

# OPG2-500 (OPzV 2V500AH)

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.

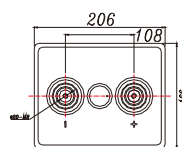
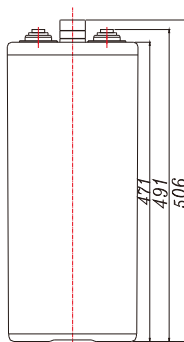


## Specification

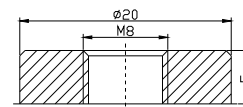
Voltage Per Unit	2V(single cell)
Capacity	500Ah@10hr-rate to 1.80V per cell @25°C
Weight	Approx. 41.0 Kg
Max. Discharge Current	2000 A (5 sec)
Internal Resistance	Approx. 0.35 mΩ
Operating Temperature Range	Discharge: -40°C~70 °C Charge: 0°C~50 °C Storage: -20°C~60 °C
Optimal Operating Temperature Range	25°C ± 5°C
Float charging Voltage	2.25 to 2.3 VDC/unit Average at 25°C
Maximum Charging Current Limit	100 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

Unit: mm Dimension: 166(L)×206(W)×506(H)

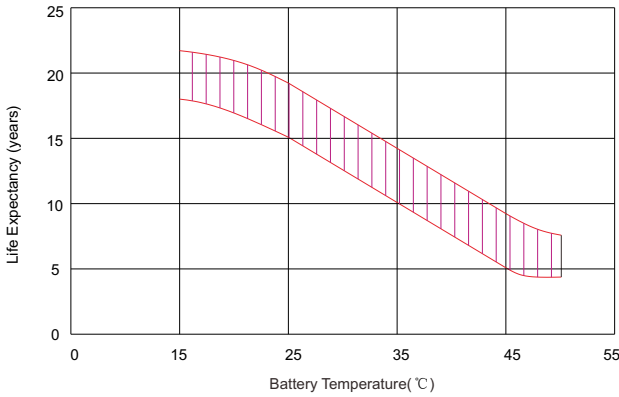


Terminal F10

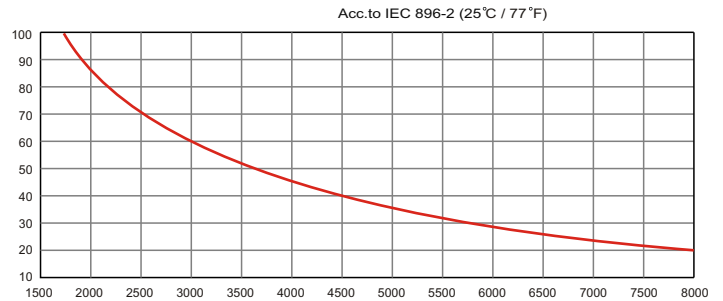


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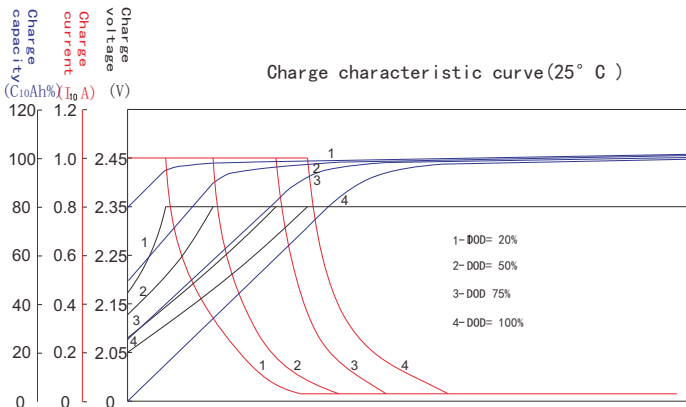
## Effect of temperature on long term



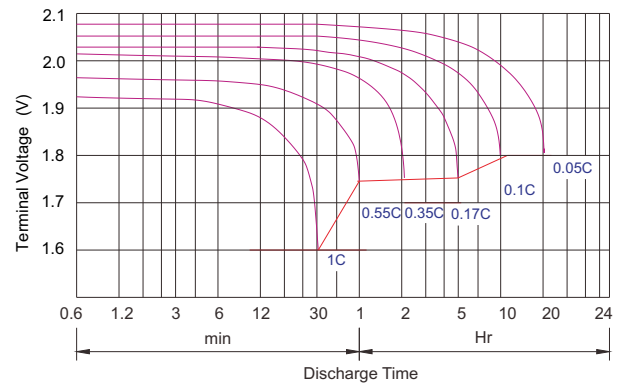
## Cycle Life in Relation to Depth of Discharge



## 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
1.90V/cell	246.00	195.00	137.50	104.30	85.50	73.88	66.50	51.90	44.50	23.50
1.87V/cell	275.00	215.00	147.50	110.60	90.25	77.72	70.50	54.32	46.50	24.50
1.83V/cell	315.00	240.00	160.00	117.90	95.00	81.08	73.00	56.75	48.50	25.50
1.80V/cell	350.00	260.00	166.00	121.30	96.90	83.00	75.00	58.20	50.00	26.50
1.75V/cell	390.00	278.50	173.50	126.10	98.50	85.00	76.50	59.17	51.00	27.00
1.70V/cell	430.00	287.50	178.50	128.50	100.20	86.00	77.50	59.66	51.50	27.00
1.65V/cell	443.50	305.50	184.50	132.00	101.70	87.00	78.50	60.14	52.00	27.50
1.60V/cell	462.50	316.00	191.50	137.50	104.50	88.50	79.50	60.63	52.50	27.50

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

F.V/Time	30min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.90V/cell	470.80	374.40	265.80	202.00	167.30	145.50	131.50	103.80	90.70	47.50
1.87V/cell	518.10	406.50	281.90	211.60	176.40	152.50	139.00	108.20	94.58	49.50
1.83V/cell	580.40	443.20	300.00	222.60	184.90	158.50	143.50	112.00	97.97	51.50
1.80V/cell	634.20	472.90	310.00	227.60	188.40	162.00	147.00	114.50	100.40	52.50
1.75V/cell	687.90	494.00	320.10	234.70	191.00	166.00	149.50	115.90	101.90	53.50
1.70V/cell	737.70	499.00	328.10	238.70	194.00	167.50	151.00	116.90	102.80	54.00
1.65V/cell	750.20	521.10	337.20	243.70	196.50	169.00	152.50	117.90	103.30	54.00
1.60V/cell	759.30	537.20	345.20	251.80	201.50	170.50	153.50	118.30	103.80	54.50

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