

SMG/S



SMG Solar Battery Range

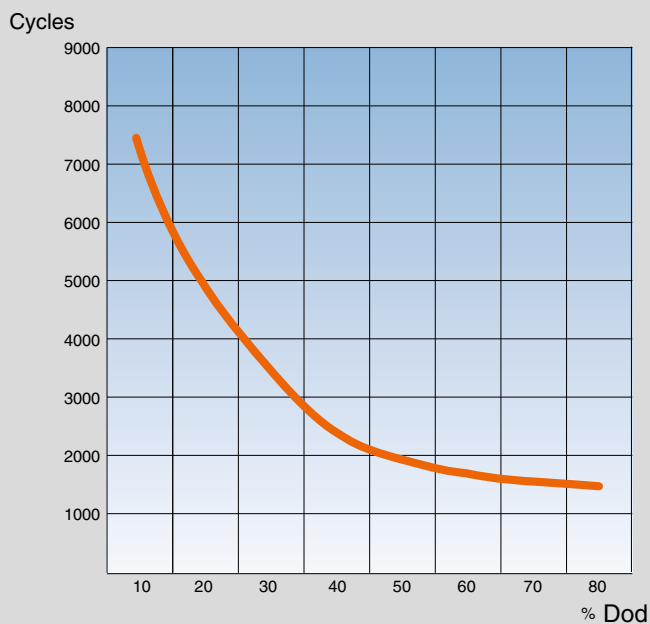
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THE FIAMM SMG/S TUBULAR GEL RANGE IS DESIGNED FOR HIGH CYCLIC APPLICATIONS COMBINED WITH RENEWABLE ENERGY SOURCES. THE BATTERIES MAINTENANCE-FREE AND COMBINE THE BENEFITS OF A GELLED ELECTROLYTE WHICH PROVIDES WIDER TEMPERATURE OPERATING RANGE.

THE SMG/S RANGE IS MADE UP OF 2V CELLS DESIGNED WITH POSITIVE ARMORED TUBULAR PLATE AND GEL TECHNOLOGY. IT IS CONSTRUCTED TO PROVIDE A HIGH LEVEL OF ROBUSTNESS AND IS DESIGNED FOR APPLICATIONS WHERE CHARGE-DISCHARGE CYCLES HAVE TO BE GUARANTEED WITH RELIABILITY. THE RANGE IS MAINTENANCE-FREE WITH A LOW SELF-DISCHARGE CHARACTERISTIC FOR PERIODS WHEN BATTERIES MAY BE STORED OR FOR OFF-FLOAT CHARGE. THE SMG/S RANGE CAN BE INSTALLED HORIZONTALLY IN DEDICATED RACKS SAVING VALUABLE SPACE AND IS ECO-FRIENDLY WITH ALL COMPONENTS BEING FULLY RECYCLABLE.

MAIN APPLICATIONS:



SPECIFICATIONS

The positive tubular grid is composed of a special alloy (Pb-Sn-Ca) which is die-cast to guarantee high corrosion resistance

The electrolyte is immobilized into GEL structure due to a special silica binding addition

Separators have extremely high porosity: this feature allows intense cyclic usage

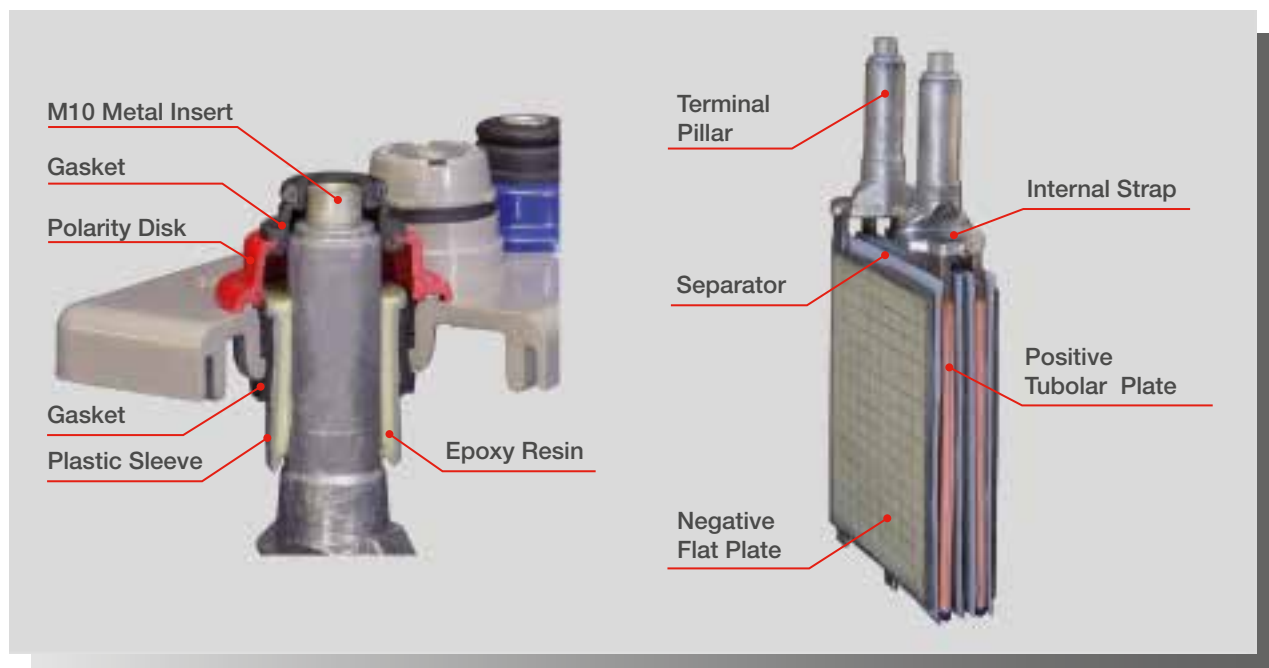
ABS flame retardant case classified to UL94 V0 with LOI >28% available on request

The vent plug comprises an exhaust valve and porous flameproof disc for a superior safety

The metallic threaded insert on terminals ensure the highest conductivity and provides maximum torque retention and easy installation

The connecting bolt is fully insulated but with probe hole on the top to grant electrical measurements

TECHNOLOGY



THE UNIQUE FIAMM TERMINAL DESIGN OF THE 2V CELL PERMITS PILLAR GROWTH DURING CELL LIFE WITHOUT LEAKAGE. THESE FEATURES AVOID MECHANICAL STRESS ON THE LID FOR THE ENTIRE LIFE OF THE CELL.

THE GEL ELECTROLYTE STRUCTURE SLOWS THE DRYING OUT OF THE CELL ENSURING CONSISTENT CYCLIC LIFE. LOW SELF-DISCHARGE ALLOWS 6 MONTHS SHELF LIFE.

BATTERY TYPE	NOMINAL CAPACITY (Ah) 120 H at 1.85 VPC 20°C	SHORT CIRCUIT CURRENT (A) IEC 60896 21-22	INTERNAL RESISTANCE (mOhm) IEC 60896 21-22	NOMINAL DIMENSION (mm)			TYPICAL WEIGHT (kg)
				Lenght	Width	Height	
SMG/S 265	265	2800	0.714	103	206	407	19.3
SMG/S 330	330	3650	0.571	124	206	407	23.3
SMG/S 400	400	4250	0.476	145	206	407	27.0
SMG/S 460	460	3560	0.572	124	206	523	30.4
SMG/S 570	570	4200	0.476	145	206	523	33.8
SMG/S 660	660	4950	0.409	166	206	523	39.6
SMG/S 860	860	6200	0.322	145	206	698	49.2
SMG/S 1150	1150	7100	0.285	210	191	700	65.6
SMG/S 1440	1440	8800	0.228	210	233	700	81.6
SMG/S 1720	1720	10500	0.190	210	275	700	96.5
SMG/S 2000	2000	11700	0.170	210	275	849	113
SMG/S 2330	2330	13850	0.135	212	399	826	137
SMG/S 2600	2600	15700	0.128	212	399	826	153
SMG/S 2940	2940	17900	0.108	212	487	826	174
SMG/S 3300	3300	20000	0.102	212	487	826	192
SMG/S 3580	3580	23000	0.100	212	576	826	211
SMG/S 3900	3900	23500	0.086	212	576	826	229
SMG/S 4240	4240	25050	0.078	212	576	826	244

ELECTRICAL CHARACTERISTICS

Float Voltage: 2.25 V/cell at 20°C

Boost Voltage: 2.40 V/cell

Float Voltage Compensation with Temperature: -2.5 mV/cell/°C

Self-Discharge at 20°C: <2%/month

STANDARDS

IEC 61427 - photovoltaic energy systems

DIN 40742 - specification OPzV cells

DIN 43539T5 - deep discharge

IEC 60896 Part 21 - VRLA methods of testing

IEC 60896 Part 22 - VRLA requirements

Eurobat "Long Life" - 12 years and longer

CERTIFICATIONS

ISO 9001

Quality Management System

ISO 14001

Environmental Management System

ISO 45001

Workplace Safety & Health

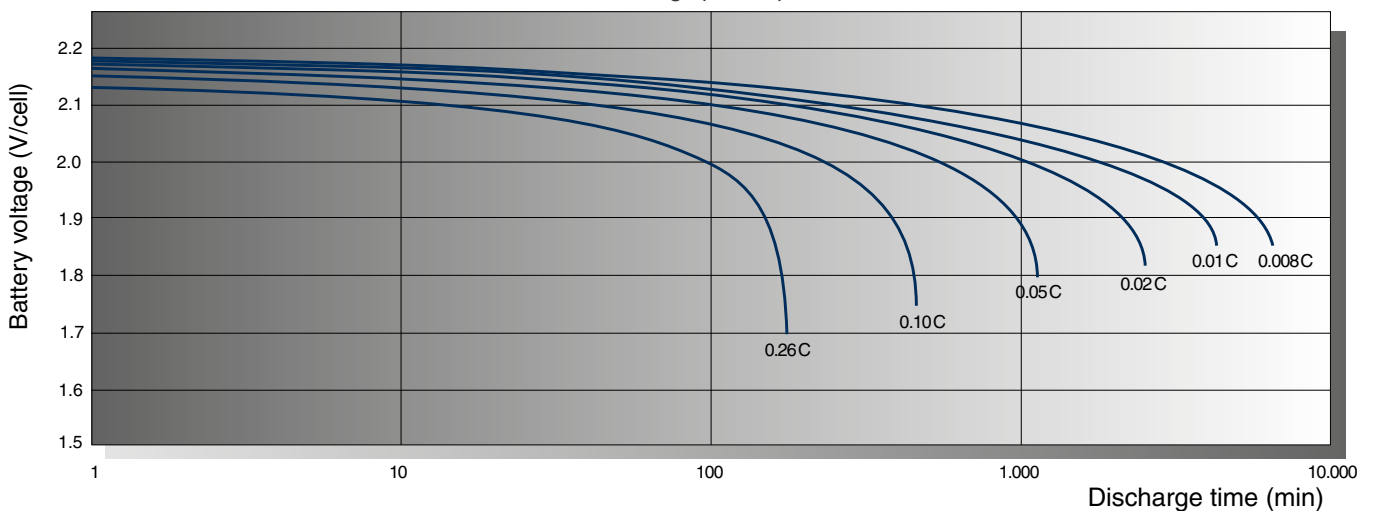
ACCESSORIES

Racks for battery installation (standard and anti-seismic)

Cabinets for battery installation

Monitoring system

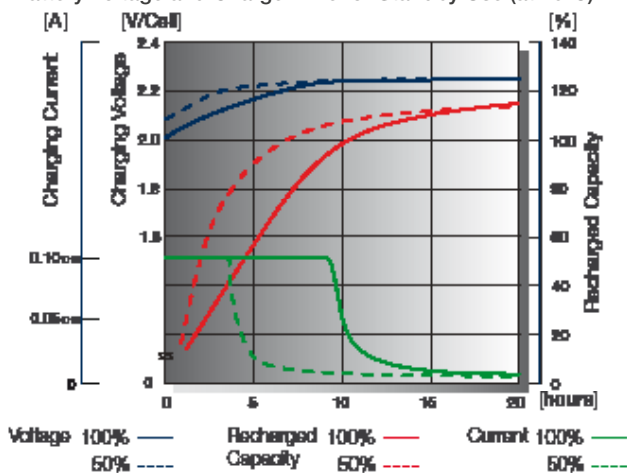
DISCHARGE CURVES at different current / final voltage (at 20°C)



The above discharge curves are typical. For more detailed information please see the specific product sheets.

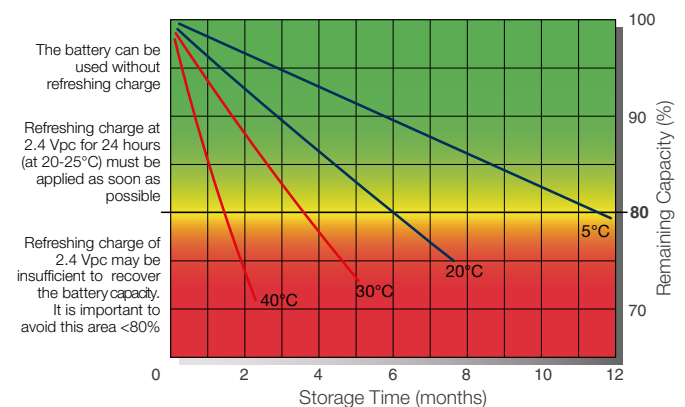
TYPICAL CHARGE CURVES

Battery Voltage and Charge Time for Standby Use (at 20°C)



STORAGE

Capacity loss during storage at various temperatures



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