

# SPHERA EVO 2.0 Box Hybrid

PREVIEW 2021

SQKN-YEE 1 BC + MiSAN-YEE 1 S +  
GAS BOILER 2.1÷8.1

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



Cascade

## 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)
- ✓ Up to 6 units can be connected in cascade, for demands up to 100 kW

## dimensions and connections

Size				2.1	3.1	4.1	5.1	6.1	7.1	8.1	
Dimensions	Indoor unit	Length x Height x Depth	mm	547x604x386						547x604x386	
	Outdoor unit	Length x Height x Depth	mm	1.008x712x426		1.118x865x523				1.118x864x523	
	Boiler	Length x Height x Depth	mm	410x642x307						410x642x330	
Weight	Indoor unit		kg	50		68				112	
	Outdoor unit		kg	58		77				112	
	Boiler		kg	35		44				44	
Max / min equivalent length		Minimum / Maximum	m	2 / 30							
Max difference in level ODU / IDU		Maximum	m	25						20	
		type/GWP		R-32 / 675							
Refrigerant precharge <sup>1</sup>			kg / m	1,50 / 15		1,65 / 15				1,84 / 15	
			CO <sub>2</sub> tons	1,05		1,1				1,24	
Additional refrigerant charge			g/m	20		38				38	
	Refrigerant pipe	Liquid	mm / inch	1/4"		3/8"				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"							
		Aria immessa	mm / inch	100							
		Gas di scarico	mm / inch	60							

### PRELIMINARY DATA

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

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). Energy classes with ELFOControl3 EVO system control

Size (230M)				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	4,25	6,20	8,30	10,00	12,10	14,50	16,00
	COP		Nominal	-	5,20	5,00	5,20	5,00	4,95	4,70	4,50
	Capacity	Water 45/40°C - Outdoor air 7°C	Nominal / Maximum	kW	4,35	6,35	8,20	10,00	12,30	14,20	16,00
	COP		Nominal	-	3,80	3,75	3,95	3,80	3,80	3,65	3,60
Heating (Boiler)	Nominal heating capacity (LHV)	Water 80/60°C	Minimum / Maximum	kW	22,70	22,70	22,70	22,70	33,35	33,35	33,35
	Performance		Minimum / Maximum	%	96,60	96,60	96,60	96,60	98,08	98,08	98,08
Cooling	Capacity	Water 18/23°C - Outdoor air 35°C	Nominal / Maximum	kW	4,50	6,55	8,40	10,00	12,00	13,50	14,90
	EER		Nominal	-	5,55	4,90	5,05	4,80	4,00	3,60	3,40
	Capacity	Water 7/12°C - Outdoor air 35°C	Nominal / Maximum	kW	4,70	7,00	7,40	8,20	11,60	12,70	14,00
	EER		Nominal	-	3,45	3,00	3,38	3,30	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
Seasonal efficiency Medium climate	Heating 55°C		Energy class		A++	A++	A++	A++	A++	A++	A++
			Annual energy consumption	kWh/year	2.742	3.343	4.054	4.567	6.927	7.202	7.895
			SCOP	-	3,31	3,52	3,36	3,49	3,45	3,47	3,41
			ηs (seasonal output)	%	129	137	131	135	135	135	133
	Heating 35°C		Energy class		A+++	A+++	A+++	A+++	A+++	A+++	A+++
			Annual energy consumption	kWh/year	2.351	2.845	3.218	3.644	5.152	6.012	6.804
			SCOP	-	4,85	4,95	5,21	5,19	4,81	4,72	4,62
			ηs (seasonal output)	%	191	195	205	204	189	185	181
	DHW (Boiler)		Energy class		A	A	A	A	A	A	A
			DHW profile		XL	XL	XL	XL	XL	XL	XL
<b>Indoor unit</b>					<b>2.1</b>	<b>3.1</b>	<b>4.1</b>	<b>5.1</b>	<b>6.1</b>	<b>7.1</b>	<b>8.1</b>
Power supply	Voltage/Frequency/Phases			V/Hz/n°	230/50/1						
Expansion tank capacity				l	8						
Sound power				dB(A)	43						
Sound pressure @1m				dB(A)	23			29			
<b>Boiler</b>											
Power supply	Voltage/Frequency/Phases			V/Hz/n°	230/50/1						
Power input				W	38			78			
Sound power				dB(A)	52			52			
<b>Outdoor unit</b>					<b>2.1</b>	<b>3.1</b>	<b>4.1</b>	<b>5.1</b>	<b>6.1</b>	<b>7.1</b>	<b>8.1</b>
Power supply	Voltage/Frequency/Phases			V/Hz/n°	230/50/1						
Sound power				dB(A)	56	58	59	60	64	65	68
Sound pressure @1m				dB(A)	44	45	46	49	50	51	54
<b>Operating range</b>											
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 / 35						
		Boiler	Minimum	°C	-25 / 35						
	Cooling	-	Maximum	°C	-5 / 46						
		DHW	Heat pump	Minimum / Maximum	°C	-25 / 43					
		Boiler	Minimum	°C	-25 / 43						
<b>Size (400TN)</b>					<b>6.1</b>		<b>7.1</b>		<b>8.1</b>		
Heating (Heat pump)	Capacity	Water 35/30°C - Outdoor air 7°C	Nominal / Maximum	kW	12,10		14,50		16,00		
	COP		Nominal	-	4,95		4,70		4,50		
	Capacity	Water 45/40°C - Outdoor air 7°C	Nominal / Maximum	kW	12,30		14,20		16,00		
	COP		Nominal	-	3,80		3,65		3,60		
Heating (Boiler)	Nominal heating capacity (LHV)	Water 80/60°C	Minimum / Maximum	kW	33,35		33,35		33,35		
	Performance		Minimum / Maximum	%	98,08		98,08		98,08		
Cooling	Capacity	Water 18/23°C - Outdoor air 35°C	Nominal / Maximum	kW	12,00		13,50		14,90		
	EER		Nominal	-	4,00		3,60		3,40		
	Capacity	Water 7/12°C - Outdoor air 35°C	Nominal / Maximum	kW	11,60		12,70		14,00		
	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 ΔT=30°C in 10 minutes		l/min	16		16		16		
Seasonal efficiency Medium climate	Heating 55°C		Energy class		A++		A++		A++		
			Annual energy consumption	kWh/year	6.928		7.203		7.896		
			SCOP	-	3,45		3,47		3,41		
			ηs (seasonal output)	%	135		135		133		
	Heating 35°C		Energy class		A+++		A+++		A+++		
			Annual energy consumption	kWh/year	5.153		6.013		6.805		
			SCOP	-	4,81		4,72		4,62		
			ηs (seasonal output)	%	189		185		181		
	DHW (Boiler)		Energy class		A		A		A		
			DHW profile		XL		XL		XL		
<b>Indoor unit</b>					<b>6.1</b>		<b>7.1</b>		<b>8.1</b>		
Power supply	Voltage/Frequency/Phases			V/Hz/n°	230/50/1						
Expansion tank capacity				l	8						
Sound power				dB(A)	43						
Sound pressure @1m				dB(A)	29						
<b>Boiler</b>											
Power supply	Voltage/Frequency/Phases			V/Hz/n°	230/50/1						
Power input				W	78						
Sound power				dB(A)	52						
<b>Outdoor unit</b>					<b>6.1</b>		<b>7.1</b>		<b>8.1</b>		
Power supply	Voltage/Frequency/Phases			V/Hz/n°	400/50/3+N						
Sound power				dB(A)	64		65		68		
Sound pressure @1m				dB(A)	50		51		55		