



RT628 (6V2.8Ah)

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.

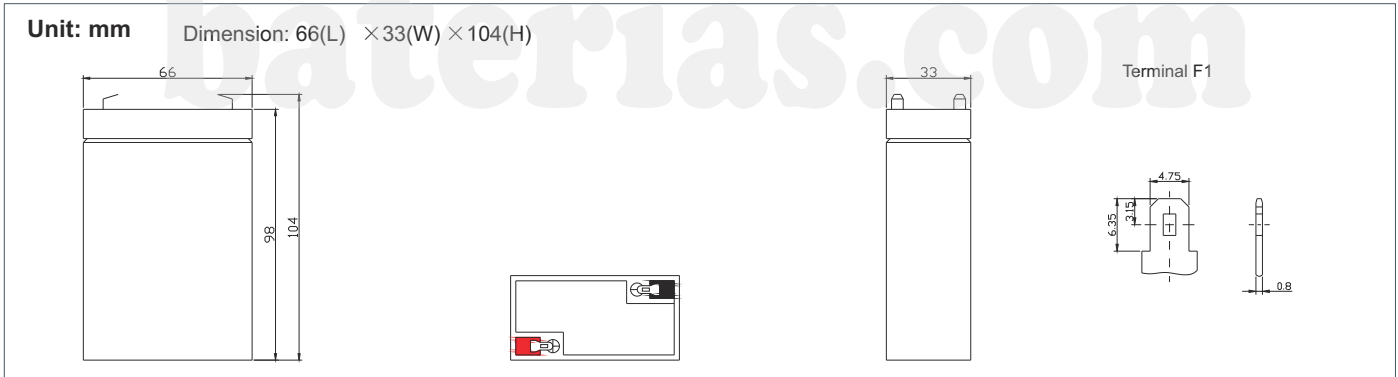


Specification

| | |
|--------------------------------------|--|
| Cells Per Unit | 3 |
| Voltage Per Unit | 6 |
| Capacity | 2.8Ah@20hr-rate to 1.75V per cell @25°C |
| Weight | Approx. 0.54 Kg(Tolerance ±5%) |
| Max. Discharge Current | 28 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 | 0.84 A |
| Equalization and Cycle Service | 7.3 to 7.4 VDC/unit Average at 25°C |
| Self Discharge | RITAR 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) |
| Constainer Material | A.B.S. UL94-HB, UL94-V0 Optional. |



Dimensions



Constant Current Discharge Characteristics : A(25°C)

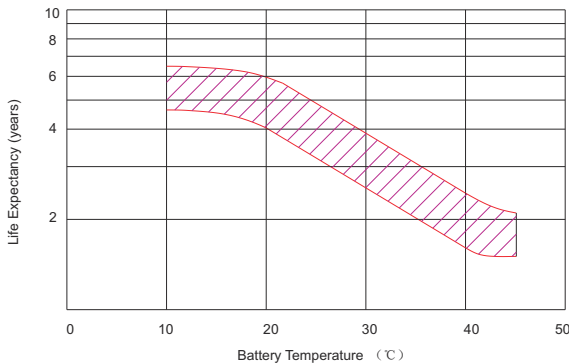
| F.V/Time | 5MIN | 10MIN | 15MIN | 30MIN | 1HR | 2HR | 3HR | 4HR | 5HR | 8HR | 10HR | 20HR |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 4.80V | 11.04 | 7.241 | 5.393 | 2.871 | 1.820 | 1.046 | 0.733 | 0.597 | 0.491 | 0.323 | 0.280 | 0.150 |
| 5.00V | 10.64 | 7.060 | 5.220 | 2.834 | 1.796 | 1.025 | 0.720 | 0.589 | 0.486 | 0.322 | 0.277 | 0.149 |
| 5.10V | 10.02 | 6.710 | 5.075 | 2.791 | 1.778 | 1.014 | 0.713 | 0.583 | 0.483 | 0.319 | 0.273 | 0.144 |
| 5.25V | 9.006 | 6.275 | 4.787 | 2.714 | 1.757 | 1.001 | 0.707 | 0.574 | 0.479 | 0.316 | 0.271 | 0.141 |
| 5.40V | 8.070 | 5.851 | 4.516 | 2.624 | 1.732 | 0.993 | 0.699 | 0.555 | 0.477 | 0.315 | 0.267 | 0.136 |
| 5.55V | 7.060 | 5.365 | 4.166 | 2.524 | 1.691 | 0.973 | 0.685 | 0.547 | 0.475 | 0.312 | 0.263 | 0.133 |

Constant Power Discharge Characteristics : W(25°C)

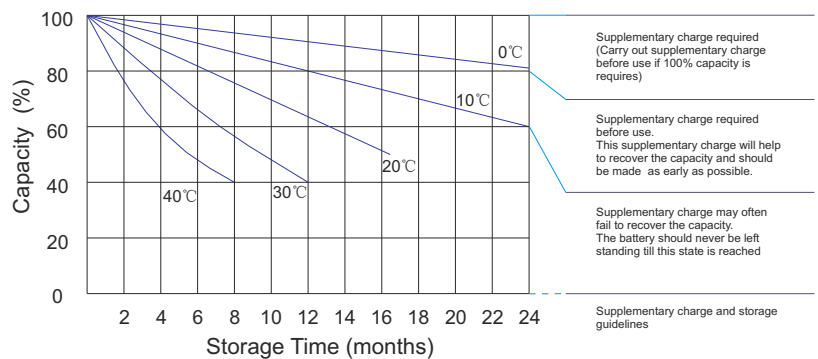
| F.V/Time | 5MIN | 10MIN | 15MIN | 30MIN | 1HR | 2HR | 3HR | 4HR | 5HR | 8HR | 10HR | 20HR |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 4.80V | 59.89 | 39.70 | 29.75 | 16.43 | 10.88 | 6.163 | 4.384 | 3.574 | 2.940 | 1.936 | 1.677 | 0.899 |
| 5.00V | 58.33 | 38.87 | 29.33 | 16.26 | 10.72 | 6.082 | 4.312 | 3.524 | 2.914 | 1.928 | 1.661 | 0.892 |
| 5.10V | 55.48 | 37.33 | 28.94 | 16.12 | 10.64 | 6.029 | 4.275 | 3.491 | 2.896 | 1.914 | 1.639 | 0.869 |
| 5.25V | 50.64 | 35.79 | 27.43 | 15.79 | 10.50 | 5.964 | 4.244 | 3.444 | 2.873 | 1.898 | 1.628 | 0.854 |
| 5.40V | 45.68 | 33.49 | 25.92 | 15.42 | 10.36 | 5.921 | 4.194 | 3.328 | 2.860 | 1.889 | 1.603 | 0.820 |
| 5.55V | 40.29 | 31.18 | 24.41 | 14.99 | 10.13 | 5.836 | 4.112 | 3.280 | 2.849 | 1.876 | 1.579 | 0.807 |

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

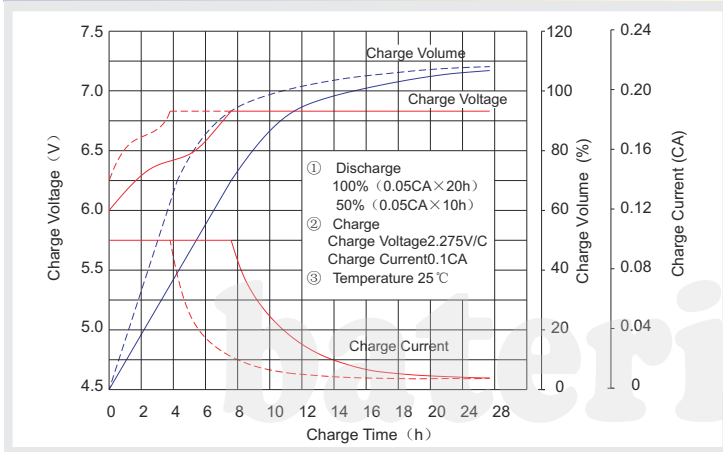
Effect of temperature on long term float life



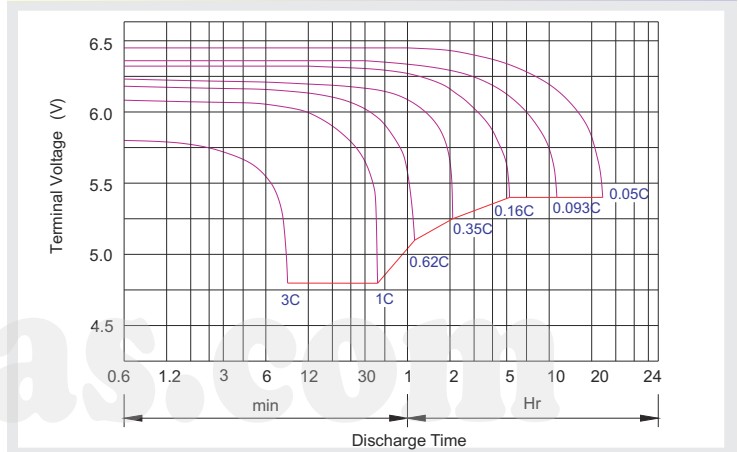
Storage characteristic



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:

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|------------------|---|
| Constant Voltage | -0.2Cx2h+7.2-7.35Vx24h, 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

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| 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 7.2-7.35V 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. |