

# 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

HEAT PUMPS

### 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

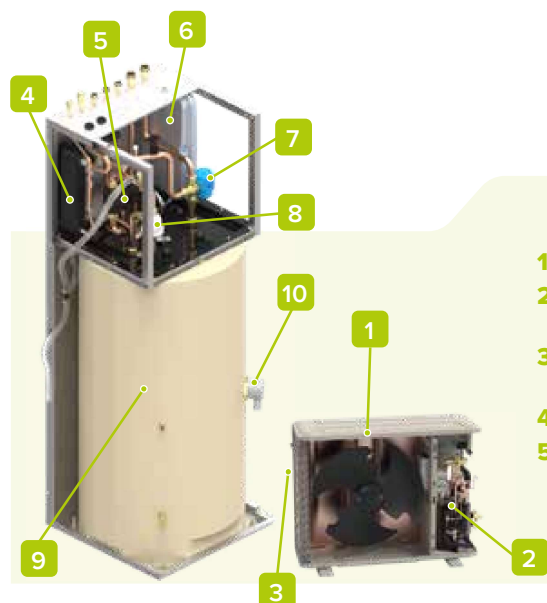


- ✓ System hot water production at 65°C with the outdoor air up to 5°C, at 60°C with the outdoor air down to -15°C
- ✓ Energy efficiency at the highest level
- ✓ Designed not to disturb, operating very quietly
- ✓ Suitable for every need, thanks to the dual version with 190-litre or 250-litre DHW storage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

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

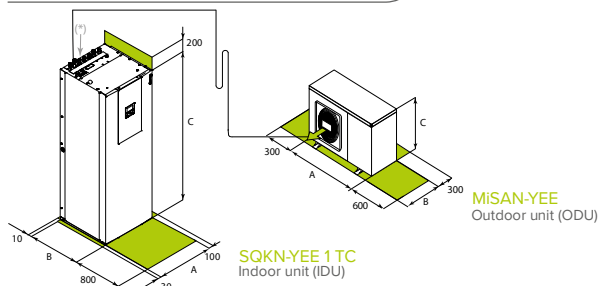
### AUXILIARY SYSTEM HEATER:

-	No heater
<b>EH24</b>	2 kW integration electric heater
<b>EH3</b>	3 kW integration electric heater
<b>EH6</b>	6 kW integration electric heater
<b>EH9</b>	9 kW integration electric heater

## accessories

	<b>ACSA250X</b>	250L additional domestic hot water storage tank		<b>KCCEX</b>	External boiler connection kit
	<b>SOLX</b>	Drain-back solar integration for domestic hot water		<b>SFCSTX</b>	Additional probe for cascade function
	<b>KCSX</b>	Secondary circuit kit (1-litre circuit breaker + pump)		<b>DTX</b>	Auxiliary condensate collection tray
	<b>KIRE2HLX</b>	2 zones: external kit, high temperature + low temperature (mixed)		<b>APAVX</b>	Kit of antivibration mounts for floor installation
	<b>KIRE2HX</b>	2 zones: external kit, high temperature		<b>ASTFX</b>	Kit of antivibration mounts for wall bracket installation
	<b>DIX</b>	1-litre circuit breaker		<b>KSIPIX</b>	Kit with wall fixing brackets
	<b>DI50X</b>	50-litre circuit breaker		<b>HID-TCBX</b>	Black soft touch chronothermostat, with temperature control and management via App / Voice control
	<b>ACI40X</b>	40L system inertial storage tank (s. 2.1÷5.1)		<b>HID-TCNX</b>	White soft touch chronothermostat, with temperature control and management via App / Voice control
	<b>ACI60X</b>	60-litre system inertial storage tank		<b>SWCX</b>	SwitchConnect radio receiver
	<b>COFX</b>	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	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) <sup>1</sup>	l		204		269		204		269		204		269		269		269		
Heating time	h:min		2:30		2:25		2:30		2:25		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 Medium climate	Heating 55°C	Energy class	-		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			
	Heating 35°C	ηs (seasonal output)	%		130		138		146		146		139		138		136			
		Energy class	-		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			
DHW	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				
	Energy class	-		A+		A+		A+		A+		A+		A+		A+				
DHW profile	-		L		XL		L		XL		L		XL		XL		XL			
<b>Indoor unit</b>				<b>A</b>		<b>A</b>		<b>A</b>		<b>A</b>		<b>B</b>		<b>B</b>		<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								60							
Sound power	dB(A)								41											
Sound pressure @1m	dB(A)								26											
<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)				55		57		58		60		63		64		66			
Sound pressure @1m	dB(A)				42		44		45		47		50		51		53			
<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 / 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
Additional refrigerant charge <sup>1</sup>			CO <sub>2</sub> tons		1,05		1,11		1,24
			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"				

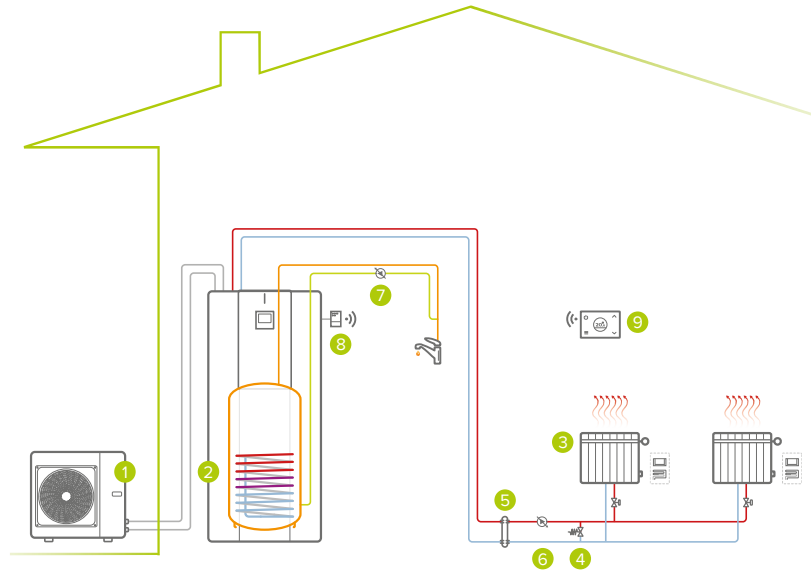
(1) Check in the manual if the indoor unit requires a minimum installation surface

Size (400TN)				6.1	7.1	8.1	
Heating	Capacity	Water 35/30°C - Outdoor air 7°C	Nominal / Maximum	kW	<b>12,13 / 14,60</b>	<b>14,51 / 15,5</b>	<b>16,01 / 16,80</b>
			Nominal	-	5,00	4,70	4,55
	COP	Water 35/30°C - Outdoor air -7°C	Nominal / Maximum	kW	10,49 / 13,85	12,23 / 14,09	13,43 / 14,33
			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
			Nominal	-	3,13	2,82	2,74
	EER	Water 18/23°C - Outdoor air 35°C	Nominal / Maximum	kW	<b>12,06 / 15,02</b>	<b>13,79 / 15,30</b>	<b>14,84 / 16,38</b>
			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
			Nominal	-	2,75	2,55	2,45
	Net tank capacity			l	250	250	250
	Water mixed at 40°C (V40) <sup>1</sup>			l	269	269	269
Heating time			h:min	1:46	1:46	1:46	
Electrical power for meter sizing				kW	5,40	5,70	6,10
Seasonal efficiency Medium climate	Heating 55°C	Energy class		-	<b>A++</b>	<b>A++</b>	<b>A++</b>
		Annual energy consumption	kWh/year	6.793	7.380	7.915	
		SCOP	-	3,56	3,52	3,48	
	Heating 35°C	ηs (seasonal output)	%	139	138	136	
		Energy class	-	<b>A+++</b>	<b>A+++</b>	<b>A+++</b>	
		Annual energy consumption	kWh/year	6.793	7.380	7.915	
	DHW	SCOP	-	5,00	4,91	4,89	
		ηs (seasonal output)	%	196	193	193	
		Energy class	-	<b>A+</b>	<b>A+</b>	<b>A+</b>	
		DHW profile		-	XL	XL	XL
<b>Indoor unit</b>				<b>B</b>	<b>B</b>	<b>B</b>	
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			
<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)	63	64	66	
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 / 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 ELFOControl<sup>3</sup> EVO system control

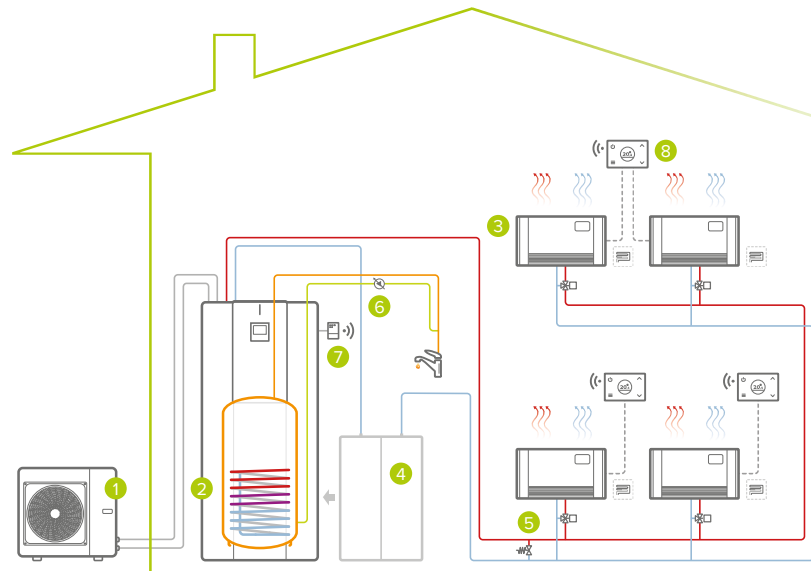
(1) Data according to EN 16147: amount of water at 40°C with the same enthalpy content as the water coming out of the Boiler at a temperature higher than 40°C



**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)

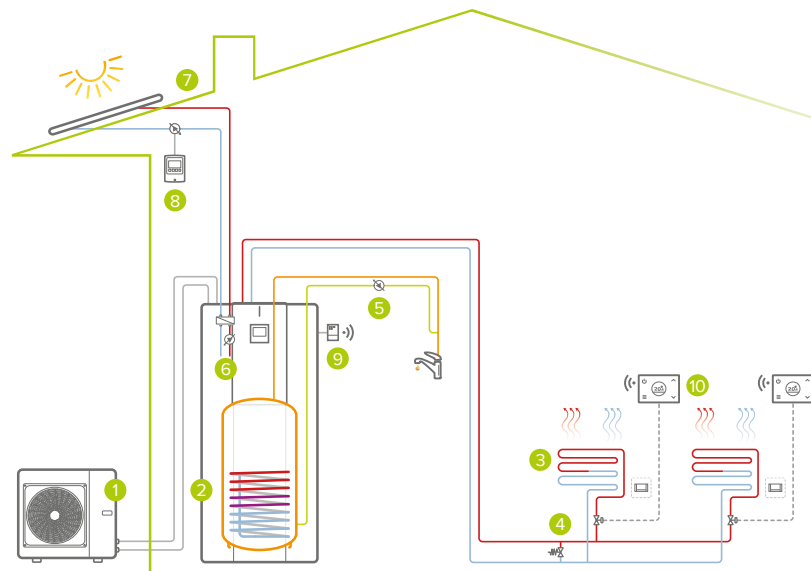
\*from external supply



**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)

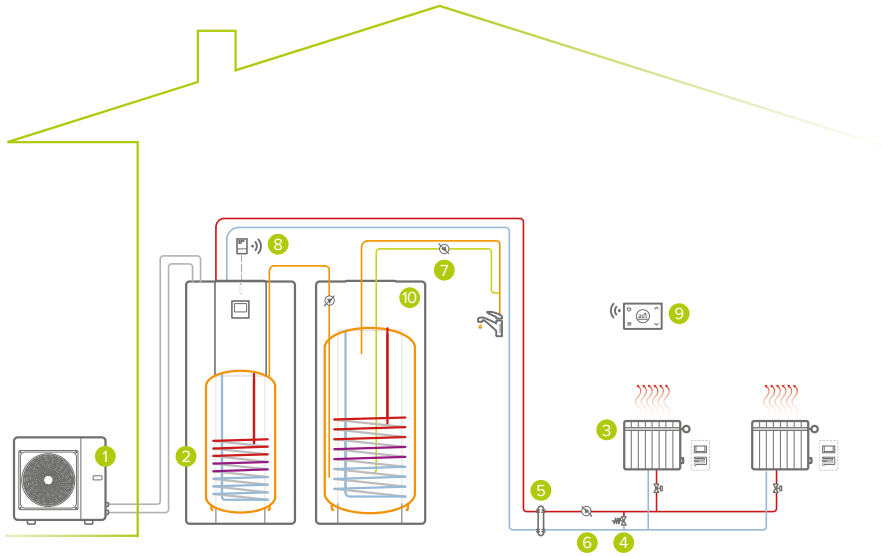
\*from external supply



**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 ELFSun solar thermal (optional)
- 8 solar circulation kit (optional)
- 9 SwitchConnect Wi-Fi receiver (optional)
- 10 HID-TConnect Wi-Fi chronothermostat (optional)

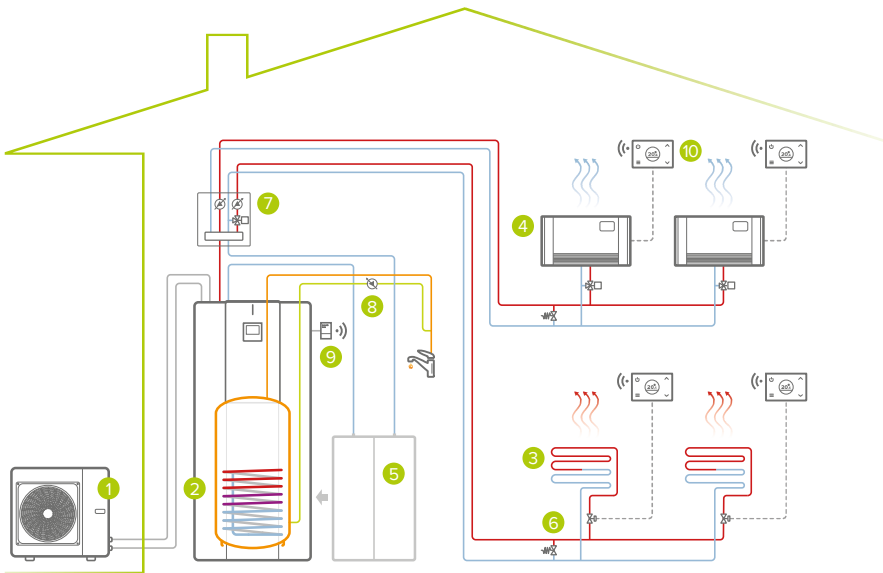
\*from external supply



**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

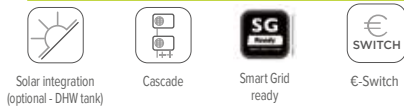
# SPHERA EVO 2.0 Box

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

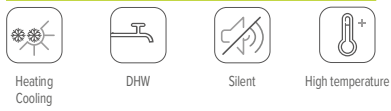
Wall-mounted air-to-water split heat pump  
for heating, cooling and domestic hot water production

HEAT PUMPS

### ENERGY SAVING



### COMFORT



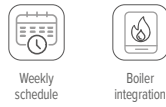
### RELIABILITY



### HEALTH



### CONVENIENCE



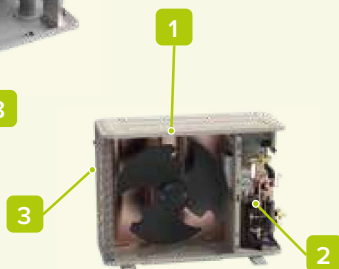
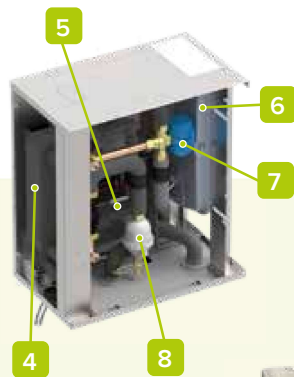
### MANAGEMENT AND CONNECTIVITY



- ✓ Smaller size: can be installed in a stairwell, store cupboard, laundry room or inside a kitchen cabinet
- ✓ Energy efficiency at the highest level
- ✓ Designed not to disturb, operating very quietly
- ✓ Can be combined with DHW boilers of a volume suitable for the application in which it is to be installed
- ✓ Up to 6 units can be connected in cascade, for demands up to 100 kW

## Ideal with AQUA PLUS

SPHERA EVO Box 2.0 is an excellent alternative for installations where it is not possible to install the tower or uncased version. Combined with AQUA Plus, the heat pump for domestic hot water production, SPHERA EVO Box 2.0 offers the advantage of a system that provides simultaneous heating or cooling and domestic hot water production.



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

## configurations

### DHW STORAGE:

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

### AUXILIARY SYSTEM HEATER:

-	No heater
<b>EH24</b>	2 kW integration electric heater
<b>EH3</b>	3 kW integration electric heater
<b>EH6</b>	6 kW integration electric heater
<b>EH9</b>	9 kW integration electric heater

## accessories

	<b>ACS200X</b>	200-litre domestic hot water storage tank		<b>KCEX</b>	External boiler connection kit
	<b>ACS300X</b>	300-litre domestic hot water storage tank		<b>SFCSTX</b>	Additional probe for cascade function
	<b>ACS500X</b>	500-litre domestic hot water storage tank		<b>DTX</b>	Auxiliary condensate collection tray
	<b>SCS08X</b>	0.8 m <sup>2</sup> solar exchanger for flange installation		<b>APAVX</b>	Kit of antivibration mounts for floor installation
	<b>SCS12X</b>	1.2 m <sup>2</sup> solar exchanger for flange installation		<b>ASTFX</b>	Kit of antivibration mounts for wall bracket installation
	<b>KCSX</b>	Secondary circuit kit (1-litre circuit breaker + pump)		<b>KSIPX</b>	Kit with wall fixing brackets
	<b>KIRE2HLX</b>	2 zones: external kit, high temperature + low temperature		<b>HID-TCBX</b>	Black soft touch chronothermostat, with temperature control and management via App / Voice control
	<b>KIRE2HX</b>	2 zones: external kit, high temperature		<b>HID-TCNX</b>	White soft touch chronothermostat, with temperature control and management via App / Voice control
	<b>DIX</b>	1-litre circuit breaker		<b>SWCX</b>	SwitchConnect radio receiver
	<b>DI50X</b>	50-litre circuit breaker			
	<b>ACI40X</b>	40L system inertial storage tank (s. 2.1÷5.1)			
	<b>ACI60X</b>	60-litre system inertial storage tank			



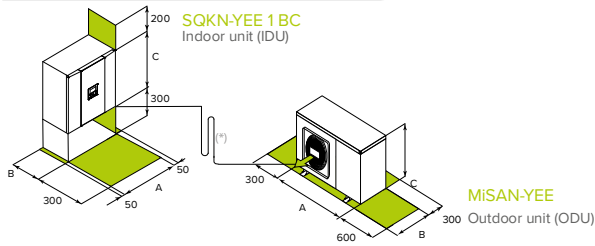
## technical data

Size (220M)				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>4,32 / 6,26</b>	<b>6,18 / 7,41</b>	<b>8,30 / 9,11</b>	<b>10,09 / 10,3</b>	<b>12,13 / 14,60</b>	<b>14,51 / 15,5</b>	<b>16,01 / 16,80</b>
	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
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		Nominal	-	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	<b>4,55 / 6,88</b>	<b>6,44 / 7,65</b>	<b>8,10 / 11,13</b>	<b>10,00 / 12,03</b>	<b>12,06 / 15,02</b>	<b>13,79 / 15,30</b>	<b>14,84 / 16,38</b>
	EER		Nominal	-	6,08	5,24	5,12	4,77	4,02	3,70	3,65
Electrical power for meter sizing	Capacity	Water 7/12°C - Outdoor air 35°C	Nominal / Maximum	-	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
	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
Pump available pressure			Nominal	kPa	31,2	36,5	33,1	31,0	25,7	31,7	22,6
Expansion tank capacity				l	8					60	
Minimum system water content				l	40					60	
Sound power			Nominal	dB(A)	41						
Sound pressure @1m			Nominal	dB(A)	26						
<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)	55	57	58	60	63	64	66
Sound pressure @1m				dB(A)	42	44	45	47	50	51	53
<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 / 43						
	Cooling		Minimum / Maximum	°C	-5 / 43						
DHW			Minimum / Maximum	°C	-25 / 43						
<b>Size (400TN)</b>					<b>6.1</b>	<b>7.1</b>	<b>8.1</b>				
Heating	Capacity	Water 35/30°C - Outdoor air 7°C	Nominal / Maximum	kW	<b>12,13 / 14,60</b>	<b>14,51 / 15,5</b>	<b>16,01 / 16,80</b>				
	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				
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	-	3,80	3,65	3,60				
	Capacity	Water 18/23°C - Outdoor air 35°C	Nominal / Maximum	kW	<b>12,06 / 15,02</b>	<b>13,79 / 15,30</b>	<b>14,84 / 16,38</b>				
	EER		Nominal	-	4,02	3,70	3,65				
Electrical power for meter sizing	Capacity	Water 7/12°C - Outdoor air 35°C	Nominal / Maximum	-	11,16 / 11,80	11,72 / 12,86	12,88 / 14,20				
	EER		Nominal	-	2,75	2,55	2,45				
	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					60	
Minimum system water content				l	60					60	
Sound power			Nominal	dB(A)	41						
Sound pressure @1m			Nominal	dB(A)	26						
<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)	63	64	66				
Sound pressure @1m				dB(A)	50	51	53				
<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 / 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 UE 811/2013 - 813/2013 - 2016/2281)

## dimensions and connections



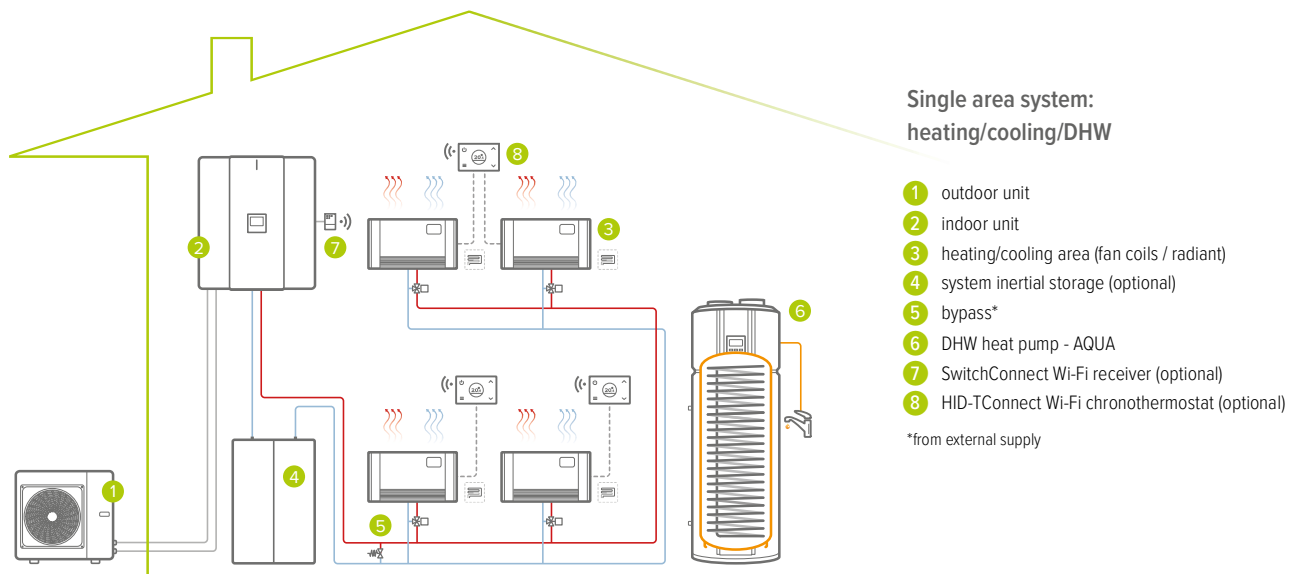
For trouble-free operation of the unit it is essential to maintain the safety distances indicated by the green areas.

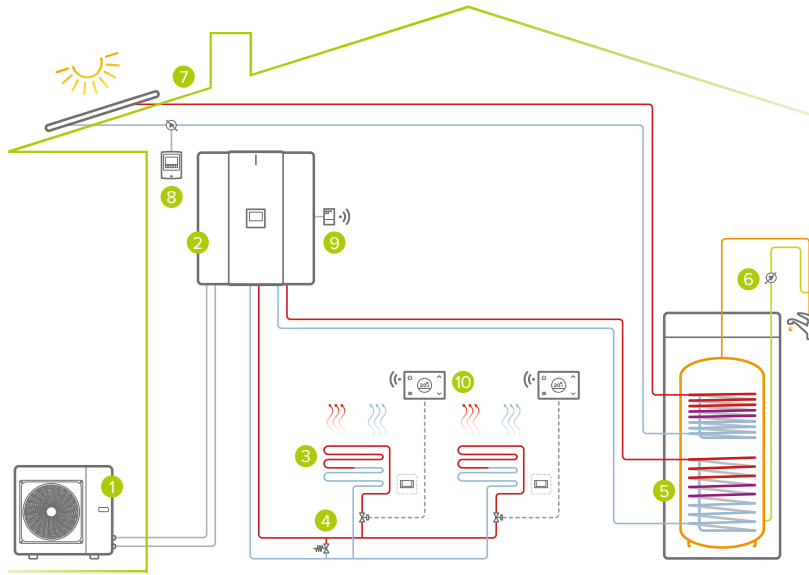
(\*) Water and gas connections

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)		547x604x386						
	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			52			54			
	Outdoor unit			58			77		112	
Max / min equivalent length		L	m	30 / 2						
Max difference in level ODU / IDU		H	m	25						
Refrigerant precharge				R-32 / 675						
			kg/m	1,5 / 15		1,65 / 15		1,84 / 15		
Additional refrigerant charge <sup>2</sup>			CO <sub>2</sub> tons	1,05		1,11		1,24		
			g/m	20						
External diameters	Refrigerant pipe	Liquid	inch	1/4"						
		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

## system diagrams

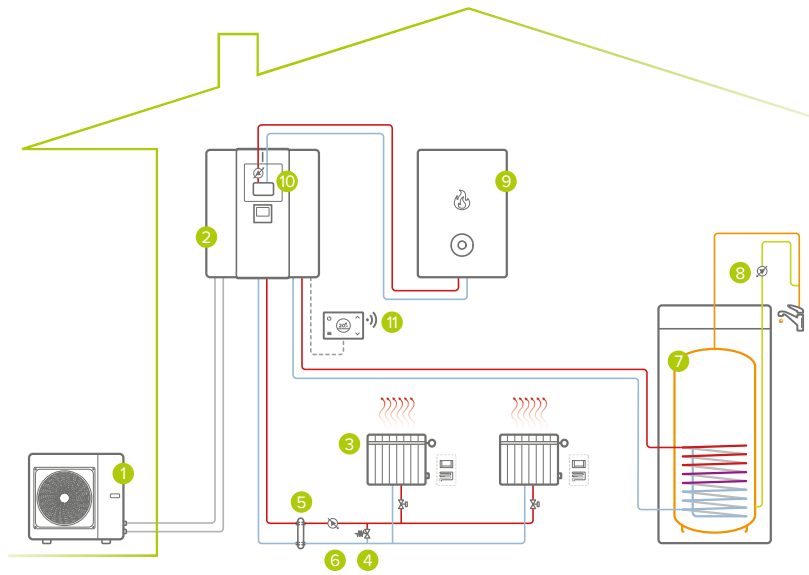




**Single area system with solar thermal:  
heating/cooling/DHW**

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

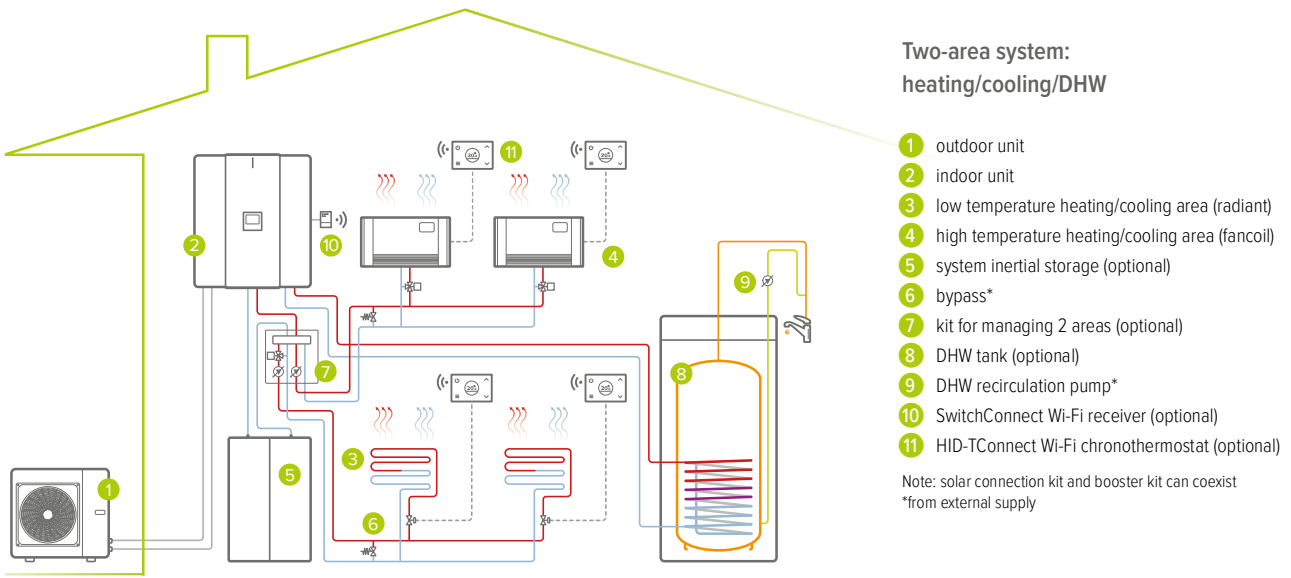
\*from external supply



**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 tank (optional)
- 8 DHW recirculation pump\*
- 9 2-pipe boiler
- 10 kit for external boiler management (optional)
- 11 HID-TConnect Wi-Fi chronothermostat (optional)

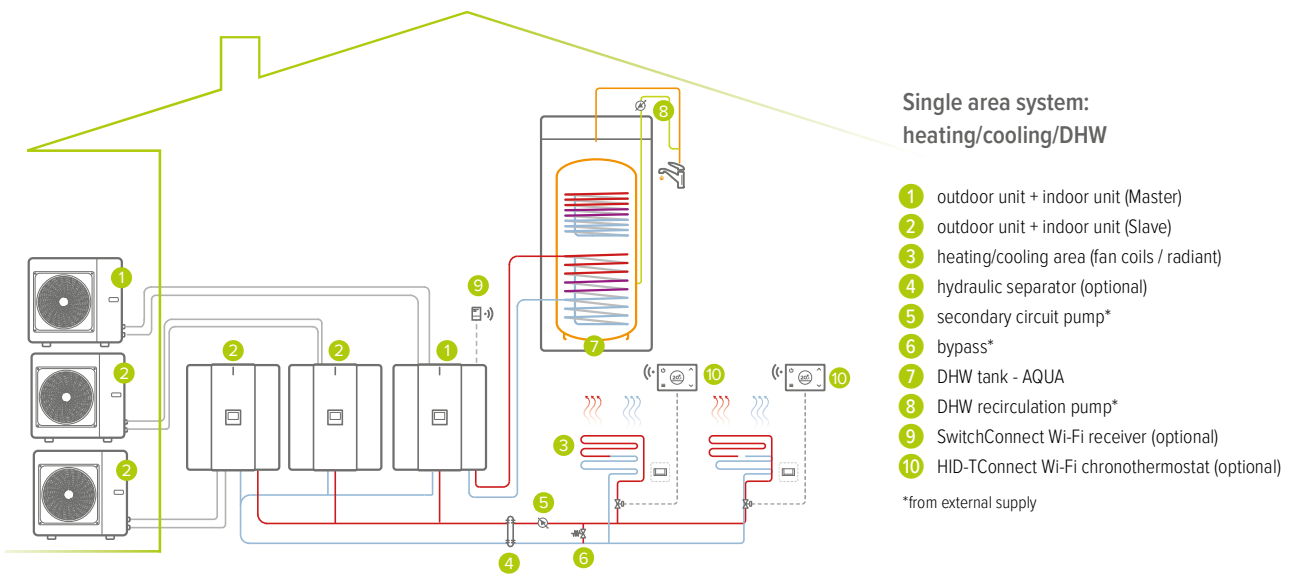
\*from external supply



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

- 1 outdoor unit
- 2 indoor unit
- 3 low temperature heating/cooling area (radiant)
- 4 high temperature heating/cooling area (fancoil)
- 5 system inertial storage (optional)
- 6 bypass\*
- 7 kit for managing 2 areas (optional)
- 8 DHW tank (optional)
- 9 DHW recirculation pump\*
- 10 SwitchConnect Wi-Fi receiver (optional)
- 11 HID-TConnect Wi-Fi chronothermostat (optional)

Note: solar connection kit and booster kit can coexist  
\*from external supply



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

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

\*from external supply