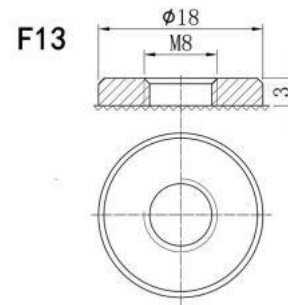


GEL DEEP CYCLE BATTERY



Model: BT-100-12 (12V100AH)



Application

- ☆ Solar system
- ☆ Wind system

General Features

- ☆ Thick plates and high-density active material
- ☆ High power density
- ☆ Longer life in deep cycle applications
- ☆ Excellent recovery from deep discharge
- ☆ Extremely low self-discharge rate
- ☆ Wide suitability of ambient temperature -20°C~55°C

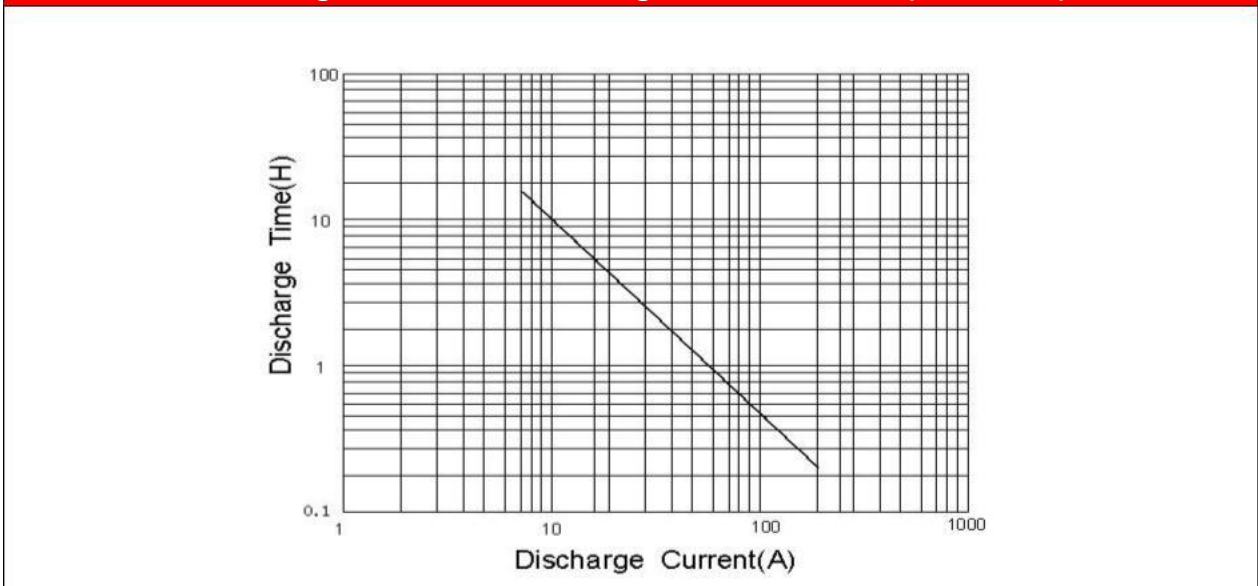
| PHYSICAL SPECIFICATIONS | | |
|---|-------------------------------------|--------------------|
| Nominal Voltage | | 12V |
| Nominal Capacity (10HR) | | 100AH |
| Dimensions | Length | 331±3mm |
| | Width | 173±2mm |
| | Container height | 216±2mm |
| | Total Height (with terminal) | 222±2mm |
| Weight±3% | | Approx 30Kg(66lbs) |
| Internal Resistance(In full charge status) | | ≈4.5mΩ |
| Standard Terminals | | F13(standard) |

| ELECTRICAL SPECIFICATIONS | | |
|---|-----------------------|--------|
| Rated Capacity | 10 hour rate(10A) | 100AH |
| | 20 hour rate(5A) | 103AH |
| | 120 hour rate(0.83A) | 109 AH |
| | 240 hour rate (0.42A) | 110AH |
| Capacity affected by Temperature (10Hour Rate) | 40°C(104°F) | 103% |
| | 25°C(77°F) | 100% |
| | 0°C(32°F) | 86% |

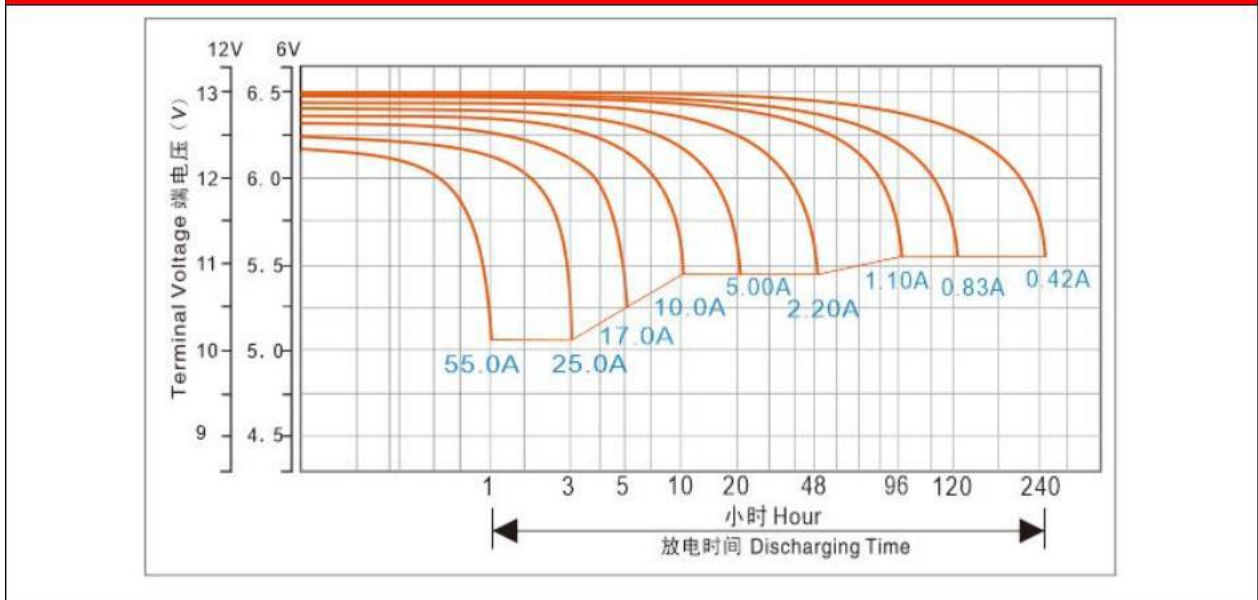
Constant – Voltage Charge

| | |
|---|---|
| Cycle application | <ol style="list-style-type: none"> 1. Limit initial current less than 20A. 2. Charge until battery voltage (under charge) reaches 14.1V to 14.4V at 25°C (77F). 3. Hold at 14.1V to 14.4V until current drop to under 0.6A for at least 3 hours. 4. Temperature compensation coefficient of charging voltage is -30mV/°C. |
| Standby service | <ol style="list-style-type: none"> 1. Hold battery across constant voltage source of 13.6 to 13.8 volts with current limit 20A continuously .When held at this voltage , the battery will seek its own current level and maintain itself in a fully charge status. 2. Temperature compensation coefficient of charging voltage is -18mV/°C |
| <p>NOTE : The battery should be charged within 9 months of storage ,Otherwise , permanent loss of capacity might occur as a result of sulfation</p> | |

Discharge Current & Discharge Duration Time (25°C/77°F)



Discharge Characteristic (25°C/77°F)



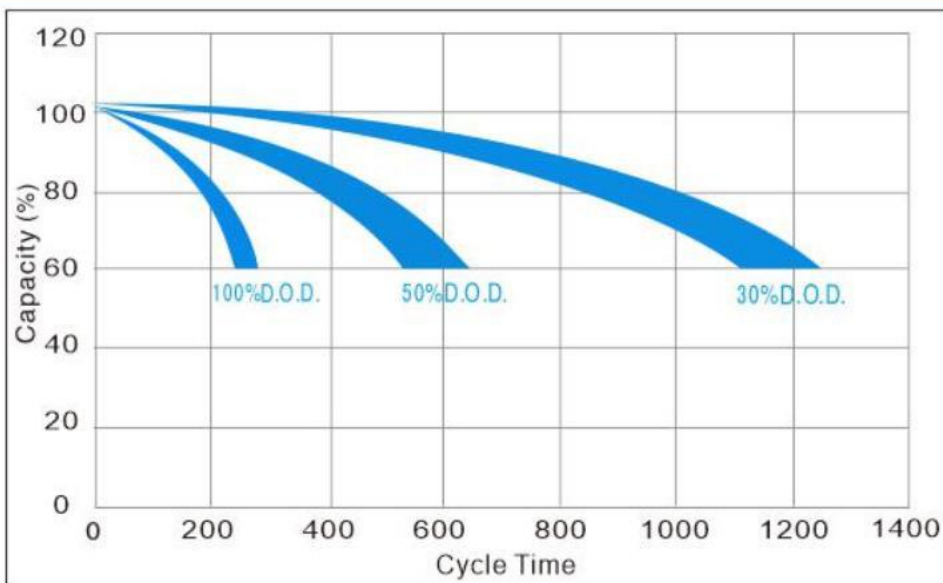
Constant Current Discharge Data Sheet (Amperes at 25°C)

| End Voltage | Hour (H) | | | | | | | | | |
|--------------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 1 | 2 | 4 | 8 | 10 | 20 | 48 | 96 | 120 | 240 |
| 10.20 | 58.00 | 35.90 | 22.05 | 12.20 | 10.10 | 5.200 | 2.375 | 1.245 | 1.035 | 0.530 |
| 10.50 | 55.00 | 33.81 | 21.04 | 12.10 | 10.05 | 5.150 | 2.365 | 1.235 | 1.025 | 0.525 |
| 10.80 | 52.50 | 31.78 | 20.00 | 12.00 | 10.00 | 5.100 | 2.335 | 1.225 | 1.015 | 0.520 |
| 11.10 | 48.65 | 29.75 | 18.96 | 11.70 | 9.850 | 5.050 | 2.300 | 1.220 | 1.000 | 0.515 |
| 11.40 | 45.35 | 27.68 | 17.87 | 11.35 | 9.700 | 4.950 | 2.265 | 1.215 | 0.985 | 0.510 |

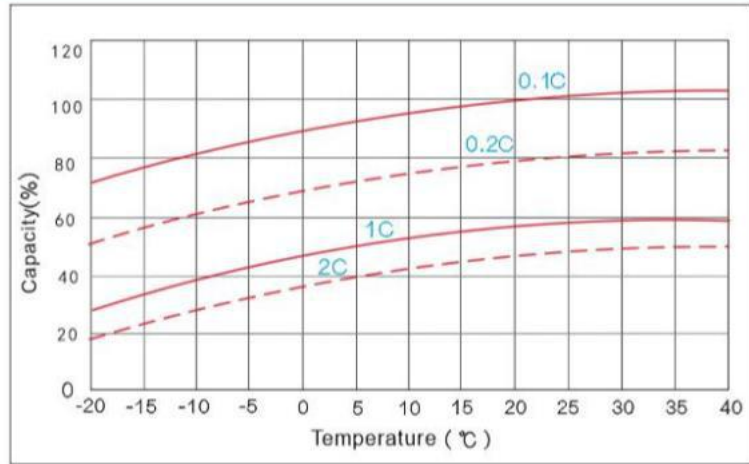
Constant Power Discharge Data Sheet (Watt at 25°C)

| End Voltage | Hour (H) | | | | | | | | | |
|--------------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 1 | 2 | 4 | 8 | 10 | 20 | 48 | 96 | 120 | 240 |
| 10.20 | 602.8 | 373.1 | 229.2 | 126.8 | 105.0 | 54.05 | 24.69 | 12.94 | 10.76 | 5.509 |
| 10.50 | 571.7 | 351.4 | 218.7 | 125.8 | 104.5 | 53.53 | 24.58 | 12.84 | 10.65 | 5.457 |
| 10.80 | 545.7 | 330.3 | 207.9 | 124.7 | 103.9 | 53.01 | 24.27 | 12.73 | 10.55 | 5.405 |
| 11.10 | 505.7 | 309.2 | 197.1 | 121.6 | 102.4 | 52.49 | 23.91 | 12.68 | 10.39 | 5.353 |
| 11.40 | 471.4 | 287.6 | 185.7 | 118.0 | 100.8 | 51.45 | 23.54 | 12.63 | 10.24 | 5.301 |

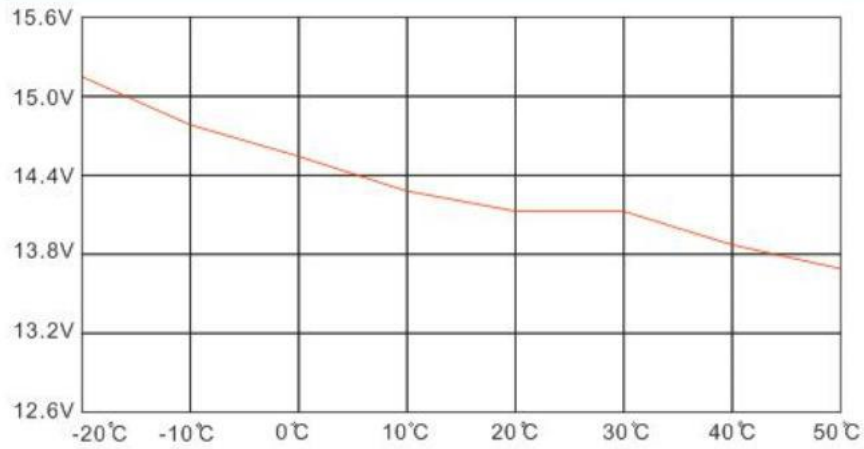
The Relationship Between Lifetime and Depth Of Discharge(25°C/77°F)



Capacity Curve at Different Temperature



Charge Voltage VS Ambient Temperature Curve



Storage Characteristics

