



*Wall-mounted indoor unit for
Hydro-Split heat pumps*

HYDRO-SPLIT BOX

HQCN-NEE 1 BC A RANGE



TECHNICAL BULLETIN

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Features and benefits

HYDRO-SPLIT MODULES are specialized autonomous heat pump systems dedicated to meet the thermal and comfort requirements of single or multi-family homes with medium-low energy consumption

The system consists of a new generation monobloc outdoor unit, EDGE EVO 2.0 to R-32, EDGE F to R-290 and EDGE PRO with very high efficiency that encloses the refrigerant circuit inside, this is combined with an internal hydraulic module available in four different versions as shown below.

HYDRO-SPLIT MINI

- Mini Version
- 50-litre domestic water tank
- Single-area water booster kit already included in standard unit
- Integrated inertial storage tank
- Built-in WiFi for connection to the dedicated APP
- Compact dimensions, suitable for replacing a boiler



HYDRO-SPLIT TOWER

- Tower Version
- Two domestic water volumes 190 and 250 litres
- Integrated inertial storage tank
- Built-in WiFi for connection to the dedicated APP
- Integrated inertial storage tank



HYDRO-SPLIT BOX

- Box Version
- Integrated three-way valve for domestic hot water
- Compact dimensions
- Integrated inertial storage tank
- Built-in WiFi for connection to the dedicated APP



HYDRO-SPLIT INVISIBLE

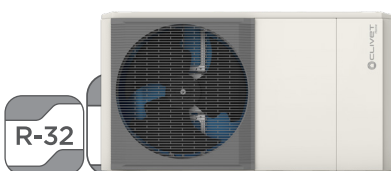
- Uncased version
- 150-litre domestic water tank can be expanded to 300 litres
- Compact dimensions for easy installation in walls
- Also available in the hybrid version with 24 kW or 34 kW boiler
- Integrated inertial storage tank
- Built-in WiFi for connection to the dedicated APP



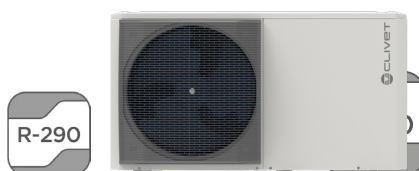
Outdoor units that can be combined:

Packaged heat pumps with hermetic Twin Rotary DC compressor with soft start, controlled by an inverter that constantly modulates the power delivered according to actual demand, guaranteeing the best in terms of reliability, low consumption and high seasonal efficiency.

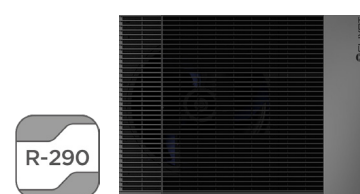
EDGE EVO 2.0 - WiSAN-YME 1 S



EDGE F - WiSAN-PME 1 S



EDGE PRO - WiSAN-PMP 1 S



HYDRO-SPLIT BOX - Indoor unit

Zinc magnesium structure

Supporting structure made of zinc-magnesium sheet metal that ensures excellent mechanical features and high long-term resistance to corrosion.

Panelling

External panelling in zinc-magnesium sheet metal, with white paint in RAL 9003 to ensure better resistance to corrosion. Panels that can be easily removed to allow full access to internal components.

Water circuit

- Three-way switching valve for system or domestic water
- Magnetic dirt separator
- System relief valve
- 12-litre system expansion tank, 1 bar pre-charging
- 15-litre inertial tank

Electrical panel

The electrical panel is located inside the unit and can be accessed by an easily removable panel.

The power section includes:

- main power supply terminals.

Coloured keypad for:

- remote microprocessor control with single-area thermostat function;
- BMS management;
- daily and weekly switch-on/off scheduler and set point;
- anti-legionella function scheduling;
- one-/two-area booster management;
- solar thermal management;
- management for backup heaters;
- interface terminal with remotely controlled graphic display
- integrated wifi module for connection to APP
- cascade operation;

The electrical panel contains:

- T5 temperature probe for temperature control in DHW tanks (4.5 m long and 6 mm bulb);

Standard unit kit:

- Torx insert for opening and closing the unit's panels
- Cover cap for remotely controlled keypad
- 1 x quick-action coupling spring
- 1 x expansion tank connection gasket
- 1 x O-ring



Accessories separately supplied

Installed inside HIDRO-SPLIT BOX

EH246X EH9X

Additional electric heater adjustable to three capacities of 2, 4 or 6 kW

Additional electric heater adjustable to one capacity of 9 kW

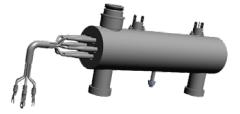
Integration electric heater in STAINLESS STEEL with 2-4 kW single-phase or 6-9 kW three-phase capacities.

The electric heater can operate both for the system and for the production of domestic hot water in two different modes:

- as an integration, when the heat pump capacity is not enough to fulfil the required set point;
- as a safety element if the heat pump fails.

⚠ Configuration with additional electric heater excludes condensing boiler for integration/replacement (HYFE24 - HYFE34).

⚠ Selection of the additional three-phase electric heater changes the voltage of the indoor unit only. The power supply of the outdoor unit remains unchanged.



KIR2HX - KIR2HLX

Hydraulic kit for managing two areas with the same temperature

Hydraulic kit for managing two areas with high and mixed temperature

Distribution module for 2-area heating systems with compact design and ample versatility for different types of indoor unit installation.

Kit consisting of:

- 1 collector / separator painted black;
- 2 circulators;
- 1 sliding temperature mixing valve (only in the KIR2HLX kit);
- 1 lower anti-rotation template;
- 1 module mounting bracket;
- connecting pipes
- 1 probe for managing the mixed circuit temperature (only in the KIR2HLX kit)

⚠ For technical pump head data, refer to the dedicated section in the GENERAL TECHNICAL DATA chapter.

⚠ Water booster kit excludes SICGX intermediate exchanger kit for glycol circuit

KCSIX

Kit for hydraulic separation between primary and secondary circuit with pump on secondary circuit

The single-area kit consists of a hydraulic separator combined with a high efficiency pump. Allows interaction between the primary circuit circulator and the secondary circuit circulator. Furthermore, the separator also has the function of a deaerator. With the following benefits and advantages:

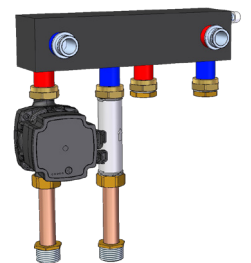
- makes the connected hydraulic circuits independent;
- ensures effective operation of the secondary circulator that provides the hydraulic demand of air conditioning systems;
- air extraction system;

The kit consists of:

- 1 collector / separator painted black;
- 1 circulator;
- 1 lower anti-rotation template;
- 1 module mounting bracket;
- connecting pipes

⚠ For technical pump head data, refer to the dedicated section in the GENERAL TECHNICAL DATA chapter.

⚠ Water booster kit excludes SICGX intermediate exchanger kit for glycol circuit



SICGX

Intermediate exchanger for clean separation between primary and secondary circuit

Braze-welded plate exchanger for clean separation of the water circuit between the outdoor unit and the system including the emitters. This allows less glycol to be used for frost protection of the entire part of the circuit exposed to the outdoor temperature.

To check the available pressure provided by the pump, refer to the specific curve page

The kit consists of:

- 1 braze-welded plate exchanger
- 1 electronic circulator
- 1 module mounting bracket;
- connecting pipes

⚠ Intermediate exchanger kit for glycol circuit excludes KIR2HX - KIR2HLX - KCSIX water booster kit

KCAIAX

Additional inertial tank connection kit

Kit for connecting an inertial tank outside the unit
It consists of 2 hydraulic module inlet/outlet pipes.

Required to connect the ACI40X inertial tank

Installed outside HYDRO-SPLIT BOX

ACS200X

200-litre domestic hot water tank

ACS300X

300-litre domestic hot water tank

ACS500X

500-litre domestic hot water tank

Carbon steel tanks with internal vitrification treatment according to DIN 4753-3 and UNI 10025. Complete with magnesium anodic protection, inspection flange, electric heater.

All tanks have 70 mm rigid polyurethane insulation on the outside to minimise heat loss and increase efficiency.

		ACS200X	ACS300X	ACS500X
Capacità	[litri]	196	273	475
Diametro	[mm]	640	640	790
Altezza	[mm]	1215	1615	1705
Sup. scambiatore	[m²]	1,5	1,8	2,2
Sup. scambiatore solare	[m²]	\	\	\
Pressione max sanitario	[bar]	10	10	10
Classe energetica serbatoio	[-]	B	B	B
Dispersione accumulo	[W]	51	63	80
Dispersioni termiche	[W/K]	1,13	1,40	1,78
Resistenza elettrica	[kW]	2,0	2,0	2,0

Data according to DIN 4708 / EN 12897 / EN 15332



SCS08X

0.8 m² solar exchanger for flange installation

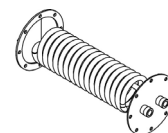
SCS12X

1.2 m² solar exchanger for flange installation

The kit is available in two sizes: 0.8 m² when combined with the 200- and 300-litre tank and 1.2 m² when combined with the 500-litre tank.

The kit consists of:

- tin-plated finned copper coil
- plastic cover



ACI40X

40-litre inertial tank ideal for installation behind indoor units

Inertial tank to be installed outside the unit. Extremely compact, supplied with air vents and support brackets for wall installation. Suitable for all EDGE EVO 2.0 sizes, it facilitates operation and helps to fulfil the thermal requirement, guaranteeing optimal modulation.

Kit consisting of:

- 1 40-litre ST37.1 steel water tank for ACI40X
- 1 2-metre flexible hose
- Extremely compact:
LENGTH: 440 mm
DEPTH: 220 mm
HEIGHT: 887 mm
- Maximum operating temperature: 100°C
- Maximum operating pressure: 6 bar
- Thermally isolated with EPP 40 g/l
- Insulation thickness 30 mm

⚠ Requires the KCAIAX connection kit



Option compatibility

Compatibility options for Hydro-Split EASYBOX + EDGE system.

When combining HYDRO-SPLIT BOX and EDGE units, the selectable options for the monoblock are as follows:

“Hybrid configuration” section

- GAS BOILER_FE 24.4-33.4 - 4-pipe condensing boiler for hybrid heat pumps
- KCSAFX - ø 60/100 mm vertical coaxial fitting
- CCOAX - 90° coaxial elbow for ø 60/100 mm horizontal outlet that can be adjusted at 360°
- TCOAX - L1000mm ø 60/100 coaxial pipe with terminal
- KAS80X - ø 80 mm vertical fittings
- KSDFX - ø 80 mm flue gas splitter kit
- VDACSX - Thermostatic switching valve for domestic water
- GAS BOILER_UC 70.2-115.2-200F.2 - 2-pipe condensing boiler for hybrid heat pumps
- INAILX - INAIL safety kit for installation of single boiler
- FH100X - ø 100 mm vertical flue gas terminal
- HIDUCX - Remote control for UC 70.2-115.2 boilers

⚠ ‘Hybrid configuration’ not compatible with options: EH246X- Supplementary electric heater settable in three power levels of 2, 4 or 6 kW
EH9X- Supplementary electric heater settable in one power level of 9 kW

“Configuration with solar thermal panels” section

- ELFOSUN3

“Configuration with primary and secondary circuit” section

- DI50-2X - 50-litre hydraulic circuit breaker
- DI100X - 100-litre hydraulic circuit breaker

“Other accessories supplied separately” section

- KTFLX - Hose kit for connection to the unit
- VAGX - Safety antifreeze valve for system
- DTX - Drain pan with electric heater
- AMRX - Kit of antivibration mounts for floor installation
- AMMSX - Kit of anti-seismic antivibration mounts for floor installation
- ASTFX - Kit of antivibration mounts for installation on wall brackets, inertial storage tank or tray
- KSIPX - Wall fixing bracket kit
- HTC2WX - HID-TConnect2 Chronothermostat for temperature control white
- CONTROL4 NRG

For all plant accessories, please refer to the EASYBOX ACCESSORIES.

Internal compatibility HYDRO-SPLIT BOX		Accessories separately supplied				
		EH246X EH9X	KCSIX KIR2HX KIR2HLX	SICGX	ACS200X ACS300X ACS500X	ACI40X KCAIAX
Accessories separately supplied	EH246X - EH9X	-	●	●	●	●
	KCSIX - KIR2HX - KIR2HLX	●	-	-	●	●
	SICGX	●	-	-	●	●
	ACS200X - ACS300X - ACS500X	●	●	●	-	●
	ACI40X	●	●	●	●	-
	KCAIAX	●	●	●	●	-

Construction characteristics - Indoor unit

SIZE	A	
System characteristics		
Maximum system pressure	bar	3
System expansion tank	l	12
Expansion tank pre-charging	bar	1
System water connections	inch	1"
Size		
Operation (L x W x H)	mm	547 x 386 x 604
Packaging (L x W x H)	mm	720 x 600 x 550
Operating weight	kg	53
Shipping weight	kg	50

Hydraulic data - Indoor unit + EDGE EVO 2.0 - WiSAN-YME 1 S

SIZE		2.1	3.1	4.1	5.1	6.1	7.1	8.1
Minimum system water content	l	30	30	70	70	70	70	70
Minimum water flow rate allowed	l/s	0,11	0,11	0,11	0,11	0,2	0,2	0,2
Maximum water flow rate allowed	l/s	0,25	0,35	0,46	0,58	0,69	0,76	0,83



Hydraulic data - Indoor unit + EDGE F - WiSAN-PME 1 S

SIZE		2.1	3.1	4.1	5.1	6.1	7.1	8.1
Minimum system water content	l	30	30	70	70	70	70	70
Minimum water flow rate allowed	l/s	0,10	0,10	0,17	0,17	0,17	0,17	0,17
Maximum water flow rate allowed	l/s	0,42	0,42	0,64	0,69	0,89	1,00	1,08



Hydraulic data - Indoor unit + EDGE PRO - WiSAN-PMP 1 S

SIZE		2.1	3.1	4.1	5.1	6.1	7.1	8.1
Minimum system water content	l	30	30	40	40	40	40	40
Minimum water flow rate allowed	l/s	0,11	0,11	0,11	0,11	0,11	0,11	0,11
Maximum water flow rate allowed	l/s	0,42	0,42	0,64	0,69	0,89	1,00	1,08



The use of glycol and the intermediate heat exchanger changes the performance of the machine: it is possible to estimate the operating performance by multiplying the correction factors by the nominal operating values

Ethylene glycol table

MIN outdoor temperature	Glycol concentration	Correction factors			
		Capacity	Power input	Water resistance	Water flow
0°C	0%	0,985	1	1	1
-5°C	10%	0,973	0,998	1,118	1,019
-15°C	20%	0,964	0,995	1,268	1,051
-25°C	30%	0,958	0,992	1,482	1,092

Propylene glycol table

MIN outdoor temperature	Glycol concentration	Correction factors			
		Capacity	Power input	Water resistance	Water flow
0°C	0%	0,978	1	1	1
-5°C	10%	0,963	0,996	1,071	1
-15°C	20%	0,951	0,992	1,189	1,016
-25°C	30%	0,942	0,988	1,380	1,034

⚠ The glycol concentration must never be > 30%.

General technical data

EDGE EVO 2.0 - WiSAN-YME 1 S - performance

Heating

SIZE			2.1	3.1	4.1	5.1	6.1 / 6.1T	7.1 / 7.1T	8.1 / 8.1T
Air 7°C - Water 35°C									
Rated heating capacity	1	kW	4,20	6,35	8,40	10,0	12,1	14,5	15,9
Total power input	1	kW	0,82	1,28	1,63	2,02	2,44	3,15	3,53
COP	1	-	5,10	4,95	5,15	4,95	4,95	4,60	4,50
Water flow rate	1	l/s	0,20	0,30	0,40	0,48	0,58	0,69	0,76
Nominal available pressure	1	kPa	85	84	80	71	60	48	40
Air 2°C - Water 35°C									
Rated heating capacity	2	kW	4,40	5,50	7,10	8,20	9,20	11,0	13,0
Total power input	2	kW	1,10	1,41	1,73	2,05	2,36	3,06	3,77
COP	2	-	4,00	3,90	4,10	4,00	3,90	3,60	3,45
Water flow rate	2	l/s	0,21	0,26	0,34	0,39	0,44	0,53	0,62
Nominal available pressure	2	kPa	85	85	82	80	78	65	54
Air -7°C - Water 35°C									
Rated heating capacity	3	kW	4,70	6,00	7,00	8,00	10,0	12,0	13,1
Total power input	3	kW	1,52	2,00	2,19	2,62	3,33	4,21	4,85
COP	3	-	3,10	3,00	3,20	3,05	3,00	2,85	2,70
Water flow rate	3	l/s	0,22	0,29	0,33	0,38	0,48	0,57	0,63
Nominal available pressure	3	kPa	85	85	83	81	72	60	55
Air 7°C - Water 45°C									
Rated heating capacity	4	kW	4,30	6,30	8,10	10,0	12,3	14,1	16,0
Total power input	4	kW	1,13	1,70	2,10	2,67	3,32	3,92	4,57
COP	4	-	3,80	3,70	3,85	3,75	3,70	3,60	3,50
Water flow rate	4	l/s	0,21	0,30	0,39	0,48	0,59	0,67	0,76
Nominal available pressure	4	kPa	85	85	80	70	56	48	38
Air 7°C - Water 55°C									
Rated heating capacity	5	kW	4,40	6,00	7,50	9,50	11,9	13,8	16,0
Total power input	5	kW	1,49	2,03	2,36	3,06	3,90	4,68	5,61
COP	5	-	2,95	2,95	3,18	3,10	3,05	2,95	2,85
Water flow rate	5	l/s	0,21	0,29	0,36	0,45	0,57	0,66	0,76
Nominal available pressure	5	kPa	85	85	82	75	60	52	38

Data according to EN 14511:2018.

1. entering/leaving water temperature 30/35 °C, outdoor air temperature -7 °C dry bulb / -6 °C wet bulb
2. entering/leaving water temperature 30/35 °C, outdoor air temperature -2 °C dry bulb / -1 °C wet bulb
3. entering/leaving water temperature 30/35 °C, outdoor air temperature -7 °C dry bulb / -8 °C wet bulb
4. entering/leaving water temperature 40/45 °C, outdoor air temperature 7 °C dry bulb / 6 °C wet bulb
5. entering/leaving water temperature 47/55 °C, outdoor air temperature 7 °C dry bulb / 6 °C wet bulb

Cooling

SIZE			2.1	3.1	4.1	5.1	6.1 / 6.1T	7.1 / 7.1T	8.1 / 8.1T
Air 35 °C - Water 18 °C									
Nominal cooling capacity	6	kW	4,50	6,50	8,30	9,90	12,0	13,5	14,2
Total power input	6	kW	0,82	1,35	1,64	2,18	3,04	3,74	3,94
EER	6	-	5,50	4,80	5,05	4,55	3,95	3,61	3,61
Water flow rate	6	l/s	0,22	0,31	0,40	0,47	0,57	0,65	0,68
Nominal available pressure	6	kPa	85	84	80	71	60	54	47
Air 35 °C - Water 7 °C									
Nominal cooling capacity	7	kW	4,70	7,00	7,45	8,20	11,5	12,4	14,0
Total power input	7	kW	1,36	2,33	2,22	2,52	4,18	4,96	5,60
EER	7	-	3,45	3,00	3,35	3,25	2,75	2,50	2,50
Water flow rate	7	l/s	0,22	0,33	0,36	0,39	0,55	0,59	0,67
Nominal available pressure	7	kPa	85	83	82	80	63	56	48

Data according to EN 14511:2018.

6. entering/leaving water temperature 23/18 °C, outdoor air temperature -35 °C dry bulb / -27 °C wet bulb
7. entering/leaving water temperature 12/7 °C, outdoor air temperature -35 °C dry bulb / -27 °C wet bulb

EDGE F - WiSAN-PME 1 S - performance

Heating

SIZE			2.1	3.1	4.1	5.1	6.1 / 6.1T	7.1 / 7.1T	8.1 / 8.1T
Air 7°C - Water 35°C									
Rated heating capacity	1	kW	4,50	6,20	8,40	10,0	12,0	14,0	15,0
Total power input	1	kW	0,87	1,27	1,68	2,13	2,50	3,11	3,41
COP	1	-	5,15	4,90	5,00	4,70	4,80	4,50	4,40
Water flow rate	1	l/s	0,21	0,30	0,40	0,48	0,57	0,67	0,71
Nominal available pressure	1	kPa	89	87	80	71	63	54	49
Air 2°C - Water 35°C									
Rated heating capacity	2	kW	4,40	5,60	7,10	8,20	9,10	10,1	12,8
Total power input	2	kW	1,07	1,44	1,84	2,25	2,39	2,81	4,00
COP	2	-	4,10	3,90	3,85	3,65	3,80	3,60	3,20
Water flow rate	2	l/s	0,21	0,27	0,34	0,39	0,43	0,48	0,61
Nominal available pressure	2	kPa	89	88	85	80	81	75	60
Air -7°C - Water 35°C									
Rated heating capacity	3	kW	4,50	5,90	7,00	8,00	10,0	11,5	12,7
Total power input	3	kW	1,45	2,00	2,33	2,81	3,57	4,00	4,26
COP	3	-	3,10	2,95	3,00	2,85	2,80	2,70	2,50
Water flow rate	3	l/s	0,21	0,28	0,33	0,38	0,48	0,52	0,55
Nominal available pressure	3	kPa	89	88	85	80	75	68	66
Air 7°C - Water 45°C									
Rated heating capacity	4	kW	4,50	6,40	8,20	10,0	12,0	14,0	15,0
Total power input	4	kW	1,11	1,68	2,13	2,74	3,24	4,00	4,48
COP	4	-	4,05	3,80	3,85	3,65	3,70	3,50	3,35
Water flow rate	4	l/s	0,21	0,30	0,39	0,48	0,57	0,67	0,71
Nominal available pressure	4	kPa	89	87	80	71	63	54	49
Air 7°C - Water 55°C									
Rated heating capacity	5	kW	4,60	6,20	7,80	9,50	12,0	14,0	15,0
Total power input	5	kW	1,44	2,00	2,44	3,11	3,87	4,67	5,26
COP	5	-	3,20	3,10	3,20	3,05	3,10	3,00	2,85
Water flow rate	5	l/s	0,14	0,18	0,23	0,28	0,36	0,42	0,45
Nominal available pressure	5	kPa	90	89	86	85	87	81	78

Data according to EN 14511:2022.

1. entering/leaving water temperature 30/35 °C, outdoor air temperature -7 °C dry bulb / -6 °C wet bulb
2. entering/leaving water temperature 30/35 °C, outdoor air temperature -2 °C dry bulb / -1 °C wet bulb
3. entering/leaving water temperature 30/35 °C, outdoor air temperature -7 °C dry bulb / -8 °C wet bulb
4. entering/leaving water temperature 40/45 °C, outdoor air temperature 7 °C dry bulb / 6 °C wet bulb
5. entering/leaving water temperature 47/55 °C, outdoor air temperature 7 °C dry bulb / 6 °C wet bulb

Cooling

SIZE			2.1	3.1	4.1	5.1	6.1 / 6.1T	7.1 / 7.1T	8.1 / 8.1T
Air 35 °C - Water 18 °C									
Nominal cooling capacity	1	kW	4,50	6,50	8,30	10,0	12,0	14,0	16,0
Total power input	1	kW	0,82	1,27	1,61	2,11	2,67	3,33	4,10
EER	1	-	5,50	5,10	5,15	4,75	4,50	4,20	3,90
Water flow rate	1	l/s	0,21	0,31	0,40	0,48	0,57	0,67	0,76
Nominal available pressure	1	kPa	89	87	80	71	63	54	45
Air 35 °C - Water 7 °C									
Nominal cooling capacity	2	kW	4,70	6,80	7,50	8,90	11,5	12,7	14,0
Total power input	2	kW	1,29	2,19	2,17	2,74	3,77	4,38	5,09
EER	2	-	3,65	3,10	3,45	3,25	3,05	2,90	2,75
Water flow rate	2	l/s	0,22	0,32	0,36	0,42	0,55	0,60	0,67
Nominal available pressure	2	kPa	89	86	83	81	66	60	54

Data according to EN 14511:2022

1. entering/leaving water temperature 23/18 °C, outdoor air temperature -35 °C dry bulb / -27 °C wet bulb
2. entering/leaving water temperature 12/7 °C, outdoor air temperature -35 °C dry bulb / -27 °C wet bulb

General technical data

EDGE PRO - WiSAN-PMP 1 S - performance

Heating

SIZE			2.1	3.1	4.1 / 4.1T	5.1 / 5.1T	6.1 / 6.1T	7.1 / 7.1T	8.1 / 8.1T
Air 7°C - Water 35°C									
Rated heating capacity	1	kW	4.1	6.1	8.0	9.5	12.1	14.0	15.5
Total power input	1	kW	0.77	1.21	1.52	1.92	2.44	2.98	3.44
COP	1	-	5.30	5.03	5.25	4.95	4.95	4.70	4.50
Water flow rate	1	l/s	0.2	0.3	0.4	0.5	0.6	0.7	0.7
Nominal available pressure	1	kPa	56	56	51	51	45	42	38
Maximum available pressure	1	kPa	86	86	85	79	64	53	45
Air 2°C - Water 35°C									
Rated heating capacity	2	kW	4.0	5.6	7.1	8.2	9.2	11.0	13.0
Total power input	2	kW	0.95	1.40	1.73	2.10	2.30	2.89	3.60
COP	2	-	4.23	4.00	4.10	3.90	4.00	3.80	3.61
Water flow rate	2	l/s	0.2	0.3	0.3	0.4	0.4	0.5	0.6
Nominal available pressure	2	kPa	56	56	51	51	45	42	38
Maximum available pressure	2	kPa	86	86	87	85	80	70	58
Air -7°C - Water 35°C									
Rated heating capacity	3	kW	4.1	6.0	7.0	8.0	10.0	12.0	13.1
Total power input	3	kW	1.26	1.98	2.15	2.54	3.17	4.29	4.85
COP	3	-	3.25	3.03	3.25	3.15	3.15	2.80	2.70
Water flow rate	3	l/s	0.2	0.3	0.3	0.4	0.5	0.6	0.6
Nominal available pressure	3	kPa	56	56	51	51	45	42	38
Maximum available pressure	3	kPa	86	86	87	85	76	64	58
Air 7°C - Water 45°C									
Rated heating capacity	4	kW	4.5	6.4	8.1	9.5	12.3	14.1	15.5
Total power input	4	kW	1.08	1.64	2.03	2.44	3.15	3.76	4.25
COP	4	-	4.17	3.91	4.00	3.90	3.90	3.75	3.65
Water flow rate	4	l/s	0.2	0.3	0.4	0.5	0.6	0.7	0.7
Nominal available pressure	4	kPa	56	56	51	51	45	42	38
Maximum available pressure	4	kPa	86	86	85	79	62	52	45
Air 7°C - Water 55°C									
Rated heating capacity	5	kW	4.6	6.2	8.0	9.5	11.9	13.8	16.0
Total power input	5	kW	1.38	1.92	2.39	2.97	3.66	4.38	5.25
COP	5	-	3.33	3.23	3.35	3.20	3.25	3.15	3.05
Water flow rate	5	l/s	0.1	0.2	0.2	0.3	0.4	0.4	0.5
Nominal available pressure	5	kPa	56	56	51	51	45	42	38
Maximum available pressure	5	kPa	88	86	87	87	87	83	76

Data according to EN 14511:2022.

1. inlet/outlet water temperature 30/35 °C, outdoor air temperature 7 °C dry bulb / 6 °C wet bulb
2. inlet/outlet water temperature 30/35 °C, outdoor air temperature 2 °C dry bulb / 1 °C wet bulb
3. water inlet/outlet temperature 30/35°C, outdoor air temperature -7°C dry bulb / -8°C wet bulb

4. inlet/outlet water temperature 40/45 °C, outdoor air temperature 7 °C dry bulb / 6 °C wet bulb
5. inlet/outlet water temperature 47/55 °C, outdoor air temperature 7 °C dry bulb / 6 °C wet bulb

SIZE			2.1	3.1	4.1 / 4.1T	5.1 / 5.1T	6.1 / 6.1T	7.1 / 7.1T	8.1 / 8.1T
Air 35 °C - Water 18 °C									
Nominal cooling capacity	1	kW	4.5	6.5	8.3	10.0	12.0	14.0	15.0
Total power input	1	kW	0.80	1.18	1.58	2.17	2.61	3.18	3.53
EER	1	-	5.65	5.51	5.25	4.60	4.60	4.40	4.25
Water flow rate	1	l/s	0.2	0.3	0.4	0.5	0.6	0.7	0.7
Nominal available pressure	1	kPa	56	56	51	51	45	42	38
Maximum available pressure	1	kPa	86	85	84	76	64	53	48
Air 35 °C - Water 7 °C									
Nominal cooling capacity	2	kW	4.70	6.80	7.45	8.10	11.5	12.4	14
Total power input	2	kW	1.29	2.19	2.22	2.61	3.77	4.13	5.19
EER	2	-	3.65	3.10	3.35	3.10	3.05	3	2.7
Water flow rate	2	l/s	0.2	0.3	0.4	0.4	0.5	0.6	0.7
Nominal available pressure	2	kPa	86	85	87	85	67	62	53
Maximum available pressure	2	kPa	86	85	84	76	64	53	48

Data according to EN 14511:2022

1. inlet/outlet water temperature 23/18 °C, outdoor air temperature 35 °C dry bulb / 27 °C wet bulb

2. inlet/outlet water temperature 12/7 °C, outdoor air temperature 35 °C dry bulb / 27 °C wet bulb

Condensing boiler general data

Hybrid System composed of EDGE PRO (EVO 2.0 or EDGE F) + GASBOILER FE + BOX

MODEL				FE 24.4	FE 33.4
Heating Performance					
Nominal heating capacity (Qn)	-	Max	[kW]	24,5	34,8
		Min	[kW]	4,8	5,0
Heating capacity (Pn)	60/80°C	Max	[kW]	24,0	34,0
		Min	[kW]	4,7	4,9
	30/50°C	Max	[kW]	26,0	37,0
		Min	[kW]	5,2	5,4
Efficiency	60/80°C	Max	%	97,8	97,7
		Min	%	97,6	97,2
	30/50°C	Max	%	106,1	106,2
		Min	%	107,3	107,1
	30% di Pn	-	%	109,7	109,7
Heated water content	-	-	[l]	3,4	4,3
Operating pressure	PMS	Max	[bar]	3	3
	-	Min	[bar]	0,8	0,8
Expansion tank	Volume	-	[l]	8	10
	Pre-charging	-	[bar]	0,8	0,8
DHW performance					
Nominal heating capacity (Qnw)	-	Max	[kW]	28,5	34,8
		Min	[kW]	4,7	5,0
Heating capacity	-	Max	[kW]	28,0	34,0
		Min	[kW]	4,7	4,8
DHW flowrate	ΔT=25°C	-	[l/min]	16,1	19,5
	ΔT=30°C	-	[l/min]	13,4	16,2
	ΔT=45 K	-	[l/min]	8,9	10,8
DHW production in continuous operation	ΔT=40 K	-	[l/min]	10,0	12,1
	ΔT=35 K	-	[l/min]	11,5	13,9
	ΔT=30 K	-	[l/min]	13,4	16,2
	ΔT=25 K	-	[l/min]	16,1	19,5
		Max	[°C]	65	65
Water temperature		Min	[°C]	40	40
	PMW	Max	[bar]	9	9
Operating pressure	-	Min	[bar]	0,3	0,3
ErP data					
Seasonal eff. Average climate	Heating	ηs	%	94	94
		Energy class	-	A	A
	ACS	ηwh	%	85	85
		Energy class	-	A	A
		Withdrawal profile	-	XL	XXL
Sound power level		Lwa	[dB(A)]	49	52
Thermal losses and smoke exhaust					
Chimney loss	"burner ON 80/60°C"	Pmax	%	2,00	2,10
		Pmin	%	2,00	2,90
	"burner ON 50/30°C"	Pmax	%	1,40	1,40
		Pmin	%	1,00	1,00
Smoke temperature	80/60°C	Pmax	[°C]	66	67
		Pmin	[°C]	64	62
	50/30°C	Pmax	[°C]	52	53
		Pmin	[°C]	44	45
Smoke flowrate	-	Pmax	[g/s]	11,2	16
	-	Pmin	[g/s]	2,3	2,4
Nitrogen oxide (NOX) emissions		Class	-	6	6
		-	[mg/kWh]	35	33

General technical data

Electrical data

Standard HYDRO-SPLIT BOX indoor unit

Power supply 220-240V ~ 50Hz

F.L.A. - Current consumption of the unit	A	0,4
F.L.I. - Power input of the unit	kW	0,1

Power supply 220-240V ~ 50Hz $\pm 10\%$.

The units comply with the requirements of European standard IEC EN 60335.

Indoor unit configured with: single-phase integration electric heaters

Power supply 220-240V ~ 50Hz

		2 kW	4 kW
F.L.A. - Current consumption of the unit with single-phase electric heater	A	8,7	17,4
F.L.I. - Power input of the unit with single-phase electric heater	kW	2	4

Power supply 220-240V ~ 50Hz $\pm 10\%$.

The units comply with the requirements of European standard IEC EN 60335.

Data to be added to standard unit values

Indoor unit configured with three-phase integration electric heaters

Power supply 380-415V ~ 50Hz

		6 kW	9 kW
F.L.A. - Current consumption of the unit with single-phase electric heater	A	8,7	13,0
F.L.I. - Power input of the unit with single-phase electric heater	kW	6	9

Power supply 380-415V ~ 50Hz

The units comply with the requirements of European standards EN 60335-1 and EN 60335-2-40

Data to be added to standard unit values

Water booster kit: both high temperature - 2 areas: high + low temperature (mixed)

Power supply 220-240V ~ 50Hz

F.L.A. - Absorbed current at maximum admissible conditions	A	0,5
F.L.I. - Power input at full load (at maximum conditions allowed)	W	120

Power supply 220-240V ~ 50Hz $\pm 10\%$.

The units comply with the requirements of European standards EN 60335-1 and EN 60335-2-40

Data to be added to standard unit values

Single area booster kit

Power supply 220-240V ~ 50Hz

F.L.A. - Absorbed current at maximum admissible conditions	A	0,3
F.L.I. - Power input at full load (at maximum conditions allowed)	W	60

Power supply 220-240V ~ 50Hz $\pm 10\%$.

The units comply with the requirements of European standards EN 60335-1 and EN 60335-2-40

Data to be added to standard unit values

Domestic water recirculation pump kit - Additional domestic hot water storage

Power supply 220-240V ~ 50Hz

F.L.A. - Absorbed current at maximum admissible conditions	A	0,3
F.L.I. - Power input at full load (at maximum conditions allowed)	W	75

Power supply 220-240V ~ 50Hz $\pm 10\%$.

The units comply with the requirements of European standards EN 60335-1 and EN 60335-2-40

Data to be added to standard unit values

Supplementary condensing boiler

Power supply 220-240V ~ 50Hz

F.L.A. - Absorbed current at maximum admissible conditions	A	0,4
F.L.I. - Power input at full load (at maximum conditions allowed)	W	99

Power supply 220-240V ~ 50Hz $\pm 10\%$.

The units comply with the requirements of European standards EN 60335-1 and EN 60335-2-40

Data to be added to standard unit values

Solar option kit - Glycol water exchanger kit

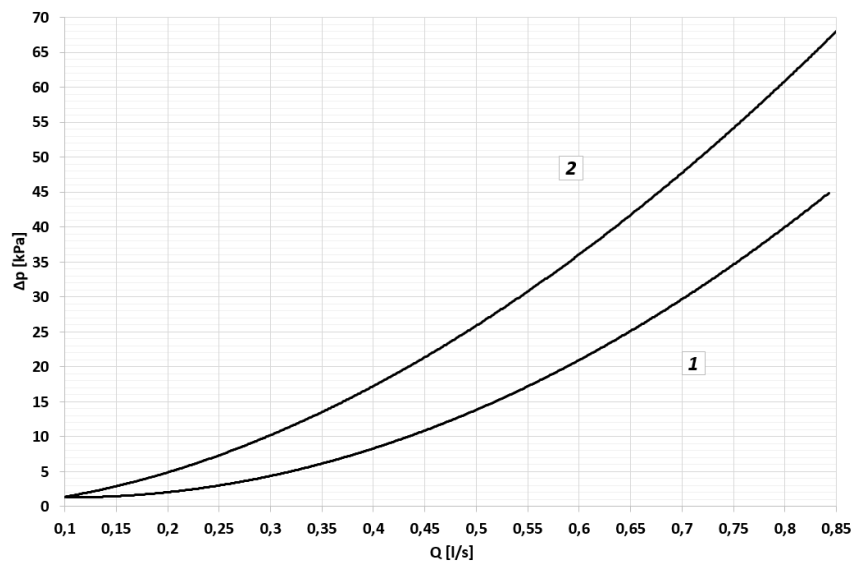
Power supply 220-240V ~ 50Hz		
F.L.A. - Absorbed current at maximum admissible conditions	A	0,4
F.L.I - Power input at full load (at maximum conditions allowed)	W	75

Power supply 220-240v ~ 50Hz $\pm 10\%$.

The units comply with the requirements of European standards EN 60335-1 and EN 60335-2-40

Data to be added to standard unit values

Indoor unit pressure drops



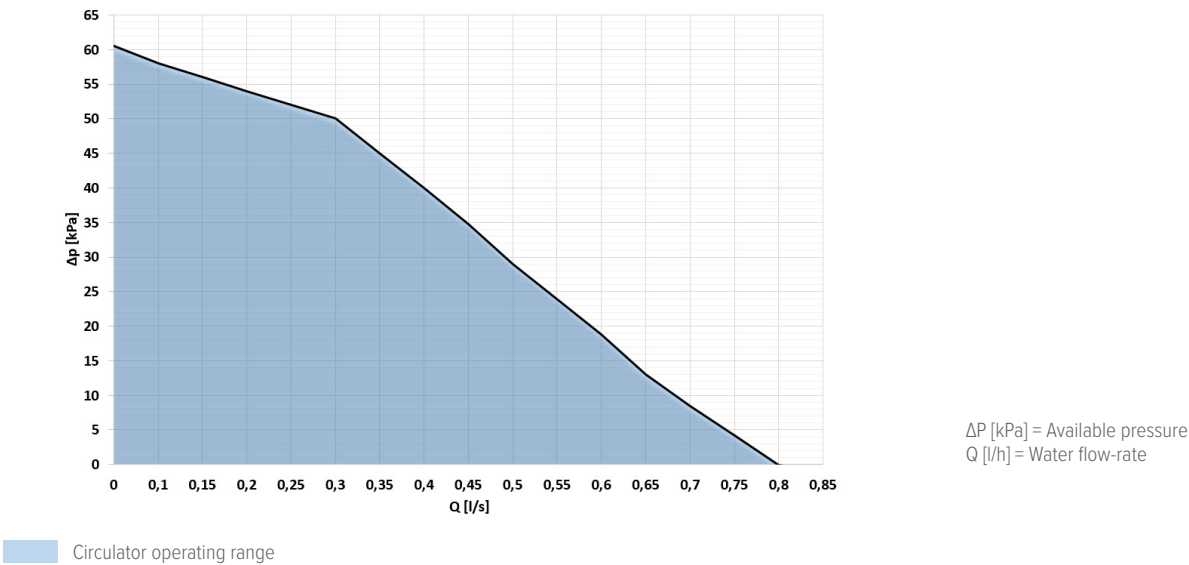
ΔP [kPa] = Pressure drops
 Q [l/s] = Water flow-rate

1. STANDARD indoor unit pressure drops
 2. Pressure drops with SICGX option
- Note: EH246X-EH09X have negligible drops

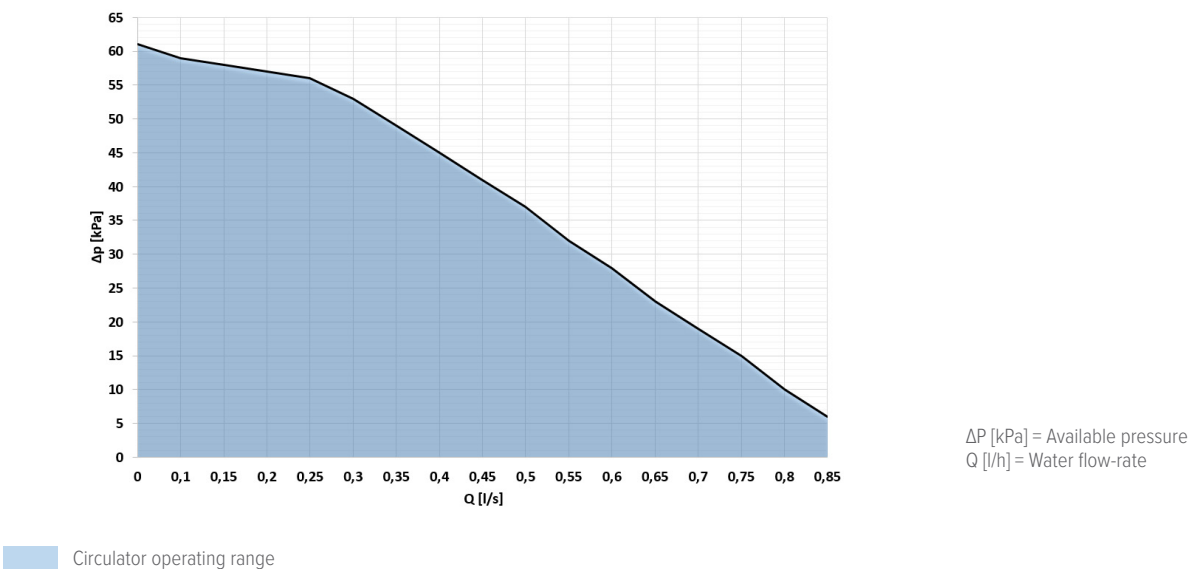
Note: it is advisable to install a hydraulic separator

General technical data

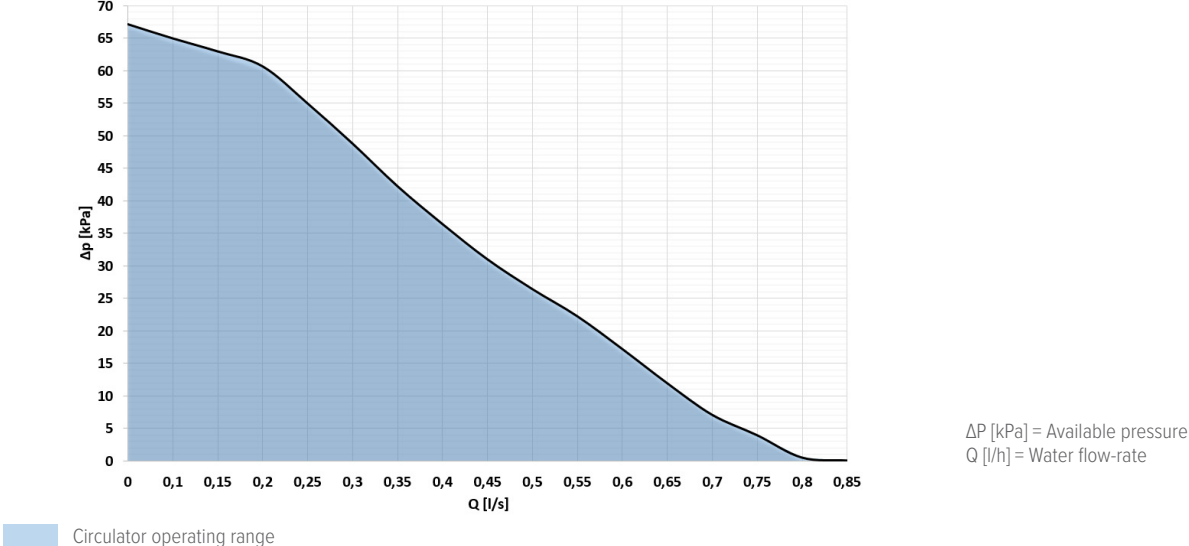
Available pressure - KIR2HX - KIR2HLX



Available pressure - KCSIX

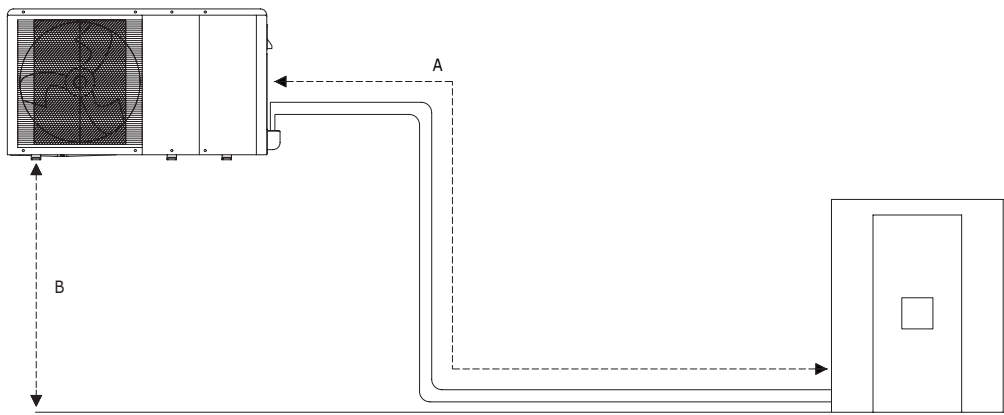


Available pressure - SICGX



Hydraulic line sizing

Equivalent length of the lines (metres) = actual length (metres) + quantity of bends x K
 Use the K value from the following table



SIZE		2.1	3.1	4.1	5.1	6.1	7.1	8.1
K values								
standard 90° elbow bend	m	0,6	0,6	0,6	0,6	0,9	0,9	0,9
45° bend (standard)	m	0,3	0,3	0,3	0,3	0,3	0,3	0,3
Length and height difference of hydraulic lines								
A- Minimum and maximum connection distance between indoor and outdoor units	m	2-40	2-40	2-30	2-30	2-25	2-20	2-20
B- Maximum height difference between indoor and outdoor units	m	20	20	20	20	15	15	15

Note: recommended diameter the same as the connection size on the outdoor unit

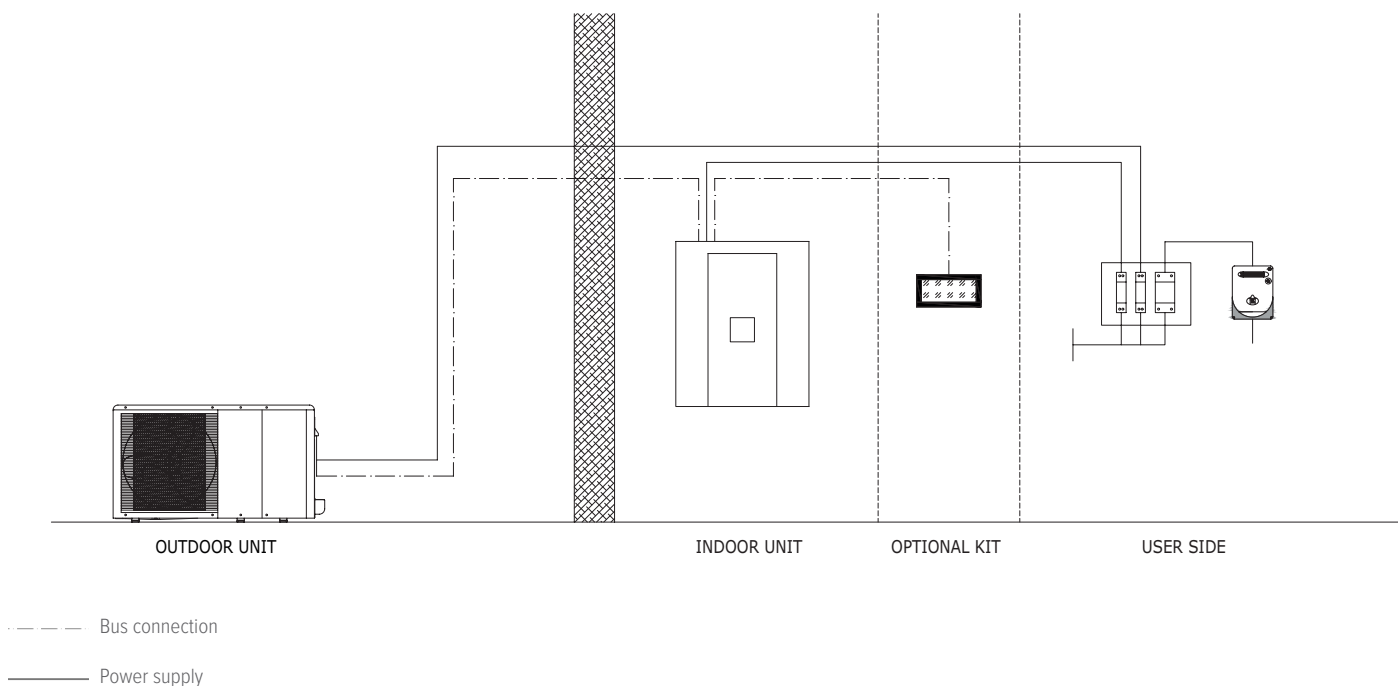
Note: for height differences of more than 12 metres, adjust the pre-charge of the expansion vessel of the outdoor unit.

Electrical connections

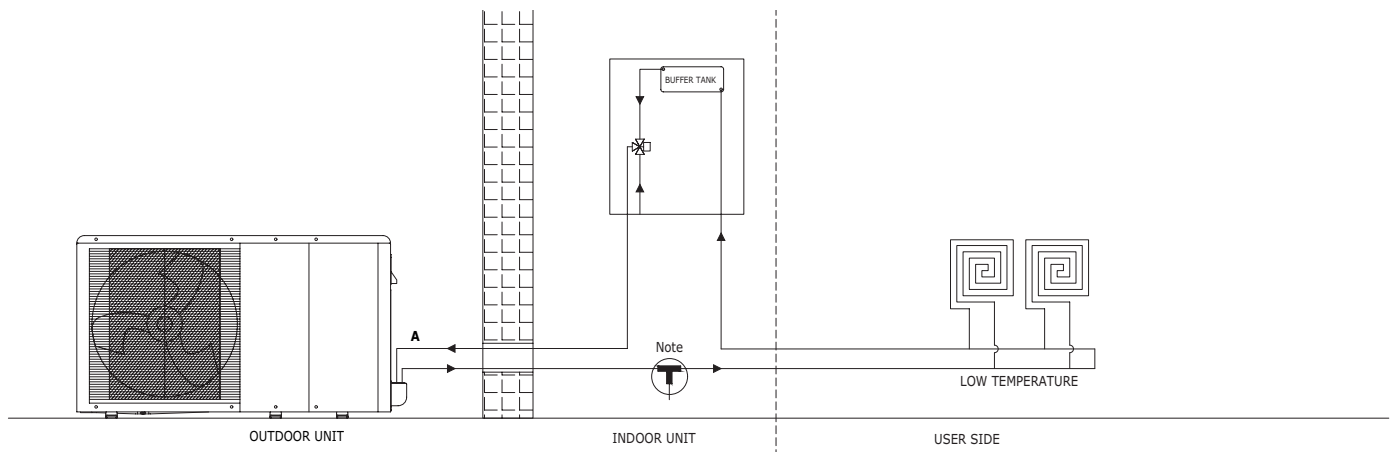
The electrical connection must be carried out in compliance with the national regulations in force. The connection must be carried out by specialised personnel who are qualified to work with live voltage.

The EDGE + HYDRO-SPLIT BOX system can be controlled via the control panel on board the unit. The unit can be controlled using: the CONTROL4 NRG supervisory system or common electromechanical thermostats.

Refer to the installation manual for more information on the connections.

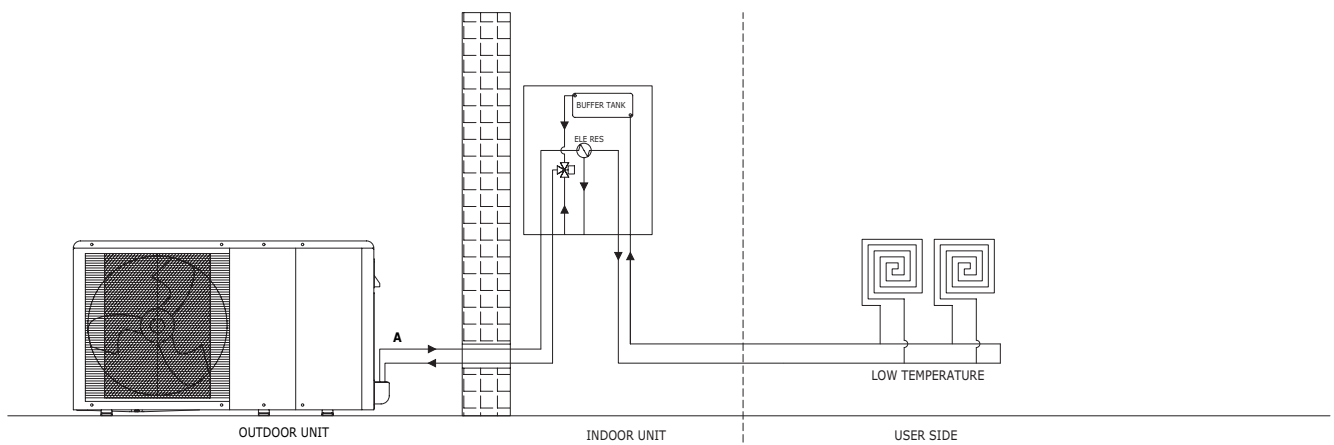


General description of the system and possible connections

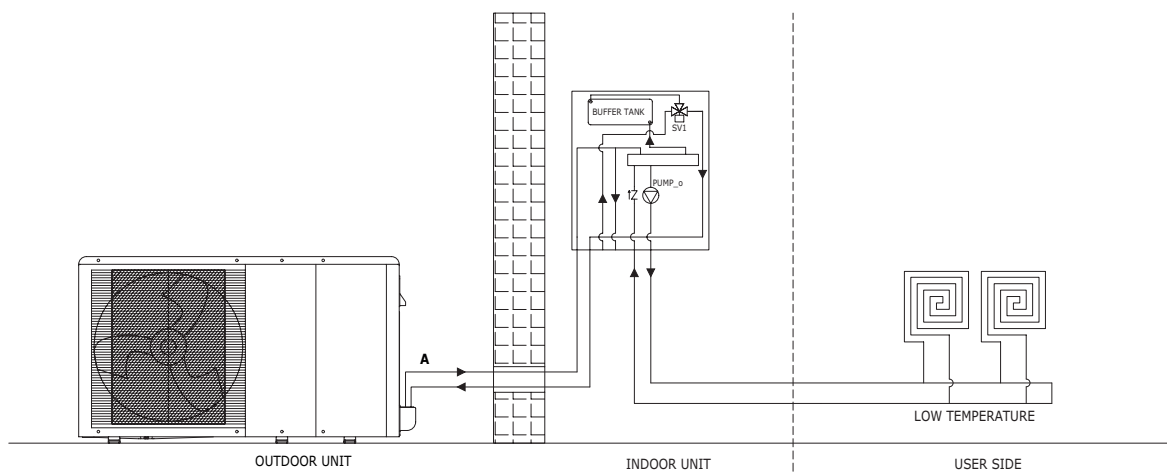


Standard

Connections to be made by the customer for connection to any DHW heat exchanger



TBH backup

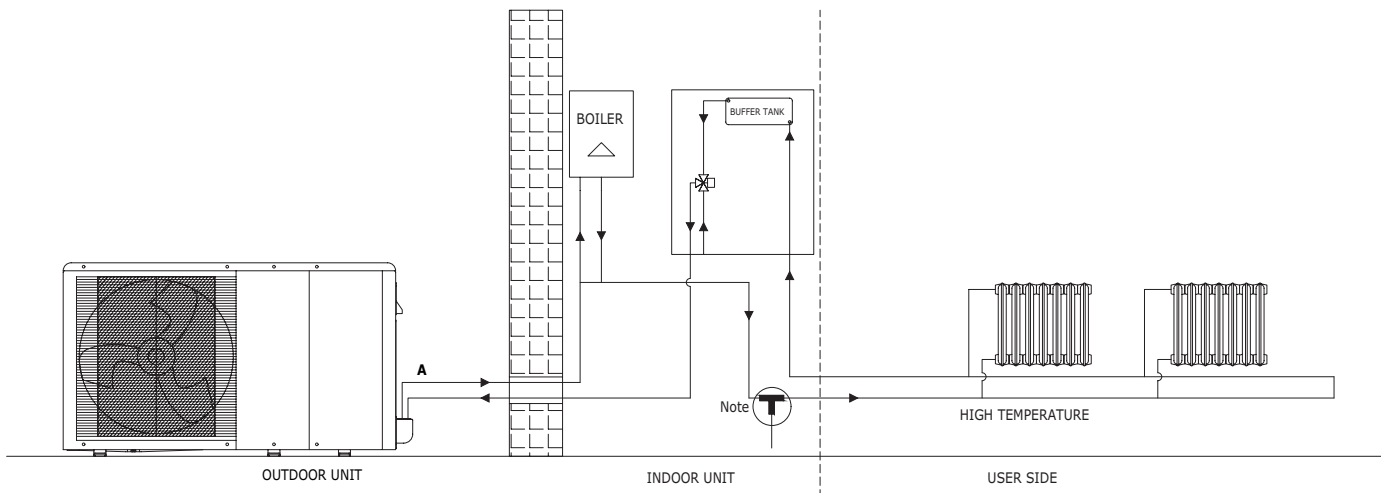


Single-area kit

Connections to be made by the customer for connection to any DHW heat exchanger

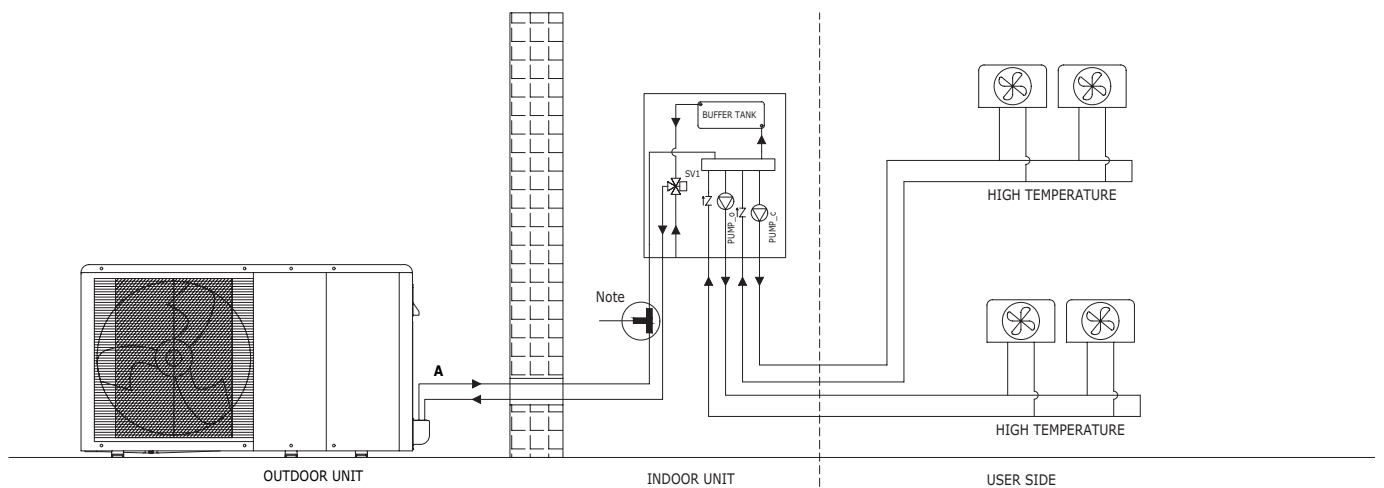
System connections

General description of the system and possible connections



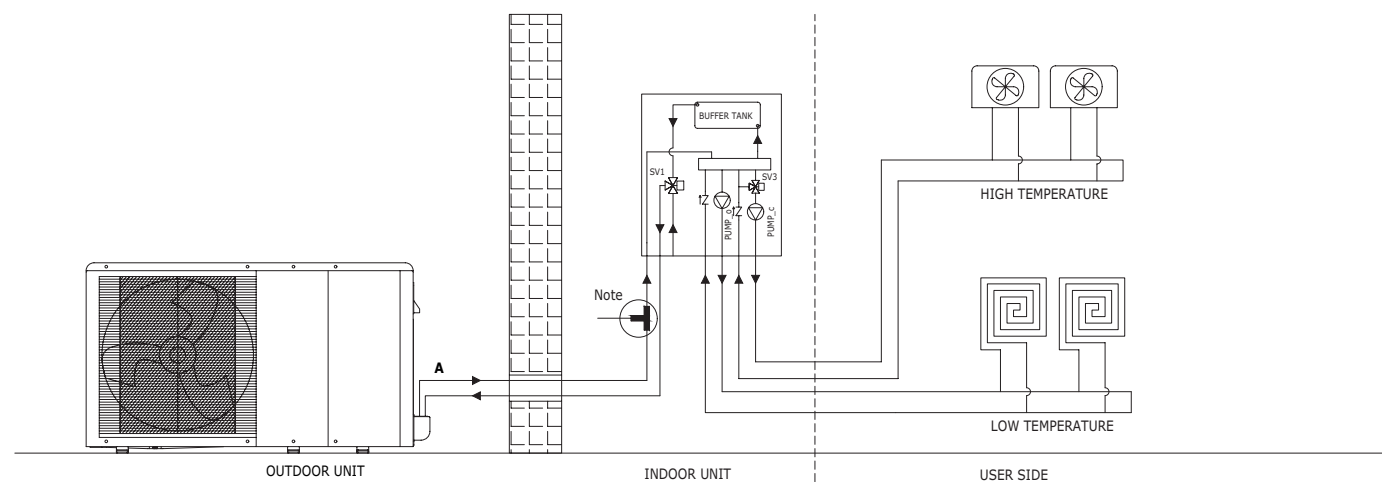
Boiler + single-area solution

Connections to be made by the customer for connection to any DHW heat exchanger



Kit for 2 AT-AT areas

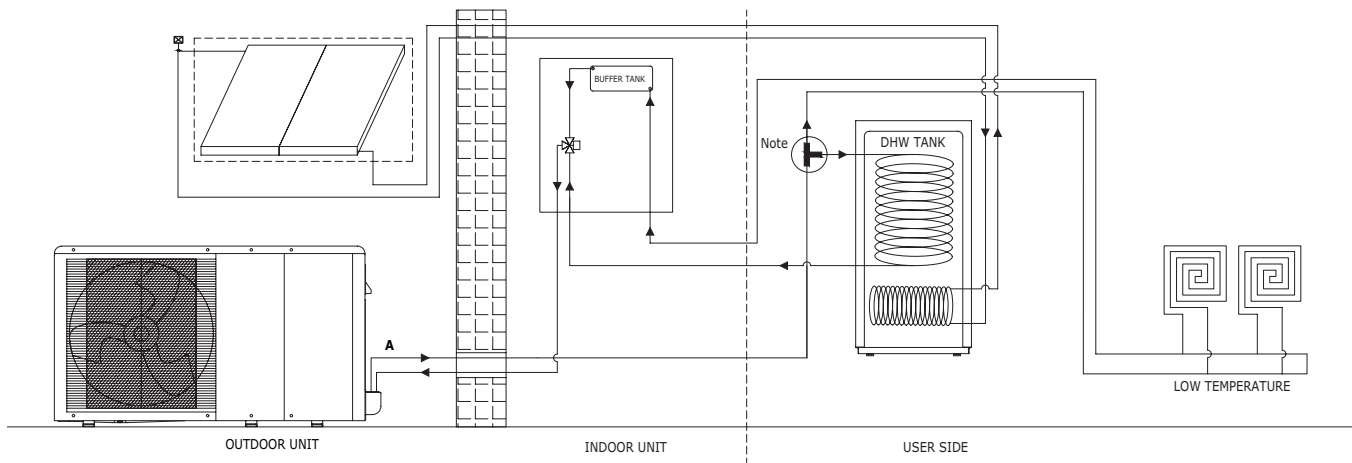
Connections to be made by the customer for connection to any DHW heat exchanger



Kit for 2 AT-BT areas (mixed)

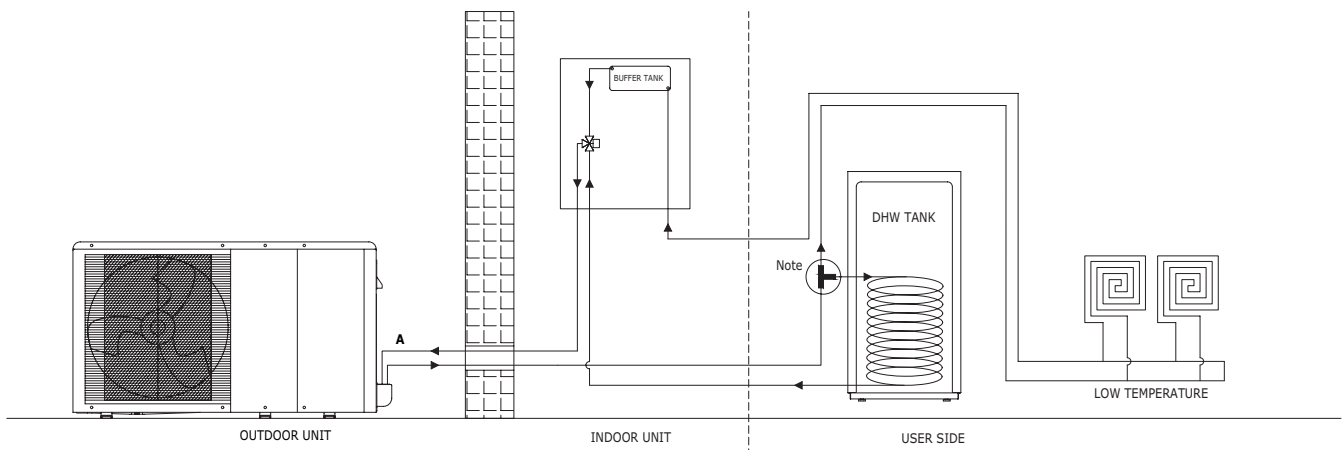
Connections to be made by the customer for connection to any DHW heat exchanger

General description of the system and possible connections



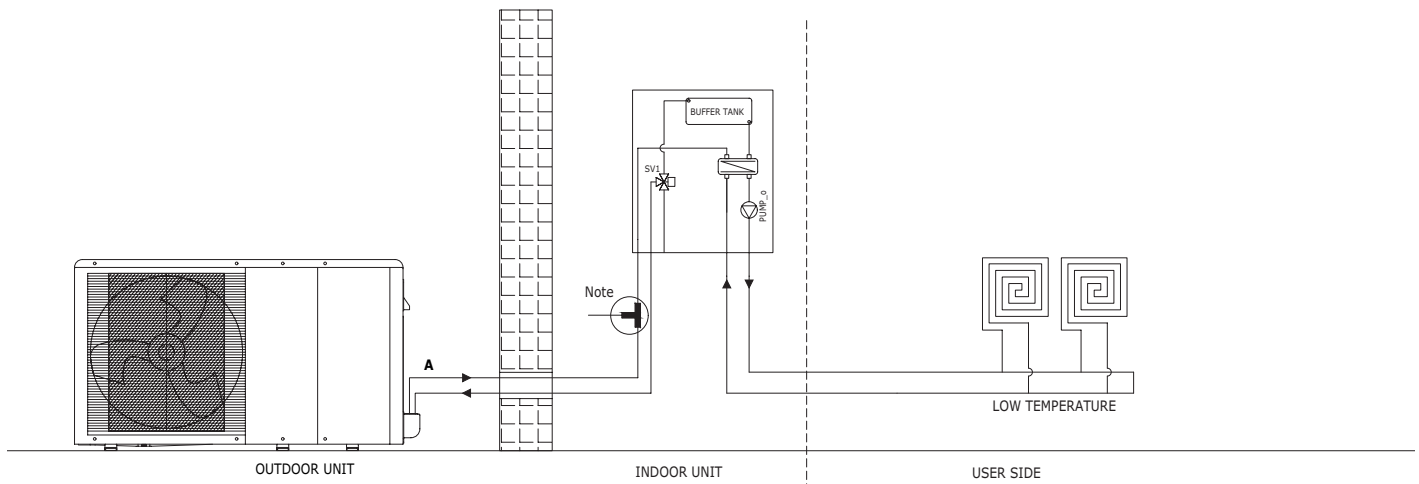
Solar kit

Connections to be made by the customer for connection to any DHW heat exchanger



DHW tank

Connections to be made by the customer for connection to any DHW heat exchanger



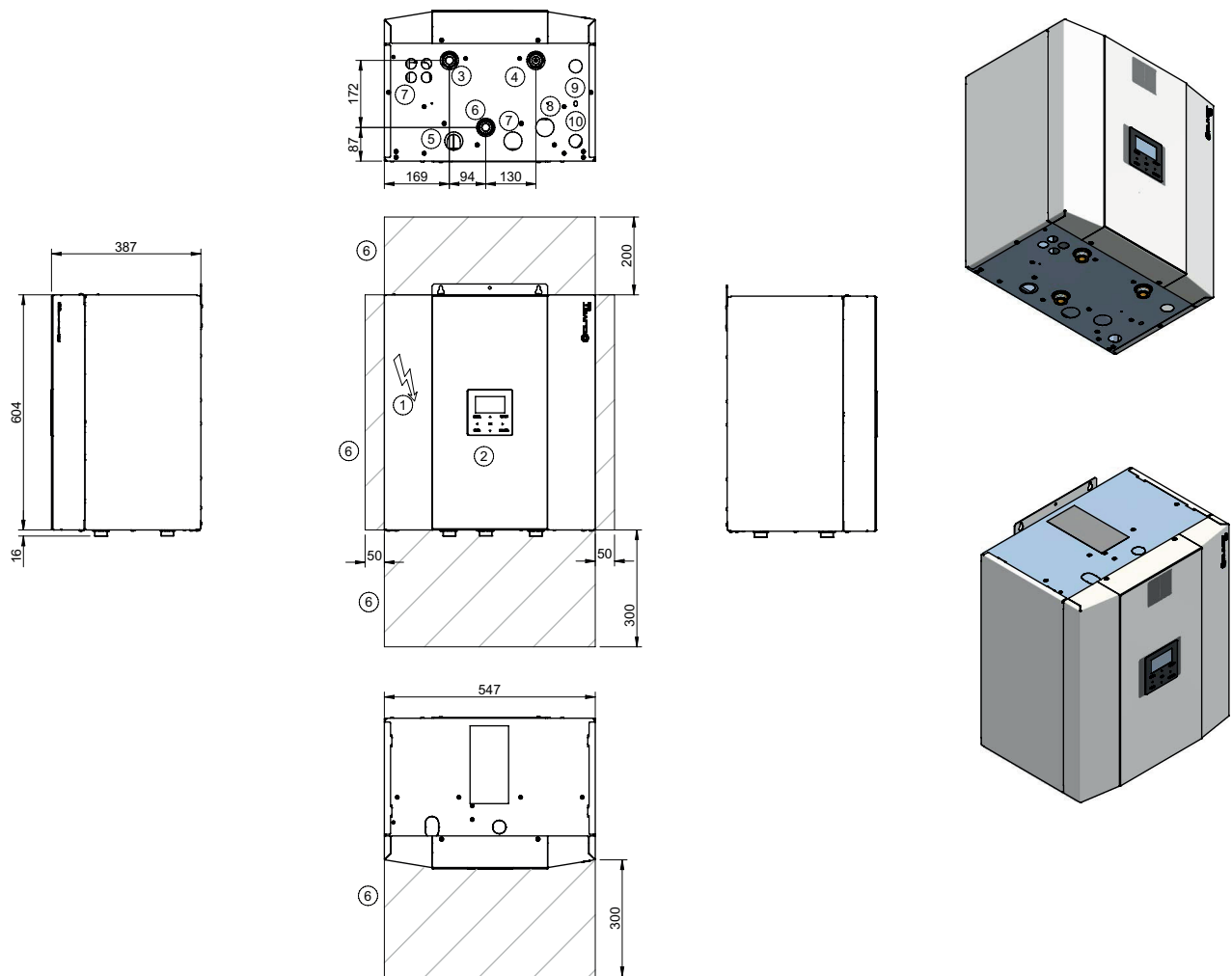
Glycol H₂O kit

Connections to be made by the customer for connection to any DHW heat exchanger

Dimensional drawings

HIDRO-SPLIT BOX - Indoor unit

DAATM0000_00
DATA/DATE 25/03/2024



- 1. Electrical panel
- 2. Control keypad
- 3. Supply to outdoor unit - 1"
- 4. Water tank DHW return - 1"
- 5. Area 1 system supply - 1"
- 6. Area 1 system return - 1"
- 7. Area 2 system supply - 1" (optional)
- 8. Area 2 system return - 1" (optional)
- 9. Water tank DHW supply - 1"
- 10. Water return from outdoor unit - 1"

SIZES

Operating weight	kg	53
Shipping weight	kg	50

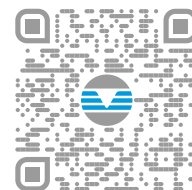
The presence of optional accessories may result in significant variation of the weights indicated.

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