

# FIAMM

Industrial Batteries

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## LM Solar OPzS



### Applications and Key Benefits

- + Solar 2V cells
  - up to 5.000 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, drinking water supply systems and other
  - 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
- + OPzS technology, with tubular positive plates and free liquid electrolyte
- + Allows use with electrolyte recirculation
- + Dimensions according to DIN 40736 OPzS cells
- + Suitable for use at elevated temperature
- + Optimized for deep discharge recovery DIN 43539T5
- + 20 years design life under float condition
- + Also available in dry charged version
- + 100% Recyclable

### Applicable Standards

- IEC 61427 - photovoltaic energy systems
- DIN 40736 - specification OPzS cells
- DIN 43539T5 - deep discharge
- DIN 40740 - electrolyte level indicator
- IEC 60896 Part 11 - vented types requirements & tests

### FIAMM Manufacturing

- ISO 9001 Quality Management System
- ISO 14001 Environmental Management System

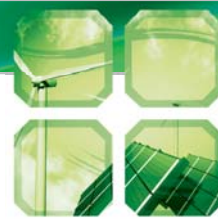
### Technical Features

- Tubular positive plates with special low antimony lead alloy reduces loss of water (3-year topping-up intervals on float condition)
- Electrolyte: high purity sulphuric acid solution with 1,24 specific gravity at 20°C
- Additional electrolyte to reduce topping-up
- Pasted negative grid plates designed to have service lives consistent with the positive plates
- Separators with extremely high porosity and low internal resistance
- Container in acid resistant SAN, designed for unsurpassed mechanical strength
- Lid in standard ABS
- 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
- Ceramic plugs filter electrolyte from escaping gasses
- Flame arrestors prevent sparks or flames from entering the battery
- < 3% self-discharge per month at 20°C allows 6 months shelf life
- Installation in vertical position
- Flexible, fully insulated cable connectors with insulated screw with probe hole on the top for electrical measurement



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## FIAMM LM Solar OPzS range

CELL TYPE	CAPACITY (Ah) at 20°C	SHORT CIRCUIT CURRENT (A)	INTERNAL RESISTANCE (mohm)	WEIGHT (kg)	ELECTROLYTE	DIMENSIONS (mm)			TERMINALS
	120 hrs to 1.85 VPC	IEC 60896-11	IEC 60896-11	with electrolyte	(Litres)	Length	Width	Height	+/-
LM/S 150	150	1220	1.860	14.2	4.4	103	206	420	1/1
LM/S 220	220	1840	1.240	16.4	4.0	103	206	420	1/1
LM/S 290	290	2330	0.857	17.7	3.8	103	206	420	1/1
LM/S 360	360	2650	0.745	21.8	5.0	124	206	420	1/1
LM/S 435	435	3170	0.620	25.2	5.7	145	206	420	1/1
LM/S 510	510	3090	0.641	28.8	6.6	124	206	536	1/1
LM/S 610	610	3700	0.534	33.1	7.5	145	206	536	1/1
LM/S 710	710	4320	0.458	38.1	8.7	166	206	536	1/1
LM/S 870	870	4470	0.456	47.3	12.8	145	206	711	1/1
LM/S 1020	1020	5210	0.391	59.7	15.7	210	191	711	2/2
LM/S 1160	1160	5980	0.342	63	13.5	210	191	711	2/2
LM/S 1310	1310	6700	0.304	72.9	23.1	210	233	711	2/2
LM/S 1450	1450	7450	0.273	75.9	18.5	210	233	711	2/2
LM/S 1740	1740	8940	0.227	90.6	23.2	210	275	711	2/2
LM/S 2200	2200	10000	0.204	115	27.7	210	275	861	2/2
LM/S 2550	2550	11660	0.174	148	36.5	214	399	837	3/3
LM/S 2750	2750	12490	0.163	151	35	214	399	837	3/3
LM/S 2900	2900	13330	0.153	156	40.2	214	399	837	3/3
LM/S 3260	3260	14990	0.136	184	45.8	212	487	837	4/4
LM/S 3625	3625	16660	0.122	193	42.4	212	487	837	4/4
LM/S 4300	4300	19990	0.102	226	55.3	212	576	837	4/4
LM/S 5000	5000	23320	0.088	252	58	212	576	837	4/4

### Electrical Characteristics

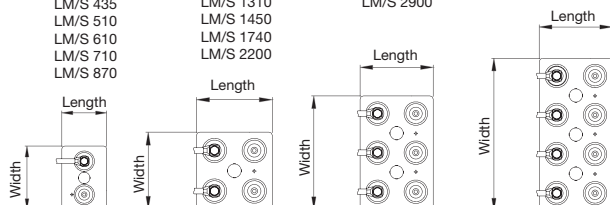
- + NOMINAL VOLTAGE: 2 V
- + FLOAT VOLTAGE AT 20°C: 2.23 V/cell
- + BOOST RECHARGE: 2.4 V/cell

LM/S 150  
LM/S 220  
LM/S 290  
LM/S 360  
LM/S 435  
LM/S 510  
LM/S 610  
LM/S 710  
LM/S 870

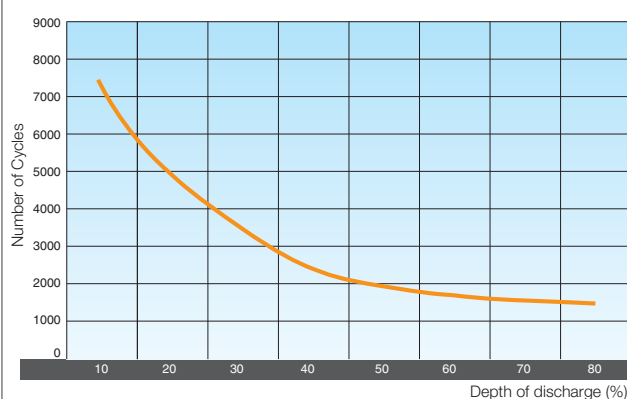
LM/S 1020  
LM/S 1160  
LM/S 1310  
LM/S 1450  
LM/S 1740  
LM/S 2200

LM/S 2550  
LM/S 2750  
LM/S 2900

LM/S 3260  
LM/S 3625  
LM/S 4300  
LM/S 5000



### Lifetime in cyclic use at 20°C



FIAMM reserves the right to change or revise without notice any information or detail given in this publication  
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