

## 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

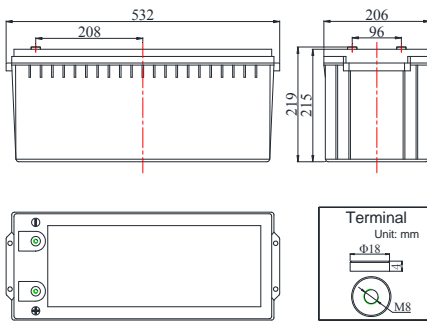
## APPLICATIONS

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



## DIMENSIONS & WEIGHT

|                  |         |
|------------------|---------|
| Length(mm)       | 532±1   |
| Width(mm)        | 206±1   |
| Height(mm)       | 215±1   |
| Total Height(mm) | 219±1   |
| Weight(kg)       | 56.0±3% |



## TECHNICAL SPECIFICATIONS



|                                                    |                             |                                                                |
|----------------------------------------------------|-----------------------------|----------------------------------------------------------------|
| Nominal Voltage                                    |                             | 12V(6 cells per unit)                                          |
| Design Floating Life @25°C                         |                             | 12 Years                                                       |
| Nominal Capacity @25°C(20 hour rate@9.00A,10.50V)  |                             | 180Ah                                                          |
| Capacity @25°C                                     | 10 hour rate (16.38A,10.8V) | 163.8Ah                                                        |
|                                                    | 5 hour rate (28.60A,10.5V)  | 143.0Ah                                                        |
|                                                    | 1 hour rate (100.1A,9.6V)   | 100.1Ah                                                        |
| Internal Resistance                                | Full Charged Battery@25°C   | ≤3.6mΩ                                                         |
| Ambient Temperature                                | Discharge                   | -20°C~50°C                                                     |
|                                                    | Charge                      | -20°C~50°C                                                     |
|                                                    | Storage                     | -20°C~50°C                                                     |
| Max.Discharge Current@25°C                         |                             | 1800A(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 32.4A<br>Voltage 13.6-13.8V |
|                                                    | Cycle Use                   | Initial Charging Current Less than 32.4A<br>Voltage 14.4-14.9V |

## COMPLIED STANDARDS

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

## BATTERY DISCHARGE TABEL

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

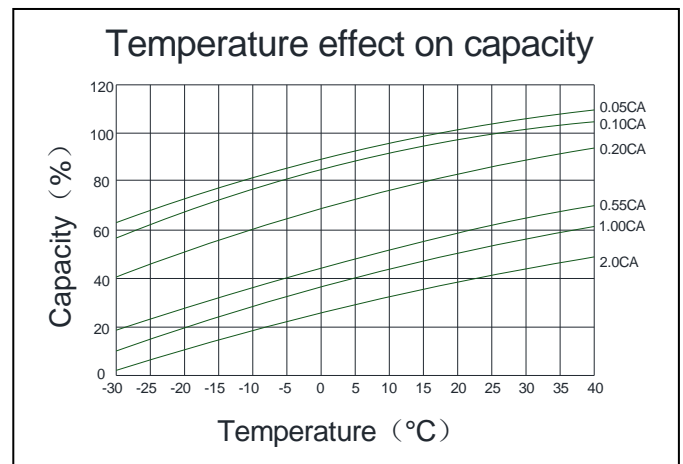
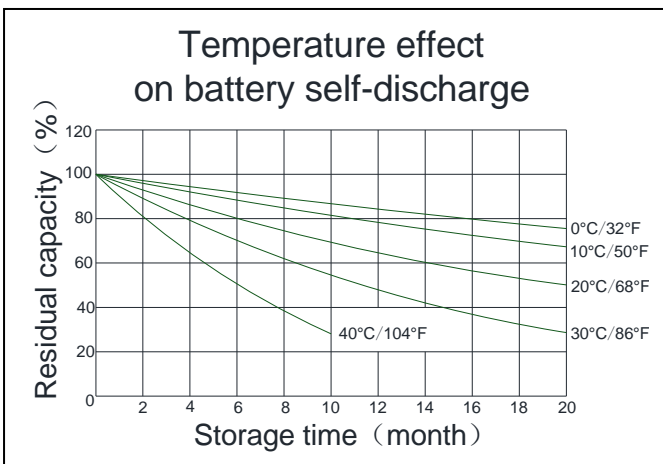
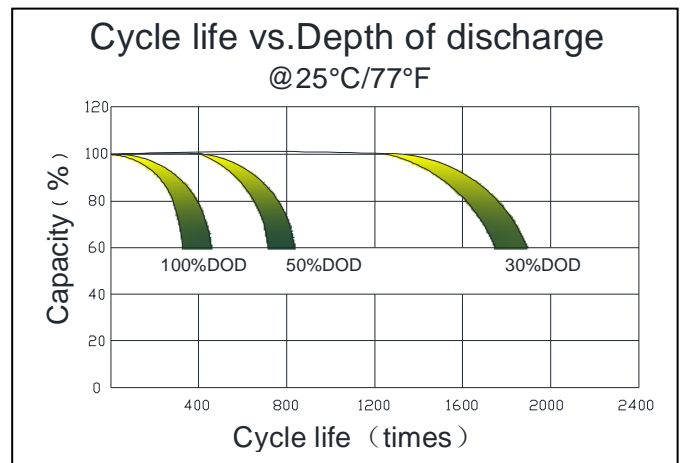
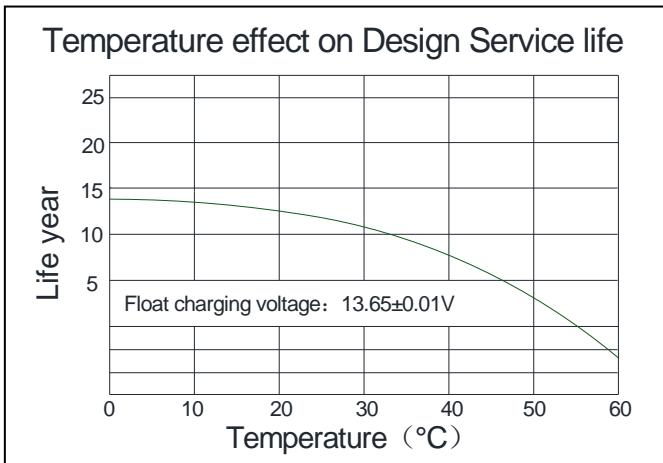
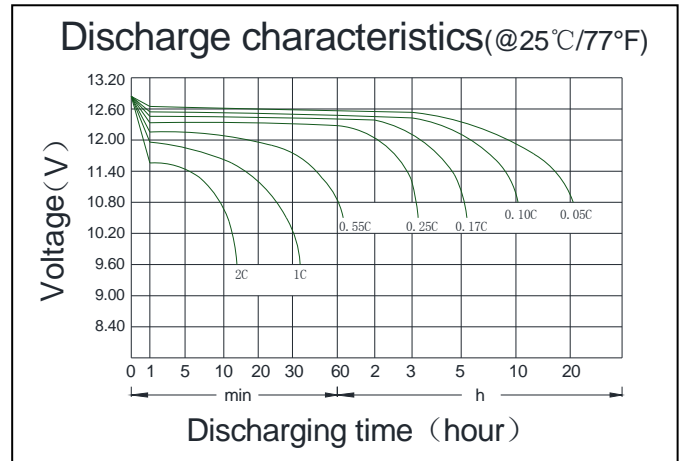
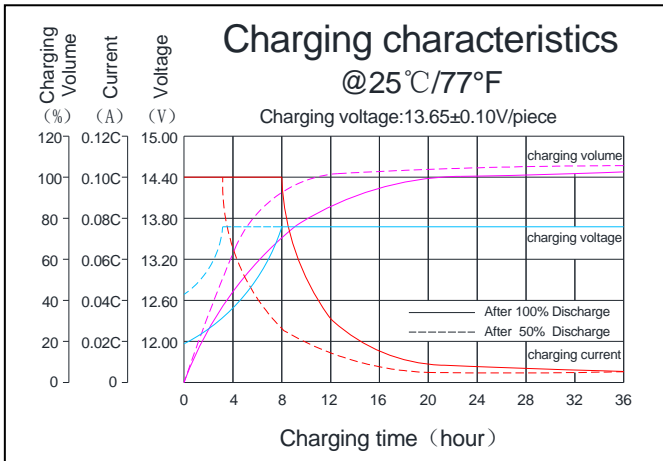
| F.V/Time | 15min | 30min | 45min | 1h    | 2h   | 3h   | 5h   | 8h   | 10h   | 20h  | 100h |
|----------|-------|-------|-------|-------|------|------|------|------|-------|------|------|
| 1.60V    | 231.7 | 148.0 | 108.7 | 100.1 | 63.5 | 44.6 | 30.2 | 20.0 | 17.82 | 9.54 | 2.16 |
| 1.67V    | 227.5 | 145.3 | 106.7 | 98.1  | 62.3 | 43.7 | 29.7 | 19.6 | 17.46 | 9.36 | 2.12 |
| 1.70V    | 223.2 | 142.6 | 104.8 | 96.3  | 61.2 | 43.0 | 29.2 | 19.3 | 17.10 | 9.18 | 2.07 |
| 1.75V    | 219.1 | 139.9 | 102.8 | 94.5  | 59.9 | 42.1 | 28.6 | 18.9 | 16.92 | 9.00 | 2.03 |
| 1.80V    | 210.6 | 134.5 | 98.8  | 90.9  | 57.6 | 40.5 | 27.5 | 18.2 | 16.38 | 8.91 | 2.00 |

### 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    | 445.9 | 284.8 | 209.3 | 192.1 | 122.0 | 85.7 | 58.3 | 38.3 | 34.4 | 18.6 | 4.16 |
| 1.67V    | 437.8 | 279.5 | 205.4 | 188.6 | 119.9 | 84.2 | 57.2 | 37.8 | 33.7 | 18.2 | 4.07 |
| 1.70V    | 429.7 | 274.3 | 201.6 | 185.0 | 117.7 | 82.6 | 56.2 | 37.1 | 33.1 | 18.1 | 4.00 |
| 1.75V    | 421.6 | 269.1 | 197.8 | 181.6 | 115.4 | 81.0 | 55.1 | 36.4 | 32.4 | 17.8 | 3.92 |
| 1.80V    | 405.4 | 258.8 | 190.3 | 174.6 | 111.1 | 77.9 | 53.1 | 34.9 | 31.1 | 17.3 | 3.85 |

**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 M8 (torque: 7~9N.m) | Advanced AGM separator for high pressure cell design | Dilute high purity sulphuric acid | Two layers epoxy resin seal |