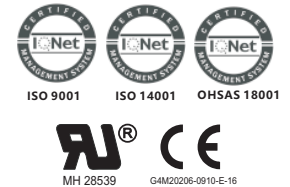


# OPzV2-3000(2V3000Ah)



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.

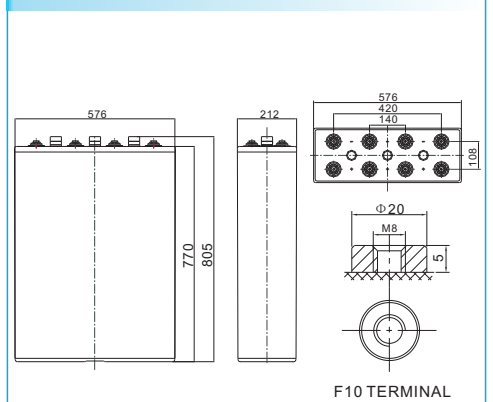


## Specification

<b>Cells Per Unit</b>	1
<b>Voltage Per Unit</b>	2
<b>Nominal Capacity</b>	3000Ah@10hr-rate to 1.80V per cell @25°C
<b>Weight</b>	Approx. 214.0 Kg (Tolerance ±3.0%)
<b>Internal Resistance</b>	Approx. 0.35 mΩ
<b>Terminal</b>	F10(M8)
<b>Max. Discharge Current</b>	12000A (5 sec)
<b>Design Life</b>	20 years (floating charge)
<b>Max. Charging Current</b>	600.0 A
<b>Reference Capacity</b>	C3 2304.3AH C5 2603.0AH C10 3000.0AH C20 3206.0AH
<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>	RITAR 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	576±2mm (22.7 inches)
Width	212±2mm (8.35 inches)
Height	770±2mm (30.3 inches)
Total Height	805±2mm (31.7 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	3391	3005	2362	1698	1084	807.2	542.0	374.3	313.8	164.7
1.65V	3080	2704	2139	1672	1066	797.8	536.8	371.8	311.3	163.4
1.70V	2867	2562	2057	1629	1049	783.4	528.3	367.5	308.5	162.0
1.75V	2554	2348	1945	1561	1023	768.1	520.6	362.3	305.3	160.3
1.80V	2159	2098	1823	1501	989.0	750.9	510.4	356.3	300.0	157.5
1.85V	1755	1732	1566	1339	903.1	690.4	473.6	333.1	281.3	147.7

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

F.V/ Time	10min	15min	30min	1h	2h	3h	5h	8h	10h	20h
1.60V	5475	4841	3985	3182	2055	1543	1050	734.0	618.8	324.8
1.65V	5335	4916	3927	3148	2038	1534	1041	730.5	615.5	323.1
1.70V	5058	4727	3815	3088	2004	1509	1033	723.8	610.3	320.4
1.75V	4588	4393	3639	2986	1961	1483	1016	716.1	604.3	317.2
1.80V	3947	3982	3450	2892	1918	1457	998.7	705.6	595.8	312.8
1.85V	3266	3335	2989	2585	1754	1347	930.3	660.2	558.8	293.3

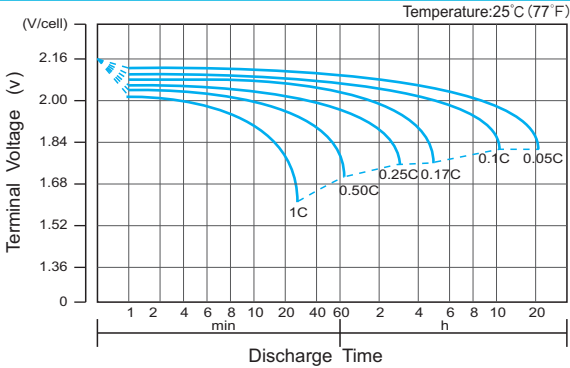
(Note) The above characteristics data are average values obtained within three charge/discharge cycle not the minimum values.

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.

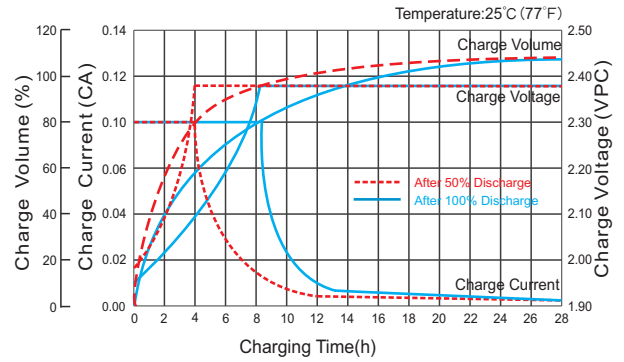
# OPzV2-3000(2V3000Ah)



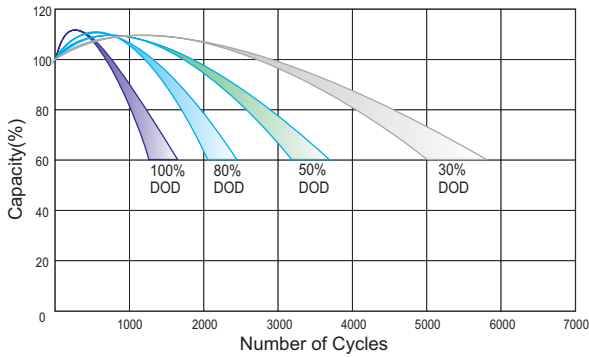
## Discharge Characteristics Curve



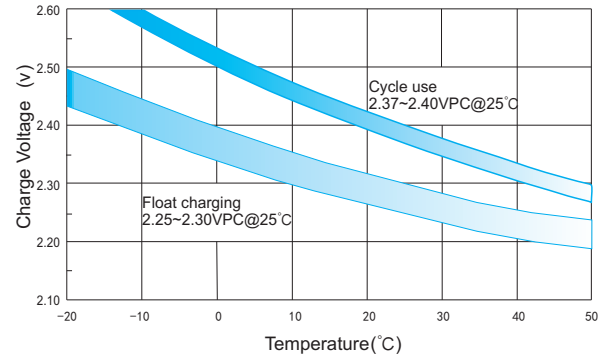
## Charge Characteristic Curve for Cycle Use(IU)



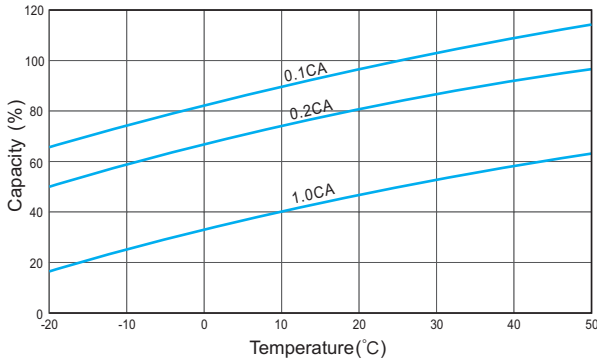
## Cycle Life in Relation to Depth of Discharge



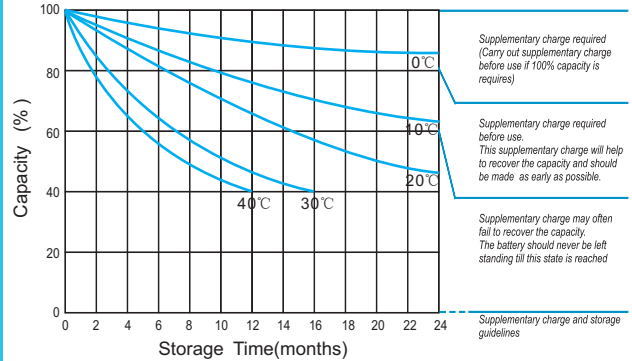
## Relationship Between Charging Voltage and Temperature



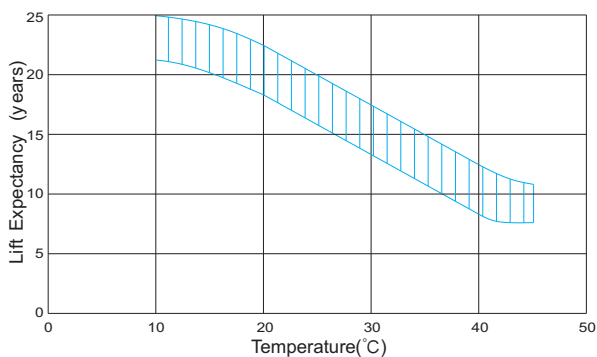
## Temperature Effects on Capacity



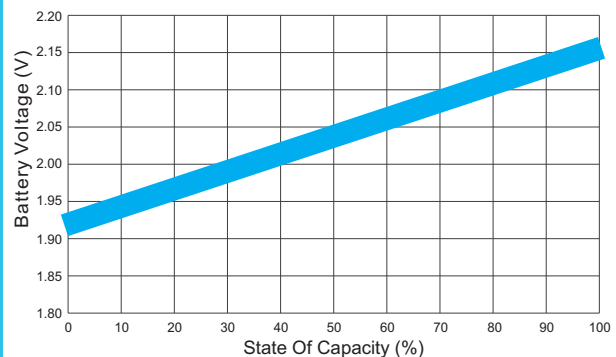
## Storage Characteristics



## 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, Ritar reserves the right to explain and update the latest information.