Naps Batteries for PV Systems

Low Antimony Tubular Plate Block Batteries Type Classic OPzS Block

Low antimony tubular plate 6 or 12 Volt lead-acid block batteries are ideal for use in most small to medium size renewable energy systems.

Classic OPzS block batteries are 6V or 12V tubular plate lead-acid valve-regulated units with nominal capacities in the range 83 to 420 Ah (C_{120}). All necessary cables and interconnects are supplied. Racks for complete battery systems are available as an option.

Featuring the highest standards of construction, Classic OPzS block batteries combine the excellent cycling capability of the tubular positive plate construction with the low maintenance advantages of a low antimony positive plate lead alloy. High capacity and reliability is achieved with the use of proven materials and design.

Classic OPzS block batteries
Main Technical Characteristics

- Tubular positive plates combine excellent resistance to grid corrosion and good cycle life.
- Thick pasted negative plates ensure a longservice life.
- Low antimony alloy reduces self-discharge, water consumption and corrosion throughout the lifetime of the battery.
- The 1.24 acid density ensures a long service life. The large electrolyte volume and low water consumption mean reduced maintenance.
- Long watering interval due to the low antimony alloy and the large electrolyte reserve above the plates.
- Transparent container (ABS) allows easy checking of acid level.
- Supplied dry charged for safe and economical transportation.
- Storage: Up to 2 years for dry charged cells in low temperature and low humidity conditions

Naps Systems Oy | Pakkalankuja 7A FIN-01510 Vantaa Finland | tel. +358 10 45 25711 | fax +358 10 4525744 | www.napssystems.com

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Naps Classic OPzS block batteries
Technical Data

		Capacity (Ah) [1]			
name	**V**	**10h**	**100h**	**120h**	**240h**
12V 1 OPzS 50 LA	12	51.5	81	82.7	92.9
12V 2 OPzS 100 LA	12	103	136	139.9	162.3
12V 3 OPzS 150 LA	12	154.5	203.9	210.1	234.1
6V 4 OPzS 200 LA	6	206	287	294	338.3
6V 5 OPzS 250 LA	6	257.5	355	364.1	424.5
6V 6 OPzS 300 LA	6	309	408	417.7	482.9

[1] 25°C, to 1.80V/cell for 10h, 1.85V/cell for 100-240h.
Note: capacity at 25°C is approx 3% higher than at 20°C.

	Dimensions			Weight (kg)		Acid volume (l)	
name	**L mm [2]**	**W mm**	**H mm**	**empty**	**filled [3]**	**total**	**reserve [4]**
12V 1 OPzS 50 LA	275	208	385	20	35.0	12.10	0.97
12V 2 OPzS 100 LA	275	208	385	31	45.0	11.29	0.97
12V 3 OPzS 150 LA	383	208	385.0	45	64.0	15.32	1.39
6V 4 OPzS 200 LA	275	208	385	28.0	41.0	10.48	1.01
6V 5 OPzS 250 LA	383	208	385	36	56.0	16.13	1.44
6V 6 OPzS 300 LA	383	208	385	43	63.0	16.13	1.44

[2] add 10mm space when calculating installed length
[3] For acid density 1.24 kg/litre
[4] acid volume above plates between min and max marks

Capacity variation with temperature

25°C	20°C	10°C	0°C	-10°C	-20°C
103%	100%	92%	84%	74%	61%

Estimation of service life in PV systems

average working temperature °C	years	if daily cycling less than
20	12	22%
25	8	31%
30	6	44%
35	4	62%
40	3	88%
		of C_{10}

if daily cycling is greater than above limits lifetime will be reduced

Watering requirements:
At 1% daily overcharge (typical for PV systems), recommended maximum watering interval is 1 year.
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Maximum recommended depth of discharge:
80%

Standards:
Conforms to: DIN 40 736, DIN 40 737 part 3
Tested to: IEC 896 - 1
Safety standard: VDE 0510 part 2

Transport:
non-hazardous goods for road transport

Service life on float charge (not PV)

average working temperature °C	years
20	>15
30	>7.5
40	ca 4

Cycle Life
2000 cycles under IEC 896-1 conditions, equivalent to 60% of nominal C10 per cycle. This cycle life is only applicable at a constant 20°C and full recharge on each cycle.

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Specifications may change without notice due to Naps continuous product improvement policy.
Please check actual specifications before ordering.

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