



RT 1255 (12V5.5Ah)



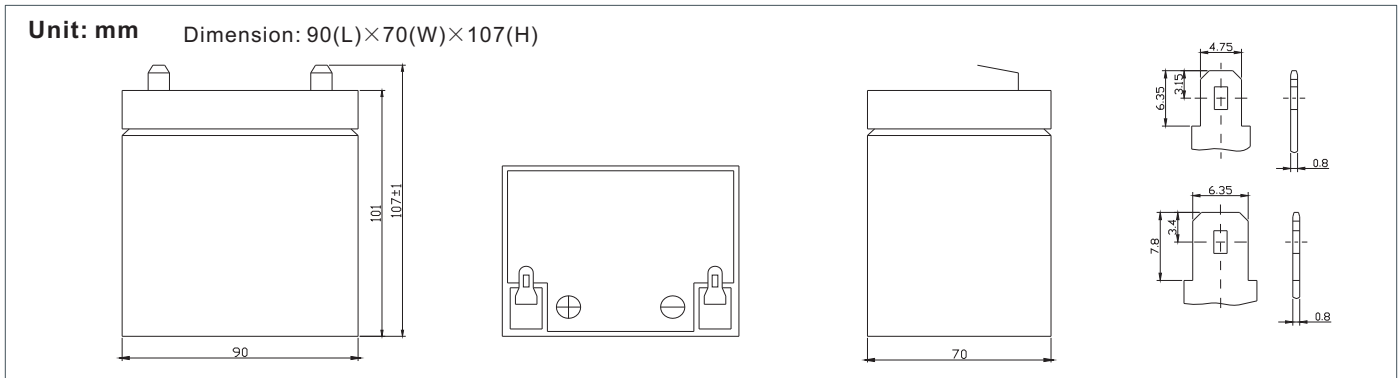
RT 1255 is a general purpose battery with 5 years floating design life, meet with IEC, JIS standard. With heavy duty grid, thickness plates, special additives, RT series battery have long and reliable standby service life.

Specification

| | |
|--|---|
| Cells Per Unit | 6 |
| Voltage Per Unit | 12 |
| Capacity | 5.5Ah@20hr-rate to 1.75V per cell @25°C |
| Weight | Approx. 1.70 Kg |
| Max. Discharge Current | 55 A (5 sec) |
| Internal Resistance | Approx. 35 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 Limit | 1.65 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), Flammability resistance of UL94-V2 can be available upon request. |



Dimensions



Constant Current Discharge Characteristics : A(25°C)

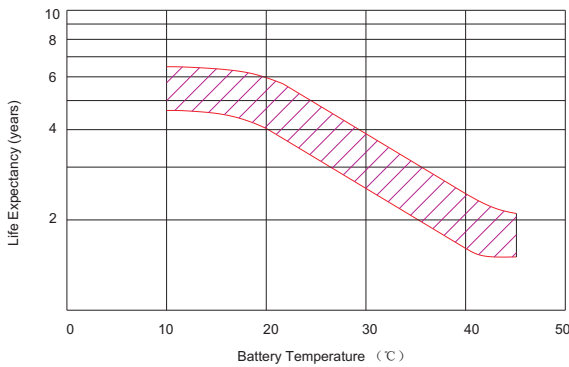
| F.V/Time | 5MIN | 10MIN | 15MIN | 30MIN | 1HR | 2HR | 3HR | 4HR | 5HR | 8HR | 10HR | 20HR |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 9.60V | 22.36 | 14.66 | 11.49 | 6.452 | 3.834 | 2.208 | 1.500 | 1.201 | 0.997 | 0.635 | 0.550 | 0.309 |
| 10.0V | 21.56 | 14.30 | 11.12 | 6.369 | 3.729 | 2.163 | 1.473 | 1.184 | 0.980 | 0.633 | 0.544 | 0.297 |
| 10.2V | 20.29 | 13.59 | 10.82 | 6.272 | 3.694 | 2.140 | 1.460 | 1.172 | 0.970 | 0.627 | 0.536 | 0.292 |
| 10.5V | 18.24 | 12.71 | 10.20 | 6.099 | 3.621 | 2.112 | 1.447 | 1.161 | 0.958 | 0.621 | 0.533 | 0.283 |
| 10.8V | 16.34 | 11.85 | 9.625 | 5.897 | 3.556 | 2.095 | 1.430 | 1.155 | 0.948 | 0.619 | 0.524 | 0.267 |
| 11.1V | 14.30 | 10.86 | 8.880 | 5.673 | 3.460 | 2.011 | 1.402 | 1.145 | 0.938 | 0.614 | 0.516 | 0.262 |

Constant Power Discharge Characteristics : W(25°C)

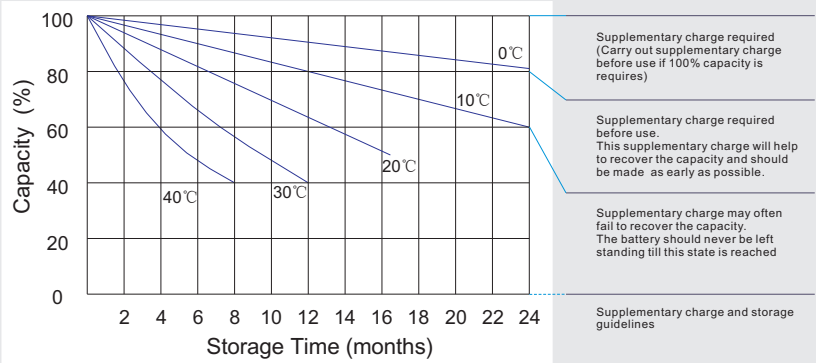
| F.V/Time | 5MIN | 10MIN | 15MIN | 30MIN | 1HR | 2HR | 3HR | 4HR | 5HR | 8HR | 10HR | 20HR |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 9.60V | 235.3 | 156.0 | 123.0 | 73.85 | 44.51 | 25.76 | 17.54 | 14.21 | 11.80 | 7.604 | 6.586 | 3.698 |
| 10.0V | 229.1 | 152.7 | 121.3 | 73.08 | 43.86 | 25.54 | 17.50 | 14.17 | 11.74 | 7.575 | 6.525 | 3.566 |
| 10.2V | 218.0 | 146.7 | 119.7 | 72.45 | 43.54 | 25.38 | 17.44 | 14.06 | 11.63 | 7.518 | 6.463 | 3.501 |
| 10.5V | 198.9 | 140.6 | 113.4 | 70.97 | 42.95 | 25.17 | 17.37 | 13.93 | 11.49 | 7.454 | 6.395 | 3.402 |
| 10.8V | 179.5 | 131.5 | 107.2 | 69.29 | 42.25 | 24.96 | 17.16 | 13.88 | 11.37 | 7.422 | 6.298 | 3.204 |
| 11.1V | 158.3 | 122.5 | 100.9 | 67.39 | 41.46 | 24.10 | 16.83 | 13.74 | 11.26 | 7.370 | 6.204 | 3.153 |

All mentioned values are average values.

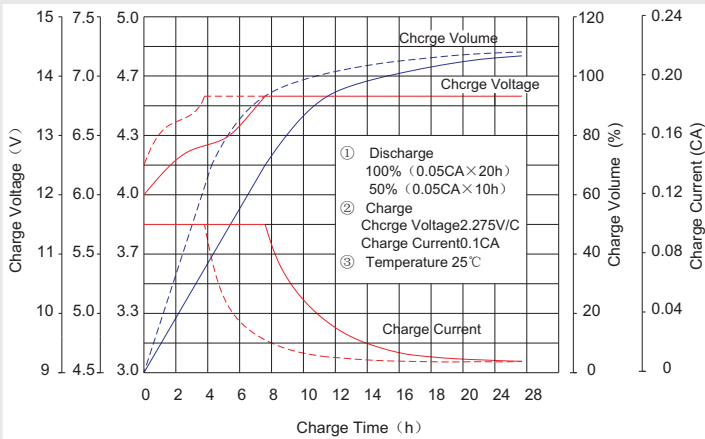
Effect of temperature on long term float life



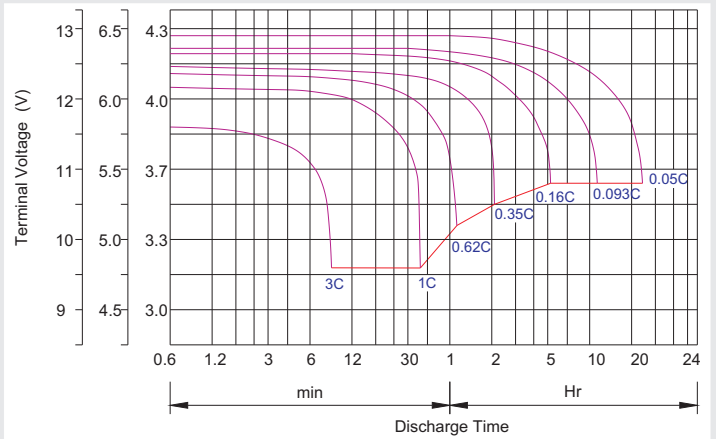
Storage characteristic



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 Current 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 |

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. |

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 0.3CA |
| Constant Current | -0.2Cx2h+0.1CAx12h |
| Fast | -0.2Cx2h+0.3CAx4.0h |