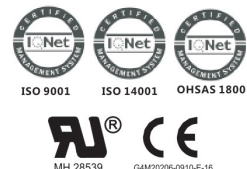


OPzV2-3000 (2V3000Ah)

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 25 years floating design life at 25 °C and It is the best solution for cyclic use under extreme operating conditions.

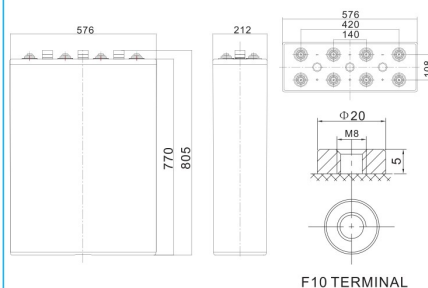
Specification

Cells Per Unit	1
Voltage Per Unit	2
Nominal Capacity	3000Ah@10hr-rate to 1.80V per cell @25°C
Weight	Approx. 214.0 Kg (Tolerance±3.0%)
Internal Resistance	Approx. 0.35 mΩ
Terminal	F10(M8)
Max. Discharge Current	12000A (5 sec)
Design Life	25 years
Max. Charging Current	600.0 A
Reference Capacity	C3 2304.3AH C5 2603.0AH C10 3000.0AH C20 3206.0AH
Float Charging Voltage	2.25 V~2.30 V @ 25°C Temperature Compensation: -3mV/°C/Cell
Cycle Use Voltage	2.37 V~2.40 V @ 25°C Temperature Compensation: -4mV/°C/Cell
Operating Temperature Range	Discharge: -40°C~60°C Charge: -20°C~50°C Storage: -40°C~60°C
Normal Operating Temperature Range	25°C±5°C
Self Discharge	ENERSTAR Valve Regulated Lead Acid(VRLA) batteries can be stored for up to 6 month at 25°C and then recharging is recommended. Monthly Self-discharge ratio is less than 2% at 20°C. Please charge batteries before using.
Container Material	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

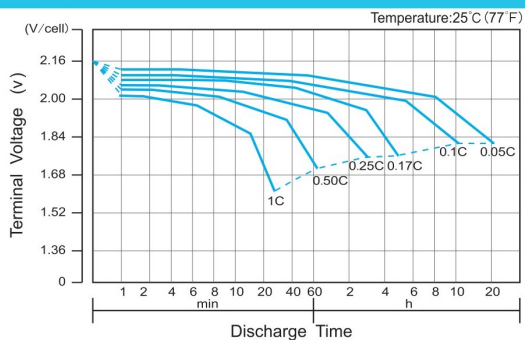
Constant Power Discharge Characteristics : WPC(25°C)

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

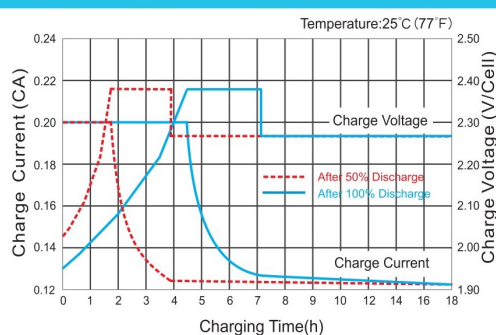
(Note) The above characteristics data are average values obtained within three charge/discharge cycle not the minimum values.

The battery must be fully charged before the capacity test. The C₁₀ should reach 95% after the first cycle and 100% after the third cycle.

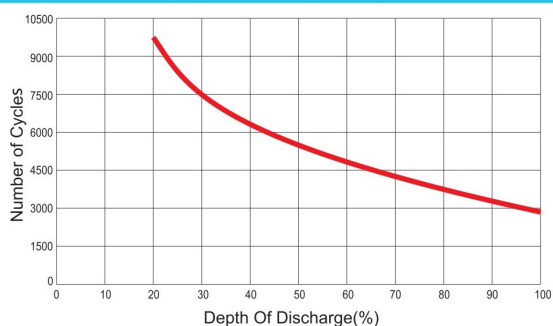
Discharge Characteristics Curve



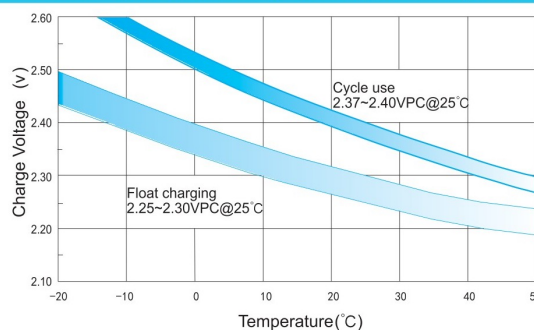
Charge Characteristic Curve for Cycle Use(IUU)



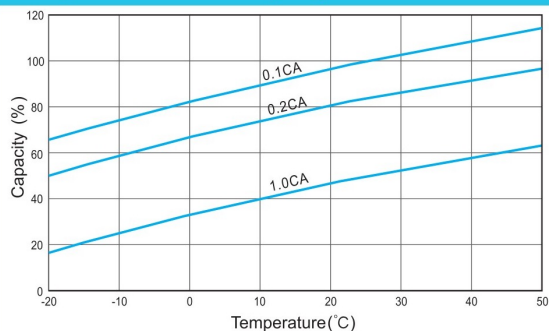
Cycle Life in Relation to Depth of Discharge



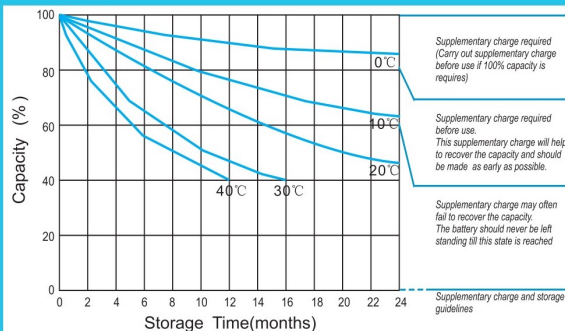
Relationship Between Charging Voltage and Temperature



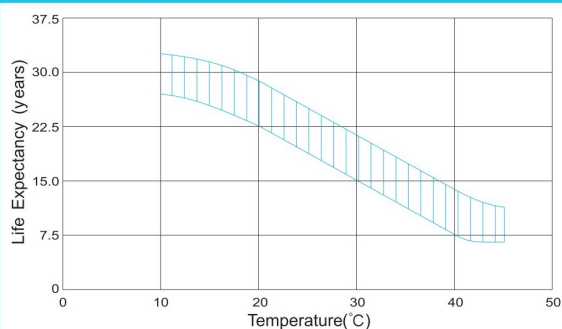
Temperature Effects on Capacity



Storage Characteristics



Effect of Temperature on Long Term Life



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

