

Technical Specification for Stationary VLA – Raised Post Block Batteries

The OPzS Series flooded tubular plate 6-12V multi-cell blocks are robust and are best suited for load profiles of 1h and more. This battery has an IEC 896-2 cycle rating of 1200 to 80% DOD, and is used for backup power in the applications listed below:

The new raised-post design permits individual intercell connection resistance testing.

Application Uses:

- Telecommunications
- Microwave radio systems
- Emergency lighting
- Power generation plants and Hydro Utilities
- Outdoor enclosures



2. Types, capacities, dimensions, mass

Model	1 min	C1	C4	C8	C12	Ri	Ik	L	W	H	Weight of units		Lead Content
	Temperature at 25°C/77°F					1)	2)				Dry	Filled	
	Amps to End vpc					mΩ	kA	inch	inch	inch	lbs	Lbs	lbs
	1.75	1.75	1.75	1.75	1.75								
12V 1 OPzS 50-N6	61.0	28.4	10.2	6.1	4.7	19.20	0.64	10.7	8.07	15.16	66	90	48.5
12V 2 OPzS 100-N6	122.0	56.7	20.4	12.3	9.4	9.60	1.28	10.71	8.07	15.16	93	115	79.4
12V 3 OPzS 150-N6	183.0	85.1	30.6	18.3	14.2	6.40	1.92	14.96	8.07	15.16	126	160	112.4
6V 3 OPzS 150-N6	183.0	85.1	30.6	18.3	14.2	3.10	1.92	10.7	8.1	15.2	64	91	57.0
6V 4 OPzS 200-N6	236.6	111.3	41.5	24.6	18.9	2.40	2.56	10.71	8.07	15.16	81	108	72.8
6V 5 OPzS 250-N6	295.8	138.6	51.9	30.8	23.7	1.92	3.20	14.96	8.07	15.16	106	140	92.6
6V 6 OPzS 300-N6	354.9	167.0	62.3	37.0	28.4	1.60	3.84	14.96	8.07	15.16	124	156	110.2

1) Internal resistance

2) Short - circuit - current according to IEC 60 896-11;

See technical information for intercell connection details, inter-tier cabling, rack information.

Technical Specification for BAE *SECURA OPzS BLOCK*

Design

positive electrode	tubular plate with polyester gauntlet and solid grids in a corrosion-resistant PbSb1.6SnSe - alloy
negative electrode	round-grid plate in a low antimony alloy with long life expander
separation	microporous separator
electrolyte	sulphuric acid with a density of 1.24 kg/l [Specific Gravity = 1.240]
container	high-impact, transparent SAN (Styrol-Acryl-Nitril) jar; UL94HB
lid	high impact SAN in dark grey color; UL94HB
blocks with blind cells	4V, 10V
flame arrestor	labyrinth plugs for arresting aerosol
optional ceramic plugs	ceramic funnel plugs according DIN 40 740, flip-top arrestor optional
pole bushing	100% gas- and electrolyte-tight, sliding,
pole construction	injection-moulded Panzer pole design with M10 brass inserts
intercell connectors	lead plated copper connectors; PVC insulated connector option
inter-tier connectors	flexible insulated copper cables
connector screw	M10, stainless steel bolts
kind of protection	optional transparent PVC cover

Charging

I _U - characteristic	I _{max} without limitation
float voltage	2.23 V/cell +/- 1%, between 10°C/50°F and 30°C/86°F ΔV/ΔT = ±0.003 V/K above/below 30°C/86°F or 10°C/50°F
float current	15mA/100Ah, increasing to 25mA/100Ah at end of life
equalize charge	2.35 to 2.40V/cell, time limited
charging time to 90%	6h with 1.5·I ₁₀ initial current, 2.23 V/cell, 80% C3 discharged

Discharge characteristics

reference temperature	25°C/77°F
initial capacity	100% at time of delivery
depth of discharge (DOD)	up to 80%
<i>deep discharge caution</i>	<i>more than 80% DOD or discharges beyond final discharge voltages should be avoided</i>

Maintenance

every 6 months	check battery string voltage, pilot block voltage, temperature
every 12 months	record battery string/block voltages, temperatures; check connectors

Operational data

designed operational life	20 years, stand-by operation, float, at 25°C/77°F
water refilling interval	2-3 years at 25°C/77°F for first 12-15 years at normal float conditions
IEC 60 896-2 cycles	> 1200
self-discharge	~ 3% per month at 25°C/77°F
operational temperature	-20°C/-4°F to 55°C/131°F <i>recommended 10°C/50°F to 30°C/86°F</i>
design standard	DIN 40 737 part 3 [meets or exceeds]
documented test results to	IEC 60 896 - 11
safety standard, ventilation	DIN EN 50 272-2
IEEE Standards/Guidelines	Compliant

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