OPzV2-2500(2V2500Ah)

RITAR®

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℃ and It is the best solution for cyclic use under extreme operating conditions.

ISO 9001 ISO 14001 ISO 45001

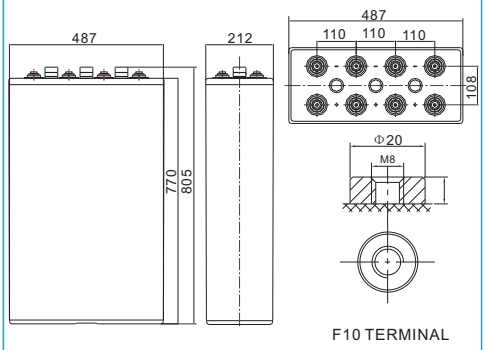
MH 28539 BSTXD2103160085 11EC

Specification

Cells Per Unit	1
Voltage Per Unit	2V
Nominal Capacity	2500Ah@10hour-rate to 1.80V per cell @25℃
Weight	Approx. 176.0Kg (Tolerance±5%)
Internal Resistance	≤0.43 mΩ(Full Charge Condition @25℃)
Terminal	Default F10(M8)
Max. Discharge Current	10000A (5 sec)
Design Life	25 years
Max. Charging Current	500.0 A
Reference Capacity	C_3 1875.0Ah C_5 2125.0Ah C_{10} 2500.0Ah C_{20} 2678.0Ah
Float Charging Voltage	2.23 V~2.25 V @ 25℃ Temperature Compensation: -3mV/℃/Cell
Cycle Use Voltage	2.37 V~2.40 V @ 25℃ Temperature Compensation: -4mV/℃/Cell
Operating Temperature Range	Discharge: -40℃~60℃ Charge: 0℃~50℃ Storage: -40℃~60℃
Normal Operating Temperature Range	25℃±5℃
Self Discharge	RITAR Valve Regulated Lead Acid (VRLA) batteries can be stored for up to 6 months at 25℃ and then recharging is recommended. Monthly Self-discharge ratio is less than 2% at 20℃.Please charged batteries before using.
Container Material	A.B.S. UL94-HB, UL94-V0 Optional.

Dimensions

Unit: mm



F10 TERMINAL

Length	487±2mm (19.2 inches)
Width	212±2mm (8.35 inches)
Height	770±2mm (30.3 inches)
Total Height	805±2mm (31.7 inches)
Torque Value	14~15 N*m

Constant Current Discharge Characteristics :A(25℃)

F.V/ Time	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR	24HR	48HR	72HR	100HR
1.60V	1358	884.5	672.5	535.0	452.5	312.5	262.5	137.8	118.1	62.3	43.8	32.8
1.65V	1337	872.2	665.0	529.1	447.5	310.0	260.0	136.5	117.0	61.8	43.0	32.5
1.70V	1303	857.5	652.5	519.7	440.0	305.0	257.5	135.2	115.9	61.2	42.6	32.2
1.75V	1248	835.5	640.0	511.9	435.0	302.5	255.0	133.9	114.8	60.6	42.1	31.9
1.80V	1200	808.5	625.0	500.0	425.0	297.5	250.0	131.3	112.5	59.4	41.3	31.3
1.85V	1073	737.5	575.0	462.5	395.0	277.5	235.0	123.4	105.8	55.8	38.8	29.4

Constant Power Discharge Characteristics : W/Cell(25℃)

F.V/ Time	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR	24HR	48HR	72HR	100HR
1.60V	2365	1626	1282	1028	873.5	609.1	513.4	271.9	231.0	121.9	85.6	64.2
1.65V	2349	1612	1273	1020	866.9	605.9	509.8	269.7	229.4	121.1	84.3	63.7
1.70V	2311	1593	1253	1006	855.2	597.9	506.2	267.4	227.8	120.2	83.7	63.3
1.75V	2233	1560	1234	994.0	848.4	594.6	502.5	265.2	226.1	119.3	83.1	62.8
1.80V	2167	1517	1210	974.5	831.7	586.4	493.9	260.3	222.2	117.3	81.6	61.7
1.85V	1954	1391	1117	904.7	775.6	548.6	465.4	245.0	209.4	110.5	76.9	58.2

(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_{10} should reach 95% after the first cycle and 100% after the third cycle.

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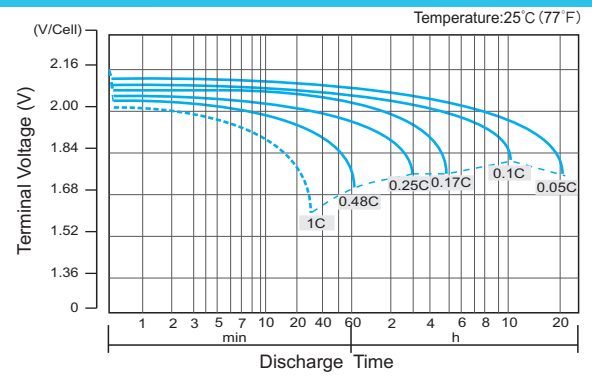
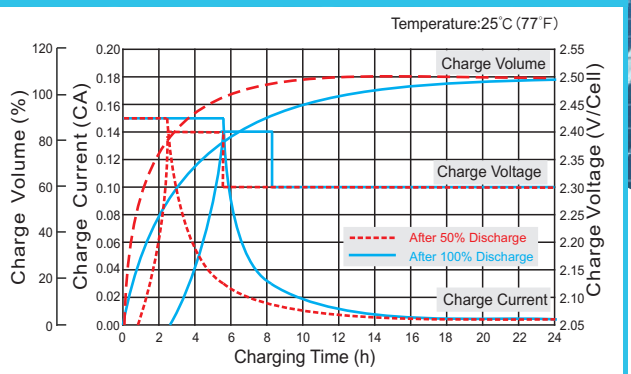
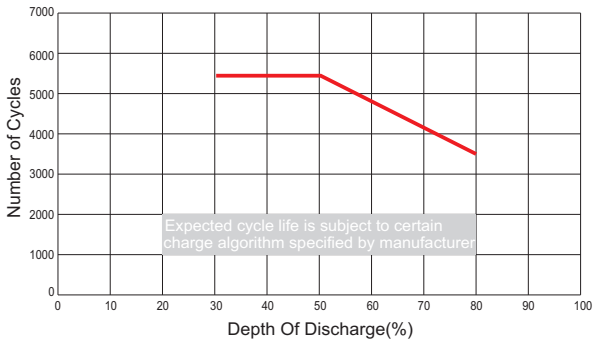
Discharge Characteristics Curve



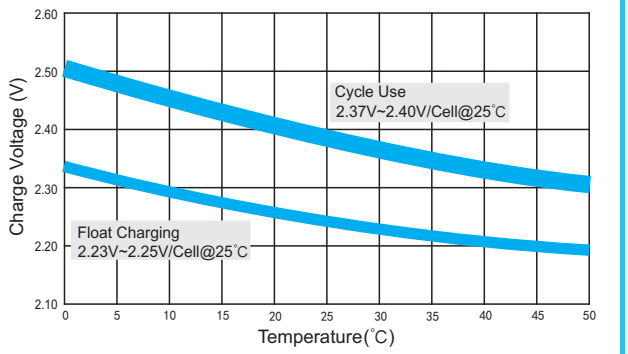
Charge Characteristic Curve for Cycle Use(IUU)



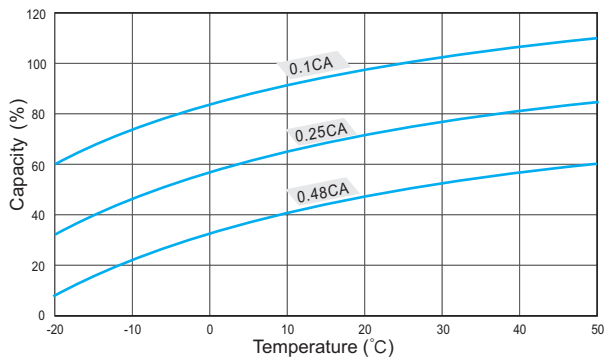
Cycle Life in Relation to Depth of Discharge



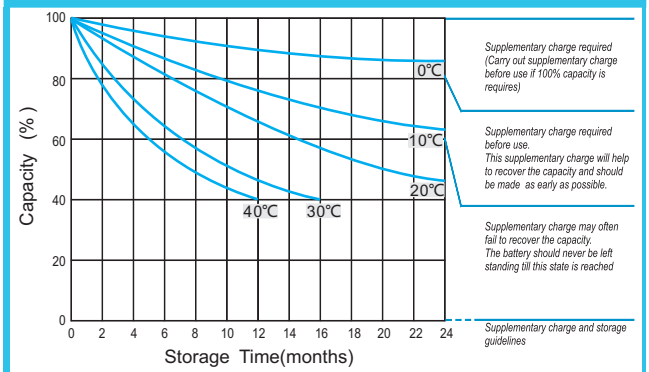
Relationship Between Charging Voltage and Temperature



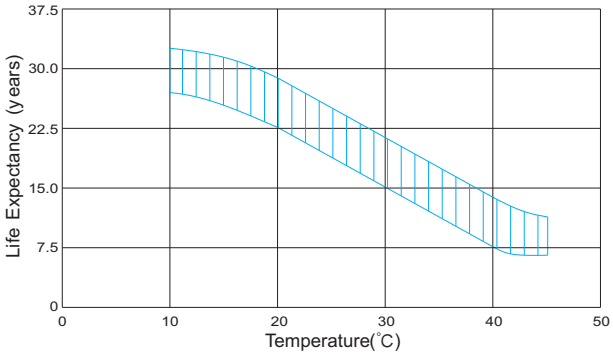
Temperature Effects on Capacity



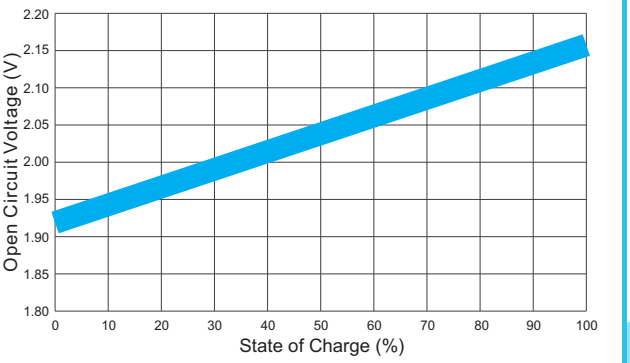
Storage Characteristics



Effect of Temperature on Long Term Life



Relationship of OCV And State of Charge(20℃)



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

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