

# OPzV2-1500(2V1500Ah)

OPzV series is 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 patented formula of active material OPzV series exceeds DIN standard values with more than 20 years floating design life at 25 °C and It is the best solution for cyclic use under extreme operating conditions.

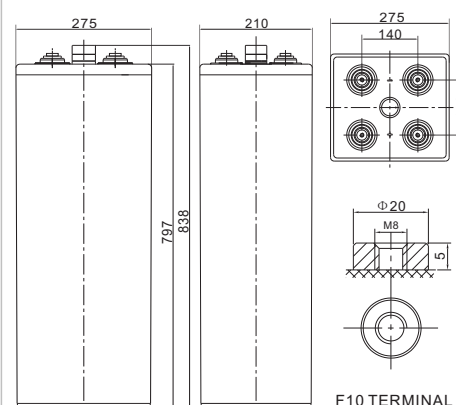


## Specification

<b>Cells Per Unit</b>	1
<b>Voltage Per Unit</b>	2
<b>Nominal Capacity</b>	1500Ah@10hr-rate to 1.80V per cell @25°C
<b>Weight</b>	Approx. 107 Kg (Tolerance ± 3.0%)
<b>Internal Resistance</b>	Approx. 0.45 mΩ
<b>Terminal</b>	F10(M8)
<b>Max. Discharge Current</b>	4500A (5 sec)
<b>Design Life</b>	20 years (floating charge)
<b>Max. Charging Current</b>	300.0 A
<b>Reference Capacity</b>	C3 1152.0AH C5 1301.5AH C10 1500.0AH C20 1602.6AH
<b>Float Charging Voltage</b>	2.25 V~2.30 V @ 25°C Temperature Compensation: -3mV/°C/Cell
<b>Cycle Use Voltage</b>	2.37 V~2.40 V @ 25°C Temperature Compensation: -4mV/°C/Cell
<b>Operating Temperature Range</b>	Discharge: -40°C~60°C Charge: -20°C~50°C Storage: -40°C~60°C
<b>Normal Operating Temperature Range</b>	25°C ± 5°C
<b>Self Discharge</b>	Valve Regulated Lead Acid (VRLA) batteries can be stored for up to 6 months at 25°C and then recharging is recommended. Monthly Self-discharge ratio is less than 2% at 20°C. Please charged batteries before using.
<b>Container Material</b>	A.B.S. UL94-HB, UL94-V0 Optional.

## Dimensions

Unit: mm



Length	275±2mm (10.8 inches)
Width	210±2mm (8.27 inches)
Height	797±2mm (31.3 inches)
Total Height	838±2mm (33 inches)
Torque Value	10~12 N*m

### Constant Current Discharge Characteristics : A(25°C)

F.V/ Time	10min	15min	30min	1h	2h	3h	5h	8h	10h	20h
1.60V	1695	1502	1181	848.9	541.8	403.6	271.0	187.1	156.9	82.36
1.65V	1540	1352	1069	836.0	533.2	398.9	268.4	185.9	155.6	81.70
1.70V	1434	1281	1028	814.7	524.6	391.7	264.2	183.8	154.3	80.98
1.75V	1277	1174	972.3	780.6	511.7	384.0	260.3	181.1	152.6	80.13
1.80V	1079	1049	911.6	750.7	494.5	375.5	255.2	178.1	150.0	78.75
1.85V	877.7	866.1	783.0	669.7	451.6	345.2	236.8	166.5	140.6	73.83

### Constant Power Discharge Characteristics : WPC(25°C)

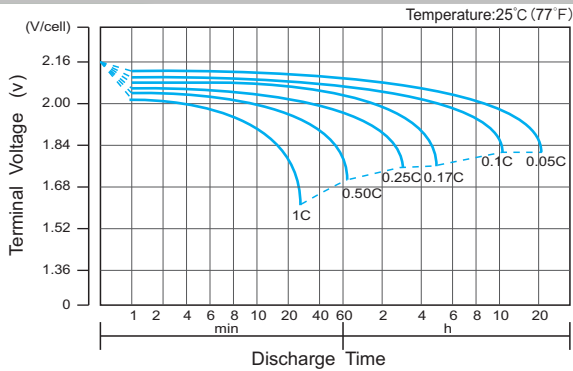
F.V/ Time	10min	15min	30min	1h	2h	3h	5h	8h	10h	20h
1.60V	2737	2420	1993	1591	1028	771.4	525.0	367.0	309.4	162.4
1.65V	2668	2458	1963	1574	1019	767.2	520.6	365.3	307.8	161.6
1.70V	2529	2363	1907	1544	1002	754.3	516.4	361.9	305.1	160.2
1.75V	2294	2197	1820	1493	980.4	741.5	507.8	358.0	302.1	158.6
1.80V	1973	1991	1725	1446	958.9	728.7	499.4	352.8	297.9	156.4
1.85V	1633	1668	1495	1292	877.2	673.3	465.2	330.1	279.4	146.7

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

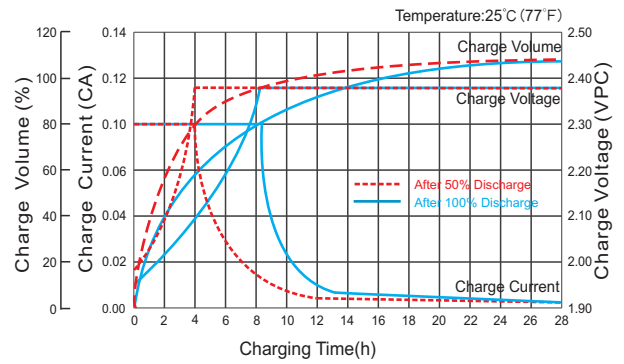
The battery must be fully charged before the capacity test. The C<sub>10</sub> should reach 95% after the first cycle and 100% after the third cycle.

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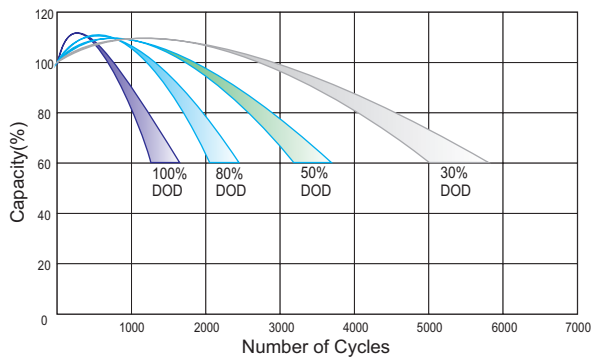
Discharge Characteristics Curve



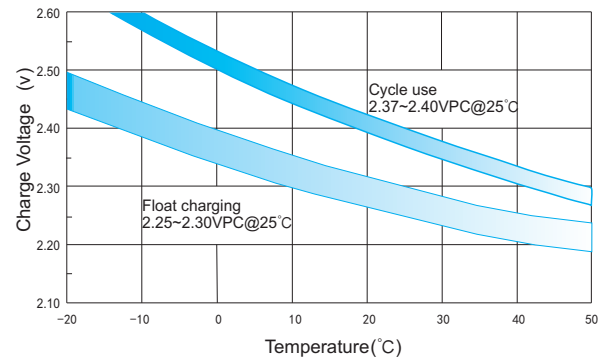
Charge Characteristic Curve for Cycle Use(IU)



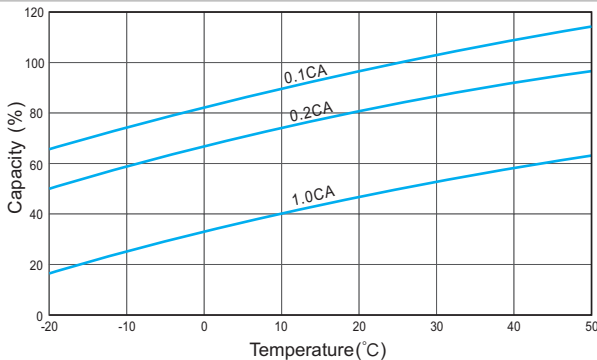
Cycle Life in Relation to Depth of Discharge



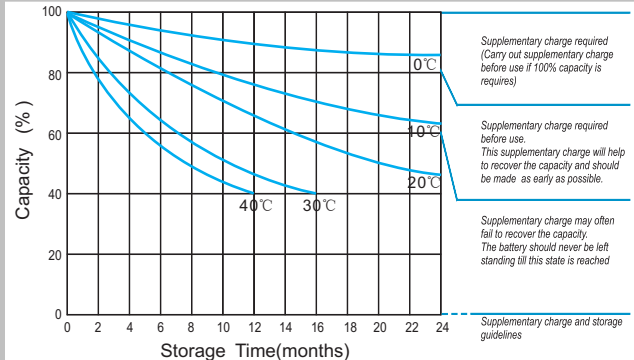
Relationship Between Charging Voltage and Temperature



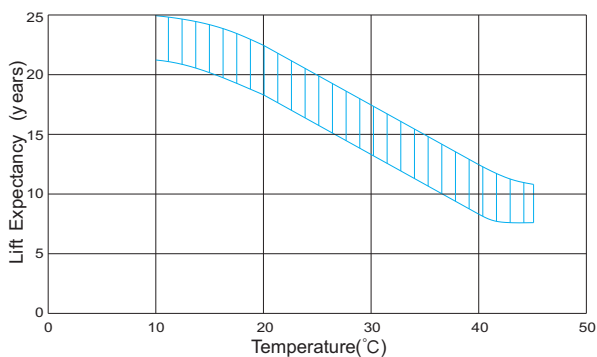
Temperature Effects on Capacity



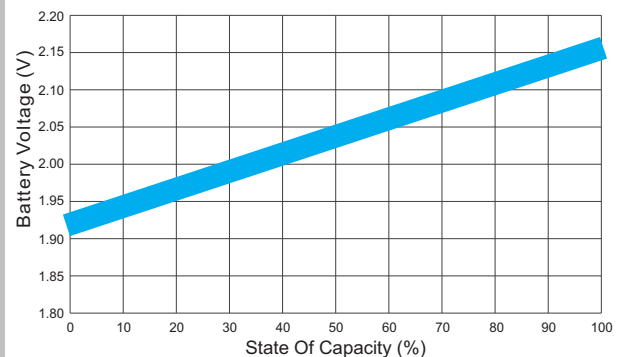
Storage Characteristics



Effect of Temperature on Long Term Life



Relationship of OCV And State of Charge(20°C)



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