

# EDGE F

## WiSAN-PME 1 S 2.1÷8.1

Air-to-water packaged unit heat pump  
for heating, cooling and domestic hot water production

### ENERGY SAVING



Solar integration  
(optional - DHW tank)



Cascade



Smart Grid  
ready



€-Switch

### COMFORT



Hot  
Cold



DHW



Silent

### RELIABILITY



Backup heater  
(optional)



025



ProdottiQualità  
CasaClima



Renewable Energy  
(Full electric  
version)



Refrigerant  
ecological

### CONVENIENCE



Weekly Timer



Contemporaneity  
(Hybrid Version)



Instant DHW  
(Hybrid Version)



Input  
ON/OFF



User interface/  
thermostat



Port  
Modbus



Control  
via App



management  
Control4 NRG



Clivet Eye  
monitoring



Energy  
metering



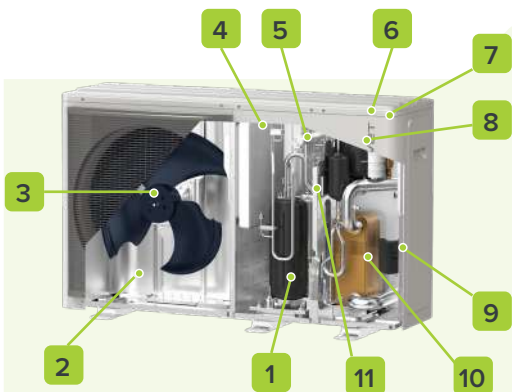
- ✓ R-290 technology: combines high performance with full respect for the environment
- ✓ Versatile: wide range of applications in both packaged and hydro-split versions
- ✓ Renovation is easy: supply temperature up to 75 °C, perfect for any distribution system
- ✓ Modular: combines up to 6 units in cascade
- ✓ Advanced connectivity: management via the dedicated App or via the Modbus port with CONTROL4 NRG standard supplied

## For the future

EDGE F is the heat pump with R-290 refrigerant designed for the future; it is in fact a natural gas, and already in accordance with the current strict European regulations. The high thermodynamic qualities of this new refrigerant allow the production of water at unprecedented temperatures, 75 °C supply down to -10 °C ambient.

Respect for the environment and temperatures comparable to a boiler for a full-electric future.

**ECO**  
refrigerant R290



1. Compressor
2. Source side exchanger
3. Fan
4. Sealed inverter panel
5. 4-way reverse cycle valve
6. Relief valve (safety)
7. Sealed electrical panel

8. System expansion vessel (4.8 litres)
9. Water supply pump
10. User side exchanger
11. Lamination valve

## configurations






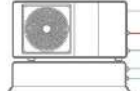























BACK-UP ELECTRIC HEATER (INTEGRATED IN THE UNIT):

- **No heater (standard)**
- IBH Back-up electric heater

## mandatory accessories

	HMINX	Black KJRH-120L control		HMAX	White KJRH-120L control
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## accessories

	KTFLX	Hose kit for connecting the unit to the system		T1BX	DHW temperature probe and additional heating source at 10 m
	FDMX	Magnetic dirt separator filter for water distribution systems		T1B30X	DHW temperature probe and additional heating source at 30 m
	VAGX	Safety antifreeze valve for system		TANKX	System inertial storage tank
	ACS200X	200 liter DHW tank		KTCAX	Piping kit for the connection to the buffer tank
	ACS300X	300 liter DHW tank		PCSX	Secondary circuit pump
	ACS500X	500 liter DHW tank		PCS2X	Oversized secondary circuit pump
	ACS1000X	1000 liter DHW tank		PRSX	DHW recirculation pump
	ACS10SX	1.000 liter DHW tank with solar coil		VDACSX	Thermostat-controlled switching valve for domestic hot water
	SCS08X	Solar coil for ACS200X/ACS300X DHW tank		IBHX	Single-phase back-up electric heater (2/4/6kW)
	SCS12X	1.2 m <sup>2</sup> solar exchanger for flange installation (for ACS500X)		IBHTX	Three-phase back-up electric heater (3/6/9kW)
	QERAX	Electrical panel for single-phase heater connection on DHW storage tank		DTX	Auxiliary condensate collection tray
	QERATX	Electrical panel for three-phase heater connection on DHW storage tank		AMRX	Kit of antivibration mounts for floor installation
	3DHWX	Three-way valve for domestic hot water		AMMSX	Kit of antivibration anti-seismic mounts for floor installation
	KCSX	Secondary circuit kit (1-litre circuit breaker + pump)		ASTFX	Kit of antivibration mounts for wall bracket installation
	KIRE2HLX	Double zone distribution unit: direct + mixed (with mixing valve)		KSIPX	Kit with wall fixing brackets
	KIRE2HX	Double zone distribution unit: direct + direct		HTC2WX	White HID-TConnect <sup>2</sup> chronothermostat for temperature control
	DIX	1 liter hydraulic separator		SWCX	Receiver / IoT switch SwitchConnect
	DI50-2X	50 liter hydraulic separator			
	DH100X	100-litre circuit breaker			

## technical data

Size				2.1	3.1	4.1	5.1	6.1	7.1	8.1	
Heating	Capacity	Water 35/30°C	Nominal / Maximum	kW	<b>4,50 / 6,86</b>	<b>6,20 / 7,70</b>	<b>8,40 / 10,4</b>	<b>10,0 / 11,0</b>	<b>12,0 / 14,7</b>	<b>14,0 / 16,0</b>	<b>15,0 / 17,6</b>
	COP	Outdoor air 7°C	Nominal	-	5,15	4,90	5,00	4,70	4,80	4,50	4,40
	Capacity	Water 35/30°C	Nominal / Maximum	kW	4,50 / 5,56	5,90 / 6,18	7,00 / 8,74	8,00 / 8,89	10,0 / 11,1	11,5 / 12,1	12,7 / 13,2
	COP	Outdoor air -7°C	Nominal	-	3,10	2,95	3,00	2,85	2,80	2,70	2,50
Cooling	Capacity	Water 45/40°C	Nominal / Maximum	kW	4,50 / 6,55	6,40 / 7,35	8,20 / 9,57	10,0 / 10,5	12,0 / 14,1	14,0 / 15,3	15,0 / 16,9
	COP	Outdoor air 7°C	Nominal	-	4,05	3,80	3,85	3,65	3,70	3,50	3,35
	Capacity	Water 18/23°C	Nominal / Maximum	kW	<b>4,50 / 7,84</b>	<b>6,50 / 9,75</b>	<b>8,30 / 11,4</b>	<b>10,0 / 12,1</b>	<b>12,0 / 16,4</b>	<b>14,0 / 17,3</b>	<b>16,0 / 18,6</b>
	EER	Outdoor air 35°C	Nominal	-	5,50	5,10	5,15	4,75	4,50	4,20	3,90
Electrical power for meter sizing	Capacity	Water 7/12°C	Nominal / Maximum	kW	4,70 / 5,66	6,80 / 7,14	7,50 / 8,19	8,90 / 8,90	11,5 / 12,0	12,7 / 12,7	14,0 / 14,3
	EER	Outdoor air 35°C	Nominal	-	3,65	3,10	3,45	3,25	3,05	2,90	2,75
Seasonal efficiency	Heating	Energy class	-	-	<b>A++</b>	<b>A++</b>	<b>A++</b>	<b>A++</b>	<b>A++</b>	<b>A++</b>	<b>A++</b>
		Annual energy consumption	kWh/year	2.684	3.164	3.676	4.215	6.847	7.414	8.349	
	Water 55°C	SCOP	-	3,79	3,82	3,82	3,62	3,62	3,57		
		ηs (seasonal output)	%	148,7	149,7	149,7	149,8	141,8	141,9	139,9	
	Medium climate	Heating	Energy class	-	<b>A+++</b>	<b>A+++</b>	<b>A+++</b>	<b>A+++</b>	<b>A+++</b>	<b>A+++</b>	<b>A+++</b>
		Annual energy consumption	kWh/year	2.040	2.692	3.187	3.734	5.376	6.091	6.630	
Water 35°C	SCOP	-	5,09	4,91	5,20	5,07	4,68	4,64	4,59		
	ηs (seasonal output)	%	200,7	193,5	204,8	199,8	184,0	182,4	180,6		

### Technical specifications

Power supply	Voltage/Frequency/Phases	V/Hz/n°	230/50/1	230/50/1	230/50/1	230/50/1	230/50/1	230/50/1	230/50/1	
Water flow-rate	Water 35/30°C	Nominal	l/s	0,21	0,30	0,40	0,48	0,57	0,67	0,71
Pump available pressure	Outdoor air 7°C	Nominal	kPa	85	85	86	86	88	88	88
Minimum system water content			l	30	30	40	40	40	40	40
Expansion tank capacity			l	8	8	8	8	8	8	8
Sound power		Minimum / Nominal	dB(A)	51 / 56	53 / 58	55 / 60	56 / 61	58 / 65	59 / 65	60 / 69
Sound pressure @1m		Minimum / Nominal	dB(A)	40 / 44	42 / 46	42 / 48	43 / 49	43 / 51	44 / 52	48 / 56

### Operating range

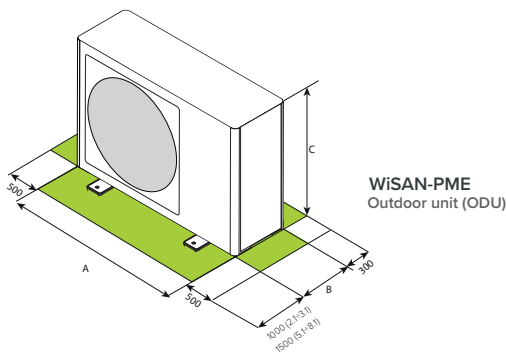
Water supply temperature	Heating / DHW	Full electric	Minimum / Maximum	°C	25 / 75	25 / 75	25 / 75	25 / 75	25 / 75	25 / 75	25 / 75
		Hybrid	Minimum / Maximum	°C	25 / 75	25 / 75	25 / 75	25 / 75	25 / 75	25 / 75	25 / 75
	Cooling	-	Minimum / Maximum	°C	5 / 25	5 / 25	5 / 25	5 / 25	5 / 25	5 / 25	5 / 25
Operating range (Outdoor air)	Heating	-	Minimum / Maximum	°C	-25 / 35	-25 / 35	-25 / 35	-25 / 35	-25 / 35	-25 / 35	-25 / 35
		DHW	-	Minimum / Maximum	°C	-25 / 46	-25 / 46	-25 / 46	-25 / 46	-25 / 46	-25 / 46
	Cooling	-	Minimum / Maximum	°C	-5 / 46	-5 / 46	-5 / 46	-5 / 46	-5 / 46	-5 / 46	

Data according to EN 14511:2018 and EN 14825:2016

The Product complies with the European ErP Directive (EU Regulations 811/2013 - 813/2013 - 2016/2281).

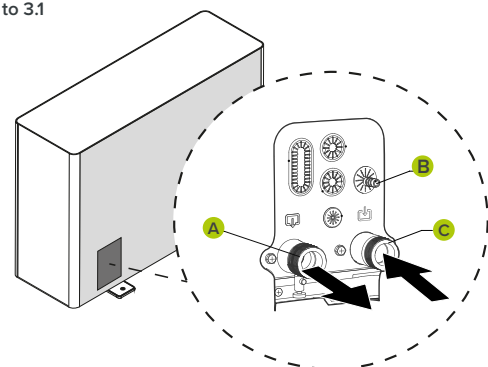
## dimensions and connections

Size			2.1	3.1	4.1	5.1	6.1	7.1	8.1
Dimensions	AxCxB	mm	1.295x718x381	1.295x718x381	1.385x865x423	1.385x865x423	1.385x865x423	1.385x865x423	1.385x865x423
Weight		kg	90	90	117	117	135	135	135
		type / GWP	R-290 / 0.02	R-290 / 0.02	R-290 / 0.02	R-290 / 0.02	R-290 / 0.02	R-290 / 0.02	R-290 / 0.02
Refrigerant charge		kg	0,70	0,70	1,10	1,10	1,25	1,25	1,25
		CO <sub>2</sub> tons	0,002	0,002	0,003	0,003	0,004	0,004	0,004
External diameters	Water	inch	1"	1"	1" 1/4	1" 1/4	1" 1/4	1" 1/4	1" 1/4



For trouble-free operation of the unit it is essential to maintain the safety distances indicated by the green areas.

### SIZES 2.1 to 3.1



- A.** 1" system supply
- B.** Pressure relief valve Ø 16mm
- C.** 1" system return

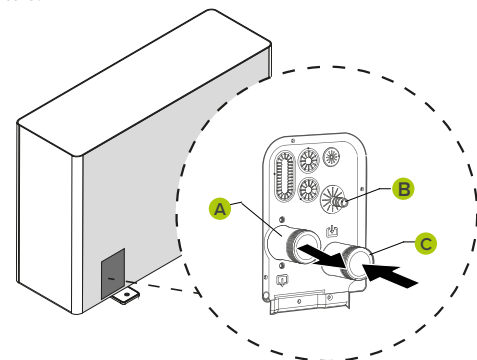
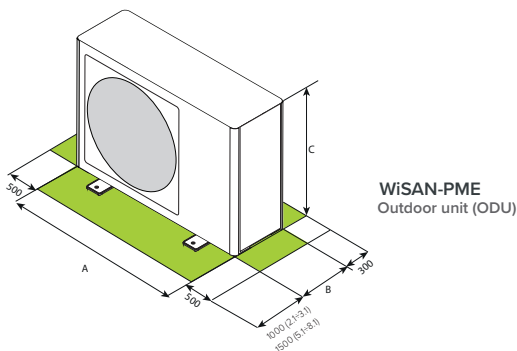
Size				6.1T	7.1T	8.1T	
Heating	Capacity	Water 35/30°C	Nominal / Maximum	kW	12,0 / 14,7	14,0 / 16,0	15,0 / 17,6
	COP	Outdoor air 7°C	Nominal	-	4,80	4,50	4,40
	Capacity	Water 35/30°C	Nominal / Maximum	kW	10,0 / 11,1	11,5 / 12,1	12,7 / 13,2
	COP	Outdoor air -7°C	Nominal	-	2,80	2,70	2,50
	Capacity	Water 45/40°C	Nominal / Maximum	kW	12,0 / 14,1	14,0 / 15,3	15,0 / 16,9
	COP	Outdoor air 7°C	Nominal	-	3,70	3,50	3,35
Cooling	Capacity	Water 18/23°C	Nominal / Maximum	kW	12,0 / 16,4	13,0 / 17,3	14,4 / 18,6
	EER	Outdoor air 35°C	Nominal	-	4,50	4,20	3,90
	Capacity	Water 7/12°C	Nominal / Maximum	kW	11,5 / 12,0	12,7 / 12,7	14,0 / 14,3
	EER	Outdoor air 35°C	Nominal	-	3,05	2,90	2,75
Electrical power for meter sizing				kW	5,70	6,00	6,40
Seasonal efficiency	Energy class		-	A++	A++	A++	
	Heating	Annual energy consumption	kWh/year	6.847	7.414	8.349	
		Water 55°C	SCOP	-	3,62	3,62	3,57
	Medium climate	ηs (seasonal output)		%	141,8	141,9	139,9
		Energy class		-	A+++	A+++	A+++
		Heating	Annual energy consumption	kWh/year	5.376	6.091	6.630
Water 35°C			SCOP	-	4,68	4,64	4,59
ηs (seasonal output)		%	184,0	182,4	180,6		
<b>Technical specifications</b>							
Power supply	Voltage/Frequency/Phases		V/Hz/n°	400/50/3+N	400/50/3+N	400/50/3+N	
Water flow-rate	Water 35/30°C	Nominal	l/s	0,57	0,67	0,71	
Pump available pressure	Outdoor air 7°C	Nominal	kPa	88	88	88	
Minimum system water content			l	40	40	40	
Expansion tank capacity			l	8	8	8	
Sound power			Minimum / Nominal	dB(A)	59 / 65	60 / 69	
Sound pressure @1m			Minimum / Nominal	dB(A)	43 / 51	44 / 52	48 / 56
<b>Operating range</b>							
Water supply temperature	Heating / DHW	Full electric	Minimum / Maximum	°C	25 / 75	25 / 75	25 / 75
		Hybrid	Minimum / Maximum	°C	25 / 75	25 / 75	25 / 75
	Cooling	-	Minimum / Maximum	°C	5 / 25	5 / 25	5 / 25
Operating range (Outdoor air)	Heating	-	Minimum / Maximum	°C	-25 / 35	-25 / 35	-25 / 35
	DHW	-	Minimum / Maximum	°C	-25 / 46	-25 / 46	-25 / 46
	Cooling	-	Minimum / Maximum	°C	-5 / 43	-5 / 43	-5 / 43

Data according to EN 14511:2018 and EN 14825:2016

The Product complies with the European ErP Directive (EU Regulations 811/2013 - 813/2013 - 2016/2281).

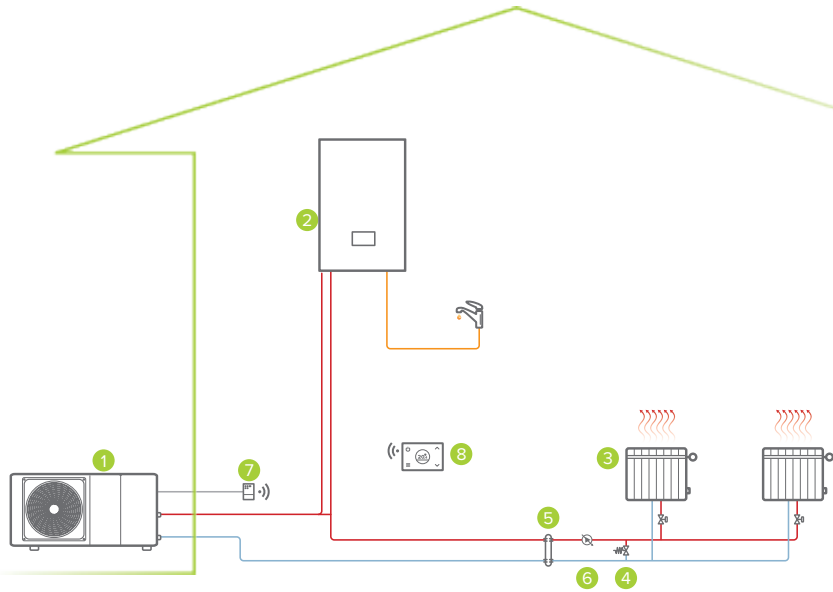
Size			6.1T	7.1T	8.1T
Dimensions	AxCxB	mm	1.385x865x423	1.385x865x423	1.385x865x423
Weight		kg	137	137	137
		type / GWP	R-290 / 0.02	R-290 / 0.02	R-290 / 0.02
Refrigerant charge		kg	1,25	1,25	1,25
		CO <sub>2</sub> tons	0,004	0,004	0,004
External diameters	Water	inch	1" 1/4	1" 1/4	1" 1/4

SIZES 4.1 to 8.1



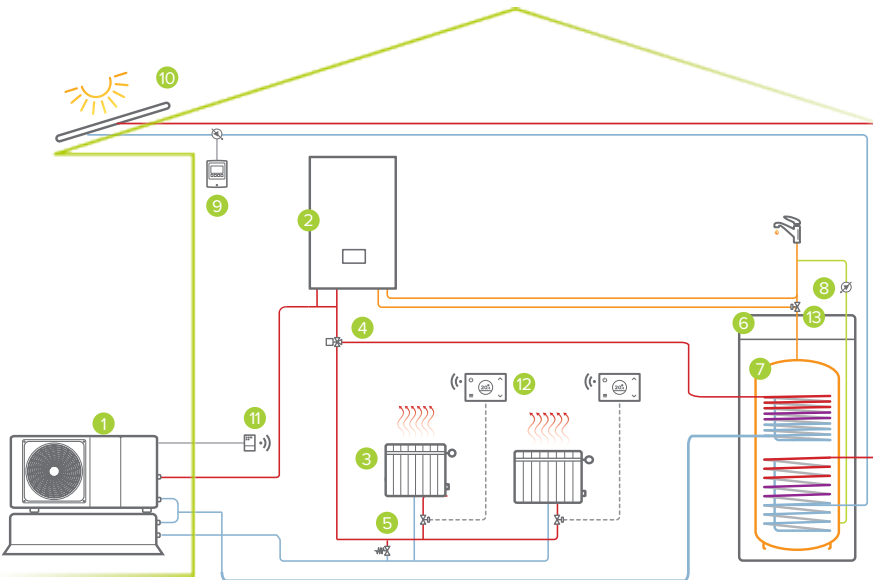
For trouble-free operation of the unit it is essential to maintain the safety distances indicated by the green areas.

- A. 1 1/4" system supply
- B. Pressure relief valve Ø 16mm
- C. 1 1/4" system return



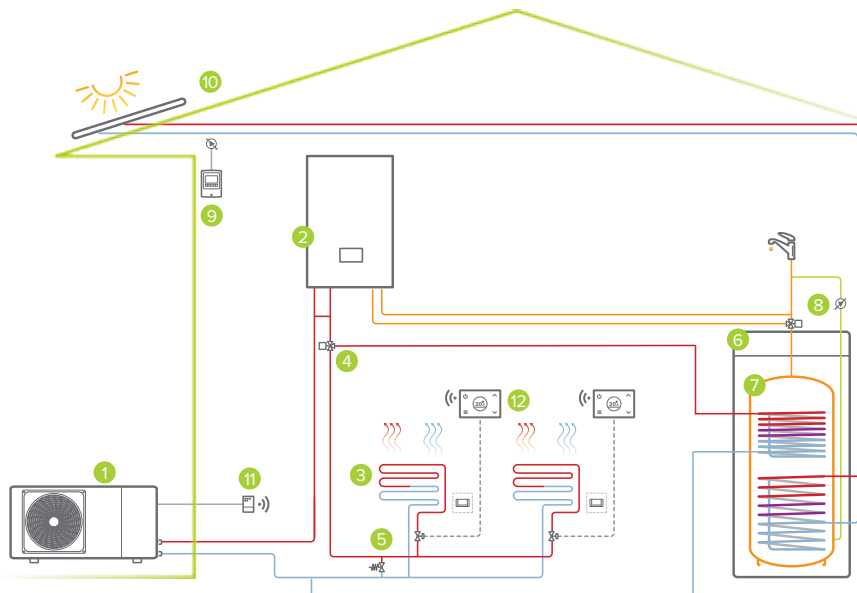
**Hybrid single-zone system:**  
Heating / DHW

- 1 outdoor unit
- 2 instantaneous boiler (*Hybrid version*)
- 3 heating area
- 4 bypass\*
- 5 hydraulic separator (optional)
- 6 secondary circuit pump (optional)
- 7 SwitchConnect Wi-Fi receiver (optional)
- 8 HID-TConnect2 Wi-Fi chronothermostat (optional)



**Hybrid single-area system with thermal solar:**  
Heating / DHW

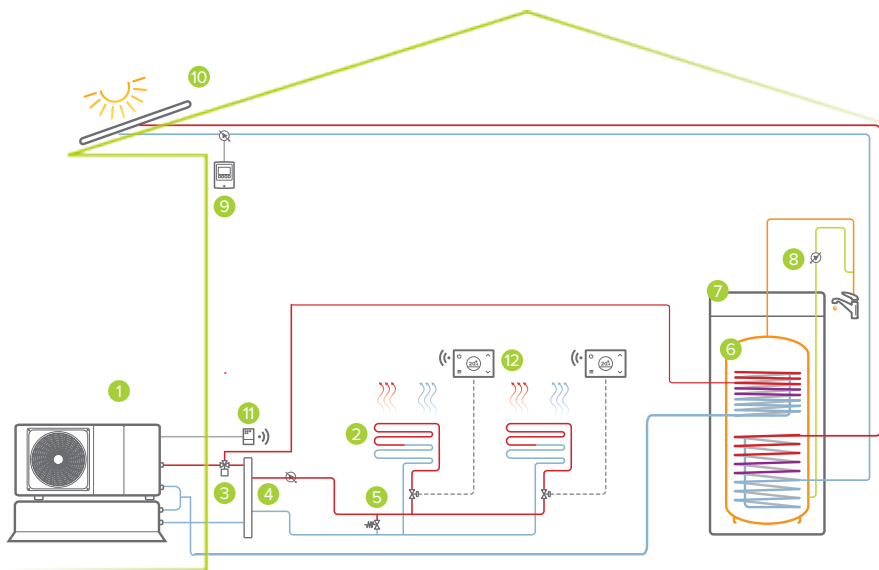
- 1 outdoor unit
- 2 instantaneous boiler (*Hybrid version*)
- 3 heating/cooling zone
- 4 3-way switching valve (optional)
- 5 bypass\*
- 6 boiler connection kit (optional)
- 7 DHW boiler with solar coil (optional)
- 8 DHW recirculation pump (optional)
- 9 kit di circolazione solare (opzionale)
- 10 ELFOSun³ thermal solar (optional)
- 11 SwitchConnect Wi-Fi receiver (optional)
- 12 HID-TConnect2 Wi-Fi chronothermostat (optional)
- 13 thermostatic switching valve for DHW (optional)



**Hybrid single-area system with thermal solar:**  
Heating / Cooling / DHW

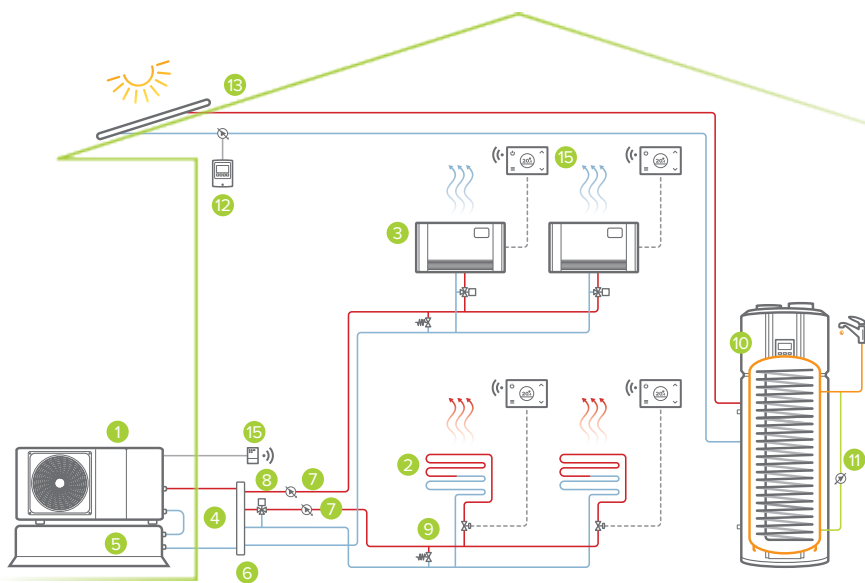
- 1 outdoor unit
- 2 boiler
- 3 heating/cooling zone
- 4 3-way switching valve (optional)
- 5 bypass\*
- 6 boiler kit connection QERAX (optional)
- 7 DHW tank with solar predisposition (optional)
- 8 DHW recirculation pump\*
- 9 kit di circolazione solare (opzionale)
- 10 ELFOSun³ thermal solar (optional)
- 11 SwitchConnect Wi-Fi receiver (optional)
- 12 HID-TConnect2 Wi-Fi chronothermostat (optional)

\*from external supply



### Full electric single-area system with thermal solar: Heating / Cooling / DHW

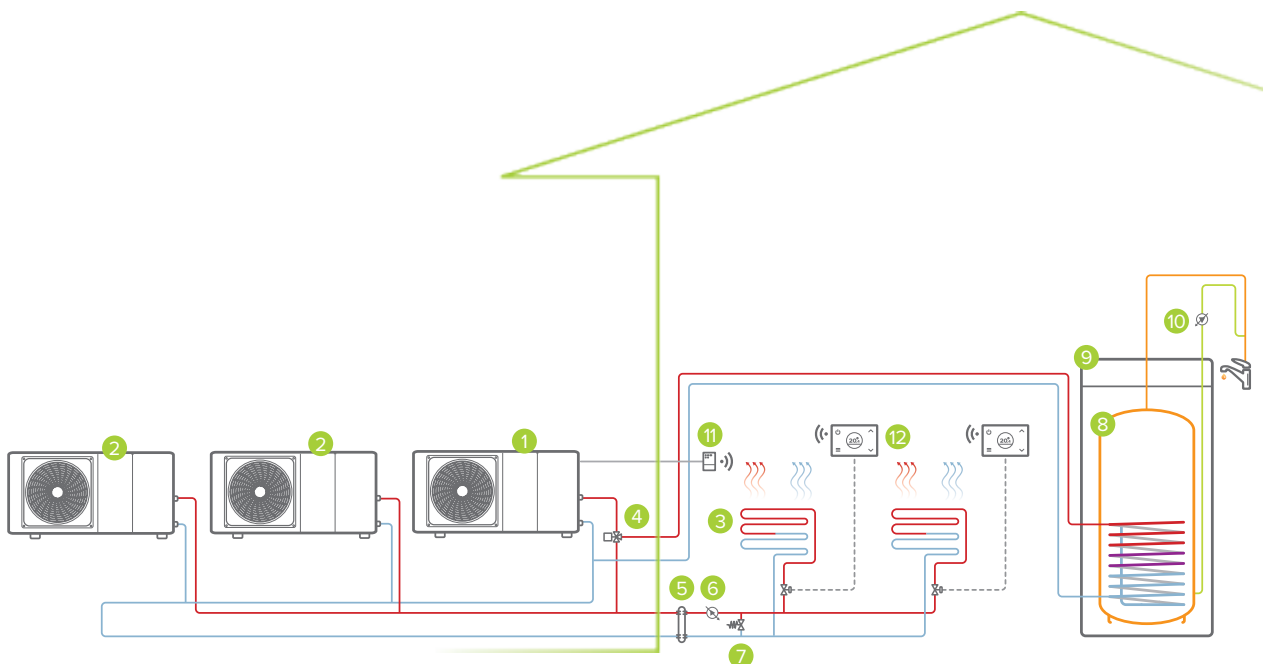
- 1 outdoor unit
- 2 heating/cooling zone
- 3 3-way switching valve (optional)
- 4 single-area separator + pump kit
- 5 bypass\*
- 6 DHW boiler with solar coil (optional)
- 7 boiler connection kit (optional)
- 8 DHW recirculation pump (optional)
- 9 kit di circolazione solare (opzionale)
- 10 ELFOSun<sup>3</sup> thermal solar (optional)
- 11 SwitchConnect Wi-Fi receiver (optional)
- 12 HID-TConnect2 Wi-Fi chronothermostat (optional)



### Full electric two-area system with thermal solar: Heating / Cooling / DHW

- 1 outdoor unit
- 2 heating area
- 3 cooling zone
- 4 inertial tank connection kit (optional)
- 5 system inertial storage (optional)
- 6 hydraulic separator (optional)
- 7 secondary circuit pump (optional)
- 8 3-way mixing valve\*
- 9 bypass\*
- 10 heat pump for DHW
- 11 DHW recirculation pump (optional)
- 12 kit di circolazione solare (opzionale)
- 13 ELFOSun<sup>3</sup> thermal solar (optional)
- 14 SwitchConnect Wi-Fi receiver (optional)
- 15 HID-TConnect2 Wi-Fi chronothermostat (optional)

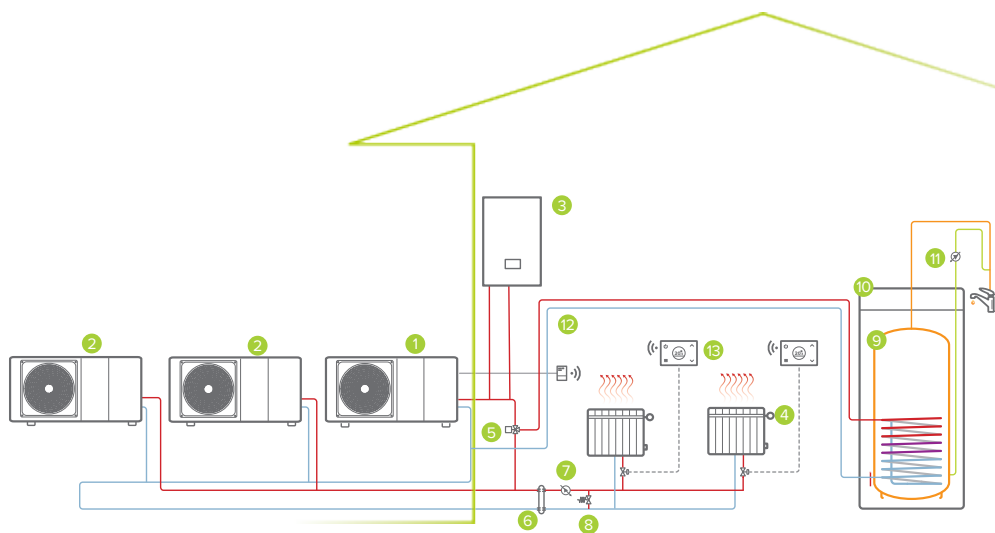
\*from external supply



**Full electric single-zone system in cascade:**

Heating / Cooling / DHW

- 1 outdoor unit (Master)
  - 2 outdoor unit (Slave)
  - 3 heating/cooling zone
  - 4 3-way switching valve (optional)
  - 5 hydraulic separator (optional)
  - 6 secondary circuit pump (optional)
  - 7 bypass\*
  - 8 DHW tank (optional)
  - 9 boiler connection kit (optional)
  - 10 DHW recirculation pump (optional)
  - 11 SwitchConnect Wi-Fi receiver (optional)
  - 12 HID-TConnect2 Wi-Fi chronothermostat (optional)
- \*from external supply



**Hybrid single-zone system in cascade:**

Heating / DHW

- 1 indoor unit (Slave)
  - 2 outdoor unit (Slave)
  - 3 instantaneous boiler (Hybrid version)
  - 4 heating area
  - 5 3-way switching valve (optional)
  - 6 hydraulic separator (optional)
  - 7 secondary circuit pump (optional)
  - 8 bypass\*
  - 9 DHW tank (optional)
  - 10 boiler connection kit (optional)
  - 11 DHW recirculation pump (optional)
  - 12 SwitchConnect Wi-Fi receiver (optional)
  - 13 HID-TConnect2 Wi-Fi chronothermostat (optional)
- \*from external supply