



RT 632 (6V3.2Ah)



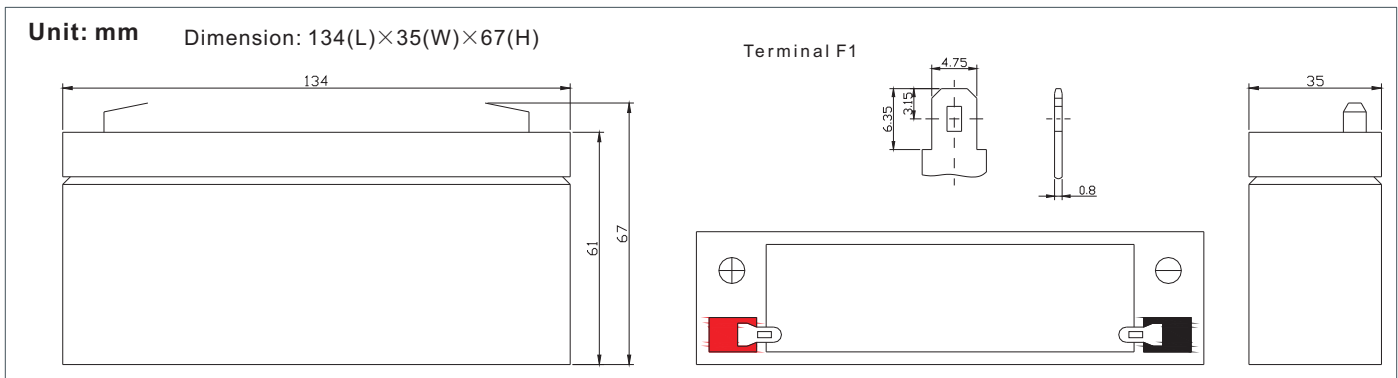
RT series is a general purpose battery with 5 years design life in float service . It meets with IEC and JIS standards .With up-dated AGM valve regulated technology and high purity raw materials, the RT series battery has reliable standby service life. It is suitable for UPS/EPS, medical equipment, emergency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

Specification

| | |
|--|---|
| Cells Per Unit | 3 |
| Voltage Per Unit | 6 |
| Capacity | 3.2Ah@20hr-rate to 1.75V per cell @25°C |
| Weight | Approx. 0.65 Kg(Tolerance±5%) |
| Max. Discharge Current | 32 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 | 6.85 to 6.95 VDC/unit Average at 25°C |
| Recommended Maximum Charging Current Limit | 0.96 A |
| Equalization and Cycle Service | 7.3 to 7.4 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) |
| Container Material | A.B.S. UL94-HB, UL94-V0 Optional. |



Dimensions



Constant Current Discharge Characteristics : A(25°C)

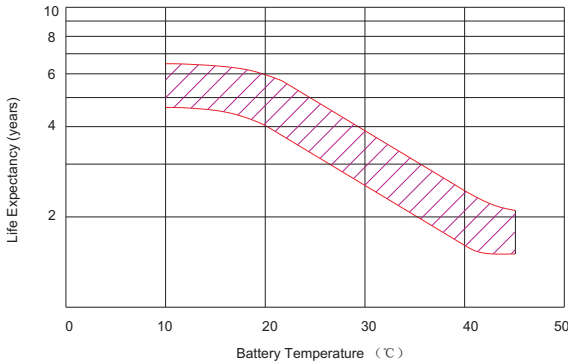
| F.V/Time | 5MIN | 10MIN | 15MIN | 30MIN | 1HR | 2HR | 3HR | 4HR | 5HR | 8HR | 10HR | 20HR |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 4.80V | 12.62 | 8.275 | 6.163 | 3.281 | 2.080 | 1.272 | 0.838 | 0.683 | 0.561 | 0.369 | 0.320 | 0.171 |
| 5.00V | 12.17 | 8.068 | 5.966 | 3.239 | 2.052 | 1.246 | 0.823 | 0.673 | 0.556 | 0.368 | 0.317 | 0.170 |
| 5.10V | 11.45 | 7.669 | 5.800 | 3.189 | 2.033 | 1.233 | 0.815 | 0.666 | 0.552 | 0.365 | 0.312 | 0.165 |
| 5.25V | 10.29 | 7.171 | 5.471 | 3.101 | 2.008 | 1.217 | 0.808 | 0.656 | 0.548 | 0.361 | 0.310 | 0.162 |
| 5.40V | 9.223 | 6.687 | 5.161 | 2.999 | 1.980 | 1.207 | 0.799 | 0.634 | 0.545 | 0.360 | 0.305 | 0.155 |
| 5.55V | 8.069 | 6.131 | 4.762 | 2.885 | 1.933 | 1.158 | 0.783 | 0.625 | 0.543 | 0.357 | 0.300 | 0.153 |

Constant Power Discharge Characteristics : W(25°C)

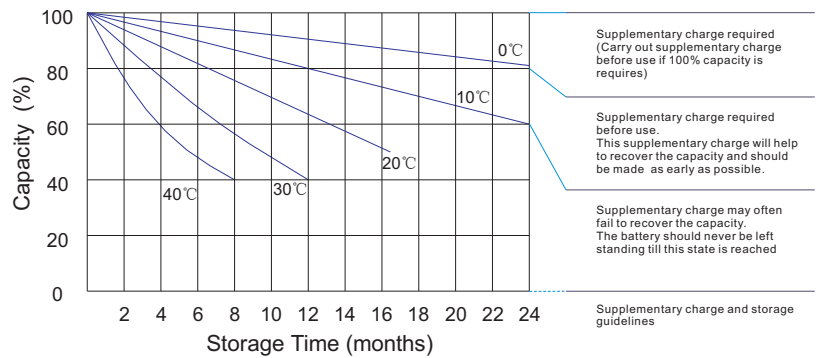
| F.V/Time | 5MIN | 10MIN | 15MIN | 30MIN | 1HR | 2HR | 3HR | 4HR | 5HR | 8HR | 10HR | 20HR |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 4.80V | 68.44 | 45.37 | 34.00 | 18.78 | 12.43 | 7.493 | 5.010 | 4.085 | 3.360 | 2.212 | 1.916 | 1.027 |
| 5.00V | 66.66 | 44.43 | 33.52 | 18.58 | 12.25 | 7.394 | 4.928 | 4.027 | 3.330 | 2.204 | 1.898 | 1.019 |
| 5.10V | 63.41 | 42.67 | 33.07 | 18.42 | 12.16 | 7.329 | 4.886 | 3.990 | 3.310 | 2.187 | 1.874 | 0.993 |
| 5.25V | 57.87 | 40.91 | 31.35 | 18.05 | 11.99 | 7.251 | 4.850 | 3.936 | 3.283 | 2.169 | 1.860 | 0.976 |
| 5.40V | 52.21 | 38.27 | 29.62 | 17.62 | 11.84 | 7.199 | 4.793 | 3.803 | 3.268 | 2.159 | 1.832 | 0.937 |
| 5.55V | 46.04 | 35.63 | 27.90 | 17.13 | 11.58 | 6.947 | 4.699 | 3.749 | 3.256 | 2.144 | 1.805 | 0.922 |

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

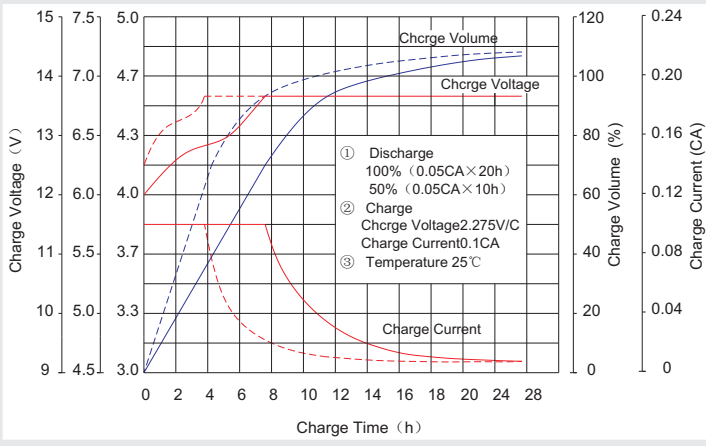
Effect of temperature on long term float life



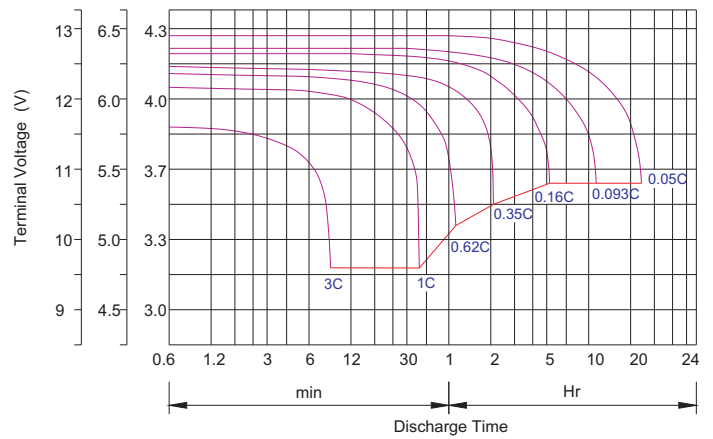
Storage characteristic



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+2.4-2.45V/cellx24h, 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 2.4-2.45V/Cell 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.