OPzV12-100(12V100Ah)

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

ISO 9001 ISO 14001 OHSAS 18001

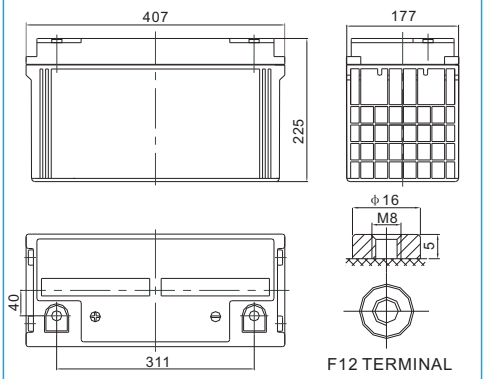
MH 28539 G4M20206-0910-E-16

Specification

Cells Per Unit	6
Voltage Per Unit	2
Nominal Capacity	100Ah@10hr-rate to 1.80V per cell @25℃
Weight	Approx. 34.5Kg (Tolerance±3.0%)
Internal Resistance	Approx. 8.0 mΩ
Terminal	F12(M8)
Max. Discharge Current	1000A (5 sec)
Design Life	18 years (floating charge)
Max. Charging Current	20.0 A
Reference Capacity	C3 78.5AH C5 88.0AH C10 100.0AH C20 107.1AH
Float Charging Voltage	13.5 V~13.8 V @ 25℃ Temperature Compensation: -3mV/℃/Cell
Cycle Use Voltage	14.2 V~14.4 V @ 25℃ Temperature Compensation: -4mV/℃/Cell
Operating Temperature Range	Discharge: -40℃~60℃ Charge: -20℃~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	407±2mm (16.0 inches)
Width	177±2mm (6.97 inches)
Height	225±2mm (8.86 inches)
Total Height	225±2mm (8.86 inches)
Torque Value	10~12 N*m

Constant Current Discharge Characteristics :A(25℃)

F.V/ Time	10min	15min	30min	1h	2h	3h	5h	8h	10h	20h
1.60V	163.7	131.3	86.97	59.88	37.10	28.75	18.90	12.73	10.70	5.618
1.65V	153.4	124.2	83.85	58.11	35.90	28.13	18.50	12.53	10.50	5.513
1.70V	140.3	115.7	80.15	56.15	34.70	27.20	18.10	12.33	10.30	5.408
1.75V	128.4	106.6	74.88	53.21	33.50	26.16	17.60	12.13	10.20	5.355
1.80V	111.9	95.35	69.62	49.98	31.90	25.02	16.99	11.83	10.00	5.250
1.85V	93.12	82.55	62.01	45.57	29.50	23.36	16.19	11.33	9.570	5.024

Constant Power Discharge Characteristics : WPC(25℃)

F.V/ Time	10min	15min	30min	1h	2h	3h	5h	8h	10h	20h
1.60V	256.7	213.0	159.8	113.5	70.90	55.33	36.80	25.16	21.10	11.08
1.65V	250.1	208.7	155.6	110.7	68.90	54.39	36.10	24.76	20.80	10.92
1.70V	237.4	200.6	150.2	107.8	67.00	52.73	35.39	24.46	20.50	10.76
1.75V	215.4	186.2	141.7	102.5	65.00	51.07	34.59	24.06	20.30	10.66
1.80V	185.3	168.8	132.9	96.82	62.10	48.79	33.38	23.46	19.90	10.45
1.85V	153.2	141.6	119.3	88.69	57.60	45.67	31.87	22.46	19.10	10.03

(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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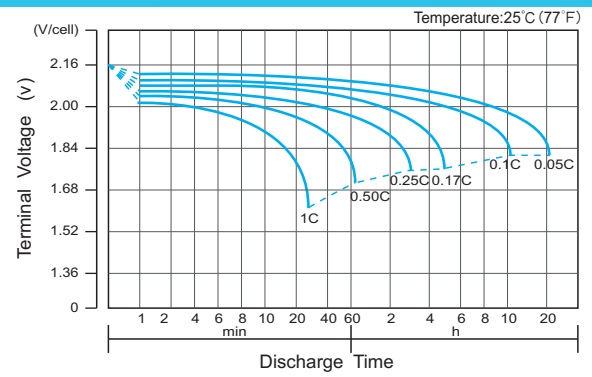
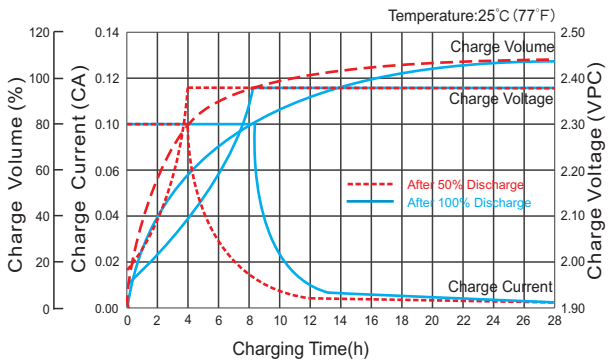
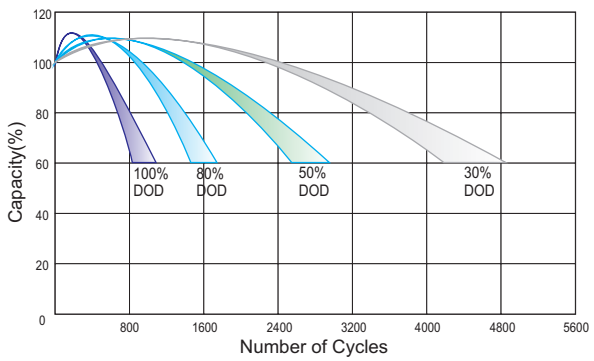
Discharge Characteristics Curve



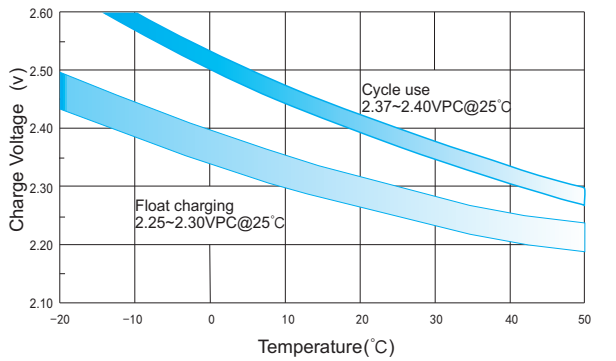
Charge Characteristic Curve for Cycle Use(IU)



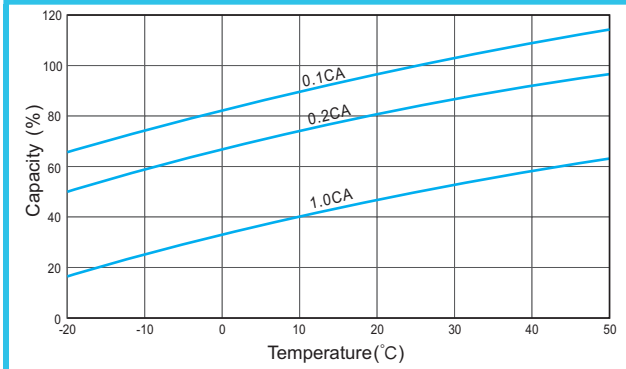
Cycle Life in Relation to Depth of Discharge



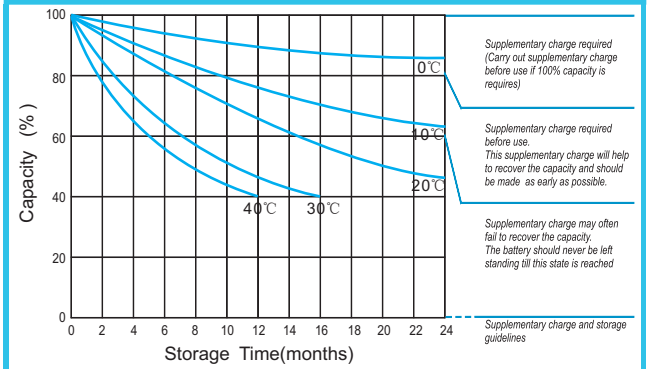
Relationship Between Charging Voltage and Temperature



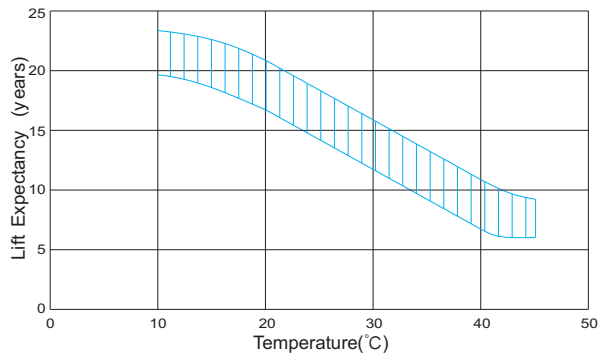
Temperature Effects on Capacity



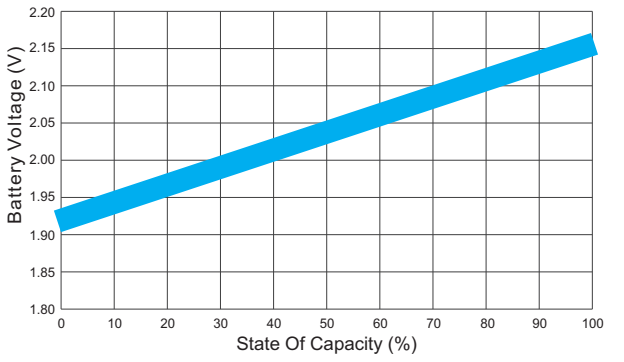
Storage Characteristics



Effect of Temperature on Long Term Life



Relationship of OCV And State of Charge(20℃)



(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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