

# SPHERA EVO 2.0 Box

## SQKN-YEE 1 BC + MiSAN-YEE 1 S 2.1÷8.1

PREVIEW 2021

Wall-mounted air-to-water 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



Backup heater (optional)



Eurovent



Keymark

### HEALTH



Eco-friendly refrigerant



Renewable energy

### CONVENIENCE



Weekly schedule



Boiler integration

### MANAGEMENT AND CONNECTIVITY



Potential-free contact



Modbus port



Wi-fi Control



ELFOControl management



Clivet Eye monitoring



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
- ✓ Comfort even in harsh climates: optional 2/4/6/9kW auxiliary heater
- ✓ 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		547x604x386						
	Outdoor unit	Length x Height x Depth		1.008x712x426		1.118x865x523			1.118x864x523	
Peso	Indoor unit					50			68	
	Outdoor unit			58		77			112	
Max / min equivalent length		L	m	2 / 30						
Max difference in level ODU / IDU		H	m	20						
Refrigerant precharge		type/GWP		R-32 / 675						
		kg / m		1,5 / 15		1,65 / 15			1,84 / 15	
		CO <sub>2</sub> tons		1,05		1,11			1,24	
Additional refrigerant charge <sup>2</sup>		g/m		20				38		
External diameters	Refrigerant pipe	Liquid	mm / inch	1/4"					3/8"	
		Gas	mm / inch				5/8"			
	Indoor unit	Water (System)	mm / inch				1"			

PRELIMINARY DATA

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

# technical data

Size (230M)				2.1	3.1	4.1	5.1	6.1	7.1	8.1	
Heating	Capacity	Water 35/30°C - Outdoor air 7°C	Nominal / Maximum	kW	<b>4,25</b>	<b>6,20</b>	<b>8,30</b>	<b>10,00</b>	<b>12,10</b>	<b>14,50</b>	<b>16,00</b>
	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
Cooling	Capacity	Water 18/23°C - Outdoor air 35°C	Nominal / Maximum	kW	<b>4,50</b>	<b>6,55</b>	<b>8,40</b>	<b>10,00</b>	<b>12,00</b>	<b>13,50</b>	<b>14,90</b>
	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
Seasonal efficiency Medium climate	Heating 55°C	Energy class	-	<b>A++</b>	<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	2.742	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	
	Heating 35°C	ηs (seasonal output)	%	129	137	131	135	135	135	133	
		Energy class	-	<b>A+++</b>	<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	2.351	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		
<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)		29						
<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	Minimum / Maximum	°C	25 / 65							
	Cooling	Minimum / Maximum	°C	5 / 25							
Operating range (Outdoor air)	Heating	Minimum / Maximum	°C	-25 / 35							
	Cooling	Minimum / Maximum	°C	-5 / 46							
	DHW	Minimum / Maximum	°C	-25 / 43							

Size (400TN)				6.1	7.1	8.1	
Heating	Capacity	Water 35/30°C - Outdoor unit 7°C	Nominal / Maximum	kW	<b>12,10</b>	<b>14,50</b>	<b>16,00</b>
	COP		Nominal	-	4,95	4,70	4,50
	Capacity	Water 45/40°C - Outdoor unit 7°C	Nominal / Maximum	kW	12,30	14,20	16,00
	COP		Nominal	-	3,80	3,65	3,60
Cooling	Capacity	Water 18/23°C - Outdoor unit 35°C	Nominal / Maximum	kW	<b>12,00</b>	<b>13,50</b>	<b>14,90</b>
	EER		Nominal	-	4,00	3,60	3,40
	Capacity	Water 7/12°C - Outdoor unit 35°C	Nominal / Maximum	kW	11,60	12,70	14,00
	EER		Nominal	-	2,75	2,55	2,45
Seasonal efficiency Medium climate	Heating 55°C	Energy class	-	<b>A++</b>	<b>A++</b>	<b>A++</b>	
		Annual energy consumption	kWh/year	6.928	7.203	7.896	
		SCOP	-	3,45	3,47	3,41	
	Heating 35°C	ηs (seasonal output)	%	135	135	133	
		Energy class	-	<b>A+++</b>	<b>A+++</b>	<b>A+++</b>	
		Annual energy consumption	kWh/year	5.153	6.013	6.805	
	SCOP	-	4,81	4,72	4,62		
	ηs (seasonal output)	%	189	185	181		
<b>Indoor 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		
Expansion tank capacity			l		8		
Sound power			dB(A)		43		
Sound pressure @1m			dB(A)		29		
<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
<b>Operating range</b>							
Water supply temperature	Heating	Minimum / Maximum	°C	25 / 65			
	Cooling	Minimum / Maximum	°C	5 / 25			
Operating range (Outdoor air)	Heating	Minimum / Maximum	°C	-25 / 35			
	Cooling	Minimum / Maximum	°C	-5 / 46			
	DHW	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 UE 811/2013 - 813/2013 - 2016/2281)