BAE SECURA OGi BLOCK-N7

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 896-2 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 intercell connection resistance testing.

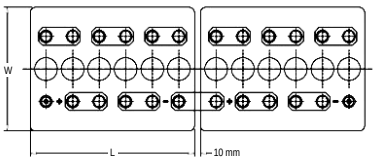
Application Uses:
UPS and Data Centers
Electrical Utilities Applications
Emergency Lighting
Diesel Generator Starting
Railroad Signal Systems

2. Types, capacities, dimensions, weights

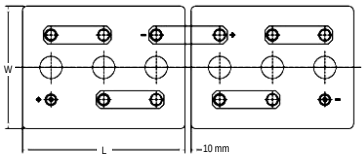
Type	1 min 25°C	30 min 25°C	C_1 25°C	C_4 25°C	C_8 25°C	R_i 1)	I_k 2)	Length (L)	Width (W)	Height (H)	Weight dry	Weight filled	Lead Mass
U_e V / cell	Amps 1.75	Amps 1.75	Ah 1.75	Ah 1.75	Ah 1.75	mΩ	kA	inch	inch	inch	lbs	lbs	lbs
12V 1 OGi 25-N7	107	29.9	22	34	43	26.40	0.47	10.71	8.07	15.16	48.7	77.2	37.8
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	159	99	132	150	4.40	2.80	14.96	8.07	15.16	130.1	164.7	122.9
6V 4 OGi 100-N7	395	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	159	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	224	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	246	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	269	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 6 OGi 150-N7 to 6V 12 OGi 300-N7

BAE USA Energy from Batteries

Technical Specification for BAE *SECURA OGi BLOCK-N7*

4. Design

Positive electrode	Round-grid flat plate with low antimony alloy, circular bars, high lead weight solid grids 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 (Styrol-Acrylic-Nitrile), UL-94 rating: HB
Lid	High impact SAN in dark grey color, UL-94 rating: HB
Blocks with blind cells	4V, 8V and 10V
Flame arrestors	Includes standard ceramic arrestors with optional ceramic flip-top funnel
arrestors	acc. DIN 40740 available
Pole bushing	100% gas and electrolyte tight, sliding, injection moulded "Panzerpol"
Kind of pole	M10 brass insertion
Intercell connector	Insulated solid copper connectors with cross-sections of 90, 150 or 300 mm² 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	I_{max} without limitation U = 2.23 V/cell +/- 1%, between 10°C and 30°C (50 °F and 86 °F) $\Delta U/\Delta T$ = +/- 0.003 V/K below 10°C in the monthly average
Float current	15mA/100Ah, increasing to 45mA/100Ah at the end of life
Equalize charge	U = 2.33 to 2.40V/cell, time limited
Charging time up to 90%	6h with 1.5*I_{10} initial current, 2.23 V/cell, 80% C3 discharged

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 battery voltage, pilot block voltage and temperature
Every 12 months	Record battery voltage, block voltages and temperatures

8. Operational data

Operational life	20 years in stand-by 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	app. 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	IEC 60896-11
Safety standard, ventilation	DIN EN 50272-2
Transport	Subject to DOT Regulations – See SDS for details

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