





## **SHERPA**

Air-water heat pumps, split and monobloc, and heat pump water heaters



## Certified product quality

To promote an effective and efficient energy transition

### HP Keymark e EHPA Quality Label

The performance of the Sherpa heat pumps, split and monobloc, are certified by HP Keymark and, for the Austrian and Swiss markets, also by the EHPA Quality Label: two points of reference in the sector, which testify to compliance with the strict European performance and safety standards established by the European standards EN 16147, EN 14825 and EN 12102.

### Smart Grid Ready

All Sherpa heat pumps can have a contact that allows you to increase the self-consumption of the energy produced by the photovoltaic system, storing the overproduction and reducing the quantity to be purchased from the grid, even when solar radiation is absent. The set-up of the heat pumps to communicate with an electrical grid is certified by the German body BWP.





## Aquadue patented technology

Innovation that ensures simultaneously comfort and DHW



### Double refrigeration circuit

Sherpa Aquadue by Olimpia Splendid is the series of multipurpose split heat pumps for residential use that stands out for its patented double refrigeration circuit, which allows providing cooling/heating and producing DHW at the same time. In addition to avoiding interruptions in providing indoor comfort, it is thus possible to recover energy during summer cooling, increasing the efficiency of the system.

### High temperature Domestic Hot Water

The double refrigeration circuit also allows the DHW to be brought to 75°C autonomously, without the aid of electric heating elements or additional generators, generating two further advantages. With Sherpa Aquadue heat pumps it is possible to avoid the periodic use of anti-legionella cycles and reduce the volume of the boiler by up to 30% for the same quantity of DHW that can be delivered, thus obtaining smaller overall dimensions.

# Split air-water heat pumps

## Production of comfort and DHW

### SINGLE-PHASE

#### SHERPA AQUADUE

Multi-purpose

S2

**Download**  
Technical data sheet for  
the entire S2 range



	4	6	8	10
<b>Outdoor units</b>	UE Sherpa S2 E 4 (02001)	UE Sherpa S2 E 6 (02002)		
<b>SUSPENDED VERSION</b>	UI Sherpa Aquadue S2 E Small (02042)			
<b>TOWER VERSION</b>	UI Sherpa Aquadue Tower S2 E Small (02044)			

#### SHERPA

Traditional

S2

**Download**  
Technical data sheet for  
the entire S2 range



	4	6	8	10
<b>Outdoor units</b>	UE Sherpa S2 E 4 (02001)	UE Sherpa S2 E 6 (02002)		
<b>SUSPENDED VERSION</b>	UI Sherpa S2 E Small (02040)			
<b>TOWER VERSION</b>	UI Sherpa Tower S2 E Small (02046)			

#### SHERPA AQUADUE

Multi-purpose

S3



	4	6	8	10
<b>Outdoor units</b>	UE Sherpa S3 E 4 (02284)	UE Sherpa S3 E 6 (02285)	UE Sherpa S3 E 8 (02286)	UE Sherpa S3 E 10 (02287)
<b>SUSPENDED VERSION</b>	UI Sherpa Aquadue S3 E Small (02296)			
<b>TOWER VERSION</b>	UI Sherpa Aquadue Tower S3 E Small (02298)			

#### SHERPA

Traditional

S3



	4	6	8	10
<b>Outdoor units</b>	UE Sherpa S3 E 4 (02284)	UE Sherpa S3 E 6 (02285)	UE Sherpa S3 E 8 (02286)	UE Sherpa S3 E 10 (02287)
<b>SUSPENDED VERSION</b>	UI Sherpa S3 E Small (02294)			
<b>TOWER VERSION</b>	UI Sherpa Tower S3 E Small (02300)			

#### SHERPA COLD

For cold climates



	4	6	8	10
<b>Outdoor units</b>				UE Sherpa Cold 10 (02269)
<b>SUSPENDED VERSION</b>				UI Sherpa Cold (02276)

Energy efficiency classes in heating (water at 35°C - average climate) on a range between A+++ and D

**THREE-PHASE**

12	14	15	16	10T	12T	14T	15T	16T	18T
UE Sherpa S2 12 (02005)	UE Sherpa S2 14 (02006)		UE Sherpa S2 16 (02007)		UE Sherpa S2 12T (02008)	UE Sherpa S2 14T (02009)		UE Sherpa S2 16T (02010)	
UI Sherpa Aquadue S2 Big (02043)									
UI Sherpa Aquadue Tower S2 Big (02045)									
UE Sherpa S2 12 (02005)	UE Sherpa S2 14 (02006)		UE Sherpa S2 16 (02007)		UE Sherpa S2 12T (02008)	UE Sherpa S2 14T (02009)		UE Sherpa S2 16T (02010)	
UI Sherpa S2 Big (02041)									
UI Sherpa Tower S2 Big (02047)									
UE Sherpa S3 E 12 (02288)	UE Sherpa S3 E 14 (02289)		UE Sherpa S3 E 16 (02290)		UE Sherpa S3 E 12T (02291)	UE Sherpa S3 E 14T (02292)		UE Sherpa S3 E 16T (02293)	
UI Sherpa Aquadue S3 E Big (02297)									
UI Sherpa Aquadue Tower S3 E Big (02299)									
UE Sherpa S3 E 12 (02288)	UE Sherpa S3 E 14 (02289)		UE Sherpa S3 E 16 (02290)		UE Sherpa S3 E 12T (02291)	UE Sherpa S3 E 14T (02292)		UE Sherpa S3 E 16T (02293)	
UI Sherpa S3 E Big (02295)									
UI Sherpa Tower S3 E Big (02301)									
		UE Sherpa Cold 15 (02273)							UE Sherpa Cold 18T (02275)
		UI Sherpa Cold (02277)							UI Sherpa Cold (02278)

# Monobloc air-water heat pumps and heat pump water heaters

## SINGLE-PHASE

### Production of comfort and DHW

#### SHERPA MONOBLOC

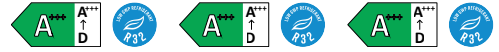
Monobloc

S2

Outdoor units

4	6	8	10
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Sherpa Monobloc S2 E 6 (02303)	Sherpa Monobloc S2 E 8 (02304)	Sherpa Monobloc S2 E 10 (02305)
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### Production of only DHW

#### SHERPA SHW

Water heater in heat pump

S2

Indoor Units

200	260
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Sherpa SHW S2 200 (02385)







Sherpa SHW S2 260S (02386)



Energy efficiency classes in heating (water at 35°C - average climate) on a range between A+++ and D



**THREE-PHASE**

12	14	15	16	10T	12T	14T	15T	16T	18T
Sherpa Monobloc S2 E 12 (02306)	Sherpa Monobloc S2 E 14 (02307)		Sherpa Monobloc S2 E 16 (02308)		Sherpa Monobloc S2 E 12T (02309)	Sherpa Monobloc S2 E 14T (02310)		Sherpa Monobloc S2 E 16T (02311)	
									





# SHERPA AQUADUE



## Multi-purpose split heat pumps, suspended and tower versions



### DHW AND COMFORT AT THE SAME TIME

The two interconnected refrigerator cycles allow the decoupling of the heating/cooling from the DHW production, enabling them to operate in parallel, avoiding thus interruptions in the domestic comfort supply.



### DOMESTIC HOT WATER UP TO 75°C

The storage of DHW at high temperature makes it possible to reduce the volume of the storage tank by up to 30%, and to avoid energy-intensive consumption of the anti-Legionnaire's disease cycles, since they are normally carried out by the use of electric heating elements.



### PHOTOVOLTAIC INTEGRATION

Thanks to the appropriate contact, it is possible to activate an increase in the heating/DHW temperature and a decrease in the cooling temperature, thereby accumulating thermal energy in the event of overproduction of the photovoltaic system.



## FEATURES

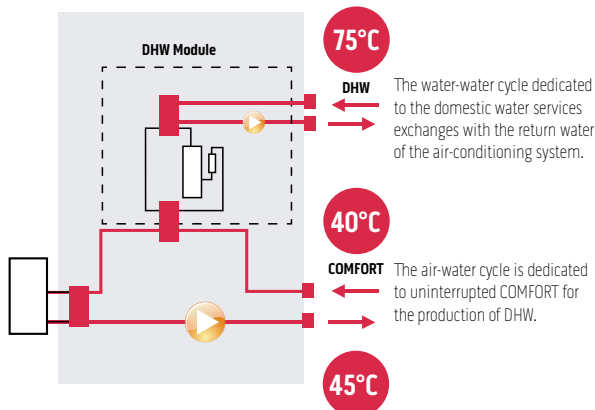
- **Inverter air-water heat pump with R32 refrigerant**
- **Energy efficiency class** in average climate heating up to: A+++ (35°C) and A++ (55°C) on a range between A+++ and D.
- **Powers available:** 10 powers with refrigerant R32 single-phase (4-6-8-10-12-14-16 kW) and three-phase (12-14-16 kW).
- **Production of DHW** (Domestic Hot Water) at high temperature, up to 75°C.
- **DHW management:** a water/water heat pump unit integrated in the internal unit supplies domestic hot water at high temperature regardless of the external climatic conditions.
- **Absolute continuity availability of DHW:** guaranteed by the redundancy of the double refrigeration circuit
- **Anti-legionella cycles that can be avoided** using the high temperature refrigeration cycle.
- **Double stage electric heating elements as standard:** activation of single or double heating element to support the heat pump by means of a simple electronic control configuration. Each stage is activated according to the actual need for thermal power, in order to optimise electricity consumption (supplied disabled by default).
- **Configurable set points:** two set points in cooling, Three set points in heating (one of which for DHW); the set points can also be selected via remote contact.
- **Holiday** and weekly programmer: heating/cooling, DHW, night-time.
- **Climatic curves** with external air temperature probe: two curves available, one for cooling and one for heating. The climatic curves are used to vary the temperature of the water supplying the system according to the external climatic conditions, adjusting the thermal needs of the building, in order to achieve energy savings.
- **Refrigerant gases:** R32\* for the reversible circuit dedicated to air conditioning and R134a\*\* for the high temperature circuit dedicated to the production of DHW.
- **Built-in 150 L high efficiency storage tank** (tower version) with an exchange battery surface equal to 1.5 m<sup>2</sup>.
- **Operating limits:** down to -25°C, +43°C (see technical manuals for details).
- **Integrated heating cable** to prevent freezing of water in the tray for sizes 12-14-16 and 12T-14T-16T. The heating cable intervenes during machine defrost operations or when the ambient air is below -7°C and cuts out when it exceeds 4°C (85W power consumption).

## AQUADUE TECHNOLOGY

### HEATING MODE

+DHW at high temperature

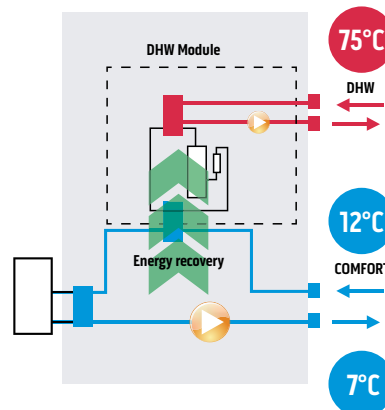
Production of DHW guaranteed regardless of the outside temperature for optimal operation all year round, not guaranteed by traditional heat pumps.



### COOLING MODE

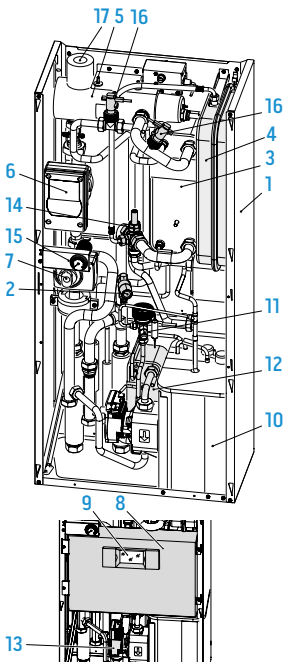
+DHW at a high temperature with energy recovery

The energy normally dissipated outside is recovered and used to produce DHW up to 75°C.



\* Equipment not hermetically sealed containing fluorinated gases with an equivalent GWP of 675 (R32)  
 \*\* Non-hermetically sealed equipment containing fluorinated gas with GWP equivalent 1430

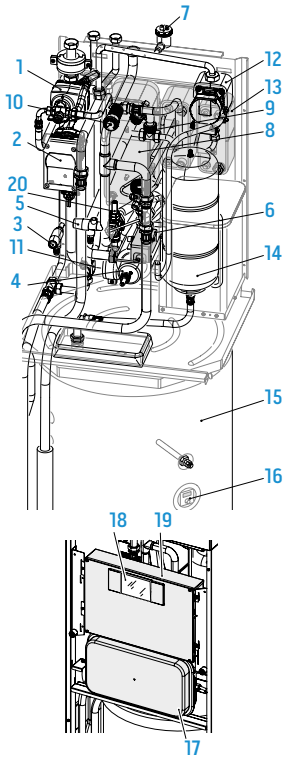
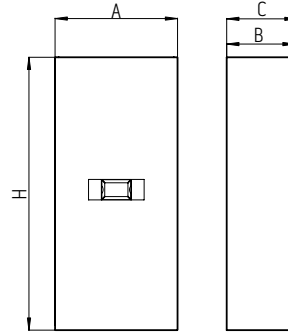
**LAYOUT, DIMENSIONS, WEIGHT**



1. Support structure
2. 3 bar safety valve
3. Main circuit heat exchanger
4. Expansion tank
5. Post-heating electric heating element manifold
6. Air conditioner circuit circulation pump
7. 3-way valve
8. Electrical panel assembly
9. Touchscreen display
10. Compressor
11. Expansion valve
12. DHW circuit heat exchangers
13. DHW circuit circulation pump
14. DHW circuit evaporator water flow rate regulator
15. Water circuit pressure gauge
16. Flow switches
17. Automatic vent valves

**Suspended indoor units**

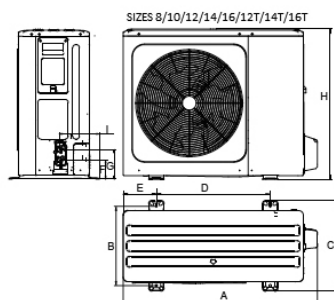
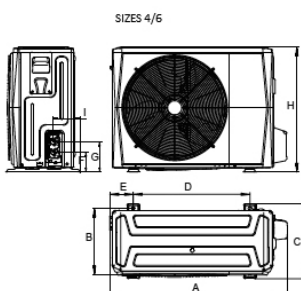
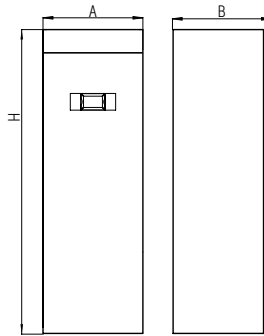
		4	6	8	10	12	14	16	12T	14T	16T
		SMALL					BIG				
A	mm	500	500	500	500	500	500	500	500	500	500
B	mm	280	280	280	280	280	280	280	280	280	280
C	mm	288	288	288	288	288	288	288	288	288	288
H	mm	1116	1116	1116	1116	1116	1116	1116	1116	1116	1116
Weight	kg	70	70	70	70	70	70	70	70	70	70



1. 3-way valve
2. Air conditioner circuit circulation pump
3. Safety valves (DHW circuit 6 bar)
4. Post-heating electric heating element manifold
5. Safety valves air conditioner circuit 3 bar
6. Electric heating elements safety thermostats
7. Automatic air vent valve
8. Air conditioner circuit heat exchanger
9. Flow switches
10. Air conditioning circuit pressure gauge
11. DHW thermostatic accumulators
12. DHW circuit circulation pump
13. DHW circuit heat exchangers
14. DHW circuit expansion tank
15. DHW tank
16. Anode tester
17. Air conditioner circuit expansion tank
18. Touch screen display
19. Electrical panel assembly
20. DHW circuit evaporator water flow rate regulator

**Tower indoor units**

		4	6	8	10	12	14	16	12T	14T	16T
		SMALL					BIG				
A	mm	600	600	600	600	600	600	600	600	600	600
B	mm	600	600	600	600	600	600	600	600	600	600
H	mm	1980	1980	1980	1980	1980	1980	1980	1980	1980	1980
Weight	kg	171	171	171	171	171	171	171	171	171	171



**Outdoor units**

		4	6	8	10	12	14	16	12T	14T	16T
A	mm	1008	1008	1118	1118	1118	1118	1118	1118	1118	1118
B	mm	375	375	456	456	456	456	456	456	456	456
C	mm	426	426	523	523	523	523	523	523	523	523
D	mm	663	663	656	656	656	656	656	656	656	656
E	mm	134	134	191	191	191	191	191	191	191	191
F	mm	110	110	110	110	110	110	110	110	110	110
G	mm	170	170	170	170	170	170	170	170	170	170
H	mm	712	712	865	865	865	865	865	865	865	865
I	mm	160	160	230	230	230	230	230	230	230	230
Weight	kg	58	58	77	77	96	96	96	112	112	112





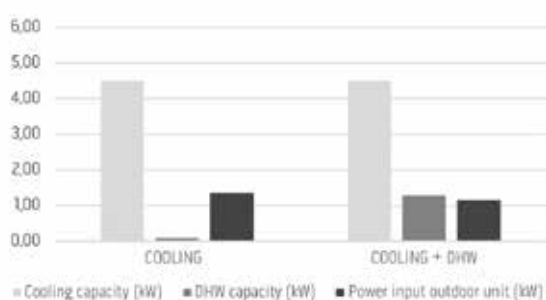
**THREE-PHASE R32 TECHNICAL DATA**

				12T			14T			16T				
ODU Sherpa S3 E				02291			02292			02293				
IDU Sherpa Aquadue S3 E				02297			02297			02297				
IDU Sherpa Aquadue Tower S3 E				02299			02299			02299				
Compressor frequency				Minimum	Nominal	Maximum	Minimum	Nominal	Maximum	Minimum	Nominal	Maximum		
PUNCTUAL PERFORMANCE	Heating power	a7/6 - w30/35	(a)	kW	5,65	12,10	15,79	6,77	14,50	18,92	7,47	16,00	20,88	
	COP	a7/6 - w30/35	(a)	W/W	-	4,95	-	-	4,70	-	-	4,50	-	
	Heating power	a2/1 - w30/35	(b)	kW	4,34	9,30	12,14	5,32	11,40	14,88	6,07	13,00	16,96	
	COP	a2/1 - w30/35	(b)	W/W	-	3,95	-	-	3,65	-	-	3,50	-	
	Heating power	a-7/-8 - w30/35	(c)	kW	4,67	10,00	13,05	5,60	12,00	15,66	6,21	13,30	17,35	
	COP	a-7/-8 - w30/35	(c)	W/W	-	3,00	-	-	2,80	-	-	2,70	-	
	Heating power	a-15/-16 - w30/35	(d)	kW	3,43	7,35	9,59	3,71	7,94	10,36	4,37	9,35	12,20	
	COP	a-15/-16 - w30/35	(d)	W/W	-	2,88	-	-	2,85	-	-	2,66	-	
	Heating power (fancoils)	a7/6 - w40/45	(f)	kW	5,74	12,30	16,05	6,63	14,20	18,53	7,47	16,00	20,88	
	COP (fancoils)	a7/6 - w40/45	(f)	W/W	-	3,80	-	-	3,65	-	-	3,60	-	
	Heating power (fancoils)	a2/1 - w40/45	(g)	kW	5,00	10,70	13,96	5,46	11,70	15,27	5,98	12,80	16,70	
	COP (fancoils)	a2/1 - w40/45	(g)	W/W	-	3,00	-	-	2,86	-	-	2,85	-	
	Heating power (fancoils)	a-7/-8 - w40/45	(h)	kW	4,76	10,20	13,31	5,51	11,80	15,40	6,02	12,90	16,83	
	COP (fancoils)	a-7/-8 - w40/45	(h)	W/W	-	2,40	-	-	2,35	-	-	2,23	-	
	Heating power (fancoils)	a-15/-16 - w40/45	(i)	kW	3,10	6,63	8,65	3,34	7,16	9,34	3,93	8,41	10,97	
	COP (fancoils)	a-15/-16 - w40/45	(i)	W/W	-	2,32	-	-	2,29	-	-	2,03	-	
	Cooling power	a35 - w23/18	(l)	kW	5,60	12,00	14,29	6,31	13,00	16,08	6,96	13,50	17,75	
	EER	a35 - w23/18	(l)	W/W	-	4,00	-	-	3,70	-	-	3,61	-	
	Cooling power (fancoils)	a35 - w12/7	(m)	kW	5,42	11,60	13,82	5,93	12,70	15,13	6,54	14,00	16,67	
	EER (fancoils)	a35 - w12/7	(m)	W/W	-	2,75	-	-	2,55	-	-	2,45	-	
	EFFICIENCIES	Energy efficiency class in water heating 35°C	Warmer Climate			A+++			A+++			A+++		
		SCOP	Warmer Climate			6,47			6,57			6,28		
		s (Seasonal efficiency for space heating)	Warmer Climate	ηs %		255,6%			259,8%			248,1%		
		Energy efficiency class in water heating 35°C	Average Climate			A+++			A+++			A+++		
		SCOP	Average Climate			4,81			4,72			4,62		
		s (Seasonal efficiency for space heating)	Average Climate	ηs %		189,3%			185,6%			181,6%		
		Energy efficiency class in water heating 35°C	Cold Climate			A++			A++			A++		
		SCOP	Cold Climate			4,08			4,07			4,02		
s (Seasonal efficiency for space heating)		Cold Climate	ηs %		160,2%			159,6%			157,8%			
Energy efficiency class in water heating 55°C		Warmer Climate			A+++			A+++			A+++			
SCOP		Warmer Climate			4,42			4,49			4,47			
s (Seasonal efficiency for space heating)		Warmer Climate	ηs %		173,8%			176,4%			175,9%			
Energy efficiency class in water heating 55°C		Average Climate			A++			A++			A++			
SCOP		Average Climate			3,45			3,47			3,41			
s (Seasonal efficiency for space heating)		Average Climate	ηs %		135,1%			135,6%			133,2%			
Energy efficiency class in water heating 55°C		Cold Climate			A+			A+			A+			
SCOP		Cold Climate			3,02			3,05			3,12			
s (Seasonal efficiency for space heating)		Cold Climate	ηs %		117,7%			118,9%			121,8%			
NOISE LEVEL		Indoor unit sound power (reg. EU 811-2013/UNI EN 12102:2022)			dB(A)	48/46			48/46			48/46		
		Indoor unit sound pressure (reg. EU 811-2013/UNI EN 12102:2022)	(n)		dB(A)	40/38			40/38			40/38		
		Outdoor unit sound power (reg. EU 811-2013/UNI EN 12102:2022)			dB(A)	64/60			65/62			68/64		
		Outdoor unit sound pressure (reg. EU 811-2013/UNI EN 12102:2022)	(o)		dB(A)	44/40			45/42			48/44		
		System circulator absorption			W	8 - 140			8 - 140			8 - 140		
		Supply voltage indoor unit			V/ph/Hz	220-240/1/50			220-240/1/50			220-240/1/50		
		Maximum current absorbed indoor unit with additional resistors active			A	31,0			31,0			31,0		
		Maximum power absorbed indoor unit with additional active heating elements			kW	7,05			7,05			7,05		
		Additional electric heating elements			kW	3,0+3,0			3,0+3,0			3,0+3,0		
		Supply voltage outdoor unit			V/ph/Hz	380-415/3/50			380-415/3/50			380-415/3/50		
	Outdoor unit maximum absorbed current			A	8			8			8			
	Outdoor unit maximum absorbed power			kW	5,4			5,7			5,7			
	Compressor type				Twin Rotary DC Inverter			Twin Rotary DC Inverter			Twin Rotary DC Inverter			
	Refrigerant inlet connection diameter			"	3/8"-5/8"			3/8"-5/8"			3/8"-5/8"			
	Coolant gas	(p)			R32			R32			R32			
	Global warming potential			GWP	675			675			675			
	Refrigerant gas charge			kg	1,84			1,84			1,84			
	Additional charge above 15m			g/m	38			38			38			
	Refrigerant piping length limit	min - max		m	2 - 30			2 - 30			2 - 30			
	Refrigerant piping length limit without minimum surface check according to IEC 60335-2-40:2018	max	(q)	m	15			15			15			
	Hydraulic connections for the technical water system			"	1"			1"			1"			
	System technical water expansion tank capacity			l	8			8			8			
	Load profile according to EN16147			L	L			L			L			
	DHW production energy efficiency class	Average Climate			A			A			A			
	η <sub>HW</sub> (seasonal production efficiency DHW)	Average Climate	%		81%			81%			81%			
	Boiler volume			l	150			150			150			
	Boiler interior surface material				DD12 glazed steel S235JR			DD12 glazed steel S235JR			DD12 glazed steel S235JR			
	Heat exchanger in the boiler			m <sup>2</sup>	1,5			1,5			1,5			
Type and thickness of boiler insulation				Hard expanded polyurethane 55 mm			Hard expanded polyurethane 55 mm			Hard expanded polyurethane 55 mm				
Specific dispersion			W/K	2			2			2				
DHW expansion tank capacity			l	7			7			7				
DHW hydraulic connections			"	3/4"			3/4"			3/4"				
DHW circuit heating power	w35 - w55	(r)	kW	2,15			2,15			2,15				
COP DHW circuit	w35 - w55	(r)	W/W	3,12			3,12			3,12				
DHW circuit heating power	w12 - w55	(s)	kW	1,60			1,60			1,60				
COP DHW circuit	w12 - w55	(s)	W/W	2,58			2,58			2,58				
Sound power indoor unit in heating/cooling + DHW circuit				dB(A)	49			49			49			
DHW circuit circulator absorption				W	3 - 43			3 - 43			3 - 43			
DHW circuit coolant gas				(t)	R134a			R134a			R134a			
DHW circuit global warming potential				GWP	1430			1430			1430			
DHW circuit coolant gas load				kg	0,35			0,35			0,35			

(a) Heating mode, external air temperature 7°C b.s./6°C b.u., inlet/outlet water temperature 30°C/35°C  
 (b) Heating mode, external air temperature 2°C b.s./1°C b.u., inlet/outlet water temperature 30°C/35°C  
 (c) Heating mode, external air temperature -7°C b.s./-8°C b.u., inlet/outlet water temperature 30°C/35°C  
 (d) Heating mode, external air temperature -15°C b.s./-16°C b.u., inlet/outlet water temperature 30°C/35°C  
 (e) Heating mode, external air temperature 7°C b.s./6°C b.u., inlet/outlet water temperature 40°C/45°C  
 (f) Heating mode, external air temperature 2°C b.s./1°C b.u., inlet/outlet water temperature 40°C/45°C  
 (g) Heating mode, external air temperature -7°C b.s./-8°C b.u., inlet/outlet water temperature 40°C/45°C  
 (h) Heating mode, external air temperature -15°C b.s./-16°C b.u., inlet/outlet water temperature 40°C/45°C  
 (i) Cooling mode, external air temperature 35°C, inlet/outlet water temperature 23°C/18°C  
 (j) Cooling mode, external air temperature 35°C, inlet/outlet water temperature 23°C/18°C  
 (k) Cooling mode, external air temperature 35°C, inlet/outlet water temperature 12°C/7°C  
 (l) Sound pressure values measured at a distance of 1 m in a semi-anechoic chamber  
 (m) Sound pressure values measured at a distance of 4 m in free field distance  
 (n) Non-air-tight sealed equipment containing fluorinated GAS  
 (o) maximum length of the refrigeration pipes beyond which checks on the minimum surface of the installation rooms are necessary, check the technical manual  
 (p) Heating circuit water temperature 35°C/Outlet water temperature 55°C  
 (q) Heating circuit water temperature 12°C/Outlet water temperature 55°C  
 (r) Non-hermetically sealed equipment containing fluorinated GAS  
 Energy efficiency classes refer to a range between A+++ and D.

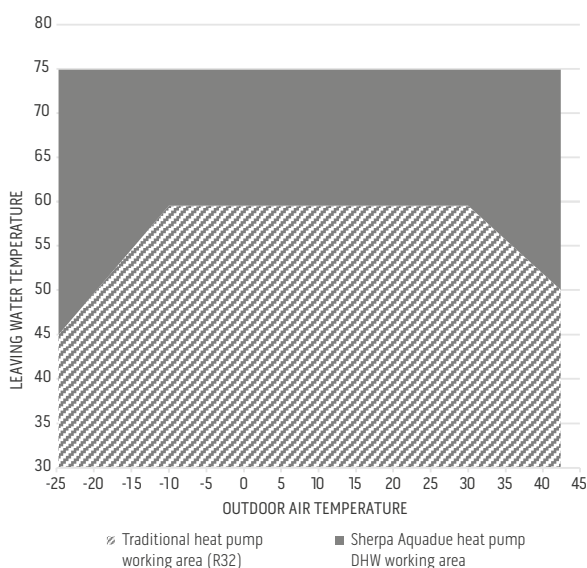
			4			6			8			10		
			Cooling w7 - a35	DHW w65 - w12	Cooling w7 - A35 DHW w65 - w12	Cooling w7 - a35	DHW w65 - w12	Cooling w7 - A35 DHW w65 - w12	Cooling w7 - a35	DHW w65 - w12	Cooling w7 - A35 DHW w65 - w12	Cooling w7 - a35	DHW w65 - w12	Cooling w7 - A35 DHW w65 - w12
First circuit + second circuit data	Cooling capacity	kw	4.70	0.64	4.70	7.00	0.64	7.00	7.40	0.64	7.40	8.20	0.64	8.20
	DHW yield	kw	0.00	1,28	1,28	0.00	1,28	1,28	0.00	1,28	1,28	0.00	1,28	1,28
	Absorption	kw	1.36	0.56	1.17	2.33	0.56	2.00	2.19	0.56	1.87	2.48	0.56	2.13
	EER COP		3.45	2.30	4.03	3.00	2.30	3.50	3.38	2.30	3.95	3.30	2.30	3.85

			12			14			16			12T			14T			16T		
			Cooling w7 - a35	DHW w65 - w12	Cooling w7 - A35 DHW w65 - w12	Cooling w7 - a35	DHW w65 - w12	Cooling w7 - A35 DHW w65 - w12	Cooling w7 - a35	DHW w65 - w12	Cooling w7 - A35 DHW w65 - w12	Cooling w7 - a35	DHW w65 - w12	Cooling w7 - A35 DHW w65 - w12	Cooling w7 - a35	DHW w65 - w12	Cooling w7 - A35 DHW w65 - w12	Cooling w7 - a35	DHW w65 - w12	Cooling w7 - A35 DHW w65 - w12
First circuit + second circuit data	Cooling capacity	kw	11.60	0.64	11.60	12.70	0.64	12.70	14.00	0.64	14.00	11.60	0.64	11.60	12.70	0.64	12.70	14.00	0.64	14.00
	DHW yield	kw	0.00	1.28	1.28	0.00	1.28	1.28	0.00	1.28	1.28	0.00	1.28	1.28	0.00	1.28	1.28	0.00	1.28	1.28
	Absorption	kw	4.22	0.56	3.61	4.98	0.56	4.26	5.71	0.56	4.89	4.22	0.56	3.61	4.98	0.56	4.26	5.71	0.56	4.89
	EER COP		2.75	2.30	3.21	2.55	2.30	2.98	2.45	2.30	2.86	2.75	2.30	3.21	2.55	2.30	2.98	2.45	2.30	2.86



### COOLING + DHW WITH ENERGY RECOVERY

During summer operation in cooling mode, the cycle dedicated to DHW production extracts heat from return water from the system circuit. The cooling requirements of the building is partially satisfied by the DHW cycle and the comfort refrigerating cycle must deliver less power by reducing the speed of the inverter compressor. The heat taken from the system is recovered in hot water for domestic use. The efficiency of the integrated system increases (ratio between the energy produced and the energy absorbed from the mains).



### PERFORMANCE AND ENERGY ADVANTAGES

In adverse weather conditions traditional heat pumps decrease thermal output producing water at a lower temperature. Sherpa AQUADUE® as well as extending the area of operation ensures a constant heat output, in the production of Domestic Hot Water. The double refrigerator circuit allows higher DHW production temperatures thanks to the water-water circuit which are independent of outside air temperature. In summer cooling operation the refrigeration cycle dedicated to DHW production removes heat from the comfort circuit increasing the overall efficiency of the system.

### ACCESSORIES

			pensile	torre
CONTROLS	B0916	Kit 3-way valve for DHW	●	●
	B0623	Outdoor air temperature probe kit	●	●
	B0624	Kit DHW storage tank sensor	●	●
	B0931	Remote control display kit 10 m	○	○
OTHER	B0918	Kit Sherpa Flex Box AS	≤10	—
	B0961	Kit Sherpa Flex Box AS RAL 9016	≤10	—
STORAGE TANKS / PUFFER	O1804	HE 200 L storage tank	○	—
	O1805	HE 300 L storage tank	○	—
	O1806	HES 300 L solar storage tank	○	—
	O1807	Hybride boiler HY 300 L	○	—
	O1808	HYS 300 L solar hybrid storage tank	○	—
	O1199	Thermal accumulation 50 L	○	○
O1200	Thermal accumulation 100 L	○	○	

○ Optional accessory | ● Standard accessory | — Accessory not compatible

Accessory description on page 54

Please note that optional accessories are available for purchase with all models of the heat pump. When compatibility is only possible with certain sizes, the information is shown in the table. Standard accessories are already included in the heat pump code.

## Traditional split heat pumps, suspended and tower versions



### COMPACT TECHNOLOGY

The engineering of the components and the reduced shapes allow it to be installed inside a kitchen cabinet.



### DOMESTIC HOT WATER UP TO 60°C

Sherpa supplies Domestic Hot Water with temperatures up to 60°C.



### PHOTOVOLTAIC INTEGRATION

Thanks to the appropriate contact, it is possible to activate an increase in the heating/DHW temperature and a decrease in the cooling temperature, thereby accumulating thermal energy in the event of overproduction of the photovoltaic system.



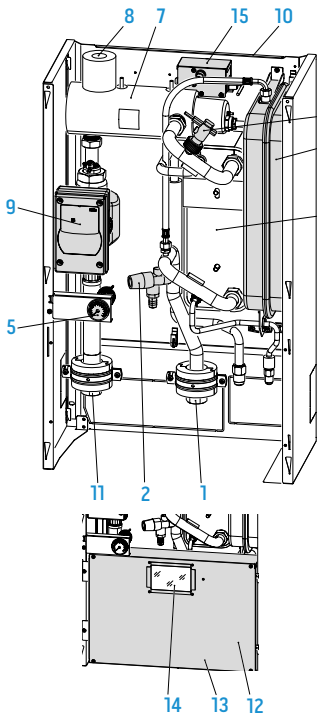
## FEATURES

- **Inverter air-water heat pump with R32 coolant gas**
- **Energy efficiency class** in medium climate heating: A+++ (35°C) and A++ (55°C) on a range between A+++ and D.
- **Available powers:** 10 powers with single-phase R32 coolant gas (4-6-8-10-12-14-16 kW) and three-phase (12-14-16 kW)
- **It supplies DHW** with temperatures up to 60° C.
- **DHW management:** Sherpa allows you to manage domestic hot water with extreme flexibility through two management modes: water probe inserted in the boiler or thermostat contact of the boiler (only for wall-mounted version).
- **Climatic curves** with external air temperature probe: two curves available, one for cooling and one for heating.
- **Smart Grid:** the heat pump is set up to communicate with an intelligent electricity grid and is certified SG Ready, according to the requirements of the German BWP Institute.
- **Configurable set points:** two set points in cooling, three set points in heating (one of which for DHW); the set points can also be selected through a remote contact.
- **Double-stage electric heaters as standard:** configurable as single or double-stage, it can be activated to support the heat pump, through verification by the electronic control of the real thermal capacity of the heat pump. Each stage is activated according to the real need for thermal power, in order to optimise electricity consumption.
- **Daily holiday and weekly programmer:** heating/cooling, DHW, night.
- **Complete management** of anti-legionella cycles.
- **Coolant gas R32\***
- **High efficiency integrated 200 L boiler** (only for tower version).
- **Components included** (only for tower version): system filling tap, 3-way valve.
- **Optional kit** (only for tower version): thermostatic mixer and DHW expansion vessel.
- **Operating limits:** up to -25°C, +43°C (see technical manuals for details).
- **Integrated heating cable** to prevent water freezing in the drip pan for sizes 12-14-16 and 12T-14T-16T. The heating cable intervenes during the machine's defrost operations or when the ambient air is below -7°C and stops when it exceeds 4°C (electrical absorption of 85W).

\* Equipment not hermetically sealed containing fluorinated gases with an equivalent GWP of 675 (R32)



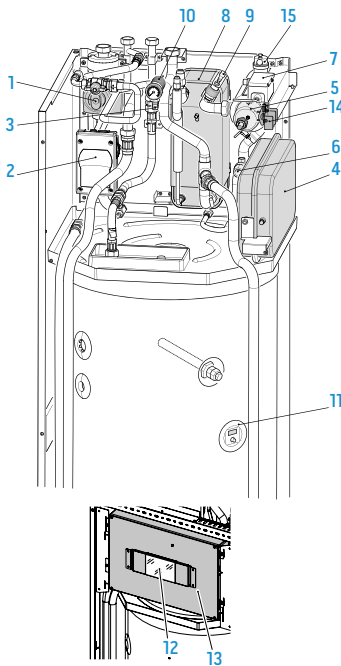
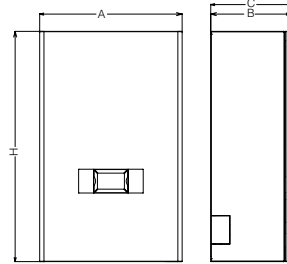
**LAYOUT, DIMENSIONS, WEIGHT**



1. Water inlet
2. 3 bar safety valve
3. Plate heat exchanger
4. Flow switch
5. Pressure gauge
6. Expansion tank
7. Electric heating element manifold
8. Automatic vent valve
9. Water pump
10. Support for wall installation
11. System water outlet
12. Electrical panel covers
13. Electrical panel assembly
14. Touch screen display
15. Manual reset electric heating element safety thermostat

**Suspended indoor units**

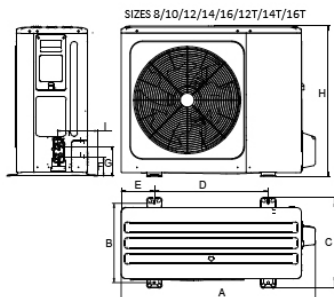
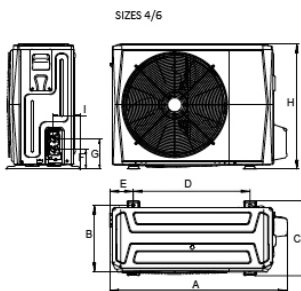
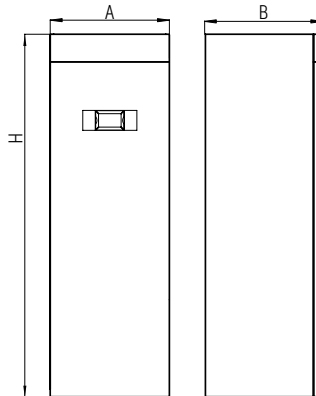
		4	6	8	10	12	14	16	12T	14T	16T
		SMALL					BIG				
<b>A</b>	mm	500	500	500	500	500	500	500	500	500	500
<b>B</b>	mm	280	280	280	280	280	280	280	280	280	280
<b>C</b>	mm	296	296	296	296	296	296	296	296	296	296
<b>H</b>	mm	810	810	810	810	810	810	810	810	810	810
<b>Weight</b>	kg	36	36	36	36	36	36	36	36	36	36



1. 3-way valve
2. Air conditioner circuit circulation pump
3. Safety valves
4. Air conditioner circuit expansion tank
5. Post-heating electric heating element manifold
6. Safety valves air conditioner circuit 3 bar
7. Electric heating elements safety thermostats
8. Air conditioner circuit heat exchanger
9. Flow switches
10. Air conditioning circuit pressure gauge
11. Anode tester
12. Touchscreen display
13. Electrical panel assembly
14. Cable clamp
15. Automatic air vent valves

**Tower indoor units**

		4	6	8	10	12	14	16	12T	14T	16T
		SMALL					BIG				
<b>A</b>	mm	600	600	600	600	600	600	600	600	600	600
<b>B</b>	mm	600	600	600	600	600	600	600	600	600	600
<b>H</b>	mm	1980	1980	1980	1980	1980	1980	1980	1980	1980	1980
<b>Weight</b>	kg	183	183	183	183	183	183	183	183	183	183



**Outdoor units**

		4	6	8	10	12	14	16	12T	14T	16T
<b>A</b>	mm	1008	1008	1118	1118	1118	1118	1118	1118	1118	1118
<b>B</b>	mm	375	375	456	456	456	456	456	456	456	456
<b>C</b>	mm	426	426	523	523	523	523	523	523	523	523
<b>D</b>	mm	663	663	656	656	656	656	656	656	656	656
<b>E</b>	mm	134	134	191	191	191	191	191	191	191	191
<b>F</b>	mm	110	110	110	110	110	110	110	110	110	110
<b>G</b>	mm	170	170	170	170	170	170	170	170	170	170
<b>H</b>	mm	712	712	865	865	865	865	865	865	865	865
<b>I</b>	mm	160	160	230	230	230	230	230	230	230	230
<b>Weight</b>	kg	58	58	77	77	96	96	96	112	112	112



**SINGLE-PHASE R32 TECHNICAL DATA**

				4			6			8			10			
ODU Sherpa S3 E				02284			02285			02286			02287			
IDU Sherpa S3 E				02294			02294			02294			02294			
IDU Sherpa Tower S3 E				02300			02300			02300			02300			
Compressor frequency				Minimum Nominal Maximum			Minimum Nominal Maximum			Minimum Nominal Maximum			Minimum Nominal Maximum			
PUNCTUAL PERFORMANCE	Heating power	a7/6 - w30/35	(a)	kW	2,42	4,25	5,66	3,53	6,20	8,26	4,73	8,30	11,05	5,70	10,0	13,32
	COP	a7/6 - w30/35	(a)	W/W	-	5,15	-	-	5,00	-	-	5,20	-	-	5,00	-
	Heating power	a2/1 - w30/35	(b)	kW	2,54	4,45	5,93	3,13	5,50	7,32	4,05	7,10	9,46	4,67	8,20	10,92
	COP	a2/1 - w30/35	(b)	W/W	-	4,05	-	-	3,95	-	-	4,10	-	-	4,05	-
	Heating power	a-7/8 - w30/35	(c)	kW	2,74	4,80	6,39	3,48	6,10	8,12	4,05	7,10	9,46	4,70	8,25	10,99
	COP	a-7/8 - w30/35	(c)	W/W	-	3,15	-	-	3,05	-	-	3,25	-	-	3,15	-
	Heating power	a-15/-16 - w30/35	(d)	kW	1,75	3,07	4,09	2,15	3,77	5,02	3,31	5,80	7,72	3,48	6,10	8,12
	COP	a-15/-16 - w30/35	(d)	W/W	-	2,88	-	-	2,83	-	-	2,98	-	-	3,01	-
	Heating power (fancoils)	a7/6 - w40/45	(f)	kW	2,48	4,35	5,79	3,62	6,35	8,46	4,67	8,20	10,92	5,70	10,00	13,32
	COP (fancoils)	a7/6 - w40/45	(f)	W/W	-	3,80	-	-	3,75	-	-	3,95	-	-	3,80	-
	Heating power (fancoils)	a2/1 - w40/45	(g)	kW	2,91	5,10	6,79	3,31	5,80	7,72	4,22	7,40	9,86	4,47	7,85	10,45
	COP (fancoils)	a2/1 - w40/45	(g)	W/W	-	3,00	-	-	3,00	-	-	3,25	-	-	3,20	-
	Heating power (fancoils)	a-7/8 - w40/45	(h)	kW	2,45	4,30	5,73	3,08	5,40	7,19	3,76	6,60	8,79	4,19	7,35	9,79
	COP (fancoils)	a-7/8 - w40/45	(h)	W/W	-	2,35	-	-	2,40	-	-	2,55	-	-	2,55	-
	Heating power (fancoils)	a-15/-16 - w40/45	(i)	kW	1,52	2,66	3,54	1,86	3,27	4,35	2,87	5,04	6,71	3,03	5,31	7,07
	COP (fancoils)	a-15/-16 - w40/45	(i)	W/W	-	2,02	-	-	1,98	-	-	2,32	-	-	2,34	-
	Cooling power	a35 - w23/18	(l)	kW	2,41	4,50	5,52	3,51	6,55	8,03	4,50	8,40	10,30	5,36	10,00	12,27
	EER	a35 - w23/18	(l)	W/W	-	5,55	-	-	4,90	-	-	5,05	-	-	4,80	-
	Cooling power (fancoils)	a35 - w12/7	(m)	kW	2,52	4,70	5,77	3,75	7,00	8,59	3,97	7,40	9,08	4,40	8,20	10,06
	EER (fancoils)	a35 - w12/7	(m)	W/W	-	3,45	-	-	3,00	-	-	3,38	-	-	3,30	-
	Energy efficiency class in water heating 35°C	Warmer Climate				A+++			A+++			A+++				
	SCOP	Warmer Climate				6,46			6,57			6,99				
	s (Seasonal efficiency for space heating)	Warmer Climate	ηs %			255,4%			259,8%			276,6%				
	Energy efficiency class in water heating 35°C	Average Climate				A+++			A+++			A+++				
	SCOP	Average Climate				4,85			4,95			5,22				
	s (Seasonal efficiency for space heating)	Average Climate	ηs %			191,0%			195,0%			205,6%				
	Energy efficiency class in water heating 35°C	Cold Climate				A++			A++			A++				
	SCOP	Cold Climate				4,06			4,21			4,33				
	s (Seasonal efficiency for space heating)	Cold Climate	ηs %			159,5%			165,3%			170,0%				
Energy efficiency class in water heating 55°C	Warmer Climate				A+++			A+++			A+++					
SCOP	Warmer Climate				4,15			4,21			4,51					
s (Seasonal efficiency for space heating)	Warmer Climate	ηs %			163,1%			165,4%			177,2%					
Energy efficiency class in water heating 55°C	Average Climate				A++			A++			A++					
SCOP	Average Climate				3,31			3,52			3,37					
s (Seasonal efficiency for space heating)	Average Climate	ηs %			129,5%			137,9%			131,6%					
Energy efficiency class in water heating 55°C	Cold Climate				A+			A+			A+					
SCOP	Cold Climate				2,63			2,85			2,88					
s (Seasonal efficiency for space heating)	Cold Climate	ηs %			102,1%			111,1%			112,1%					
Indoor unit sound power (reg. EU 811-2013/UNI EN 12102:2022)				dB(A)	46/40			46/40			46/42					
Indoor unit sound pressure (reg. EU 811-2013/UNI EN 12102:2022)	(n)	dB(A)			38/32			38/32			38/36					
Outdoor unit sound power (reg. EU 811-2013/UNI EN 12102:2022)		dB(A)			56/52			58/53			59/54					
Outdoor unit sound pressure (reg. EU 811-2013/UNI EN 12102:2022)	(o)	dB(A)			36/32			38/33			39/34					
System circulator absorption		W			3 - 87			3 - 87			3 - 87					
Supply voltage indoor unit		V/ph/Hz			220-240/1/50			220-240/1/50			220-240/1/50					
Maximum current absorbed indoor unit with additional resistors active		A			14,10			14,10			14,10					
Maximum power absorbed indoor unit with additional active heating elements		kW			3,22			3,22			3,22					
Additional electric heating elements		kW			1,5+1,5			1,5+1,5			1,5+1,5					
Supply voltage outdoor unit		V/ph/Hz			220-240/1/50			220-240/1/50			220-240/1/50					
Outdoor unit maximum absorbed current		A			10			11			14					
Outdoor unit maximum absorbed power		kW			2,2			2,6			3,3					
Compressor type					Twin Rotary DC Inverter			Twin Rotary DC Inverter			Twin Rotary DC Inverter					
Refrigerant inlet connection diameter		"			1/4"-5/8"			1/4"-5/8"			3/8"-5/8"					
Coolant gas	(p)				R32			R32			R32					
Global warming potential		GWP			675			675			675					
Refrigerant gas charge		kg			1,5			1,5			1,65					
Additional charge above 15m		g/m			20			20			38					
Refrigerant piping length limit	min - max	m			2 - 30			2-30			2 - 30					
Refrigerant piping length limit without minimum surface check according to IEC 60335-2-40:2018	max	(q)	m		30			30			20					
Hydraulic connections		"			1"			1"			1"					
Capacity of expansion vessel		l			8			8			8					
Load profile according to EN16147					XL			XL			XL					
DHW production energy efficiency class	Average Climate				A+			A+			A+					
η <sub>1</sub> DHW (seasonal production efficiency DHW)	Average Climate	%			125%			125%			123%					
Boiler volume		l			200			200			200					
Boiler interior surface material					DD12 glazed steel S235JR			DD12 glazed steel S235JR			DD12 glazed steel S235JR					
Heat exchanger in the boiler		m <sup>2</sup>			2,4			2,4			2,4					
Type and thickness of boiler insulation					Hard expanded polyurethane 55 mm			Hard expanded polyurethane 55 mm			Hard expanded polyurethane 55 mm					
Specific dispersion		W/K			2			2			2					
DHW expansion tank capacity		l			7			7			7					
DHW hydraulic connections		"			3/4"			3/4"			3/4"					

ONLY FOR SHERPA TOWER

(a) Heating mode, external air temperature 7°C b.s./6°C b.u., inlet/outlet water temperature 30°C/35°C  
 (b) Heating mode, external air temperature 2°C b.s./1°C b.u., inlet/outlet water temperature 30°C/35°C  
 (c) Heating mode, external air temperature -2°C b.s./-8°C b.u., inlet/outlet water temperature 30°C/35°C  
 (d) Heating mode, external air temperature -15°C b.s./-16°C b.u., inlet/outlet water temperature 30°C/35°C  
 (f) Heating mode, external air temperature 7°C b.s./6°C b.u., inlet/outlet water temperature 40°C/45°C  
 (g) Heating mode, external air temperature 2°C b.s./1°C b.u., inlet/outlet water temperature 40°C/45°C  
 (h) Heating mode, external air temperature -7°C b.s./-8°C b.u., inlet/outlet water temperature 40°C/45°C  
 (i) Heating mode, external air temperature -15°C b.s./-16°C b.u., inlet/outlet water temperature 40°C/45°C

(l) Cooling mode, external air temperature 35°C, inlet/outlet water temperature 23°C/18°C  
 (m) Cooling mode, external air temperature 35°C, inlet/outlet water temperature 12°C/7°C  
 (n) Sound pressure values measured at a distance of 1 m in a semi-anechoic chamber  
 (o) Sound pressure values measured at a distance of 4 m in free field distance  
 (p) Non-airtightly sealed equipment containing fluorinated GAS  
 (q) maximum length of the refrigeration pipes beyond which checks on the minimum surface of the installation rooms are necessary, check the technical manual  
 Energy efficiency classes refer to a range between A+++ and D.



**THREE-PHASE R32 TECHNICAL DATA**

				12T			14T			16T				
ODU Sherpa S3 E				02291			02292			02293				
IDU Sherpa S3 E				02295			02295			02295				
IDU Sherpa Tower S3 E				02301			02301			02301				
Compressor frequency				Minimum	Nominal	Maximum	Minimum	Nominal	Maximum	Minimum	Nominal	Maximum		
PUNCTUAL PERFORMANCE	Heating power	a7/6 - w30/35	(a)	kW	5,65	12,10	15,79	6,77	14,50	18,92	7,47	16,00	20,88	
	COP	a7/6 - w30/35	(a)	W/W	-	4,95	-	-	4,70	-	-	4,50	-	
	Heating power	a2/1 - w30/35	(b)	kW	4,34	9,30	12,14	5,32	11,40	14,88	6,07	13,00	16,96	
	COP	a2/1 - w30/35	(b)	W/W	-	3,95	-	-	3,65	-	-	3,50	-	
	Heating power	a-7/-8 - w30/35	(c)	kW	4,67	10,00	13,05	5,60	12,00	15,66	6,21	13,30	17,35	
	COP	a-7/-8 - w30/35	(c)	W/W	-	3,00	-	-	2,80	-	-	2,70	-	
	Heating power	a-15/-16 - w30/35	(d)	kW	3,43	7,35	9,59	3,71	7,94	10,36	4,37	9,35	12,20	
	COP	a-15/-16 - w30/35	(d)	W/W	-	2,88	-	-	2,85	-	-	2,66	-	
	Heating power (fancoils)	a7/6 - w40/45	(f)	kW	5,74	12,30	16,05	6,63	14,20	18,53	7,47	16,00	20,88	
	COP (fancoils)	a7/6 - w40/45	(f)	W/W	-	3,80	-	-	3,65	-	-	3,60	-	
	Heating power (fancoils)	a2/1 - w40/45	(g)	kW	5,00	10,70	13,96	5,46	11,70	15,27	5,98	12,80	16,70	
	COP (fancoils)	a2/1 - w40/45	(g)	W/W	-	3,00	-	-	2,86	-	-	2,85	-	
	Heating power (fancoils)	a-7/-8 - w40/45	(h)	kW	4,76	10,20	13,31	5,51	11,80	15,40	6,02	12,90	16,83	
	COP (fancoils)	a-7/-8 - w40/45	(h)	W/W	-	2,40	-	-	2,35	-	-	2,23	-	
	Heating power (fancoils)	a-15/-16 - w40/45	(i)	kW	3,10	6,63	8,65	3,34	7,16	9,34	3,93	8,41	10,97	
	COP (fancoils)	a-15/-16 - w40/45	(i)	W/W	-	2,32	-	-	2,29	-	-	2,03	-	
	Cooling power	a35 - w23/18	(l)	kW	5,60	12,00	14,29	6,31	13,00	16,08	6,96	13,50	17,75	
	EER	a35 - w23/18	(l)	W/W	-	4,00	-	-	3,70	-	-	3,61	-	
	Cooling power (fancoils)	a35 - w12/7	(m)	kW	5,42	11,60	13,82	5,93	12,70	15,13	6,54	14,00	16,67	
	EER (fancoils)	a35 - w12/7	(m)	W/W	-	2,75	-	-	2,55	-	-	2,45	-	
EFFICIENCIES	Energy efficiency class in water heating 35°C	Warmer Climate			A+++			A+++			A+++			
	SCOP	Warmer Climate			6,47			6,57			6,28			
	s (Seasonal efficiency for space heating)	Warmer Climate	ηs %		255,6%			259,8%			248,1%			
	Energy efficiency class in water heating 35°C	Average Climate			A+++			A+++			A+++			
	SCOP	Average Climate			4,81			4,72			4,62			
	s (Seasonal efficiency for space heating)	Average Climate	ηs %		189,3%			185,6%			181,6%			
	Energy efficiency class in water heating 35°C	Cold Climate			A++			A++			A++			
	SCOP	Cold Climate			4,08			4,07			4,02			
	s (Seasonal efficiency for space heating)	Cold Climate	ηs %		160,2%			159,6%			157,8%			
	Energy efficiency class in water heating 55°C	Warmer Climate			A+++			A+++			A+++			
	SCOP	Warmer Climate			4,42			4,49			4,47			
	s (Seasonal efficiency for space heating)	Warmer Climate	ηs %		173,8%			176,4%			175,9%			
	Energy efficiency class in water heating 55°C	Average Climate			A++			A++			A++			
	SCOP	Average Climate			3,45			3,47			3,41			
	s (Seasonal efficiency for space heating)	Average Climate	ηs %		135,1%			135,6%			133,2%			
	Energy efficiency class in water heating 55°C	Cold Climate			A+			A+			A+			
	SCOP	Cold Climate			3,02			3,05			3,12			
	s (Seasonal efficiency for space heating)	Cold Climate	ηs %		117,7%			118,9%			121,8%			
	NOISE LEVEL	Indoor unit sound power (reg. EU 811-2013/UNI EN 12102:2022)			dB(A)	48/46			48/46			48/46		
		Indoor unit sound pressure (reg. EU 811-2013/UNI EN 12102:2022)		(n)	dB(A)	40/38			40/38			40/38		
Outdoor unit sound power (reg. EU 811-2013/UNI EN 12102:2022)				dB(A)	64/60			65/62			68/64			
Outdoor unit sound pressure (reg. EU 811-2013/UNI EN 12102:2022)			(o)	dB(A)	44/40			45/42			48/44			
ELECTRICAL DATA	System circulator absorption			W	8 - 140			8 - 140			8 - 140			
	Supply voltage indoor unit			V/ph/Hz	220-240/1/50			220-240/1/50			220-240/1/50			
	Maximum current absorbed internal unit with additional active heating elements			A	27,20			27,20			27,20			
	Maximum power absorbed indoor unit with additional active heating elements			kW	6,22			6,22			6,22			
	Additional electric heating elements			kW	3,0+3,0			3,0+3,0			3,0+3,0			
	Supply voltage outdoor unit			V/ph/Hz	380-415/3/50			380-415/3/50			380-415/3/50			
	Outdoor unit maximum absorbed current			A	8			8			8			
	Outdoor unit maximum absorbed power			kW	5,4			5,7			5,7			
COOLING CIRCUIT	Compressor type				Twin Rotary DC Inverter			Twin Rotary DC Inverter			Twin Rotary DC Inverter			
	Refrigerant inlet connection diameter			"	3/8"-5/8"			3/8"-5/8"			3/8"-5/8"			
	Coolant gas		(p)		R32			R32			R32			
	Global warming potential			GWP	675			675			675			
	Refrigerant gas charge			kg	1,84			1,84			1,84			
	Additional charge above 15m			g/m	38			38			38			
	Refrigerant piping length limit	min - max		m	2 - 30			2 - 30			2 - 30			
	Refrigerant piping length limit without minimum surface check according to IEC 60335-2-40:2018	max	(q)	m	15			15			15			
HYDRAULIC DATA	Hydraulic connections			"	1"			1"			1"			
	Capacity of expansion vessel			l	8			8			8			
ONLY FOR SHERPA TOWER	Load profile according to EN16147				XL			XL			XL			
	DHW production energy efficiency class	Average Climate			A			A			A			
	η <sub>HW</sub> (seasonal production efficiency DHW)	Average Climate		%	95%			95%			95%			
	Boiler volume			l	200			200			200			
	Boiler interior surface material				DD12 glazed steel S235JR			DD12 glazed steel S235JR			DD12 glazed steel S235JR			
	Heat exchanger in the boiler			m <sup>2</sup>	2,4			2,4			2,4			
	Type and thickness of boiler insulation				Hard expanded polyurethane 55 mm			Hard expanded polyurethane 55 mm			Hard expanded polyurethane 55 mm			
	Specific dispersion			W/K	2			2			2			
	DHW expansion tank capacity			l	7			7			7			
	DHW hydraulic connections			"	3/4"			3/4"			3/4"			

(a) Heating mode, external air temperature 7°C b.s./6°C b.u., inlet/outlet water temperature 30°C/35°C  
 (b) Heating mode, external air temperature 2°C b.s./1°C b.u., inlet/outlet water temperature 30°C/35°C  
 (c) Heating mode, external air temperature -7°C b.s./-8°C b.u., inlet/outlet water temperature 30°C/35°C  
 (d) Heating mode, external air temperature -15°C b.s./-16°C b.u., inlet/outlet water temperature 30°C/35°C  
 (f) Heating mode, external air temperature 7°C b.s./6°C b.u., inlet/outlet water temperature 40°C/45°C  
 (g) Heating mode, external air temperature 2°C b.s./1°C b.u., inlet/outlet water temperature 40°C/45°C  
 (h) Heating mode, external air temperature -7°C b.s./-8°C b.u., inlet/outlet water temperature 40°C/45°C  
 (i) Heating mode, external air temperature -15°C b.s./-16°C b.u., inlet/outlet water temperature 40°C/45°C

(l) Cooling mode, external air temperature 35°C, inlet/outlet water temperature 23°C/18°C  
 (m) Cooling mode, external air temperature 35°C, inlet/outlet water temperature 12°C/7°C  
 (n) Sound pressure values measured at a distance of 1 m in a semi-anechoic chamber  
 (o) Sound pressure values measured at a distance of 4 m in free field distance  
 (p) Non-airtightly sealed equipment containing fluorinated GAS  
 (q) maximum length of the refrigeration pipes beyond which checks on the minimum surface of the installation rooms are necessary, check the technical manual  
 Energy efficiency classes refer to a range between A+++ and D.

ACCESSORIES

			suspended	tower
CONTROLS	B0971	Thermostatic mixing valve kit for DHW	—	○
	B0972	Expansion tank kit for DHW	—	○
	B0918	Kit Sherpa Flex Box AS	≤10	—
	B0961	Kit Sherpa Flex Box AS RAL 9016	≤10	—
	B1120	Sherpa Flex Box adapter kit	≤10	—
	B0916	Kit 3-way valve for DHW	○	●
	B0917	Solar thermal probe kit	○	—
	B0623	Outdoor air temperature probe kit	○	○
	B0624	Kit DHW storage tank sensor	○	●
	B0931	Remote control display kit 10 m	○	○
STORAGE TANKS / PUFFER	O1804	HE 200 L storage tank	○	—
	O1805	HE 300 L storage tank	○	—
	O1806	HES 300 L solar storage tank	○	—
	O1807	Hybride boiler HY 300 L	○	—
	O1808	HYS 300 L solar hybrid storage tank	○	—
	B0618	Resistance for boiler 2 kW	○	—
	B0666	Resistance for boiler 3 kW	○	—
	B0617	Resistance flange kit	○	—
	O1199	Thermal accumulation 50 L	○	○
	O1200	Thermal accumulation 100 L	○	○

○ Optional accessory | ● Standard accessory | — Accessory not compatible

Accessory description on page 54

BMS

HEAT PUMPS

FAN COIL UNITS

HRV

UNICO

MONO AND MULTISPLIT

PORTABLES

DEHUMIDIFIERS

Please note that optional accessories are available for purchase with all models of the heat pump. When compatibility is only possible with certain sizes, the information is shown in the table. Standard accessories are already included in the heat pump code.

# Heat Pump Controls

## In-depth analysis of the different control possibilities

The Sherpa and Sherpa Aquadue heat pumps, in the wall-mounted or tower versions, can be configured using an easy and intuitive touchscreen interface, accessible both from the machine and from the optional control panel.

### STANDARD | Touchscreen on the machine



#### MODES

To deactivate the system (stand-by), set the cooling/heating switch or take advantage of the special modes, which ensure maximum energy saving (eco), minimum night noise (night) or DHW production using all the power (turbo).



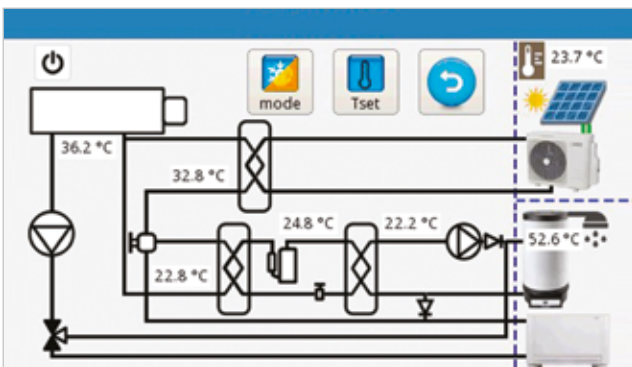
#### SET POINT

To change the different set points with a simple touch (if the set-point mode with climate curve is not enabled).



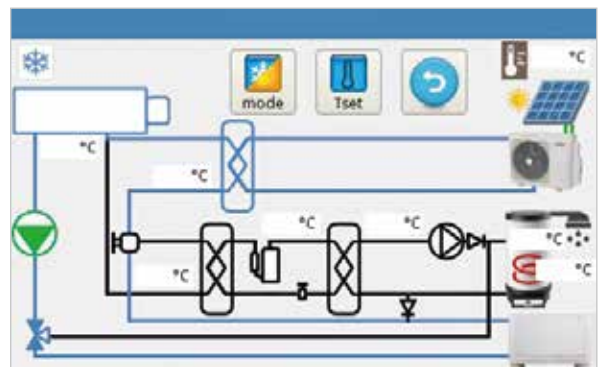
#### TIMERS

To access the programming available for climate comfort and DHW production, including night and holiday modes.



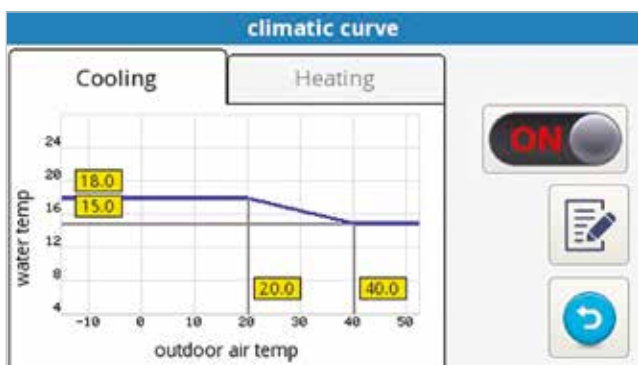
#### PHOTOVOLTAIC CONTACT

To activate a set point delta on the DHW, the heating and cooling, accumulating thermal energy when there is an overproduction of electricity from the photovoltaic system.



#### SOLAR THERMAL PROBE

To produce DHW with solar thermal only, inhibiting the heat pump in certain conditions, if the delivery temperature of the solar panels is above a certain value or if the difference between the delivery temperature of the panels and the boiler set point one is higher than the set value.



**CLIMATIC CURVES**

To optimise energy saving, adapting the water temperature to the outside air temperature and therefore to the thermal load.

From the standard touchscreen control it is also possible to manage:

**LOW TEMPERATURE ACTIVATION**

To activate the heaters and allow heating of the screed in the case of a radiant system.

**COMMUNICATION PROTOCOL**

For combination with home automation systems, choosing between the ModBus RTU or ASCII protocol.

**OPTIONAL | Remote control panel (code B0931)**

In cases where control of the heat pump is possible or preferable in an environment other than the one where the internal unit is installed, the control can easily be accessed remotely. Through the special kit for remote control panel, the touchscreen interface is thus accessible up to 10 metres away (cable length 10 metres).



# Kit Sherpa Flex Box

## Freestanding technical cabinet for Sherpa and Sherpa Aquadue split heat pumps, hanging version



Sherpa Flex Box AS kit is the technical cabinet that makes it possible to create a compact system in heat pump with high installation flexibility. The heat pump and the class C storage tanks make it possible to obtain a very high energy efficiency of the system, even in outdoor installation.

B0918	Kit Sherpa Flex Box AS
B0961	Kit Sherpa Flex Box AS RAL 9016
B0931	Remote control display kit 10 m
B1120	Sherpa Flex Box adapter kit

### DOMESTIC WATER STORAGE TANK 150 LT - STAINLESS STEEL

High thermal insulation 50 mm in EPS with graphite to minimise dispersions (class C)



### TECHNICAL ACCUMULATION 28 LT - STAINLESS STEEL

(standard on return from the system)  
To ensure efficient and safe operation of the heat pump (class C)



### FREESTANDING TECHNICAL CABINET

For maximum installation flexibility with a single product. In galvanised steel.



## FEATURES

- Dimensions (W x D x H): 998 x 415 x 2280 mm
- System connections from below or from the back
- Condensation trap to prevent any dripping of the condensation on the bottom of the cabinet
- Possible combination with display remote control kit (B0931)
- The distribution and heat emission network downstream of Sherpa Flex Box AS must ensure the circulation of the minimum flow rate of the heat pump in all operating conditions by means of 3-way valves or by-pass systems, in addition, for heat pump sizes 8 and 10, the water content of the distribution network and of the fan coil units must be at least 10 litres (refer to the product installation manuals).

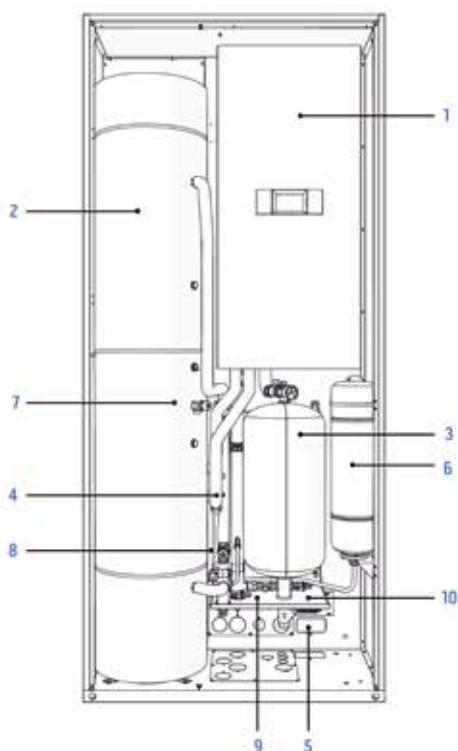
## TYPES OF INSTALLATION

The technical cabinet must be installed in an area protected from the weather according to installation manual

- A.** Outdoor support
- B.** Outdoor semi-recessed
- C.** Indoor support
- D.** Indoor semi-recessed

On request, code B0961 can be supplied with RAL 9016 powder-coating, (front/back for upper, lower side and front panels, no backs).



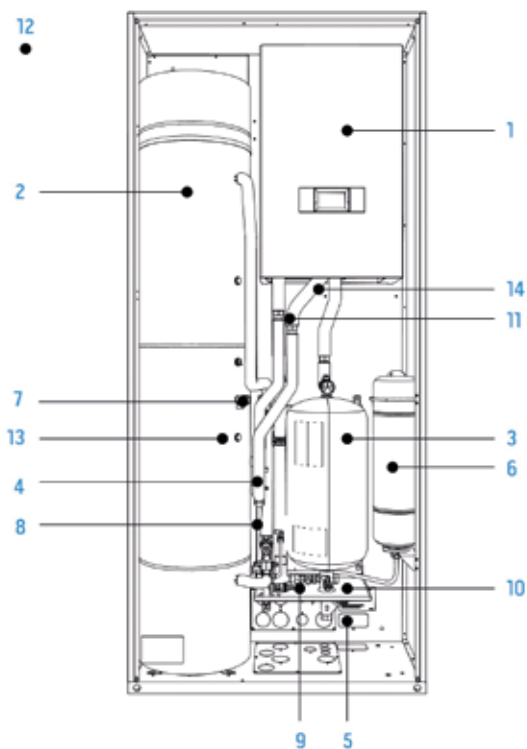


### COMPATIBILITY SHERPA AQUADUE

- Sherpa Aquadue S2 E multi-purpose heat pumps, wall-mounted version, in sizes 4 and 6 (UI Sherpa Aquadue S2 E Small 02042).
- Sherpa Aquadue S3 E multi-purpose heat pumps, wall-mounted version, in sizes 4, 6, 8 and 10 (UI Sherpa Aquadue S3 E Small 02296).

Components included in codes B0918/B0961

1. UI Sherpa Aquadue S2/S3 E Small | **Code 02042/02296**
2. Domestic hot water cylinder 150 liters -INOX AISI 316L
3. Technical storage tank plant 28 liters -INOX AISI 316L
4. Kettle return filter
5. Plant return filter
6. Sanitary expansion tank 12 liters
7. Sanitary safety valve 6 bar
8. Sanitary thermostatic mixing valve
9. Micrometric holder for By-Pass
10. Condensation drip pan



### SHERPA COMPATIBILITY

- Sherpa S2 E traditional heat pumps, wall-mounted version, in sizes 4 and 6 (UI Sherpa S2 E Small 02040).
- Sherpa S3 E traditional heat pumps, wall-mounted version, in sizes 4, 6, 8 and 10 (UI Sherpa S3 E Small 02294).

Components included in codes B0918/B0961

1. UI Sherpa S2/S3 E Small (**02040/02294**)
2. Domestic hot water cylinder 150 liters -INOX AISI 316L
3. Technical storage tank plant 28 liters -INOX AISI 316L
4. Kettle return filter
5. Plant return filter
6. Sanitary expansion tank 12 liters
7. Sanitary safety valve 6 bar
8. Sanitary thermostatic mixing valve
9. Micrometric holder for By-Pass
10. Condensation drip pan
11. 3-way valve kit for DHW | **Code B0916**
12. Outdoor air temperature probe kit | **Code B0623**
13. DHW cylinder sensor kit | **Code B0624**
14. Flex Box Adapter Kit | **Code B1120**



# SHERPA COLD

## Split heat pump for cold climates



### HIGH PERFORMANCE ALSO AT LOW TEMPERATURE

The defrosting cycles of the machine are optimised to guarantee high performance even with low external temperatures.



### WIDE OPERATING LIMITS

Sherpa Cold can work up to outdoor air temperatures of -32°C and + 48°C



### INVERTER SCROLL COMPRESSORS WITH STEAM INJECTION

Technology that improves performance in low temperature applications.



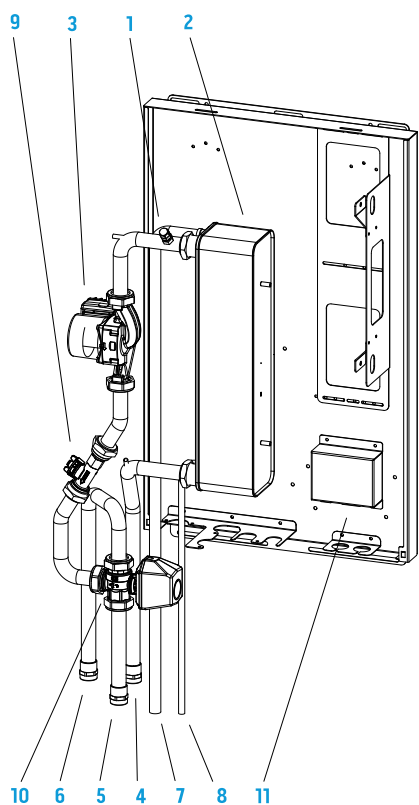
## FEATURES

- **Air-to-water inverter heat pump**
- **energy efficiency class** in heating medium climate: up to A+++ (35°C) and A++ (55°C) on a range between A+++ and D.
- **Energy efficiency class** in heating cold climate: up to A+ (35°C) and A+ (55°C) on a range between A+++ and D.
- **Available powers:** 2 powers with single-phase R410A refrigerant (10-15 kW) and 1 powers with three-phase R410A refrigerant (18 kW)
- **Provides DHW** with temperature up to 55° C.
- Inverter steam-injected Scroll **compressor**
- **Expansion valve:** electronic
- **Refrigerant circuit** with economizer
- Color touchscreen **remotecontrol panel**
- **Maintenance** of machine **output** even in cold outside temperatures
- **Optimization** of machine **defrost cycles** and excellent performance even at cold outside temperatures
- **Operating limits:** down to -32°C, +48°C (see technical manuals for details)
- **Refrigerant gas** R410A\*
- **External air probe** integrated in the machine
- **Devices supplied with the machine:**
  - metal frame for outdoor installation touch panel
  - pair of 250 mm high metal feet with vibration dampers
  - rear metal mesh for battery protection
  - integration kit - relay for activation of boiler or other electrical resistance
  - domestic hot water management kit - k1 relay, 1"1/4" 3-way valve, b3 probe
  - heating resistor condensation drain pipe
  - fan grille for noise reduction 800mm diameter (sizes 15,15T,18T)

\* Equipment not hermetically sealed containing fluorinated gases with an equivalent GWP of 2088.



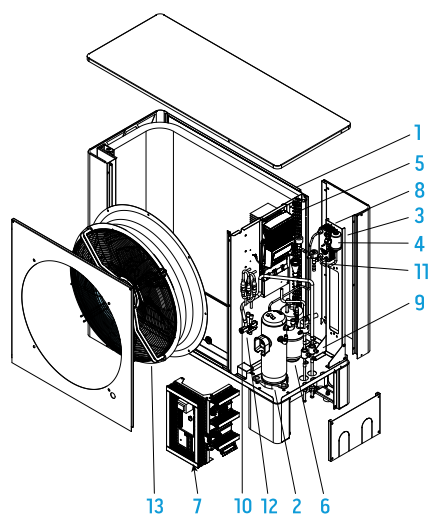
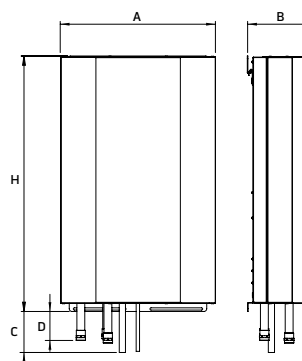
**LAYOUT, DIMENSIONS, WEIGHT**



- 1. Vent valve
- 2. Plate heat exchanger
- 3. Circulation pump
- 4. Water inlet hose
- 5. Water outlet hose (system)
- 6. Water outlet hose (DHW)
- 7. Gas passage hose
- 8. Liquid passage hose
- 9. Flow meter
- 10. 3-way valve
- 11. Electrical panel

**Indoor Units**

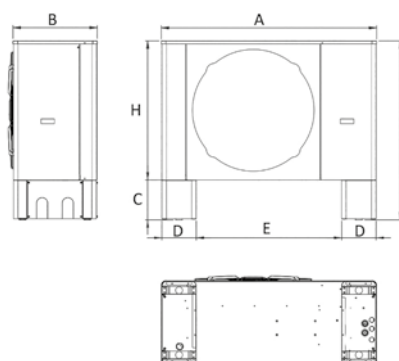
		10	15	18 T
A	mm	550	550	550
B	mm	228	228	228
C	mm	147	147	147
D	mm	100	100	100
H	mm	907	907	907
Weight	kg	50	50	50



- 1. Evaporator
- 2. Compressor
- 3. Filter
- 4. Liquid indicator
- 5. Inverter
- 6. Liquid tank
- 7. Electrical panel
- 8. Economiser
- 9. Ball valve
- 10. Check valve
- 11. Electronic expansion valve
- 12. 4-way valve
- 13. Fan

**Outdoor units**

		10	15	18 T
A	mm	1406	1591	1591
B	mm	550	546	546
C	mm	259	259	259
D	mm	225	225	225
E	mm	949	1134	1134
F	mm	1167	1271	1271
H	mm	908	1012	1012
Weight	kg	160	200	200



TECHNICAL DATA				10			15				
ODU Sherpa Cold				02269			02273				
IDU Sherpa Cold				02276			02277				
Compressor frequency				Minimum	Nominal	Maximum	Minimum	Nominal	Maximum		
PUNCTUAL PERFORMANCE	Heating power	a7/6 - w30/35	(a)	kW	3.90	9.60	-	5.51	14.40	-	
	COP	a7/6 - w30/35	(a)	W/W	-	4.27	-	-	4.68	-	
	Heating power	a2/1 - w30/35	(b)	kW	4.80	9.60	-	6.82	14.40	-	
	COP	a2/1 - w30/35	(b)	W/W	-	3.83	-	-	3.85	-	
	Heating power	a-7/-8 - w30/35	(c)	kW	4.17	9.60	-	6.26	14.40	-	
	COP	a-7/-8 - w30/35	(c)	W/W	-	2.98	-	-	2.98	-	
	Heating power	a-15/-16 - w30/35	(d)	kW	3.72	8.93	-	5.52	13.25	-	
	COP	a-15/-16 - w30/35	(d)	W/W	-	2.26	-	-	2.57	-	
	Heating power	a-20/-19 - w30/35	(r)	kW	3.28	7.87	-	4.88	11.71	-	
	COP	a-20/-19 - w30/35	(r)	W/W	-	2.09	-	-	2.43	-	
	Heating power (fancoils)	a7/6 - w40/45	(f)	kW	3.90	9.60	-	5.51	14.40	-	
	COP (fancoils)	a7/6 - w40/45	(f)	W/W	-	3.33	-	-	3.53	-	
	Heating power (fancoils)	a2/1 - w40/45	(g)	kW	4.80	9.60	-	6.82	14.40	-	
	COP (fancoils)	a2/1 - w40/45	(g)	W/W	-	2.82	-	-	3.08	-	
	Heating power (fancoils)	a-7/-8 - w40/45	(h)	kW	4.17	9.60	-	6.26	14.40	-	
	COP (fancoils)	a-7/-8 - w40/45	(h)	W/W	-	2.33	-	-	2.45	-	
	Heating power (fancoils)	a-15/-16 - w40/45	(i)	kW	3.68	8.83	-	5.36	12.86	-	
	COP (fancoils)	a-15/-16 - w40/45	(i)	W/W	-	1.90	-	-	2.03	-	
	Heating power (fancoils)	a-20/-19 - w40/45	(s)	W/W	3.17	7.61	-	4.80	11.52	-	
	COP (fancoils)	a-20/-19 - w40/45	(s)	W/W	-	1.76	-	-	1.92	-	
	Cooling power	a35 - w23/18	(l)	kW	3.53	8.40	-	4.08	11.31	-	
	EER	a35 - w23/18	(l)	W/W	-	4.26	-	-	4.45	-	
	Cooling power (fancoils)	a35 - w12/7	(m)	kW	2.71	6.44	-	3.13	8.67	-	
	EER (fancoils)	a35 - w12/7	(m)	W/W	-	3.31	-	-	3.45	-	
	EFFICIENCIES	Energy efficiency class in water heating 35°C	Warmer Climate				A+++		A+++		
		SCOP	Warmer Climate				4.62		4.79		
		s (Seasonal efficiency for space heating)	Warmer Climate	ηs %			181.8		188.6		
		Energy efficiency class in water heating 35°C	Average Climate				A+++		A+++		
		SCOP	Average Climate				4.50		4.60		
		s (Seasonal efficiency for space heating)	Average Climate	ηs %			177.3		181.1		
		Energy efficiency class in water heating 35°C	Cold Climate				A+		A+		
		SCOP	Cold Climate				3.60		3.71		
s (Seasonal efficiency for space heating)		Cold Climate	ηs %			141.1		145.3			
Energy efficiency class in water heating 55°C		Warmer Climate				A++		A++			
SCOP		Warmer Climate				3.27		3.45			
s (Seasonal efficiency for space heating)		Warmer Climate	ηs %			127.8		135.1			
Energy efficiency class in water heating 55°C		Average Climate				A++		A++			
SCOP		Average Climate				3.23		3.37			
s (Seasonal efficiency for space heating)		Average Climate	ηs %			126.3		131.9			
Energy efficiency class in water heating 55°C		Cold Climate				A+		A+			
SCOP		Cold Climate				2.68		2.76			
s (Seasonal efficiency for space heating)		Cold Climate	ηs %			104.2		107.3			
NOISE LEVEL		Indoor unit sound power			dB(A)		36		36		
		Indoor unit sound pressure		(n)	dB(A)		30		30		
		Outdoor unit sound power (nominal)			dB(A)		53.4		52.9		
		Outdoor unit sound pressure (nominal)		(o)	dB(A)		33.5		33		
		System circulator absorption			W		75		75		
		ELECTRICAL DATA	Supply voltage indoor unit			V/ph/Hz		230/1/50		230/1/50	
Maximum absorbed current of the internal unit				A		0.33		0.33			
Maximum power consumption of the internal unit				kW		0.75		0.75			
Additional electric heating elements				kW		-		-			
Supply voltage outdoor unit				V/ph/Hz		230/1/50		230/1/50			
Outdoor unit maximum absorbed current				A		24.6		38.7			
Outdoor unit maximum absorbed power			kW		5.1		8.0				
COOLING CIRCUIT	Compressor type					Scroll with injection		Scroll with injection			
	Refrigerant inlet connection diameter			"		See installation manual		See installation manual			
	Coolant gas		(p)			R410A		R410A			
	Global warming potential			GWP		2088		2088			
	Refrigerant gas charge			kg		5		6.5			
	Refrigerant piping length limit without minimum surface verification		(q)			-		-			
HYDRAULIC DATA	Hydraulic connections			"		1"		1"			
	Capacity of expansion vessel			l		-		-			

(a) Heating mode, external air temperature 7°C b.s./6°C b.u., inlet/outlet water temperature 30°C/35°C  
(b) Heating mode, external air temperature 2°C b.s./1°C b.u., inlet/outlet water temperature 30°C/35°C  
(c) Heating mode, external air temperature -7°C b.s./-8°C b.u., inlet/outlet water temperature 30°C/35°C  
(d) Heating mode, external air temperature -15°C b.s./-16°C b.u., inlet/outlet water temperature 30°C/35°C  
(e) Heating mode, external air temperature 7°C b.s./6°C b.u., inlet/outlet water temperature 40°C/45°C  
(f) Heating mode, external air temperature 2°C b.s./1°C b.u., inlet/outlet water temperature 40°C/45°C  
(g) Heating mode, external air temperature -7°C b.s./-8°C b.u., inlet/outlet water temperature 40°C/45°C  
(h) Heating mode, external air temperature -15°C b.s./-16°C b.u., inlet/outlet water temperature 40°C/45°C  
(i) Heating mode, external air temperature -7°C b.s./-8°C b.u., inlet/outlet water temperature 40°C/45°C  
(j) Heating mode, external air temperature -15°C b.s./-16°C b.u., inlet/outlet water temperature 40°C/45°C  
(k) Cooling mode, external air temperature 35°C, inlet/outlet water temperature 23°C/18°C

(m) Cooling mode, external air temperature 35°C, inlet/outlet water temperature 12°C/7°C  
(n) Sound pressure values measured at a distance of 1 m in a semi-anechoic chamber  
(o) Sound pressure values measured at a distance of 4 m in free field distance  
(p) Non-airtightly sealed equipment containing fluorinated GAS  
(q) maximum length of the refrigeration pipes beyond which checks are necessary on the minimum surface of the installation rooms, check the technical manual  
(r) Heating mode, external air temperature -20°C b.s./-19°C b.u., inlet/outlet water temperature 30°C/35°C  
(s) Heating mode, external air temperature -20°C b.s./-19°C b.u., inlet/outlet water temperature 40°C/45°C  
Energy efficiency classes refer to a range between A+++ and D.

TECHNICAL DATA				18 T				
ODU Sherpa Cold				02275				
IDU Sherpa Cold				02278				
Compressor frequency				Minimum	Nominal	Maximum		
PUNCTUAL PERFORMANCE	Heating power	a7/6 - w30/35	(a)	kW	6.24	17.28	-	
	COP	a7/6 - w30/35	(a)	W/W	-	4.34	-	
	Heating power	a2/1 - w30/35	(b)	kW	7.78	17.28	-	
	COP	a2/1 - w30/35	(b)	W/W	-	3.37	-	
	Heating power	a-7/8 - w30/35	(c)	kW	7.20	17.28	-	
	COP	a-7/8 - w30/35	(c)	W/W	-	2.61	-	
	Heating power	a-15/16 - w30/35	(d)	kW	6.40	15.36	-	
	COP	a-15/16 - w30/35	(d)	W/W	-	2.23	-	
	Heating power	a-20/19 - w30/35	(r)		5.60	13.44	-	
	COP	a-20/19 - w30/35	(r)	W/W	-	2.03	-	
	Heating power (fancoils)	a7/6 - w40/45	(f)	kW	6.24	17.28	-	
	COP (fancoils)	a7/6 - w40/45	(f)	W/W	-	3.05	-	
	Heating power (fancoils)	a2/1 - w40/45	(g)	kW	7.78	17.28	-	
	COP (fancoils)	a2/1 - w40/45	(g)	W/W	-	2.80	-	
	Heating power (fancoils)	a-7/8 - w40/45	(h)	kW	7.20	17.28	-	
	COP (fancoils)	a-7/8 - w40/45	(h)	W/W	-	2.20	-	
	Heating power (fancoils)	a-15/16 - w40/45	(i)	kW	5.80	13.92	-	
	COP (fancoils)	a-15/16 - w40/45	(i)	W/W	-	1.90	-	
	Heating power (fancoils)	a-20/19 - w40/45	(s)	W/W	5.20	12.48	-	
	COP (fancoils)	a-20/19 - w40/45	(s)	W/W	-	1.79	-	
	Cooling power	a35 - w23/18	(l)	kW	6.62	15.72	-	
	EER	a35 - w23/18	(l)	W/W	-	4.11	-	
	Cooling power (fancoils)	a35 - w12/7	(m)	kW	5.08	12.34	-	
	EER (fancoils)	a35 - w12/7	(m)	W/W	-	2.99	-	
	EFFICIENCIES	Energy efficiency class in water heating 35°C	Warmer Climate				A+++	
		SCOP	Warmer Climate				4.66	
		s (Seasonal efficiency for space heating)	Warmer Climate	ηs %			183.7	
		Energy efficiency class in water heating 35°C	Average Climate				A+++	
		SCOP	Average Climate				4.45	
		s (Seasonal efficiency for space heating)	Average Climate	ηs %			175	
		Energy efficiency class in water heating 35°C	Cold Climate				A+	
		SCOP	Cold Climate				3.44	
s (Seasonal efficiency for space heating)		Cold Climate	ηs %			134.6		
Energy efficiency class in water heating 55°C		Warmer Climate				A+		
SCOP		Warmer Climate				3.19		
s (Seasonal efficiency for space heating)		Warmer Climate	ηs %			124.7		
Energy efficiency class in water heating 55°C		Average Climate				A+		
SCOP		Average Climate				3.13		
s (Seasonal efficiency for space heating)		Average Climate	ηs %			122.2		
Energy efficiency class in water heating 55°C		Cold Climate				A		
SCOP		Cold Climate				2.51		
s (Seasonal efficiency for space heating)		Cold Climate	ηs %			97.4		
NOISE LEVEL		Indoor unit sound power					dB(A)	37
		Indoor unit sound pressure		(n)			dB(A)	31
		Outdoor unit sound power (nominal)					dB(A)	54
		Outdoor unit sound pressure (nominal)		(o)			dB(A)	34
		System circulator absorption					W	85
		ELECTRICAL DATA	Supply voltage indoor unit			V/ph/Hz		
	Maximum absorbed current of the internal unit with active heating elements				A			0.33
	Internal unit maximum power consumption with active heating elements				kW			0.75
	Additional electric heating elements				kW			-
	Supply voltage outdoor unit				V/ph/Hz			400/3/50
Outdoor unit maximum absorbed current				A			13.6	
Outdoor unit maximum absorbed power				kW			8.5	
COOLING CIRCUIT	Compressor type							Scroll with injection
	Refrigerant inlet connection diameter			"			See installation manual	
	Coolant gas		(p)				R410A	
	Global warming potential			GWP			2088	
	Refrigerant gas charge			kg			6.5	
	Refrigerant piping length limit without minimum surface verification		(q)				-	
	Hydraulic connections			"			1"	
HYDRAULIC DATA	Capacity of expansion vessel		(l)				-	

## ACCESSORIES

ACCESSORIES	DESCRIPTION	STATUS	
B0900	Cable for Modbus connection touch panel 100m	▼	
B0899	Metallic frame for touch panel external installation	○	
B0906	Aesthetic fan cover front grille	10	
B0907	Aesthetic fan cover front grille	≥ 15	
B0915	Brass Y filter	○	
STORAGE TANKS / PUFFER	01804	HE 200 L storage tank	10
	01805	HE 300 L storage tank	○
	01806	HES 300 L solar storage tank	≤ 15
	01200	Thermal accumulation 100 L	10
	B0618	Resistance for boiler 2 kW	○
	B0666	Resistance for boiler 3 kW	○
	B0617	Resistance flange kit	○

● Standard accessory | ○ Optional accessory | ▼ Required accessory | – Accessory not compatible

Accessory description on page 54

Please note that optional accessories are available for purchase with all models of the heat pump. When compatibility is only possible with certain sizes, the information is shown in the table. Standard accessories are already included in the heat pump code.

# SHERPA MONOBLOC

S2



## Monobloc heat pump



### COMPACT TECHNOLOGY

Compact unit and reduced dimensions. For all power sizes the machine is equipped with a single fan unit.



### DOMESTIC HOT WATER UP TO 60°C

Sherpa supplies Domestic Hot Water with temperatures up to 60°C.



### INTEGRATED WI-FI

By downloading the Comfort Home app you can manage all its features from your smartphone, even when away from home.



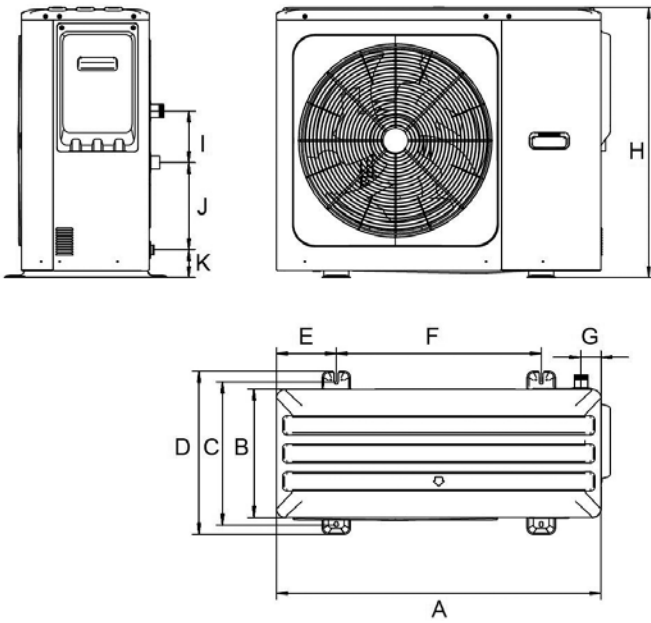
## FEATURES

- **Air-water heat pump inverter with R32 refrigerant**
- **Energy efficiency class** in heating moderate climate: A+++ (35°C) e A++ (55°C) on a range between A+++ and D.
- **Power available:** 9 versions with R32 refrigerant single-phase (6-8-10-12-14-16 kW) three-phase power supplies (12-14-16 kW)
- **DHW production:** up to 60°C
- **Compressor:** twin rotary DC.
- **Expansion valve:** electronic.
- **Fan** with brushless DC motor.
- **Standard supply remote touchscreen control panel** (connection cable up to 50 m not included). Integrated Wi-Fi module for controlling the machine via smartphone and table, with relevant app (Comfort Home)
- **Refrigerant gas:** R32\*
- **Operating limits:** up to -25°C, +43°C (see technical manuals for details)
- **External air probe** integrated in the machine.
- **Domestic Hot Water storage tank probe:** standard supply with the machine.
- **Cascade management:** up to 6 units can be connected (of the same size), 1 Master and 5 Slaves (only the Master unit can produce domestic hot water).
- **Smart Grid:** the heat pump is prepared to dialogue with a smart electric grid and is SG Ready certified, according to the requirements of the German BWP Institute.

\* Equipment hermetically sealed containing fluorinated gases with an equivalent GWP of 675 (R32)



**LAYOUT, DIMENSIONS, WEIGHT**



	6	8	10	12	14	16	12T	14T	16T
	MONDFAN								
A	mm	1040	1040	1040	1040	1040	1040	1040	1040
B	mm	410	410	410	410	410	410	410	410
C	mm	458	458	458	458	458	458	458	458
D	mm	523	523	523	523	523	523	523	523
E	mm	191	191	191	191	191	191	191	191
F	mm	656	656	656	656	656	656	656	656
G	mm	64	64	64	64	64	64	64	64
H	mm	865	865	865	865	865	865	865	865
I	mm	165	165	165	165	165	165	165	165
J	mm	279	279	279	279	279	279	279	279
K	mm	89	89	89	89	89	89	89	89
Weight	kg	87	87	87	106	106	106	120	120

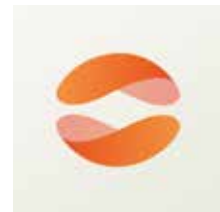
**CASCADING**

Cascading of up to 6 units. System power up to 96 kW.



**REMOTE CONTROL VIA APP COMFORT HOME**

The heat pump can be controlled remotely with Tablet and Smartphone thanks to the standard Wi-Fi module (to be interfaced with a wireless router connected to the Internet). The "Comfort Home" App can be downloaded free of charge from the Google and Apple Stores, which allows control of the machine via the Cloud.



TECHNICAL DATA				6		8		10		12		14		16	
				02303		02304		02305		02306		02307		02308	
Sherpa Monobloc S2 E				Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Compressor frequency															
Heating power	a7/6 - w30/35	(a)	kW	- 6,5	8,47	- 8,4	9,56	- 10	11,16	- 12,2	13,42	- 14,1	15,27	- 16	18,23
COP	a7/6 - w30/35	(a)	W/W	- 5,3	-	- 5,05	-	- 4,7	-	- 4,9	-	- 4,7	-	- 4,5	-
Heating power	a2/1 - w30/35	(b)	kW	- 5,6	7,64	- 7,1	8,52	- 8,2	9,94	- 12,3	12,3	- 13	13,56	- 14,5	14,76
COP	a2/1 - w30/35	(b)	W/W	- 4,2	-	- 3,95	-	- 3,8	-	- 3,6	-	- 3,5	-	- 3,25	-
Heating power	a-7/-8 - w30/35	(c)	kW	- 6,2	6,67	- 7,1	7,65	- 8	8,4	- 11,6	12,1	- 12,5	13,2	- 13,5	14,1
COP	a-7/-8 - w30/35	(c)	W/W	- 3,2	-	- 3,15	-	- 3	-	- 2,85	-	- 2,8	-	- 2,7	-
Heating power	a-15/-16 - w30/35	(d)	kW	- 5,59	5,59	- 6,07	6,07	- 6,48	6,48	- 10,35	10,35	- 11,22	11,22	- 11,82	11,82
COP	a-15/-16 - w30/35	(d)	W/W	- 2,58	-	- 2,54	-	- 2,5	-	- 2,39	-	- 2,35	-	- 2,22	-
Heating power (fancoils)	a7/6 - w40/45	(f)	kW	- 6,6	8,14	- 8,5	9,28	- 10,2	10,87	- 12,5	13,14	- 14,5	14,87	- 16,2	18,07
COP (fancoils)	a7/6 - w40/45	(f)	W/W	- 4	-	- 3,8	-	- 3,65	-	- 3,7	-	- 3,55	-	- 3,45	-
Heating power (fancoils)	a2/1 - w40/45	(g)	kW	- 6,5	7,03	- 7,5	8,22	- 8,5	9,42	- 12	12	- 13	13,28	- 14,3	14,74
COP (fancoils)	a2/1 - w40/45	(g)	W/W	- 3,15	-	- 3,05	-	- 2,95	-	- 2,9	-	- 2,8	-	- 2,7	-
Heating power (fancoils)	a-7/-8 - w40/45	(h)	kW	- 6,1	6,47	- 6,8	7,43	- 7,4	8,16	- 11,5	11,5	- 12,5	12,5	- 13,5	13,5
COP (fancoils)	a-7/-8 - w40/45	(h)	W/W	- 2,6	-	- 2,5	-	- 2,4	-	- 2,4	-	- 2,3	-	- 2,25	-
Heating power (fancoils)	a-15/-16 - w40/45	(i)	kW	- 5,45	5,45	- 5,92	5,92	- 6,33	6,33	- 9,62	9,62	- 10,3	10,3	- 10,96	10,96
COP (fancoils)	a-15/-16 - w40/45	(i)	W/W	- 2,23	-	- 2,2	-	- 2,14	-	- 2,11	-	- 2,07	-	- 1,98	-
Cooling power	a35 - w23/18	(l)	kW	- 6,5	9,27	- 8,3	10,31	- 10	10,31	- 12,2	16,11	- 13,9	17,13	- 15,4	17,13
EER	a35 - w23/18	(l)	W/W	- 5,1	-	- 4,85	-	- 4,3	-	- 4,6	-	- 4,4	-	- 4,2	-
Cooling power (fancoils)	a35 - w12/7	(m)	kW	- 5,5	6,84	- 7,4	8,66	- 9	9	- 11,6	13,44	- 13,4	15,48	- 14	16,01
EER (fancoils)	a35 - w12/7	(m)	W/W	- 3,25	-	- 3,15	-	- 2,9	-	- 3,1	-	- 2,93	-	- 2,9	-
Energy efficiency class in water heating 35°C	Warmer Climate			A+++		A+++		A+++		A+++		A+++		A+++	
SCOP	Warmer Climate			6,78		6,94		7,05		6,63		6,59		6,46	
s (Seasonal efficiency for space heating)	Warmer Climate		ηs %	268,2		274,7		279,1		262,3		260,5		255,4	
Energy efficiency class in water heating 35°C	Average Climate			A+++		A+++		A+++		A+++		A+++		A+++	
SCOP	Average Climate			5,12		5,17		5,12		5,08		4,89		4,84	
s (Seasonal efficiency for space heating)	Average Climate		ηs %	201,8		204		201,9		200,1		192,5		190,5	
Energy efficiency class in water heating 35°C	Cold Climate			A+++		A+++		A+++		A+++		A+++		A+++	
SCOP	Cold Climate			4,41		4,44		4,44		4,3		4,36		4,35	
s (Seasonal efficiency for space heating)	Cold Climate		ηs %	173,4		174,6		174,6		168,8		171,3		170,9	
Energy efficiency class in water heating 55°C	Warmer Climate			A++		A++		A++		A++		A++		A++	
SCOP	Warmer Climate			4,35		4,71		4,91		4,55		4,69		4,68	
s (Seasonal efficiency for space heating)	Warmer Climate		ηs %	170,9		185,3		193,4		179		184,6		184	
Energy efficiency class in water heating 55°C	Average Climate			A++		A++		A++		A++		A++		A++	
SCOP	Average Climate			3,59		3,67		3,71		3,62		3,62		3,59	
s (Seasonal efficiency for space heating)	Average Climate		ηs %	140,7		143,6		145,5		141,6		141,8		140,6	
Energy efficiency class in water heating 55°C	Cold Climate			A++		A++		A++		A++		A++		A++	
SCOP	Cold Climate			2,9		3,02		3,14		3,23		3,24		3,18	
s (Seasonal efficiency for space heating)	Cold Climate		ηs %	113,1		117,7		122,4		126		126,6		124,3	
Indoor unit sound power				dB(A)		-		-		-		-		-	
Indoor unit sound pressure	(n)			dB(A)		-		-		-		-		-	
Outdoor unit sound power (nominal)				dB(A)		60		63		65		70		72	
Outdoor unit sound pressure (nominal)	(o)			dB(A)		48		51		53		58		58	
System circulator absorption			W	4-95		4-95		4-95		4-95		4-95		4-95	
Supply voltage indoor unit			V/ph/Hz	-		-		-		-		-		-	
Maximum absorbed current of the internal unit with active heating elements			A	-		-		-		-		-		-	
Internal unit maximum power consumption with active heating elements			kW	-		-		-		-		-		-	
Additional electric heating elements			kW	-		-		-		-		-		-	
Supply voltage outdoor unit			V/ph/Hz	220-240/1/50		220-240/1/50		220-240/1/50		220-240/1/50		220-240/1/50		220-240/1/50	
Outdoor unit maximum absorbed current			A	13		14,5		16		25		26,5		28	
Outdoor unit maximum absorbed power			kW	3,2		3,5		3,8		5,8		6,2		6,6	
Compressor type				TWIN ROTARY		TWIN ROTARY		TWIN ROTARY		TWIN ROTARY		TWIN ROTARY		TWIN ROTARY	
Refrigerant inlet connection diameter			"	-		-		-		-		-		-	
Coolant gas	(p)			R32		R32		R32		R32		R32		R32	
Global warming potential			GWP	675		675		675		675		675		675	
Refrigerant gas charge			kg	1,25		1,25		1,25		1,8		1,8		1,8	
Refrigerant piping length limit without minimum surface check according to IEC 60335-2-40:2018	(q)			-		-		-		-		-		-	
Hydraulic connections			"	G1 BSP		G1 BSP		G1 BSP		G5/4 BSP		G5/4 BSP		G5/4 BSP	
Capacity of expansion vessel			l	5		5		5		5		5		5	

(a) Heating mode, external air temperature 7°C b.s./6°C b.u., inlet/outlet water temperature 30°C/35°C

(b) Heating mode, external air temperature 2°C b.s./1°C b.u., inlet/outlet water temperature 30°C/35°C

(c) Heating mode, external air temperature -7°C b.s./-8°C b.u., inlet/outlet water temperature 30°C/35°C

(d) Heating mode, external air temperature -15°C b.s./-16°C b.u., inlet/outlet water temperature 30°C/35°C

(e) Heating mode, external air temperature 7°C b.s./6°C b.u., inlet/outlet water temperature 40°C/45°C

(f) Heating mode, external air temperature 2°C b.s./1°C b.u., inlet/outlet water temperature 40°C/45°C

(g) Heating mode, external air temperature -7°C b.s./-8°C b.u., inlet/outlet water temperature 40°C/45°C

(h) Heating mode, external air temperature -15°C b.s./-16°C b.u., inlet/outlet water temperature 40°C/45°C

(i) Heating mode, external air temperature -15°C b.s./-16°C b.u., inlet/outlet water temperature 40°C/45°C

(l) Cooling mode, external air temperature 35°C, inlet/outlet water temperature 23°C/18°C

(m) Cooling mode, external air temperature 35°C, inlet/outlet water temperature 12°C/7°C

(n) Sound pressure values measured at a distance of 1 m in a semi-anechoic chamber

(o) Sound pressure values measured at a distance of 1 m in a semi-anechoic chamber

(p) Airtighty sealed equipment containing fluorinated GAS

(q) maximum length of the refrigeration pipes beyond which checks on the minimum surface of the installation rooms are necessary, check the technical manual

Energy efficiency classes refer to a range between A+++ and D.

TECHNICAL DATA				12T			14T			16T			
Sherpa Monobloc S2 E				02309			02310			02311			
Compressor frequency				Min	Nom	Max	Min	Nom	Max	Min	Nom	Max	
PUNCTUAL PERFORMANCE	Heating power	a7/6 - w30/35	(a)	kW	-	12,2	13,42	-	14,1	15,27	-	16	18,23
	COP	a7/6 - w30/35	(a)	W/W	-	4,9	-	-	4,7	-	-	4,5	-
	Heating power	a2/1 - w30/35	(b)	kW	-	12,3	12,3	-	13	13,56	-	14,5	14,76
	COP	a2/1 - w30/35	(b)	W/W	-	3,6	-	-	3,5	-	-	3,25	-
	Heating power	a-7/-8 - w30/35	(c)	kW	-	11,6	12,1	-	12,5	13,2	-	13,5	14,1
	COP	a-7/-8 - w30/35	(c)	W/W	-	2,85	-	-	2,8	-	-	2,7	-
	Heating power	a-15/-16 - w30/35	(d)	kW	-	10,35	10,35	-	11,22	11,22	-	11,82	11,82
	COP	a-15/-16 - w30/35	(d)	W/W	-	2,39	-	-	2,35	-	-	2,22	-
	Heating power (fancoils)	a7/6 - w40/45	(f)	kW	-	12,5	13,14	-	14,5	14,87	-	16,2	18,07
	COP (fancoils)	a7/6 - w40/45	(f)	W/W	-	3,7	-	-	3,55	-	-	3,45	-
	Heating power (fancoils)	a2/1 - w40/45	(g)	kW	-	12	12	-	13	13,28	-	14,3	14,74
	COP (fancoils)	a2/1 - w40/45	(g)	W/W	-	2,9	-	-	2,8	-	-	2,7	-
	Heating power (fancoils)	a-7/-8 - w40/45	(h)	kW	-	11,5	11,5	-	12,5	12,5	-	13,5	13,5
	COP (fancoils)	a-7/-8 - w40/45	(h)	W/W	-	2,4	-	-	2,3	-	-	2,25	-
	Heating power (fancoils)	a-15/-16 - w40/45	(i)	kW	-	9,62	9,62	-	10,3	10,3	-	10,96	10,96
	COP (fancoils)	a-15/-16 - w40/45	(i)	W/W	-	2,11	-	-	2,07	-	-	1,98	-
	Cooling power	a35 - w23/18	(l)	kW	-	12,2	16,11	-	13,9	17,13	-	15,4	17,13
	EER	a35 - w23/18	(l)	W/W	-	4,6	-	-	4,4	-	-	4,2	-
	Cooling power (fancoils)	a35 - w12/7	(m)	kW	-	11,6	13,44	-	13,4	15,48	-	14	16,01
	EER (fancoils)	a35 - w12/7	(m)	W/W	-	3,1	-	-	2,93	-	-	2,9	-
EFFICIENCIES	Energy efficiency class in water heating 35°C	Warmer Climate				A+++			A+++			A+++	
	SCOP	Warmer Climate				6,64			6,59			6,46	
	s (Seasonal efficiency for space heating)	Warmer Climate	ηs %			262,5			260,6			255,5	
	Energy efficiency class in water heating 35°C	Average Climate				A+++			A+++			A+++	
	SCOP	Average Climate				5,08			4,89			4,84	
	s (Seasonal efficiency for space heating)	Average Climate	ηs %			200,2			192,5			190,5	
	Energy efficiency class in water heating 35°C	Cold Climate				A+++			A+++			A+++	
	SCOP	Cold Climate				4,3			4,36			4,35	
	s (Seasonal efficiency for space heating)	Cold Climate	ηs %			168,8			171,3			170,9	
	Energy efficiency class in water heating 55°C	Warmer Climate				A++			A++			A++	
	SCOP	Warmer Climate				4,55			4,69			4,68	
	s (Seasonal efficiency for space heating)	Warmer Climate	ηs %			179			184,6			184	
	Energy efficiency class in water heating 55°C	Average Climate				A++			A++			A++	
	SCOP	Average Climate				3,62			3,62			3,59	
	s (Seasonal efficiency for space heating)	Average Climate	ηs %			141,6			141,8			140,7	
	Energy efficiency class in water heating 55°C	Cold Climate				A++			A++			A++	
	SCOP	Cold Climate				3,23			3,24			3,18	
	s (Seasonal efficiency for space heating)	Cold Climate	ηs %			126			126,6			124,3	
	NOISE LEVEL	Indoor unit sound power					dB(A)			-			-
		Indoor unit sound pressure	(n)				dB(A)			-			-
Outdoor unit sound power (nominal)						dB(A)	70		72			72	
Outdoor unit sound pressure (nominal)		(o)				dB(A)	57		59			59	
System circulator absorption						W	4-95		4-95			4-95	
Supply voltage indoor unit						V/ph/Hz	-		-			-	
Maximum absorbed current of the internal unit with active heating elements						A	-		-			-	
Internal unit maximum power consumption with active heating elements						kW	-		-			-	
Additional electric heating elements						kW	-		-			-	
Supply voltage outdoor unit						V/ph/Hz	380-415/3/50		380-415/3/50			380-415/3/50	
ELECTRICAL DATA	Outdoor unit maximum absorbed current					A	9,5		10,5			11,5	
	Outdoor unit maximum absorbed power					kW	5,8		6,2			6,6	
	Compressor type						TWIN ROTARY		TWIN ROTARY			TWIN ROTARY	
	Refrigerant inlet connection diameter					"	-		-			-	
	Coolant gas	(p)					R32		R32			R32	
	Global warming potential					GWP	675		675			675	
	Refrigerant gas charge					kg	1,8		1,8			1,8	
	Refrigerant piping length limit without minimum surface check according to IEC 60335-2-40:2018	(q)					-		-			-	
	Hydraulic connections					"	G5/4 BSP		G5/4 BSP			G5/4 BSP	
	Capacity of expansion vessel					l	5		5			5	

## ACCESSORIES

STORAGE TANKS / PUFFER	B0916	Kit 3-way valve for DHW	○
	01804	HE 200 L storage tank	○
	01805	HE 300 L storage tank	○
	01806	HES 300 L solar storage tank	○
	01807	Hybride boiler HY 300 L	○
	01808	HYS 300 L solar hybrid storage tank	○
	B0618	Resistance for boiler 2 kW	○
	B0666	Resistance for boiler 3 kW	○
	B0617	Resistance flange kit	○
	01199	Thermal accumulation 50 L	○
01200	Thermal accumulation 100 L	○	

○ Optional accessory | ● Standard accessory | — Accessory not compatible

Accessory description on page 54

Please note that optional accessories are available for purchase with all models of the heat pump. When compatibility is only possible with certain sizes, the information is shown in the table. Standard accessories are already included in the heat pump code.



# SHERPA SHW S2

## Water heater in heat pump



### HIGH EFFICIENCY

Sherpa SHW S2 achieves the highest energy class in its category (according to the ErP regulation).



### PHOTOVOLTAIC INTEGRATION

Contact for integration with photovoltaic plant, which forces switch-on and raises the machine set-point. The energy produced by the photovoltaic system is stored to lower the DHW production costs and maximise the energy saving.



### SOLAR MANAGEMENT

Solar thermal compatible: the unit can work with a second energy source such as solar panels (solar circulator management). Valid only for model 260S.



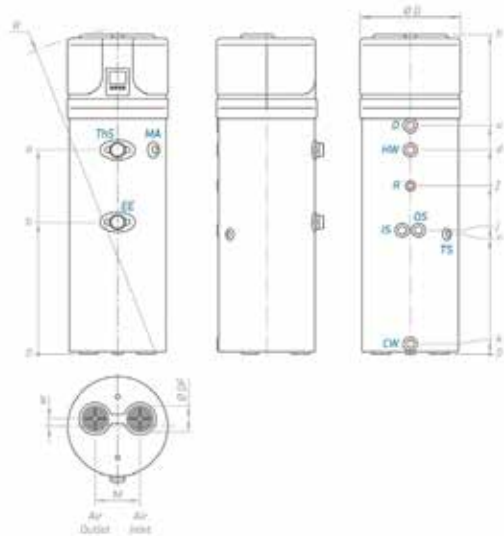
### FEATURES

- **Available in two versions:** standard model with heat pump, electric heating element and 202-litre tank (Sherpa SHW S2 200); model with coil for solar panels or other energy sources, electric heating element and 251-litre tank (Sherpa SHW S2 260S).
- **COP > 2,6\* DHW at 65°C (75°C with electric heating element)**
- **Energy class:** A+ over a range from A+ to F.
- **Working range** with heat pump and air temperature from -10°C to 43°C.
- **Enamelled** steel tank.
- **Anti-corrosion magnesium anode** to ensure tank durability.
- **Condenser wound outside** the boiler free from deposits and gas-water contamination.
- **Rigid polyurethane** foam (PU) thermal insulation, thickness 50mm.
- **External plastic cladding.** Soundproof plastic top cover.
- **High-efficiency compressor** with R134a refrigerant\*\*.
- **Electric heating element** available in the unit as back-up which ensures hot water at a constant temperature even in extreme winter or summer conditions.
- **ON-OFF contact** to start the unit via an external switch.
- **Weekly sanitisation cycle.**
- **Option to manage the** domestic hot water recirculation or solar heating integration. Valid only for model 260S
- **Electronic expansion valve** for a timely check.

\* Ambient air temperature 7°C b.s./6°C b.u., water temperature from 10°C to 55°C (EN 16147).

\*\* hermetically sealed equipment containing fluorinated gas with GWP equivalent 1430.





**CW** - Cold water inlet G 1"  
**HW** - Hot water outlet G 1"  
**IS** - Heat exchanger inlet G 1"  
**OS** - Heat exchanger outlet G 1"  
**R** - Recirculation G 3/4"

**TS** - Temperature probe G 1/2"  
**EE** - Opening for electric heating element G 1 1/2"  
**CD** - Condensation drain G 3/4"

		200	260S
<b>h</b>	mm	1720	2010
<b>a</b>	mm	994	1285
<b>b</b>	mm	724	834
<b>d</b>	mm	995	1285
<b>f</b>	mm	803	1064
<b>i</b>	mm	-	781
<b>k</b>	mm	60	60
<b>n</b>	mm	-	766
<b>u</b>	mm	1153	1440
<b>w</b>	mm	58	58
<b>M</b>	mm	260	260
<b>ØDF</b>	mm	160	160
<b>R</b>	mm	1785	2055
<b>ØD</b>	mm	630	630

TECHNICAL DATA	SHERPA SHW S2 200		SHERPA SHW S2 260S	
		02385		02386
Electrical power supply	W/Ph/Hz	220-240/1Ph+N/50	220-240/1Ph+N/50	220-240/1Ph+N/50
Actual tank capacity	L	202	251	251
Prated nominal heating power (EN 16147: 2017 - A7/W55)	W	1050	1200	1200
Maximum heating power (summer conditions)	W	2305	2305	2305
COPDHW (EN 16147: 2017 - A7/W55)	W/W	2.7	3	3
COPDHW (EN 16147: 2017 - A14/W55)	W/W	3.1	3.4	3.4
Maximum electrical absorption with active electric heating element	W	663+1500	663+1500	663+1500
Heating time (EN 16147: 2017 - A7/W55)	h:min	08:59	10:15	10:15
Heating time in BOOST mode (A7 - W10-55)	h:min	03:47	04:21	04:21
Intake air temperature range	°C	-10 ÷ 43	-10 ÷ 43	-10 ÷ 43
Refrigerant gas (a)		R134a	R134a	R134a
Refrigerant loading	g	880	880	880
Nominal air flow rate (98 Pa)	m3/h	315	315	315
Storage tank maximum operating pressure	bar	8	8	8
Auxiliary electric heating element	W	1500	1500	1500
Solar exchange coil surface	m²	-	1.2	1.2
Protection class		IPX4	IPX4	IPX4
Transportation weight	Kg	105	128	128
Sound pressure (EN 12102:2013)	dB(A)	53	53	53
Load Profile (EN 16147: 2017)		L	XL	XL
Energy efficiency class (average climate conditions)		A+	A+	A+
η <sub>WH</sub> (average climate conditions - EU Regulation 812/2013)	%	118	124	124

(a) hermetically sealed equipment containing fluorinated gas with GWP equivalent 1430.

\*Ambient air temperature 20°C, water temperature from 15°C to 55°C.

\*\*In relation to the auxiliary resistance. During the disinfection cycle, the temperature is raised to 70°C by the auxiliary heating element

\*\*\*Ambient air temperature 7°C b.s./6°C b.u., water temperature from 10°C to 55°C (EN 16147).

\*\*\*\*Ambient air temperature 14°C b.s./12°C b.u., water temperature from 10°C to 55°C (EN 16147).

(a) measured according to the EN 12102 standard under the conditions of the EN 16147 standard.

(b) calculated according to algorithm ISO 3744:2010 at 1 m from the unit.

(c) average climatic conditions (+7°C) according to regulation EU 812/2013

(d) non-hermetically sealed equipment containing fluorinated gas with GWP equivalent 1430. Energy efficiency classes refer to a range between A+ and F.

# Heat pump accessories



Download  
Additional  
information on  
these accessories

## B0931 Remote control display kit 10 m

Remote control display kit 10 m



Compatible with:

	suspended	tower		suspended	tower
SHERPA AQUADUE	<input type="radio"/>	<input type="radio"/>	SHERPA	<input type="radio"/>	<input type="radio"/>

## B0916 Kit 3-way valve for DHW

Compact size and two-point control.



Compatible with:

	suspended	tower		suspended	tower
SHERPA AQUADUE	<input checked="" type="radio"/>	<input checked="" type="radio"/>	SHERPA MONOBLOC	<input type="radio"/>	
SHERPA	<input type="radio"/>	<input checked="" type="radio"/>			

## B0917 Solar thermal probe kit

Additional probe that detects the temperature of the solar thermal pipes, inhibits the heat pump from producing DHW only with solar thermal under certain conditions.



Compatible with:

	suspended	tower
SHERPA	<input type="radio"/>	<input type="radio"/>

## B0623 Outdoor air temperature probe kit

Shielded probe to measure the outdoor air temperature. It is necessary to allow activation of the electric heating element and climatic curves.



Compatible with:

	suspended	tower
SHERPA AQUADUE	<input checked="" type="radio"/>	<input checked="" type="radio"/>
SHERPA	<input type="radio"/>	<input type="radio"/>

## B0624 Kit DHW storage tank sensor

Probe to measure and directly control the water temperature in the domestic hot water storage tank.



Compatible with:

	suspended	tower
SHERPA AQUADUE	<input checked="" type="radio"/>	<input checked="" type="radio"/>
SHERPA	<input type="radio"/>	<input checked="" type="radio"/>

● Standard accessory | ○ Optional accessory | ▼ Required accessory | — Accessory not compatible

Please note that optional accessories are available for purchase with all models of the heat pump. When compatibility is only possible with certain sizes, the information is shown in the table. Standard accessories are already included in the heat pump code.

**B0918**

**Kit Sherpa Flex Box AS**

Technical cabinet that makes it possible to create a compact system in heat pump with high installation flexibility.

Compatible with:	suspended	tower	suspended	tower
SHERPA AQUADUE	≤10	—	SHERPA	≤10 —



**B0961**

**Kit Sherpa Flex Box AS RAL 9016**

Technical cabinet that makes it possible to create a compact system in a heat pump with high installation flexibility. Painted in white RAL 9016 (front/back for upper, lower side and front panels, no backs).

Compatible with:	suspended	tower	suspended	tower
SHERPA AQUADUE	≤10	—	SHERPA	≤10 —



**B1120**

**Sherpa Flex Box adapter kit**

Accessory necessary for combining the Sherpa Flex Box AS Kit with the Sherpa S2/S3 heat pump (not Aquadue).

Compatible with:	suspended	tower
SHERPA	≤10	—



**B0900**

**Cable for Modbus connection touch panel 100m**

Length 100 m. Required accessory supplied separately.

Compatible with:
SHERPA COLD



**B0899**

**Metallic frame for touch panel external installation**

Compatible with:
SHERPA COLD



**B0906**

**Aesthetic fan cover front grille**

Compatible with:
SHERPA COLD



**B0907**

**Aesthetic fan cover front grille**

Compatible with:
SHERPA COLD



**B0915**

**Brass Y filter**

With 1" 1/4 couplers and 2" body

Compatible with:
SHERPA COLD



**B0971**

**Thermostatic mixing valve kit for DHW**

Assembly in the machine must be carried out by the installer

Compatible with:	suspended	tower
SHERPA	—	○



**B0972**

**Expansion tank kit for DHW**

Assembly in the machine must be carried out by the installer

Compatible with:	suspended	tower
SHERPA	—	○



# Storage tanks / puffer

## 01804 HE 200 L storage tank

Compatible with:

suspended tower

SHERPA AQUADUE	○	—
SHERPA	○	—

SHERPA COLD	10
SHERPA MONOBLOC	○

## 01805 HE 300 L storage tank

Compatible with:

suspended tower

SHERPA AQUADUE	○	—
SHERPA	○	—

SHERPA COLD	○
SHERPA MONOBLOC	○

## 01806 HES 300 L solar storage tank

Compatible with:

suspended tower

SHERPA AQUADUE	○	—
SHERPA	○	—

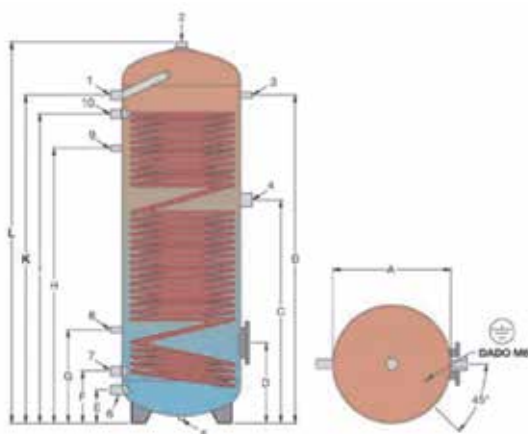
SHERPA COLD	≤ 15
SHERPA MONOBLOC	○



Storage tank with 1 or 2 coils with high exchange surface in carbon steel, complete with anodic protection, internal vitrification treatment according to DIN 4753-3 and UNI 10025 standards. Rigid polyurethane insulation thickness 70 mm. Coating colour Sky Blue RAL 5010.

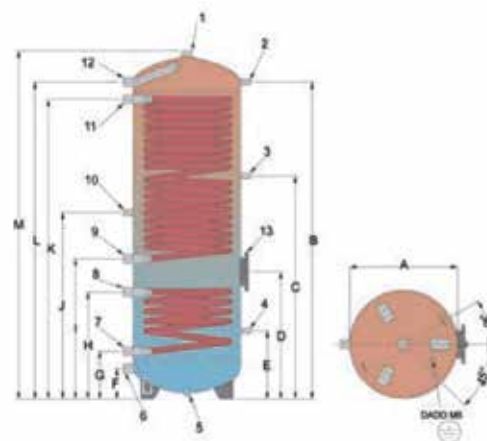
TECHNICAL DATA		01804	01805	01806
Inhoud boiler HWW Nom.	l	200	300	300
Inhoud boiler HWW Effective	l	190	263	260
Total heigh	mm	1215	1615	1615
Diameter with insulation	mm	640	640	640
Insulation	mm	70	70	70
Energy class		B	B	B
Dispersion total	W	51	63	63
Dispersion temperature probe	W°K	1,13	1,40	1,40
Coil exchangers N°		1 double coil	1 double coil	1 double coil + 1 solar unit
Coil exchangers Surface Heat pump	m <sup>2</sup>	3	4	3,7
Coil exchangers Secondary surface	m <sup>2</sup>	-	-	1,2
Empty weight	kg	90	124	131

Dimensions		01804	01805	01806
A	mm	500	500	500
B	mm	995	1390	1470
C	mm	735	945	1035
D	mm	320	340	590
E	mm	140	140	315
F	mm	220	220	140
G	mm	370	395	220
H	mm	835	1165	495
I	mm	990	1310	650
J	mm	-	-	865
K	mm	1070	1390	1390
L	mm	1215	1615	1470
M	mm	-	-	1615



### Storage tank 1 coil HE 200-300

- |   |                        |
|---|------------------------|
| 1. Hot water flow 1"                          | 1/2"                   |
| 2. Anode 1" 1/4                               | 6. Cold water inlet 1" |
| 3. Thermometer-Probe 1/2"                     | 7. Coil return 1"      |
| 4. Electric heating element attachment 1" 1/2 | 8. Thermostat 1/2"     |
| 5. Pallet attachment (blind)                  | 9. Recirculation 1/2"  |
|   | 10. Coil flow 1"       |



### Storage tank 2 coils HES 300

- |                                   |  |
|-----------------------------------|--|
| 1. Anode 1" 1/4                   | 8. Lower coil flow 1"                                      |
| 2. Thermometer-Probe 1/2"         | 9. Upper coil return 1"                                    |
| 3. Thermostat 1/2"                | 10. Recirculation 1/2"                                     |
| 4. Thermostat 1/2"                | 11. Upper coil flow 1"                                     |
| 5. Pallet attachment (blind) 1/2" | 12. Hot water flow 1"                                      |
| 6. Cold water inlet 1"            | 13. Flange with electric heating element attachment 1" 1/2 |
| 7. Lower coil return 1"           |  |

○ Optional accessory | — Accessory not compatible

Please note that optional accessories are available for purchase with all models of the heat pump. When compatibility is only possible with certain sizes, the information is shown in the table. Standard accessories are already included in the heat pump code.

**01807** Hybride boiler HY 300 L

Compatible with:

suspended tower

SHERPA AQUADUE	<input type="radio"/>	<input type="checkbox"/>
SHERPA	<input type="radio"/>	<input type="checkbox"/>

SHERPA MONOBLOC	<input type="radio"/>
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**01808** HYS 300 L solar hybrid storage tank

Compatible with:

suspended tower

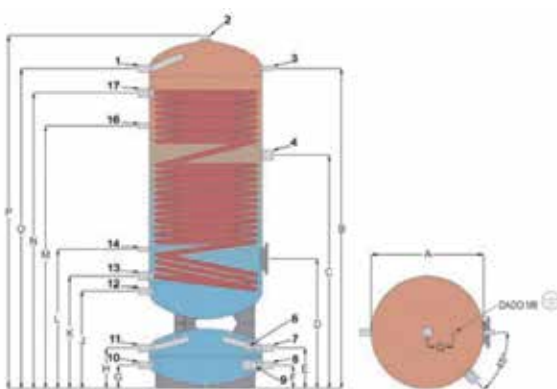
SHERPA AQUADUE	<input type="radio"/>	<input type="checkbox"/>
SHERPA	<input type="radio"/>	<input type="checkbox"/>

SHERPA MONOBLOC	<input type="radio"/>
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Combined heat storage tanks. Upper storage tank with 1 or 2 coils with high exchange surface in carbon steel, complete with anodic protection, internal vitrification treatment according to DIN 4753-3 and UNI 10025 standards. Lower storage tanks for heated or chilled water, internal untreated. Rigid polyurethane insulation thickness 70 mm. Coating colour Sky Blue RAL 5010.

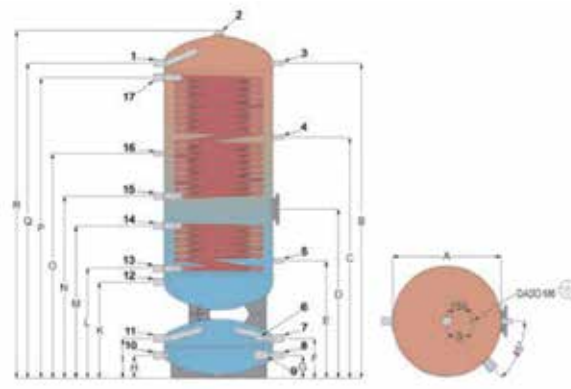
TECHNICAL DATA		01807	01808
Inhoud boiler HWW Nom.	l	300	300
Inhoud boiler HWW Effective	l	270	270
Puffer Capacity	l	80	80
Total heigh	mm	1925	1925
Diameter with insulation	mm	690	690
Insulation	mm	70	70
Energy class		B	B
Dispersion total	W	73	73
Dispersion temperature probe	W/K	1,62	1,62
Coil exchangers N°		1	1 + 1 solar unit
Coil exchangers Surface Heat pump	m²	3,3	2,8
Coil exchangers Secondary surface	m²	-	0,9
Empty weight	kg	150	170

Dimensions		01807	01808
A	mm	550	550
B	mm	1755	1755
C	mm	1300	1420
D	mm	875	1035
E	mm	340	810
F	mm	160	340
G	mm	160	160
H	mm	340	160
I	mm	-	340
J	mm	675	-
K	mm	765	675
L	mm	940	755
M	mm	1425	945
N	mm	1675	1125
O	mm	1755	1280
P	mm	1925	1675
Q	mm	150	1755
R	mm	-	1925
S	mm	-	150



**Storage tank 1 coil HY 300**

- 1. Domestic hot water flow 1"
- 2. Anode 1" 1/4
- 3. Thermometer 1/2"
- 4. Electric heating element attachment 1" 1/2
- 6. Probe 1/2"
- 7. Boiler flow 1"
- 8. Boiler return 1"
- 9. Electric resistance 1" 1/2
- 10. Heating system return 1"
- 11. System flow 1"
- 12. Domestic cold water inlet 1"
- 13. Coil return 1" 1/4
- 14. Probe 1/2"
- 16. Recirculation 1/2"
- 17. Upper coil flow 1"



**Storage tank 2 coils HYS 300**

- 1. Domestic hot water flow 1"
- 2. Anode 1" 1/4
- 3. Thermometer 1/2"
- 4. Probe 1/2"
- 5. Probe 1/2"
- 6. Probe 1/2"
- 7. Boiler flow 1"
- 8. Boiler return 1"
- 9. Electric resistance 1" 1/2
- 10. Heating system return 1"
- 11. System flow 1"
- 12. Domestic cold water inlet 1"
- 13. Lower coil return 1"
- 14. Lower coil flow 1"
- 15. Upper coil return 1"
- 16. Recirculation 1/2"
- 17. Upper coil flow 1"

**01199 Thermal accumulation 50 L**

Compatible with:

suspended tower

SHERPA	<input type="radio"/>	<input type="radio"/>
SHERPA AQUADUE	<input type="radio"/>	<input type="radio"/>

SHERPA MONOBLOC	<input type="radio"/>
-----------------	-----------------------



**01200 Thermal accumulation 100 L**

Compatible with:

suspended tower

SHERPA	<input type="radio"/>	<input type="radio"/>
SHERPA AQUADUE	<input type="radio"/>	<input type="radio"/>

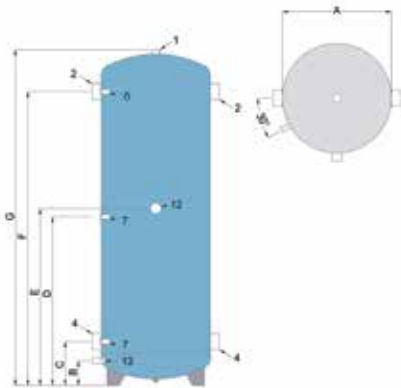
SHERPA COLD	10
SHERPA MONOBLOC	<input type="radio"/>



Storage for chilled water, internal untreated. Can also be used for heating water. Polyurethane insulation 50 mm. Coating colour Sky Blue RAL 5010.

TECHNICAL DATA		01199	01200
Puffer Capacity	l	57	123
Total height	mm	935	1095
Diameter with insulation	mm	400	500
Insulation	mm	50	50
Energy class		B	B
Dispersion total	W	34	50
Dispersion temperature probe	W/°K	0,76	1,11
Empty weight	kg	25	35

Dimensions		01199	01200
A	mm	300	400
B	mm	100	100
C	mm	180	185
D	mm	485	560
E	mm	530	605
F	mm	785	935
G	mm	935	1095



- 1. Vent 1"
- 2. Water connection 1" 1/4
- 4. Water connection 1" 1/4
- 6. Probe 1/2"
- 7. Probe 1/2"
- 12. Electric resistance 1" 1/2
- 13. Drain 1/2"

**B0618 Resistance for boiler 2 kW**

Compatible with:

suspended tower

SHERPA	<input type="radio"/>	—
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SHERPA COLD	<input type="radio"/>
SHERPA MONOBLOC	<input type="radio"/>



**B0666 Resistance for boiler 3 kW**

Compatible with:

suspended tower

SHERPA	<input type="radio"/>	—
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SHERPA COLD	<input type="radio"/>
SHERPA MONOBLOC	<input type="radio"/>



Immersion in copper, IP 65, with internal adjustable thermostat and temperature limiter.

TECHNICAL DATA		B0618	B0666
Absorbed power	W	2000	3000
Supply voltage	V	230	230
Weight	Kg	1,5	1,5
Length (L)	mm	390	390
Diameter of coupling	inch	1 1/2	1 1/2

Optional accessory | — Accessory not compatible

Please note that optional accessories are available for purchase with all models of the heat pump. When compatibility is only possible with certain sizes, the information is shown in the table. Standard accessories are already included in the heat pump code.

**B0617**

**Resistance flange kit**

Required accessory for correct positioning of the electric heating elements when used for anti-Legionnaires disease cycles.

Compatible with:

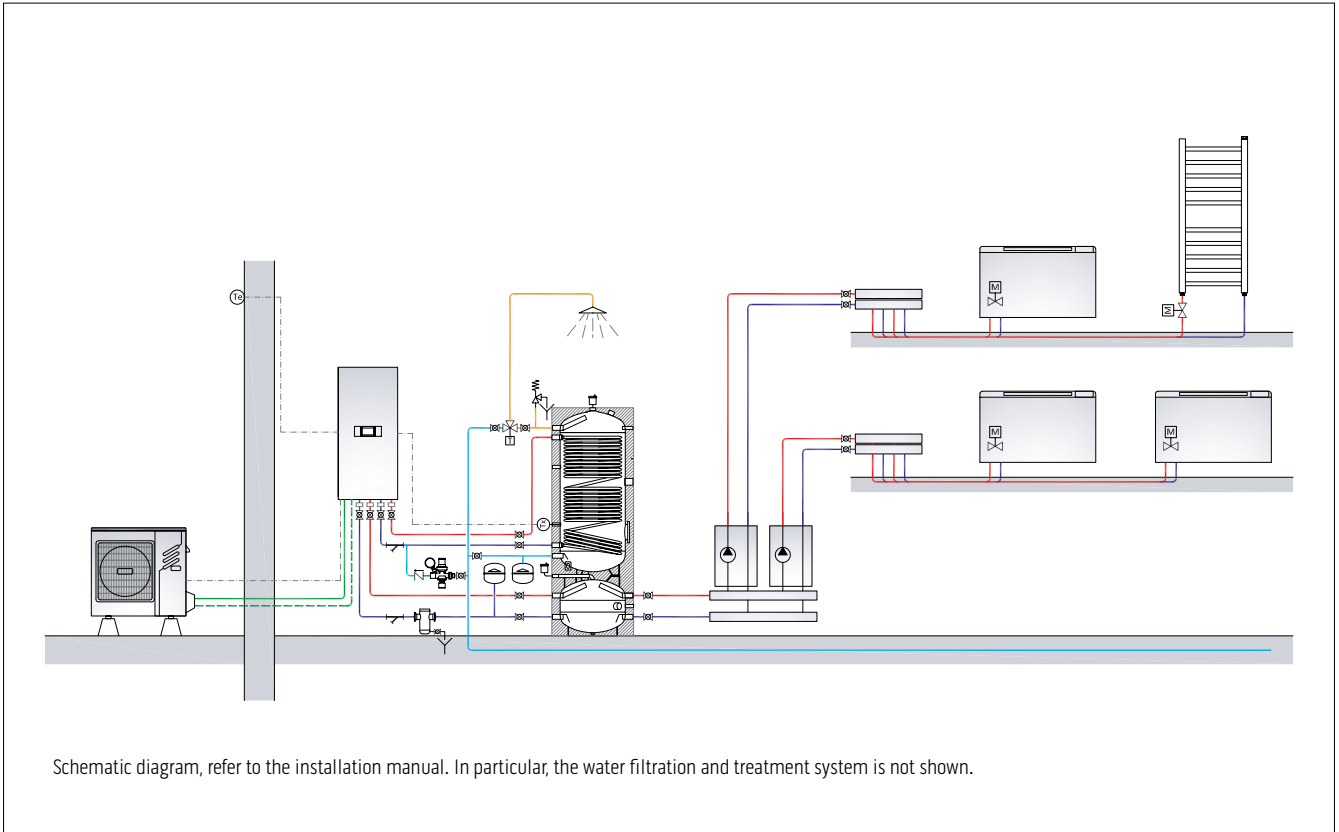
	suspended	tower		
SHERPA	<input checked="" type="radio"/>	<input type="radio"/>	SHERPA COLD	<input checked="" type="radio"/>
			SHERPA MONOBLOC	<input checked="" type="radio"/>



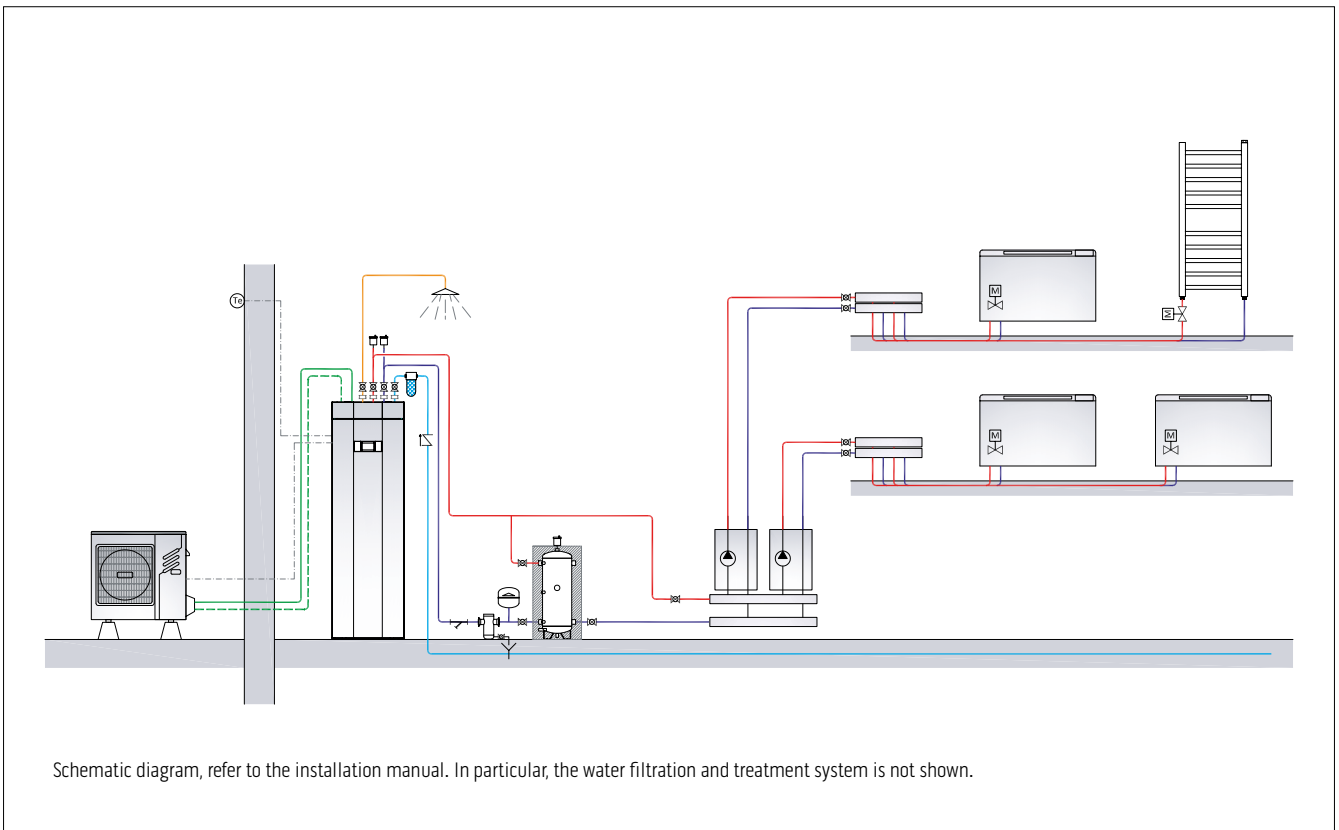
# System diagrams

## Sherpa Aquadue heat pumps

SHERPA AQUADUE S2/S3 heat pump (heating and air conditioning; production of high temperature DHW); Bi2 SLR radiant fan coil units; example of a two-zone configuration with a simple manifold and integrated inertial storage (used as a hydraulic separator) for the air conditioning system.

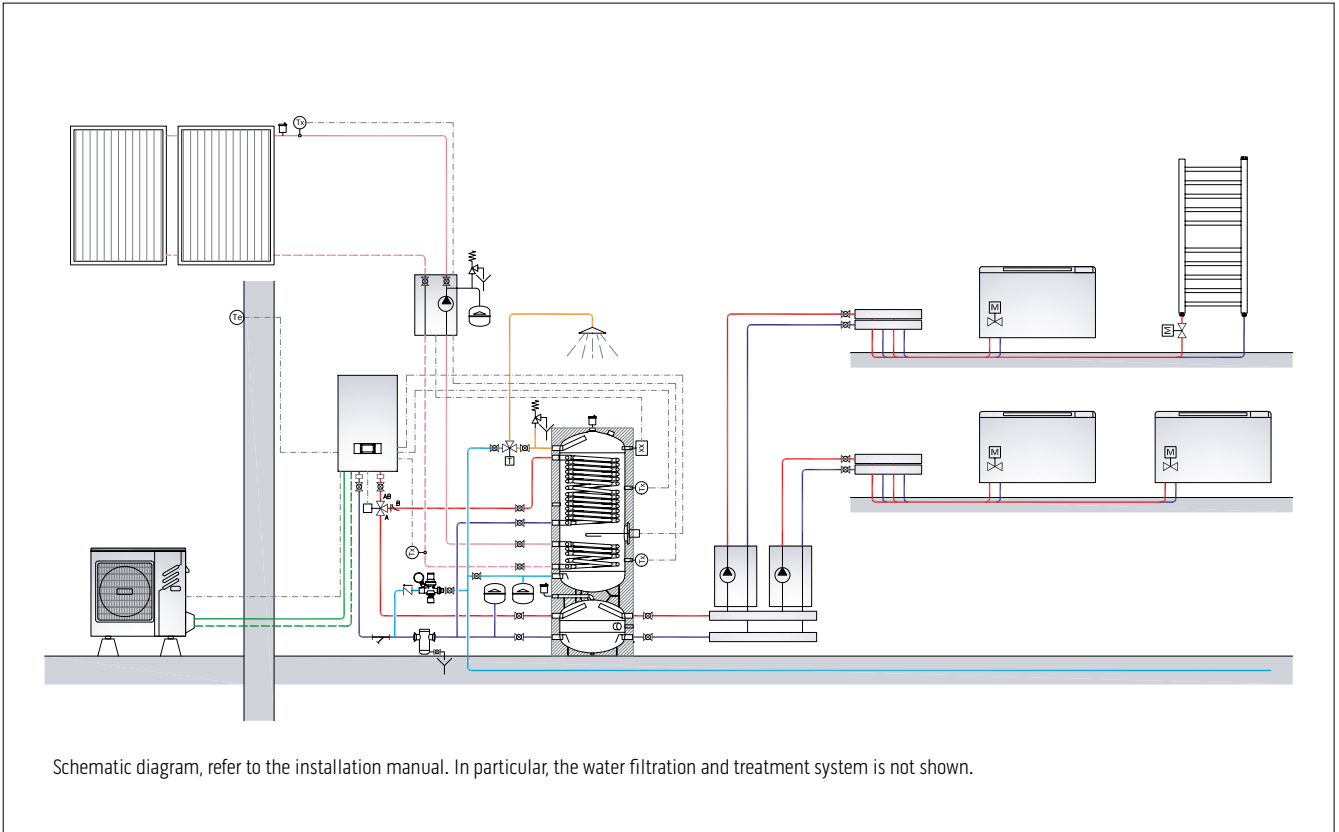


SHERPA AQUADUE TOWER S2/S3 heat pump (heating and air conditioning; production of high temperature DHW); Bi2 SLR radiant fan coil units; example of a two-zone configuration with a simple manifold and inertial storage (used as a hydraulic separator) for the air conditioning system.

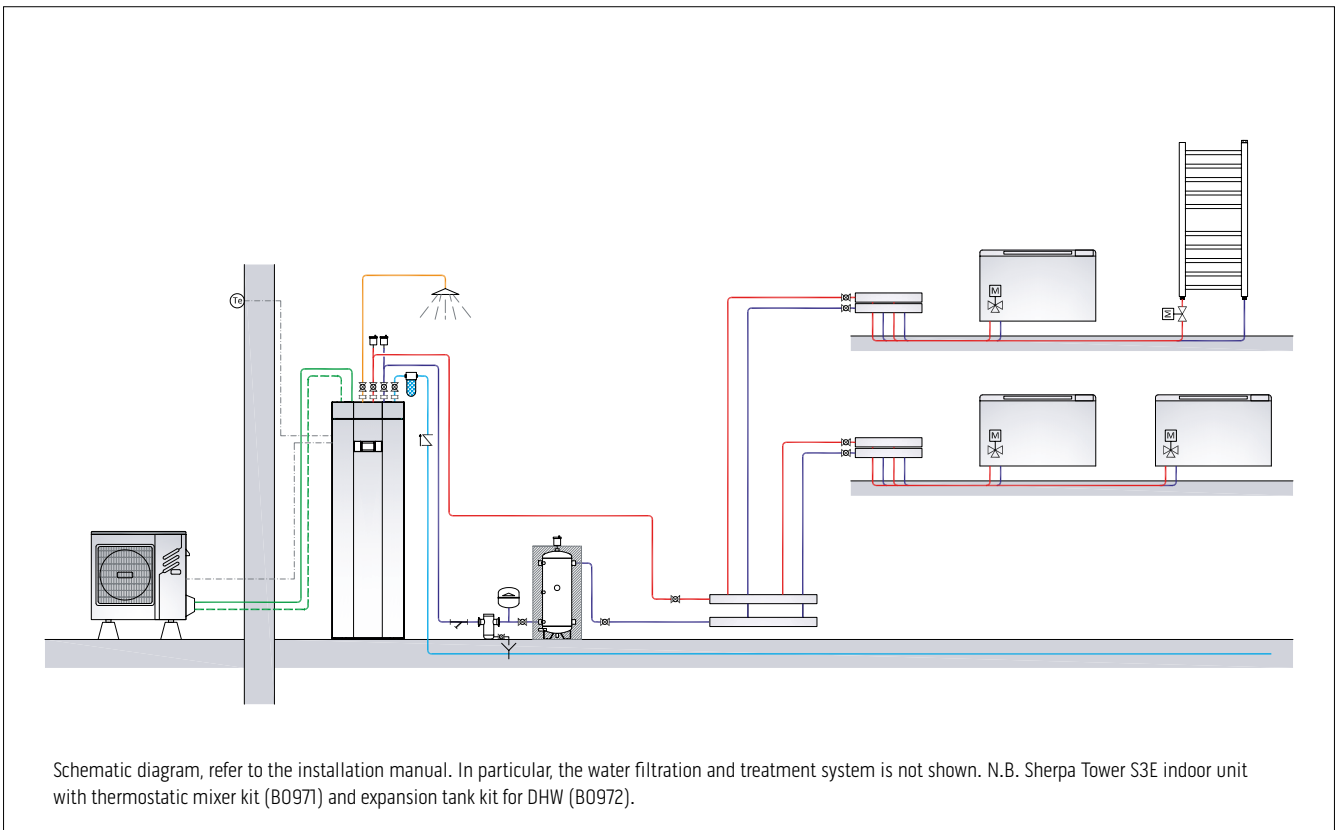


## Sherpa heat pumps

SHERPA S2/S3 heat pump (heating and air conditioning; DHW production) Bi2 SLR radiant fan coil units; domestic water integration with solar thermal and integrated inertial storage (used as hydraulic separator) for the air conditioning system.

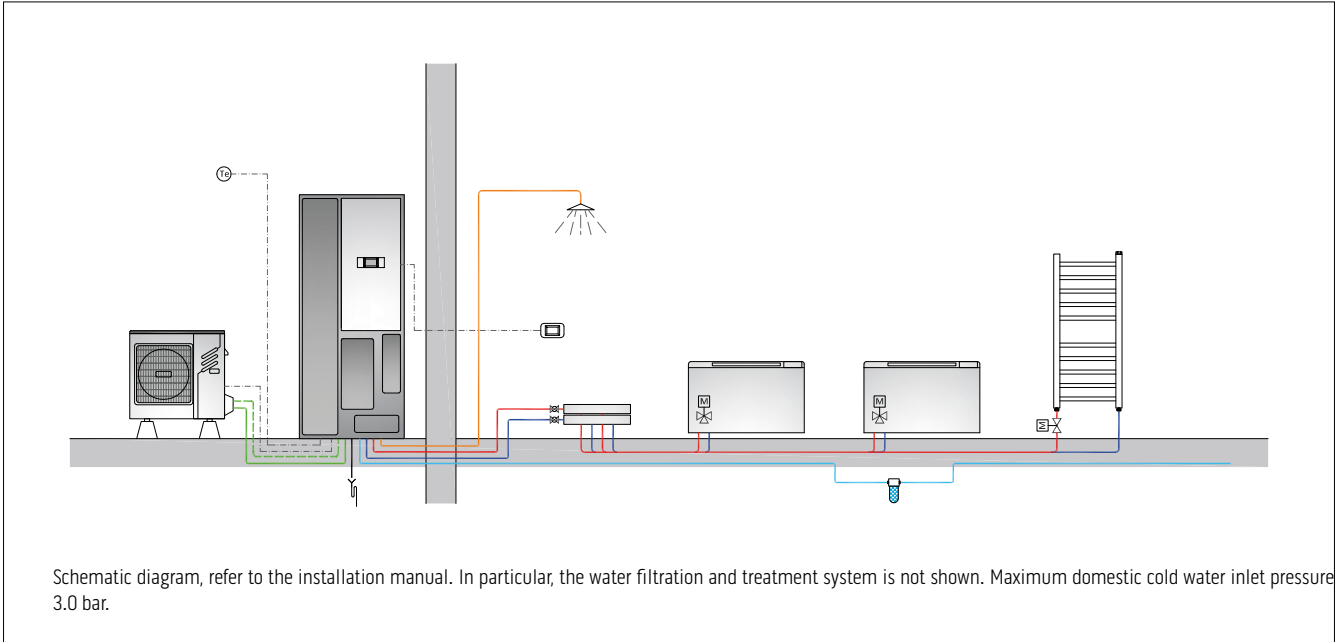


SHERPA TOWER S2/S3 heat pump (heating and air conditioning; DHW production) Bi2 SLR radiant fan coil units with 3-way valves and inertial storage in series on the return pipe of the air conditioning system.



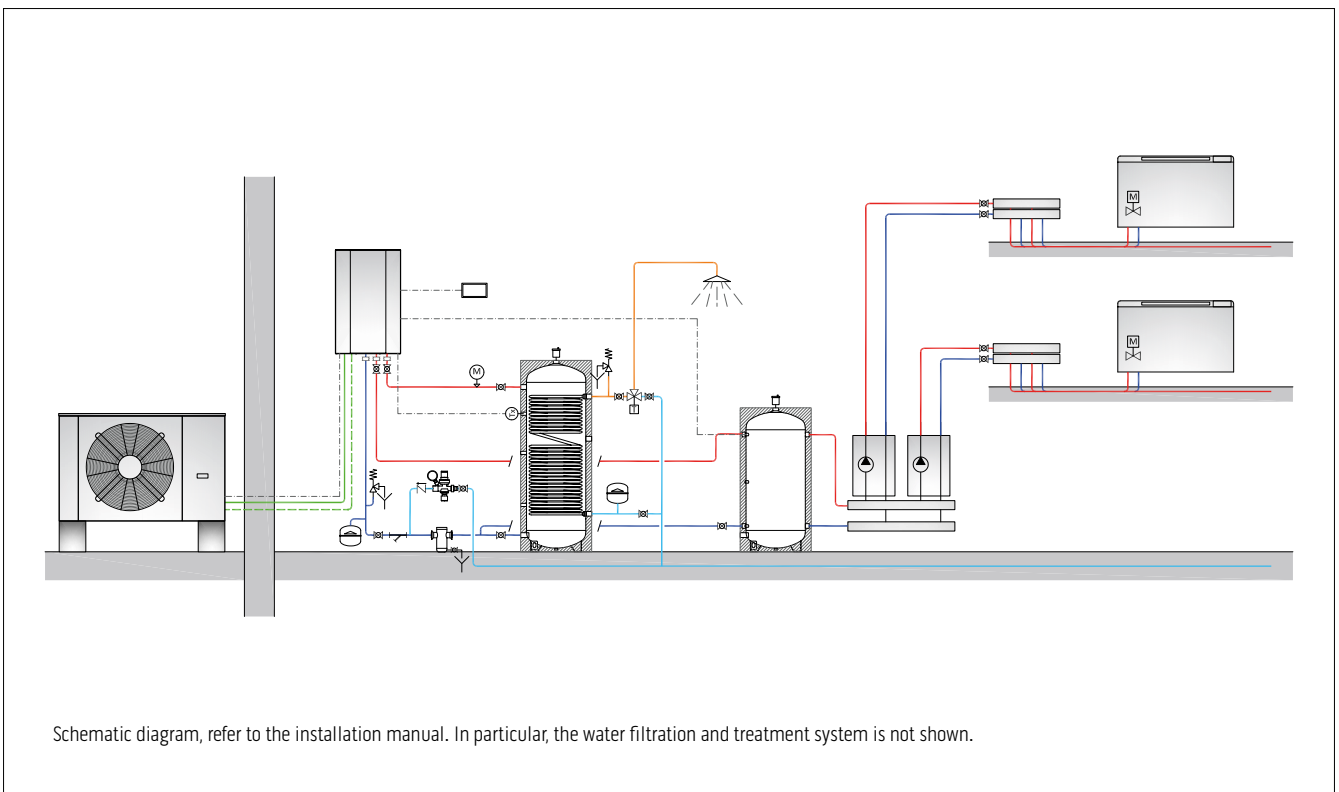
## Kit Sherpa Flex Box

SHERPA AQUADUE S3 E heat pump or SHERPA S3 E with SHERPA FLEX BOX AS KIT (heating and air conditioning; production of high temperature DHW); Bi2 SLR radiant fan coil units with 3-way valves.



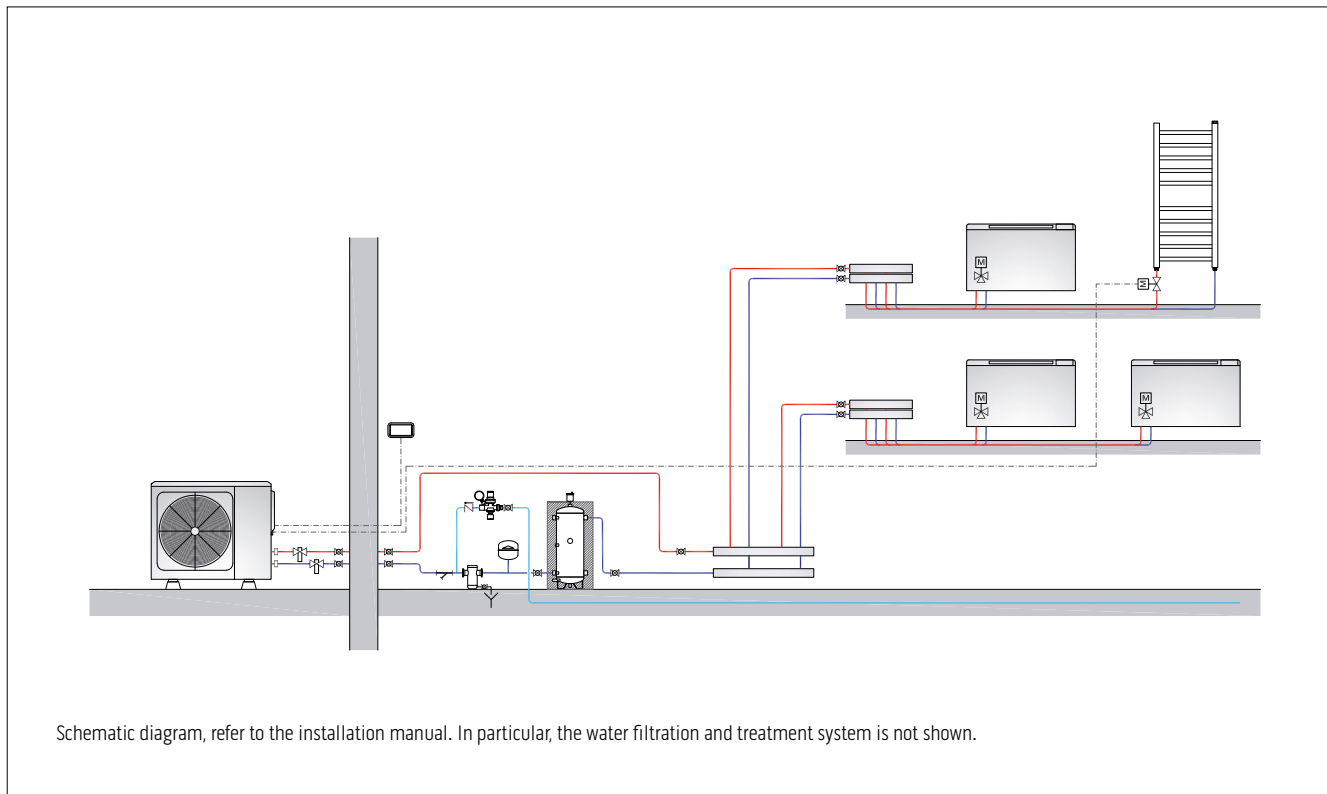
## Sherpa Cold heat pumps

SHERPA COLD heat pump (heating and air conditioning; production of DHW) Bi2 SLR radiant fan coil units with 3-way valves and inertial storage tank (used as hydraulic separator). Storage of technical water with instant DHW production. It is mandatory to provide safety valves and appropriately sized expansion tanks outside the heat pump.



## Sherpa Monobloc heat pumps

SHERPA MONOBLOC S2 E heat pump (heating and air conditioning) Bi2 SLR radiant fan coil units with 3-way valves and inertial storage in series on the return pipe of the air conditioning system.



SHERPA MONOBLOC S2 E heat pump (heating and air conditioning; DHW production) Bi2 SLR radiant fan coil units, domestic water integration with solar thermal and integrated inertial storage (used as hydraulic separator) for the air conditioning system.

