RA12-120S(12V110Ah)

Specification

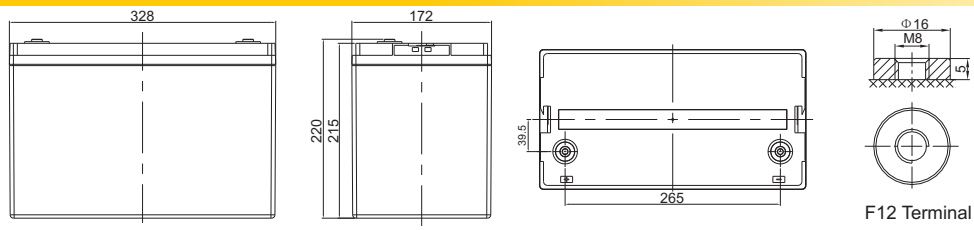
Cells Per Unit	6
Voltage Per Unit	12
Nominal Capacity	110Ah@10hour-rate to 1.80V per cell @25℃
Weight	Approx. 30.5 Kg (Tolerance±3.0%)
Internal Resistance	Approx. 5.0 mΩ
Terminal	F12(M8)
Max. Discharge Current	1100A (5 sec)
Short Circuit Current	2300A
Design Life	12 years (Float charging)
Max. Charging Current	33.0 A
Reference Capacity	C3 85.2AH C5 96.0AH C10 110.0AH C20 116.6AH
Standby Use Voltage	13.6 V~13.8 V @ 25℃ Temperature Compensation: -3mV/℃/Cell
Cycle Use Voltage	14.6 V~14.8 V @ 25℃ Temperature Compensation: -4mV/℃/Cell
Operating Temperature Range	Discharge: -20℃~60℃ Charge: 0℃~50℃ Storage: -20℃~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 3% at 25℃.Please charge batteries before using.
Container Material	A.B.S. UL94-HB, UL94-V0 Optional.

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 OHSAS 18001

MH 28539 G4M20206-0910-E-16

Dimensions



F12 Terminal

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)
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℃)

F.V/Time	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	255.1	200.5	120.5	67.2	40.0	31.0	24.4	20.8	13.9	11.6	6.07
1.65V	241.0	191.7	115.6	64.9	38.8	30.1	23.7	20.2	13.8	11.5	5.97
1.70V	221.9	179.5	110.5	62.8	37.5	29.3	23.1	19.7	13.6	11.3	5.90
1.75V	203.1	167.1	105.6	60.5	36.2	28.4	22.5	19.2	13.4	11.1	5.83
1.80V	183.8	154.3	101.0	58.2	34.9	27.5	21.8	18.7	13.2	11.0	5.77
1.85V	150.3	128.0	87.0	52.2	32.0	25.4	20.3	17.4	12.4	10.4	5.48

Constant Power Discharge Characteristics : WPC (25℃)

F.V/Time	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	433.5	350.5	218.8	126.3	75.9	59.3	46.8	40.0	27.2	22.8	12.0
1.65V	417.6	340.0	212.3	122.7	73.8	57.7	45.7	39.1	27.0	22.6	11.8
1.70V	391.5	323.2	204.9	119.4	71.8	56.4	44.6	38.2	26.6	22.3	11.7
1.75V	364.8	305.2	197.9	115.8	69.6	54.9	43.7	37.4	26.3	22.0	11.5
1.80V	336.0	285.8	191.0	112.0	67.4	53.4	42.6	36.6	25.9	21.7	11.4
1.85V	279.5	240.5	166.2	101.0	62.1	49.6	39.7	34.2	24.4	20.5	10.9

(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.

RA12-120S(12V110Ah)

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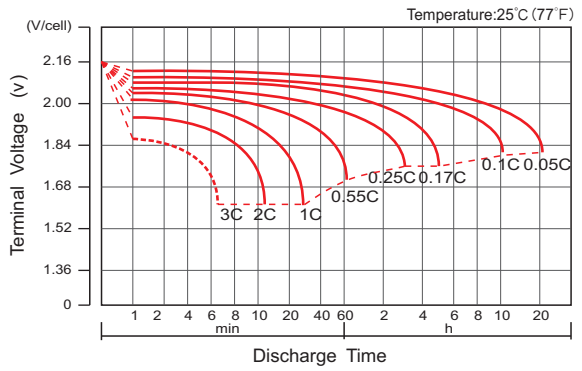
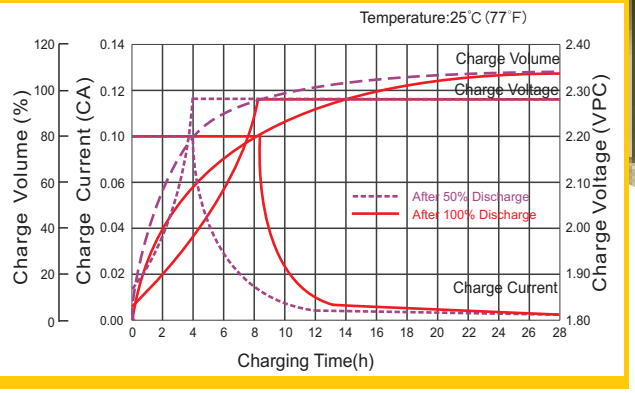
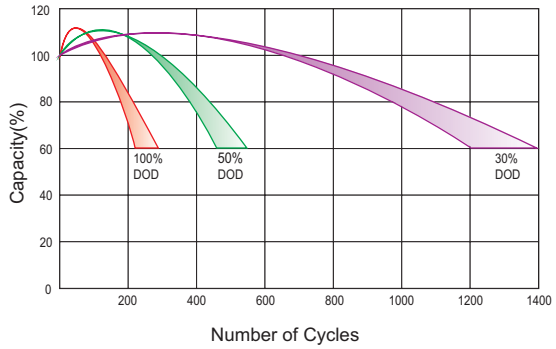
Discharge Characteristics Curve



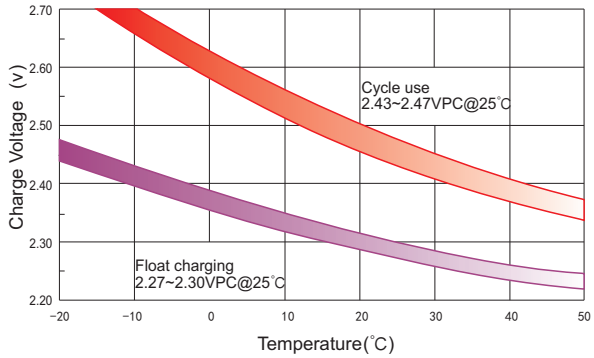
Charge Characteristic Curve For Standby Use



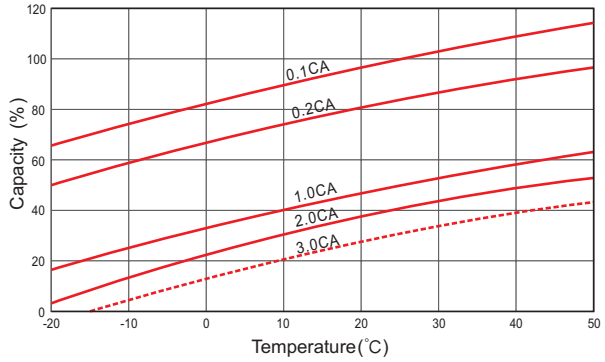
Cycle Life In Relation To Depth Of Discharge



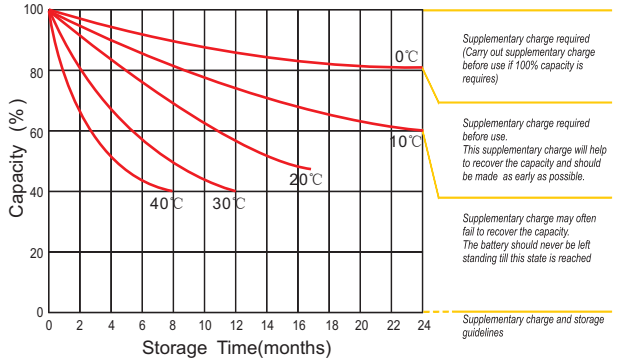
Relationship Between Charging Voltage And Temperature



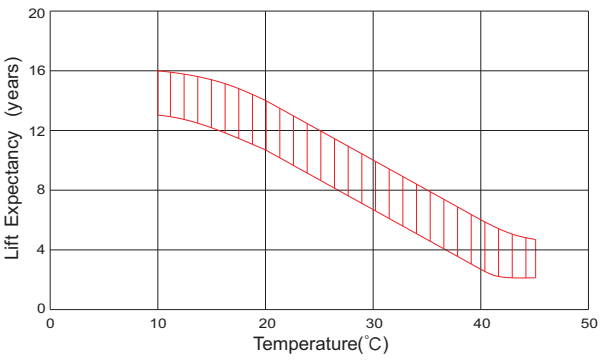
Temperature Effects On Capacity



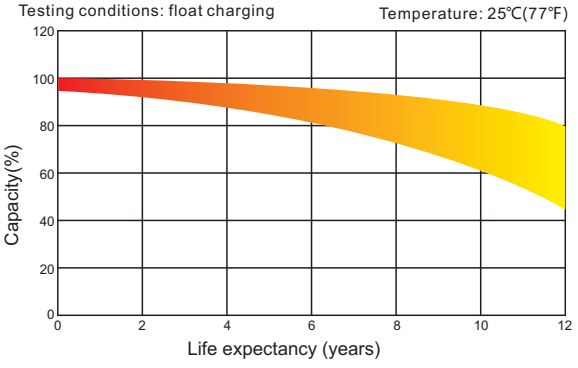
Storage Characteristics



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.

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Version 19A-0