

TF12-55 12V 55AH

VALVE REGULATED LEAD ACID BATTERY



Specification

| | | |
|----------------------------------|--|------------------------------|
| Nominal Voltage | 12V | |
| Nominal Capacity(10HR) | 55AH | |
| Dimension | Length | 229 ±3mm (9.02 inches) |
| | Width | 138±2mm (5.43inches) |
| | Container Height | 208±2mm (8.19 inches) |
| | Total Height (with Terminal) | 225 ± 2mm (8.94inches) |
| Approx Weight | Approx 14.8 kg (32.5lbs) | |
| Terminal | T6 / T10 | |
| Container Material | ABS | |
| Rated Capacity | 57.7 AH/2.89A | (20hr ,1.80V/cell,25°C/77°F) |
| | 55.0 AH/5.50A | (10hr,1.80V/cell,25°C/77°F) |
| | 46.7 AH/9.35A | (5hr,1.75V/cell,25°C/77°F) |
| | 32.7 AH/16.9A | (3hr,1.75V/cell,25°C/77°F) |
| | 30.2 AH/30.2A | (1hr,1.60V/cell,25°C/77°F) |
| Max. Discharge Current | 600A (5s) | |
| Internal Resistance | Approx 8.3 mΩ | |
| Operating Temp.Range | Discharge : -15 ~50°C (5 ~122°F) | |
| | Charge : 0 ~40°C (32~104°F) | |
| | Storage : -15 ~40°C (5 ~104°F) | |
| Nominal Operating Temp. Range | 25 ±3°C (77 ±5°F) | |
| Cycle Use | Initial Charging Current less than 19.5 A.Voltage | |
| | 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C | |
| StandbyUse | No limit on Initial Charging Current Voltage | |
| | 13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C | |
| Capacity affected by Temperature | 40°C (104 °F) | 103% |
| | 25°C (77 °F) | 100% |
| | 0°C (32 °F) | 86% |
| Self Discharge | Techfine batteries may be stored for up to 6 months at 25°C(77°F) and battery should be recharge before use . For higher temperatures the time interval will be shorter. | |

Applications

- ◆ All purpose
- ◆ Uninterruptable Power Supply (UPS)
- ◆ Electric Power System (EPS)
- ◆ Emergency backup power supply
- ◆ Emergency light
- ◆ Railway signal
- ◆ Aircraft signal
- ◆ Alarm and security system
- ◆ Electronic apparatus and equipment
- ◆ Communication power supply
- ◆ DC power supply
- ◆ Auto controlsystem

| | | | |
|----------|-----------|-------------|-----|
| ISO 9001 | ISO 14001 | OHSAS 18001 | TLC |
| CE | RoHS | CCC | UL |

Constant Current Discharge (Amperes) at 25 °C (77°F)

| F.V/Time | 5min | 10min | 15min | 20min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h |
|------------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|
| 1.85V/cell | 111.2 | 87.5 | 74.4 | 62.2 | 49.4 | 37.4 | 30.6 | 19.5 | 15.4 | 12.6 | 10.2 | 8.85 | 7.18 | 6.14 | 3.35 |
| 1.80V/cell | 149.3 | 111.8 | 89.9 | 73.5 | 58.3 | 43.5 | 34.3 | 21.3 | 16.6 | 13.5 | 10.9 | 9.49 | 7.62 | 6.50 | 3.38 |
| 1.75V/cell | 168.4 | 122.8 | 98.2 | 79.1 | 60.6 | 45.2 | 35.9 | 22.1 | 16.9 | 13.8 | 11.2 | 9.75 | 7.75 | 6.57 | 3.41 |
| 1.70V/cell | 185.4 | 133.8 | 104.8 | 83.1 | 63.0 | 47.0 | 37.0 | 23.0 | 17.4 | 14.1 | 11.5 | 9.95 | 7.86 | 6.63 | 3.48 |
| 1.65V/cell | 204.5 | 144.4 | 111.4 | 88.3 | 66.5 | 48.1 | 38.3 | 23.6 | 18.1 | 14.6 | 11.8 | 10.2 | 7.98 | 6.77 | 3.52 |
| 1.60V/cell | 225.5 | 156.8 | 119.2 | 94.1 | 70.2 | 50.2 | 39.7 | 24.4 | 18.7 | 15.1 | 12.2 | 10.4 | 8.06 | 6.84 | 3.54 |

Constant Power Discharge (Watts) at 25 °C (77°F)

| F.V/Time | 5min | 10min | 15min | 20min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h |
|------------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|
| 1.85V/cell | 203.4 | 161.6 | 138.8 | 117.3 | 94.2 | 71.9 | 59.1 | 37.9 | 30.1 | 24.6 | 19.9 | 17.4 | 14.2 | 12.1 | 6.63 |
| 1.80V/cell | 270.1 | 204.0 | 165.4 | 136.6 | 109.5 | 83.0 | 65.9 | 41.1 | 32.2 | 26.2 | 21.3 | 18.6 | 15.0 | 12.8 | 6.69 |
| 1.75V/cell | 298.1 | 220.6 | 178.5 | 145.5 | 112.7 | 85.3 | 68.6 | 42.5 | 32.7 | 26.7 | 21.8 | 19.0 | 15.2 | 13.0 | 6.74 |
| 1.70V/cell | 319.1 | 235.0 | 187.9 | 151.8 | 116.7 | 88.4 | 70.5 | 44.1 | 33.5 | 27.3 | 22.3 | 19.4 | 15.4 | 13.1 | 6.87 |
| 1.65V/cell | 346.9 | 251.2 | 198.3 | 160.1 | 122.1 | 89.8 | 72.4 | 45.0 | 34.8 | 28.2 | 22.8 | 19.8 | 15.6 | 13.3 | 6.95 |
| 1.60V/cell | 373.8 | 266.5 | 208.5 | 168.6 | 128.0 | 93.1 | 74.5 | 46.3 | 35.7 | 28.9 | 23.5 | 20.1 | 15.7 | 13.4 | 6.98 |

Note The above data are average values, and can be obtained with 3 charge/discharge cycles. These are not minimum values.

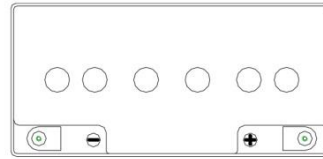
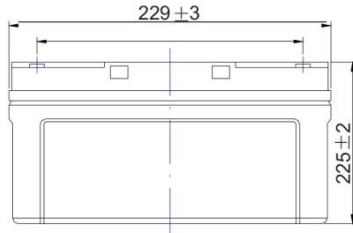
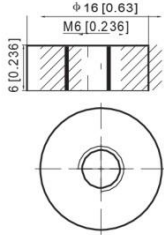
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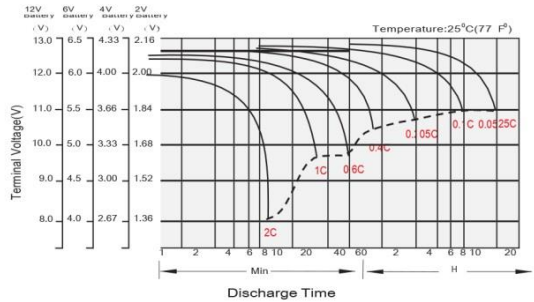
Dimensions

T6 Terminal

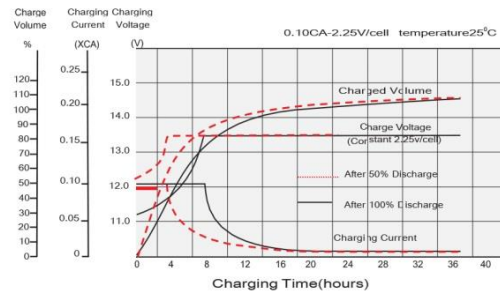
Unit: mm [inches]



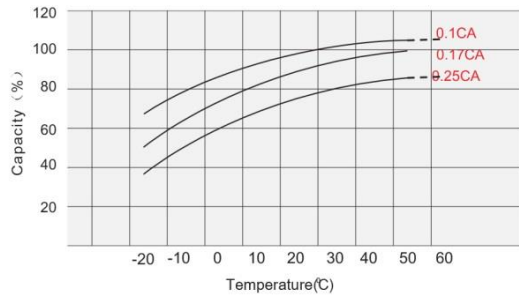
Discharge Characteristics



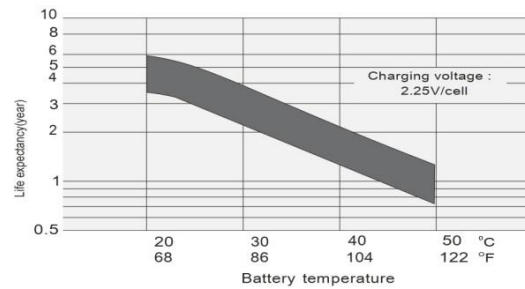
Float Charging Characteristics



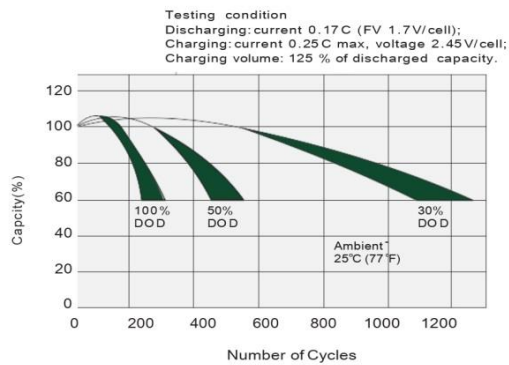
Temperature Effects in Relation to Battery Capacity



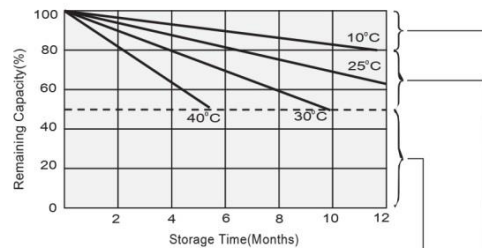
Effect of Temperature on Long Term Float Life



Cycle Life in Relation to Depth of Discharge



Self Discharge Characteristics



Supplementary charge may often fail to recover the capacity.
The battery should never be left standing till this is reached.

Supplementary charge required before use. Optional charging way as below:
1. Charged for above 3 days at limited current 0.25CA and constant voltage 2.25V/cell.
2. Charged for above 20 hours at limited current 0.25CA and constant voltage 2.45V/cell.
3. Charged for 8-10 hours at limited current 0.05CA.

No supplementary charge required
(Carry out supplementary charge before use if 100% capacity is required.)