

OPzS2-2000(2V2000Ah)



OPzS series is flooded Lead Acid battery that adopts Tubular Plate technology to offer high reliability and performance. The Battery is designed and manufactured according to standards and with DIN40736/IEC60896 positive spine and patent formula of die-casting active material. The OPzS series batteries offer 400% more cyclic life than the standby series. It is suitable for solar and wind renewable energy storage, traction etc. The OPzS series is the best choice of energy storage system in high altitude area.

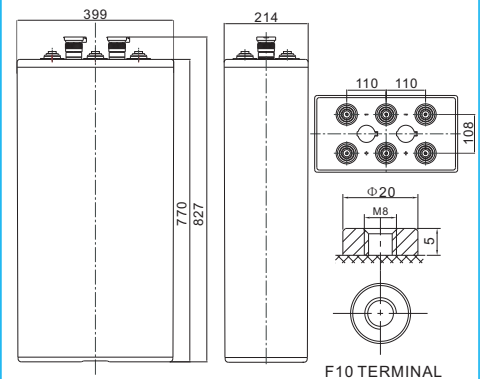


Specification

| | |
|---|---|
| Cells Per Unit | 1 |
| Voltage Per Unit | 2 |
| Nominal Capacity | 2000Ah@10hr-rate to 1.80V per cell @25°C |
| Weight | Without Electrolyte 112.8 kg/With Electrolyte 153.4kg |
| Internal Resistance | Approx. 0.17 mΩ |
| Terminal | F10(M8) |
| Max. Discharge Current | 7500A (5 sec) |
| Design Life | 20 years (floating charge) |
| Max. Charging Current | 200 A |
| Reference Capacity | C3 1626.3AH C5 1810.5AH C10 2000.0AH C20 2420.0AH |
| Float Charging Voltage | 2.23 V~2.25 V @ 25°C Temperature Compensation: -3mV/°C/Cell |
| Cycle Use Voltage | 2.40 V~2.45 V @ 25°C Temperature Compensation: -4mV/°C/Cell |
| Operating Temperature Range | Discharge: -15°C~50°C Charge: 0°C~40°C Storage: -15°C~50°C |
| Normal Operating Temperature Range | 25°C ± 5°C |
| Self Discharge | OPzS series is flooded Lead Acid battery . It can be stored for up to 2 years before filling acid. Monthly Self-discharge ratio is less than 3.5% at 20°C .Please charged batteries before using. |
| Container Material | SAN UL94-HB, UL94-V0 Optional. |

Dimensions

Unit: mm



| | |
|--------------|-----------------------|
| Length | 399±2mm (15.7 inches) |
| Width | 214±2mm (8.43 inches) |
| Height | 770±2mm (30.3 inches) |
| Total Height | 827±2mm (32.6 inches) |
| Torque Value | 10~12 N*m |

Constant Current Discharge Characteristics :A(25°C)

| F.V/ Time | 30min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1.60V | 2110 | 1361 | 806.1 | 586.9 | 452.5 | 379.5 | 330.7 | 260.2 | 218.9 | 125.9 |
| 1.65V | 2046 | 1281 | 779.9 | 572.7 | 446.2 | 374.3 | 326.5 | 258.1 | 216.8 | 124.7 |
| 1.70V | 1890 | 1241 | 758.1 | 559.4 | 438.5 | 368.6 | 322.3 | 256.0 | 214.7 | 123.5 |
| 1.75V | 1696 | 1159 | 725.3 | 542.1 | 431.4 | 362.1 | 315.9 | 251.8 | 210.5 | 121.0 |
| 1.80V | 1531 | 1033 | 671.8 | 509.5 | 412.4 | 346.2 | 302.3 | 240.2 | 200.0 | 115.0 |
| 1.85V | 1277 | 885.7 | 600.8 | 462.5 | 380.6 | 320.2 | 280.1 | 224.5 | 187.4 | 107.8 |

Constant Power Discharge Characteristics : WPC(25°C)

| F.V/ Time | 30min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h |
|-----------|-------|------|------|-------|-------|-------|-------|-------|-------|-------|
| 1.60V | 3570 | 2322 | 1473 | 1100 | 874.7 | 734.8 | 642.4 | 509.8 | 435.0 | 250.1 |
| 1.65V | 3510 | 2223 | 1434 | 1078 | 863.5 | 726.7 | 636.1 | 505.6 | 432.9 | 248.9 |
| 1.70V | 3333 | 2201 | 1399 | 1056 | 850.1 | 717.0 | 629.8 | 501.4 | 428.8 | 246.6 |
| 1.75V | 3073 | 2107 | 1355 | 1032 | 838.9 | 706.7 | 619.3 | 495.2 | 422.7 | 243.1 |
| 1.80V | 2851 | 1930 | 1271 | 977.9 | 804.2 | 678.0 | 595.0 | 476.3 | 405.4 | 233.1 |
| 1.85V | 2444 | 1700 | 1161 | 899.3 | 745.0 | 629.3 | 554.0 | 449.0 | 381.9 | 219.6 |

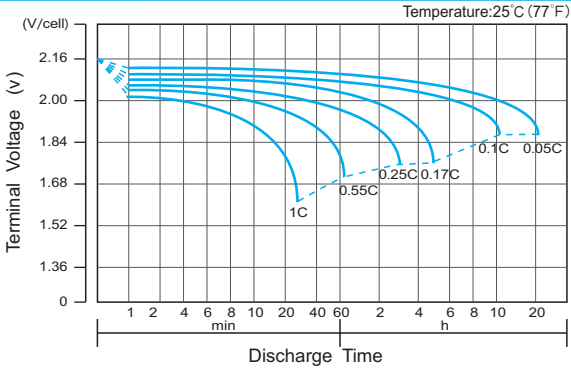
(Note) The above characteristics data are average values obtained within three charge/discharge cycle not the minimum values.

The battery must be fully charged before the capacity test. The C₁₀ should reach 95% after the first cycle and 100% after the third cycle.

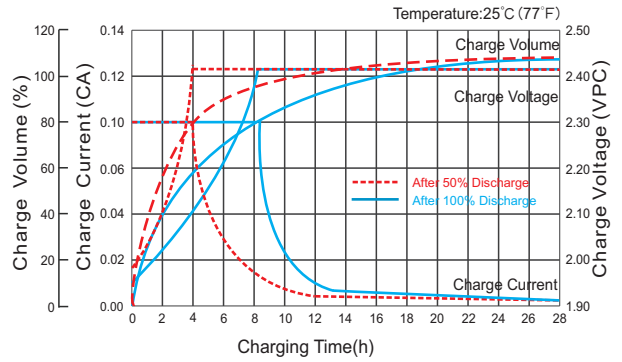
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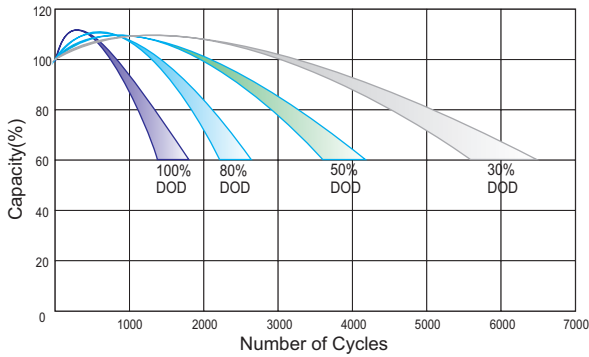
Discharge Characteristics Curve



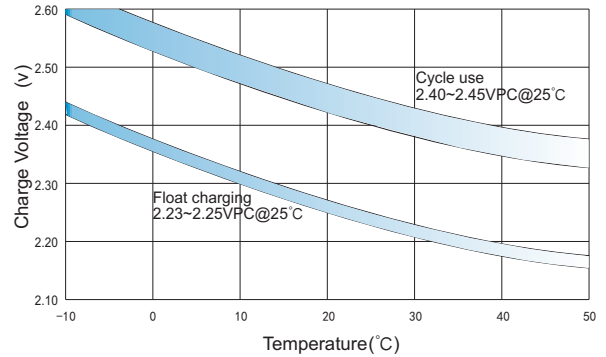
Charge Characteristic Curve for Cycle Use(IU)



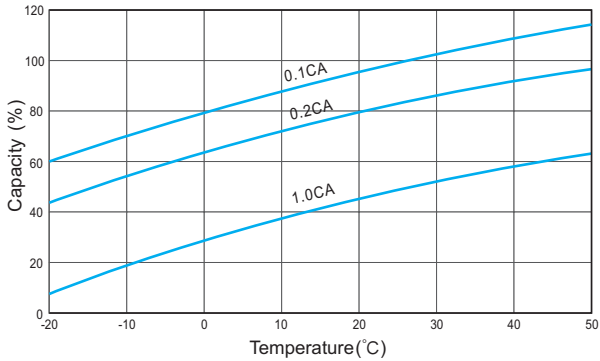
Cycle Life in Relation to Depth of Discharge



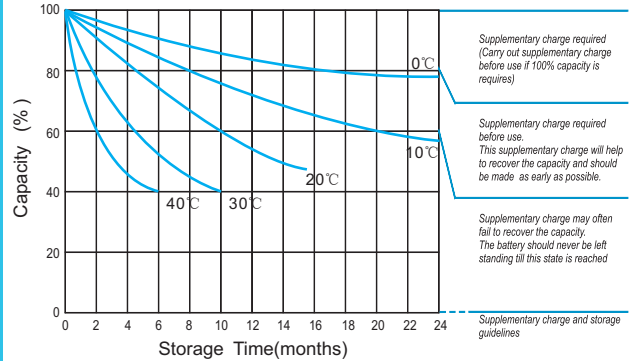
Relationship Between Charging Voltage and Temperature



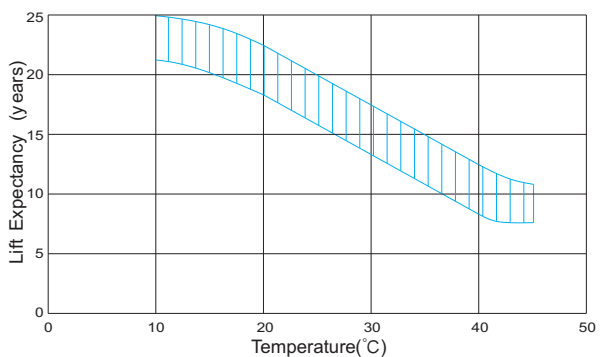
Temperature Effects on Capacity



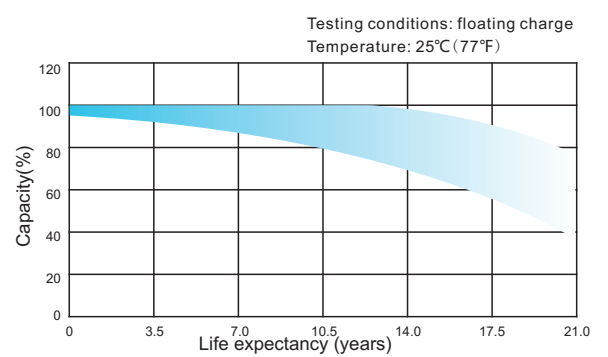
Storage Characteristics



Effect of Temperature on Long Term Life



Life Characteristics Of Standby Use



(Note) All above information shall be changed without prior notice, Ritar reserves the right to explain and update the latest information.