



RA12-45(12V45Ah)

Specification

| | |
|--------------------------------------|---|
| Cells Per Unit | 6 |
| Voltage Per Unit | 12 |
| Nominal Capacity | 45Ah@10hour-rate to 1.80V per cell @25°C |
| Weight | Approx. 13.5 Kg (Tolerance ±3.0%) |
| Internal Resistance | Approx. 8.0 mΩ |
| Terminal | F4(M6)/F11(M6) |
| Max. Discharge Current | 450A (5 sec) |
| Short Circuit Current | 1050A |
| Design Life | 12 years (Float charging) |
| Recommended Maximum Charging Current | 13.5 A |
| Reference Capacity | C3 34.9AH C5 40.2AH C10 45.0AH C20 47.6AH |
| 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. |



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 | 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 | 157.9 | 110.5 | 82.41 | 47.69 | 27.99 | 16.77 | 12.31 | 10.00 | 8.44 | 5.64 | 4.80 | 2.46 |
| 1.65V | 152.2 | 107.2 | 80.25 | 46.64 | 27.47 | 16.52 | 12.15 | 9.88 | 8.34 | 5.58 | 4.75 | 2.44 |
| 1.70V | 144.8 | 102.9 | 77.41 | 45.26 | 26.78 | 16.19 | 11.93 | 9.71 | 8.21 | 5.51 | 4.69 | 2.41 |
| 1.75V | 135.2 | 97.33 | 73.71 | 43.45 | 25.88 | 15.76 | 11.64 | 9.49 | 8.04 | 5.41 | 4.61 | 2.38 |
| 1.80V | 123.2 | 90.19 | 68.96 | 41.10 | 24.70 | 15.20 | 11.26 | 9.20 | 7.81 | 5.27 | 4.50 | 2.33 |
| 1.85V | 108.4 | 81.26 | 62.96 | 38.10 | 23.18 | 14.46 | 10.76 | 8.82 | 7.51 | 5.10 | 4.36 | 2.27 |

Constant Power Discharge Characteristics : WPC (25°C)

| F.V/Time | 5MIN | 10MIN | 15MIN | 30MIN | 1HR | 2HR | 3HR | 4HR | 5HR | 8HR | 10HR | 20HR |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|
| 1.60V | 271.8 | 190.7 | 146.2 | 87.92 | 53.11 | 32.25 | 23.87 | 19.49 | 16.52 | 11.18 | 9.57 | 4.92 |
| 1.65V | 268.9 | 189.9 | 145.4 | 87.27 | 52.68 | 32.01 | 23.69 | 19.35 | 16.41 | 11.10 | 9.50 | 4.89 |
| 1.70V | 258.7 | 184.3 | 141.5 | 85.16 | 51.54 | 31.48 | 23.33 | 19.06 | 16.19 | 10.97 | 9.38 | 4.84 |
| 1.75V | 246.0 | 177.4 | 136.7 | 82.59 | 50.05 | 30.78 | 22.86 | 18.70 | 15.90 | 10.79 | 9.23 | 4.77 |
| 1.80V | 228.0 | 167.3 | 129.7 | 78.91 | 48.00 | 29.82 | 22.20 | 18.20 | 15.51 | 10.54 | 9.03 | 4.69 |
| 1.85V | 204.2 | 153.4 | 120.1 | 73.88 | 45.37 | 28.53 | 21.31 | 17.51 | 14.96 | 10.21 | 8.76 | 4.57 |

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

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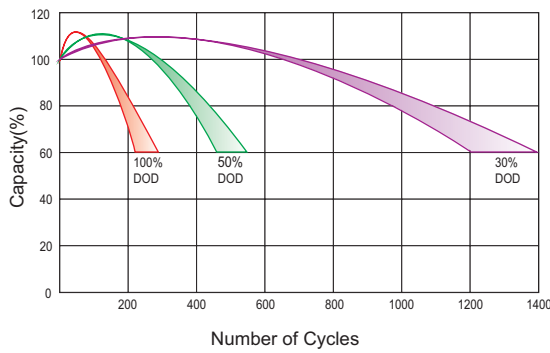
Discharge Characteristics Curve



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



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