

The OPzS series is a traditional tubular plate flooded battery which offers 20+ years design life According to the standard IEC60896-11. With a new design and technical improvement, it offers maximum efficiency and reliability for the widest variety of applications. This series is highly suited for all standby power applications that require the highest levels of reliability and security.

| | | | |
|----------------------|---------------------------|---------------------------|--------------------------------|
| 2V Voltage | 1500Ah Capacity | Tubular Flooded | 20+years Design life |
|----------------------|---------------------------|---------------------------|--------------------------------|



- Complied standards**
- IEC 60896-11
 - DIN40736
 - IEC61427
 - Eurobat guide, long life

Features and Benefits

- Tubular positive plate with prolonged cycle life
- Wide operating temperature range from -40°C to 60°C
- Tubular positive plate with prolonged cycle life
- Lead calcium die cast grid with improved corrosion resistance capability
- Dry charged package and delivery ensure longer shelf life
- Explosive-proof with special designed vented plug
- Excellent deep discharge recovery capability

Construction

- Positive plate Tubular plate with die cast Pb-Ca alloy grid
- Negative plate - Balanced Pb-Ca grid for improved recombination

Efficiency

- Separator - Leaf shape rubber separator
- Electrolyte - Dilute high purity sulphuric acid of 1.240 specific Gravity
- Battery container is SAN, cover is ABS
- Pillar seal - 100% factory tested, proven two layers epoxy resin Seal
- Relief valve - Complete with integrated flame arrestor

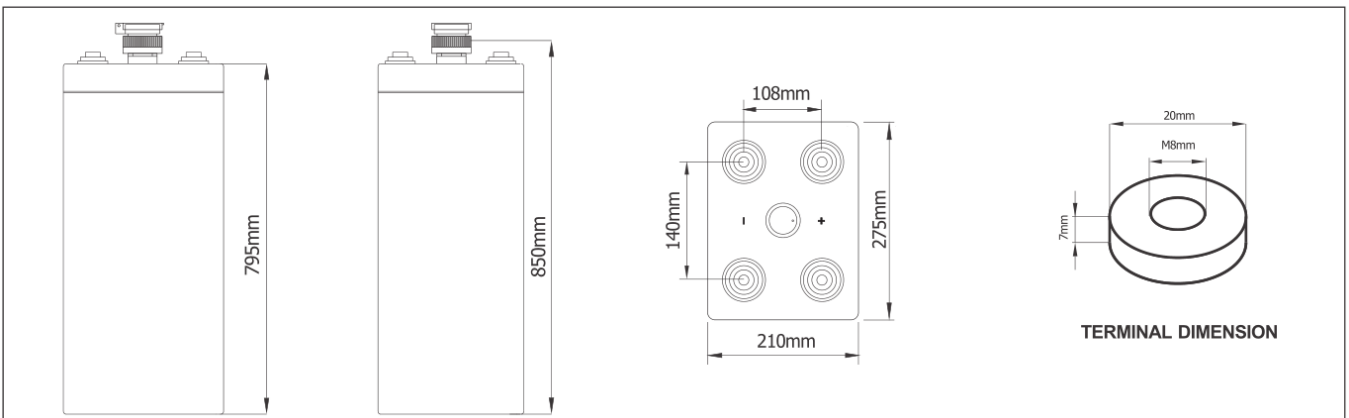
Applications

- Telecom
- Electric Utilities
- Railroad Utilities
- Outdoor applications
- Power Utility
- UPS systems
- Photovoltaic Systems
- Medical Equipments
- Renewable Energy Systems

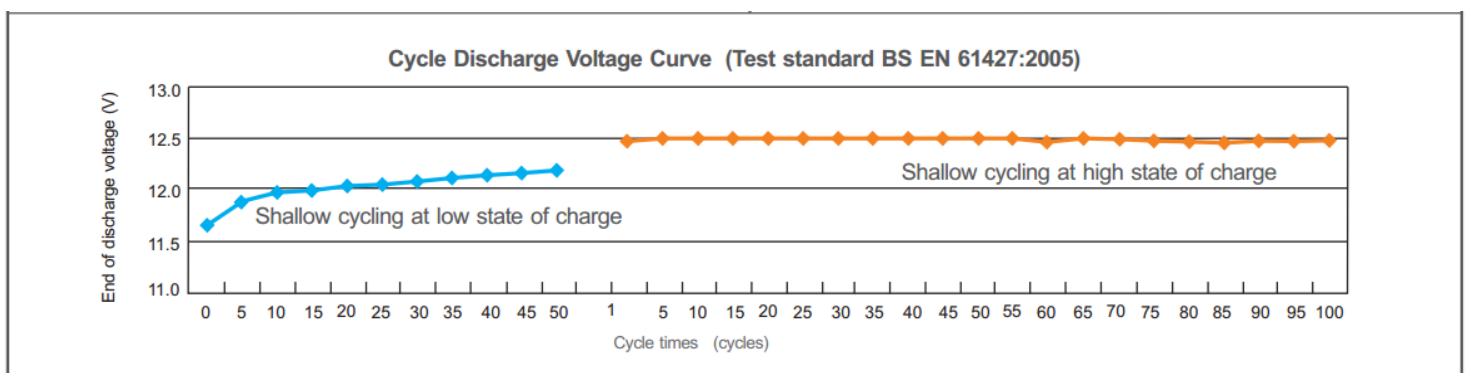
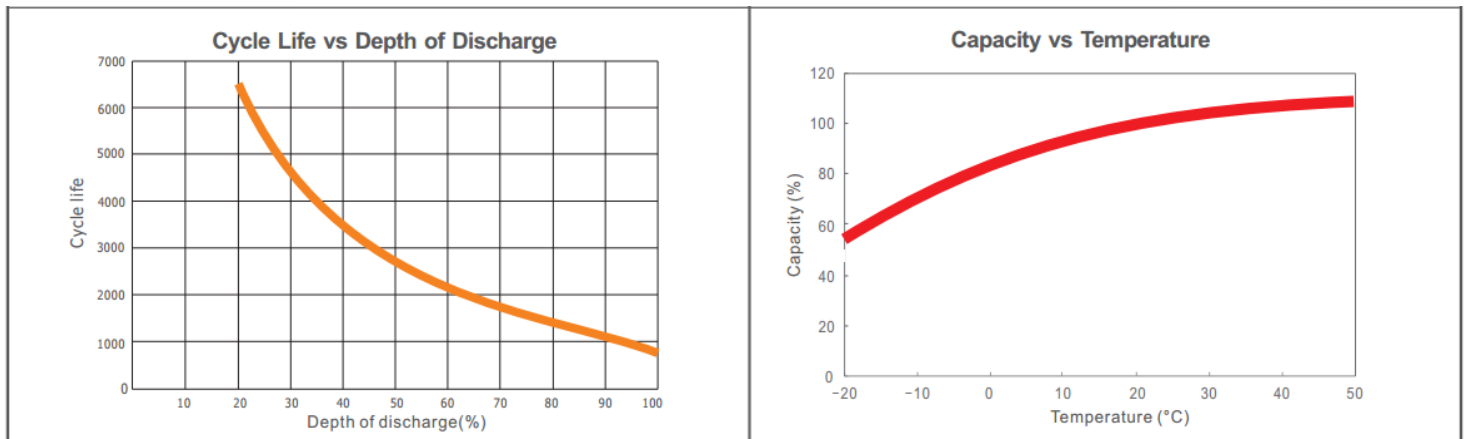
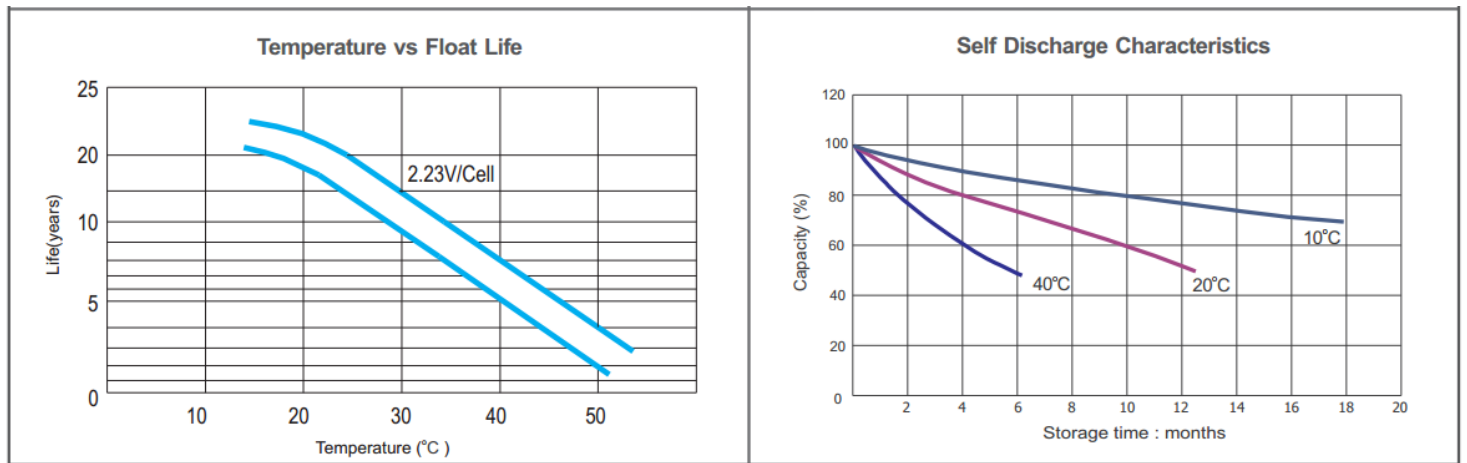
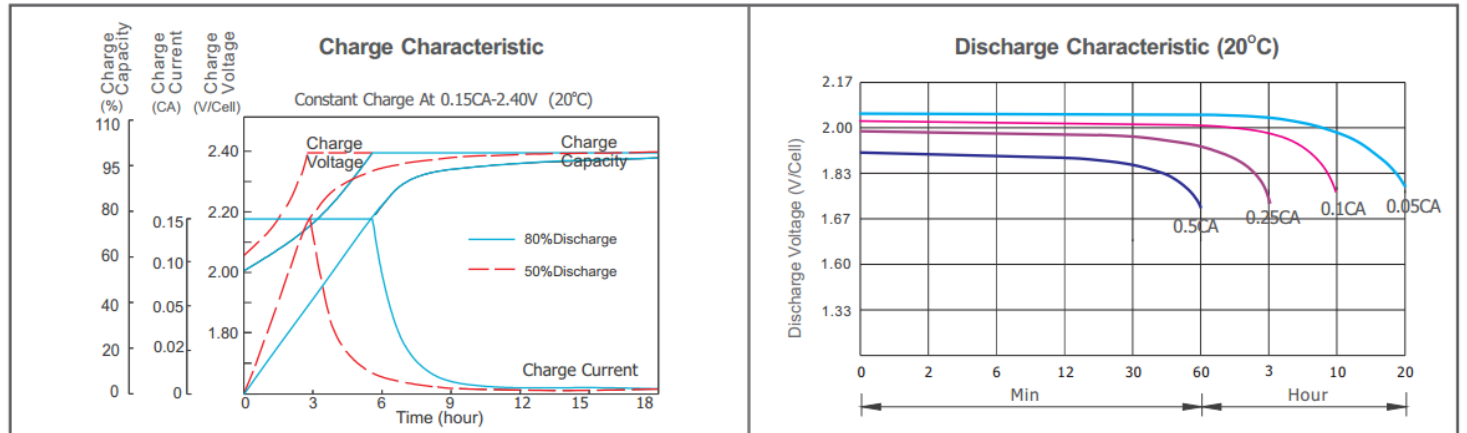
Technical Specifications

| | |
|---|--|
| Nominal Voltage..... | 2V(1 cells per unit) |
| Nominal Capacity(20°C)..... | 1500Ah |
| Dimension(mm)..... | L275 x W210 x H795 x TH850mm |
| Approx. Weight | |
| Without electrolyte..... | 71.0kg (157lbs) |
| With electrolyte..... | 98.0kg(216lbs) |
| Electrolyte(Diluted sulphuric acid of 1.240g/cm ³ (20°C))..... | 27kg |
| Terminal Type..... | Female Copper Insert M8(torque:10~12N.m) |
| Internal Resistance..... | 0.37mΩ(fully Charged @20°C) |
| Max.Charge Current..... | 300A |
| Max.Discharge Current (5s)..... | 2500A |
| Short Circuit Current..... | 5400A |
| Ambient Temperature | |
| Discharge..... | -25-65°C |
| Charge..... | -20-65°C |
| Storage..... | -15-40°C |
| Capacity Affected by Temp.(10 hour) | |
| 105% @40°C | |
| 85% @0°C | |
| 60% @-20°C | |
| Self-Discharge @20°C..... | Approx.4% per month |
| Charge Voltage @20~25°C | |
| Float charge voltage..... | 2.21V-2.25V |
| Equalize Charge Voltage..... | 2.35V-2.40V |

Dimensions



Performance Characteristics



Battery Discharge

Discharge Constant Current per Cell (Amperes at 25° C)

| F.V./Time | 5min | 10min | 15min | 30min | 1h | 2h | 3h | 4h | 5h | 8 h | 10 h | 20h |
|-----------|------|-------|-------|-------|-----|-----|-----|-----|-----|-----|------|------|
| 1.90V | 509 | 463 | 421 | 412 | 449 | 351 | 284 | 239 | 209 | 155 | 137 | 75.1 |
| 1.85V | 550 | 527 | 518 | 515 | 510 | 389 | 314 | 264 | 245 | 164 | 143 | 78.4 |
| 1.80V | 877 | 842 | 824 | 709 | 656 | 458 | 384 | 300 | 260 | 185 | 150 | 82.5 |
| 1.75V | 1053 | 1010 | 979 | 811 | 731 | 495 | 398 | 312 | 267 | 188 | 155 | 86.6 |

Discharge Constant Power per Cell (Watts at 25° C)

| F.V./Time | 5min | 10min | 15min | 30min | 1h | 2h | 3h | 4h | 5h | 8 h | 10 h | 20h |
|-----------|------|-------|-------|-------|------|------|-----|-----|-----|-----|------|-----|
| 1.90V | 987 | 898 | 806 | 779 | 863 | 750 | 617 | 521 | 447 | 326 | 282 | 151 |
| 1.85V | 1066 | 1023 | 993 | 968 | 981 | 848 | 645 | 579 | 497 | 356 | 306 | 165 |
| 1.80V | 1702 | 1633 | 1400 | 1295 | 1286 | 1028 | 821 | 671 | 567 | 401 | 330 | 171 |
| 1.75V | 2043 | 1960 | 1436 | 1304 | 1296 | 1068 | 869 | 710 | 593 | 407 | 344 | 175 |

Long time discharge capacity for solar & wind applications

| Capacity | C ₂₄ (Ah) | C ₄₈ (Ah) | C ₇₂ (Ah) | C ₁₀₀ (Ah) | C ₁₂₀ (Ah) | C ₂₄₀ (Ah) |
|---------------|-------------------------|-------------------------|-------------------------|--------------------------|--------------------------|--------------------------|
| OPzS2-1500 | 1695 | 1860 | 1950 | 2025 | 2055 | 2100 |
| Final Voltage | 1.85 V | | | | | |

Solar & wind applications parameters settings

| | |
|-------------------------------|----------------------------|
| Over voltage disconnect: | 2.47±0.01V/cell @ 20~25°C |
| Regulation/equalize voltage: | 2.40±0.01V/cell @ 20~25°C |
| Array reconnection voltage: | 2.23±0.005V/cell @ 20~25°C |
| Float voltage setting: | 2.25±0.005V/cell @ 20~25°C |
| Low voltage alarm voltage: | 1.95±0.005V/cell @ 20~25°C |
| Low voltage disconnect: | 1.90±0.005V/cell @ 20~25°C |
| Load reconnect voltage: | 2.09±0.01V/cell @ 20~25°C |
| Temp. compensate coefficient: | -4mV/cell/°C |

