

# SHERPA

Air-water split heat pump.



COP > 4

ACS a 60°C

Energy class: 35°

A+

55°

A+



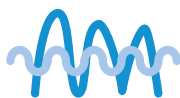
## RENEWABLE TECHNOLOGIES

Sherpa uses the heat in the air, and transfers it to system terminals in an efficient manner. For each kW of electricity consumed, Sherpa is able to produce over 4 of thermal energy. This means that 75% of energy is free, renewable and clean.

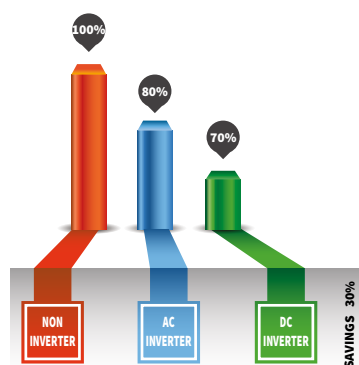


## COMPACT TECHNOLOGY

The engineering of components and the reduced size allow installation inside a kitchen cabinet.



## OLIMPIA SPLENDID'S INVERTER DC TECHNOLOGY



## SMART CONTROL

The smart onboard control panel has been developed by Olimpia Splendid, it's extremely flexible and can be fully configured. It features all the advanced characteristics needed to manage every different kind of heat pump systems. It takes into account the climatic season, the thermal load request and adjusts consequently the operation of the motor on the basis of the difference between the temperature of the external environment and the water supply temperature.

Compatible with:

AQUADUE<sup>®</sup>  
CONTROL



## FEATURES

**Provides DHW** with temperatures up to 60 °C

**DHW Management:** Sherpa can manage DHW with extreme flexibility through two management methods: water sensor inserted in the boiler or contact thermostat in the tank.

**Climatic curves** based on the outside air temperature: two curves are available, one for cooling and one for heating. The climatic curves allow you to change the system temperature according with external climate conditions, adjusting the heat input to the heat requirements of the building in order to obtain energy savings.

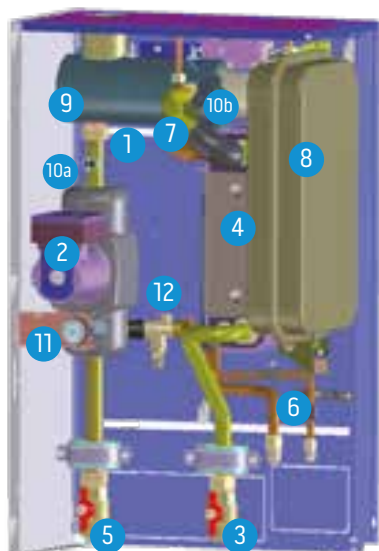
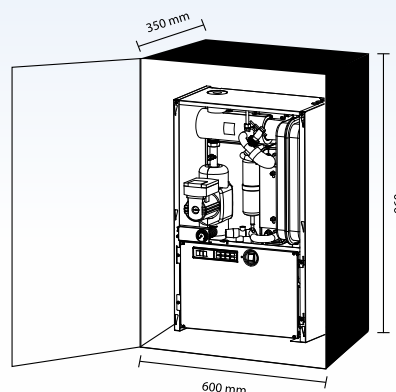
**Two configurable set points** in cooling, **Three configurable set points** in heating (one of which for DHW): the set points can also be selected by remote contact.

**2-stage electric heater:** configurable single or double stage which can be activated to support the heat pump, through verification, by electronic control, of the actual thermal capacity of the heat pump. Each stage is activated in accordance with the real need for thermal power, in order to optimize electrical consumption.

**Daily programmer** with night mode: Night mode provides energy savings of up to 20%. Complete management of antilegionella cycles.

**Complete management** of antilegionella cycles.

**Refrigerant gas R410A.\***



- |                                   |   |
|-----------------------------------|---|
| 1 Electrical resistance           | 8 Expansion vessel                          |
| 2 Circulator                      | 9 Automatic air vent                        |
| 3 Return water                    | 10 Electrical resistance safety thermostats |
| 4 BPHE Plate exchangers           | 11 Gauge                                    |
| 5 System flow                     | 12 3 bar security valve                     |
| 6 Refrigerant circuit connections |   |
| 7 Flow switch                     |   |

\* Non hermetically sealed equipment containing fluorinated gas with GWP equivalent 2088

# SHERPA

		SHERPA 7		SHERPA 11		SHERPA 13		SHERPA 13T		SHERPA 16		SHERPA 16T	
Indoor unit standard		599501A						599503A					
Outdoor Unit S1		OS-CESHH24EI		OS-CESHH36EI		OS-CESHH48EI		OS-CESTH48EI		OS-CESHH60EI		OS-CESTH60EI	
Refrigerant/water exchanger		Braze plates		Braze plates		Braze plates		Braze plates		Braze plates		Braze plates	
Heating capacity (a)	kW	6,50		10,50		12,50		12,50		14		16	
COP (a)	W/W	4,12		4,14		4,12		4,12		4,11		4,11	
Heating capacity (b)	kW	4,30		7,20		8		8		8,50		9,20	
COP (b)	W/W	2,60		2,65		2,70		2,70		2,40		2,50	
Heating capacity (c)	kW	6,50		9,90		12,50		12,50		13,30		14	
COP (c)	W/W	3,40		3,14		3,21		3,21		3,10		3,10	
Heating capacity (d)	kW	3,80		6,20		7,20		7,20		8,50		9	
COP (d)	W/W	2,30		2		2,10		2,10		2,10		2,10	
Cooling capacity (e)	kW	7,90		11,80		12,30		12,50		13,50		15	
EER (e)	W/W	4,50		4,40		4		4,10		3,80		4	
Cooling capacity (f)	kW	5,60		8,10		10,40		10,40		11,30		12,80	
EER (f)	W/W	3,10		3,08		3		3		2,70		2,80	
Energy efficiency class heating mode 35°/55 °C		A+		A+		A+		A+		A+		A+	
Sound pressure of indoor unit (g)		35		35		35		35		35		35	
Sound power indoor unit		41		41		41		41		41		41	
Sound pressure outdoor unit (h)		54/55		56/58		60/60		60/60		60/60		60/62	
Sound power outdoor unit		64/65		66/68		70/70		70/70		70/70		70/72	
Diameter refrigerant connections		3/8-5/8		3/8-5/8		3/8-5/8		3/8-5/8		3/8-5/8		3/8-5/8	
Circulator absorption		40-130		40-130		40-130		40-130		40-130		40-130	
Capacity of expansion vessel		8		8		8		8		8		8	
Power supply of indoor unit		230/1/50		230/1/50		230/1/50		230/1/50		230/1/50		230/1/50	
Maximum current absorption indoor unit (electrical heaters activated)	A	14,10		14,10		27,20		27,20		27,20		27,20	
Maximum current absorption indoor unit (electrical heaters deactivated)	A	1,1		1,1		1,1		1,1		1,1		1,1	
Additional electrical heater elements	kW	1,5 + 1,5		1,5 + 1,5		3 + 3		3 + 3		3 + 3		3 + 3	
Hydraulic connections	"	1		1		1		1		1		1	
Outdoor unit power supply	V/ph/ Hz	230/1/50		230/1/50		230/1/50		400/3/50		230/1/50		400/3/50	
Outdoor unit maximum absorbed current	A	13,5		22		28		8,15		28		11,5	
Refrigerant gas (i)		R410A		R410A		R410A		R410A		R410A		R410A	
Refrigerant gas charge (outdoor unit) R410A	Kg	1,95		3,20		4,00		4,00		4,00		4,30	

(a) Heating mode, inlet/outlet water temperature 30°C/35°C, outdoor air temperature 7°C d.b./6°C w.b.  
 (b) Heating mode, inlet/outlet water temperature 30°C/35°C, outdoor air temperature -2°C d.b./-1°C w.b.  
 (c) Heating mode, inlet/outlet water temperature 40°C/45°C, outdoor air temperature 7°C d.b./6°C w.b.  
 (d) Heating mode, inlet/outlet water temperature 40°C/45°C, outdoor air temperature -2°C d.b./-1°C w.b.  
 (e) Cooling mode, inlet/outlet water temperature 23°C/18°C, outdoor air temperature 35°C

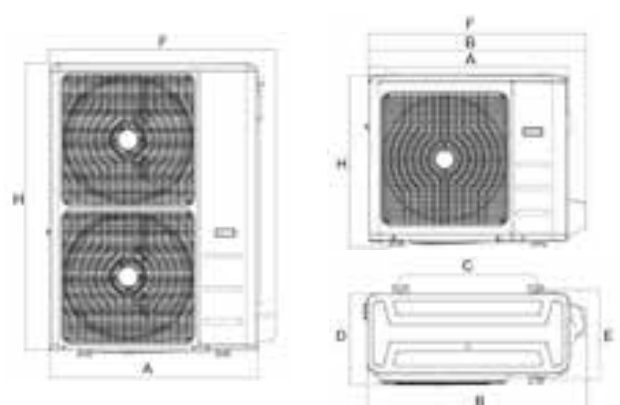
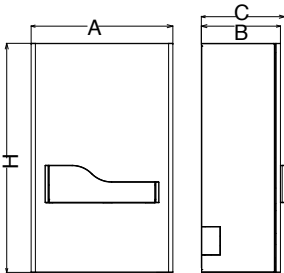
(f) Cooling mode, inlet/outlet water temperature 12°C/7°C, outdoor air temperature 35°C  
 (g) Sound pressure values measured at a distance of 1 m in semi-anechoic chamber  
 (h) Sound pressure values measured at a distance of 4 m in a free field  
 (i) Equipment not hermetically sealed containing fluorinated gases with an equivalent GWP of 2088

## INTERNAL UNIT

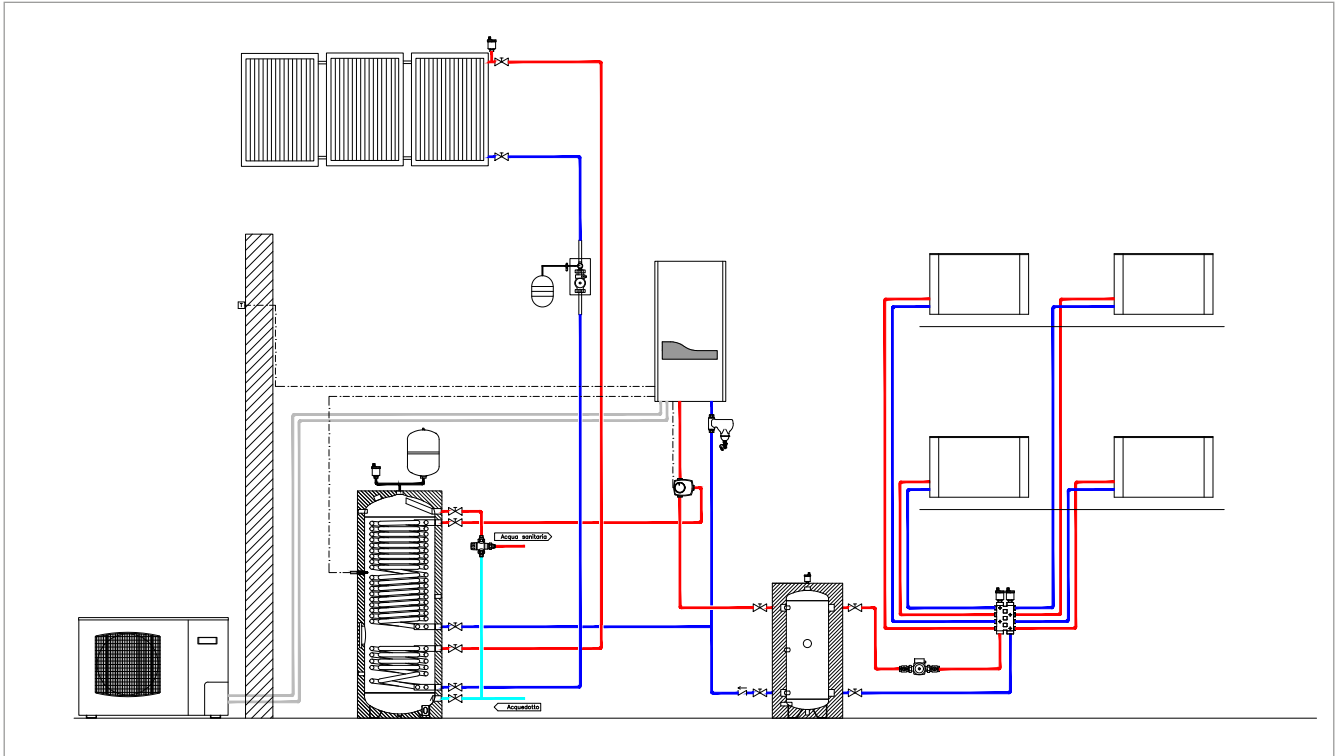
		SHERPA 7	SHERPA 11	SHERPA 13	SHERPA 13T	SHERPA 16	SHERPA 16T
		SMALL			BIG		
A	mm	500	500	500	500	500	500
B	mm	280	280	280	280	280	280
C	mm	296	296	296	296	296	296
H	mm	810	810	810	810	810	810
standard weight	Kg	36	36	38	38	38	38

## EXTERNAL UNIT S1

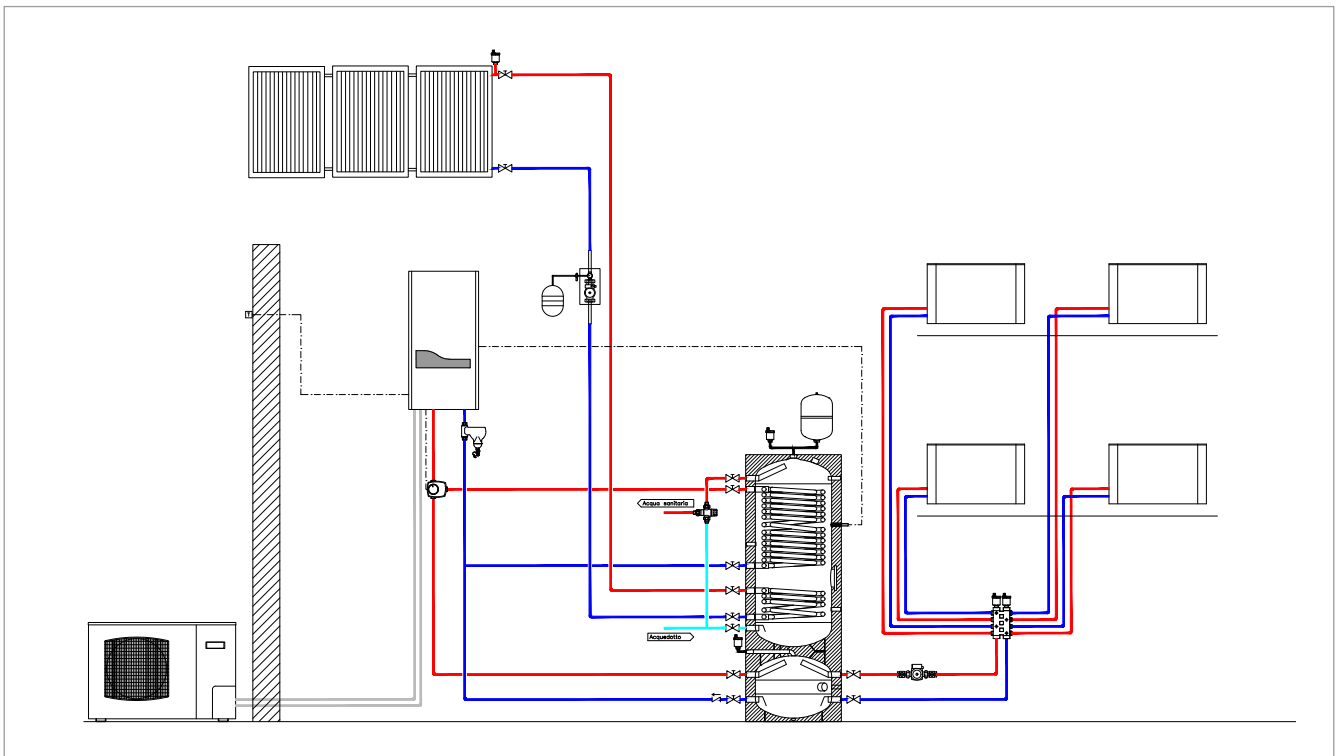
		7	11	13	13T	16	16T
		CESHH24EI		CESHH36EI	CESHH48EI	CESTH48EI	CESHH60EI
		MONO-VENT			DOUBLE VENT		
A	mm	845	946	952	952	952	952
B	mm	914	1030	1045	1045	1045	1045
C	mm	540	673	634	634	634	634
D	mm	363	410	415	415	415	415
E	mm	350	403	404	404	404	404
F	mm	915	1036	1032	1032	1032	1032
H	mm	702	810	1333	1333	1333	1333
Weight	kg	49	67	95	108	95	113



SHERPA heat pump (heating and cooling; high-temperature DHW production); fan coil terminals Bi2 SLR; DHW integration with solar thermal system and inertial storage tank for the cooling plant.



SHERPA heat pump (heating and cooling; high-temperature DHW production); fan coil terminals Bi2 SLR; DHW integration with solar thermal system and integrated inertial storage tank for the cooling plant.



**Code B0622 - 3-WAY VALVE KIT FOR DOMESTIC HOT WATER.**

- Compact size
- Two point control

**Code B0623 - OUTDOOR AIR SENSOR KIT**

Sensor screen for measuring ambient air temperature. The sensor is necessary to enable electrical resistors activation and climatic curves.

**Code B0624 - DHW BOILER SENSOR KIT**

Sensor for measuring and direct control of water temperature in the domestic water storage tank.

**Code B0665 - HEATING CABLE KIT**

Prevents the formation of ice on the bottom of the external unit in the case of prolonged operation in extreme conditions.

# SHERPA range accessories

## SHERPA / SHERPA AQUADUE / SHERPA MONOBLOC



OS Code	Description	Capacity			Total height mm	Diameter with insulation mm	Insulation mm	Energy Class	Dispersion		Coil exchangers			Empty weight Kg	Coating and colour	
		Cylinder L	Useful volume L	puffer L					total W	Specific W/°K	N°	Sup. PdC	Secondary Sup.		Blue	RAL5010
01194	Standard cylinder 300 L	300	273	-	1615	600	50	<b>C</b>	85	1,89	1	1,8	-	115	Sky	Blue RAL5010
01804	High-efficiency HE cylinder 200 L	200	190	-	1215	640	70	<b>B</b>	51	1,13	1 double coil	3	-	120	Sky	Blue RAL5010
01805	High-efficiency HE cylinder 300 L	300	263	-	1615	640	70	<b>B</b>	63	1,40	1 double coil	4	-	160	Sky	Blue RAL5010
01806	High-efficiency HES solar cylinder 300 L	300	260	-	1615	640	70	<b>B</b>	63	1,40	1 double coil + 1 solar unit	3,7	1,2	140	Sky	Blue RAL5010
01807	Hybrid HY cylinder 300 L	300	270	80	1925	690	70	<b>B</b>	73	1,62	1	2,8	-	150	Sky	Blue RAL5010
01808	Hybrid HY solar cylinder 300 L	300	270	80	1925	690	70	<b>B</b>	73	1,62	1+ 1 solar unit	3,3	0,9	150	Sky	Blue RAL5010
01199	Heat storage 50 L	50	-	57	935	400	50	<b>B</b>	34	0,76	-	-	-	25	Sky	Blue RAL5010
01200	Heat storage 100 L	100	-	123	1095	500	50	<b>B</b>	50	1,11	-	-	-	35	Sky	Blue RAL5010

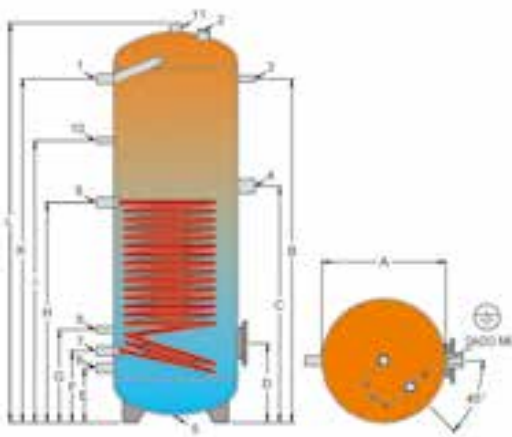
- B0618** Resistance for boiler 2 kW
- B0666** Resistance for boiler 3 kW
- B0617** Flange resistance kit

## DHW STANDARD CYLINDERS

CYLINDER FOR DOMESTIC HOT WATER PRODUCTION

Cylinder with 1 carbon steel coil, complete with anodic protection, internal vitrification treatment in compliance with DIN 4753-3 and EN 10025 Standards. Insulation: Rigid polyurethane with thickness of 50 mm

energy class **C**



N°	TYPE OF ATTACHMENT	200 ÷ 300
1.	Hot water flow	1"
2.	Anode	1" 1/4
3.	Thermometer-Probe	1/2"
4.	Electric heating element	1" 1/2
5.	Pallet attachment (blind)	1/2"
6.	Cold water inlet	1"
7.	Coil return	1"
8.	Thermostat	1/2"
9.	Coil flow	1"
10.	Recirculation	1/2"
11.	Hot water flow	1" 1/4

Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N
300	500	1390	955	320	220	290	375	890	1165	-	1390	1615	-	150

## HE/HES HIGH EFFICIENCY DHW CYLINDER

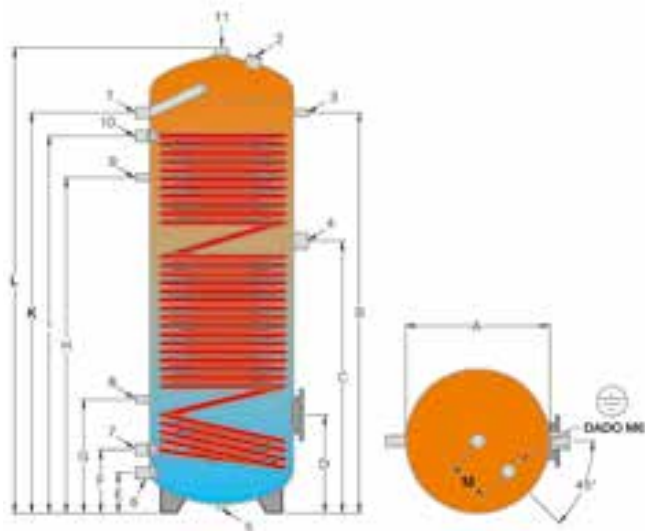
energy class **B**

CYLINDER FOR DOMESTIC HOT WATER PRODUCTION BY HEAT PUMP (HE) AND SOLAR PANELS (HES)

Cylinder with 1 or 2 carbon steel coils with large exchange surface, complete with anodic protection and internal vitrification treatment in compliance with DIN 4753-3 and EN 10025 Standards. Insulation: Rigid polyurethane with thickness of 70 mm.

### HE

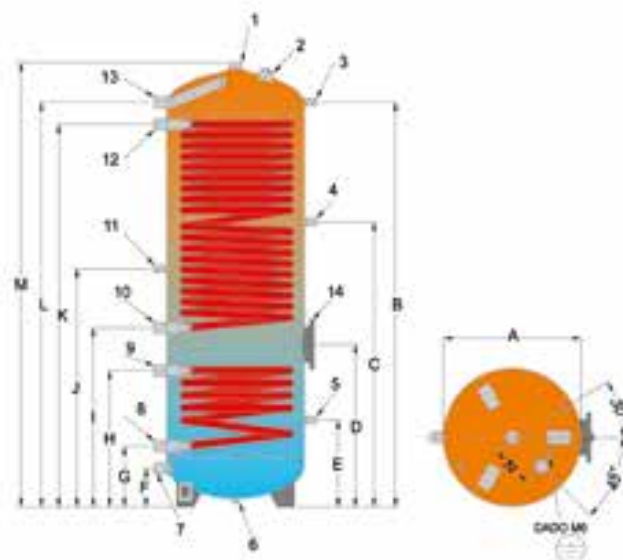
1 coil cylinder (large surface for heat pump)



N°	TYPE OF ATTACHMENT	200 ÷ 300
1.	Hot water flow	1"
2.	Anode	1" 1/4
3.	Thermometer-Probe	1/2"
4.	Electric heating element	1" 1/2
5.	Pallet attachment (blind)	1/2"
6.	Water inlet	1"
7.	Coil return	1"
8.	Probe	1/2"
9.	Recirculation	1/2"
10.	Coil flow	1"
11.	Hot water flow	1" 1/4

### HES

2 coil cylinder (large surface for heat pump+ solar unit)



N°	TYPE OF ATTACHMENT	300
1.	Hot water flow	1" 1/4
2.	Anode	1" 1/4
3.	Thermometer-Probe	1/2"
4.	Thermostat	1/2"
5.	Thermostat	1/2"
6.	Pallet attachment (blind)	1/2"
7.	Cold water inlet	1"
8.	Lower coil return	1"
9.	Lower coil flow	1"
10.	Upper coil return	1"
11.	Recirculation	1/2"
12.	Upper coil flow	1"
13.	Hot water flow	1"
14.	Flange with electric heating element attachment	1" 1/2

Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N
HE 200	500	995	735	320	140	220	370	835	990	-	1070	1215	150	-
HE 300	500	1390	945	340	140	220	395	1165	1310	-	1390	1615	150	-
HES 300	500	1470	1035	590	315	140	220	495	650	865	1390	1470	1615	150

# SHERPA range accessories

SHERPA / SHERPA AQUADUE / SHERPA MONOBLOC

## HYBRID HY/HYS DHW CYLINDERS

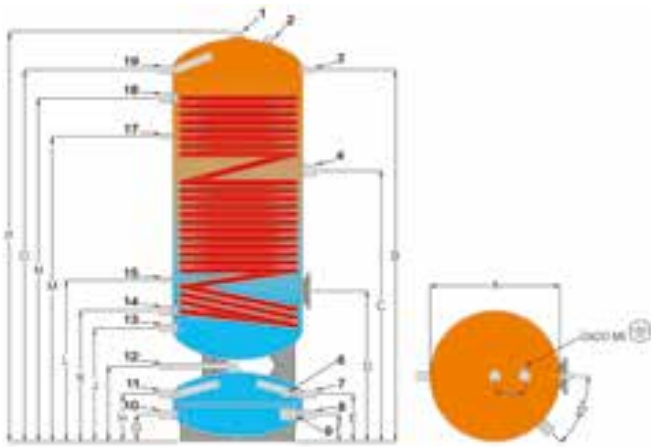
energy class **B**

COMBINED HEAT STORAGE UNIT: CYLINDER FOR DOMESTIC HOT WATER PRODUCTION BY HEAT PUMP (HY) AND SOLAR PANELS (HYS) AND INERTIAL STORAGE FOR THE PLANT WATER

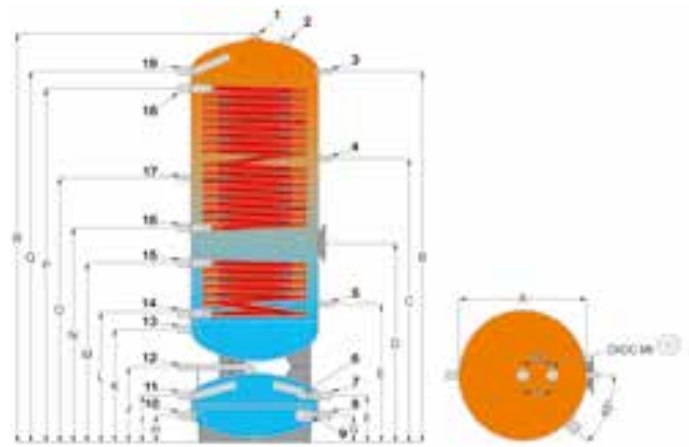
Upper cylinder with 1 or 2 carbon steel coils with large exchange surface, complete with anodic protection and internal vitrification treatment in compliance with DIN 4753-3 and EN 10025 Standards. Lower storage tank for heating or cooled water, interior not treated.

Insulation: Rigid polyurethane with thickness of 70 mm

**HY**  
1 coil cylinder  
(for heat pump + buffer tank)



**HYS**  
2 coil cylinder  
(for heat pump + solar unit + buffer tank)



N°	TYPE OF ATTACHMENT	300
1.	Domestic hot water flow	1" 1/4
2.	Anode	1" 1/4
3.	Thermometer	1/2"
4.	Probe	1" 1/2
6.	Probe	1/2"
7.	Boiler flow	1"
8.	Boiler return	1"
9.	Electric heating element	1" 1/2
10.	Heating system return	1"
11.	Heating system flow	1"
12.	Vent	1/2"
13.	Domestic cold water inlet	1"
14.	EBD - Lower coil return	1" 1/4
15.	EBD - Lower coil return	1/2"
17.	Recirculation	1/2"
18.	Upper coil flow	1" 1/4
19.	Domestic hot water flow	1"

N°	TYPE OF ATTACHMENT	300
1.	Domestic hot water flow	1" 1/4
2.	Anode	1" 1/4
3.	Thermometer	1/2"
4.	EBD - Probe	1/2"
5.	EBD - Probe	1/2"
6.	Probe	1/2"
7.	Boiler flow	1"
8.	Boiler return	1"
9.	Electric heating element	1" 1/2
10.	Heating system return	1"
11.	Heating system flow	1"
12.	Vent	1/2"
13.	Domestic cold water inlet	1"
14.	EBD - Lower coil return	1"
15.	EBD - Lower coil return	1"
16.	EBD - Upper coil return	1"
17.	Recirculation	1"
18.	Upper coil flow	1"
19.	Domestic hot water flow	1"

Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
<b>HY 300</b>	550	1755	1300	875	340	160	160	340	505	675	765	940	1425	1675	1755	1925	150	-	-
<b>HYS 300</b>	550	1755	1420	1035	810	340	160	160	340	505	675	755	945	1125	1280	1675	1755	1925	150

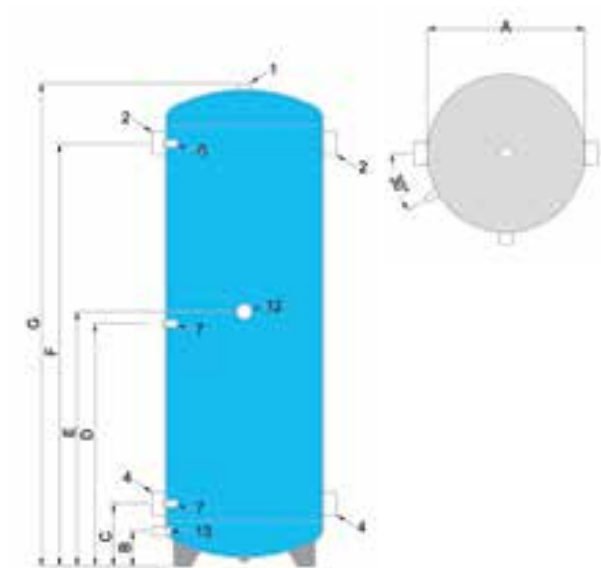
## HEAT STORAGE TANKS

energy class **B**

### BUFFER HEAT STORAGE TANKS

Storage tank for cooled water, interior not treated. Can be used also for heating water.

Insulation: Polyurethane 50 mm



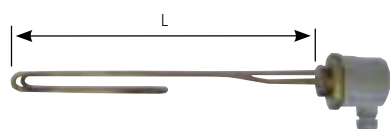
N°	TYPE OF ATTACHMENT	50-100
1.	Vent	1"
2.	boiler flow	1" 1/4
4.	oiler return-heating at 50°C	1" 1/4
5.	oiler return-heating at 30°C	1/2"
6.	thermometer	1/2"
7.	probe	1/2"
12.	Electric heating element	1" 1/2
13.	Drain	1/2"

Model	A	B	C	D	E	F	G
<b>50</b>	300	100	180	485	530	785	935
<b>100</b>	400	100	185	560	605	935	1095

## OPTIONAL

### ELECTRIC HEATING ELEMENTS

Copper immersion heating element, IP 65, with internal adjustable thermostat and temperature limiter.



Cod.	W	V	KG	L MM	ATT.
<b>B0618</b>	2000	230	1,5	390	1" 1/2
<b>B0666</b>	3000	230	1,5	390	1" 1/2

### FLANGE for HEATING ELEMENT

Mandatory accessory for correct positioning of the electric heating elements if used for anti-legionella cycles.