

SPHERA EVO 2.0 EASYHybrid T

SQKN-YEE 1 BH + MiSAN-YEE 1 S

Air-to-water hybrid 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



Eurovent

HEALTH



Eco-friendly refrigerant

CONVENIENCE



Weekly schedule



Integrated DHW tank



Instant DHW

MANAGEMENT AND CONNECTIVITY



Potential-free contact



Modbus port



Wi-fi Control



ELFOControl management



Clivet Eye monitoring



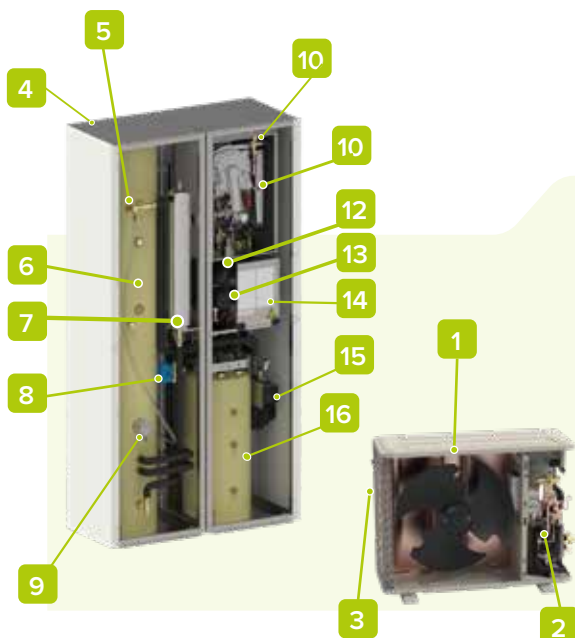
HEAT PUMPS



- ✓ Optimised to maximise energy savings without sacrificing comfort
- ✓ Compatible with a radiator system: water temperature up to 80°C
- ✓ Customisable with numerous kits for a complete, yet discreet, central heating plant
- ✓ Connectivity and the APP to keep the system under control
- ✓ Domestic hot water volume can be increased to up to 300 litres

Flexible and compact

SPHERA EVO 2.0 EASYHybrid T has the indoor Box unit fitted into modular units, so you can create the perfect solution for your system. Each module can be created and customised with all the necessary components for an efficient and reliable system, all inside a compact cabinet with an appearance that blends in with the environment in which it is installed.



1. Inverter DC fan
2. Inverter DC twin-rotary compressor
3. Air-gas finned exchanger (blue fin treatment)
4. Double cabinet
5. DHW pressure relief valve
6. 150-litre DHW boiler with coil
7. 8-litre DHW expansion tank
8. DHW 3-way valves
9. 2kW DHW safety heater
10. Condensing boiler
11. 8-litre system expansion tank
12. Plate exchanger
13. Inverter DC high efficiency pump
14. Electrical control panel
15. 1-zone booster kit (optional)
16. System inertial storage kit (optional)

dimensions and connections

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)	mm				1.100x2.100x500			
	Outdoor unit	Length(A) x Height(C) x Depth(B)	mm	1.008x712x426		1.118x865x523		1.118x864x523		
Weight	Indoor unit		kg				325			
	Outdoor unit		kg	58		77		112		
Max / min equivalent length		L	m				30 / 2			
Max difference in level ODU / IDU		H	m	25		51		20		
Refrigerant precharge ¹			type/GWP				R-32 / 675			
			kg / m	1,50/15		1,65 / 15		1,84/15		
Additional refrigerant charge			CO ₂ tons	1,05		1,11		1,24		
			g/m				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"				
		Gas	inch			3/4"				
	Boiler	Intake air	mm			100				
Exhaust gas		mm			60					

PRELIMINARY DATA

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

technical data

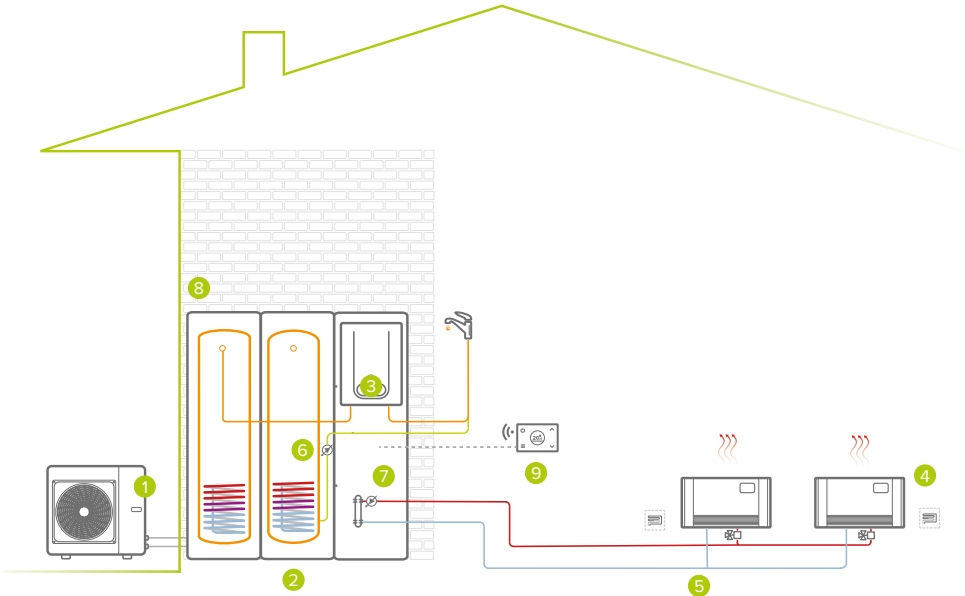
Size (220M)				2.1	3.1	4.1	5.1	6.1	7.1	8.1		
Heating (Heat pump)	Capacity	Water 35/30°C - Outdoor air 7°C	Nominal / Maximum	kW	4,32 / 6,26	6,18 / 7,41	8,30 / 9,11	10,09 / 10,3	12,13 / 14,60	14,51 / 15,5	16,01 / 16,80	
	COP		Nominal	-	5,42	5,21	5,31	5,01	5,00	4,70	4,55	
	Capacity	Water 35/30°C - Outdoor 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		Nominal	-	3,16	3,00	3,23	3,07	3,13	2,82	2,74	
Heating (Boiler)	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		Nominal	-	3,93	3,83	3,95	3,86	3,80	3,65	3,60	
	Nominal heating capacity (LHV)	Water 80/60°C	Nominal	kW	22,94	22,94	22,94	22,94	33,35	33,35	33,35	
	Performance		Nominal	%	97,60	97,60	97,60	97,60	98,08	98,08	98,08	
Cooling	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		Nominal	-	6,08	5,24	5,12	4,77	4,02	3,70	3,65	
	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		Nominal	-	3,50	3,09	3,33	3,09	2,75	2,55	2,45	
DHW	Power	-	Minimum / Maximum	kW	2,90 / 23,50	2,90 / 23,50	2,90 / 23,50	2,90 / 23,50	4,10 / 34,00	4,10 / 34,00	4,10 / 34,00	
	Specific flow rate	Water with ΔT=30°C in 10 minutes		l/min	11,5	11,5	11,5	11,5	16	16	16	
Electrical power for meter sizing				kW	2,20	2,60	3,30	3,60	5,40	5,70	6,10	
Seasonal efficiency Medium climate	Energy class			-	A++	A++	A++	A++	A++	A++	A++	
	Heating 55°C	Annual energy consumption	kWh/year	2.542	3.283	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		
		η _s (seasonal output)	%	130	138	146	146	139	138	136		
	Energy class			-	A+++	A+++	A+++	A+++	A+++	A+++	A+++	
	Heating 35°C	Annual energy consumption	kWh/year	2.542	3.283	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		
		η _s (seasonal output)	%	202	203	210	208	196	193	193		
	DHW (Boiler)	Energy class		-	A	A	A	A	A	A	A	
		DHW profile		-	XL	XL	XL	XL	XL	XL	XL	
	Indoor unit					A	A	A	A	B	C	D
	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			60				
Sound power				dB(A)				41				
Sound pressure @1m				dB(A)				26				
Boiler												
Power supply	Voltage/Frequency/Phases			V/Hz/n°				230/50/1				
Power input				W	38			78				
Sound power				dB(A)				52				
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	Heat pump	Minimum / Maximum	°C				25 / 65				
		Boiler	Minimum / Maximum	°C				25 / 80				
	Cooling	-	Minimum / Maximum	°C				5 / 25				
Operating range (outdoor air)	Heating	Heat pump	Minimum / Maximum	°C				-25 / 43				
		Boiler	Minimum / Maximum	°C				-25 / 35				
	Cooling	-	Minimum / Maximum	°C				-5 / 43				
DHW	Heat pump	Minimum / Maximum	°C				-25 / 43					
	Boiler	Minimum / Maximum	°C				-25 / 43					

Size (400TN)				6.1	7.1	8.1	
Heating (Heat pump)	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	-	3,13	2,82	2,74
Heating (Boiler)	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	-	3,80	3,65	3,60
	Nominal heating capacity (LHV) Performance	Water 80/60°C	Nominal	kW	33,35	33,35	33,35
			Nominal	%	98,08	98,08	98,08
Cooling	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
	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
DHW	Power	-	Minimum / Maximum	kW	4,10 / 34,00	4,10 / 34,00	4,10 / 34,00
	Specific flow rate	Water with $\Delta T=30^\circ\text{C}$ in 10 minutes		l/min	16	16	16
Electrical power for meter sizing				kW	5,40	5,70	6,10
Seasonal efficiency Medium climate	Heating 55°C	Energy class	-	A++	A++	A++	
		Annual energy consumption	kWh/year	6.793	7.380	7.915	
		SCOP	-	3,56	3,52	3,48	
	Heating 35°C	η_s (seasonal output)	%	139	138	136	
		Energy class	-	A+++	A+++	A+++	
		Annual energy consumption	kWh/year	6.793	7.380	7.915	
	DHW (Boiler)	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	C	D	
Power supply	Voltage/Frequency/Phases		V/Hz/n°	230/50/1			
Water flow-rate		Nominal	l/s	0,57	0,67	0,75	
Pump available pressure		Nominal	kPa	25,7	31,7	22,6	
Expansion tank capacity			l	8			
Minimum system water content			l	60			
Sound power			dB(A)	41			
Sound pressure @1m			dB(A)	26			
Boiler							
Power supply	Voltage/Frequency/Phases		V/Hz/n°	230/50/1			
Power input			W	78			
Sound power			dB(A)	52			
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	66	
Sound pressure @1m			dB(A)	50	51	53	
Operating range							
Water supply temperature	Heating	Heat pump	Minimum / Maximum	°C	25 / 65		
		Boiler	Minimum / Maximum	°C	25 / 80		
	Cooling	-	Minimum / Maximum	°C	5 / 25		
Operating range (outdoor air)	Heating	Heat pump	Minimum / Maximum	°C	-25 / 43		
		Boiler	Minimum / Maximum	°C	-25 / 35		
	Cooling	-	Minimum / Maximum	°C	-5 / 43		
		Heat pump	Minimum / Maximum	°C	-25 / 43		
	DHW	Boiler	Minimum / Maximum	°C	-25 / 43		

PRELIMINARY DATA

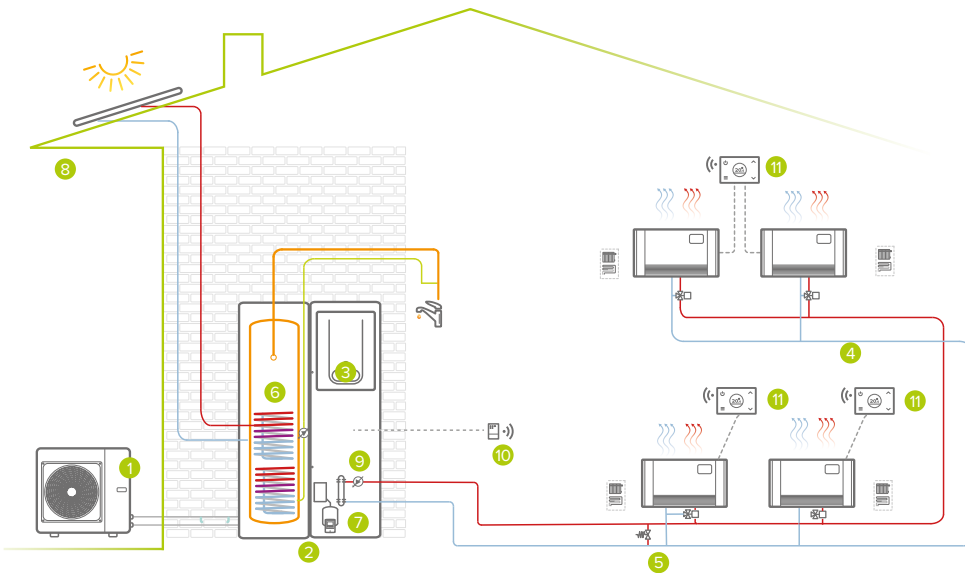
Data according to EN 14511:2018 and EN 14825:2016

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



**Single area system:
heating/DHW**

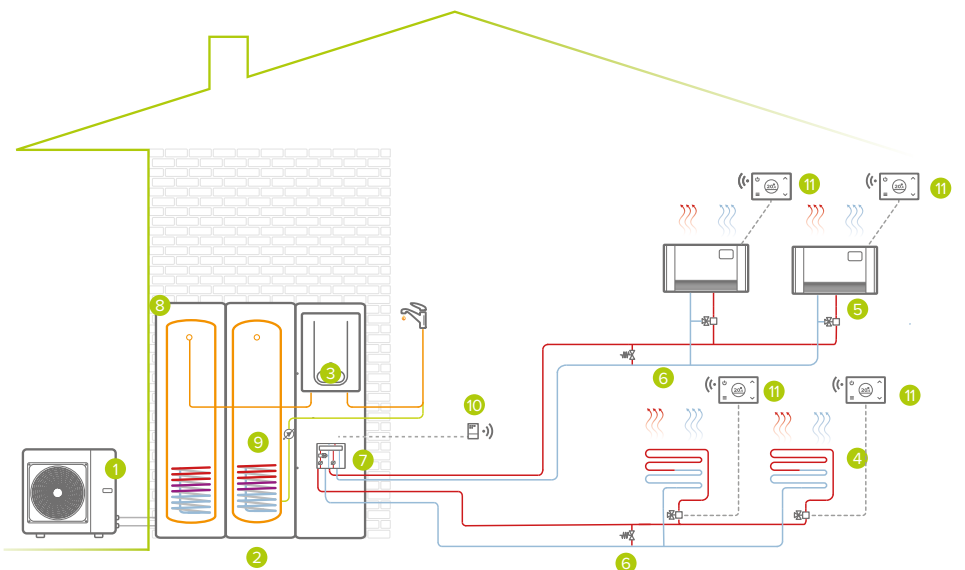
- 1 outdoor unit
- 2 indoor unit
- 3 hybrid module (heat pump / boiler)
- 4 heating area (radiator / fan coils / radiant)
- 5 bypass*
- 6 secondary circuit kit (optional)
- 7 DHW recirculation pump
- 8 additional DHW tank
- 9 HID-TConnect Wi-Fi chronothermostat (optional)



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

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

*from external supply



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

- 1 outdoor unit
- 2 indoor hybrid unit
- 3 hybrid module (heat pump / boiler)
- 4 heating/cooling area (radiator / fan coils / radiant)
- 5 heating area (radiator / fan coils / radiant)
- 6 bypass*
- 7 Two-zone management kit (optional configuration)
- 8 additional DHW tank (optional)
- 9 DHW recirculation pump*
- 10 SwitchConnect Wi-Fi receiver (optional)
- 11 HID-TConnect Wi-Fi chronothermostat (optional)

*from external supply