

OPG2-1000 (OPzV 2V1000AH)

SunStone OPG series is a Valve Regulated Lead Acid battery that adopts immobilized GEL and Tubular Plate technology to offer high reliability and performance. The Battery is designed and manufactured according to DIN standards and with die-casting positive grid and patent formula of active material. SunStone OPG series exceeds DIN standard values with more than 25 years floating design life at 25°C and is even more suitable for cyclic use under extreme operating conditions.

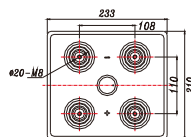
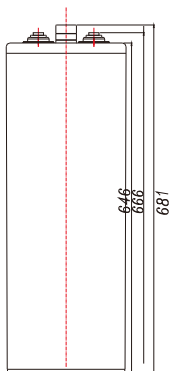


Specification

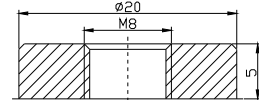
| | |
|-------------------------------------|---|
| Voltage Per Unit | 2V(single cell) |
| Capacity | 1000Ah@10hr-rate to 1.80V per cell @25°C |
| Weight | Approx. 80.0 Kg |
| Max. Discharge Current | 3800 A (5 sec) |
| Internal Resistance | Approx. 0.27 m Ω |
| Operating Temperature Range | Discharge: -40°C~70 °C Charge: 0°C~50 °C Storage: -20°C~60 °C |
| Optimal Operating Temperature Range | 25°C ± 5°C |
| Float charging Voltage | 2.25 to 2.3 VDC/unit Average at 25 °C |
| Maximum Charging Current Limit | 200 A |
| Cycle Service | 2.37 to 2.40 VDC/unit Average at 25 °C |
| Self Discharge | Self-discharge ratio less than 2% per month at 25 °C. Please charge batteries before using. |
| Terminal | Thread insert & Bolt (F10-M8) |
| Container Material | A.B.S. (UL94-HB), and UL94-V0 is optional |

Dimensions

Dimension: 233(L)×210(W)×681(H)

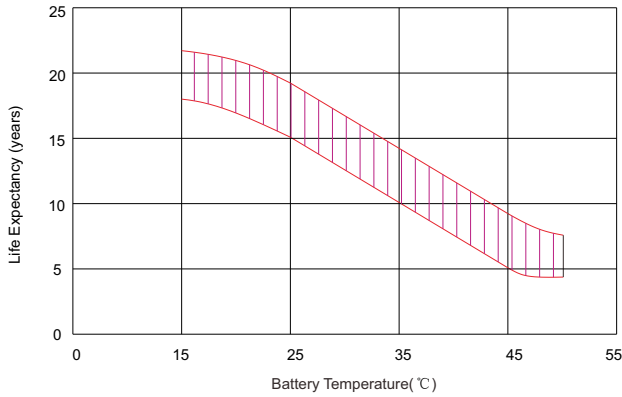


Terminal F10

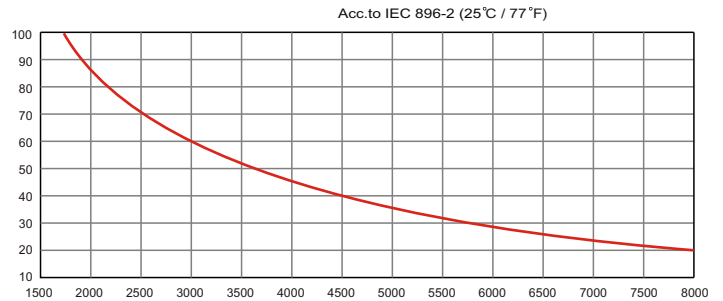


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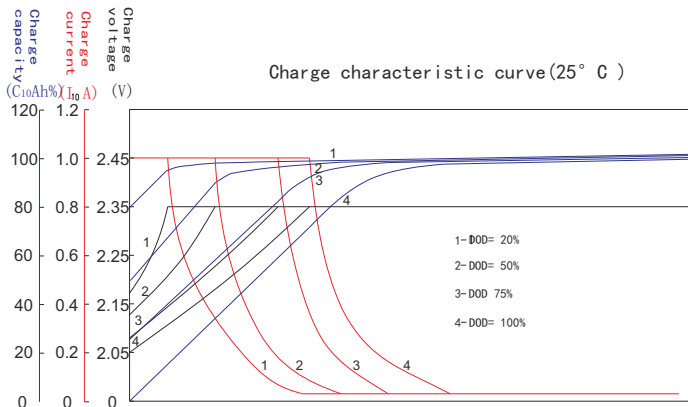
Effect of temperature on long term



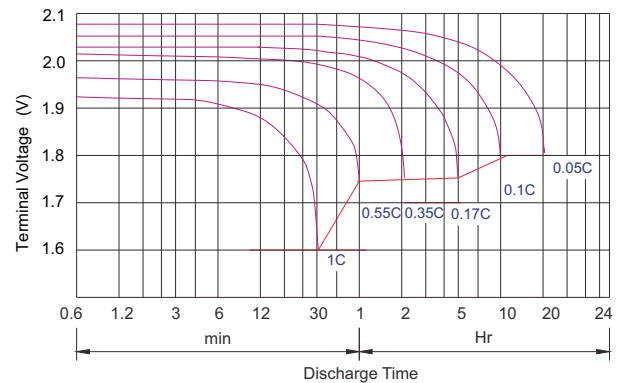
Cycle Life in Relation to Depth of Discharge



Charge characteristic Curve for standby use



Discharge characteristic Curve



Constant Current Discharge (Amperes at 25°C/77°F)

| F.V/Time | 30min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h | 100h | 120h |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1.90V/cell | 492.0 | 390.0 | 275.0 | 208.6 | 171.0 | 147.8 | 133.0 | 103.8 | 89.00 | 47.00 | 10.68 | 9.27 |
| 1.87V/cell | 550.0 | 430.0 | 295.0 | 221.2 | 180.5 | 155.4 | 141.0 | 108.6 | 93.00 | 49.00 | 11.16 | 9.69 |
| 1.83V/cell | 630.0 | 480.0 | 320.0 | 325.7 | 190.0 | 162.2 | 146.0 | 113.5 | 97.00 | 51.00 | 11.64 | 10.10 |
| 1.80V/cell | 700.0 | 520.0 | 332.0 | 242.5 | 193.8 | 166.0 | 150.0 | 116.4 | 100.0 | 53.00 | 12.00 | 10.42 |
| 1.75V/cell | 780.0 | 557.0 | 347.0 | 252.2 | 197.0 | 170.0 | 153.0 | 118.3 | 102.0 | 54.00 | 12.24 | 10.63 |
| 1.70V/cell | 860.0 | 575.0 | 357.0 | 257.1 | 200.5 | 172.0 | 155.0 | 119.3 | 103.0 | 54.00 | 12.36 | 10.73 |
| 1.65V/cell | 887.0 | 611.0 | 369.0 | 264.0 | 203.3 | 174.0 | 157.0 | 120.3 | 104.0 | 55.00 | 12.48 | 10.83 |
| 1.60V/cell | 925.0 | 632.0 | 383.0 | 275.0 | 209.0 | 177.0 | 159.0 | 121.3 | 105.0 | 55.00 | 12.60 | 10.94 |

Constant Power Discharge (Watts per cell at 25°C/77°F)

| F.V/Time | 30min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h | 100h | 120h |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| 1.90V/cell | 941.7 | 748.7 | 531.6 | 404.0 | 334.7 | 291.0 | 263.0 | 207.6 | 181.4 | 95.00 | 217.68 | 226.75 |
| 1.87V/cell | 1036 | 813.0 | 563.8 | 423.1 | 352.8 | 305.0 | 278.0 | 216.3 | 189.2 | 99.00 | 227.04 | 236.50 |
| 1.83V/cell | 1161 | 886.4 | 600.0 | 445.2 | 369.8 | 317.0 | 287.0 | 224.1 | 195.9 | 103.0 | 235.08 | 244.88 |
| 1.80V/cell | 1268 | 945.7 | 620.0 | 455.3 | 376.9 | 324.0 | 294.0 | 228.9 | 200.8 | 105.0 | 240.96 | 251.00 |
| 1.75V/cell | 1376 | 987.9 | 640.2 | 469.3 | 381.9 | 322.0 | 299.0 | 231.8 | 203.7 | 107.0 | 244.44 | 254.63 |
| 1.70V/cell | 1475 | 998.0 | 656.3 | 477.4 | 387.9 | 335.0 | 302.0 | 233.8 | 205.6 | 108.0 | 246.72 | 257.00 |
| 1.65V/cell | 1500 | 1042 | 674.4 | 487.4 | 393.0 | 338.0 | 305.0 | 235.7 | 206.6 | 108.0 | 247.92 | 258.25 |
| 1.60V/cell | 1519 | 1074 | 690.4 | 501.0 | 403.0 | 341.0 | 307.0 | 236.7 | 207.6 | 109.0 | 249.12 | 259.50 |

Note: The above characteristics data are average values obtained within three charge/discharge cycles, not the minimum values.