

# 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.

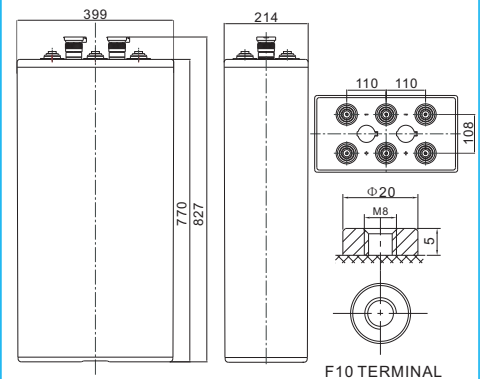


## Specification

<b>Cells Per Unit</b>	1
<b>Voltage Per Unit</b>	2
<b>Nominal Capacity</b>	2000Ah@10hr-rate to 1.80V per cell @25°C
<b>Weight</b>	Without Electrolyte 112.8 kg/With Electrolyte 153.4kg
<b>Internal Resistance</b>	Approx. 0.17 mΩ
<b>Terminal</b>	F10(M8)
<b>Max. Discharge Current</b>	7500A (5 sec)
<b>Design Life</b>	20 years (floating charge)
<b>Max. Charging Current</b>	200 A
<b>Reference Capacity</b>	C3 1626.3AH C5 1810.5AH C10 2000.0AH C20 2420.0AH
<b>Float Charging Voltage</b>	2.23 V~2.25 V @ 25°C Temperature Compensation: -3mV/°C/Cell
<b>Cycle Use Voltage</b>	2.40 V~2.45 V @ 25°C Temperature Compensation: -4mV/°C/Cell
<b>Operating Temperature Range</b>	Discharge: -15°C~50°C Charge: 0°C~40°C Storage: -15°C~50°C
<b>Normal Operating Temperature Range</b>	25°C ± 5°C
<b>Self Discharge</b>	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.
<b>Container Material</b>	A.B.S. 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

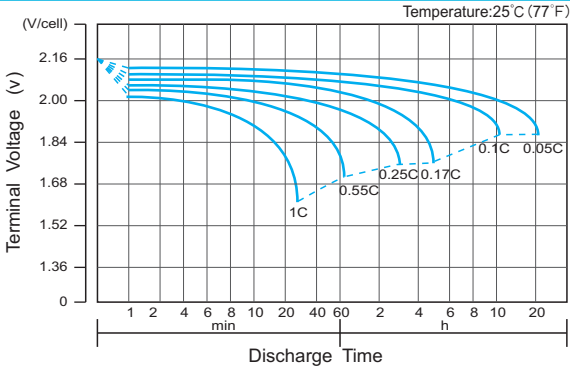
(Note) The above characteristics data are average values obtained within three charge/discharge cycle not the minimum values.

The battery must be fully charged before the capacity test. The C<sub>10</sub> should reach 95% after the first cycle and 100% after the third cycle.

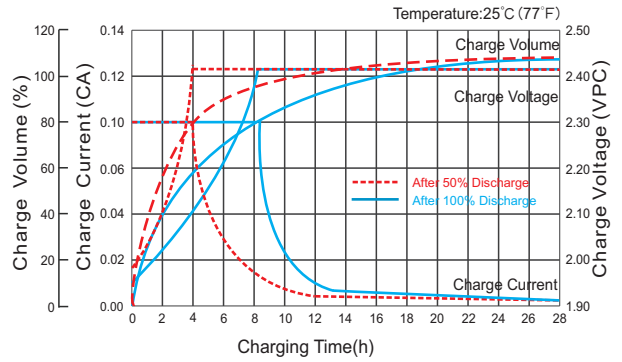
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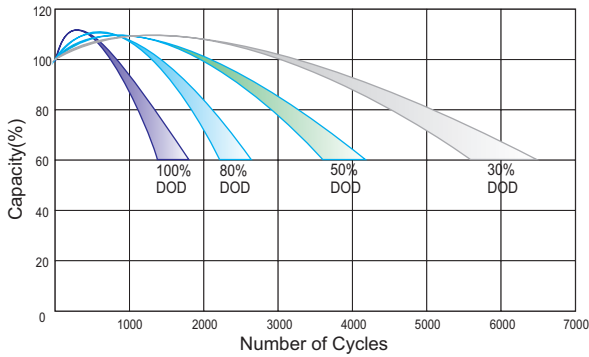
## Discharge Characteristics Curve



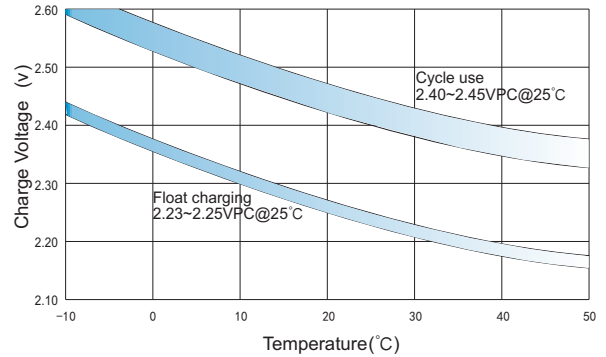
## Charge Characteristic Curve for Cycle Use(IU)



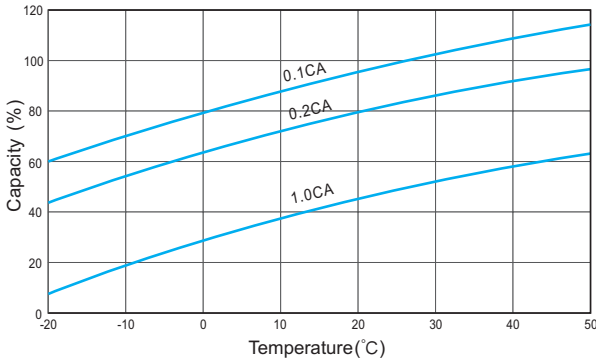
## Cycle Life in Relation to Depth of Discharge



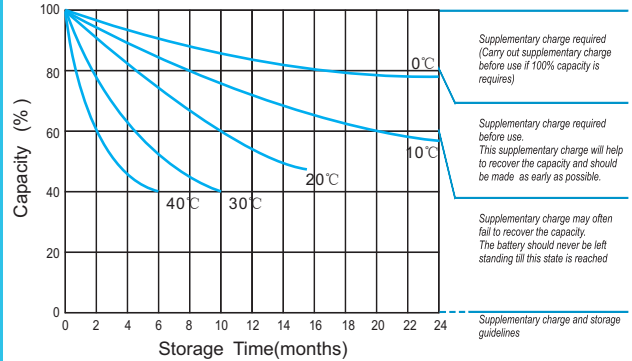
## Relationship Between Charging Voltage and Temperature



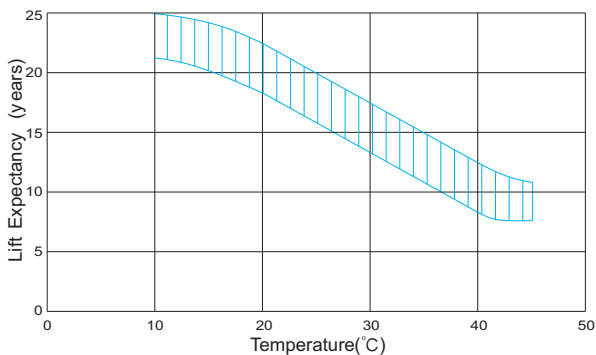
## Temperature Effects on Capacity



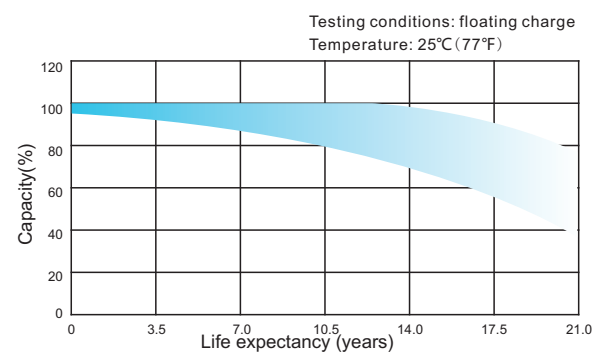
## Storage Characteristics



## 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.