

SPHERA EVO 2.0

SQKN-YEE 1 TC + MiSAN-YEE 1 S 2.1÷8.1

Wall-mounted air-to-water split heat pump
for heating, cooling and domestic hot water production

ENERGY SAVING



Solar integration (optional)



Smart Grid ready



€-Switch

COMFORT



Heating Cooling



DHW



Silent



High temperature

RELIABILITY



Backup heater (optional)



Eurovent



Keymark

HEALTH



Eco-friendly refrigerant



Renewable energy

CONVENIENCE



Weekly schedule



Boiler integration



Integrated DHW tank

MANAGEMENT AND CONNECTIVITY



Potential-free contact



Modbus port



Wi-fi Control



ELFOControl management



Clivet Eye monitoring



User interface / thermostat



HEAT PUMPS

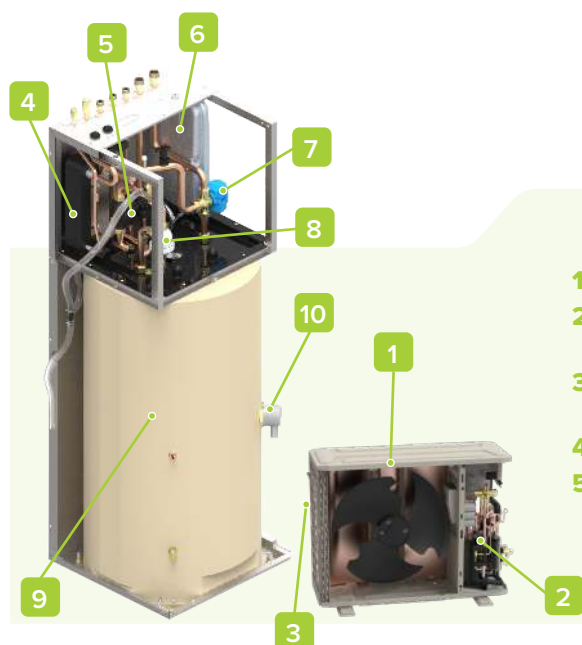


- ✓ System hot water production at 65°C with the outdoor air up to 5°C, at 60°C with the outdoor air down to -15°C
- ✓ Energy efficiency at the highest level
- ✓ Designed not to disturb, operating very quietly
- ✓ Suitable for every need, thanks to the dual version with 190-litre or 250-litre DHW storage tank
- ✓ Compact outdoor unit requiring very little installation space

Everything under control

The discreet and effective warning LED on the front of the unit indicates the unit's operating status in real time.

If the LED is pulsing white the unit is in stand-by or operating normally, if the LED is orange with quick pulsing there is a fault.



1. Inverter DC fan
2. Inverter DC twin-rotary compressor
3. Air-gas finned exchanger (blue fin treatment)
4. Gas/water plate exchanger
5. Inverter DC high efficiency pump
6. 8L system expansion tank
7. 3-way valve
8. Magnetic dirt separator filter
9. 190L/250L DHW tank with coil
10. 2kW DHW safety heater

configurations




















DHW STORAGE:

ACS190	DHW storage 190L
ACS250	DHW storage 250L
OUTDOOR UNIT POWER SUPPLY (size 6.1÷8.1):	
220M	Power supply 230/1/50
400TN	Power supply 400/3/50+N

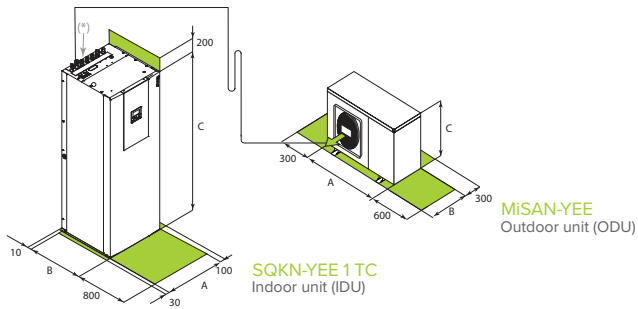
AUXILIARY SYSTEM HEATER:

-	No heater
EH24	2 kW integration electric heater
EH3	3 kW integration electric heater
EH6	6 kW integration electric heater
EH9	9 kW integration electric heater

accessories

	ACSA250X	250L additional domestic hot water storage tank		KCCEX	External boiler connection kit
	SOLX	Drain-back solar integration for domestic hot water		SFCSTX	Additional probe for cascade function
	KCSX	Secondary circuit kit (1-litre circuit breaker + pump)		DTX	Auxiliary condensate collection tray
	KIRE2HLX	2 zones: external kit, high temperature + low temperature (mixed)		APAVX	Kit of antivibration mounts for floor installation
	KIRE2HX	2 zones: external kit, high temperature		ASTFX	Kit of antivibration mounts for wall bracket installation
	DIX	1-litre circuit breaker		KSIPX	Kit with wall fixing brackets
	DI50X	50-litre circuit breaker		HID-TCBX	Black soft touch chronothermostat, with temperature control and management via App / Voice control
	ACI40X	40L system inertial storage tank (s. 2.1÷5.1)		HID-TCNX	White soft touch chronothermostat, with temperature control and management via App / Voice control
	ACI60X	60-litre system inertial storage tank		SWCX	SwitchConnect radio receiver
	COFX	Casing sheets for the inertial storage cover			

dimensions and connections



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

(*) Water and gas connections

technical data

Size (220M)				2.1		3.1		4.1		5.1		6.1		7.1		8.1	
				190L	250L	190L	250L	190L	250L	190L	250L	250L	250L	250L	250L		
Heating	Capacity	Water 35/30°C - Outdoor air 7°C	Nominal / Maximum	kW	4,32 / 6,26	6,18 / 7,41	8,30 / 9,11	10,09 / 10,3	12,13 / 14,60	14,51 / 15,5	16,01 / 16,80						
	COP		-	5,42	5,21	5,31	5,01	5,00	4,70	4,55							
	Capacity	Water 35/30°C - Outdoor air -7°C	Nominal / Maximum	kW	4,17 / 6,25	6,05 / 6,97	7,33 / 8,35	8,20 / 9,30	10,49 / 13,85	12,23 / 14,09	13,43 / 14,33						
	COP		-	3,16	3,00	3,23	3,07	3,13	2,82	2,74							
Cooling	Capacity	Water 45/40°C - Outdoor air 7°C	Nominal / Maximum	kW	4,16 / 5,96	6,03 / 7,13	8,22 / 8,98	10,01 / 10,30	12,30 / 14,50	14,00 / 15,70	16,01 / 16,60						
	COP		-	3,93	3,83	3,95	3,86	3,80	3,65	3,60							
	Capacity	Water 18/23°C - Outdoor air 35°C	Nominal / Maximum	kW	4,55 / 6,88	6,44 / 7,65	8,10 / 11,13	10,00 / 12,03	12,06 / 15,02	13,79 / 15,30	14,84 / 16,38						
	EER		-	6,08	5,24	5,12	4,77	4,02	3,70	3,65							
DHW	Capacity	Water 7/12°C - Outdoor air 35°C	Nominal / Maximum	kW	4,26 / 6,14	6,25 / 6,39	7,46 / 7,94	8,67 / 9,10	11,16 / 11,80	11,72 / 12,86	12,88 / 14,20						
	EER		-	3,50	3,09	3,33	3,09	2,75	2,55	2,45							
	Net tank capacity		l	190	250	190	250	190	250	250	250						
	Water mixed at 40°C (V40) ¹		l	204	269	204	269	204	269	204	269	269					
Heating time		h:min	2:30	2:25	2:30	2:25	2:08	2:05	2:08	2:05	1:46	1:46	1:46				
Electrical power for meter sizing		kW	2,20	2,60	3,30	3,60	5,40	5,70	6,10								
Seasonal efficiency	Heating 55°C	Energy class	-	A++	A++	A++	A++	A++	A++	A++	A++						
		Annual energy consumption	kWh/y	2.542	2.283	3.824	4.749	6.793	7.380	7.915							
		SCOP	-	3,32	3,54	3,72	3,73	3,56	3,52	3,48							
		ηs (seasonal output)	%	130	138	146	146	139	138	136							
Medium climate	Heating 35°C	Energy class	-	A+++	A+++	A+++	A+++	A+++	A+++	A+++	A+++						
		Annual energy consumption	kWh/y	2.542	2.283	3.824	4.749	6.793	7.380	7.915							
		SCOP	-	5,13	5,15	5,32	5,27	5,00	4,91	4,89							
		ηs (seasonal output)	%	202	203	210	208	196	193	193							
DHW	Energy class	-	A+	A+	A+	A+	A+	A+	A+	A+							
	DHW profile	-	L	XL	L	XL	L	XL	L	XL	L	XL					
Indoor unit					A	A	A	A	B	B	B						
Power supply	Voltage/Frequency/Phases		V/Hz/n°	230/50/1													
Water flow-rate		Nominal	l/s	0,21	0,30	0,41	0,49	0,57	0,67	0,75							
Pump available pressure		Nominal	kPa	31,2	36,5	33,1	31,0	25,7	31,7	22,6							
Expansion tank capacity			l	8													
Minimum system water content			l	40													
Sound power			dB(A)	41													
Sound pressure @1m			dB(A)	26													
Outdoor unit					2.1	3.1	4.1	5.1	6.1	7.1	8.1						
Power supply	Voltage/Frequency/Phases		V/Hz/n°	230/50/1													
Sound power			dB(A)	55	57	58	60	63	64	66							
Sound pressure @1m			dB(A)	42	44	45	47	50	51	53							
Operating range																	
Water supply temperature	Heating	Minimum / Maximum	°C	25 / 65													
	Cooling	Minimum / Maximum	°C	5 / 25													
Operating range (Outdoor air)	Heating	Minimum / Maximum	°C	-25 / 43													
	Cooling	Minimum / Maximum	°C	-5 / 43													
DHW	Minimum / Maximum	°C	-25 / 43														

Size			2.1	3.1	4.1	5.1	6.1	7.1	8.1
Dimensions	Indoor unit	Length(A) x Height(C) x Depth(B)	600x1.774x615 (190L) / 600x2.084x615 (250L)				600x2.084x615		
	Outdoor unit	Length(A) x Height(C) x Depth(B)	986 x 712 x 426		1.104 x 866 x 523		1.104 x 866 x 523		
Weight	Indoor unit		359 (190L) / 419 (250L)				421		
	Outdoor unit		58		77		112		
Max / min equivalent length		L			m		30 / 2		
Max difference in level ODU / IDU		H			m		25		
Refrigerant precharge					type/GWP		R-32 / 675		
			kg/m		1,5 / 15		1,65 / 15		1,84 / 15
			CO ₂ tons		1,05		1,11		1,24
Additional refrigerant charge ¹			g/m		20		38		
External diameters	Refrigerant pipe	Liquid	inch		1/4"		3/8"		
		Gas	inch				5/8"		
	Indoor unit	Water (system)	inch				1"		
		Water (DHW)	inch				3/4"		

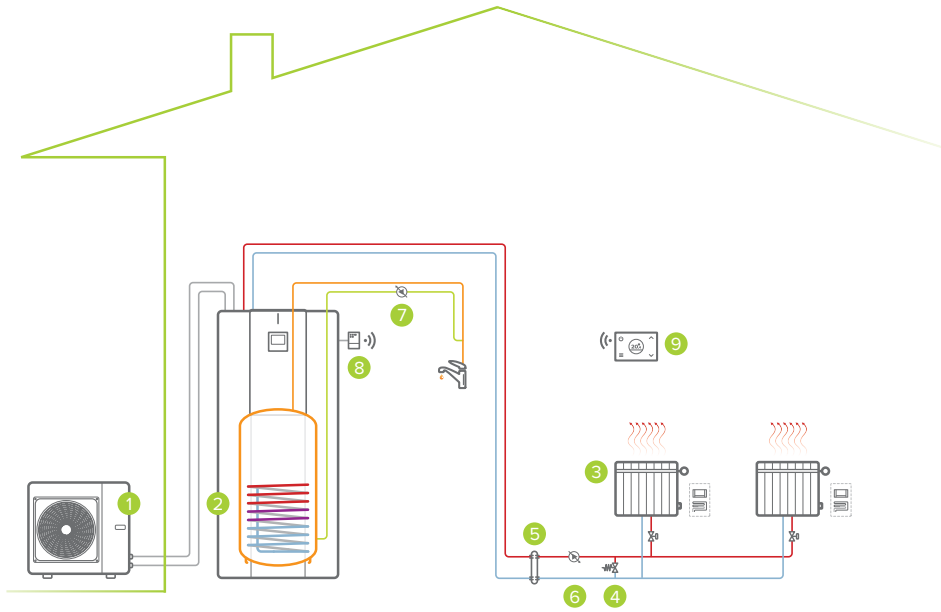
(1) Check in the manual if the indoor unit requires a minimum installation surface

Size (400TN)				6.1	7.1	8.1	
Heating	Capacity	Water 35/30°C - Outdoor air 7°C	Nominal / Maximum	kW	12,13 / 14,60	14,51 / 15,5	16,01 / 16,80
	COP		Nominal	-	5,00	4,70	4,55
	Capacity	Water 35/30°C - Outdoor air -7°C	Nominal / Maximum	kW	10,49 / 13,85	12,23 / 14,09	13,43 / 14,33
	COP		Nominal	-	5,00	4,70	4,55
Cooling	Capacity	Water 45/40°C - Outdoor air 7°C	Nominal / Maximum	kW	12,30 / 14,50	14,00 / 15,70	16,01 / 16,60
	COP		Nominal	-	3,13	2,82	2,74
	Capacity	Water 18/23°C - Outdoor air 35°C	Nominal / Maximum	kW	12,06 / 15,02	13,79 / 15,30	14,84 / 16,38
	EER		Nominal	-	4,02	3,70	3,65
DHW	Capacity	Water 7/12°C - Outdoor air 35°C	Nominal / Maximum	kW	11,16 / 11,80	11,72 / 12,86	12,88 / 14,20
	EER		Nominal	-	2,75	2,55	2,45
	Net tank capacity			l	250	250	250
	Water mixed at 40°C (V40) ¹			l	269	269	269
Electrical power for meter sizing	Heating time			h:min	1:46	1:46	1:46
				kW	5,40	5,70	6,10
	Energy class			-	A++	A++	A++
	Annual energy consumption			kWh/year	6.793	7.380	7.915
Seasonal efficiency	SCOP			-	3,56	3,52	3,48
	η _s (seasonal output)			%	139	138	136
	Energy class			-	A+++	A+++	A+++
	Annual energy consumption			kWh/year	6.793	7.380	7.915
Medium climate	SCOP			-	5,00	4,91	4,89
	η _s (seasonal output)			%	196	193	193
	Energy class			-	A+	A+	A+
	DHW profile			-	XL	XL	XL
Indoor unit				B	B	B	
Power supply	Voltage/Frequency/Phases			V/Hz/n°	230/50/1		
Water flow-rate		Nominal		l/s	0,57	0,67	
Pump available pressure		Nominal		kPa	25,7	31,7	
Expansion tank capacity				l	8		
Minimum system water content				l	60		
Sound power				dB(A)	41		
Sound pressure @1m				dB(A)	26		
Outdoor unit				6.1	7.1	8.1	
Power supply	Voltage/Frequency/Phases			V/Hz/n°	400/50/3+N		
Sound power				dB(A)	63	64	
Sound pressure @1m				dB(A)	50	51	
Operating range							
Water supply temperature	Heating	Minimum / Maximum		°C	25 / 65		
	Cooling	Minimum / Maximum		°C	5 / 25		
Operating range (Outdoor air)	Heating	Minimum / Maximum		°C	-25 / 43		
	Cooling	Minimum / Maximum		°C	-5 / 43		
	DHW	Minimum / Maximum		°C	-25 / 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). Energy classes with ELFOControl³ EVO system control

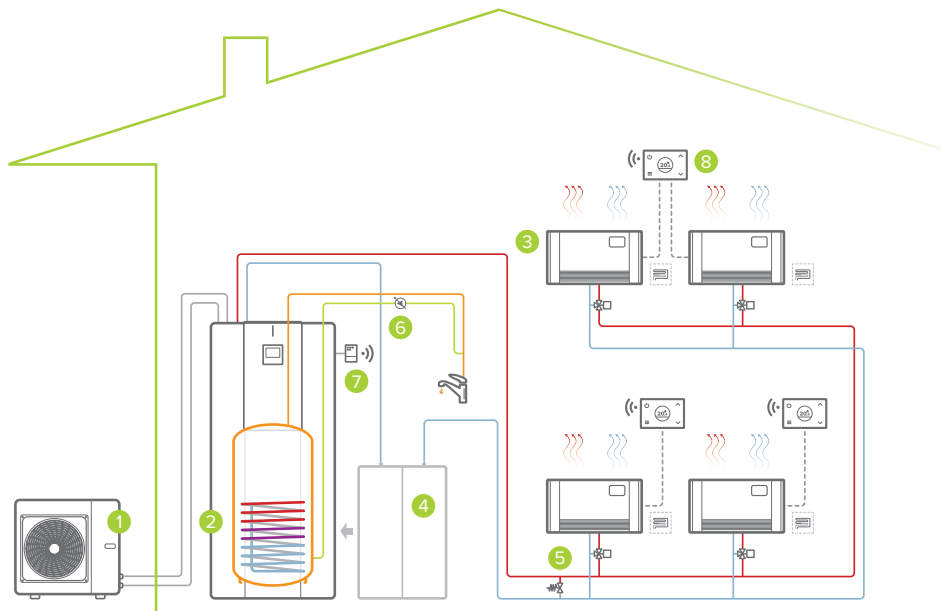
(1) Data according to EN 16147: amount of water at 40°C with the same enthalpy content as the water coming out of the Boiler at a temperature higher than 40°C



**Single area system:
Heating/DHW**

- 1 outdoor unit
- 2 indoor unit
- 3 heating area (radiators / fan coils / radiant)
- 4 bypass*
- 5 hydraulic separator (optional)
- 6 secondary circuit pump*
- 7 DHW recirculation pump*
- 8 SwitchConnect Wi-Fi receiver (optional)
- 9 HID-TConnect Wi-Fi chronothermostat (optional)

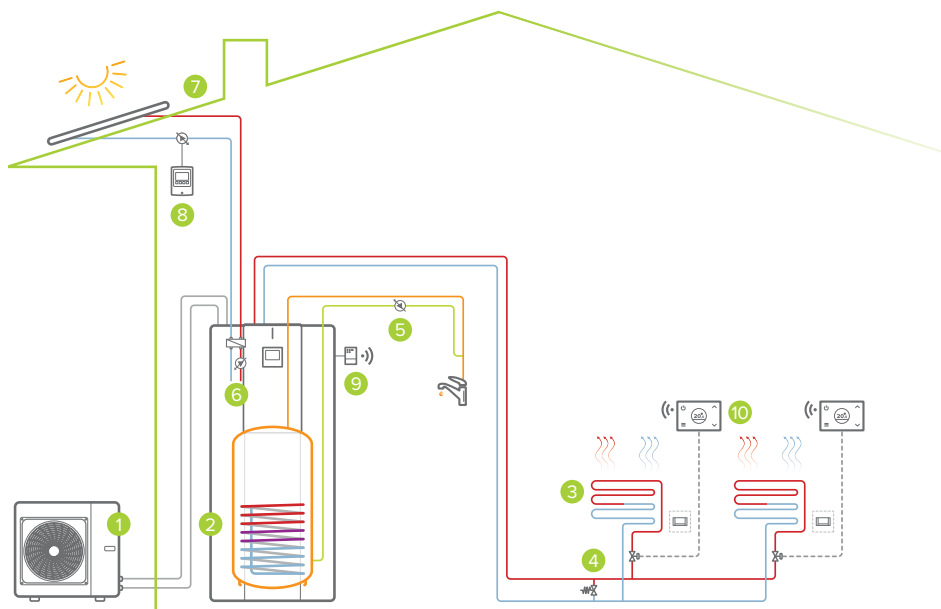
*from external supply



**Single area system:
heating/cooling/DHW**

- 1 outdoor unit
- 2 indoor unit
- 3 heating/cooling area (fan coils / radiant)
- 4 system inertial storage (optional)
- 5 bypass*
- 6 DHW recirculation pump*
- 7 SwitchConnect Wi-Fi receiver (optional)
- 8 HID-TConnect Wi-Fi chronothermostat (optional)

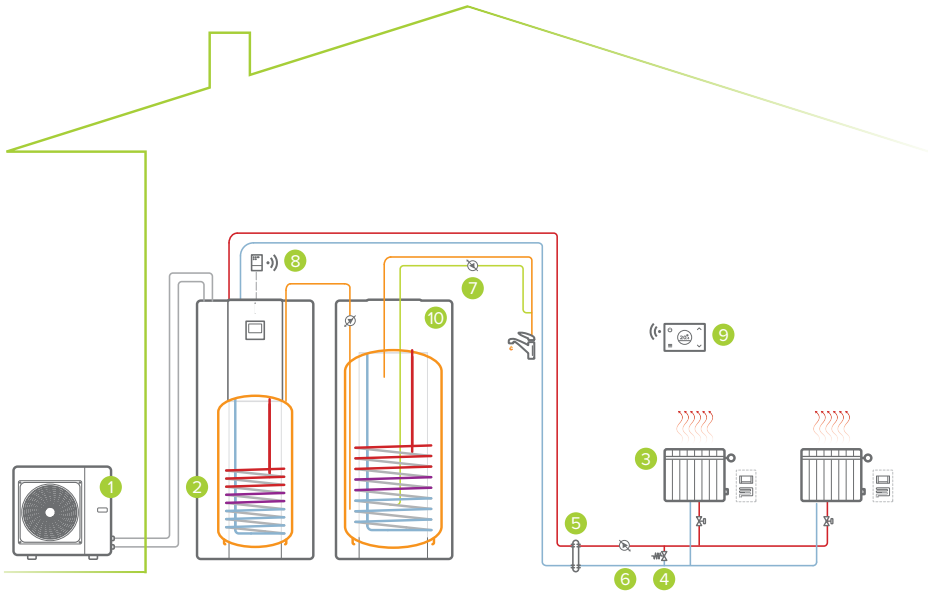
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**Single area system with solar thermal:
heating/cooling/DHW**

- 1 outdoor unit
- 2 indoor unit
- 3 heating / cooling area (fan coils / radiant)
- 4 bypass*
- 5 DHW recirculation pump*
- 6 solar connection kit (optional)
- 7 ELFOSun solar thermal (optional)
- 8 solar circulation kit (optional)
- 9 SwitchConnect Wi-Fi receiver (optional)
- 10 HID-TConnect Wi-Fi chronothermostat (optional)

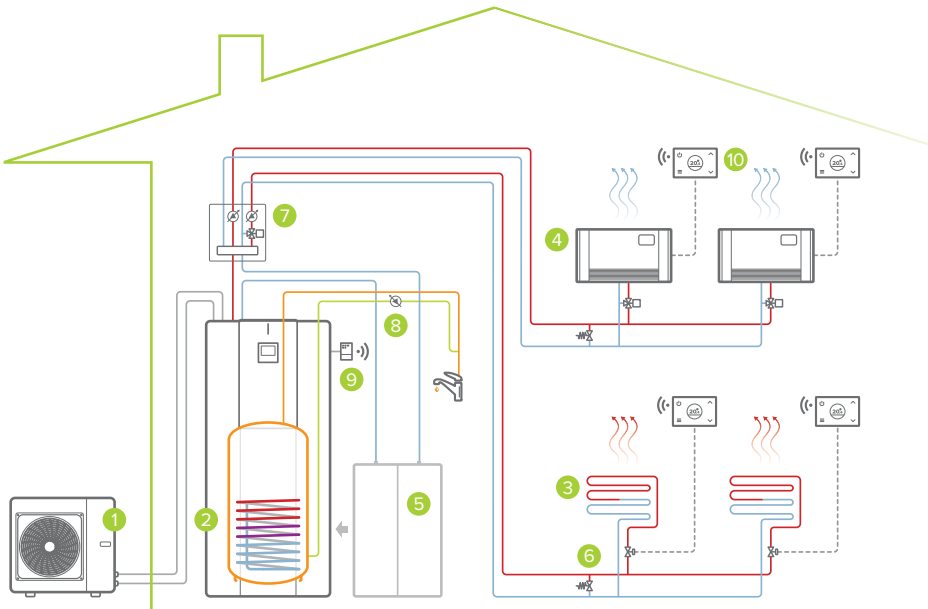
*from external supply



**Single area system:
Heating/DHW**

- 1 outdoor unit
- 2 indoor unit
- 3 heating area (radiators / fan coils / radiant)
- 4 bypass*
- 5 hydraulic separator (optional)
- 6 secondary circuit pump*
- 7 DHW recirculation pump*
- 8 SwitchConnect Wi-Fi receiver (optional)
- 9 HID-TConnect Wi-Fi chronothermostat (optional)
- 10 250L system inertial storage tank (optional)

*from external supply



**Two-area system:
heating/cooling/DHW**

- 1 outdoor unit
- 2 indoor unit
- 3 heating area (radiant)
- 4 cooling area (fan coils)
- 5 system inertial storage (optional)
- 6 bypass*
- 7 kit for managing 2 areas (optional)
- 8 DHW recirculation pump*
- 9 kit for managing 2 areas (optional)
- 10 HID-TConnect Wi-Fi chronothermostat (optional)

Note: solar connection kit and booster kit can coexist

*from external supply