

OPzV2-1000 (2V1000Ah)

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.

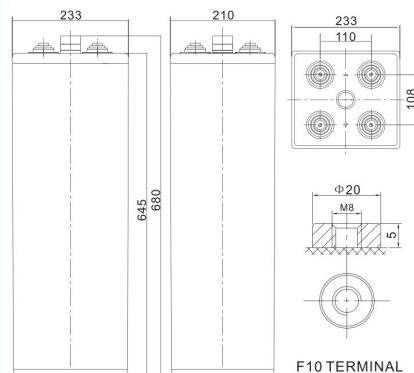
Specification

Cells Per Unit	1
Voltage Per Unit	2
Nominal Capacity	1000Ah@10hr-rate to 1.80V per cell @25°C
Weight	Approx. 73.5 Kg (Tolerance ± 3.0%)
Internal Resistance	Approx. 0.50 mΩ
Terminal	F10(M8)
Max. Discharge Current	3800A (5 sec)
Design Life	25 years
Max. Charging Current	200.0 A
Reference Capacity	C3 767.7AH C5 868.0AH C10 1000.0AH C20 1065.8AH
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	233±2mm (9.17 inches)
Width	210±2mm (8.27 inches)
Height	645±2mm (25.4 inches)
Total Height	680±2mm (26.8 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	1270	1089	811.0	565.9	361.1	268.8	180.6	124.8	104.5	54.86
1.65V	1200	1014	764.0	557.4	355.6	265.9	179.1	123.8	103.5	54.34
1.70V	1119	962.5	735.7	543.0	349.6	260.9	176.1	122.3	103.0	54.08
1.75V	995.6	880.3	695.1	520.5	341.1	255.9	173.6	120.8	101.5	53.29
1.80V	842.4	787.4	650.4	500.5	329.7	250.5	170.1	118.8	100.0	52.50
1.85V	685.6	649.7	558.8	446.6	300.8	230.1	157.7	110.8	93.5	49.09

Constant Power Discharge Characteristics : WPC(25°C)

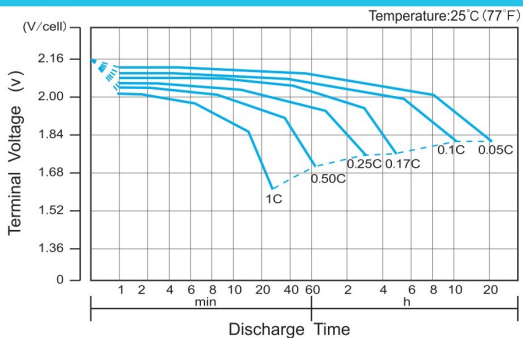
F.V/ Time	10min	15min	30min	1h	2h	3h	5h	8h	10h	20h
1.60V	2135	1838	1423	1061	685.2	514.4	349.7	244.5	206.5	108.4
1.65V	2082	1801	1404	1049	679.3	511.4	347.3	243.5	205.0	107.6
1.70V	1974	1731	1363	1029	667.8	502.9	344.3	241.0	203.5	106.8
1.75V	1790	1609	1300	995.5	653.4	494.5	338.8	238.5	201.5	105.8
1.80V	1540	1458	1231	964.0	639.4	486.1	332.8	235.0	198.5	104.2
1.85V	1275	1222	1067	861.6	584.7	448.9	309.9	220.1	186.5	97.91

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

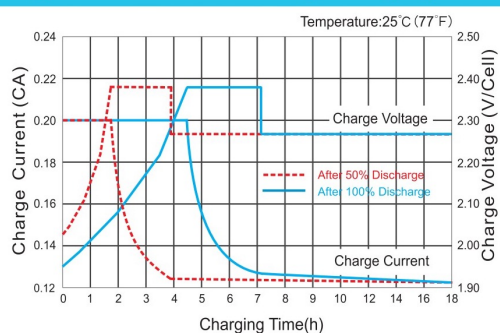
The battery must be fully charged before the capacity test. The C₁₀ should reach 95% after the first cycle and 100% after the third cycle.

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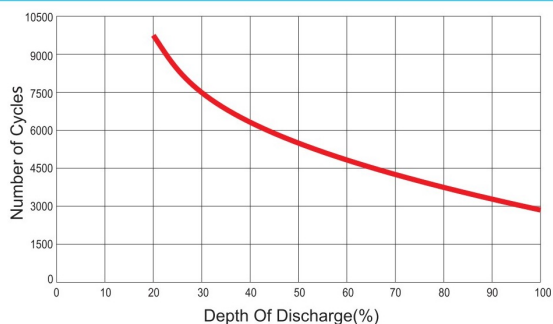
Discharge Characteristics Curve



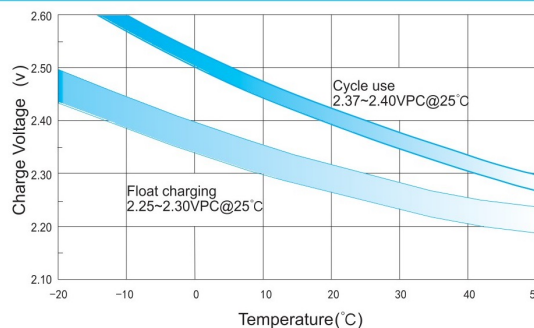
Charge Characteristic Curve for Cycle Use(IUU)



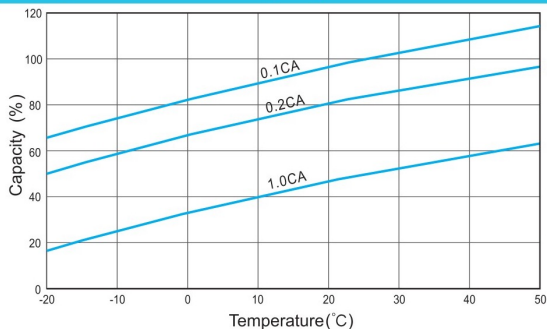
Cycle Life in Relation to Depth of Discharge



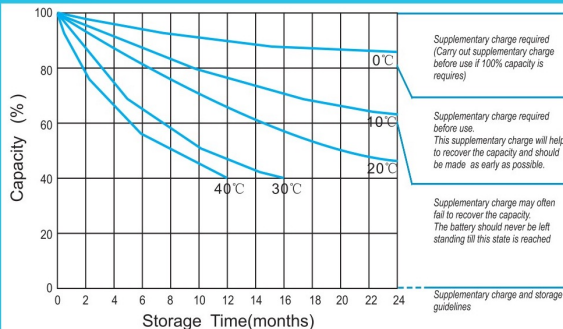
Relationship Between Charging Voltage and Temperature



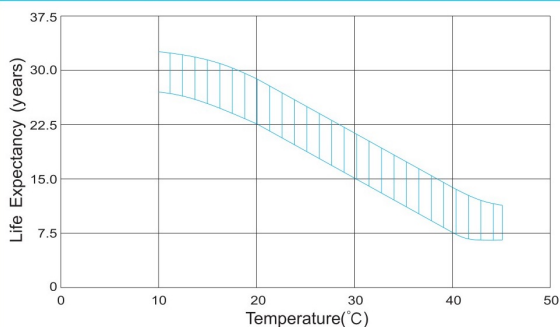
Temperature Effects on Capacity



Storage Characteristics



Effect of Temperature on Long Term Life



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

