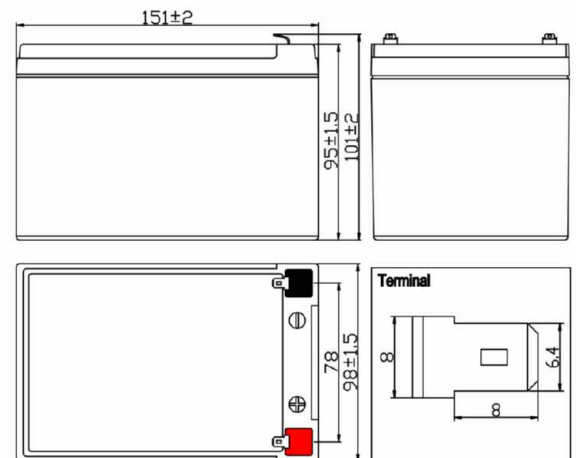


Specification

| | | |
|-----------------------------|---|--------------------------------|
| Nominal Voltage (V) | 12V (6 cells in series) | |
| Rated Capacity | 12Ah | (C ₂₀ , 1.75V/cell) |
| Dimensions(mm) | Length | 151 ± 2 mm |
| | Width | 98 ± 1.5 mm |
| | Height | 95 ± 1.5 mm |
| | Total Height | 101 ± 2 mm |
| Nominal Capacity @25°C (Ah) | 20 Hour rate (0.606A to 10.5 volts) | 12.1Ah |
| | 10 Hour rate (1.158A to 10.5 volts) | 11.5Ah |
| | 5 Hour rate (2.070A to 10.5 volts) | 10.3Ah |
| | 1 Hour rate (7.800A to 9.6 volts) | 7.80Ah |
| | 15 min rate (23.10A to 9.6 volts) | 5.77Ah |
| Approx. Weight | 3.27 kg | |
| Terminal | T2 | |
| Max. Discharge Current | 180A @25°C (5s) | |
| Internal Resistance | 15mΩ @25°C (Full Charged Battery) | |
| Floating Design Life | 5 years @25°C | |
| Ambient Temperature | Charge: | -15°C~50°C |
| | Discharge: | -20°C~60°C |
| | Storage: | -20°C~50°C |
| Container Material | A.B.S , UL94-HB , UL94-V0 , Optional | |
| Self Discharge | 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. | |



Certification



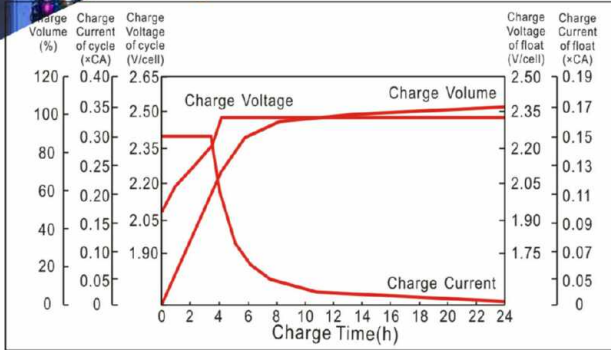
Constant Current Discharge Characteristics (A), (25°C)

| F.V/TIME | 5min | 10min | 15min | 30min | 60min | 2H | 3H | 5H | 8H | 10H | 20H |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1.60V/cell | 47.34 | 31.02 | 23.10 | 12.30 | 7.800 | 4.394 | 3.138 | 2.117 | 1.402 | 1.200 | 0.642 |
| 1.70V/cell | 42.96 | 28.74 | 21.78 | 11.94 | 7.626 | 4.326 | 3.060 | 2.086 | 1.380 | 1.170 | 0.619 |
| 1.75V/cell | 38.58 | 26.94 | 20.58 | 11.58 | 7.530 | 4.290 | 3.030 | 2.070 | 1.368 | 1.158 | 0.606 |
| 1.80V/cell | 34.62 | 25.20 | 19.38 | 11.22 | 7.422 | 4.254 | 2.994 | 2.046 | 1.350 | 1.140 | 0.582 |

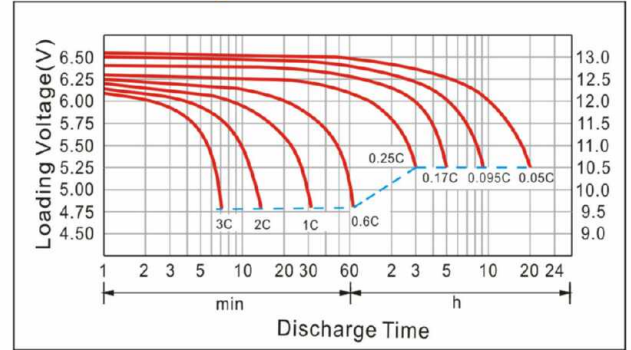
Constant Wattage Discharge Characteristics (Watt), (25°C)

| F.V/TIME | 5min | 10min | 15min | 30min | 60min | 2H | 3H | 5H | 8H | 10H | 20H |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1.60V/cell | 85.61 | 56.61 | 42.54 | 23.47 | 15.47 | 8.716 | 6.255 | 4.223 | 2.796 | 2.396 | 1.284 |
| 1.70V/cell | 79.12 | 53.41 | 40.84 | 22.98 | 15.19 | 8.616 | 6.110 | 4.164 | 2.755 | 2.340 | 1.240 |
| 1.75V/cell | 72.02 | 50.96 | 38.93 | 22.48 | 15.01 | 8.551 | 6.055 | 4.137 | 2.734 | 2.318 | 1.217 |
| 1.80V/cell | 65.20 | 48.09 | 36.98 | 21.97 | 14.81 | 8.487 | 5.988 | 4.092 | 2.700 | 2.282 | 1.169 |

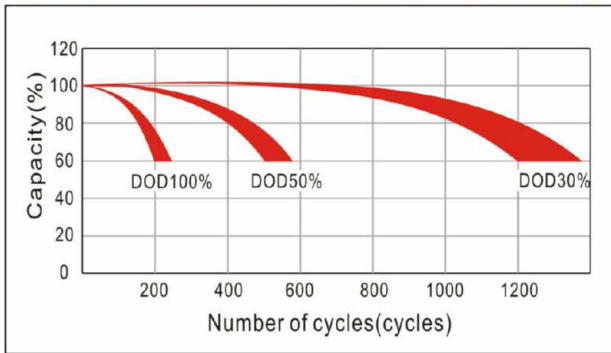
Charge Characteristics Curve



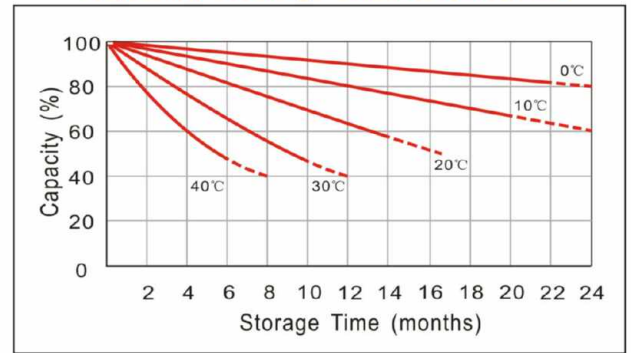
Discharge Characteristics Curve



Cycle service life in relation to depth of discharge



Capacity Storage Characteristics



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% |

Maintenance & Cautions

Charging Procedure:

| Application | Charging method | Charge voltage at 25°C | Temperature compensation coefficient of charging voltage | Max.charging current | Temperature |
|--------------------------|--|------------------------|--|----------------------|-------------|
| For standby power source | Constant voltage charging (With current restriction) | 2.25~2.30 V/cell | -3mV/°C/cell | 0.2CA | -15~50°C |
| For cycle service | | 2.45~2.50 V/cell | -4mV/°C/cell | 0.3CA | |

- Every month, recommend inspection every battery voltage.
- Every three months, recommend equalization charge for one time. **Equalization charge method:**
 Step 1: Discharge: 100% rate capacity discharge.
 Step 2: Charge: Max. Current 0.3CA, constant voltage 2.45~2.50V/Cell charge 24h.
- 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 : $-0.2C \times 2h + 2.4 \sim 2.45V/cell \times 24h$, Max. Current 0.25CA
 Constant Current : $-0.2C \times 2h + 0.1C \times 12h$
 Fast : $-0.2C \times 2h + 0.3C \times 4h$

Terminal of torque:

| Bolt | M5 | M6 | M8 |
|----------|--------|-------------------|-----------------|
| Terminal | T3、T10 | T4、T7、T11、T12、T13 | T5、T6、T8、T9、T14 |
| Torque | 6~7N.m | 8~10N.m | 10~12N.m |