

## GENERAL FEATURES

- Environmentally friendly
- Able to operate at 60°C
- 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

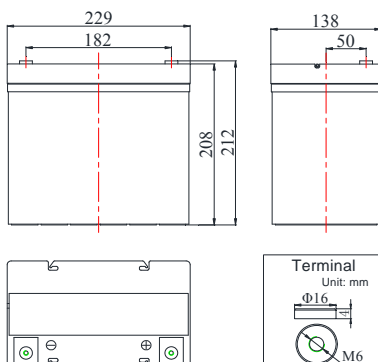
## APPLICATIONS

- Solar & Wind energy system
- BTS Stations
- UPS system
- Telecom systems
- Wheel chair & Golf Car
- Marine Equipment
- Railway Systems



## DIMENSIONS & WEIGHT

|                  |         |
|------------------|---------|
| Length(mm)       | 229±1   |
| Width(mm)        | 138±1   |
| Height(mm)       | 208±1   |
| Total Height(mm) | 212±1   |
| Weight(kg)       | 16.1±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                         |                            | 15 Years   |
| Nominal Capacity @25°C(20 hour rate@2.75A,10.50V ) |                            | 55Ah   |
| Capacity @25°C                                     | 10 hour rate (5.17A,10.8V) | 51.7Ah   |
|  | 5 hour rate (8.7A,10.5V)   | 43.5Ah   |
|  | 1 hour rate (30.6A,9.6V)   | 30.6Ah   |
| Internal Resistance                                | Full Charged Battery@25°C  | ≤10.0mΩ  |
| Ambient Temperature                                | Discharge                  | -30°C~60°C   |
|  | Charge                     | -30°C~60°C   |
|  | Storage                    | -30°C~60°C   |
| Max.Discharge Current@25°C                         |                            | 550A(5s)   |
| Capacity affected by Temperature (10 hr Capacity ) | 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 12.4A<br>Voltage 13.6-13.8V |
|  | Cycle Use                  | Initial Charging Current Less than 12.4A<br>Voltage 14.4-14.9V |

## BATTERY DISCHARGE TABLE

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

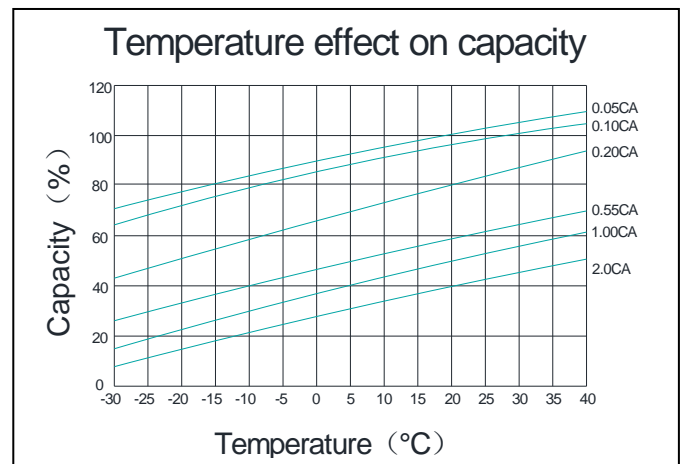
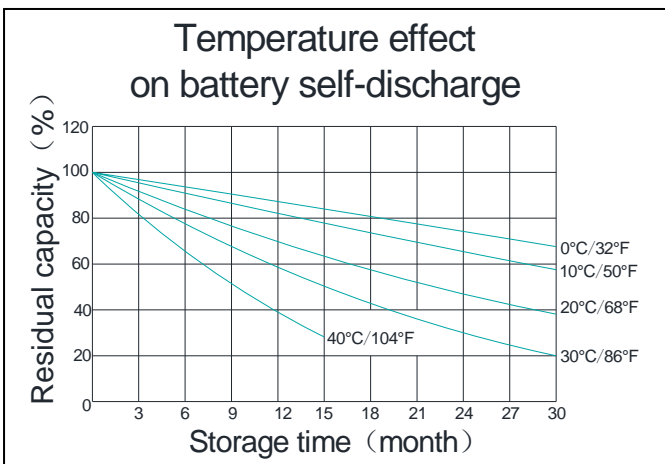
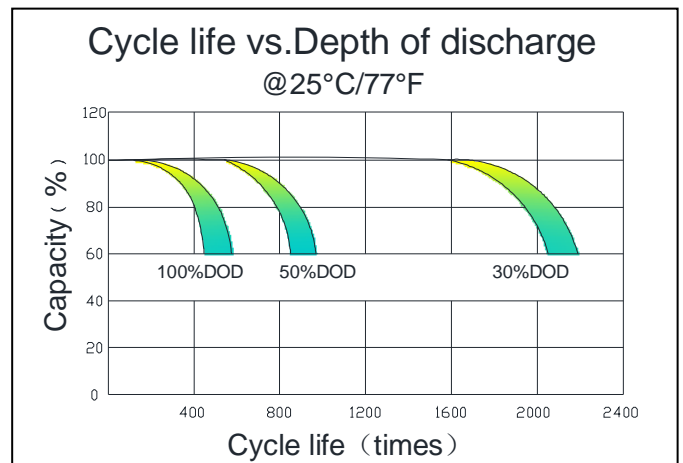
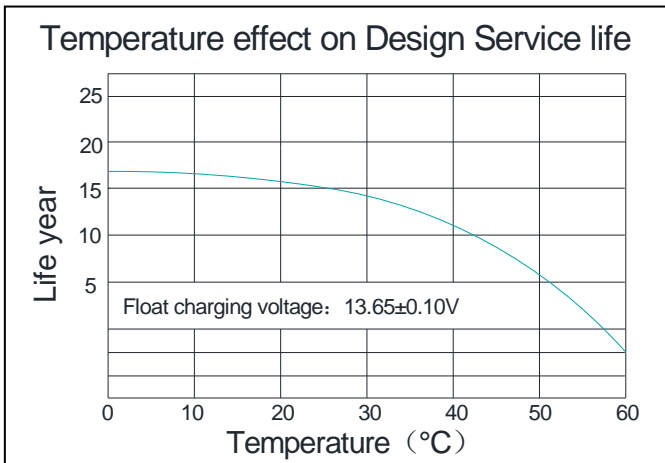
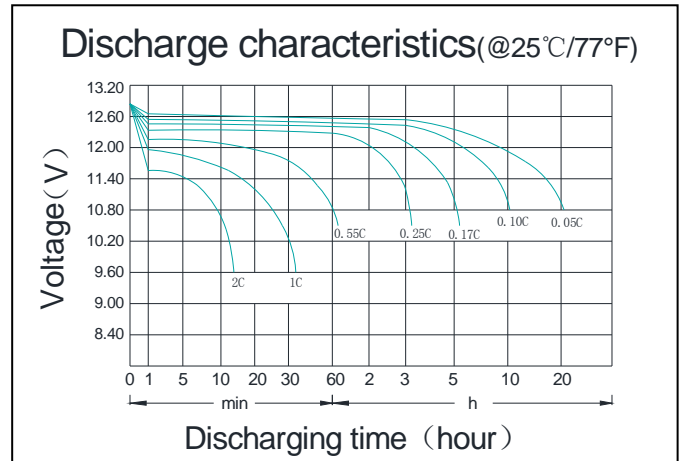
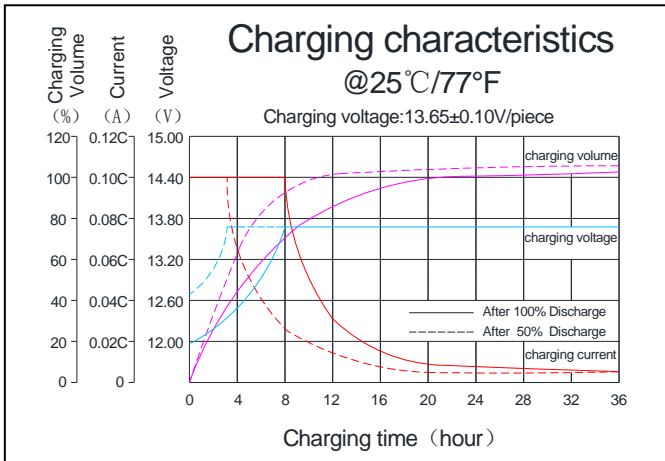
| F.V/Time | 15min | 30min | 45min | 1h   | 2h   | 3h   | 5h  | 8h  | 10h  | 20h  | 100h |
|----------|-------|-------|-------|------|------|------|-----|-----|------|------|------|
| 1.60V    | 70.8  | 45.2  | 33.2  | 30.6 | 19.4 | 13.6 | 9.2 | 6.1 | 5.45 | 2.92 | 0.66 |
| 1.67V    | 69.5  | 44.4  | 32.6  | 30.0 | 19.0 | 13.4 | 9.1 | 6.0 | 5.34 | 2.86 | 0.65 |
| 1.70V    | 68.2  | 43.6  | 32.0  | 29.4 | 18.7 | 13.1 | 8.9 | 5.9 | 5.23 | 2.81 | 0.63 |
| 1.75V    | 66.9  | 42.7  | 31.4  | 28.9 | 18.3 | 12.9 | 8.7 | 5.8 | 5.17 | 2.75 | 0.62 |
| 1.80V    | 64.4  | 41.1  | 30.2  | 27.8 | 17.6 | 12.4 | 8.4 | 5.6 | 5.01 | 2.72 | 0.61 |

### 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    | 136.2 | 87.0  | 64.0  | 58.7 | 37.3 | 26.2 | 17.8 | 11.7 | 10.5 | 5.7 | 1.27 |
| 1.67V    | 133.8 | 85.4  | 62.8  | 57.6 | 36.6 | 25.7 | 17.5 | 11.6 | 10.3 | 5.6 | 1.24 |
| 1.70V    | 131.3 | 83.8  | 61.6  | 56.5 | 36.0 | 25.2 | 17.2 | 11.3 | 10.1 | 5.5 | 1.22 |
| 1.75V    | 128.8 | 82.2  | 60.4  | 55.5 | 35.3 | 24.8 | 16.8 | 11.1 | 9.9  | 5.4 | 1.20 |
| 1.80V    | 123.9 | 79.1  | 58.1  | 53.4 | 33.9 | 23.8 | 16.2 | 10.7 | 9.5  | 5.3 | 1.18 |

**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-Rubbeand aging resistancer | Female Copper Insert M6(torque:4~6N.m) | Advanced AGM separator for high pressure cell design | Dilute high purity sulphuric acid with fumed Silica gel | Two layers epoxy resin seal |

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