



RA12-90(12V90Ah)

Specification

| | |
|--------------------------------------|---|
| Cells Per Unit | 6 |
| Voltage Per Unit | 12 |
| Nominal Capacity | 90Ah@10hour-rate to 1.80V per cell @25°C |
| Weight | Approx. 28.5 Kg (Tolerance ±2.0%) |
| Internal Resistance | Approx. 5.2 mΩ |
| Terminal | F12(M8)/F15(M6) |
| Max. Discharge Current | 900A (5 sec) |
| Short Circuit Current | 1940A |
| Design Life | 12 years (Float charging) |
| Recommended Maximum Charging Current | 27 A |
| Reference Capacity | C3 69.8AH C5 80.4AH C10 90.0AH C20 95.2AH |
| 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

| 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 | 221.1 | 164.8 | 95.38 | 55.97 | 33.53 | 24.62 | 20.00 | 16.88 | 11.28 | 9.59 | 4.92 |
| 1.65V | 214.5 | 160.5 | 93.28 | 54.94 | 33.04 | 24.30 | 19.75 | 16.69 | 11.17 | 9.50 | 4.88 |
| 1.70V | 205.9 | 154.8 | 90.52 | 53.56 | 32.39 | 23.86 | 19.42 | 16.43 | 11.02 | 9.38 | 4.83 |
| 1.75V | 194.7 | 147.4 | 86.89 | 51.76 | 31.53 | 23.28 | 18.98 | 16.08 | 10.81 | 9.22 | 4.76 |
| 1.80V | 180.4 | 137.9 | 82.19 | 49.40 | 30.39 | 22.52 | 18.40 | 15.63 | 10.55 | 9.00 | 4.67 |
| 1.85V | 162.5 | 125.9 | 76.19 | 46.36 | 28.91 | 21.53 | 17.64 | 15.03 | 10.19 | 8.72 | 4.54 |

Constant Power Discharge Characteristics : WPC (25°C)

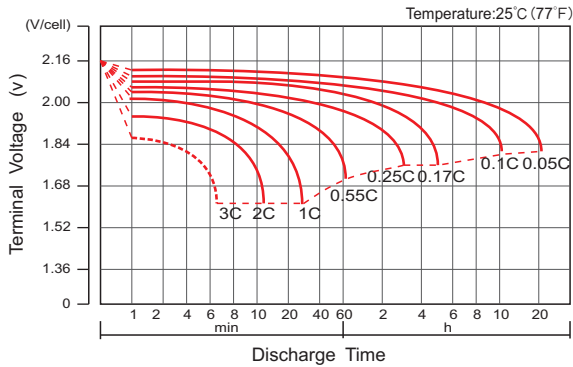
| F.V/Time | 10MIN | 15MIN | 30MIN | 1HR | 2HR | 3HR | 4HR | 5HR | 8HR | 10HR | 20HR |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| 1.60V | 381.4 | 292.5 | 175.8 | 106.2 | 64.51 | 47.73 | 38.97 | 33.03 | 22.36 | 19.14 | 9.83 |
| 1.65V | 379.9 | 290.8 | 174.5 | 105.4 | 64.03 | 47.39 | 38.69 | 32.82 | 22.20 | 19.00 | 9.77 |
| 1.70V | 368.7 | 282.9 | 170.3 | 103.1 | 62.96 | 46.65 | 38.13 | 32.37 | 21.93 | 18.77 | 9.68 |
| 1.75V | 354.9 | 273.4 | 165.2 | 100.1 | 61.56 | 45.72 | 37.41 | 31.80 | 21.57 | 18.47 | 9.55 |
| 1.80V | 334.6 | 259.3 | 157.8 | 96.01 | 59.64 | 44.40 | 36.40 | 31.01 | 21.09 | 18.06 | 9.37 |
| 1.85V | 306.8 | 240.1 | 147.8 | 90.75 | 57.05 | 42.63 | 35.03 | 29.92 | 20.43 | 17.52 | 9.14 |

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

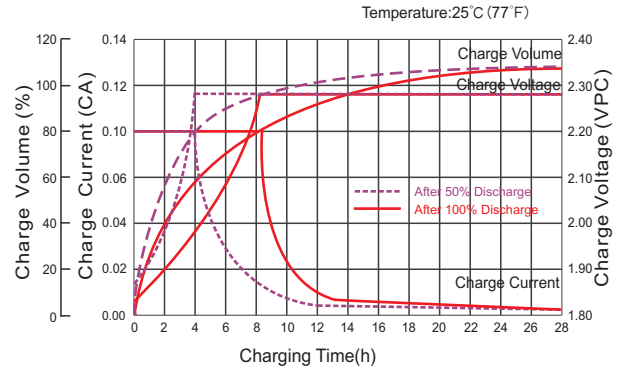
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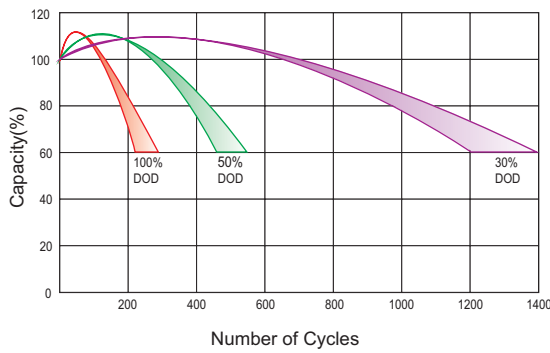
Discharge Characteristics Curve



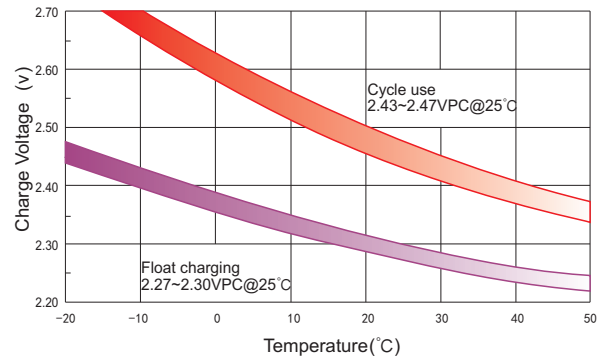
Charge Characteristic Curve For Standby Use



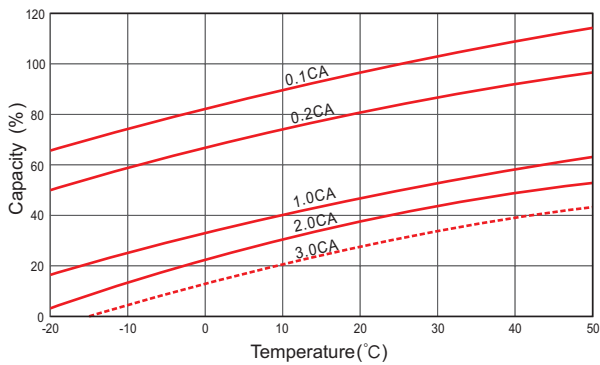
Cycle Life In Relation To Depth Of Discharge



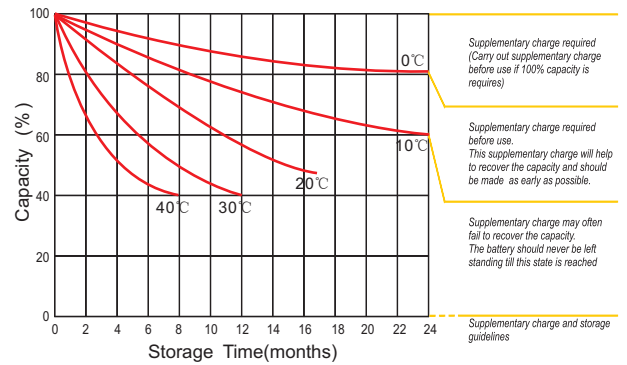
Relationship Between Charging Voltage And Temperature



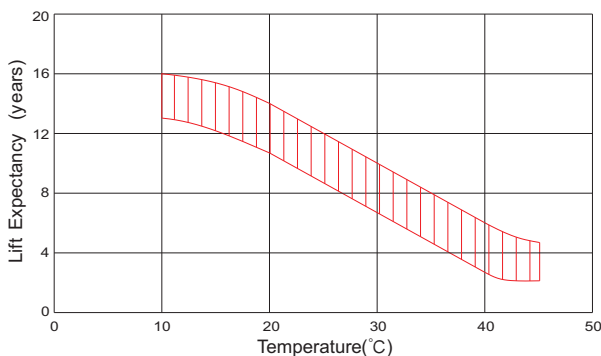
Temperature Effects On Capacity



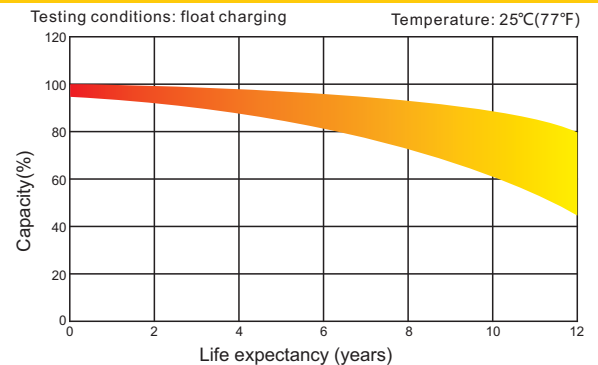
Storage Characteristics



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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