



RA12-40(12V40Ah)

Specification



RA series is a general purpose battery with 12 years design life in float service. It meets with IEC, JIS, BS, GB/T and YD/T standards. With advanced AGM valve regulated technology and high purity raw material, the RA series battery maintains high consistency for better performance and reliable standby service life. It is suitable for UPS/EPS, Telecom, power grid, medical equipment, emergency light and security system applications.



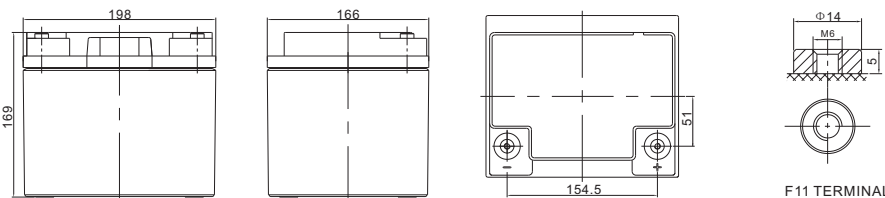
ISO 9001 ISO 14001 ISO 45001



MH 28539 BSTXD210316008513EC

Cells Per Unit	6
Voltage Per Unit	12V
Nominal Capacity	40Ah@10hour-rate to 1.80V per cell @25°C
Weight	Approx. 11.5 Kg (Tolerance ±5.0%)
Internal Resistance	≤10.0 mΩ (Full Charge Condition @25°C)
Terminal	Default F11(M6), F4(M5) Optional
Max. Discharge Current	400A (5 sec)
Short Circuit Current	920A
Design Life	12 years
Max. Charging Current	12.0 A
Reference Capacity	C ₃ 30.0Ah C ₅ 34.0Ah C ₁₀ 40.0Ah C ₂₀ 42.4Ah
Standby Use Voltage	13.6 V~13.8 V @ 25°C Temperature Compensation: -3mV/°C/Cell
Cycle Use Voltage	14.6 V~14.8 V @ 25°C Temperature Compensation: -4mV/°C/Cell
Operating Temperature Range	Discharge: -20°C~60°C Charge: 0°C~50°C Storage: -20°C~60°C
Normal Operating Temperature Range	25°C ±5°C
Self Discharge	RITAR Valve Regulated Lead Acid (VRLA) batteries can be stored for up to 6 months at 25°C and then recharging is recommended. Monthly Self-discharge ratio is less than 3% at 25°C. Please charge batteries before using.
Container Material	A.B.S. UL94-HB, UL94-V0 Optional.

Dimensions



Length	198±2mm (7.80 inches)
Width	166±2mm (6.54 inches)
Height	169±2mm (6.65 inches)
Total Height	169±2mm (6.65 inches)
Terminal	Value
M5	6~7 N*m
M6	8~10 N*m
M8	10~12 N*m

Unit: mm

Constant Current Discharge Characteristics : A (25°C)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	124.3	95.7	73.4	43.4	24.4	14.6	11.3	8.87	7.55	5.07	4.22	2.21
1.65V	119.8	90.4	70.2	41.6	23.6	14.1	10.9	8.63	7.35	5.01	4.17	2.17
1.70V	114.0	83.2	65.7	39.8	22.8	13.6	10.6	8.39	7.16	4.94	4.11	2.15
1.75V	106.5	76.2	61.2	38.0	22.0	13.2	10.3	8.18	6.98	4.87	4.05	2.12
1.80V	97.0	69.0	56.5	36.4	21.2	12.7	10.0	7.94	6.80	4.79	4.00	2.10
1.85V	85.4	56.4	46.9	31.3	19.0	11.6	9.24	7.38	6.34	4.49	3.77	1.99

Constant Power Discharge Characteristics : W/Cell (25°C)

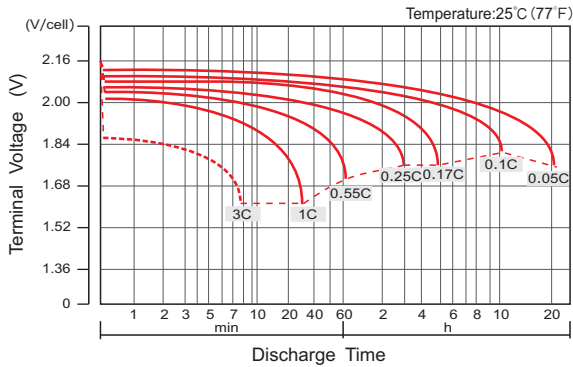
F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	213.9	162.6	128.4	78.8	45.9	27.6	21.5	17.0	14.5	9.90	8.30	4.35
1.65V	211.7	156.6	124.5	76.4	44.6	26.8	21.0	16.6	14.2	9.81	8.21	4.28
1.70V	203.6	146.9	118.4	73.8	43.4	26.1	20.5	16.2	13.9	9.68	8.09	4.24
1.75V	193.6	136.8	111.8	71.2	42.1	25.3	20.0	15.9	13.6	9.57	8.00	4.19
1.80V	179.5	126.0	104.7	68.8	40.7	24.5	19.4	15.5	13.3	9.43	7.90	4.15
1.85V	160.8	104.8	88.1	59.8	36.7	22.6	18.0	14.4	12.4	8.87	7.45	3.95

(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.

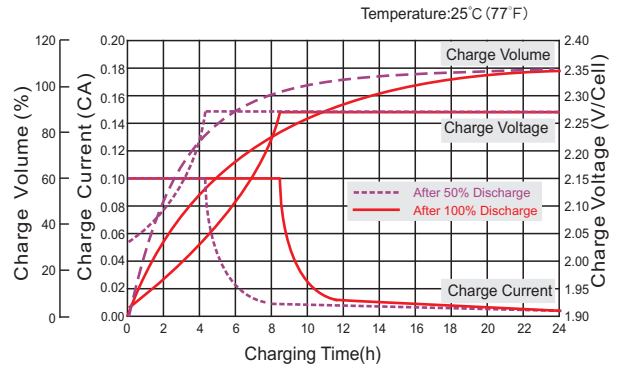
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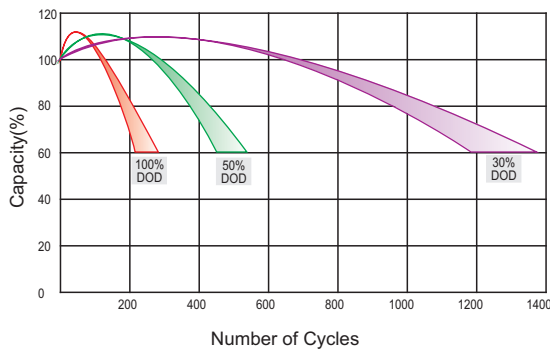
Discharge Characteristics Curve



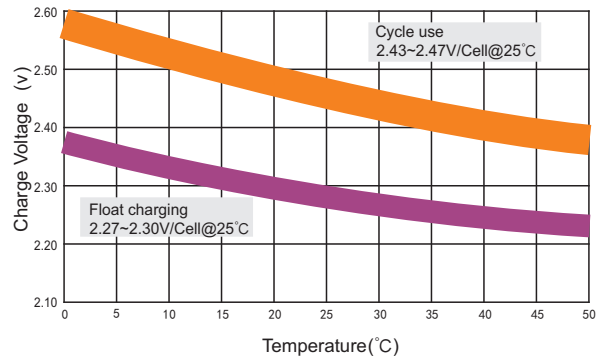
Charge Characteristic Curve For Standby Use(IU)



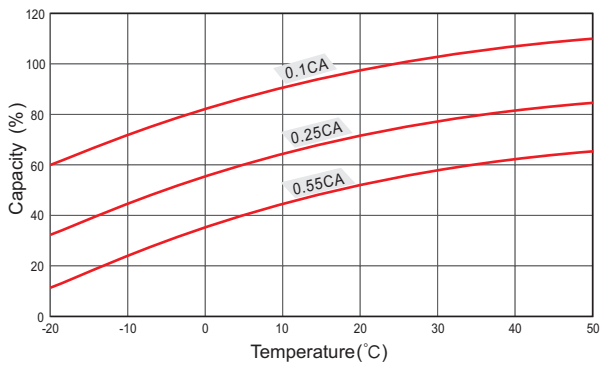
Cycle Life In Relation To Depth Of Discharge



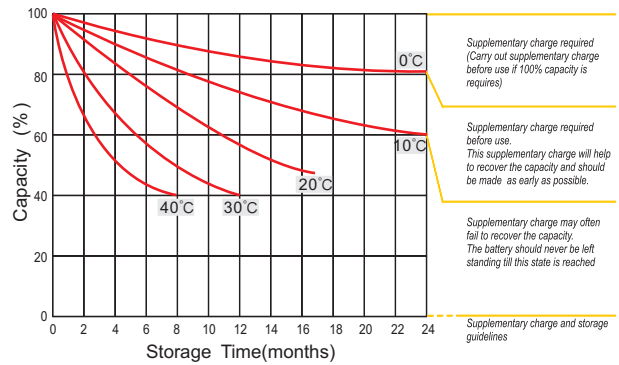
Relationship Between Charging Voltage And Temperature



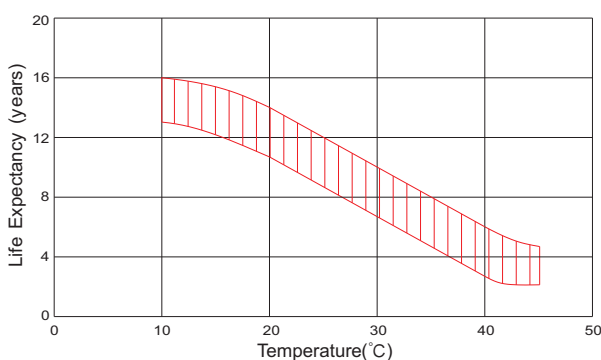
Temperature Effects On Capacity



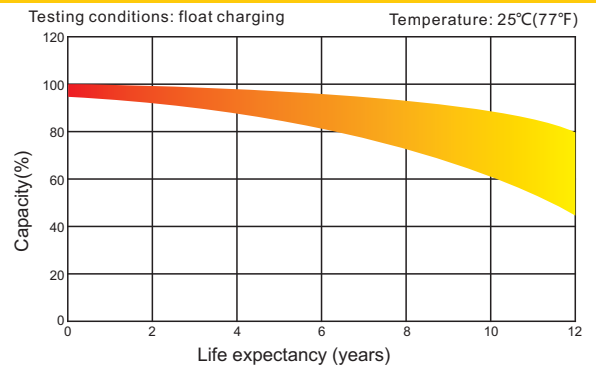
Storage Characteristics



Effect Of Temperature On Long Term Life



Life Characteristics Of Standby Use



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