

AIR-TO-WATER HEAT PUMPS



SHERPA MONOBLOC

[S4P]

Size	6, 9, 12, 15, 12T, 15T
Energy class	A+++
Type	monobloc
Refrigerant	R290
DHW Temperature	70°C



Refrigeration circuit at R290

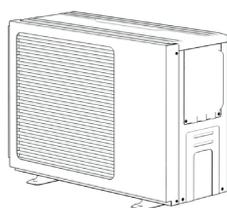
It enables the efficient delivery of climatic comfort with near-zero GWP and the production of DHW up to 70°C (boundary conditions -10/+25°C), without additional heating elements, optimizing energy consumption and avoiding anti-legionella cycles.

Cascade management

Up to 8 units (of the same size) can be connected to compose a system with a power output of up to 120 kW, with a small footprint due to the compact design of the individual single-fan units. The system consists of 1 master and 7 slaves, and only the master unit can produce domestic hot water.

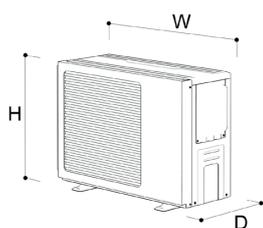


LAYOUT



- Twin Rotary DC Compressor
- Electronic expansion valve
- Fan with Brushless DC Motors
- External air probe integrated with the machine
- DHW boiler probe supplied as standard

DIMENSIONS AND WEIGHT



EXTERNAL

		6	9	12	15	12T	15T
W	mm	1000	1080	1080	1080	1080	1080
H	mm	725	857	857	857	857	857
D	mm	450	520	520	520	520	520
WEIGHT	kg	75	115	115	115	124	124

COMPATIBLE ACCESSORIES

CATEGORY	ACCESSORY CODE	DESCRIPTION	COMPATIBILITY
HYDRAULICS	B0916	Kit 3-way valve for DHW	○
STORAGE TANKS	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	○
RESISTANCES	B0618	Resistance for boiler 2 kW	○
	B0666	Resistance for boiler 3 kW	○
	B0617	Resistance flange kit	○
STORAGE TANKS	01199	Thermal accumulation 50 L	○
	01200	Thermal accumulation 100 L	○
SERVICES	AV001	Heat pump startup	○

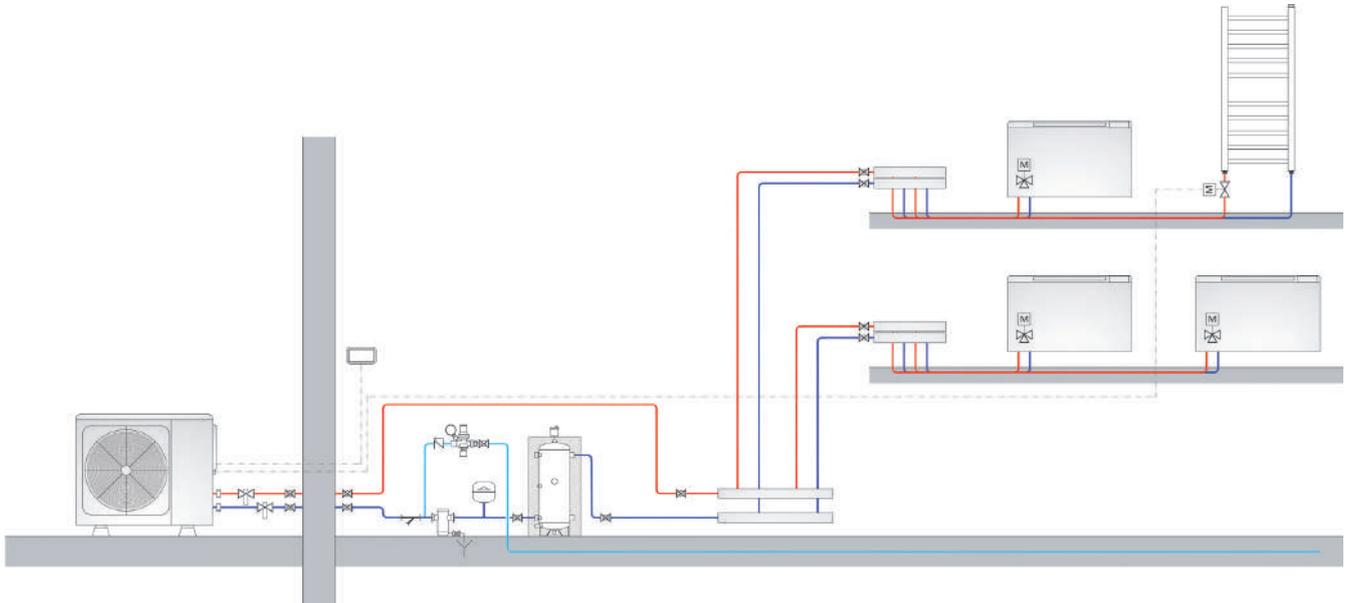
● Standard accessory; ○ Optional accessory; - Incompatible accessory

When compatibility is only possible with certain sizes or models, the information is given in the table. Accessory description available at end of chapter.

SYSTEM DIAGRAMS

WITHOUT SOLAR THERMAL SYSTEM AND INTEGRATED INERTIAL BUFFER TANK

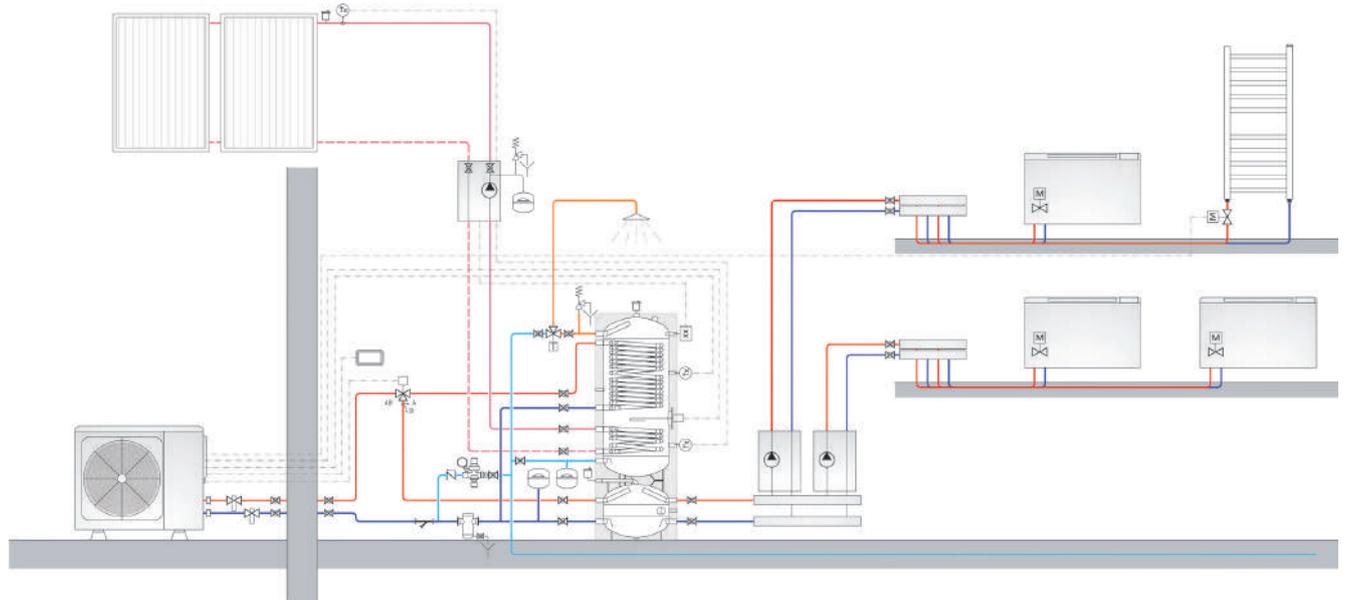
Monobloc heat pump (heating and air conditioning) and Bi2 SLR fan coil radiator terminals with 3-way valves and inertial buffer tank installed in series on the return line of the air conditioning system.



Schematic diagram, refer to the installation manual. In particular, the water filtration and treatment system is not shown.

WITH SOLAR THERMAL AND INTEGRATED INERTIAL BUFFER TANK

Monobloc heat pump (heating and air conditioning; DHW production) Bi2 SLR fan coil radiator terminals; DHW integration with solar thermal system and integrated inertial buffer tank (used as a hydraulic separator) for the air conditioning system.



Schematic diagram, refer to the installation manual. In particular, the water filtration and treatment system is not shown.

NEW

NEW

TECHNICAL DATA				6			9		
Product code				02598			02599		
Compressor frequency				Minimum	Nominal	Maximum	Minimum	Nominal	Maximum
PUNCTUAL PERFORMANCE	Heating power	a7/6 - w30/35	(a) kW	2,2	6,45	7,02	3,1	9	10,15
	COP	a7/6 - w30/35	(a) W/W	7	4,89	4,55	7,5	4,84	4,37
	Heating power	a2/1 - w30/35	(a) kW	1,94	5,7	6,68	2,84	8,25	9,69
	COP	a2/1 - w30/35	(a) W/W	6,15	4,3	3,96	6,32	4,08	3,76
	Heating power	a-7/-8 - w30/35	(a) kW	1,66	4,87	5,41	2,48	7,2	8
	COP	a-7/-8 - w30/35	(a) W/W	4,31	3,01	3,04	4,27	2,75	2,78
	Heating power	a-15/-16 - w30/35	(a) kW	1,48	4,34	4,35	2,3	6,69	6,69
	COP	a-15/-16 - w30/35	(a) W/W	3,59	2,51	2,5	3,62	2,34	2,33
	Heating power (fancoils)	a7/6 - w40/45	(a) kW	2,1	6,65	6,66	3,1	9	9,59
	COP (fancoils)	a7/6 - w40/45	(a) W/W	5,5	3,84	3,73	5,73	3,7	3,54
	Heating power (fancoils)	a2/1 - w40/45	(a) kW	1,84	5,41	6,29	2,74	7,97	9,27
	COP (fancoils)	a2/1 - w40/45	(a) W/W	4,86	3,39	3,23	5,06	3,27	3,11
	Heating power (fancoils)	a-7/-8 - w40/45	(a) kW	1,52	4,47	5,09	2,37	6,89	7,86
	COP (fancoils)	a-7/-8 - w40/45	(a) W/W	3,61	2,52	2,49	3,79	2,45	2,41
	Heating power (fancoils)	a-15/-16 - w40/45	(a) kW	1,38	4,05	4,06	2,18	6,33	6,33
	COP (fancoils)	a-15/-16 - w40/45	(a) W/W	3	2,1	2,08	3,16	2,04	2,04
	Cooling power	a35 - w23/18	(a) kW	2,21	6,5	7,87	3,1	9	11,67
	EER	a35 - w23/18	(a) W/W	7,09	4,95	4,5	7,28	4,7	4,25
Cooling power (fancoils)	a35 - w12/7	(a) kW	2,04	6	6,41	3,1	9	9,51	
EER (fancoils)	a35 - w12/7	(a) W/W	4,51	3,15	3,14	4,72	3,05	3,05	
EFFICIENCIES	Energy efficiency class in water heating 35°C	Warmer Climate			A+++			A+++	
	SCOP	Warmer Climate			7,27			7,69	
	s (Seasonal efficiency for space heating)	Warmer Climate	ηs %		288			304	
	Energy efficiency class in water heating 35°C	Average Climate			A+++			A+++	
	SCOP	Average Climate			5,16			5,15	
	s (Seasonal efficiency for space heating)	Average Climate	ηs %		203,4			202,8	
	Energy efficiency class in water heating 35°C	Cold Climate			A++			A+++	
	SCOP	Cold Climate			4,35			4,55	
	s (Seasonal efficiency for space heating)	Cold Climate	ηs %		171			179	
	Energy efficiency class in water heating 55°C	Warmer Climate			A+++			A+++	
	SCOP	Warmer Climate			5,14			5,26	
	s (Seasonal efficiency for space heating)	Warmer Climate	ηs %		202			208	
	Energy efficiency class in water heating 55°C	Average Climate			A++			A++	
	SCOP	Average Climate			3,78			3,82	
	s (Seasonal efficiency for space heating)	Average Climate	ηs %		148,2			149,8	
	Energy efficiency class in water heating 55°C	Cold Climate			A++			A++	
	SCOP	Cold Climate			3,44			3,51	
	s (Seasonal efficiency for space heating)	Cold Climate	ηs %		135			138	
NOISE LEVEL	Outdoor unit sound power (nominal)		dB(A)		64			67	
	Outdoor unit sound pressure (nominal)		(b) dB(A)		52			53	
ELECTRICAL DATA	System circulator absorption		W		4-95			4-95	
	Outdoor unit power supply		V/ph/Hz		220-240/1/50			220-240-1-50	
	Outdoor unit maximum absorbed current		A		16			20,5	
	Outdoor unit maximum absorbed power		kW		3,5			4,1	
COOLING CIRCUIT	Compressor type				Twin Rotary			Twin Rotary	
	Refrigerant gas		(c)		R290			R290	
	Global warming potential		GWP		3			3	
	Refrigerant gas charge		kg		0,7			0,92	
HYDRAULIC DATA	Hydraulic connections		"		G1 BSP			G1 BSP	
	Capacity of expansion vessel		l		-			-	

(a) aX/Y indicates air temperature (dry bulb X / wet bulb Y) - wA/B indicates water temperature (A inlet / B outlet).

(b) Sound pressure values measured at a distance of 4 m in free field

(c) Airtightlly sealed equipment containing fluorinated GAS
Energy efficiency classes refer to a range between A+++ and D.

NEW

NEW

TECHNICAL DATA				12			15		
Product code				02600			02601		
Compressor frequency				Minimum	Nominal	Maximum	Minimum	Nominal	Maximum
PUNCTUAL PERFORMANCE	Heating power	a7/6 - w30/35	(a) kW	4,3	12	12,99	4,8	15	15,99
	COP	a7/6 - w30/35	(a) W/W	7,1	4,74	4,09	6,95	4,5	3,84
	Heating power	a2/1 - w30/35	(a) kW	3,69	10,32	12,11	4,12	12,87	15,11
	COP	a2/1 - w30/35	(a) W/W	5,93	3,96	3,65	5,69	3,69	3,4
	Heating power	a-7/-8 - w30/35	(a) kW	3,26	9,11	10,12	3,78	11,81	13,12
	COP	a-7/-8 - w30/35	(a) W/W	4,3	2,87	2,9	4,05	2,62	2,65
	Heating power	a-15/-16 - w30/35	(a) kW	2,86	8	8	3,52	11	11
	COP	a-15/-16 - w30/35	(a) W/W	3,76	2,51	2,51	3,49	2,26	2,26
	Heating power (fancoils)	a7/6 - w40/45	(a) kW	4,3	12	12,31	4,8	15	15,31
	COP (fancoils)	a7/6 - w40/45	(a) W/W	5,39	3,6	3,48	5,39	3,5	3,23
	Heating power (fancoils)	a2/1 - w40/45	(a) kW	3,53	9,87	11,48	3,98	12,44	14,48
	COP (fancoils)	a2/1 - w40/45	(a) W/W	4,93	3,29	3,14	4,68	3,03	2,89
	Heating power (fancoils)	a-7/-8 - w40/45	(a) kW	2,97	8,3	9,46	3,49	10,93	12,46
	COP (fancoils)	a-7/-8 - w40/45	(a) W/W	3,83	2,56	2,52	3,56	2,3	2,27
	Heating power (fancoils)	a-15/-16 - w40/45	(a) kW	2,69	7,51	7,51	3,36	10,51	10,51
	COP (fancoils)	a-15/-16 - w40/45	(a) W/W	3,29	2,2	2,2	3,03	1,97	1,95
	Cooling power	a35 - w23/18	(a) kW	4,3	12	13,98	4,8	15	15,98
	EER	a35 - w23/18	(a) W/W	6,88	4,6	4	6,48	4,2	3,87
Cooling power (fancoils)	a35 - w12/7	(a) kW	4,3	12	12,01	4,48	14	14,01	
EER (fancoils)	a35 - w12/7	(a) W/W	4,49	3	2,8	4,39	2,85	2,67	
EFFICIENCIES	Energy efficiency class in water heating 35°C	Warmer Climate				A+++			A+++
	SCOP	Warmer Climate				6,81			6,39
	s (Seasonal efficiency for space heating)	Warmer Climate	ηs %			270			253
	Energy efficiency class in water heating 35°C	Average Climate				A+++			A+++
	SCOP	Average Climate				4,88			4,73
	s (Seasonal efficiency for space heating)	Average Climate	ηs %			192,1			186,2
	Energy efficiency class in water heating 35°C	Cold Climate				A++			A++
	SCOP	Cold Climate				4,33			4,2
	s (Seasonal efficiency for space heating)	Cold Climate	ηs %			170			165
	Energy efficiency class in water heating 55°C	Warmer Climate				A+++			A+++
	SCOP	Warmer Climate				5,01			4,83
	s (Seasonal efficiency for space heating)	Warmer Climate	ηs %			197			190
	Energy efficiency class in water heating 55°C	Average Climate				A++			A++
	SCOP	Average Climate				3,76			3,69
	s (Seasonal efficiency for space heating)	Average Climate	ηs %			147,4			144,6
	Energy efficiency class in water heating 55°C	Cold Climate				A++			A++
	SCOP	Cold Climate				3,43			3,4
	s (Seasonal efficiency for space heating)	Cold Climate	ηs %			134			133
NOISE LEVEL	Outdoor unit sound power (nominal)		dB(A)			69			71
	Outdoor unit sound pressure (nominal)		(b) dB(A)			55			57
ELECTRICAL DATA	System circulator absorption		W			4-95			4-95
	Outdoor unit power supply		V/ph/Hz			220-240-1-50			220-240-1-50
	Outdoor unit maximum absorbed current		A			30			30
	Outdoor unit maximum absorbed power		kW			5,8			6,4
COOLING CIRCUIT	Compressor type					Twin Rotary			Twin Rotary
	Refrigerant gas		(c)			R290			R290
	Global warming potential		GWP			3			3
	Refrigerant gas charge		kg			1,4			1,4
HYDRAULIC DATA	Hydraulic connections		"			G1 BSP			G1 BSP
	Capacity of expansion vessel		l			-			-

(a) aX/Y indicates air temperature (dry bulb X / wet bulb Y) - wA/B indicates water temperature (A inlet / B outlet).
 (b) Sound pressure values measured at a distance of 4 m in free field

(c) Airtightlly sealed equipment containing fluorinated GAS
 Energy efficiency classes refer to a range between A+++ and D.

NEW

NEW

TECHNICAL DATA				12T			15T		
Product code				02602			02603		
Compressor frequency				Minimum	Nominal	Maximum	Minimum	Nominal	Maximum
PUNCTUAL PERFORMANCE	Heating power	a7/6 - w30/35	(a) kW	4,3	12	12,99	4,8	15	15,99
	COP	a7/6 - w30/35	(a) W/W	7,1	4,74	4,09	6,95	4,5	3,84
	Heating power	a2/1 - w30/35	(a) kW	3,69	10,32	12,11	4,12	12,87	15,11
	COP	a2/1 - w30/35	(a) W/W	5,93	3,96	3,65	5,69	3,69	3,4
	Heating power	a-7/-8 - w30/35	(a) kW	3,26	9,11	10,12	3,78	11,81	13,12
	COP	a-7/-8 - w30/35	(a) W/W	4,3	2,87	2,9	4,05	2,62	2,65
	Heating power	a-15/-16 - w30/35	(a) kW	2,86	8	8	3,52	11	11
	COP	a-15/-16 - w30/35	(a) W/W	3,76	2,51	2,51	3,49	2,26	2,26
	Heating power (fancoils)	a7/6 - w40/45	(a) kW	4,3	12	12,31	4,8	15	15,31
	COP (fancoils)	a7/6 - w40/45	(a) W/W	5,39	3,6	3,48	5,39	3,5	3,23
	Heating power (fancoils)	a2/1 - w40/45	(a) kW	3,53	9,87	11,48	3,98	12,44	14,48
	COP (fancoils)	a2/1 - w40/45	(a) W/W	4,93	3,29	3,14	4,68	3,03	2,89
	Heating power (fancoils)	a-7/-8 - w40/45	(a) kW	2,97	8,3	9,46	3,49	10,93	12,46
	COP (fancoils)	a-7/-8 - w40/45	(a) W/W	3,83	2,56	2,52	3,56	2,3	2,27
	Heating power (fancoils)	a-15/-16 - w40/45	(a) kW	2,69	7,51	7,51	3,36	10,51	10,51
	COP (fancoils)	a-15/-16 - w40/45	(a) W/W	3,29	2,2	2,2	3,03	1,97	1,95
	Cooling power	a35 - w23/18	(a) kW	4,3	12	13,98	4,8	15	15,98
	EER	a35 - w23/18	(a) W/W	6,88	4,6	4	6,48	4,2	3,87
Cooling power (fancoils)	a35 - w12/7	(a) kW	4,3	12	12,01	4,48	14	14,01	
EER (fancoils)	a35 - w12/7	(a) W/W	4,49	3	2,8	4,39	2,85	2,67	
EFFICIENCIES	Energy efficiency class in water heating 35°C	Warmer Climate				A+++			A+++
	SCOP	Warmer Climate				6,71			6,33
	s (Seasonal efficiency for space heating)	Warmer Climate	ηs %			265			250
	Energy efficiency class in water heating 35°C	Average Climate				A+++			A+++
	SCOP	Average Climate				4,88			4,73
	s (Seasonal efficiency for space heating)	Average Climate	ηs %			192,1			186,2
	Energy efficiency class in water heating 35°C	Cold Climate				A++			A++
	SCOP	Cold Climate				4,33			4,15
	s (Seasonal efficiency for space heating)	Cold Climate	ηs %			170			163
	Energy efficiency class in water heating 55°C	Warmer Climate				A+++			A+++
	SCOP	Warmer Climate				4,8			4,83
	s (Seasonal efficiency for space heating)	Warmer Climate	ηs %			189			190
	Energy efficiency class in water heating 55°C	Average Climate				A++			A++
	SCOP	Average Climate				3,76			3,69
	s (Seasonal efficiency for space heating)	Average Climate	ηs %			147,4			144,6
	Energy efficiency class in water heating 55°C	Cold Climate				A++			A++
	SCOP	Cold Climate				3,36			3,36
	s (Seasonal efficiency for space heating)	Cold Climate	ηs %			132			131
NOISE LEVEL	Outdoor unit sound power (nominal)		dB(A)			69			71
	Outdoor unit sound pressure (nominal)		dB(A)	(b)		55			57
ELECTRICAL DATA	System circulator absorption		W			4-95			4-95
	Outdoor unit power supply		V/ph/Hz			380-415-3-50			380-415-3-50
	Outdoor unit maximum absorbed current		A			14			14
	Outdoor unit maximum absorbed power		kW			5,8			6,4
COOLING CIRCUIT	Compressor type					Twin Rotary			Twin Rotary
	Refrigerant gas		(c)			R290			R290
	Global warming potential		GWP			3			3
	Refrigerant gas charge		kg			1,4			1,4
HYDRAULIC DATA	Hydraulic connections		"			G1 BSP			G1 BSP
	Capacity of expansion vessel		l			-			-

(a) aX/Y indicates air temperature (dry bulb X / wet bulb Y) - wA/B indicates water temperature (A inlet / B outlet).

(b) Sound pressure values measured at a distance of 4 m in free field

(c) Airtightly sealed equipment containing fluorinated GAS
Energy efficiency classes refer to a range between A+++ and D.