# BAE SECURA OGi BLOCK-N6

## 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 "N6" design permits individual cell and intercell connection resistance testing.

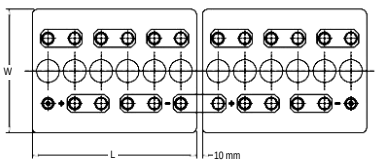
***Application Uses:***
UPS and Data Centers
Electrical Utilities Applications
Emergency Lighting
Diesel Generator Starting
Railroad Signal Systems

### 2. Types, capacities, dimensions, weights

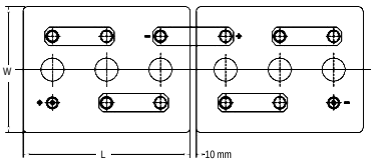
| Type | 1 min 25°C | 30 min 25°C | $C_1$ 25°C | $C_4$ 25°C | $C_8$ 25°C | $R_i$ 1) | $I_k$ 2) | Length (L) | Width (W) | Height (H) | Weight dry | Weight filled | Lead Mass |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $U_e$ V / cell | Amps 1.75 | Amps 1.75 | Ah 1.75 | Ah 1.75 | Ah 1.75 | mΩ | kA | inch | inch | inch | lbs | lbs | lbs |
| 12V 1 OGi 25-N6 | 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-N6 | 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-N6 | 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-N6 | 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-N6 | 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-N6 | 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-N6 | 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-N6 | 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-N6 | 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-N6 | 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-N6 | 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-N6 | 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-N6 | 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-N6 | 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-N6 to 12V 6 OGi 150-N6




6V 6 OGi 150-N6 to 6V 12 OGi 300-N6

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# Technical Specification for BAE *SECURA OGi BLOCK-N6*

## 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 | Lead plated 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 |
| Kind of protection | IP 25 regarding DIN 40050, touch protected according VBG 4 with provided clear covers |

## 5. Charging

| | |
|---|---|
| IU - characteristic | $I_{max}$ without limitation<br>U = 2.23 V/cell +/- 1%, between 10°C and 30°C (50 °F and 86 °F)<br>$\Delta U/\Delta T$ = +/- 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);<br>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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