



## PBG Series AGM-GEL battery

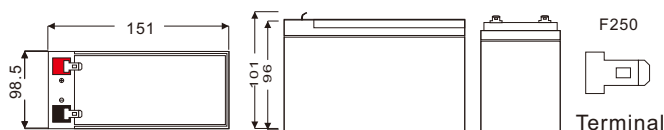


### General Features

- Nanosilica colloidal electrolyte and high tin positive plate alloy design to enhance battery performance
- Relatively rich electrolyte, high temperature and low temperature performance is superior
- Long cycle life, excellent deep cycle discharge ability
- Excellent charge acceptance ability
- Precision sealing technology
- Long life



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



### Applications

- Solar / wind energy and other new energy storage
- UPS/EPS
- Power systems
- Telecommunications system
- Emergency lighting、Auto control system
- Other general purpose

### Specification

|                                               |                                                  |
|-----------------------------------------------|--------------------------------------------------|
| Nominal Voltage                               | 12V                                              |
| Nominal Capacity                              | 12Ah                                             |
| Design life                                   | 6 years                                          |
| Terminal                                      | F250                                             |
| Approx. Weight                                | Approx3.80kg (8.38lbs)                           |
| Container Material                            | ABS                                              |
| Rated Capacity                                | 12.0Ah 20Hour Rate (0.60A to 10.5V)              |
|                                               | 9.63Ah 3Hour Rate (3.21A to 10.5V)               |
|                                               | 8.18Ah 1Hour Rate (8.18A to 9.60V)               |
| Internal resistance                           | Full charged at 25°C: 18.0 mΩ                    |
| Max. Discharge Current                        | 180A(5S)                                         |
| Operating Temperature                         | Discharge: -40 ~60°C (-40~ 140°F)                |
|                                               | Charge: -20 ~50°C (-4~ 122°F)                    |
|                                               | Storage: -20 ~50°C (-4~ 122°F)                   |
| Charge current: Max.3.00A ; Recom.1.20A       |                                                  |
| Float Charge voltage(-3mV/°C) :               |                                                  |
| Charge Method (25 °C)                         | 13.5-13.8V,recom.13.5V(Full floating system)     |
|                                               | 13.5-13.8V,recom.13.62V(Cycle use system)        |
|                                               | Equalize charge:13.8-14.1V,recom.14.1V(-4mV/ °C) |
| Cycle charge:14.4-15.0V,recom.14.4V(-5mV/ °C) |                                                  |
| Self discharge                                | 3% of capacity declined per month at 25°C        |

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

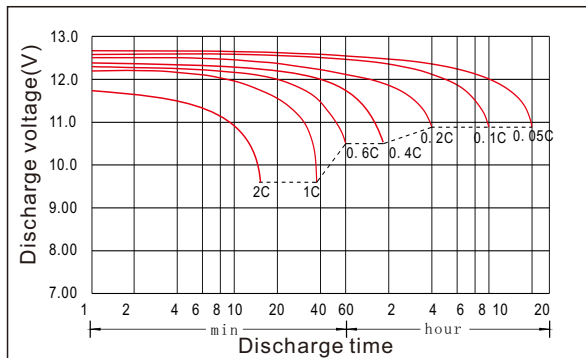
| FV/Time | 5min | 10min | 15min | 30min | 1h   | 2h   | 3h   | 4h   | 5h   | 8h   | 10h  | 20h   |
|---------|------|-------|-------|-------|------|------|------|------|------|------|------|-------|
| 1.60V   | 49.1 | 32.1  | 23.9  | 15.7  | 8.18 | 4.69 | 3.42 | 2.74 | 2.33 | 1.54 | 1.23 | 0.657 |
| 1.65V   | 48.7 | 30.8  | 21.9  | 14.9  | 7.69 | 4.50 | 3.32 | 2.65 | 2.28 | 1.51 | 1.22 | 0.645 |
| 1.70V   | 39.9 | 28.9  | 20.5  | 14.4  | 7.44 | 4.41 | 3.26 | 2.52 | 2.26 | 1.49 | 1.19 | 0.632 |
| 1.75V   | 37.1 | 27.5  | 19.1  | 14.1  | 7.18 | 4.30 | 3.21 | 2.48 | 2.16 | 1.45 | 1.17 | 0.600 |
| 1.80V   | 34.1 | 25.9  | 17.7  | 13.6  | 6.93 | 4.19 | 3.04 | 2.43 | 2.07 | 1.41 | 1.14 | 0.595 |

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

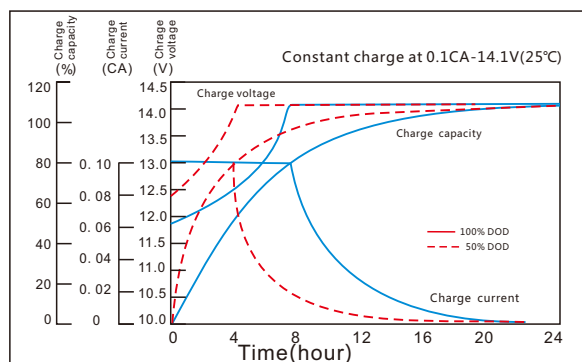
| FV/Time | 5min | 10min | 15min | 30min | 1h   | 2h   | 3h   | 4h   | 5h   | 8h   | 10h  | 20h  |
|---------|------|-------|-------|-------|------|------|------|------|------|------|------|------|
| 1.60V   | 92.2 | 57.9  | 43.8  | 26.5  | 15.0 | 8.78 | 6.47 | 5.19 | 4.40 | 2.90 | 2.38 | 1.30 |
| 1.65V   | 84.9 | 54.8  | 41.1  | 26.3  | 14.1 | 8.45 | 6.28 | 5.02 | 4.32 | 2.86 | 2.33 | 1.27 |
| 1.70V   | 77.7 | 53.1  | 39.3  | 26.2  | 13.7 | 8.29 | 6.18 | 4.77 | 4.20 | 2.83 | 2.31 | 1.26 |
| 1.75V   | 70.5 | 51.5  | 37.8  | 26.0  | 13.3 | 8.10 | 6.10 | 4.71 | 4.11 | 2.71 | 2.26 | 1.23 |
| 1.80V   | 63.2 | 49.8  | 36.2  | 25.8  | 13.1 | 8.04 | 5.93 | 4.67 | 4.01 | 2.62 | 2.22 | 1.22 |

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.

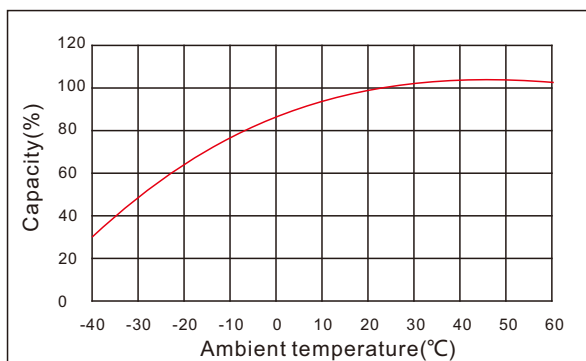
## Discharge characteristic



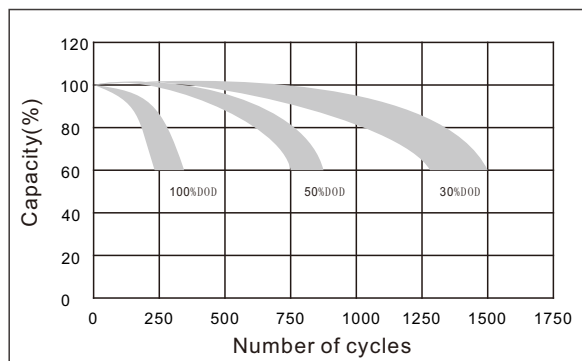
## Charging characteristic



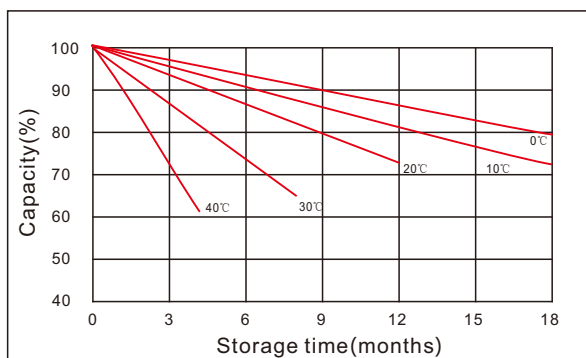
## The effect of temperature on capacity



## The effect of discharge depth on cycle life



## Curves of self-discharge



## Curves of open circuit voltage vs. capacity

