

Motive Power

HYDRSAVE Series



systems-sunlight.com

HydroSave Series

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.

At the core of the company's growth lies its state-of-the-art manufacturing plant in Northern Greece, covering an area of 142.000 m². The company has consistently invested in developing one of the most advanced industrial plants in Europe, 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's 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's 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, including Material Handling and Logistics.

The complete Motive Power portfolio consists of:

**Motive Power
Cells & Batteries**

**HydroSave
Series**

**MotionGel
Series**

**Full list of
accessories***

*Including Chargers, Electrolyte Level Indicators and Battery Monitoring Systems

Sunlight HydroSave Series, is a Low Maintenance series created to enhance the solution portfolio offered to our customers in the Material Handling industry.

HydroSave Cells are designed to extend the intervals between the required top ups with water.

The HydroSave range complies with the DIN EN 60254-2 standard.

Cell

Designed & Manufactured for Ultimate Performance & Longevity

1 Positive Grid

- Die Casted Grid using Optimized Lead - Low Antimony Alloy
- High tensile strength, corrosion resistance, excellent interface with the active mass

2 Positive Active Mass

- 100% Red Lead
- Efficient formation ensures that full cell capacity is achieved after 3-5 cycles
- Dry filling Process
- Uniformly filled positive plates, 100% weight controlled
- In house Red Lead production
- Constant quality, homogeneous tamped density
- Produced by 99,99% Primary Lead
- Long service life, high conductivity, increased performance

3 Gauntlet

- Non woven, high quality polyester
- Prevents mass shedding, high mechanical stability

4 Bottom Bar

- Ultrasonically Welded
- Provides space for the unavoidable growth of the spine

5 Negative Grid

- Gravity Casted Grid using Optimized Lead - Antimony Alloy
- High tensile strength, corrosion resistance, low water consumption

6 Negative Active Mass

- In house production of Lead Oxide
- Constant quality
- Fully automatic Vacuum Negative Paste Mixing Process
- Consistency of the Negative Active Mass

7 Separator

- Highly porous Polyethylene, enveloped using mechanically crimped sleeve
- Increased performance preventing short-circuits

8 Formation & Activation

- Fully automatic Jar Formation process
- Constant quality in each and every cell

9 Electrolyte

- High Purity
- Long life performance

10 Pole Terminal

- Innovative conical design of the pole sealing system
- Uses the unavoidable growth of the plates to press against the grommet and improve the sealing
- Tin plated 16 mm diameter inserts

11 Pole Bridge

- Cast On Strap manufactured pole bridge
- Consistent & uniform composition ensures superior connections

12 Lid

- Polypropylene reinforced lid thermo-welded to the container

13 Cell Container

- Polypropylene container with reduced prism height
- Maximum electrolyte volume

14 Operational Vent Plug

- Electrolyte level marking, anti-surge baffle, free cell gassing
- Increased operational safety

Increased head space

⚙️ Key Features
⚙️ Design Features
✓ Benefits

The Foundations of the SUNLIGHT cell

Technology Choices based on Submarine Batteries | Solid Design for Long Life in Tough Conditions

Manufactured on the Best-in-Class Equipment | Uncompromised use of Raw Materials | Fully Controlled Production Process

Applications

- **HydroSave batteries can be used in all kinds of forklift trucks**, cleaning machines and other electric vehicles.
- **Big warehouses where the maintenance cost of watering the batteries is a significant part of their overall operating costs.**
- **Experience in battery service has shown that if users would focus on proper watering, normal battery life would greatly increase and a significant part of battery repair costs would not be required.**
- Recommended for every kind of operation (see below)



Complete Battery Features

- **Low Antimony plate alloy.** The specially formulated plate alloy, combined with the increased cell head space, minimizes the water consumption of the batteries, while on the same time extending the watering intervals.

- **Minimal maintenance costs.** Thanks to the longer watering intervals, the maintenance costs of the battery are significantly lower.

- **Reduced expected repair costs.** The low water consumption minimizes damages caused by low water conditions.

- **Bolted connections** making repair and maintenance a breeze.

- **Available in 3 different versions according to the required watering intervals**

	Hydrosave 4	Hydrosave 8	Hydrosave 13
Watering interval	4 weeks	8 weeks	13 weeks
Charger	50 Hz	HF	HF + Air Lift
Charging Factor	1.20	1.11	1.07
Electrolyte level Indicator	YES	YES	YES
Aqua Filling	optional	optional	optional
Air Lift	N/A	N/A	YES

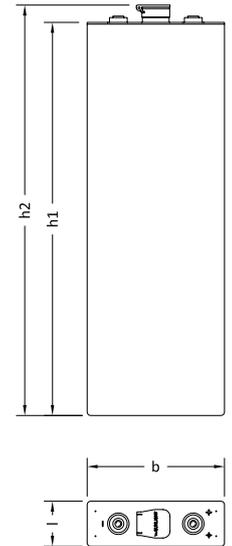
HydroSave Product Range

Plate Type: 125 Ah

Type Designation	Nominal Capacity Ah (C ₂₀)*	max cell dimensions mm***		Weight in kg**
		b: 198	h1: 568	
			h2: 595	
		l		
2 PzS 250 LM****	250	47	15.0	
3 PzS 375 LM	375	65	21.2	
4 PzS 500 LM	500	83	27.4	
5 PzS 625 LM	625	101	33.9	
6 PzS 750 LM	750	119	40.3	
7 PzS 875 LM	875	137	46.5	
8 PzS 1000 LM	1000	155	53.1	
9 PzS 1125 LM	1125	174	59.4	
10 PzS 1250 LM	1250	192	66.0	

Plate Type: 155 Ah

Type Designation	Nominal Capacity Ah (C ₂₀)*	max cell dimensions mm***		Weight in kg**
		b: 198	h1: 713	
			h2: 740	
		l		
2 PzS 310 LM	310	47	18.9	
3 PzS 465 LM	465	65	26.7	
4 PzS 620 LM	620	83	34.6	
5 PzS 775 LM	775	101	42.6	
6 PzS 930 LM	930	119	50.5	
7 PzS 1085 LM	1085	137	58.5	
8 PzS 1240 LM	1240	155	66.4	
9 PzS 1395 LM	1395	174	74.4	
10 PzS 1550 LM	1550	192	82.4	



* According to IEC 60254- Part 1 ** Filled and charged cell weights ± 5% *** Cells' dimensions according to IEC 60254-Part 2
**** LM: Low Maintenance

Available Accessories

Chargers

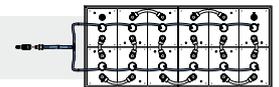
Sunlight FILON Charger Series

Two innovative ranges of battery chargers (50Hz and HF), offering safe and fast recharging to your motive batteries.



Automatic Filling System

A centralized piping system permanently fixed on the battery which quickly distributes the necessary water quantity to all the battery cells ensuring optimum electrolyte level and density.



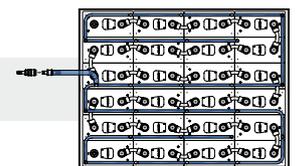
Electrolyte Level Indicator

A simple yet extremely efficient monitoring system for the electrolyte level of the cells available in two versions: Blinky & Smart Blinky.



Airlift System

A centralized piping system permanently fixed on the battery cells, delivers to them low pressure air (requires an airlift configured charger). This air is mixing the electrolyte solution with many and significant benefits for the battery life and its related costs:



- Lower recharge times
- Lower water consumption because of the significantly less energy required for the recharge (recharge factor as low as 1,07) causing up to a 60% water consumption saving.
- Lower battery temperatures during recharge
- An overall decrease in energy costs because of the less energy used.

Battery Monitoring System

Sunlight eGO! Series

A highly advanced data collection system permanently fixed on your battery. This information can be stored remotely and can be used to help the user understand and improve the usage of his battery.





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