SHERPA

HEAT PUMPS

Innovative and specific solutions for each climatic zone

Specific solutions for each European climate

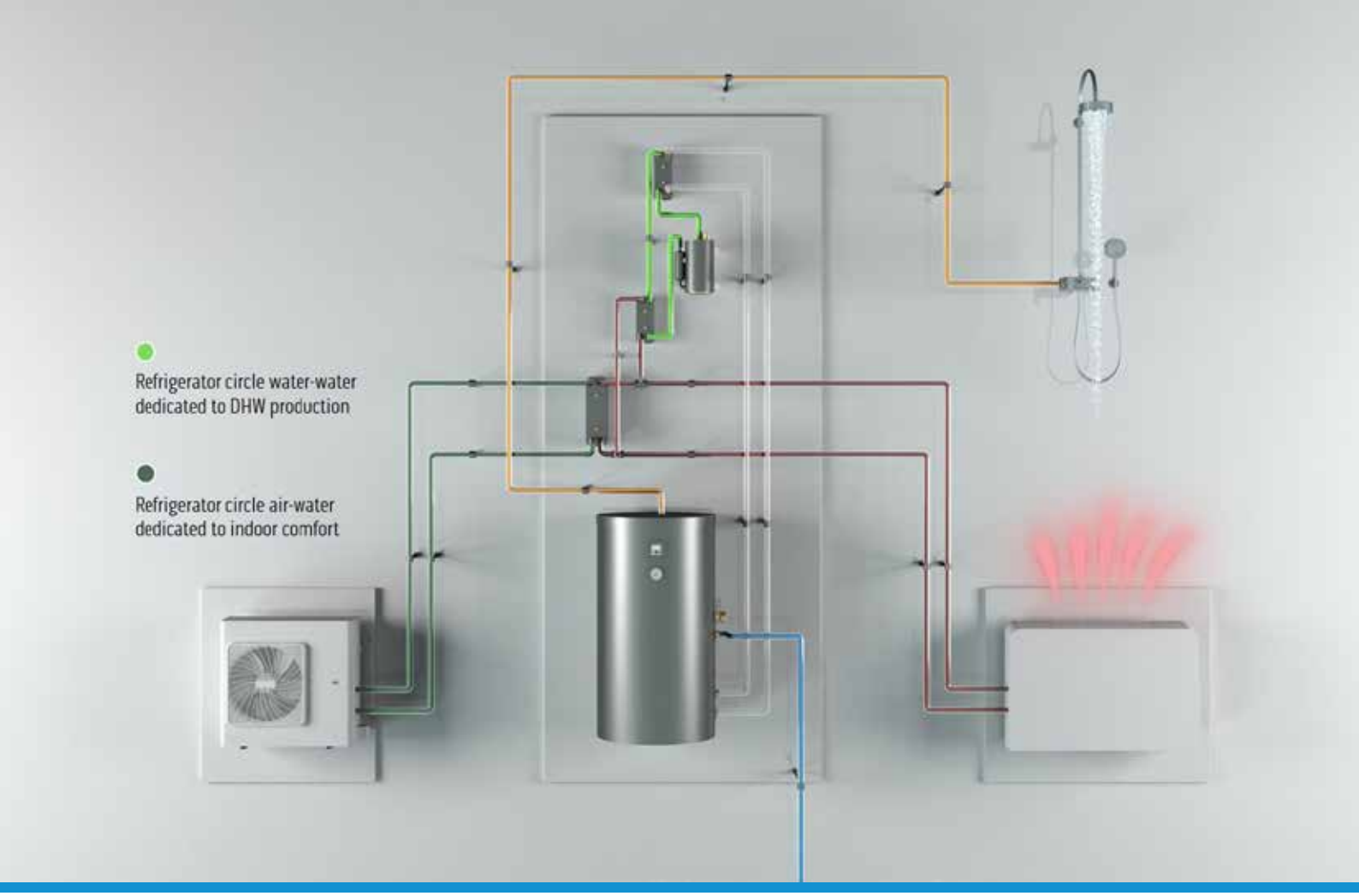
To achieve maximum efficiency and reliability in every project

Warm climatic zones, Average and Cold

The relevant European regulations identify, within the reference territory, 3 different climatic zones, in which the project temperatures relating to indoor comfort systems are profoundly different. A comparative study commissioned by Olimpia Splendid has shown how each of these climates determines a different distribution of the thermal and cooling load inside buildings and a specific behaviour of the heat pumps.

Specific configurations to maximise efficiency and comfort

To optimize the efficiency and output power of the heat pumps according to the external temperature, Olimpia Splendid offers the possibility to choose between different types of heat pumps, specially designed for the reference European climates.



Aquadue patented technology

Innovation that ensures simultaneously comfort and DHW

Dual cooling cycle

In Olimpia Splendid heat pumps equipped with Aquadue technology, the two interconnected cooler cycles make it possible to make the heating/cooling independent from the DHW production, allowing it to operate in parallel. A feature that avoids interruptions in the provision of home comfort.

Domestic Hot Water up to 75°C

The dual cooling cycle present in the Aquadue models also allows the production of DHW at a high temperature (up to 75°C), regardless of the external climatic conditions. Thus it is possible to reduce the volume of the storage tank up to 30% and to avoid highly energy-intensive anti-legionella cycles (normally carried out with the use of electric heating elements).

Coverage of the renewable quantity for the production of DHW

Thanks to the efficient management of heat, Aquadue technology facilitates the achievement, in buildings with a high energy class, of the coverage quantities from renewable energy without the installation of additional devices.

Heat pumps range

Production of comfort and DHW

SINGLE-PHASE

	4	6	8	10
SHERPA AQUADUE Multi-purpose heat pumps PAGE 24				
Outdoor units	UE Sherpa S2 E 4 (02001)	UE Sherpa S2 E 6 (02002)	UE Sherpa S2 E 8 (02003)	UE Sherpa S2 E 10 (02004)
SUSPENDED VERSION	UI Sherpa Aquadue S2 E Small (02042)			
TOWER VERSION (150L)	UI Sherpa Aquadue Tower S2 E Small (02044)			
	A+++	A+++	A+++	A+++
SHERPA Traditional heat pumps PAGE 32				
Outdoor units	UE Sherpa S2 E 4 (02001)	UE Sherpa S2 E 6 (02002)	UE Sherpa S2 E 8 (02003)	UE Sherpa S2 E 10 (02004)
SUSPENDED VERSION	UI Sherpa S2 E Small (02040)			
TOWER VERSION (200L)	UI Sherpa Tower S2 E Small (02046)			
	A+++	A+++	A+++	A+++
SHERPA COLD Heat pumps for cold climates PAGE 40				
Outdoor units				NEW UE Sherpa Cold 10 (02269)
SUSPENDED VERSION				NEW UI Sherpa Cold (02276)
				A+++
SHERPA MONOBLOC Monoblock heat pump PAGE 44				
Outdoor units		Sherpa Monobloc S1 E 6 (02021)	Sherpa Monobloc S1 E 8 (02022)	
		A+++	A+++	

Production of only DHW

	200	300
SHERPA SHW Water heater in heat pump PAGE 48		
	NEW Sherpa SHW S1 200 (02267)	NEW Sherpa SHW S1 300S (02268)
	A	A

Energy efficiency classes in heating, water at 35°C (average climate). For Sherpa SHW classes according to Regulation EU 812/2013.

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)									
A+++	A++		A++		A+++	A+++		A++	

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 S2 Big (02041)									
UI Sherpa Tower S2 Big (02047)									
A+++	A++		A++		A+++	A+++		A++	

12	14	15	16	10T	12T	14T	15T	16T	18T
NEW UE Sherpa Cold 12 (02271)		NEW UE Sherpa Cold 15 (02273)		NEW UE Sherpa Cold 10T (02270)	NEW UE Sherpa Cold 12T (02272)		NEW UE Sherpa Cold 15T (02274)		NEW UE Sherpa Cold 18T (02275)
NEW UI Sherpa Cold (02276)		NEW UI Sherpa Cold (02277)		NEW UI Sherpa Cold (02276)			NEW UI Sherpa Cold (02277)		NEW UI Sherpa Cold (02278)
A+++		A+++		A+++	A+++		A+++		A+++

12	14	15	16	10T	12T	14T	15T	16T	18T
Sherpa Monobloc S1 E 12 (02023)			Sherpa Monobloc S1 E 16 (02025)		Sherpa Monobloc S1 E 12T (02024)			Sherpa Monobloc S1 E 16T (02026)	
A+++ R32			A++ R32		A+++ R32			A++ R32	

SHERPA AQUADUE

Compatible with: SiOS CONTROL

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.

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

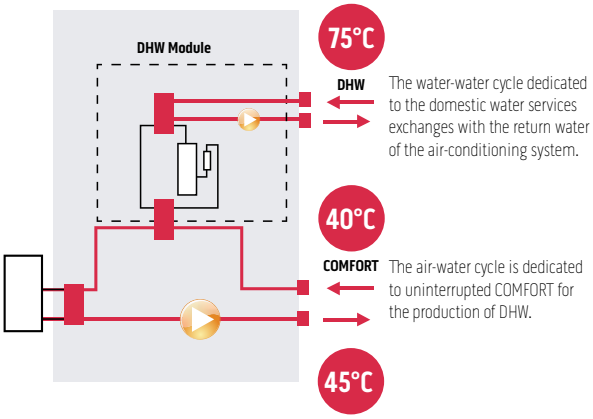
- **Inverter air-water heat pump**
- **Energy efficiency class** in average climate heating up to: A+++ (35°C) and A++ (55°C)
- **Powers available:** 4 Powers with refrigerant R32 (4-6-8-10 kW single-phase) and 3 Powers with refrigerant R410A (12-14-16 kW single-phase and three-phase).
- **Production 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 dual cooling cycle system
- **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* or R410A* 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 m2.

AQUADUE TECHNOLOGY

HEATING MODE

+DHW at high temperature

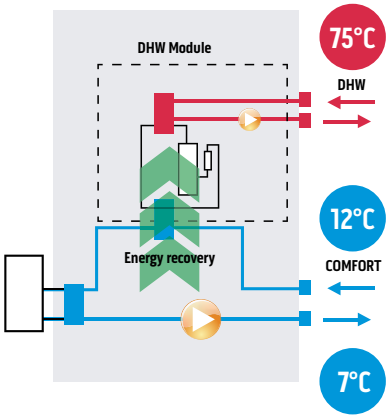
Production of DHW guaranteed regardless of the outside temperature for optimal operation all year round, not guaranteed by traditional heat pumps.



COOLING MODE

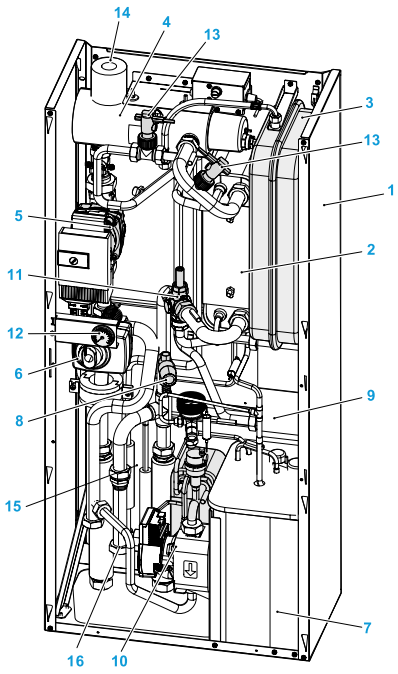
+DHW at a high temperature with energy recovery

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

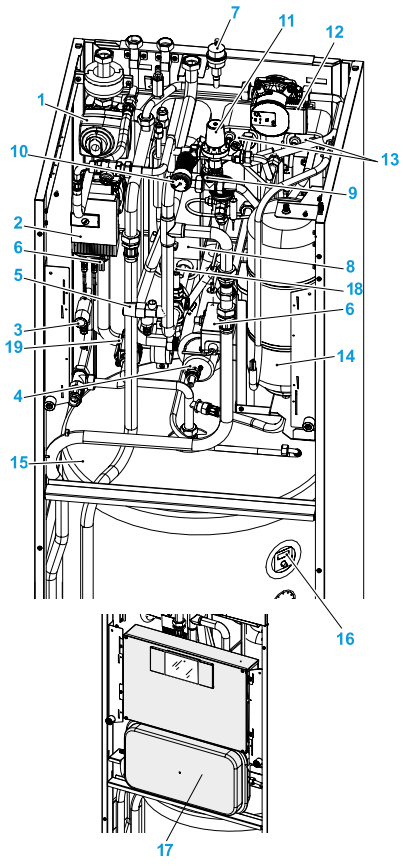


* Equipment not hermetically sealed containing fluorinated gases with an equivalent GWP of 675 (R32) and 2088 (R410A)
** Non-hermetically sealed equipment containing fluorinated gas with GWP equivalent 1430

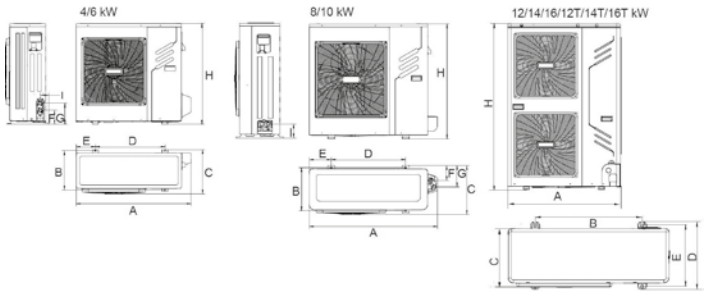
LAYOUT, DIMENSIONS, WEIGHT



1. Support structure
2. System primary circuit heat exchanger
3. System circuit expansion vessel
4. Electric heating elements manifold
5. Primary circuit electronic circulation pump
6. 3-way valve
7. DHW circuit compressor
8. DHW circuit expansion valve
9. DHW circuit heat exchanger
10. DHW circuit electronic circulation pump
11. Flow regulator
12. Pressure gauge
13. Flow switch
14. Automatic safety vent
15. Refrigeration connections
16. Hydraulic connections (system and external storage tank)

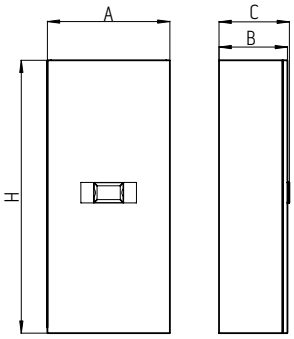


1. 3-way valve
2. Air conditioner circuit circulation pump
3. Safety valves (DHW circuit 6 bar)
4. Post-heating electric heating element manifold
5. Safety valves air conditioner circuit 3 bar
6. Electric heating elements safety thermostats
7. Automatic air vent valves
8. Air conditioner circuit heat exchanger
9. Flow switches
10. Air conditioning circuit pressure gauge
11. DHW circuit filling unit
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. Regulator of evaporator water flow rate
19. DHW thermostatic accumulators



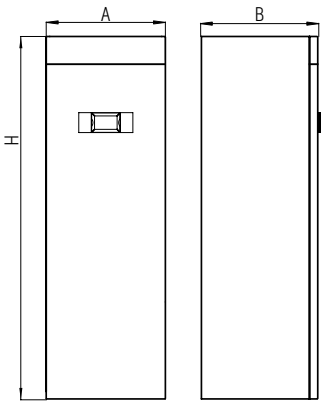
Suspended indoor units

		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	72	72	72	72	72	72



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	173	173	173	173	173	173



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 Aquadue S2 E				02042			02042			02042			02042		
IDU Sherpa Aquadue Tower S2 E				02044			02044			02044			02044		
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	
ηs (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	
ηs (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	
ηs (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	
ηs (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	
ηs (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	
ηs (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			41	
Indoor unit sound pressure		(n)	dB(A)		35			35			35			35	
Outdoor unit sound power (nominal)			dB(A)		61			62			63			65	
Outdoor unit sound pressure (nominal)		(o)	dB(A)		38			39			40			42	
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	
Electrical data Maximum current absorbed indoor unit with additional active heating elements			A		18.00			18.00			18.00			18.00	
Maximum power absorbed indoor unit with additional active heating elements			kW		4.05			4.05			4.05			4.05	
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		14			14			19			19	
Outdoor unit maximum absorbed power			kW		2.65			2.65			3.8			3.8	
COOLING CIRCUIT															
Compressor type					Twin Rotary DC Inverter 4 poles			Twin Rotary DC Inverter 4 poles			Twin Rotary DC Inverter 6 poles			Twin Rotary DC Inverter 6 poles	
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		1.55			1.55			1.65			1.65	
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	
HYDRAULIC DATA															
Drinking water - DHW hydraulic connections			"		1"			1"			1"			1"	
System expansion valve capacity			l		8			8			8			8	
ONLY FOR SHERPA AQUADUE TOWER S2															
Load profile according to EN16147					L			L			L			L	
INTEGRATED DHW BOILER															
DHW production energy efficiency class	Average Climate				A			A			A			A	
ηHW (seasonal production efficiency DHW)	Average Climate		%		106			106			86			86	
Boiler volume			l		150			150			150			150	
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			m²		1.5			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			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"	
SECONDARY DHW COOLING CIRCUIT															
DHW circuit heating capacity	w35 - w55	(r)	kW		2.15			2.15			2.15			2.15	
COP DHW circuit	w35 - w55	(r)	W/W		3.12			3.12			3.12			3.12	
DHW circuit heating capacity	w12 - w55	(s)	kW		1.6			1.6			1.6			1.6	
COP DHW circuit	w12 - w55	(s)	W/W		2.58			2.58			2.58			2.58	
Sound power indoor unit in heating/cooling + DHW circuit			dB(A)		49			49			49			49	
DHW circuit circulator absorption			W		3 - 43			3 - 43			3 - 43			3 - 43	
DHW circuit coolant gas		(t)			R134a			R134a			R134a			R134a	
DHW circuit global warming potential			GWP		1430			1430			1430			1430	
DHW circuit coolant gas load			kg		0.35			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
(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
(r) Heating circuit water temperature 35°C/Outlet water temperature 55°C
(s) Heating circuit water temperature 12°C/Outlet water temperature 55°C
(t) Non-hermetically sealed equipment containing fluorinated GAS

SINGLE-PHASE R410A TECHNICAL DATA				12			14			16		
ODU Sherpa S2				02005			02006			02007		
IDU Sherpa Aquadue S2				02043			02043			02043		
IDU Sherpa Aquadue Tower S2				02045			02045			02045		
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	
	ηs (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	
	ηs (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	
	ηs (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	
	ηs (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	
	ηs (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	
	ηs (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	
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 indoor unit with additional active heating elements			A	31.00			31.00			31.00	
	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	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	
COOLING CIRCUIT	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)		-			-			-	
HYDRAULIC DATA	Drinking water - DHW hydraulic connections			"	1"			1"			1"	
	System expansion valve capacity			l	8			8			8	
ONLY FOR SHERPA AQUADUE TOWER S2	Load profile according to EN16147				L			L			L	
INTEGRATED DHW BOILER	DHW production energy efficiency class	Average Climate			A			A			A	
	ηHW (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			m²	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"	
SECONDARY DHW COOLING CIRCUIT	DHW circuit heating capacity	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 capacity	w12 - w55	(s)	kW	1.6			1.6			1.6	
	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	

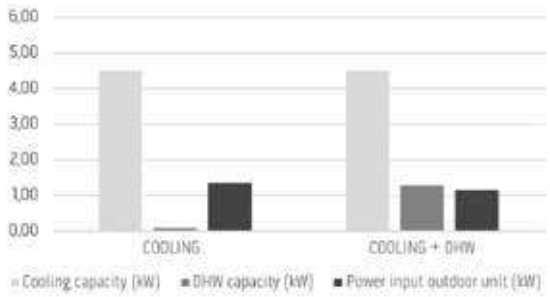
(a) Heating mode, external air temperature 7°C b.s./6°C b.u., inlet/outlet water temperature 30°C/35°C
(b) Heating mode, external air temperature 2°C b.s./1°C b.u., inlet/outlet water temperature 30°C/35°C
(c) Heating mode, external air temperature -7°C b.s./-8°C b.u., inlet/outlet water temperature 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
(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
(r) Heating circuit water temperature 35°C/Outlet water temperature 55°C
(s) Heating circuit water temperature 12°C/Outlet water temperature 55°C
(t) Non-hermetically sealed equipment containing fluorinated GAS

THREE-PHASE R410A TECHNICAL DATA				12T			14T			16T		
ODU Sherpa S2				02008			02009			02010		
IDU Sherpa Aquadue S2				02043			02043			02043		
IDU Sherpa Aquadue Tower S2				02045			02045			02045		
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	
ηs (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	
ηs (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	
ηs (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	
ηs (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	
ηs (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	
ηs (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	
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 indoor unit with additional active heating elements			A		31.00			31.00			31.00	
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		9			9			9	
Outdoor unit maximum absorbed power			kW		6			6			6	
COOLING CIRCUIT												
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		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)			-			-			-	
HYDRAULIC DATA												
Drinking water - DHW hydraulic connections			"		1"			1"			1"	
System expansion valve capacity			l		8			8			8	
ONLY FOR SHERPA AQUADUE TOWER S2												
INTEGRATED DHW BOILER												
Load profile according to EN16147					L			L			L	
DHW production energy efficiency class	Average Climate				A			A			A	
ηHW (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			m²		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"	
SECONDARY DHW COOLING CIRCUIT												
DHW circuit heating capacity	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 capacity	w12 - w55	(s)	kW		1.6			1.6			1.6	
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
(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
(r) Heating circuit water temperature 35°C/Outlet water temperature 55°C
(s) Heating circuit water temperature 12°C/Outlet water temperature 55°C
(t) Non-hermetically sealed equipment containing fluorinated GAS

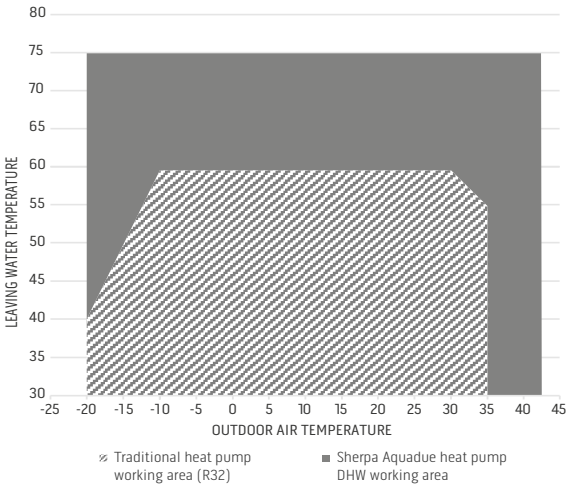
			4			6			8			10		
			Cooling w7 - a35	DHW w65 - w12	Cooling w7 - A35 DHW w65 - w12	Cooling w7 - a35	DHW w65 - w12	Cooling w7 - A35 DHW w65 - w12	Cooling w7 - a35	DHW w65 - w12	Cooling w7 - A35 DHW w65 - w12	Cooling w7 - a35	DHW w65 - w12	Cooling w7 - A35 DHW w65 - w12
First circuit + second circuit data	Cooling capacity	kw	4.50	0.64	4.50	6.50	0.64	6.50	7.38	0.64	7.38	8.15	0.64	8.15
	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	1.16	2.20	0.56	1.89	2.44	0.56	2.09	2.76	0.56	2.37
	COP EER		3.32	2.30	3.88	2.95	2.30	3.44	3.02	2.30	3.53	2.95	2.30	3.44

			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	11.02	0.64	11.02	12.49	0.64	12.49	12.85	0.64	12.85	12.25	0.64	12.25	13.24	0.64	13.24	13.43	0.64	13.43
	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	4.17	0.56	3.57	5.08	0.56	4.35	5.40	0.56	4.62	4.55	0.56	3.90	5.27	0.56	4.52	5.57	0.56	4.77
	COP EER		2.64	2.30	3.08	2.46	2.30	2.87	2.38	2.30	2.78	2.69	2.30	3.14	2.51	2.30	2.93	2.41	2.30	2.81



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

			suspended	tower
COMMANDS	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 NEW	○	○
OTHER	B0918	Kit Sherpa Flex Box AS NEW	≤10	–
	B0961	Kit Sherpa Flex Box AS RAL 9016 NEW	≤10	–
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	○	–
	01199	Thermal accumulation 50 L	○	○
	01200	Thermal accumulation 100 L	○	○

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

Accessory description on page 50

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.

NEW

Kit Sherpa Flex Box AS

Freestanding technical cabinet for Sherpa Aquadue S2 E Small multi-purpose split heat pumps

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

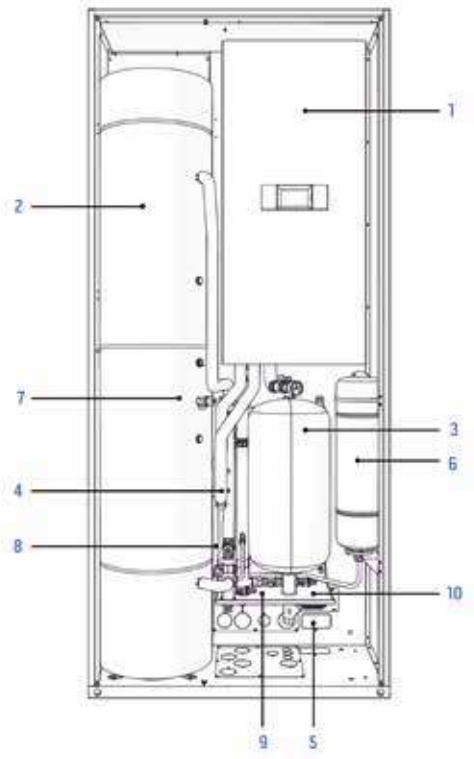
(standard on return from the system)
To ensure efficient and safe operation of the heat pump (class C)

FREESTANDING TECHNICAL CABINET

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

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 multi-purpose heat pump (Sherpa Aquadue) 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



FEATURES

- Dimensions (W x D x H): 998 x 415 x 2280 mm
- System connections from below or from the back
- Condensate 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).

COMPATIBILITY

- SHERPA AQUADUE S2 E 4 (IDU Sherpa Aquadue S2 E Small 02042)
- SHERPA AQUADUE S2 E 6 (IDU Sherpa Aquadue S2 E Small 02042)
- SHERPA AQUADUE S2 E 8 (IDU Sherpa Aquadue S2 E Small 02042)
- SHERPA AQUADUE S2 E 10 (IDU Sherpa Aquadue S2 E Small 02042)

1. IDU Sherpa Aquadue S2 E Small (02042)
2. Domestic hot water storage tank 150 litres – Stainless Steel AISI 316L
3. Technical system storage tank 28 litres – Stainless Steel AISI 316L
4. Storage tank return filter
5. System return filter
6. Domestic water expansion tank 12 litres
7. Safety valves domestic water 6 bar
8. Domestic water thermostatic mixing valve
9. Micrometric lockshield for By-Pass
10. Condensate trap

TYPES OF INSTALLATION

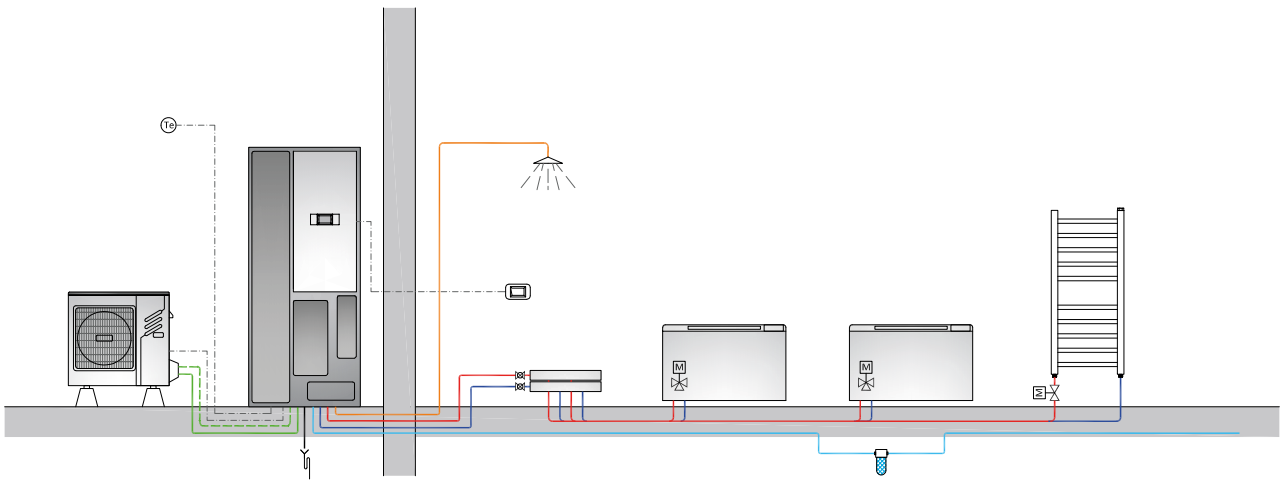
The technical cabinet must be installed in an area protected from the weather according to installation manual

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).

SYSTEM DIAGRAM

SHERPA AQUADUE S2 SMALL heat pump 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.



Schematic diagram, refer to the installation manual. In particular, the water filtration and treatment system is not shown. Maximum domestic cold water inlet pressure 3.0 bar.

SHERPA

Compatible with: SiOS CONTROL

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

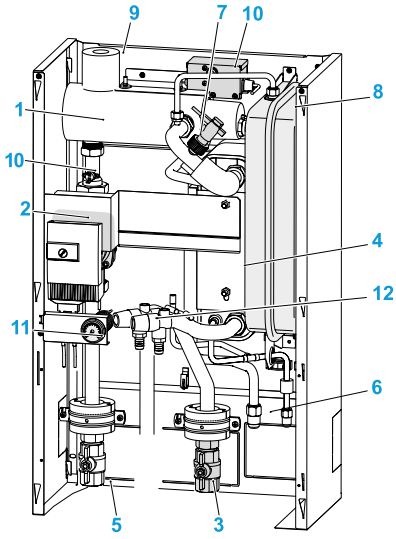
In sizes up to 10 kW, it uses the R32 refrigerant, characterised by greater efficiency and a greenhouse effect reduced by almost 70% (compared to R410A).

FEATURES

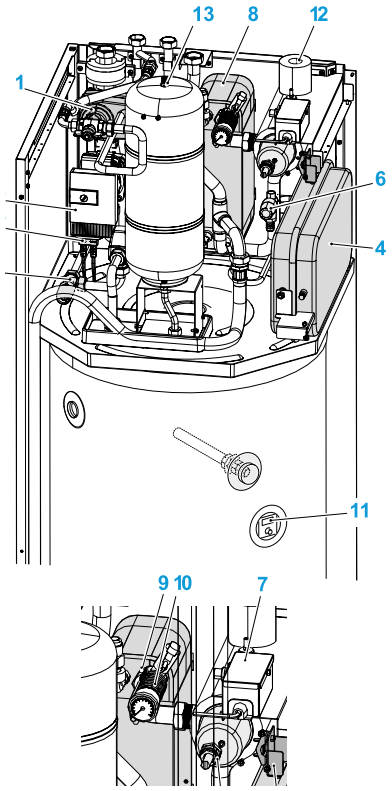
- **Inverter air-water heat pump**
- **Energy efficiency class** in average climate heating up to: A+++ (35°C) and A++ (55°C)
- **Powers available:** 4 Powers with refrigerant R32 (4-6-8-10 kW single-phase) and 3 Powers with refrigerant R410A (12-14-16 kW single-phase and three-phase)
- **Supplies DHW** 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



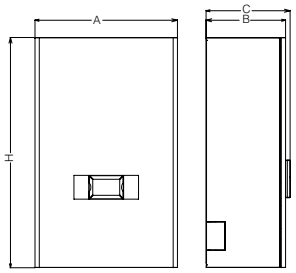
1. Electric heating element
2. Electronic circulator
3. Water return
4. Plate heat exchanger
5. System delivery
6. Cooling circuit connections
7. Flow switch
8. Expansion tank
9. Automatic air vent
10. Electric heating element safety thermostats
11. Pressure gauge
12. 3 bar safety valve



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

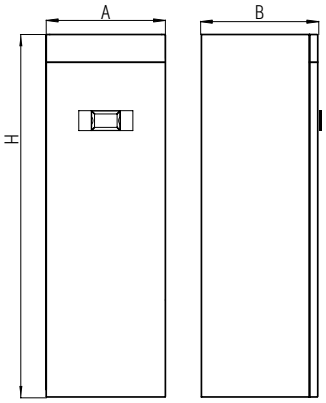
Suspended indoor units

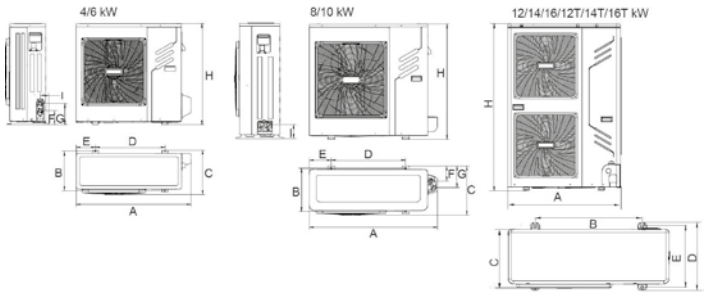
		4	6	8	10	12	14	16	12T	14T	16T
		SMALL				BIG					
A	mm	500	500	500	500	500	500	500	500	500	500
B	mm	280	280	280	280	280	280	280	280	280	280
C	mm	296	296	296	296	296	296	296	296	296	296
H	mm	810	810	810	810	810	810	810	810	810	810
Weight	kg	36	36	36	36	38	38	38	38	38	38



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	
	ηs (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	
	ηs (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	
	ηs (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	
	ηs (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	
	ηs (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	
	ηs (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			41	
	Indoor unit sound pressure		(n)	dB(A)	35			35			35			35	
	Outdoor unit sound power (nominal)			dB(A)	61			62			63			65	
	Outdoor unit sound pressure (nominal)		(o)	dB(A)	38			39			40			42	
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 active heating elements			A	14.1			14.1			14.1			14.1	
	*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	14			14			19			19	
	Outdoor unit maximum absorbed power			kW	2.65			2.65			3.8			3.8	
COOLING CIRCUIT	Compressor type				Twin Rotary DC Inverter 4 poles			Twin Rotary DC Inverter 4 poles			Twin Rotary DC Inverter 6 poles			Twin Rotary DC Inverter 6 poles	
	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	1.55			1.55			1.65			1.65	
	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	
HYDRAULIC DATA	Drinking water - DHW hydraulic connections			"	1"			1"			1"			1"	
	System expansion valve capacity			l	8			8			8			8	
ONLY FOR SHERPA TOWER S2 / INTEGRATED DHW BOILER	Load profile according to EN16147				XL			XL			XL			XL	
	DHW production energy efficiency class	Average Climate			A			A			A			A	
	ηHW (seasonal production efficiency DHW)	Average Climate		%	121			121			118			118	
	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			m²	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"	

(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 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	
	ηs (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	
	ηs (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	
	ηs (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	
	ηs (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	
	ηs (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	
	ηs (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	
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 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	
COOLING CIRCUIT	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)		-			-			-	
HYDRAULIC DATA	Drinking water - DHW hydraulic connections			"	1"			1"			1"	
	System expansion valve capacity			l	8			8			8	
ONLY FOR SHERPA TOWER S2 / INTEGRATED DHW BOILER	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"	

(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		
	ηs (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		
	ηs (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		
	ηs (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		
	ηs (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		
	ηs (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		
	ηs (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		
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 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		
COOLING CIRCUIT	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	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)		-			-			-		
HYDRAULIC DATA	Drinking water - DHW hydraulic connections			"	1"			1"			1"		
	System expansion valve capacity			l	8			8			8		
ONLY FOR SHERPA TOWER S2 / INTEGRATED DHW BOILER	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"		

(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
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 NEW	○	○
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

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.

Touchscreen interface

Sherpa Aquadue and Sherpa heat pumps, suspended and tower versions

HOME PAGE

The home page shows the following information:
A - System date and time
B - Current mode active (Stand-by, cooling, heating, DHW only)
C - Active functions (Climate Curve, Turbo DHW, DHW OFF, anti-legionella, Night, ECO)
D - Alarms/overrides in progress (flashing)
E - System water temperature values, system active timers, Holiday, Rating
F - DHW tank water temperature values, domestic hot water timers active, Holiday
G - Activation icons:
Mode: operation
Tset: system and domestic hot water set point
Tshow: temperature probe reading
Timers: hourly programming
Menu: machine functions

OPERATING MODE

By touching the Mode icon. the page for configuring the operating mode is accessed. This page shows the selection icons for all the available operating modes.
- Stand-by, the system is off
- Cooling, the system produces cold water until the set-point is reached (predetermined or dynamic set point defined by climatic curve)
- Heating the system produces hot water until the set-point is reached (predetermined or dynamic set point defined by the climatic curve)
- ECO, the system produces water until the ECO energy saving set-point is reached (if activate, the climate control the ECO set point is not considered)
- Night, the system limits the output and noise of the external unit
- DHW Turbo, the system produces domestic hot water using all the power of the outdoor unit up to to the set limit.

SET POINT

By touching the Tset icon, it is possible to access the set point configuration page.
- Cooling water temperature
- ECO cooling water temperature
- Heating water temperature
- ECO heating water temperature
- Domestic hot water temperature (external storage tank set point).

The cooling and heating set points are not considered by the controller if the set-point with climatic curve mode has been enabled.
The set point values are modified with a simple touch of the set value.

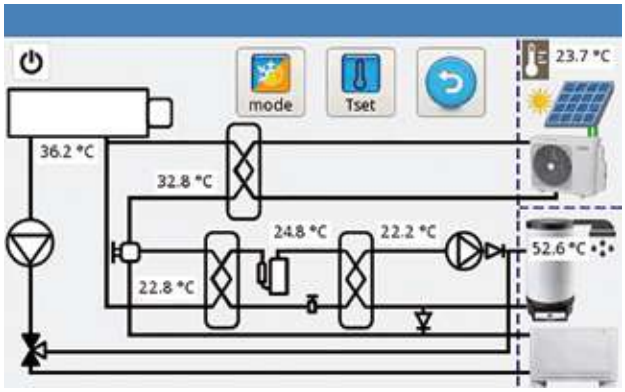
TIMERS

Tapping the Timers icon accesses the available schedules.
- Heating/cooling timer
- DHW timer
- Night timer
- Holidays

Touching the "Heating/Cooling Timer" icon or "DHW timer" or "Night timer" the page appears where it is possible to view the activation bands of each timer.

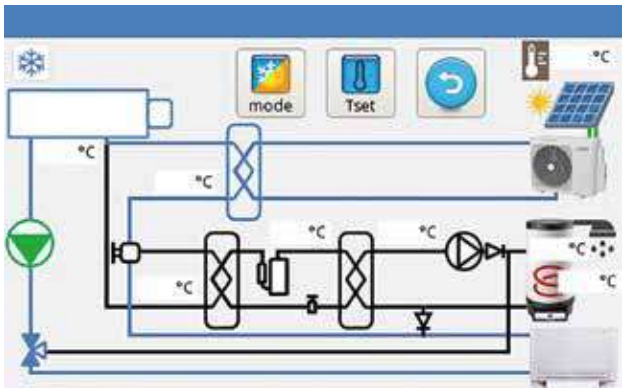
PHOTOVOLTAIC CONTACT

The machine has a contact that is used to activate a setpoint delta on the DHW, heating and cooling to accumulate thermal energy when there is an electrical overproduction from the photovoltaic system.
The photovoltaic function therefore allows the heat pump to force the accumulation of thermal energy in the system. Energy storage is obtained by adding a delta to the main circuit water temperature (colder water if in cooling mode, warmer water if in heating mode) and to the water contained in the DHW tank. Thanks to the possibility of storing domestic hot water at up to a maximum of 75°C, the Aquadue versions are used to store a large quantity of energy, thereby maximising photovoltaic overproduction.



SOLAR THERMAL PROBE

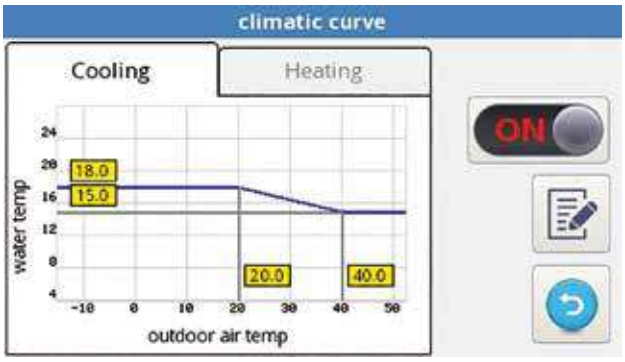
An additional probe that detects the temperature of the solar thermal pipes, inhibits the heat pump to produce DHW only with solar thermal if the delivery temperature of the solar panels is above a certain settable value or the difference between this temperature and the set point of the storage tank is higher than a certain settable value.



CLIMATIC CURVES

To optimise energy savings, two climatic curves are available, one for heating and one for cooling. They are used to adjust the water temperature to the outside air temperature and therefore to the thermal load.
The information displayed is:
- Cooling climatic curve and heating climatic curve diagrams,
- Values of the setting parameters of each curve
- It is possible to activate and deactivate each Climatic function
- It is possible to modify the parameters of the climatic curves

The characteristic parameters of each curve are:
- External air temperature for maximum water temperature
- Maximum water temperature
- External air temperature for minimum water temperature
- Minimum water temperature.



LOW TEMPERATURE ACTIVATION

On site when the system water is below 12°C, it is possible to activate the heating elements of the heat pump to allow the screed to be heated in the case of a heating system. By setting the specific parameter from the service menu, the installer enables one or two heating elements for low temperature start-up.

CHOICE OF COMMUNICATION PROTOCOL

Possibility of choosing between ModBus RTU or ASCII, for coupling with SiOS Control. By setting the specific parameter from the service menu, the installer enables communication with Modbus RTU protocol or with ASCII protocol.

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

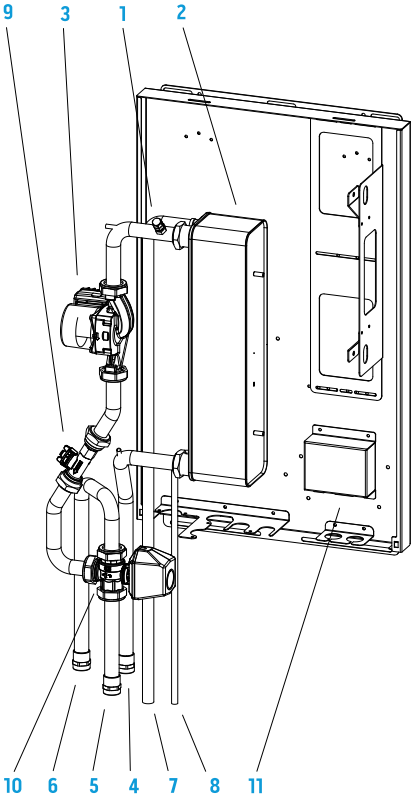
Technology that improves performance in low temperature applications.

FEATURES

- **Heat pump air-water inverter**
- **Energy efficiency class** in heating moderate climate: up to A+++ (35°C) and A++ (55°C)
- **Energy efficiency class** in heating cold climate: up to A+ (35°C) and A+(55°C)
- **Available power sizes:** 3 power sizes with R410A refrigerant single phase (10-12-15 kW) and 4 power sizes with R410A refrigerant three-phase (10-12-15-18 kW)
- **provides DHW** with temperature up to 55°C.
- **Compressor** Scroll Inverter with steam injection
- **Expansion valve**: electronic
- **Refrigeration circuit** with economiser
- **Remote control panel** colour touchscreen
- **Maintenance of the machine power** even with rigid external temperatures
- **Optimisation of the** machine's defrosting cycles and optimum performance even with rigid external temperatures
- **Operating limits:** up to -32°C, +48°C (see the technical manuals for details)
- **R410A** refrigerant gas*
- **External air probe** integrated in the machine
- **Devices supplied with the machine:**
- metal frame for installation of the external touch panel
- 20m cable for UI-UE connection
- pair of 250 mm high metal feet with anti-vibration devices
- back metal mesh for battery protection
- integration kit - relay for activation of the boiler or other electrical heating element
- domestic hot water management kit - relay k1, 1-1/4" 3-way valve, b3 probe
- heating element for condensate drain pipe
- 800 mm fan grille to reduce noise (sizes 15, 15T, 18T)

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

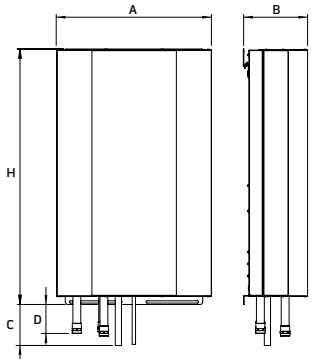
LAYOUT, DIMENSIONS, WEIGHT

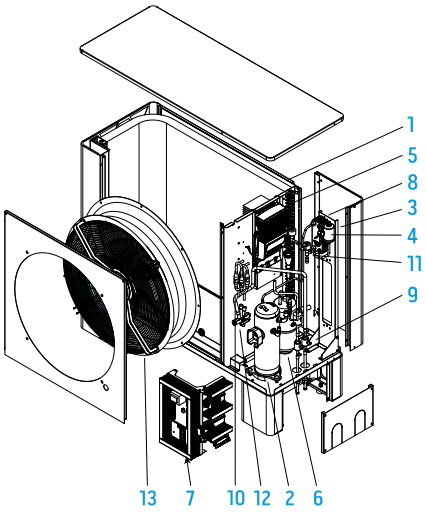


1. Vent valve
2. Plate heat exchanger
3. Circulation pump
4. Water inlet hose
5. Water outlet hose (system)
6. Water outlet hose (DHW)
7. Gas passage hose
8. Liquid passage hose
9. Flow meter
10. 3-way valve
11. Electrical panel

Indoor Units

		10	12	15	10 T	12 T	15 T	18 T
A	mm	550	550	550	550	550	550	550
B	mm	228	228	228	228	228	228	228
C	mm	147	147	147	147	147	147	147
D	mm	100	100	100	100	100	100	100
H	mm	907	907	907	907	907	907	907
Weight	kg	50	50	50	50	50	50	50

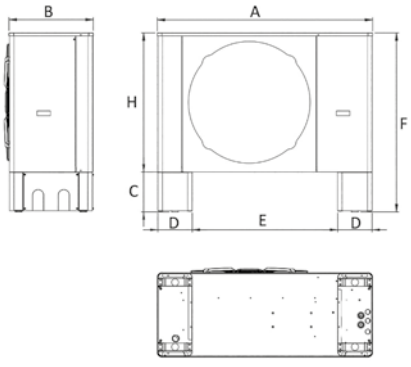




1. Evaporator
2. Compressor
3. Filter
4. Liquid indicator
5. Inverter
6. Liquid tank
7. Electrical panel
8. Economiser
9. Ball valve
10. Check valve
11. Electronic expansion valve
12. 4-way valve
13. Fan

Outdoor units

		10	12	15	10 T	12 T	15 T	18 T
A	mm	1406	1406	1591	1406	1406	1591	1591
B	mm	550	550	546	550	550	546	546
C	mm	259	259	259	259	259	259	259
D	mm	225	225	225	225	225	225	225
E	mm	949	949	1134	949	949	1134	1134
F	mm	1167	1167	1271	1167	1167	1271	1271
H	mm	908	908	1012	908	908	1012	1012
Weight	kg	160	160	200	160	160	200	200



	TECHNICAL DATA				NEW 10			NEW 12			NEW 15		
	ODU Sherpa Cold				02269			02271			02273		
	IDU Sherpa Cold				02276			02276			02277		
	Compressor frequency				Minimum	Nominal	Maximum	Minimum	Nominal	Maximum	Minimum	Nominal	Maximum
PRECISE PERFORMANCE	Heating output	a7/6 - w30/35	(a)	kW	3.90	9.60	-	4.40	11.52	-	5.51	14.40	-
	COP	a7/6 - w30/35	(a)	W/W	-	4.27	-	-	4.24	-	-	4.68	-
	Heating output	a2/1 - w30/35	(b)	kW	4.80	9.60	-	5.76	11.52	-	6.82	14.40	-
	COP	a2/1 - w30/35	(b)	W/W	-	3.83	-	-	4.04	-	-	3.85	-
	Heating output	a-7/-8 - w30/35	(c)	kW	4.17	9.60	-	5.76	11.52	-	6.26	14.40	-
	COP	a-7/-8 - w30/35	(c)	W/W	-	2.98	-	-	3.22	-	-	2.98	-
	Heating output	a-15/-16 - w30/35	(d)	kW	3.72	8.93	-	5.24	11.52	-	5.52	13.25	-
	COP	a-15/-16 - w30/35	(d)	W/W	-	2.26	-	-	2.30	-	-	2.57	-
	Heating output	a-20/-19 - w30/35	(r)	kW	3.28	7.87	-	4.80	11.52	-	4.88	11.71	-
	COP	a-20/-19 - w30/35	(r)	W/W	-	2.09	-	-	1.97	-	-	2.43	-
	Heating output (fancoils)	a7/6 - w40/45	(f)	kW	3.90	9.60	-	4.44	11.50	-	5.51	14.40	-
	COP (fancoils)	a7/6 - w40/45	(f)	W/W	-	3.33	-	-	3.47	-	-	3.53	-
	Heating output (fancoils)	a2/1 - w40/45	(g)	kW	4.80	9.60	-	5.81	11.50	-	6.82	14.40	-
	COP (fancoils)	a2/1 - w40/45	(g)	W/W	-	2.82	-	-	3.08	-	-	3.08	-
	Heating output (fancoils)	a-7/-8 - w40/45	(h)	kW	4.17	9.60	-	5.76	11.52	-	6.26	14.40	-
	COP (fancoils)	a-7/-8 - w40/45	(h)	W/W	-	2.33	-	-	2.55	-	-	2.45	-
	Heating output (fancoils)	a-15/-16 - w40/45	(i)	kW	3.68	8.83	-	5.02	11.04	-	5.36	12.86	-
	COP (fancoils)	a-15/-16 - w40/45	(i)	W/W	-	1.90	-	-	1.91	-	-	2.03	-
	Heating output (fancoils)	a-20/-19 - w40/45	(s)	W/W	3.17	7.61	-	4.44	10.66	-	4.80	11.52	-
	COP (fancoils)	a-20/-19 - w40/45	(s)	W/W	-	1.76	-	-	1.68	-	-	1.92	-
	Cooling power	a35 - w23/18	(l)	kW	3.53	8.40	-	3.74	10.36	-	4.08	11.31	-
	EER	a35 - w23/18	(l)	W/W	-	4.26	-	-	4.08	-	-	4.45	-
	Cooling output (fancoils)	a35 - w12/7	(m)	kW	2.71	6.44	-	2.87	7.94	-	3.13	8.67	-
	EER (fancoils)	a35 - w12/7	(m)	W/W	-	3.31	-	-	3.15	-	-	3.45	-
EFFICIENCIES	Energy efficiency class in water heating 35°C	Warmer Climate				A+++			A+++			A+++	
	SCOP	Warmer Climate				4.62			4.69			4.79	
	ηs (Seasonal efficiency for space heating)	Warmer Climate		ηs %		181.8			184.8			188.6	
	Energy efficiency class in water heating 35°C	Average Climate				A+++			A+++			A+++	
	SCOP	Average Climate				4.50			4.58			4.60	
	ηs (Seasonal efficiency for space heating)	Average Climate		ηs %		177.3			180.3			181.1	
	Energy efficiency class in water heating 35°C	Cold Climate				A+			A+			A+	
	SCOP	Cold Climate				3.60			3.65			3.71	
	ηs (Seasonal efficiency for space heating)	Cold Climate		ηs %		141.1			143			145.3	
	Energy efficiency class in water heating 55°C	Warmer Climate				A++			A++			A++	
	SCOP	Warmer Climate				3.27			3.43			3.45	
	ηs (Seasonal efficiency for space heating)	Warmer Climate		ηs %		127.8			134.2			135.1	
	Energy efficiency class in water heating 55°C	Average Climate				A++			A++			A++	
	SCOP	Average Climate				3.23			3.33			3.37	
	ηs (Seasonal efficiency for space heating)	Average Climate		ηs %		126.3			130.1			131.9	
	Energy efficiency class in water heating 55°C	Cold Climate				A+			A+			A+	
	SCOP	Cold Climate				2.68			2.60			2.76	
	ηs (Seasonal efficiency for space heating)	Cold Climate		ηs %		104.2			101.2			107.3	
NOISE LEVEL	Indoor unit sound power			dB(A)		36			36			36	
	Indoor unit sound pressure		(n)	dB(A)		30			30			30	
	Outdoor unit sound power (nominal)			dB(A)		53.4			53.4			52.9	
	Outdoor unit sound pressure (nominal)		(o)	dB(A)		33.5			33.5			33	
ELECTRICAL DATA	System circulator absorption			W		75			75			75	
	Supply voltage indoor unit			V/ph/Hz		230/1/50			230/1/50			230/1/50	
	Maximum absorbed current of the internal unit			A		0.33			0.33			0.33	
	Maximum power consumption of the internal unit			kW		0.75			0.75			0.75	
	Additional electric heating elements			kW		-			-			-	
	Supply voltage outdoor unit			V/ph/Hz		230/1/50			230/1/50			230/1/50	
	Outdoor unit maximum absorbed current			A		24.6			34.3			38.7	
	Outdoor unit maximum absorbed power			kW		5.1			7.1			8.0	
COOLING CIRCUIT	Compressor type					Scroll with injection			Scroll with injection			Scroll with injection	
	Refrigerant inlet connection diameter			"		See installation manual			See installation manual			See installation manual	
	Coolant gas		(p)			R410A			R410A			R410A	
	Global warming potential			GWP		2088			2088			2088	
	Refrigerant gas charge			kg		5			5			6.5	
	Refrigerant piping length limit without minimum surface verification		(q)			-			-			-	
HYDRAULIC DATA	Hydraulic connections			"		1"			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
(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 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

	TECHNICAL DATA				NEW 10 T			NEW 12 T			NEW 15 T			NEW 18 T		
	ODU Sherpa Cold				02270			02272			02274			02275		
	IDU Sherpa Cold				02276			02276			02277			02278		
	Compressor frequency				Minimum	Nominal	Maximum	Minimum	Nominal	Maximum	Minimum	Nominal	Maximum	Minimum	Nominal	Maximum
PRECISE PERFORMANCE	Heating output	a7/6 - w30/35	(a)	kW	3.90	9.60	-	4.40	11.52	-	5.51	14.40	-	6.24	17.28	-
	COP	a7/6 - w30/35	(a)	W/W	-	4.27	-	-	4.24	-	-	4.68	-	-	4.34	-
	Heating output	a2/1 - w30/35	(b)	kW	4.80	9.60	-	5.76	11.52	-	6.82	14.40	-	7.78	17.28	-
	COP	a2/1 - w30/35	(b)	W/W	-	3.83	-	-	4.04	-	-	3.85	-	-	3.37	-
	Heating output	a-7/-8 - w30/35	(c)	kW	4.17	9.60	-	5.76	11.52	-	6.26	14.40	-	7.20	17.28	-
	COP	a-7/-8 - w30/35	(c)	W/W	-	2.98	-	-	3.22	-	-	2.98	-	-	2.61	-
	Heating output	a-15/-16 - w30/35	(d)	kW	3.72	8.93	-	5.24	11.52	-	5.52	13.25	-	6.40	15.36	-
	COP	a-15/-16 - w30/35	(d)	W/W	-	2.26	-	-	2.30	-	-	2.57	-	-	2.23	-
	Heating output	a-20/-19 - w30/35	(r)	kW	3.28	7.87	-	4.80	11.52	-	4.88	11.71	-	5.60	13.44	-
	COP	a-20/-19 - w30/35	(r)	W/W	-	2.09	-	-	1.97	-	-	2.43	-	-	2.03	-
	Heating output (fancoils)	a7/6 - w40/45	(f)	kW	3.90	9.60	-	4.44	11.50	-	5.51	14.40	-	6.24	17.28	-
	COP (fancoils)	a7/6 - w40/45	(f)	W/W	-	3.33	-	-	3.47	-	-	3.53	-	-	3.05	-
	Heating output (fancoils)	a2/1 - w40/45	(g)	kW	4.80	9.60	-	5.81	11.50	-	6.82	14.40	-	7.78	17.28	-
	COP (fancoils)	a2/1 - w40/45	(g)	W/W	-	2.82	-	-	3.08	-	-	3.08	-	-	2.80	-
	Heating output (fancoils)	a-7/-8 - w40/45	(h)	kW	4.17	9.60	-	5.76	11.52	-	6.26	14.40	-	7.20	17.28	-
	COP (fancoils)	a-7/-8 - w40/45	(h)	W/W	-	2.33	-	-	2.55	-	-	2.45	-	-	2.20	-
	Heating output (fancoils)	a-15/-16 - w40/45	(i)	kW	3.68	8.83	-	5.02	11.04	-	5.36	12.86	-	5.80	13.92	-
	COP (fancoils)	a-15/-16 - w40/45	(i)	W/W	-	1.90	-	-	1.91	-	-	2.03	-	-	1.90	-
	Heating output (fancoils)	a-20/-19 - w40/45	(s)	W/W	3.17	7.61	-	4.44	10.66	-	4.80	11.52	-	5.20	12.48	-
	COP (fancoils)	a-20/-19 - w40/45	(s)	W/W	-	1.76	-	-	1.68	-	-	1.92	-	-	1.79	-
	Cooling power	a35 - w23/18	(l)	kW	3.53	8.40	-	3.74	10.36	-	4.08	11.31	-	6.62	15.72	-
	EER	a35 - w23/18	(l)	W/W	-	4.26	-	-	4.08	-	-	4.45	-	-	4.11	-
	Cooling output (fancoils)	a35 - w12/7	(m)	kW	2.71	6.44	-	2.87	7.94	-	3.13	8.67	-	5.08	12.34	-
	EER (fancoils)	a35 - w12/7	(m)	W/W	-	3.31	-	-	3.15	-	-	3.45	-	-	2.99	-
EFFICIENCIES	Energy efficiency class in water heating 35°C	Warmer Climate			A+++			A+++			A+++			A+++		
	SCOP	Warmer Climate			4.51			4.69			4.79			4.66		
	ηs (Seasonal efficiency for space heating)	Warmer Climate		ηs %	177.6			184.8			188.6			183.7		
	Energy efficiency class in water heating 35°C	Average Climate			A+++			A+++			A+++			A+++		
	SCOP	Average Climate			4.50			4.58			4.60			4.45		
	ηs (Seasonal efficiency for space heating)	Average Climate		ηs %	177.3			180.3			181.1			175		
	Energy efficiency class in water heating 35°C	Cold Climate			A+			A+			A+			A+		
	SCOP	Cold Climate			3.60			3.65			3.71			3.44		
	ηs (Seasonal efficiency for space heating)	Cold Climate		ηs %	141.1			143			145.3			134.6		
	Energy efficiency class in water heating 55°C	Warmer Climate			A++			A++			A++			A+		
	SCOP	Warmer Climate			3.27			3.43			3.45			3.19		
	ηs (Seasonal efficiency for space heating)	Warmer Climate		ηs %	127.8			134.2			135.1			124.7		
	Energy efficiency class in water heating 55°C	Average Climate			A++			A++			A++			A+		
	SCOP	Average Climate			3.23			3.33			3.37			3.13		
	ηs (Seasonal efficiency for space heating)	Average Climate		ηs %	126.3			130.1			131.9			122.2		
	Energy efficiency class in water heating 55°C	Cold Climate			A+			A+			A+			A		
	SCOP	Cold Climate			2.68			2.60			2.76			2.51		
	ηs (Seasonal efficiency for space heating)	Cold Climate		ηs %	104.2			101.2			107.3			97.4		
NOISE LEVEL	Indoor unit sound power			dB(A)	36			36			36			37		
	Indoor unit sound pressure		(n)	dB(A)	30			30			30			31		
	Outdoor unit sound power (nominal)			dB(A)	53.4			53.4			52.9			54		
	Outdoor unit sound pressure (nominal)		(o)	dB(A)	33.5			33.5			33			34		
ELECTRICAL DATA	System circulator absorption			W	75			75			75			85		
	Supply voltage indoor unit			V/ph/Hz	230/1/50			230/1/50			230/1/50			230/1/50		
	Maximum absorbed current of the internal unit			A	0.33			0.33			0.33			0.33		
	Maximum power consumption of the internal unit			kW	0.75			0.75			0.75			0.75		
	Additional electric heating elements			kW	-			-			-			-		
	Supply voltage outdoor unit			V/ph/Hz	400/3/50			400/3/50			400/3/50			400/3/50		
	Outdoor unit maximum absorbed current			A	8.2			11.4			12.8			13.6		
	Outdoor unit maximum absorbed power			kW	5.1			7.1			8.0			8.5		
COOLING CIRCUIT	Compressor type				Scroll with injection			Scroll with injection			Scroll with injection			Scroll with injection		
	Refrigerant inlet connection diameter			"	See installation manual			See installation manual			See installation manual			See installation manual		
	Coolant gas		(p)		R410A			R410A			R410A			R410A		
	Global warming potential			GWP	2088			2088			2088			2088		
	Refrigerant gas charge			kg	5			5			6.5			6.5		
	Refrigerant piping length limit without minimum surface verification		(q)		-			-			-			-		
HYDRAULIC DATA	Hydraulic connections			"	1"			1"			1"			1"		
	Capacity of expansion vessel			l	-			-			-			-		

ACCESSORIES

OTHER ACCESSORIES	B0900	Cable for Modbus connection touch panel 100m	▼
	B0899	Metallic frame for touch panel external installation	○
	B0903	30M cable for UI-UE connection	○
	B0906	Aesthetic fan cover front grille	≤ 12T
	B0907	Aesthetic fan cover front grille	≥ 15
	B0915	Brass Y filter	○
STORAGE TANKS / PUFFER	01804	HE 200 L storage tank	≤ 10T
	01805	HE 300 L storage tank	○
	01806	HES 300 L solar storage tank	≤ 15T
	01200	Thermal accumulation 100 L	≤ 10T
	B0618	Resistance for boiler 2 kW	○
	B0666	Resistance for boiler 3 kW	○
	B0617	Set flens voor weerstand	○

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

Accessory description on page 50

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

Monoblock heat pump

Compatible with: SiOS CONTROL

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

Domestic hot water is available with temperatures up to 60°C.

LOW GWP GAS

All power sizes use the R32 refrigerant, characterised by greater efficiency and a greenhouse effect reduced by almost 70% (compared to R410A).

FEATURES

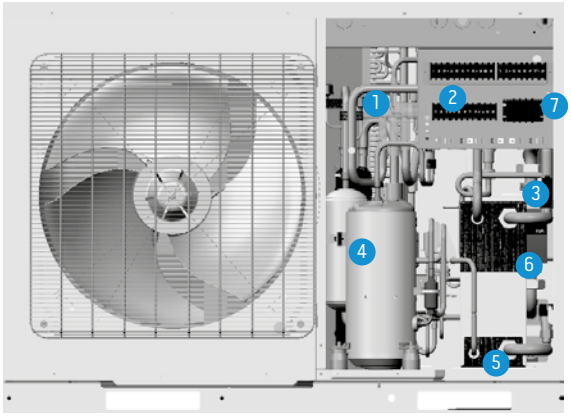
- **Inverter air-water heat pump**
- **Energy efficiency class** in average climate heating: A+++ (35°C) and A++ (55°C)
- **Powers available:** 4 Powers with single-phase R32 refrigerant (6-8-12-16 kW) and 2 Powers with three-phase R32 refrigerant (12-16 kW)
- **DHW production:** up to 60°C
- **Compressor:** airtight twin rotary DC Inverter with steam injection, complete with thermal protection
- **Expansion valve:**electronic
- **Refrigerant circuit** with economiser.
- **Water side exchange battery:** with stainless steel plates, complete with antifreeze heater.
- **Air side heat exchange battery:** with finned battery with copper pipes and aluminium-manganese fins with Golden Fin anti-corrosion treatment, in epoxy resin and hydrophilic treatment.
- **Helical fan** with brushless DC motors equipped with internal thermal protection, safety protection grilles and proportional electronic device for continuous adjustment of the rotation speed of the fans.
- **Remote ambient air temperature probe**, for managing of the unit on the ambient set-point.
- **Structure:** in galvanised steel sheet, complete with condensate tray and unit base antifreeze resistance.
- **Standard touch screen remote control panel**, with 8 m connection cable. Integrated Wi-Fi module for machine management via smartphone and tablet, with a dedicated app (Ewpe).
- **Refrigerant gas:** R32*
- **Operating limits:** -25°C +48°C.
- **External air probe** integrated in the machine.

REMOTE CONTROL VIA APP Ewpe

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 "Ewpe" App can be downloaded free of charge from the Google and Apple Stores, which allows control of the machine via the Cloud.

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

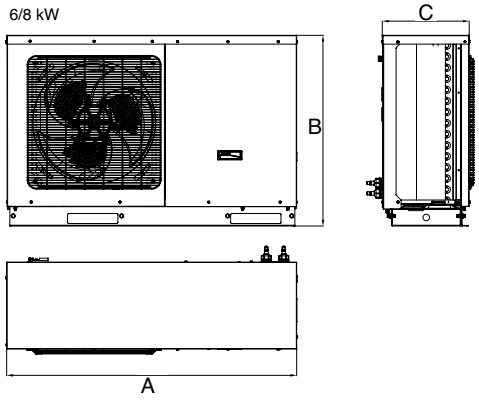
LAYOUT, DIMENSIONS, WEIGHT



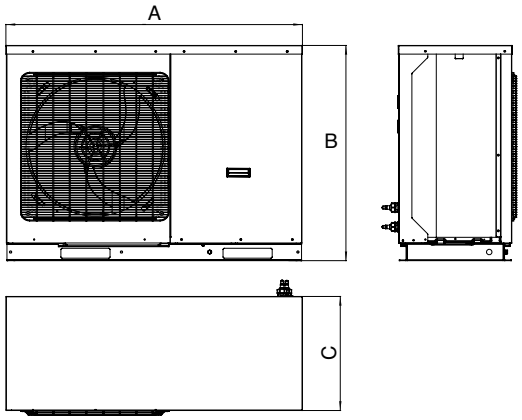
1. Reversible gas circuit
2. Electrical panel
3. Flow switch
4. DC inverter rotary compressor
5. Plate heat exchanger
6. Variable range circulator
7. Expansion vessel (2 or 3 litres)

		6	8	12	16	12T	16T
A	mm	1150	1150	1200	1200	1200	1200
B	mm	758	758	878	878	878	878
C	mm	345	345	460	460	460	460
Weight	kg	96	96	151	151	151	151

6/8 kW



12/12T/16/16T



	TECHNICAL DATA					6			8			12			16		
						02021			02022			02023			02025		
	Compressor frequency					Minimum	Nominal	Maximum	Minimum	Nominal	Maximum	Minimum	Nominal	Maximum	Minimum	Nominal	Maximum
PRECISE PERFORMANCE	Heating output	a7/6 - w30/35	(a)	(E)	kW	2.40	6.00	-	2.40	7.50	-	4.80	12.00	-	6.20	15.50	-
	COP	a7/6 - w30/35	(a)	(E)	W/W	-	5.00	-	-	4.60	-	-	4.55	-	-	4.31	-
	Heating output	a2/1 - w30/35	(b)		kW	2.04	5.50	-	2.55	6.38	-	4.08	11.90	-	5.27	13.00	-
	COP	a2/1 - w30/35	(b)		W/W	-	4.10	-	-	3.93	-	-	4.14	-	-	4.05	-
	Heating output	a-7/-8 - w30/35	(c)		kW	1.68	4.92	-	2.10	5.39	-	3.36	9.60	-	4.34	10.65	-
	COP	a-7/-8 - w30/35	(c)		W/W	-	3.16	-	-	3.00	-	-	2.80	-	-	3.08	-
	Heating output	a-15/-16 - w30/35	(d)		kW	1.34	3.90	-	1.68	4.50	-	2.69	8.76	-	3.47	10.54	-
	COP	a-15/-16 - w30/35	(d)		W/W	-	2.39	-	-	2.29	-	-	1.79	-	-	1.62	-
	Heating output (fancoils)	a7/6 - w40/45	(f)	(E)	kW	2.40	6.00	-	3.00	7.50	-	4.80	12.00	-	6.20	15.50	-
	COP (fancoils)	a7/6 - w40/45	(f)	(E)	W/W	-	3.80	-	-	3.75	-	-	3.45	-	-	3.30	-
	Heating output (fancoils)	a2/1 - w40/45	(g)		kW	2.04	5.50	-	2.55	6.30	-	4.08	11.50	-	5.27	13.00	-
	COP (fancoils)	a2/1 - w40/45	(g)		W/W	-	3.27	-	-	3.04	-	-	3.20	-	-	3.08	-
	Heating output (fancoils)	a-7/-8 - w40/45	(h)		kW	1.68	4.02	-	2.10	4.90	-	3.36	8.60	-	4.34	10.78	-
	COP (fancoils)	a-7/-8 - w40/45	(h)		W/W	-	2.04	-	-	2.02	-	-	2.60	-	-	2.24	-
	Heating output (fancoils)	a-15/-16 - w40/45	(i)		kW	1.34	2.82	-	1.68	3.60	-	2.69	8.04	-	3.47	9.92	-
	COP (fancoils)	a-15/-16 - w40/45	(i)		W/W	-	1.36	-	-	1.23	-	-	1.76	-	-	1.58	-
	Cooling power	a35 - w23/18	(l)	(E)	kW	2.32	5.80	-	2.72	6.80	-	4.40	11.00	-	5.80	14.50	-
	EER	a35 - w23/18	(l)	(E)	W/W	-	4.30	-	-	4.30	-	-	4.30	-	-	3.77	-
	Cooling output (fancoils)	a35 - w12/7	(m)	(E)	kW	1.60	4.00	-	2.00	5.00	-	3.62	9.50	-	5.20	13.00	-
	EER (fancoils)	a35 - w12/7	(m)	(E)	W/W	-	3.10	-	-	3.10	-	-	3.05	-	-	2.65	-
EFFICIENCIES	Energy efficiency class in water heating 35°C	Warmer Climate				A+++			A+++			A+++			A+++		
	SCOP	Warmer Climate				5.85			5.93			5.68			5.68		
	ηs (Seasonal efficiency for space heating)	Warmer Climate			ηs %	231			234			224			224		
	Energy efficiency class in water heating 35°C	Average Climate				A+++			A+++			A+++			A++		
	SCOP	Average Climate				4.7			4.65			4.45			4.18		
	ηs (Seasonal efficiency for space heating)	Average Climate			ηs %	185			183			175			164		
	Energy efficiency class in water heating 35°C	Cold Climate				A+			A+			A+			A+		
	SCOP	Cold Climate				3.68			3.69			3.6			3.43		
	ηs (Seasonal efficiency for space heating)	Cold Climate			ηs %	144			144			141			134		
	Energy efficiency class in water heating 55°C	Warmer Climate				A+++			A+++			A++			A++		
	SCOP	Warmer Climate				3.98			3.98			3.8			3.8		
	ηs (Seasonal efficiency for space heating)	Warmer Climate			ηs %	156			156			149			149		
	Energy efficiency class in water heating 55°C	Average Climate				A++			A++			A++			A++		
	SCOP	Average Climate		(E)		3.23			3.25			3.23			3.2		
	ηs (Seasonal efficiency for space heating)	Average Climate		(E)	ηs %	126			127			126			125		
	Energy efficiency class in water heating 55°C	Cold Climate				A+			A+			A+			A		
	SCOP	Cold Climate				2.7			2.78			2.75			2.5		
	ηs (Seasonal efficiency for space heating)	Cold Climate			ηs %	105			108			107			97		
NOISE LEVEL	Indoor unit sound power				dB(A)	-			-			-			-		
	Indoor unit sound pressure		(n)		dB(A)	-			-			-			-		
	Outdoor unit sound power (nominal)			(E)	dB(A)	64			65			69			72		
	Outdoor unit sound pressure (nominal)		(o)		dB(A)	56			56			57			57		
ELECTRICAL DATA	System circulator absorption				W	4-75			4-75			4-75			4-75		
	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		
	Outdoor unit maximum absorbed current				A	10.4			10.4			25			29		
	Outdoor unit maximum absorbed power				kW	2.3			2.3			5.75			6.67		
COOLING CIRCUIT	Compressor type					Inverter rotary			Inverter rotary			Inverter rotary			Inverter rotary		
	Refrigerant inlet connection diameter				"	-			-			-			-		
	Coolant gas		(p)			R32			R32			R32			R32		
	Global warming potential				GWP	675			675			675			675		
	Refrigerant gas charge				kg	0.87			0.87			2.2			2.2		
	Refrigerant piping length limit without minimum surface check according to IEC 60335-2-40:2018		(q)			-			-			-			-		
HYDRAULIC DATA	Hydraulic connections				"	1			1			1			1		
	Capacity of expansion vessel				l	2			2			3			3		

(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) Eurovent certified data at nominal condition only
(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 1 m in a semi-anechoic chamber
(p) Airtightally 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

TECHNICAL DATA						12T			16T		
						02024			02026		
	Compressor frequency					Minimum	Nominal	Maximum	Minimum	Nominal	Maximum
PRECISE PERFORMANCE	Heating output	a7/6 - w30/35	(a)	(E)	kW	4.80	12.00	-	6.20	15.50	-
	COP	a7/6 - w30/35	(a)	(E)	W/W	-	4.55	-	-	4.30	-
	Heating output	a2/1 - w30/35	(b)		kW	4.08	11.90	-	5.27	13.00	-
	COP	a2/1 - w30/35	(b)		W/W	-	4.14	-	-	4.05	-
	Heating output	a-7/-8 - w30/35	(c)		kW	3.36	9.60	-	4.34	10.65	-
	COP	a-7/-8 - w30/35	(c)		W/W	-	2.80	-	-	3.08	-
	Heating output	a-15/-16 - w30/35	(d)		kW	2.69	8.76	-	3.47	10.54	-
	COP	a-15/-16 - w30/35	(d)		W/W	-	1.79	-	-	1.62	-
	Heating output (fancoils)	a7/6 - w40/45	(f)	(E)	kW	4.80	11.00	-	6.20	15.50	-
	COP (fancoils)	a7/6 - w40/45	(f)	(E)	W/W	-	3.16	-	-	3.30	-
	Heating output (fancoils)	a2/1 - w40/45	(g)		kW	4.08	11.50	-	5.27	13.00	-
	COP (fancoils)	a2/1 - w40/45	(g)		W/W	-	3.20	-	-	3.08	-
	Heating output (fancoils)	a-7/-8 - w40/45	(h)		kW	3.36	8.60	-	4.34	10.78	-
	COP (fancoils)	a-7/-8 - w40/45	(h)		W/W	-	2.60	-	-	2.24	-
	Heating output (fancoils)	a-15/-16 - w40/45	(i)		kW	2.69	8.04	-	3.47	9.92	-
	COP (fancoils)	a-15/-16 - w40/45	(i)		W/W	-	1.70	-	-	1.58	-
	Cooling power	a35 - w23/18	(l)	(E)	kW	4.40	11.00	-	5.80	14.50	-
	EER	a35 - w23/18	(l)	(E)	W/W	-	4.30	-	-	3.80	-
	Cooling output (fancoils)	a35 - w12/7	(m)	(E)	kW	3.62	9.50	-	5.20	13.00	-
	EER (fancoils)	a35 - w12/7	(m)	(E)	W/W	-	2.97	-	-	2.75	-
EFFICIENCIES	Energy efficiency class in water heating 35°C	Warmer Climate					A+++			A+++	
	SCOP	Warmer Climate					5.68			5.68	
	ηs (Seasonal efficiency for space heating)	Warmer Climate			ηs %		224			224	
	Energy efficiency class in water heating 35°C	Average Climate					A+++			A++	
	SCOP	Average Climate					4.45			4.18	
	ηs (Seasonal efficiency for space heating)	Average Climate			ηs %		175			164	
	Energy efficiency class in water heating 35°C	Cold Climate					A+			A+	
	SCOP	Cold Climate					3.6			3.43	
	ηs (Seasonal efficiency for space heating)	Cold Climate			ηs %		141			134	
	Energy efficiency class in water heating 55°C	Warmer Climate					A++			A++	
	SCOP	Warmer Climate					3.8			3.8	
	ηs (Seasonal efficiency for space heating)	Warmer Climate			ηs %		149			149	
	Energy efficiency class in water heating 55°C	Average Climate					A++			A++	
	SCOP	Average Climate		(E)			3.23			3.2	
	ηs (Seasonal efficiency for space heating)	Average Climate		(E)	ηs %		126			125	
	Energy efficiency class in water heating 55°C	Cold Climate					A+			A	
	SCOP	Cold Climate					2.75			2.5	
	ηs (Seasonal efficiency for space heating)	Cold Climate			ηs %		107			97	
NOISE LEVEL	Indoor unit sound power				dB(A)		-			-	
	Indoor unit sound pressure		(n)		dB(A)		-			-	
	Outdoor unit sound power (nominal)			(E)	dB(A)		69			72	
	Outdoor unit sound pressure (nominal)		(o)		dB(A)		57			57	
ELECTRICAL DATA	System circulator absorption				W		4-75			4-75	
	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	
	Outdoor unit maximum absorbed current				A		12			12	
	Outdoor unit maximum absorbed power				kW		7.8			7.8	
COOLING CIRCUIT	Compressor type						Inverter rotary			Inverter rotary	
	Refrigerant inlet connection diameter				"		-			-	
	Coolant gas		(p)				R32			R32	
	Global warming potential				GWP		675			675	
	Refrigerant gas charge				kg		2.2			2.2	
	Refrigerant piping length limit without minimum surface check according to IEC 60335-2-40:2018		(q)				-			-	
HYDRAULIC DATA	Hydraulic connections				"		1			1	
	Capacity of expansion vessel				l		3			3	

ACCESSORIES

COMMANDS	B0916	Kit 3-way valve for DHW	○
	B0866	Extension cord remote control panel kit 15m	○
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

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.

NEW

SHERPA SHW

Water heater in heat pump

PHOTOVOLTAIC INTEGRATION

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

SOLAR MANAGEMENT

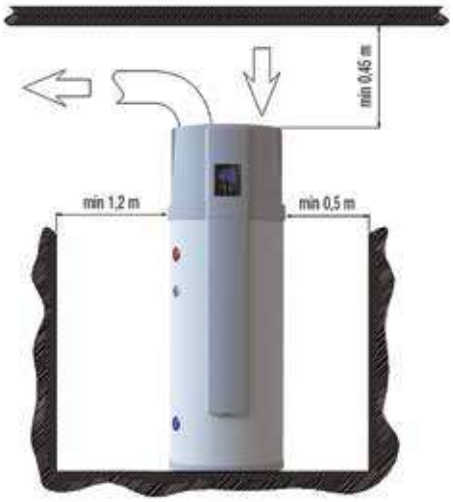
Solar thermal compatible: the unit can work with a second energy source such as solar panels (solar circulator management). Valid only for model 300S.

SMART CONTROL

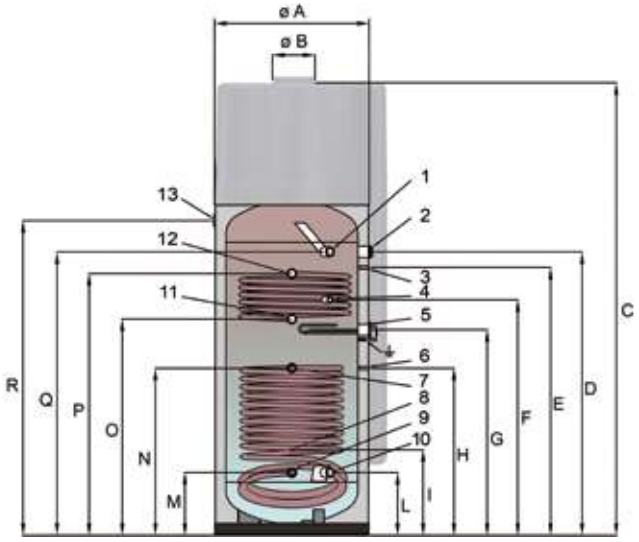
The actual setting of the heat pump is adjusted by a climatic curve, to prevent high pressure alarms from occurring in case of hot air drawn from the outside (above 25°C with water at 65°C, above 35°C with water at 55°C).

FEATURES

- **Available in two versions:** standard model with heat pump, electric heating element and 200 lt tank (Sherpa SHW S1 200); model with solar panel coil, electric heating element and 300 lt tank (Sherpa SHW S1 300S).
- **COP>2.6* DHW at 65°C**
- **Energy class**: A
- **Working range** in the heat pump with air temperature from -10C° to 43C°.
- **Carbon steel tank** with double layer vitrification.
- **Anti-corrosion magnesium anode** to ensure tank durability.
- **Condenser wound outside** the storage tank free from deposits and gas-water contamination.
- **Thermal insulation in** rigid polyurethane foam (PU) with 45 mm thickness
- **External coating in plastic material.** Acoustically insulated top cover in plastic.
- **High-efficiency compressor** with R134a refrigerant**.
- **Safety devices** for high and low gas pressure.
- **Electric heating element** available in the unit as a back-up (with integrated thermostat with safety at 90°C), which ensures hot water at constant temperature even in extreme winter conditions.
- **ON-OFF contact** to start the unit from an external switch.
- **Weekly disinfection cycle.**
- **Possibility to manage the recirculation** of domestic hot water or the solar integration (presence of a dedicated temperature probe, flow switch inlet and control for an external pump). Valid only for model 300S
- **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).
** Non-hermetically sealed equipment containing fluorinated gas with GWP equivalent 1430.



		200	300S
A	mm	654	654
B	mm	177	177
C	mm	1638	1888
D	mm	1007	1177
E	mm	862	1112
F	mm	742	977
G	mm	742	852
H	mm	567	692
I	mm	-	352
L	mm	257	257
M	mm	257	257
N	mm	692	692
Q	mm	927	1177
R	mm	1063	1313

1. 1" Hot water delivery
2. Anode 1" 1/4
3. Temperature probe top tank Ø 10
4. 1/2" recirculation
5. 1" 1/4 Electric heating element
6. Temperature probe bottom tank Ø 10
7. 1" Solar energy delivery
8. Auxiliary temperature probe tank Ø 10
9. 1" Solar energy return
10. 1" domestic cold water inlet
11. Condensate drain Ø 16

TECHNICAL DATA		SHERPA SHW S1 200	SHERPA SHW S1 300S
		02267	02268
Electrical power supply	V/Ph/Hz	220-240/1Ph+N+PE/50	220-240/1Ph+N+PE/50
Actual tank capacity	L	228	278
Thermal power	W	2060* (+1200**)	2060* (+1200**)
Absorbed power	W	700* (+1200**)	700* (+1200**)
COPDHW***	W/W	2.64	2.85
COPDHW****	W/W	2.81	3.03
Maximum absorption	W	765 (+1200**)	765 (+1200**)
Cold tank heating time*	h:min	7:48	9:53
Cold tank heating time with active electric heating element*	h:min	3:41	4:41
Work environment temperature	°C	-10 ~ +43	-10 ~ +43
Refrigerant gas (d)	MPa	R134a	R134a
Refrigerant loading	g	920	920
Nominal air flow	m3/h	450	450
Air flow at 60 Pa	m3/h	350	350
Maximum permissible tank pressure	bar	10	10
Auxiliary electric heating element	kW	1.2	1.2
Solar exchange coil surface	m²	-	1.2
Protection class		IPX1	IPX1
Weight with tank full of water	Kg	326	400
Gross weight	Kg	112	137
Sound power level (a)	dB(A)	58	58
Sound pressure (b)	dB(A)	43	43
Load profile (c)		L	XL
Energy efficiency class (c)		A	A
ηDHW (c)	%	101	117

*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.

ACCESSORIES

	B0841	1"F flow switch kit	300S
	B0842	Kit temperature probe	300S

O Optional accessory

Accessory description on page 50

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.