

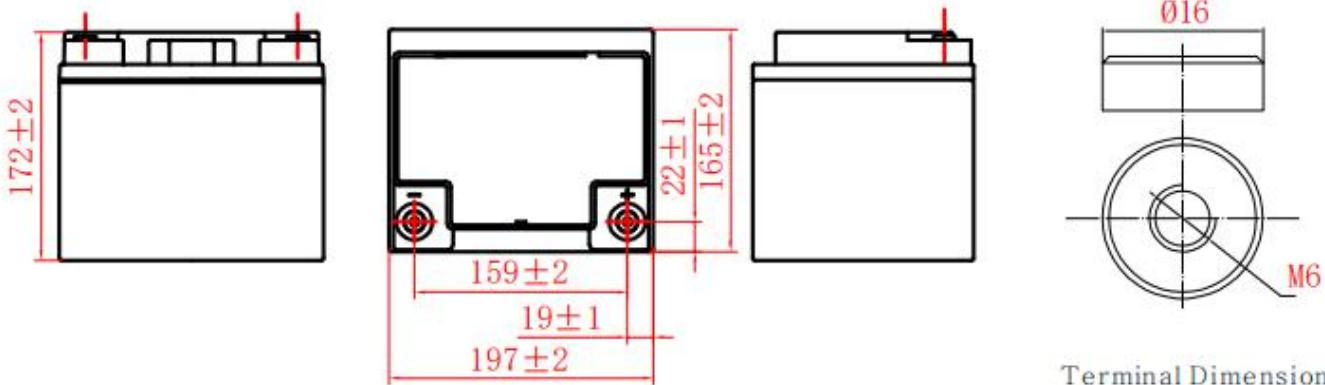
### General Features

- ▶ Lead-carbon composite negative plate, both capacitance and battery characteristics
- ▶ Long cycle life, excellent deep cycle discharge ability
- ▶ Excellent charge acceptance ability
- ▶ Optimized capability of instant high-current discharging
- ▶ Strong high and low temperature performance
- ▶ Precision sealing technology



**Dimension: 197(L) × 165(W) × 172(H) × 172(TH)**

**Unit: mm**



Terminal Dimensions

| Specification                               |   |
|---|---|
| Nominal Voltage                             | 12V                                       |
| Nominal Capacity                            | 46Ah                                      |
| Design life                                 | 10 years                                  |
| Terminal                                    | M6  |
| Approx. Weight                              | Approx. 14.6kg (32.2lbs)                  |
| Container Material                          | ABS                                       |
| short-circuit current                       | 1714A                                     |
| Internal resistance(Full charged at 25°C: ) | 7.0 mΩ                                    |
| Self discharge                              | 3% of capacity declined per month at 25°C |
| Operating Temperature                       |   |
| Discharge:                                  | -20 ~50°C(-4~ 122°F)                      |
| Charge :                                    | -20 ~50°C(-4~ 122°F)                      |
| Storage:                                    | -20 ~50°C(-4~ 122°F)                      |
| Charge Method(25 °C)                        |   |
| Charge current:                             | Max. 11.5A; Recom. 4.6A                   |
| Float charge: 13.5-13.8V                    | recom. 13.8V(-18mV/ °C)                   |
| Equalize charge: 13.8-14.1V                 | recom. 14.1V(-24mV/ °C)                   |
| Cycle charge: 14.4-15.0V                    | recom. 14.7V(-30mV/ °C)                   |

### Standards

Executive standard YD/T 799-2010

### Applications

- ▶ Solar/ wind energy and other new energy storage
- ▶ Hybrid vehicles, electric bicycles and other new energy vehicles
- ▶ Other backup or cycle purposes

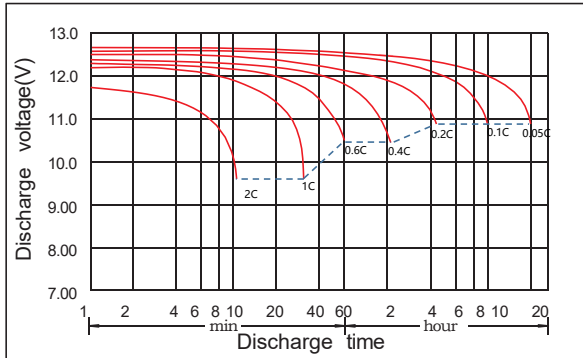
### Rated Capacity

|                              |        |
|------------------------------|--------|
| 10Hour Rate (4.60A to 10.8V) | 46.0Ah |
| 3Hour Rate (12.1A to 10.8V)  | 36.3Ah |
| 1Hour Rate (29.5A to 10.5V)  | 29.5Ah |

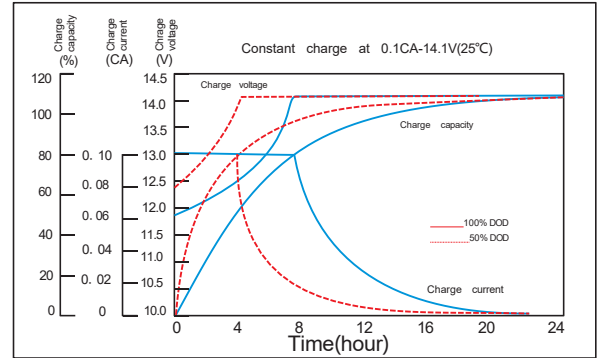
### Attain Certificate



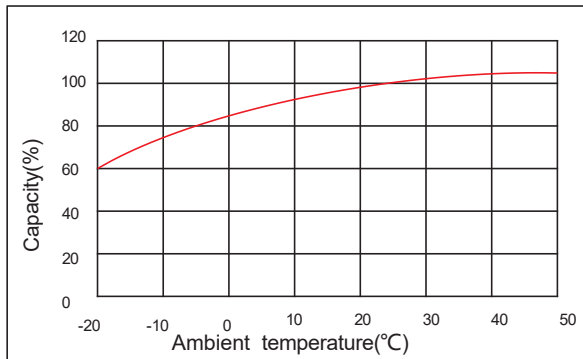
### Discharge characteristic



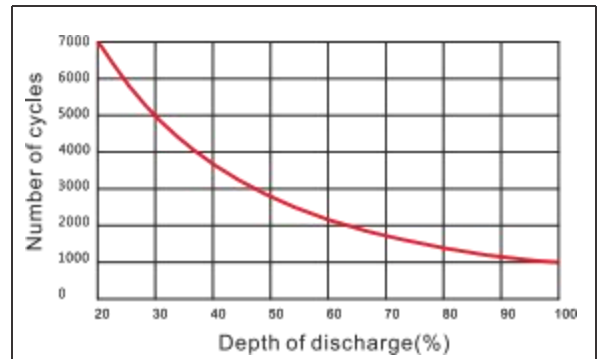
### Charging characteristic



### The effect of temperature on capacity



### The effect of discharge depth on cycle life



### Constant Current Discharge Characteristics Unit:A (25°C,77°F)

| FV/Time | 5min | 10min | 15min | 30min | 45min | 1h   | 1.5h | 2h   | 3h   | 4h   | 5h   | 6h   | 8h   | 10h  | 20h  |
|---------|------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|------|
| 1.60V   | 159  | 105   | 85.2  | 51.8  | 37.2  | 30.3 | 19.0 | 17.4 | 12.6 | 9.13 | 8.47 | 6.75 | 5.56 | 4.78 | 2.64 |
| 1.65V   | 154  | 105   | 82.6  | 50.9  | 36.9  | 30.1 | 18.9 | 17.3 | 12.5 | 9.05 | 8.38 | 6.69 | 5.51 | 4.74 | 2.62 |
| 1.70V   | 148  | 104   | 80.8  | 50.1  | 36.7  | 29.9 | 18.7 | 17.2 | 12.3 | 8.95 | 8.29 | 6.62 | 5.47 | 4.69 | 2.61 |
| 1.75V   | 136  | 103   | 78.2  | 49.6  | 36.2  | 29.5 | 18.5 | 16.9 | 12.2 | 8.87 | 8.20 | 6.56 | 5.42 | 4.65 | 2.60 |
| 1.80V   | 122  | 100   | 72.9  | 47.5  | 35.2  | 28.7 | 18.3 | 16.6 | 12.1 | 8.78 | 7.98 | 6.49 | 5.38 | 4.60 | 2.59 |
| 1.85V   | 108  | 92.6  | 65.0  | 43.3  | 32.6  | 26.6 | 17.8 | 15.7 | 11.4 | 8.52 | 7.59 | 6.30 | 5.16 | 4.46 | 2.54 |

### Constant Power Discharge Characteristics Unit: W/cell (25°C ,77°F )

| FV/Time | 5min | 10min | 15min | 30min | 45min | 1h   | 1.5h | 2h   | 3h   | 4h   | 5h   | 6h   | 8h   | 10h  | 20h  |
|---------|------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|------|
| 1.60V   | 266  | 179   | 150   | 93.8  | 68.8  | 57.3 | 38.0 | 32.9 | 24.0 | 18.0 | 16.1 | 13.2 | 10.8 | 9.20 | 5.22 |
| 1.65V   | 256  | 177   | 147   | 92.9  | 68.2  | 56.8 | 37.6 | 32.8 | 23.7 | 17.8 | 16.0 | 13.1 | 10.7 | 9.15 | 5.21 |
| 1.70V   | 254  | 176   | 146   | 92.9  | 67.7  | 56.4 | 37.2 | 32.6 | 23.5 | 17.6 | 15.8 | 12.9 | 10.7 | 9.02 | 5.17 |
| 1.75V   | 237  | 175   | 145   | 92.4  | 67.2  | 56.0 | 36.8 | 32.5 | 23.4 | 17.5 | 15.7 | 12.8 | 10.6 | 8.92 | 5.17 |
| 1.80V   | 218  | 173   | 137   | 90.2  | 66.6  | 55.5 | 36.5 | 32.4 | 23.3 | 17.3 | 15.6 | 12.7 | 10.5 | 8.83 | 5.13 |
| 1.85V   | 195  | 161   | 122   | 82.7  | 61.9  | 51.6 | 35.9 | 30.9 | 22.2 | 17.0 | 14.9 | 12.5 | 10.1 | 8.69 | 5.07 |