



RT1250B (12V5.0Ah)

RT series is a general purpose battery with 5 years design life in float service . It meets with IEC and JIS standards .With up-dated AGM valve regulated technology and high purity raw materials, the RT series battery has reliable standby service life. It is suitable for UPS/EPS, medical equipment, emergency light and security systems applications.



Specification

| | |
|--------------------------------------|---|
| Cells Per Unit | 6 |
| Voltage Per Unit | 12 |
| Capacity | 5.0Ah@20hr-rate to 1.75V per cell @25°C |
| Weight | Approx. 1.8 Kg(Tolerance±4%) |
| Max. Discharge Current | 50 A (5 sec) |
| Internal Resistance | Approx. 25 mΩ |
| 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 |
| Float charging Voltage | 13.7 to 13.9 VDC/unit Average at 25°C |
| Recommended Maximum Charging Current | 1.5 A |
| Equalization and Cycle Service | 14.6 to 14.8 VDC/unit Average at 25°C |
| Self Discharge | RITAR Valve Regulated Lead Acid (VRLA) batteries can be stored for more than 6 months at 25°C. Self-discharge ratio less than 3% per month at 25°C. Please charge batteries before using. |
| Terminal | Faston Tab 187(F1)/Faston tab 250(F2) |
| Constainer Material | A.B.S. UL94-HB, UL94-V0 Optional. |



MH28539



G4M20206-0910-E-16



THE INTERNATIONAL CERTIFICATION NETWORK

CERTIFICATE

Postcode:421001

is in conformity with

ISO 14001:2004 Standard



THE INTERNATIONAL CERTIFICATION NETWORK

CERTIFICATE

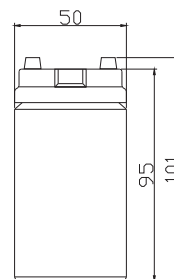
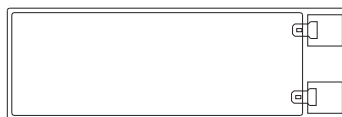
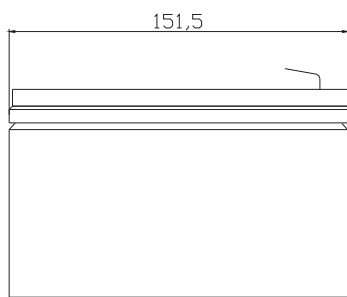
Postcode:421001

is in conformity with

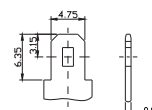
OHSAS 18001:1999 Standard

Dimensions

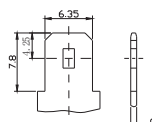
Unit: mm Dimension: 151.5(L) × 50(W) × 101(H)



Terminal F1



Terminal F2



Constant Current Discharge Characteristics : A(25°C)

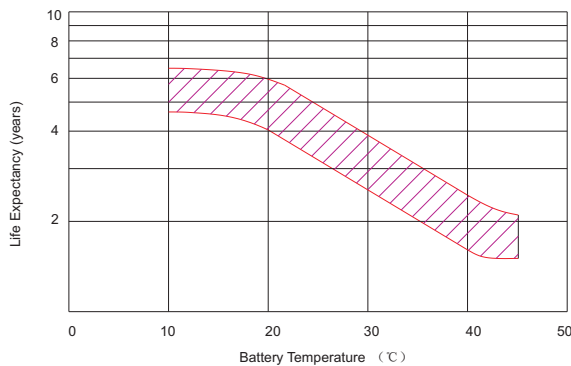
| F.V/Time | 5MIN | 10MIN | 15MIN | 30MIN | 1HR | 2HR | 3HR | 4HR | 5HR | 8HR | 10HR | 20HR |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 9.60V | 22.68 | 14.87 | 11.07 | 5.895 | 3.737 | 2.148 | 1.506 | 1.226 | 1.008 | 0.664 | 0.575 | 0.308 |
| 10.0V | 21.86 | 14.50 | 10.72 | 5.820 | 3.687 | 2.105 | 1.478 | 1.209 | 0.999 | 0.661 | 0.569 | 0.305 |
| 10.2V | 20.58 | 13.78 | 10.42 | 5.731 | 3.652 | 2.082 | 1.465 | 1.197 | 0.992 | 0.655 | 0.560 | 0.297 |
| 10.5V | 18.50 | 12.89 | 9.83 | 5.573 | 3.607 | 2.055 | 1.452 | 1.179 | 0.984 | 0.649 | 0.557 | 0.290 |
| 10.8V | 16.57 | 12.02 | 9.27 | 5.389 | 3.557 | 2.038 | 1.435 | 1.139 | 0.979 | 0.647 | 0.548 | 0.279 |
| 11.1V | 14.50 | 11.02 | 8.556 | 5.184 | 3.473 | 1.998 | 1.407 | 1.123 | 0.975 | 0.642 | 0.540 | 0.274 |

Constant Power Discharge Characteristics : W(25°C)

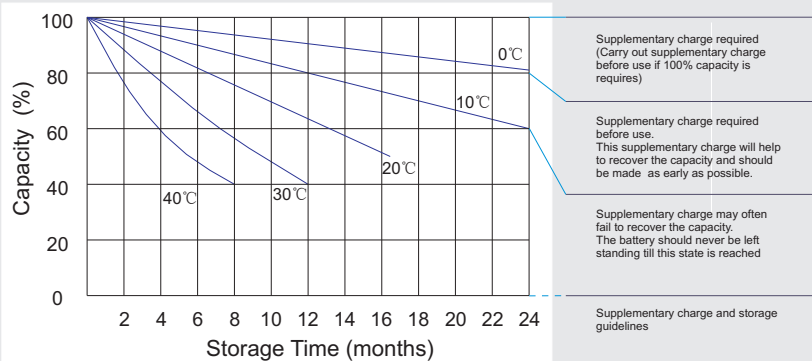
| F.V/Time | 5MIN | 10MIN | 15MIN | 30MIN | 1HR | 2HR | 3HR | 4HR | 5HR | 8HR | 10HR | 20HR |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 9.60V | 246.0 | 163.0 | 122.2 | 67.48 | 44.67 | 25.31 | 18.00 | 14.68 | 12.08 | 7.950 | 6.886 | 3.692 |
| 10.0V | 239.6 | 159.7 | 120.4 | 66.78 | 44.02 | 24.98 | 17.71 | 14.47 | 11.97 | 7.919 | 6.821 | 3.662 |
| 10.2V | 227.9 | 153.3 | 118.9 | 66.20 | 43.69 | 24.76 | 17.56 | 14.34 | 11.89 | 7.860 | 6.733 | 3.568 |
| 10.5V | 208.0 | 147.0 | 112.7 | 64.85 | 43.10 | 24.49 | 17.43 | 14.15 | 11.80 | 7.793 | 6.686 | 3.508 |
| 10.8V | 187.6 | 137.5 | 106.4 | 63.31 | 42.54 | 24.32 | 17.23 | 13.67 | 11.74 | 7.759 | 6.584 | 3.367 |
| 11.1V | 165.5 | 128.0 | 100.3 | 61.58 | 41.61 | 23.97 | 16.89 | 13.47 | 11.70 | 7.705 | 6.486 | 3.314 |

All mentioned values are average values (Tolerance ±2%).

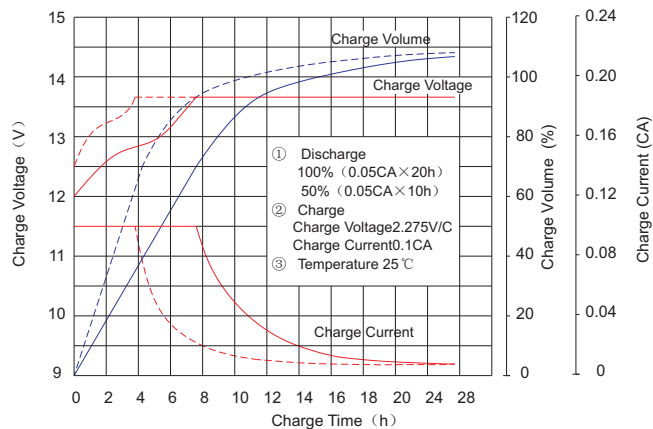
Effect of temperature on long term float life



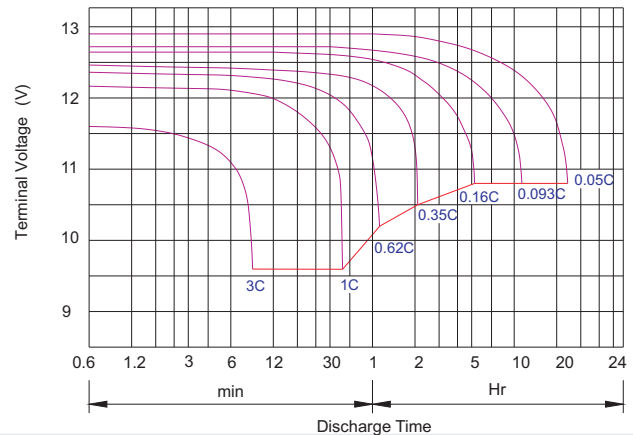
Storage characteristic



Charge characteristic Curve for standby use



Discharge characteristic Curve



Capacity Factors With Different Temperature

| Battery Type | | -20°C | -10°C | 0°C | 5°C | 10°C | 20°C | 25°C | 30°C | 40°C | 45°C |
|--------------|--------|-------|-------|-----|-----|------|------|------|------|------|------|
| GEL Battery | 6V&12V | 50% | 70% | 83% | 85% | 90% | 98% | 100% | 102% | 104% | 105% |
| | 2V | 60% | 75% | 85% | 88% | 92% | 99% | 100% | 103% | 105% | 106% |
| AGM Battery | 6V&12V | 46% | 66% | 76% | 83% | 90% | 98% | 100% | 103% | 107% | 109% |
| | 2V | 55% | 70% | 80% | 85% | 92% | 99% | 100% | 104% | 108% | 110% |

Discharge Current VS. Discharge Voltage

| | | | |
|---------------------------------|------------|-------------------|------------|
| Final Discharge Voltage V /cell | 1.75V | 1.70V | 1.60V |
| Discharge Current (A) | (A) ≤ 0.2C | 0.2C < (A) < 1.0C | (A) ≥ 1.0C |

Charge the batteries at least once every six months, if they are stored at 25°C.

Charging Method:

| | |
|------------------|--|
| Constant Voltage | -0.2Cx2h+14.4-14.7Vx24h, Max. Current 0.3C |
| Constant Current | -0.2Cx2h+0.1Cx12h |
| Fast | -0.2Cx2h+0.3Cx4h |

| | | | |
|----------|-----------------------|------------------|-----------------------|
| Bolt | M5 | M6 | M8 |
| Terminal | F3 F4 F13 F18 T25 T26 | F8 F11 F12-1 F15 | F5 F9 F10 F12 F14 F16 |
| Torque | 6~7N-m | 8~10N-m | 10~12N-m |

Maintenance & Cautions

Float Service:

※ Every month, recommend inspection every battery voltage.

※ Every three months, recommend equalization charge for one time.

Equalization charge method:

Discharge: 100% rate capacity discharge.

Charge: Max. current 0.3CA, constant voltage 14.4-14.7V charge 24h.

※ Effect of temperature on float charge voltage: -3mV/°C/Cell.

※ Length of service life will be directly affected by the number of discharge cycles, depth of discharge, ambient temperature and charging voltage.