BAE *SECURA OGi BLOCK-N6*

Technical Specification for Stationary VLA – Raised Post Block Batteries

The OGi Series flooded flat-plate 6-12V multi-cell blocks are robust and optimized for high discharge performance and capable of long duration capacity. This battery has an excellent one-minute discharge rate. It also has an IEC 896-2 cycle rating of 1000 to 80% DOD, and is used for backup power in the applications listed below:

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

Application Uses:
Substation and Switchgear applications
UPS and Data Centers
Diesel generating starting
Railroad signal systems

2. Types, capacities, dimensions, mass

	1 min	15 min	C1	C3	C8	Ri	Ik	L	W	H	Weight of units		Lead Mass
	Temperature at 25ºC/77ºF					1)	2)				Dry	Wet	
	Amps to End vpc					mΩ	kA	inch	inch	inch	lbs	lbs	lbs
Model	1.75	1.75	1.75	1.75	1.75								
12V 1 OGi 25-N6	106.9	49.7	21.6	10.5	5.4	26.40	0.47	10.7	8.1	15.2	50	75	42.2
12V 2 OGi 50-N6	176.4	85.4	36.4	16.6	7.7	13.20	0.93	10.7	8.1	15.2	68	93	56.9
12V 3 OGi 75-N6	244.7	121.8	50.6	22.1	10.3	8.80	1.40	10.7	8.1	15.2	86	110	72.6
12V 4 OGi 100-N6	314.0	157.5	65.2	28.0	12.8	6.60	1.86	10.7	8.1	15.2	107	131	93.5
12V 5 OGi 125-N6	394.8	203.7	84.0	35.6	16.3	5.28	2.33	15.0	8.1	15.2	140	176	118.1
12V 6 OGi 150-N6	465.2	241.5	99.0	41.6	18.8	4.40	2.80	15.0	8.1	15.2	159	194	130.5
6V 6 OGi 150-N6	465.2	241.5	99.0	41.6	18.9	2.13	2.80	10.7	8.1	15.2	75	100	63.3
6V 7 OGi 175-N6	483.0	254.1	111.3	49.6	23.0	1.89	3.25	10.7	8.1	15.2	85	110	71.7
6V 8 OGi 200-N6	541.8	286.7	126.0	55.3	25.4	1.65	3.73	10.7	8.1	15.2	95	120	84.4
6V 9 OGi 225-N6	630.0	339.2	148.1	65.3	30.3	1.47	4.18	15.0	8.1	15.2	116	153	97.9
6V 10 OGi 250-N6	686.7	372.8	162.8	71.0	32.8	1.32	4.66	15.0	8.1	15.2	126	162	102.7
6V 11 OGi 275-N6	744.5	405.3	176.4	76.6	35.1	1.20	5.13	15.0	8.1	15.2	133	169	112.5
6V 12 OGi 300-N6	802.2	438.9	191.1	82.3	37.6	1.10	5.59	15.0	8.1	15.2	142	178	121.5

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

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Design	
positive electrode	round-grid plate with circular bars in a corrosion-resistant lead selenium (PbSb1.6SnSe) alloy
negative electrode	round-grid plate in a low antimony alloy with long life expander
separation	microporous acid resistant resin plate with integrated glass 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; UL 94HB rating
lid	high impact SAN in dark grey color; UL94HB rating
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 arrestors 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	
IU - characteristic	I_{max} without limitation
float voltage	2.23 V/cell +- 1%, between 10°C/50ºF and 30°C/86ºF
	$\Delta U/\Delta T$ = ±0.003 V/K between 10°C/50ºF and 30°C/86ºF
float current	15mA/100Ah, increasing to 30mA/100Ah at end of life
equalize charge	2.35 to 2.40V/cell, time limited
charging time to 90%	6h with $1.5 \cdot I_{10}$ initial current, 2.23 V/cell, 80% C3 discharged
Discharge characteristics	
reference temperature	25°C
initial capacity	100% at time of delivery
depth of discharge (DOD)	up to 80%
deep discharge caution	*more than 80% DOD or discharges beyond final discharge voltages (dependent on discharge current) should be avoided*
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/77ºF
water refilling interval conditions	2-3 years at 25°C/77ºF for first 12-15 years under normal float
IEC 60 896-2 cycles	> 1000 to 80% DOD
self-discharge	~ 3% per month at 25°C/77ºF
operational temperature	-20°C/-4ºF to 55°C/131ºF
	recommended 10°C/50ºF to 30°C/86ºF
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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