



# RA12-120SA(12V110Ah)

## Specification

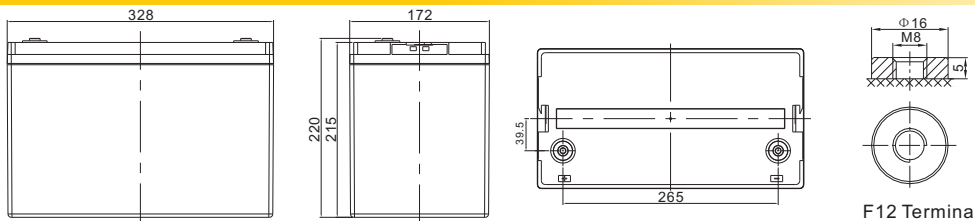
Cells Per Unit	6
Voltage Per Unit	12
Nominal Capacity	110Ah@10hour-rate to 1.80V per cell @25°C
Weight	Approx. 30.5 Kg (Tolerance ±2.0%)
Internal Resistance	Approx. 4.2 mΩ
Terminal	F12(M8)
Max. Discharge Current	1100A (5 sec)
Short Circuit Current	2250A
Design Life	12 years (Float charging)
Recommended Maximum Charging Current	33 A
Reference Capacity	C3 85.5AH C5 98.5AH C10 110.0AH C20 116.4AH
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.



RA series is a general purpose battery with 12 years design life in float service. It meets with IEC, JIS, BS and YDT 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.



## Dimensions



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°C)

F.V/Time	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	251.6	196.0	115.4	68.4	41.0	30.1	24.4	20.6	13.8	11.7	6.01
1.65V	244.1	190.9	112.9	67.1	40.4	29.7	24.1	20.4	13.6	11.6	5.97
1.70V	234.2	184.1	109.5	65.5	39.6	29.2	23.7	20.1	13.5	11.5	5.90
1.75V	221.5	175.4	105.1	63.3	38.5	28.5	23.2	19.7	13.2	11.3	5.82
1.80V	205.3	164.0	99.5	60.4	37.1	27.5	22.5	19.1	12.9	11.0	5.70
1.85V	184.9	149.8	92.2	56.7	35.3	26.3	21.6	18.4	12.5	10.7	5.55

### Constant Power Discharge Characteristics : WPC (25°C)

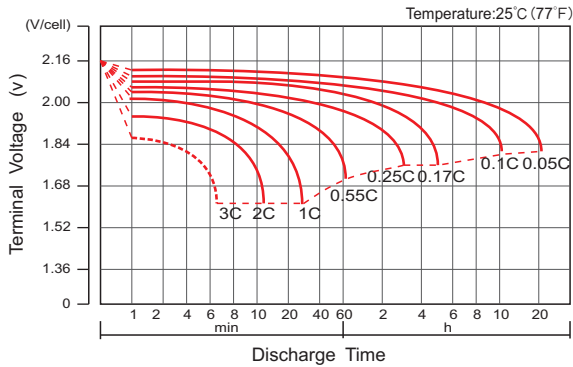
F.V/Time	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	434.0	347.8	212.8	129.8	78.8	58.3	47.6	40.4	27.3	23.4	12.0
1.65V	432.3	345.9	211.2	128.8	78.3	57.9	47.3	40.1	27.1	23.2	11.9
1.70V	419.5	336.5	206.1	126.0	76.9	57.0	46.6	39.6	26.8	22.9	11.8
1.75V	403.8	325.1	199.9	122.4	75.2	55.9	45.7	38.9	26.4	22.6	11.7
1.80V	380.7	308.5	191.0	117.3	72.9	54.3	44.5	37.9	25.8	22.1	11.5
1.85V	349.1	285.6	178.8	110.9	69.7	52.1	42.8	36.6	25.0	21.4	11.2

(Note) The above characteristics data are average values obtained within three charge/discharge cycle not the minimum values.

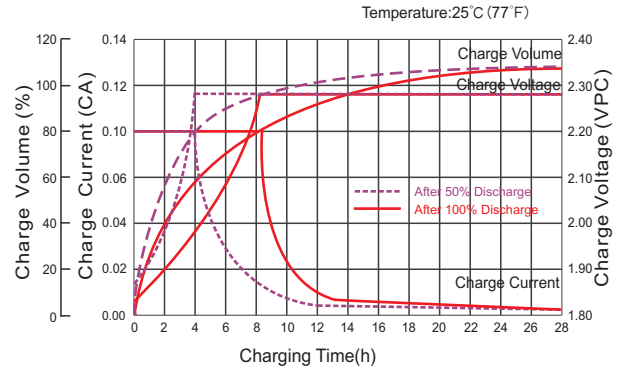
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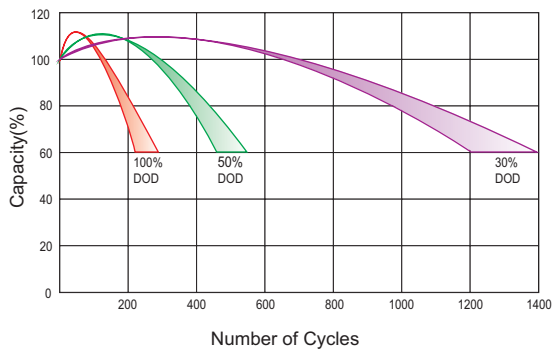
## Discharge Characteristics Curve



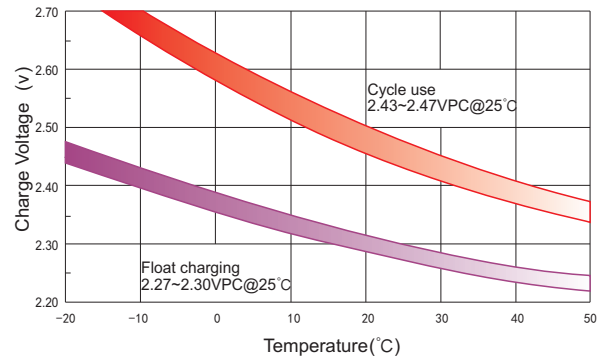
## Charge Characteristic Curve For Standby Use



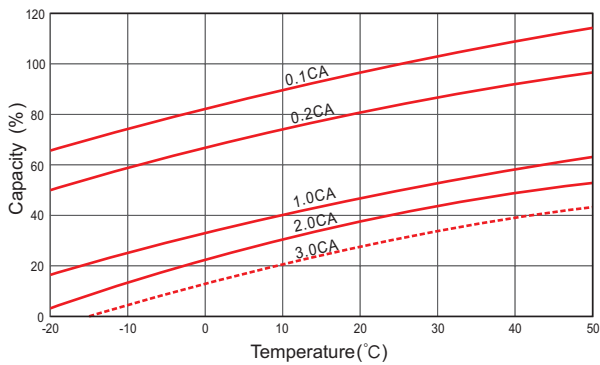
## Cycle Life In Relation To Depth Of Discharge



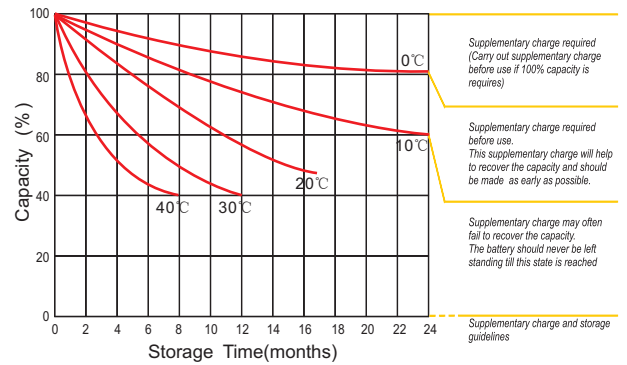
## Relationship Between Charging Voltage And Temperature



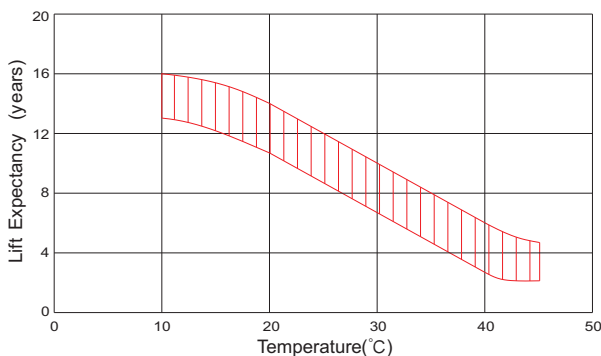
## Temperature Effects On Capacity



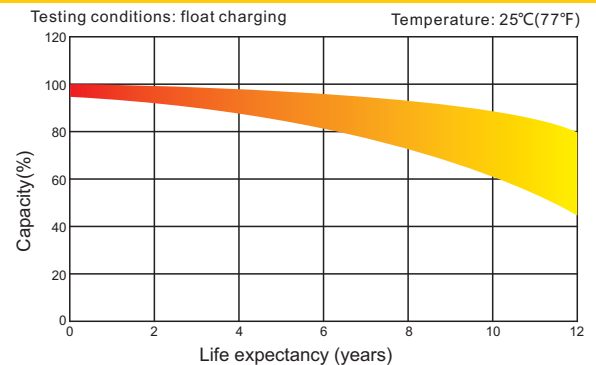
## Storage Characteristics



## Effect Of Temperature On Long Term Life



## Life Characteristics Of Standby Use



For Battery Sales + EPA Battery Recycling and AC / DC Power Services, please contact:

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