OPzV12-80(12V80Ah)

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



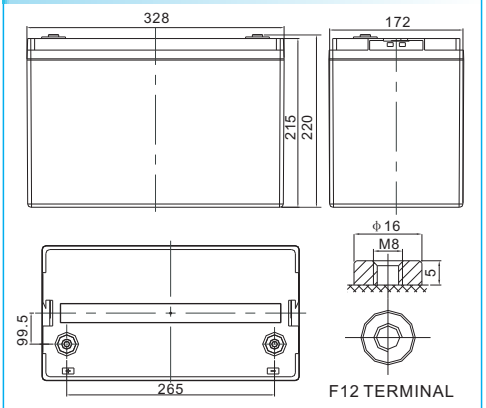
ISO 9001 ISO 14001 ISO 45001 MH 28539 BSTXD210316008511EC

Specification

Cells Per Unit	6
Voltage Per Unit	12V
Nominal Capacity	80Ah@10hour-rate to 1.80V per cell @25℃
Weight	Approx. 27.5Kg (Tolerance±5%)
Internal Resistance	≤10.0 mΩ(Full Charge Condition @25℃)
Terminal	Default F12(M8)
Max. Discharge Current	800A (5 sec)
Design Life	20 years
Max. Charging Current	16.0 A
Reference Capacity	C_3 60.0Ah C_5 68.0Ah C_{10} 80.0Ah C_{20} 85.6Ah
Float Charging Voltage	13.38 V~13.50 V @ 25℃ Temperature Compensation: -3mV/℃/Cell
Cycle Use Voltage	14.20 V~14.40 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



Length	328±2mm (12.9 inches)
Width	172±2mm (6.77 inches)
Height	215±2mm (8.46 inches)
Total Height	220±2mm (8.66 inches)
Torque Value	10~12 N*m

Constant Current Discharge Characteristics :A(25℃)

F.V/ Time	30MIN	45MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	61.4	50.7	43.5	28.9	21.5	17.1	14.5	10.0	8.40	4.41
1.65V	59.2	49.4	42.8	28.5	21.3	16.9	14.3	9.92	8.32	4.37
1.70V	56.6	47.7	41.7	28.0	20.9	16.6	14.1	9.76	8.24	4.33
1.75V	52.9	45.1	39.9	27.3	20.5	16.4	13.9	9.68	8.16	4.28
1.80V	49.2	42.7	38.4	26.4	20.0	16.0	13.6	9.52	8.00	4.20
1.85V	43.8	38.1	34.3	24.1	18.4	14.8	12.6	8.88	7.52	3.95

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

F.V/ Time	30MIN	45MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	108.3	90.8	78.8	54.2	41.0	32.9	28.0	19.5	16.4	8.70
1.65V	105.8	89.5	78.3	53.7	40.7	32.6	27.7	19.4	16.3	8.63
1.70V	102.4	87.3	77.0	53.1	40.1	32.2	27.4	19.1	16.2	8.56
1.75V	97.0	83.5	74.4	52.0	39.5	31.8	27.1	19.0	16.1	8.49
1.80V	91.3	79.9	72.2	50.6	38.7	31.2	26.6	18.8	15.8	8.33
1.85V	82.4	72.1	65.1	46.3	35.8	28.9	24.8	17.6	14.9	7.84

(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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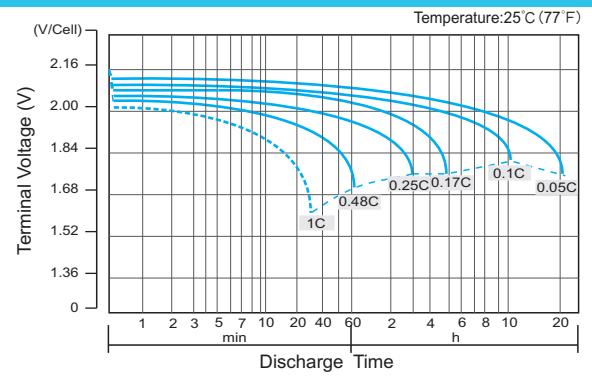
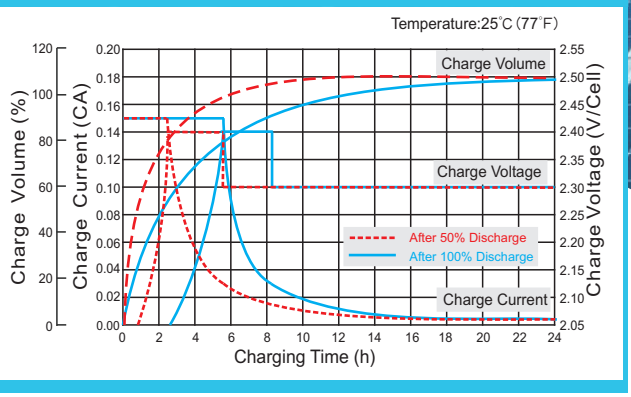
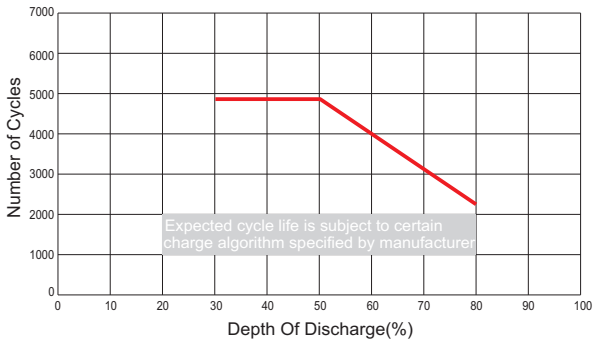
Discharge Characteristics Curve



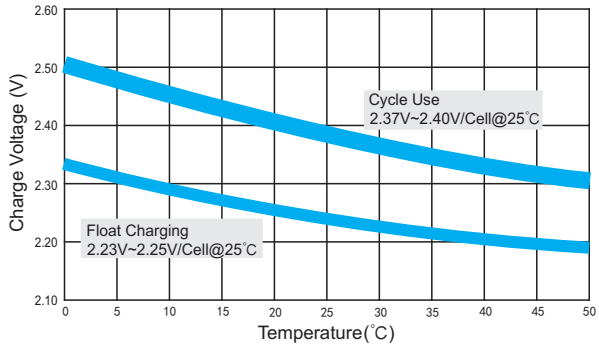
Charge Characteristic Curve for Cycle Use(IUU)



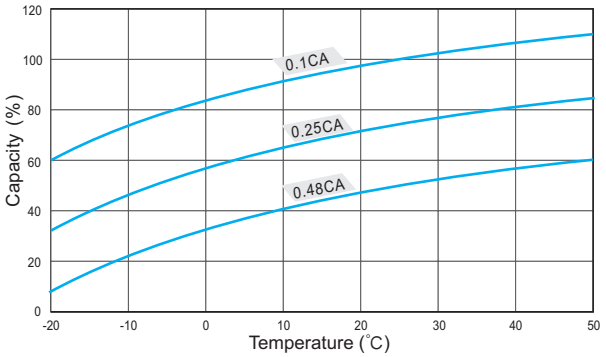
Cycle Life in Relation to Depth of Discharge



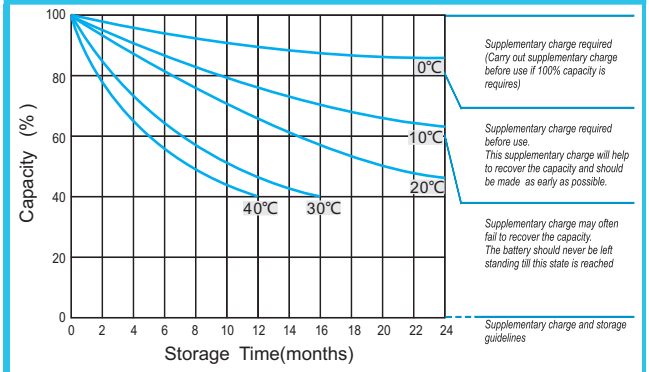
Relationship Between Charging Voltage and Temperature



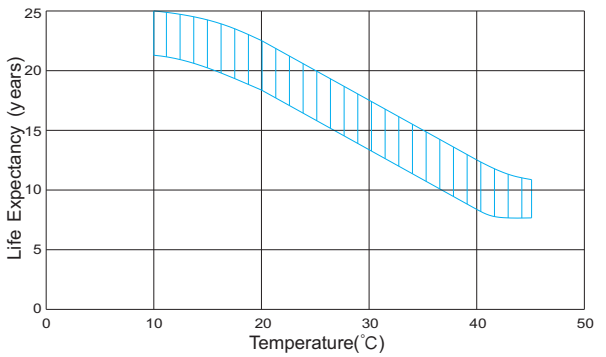
Temperature Effects on Capacity



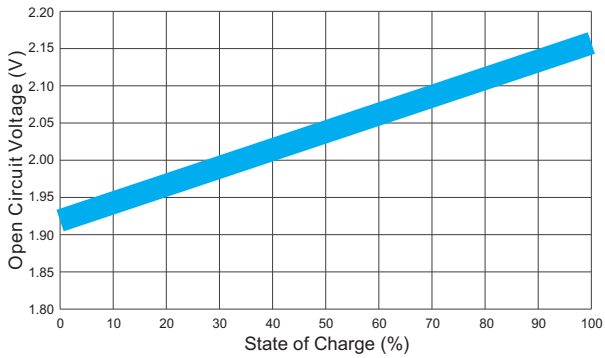
Storage Characteristics



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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