



RA12-60(12V60Ah)

Specification

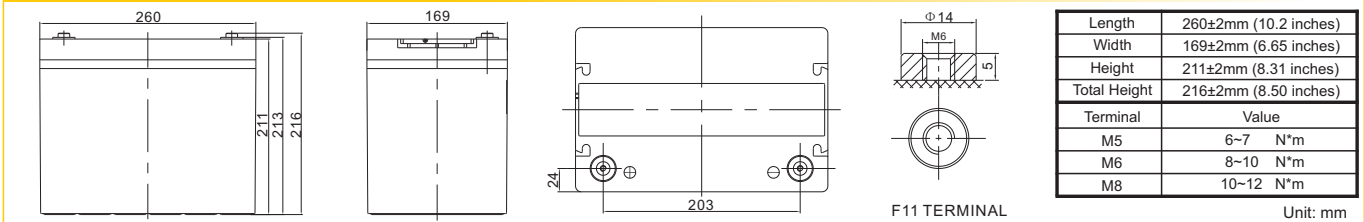


RA series is a general purpose battery with 12 years design life in float service. It meets with IEC, JIS, BS, GB/T and YD/T standards. With advanced AGM valve regulated technology and high purity raw material, the RA series battery maintains high consistency for better performance and reliable standby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



Cells Per Unit	6
Voltage Per Unit	12
Nominal Capacity	60Ah@10hour-rate to 1.80V per cell @25°C
Weight	Approx. 20.5 Kg (Tolerance ±3.0%)
Internal Resistance	Approx. 6.0 mΩ
Terminal	F11(M6)/F15(M6)
Max. Discharge Current	600A (5 sec)
Short Circuit Current	1380A
Design Life	12 years (Float charging)
Max. Charging Current	18.0 A
Reference Capacity	C3 46.4AH C5 52.5AH C10 60.0AH C20 63.6AH
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



Constant Current Discharge Characteristics : A (25°C)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	192.2	146.4	111.2	65.7	36.7	21.8	16.9	13.3	11.3	7.61	6.33	3.31
1.65V	185.3	138.4	106.4	63.1	35.4	21.1	16.4	12.9	11.0	7.52	6.25	3.26
1.70V	176.2	127.4	99.6	60.3	34.3	20.4	16.0	12.6	10.7	7.41	6.16	3.22
1.75V	164.6	116.6	92.7	57.6	33.0	19.7	15.5	12.3	10.5	7.30	6.08	3.18
1.80V	150.0	105.6	85.6	55.1	31.7	19.0	15.0	11.9	10.2	7.18	6.00	3.15
1.85V	132.0	86.3	71.0	47.4	28.5	17.4	13.9	11.1	9.51	6.74	5.65	2.99

Constant Power Discharge Characteristics : WPC (25°C)

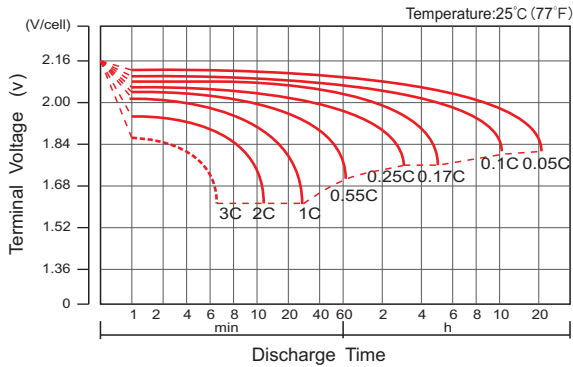
F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	330.8	248.9	194.5	119.3	68.9	41.4	32.3	25.5	21.8	14.9	12.4	6.52
1.65V	327.4	239.8	188.7	115.8	66.9	40.3	31.5	24.9	21.3	14.7	12.3	6.43
1.70V	314.9	224.8	179.4	111.8	65.1	39.2	30.7	24.4	20.9	14.5	12.1	6.36
1.75V	299.4	209.5	169.3	107.9	63.1	38.0	29.9	23.8	20.4	14.4	12.0	6.29
1.80V	277.6	192.9	158.6	104.2	61.1	36.8	29.1	23.2	19.9	14.1	11.9	6.23
1.85V	248.6	160.5	133.5	90.6	55.1	33.9	27.1	21.7	18.7	13.3	11.2	5.92

(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.

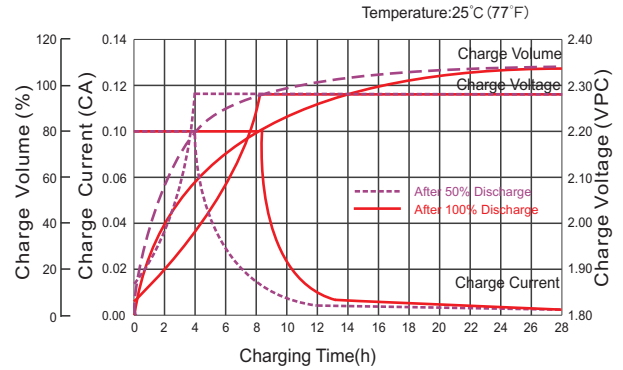
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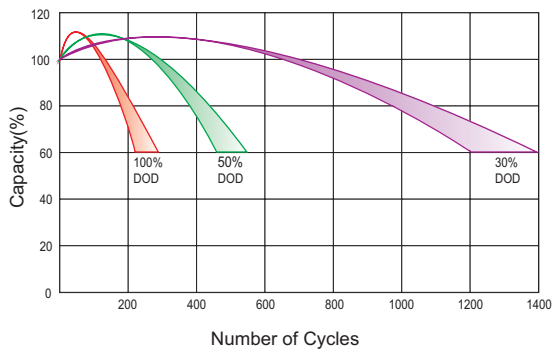
Discharge Characteristics Curve



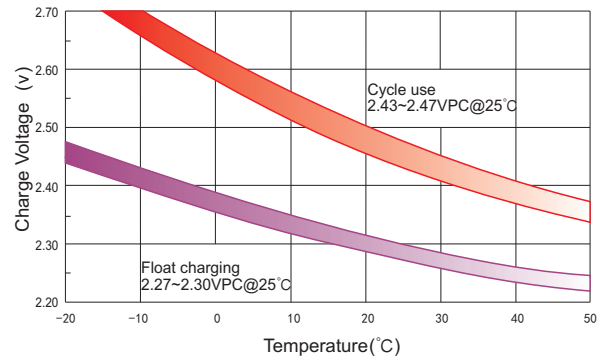
Charge Characteristic Curve For Standby Use



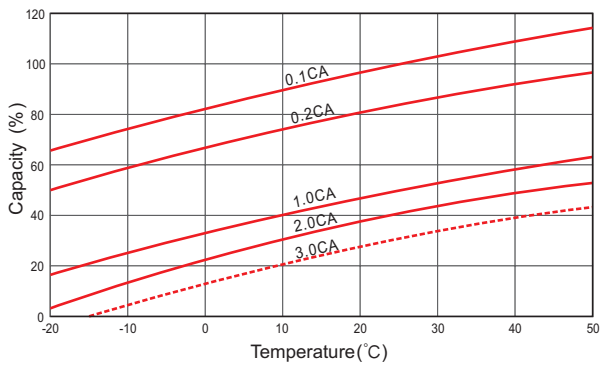
Cycle Life In Relation To Depth Of Discharge



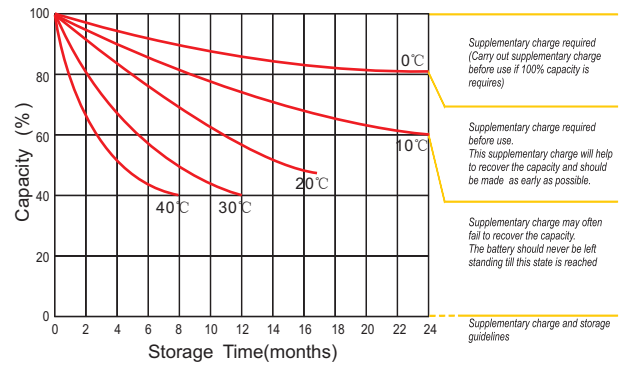
Relationship Between Charging Voltage And Temperature



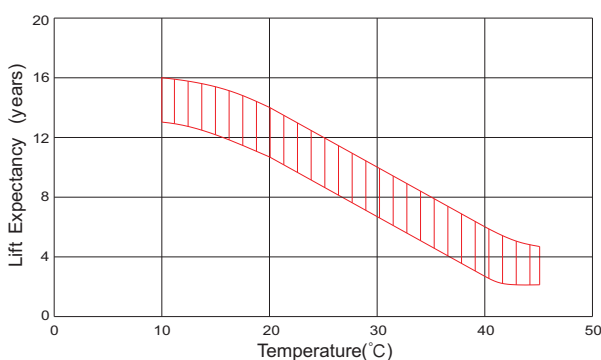
Temperature Effects On Capacity



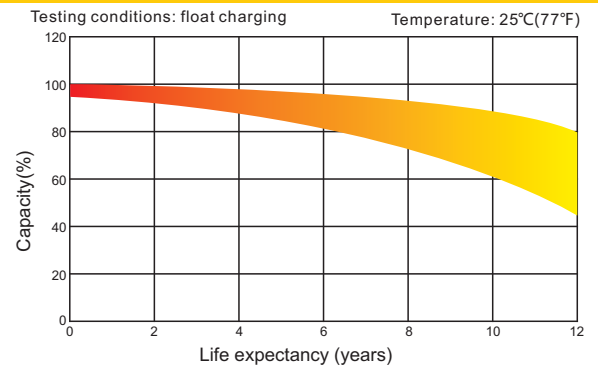
Storage Characteristics



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.