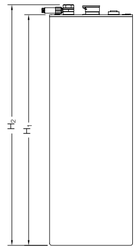
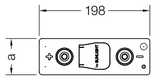
SUNLIGHT
Reliable Battery Solutions

Product Range

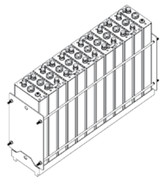
RES SOPzS model	Capacity (Ah) at 20°C (68°F)				Dimensions mm (in)				Weight kg (lb)		Internal Resistance (mOhm)	Short Circuit Current (A)
	C120 1.85Vpc	C48 1.80Vpc	C24 1.80Vpc	C12 1.80Vpc	Length	Width	Height$_1$	Height$_2$	Wet	Dry		
RES 2 SOPzS 215	215	199	177	153	198 (7.80)	65 (2.56)	408 (16.06)	432 (17.01)	11.5 (25.4)	7.4 (16.3)	1.75	1160
RES 3 SOPzS 310	310	288	257	222	198 (7.80)	83 (3.27)	408 (16.06)	432 (17.01)	15.4 (34.0)	10.0 (22.0)	1.19	1700
RES 3 SOPzS 390	392	365	326	281	198 (7.80)	83 (3.27)	478 (18.82)	502 (19.76)	18.4 (40.6)	12.1 (26.7)	1.02	1980
RES 4 SOPzS 500	503	470	420	363	198 (7.80)	101 (3.98)	478 (18.82)	502 (19.76)	23.3 (51.4)	15.4 (34.0)	0.78	2590
RES 5 SOPzS 605	605	567	508	441	198 (7.80)	119 (4.69)	478 (18.82)	502 (19.76)	28.0 (61.7)	18.7 (41.2)	0.64	3170
RES 4 SOPzS 720	721	688	620	539	198 (7.80)	101 (3.98)	613 (24.13)	637 (25.08)	30.5 (67.2)	21.0 (46.3)	0.63	3190
RES 5 SOPzS 860	860	823	744	649	198 (7.80)	119 (4.69)	613 (24.13)	637 (25.08)	36.9 (81.4)	25.6 (56.4)	0.52	3890
RES 6 SOPzS 965	969	933	846	741	198 (7.80)	137 (5.39)	613 (24.13)	637 (25.08)	43.4 (95.7)	30.2 (66.6)	0.44	4560
RES 7 SOPzS 1270	1271	1206	1084	941	198 (7.80)	174 (6.85)	613 (24.13)	637 (25.08)	51.6 (113.8)	35.0 (77.2)	0.39	5190
RES 8 SOPzS 1380	1382	1318	1188	1034	198 (7.80)	192 (7.56)	613 (24.13)	637 (25.08)	58.1 (128.1)	39.6 (87.3)	0.35	5790

*All dimensions and weights shown are subject to manufacturing tolerances





Non portable metallic trays



Certified Quality

- Manufactured at SUNLIGHT European production facilities, certified with **ISO 9001**, **ISO 14001**, **BS OHSAS 18001**
- Compliant with **IEC 61427** requirements for photovoltaic energy systems and **IEC 60896-11** requirements for vented lead-acid batteries
- Compliant with the safety requirements of **IEC 62485-2**

OLYMPIC ENGINEERING & CONSULTING

Manufactured in Europe
Delivered in more than **100** countries

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SUNLIGHT Reliable Battery Solutions

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Reserve Power
RES SOPzS Batteries

Cyclic Applications

SOLAR PV GENSET WIND

SUNLIGHT
Reliable Battery Solutions

Reserve Power

As a member of a strong and developing business ecosystem, SUNLIGHT relies on its modern infrastructure, continuous innovation and its passion for excellence, to develop and supply reliable battery solutions.

Our manufacturing plant, located in Xanthi, Northern Greece, is a core element of our dynamic growth. We have systematically invested in the development of **one of the most modern industrial units,** in accordance with the strictest international standards. It covers **200.000m²**, with indoors areas of more than 60.000m².

The company has consistently invested in developing one of **the most advanced industrial plants in the world**, running highly specialized production and assembly lines. The plant is fully compliant with the strictest international standards and is certified for Quality, Occupational Health & Safety and Environmental management systems.

The products are developed by SUNLIGHT R&D team which constantly designs and evaluates new innovative solutions to better meet market needs based on the latest technological trends, industry developments and market feedback.

SUNLIGHT products and services have gained international recognition by ensuring uninterrupted and reliable operations in a wide range of critical applications for a broad spectrum of industries, such as Telecom and Power networks.

The complete Reserve Power portfolio consists of:

OPzS OPzV	RES OPzS RES OPzV	RES SOPzS RES SOPzV	RES SLT RES SLT GEL	SP SERIES ACCUFORCE SVT/ SVT GEL FRONT ACCESS	OGI

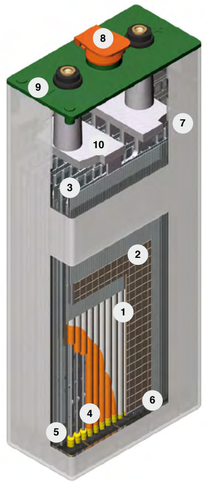
Advanced Low Maintenance Tubular Plate Batteries for Renewable Energy Storage

RES SOPzS is an **advanced cost efficient solution** ideal for energy storage for residential solar installations as well as telecom or other infrastructure systems that demand **long cycle life** and **increased watering intervals**.

Enhanced **tubular plate technology** specially designed for renewable energy applications and SUNLIGHT's solid **experience on industrial batteries** produce an exceptional combination of benefits in a single battery.

Cell

Technical features & product benefits



Technical Features
✓ Product Benefits

1 Positive Plates
- Tubular plate design
- Special low antimony lead alloy
- Red Lead in-house production by 99.99% Primary Lead
- Dry Filling process
- ✓ Long cycle life
- ✓ Wide operational temperature range
- ✓ Less water consumption
- ✓ Excellent cycling properties
- ✓ Quality and homogeneity
- ✓ High capacity performance
- ✓ Reduced corrosion
- ✓ Reduced self-discharge rate
- ✓ Increased tolerance even in cases of poor charging conditions

2 Negative Plates
- Paste mixture ensures high adherence and cohesion
- Pasted negative plates of grid design
- Optimized low antimony lead alloy
- Robust construction
- Long life expander
- ✓ Stability
- ✓ Increased cyclic performance
- ✓ Long battery life

3 Separators
- High porosity grade material
- Allow migration of ions during charge/discharge
- More acid in the surrounding area of the plates
- ✓ Secured protection against short circuits
- ✓ High temperature stability
- ✓ Mechanical strength
- ✓ Low internal resistance

4 Gauntlet
- Highly microporous material
- Fine pore structure
- Low electrical resistance
- ✓ Effective active material retention
- ✓ Eliminates active mass shedding

5 Bottom Bar
- Ultrasonic welding
- ✓ Secured fit to the gauntlet
- ✓ Long battery life

6 Electrolyte
- High purity sulphuric acid with nominal density of 1.24 +/- 0,01 kg/l (20°C/68°F)
- ✓ Low self discharge rates
- ✓ Excellent performance on deep discharges

7 Container / Lid
- Large volume container
- High impact resistant, translucent Polypropylene for the container
- Lid welding, trimming and tightness control
- ✓ Reduced on site visits for topping up
- ✓ Easy visual electrolyte level monitoring
- ✓ Long term leakage free operation
- ✓ Unsurpassed mechanical strength
- ✓ Robust and durable battery construction

8 Vent Plug
- Electrolyte basket level marking, specially designed lid, anti-surge baffle
- ✓ Allows optimum cell gassing
- ✓ Electrolyte basket level marking allows visual control of electrolyte level
- ✓ Anti-surge baffle prevents spillage of electrolyte through ventilation openings during operation of the battery

9 Pole Terminal
- Advanced design of pole post and its sealing to the lid. Rubber ring with optimized hardness and acid resistance
- ✓ Operational safety
- ✓ Perfect sealing
- ✓ Low maintenance requirements
- ✓ Better current conductivity
- ✓ Positive plate's expansion is safely absorbed
- ✓ Prevention of top lid cracks and acid leakages

10 Pole Bridge
- Terminal bridge manufactured with Cast On Strap process
- ✓ Consistent and uniform pole bridge composition
- ✓ Increased robustness and durability
- ✓ Perfect connection for poles-bridge-plate block as a whole

Applications

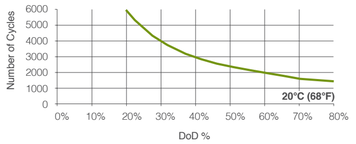
Residential Installations
Off-grid or smart grid connected power systems electrifying houses, hotels, hospitals, schools or factories

Infrastructure PV systems
Remote telecom stations, water pumping, oil & gas distribution, traffic signaling, road lighting, telemetry, security systems

Features & Benefits

The ideal energy solution for Renewable Energy Storage applications

Long cycle life
Tubular positive plates and special low-antimony lead alloy composition provide unique advantages in prolonging cycling operation to a 50% DoD cycle life of 2400 cycles at 20°C (68°F).



Performance and reliability
Optimum design, exclusive use of high quality materials, robust construction and state of the art European manufacturing facilities ensure high capacity performance, efficiency and reliability.

Minimum maintenance
Low maintenance design with reduced topping up needs. Transparent container for easy visual electrolyte level monitoring.and cumulative experience on advanced submarine battery manufacturing, ensure reliability in applications demanding high performance.

Easy maintenance
Increased electrolyte volume in large translucent containers and special low antimony alloys ensure rare and easy on site visits for topping up.

Operational safety
Extensive compliance testing performed under European and Global norms verified by independent 3rd party certification agencies.

Complete & flexible energy storage solution
Fast delivery of modular battery systems with all the necessary accessories for safe installation in trays.

Optimum Total Cost of Ownership (TCO)
Significant benefits in terms of cost per cycle and lifetime value maximization.