

# SHERPA



## 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.



### LOW GWP GAS

In sizes up to 10 kW, it uses the R32 refrigerant, characterised by greater efficiency and a greenhouse effect reduced by almost 70% (compared to R410A).



## FEATURES

- **Inverter air-water heat pump**
- **Energy efficiency class** in average climate heating up to: A+++ (35°C) and A++ (55°C)
- **Powers available:** 4 Powers with refrigerant R32 (4-6-8-10 kW single-phase) and 3 Powers with refrigerant R410A (12-14-16 kW single-phase and three-phase)
- **Supplies DHW** with temperature up to 60° C.
- **DHW management:** Sherpa is used to manage Domestic Hot Water with extreme flexibility through two management modes: water probe inserted in the storage tank or thermostat contact of the storage tank.
- **Climatic curves** based on the external air temperature:
  - two curves available, one for cooling and one for heating.
  - The climatic curves allow the temperature of the system to be varied according to the external climatic conditions, adjusting the heat input to the building's thermal needs, in order to obtain energy savings.
- **Two configurable** cooling set points, **Three set points** configurable in heating

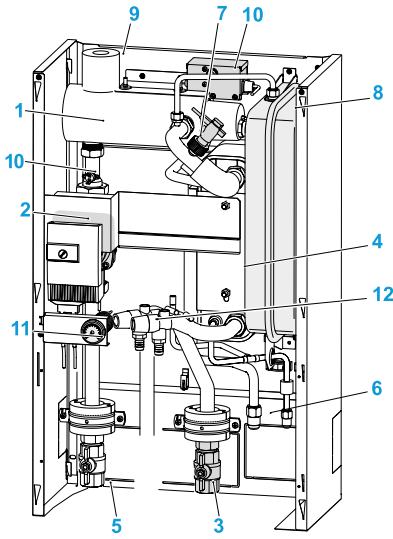
mode (one of which for DHW): the set points can also be selected from a remote contact.

- **Standard double-stage electric heating elements:** configurable as single or double-stage can be activated to support the heat pump, with checking, via the electronic control, of the actual thermal output of the heat pump. Each stage is activated according to the actual 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 R32\* or R410A\* refrigerant gas
- **Storage tank 200 L high efficiency** (tower version). **Components included:** system filling valve, 3-way valve and 2 expansion valves (technical water and DHW).
- **Integrated thermostatic mixer** (tower version).

\* Equipment not hermetically sealed containing fluorinated gases with an equivalent GWP of 675 (R32) and 2088 (R410A)



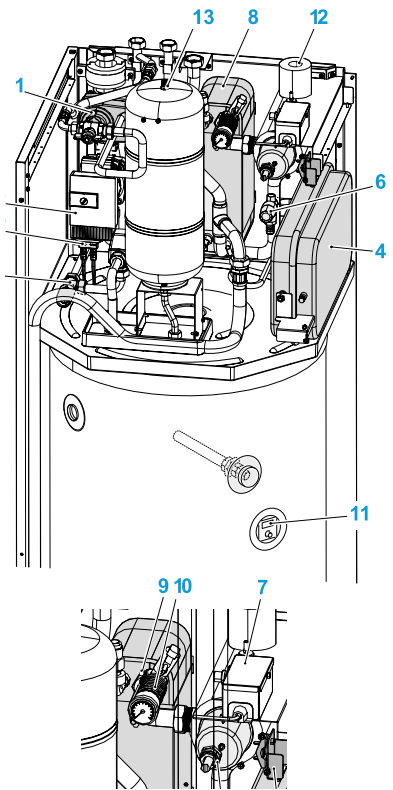
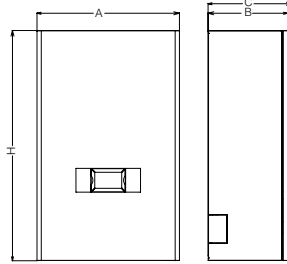
**LAYOUT, DIMENSIONS, WEIGHT**



1. Electric heating element
2. Electronic circulator
3. Water return
4. Plate heat exchanger
5. System delivery
6. Cooling circuit connections
7. Flow switch
8. Expansion tank
9. Automatic air vent
10. Electric heating element safety thermostats
11. Pressure gauge
12. 3 bar safety valve

**Suspended indoor units**

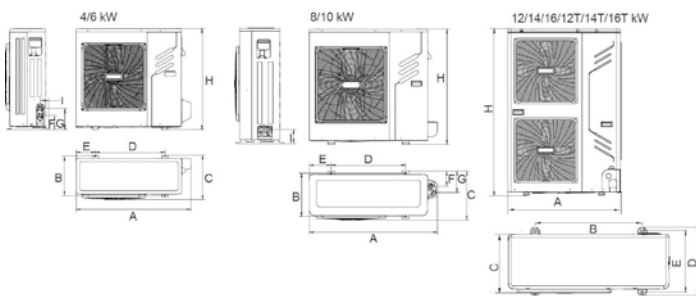
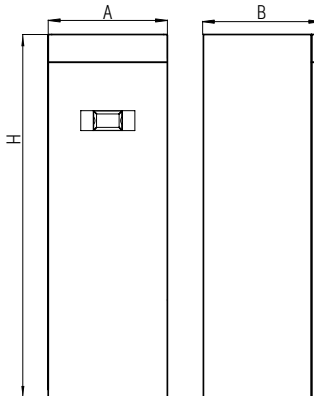
		4	6	8	10	12	14	16	12T	14T	16T
		SMALL				BIG					
A	mm	500	500	500	500	500	500	500	500	500	500
B	mm	280	280	280	280	280	280	280	280	280	280
C	mm	296	296	296	296	296	296	296	296	296	296
H	mm	810	810	810	810	810	810	810	810	810	810
Weight	kg	36	36	36	36	38	38	38	38	38	38



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. Automatic air vent valves
13. Domestic water circuit expansion tank
14. Cable clamp

**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	183	183	183	183	185	185	185	185	185	185



**Outdoor units**

		4	6	8	10	12	14	16	12T	14T	16T
		MONOFAN				BI-FAN					
A	mm	974	974	1075	1075	900	900	900	900	900	900
B	mm	333	333	363	363	600	600	600	600	600	600
C	mm	378	378	411	411	348	348	348	348	348	348
D	mm	590	590	625	625	400	400	400	400	400	400
E	mm	164	164	184	184	360	360	360	360	360	360
F	mm	119	119	126	126	-	-	-	-	-	-
G	mm	179	179	179	179	-	-	-	-	-	-
H	mm	857	857	965	965	1327	1327	1327	1327	1327	1327
I	mm	75	75	117	117	-	-	-	-	-	-
Weight	kg	57	57	67	67	99	99	99	115	115	115

SINGLE-PHASE R32 TECHNICAL DATA				4			6			8			10				
ODU Sherpa S2 E				02001			02002			02003			02004				
IDU Sherpa S2 E				02040			02040			02040			02040				
IDU Sherpa Tower S2 E				02046			02046			02046			02046				
Compressor frequency				Minimum Nominal Maximum			Minimum Nominal Maximum			Minimum Nominal Maximum			Minimum Nominal Maximum				
PRECISE PERFORMANCE	Heating output	a7/6 - w30/35	(a)	kW	2.08	4.2	5.59	3.22	6.5	8.66	4.17	8.4	11.19	4.96	10	13.32	
	COP	a7/6 - w30/35	(a)	W/W	-	5.15	-	-	4.85	-	-	4.85	-	-	4.65	-	
	Heating output	a2/1 - w30/35	(b)	kW	2.08	4.25	5.38	2.74	5.58	7.06	3.48	7.1	8.99	4.04	8.25	10.44	
	COP	a2/1 - w30/35	(b)	W/W	-	3.9	-	-	3.88	-	-	3.88	-	-	3.6	-	
	Heating output	a-7/8 - w30/35	(c)	kW	2.23	4.8	5.23	2.79	6	6.53	3.28	7.05	7.67	3.81	8.2	8.93	
	COP	a-7/8 - w30/35	(c)	W/W	-	3	-	-	2.94	-	-	3.04	-	-	2.95	-	
	Heating output	a-15/-16 - w30/35	(d)	kW	2.17	4.67	5.08	2.26	4.86	5.29	3.25	6.99	7.61	3.25	6.99	7.61	
	COP	a-15/-16 - w30/35	(d)	W/W	-	2.3	-	-	2.27	-	-	2.34	-	-	2.34	-	
	Heating output (fancoils)	a7/6 - w40/45	(f)	kW	2.08	4.2	5.59	3.15	6.35	8.46	3.99	8.05	10.72	4.89	9.85	13.12	
	COP (fancoils)	a7/6 - w40/45	(f)	W/W	-	3.65	-	-	3.64	-	-	3.73	-	-	3.62	-	
	Heating output (fancoils)	a2/1 - w40/45	(g)	kW	2.11	4.3	5.44	2.77	5.65	7.15	3.68	7.5	9.49	3.9	7.95	10.06	
	COP (fancoils)	a2/1 - w40/45	(g)	W/W	-	3.05	-	-	3.02	-	-	3.15	-	-	3.04	-	
	Heating output (fancoils)	a-7/8 - w40/45	(h)	kW	1.93	4.15	4.52	2.56	5.5	5.99	3.09	6.65	7.24	3.63	7.8	8.49	
	COP (fancoils)	a-7/8 - w40/45	(h)	W/W	-	2.39	-	-	2.42	-	-	2.45	-	-	2.41	-	
	Heating output (fancoils)	a-15/-16 - w40/45	(i)	kW	1.92	4.14	4.51	2	4.31	4.69	2.81	6.05	6.59	2.81	6.05	6.59	
	COP (fancoils)	a-15/-16 - w40/45	(i)	W/W	-	1.79	-	-	1.77	-	-	1.92	-	-	1.92	-	
	Cooling power	a35 - w23/18	(l)	kW	2.31	4.3	5.27	3.46	6.45	7.91	4.48	8.35	10.24	5.47	10.2	12.51	
	EER	a35 - w23/18	(l)	W/W	-	5.6	-	-	4.88	-	-	4.67	-	-	4.25	-	
	Cooling output (fancoils)	a35 - w12/7	(m)	kW	2.41	4.5	5.52	3.49	6.5	7.97	3.96	7.38	9.05	4.37	8.15	10	
	EER (fancoils)	a35 - w12/7	(m)	W/W	-	3.32	-	-	2.95	-	-	3.02	-	-	2.95	-	
	EFFICIENCIES	Energy efficiency class in water heating 35°C	Warmer Climate			A+++			A+++			A+++			A+++		
		SCOP	Warmer Climate			6.52			6.52			6.69			6.69		
		s (Seasonal efficiency for space heating)	Warmer Climate	ηs %		257.7			257.7			264.6			264.6		
		Energy efficiency class in water heating 35°C	Average Climate			A+++			A+++			A+++			A+++		
		SCOP	Average Climate			4.77			4.77			4.79			4.79		
		s (Seasonal efficiency for space heating)	Average Climate	ηs %		187.7			187.7			188.5			188.5		
		Energy efficiency class in water heating 35°C	Cold Climate			A++			A++			A++			A++		
SCOP		Cold Climate			4.06			4.06			4.01			4.01			
s (Seasonal efficiency for space heating)		Cold Climate	ηs %		159.5			159.5			157.5			157.5			
Energy efficiency class in water heating 55°C		Warmer Climate			A+++			A+++			A+++			A+++			
SCOP		Warmer Climate			4.28			4.28			4.29			4.29			
s (Seasonal efficiency for space heating)		Warmer Climate	ηs %		168.2			168.2			168.5			168.5			
Energy efficiency class in water heating 55°C		Average Climate			A++			A++			A++			A++			
SCOP		Average Climate			3.34			3.34			3.28			3.28			
s (Seasonal efficiency for space heating)		Average Climate	ηs %		130.6			130.6			128.0			128.0			
Energy efficiency class in water heating 55°C		Cold Climate			A+			A+			A+			A+			
SCOP		Cold Climate			2.77			2.77			2.66			2.66			
s (Seasonal efficiency for space heating)		Cold Climate	ηs %		107.9			107.9			103.5			103.5			
NOISE LEVEL		Indoor unit sound power				dB(A)			41			41			41		
		Indoor unit sound pressure	(n)			dB(A)			35			35			35		
		Outdoor unit sound power (nominal)				dB(A)			61			62			65		
		Outdoor unit sound pressure (nominal)	(o)			dB(A)			38			39			40		
		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		
ELECTRICAL DATA		*Maximum current absorbed indoor unit with additional active heating elements				A			14.1			14.1			14.1		
		*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			14			14			19			
	Outdoor unit maximum absorbed power				kW			2.65			2.65			3.8			
	Compressor type							Twin Rotary DC Inverter 4 poles			Twin Rotary DC Inverter 4 poles			Twin Rotary DC Inverter 6 poles			
	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			1.55			1.55			1.65			
	HYDRAULIC DATA	Refrigerant piping length limit	min - max			2 - 29			2 - 29			2 - 30			2 - 30		
Refrigerant piping length limit without minimum surface check according to IEC 60335-2-40:2018		max	(q)		29			29			20			20			
Drinking water - DHW hydraulic connections					"			1"			1"			1"			
System expansion valve capacity					l			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>DHW</sub> (seasonal production efficiency DHW)		Average Climate	%		121			121			118			118			
Boiler volume					l			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			
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			
DHW expansion tank capacity				l			7			7			7				
DHW hydraulic connections				"			3/4"			3/4"			3/4"				

ONLY FOR SHERPA TOWER S2

(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

SINGLE-PHASE R410A TECHNICAL DATA

				12			14			16				
ODU Sherpa S2				02005			02006			02007				
IDU Sherpa S2				02041			02041			02041				
IDU Sherpa Tower S2				02047			02047			02047				
Compressor frequency				Minimum	Nominal	Maximum	Minimum	Nominal	Maximum	Minimum	Nominal	Maximum		
PRECISE PERFORMANCE	Heating output	a7/6 - w30/35	(a)	kW	4.77	12.1	15.79	5.52	14	18.27	6.12	15.5	20.23	
	COP	a7/6 - w30/35	(a)	W/W	-	4.42	-	-	4.13	-	-	4.06	-	
	Heating output	a2/1 - w30/35	(b)	kW	3.63	9.22	11.51	4.34	11.03	13.77	4.6	11.68	14.59	
	COP	a2/1 - w30/35	(b)	W/W	-	3.52	-	-	3.35	-	-	3.28	-	
	Heating output	a-7/8 - w30/35	(c)	kW	3.83	9.96	10.93	4.22	10.99	12.06	4.59	11.94	13.11	
	COP	a-7/8 - w30/35	(c)	W/W	-	2.8	-	-	2.7	-	-	2.64	-	
	Heating output	a-15/-16 - w30/35	(d)	kW	2.27	5.9	6.48	2.53	6.58	7.22	2.79	7.26	7.97	
	COP	a-15/-16 - w30/35	(d)	W/W	-	2.06	-	-	1.94	-	-	1.92	-	
	Heating output (fancoils)	a7/6 - w40/45	(f)	kW	4.68	11.85	15.46	5.54	14.05	18.33	6.33	16.05	20.94	
	COP (fancoils)	a7/6 - w40/45	(f)	W/W	-	3.41	-	-	3.19	-	-	3.19	-	
	Heating output (fancoils)	a2/1 - w40/45	(g)	kW	3.65	9.26	11.56	4.55	11.55	14.42	4.64	11.78	14.71	
	COP (fancoils)	a2/1 - w40/45	(g)	W/W	-	2.77	-	-	2.74	-	-	2.73	-	
	Heating output (fancoils)	a-7/8 - w40/45	(h)	kW	3.65	9.51	10.44	4.37	11.38	12.49	4.39	11.42	12.54	
	COP (fancoils)	a-7/8 - w40/45	(h)	W/W	-	2.22	-	-	2.18	-	-	2.17	-	
	Heating output (fancoils)	a-15/-16 - w40/45	(i)	kW	1.92	5.01	5.5	2.15	5.59	6.14	2.37	6.17	6.77	
	COP (fancoils)	a-15/-16 - w40/45	(i)	W/W	-	1.66	-	-	1.57	-	-	1.55	-	
	Cooling power	a35 - w23/18	(l)	kW	5.51	11.8	14.05	6.07	13	15.48	6.54	14	16.67	
	EER	a35 - w23/18	(l)	W/W	-	4.45	-	-	4.02	-	-	3.87	-	
	Cooling output (fancoils)	a35 - w12/7	(m)	kW	5.15	11.02	13.13	5.83	12.49	14.88	6	12.85	15.3	
	EER (fancoils)	a35 - w12/7	(m)	W/W	-	2.64	-	-	2.46	-	-	2.38	-	
	EFFICIENCIES	Energy efficiency class in water heating 35°C	Warmer Climate			A+++			A+++			A+++		
		SCOP	Warmer Climate			6.16			5.31			5.28		
		s (Seasonal efficiency for space heating)	Warmer Climate	ηs %		245.0			211.0			210.0		
		Energy efficiency class in water heating 35°C	Average Climate			A+++			A++			A++		
		SCOP	Average Climate			4.41			4.23			3.96		
		s (Seasonal efficiency for space heating)	Average Climate	ηs %		175.0			168.0			157.0		
		Energy efficiency class in water heating 35°C	Cold Climate			A+			A+			A+		
		SCOP	Cold Climate			3.58			3.33			3.41		
		s (Seasonal efficiency for space heating)	Cold Climate	ηs %		142.0			132.0			135.0		
Energy efficiency class in water heating 55°C		Warmer Climate			A+++			A+++			A+++			
SCOP		Warmer Climate			4.33			4.18			4.51			
s (Seasonal efficiency for space heating)		Warmer Climate	ηs %		172.0			166.0			179.0			
Energy efficiency class in water heating 55°C		Average Climate			A++			A++			A++			
SCOP		Average Climate			3.21			3.23			3.21			
s (Seasonal efficiency for space heating)		Average Climate	ηs %		127.0			128.0			127.0			
Energy efficiency class in water heating 55°C		Cold Climate			A+			A+			A+			
SCOP		Cold Climate			2.81			2.81			2.81			
s (Seasonal efficiency for space heating)		Cold Climate	ηs %		111.0			111.0			111.0			
NOISE LEVEL		Indoor unit sound power			dB(A)	46			46			46		
		Indoor unit sound pressure		(n)	dB(A)	40			40			40		
		Outdoor unit sound power (nominal)			dB(A)	69			71			72		
		Outdoor unit sound pressure (nominal)		(o)	dB(A)	46			48			49		
		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 active heating elements		A		27.2			27.2			27.2		
		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		27			27			27		
Outdoor unit maximum absorbed power		kW		6			6			6				
ELECTRICAL DATA	Compressor type				Twin Rotary DC Inverter 6 poles			Twin Rotary DC Inverter 6 poles			Twin Rotary DC Inverter 6 poles			
	Refrigerant inlet connection diameter			"	3/8"-5/8"			3/8"-5/8"			3/8"-5/8"			
	Coolant gas		(p)		R410A			R410A			R410A			
	Global warming potential		GWP		2088			2088			2088			
	Refrigerant gas charge		kg		3.9			3.9			3.9			
	Refrigerant piping length limit	min - max			2 - 50			2 - 50			2 - 50			
	Refrigerant piping length limit without minimum surface check according to IEC 60335-2-40:2018	max	(q)		-			-			-			
	Drinking water - DHW hydraulic connections			"	1"			1"			1"			
	System expansion valve capacity		l		8			8			8			
	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"				

ONLY FOR SHERPA TOWER S2

(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

THREE-PHASE R410A TECHNICAL DATA				12T			14T			16T				
ODU Sherpa S2				02008			02009			02010				
IDU Sherpa S2				02041			02041			02041				
IDU Sherpa Tower S2				02047			02047			02047				
Compressor frequency				Minimum	Nominal	Maximum	Minimum	Nominal	Maximum	Minimum	Nominal	Maximum		
PRECISE PERFORMANCE	Heating output	a7/6 - w30/35	(a)	kW	4.77	12.1	15.79	5.52	14	18.27	6.12	15.5	20.23	
	COP	a7/6 - w30/35	(a)	W/W	-	4.53	-	-	4.31	-	-	4.19	-	
	Heating output	a2/1 - w30/35	(b)	kW	3.6	9.14	11.41	4.29	10.91	13.62	4.31	10.95	13.67	
	COP	a2/1 - w30/35	(b)	W/W	-	3.6	-	-	3.42	-	-	3.39	-	
	Heating output	a-7/-8 - w30/35	(c)	kW	3.72	9.69	10.64	4.31	11.21	12.31	4.32	11.25	12.35	
	COP	a-7/-8 - w30/35	(c)	W/W	-	2.75	-	-	2.66	-	-	2.64	-	
	Heating output	a-15/-16 - w30/35	(d)	kW	2.38	6.19	6.79	2.74	7.13	7.83	2.93	7.62	8.36	
	COP	a-15/-16 - w30/35	(d)	W/W	-	2.17	-	-	2.09	-	-	2.05	-	
	Heating output (fancoils)	a7/6 - w40/45	(f)	kW	4.7	11.91	15.54	5.48	13.9	18.14	6.13	15.53	20.26	
	COP (fancoils)	a7/6 - w40/45	(f)	W/W	-	3.44	-	-	3.3	-	-	3.18	-	
	Heating output (fancoils)	a2/1 - w40/45	(g)	kW	3.65	9.26	11.56	4.51	11.46	14.31	4.97	12.62	15.76	
	COP (fancoils)	a2/1 - w40/45	(g)	W/W	-	2.8	-	-	2.7	-	-	2.68	-	
	Heating output (fancoils)	a-7/-8 - w40/45	(h)	kW	3.73	9.7	10.65	4.38	11.4	12.51	4.39	11.44	12.56	
	COP (fancoils)	a-7/-8 - w40/45	(h)	W/W	-	2.26	-	-	2.17	-	-	2.15	-	
	Heating output (fancoils)	a-15/-16 - w40/45	(i)	kW	2.02	5.27	5.78	2.33	6.06	6.65	2.49	6.48	7.11	
	COP (fancoils)	a-15/-16 - w40/45	(i)	W/W	-	1.74	-	-	1.67	-	-	1.64	-	
	Cooling power	a35 - w23/18	(l)	kW	5.51	11.8	14.05	6.45	13.8	16.44	6.87	14.7	17.51	
	EER	a35 - w23/18	(l)	W/W	-	4.59	-	-	4.21	-	-	3.9	-	
	Cooling output (fancoils)	a35 - w12/7	(m)	kW	5.72	12.25	14.59	5.83	13.24	14.88	6.27	13.43	16	
	EER (fancoils)	a35 - w12/7	(m)	W/W	-	2.69	-	-	2.51	-	-	2.41	-	
	EFFICIENCIES	Energy efficiency class in water heating 35°C	Warmer Climate			A+++			A+++			A+++		
		SCOP	Warmer Climate			6.41			6.53			6.13		
		s (Seasonal efficiency for space heating)	Warmer Climate	ηs %		255.0			260.0			244.0		
		Energy efficiency class in water heating 35°C	Average Climate			A+++			A+++			A++		
		SCOP	Average Climate			4.63			4.51			4.33		
		s (Seasonal efficiency for space heating)	Average Climate	ηs %		184.0			179.0			172.0		
		Energy efficiency class in water heating 35°C	Cold Climate			A++			A++			A+		
		SCOP	Cold Climate			3.96			3.78			3.61		
		s (Seasonal efficiency for space heating)	Cold Climate	ηs %		157.0			150.0			143.0		
Energy efficiency class in water heating 55°C		Warmer Climate			A+++			A+++			A+++			
SCOP		Warmer Climate			4.13			4.21			4.21			
s (Seasonal efficiency for space heating)		Warmer Climate	ηs %		164.0			167.0			167.0			
Energy efficiency class in water heating 55°C		Average Climate			A++			A++			A++			
SCOP		Average Climate			3.23			3.28			3.28			
s (Seasonal efficiency for space heating)		Average Climate	ηs %		128.0			130.0			130.0			
Energy efficiency class in water heating 55°C		Cold Climate			A+			A+			A+			
SCOP		Cold Climate			2.78			2.73			2.76			
s (Seasonal efficiency for space heating)		Cold Climate	ηs %		110.0			108.0			109.0			
NOISE LEVEL		Indoor unit sound power			dB(A)	46			46			46		
		Indoor unit sound pressure		(n)	dB(A)	40			40			40		
		Outdoor unit sound power (nominal)			dB(A)	70			72			72		
		Outdoor unit sound pressure (nominal)		(o)	dB(A)	47			49			49		
		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		
ELECTRICAL DATA		Maximum current absorbed indoor unit with additional active heating elements		A		27.2			27.2			27.2		
		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	9			9			9		
	Outdoor unit maximum absorbed power			kW	6			6			6			
	Compressor type				Twin Rotary DC Inverter 6 poles			Twin Rotary DC Inverter 6 poles			Twin Rotary DC Inverter 6 poles			
	Refrigerant inlet connection diameter			"	3/8"-5/8"			3/8"-5/8"			3/8"-5/8"			
	Coolant gas		(p)		R410A			R410A			R410A			
	Global warming potential			GWP	2088			2088			2088			
HYDRULIC DATA	Refrigerant gas charge			kg	4.2			4.2			4.2			
	Refrigerant piping length limit	min - max			2 - 50			2 - 50			2 - 50			
	Refrigerant piping length limit without minimum surface check according to IEC 60335-2-40:2018	max	(q)		-			-			-			
	Drinking water - DHW hydraulic connections			"	1"			1"			1"			
	System expansion valve capacity			l	8			8			8			
	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			
INTEGRATED DHW BOILER	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"			
						3/4"			3/4"			3/4"		

ONLY FOR SHERPA TOWER S2

(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  
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(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
COMMANDS	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	Set flens voor weerstand	○	—
	01199	Thermal accumulation 50 L	○	○
	01200	Thermal accumulation 100 L	○	○

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

Accessory description on page 50

BMS

HEAT PUMPS

FAN COIL UNITS

CWV

UNICO

FIXED AIR CONDITIONERS

PORTABLES

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.