unit equipped with an easy-to-use control panel. Particularly suitable for medium and large surface, the **integrated 177-liter tank** grants domestic hot water delivery as soon as the tap is turned on.
- The **Alya WH/Alya FS** range is made up of **8 models with electrical back up** (E versions, 3 kW electric resistance for the 4-10 kW models, 3+3 kW for the 12-16 kW models, water T up to 65°C) and **8 models with hydraulic integration** (H versions, water T up to 80°C).
- Both versions are **combined with an external unit: 4, 6, 8, 10, 12 and 16 kW** (12 and 16 kW also with three-phase power supply) range.

Thanks to their compact dimensions, the **Alya WH/FS** heat pumps **easily fit into any domestic environment**, guaranteeing the best performance in all conditions (particularly in apartments or new houses up to 200 m²).



Alya WH/FS		4M	6M	8M	10M	12M	16M	12T	16T
Seasonal energy efficiency	(1)	■■■■ A+++	■■■■ A+++	■■■■ A+++	■■■■ A+++	■■■■ A+++	■■■■ A+++	■■■■ A+++	■■■■ A+++
	(2)	■■■■ A++	■■■■ A++	■■■■ A++	■■■■ A++	■■■■ A++	■■■■ A++	■■■■ A++	■■■■ A++
	(3)*	■■■■ A+ L	■■■■ A+ L	■■■■ A+ L	■■■■ A+ L	■■■■ A L	■■■■ A L	■■■■ A L	■■■■ A L
Nominal heating capacity kW	(4)	4,25	6,20	8,30	10,00	12,10	16,00	12,10	16,00
COP	(4)	5,20	5,00	5,20	5,00	4,95	4,50	4,95	4,50
Nominal cooling output kW	(5)	4,64	6,70	8,47	10,24	10,77	11,63	10,77	11,63
EER	(5)	5,50	4,95	5,11	4,71	3,69	3,61	3,69	3,61

(1) Heating operation energy class: low temperature, average climatic conditions (UE N° 811/2013)

(2) Heating operation energy class: medium temperature, average climatic conditions (UE N° 811/2013)

(3) DHW production energy class (UE N° 811/2013) *Only for Alya FS

(4) Outdoor air temperature 7°C - 87% U.R., water temperature 30/35°C - EN 14511

(5) Outdoor air temperature 35°C, water temperature 18°C - EN 14511

Features

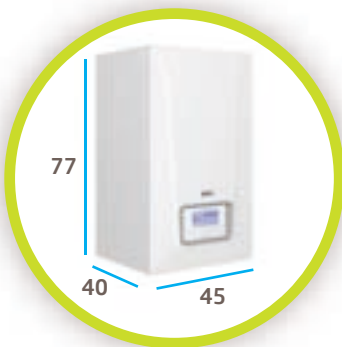


Easy to install, quick commissioning:

hydraulic connections are easier (Alya FS connections are on the top). Furthermore, the **ServiceTool App** assists the service center with all commissioning tasks and speeds up parameter mapping via Bluetooth (available as optional).

Complete system:

high efficiency pump, system expansion vessel (except for Alya WH H version), system safety valve, magnetic filter (Alya FS mounts a DHW filter **and** a system filter), condensate drip tray, system pressure gauge, flowmeter, external sensor and mounting bracket (on Alya WH), **supplied as standard**.



Compact dimension:

the compact dimensions (Alya WH = 77x45x40 cm (hxwxd) and Alya FS = 125x60x73,5 cm) assure an **easy installation in any domestic environment**.

Maximum DHW comfort (Alya FS):

177-liter integrated tank for DHW production up to 65°C (without electric back-up) and very **short loading times**: only 0h 57 min for 12 and 16 kW.

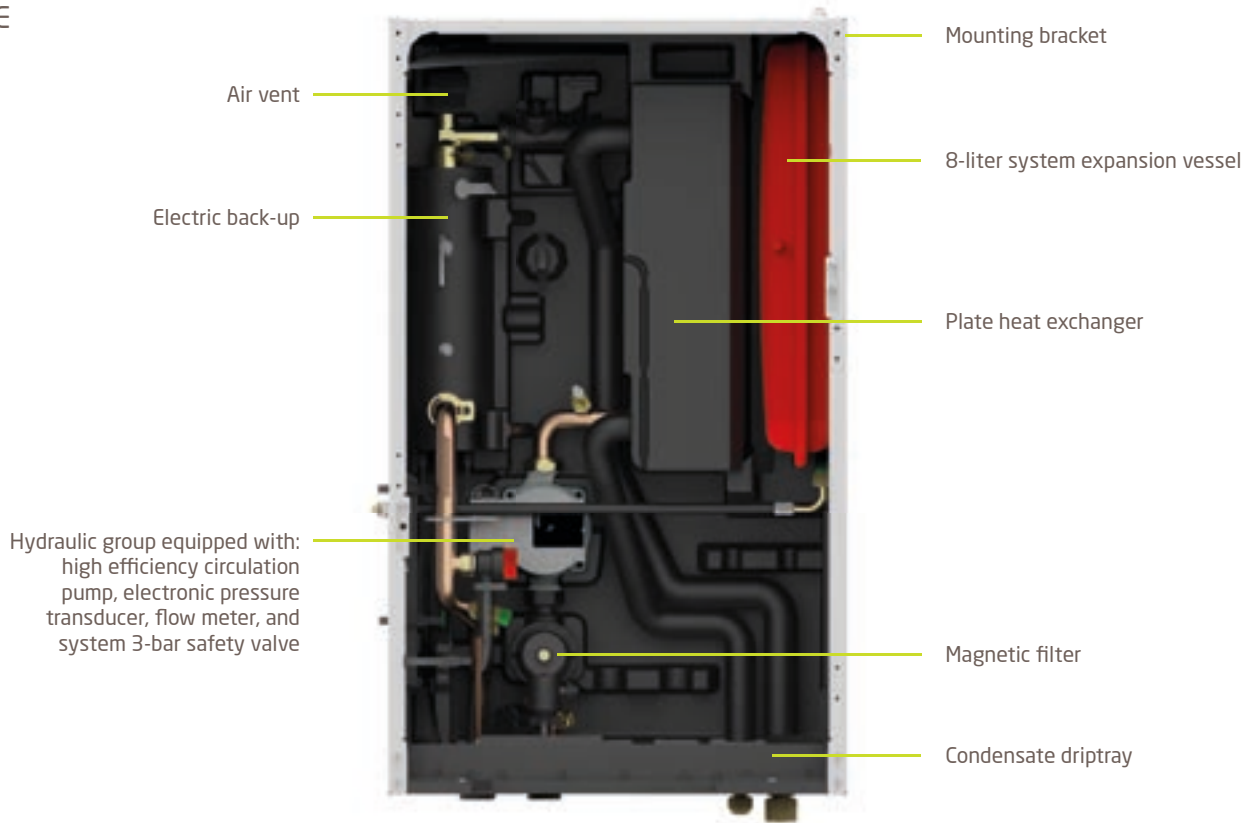


High efficiency:

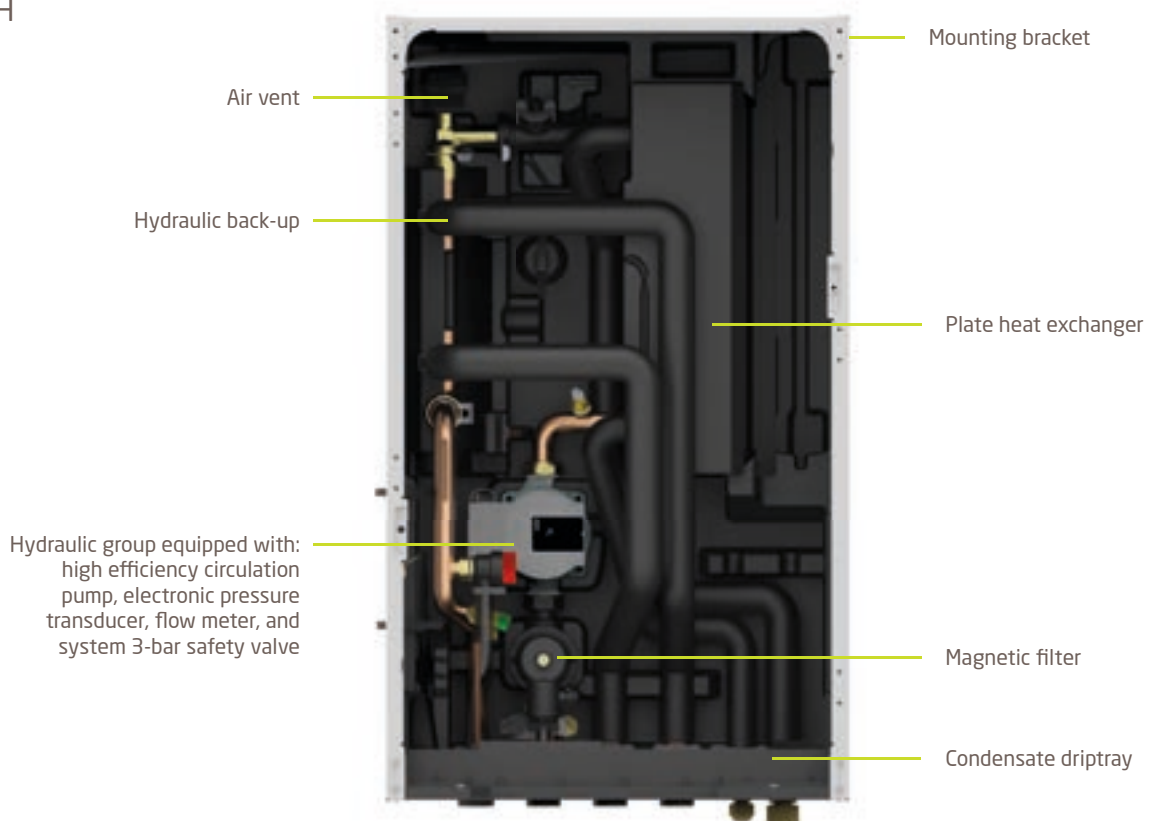
Le Alya WH/FS maximize savings accepting energy from green sources like **solar thermal system** and **photovoltaic grid**, following energy efficiency principles.

Internal unit Alya WH

Version E



Version H





III A+++



Alya WH

- maximum energy efficiency
- directly connectable with the Baxi Mago Smart Thermostat (available as option)
- 2nd mixing zone control (available as option)
- System Manager WH for hydraulic back-up (version H) or electric back-up (version E)
- wide operation ratio DC inverter compressor, low GWP refrigerant (R32)
- extremely noiseless indoor unit (sound power <37 dB(A))
- wall-mounting bracket and condensate diptray supplied as standard

Standard functions

Heating, cooling and DHW (3-way valve and tank sensor available as option)

Working with Baxi Mago or on/off thermostats

Winter/summer switch can be set via:

Baxi Mago, control panel or outdoor contact (for external key selectors or domotic systems)

Heating with climatic curves or at fixed point, cooling at fixed point (outdoor sensor supplied as standard)

Management of 1 direct zone in heating and cooling

Integrated electrical resistance management (E version):

3 kW electric resistance for the 4-10 kW models,

3+3 kW for the 12-16 kW models

Hydraulic integration management (H version) according

to energy efficiency and cost convenience between electricity and gas usage

Exploitation of the energy produced from a photovoltaic source

Noiseless operation

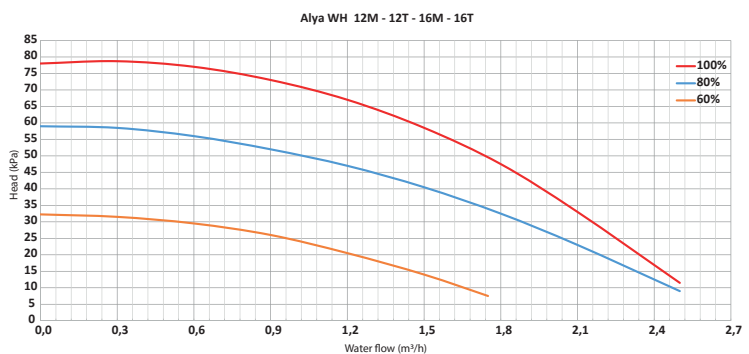
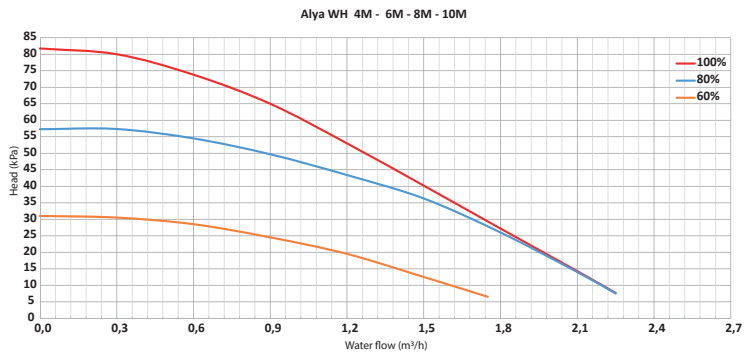
Optional functions

2nd mixing zone management (via expansion kit SCB-04)

Up to 2 independent zone for heating and

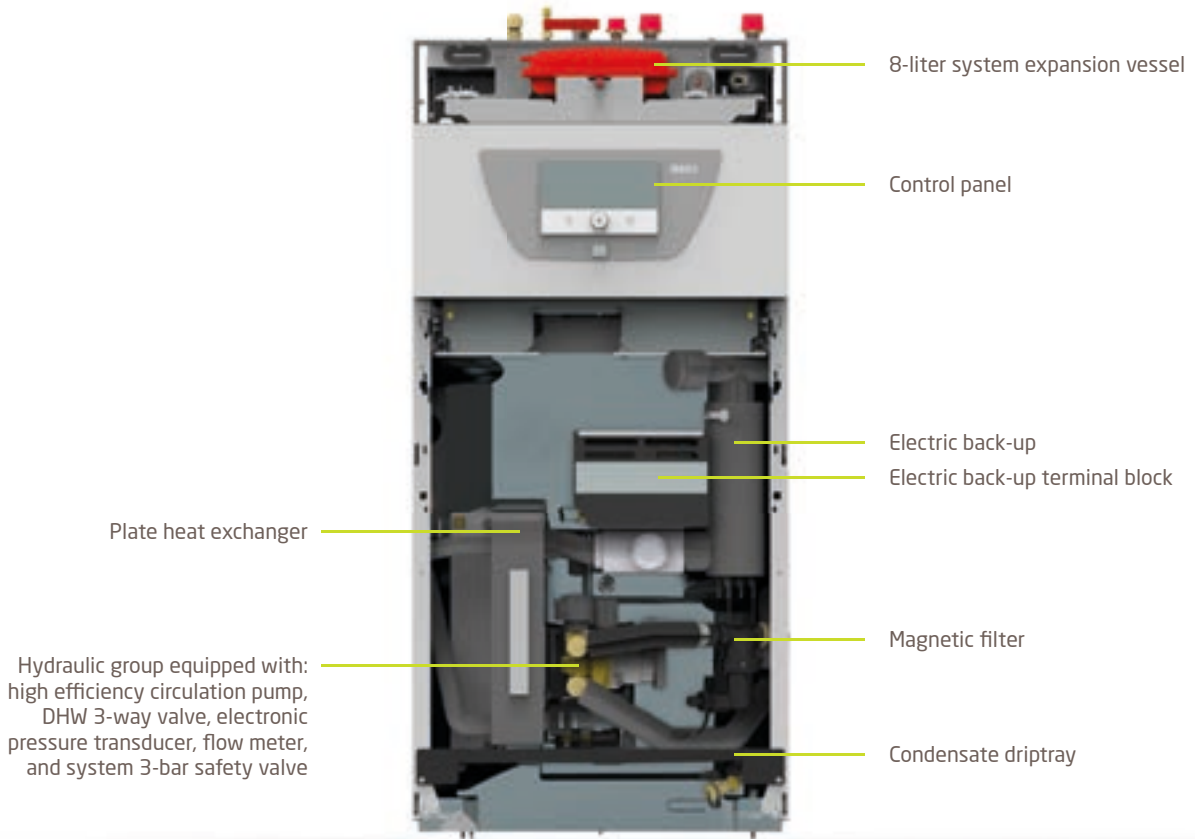
cooling management (via expansion kit SCB-01)

Flow rate/head curve

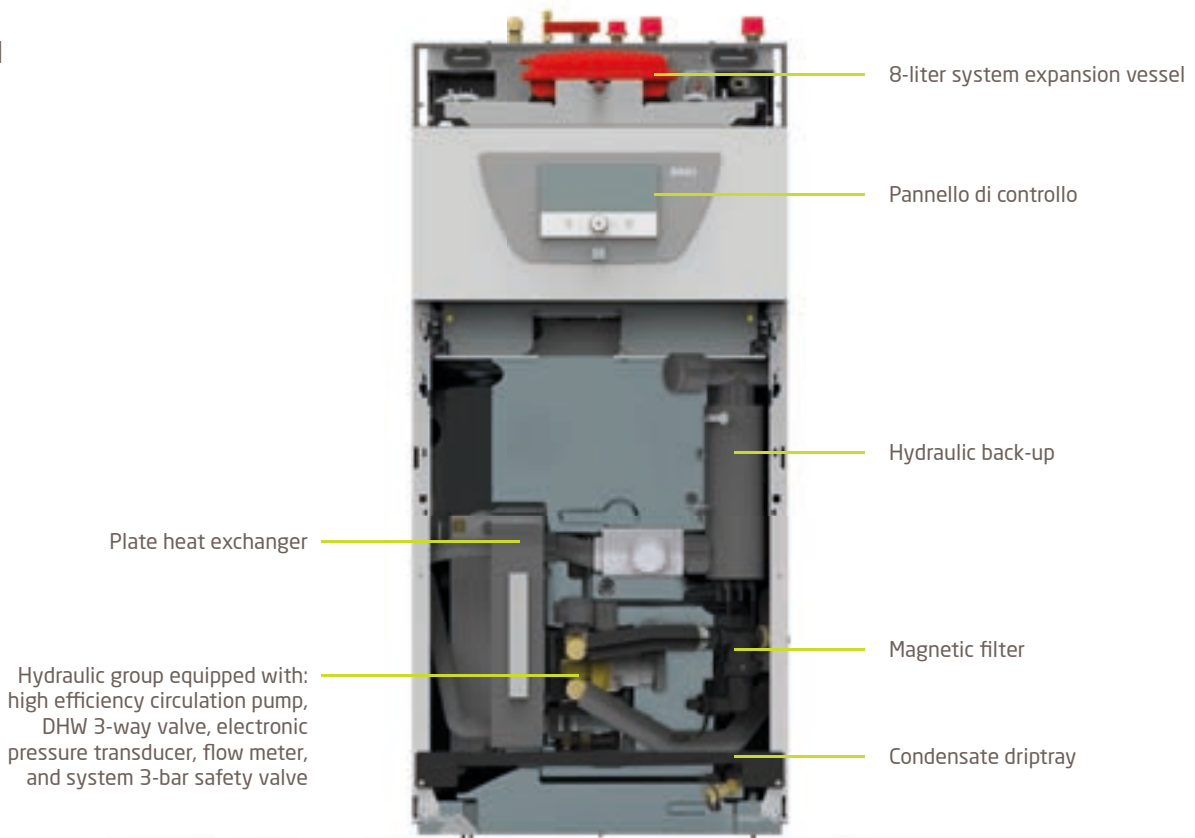


Indoor unit Alya FS

Version E



Version H



Alya FS

- maximum energy efficiency
- directly connectable with the Baxi Mago Smart Thermostat (available as option)
- System Manager FS with 177-litre DHW tank
- 2nd mixing zone control (available as option)
- System Manager FS for hydraulic back-up (version H) or electric back-up (version E)
- wide operation ratio DC inverter compressor, low GWP refrigerant (R32)
- extremely noiseless indoor unit (sound power <39 dB(A))
- condensate diptray supplied as standard



Standard functions

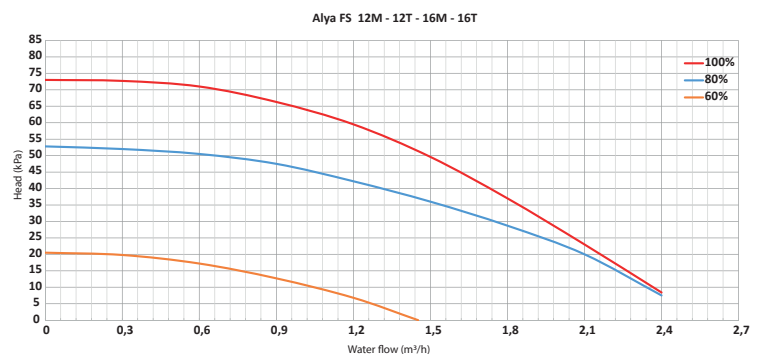
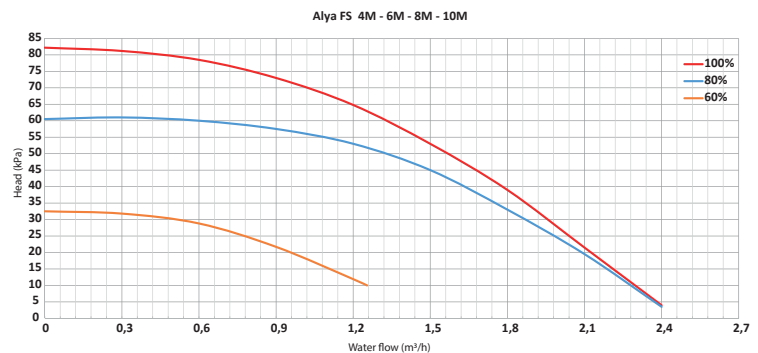
- Heating, cooling and DHW
- Working with Baxi Mago or on/off thermostats
- Winter/summer switch can be set via:
 - Baxi Mago, control panel or outdoor contact (for external key selectors or domotic systems)
- Heating with climatic curves or at fixed point, cooling at fixed point (outdoor sensor supplied as standard)
- Management of 1 direct zone in heating and cooling
- Integrated electrical resistance management (E version):
 - 3 kW electric resistance for the 4-10 kW models,
 - 3+3 kW for the 12-16 kW models
- Hydraulic integration management (H version) according to energy efficiency and cost convenience between electricity and gas usage
- Exploitation of the energy produced from a photovoltaic source
- Noiseless operation

Optional functions

- 2nd mixing zone management (via expansion kit SCB-04)
- Up to 2 independent zone for heating and cooling management (via expansion kit SCB-01)

Expansion boards can be installed in a dedicated slot inside the indoor unit

Flow rate/head curve



Technical data - Alya WH/FS

Alya WH/FS		4M	6M	8M	10M	12M	16M	12T	16T
Heating - LOW TEMPERATURE									
Rated heat output Outdoor air temperature 7°C - 87 % R.H., water temperature 30/35°C - EN 14511	kW	4,25	6,20	8,30	10,00	12,10	16,00	12,10	16,00
Absorbed electrical power Outdoor air temperature 7°C - 87 % R.H., water temperature 30/35°C - EN 14511	kW	0,82	1,24	1,60	2,00	2,44	3,56	2,44	3,56
COP Outdoor air temperature 7°C - 87 % R.H., water temperature 30/35°C - EN 14511		5,20	5,00	5,20	5,00	4,95	4,50	4,95	4,50
Rated heat output Outdoor air temperature -7°C - 87% R.H., water temperature 35°C - EN 14511	kW	4,80	6,10	7,10	8,25	10,00	13,30	10,00	13,30
Absorbed electrical power Outdoor air temperature -7°C - 87% R.H., water temperature 35°C - EN 14511	kW	1,52	2,00	2,18	2,62	3,33	4,93	3,33	4,93
COP Outdoor air temperature -7°C - 87% R.H., water temperature 35°C - EN 14511		3,15	3,05	3,25	3,15	3,00	2,70	3,00	2,70
Heating - MEDIUM TEMPERATURE									
Rated heat output Outdoor air temperature 7°C - 87 % R.H., water temperature 45°C - EN 14511	kW	4,35	6,35	8,20	10,00	12,30	16,00	12,30	16,00
Absorbed electrical power Outdoor air temperature 7°C - 87 % R.H., water temperature 45°C - EN 14511	kW	1,14	1,69	2,08	2,63	3,24	4,44	3,24	4,44
COP Outdoor air temperature 7°C - 87 % R.H., water temperature 45°C - EN 14511		3,80	3,75	3,95	3,80	3,80	3,60	3,80	3,60
Rated heat output Outdoor air temperature 7°C - 87 % R.H., water temperature 55°C - EN 14511	kW	4,40	6,00	7,50	9,50	12,00	16,00	12,00	16,00
Absorbed electrical power Outdoor air temperature 7°C - 87 % R.H., water temperature 55°C - EN 14511	kW	1,49	2,00	2,36	3,06	3,87	5,52	3,87	5,52
COP Outdoor air temperature 7°C - 87 % R.H., water temperature 55°C - EN 14511		2,95	3,00	3,18	3,10	3,10	2,90	3,10	2,90
Cooling									
Nominal cooling capacity Outdoor air temperature 35°C, water temperature 18°C - EN 14511	kW	4,64	6,70	8,47	10,24	10,77	11,63	10,77	11,63
Absorbed electrical power Outdoor air temperature 35°C, water temperature 18°C - EN 14511	kW	0,84	1,35	1,66	2,17	2,92	3,22	2,92	3,22
EER Outdoor air temperature 35°C, water temperature 18°C - EN 14511		5,50	4,95	5,11	4,71	3,69	3,61	3,69	3,61
Nominal cooling capacity Outdoor air temperature 35°C, water temperature 7°C - EN 14511	kW	4,76	7,18	7,33	8,70	10,55	12,36	10,55	12,36
Absorbed electrical power Outdoor air temperature 35°C, water temperature 7°C - EN 14511	kW	1,32	2,39	2,17	2,69	4,19	5,44	4,19	5,44
EER Outdoor air temperature 35°C, water temperature 7°C - EN 14511		3,60	3,01	3,38	3,23	2,52	2,27	2,52	2,27
ErP data									
SCOP	(1)	4,90	4,95	5,21	5,20	4,52	4,50	4,52	4,50
	(2)	3,38	3,52	3,36	3,49	3,46	3,41	3,46	3,41
Seasonal energy efficiency η_s	% (1)	193	195	205	205	178	177	178	177
	% (2)	132	138	132	137	135	133	135	133
Water heating seasonal energy efficiency η_{wh}	% (3)	131	131	128	128	108	108	108	108
SEER	(4)	8,25	8,44	8,07	7,78	6,66	6,18	6,66	6,18
	(5)	4,44	4,75	4,85	4,94	4,09	4,23	4,09	4,23
Refrigerant circuit									
Refrigerant gas		R32							
Refrigerant load	kg	1,50	1,50	1,65	1,65	1,84	1,84	1,84	1,84
	tCO ₂ e	1,02	1,02	1,11	1,11	1,24	1,24	1,24	1,24
Max. pre-load length	m	15,00	15,00	15,00	15,00	15,00	15,00	15,00	15,00
Refrigerant connections		1/4" - 5/8"	1/4" - 5/8"	3/8" - 5/8"	3/8" - 5/8"	3/8" - 5/8"	3/8" - 5/8"	3/8" - 5/8"	3/8" - 5/8"

Alya WH/FS		4M	6M	8M	10M	12M	16M	12T	16T
Hydraulic circuit									
Heat exchanger water flow Outdoor air temperature 7°C – 87 % R.H., water temperature 30/35°C - EN 14511	m³/h	0,73	1,10	1,44	1,72	2,00	2,64	2,00	2,64
Minimum water content	l	24	29	33	37	41	48	41	48
System expansion vessel (except for Alya WH H)	l	8	8	8	8	8	8	8	8
System safety valve	bar	3	3	3	3	3	3	3	3
DHW safety valve	bar	7	7	7	7	7	7	7	7
Electrical data									
Power supply	V/Ph/ Hz	230/1/50						400/3/50	
Electric back-up power	kW	3,00	3,00	3,00	3,00	3,00 + 3,00	3,00 + 3,00	3,00 + 3,00	3,00 + 3,00
Operating limits in heating mode									
Outdoor air temperature min/max °C	-25°C/+35°C								
Water temperature min/max °C	+25°C/+65°C								
Operating limits in cooling mode									
Outdoor air temperature min/max °C	-5°C/+43°C								
Water temperature min/max °C	+5°C/+25°C								

Technical data - Alya WH

Alya WH		4M	6M	8M	10M	12M	16M	12T	16T
Sound data									
Indoor unit sound power. According to EN 12102: water temperature 55°C and outdoor air temperature 7°C	dB(A)	33	33	36	37	37	37	37	37
Outdoor unit sound power. According to ErP conditions: water temperature 47/55° and outdoor air temperature 7°C - 87% U.R.	dB(A)	52	52	54	54	56	56	56	56
Weight									
Indoor unit Empty weight, packaging excluded	kg	40,00	40,00	40,00	40,00	42,00	42,00	42,00	42,00
Outdoor unit Empty weight, packaging excluded	kg	57,50	57,50	76,50	76,50	96,00	112,00	96,00	112,00

(1) Seasonal energy efficiency class of room heating at LOW TEMPERATURE in AVERAGE climate conditions (EU regulation N° 811/2013)
(2) Seasonal energy efficiency class of room heating at MEDIUM TEMPERATURE in AVERAGE climate conditions (EU regulation N° 811/2013)
(3) Seasonal energy efficiency class of water heating (EU regulation N° 811/2013)
(4) Room cooling seasonal energy efficiency for radiant floor heating application (23/18°C) - (EN 14825)
(5) Room cooling Seasonal energy efficiency for fan coil applications (12/7°C) - (EN 14825)

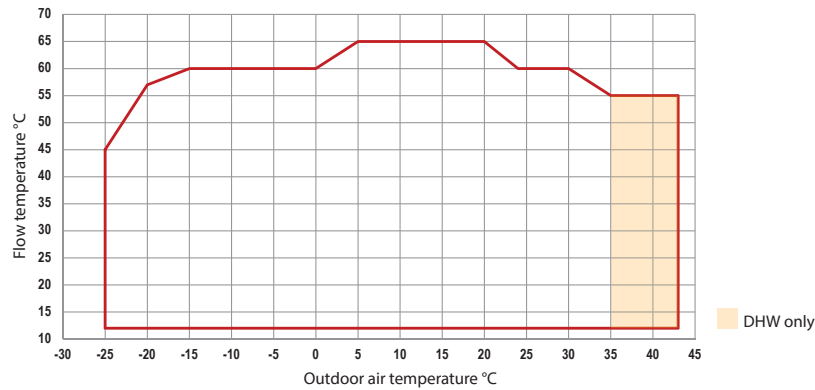
Technical data - Alya FS

Alya FS		4M	6M	8M	10M	12M	16M	12T	16T
Domestic hot water tank									
Tank capacity	l	177	177	177	177	177	177	177	177
Max. operating pressure	bar	10	10	10	10	10	10	10	10
Loading time	(6)	1h30m	1h30m	1h21m	1h21m	0h57m	0h57m	0h57m	0h57m
Sound data									
Indoor unit sound power. According to EN 12102: water temperature 55°C and outdoor air temperature 7°C	dB(A)	33	33	37	39	39	39	39	39
Outdoor unit sound power. According to ErP conditions: water temperature 47/55° and outdoor air temperature 7°C - 87% U.R.	dB(A)	52	52	54	54	56	56	56	56
Weight									
Indoor unit Empty weight, packaging excluded	kg	140,50	140,50	140,50	140,50	142,50	142,50	142,50	142,50
Outdoor unit Empty weight, packaging excluded	kg	57,50	57,50	76,50	76,50	96,00	112,00	96,00	112,00

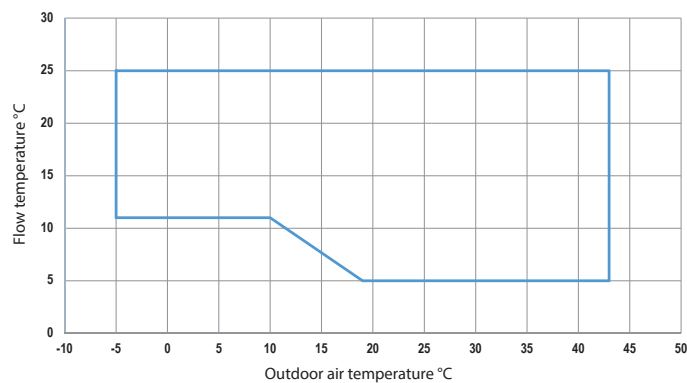
(6) Loading time considering: water set point 54 °C - outdoor air temperature 7 °C - indoor air temperature 20 °C (according to EN 16147)

Operating limits

Heating and DHW operating limits

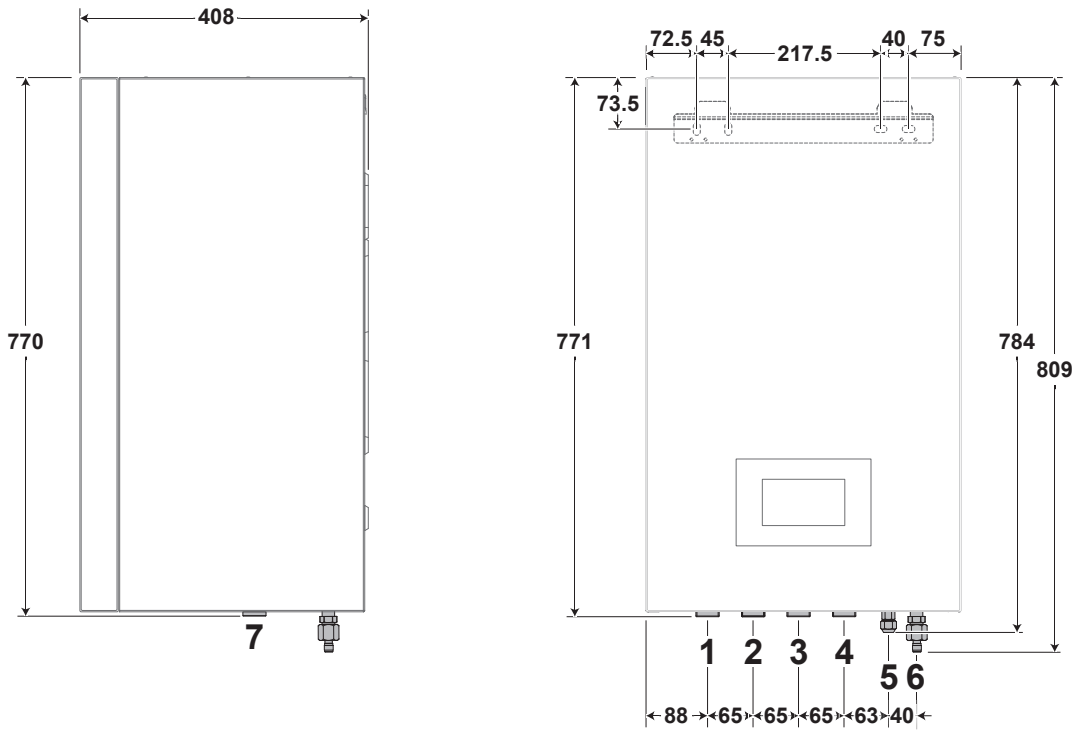


Cooling operating limits



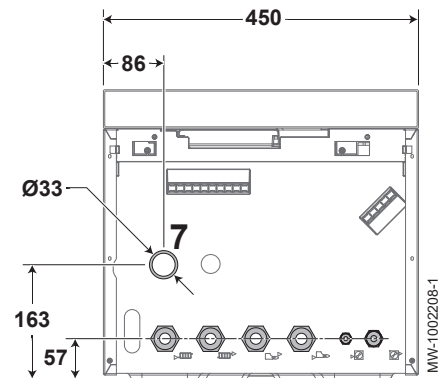
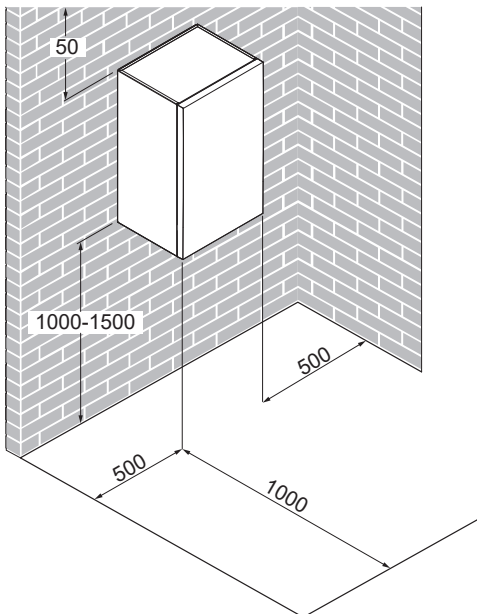
Dimensions and clearance spaces

System Manager Alya WH
(indoor unit)



- 1 Heating circuit flow G1"
- 2 Heating circuit return G1"
- 3 Integrative boiler flow G1" (H versions)
- 4 Integrative boiler return G1" (H versions)

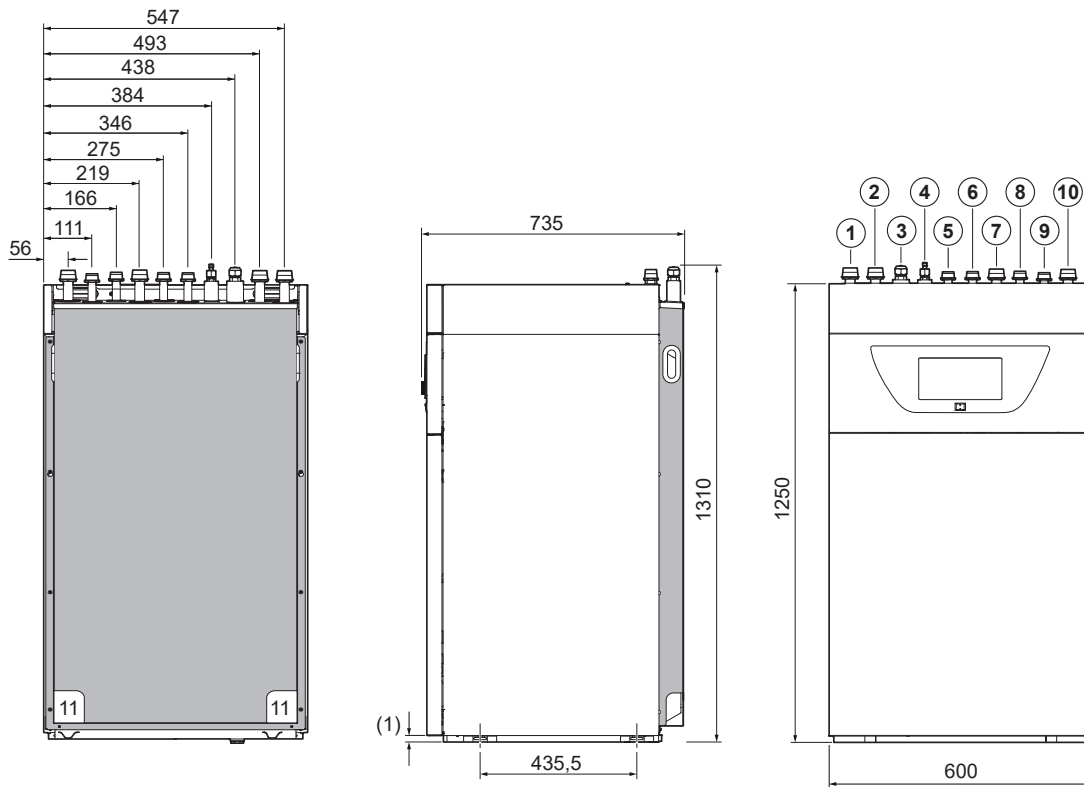
- 5 Refrigerant connections 1/4" or 3/8" - liquid connections
- 6 Refrigerant connections 5/8" - gas connections
- 7 Condensate drain



Dimensions in mm

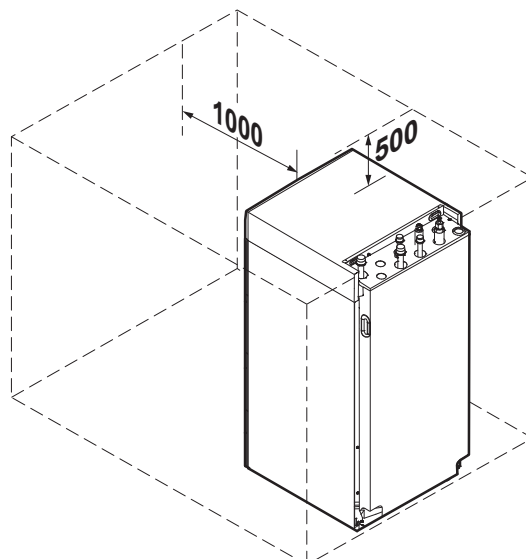
Dimensions and clearance spaces

System Manager Alya FS (indoor unit)



- 1 Second circuit return (optional)
- 2 Second circuit flow (optional)
- 3 Refrigerant connections - gas
- 4 Refrigerant connections - liquid
- 5 DHW outlet G3/4"
- 6 Cold water inlet G3/4"
- 7 Heating circuit return

- 8 Integrative boiler flow G3/4" (H versions)
- 9 Integrative boiler return G3/4" (H versions)
- 10 Heating circuit flow
- 11 Condensate drain
- (1) Adjustable feet

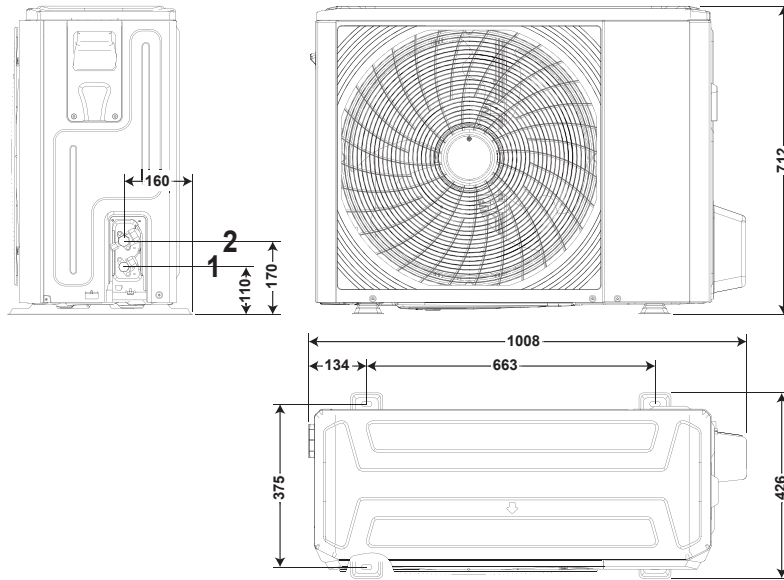


Dimensions in mm

Dimensions and clearance spaces

Split heat pump
(outdoor unit)

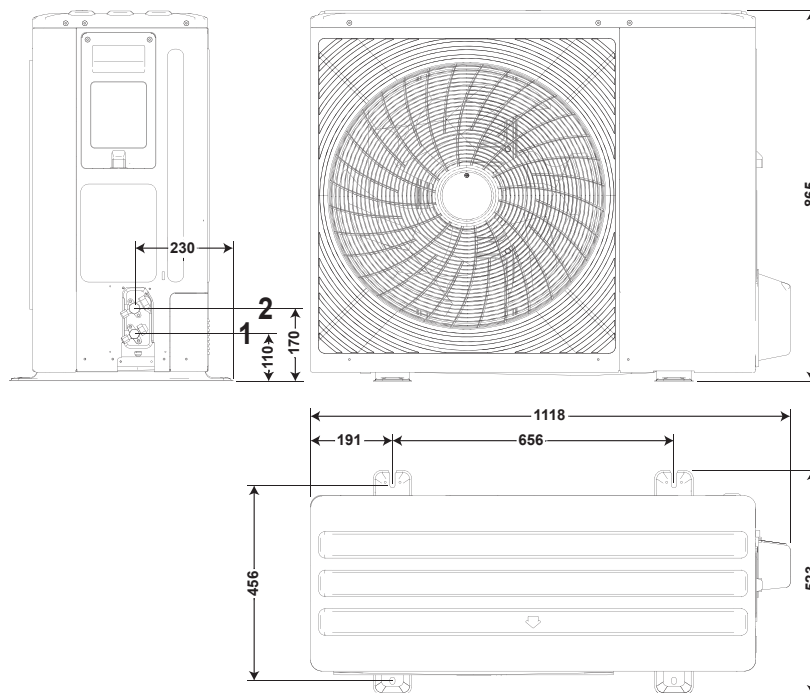
AWHP2R 4 MR-6 MR



1. Liquid refrigerant connections 1/4"

2. Gas refrigerant connections 5/8"

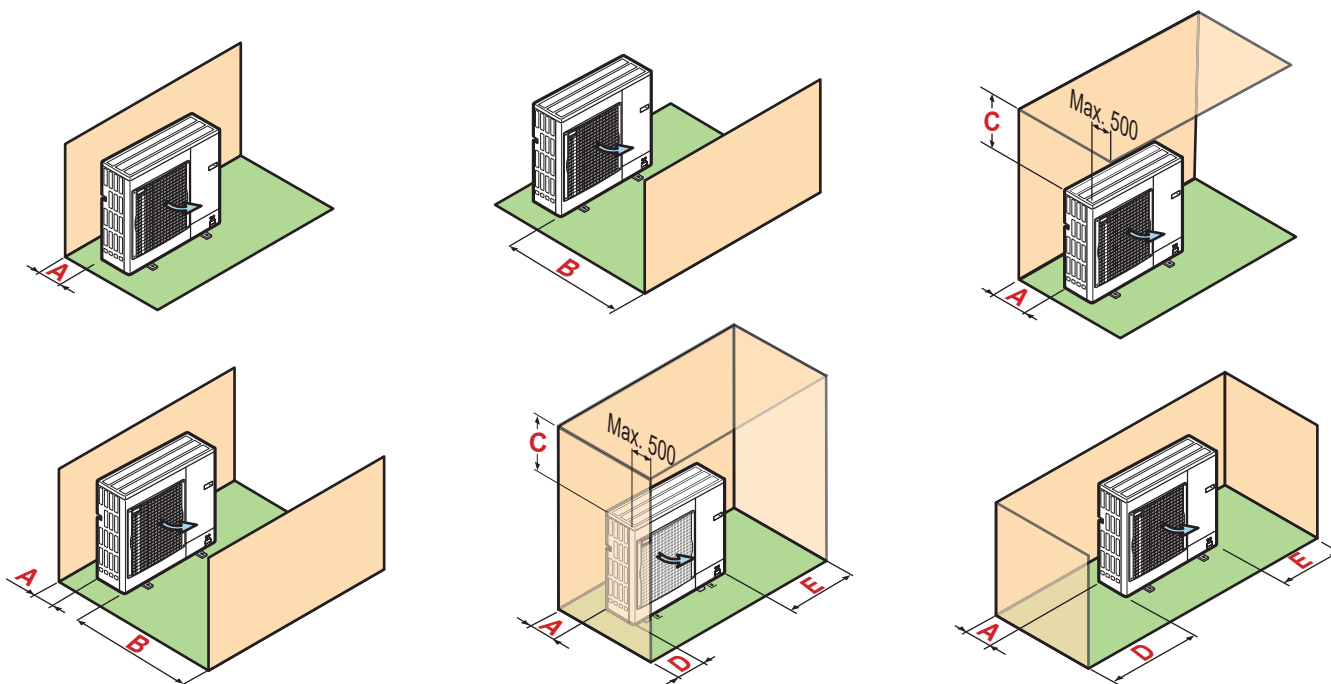
AWHP2R 8 MR-10 MR-12/16 MR-12/16 TR



1. Liquid refrigerant connections 3/8"

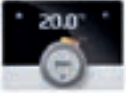
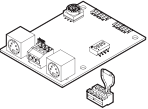









2. Gas refrigerant connections 5/8"

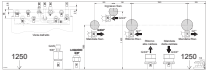


Split heat pump (outdoor unit)





Outdoor unit		A	B	C	D	E
AWHP2R 4 MR	mm	300	1000	600	300	600
AWHP2R 6 MR	mm	300	1000	600	300	600
AWHP2R 8 MR	mm	300	1500	600	300	600
AWHP2R 10 MR	mm	300	1500	600	300	600
AWHP2R 12 MR	mm	300	1500	600	300	600
AWHP2R 12 TR	mm	300	1500	600	300	600
AWHP2R 16 MR	mm	300	1500	600	300	600
AWHP2R 16 TR	mm	300	1500	600	300	600

Indoor unit accessories

Accessory	Description	Code	Alya WH	Alya FS
	Baxi Mago modulating chronothermostat with integrated WI-FI (R-BUS) R-BUS Wired version It allows to set the room temperature in heating/cooling mode, switch to summer/winter mode, schedule weekly programs, receive fault alarms, etc.	7701201	✓	✓
	Modbus interface board For Modbus integration with BMS and home automation connection.	A7721982	✓	✓
	Room thermostat (heating and cooling)	7663411	✓	✓
	Y-type filter G 1 1/4"	7112589	✓	✓
	Cable kit for safety thermostat for floor heating system It interrupts the power supply to the pump by means of an external thermostat (to be ordered separately). RECOMMENDED FOR RADIANT FLOOR HEATING	A7651087	✓	✓
	DHW 3-way diverter valve G 1 1/4" It divertes the water flow from the system to the DHW tank and vice versa, according to the signal from the heat pump.	A7796043	✓	
	DHW tank sensor It allows to measure the DHW temperature in a tank.	A7215528	✓	
	SCB-04 expansion kit for WH versions For a mixing zone management (pump and 3-way valve management, data collection from room and outdoor sensor). To be installed inside the indoor unit. See details on page 31.	A7789286	✓	
	SCB-04 expansion kit for FS versions For a mixing zone management (pump and 3-way valve management, data collection from room and outdoor sensor). It manages the pump and 3-way valve of the accessory A7718394 or an external booster pump. To be installed inside the indoor unit. See details on page 31.	A7785338		✓
	Second circuit hydraulic kit for FS unit Complete of: pump, 3-way mixing valve and connection pipes to be installed inside the indoor unit. (the kit has to be ordered with the accessory A7785338).	A7718394		✓
	Hydraulic connection kit for FS unit It allows the installation of the following accessories into the unit: manual system filling with non-return valve, 8 l DHW expansion vessel, 8 bar safety valve, primary and DHW circuits taps, metal template For more details, see page 17.	A7730594		✓

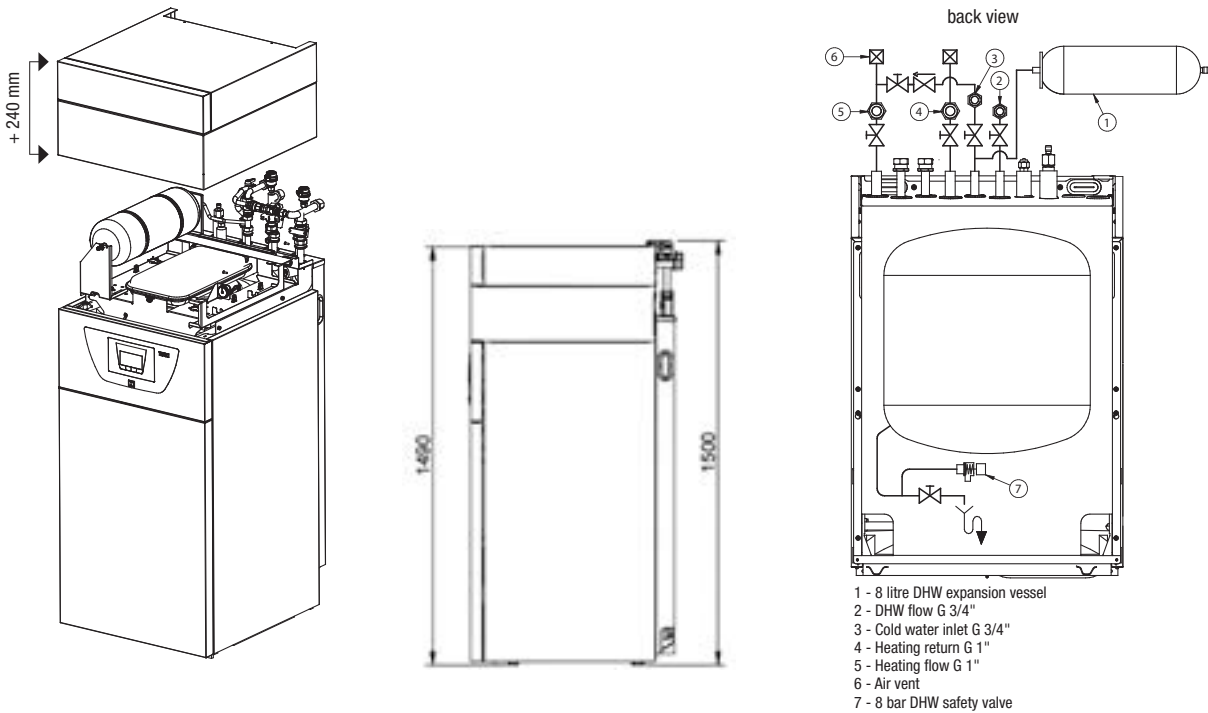
Accessory	Description	Code	Alya WH	Alya FS
	Metal template - hydraulic connection kit for FS unit It allows the correct pre-set of the pipes even in the absence of the unit	A7744505		✓
	SCB-01 expansion board for integrated heating and cooling management It enables the management of radiant underfloor heating and fan coil cooling, up to 2 zones. To be installed inside the indoor unit. For more details, see page 31.	A7789521	✓	✓
	Condensate pump	A7687189		✓

Outdoor unit accessories

Accessories	Description	Code	Alya WH	Alya FS
	Anti-vibration rubber dampers - 4 pcs (compact solution) It reduces vibrations and noise of the unit.	A7777121	✓	✓
	Anti-vibration rubber support brackets (600 mm length) - 2 pcs Stable support against atmospheric events. It allows the noise vibration reduction	A7694974	✓	✓

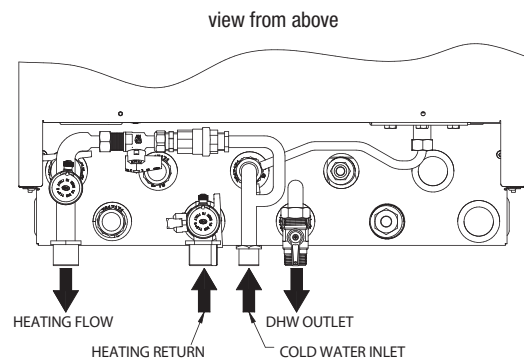
Focus on Hydraulic connection kit for FS unit

The kit allows the main components of the system to be integrated into the internal unit, improves the overall aesthetics and makes the installation easier. The total height of the unit becomes 1490 mm.

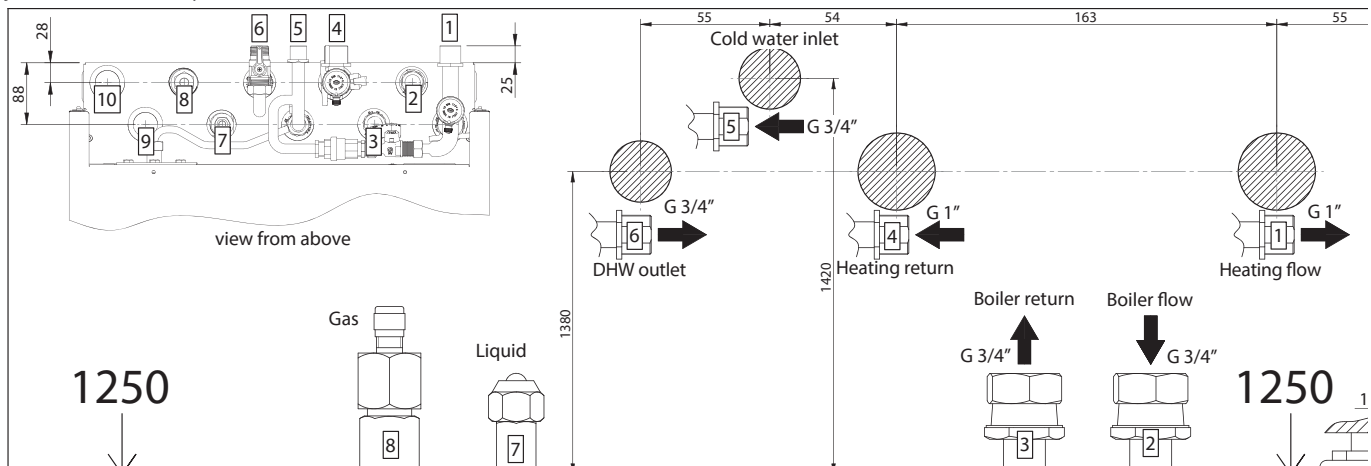


The kit includes:

- 8-liter DHW expansion vessel
- 8-bar DHW safety valve
- manual system filling with non-return valve
- primary and DHW circuits taps
- enamelled metal frame
- fixing template



Hydraulic connection template for FS unit



Alya FS Slim: compact floor standing split heat pumps with eco-friendly R32 refrigerant gas



Alya FS Slim is a compact floor standing split heat pumps, featuring a new indoor unit working with low-GWP R32 refrigerant (GWP = 675).

The new indoor unit, complete with **integrated 190 liters DHW tank**, is characterized by an elegant and **compact design** that makes it ideal for **intallation in limited spaces**. Alya FS Slim easily **fits into any domestic environment**, especially in apartments or new homes up to 150 m².

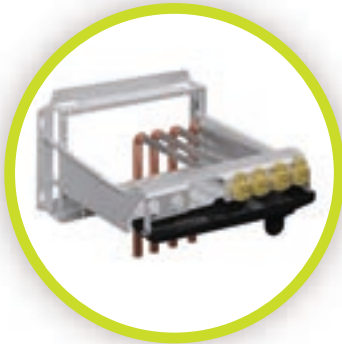
The range consists of **3 models**, with **4, 6 or 8 kW outdoor unit** and **3 kW electric integration heater**.



Alya FS Slim		4	6	8
Seasonal energy efficiency	(1)	■■■■ A+++	■■■■ A+++	■■■■ A+++
	(2)	■■■■ A++	■■■■ A++	■■■■ A++
	(3)	❄️ A+ L	❄️ A+ L	❄️ A+ L
Nominal heat output kW	(4)	4,60	6,40	7,60
COP	(4)	5,20	5,00	4,57
Nominal cooling capacity kW	(5)	6,00	7,00	7,10
EER	(5)	5,35	4,88	4,88

(1) Seasonal energy efficiency class of room heating at LOW TEMPERATURE in AVERAGE climate conditions (EU regulation N° 811/2013)
 (2) Seasonal energy efficiency class of room heating at MEDIUM TEMPERATURE in AVERAGE climate conditions (EU regulation N° 811/2013)
 (3) Seasonal energy efficiency class of water heating (EU regulation N° 811/2013)
 (4) Outdoor air temperature 7°C - 87% R.H., water temperature 30/35°C - EN 14511
 (5) External air temperature 35°C, water temperature 23/18°C - EN 14511

Features



Easy to install, quick commissioning:

thanks to the **mounting template** with sealed taps, hydraulic connections are easier and it is possible to install the frame and the unit at different times. Furthermore, the **ServiceTool App** assists the service center with all commissioning tasks and speeds up parameter mapping via Bluetooth (available as optional).

Complete system:

high efficiency pump, system expansion vessel, system safety valve, magnetic filter, system pressure gauge, flowmeter, external sensor, thermostatic DHW valve, DHW safety valve, electronic anode on tank, supplied as standard.



Compact dimension:

the compact dimensions **195x56x58 cm (hxwxd)** assure an **easy installation in any domestic environment**.

The hydraulic components on the front allows the product to be installed even in 60x60 cm niches.

Maximum DHW comfort:

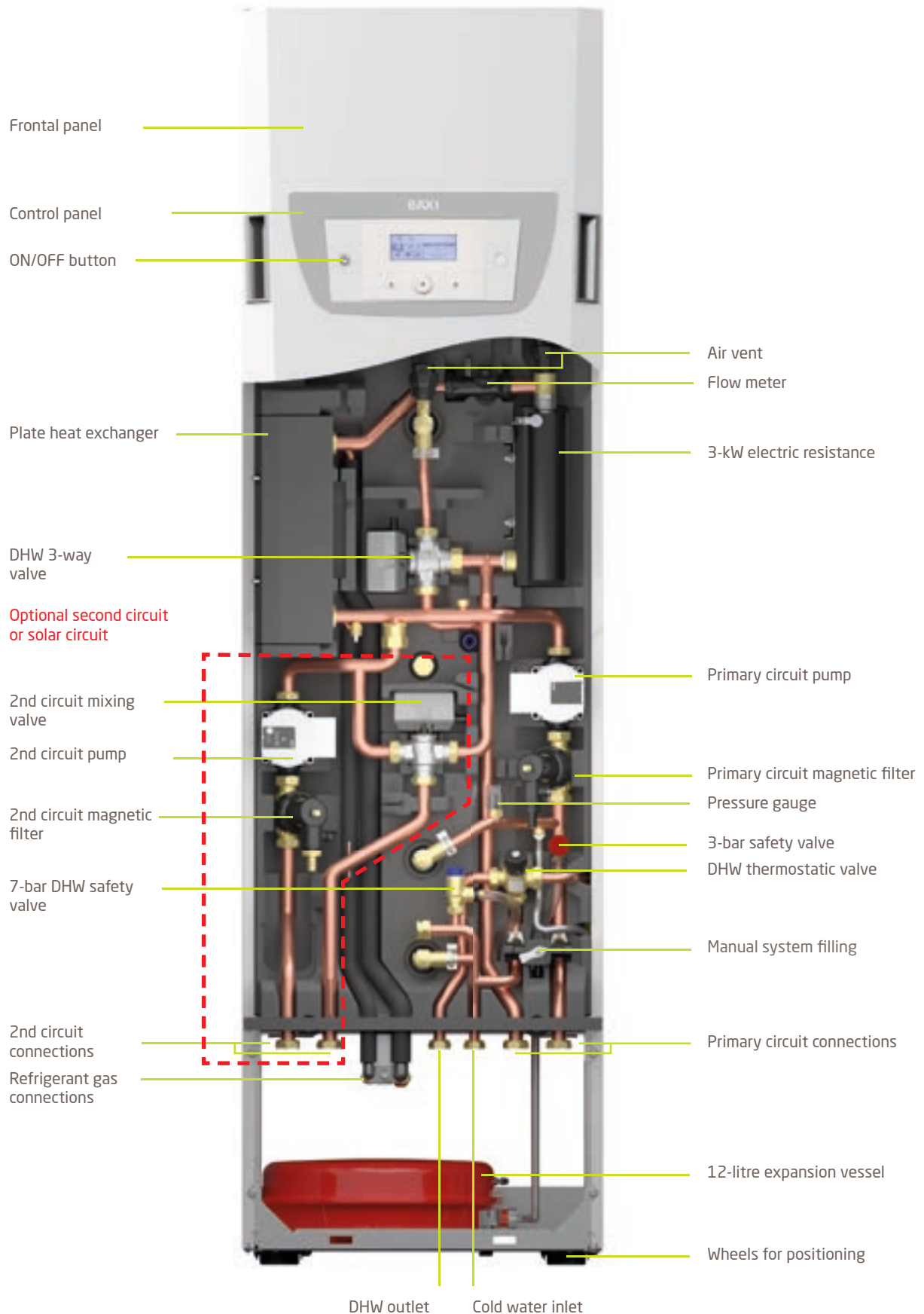
190-liter integrated tank for DHW production up to 60°C (without electric back-up) and very **short loading times**: only 1h 25 min for the 8 kW.



High efficiency:

Alya FS Slim maximizes savings accepting energy from green sources like **solar thermal system** and **photovoltaic grid**, following energy efficiency principles.

Indoor unit Alya FS Slim (with optional 2nd circuit installed)



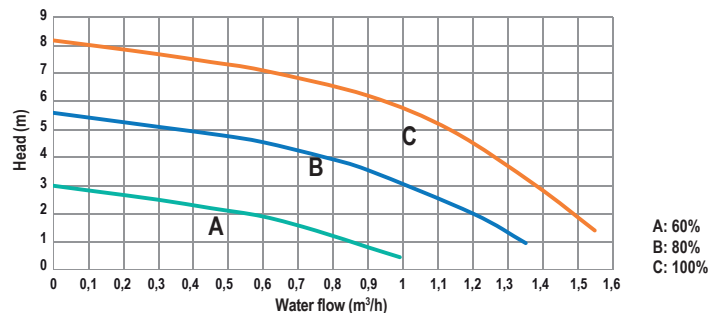
Alya FS Slim

- maximum energy efficiency
- System Manager FS Slim with 190-liter DHW tank
- directly connectable with the Baxi Mago Smart Thermostat (available as option)
- second mixing zone or solar control (available as option)
- 3-kW electric back-up
- wide operation ratio DC inverter compressor, low GWP refrigerant (R32)
- extremely noiseless indoor unit (sound power <36 dB(A))

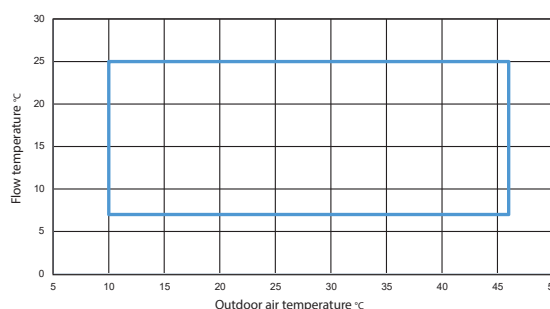
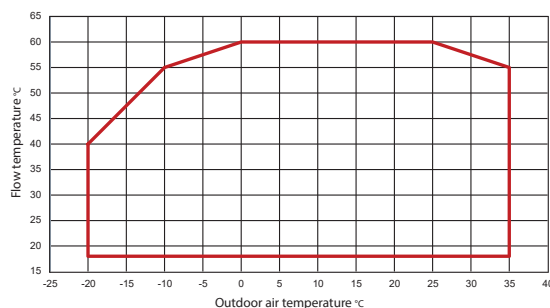


Flow rate/head curve and operating limits

Main circulation pump



Operating limits



Standard functions

- Heating, cooling and DHW
- Working with Baxi Mago or on/off thermostats
- Winter/summer switch can be set via:
 - Baxi Mago, control panel or outdoor contact (for external key selectors or domotic systems)
- Smart Grid function
- Heating with climatic curves or at fixed point, cooling at fixed point (outdoor sensor supplied as standard)
- Management of 1 direct zone in heating and cooling
- Integrated electrical resistance management on 2 power level (3 kW)
- PV contact and energy storage option

Optional functions

- Solar integration kit, including: plate heat exchanger, DHW circulating pump and sensors
- Second mixing zone kit, including: secondary circuit pump, mixing valve and magnetic filter
- Management of a mixing zone in heating and cooling

Technical data

Alya FS Slim		4	6	8	
Heating - LOW TEMPERATURE					
Rated heat output					
Outdoor air temperature 7°C - 87 % R.H., water temperature 30/35°C - EN 14511	kW	4,60	6,40	7,60	
Absorbed electrical power					
Outdoor air temperature 7°C - 87 % R.H., water temperature 30/35°C - EN 14511	kW	0,88	1,28	1,66	
COP					
Outdoor air temperature 7°C - 87 % R.H., water temperature 30/35°C - EN 14511		5,20	5,00	4,571	
Rated heat output					
Outdoor air temperature -7°C - 87% R.H., water temperature 35°C - EN 14511	kW	2,93	4,65	6,01	
Absorbed electrical power					
Outdoor air temperature -7°C - 87% R.H., water temperature 35°C - EN 14511	kW	0,94	1,50	2,01	
COP					
Outdoor air temperature -7°C - 87% R.H., water temperature 35°C - EN 14511		3,11	3,09	2,99	
Heating - MEDIUM TEMPERATURE					
Rated heat output					
Outdoor air temperature 7°C - 87 % R.H., water temperature 45°C - EN 14511	kW	4,11	6,50	8,00	
Absorbed electrical power					
Outdoor air temperature 7°C - 87 % R.H., water temperature 45°C - EN 14511	kW	1,11	2,03	2,42	
COP					
Outdoor air temperature 7°C - 87 % R.H., water temperature 45°C - EN 14511		3,69	3,20	3,30	
Rated heat output					
Outdoor air temperature 7°C - 87 % R.H., water temperature 55°C - EN 14511	kW	4,10	5,70	8,00	
Absorbed electrical power					
Outdoor air temperature 7°C - 87 % R.H., water temperature 55°C - EN 14511	kW	1,55	1,97	2,91	
COP					
Outdoor air temperature 7°C - 87 % R.H., water temperature 55°C - EN 14511		2,65	2,90	2,75	
Cooling					
Nominal cooling capacity					
Outdoor air temperature 35°C, water temperature 18°C - EN 14511	kW	6,00	7,00	7,10	
Absorbed electrical power					
Outdoor air temperature 35°C, water temperature 18°C - EN 14511	kW	1,12	1,43	1,45	
EER					
Outdoor air temperature 35°C, water temperature 18°C - EN 14511		5,35	4,88	4,88	
Nominal cooling capacity					
Outdoor air temperature 35°C, water temperature 7°C - EN 14511	kW	4,50	6,50	6,50	
Absorbed electrical power					
Outdoor air temperature 35°C, water temperature 7°C - EN 14511	kW	1,25	2,30	2,33	
EER					
Outdoor air temperature 35°C, water temperature 7°C - EN 14511		3,60	2,83	2,79	
ErP data					
SCOP		(1)	4,48	4,50	4,48
		(2)	3,43	3,37	3,21
Seasonal energy efficiency η_s		% (1)	176	177	176
		% (2)	134	132	125
Water heating seasonal energy efficiency η_{wh}		% (3)	139	135	120
SEER		(4)	8,02	5,99	5,82
		(5)	4,64	3,95	4,32
Refrigerant circuit					
Refrigerant gas				R32	
Refrigerant load		kg	1,2	1,2	1,2
		tCO ₂ e	0,81	0,81	0,81
Max. pre-load length		m	10,00	10,00	10,00
Refrigerant connections		inch	1/4" - 1/2"	1/4" - 1/2"	1/4" - 1/2"

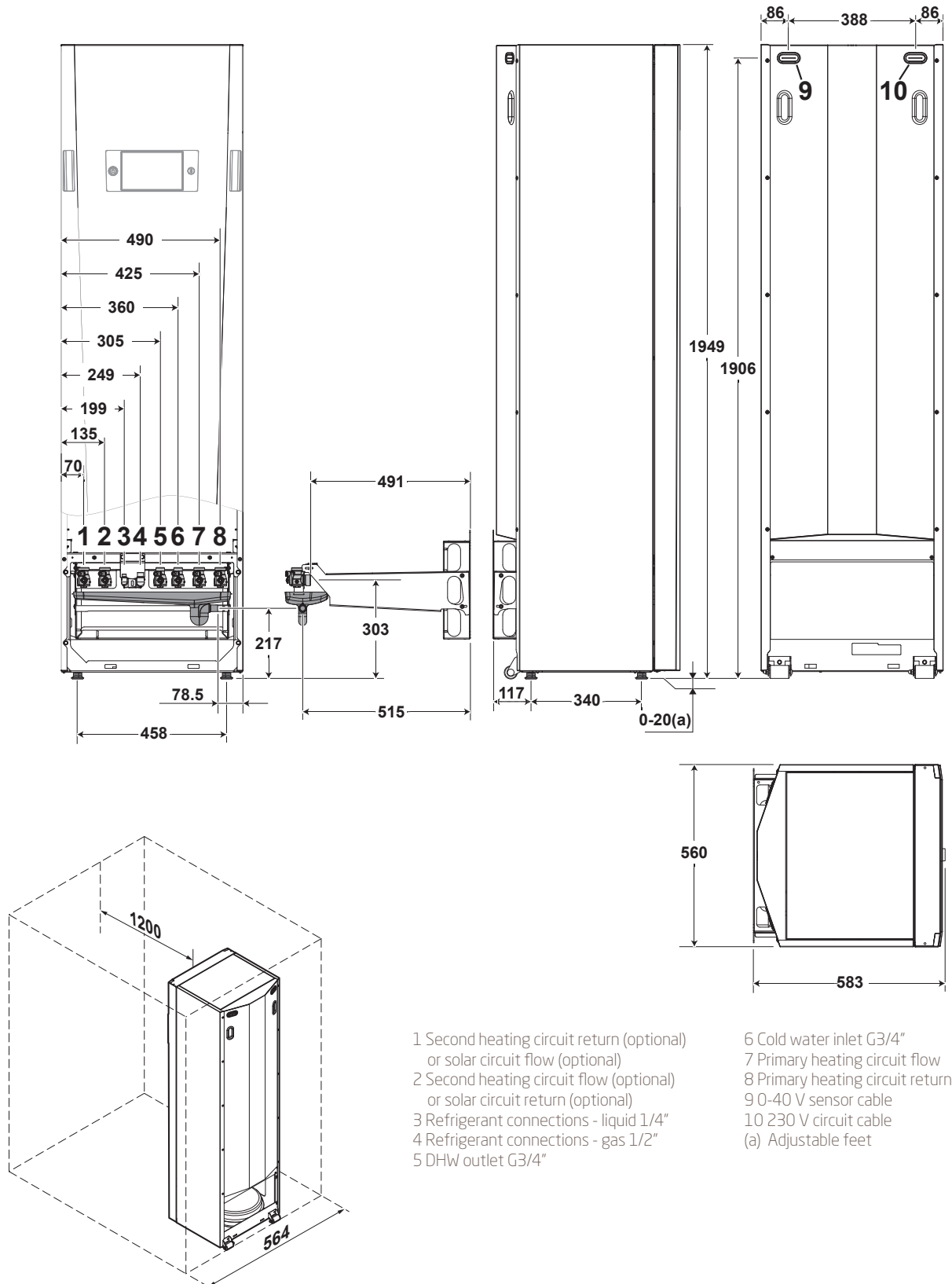
Alya WH/FS and Alya FS Slim

Alya FS Slim		4	6	8
Hydraulic circuit				
Heat exchanger water flow Outdoor air temperature 7°C – 87 % R.H., water temperature 30/35°C - EN 14511	m³/h	0,79	1,10	1,31
Minimum water content	l	20	20	20
System expansion vessel	l	12	12	12
System safety valve	bar	3	3	3
DHW safety valve	bar	7	7	7
DHW tank				
Capacity	l	190	190	190
Maximum operating pressure	bar	10	10	10
Loading time	(6)	1h 35m	1h 35m	1h 25m
Electrical data				
Power supply	V/Ph/Hz	230/1/50	230/1/50	230/1/50
Electric back-up power	kW	3,00	3,00	3,00
Absorbed current (max.)	A	13,9	13,9	13,9
Inrush current	A	5	5	5
Sound data				
Indoor unit sound power. According to EN 12102: water temperature 55°C and outdoor air temperature 7°C	dB(A)	32	34	36
Outdoor unit sound power. According to ErP conditions: water temperature 47/55° and outdoor air temperature 7°C - 87% U.R.	dB(A)	58	58	59
Weight				
Indoor unit Empty weight, packaging excluded	kg	160,00	160,00	160,00
Outdoor unit Empty weight, packaging excluded	kg	54,00	54,00	54,00
Operating limits in heating mode				
Outdoor air temperature min/max °C		-20°C/+35°C	-20°C/+35°C	-20°C/+35°C
Water temperature min/max °C		+18°C/+60°C	+18°C/+60°C	+18°C/+60°C
Operating limits in cooling mode				
Outdoor air temperature min/max °C		+10°C/+46°C	+10°C/+46°C	+10°C/+46°C
Water temperature min/max °C		+7°C/+25°C	+7°C/+25°C	+7°C/+25°C

- (1) Seasonal energy efficiency class of room heating at LOW TEMPERATURE in AVERAGE climate conditions (EU regulation N° 811/2013)
(2) Seasonal energy efficiency class of room heating at MEDIUM TEMPERATURE in AVERAGE climate conditions (EU regulation N° 811/2013)
(3) Seasonal energy efficiency class of water heating (EU regulation N° 811/2013)
(4) Room cooling seasonal energy efficiency for fan coil applications (23/18°C) - (EN 14825)
(5) Room cooling Seasonal energy efficiency for fan coil applications (12/7°C) - (EN 14825)
(6) Loading time considering: water set point 54 °C - outdoor air temperature 7 °C - indoor air temperature 20 °C - (EN 16147)

Dimensions and clearance spaces

System Manager Alya FS Slim
(indoor unit)



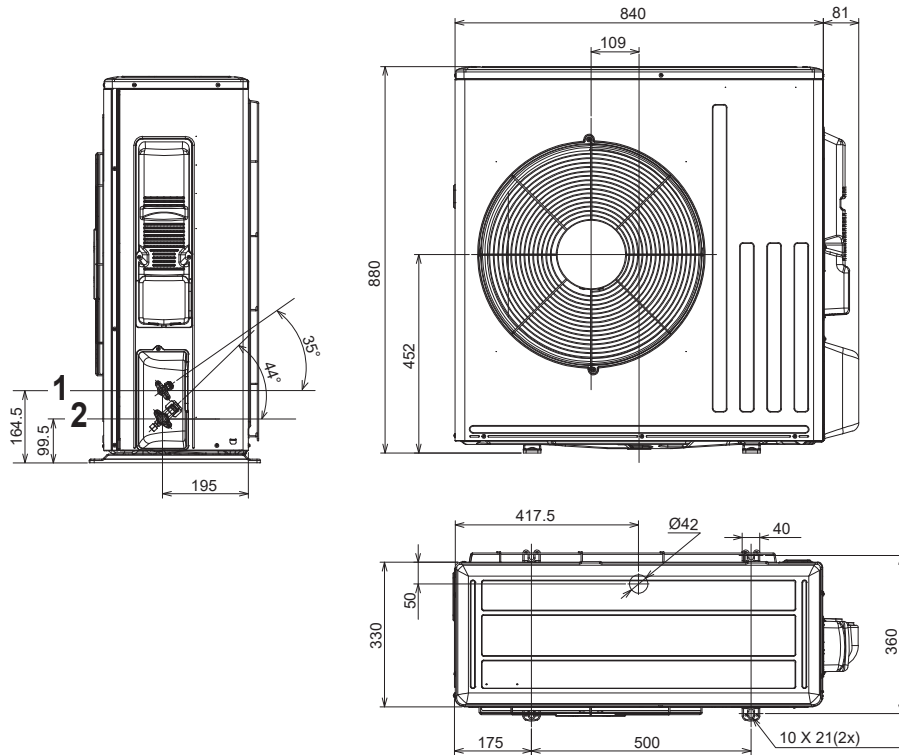
- 1 Second heating circuit return (optional) or solar circuit flow (optional)
- 2 Second heating circuit flow (optional) or solar circuit return (optional)
- 3 Refrigerant connections - liquid 1/4"
- 4 Refrigerant connections - gas 1/2"
- 5 DHW outlet G3/4"
- 6 Cold water inlet G3/4"
- 7 Primary heating circuit flow
- 8 Primary heating circuit return
- 9 0-40 V sensor cable
- 10 230 V circuit cable
- (a) Adjustable feet

Dimensions in mm

Dimensions and clearance spaces

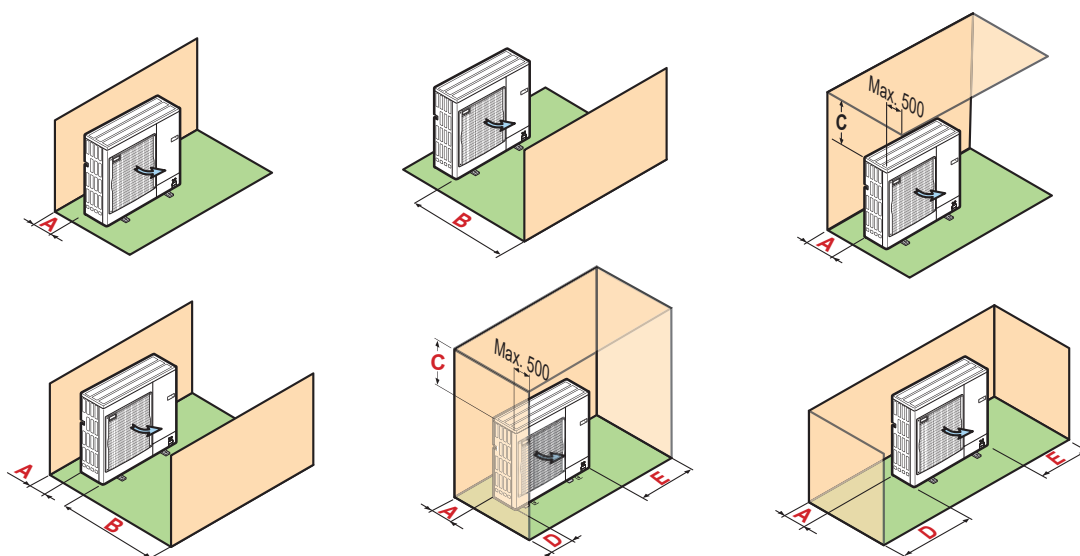
Split heat pump
(outdoor unit)

AWHPR 4 MR - AWHPR 6 MR - AWHPR 8 MR



1. Liquid refrigerant connections 1/4"

2. Gas refrigerant connections 1/2"





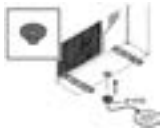
Outdoor unit	A	B	C	D	E	
AWHPR 4 MR/ 6 MR / 8 MR	mm	100	500	500	100	350

Dimensions in mm

Indoor unit accessories

Accessory	Description	Code
	<p>Mounting template for Alya FS Slim COMPULSORY INSTALLATION Thanks to the with sealed taps, hydraulic connections are easier and it is possible to install the frame and the unit at different times. It includes: metal frame, taps (DHW, cold water, primary circuit) and installation template.</p>	A7766966
	<p>Modulating chronothermostat Baxi Mago with integrated WI-FI (R-BUS) Wired version It allows to set the room temperature in heating/cooling mode, switch to summer/winter mode, schedule weekly programs, receive fault alarms, etc. See details on page 28.</p>	 7701201
	<p>Modbus interface board For Modbus integration with BMS and home automation connection.</p>	A7721982
	<p>Room thermostat (heating and cooling)</p>	7663411
	<p>Cable kit for safety thermostat for floor heating system It interrupts the power supply to the pump by means of an external thermostat (to be ordered separately). RECOMMENDED FOR RADIANT FLOOR HEATING</p>	A7651087
	<p>SCB-04 expansion kit for FS Slim For a mixing zone management from a room thermostat (or a second Baxi Mago). It connects via BUS to the unit main board and manages the pump and the 3-way valve of the accessory A7717436 or an external booster pump. See details on page 31.</p>	A7726492
	<p>Second circuit hydraulic kit for FS Slim Complete of: pump, 3-way mixing valve and connection pipes to be installed inside the indoor unit. (the kit has to be ordered with the accessory A7726492).</p>	A7717436
	<p>Integrated solar circuit kit for FS Slim It allows to integrate a solar system to the DHW tank, it manages the DHW circulation pump based on a tank setpoint and the solar circuit flow temperature (it includes: DHW pump, plate heat exchanger, hydraulic connections, electric board, tank temperature sensor and solar circuit sensor). COMPULSORY INSTALLATION of a solar circulation group.</p>	A7717499
	<p>Hydraulic taps kit for the additional circuit COMPULSORY INSTALLATION on the metal frame in case of installation of a second circuit or a solar circuit hydraulic kit.</p>	A7741322
	<p>SCB-CF expansion board for integrated heating and cooling management It enables the management of radiant underfloor heating and fan coil cooling, up to 2 zones. For details, see page 31.</p>	A7725944
	<p>Condensate pump</p>	A7687189

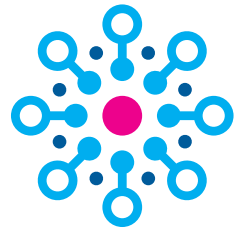
Outdoor unit accessories

Accessorio	Descrizione	Codice
	Anti-vibration rubber dampers - 4 pcs (compact solution) It reduces vibrations and noise of the unit.	A7777121
	Anti-vibration rubber support brackets (600 mm length) - 2 pcs Stable support against atmospheric events. It allows the noise vibration reduction.	A7694974
	Condensate drain rubbers for external unit AWHPR 4/6/8 It allows the condensate collection for connection to a drain pipe.	A7727910

Focus on **NEW**

Baxi Space - Heat pumps

The new Baxi electronic platform by BDR Thermea



Dedicated to technical center

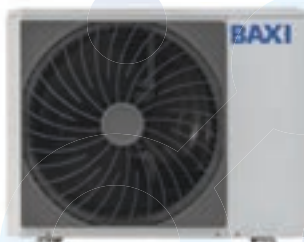


App Baxi Start
and/or Service
Tool

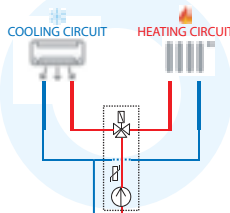


GTW-35

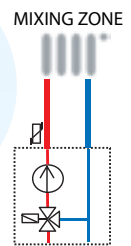
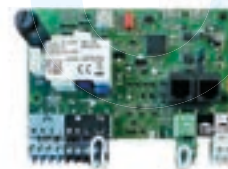
Baxi Mago
cod. 7701201 (R-BUS)



Modbus interface
cod. A7721982



Expansion board SCB-01
for the integrated heating and cooling
cod. A7789521 for Alya WH/FS
cod. A7725944 for Alya FS Slim (SCB-CF)



Expansion board SCB-04
cod. A7789286 for Alya WH
cod. A7785338 for Alya FS
cod. A7726492 for Alya FS Slim

Focus on **NEW**

SCB-04 and SCB-01/SCB-CF expansion boards

SCB-04 board

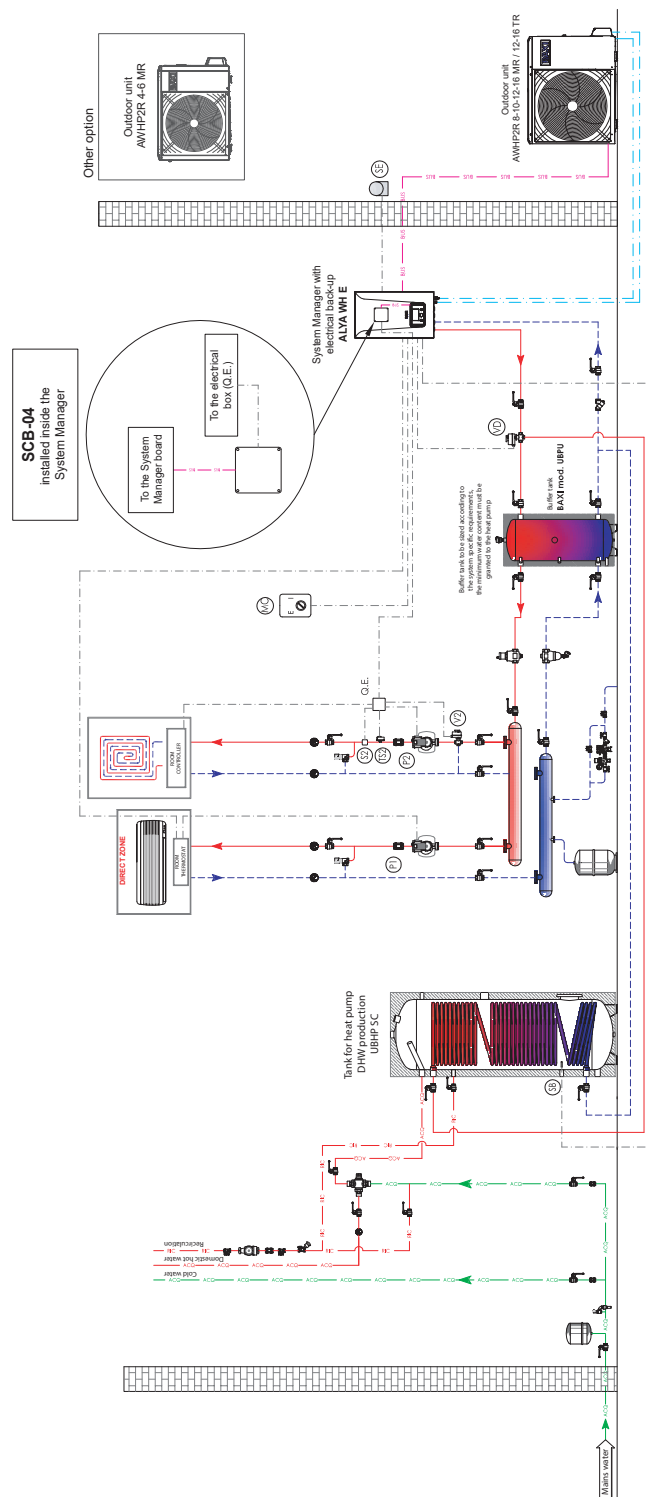
cod. **A7785338** for Alya FS - cod. **A7789286** for Alya WH - cod. **A7726492** for Alya FS Slim

It allows to control the flow temperature of a mixed zone from a second Baxi Mago (or a room thermostat).
It connects via BUS to the main board of the unit, controlling the pump and 3-way mixing valve.

The SCB-04 board can be installed inside the System Managers, granting reliability and compactness of the system.

V2 = second circuit mixing valve
QE = electric box
MC = summer/winter switch
VD = diverter valve
SE = outdoor sensor

P1 = direct zone pump
SB = tank sensor
S2 = second circuit sensor
TS2 = second circuit temperature sensor
P2 = second circuit pump

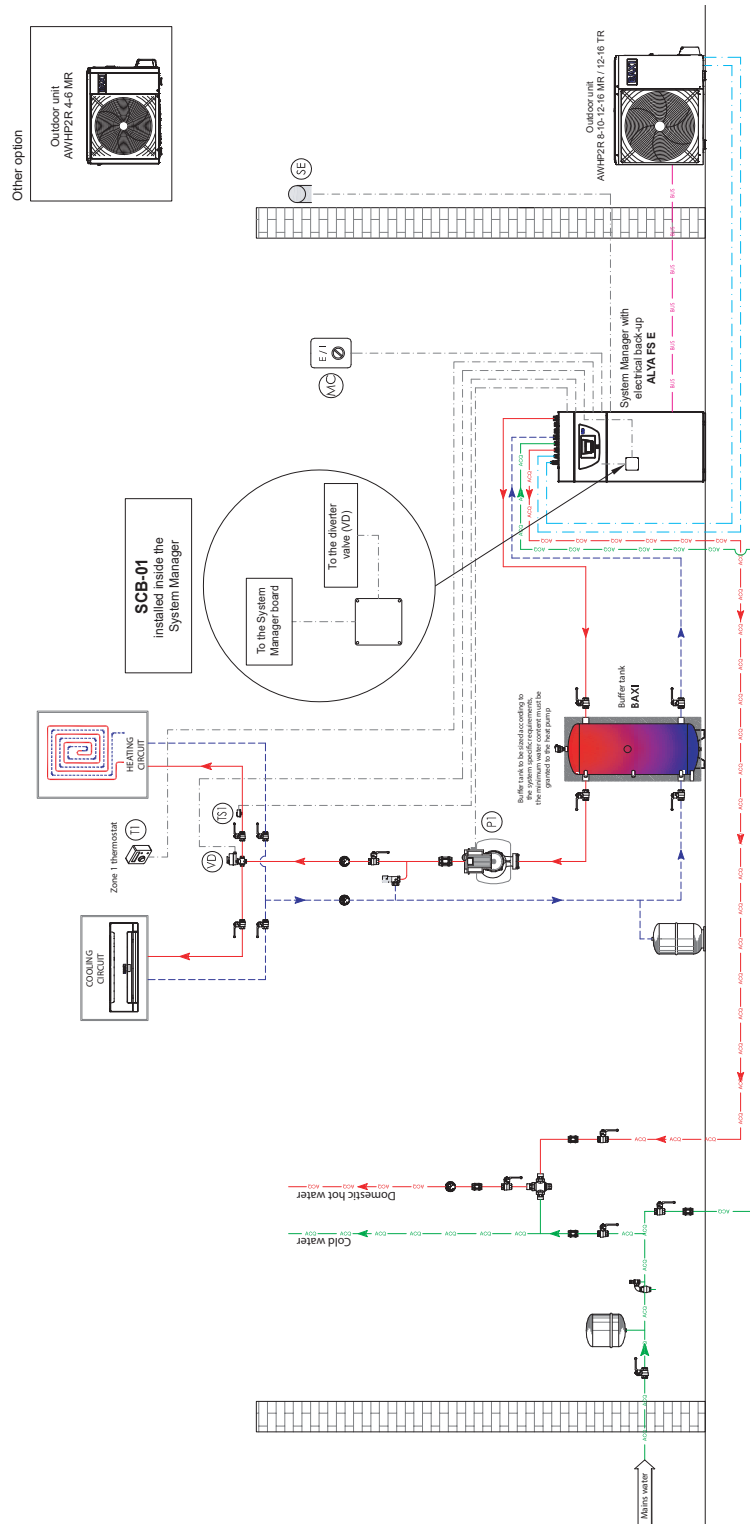


SCB-01 board

cod. **A7789521** for Alya FS e Alya WH - cod. **A7725944** for Alya FS Slim (SCB-CF)

It allows to control up to 2 independent zones with radiant floor heating and fan coil cooling. It connects via BUS to the main board of the unit, controlling the pump and/or the 3-way mixing valve according to the system configuration. The SCB-01 board can be installed inside the System Managers (external installation for Alya FS Slim), granting reliability and compactness of the system.

- P1 = circuit pump
- T1 = thermostat
- TS1 = temperature sensor
- MC = summer/winter switch
- VD = diverter valve
- SE = outdoor sensor





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