

## High-Temp Long Life GEL Deep Cycle Battery

## HTB12-150

HTB series uses the newly developed nano gel electrolyte with super-C additive plus heavy duty plates design inside. The HTB series has a long service life and can provide optimum and reliable service under extreme condition such as high temperature and frequent power failure, This series is highly suited for tropical area in outdoor applications such as Telecom BTS stations and Off-grid PV system.

12V  
150Ah

GEL  
Technology

Deep  
Cycle



### COMPLIED STANDARDS

IEC 60896-21/22 JIS C8704  
IEC61427 BS6290 part4  
GB/T 19638 CE/ISO

### Applications

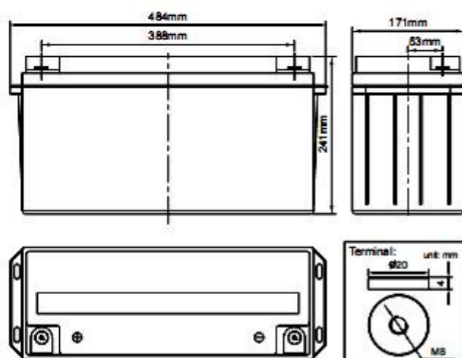
- BTS Stations
- Solar & Wind energy system
- UPS system
- Telecom systems
- Wheel chair, Golf Car

### General Features

- ✓ Able to operate at 40-60°C
- ✓ DOD 50% 1500 times Cycles
- ✓ Integrated design to ensure the best Uniformity and reliability
- ✓ Long life and high stability under high temp. environment (no air-con needed)
- ✓ Use super-C additives: Deep discharge recovery capability

### Dimensions & Weight

|                  |         |
|------------------|---------|
| Length(mm)       | 484±1   |
| Width(mm)        | 171±1   |
| Height(mm)       | 241±1   |
| Total Height(mm) | 241±1   |
| Weight(kg)       | 45.7±3% |



### Technical Specifications

|                                                    |                            |                                                                 |
|----------------------------------------------------|----------------------------|-----------------------------------------------------------------|
| Nominal Voltage                                    |                            | 12V (6 cells per unit)                                          |
| Design Floating Life @25°C                         |                            | 20 Years                                                        |
| Nominal Capacity @25°C (20 hour rate @7.5A, 10.8V) |                            | 150Ah                                                           |
| Capacity @25°C                                     | 10hour rate (13.5A, 10.8V) | 135Ah                                                           |
|                                                    | 5 hour rate (23.9A, 10.5V) | 119.5Ah                                                         |
|                                                    | 1 hour rate (86.6A, 9.6V)  | 86.6Ah                                                          |
| Internal Resistance                                | Full Charged Battery @25°C | ≤4.0mΩ                                                          |
| Ambient Temperature                                | Discharge                  | -25°C~60°C                                                      |
|                                                    | Charge                     | -25°C~60°C                                                      |
|                                                    | Storage                    | -25°C~60°C                                                      |
| Max. Discharge Current @25°C                       |                            | 800A(5s)                                                        |
| Capacity affected by Temperature (10 hour)         | 40°C                       | 108%                                                            |
|                                                    | 25°C                       | 100%                                                            |
|                                                    | 0°C                        | 90%                                                             |
|                                                    | -15°C                      | 70%                                                             |
| Self-Discharge @25°C per Month                     |                            | 3%                                                              |
| Charge (Constant Voltage) @25°C                    | Standby Use                | Initial Charging Current Less than 33.75A<br>Voltage 13.6-13.8V |
|                                                    | Cycle Use                  | Initial Charging Current Less than 33.75A<br>Voltage 14.4-14.9V |

### Battery Discharge Table

#### Discharge Constant Current per Cell (Amperes at 25°C)

| F.V/Time | 15min | 30min | 45min | 1h   | 2h   | 3h   | 5h   | 8h   | 10h  | 20h  | 100h |
|----------|-------|-------|-------|------|------|------|------|------|------|------|------|
| 1.60V    | 234.3 | 139.4 | 99.0  | 86.6 | 52.9 | 37.1 | 25.2 | 16.7 | 14.9 | 8.10 | 1.80 |
| 1.65V    | 230.0 | 136.9 | 97.2  | 85.1 | 51.9 | 36.5 | 24.8 | 16.4 | 14.6 | 7.95 | 1.76 |
| 1.70V    | 225.8 | 134.4 | 95.4  | 83.5 | 51.0 | 35.8 | 24.3 | 16.1 | 14.3 | 7.80 | 1.73 |
| 1.75V    | 221.5 | 131.8 | 93.6  | 81.9 | 50.0 | 35.1 | 23.9 | 15.8 | 14.0 | 7.65 | 1.70 |
| 1.80V    | 213.0 | 126.8 | 90.0  | 78.8 | 48.1 | 33.8 | 23.0 | 15.2 | 13.5 | 7.50 | 1.67 |

#### Discharge Constant Power per Cell (Watts at 25°C)

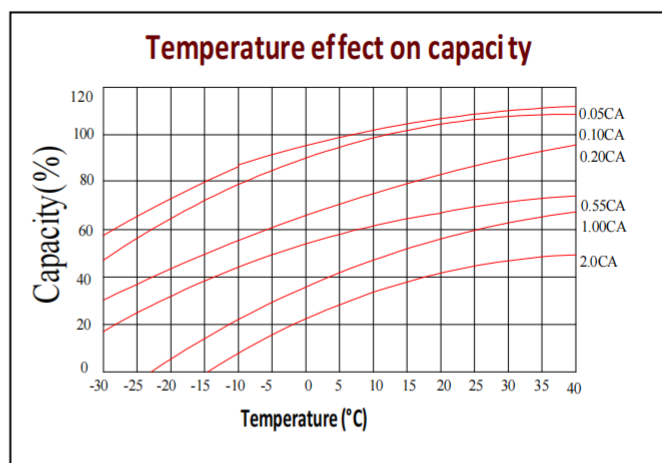
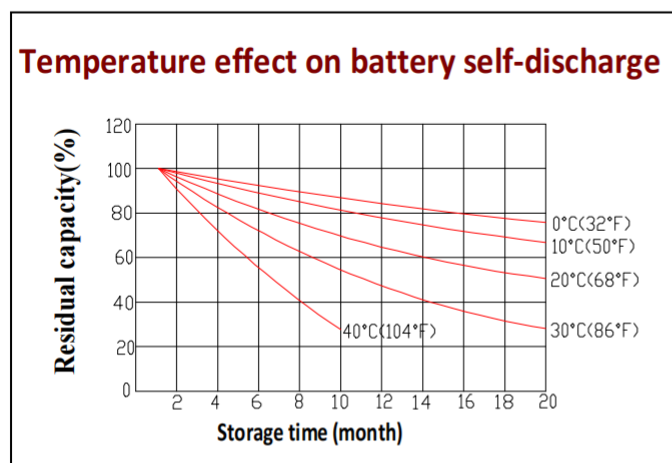
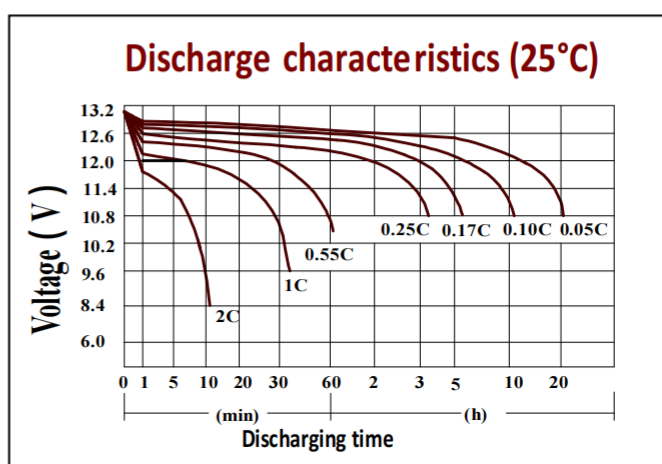
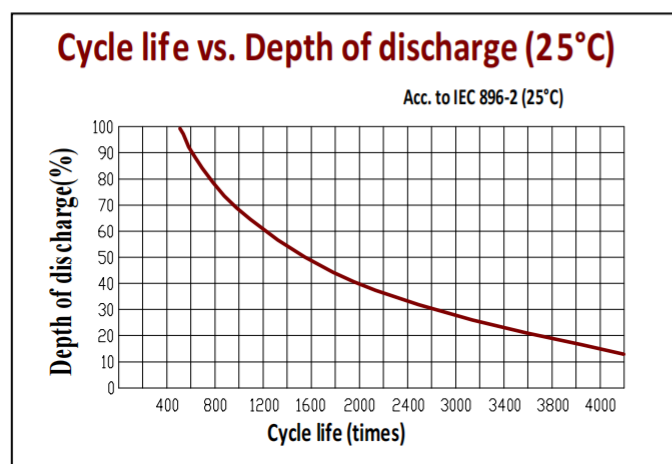
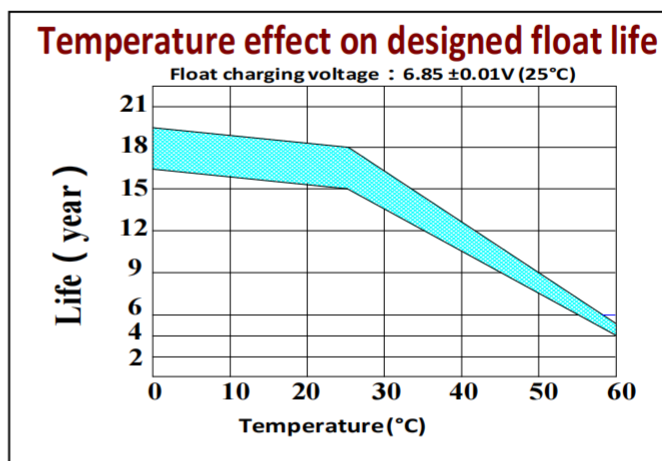
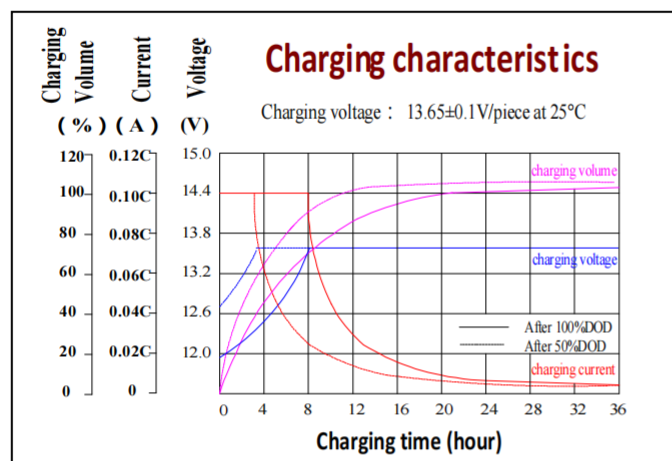
| F.V/Time | 15min | 30min | 45min | 1h    | 2h    | 3h   | 5h   | 8h   | 10h  | 20h  | 100h |
|----------|-------|-------|-------|-------|-------|------|------|------|------|------|------|
| 1.60V    | 451.0 | 268.4 | 190.6 | 166.8 | 101.8 | 71.5 | 48.6 | 32.1 | 28.6 | 15.6 | 3.46 |
| 1.65V    | 442.8 | 263.5 | 187.1 | 163.7 | 99.9  | 70.2 | 47.7 | 31.5 | 28.1 | 15.3 | 3.40 |
| 1.70V    | 434.6 | 258.6 | 183.6 | 160.7 | 98.1  | 68.9 | 46.8 | 30.9 | 27.5 | 15.0 | 3.33 |
| 1.75V    | 426.4 | 253.8 | 180.2 | 157.7 | 96.2  | 67.6 | 45.9 | 30.3 | 27.0 | 14.7 | 3.27 |
| 1.80V    | 410.0 | 244.0 | 173.3 | 151.6 | 92.5  | 65.0 | 44.2 | 29.2 | 26.0 | 14.4 | 3.21 |

**Note:** The above data are average values, and can be obtained within 3 charge/discharge cycles. These are not minimum values. Cell and battery designs/specifications are subject to modification without notice. Contact **CSBattery** for the latest information.

## High-Temp Long Life GEL Deep Cycle Battery

## HTB12-150

### Performance Characteristics



### Battery Construction

| Component | Positive plate                               | Negative plate                                            | Container & Cover                      | Safety valve                         | Terminal                | Separator                                                 | Electrolyte | Pillar seal                 |
|-----------|----------------------------------------------|-----------------------------------------------------------|----------------------------------------|--------------------------------------|-------------------------|-----------------------------------------------------------|-------------|-----------------------------|
| Features  | Thick high Sn low Ca grid with special paste | Balanced Pb-Ca grid for improved recombination efficiency | Fire resistance ABS (UL94-V0 optional) | Flame Si-Rubber and aging resistance | Female Copper Insert M8 | Advanced PVC /AGM separator for high pressure cell design | Silicon Gel | Two layers epoxy resin seal |

Add: Building Evolution, Xingdong industry Park, NO.61, Liuxian 2nd Road, Baoan, Shenzhen, China.

Tel: +86-755-29123661 Email: Sales@CSBattery.cn, Support@CSBattery.cn

Website: www.CSBattery.cn