

GEL12-38 12V38AH

GEL SERIES-GEL Battery



Specification

| | | |
|-------------------------------|---|------------------------------|
| Nominal Voltage | 12V | |
| Nominal Capacity(10HR) | 38AH | |
| Dimension | Length | 197 ± 2mm (7.76 inches) |
| | Width | 165 ± 2mm (6.50 inches) |
| | Container Height | 176 ± 2mm (6.92 inches) |
| | Total Height (with Terminal) | 182 ± 2mm (7.16inches) |
| Approx Weight | Approx 11.8 Kg (26.0 lbs) | |
| Terminal | T6 / T12 | |
| Container Material | ABS | |
| Rated Capacity | 40.0 AH/2.00A | (20hr ,1.80V/cell,25°C/77°F) |
| | 38.0 AH/3.80A | (10hr,1.80V/cell,25°C/77°F) |
| | 33.2 AH/6.64A | (5hr,1.75V/cell,25°C/77°F) |
| | 30.4 AH/10.1A | (3hr,1.75V/cell,25°C/77°F) |
| | 24.1 AH/24.1A | (1hr,1.60V/cell,25°C/77°F) |
| Max. Discharge Current | 380A (5s) | |
| Internal Resistance | Approx 10.5 mΩ | |
| Operating Temp.Range | Discharge | -30~50°C (5~122°F) |
| | Charge | 0~40°C (32~104°F) |
| | Storage | -30~40°C (5~104°F) |
| Nominal Operating Temp. Range | 25 ± 3°C (77 ± 5°F) | |
| Cycle Use | Initial Charging Current less than 11.4 A.Voltage 14.4V~14.9V at 25°C(77°F)Temp. Coefficient -30mV/°C | |
| | No limit on Initial Charging Current Voltage | |
| Standby Use | 13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C | |
| | Capacity affected by Temperature | 40°C (104 °F) 103% |
| Self Discharge | 25°C (77 °F) | 100% |
| | 0°C (32 °F) | 86% |
| | Techfine GEL series batteries may be stored for up to 9 months at 25°C(77°F) and battery should be recharge before use.For higher temperatures the time interval will be shorter. | |

Applications

- ◆ Telecommunications
- ◆ Solar system
- ◆ Wind power system
- ◆ Engine starting
- ◆ Wheelchair
- ◆ Floor cleaning machines
- ◆ Golf trolley
- ◆ Boats

| | | | |
|----------|-----------|-------------|------------|
| ISO 9001 | ISO 14001 | OHSAS 18001 | TLC |
| CE | RoHS | UL | PV Battery |

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

| F.V/Time | 20min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 7h | 8h | 9h | 10h | 20h |
|------------|-------|-------|-------|------|------|------|------|------|------|------|------|------|------|------|
| 1.85V/cell | 32.1 | 25.2 | 19.3 | 16.1 | 10.2 | 7.79 | 6.45 | 5.57 | 4.81 | 4.26 | 3.84 | 3.51 | 3.32 | 1.82 |
| 1.80V/cell | 36.8 | 28.2 | 21.2 | 17.8 | 11.1 | 8.35 | 6.84 | 5.85 | 5.05 | 4.46 | 4.02 | 3.69 | 3.47 | 1.90 |
| 1.75V/cell | 41.4 | 31.0 | 23.0 | 19.0 | 11.7 | 8.82 | 7.16 | 6.08 | 5.23 | 4.61 | 4.15 | 3.80 | 3.53 | 1.94 |
| 1.70V/cell | 44.6 | 33.2 | 24.4 | 20.1 | 12.4 | 9.18 | 7.40 | 6.27 | 5.41 | 4.77 | 4.28 | 3.90 | 3.62 | 1.96 |
| 1.67V/cell | 46.4 | 34.5 | 25.2 | 20.9 | 12.7 | 9.47 | 7.58 | 6.40 | 5.50 | 4.84 | 4.34 | 3.95 | 3.66 | 1.98 |
| 1.60V/cell | 50.3 | 36.9 | 27.1 | 22.2 | 13.3 | 9.85 | 7.87 | 6.60 | 5.63 | 4.94 | 4.42 | 4.04 | 3.73 | 2.01 |

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

| F.V/Time | 20min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 7h | 8h | 9h | 10h | 20h |
|------------|-------|-------|-------|------|------|------|------|------|------|------|------|------|------|------|
| 1.85V/cell | 61.5 | 48.6 | 37.3 | 31.4 | 20.0 | 15.3 | 12.7 | 11.0 | 9.52 | 8.45 | 7.64 | 6.99 | 6.61 | 3.64 |
| 1.80V/cell | 69.6 | 53.8 | 40.9 | 34.4 | 21.5 | 16.3 | 13.4 | 11.5 | 10.0 | 8.82 | 7.98 | 7.33 | 6.90 | 3.79 |
| 1.75V/cell | 77.3 | 58.7 | 43.9 | 36.7 | 22.7 | 17.2 | 14.0 | 11.9 | 10.3 | 9.11 | 8.22 | 7.54 | 7.03 | 3.86 |
| 1.70V/cell | 82.4 | 62.3 | 46.2 | 38.6 | 24.0 | 17.8 | 14.4 | 12.3 | 10.6 | 9.39 | 8.45 | 7.74 | 7.18 | 3.90 |
| 1.67V/cell | 84.8 | 64.0 | 47.5 | 39.8 | 24.5 | 18.3 | 14.7 | 12.5 | 10.8 | 9.50 | 8.56 | 7.82 | 7.26 | 3.94 |
| 1.60V/cell | 90.8 | 67.9 | 50.7 | 42.1 | 25.3 | 19.0 | 15.2 | 12.8 | 11.0 | 9.68 | 8.69 | 7.97 | 7.39 | 3.99 |

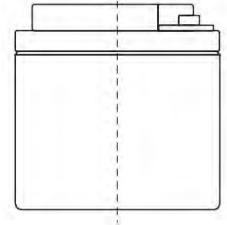
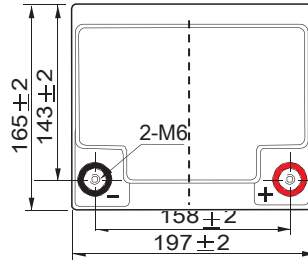
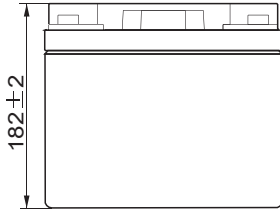
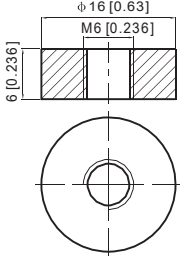
Note The above data are average values, and can be obtained with 3 charge/discharge cycles. These are not minimum values.

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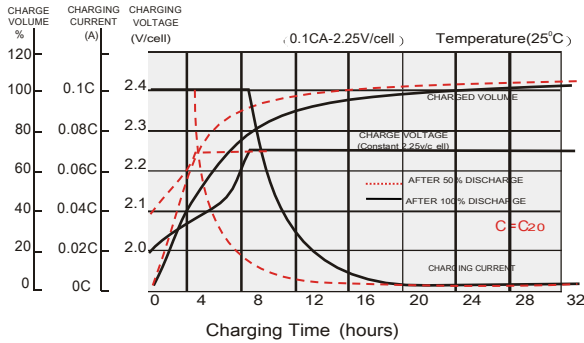
Dimensions

T6 Terminal

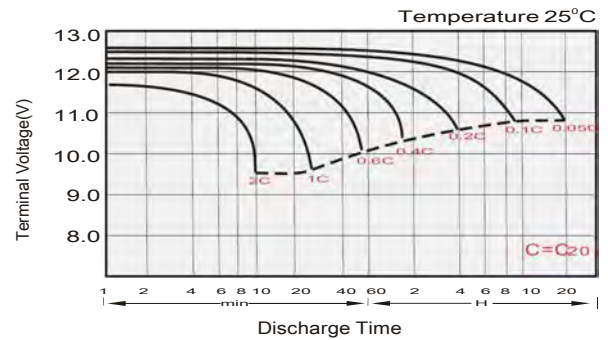
Unit: mm [inches]



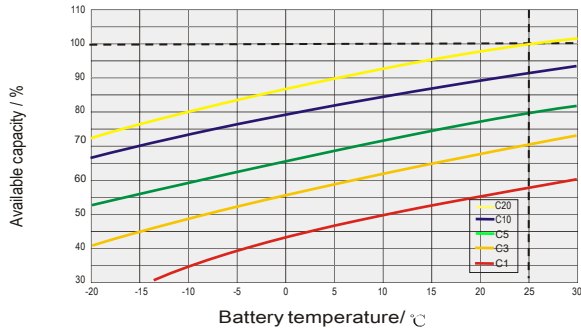
Float Charging Characteristics



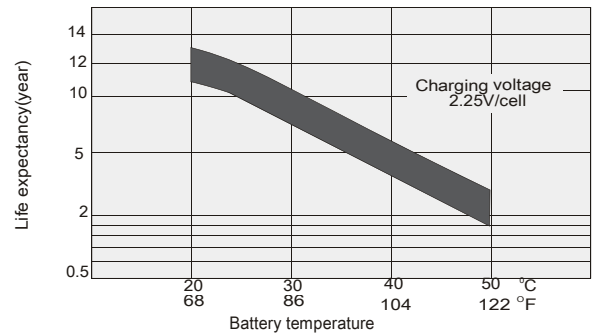
Discharge Characteristics



Temperature Effects in Relation to Battery Capacity

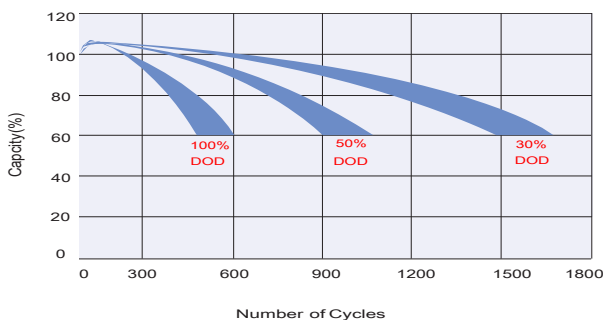


Effect of Temperature on Long Term Float Life

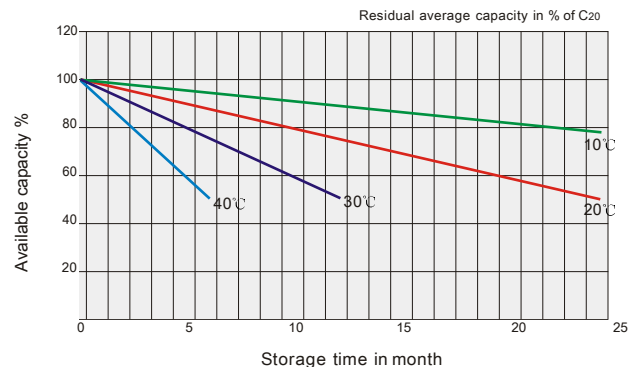


Cycle Life in Relation to Depth of Discharge

Testing condition
Discharging: current 0.17C (FV 1.7V/cell);
Charging: current 0.25C max, voltage 2.45V/cell;
Charging volume: 125% of discharged capacity.



General Relation of Capacity VS. Storage Time



TECHFINE GEL BATTERIES

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