SHERPA MONOBLOC S2

Monobloc heat pump

Compatible with: SiOS CONTROL

041-K028-01
041-K028-02

COMPACT TECHNOLOGY

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

DOMESTIC HOT WATER UP TO 60°C

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

INTEGRATED WI-FI

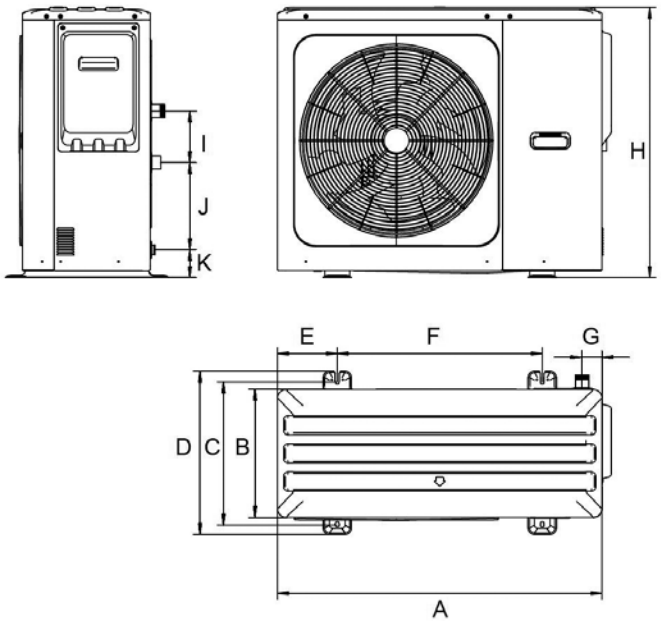
By downloading the Comfort Home app you can manage all its features from your smartphone, even when away from home.

FEATURES

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

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

LAYOUT, DIMENSIONS, WEIGHT



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

CASCADING

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

REMOTE CONTROL VIA APP COMFORT HOME

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

	TECHNICAL DATA				6			8			10			12			14			16		
	Sherpa Monobloc S2 E				02303			02304			02305			02306			02307			02308		
	Compressor frequency				Min	Nom	Max	Min	Nom	Max	Min	Nom	Max	Min	Nom	Max	Min	Nom	Max	Min	Nom	Max
PUNCTUAL PERFORMANCE	Heating power	a7/6 - w30/35	(a)	kW	-	6,5	8,47	-	8,4	9,56	-	10	11,16	-	12,2	13,42	-	14,1	15,27	-	16	18,23
	COP	a7/6 - w30/35	(a)	W/W	-	5,3	-	-	5,05	-	-	4,7	-	-	4,9	-	-	4,7	-	-	4,5	-
	Heating power	a2/1 - w30/35	(b)	kW	-	5,6	7,64	-	7,1	8,52	-	8,2	9,94	-	12,3	12,3	-	13	13,56	-	14,5	14,76
	COP	a2/1 - w30/35	(b)	W/W	-	4,2	-	-	3,95	-	-	3,8	-	-	3,6	-	-	3,5	-	-	3,25	-
	Heating power	a-7/-8 - w30/35	(c)	kW	-	6,2	6,67	-	7,1	7,65	-	8	8,4	-	11,6	12,1	-	12,5	13,2	-	13,5	14,1
	COP	a-7/-8 - w30/35	(c)	W/W	-	3,2	-	-	3,15	-	-	3	-	-	2,85	-	-	2,8	-	-	2,7	-
	Heating power	a-15/-16 - w30/35	(d)	kW	-	5,59	5,59	-	6,07	6,07	-	6,48	6,48	-	10,35	10,35	-	11,22	11,22	-	11,82	11,82
	COP	a-15/-16 - w30/35	(d)	W/W	-	2,58	-	-	2,54	-	-	2,5	-	-	2,39	-	-	2,35	-	-	2,22	-
	Heating power (fancoils)	a7/6 - w40/45	(f)	kW	-	6,6	8,14	-	8,5	9,28	-	10,2	10,87	-	12,5	13,14	-	14,5	14,87	-	16,2	18,07
	COP (fancoils)	a7/6 - w40/45	(f)	W/W	-	4	-	-	3,8	-	-	3,65	-	-	3,7	-	-	3,55	-	-	3,45	-
	Heating power (fancoils)	a2/1 - w40/45	(g)	kW	-	6,5	7,03	-	7,5	8,22	-	8,5	9,42	-	12	12	-	13	13,28	-	14,3	14,74
	COP (fancoils)	a2/1 - w40/45	(g)	W/W	-	3,15	-	-	3,05	-	-	2,95	-	-	2,9	-	-	2,8	-	-	2,7	-
	Heating power (fancoils)	a-7/-8 - w40/45	(h)	kW	-	6,1	6,47	-	6,8	7,43	-	7,4	8,16	-	11,5	11,5	-	12,5	12,5	-	13,5	13,5
	COP (fancoils)	a-7/-8 - w40/45	(h)	W/W	-	2,6	-	-	2,5	-	-	2,4	-	-	2,4	-	-	2,3	-	-	2,25	-
	Heating power (fancoils)	a-15/-16 - w40/45	(i)	kW	-	5,45	5,45	-	5,92	5,92	-	6,33	6,33	-	9,62	9,62	-	10,3	10,3	-	10,96	10,96
	COP (fancoils)	a-15/-16 - w40/45	(i)	W/W	-	2,23	-	-	2,2	-	-	2,14	-	-	2,11	-	-	2,07	-	-	1,98	-
	Cooling power	a35 - w23/18	(l)	kW	-	6,5	9,27	-	8,3	10,31	-	10	10,31	-	12,2	16,11	-	13,9	17,13	-	15,4	17,13
	EER	a35 - w23/18	(l)	W/W	-	5,1	-	-	4,85	-	-	4,3	-	-	4,6	-	-	4,4	-	-	4,2	-
	Cooling power (fancoils)	a35 - w12/7	(m)	kW	-	5,5	6,84	-	7,4	8,66	-	9	9	-	11,6	13,44	-	13,4	15,48	-	14	16,01
	EER (fancoils)	a35 - w12/7	(m)	W/W	-	3,25	-	-	3,15	-	-	2,9	-	-	3,1	-	-	2,93	-	-	2,9	-
EFFICIENCIES	Energy efficiency class in water heating 35°C	Warmer Climate				A+++			A+++			A+++			A+++			A+++			A+++	
	SCOP	Warmer Climate				6,78			6,94			7,05			6,63			6,59			6,46	
	ηs (Seasonal efficiency for space heating)	Warmer Climate		ηs %		268,2			274,7			279,1			262,3			260,5			255,4	
	Energy efficiency class in water heating 35°C	Average Climate				A+++			A+++			A+++			A+++			A+++			A+++	
	SCOP	Average Climate				5,12			5,17			5,12			5,08			4,89			4,84	
	ηs (Seasonal efficiency for space heating)	Average Climate		ηs %		201,8			204			201,9			200,1			192,5			190,5	
	Energy efficiency class in water heating 35°C	Cold Climate				A+++			A+++			A+++			A+++			A+++			A+++	
	SCOP	Cold Climate				4,41			4,44			4,44			4,3			4,36			4,35	
	ηs (Seasonal efficiency for space heating)	Cold Climate		ηs %		173,4			174,6			174,6			168,8			171,3			170,9	
	Energy efficiency class in water heating 55°C	Warmer Climate				A++			A++			A++			A++			A++			A++	
	SCOP	Warmer Climate				4,35			4,71			4,91			4,55			4,69			4,68	
	ηs (Seasonal efficiency for space heating)	Warmer Climate		ηs %		170,9			185,3			193,4			179			184,6			184	
	Energy efficiency class in water heating 55°C	Average Climate				A++			A++			A++			A++			A++			A++	
	SCOP	Average Climate				3,59			3,67			3,71			3,62			3,62			3,59	
	ηs (Seasonal efficiency for space heating)	Average Climate		ηs %		140,7			143,6			145,5			141.6			141,8			140,6	
	Energy efficiency class in water heating 55°C	Cold Climate				A++			A++			A++			A++			A++			A++	
	SCOP	Cold Climate				2,9			3,02			3,14			3,23			3,24			3,18	
	ηs (Seasonal efficiency for space heating)	Cold Climate		ηs %		113,1			117,7			122,4			126			126,6			124,3	
NOISE LEVEL	Indoor unit sound power			dB(A)		-			-			-			-			-			-	
	Indoor unit sound pressure		(n)	dB(A)		-			-			-			-			-			-	
	Outdoor unit sound power (nominal)			dB(A)		60			63			65			70			72			72	
	Outdoor unit sound pressure (nominal)		(o)	dB(A)		48			51			53			56			58			58	
ELECTRICAL DATA	System circulator absorption			W		4-95			4-95			4-95			4-95			4-95			4-95	
	Supply voltage indoor unit			V/ph/Hz		-			-			-			-			-			-	
	Maximum absorbed current of the internal unit with active heating elements			A		-			-			-			-			-			-	
	Internal unit maximum power consumption with active heating elements			kW		-			-			-			-			-			-	
	Additional electric heating elements			kW		-			-			-			-			-			-	
	Supply voltage outdoor unit			V/ph/Hz		220-240/1/50			220-240/1/50			220-240/1/50			220-240/1/50			220-240/1/50			220-240/1/50	
	Outdoor unit maximum absorbed current			A		13			14,5			16			25			26,5			28	
	Outdoor unit maximum absorbed power			kW		3,2			3,5			3,8			5,8			6,2			6,6	
COOLING CIRCUIT	Compressor type					TWIN ROTARY			TWIN ROTARY			TWIN ROTARY			TWIN ROTARY			TWIN ROTARY			TWIN ROTARY	
	Refrigerant inlet connection diameter			"		-			-			-			-			-			-	
	Coolant gas		(p)			R32			R32			R32			R32			R32			R32	
	Global warming potential			GWP		675			675			675			675			675			675	
	Refrigerant gas charge			kg		1,25			1,25			1,25			1,8			1,8			1,8	
	Refrigerant piping length limit without minimum surface check according to IEC 60335-2-40:2018		(q)			-			-			-			-			-			-	
HYDRAULIC DATA	Hydraulic connections			"		G1 BSP			G1 BSP			G1 BSP			G5/4 BSP			G5/4 BSP			G5/4 BSP	
	Capacity of expansion vessel			l		5			5			5			5			5			5	

(a) Heating mode, external air temperature 7°C b.s./6°C b.u., inlet/outlet water temperature 30°C/35°C
(b) Heating mode, external air temperature 2°C b.s./1°C b.u., inlet/outlet water temperature 30°C/35°C
(c) Heating mode, external air temperature -7°C b.s./-8°C b.u., inlet/outlet water temperature 30°C/35°C
(d) Heating mode, external air temperature -15°C b.s./-16°C b.u., inlet/outlet water temperature 30°C/35°C
(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			14T			16T		
	Sherpa Monobloc S2 E				02309			02310			02311		
	Compressor frequency				Min	Nom	Max	Min	Nom	Max	Min	Nom	Max
PUNCTUAL PERFORMANCE	Heating power	a7/6 - w30/35	(a)	kW	-	12,2	13,42	-	14,1	15,27	-	16	18,23
	COP	a7/6 - w30/35	(a)	W/W	-	4,9	-	-	4,7	-	-	4,5	-
	Heating power	a2/1 - w30/35	(b)	kW	-	12,3	12,3	-	13	13,56	-	14,5	14,76
	COP	a2/1 - w30/35	(b)	W/W	-	3,6	-	-	3,5	-	-	3,25	-
	Heating power	a-7/-8 - w30/35	(c)	kW	-	11,6	12,1	-	12,5	13,2	-	13,5	14,1
	COP	a-7/-8 - w30/35	(c)	W/W	-	2,85	-	-	2,8	-	-	2,7	-
	Heating power	a-15/-16 - w30/35	(d)	kW	-	10,35	10,35	-	11,22	11,22	-	11,82	11,82
	COP	a-15/-16 - w30/35	(d)	W/W	-	2,39	-	-	2,35	-	-	2,22	-
	Heating power (fancoils)	a7/6 - w40/45	(f)	kW	-	12,5	13,14	-	14,5	14,87	-	16,2	18,07
	COP (fancoils)	a7/6 - w40/45	(f)	W/W	-	3,7	-	-	3,55	-	-	3,45	-
	Heating power (fancoils)	a2/1 - w40/45	(g)	kW	-	12	12	-	13	13,28	-	14,3	14,74
	COP (fancoils)	a2/1 - w40/45	(g)	W/W	-	2,9	-	-	2,8	-	-	2,7	-
	Heating power (fancoils)	a-7/-8 - w40/45	(h)	kW	-	11,5	11,5	-	12,5	12,5	-	13,5	13,5
	COP (fancoils)	a-7/-8 - w40/45	(h)	W/W	-	2,4	-	-	2,3	-	-	2,25	-
	Heating power (fancoils)	a-15/-16 - w40/45	(i)	kW	-	9,62	9,62	-	10,3	10,3	-	10,96	10,96
	COP (fancoils)	a-15/-16 - w40/45	(i)	W/W	-	2,11	-	-	2,07	-	-	1,98	-
	Cooling power	a35 - w23/18	(l)	kW	-	12.2	16.11	-	13,9	17,13	-	15,4	17,13
	EER	a35 - w23/18	(l)	W/W	-	4,6	-	-	4,4	-	-	4,2	-
	Cooling power (fancoils)	a35 - w12/7	(m)	kW	-	11,6	13,44	-	13,4	15,48	-	14	16,01
	EER (fancoils)	a35 - w12/7	(m)	W/W	-	3,1	-	-	2,93	-	-	2,9	-
EFFICIENCIES	Energy efficiency class in water heating 35°C	Warmer Climate				A+++			A+++			A+++	
	SCOP	Warmer Climate				6,64			6,59			6,46	
	ηs (Seasonal efficiency for space heating)	Warmer Climate		ηs %		262,5			260,6			255,5	
	Energy efficiency class in water heating 35°C	Average Climate				A+++			A+++			A+++	
	SCOP	Average Climate				5,08			4,89			4,84	
	ηs (Seasonal efficiency for space heating)	Average Climate		ηs %		200,2			192,5			190,5	
	Energy efficiency class in water heating 35°C	Cold Climate				A+++			A+++			A+++	
	SCOP	Cold Climate				4,3			4,36			4,35	
	ηs (Seasonal efficiency for space heating)	Cold Climate		ηs %		168,8			171,3			170,9	
	Energy efficiency class in water heating 55°C	Warmer Climate				A++			A++			A++	
	SCOP	Warmer Climate				4,55			4,69			4,68	
	ηs (Seasonal efficiency for space heating)	Warmer Climate		ηs %		179			184,6			184	
	Energy efficiency class in water heating 55°C	Average Climate				A++			A++			A++	
	SCOP	Average Climate				3,62			3,62			3,59	
	ηs (Seasonal efficiency for space heating)	Average Climate		ηs %		141,6			141,8			140,7	
	Energy efficiency class in water heating 55°C	Cold Climate				A++			A++			A++	
	SCOP	Cold Climate				3,23			3,24			3,18	
	ηs (Seasonal efficiency for space heating)	Cold Climate		ηs %		126			126,6			124,3	
NOISE LEVEL	Indoor unit sound power			dB(A)		-			-			-	
	Indoor unit sound pressure		(n)	dB(A)		-			-			-	
	Outdoor unit sound power (nominal)			dB(A)		70			72			72	
	Outdoor unit sound pressure (nominal)		(o)	dB(A)		57			59			59	
ELECTRICAL DATA	System circulator absorption			W		4-95			4-95			4-95	
	Supply voltage indoor unit			V/ph/Hz		-			-			-	
	Maximum absorbed current of the internal unit with active heating elements			A		-			-			-	
	Internal unit maximum power consumption with active heating elements			kW		-			-			-	
	Additional electric heating elements			kW		-			-			-	
	Supply voltage outdoor unit			V/ph/Hz		380-415/3/50			380-415/3/50			380-415/3/50	
	Outdoor unit maximum absorbed current			A		9,5			10,5			11,5	
	Outdoor unit maximum absorbed power			kW		5,8			6,2			6,6	
COOLING CIRCUIT	Compressor type					TWIN ROTARY			TWIN ROTARY			TWIN ROTARY	
	Refrigerant inlet connection diameter			"		-			-			-	
	Coolant gas		(p)			R32			R32			R32	
	Global warming potential			GWP		675			675			675	
	Refrigerant gas charge			kg		1,8			1,8			1,8	
	Refrigerant piping length limit without minimum surface check according to IEC 60335-2-40:2018		(q)			-			-			-	
HYDRAULIC DATA	Hydraulic connections			"		G5/4 BSP			G5/4 BSP			G5/4 BSP	
	Capacity of expansion vessel			l		5			5			5	

ACCESSORIES

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

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

Accessory description on page 54

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.