

Subtype Sherpa Aquadue Tower S3 E 4 - 6

Certificate Holder	Olimpia Splendid S.p.A.
Address	Via Industriale, 1/3
ZIP	25060
City	Cellatica (BS)
Country	IT
Certification Body	ICIM S.p.A.
Subtype title	Sherpa Aquadue Tower S3 E 4 - 6
Registration number	ICIM-PDC-000188
Heat Pump Type	Outdoor Air/Water
Refrigerant	R32
Mass of Refrigerant	1.5 kg
Certification Date	23.01.2023
Testing basis	Heat Pump KEYMARK V11

**Model SHERPA AQUADUE TOWER S3 E 4**

Model name	SHERPA AQUADUE TOWER S3 E 4
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C, +18°C/+23°C
Any additional heat sources	n/a
Phase-out Date	20.06.2027

**General data**

Power supply	1x230V 50Hz
Off-peak product	n/a

**Outdoor Air/Water****EN 16147 | Average Climate**

Declared load profile	L
Efficiency $\eta_{DHW}$	106 %
COP	2.51
Heating up time	01:14 h:min
Standby power input	45.0 W
Reference hot water temperature	43.0 °C
Mixed water at 40°C	154 l

**EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	4.25 kW	4.40 kW
El input	0.82 kW	1.49 kW
COP	5.15	2.95

**EN 14511-2 | Cooling**

	+7°C/+12°C	+18°C/+23°C
El input	1.36 kW	0.81 kW
Cooling capacity	4.70	4.50
EER	3.45	5.55

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	52 dB(A)	52 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_S$	191 %	130 %
P <sub>rated</sub>	5.50 kW	4.40 kW
SCOP	4.85	3.31
T <sub>biv</sub>	-7 °C	-7 °C
T <sub>OL</sub>	-10 °C	-10 °C
P <sub>dh T<sub>j</sub></sub> = -7°C	4.88 kW	3.89 kW
COP T <sub>j</sub> = -7°C	3.19	2.17
C <sub>dh T<sub>j</sub></sub> = -7 °C	0.900	0.900
P <sub>dh T<sub>j</sub></sub> = +2°C	3.05 kW	2.38 kW
COP T <sub>j</sub> = +2°C	4.78	3.30
C <sub>dh T<sub>j</sub></sub> = +2 °C	0.900	0.900
P <sub>dh T<sub>j</sub></sub> = +7°C	1.93 kW	2.70 kW
COP T <sub>j</sub> = +7°C	6.13	4.41
C <sub>dh T<sub>j</sub></sub> = +7 °C	0.900	0.900
P <sub>dh T<sub>j</sub></sub> = 12°C	1.48 kW	1.32 kW
COP T <sub>j</sub> = 12°C	8.05	5.66
C <sub>dh T<sub>j</sub></sub> = +12 °C	0.900	0.900
P <sub>dh T<sub>j</sub></sub> = T <sub>biv</sub>	4.88 kW	3.89 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.19	2.17
P <sub>dh T<sub>j</sub></sub> = T <sub>OL</sub> or P <sub>dh T<sub>j</sub></sub> = T <sub>designh</sub> if T <sub>OL</sub> < T <sub>designh</sub>	4.41 kW	3.42 kW
COP T <sub>j</sub> = T <sub>OL</sub> or COP T <sub>j</sub> = T <sub>designh</sub> if T <sub>OL</sub> < T <sub>designh</sub>	2.86	1.91
C <sub>dh T<sub>j</sub></sub> = T <sub>OL</sub> or P <sub>dh T<sub>j</sub></sub> = T <sub>designh</sub> if T <sub>OL</sub> < T <sub>designh</sub>	0.900	0.900
WT <sub>OL</sub>	65 °C	65 °C
P <sub>off</sub>	14 W	14 W
PTO	24 W	24 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.11 kW	0.98 kW
Annual energy consumption Q <sub>he</sub>	2351 kWh	2742 kWh

**EN 14825 | Cooling**

	+7°C/+12°C	+18°C/+23°C
P <sub>designc</sub>	4.70 kW	4.50 kW
SEER	4.99	7.77
P <sub>dc T<sub>j</sub></sub> = 35°C	4.66 kW	4.51 kW
EER T <sub>j</sub> = 35°C	3.52	5.54

Cdc Tj = 35 °C	0.900	0.900
Pdc Tj = 30°C	3.66 kW	3.44 kW
EER Tj = 30°C	4.76	7.23
Cdc Tj = 30 °C	0.900	0.900
Pdc Tj = 25°C	2.21 kW	2.19 kW
EER Tj = 25°C	5.72	8.94
Cdc Tj = 25 °C	0.900	0.900
Pdc Tj = 20°C	0.94 kW	1.13 kW
EER Tj = 20°C	5.72	10.48
Cdc Tj = 20 °C	0.900	0.900
Poff	14 W	14 W
PTO	10 W	10 W
PSB	14 W	14 W
PCK	0 W	0 W
Annual energy consumption Qce	565 kWh	348 kWh

**Model SHERPA AQUADUE TOWER S3 E 6**

Model name	SHERPA AQUADUE TOWER S3 E 6
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C, +18°C/+23°C
Any additional heat sources	n/a
Phase-out Date	20.06.2027

**General data**

Power supply	1x230V 50Hz
Off-peak product	n/a

**Outdoor Air/Water****EN 16147 | Average Climate**

Declared load profile	L
Efficiency $\eta_{DHW}$	106 %
COP	2.51
Heating up time	01:14 h:min
Standby power input	45.0 W
Reference hot water temperature	43.0 °C
Mixed water at 40°C	154 l

**EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	6.20 kW	6.00 kW
El input	1.24 kW	2.00 kW
COP	5.00	3.00

**EN 14511-2 | Cooling**

	+7°C/+12°C	+18°C/+23°C
El input	2.33 kW	1.34 kW
Cooling capacity	7.00	6.55
EER	3.00	4.90

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	53 dB(A)	53 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_S$	195 %	138 %
P <sub>rated</sub>	6.80 kW	5.70 kW
SCOP	4.95	3.52
T <sub>biv</sub>	-7 °C	-7 °C
T <sub>OL</sub>	-10 °C	-10 °C
P <sub>dh T<sub>j</sub></sub> = -7°C	6.03 kW	5.04 kW
COP T <sub>j</sub> = -7°C	3.09	2.17
C <sub>dh T<sub>j</sub></sub> = -7 °C	0.900	0.900
P <sub>dh T<sub>j</sub></sub> = +2°C	3.88 kW	3.12 kW
COP T <sub>j</sub> = +2°C	4.85	3.51
C <sub>dh T<sub>j</sub></sub> = +2 °C	0.900	0.900
P <sub>dh T<sub>j</sub></sub> = +7°C	2.39 kW	2.08 kW
COP T <sub>j</sub> = +7°C	6.63	4.54
C <sub>dh T<sub>j</sub></sub> = +7 °C	0.900	0.900
P <sub>dh T<sub>j</sub></sub> = 12°C	1.39 kW	1.28 kW
COP T <sub>j</sub> = 12°C	7.93	5.59
C <sub>dh T<sub>j</sub></sub> = +12 °C	0.900	0.900
P <sub>dh T<sub>j</sub></sub> = T <sub>biv</sub>	6.03 kW	5.04 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.09	2.17
P <sub>dh T<sub>j</sub></sub> = T <sub>OL</sub> or P <sub>dh T<sub>j</sub></sub> = T <sub>designh</sub> if T <sub>OL</sub> < T <sub>designh</sub>	5.36 kW	4.52 kW
COP T <sub>j</sub> = T <sub>OL</sub> or COP T <sub>j</sub> = T <sub>designh</sub> if T <sub>OL</sub> < T <sub>designh</sub>	2.76	1.91
C <sub>dh T<sub>j</sub></sub> = T <sub>OL</sub> or P <sub>dh T<sub>j</sub></sub> = T <sub>designh</sub> if T <sub>OL</sub> < T <sub>designh</sub>	0.900	0.900
WT <sub>OL</sub>	65 °C	65 °C
P <sub>off</sub>	14 W	14 W
PTO	24 W	24 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.45 kW	1.18 kW
Annual energy consumption Q <sub>he</sub>	2845 kWh	3343 kWh

**EN 14825 | Cooling**

	+7°C/+12°C	+18°C/+23°C
P <sub>designc</sub>	6.30 kW	6.50 kW
SEER	5.34	8.20
P <sub>dc T<sub>j</sub></sub> = 35°C	6.35 kW	6.55 kW
EER T <sub>j</sub> = 35°C	2.93	4.69

Cdc Tj = 35 °C	0.900	0.900
Pdc Tj = 30°C	4.76 kW	4.84 kW
EER Tj = 30°C	4.53	7.16
Cdc Tj = 30 °C	0.900	0.900
Pdc Tj = 25°C	3.02 kW	3.26 kW
EER Tj = 25°C	6.32	9.64
Cdc Tj = 25 °C	0.900	0.900
Pdc Tj = 20°C	1.39 kW	1.41 kW
EER Tj = 20°C	7.20	11.48
Cdc Tj = 20 °C	0.900	0.900
Poff	14 W	14 W
PTO	10 W	10 W
PSB	14 W	14 W
PCK	0 W	0 W
Annual energy consumption Qce	707 kWh	475 kWh