

BAE SECURA OGi-N7 BLOCK

Technical Specification for Stationary VLA – Raised Post Block Batteries

1. Application

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 896-1 cycle rating of 1000 to 80% DOD, and is used for backup power in the applications listed below:

The raised post “N7” design permits individual cell and inter-cell connection resistance testing.

Application Uses:

UPS and Data Centers
Electrical Utilities Applications
Emergency Lighting
Diesel Generator Starting
Railroad Signal Systems

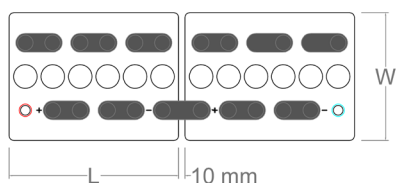


2. Types, capacities, dimensions, weights

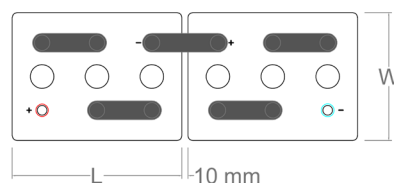
Type	1 min 25°C	30 min 25°C	C1 25°C	C4 25°C	C8 25°C	Ri 1)	I _k 2)	Length (L)	Width (W)	Height (H)	Weight dry	Weight filled	Lead Mass
U _e V / cell	Amps 1.75	Amps 1.75	Ah 1.75	Ah 1.75	Ah 1.75	mΩ	kA	inch	inch	inch	lbs	lbs	lbs
12V 1 OGi 25-N7	94	30.4	19	26	30	26.40	0.47	10.71	8.07	15.16	48.7	77.2	37.8
12V 2 OGi 50-N7	176	54.9	36	53	62	13.20	0.93	10.71	8.07	15.16	63.4	90.4	54.3
12V 3 OGi 75-N7	245	78.1	51	71	82	8.80	1.40	10.71	8.07	15.16	80.0	104.7	70.9
12V 4 OGi 100-N7	314	102	65	89	102	6.60	1.86	10.71	8.07	15.16	95.5	119.5	87.6
12V 5 OGi 125-N7	395	133	84	113	130	5.28	2.33	14.96	8.07	15.16	117.0	154.3	105.2
12V 6 OGi 150-N7	465	158	99	132	150	4.40	2.80	14.96	8.07	15.16	130.1	164.7	122.9
6V 4 OGi 100-N7	314	102	65	89	102	3.30	1.86	10.71	8.07	15.16	54.1	81.6	43.8
6V 6 OGi 150-N7	465	158	99	132	150	2.13	2.80	10.71	8.07	15.16	74.3	101.4	61.5
6V 7 OGi 175-N7	483	166	111	158	184	1.89	3.25	10.71	8.07	15.16	80.3	105.8	70.2
6V 8 OGi 200-N7	542	188	126	176	203	1.65	3.73	10.71	8.07	15.16	87.3	112.4	78.9
6V 9 OGi 225-N7	630	223	148	208	242	1.47	4.18	14.96	8.07	15.16	101.2	139.6	87.7
6V 10 OGi 250-N7	687	245	163	226	262	1.32	4.66	14.96	8.07	15.16	110.7	148.4	96.4
6V 11 OGi 275-N7	744	268	176	244	281	1.20	5.13	14.96	8.07	15.16	120.4	156.5	105.1
6V 12 OGi 300-N7	802	292	191	261	301	1.10	5.59	14.96	8.07	15.16	124.0	159.8	113.9

1) Internal resistance from IEC 60896-11; 2) Short circuit current from IEC 60896-11; All data is subject to change
Height (H) is the maximum distance between container bottom and top of the bolts in assembled condition.

3. Terminal positions



12V 1 OGi 25-N7 to 12V 6 OGi 150-N7



6V 4 OGi 100-N7 to 6V 12 OGi 300-N7

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4. Design

Positive electrode	Round-grid flat plate in a corrosion-resistant PbSbSnSe alloy
Negative electrode	Round-grid flat plate in low antimony alloy with long-life expander material
Separation	Microporous separator
Electrolyte	Sulphuric acid with a density of 1.24 kg/l
Container	High impact, transparent SAN (Styrene-Acrylonitrile), UL 94 HB rating
Lid	High impact ABS, UL 94 V-0 rating, dark grey color
Blocks with blind cells	4V, 8V and 10V
Flame arrestors	Includes standard ceramic arrestors with optional ceramic flip-top funnel arrestors available according to DIN 40740
Pole bushing	100% gas and electrolyte tight, sliding, injection moulded "Panzerpol"
Kind of pole	M10 brass insertion
Inter-cell connector	Insulated solid copper connectors with cross sections of 90, 150 or 300 mm ² depending upon application
Inter-tier connectors	Flexible insulated copper cables
Connector screw	M10 stainless steel with insulated cap
Kind of protection	IP 25 regarding DIN 40050, touch protected according VBG 4

5. Charging

IU - characteristic	Recommended: $I_{max} = 2 \times I_{10}$ $U = 2.23 \text{ V/cell} \pm 1\%$, between 10°C and 30°C (50°F and 86°F) $\Delta U/\Delta T = \pm 0.003 \text{ V/K}$ below 10°C in the monthly average 15 mA/100 Ah, increasing to 45 mA/100 Ah at the end of life
Float current	$U = 2.33 \text{ to } 2.40 \text{ V/cell}$, time limited
Equalize charge	6h with $1.5 \times I_{10}$ initial current, 2.23 V/cell, 80% C3 discharged
Charging time up to 90%	

6. Discharge characteristics

Reference temperature	25°C (77°F)
Initial capacity	95% or better at time of delivery
Depth of discharge (DOD)	Normally up to 80%
Deep discharges	More than 80% DOD or discharges beyond final discharge voltages (dependent on discharge current) have to be avoided

7. Maintenance

Every 6 months	Check and record battery voltage, pilot cell voltages and temperatures
Every 12 months	Check and record battery voltage, cell voltages and temperatures

8. Operational data

Operational life	20 years in standby operation, float at 20°C to 25°C (68°F to 77°F)
Water - refilling - interval	Up to 3 years, float at 20°C to 25°C (68°F to 77°F)
IEC 60 896-1 cycles	> 1000
Self-discharge	Approx. 3% per month at 20°C (68°C)
Operational temperature	-20°C to 55°C (-4°F to 131°F); recommended 10°C to 30°C (50°F to 86°F)
Standard	DIN 40736 part 1
Tests according to	IEC 60896-11
Safety standard, ventilation	DIN EN 50272-2
Transport	Subject to DOT Regulations – See SDS for details

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