

Applications and Key Benefits

- + Solar 2V cells
 - up to 3,800 Ah real capacity at C120 1.85 VPC
- + Designed for regular and long deep discharge
 - Ideal for:
 - Renewable energy islands (Solar / Wind)
 - Off-grid applications: BTS, mobile phone stations, signaling, lighting
 - High capacity applications in areas with unstable grid and unreliable power supply
- + Excellent cycling also in state of partial discharge
- + > 1,500 cycles at 20°C / 60% DoD
 - > 5,000 cycles at 20°C / 20% DoD
- + OPzV technology, with tubular positive plates and electrolyte immobilized in gel
- + Dimensions according to DIN 40742 OPzV cells
- + Suitable for use at elevated temperature
- + Optimized for deep DOD cycling and deep discharge recovery DIN 43539T5
- + 18 years design life under float condition
- + Minimal gassing and maintenance free (no topping-up)
- + 100% Recyclable

Applicable Standards

- IEC 61427 - photovoltaic energy systems
- DIN 40742 - specification OPzV cells
- DIN 43539T5 - deep DOD cycling and deep discharge recovery
- IEC 60896 Part 21 - VRLA methods of testing
- IEC 60896 Part 22 - VRLA requirements
- Eurobat "Long Life" - 12 years and longer

FIAMM Manufacturing

- ISO 9001 Quality Management System
- ISO 14001 Environmental Management System
- OHSAS 18001 Workplace Safety and Health

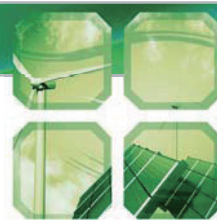
Technical Features

- Tubular positive plates, pressure cast from high tin / low calcium alloy
- Electrolyte immobilized in gel structure
- Highly porous gauntlets retain the active material
- Pasted negative plates designed to have service lives consistent with the positive plates
- Separators with extremely high porosity and low internal resistance
- Standard ABS plastics (Optional flame retardant plastics ABS IEC 707 FV0 and UL 94 V0 with LOI greater than 28%)
- Container and lid designed for unsurpassed mechanical strength made of thick walled plastics
- Threaded female M10 terminal posts guarantee highest conductivity, maximum torque retention and easy installation
- High integrity post seal design to prevent electrolyte leakage and terminal corrosion
- Flame arrestors prevent sparks or flames from entering the battery
- Cells equipped with one-way safety valves to allow excess gas to escape when overcharging
- < 2% self-discharge per month at 20°C allows 6 months shelf life
- Installation in vertical or horizontal position
- Flexible, fully insulated cable connectors with insulated screw with probe hole on the top for electrical measurement



ENDURLITE

SMG Solar OPzV



FIAMM SMG Solar OPzV range

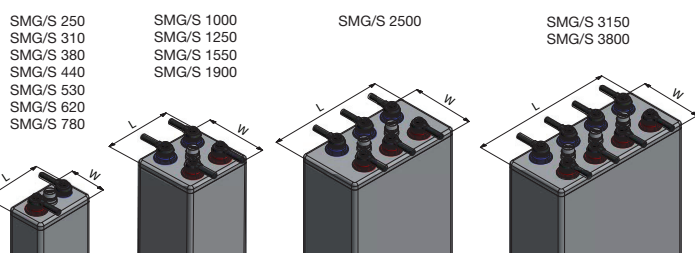
| CELL TYPE | CAPACITY (Ah) at 20°C | CAPACITY (Ah) at 20°C | SHORT CIRCUIT CURRENT (A) | INTERNAL RESISTANCE (mohm) | WEIGHT (kg) | DIMENSIONS (mm) | | | TERMINALS |
|------------|-----------------------|-----------------------|---------------------------|----------------------------|-------------|-----------------|-------|--------|-----------|
| | 120 hrs to 1.85 VPC | 10 hrs to 1.80 VPC | IEC 60896-21 | IEC 60896-21 | | Length | Width | Height | +/- |
| SMG/S 250 | 250 | 205 | 2300 | 0.89 | 17 | 206 | 103 | 388 | 1 / 1 |
| SMG/S 310 | 310 | 255 | 2830 | 0.71 | 21 | 206 | 124 | 388 | 1 / 1 |
| SMG/S 380 | 380 | 305 | 3660 | 0.55 | 24 | 206 | 145 | 388 | 1 / 1 |
| SMG/S 440 | 440 | 355 | 3770 | 0.53 | 27 | 206 | 124 | 504 | 1 / 1 |
| SMG/S 530 | 530 | 425 | 4080 | 0.50 | 32 | 206 | 145 | 504 | 1 / 1 |
| SMG/S 620 | 620 | 500 | 4190 | 0.49 | 36 | 206 | 166 | 504 | 1 / 1 |
| SMG/S 780 | 780 | 610 | 4400 | 0.46 | 44 | 206 | 145 | 679 | 1 / 1 |
| SMG/S 1000 | 1000 | 815 | 5340 | 0.38 | 60 | 210 | 191 | 679 | 2 / 2 |
| SMG/S 1250 | 1250 | 1020 | 6600 | 0.31 | 73 | 233 | 210 | 679 | 2 / 2 |
| SMG/S 1550 | 1550 | 1220 | 7960 | 0.26 | 85 | 275 | 210 | 679 | 2 / 2 |
| SMG/S 1900 | 1900 | 1530 | 9950 | 0.206 | 104 | 275 | 210 | 829 | 2 / 2 |
| SMG/S 2500 | 2500 | 2040 | 12570 | 0.155 | 138 | 397 | 212 | 805 | 3 / 3 |
| SMG/S 3150 | 3150 | 2550 | 15710 | 0.123 | 173 | 487 | 212 | 805 | 4 / 4 |
| SMG/S 3800 | 3800 | 3060 | 18850 | 0.103 | 208 | 576 | 212 | 805 | 4 / 4 |

Note : dimensions may have a natural tolerance of ± 2 mm.

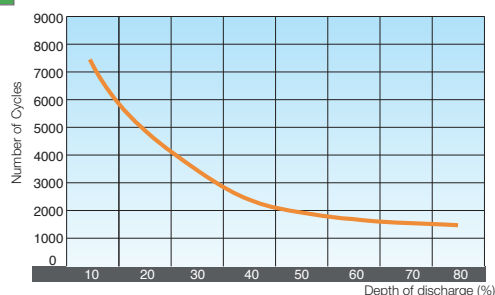
Electrical Characteristics

- ✦ FLOAT VOLTAGE CHARGE AT 20 °C : 2.25 V/cell
- ✦ BOOST CHARGE : 2.4 V/cell
- ✦ MAXIMUM CHARGE CURRENT : 0.25 C₁₀ A (i.e.:for a 100Ah cell maximum charge current is 25 Amps)
- ✦ FLOAT VOLTAGE TEMPERATURE COMPENSATION : - 2.5mV/°C/cell
- ✦ SELF-DISCHARGE AT 20 °C : < 2% / month
- ✦ WARNING: in order for the warranty to be valid in all critical , frequent discharge and hybrid applications, please coordinate with Fiamm Group to clarify required operating and charging settings

Dimensions



Lifetime in cyclic use at 20°C



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