

# MESA ENERGY CELL OPZS

## Flooded Lead-Selenium Tubular Plate Battery

For Utility, Industrial, and Communications Applications

### Product Features & Customer Benefits

- Capacity range: 200–3,200 amp-hr
- 20-year float life with maximum deep discharge cycle life
- More than 1,500 deep discharge cycles
- Reduced maintenance intervals
- Stable float charge characteristics
- Minimal positive grid growth
- Maximum charging efficiency
- Improved high temperature tolerance
- Conforms to DIN 40736 part 1

### Applications

- Power plants
- Utility switchgear
- Process control
- Telecommunications
- UPS units

### Accessories

#### Standard

- Battery inter-unit and inter-row connections
- Terminal hardware
- Hydrometer with holder and drip cup
- Vent mounted thermometer
- Cell numbers
- Lifting strap
- Flame arresting vent caps
- No-ox or similar grease
- Installation and operating instructions /drawings

#### Optional

- Racks
- Terminal lugs
- Hydrogen detector
- Eyewash
- Shower
- Electrolyte absorbing/neutralizing material
- Spill containment systems
- Battery monitoring systems
- Battery chargers



**MESA**  
TECHNICAL ASSOCIATES, INC.

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### Capacities, Dimensions, and Weights

Cell Type/ Order No.	Nominal 8- hr Ah Cap. at 77°F to 1.75 vpc	Internal Res. (mOhms)	Short Circuit (KA)	Cell Weight Filled (lbs)	Volume of Acid Per Cell (gal.)	Length (in.)	Width (in.)	Height (in.)	No. of Terminal Pairs	No. of Vent Openings
2 OPzS 100	110	1.55	1.3	35.7	1.37	4.1	8.1	16.9	1	1
3 OPzS 150	164	1.03	2.0	38.4	1.13	4.1	8.1	16.9	1	1
4 OPzS 200	218	0.96	2.1	41.0	0.87	4.1	8.1	16.9	1	1
5 OPzS 250	272	0.77	2.6	49.2	1.11	4.9	8.1	16.9	1	1
6 OPzS 300	328	0.64	3.1	57.1	1.32	5.7	8.1	16.9	1	1
5 OPzS 350	383	0.55	3.6	64.6	1.59	4.9	8.1	21.5	1	1
6 OPzS 420	455	0.46	4.4	76.1	1.93	5.7	8.1	21.5	1	1
7 OPzS 490	530	0.39	5.1	86.9	2.14	6.5	8.1	21.5	1	1
6 OPzS 600	644	0.43	4.6	104.9	2.64	5.7	8.3	28.4	1	1
7 OPzS 700	725	0.37	5.4	123.7	3.14	7.5	8.3	28.4	2	1
8 OPzS 800	828	0.33	6.2	140.9	3.51	7.5	8.3	28.4	2	1
9 OPzS 900	932	0.29	6.9	157.0	4.07	9.2	8.3	28.4	2	1
10 OPzS 1000	1035	0.26	7.6	175.3	4.36	9.2	8.3	28.4	2	1
11 OPzS 1100	1139	0.24	8.5	185.4	4.86	10.8	8.3	28.4	2	1
12 OPzS 1200	1242	0.22	9.2	199.1	5.23	10.8	8.3	28.4	2	1
12 OPzS 1500	1636	0.24	8.4	249.6	5.89	10.8	8.3	34.3	2	1
13 OPzS 1625	1772	0.22	9.0	276.0	6.37	15.7	8.4	33.4	3	2
14 OPzS 1750	1908	0.21	9.7	302.7	7.13	15.7	8.4	33.4	3	2
15 OPzS 1875	2044	0.19	10.4	325.0	8.06	15.7	8.4	33.4	3	2
16 OPzS 2000	2181	0.14	13.9	345.2	8.43	15.7	8.4	33.4	3	2
20 OPzS 2500	2726	0.11	17.9	433.0	10.59	19.2	8.4	33.4	4	3
24 OPzS 3000	3272	0.10	19.6	506.4	13.31	22.7	8.4	33.4	4	3

**Positive Plates** Tubular plate with lead selenium alloy

**Negative Plates** Pasted flat plate with lead selenium grid alloy

**Separators** Micro-porous plastic separators are used to separate the electrodes. Separators overlap the electrodes on all sides, preventing mousing effects and shedding to avoid short circuits.

**Cell Container** High-strength, transparent styrene acrylonitrile plastic (SAN)

**Cell Lid** Opaque SAN plastic, bonded to cell container with tongue-and-groove seal. Flame retardant, ABS plastic available

**Electrolyte** Dilute sulfuric acid with 1.240 specific gravity at 77°F

**Ceramic Vent Cap** Spark arresting ceramic vents with filling funnel and dust cover for safe water addition during maintenance

**Terminals** M10 copper insert

**Plate Suspension** Bottom supported

**Inter Cell Connectors** Fully insulated copper

**Terminal Hardware** Fully insulated stainless steel

**Terminal Seal** Special corrosion-free O- ring design

#### Charging Voltage

Float charge: 2.23 – 2.25 volts per cell

Equalize charge: 2.33 – 2.40 volts per cell

**Charge Current** 10 to 15 amps per 100 Ah of the 8-hour rating (max. 30 amps per 100 Ah)