



### Applications and Key Benefits

- + OPzS cells - 100Ah to 3.500Ah nominal capacity ideal for:
  - IT and Telecom network operations
  - Power plants and power distribution
  - Emergency lighting and Security
  - Automation & Industrial backup power
  - Railway, Airport & Seaport signaling
  - Other applications in areas with unreliable power supply
- + Tubular positive plates
- + Dimensions according to DIN 40736 OPzS cells, compatible with existing installations
- + Outstanding cycling performance
- + Suitable for use at elevated temperature and reliable operation in difficult conditions
- + Optimized for deep discharge recovery DIN 43539T5
- + 20 years design life under float voltage condition
- + Also available in dry charged version
- + 100% Recyclable

### Applicable Standards

- 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)
- Capacities exceed DIN nominal values
- Electrolyte: high purity sulphuric acid solution with 1,24 specific gravity at 20°C
- 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



# ENDURLITE

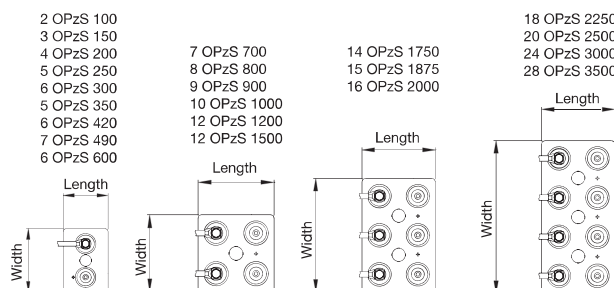
## LM OPzS

### FIAMM LM OPzS range

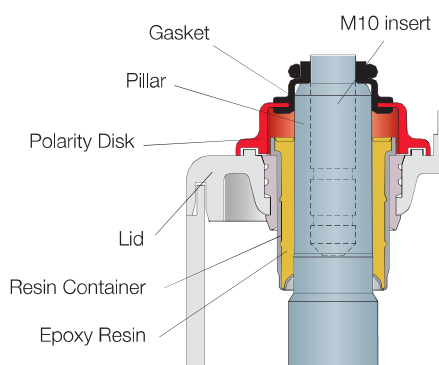
| DIN 40736 STANDARD |                                          | CELL TYPE | CAPACITY (Ah)<br>at 20°C | SHORT CIRCUIT CURRENT (A) | INTERNAL RESISTANCE (mohm) | WEIGHT (kg)<br>with electrolyte | ELECTROLYTE (Litres) | DIMENSIONS (mm) |       |        | TERMINALS +/- |
|--------------------|------------------------------------------|-----------|--------------------------|---------------------------|----------------------------|---------------------------------|----------------------|-----------------|-------|--------|---------------|
| Type               | Nominal Capacity 20°C<br>10 hrs 1.80 VPC |           | 10 hrs to 1.80 VPC       |                           |                            |                                 |                      | Length          | Width | Height |               |
| 2 OPzS 100         | 100                                      | LM 100    | 108                      | 1250                      | 1.824                      | 13.9                            | 4.2                  | 103             | 206   | 420    | 1/1           |
| 3 OPzS 150         | 150                                      | LM 150    | 162                      | 1875                      | 1.216                      | 16.1                            | 3.8                  | 103             | 206   | 420    | 1/1           |
| 4 OPzS 200         | 200                                      | LM 200    | 216                      | 2380                      | 0.840                      | 17.4                            | 3.6                  | 103             | 206   | 420    | 1/1           |
| 5 OPzS 250         | 250                                      | LM 250    | 270                      | 2700                      | 0.730                      | 21.4                            | 4.7                  | 124             | 206   | 420    | 1/1           |
| 6 OPzS 300         | 300                                      | LM 300    | 324                      | 3240                      | 0.608                      | 24.8                            | 5.4                  | 145             | 206   | 420    | 1/1           |
| 5 OPzS 350         | 350                                      | LM 350    | 390                      | 3150                      | 0.628                      | 28.4                            | 6.3                  | 124             | 206   | 536    | 1/1           |
| 6 OPzS 420         | 420                                      | LM 420    | 468                      | 3780                      | 0.524                      | 32.7                            | 7.2                  | 145             | 206   | 536    | 1/1           |
| 7 OPzS 490         | 490                                      | LM 490    | 546                      | 4410                      | 0.449                      | 37.6                            | 8.3                  | 166             | 206   | 536    | 1/1           |
| 6 OPzS 600         | 600                                      | LM 600    | 630                      | 4560                      | 0.447                      | 46.5                            | 12.2                 | 145             | 206   | 711    | 1/1           |
| 7 OPzS 700         | 700                                      | LM 700    | 735                      | 5320                      | 0.383                      | 58.8                            | 15                   | 210             | 191   | 711    | 2/2           |
| 8 OPzS 800         | 800                                      | LM 800    | 840                      | 6100                      | 0.335                      | 62.2                            | 12.9                 | 210             | 191   | 711    | 2/2           |
| 9 OPzS 900         | 900                                      | LM 900    | 945                      | 6840                      | 0.298                      | 71.5                            | 22                   | 210             | 233   | 711    | 2/2           |
| 10 OPzS 1000       | 1000                                     | LM 1000   | 1050                     | 7600                      | 0.268                      | 74.9                            | 17.7                 | 210             | 233   | 711    | 2/2           |
| 12 OPzS 1200       | 1200                                     | LM 1200   | 1260                     | 9120                      | 0.223                      | 89.2                            | 22.1                 | 210             | 275   | 711    | 2/2           |
| 12 OPzS 1500       | 1500                                     | LM 1500   | 1570                     | 10200                     | 0.200                      | 114                             | 26.7                 | 210             | 275   | 861    | 2/2           |
| 14 OPzS 1750       | 1750                                     | LM 1750   | 1840                     | 11900                     | 0.171                      | 147                             | 35.5                 | 214             | 399   | 837    | 3/3           |
| 15 OPzS 1875       | 1875                                     | LM 1875   | 1970                     | 12750                     | 0.160                      | 150                             | 34                   | 214             | 399   | 837    | 3/3           |
| 16 OPzS 2000       | 2000                                     | LM 2000   | 2100                     | 13600                     | 0.150                      | 155                             | 38.3                 | 214             | 399   | 837    | 3/3           |
| 18 OPzS 2250       | 2250                                     | LM 2250   | 2360                     | 15300                     | 0.133                      | 181                             | 43.6                 | 212             | 487   | 837    | 4/4           |
| 20 OPzS 2500       | 2500                                     | LM 2500   | 2620                     | 17000                     | 0.120                      | 190                             | 40.4                 | 212             | 487   | 837    | 4/4           |
| 24 OPzS 3000       | 3000                                     | LM 3000   | 3150                     | 20400                     | 0.100                      | 222                             | 52.6                 | 212             | 576   | 837    | 4/4           |
| 28 OPzS 3500       | 3500                                     | LM 3500   | 3500                     | 23800                     | 0.086                      | 248                             | 55.2                 | 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



#### High Reliability Post Seal



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FIAMM S.p.A.  
Industrial Batteries  
www.fiamm.com  
email:info.standby@fiamm.com

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