

## 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.



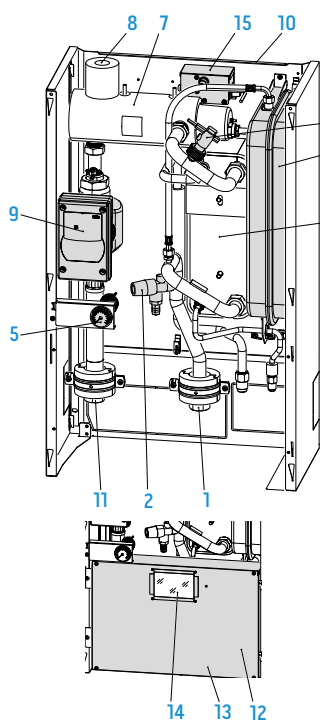
## FEATURES

- **Inverter air-water heat pump with R32 coolant gas**
- **Energy efficiency class** in medium climate heating: A+++ (35°C) and A++ (55°C)
- **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)



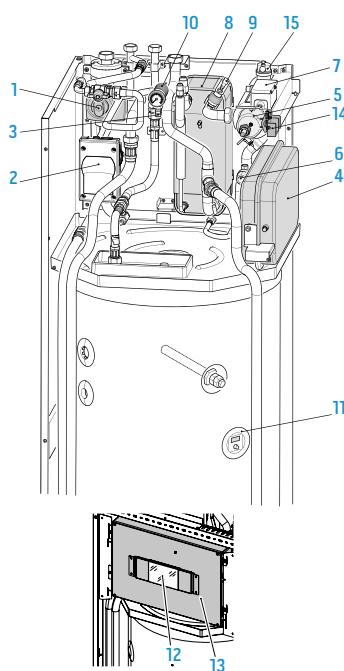
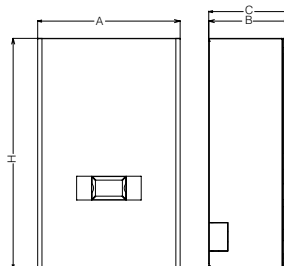
**LAYOUT, DIMENSIONS, WEIGHT**



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**

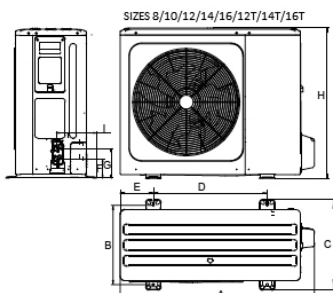
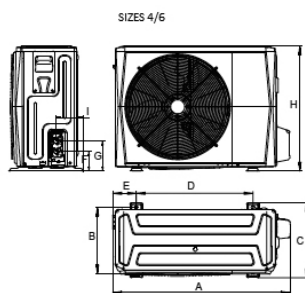
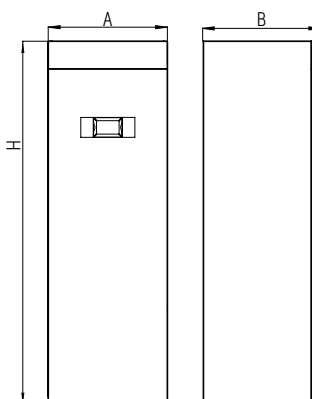
		4	6	8	10	12	14	16	12T	14T	16T
		SMALL					BIG				
<b>A</b>	mm	500	500	500	500	500	500	500	500	500	500
<b>B</b>	mm	280	280	280	280	280	280	280	280	280	280
<b>C</b>	mm	296	296	296	296	296	296	296	296	296	296
<b>H</b>	mm	810	810	810	810	810	810	810	810	810	810
<b>Weight</b>	kg	36	36	36	36	36	36	36	36	36	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	-	
	EFFICIENCIES	Energy efficiency class in water heating 35°C	Warmer Climate			A+++			A+++			A+++			A+++		
		SCOP	Warmer Climate			6,46			6,57			6,99			7,09		
		s (Seasonal efficiency for space heating)	Warmer Climate	ηs %		255,4%			259,8%			276,6%			280,5%		
		Energy efficiency class in water heating 35°C	Average Climate			A+++			A+++			A+++			A+++		
		SCOP	Average Climate			4,85			4,95			5,22			5,20		
		s (Seasonal efficiency for space heating)	Average Climate	ηs %		191,0%			195,0%			205,6%			204,8%		
		Energy efficiency class in water heating 35°C	Cold Climate			A++			A++			A++			A++		
		SCOP	Cold Climate			4,06			4,21			4,33			4,32		
		s (Seasonal efficiency for space heating)	Cold Climate	ηs %		159,5%			165,3%			170,0%			169,8%		
Energy efficiency class in water heating 55°C		Warmer Climate			A+++			A+++			A+++			A+++			
SCOP		Warmer Climate			4,15			4,21			4,51			4,62			
s (Seasonal efficiency for space heating)		Warmer Climate	ηs %		163,1%			165,4%			177,2%			181,7%			
Energy efficiency class in water heating 55°C		Average Climate			A++			A++			A++			A++			
SCOP		Average Climate			3,31			3,52			3,37			3,47			
s (Seasonal efficiency for space heating)		Average Climate	ηs %		129,5%			137,9%			131,6%			135,7%			
Energy efficiency class in water heating 55°C		Cold Climate			A+			A+			A+			A+			
SCOP		Cold Climate			2,63			2,85			2,88			2,99			
s (Seasonal efficiency for space heating)		Cold Climate	ηs %		102,1%			111,1%			112,1%			116,5%			
NOISE LEVEL		Indoor unit sound power (reg. EU 811-2013/UNI EN 12102:2022)			dB(A)	46/40			46/40			46/42			46/42		
		Indoor unit sound pressure (reg. EU 811-2013/UNI EN 12102:2022)	(n)		dB(A)	38/32			38/32			38/36			38/36		
		Outdoor unit sound power (reg. EU 811-2013/UNI EN 12102:2022)			dB(A)	56/52			58/53			59/54			60/55		
		Outdoor unit sound pressure (reg. EU 811-2013/UNI EN 12102:2022)	(o)		dB(A)	36/32			38/33			39/34			40/35		
		ELECTRICAL DATA	System circulator absorption			W	3 - 87			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			220-240/1/50		
Maximum current absorbed indoor unit with additional resistors active					A	14,10			14,10			14,10			14,10		
Maximum power absorbed indoor unit with additional active heating elements					kW	3,22			3,22			3,22			3,22		
Additional electric heating elements					kW	1,5+1,5			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			220-240/1/50		
Outdoor unit maximum absorbed current					A	10			11			14			16		
Outdoor unit maximum absorbed power				kW	2,2			2,6			3,3			3,6			
HYDRAULIC DATA	Compressor type					Twin Rotary DC Inverter			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"			3/8"-5/8"		
	Coolant gas	(p)			R32			R32			R32			R32			
	Global warming potential			GWP	675			675			675			675			
	Refrigerant gas charge			kg	1,5			1,5			1,65			1,65			
	Additional charge above 15m			g/m	20			20			38			38			
	Refrigerant piping length limit	min - max		m	2 - 30			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			20			
	Hydraulic connections			"	1"			1"			1"			1"			
	Capacity of expansion vessel			l	8			8			8			8			
	Load profile according to EN16147				XL			XL			XL			XL			
	DHW production energy efficiency class	Average Climate			A+			A+			A+			A+			
	η <sub>1</sub> DHW (seasonal production efficiency DHW)	Average Climate		%	125%			125%			123%			123%			
Boiler volume			l	200			200			200			200				
Boiler interior surface material				DD12 glazed steel S235JR			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			2,4				
Type and thickness of boiler insulation				Hard expanded polyurethane 55 mm			Hard expanded polyurethane 55 mm			Hard expanded polyurethane 55 mm			Hard expanded polyurethane 55 mm				
Specific dispersion			W/K	2			2			2			2				
DHW expansion tank capacity			l	7			7			7			7				
DHW hydraulic connections			"	3/4"			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 -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

**SINGLE-PHASE R32 TECHNICAL DATA**

				12			14			16				
ODU Sherpa S3 E				02288			02289			02290				
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	13,3	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			6,48			6,58			6,47		
		s (Seasonal efficiency for space heating)	Warmer Climate	ηs %		256,1%			260,3%			255,6%		
		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 %		189,4%			185,7%			181,7%		
		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			4,43			4,49			4,48			
s (Seasonal efficiency for space heating)		Warmer Climate	ηs %		174,1%			176,5%			176,1%			
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%			133,3%			
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 %		117,8%			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	220-240/1/50			220-240/1/50			220-240/1/50		
		Outdoor unit maximum absorbed current			A	23			25			25		
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 connections			"	1"			1"			1"			
	Capacity of expansion vessel			l	8			8			8			
HYDRAULIC DATA	Load profile according to EN16147				XL			XL			XL			
	DHW production energy efficiency class	Average Climate			A			A			A			
	ηHW (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			m²	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 -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 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

BMS

HEAT PUMPS

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MONO AND MULTISPLIT

PORTABLES

**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

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	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

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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.