



# AGM battery 12V | 14Ah

Product code: 53045



## Applications

- > UPS/EPS
- > Power systems
- > Telecommunications system
- > Emergency lighting, Auto control system
- > Solar/wind generating storage cyclic
- > Other general purpose

## General Features

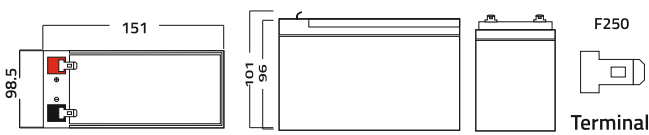
- > High corrosion resistant performance: Pb-Ca multi-alloy grid
- > High energy density and power density
- > Optimized capability of instant high-current discharging
- > Excellent charge acceptance ability
- > Strong high and low temperature performance
- > Precision sealing technology

## Specification

|                        |  |
|------------------------|--|
| Nominal Voltage        | 12V  |
| Nominal Capacity       | 14.0Ah   |
| Design life            | 5 years  |
| Terminal               | F250   |
| Approx. Weight         | Approx 3.80kg (8.38lbs)                              |
| Container Material     | ABS  |
| Rated Capacity         | 14.0Ah → 20Hour Rate (0.70A to 10.5V)                |
|                        | 10.9Ah → 3Hour Rate (3.63A to 10.5V)                 |
|                        | 9.24Ah → 1Hour Rate (9.24A to 9.60V)                 |
| Internal resistance    | Full charged at 25 °C: 18.0 mΩ                       |
| Max. Discharge Current | 180A (5 sec)   |
| Operating Temperature  | Discharge: -15~50°C (-5~122°F)                       |
|                        | Charge: -10~50°C (14~122°F)                          |
|                        | Storage: -20~50°C (-4~122°F)                         |
| Charge current:        | Max. 5.6A; Recom. 1.40A                              |
| Charge Method (25 °C)  | Float Charge: 13.5-13.8V, recom. 13.5V(-18mV/ °C)    |
|                        | Equalize charge: 13.8-14.1V, recom. 14.1V(-24mV/ °C) |
|                        | Cycle charge: 14.4-15.0V, recom. 14.4V(-30mV/ °C)    |
| Self discharge         | 3% of capacity declined per month at 25 °C           |



Dimension: 151(L)×98.5(W)×96(H) ×101(TH) Unit: mm



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

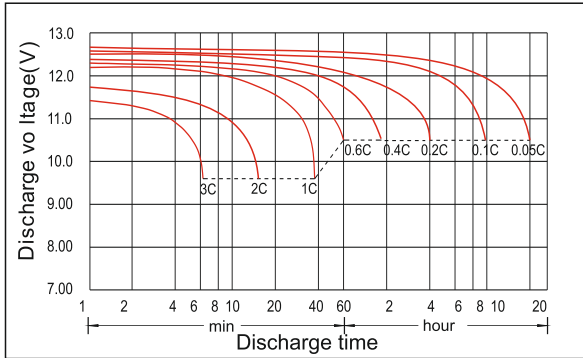
| FV/Time | 5min | 10min | 15min | 30min | 1h   | 2h   | 3h   | 4h   | 5h   | 8h   | 10h  | 20h   |
|---------|------|-------|-------|-------|------|------|------|------|------|------|------|-------|
| 1.60V   | 55.4 | 36.3  | 27.0  | 17.7  | 9.24 | 5.29 | 3.86 | 3.09 | 2.63 | 1.74 | 1.39 | 0.742 |
| 1.65V   | 55.0 | 34.7  | 24.8  | 16.8  | 8.68 | 5.08 | 3.75 | 3.00 | 2.58 | 1.71 | 1.37 | 0.728 |
| 1.70V   | 45.1 | 32.6  | 23.1  | 16.3  | 8.40 | 4.98 | 3.68 | 2.84 | 2.55 | 1.68 | 1.34 | 0.714 |
| 1.75V   | 41.9 | 31.1  | 21.6  | 15.9  | 8.11 | 4.86 | 3.63 | 2.80 | 2.44 | 1.64 | 1.32 | 0.700 |
| 1.80V   | 38.5 | 29.3  | 20.0  | 15.4  | 7.83 | 4.73 | 3.43 | 2.74 | 2.34 | 1.60 | 1.29 | 0.672 |

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

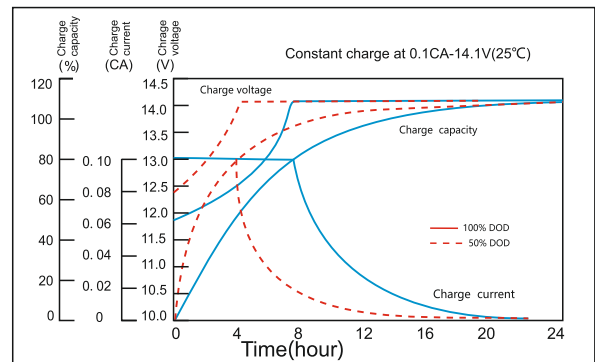
| FV/Time | 5min | 10min | 15min | 30min | 1h   | 2h   | 3h   | 4h   | 5h   | 8h   | 10h  | 20h  |
|---------|------|-------|-------|-------|------|------|------|------|------|------|------|------|
| 1.60V   | 104  | 65.3  | 49.5  | 29.9  | 16.9 | 9.92 | 7.30 | 5.86 | 4.97 | 3.28 | 2.69 | 1.47 |
| 1.65V   | 95.9 | 61.8  | 46.4  | 29.7  | 15.9 | 9.54 | 7.09 | 5.67 | 4.88 | 3.23 | 2.63 | 1.43 |
| 1.70V   | 87.7 | 60.0  | 44.3  | 29.6  | 15.4 | 9.36 | 6.98 | 5.39 | 4.74 | 3.19 | 2.61 | 1.42 |
| 1.75V   | 79.6 | 58.1  | 42.7  | 29.3  | 15.0 | 9.15 | 6.88 | 5.32 | 4.64 | 3.06 | 2.55 | 1.39 |
| 1.80V   | 71.4 | 56.2  | 40.8  | 29.1  | 14.8 | 9.08 | 6.70 | 5.27 | 4.53 | 2.96 | 2.50 | 1.38 |

Disclaimer: Manufacturers have the right to self-modify the parameters of the product updates, please keep in touch with manufacturers to obtain the latest information.

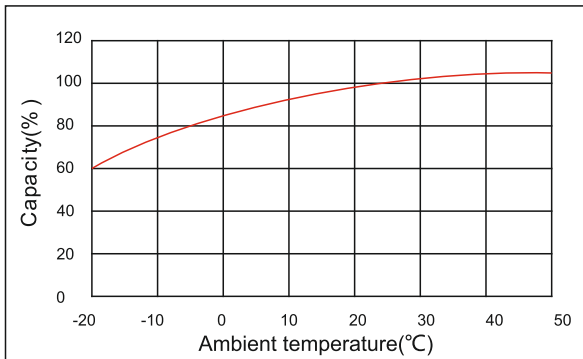
## Discharge characteristic



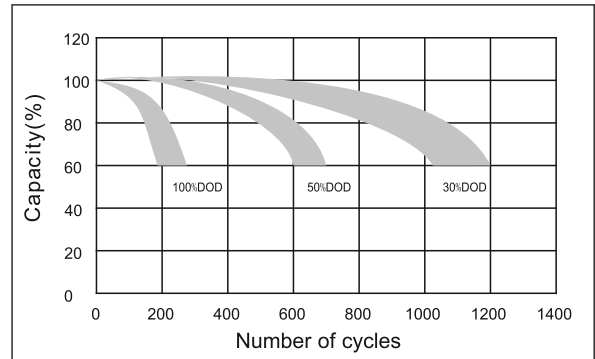
## Charging characteristic



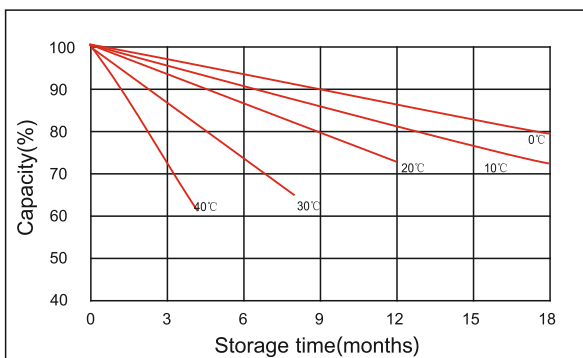
## The effect of temperature on capacity



## The effect of discharge depth on cycle life



## Curves of self-discharge



## The effect of temperature on float life

