

## GENERAL FEATURES

- Environmentally friendly
- Thick plate with high Tin low Calcium alloy
- High Reliability and Good Quality
- Deep Discharge Recovery
- High Power Density
- Long Service Life, in Float or Cyclic

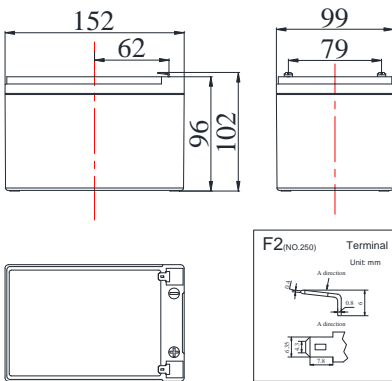
## APPLICATIONS

- Solar & Wind energy system
- Cable TV Systems
- Telecom systems
- Wheel chair & Golf Car
- Marine Equipment
- Railway Systems
- Emergency Power System



## DIMENSIONS & WEIGHT

|                  |        |
|------------------|--------|
| Length(mm)       | 152±1  |
| Width(mm)        | 99±1   |
| Height(mm)       | 96±1   |
| Total Height(mm) | 102±1  |
| Weight(kg)       | 3.8±3% |



## COMPLIED STANDARDS

|                 |              |
|-----------------|--------------|
| IEC 60896-21/22 | JIS C8704    |
| YD/T799         | BS6290 part4 |
| GB/T 19638      | UL 1989      |

## TECHNICAL SPECIFICATIONS



|  |                            |  |
|--|----------------------------|--|
| Nominal Voltage                                    |                            | 12V(6 cells per unit)  |
| Design Floating Life @25°C                         |                            | 6 Years  |
| Nominal Capacity @25°C(20 hour rate@0.70A,10.50V)  |                            | 14Ah   |
| Capacity @25°C                                     | 10 hour rate (1.32A,10.8V) | 13.20Ah  |
|  | 5 hour rate (2.50A,10.5V)  | 12.50Ah  |
|  | 1 hour rate (9.14A,9.6V)   | 9.14Ah   |
| Internal Resistance                                | Full Charged Battery@25°C  | ≤15.0mΩ  |
| Ambient Temperature                                | Discharge                  | -20°C~50°C   |
|  | Charge                     | -20°C~50°C   |
|  | Storage                    | -20°C~50°C   |
| Max.Discharge Current@25°C                         |                            | 210A(5s)   |
| Capacity affected by Temperature (10 hr Capacity ) | 40°C                       | 102%   |
|  | 25°C                       | 100%   |
|  | 0°C                        | 85%  |
|  | -15°C                      | 65%  |
| Self-Discharge@25°C per Month                      |                            | 3%   |
| Charge (Constant Voltage) @25°C                    | Standby Use                | Initial Charging Current Less than 3.78A<br>Voltage 13.6-13.8V |
|  | Cycle Use                  | Initial Charging Current Less than 3.78A<br>Voltage 14.4-14.9V |

## BATTERY DISCHARGE TABEL

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

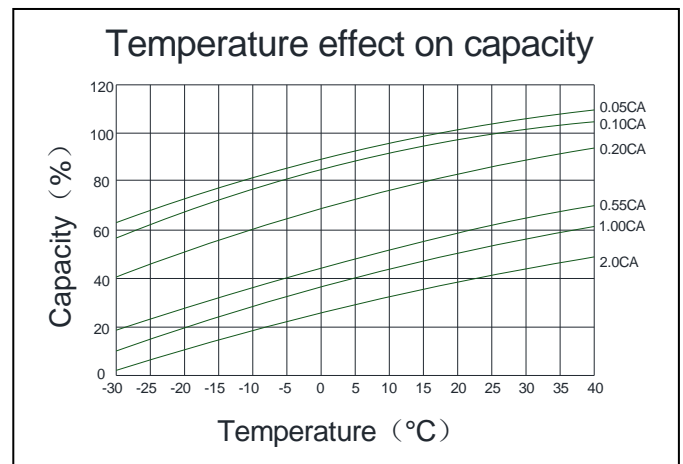
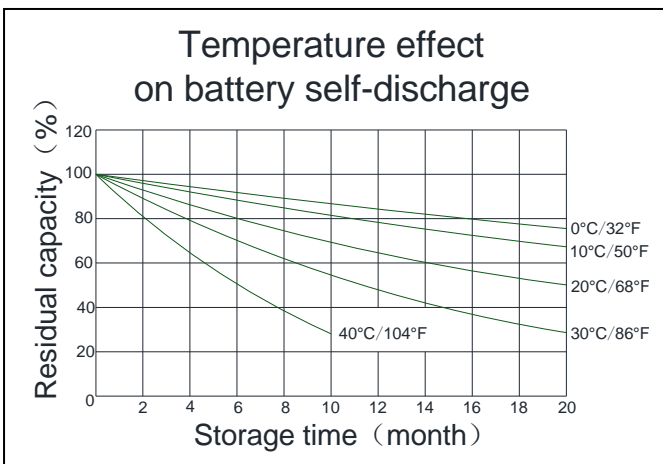
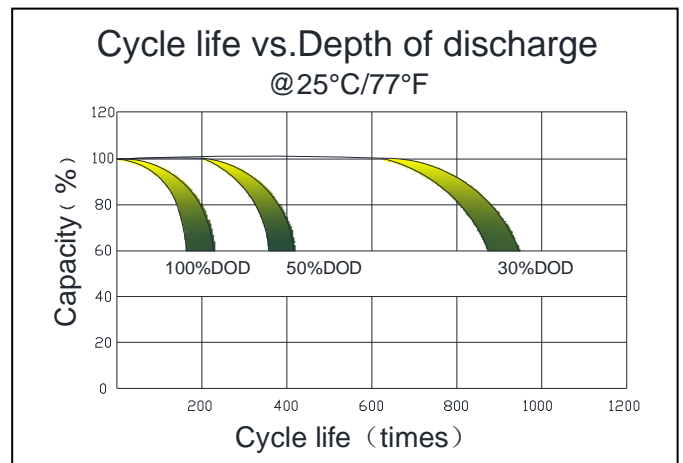
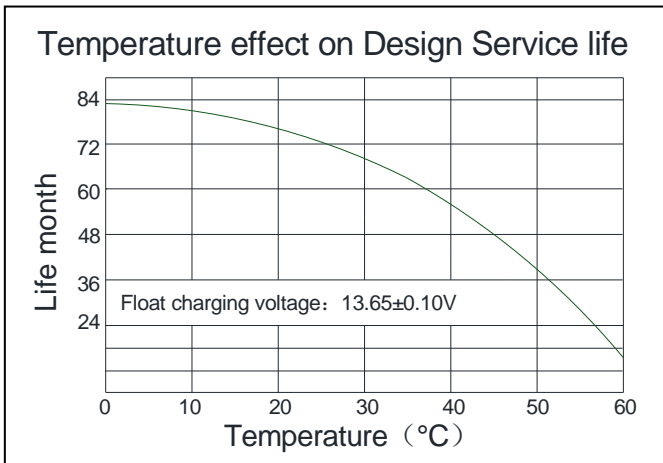
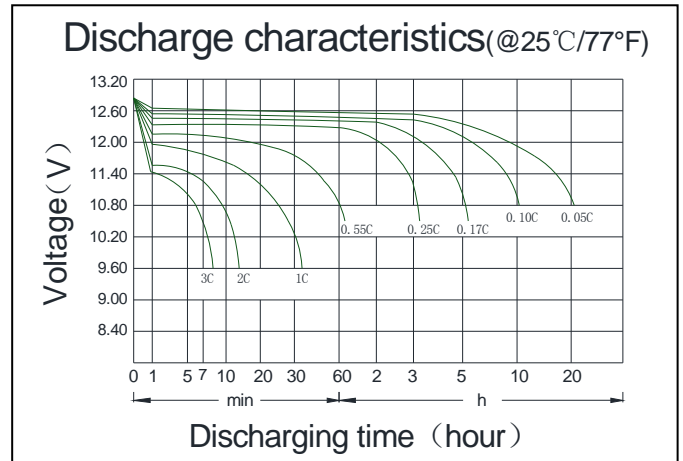
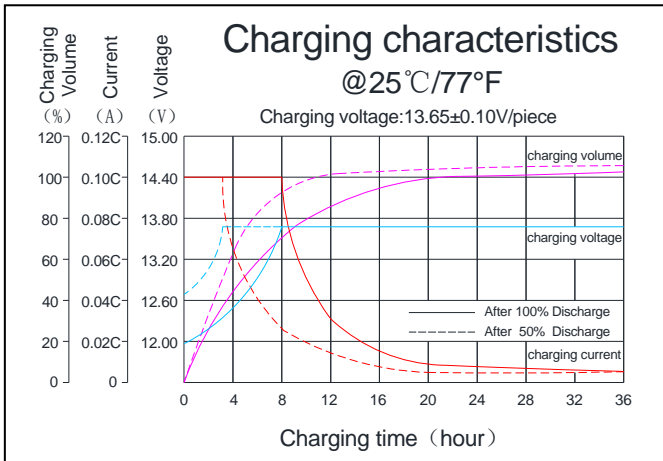
| F.V/Time | 5min | 10min | 15min | 30min | 45min | 1h   | 2h   | 3h   | 5h   | 8h   | 10h  | 20h   |
|----------|------|-------|-------|-------|-------|------|------|------|------|------|------|-------|
| 1.60V    | 58.0 | 36.6  | 26.9  | 15.97 | 11.64 | 9.14 | 5.78 | 3.96 | 2.64 | 1.77 | 1.40 | 0.740 |
| 1.67V    | 54.9 | 35.1  | 26.3  | 15.70 | 11.45 | 8.84 | 5.68 | 3.88 | 2.60 | 1.74 | 1.38 | 0.726 |
| 1.70V    | 52.0 | 33.2  | 26.0  | 15.49 | 11.31 | 8.56 | 5.56 | 3.82 | 2.54 | 1.70 | 1.36 | 0.714 |
| 1.75V    | 49.6 | 31.7  | 24.6  | 14.98 | 11.01 | 8.30 | 5.46 | 3.74 | 2.50 | 1.69 | 1.34 | 0.700 |
| 1.80V    | 45.8 | 29.5  | 22.9  | 14.38 | 10.65 | 8.06 | 5.26 | 3.60 | 2.40 | 1.64 | 1.32 | 0.692 |

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

| F.V/Time | 5min   | 10min | 15min | 30min | 45min | 1h    | 2h    | 3h   | 5h   | 8h   | 10h  | 20h   |
|----------|--------|-------|-------|-------|-------|-------|-------|------|------|------|------|-------|
| 1.60V    | 104.06 | 70.32 | 52.00 | 31.06 | 22.72 | 17.98 | 11.34 | 7.81 | 5.23 | 3.53 | 2.81 | 1.476 |
| 1.67V    | 99.72  | 67.47 | 51.00 | 30.62 | 22.42 | 17.36 | 11.14 | 7.67 | 5.13 | 3.49 | 2.78 | 1.454 |
| 1.70V    | 95.62  | 63.82 | 50.42 | 30.28 | 22.20 | 16.74 | 10.93 | 7.52 | 5.05 | 3.43 | 2.76 | 1.436 |
| 1.75V    | 91.60  | 60.93 | 47.84 | 29.36 | 21.66 | 16.12 | 10.73 | 7.38 | 4.94 | 3.40 | 2.71 | 1.406 |
| 1.80V    | 85.40  | 56.99 | 44.72 | 28.28 | 21.00 | 15.50 | 10.30 | 7.09 | 4.76 | 3.31 | 2.69 | 1.400 |

**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 MCA for the latest information.

## 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 | ABS (UL94-V0 optional) | Flame Si-Rubber and aging resister | Female Copper Insert (F1/F2) | Advanced AGM separator for high pressure cell design | Dilute high purity sulphuric acid | Two layers epoxy resin seal |