

OPzS2-2500(2V2500Ah)



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.

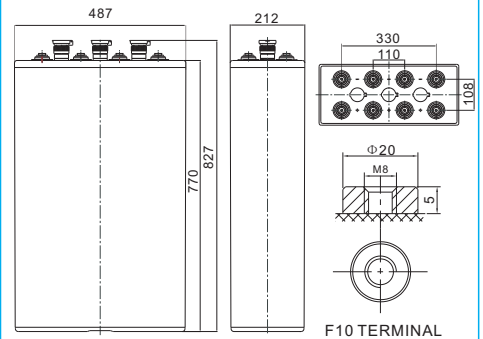
Specification

Cells Per Unit	1
Voltage Per Unit	2V
Nominal Capacity	2500Ah@10hour-rate to 1.80V per cell @25°C
Weight	Without Electrolyte 147.5 kg(Tolerance±5%) With Electrolyte 190.9kg (Tolerance±5%)
Internal Resistance	≤0.13 mΩ (Full Charge Condition @25°C)
Terminal	Default F10(M8)
Max. Discharge Current	8000A (5 sec)
Design Life	20 years
Max. Charging Current	250.0 A
Reference Capacity	C ₃ 1910.4Ah C ₅ 2164.0Ah C ₁₀ 2500.0Ah C ₂₀ 3026.0Ah
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	S.A.N. UL94-HB, UL94-V0 Optional.



Dimensions

Unit: mm



Length	487±2mm (19.2 inches)
Width	212±2mm (8.35 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	2638	1702	1008	733.7	565.7	474.3	413.4	325.2	273.7	157.4
1.65V	2558	1601	974.9	715.8	557.8	467.9	408.1	322.6	271.1	155.9
1.70V	2362	1551	947.6	699.3	548.2	460.7	402.8	320.0	268.4	154.3
1.75V	2120	1448	906.6	677.6	539.2	452.6	394.9	314.7	263.2	151.3
1.80V	1914	1292	839.7	636.8	515.5	432.8	377.8	300.3	250.0	143.8
1.85V	1596	1107	751.0	578.1	475.8	400.2	350.2	280.6	234.2	134.7

Constant Power Discharge Characteristics : W/Cell(25°C)

F.V/ Time	30min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.60V	4463	2902	1842	1375	1093	918.5	803.0	637.3	543.7	312.6
1.65V	4388	2779	1792	1347	1079	908.4	795.1	632.1	541.2	311.1
1.70V	4166	2751	1748	1320	1063	896.3	787.2	626.8	536.0	308.2
1.75V	3841	2634	1693	1289	1049	883.4	774.1	618.9	528.4	303.8
1.80V	3564	2412	1589	1222	1005	847.5	743.8	595.3	506.7	291.3
1.85V	3055	2126	1452	1124	931.2	786.6	692.4	561.2	477.3	274.5

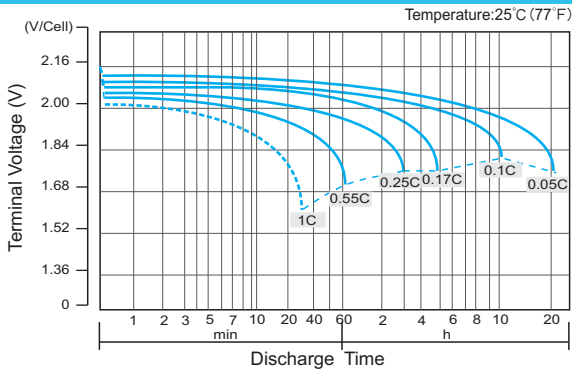
(Note) The above characteristics data are average values obtained within three charge/discharge cycle not the minimum values.

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.

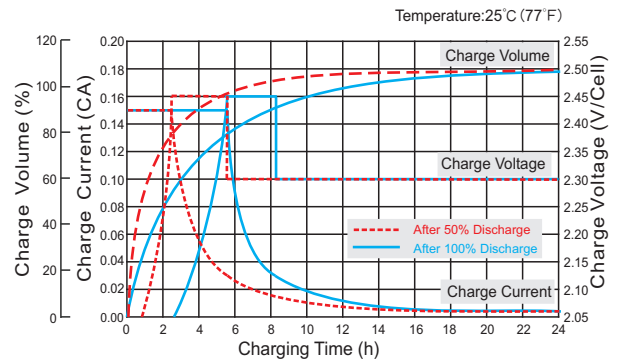
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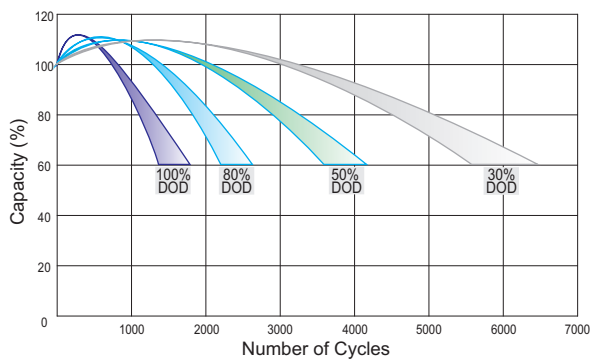
Discharge Characteristics Curve



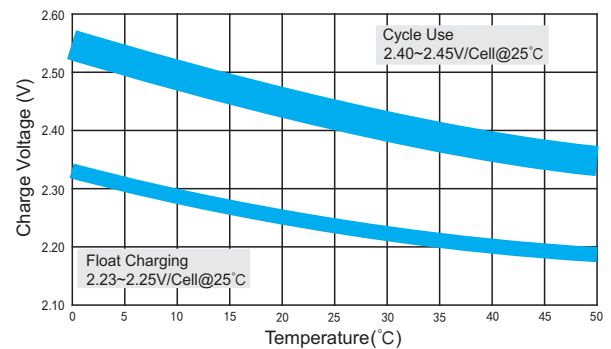
Charge Characteristic Curve for Cycle Use(IUU)



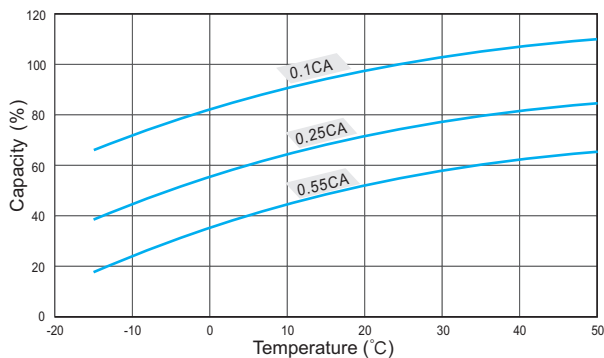
Cycle Life in Relation to Depth of Discharge



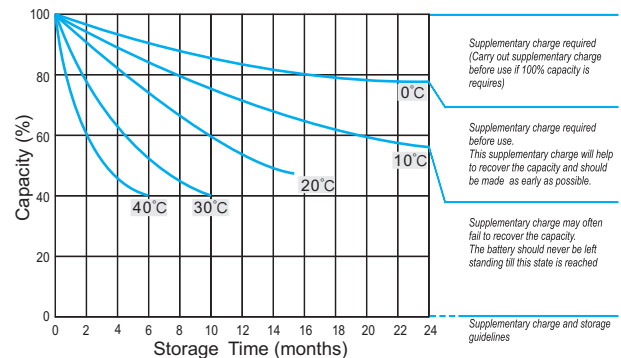
Relationship Between Charging Voltage and Temperature



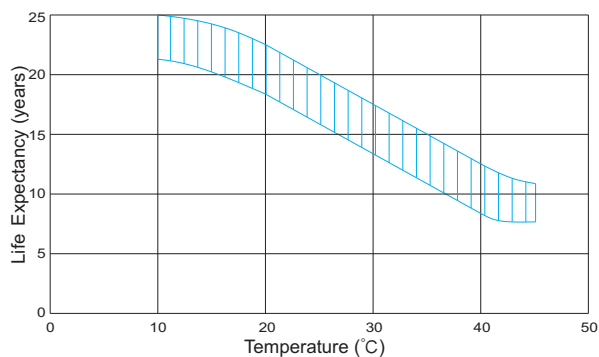
Temperature Effects on Capacity



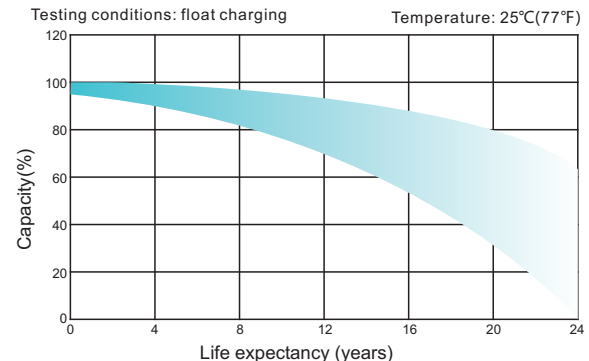
Storage Characteristics



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.