

BAE SECURA OGiV-N7 BLOCK

Technical Specification for Stationary VRLA – Raised Post Block Batteries

1. Application


The BAE OGiV VRLA gel batteries belong to the best EUROBAT classification for maintenance free lead-acid batteries. These are classified as >12 years, long life, the highest classification according to EUROBAT.

Where operational safety has top priority and short autonomy times of 15 min to several hours are required, the OGiV is the right choice. The raised-post “N7” design permits individual internal and connection Ohmic testing on a per cell basis for a significant increase in reliability.

Application Uses:

- UPS and Data Center
- Telecommunications
- Microwave radio systems
- Emergency lighting
- Electrical utilities applications
- Diesel generating starting



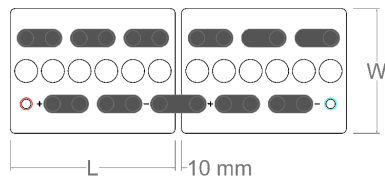
 UL file no. MH64832

2. Types, capacities, dimensions, weights

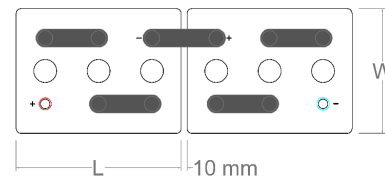
Type	1 min 25°C	30 min 25°C	C ₁ 25°C	C ₄ 25°C	C ₈ 25°C	R _i 1)	I _k 2)	Length (L)	Width (W)	Height (H)	Weight filled	Lead mass
U ₀ V/cell	Amps 1.75	Amps 1.75	Ah 1.75	Ah 1.75	Ah 1.75	mΩ	kA	inch	inch	inch	lbs	lbs
12V 1 OGiV 25-N7	87	31	19	23	26	19.20	0.65	10.71	8.07	15.16	73.8	34.6
12V 2 OGiV 50-N7	174	62	37	44	50	9.60	1.29	10.71	8.07	15.16	90.0	54.1
12V 3 OGiV 75-N7	261	92	56	68	75	6.40	1.94	10.71	8.07	15.16	105.7	73.7
12V 4 OGiV 100-N7	349	123	75	92	100	4.80	2.59	10.71	8.07	15.16	121.3	93.3
12V 5 OGiV 125-N7	421	153	93	116	126	3.84	3.23	14.96	8.07	15.16	165.4	113.1
12V 6 OGiV 150-N7	495	183	111	140	150	3.20	3.88	14.96	8.07	15.16	181.7	132.8
6V 7 OGiV 175-N7	596	213	128	160	175	1.37	4.53	10.71	8.07	15.16	113.7	76.8
6V 8 OGiV 200-N7	641	244	146	184	200	1.20	5.18	10.71	8.07	15.16	122.1	86.7
6V 9 OGiV 225-N7	678	267	164	208	226	1.07	5.80	14.96	8.07	15.16	149.1	96.6
6V 10 OGiV 250-N7	715	289	183	232	250	0.96	6.47	14.96	8.07	15.16	158.1	106.5
6V 11 OGiV 275-N7	752	312	202	252	275	0.87	7.14	14.96	8.07	15.16	166.3	116.4
6V 12 OGiV 300-N7	789	333	220	276	300	0.80	7.76	14.96	8.07	15.16	174.5	126.4

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 OGiV 25-N7 to 12V 6 OGiV 150-N7



6V 7 OGiV 175-N7 to 6V 12 OGiV 300-N7

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4. Design

Positive electrode	Round-grid flat plate in a corrosion-resistant PbCaSn alloy
Negative electrode	Round-grid flat plate in a PbCaSn alloy with long-life expander material
Separation	Microporous separator
Electrolyte	Sulphuric acid with a density of 1.24 kg/l, fixed as a GEL by fumed silica
Container and lid	High impact SAN (Styrol-Acrylic-Nitrile), grey coloured, UL-94 rating: HB (Alternatively container and lid in ABS (Acrylonitrile-Butadiene-Styrene), UL-94 rating: V0)
Blocks with blind cells	4V, 8V, and 10V
Valve	Valve with flame arrestor, opening pressure approx. 120 mbar, closing pressure approx. 50 mbar
Pole - bushing	100% gas and electrolyte tight, sliding, injection moulded "Panzerpol"
Kind of pole	M10 brass insertion
Intercell connectors	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	I_{max} without limitation $U = 2.25V/cell \pm 1\%$, between 10°C and 45°C (50°F to 113°F) $\Delta U/\Delta T = -0.003 V/K$ below 10°C in the monthly average 15mA/100Ah, increasing to 45mA/100Ah at the end of life
float current	$U = 2.33$ to $2.40V/cell$, time limited
boost charge	6h with $1.5 \cdot I_{10}$ initial current, 2.25 V/cell, 50% C10 discharged
charging time up to 92%	

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 voltage and temperature
every 12 months	Check and record battery, cell voltages and temperatures

8. Operational data

Classification - EUROBAT	> 12 years, Long life
Operational life	15 to 20 years in stand-by operation, float at 20°C to 25°C (68°F to 77°F)
Maintenance-free	No topping off water during life
IEC 60 896-2 cycles	>800
Self-discharge	approx. 2% per month at 20°C (68°F)
Operational temperature	-20°C to 45°C (-4°F to 113°F), recommended 10°C to 30°C (50°F to 86°F), short-periods 45°C to 55°C (113°F to 131°F)
Standard	DIN 40742 part 1
Tests according to	IEC 60896-21, -22
Safety standard, ventilation	DIN EN 50272-2, Ventilation requirements are reduced to 20% compared to those for vented batteries of the same capacity
Transport	Subject to DOT Regulations – See SDS for details

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