

SPHERA EVO Box Hybrid

NEW

SRHME-BC + MDAN-YMi +
GAS BOILER 2.1÷5.1

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

ENERGY SAVING



Solar integration
(optional - DHW tank)



Smart Grid
ready

COMFORT



Heating
Cooling



DHW



Silent



High temperature

RELIABILITY



Eurovent



Keymark

HEALTH



Eco-friendly
refrigerant

CONVENIENCE



Weekly
schedule



Contemporaneity



Instant DHW

MANAGEMENT AND CONNECTIVITY



Potential-free
contact



Modbus
port



Wi-fi
Control



ELFOControl
management



Clivet Eye
monitoring



HEAT PUMPS



- ✓ Ideal for replacing old systems while keeping existing radiators
- ✓ Simultaneous production of DHW and cooling/heating
- ✓ It does not need to be coupled to a tank if DHW is produced by the boiler
- ✓ It uses renewable solar thermal energy by coupling to ELFOSun (can be connected to the boiler)
- ✓ Advanced connectivity: management via the dedicated MSmartLife App or via the Modbus port with ELFOControl³ EVO included as standard

Without a thought

SPHERA EVO Box Hybrid is the solution designed for upgrading old generators without having to alter the system. The system is in fact extremely versatile and able to adapt to whatever already exists: it simply replaces the generator that produces Heating and Domestic Hot Water, improving comfort and efficiency, but without much thought.



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. Combustion/water exchanger
10. Electric fan

configurations













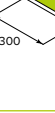





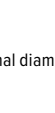


PUMP:

- Standard pump
- 1PUM** Single pump with larger available head

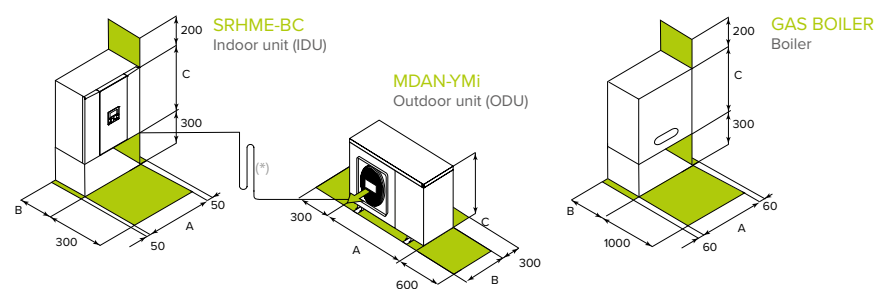
AUXILIARY SYSTEM HEATER:

- No integration electric heater
- EH2** 2 kW Integration electric heater
- EH4** 4 kW Integration electric heater
- EH6** 6 kW Integration electric heater
- EH9** 9 kW Integration electric heater

accessories

	ACS200X	200-litre domestic hot water storage tank		KSDFX	Splitter for boiler smoke discharge
	ACS300X	300-litre domestic hot water storage tank		KAS80X	Smoke intake and discharge fittings, 80 mm diameter
	ACS500X	500-litre domestic hot water storage tank		KCSAFX	Coaxial fitting for smoke discharge and intake
	ACS2SX	200-litre domestic hot water storage tank with solar coil		KTCGPLX	Kit to convert boiler from methane to LPG
	ACS3SX	300-litre domestic hot water storage tank with solar coil		KISX	Simplified installation kit ^{NEW}
	ACS5SX	500-litre domestic hot water storage tank with solar coil		DTX	Auxiliary condensate collection tray
	KCSX	Secondary circuit kit (1-litre circuit breaker + pump) ^{NEW}		AMRX	Rubber antivibration mounts
	DIX	1-litre circuit breaker ^{NEW}		HID-TCXB	White soft touch chronothermostat, with temperature control and management via App / Voice control ^{NEW}
	DI50X	50-litre circuit breaker ^{NEW}		HID-TCXN	Black soft touch chronothermostat, with temperature control and management via App / Voice control ^{NEW}
	ACIMPX	system inertial storage tank		SWCX	Switch IoT to be combined with HID-TConnect, for managing the heat pump mode or switching the terminal units/radiant systems ON/OFF ^{NEW}
	KIRE2HLX	2 zones: external kit, high temperature + low temperature (mixed)			
	KIRE2HX	2 zones: external kit, high temperature			
	KCCEX	External boiler connection kit ^{NEW}			

dimensions and connections



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

(*) Gas and water connections

Size				2.1	3.1	4.1	5.1
Dimensions	Indoor unit	Length(A) x Heigh(C) x Depth(B)	mm	547x604x386			
	Outdoor unit	Length(A) x Heigh(C) x Depth(B)	mm	960x860x380		1.075x965x395	
	Boiler	Length(A) x Heigh(C) x Depth(B)	mm	410x642x307 (24.4) / 410x642x330 (34.4)			
Weight	Indoor unit		kg	50			
	Outdoor unit		kg	57		67	
	Boiler		kg	35 (24.4) / 44 (34.4)			
Max / min equivalent length		L	m	2 / 30			
Max difference in level ODU / IDU		H	m	25			
Refrigerant precharge ¹			type/GWP	R-32 / 675			
			kg / m	1,55 / 15		1,65 / 15	
			CO ₂ tons	1,05		1,11	
Additional refrigerant charge			g/m	20		38	
	Refrigerant pipe	Liquid	mm / inch	1/4"		3/8"	
		Gas	mm / inch			5/8"	
External diameters	Indoor unit	Water (system)	mm / inch	1"			
		Water (DHW)	mm / inch	1/2"			
	Boiler	Gas	mm / inch	3/4"			
		Intake air	mm / inch	100			
		Exhaust gas	mm / inch	60			

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

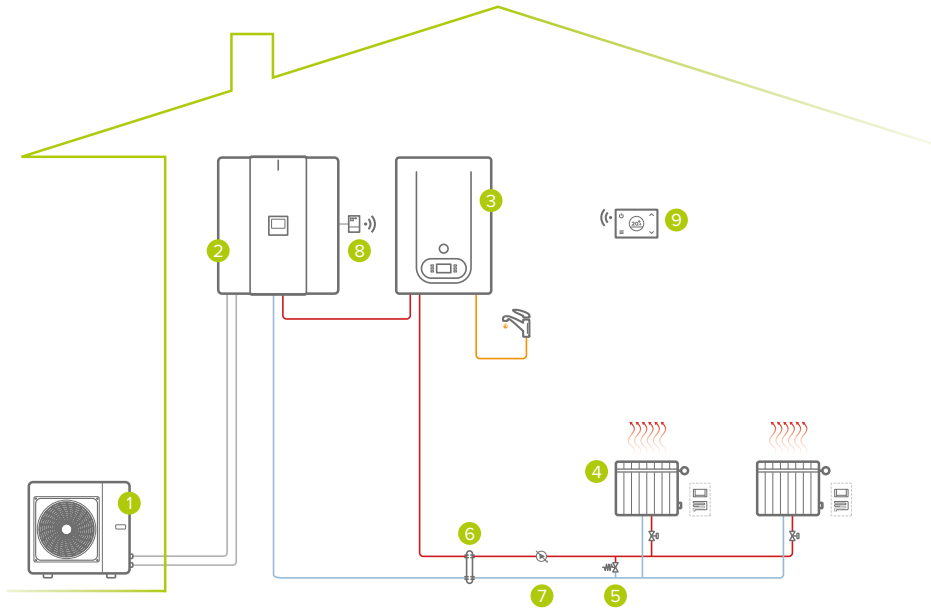
technical data

Size				2.1	3.1	4.1	5.1	
Heating (Heat pump)	Capacity	Water 35/30°C - Outdoor air 7°C	Nominal / Maximum	kW	4,49 / 6,92	6,32 / 8,79	8,37 / 11,0	10,26 / 12,3
	COP		Nominal	-	5,01	4,79	4,87	4,68
	Capacity	Water 35/30°C - Outdoor air -7°C	Nominal / Maximum	kW	4,59 / 4,81	5,55 / 5,70	6,46 / 6,71	8,02 / 8,25
	COP		Nominal	-	3,07	2,90	3,04	2,98
	Capacity	Water 45/40°C - Outdoor air 7°C	Nominal / Maximum	kW	4,14 / 6,40	6,09 / 8,25	8,02 / 10,6	10,3 / 11,9
	COP		Nominal	-	3,70	3,66	3,82	3,67
Boiler 23.4	Nominal heating capacity (LHV)	Water 80/60°C	Nominal	kW	22,7			
	Performance		Nominal	%	96,6			
	DWH power		Minimum / Maximum	kW	2,90 / 23,50			
	DWH specific flow rate	Water with $\Delta T=30^\circ\text{C}$ in 10 minutes	-	l/min	11,5			
Boiler 34.4	Nominal heating capacity (LHV)	Water 80/60°C	Nominal	kW	33,35			
	Performance		Nominal	%	98,08			
	DWH power		Minimum / Maximum	kW	4,10 / 34,00			
	DWH specific flow rate	Water with $\Delta T=30^\circ\text{C}$ in 10 minutes	-	l/min	16			
Cooling	Capacity	Water 18/23°C - Outdoor air 35°C	Nominal / Maximum	kW	4,63 / 7,86	6,79 / 9,30	8,53 / 10,3	9,73 / 11,5
	EER		Nominal	-	5,21	5,14	5,00	4,87
	Capacity	Water 7/12°C - Outdoor air 35°C	Nominal / Maximum	kW	4,56 / 6,57	6,17 / 7,58	7,39 / 9,09	9,06 / 10,22
	EER		Nominal	-	3,49	3,21	3,12	3,01
Electrical power for meter sizing				kW	2,75	2,75	3,9	3,9
Seasonal efficiency Medium climate	Heating 55°C	Energy class	-	A++	A++	A++	A++	
		Annual energy consumption	kWh/year	3.320	3.586	4.605	4.936	
		SCOP	-	3,37	3,37	3,40	3,56	
		η_s (seasonal output)	%	132	132	133	140	
	Heating 35°C	Energy class	-	A+++	A+++	A+++	A+++	
		Annual energy consumption	kWh/year	1.978	2.501	3.431	3.900	
SCOP		-	4,73	4,89	4,96	5,04		
	η_s (seasonal output)	%	186	192	195	199		
DHW (Boiler)	Energy class	-	A	A	A	A		
	DHW profile	-	XL	XL	XL	XL		
Indoor unit					2.1	3.1	4.1	5.1
Power supply	Voltage/Frequency/Phases			V/Hz/n°	230/50/1			
Water flow rate		Nominal	l/s	0,22	0,31	0,41	0,48	
Available pressure pump		Nominal	bar	39	48	37	28	
Expansion tank capacity			l	8				
Minimum system water content			l	15	22	28	35	
Sound power			dB(A)	41				
Sound pressure @1m			dB(A)	27				
Boiler								
Power supply	Voltage/Frequency/Phases			V/Hz/n°	230/50/1			
Power supply voltage			W	78				
Sound power			dB(A)	52				
Outdoor unit					2.1	3.1	4.1	5.1
Power supply	Voltage/Frequency/Phases			V/Hz/n°	230/50/1			
Sound power			dB(A)	58 / 61	59 / 62	60 / 63	61 / 65	
Sound pressure @1m			dB(A)	44 / 47	45 / 48	45 / 48	46 / 50	
Operating range								
Water supply temperature	Heating	Heat pump	Minimum / Maximum	°C	12 / 60			
		Boiler	Minimum / Maximum	°C	12 / 60			
	Cooling	-	Minimum / Maximum	°C	5 / 25			
Operating range (Outdoor air)	Heating	Heat pump	Minimum / Maximum	°C	-25 / 35			
		Boiler	Minimum	°C	-25 / 35			
	Cooling	-	Minimum / Maximum	°C	-5 / 46			
		Heat pump	Minimum / Maximum	°C	-25 / 43			
DHW	Boiler	Minimum	°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, direttiva 2009/125/CE)

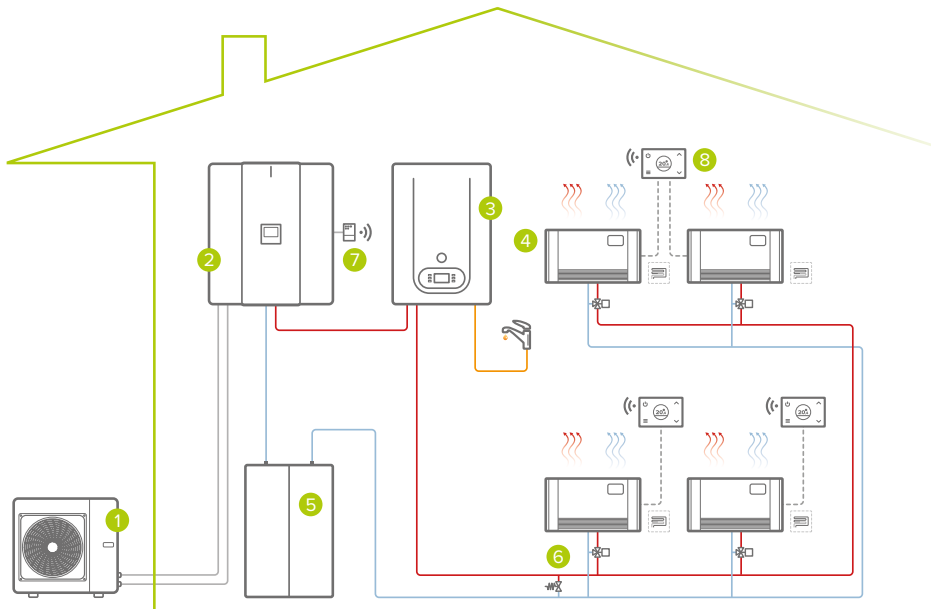
Standard power input: G20 (Methane gas 100%). Power input with optional kit: G30 / G31 (gas GPL)



**Single area system:
heating/DHW**

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

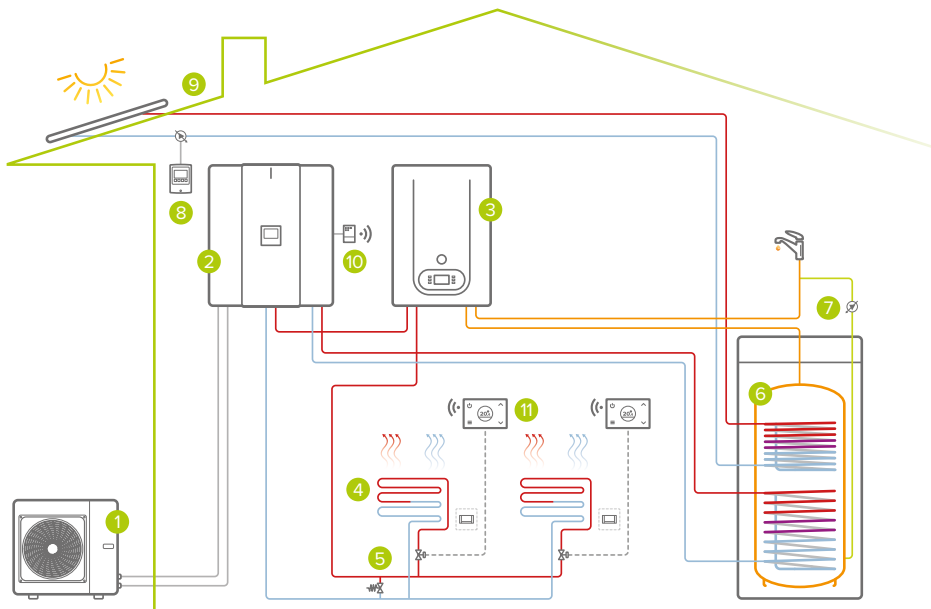
*from external supply



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

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

*from external supply



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

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

*from external supply