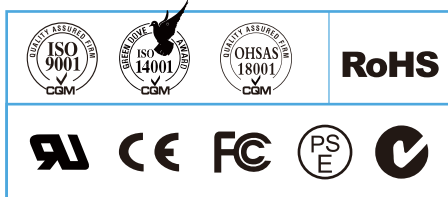


JDG12-50

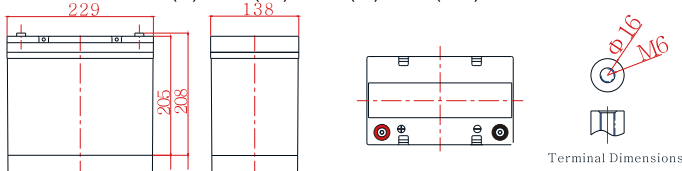


General Features

- › 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: 229(L)×138(W)×205(H)×208(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 | 50Ah |
| Design life | 12 years |
| Terminal | M6 |
| Approx. Weight | Approx 16.5kg (36.4lbs) |
| Container Material | ABS |
| Rated Capacity | 50.0Ah 10Hour Rate (5.00A to 10.8V) |
| | 39.6Ah 3Hour Rate (13.2A to 10.8V) |
| | 32.1Ah 1Hour Rate (32.1A to 10.5V) |
| Internal resistance | Full charged at 25°C: 11.0 mΩ |
| Max. Discharge Current | 600A(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. 12.5A ; Recom.5.0A |
| Charge Method (25 °C) | 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) |
| Self discharge | 3% of capacity declined per month at 25°C |

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

| FV/Time | 15min | 30min | 1h | 2h | 3h | 5h | 8h | 10h | 20h |
|---------|-------|-------|------|------|------|------|------|------|------|
| 1.60V | 91.8 | 55.8 | 33.0 | 18.9 | 13.7 | 9.22 | 6.05 | 5.17 | 2.72 |
| 1.65V | 89.0 | 54.9 | 32.8 | 18.8 | 13.6 | 9.12 | 6.00 | 5.12 | 2.71 |
| 1.70V | 87.1 | 53.9 | 32.6 | 18.7 | 13.4 | 9.03 | 5.95 | 5.07 | 2.69 |
| 1.75V | 84.3 | 53.5 | 32.1 | 18.4 | 13.3 | 8.93 | 5.91 | 5.02 | 2.68 |
| 1.80V | 78.6 | 51.1 | 31.3 | 18.1 | 13.2 | 8.69 | 5.86 | 5.00 | 2.67 |
| 1.85V | 70.1 | 46.7 | 29.0 | 17.1 | 12.4 | 8.26 | 5.62 | 4.83 | 2.62 |

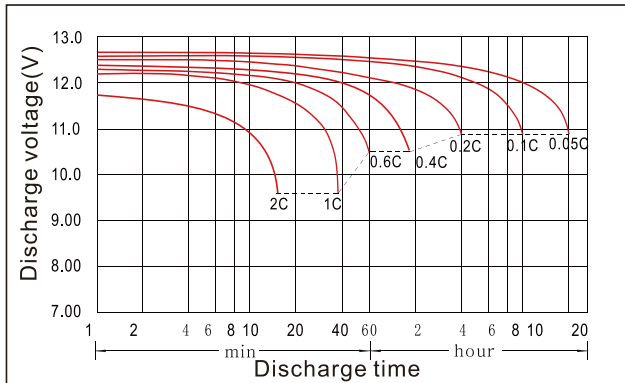
Constant Power Discharge Characteristics Unit: W/cell (25°C,77°F)

| FV/Time | 15min | 30min | 1h | 2h | 3h | 5h | 8h | 10h | 20h |
|---------|-------|-------|------|------|------|------|------|------|------|
| 1.60V | 162 | 101 | 62.4 | 35.8 | 26.1 | 17.5 | 11.8 | 10.0 | 5.39 |
| 1.65V | 159 | 100 | 61.9 | 35.7 | 25.8 | 17.4 | 11.7 | 9.85 | 5.36 |
| 1.70V | 157 | 100 | 61.4 | 35.5 | 25.6 | 17.2 | 11.6 | 9.75 | 5.34 |
| 1.75V | 156 | 100 | 60.9 | 35.3 | 25.5 | 17.1 | 11.5 | 9.65 | 5.31 |
| 1.80V | 148 | 97.2 | 60.5 | 35.2 | 25.4 | 17.0 | 11.4 | 9.55 | 5.29 |
| 1.85V | 132 | 89.2 | 56.1 | 33.7 | 24.2 | 16.2 | 11.0 | 9.40 | 5.24 |

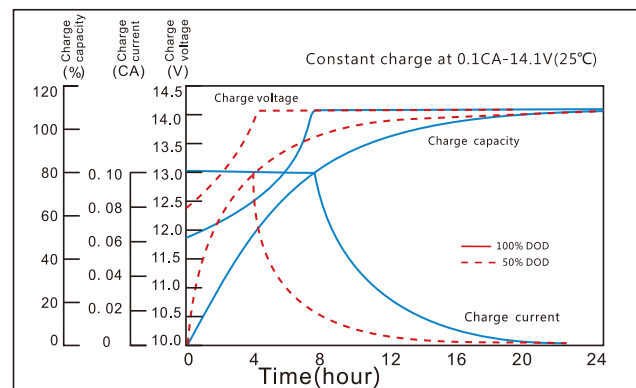


JDG12-50

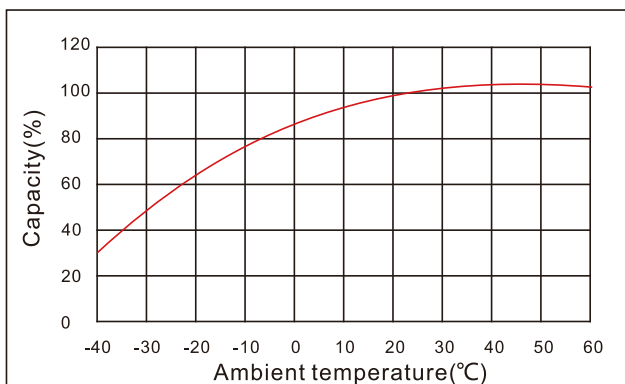
Discharge characteristic



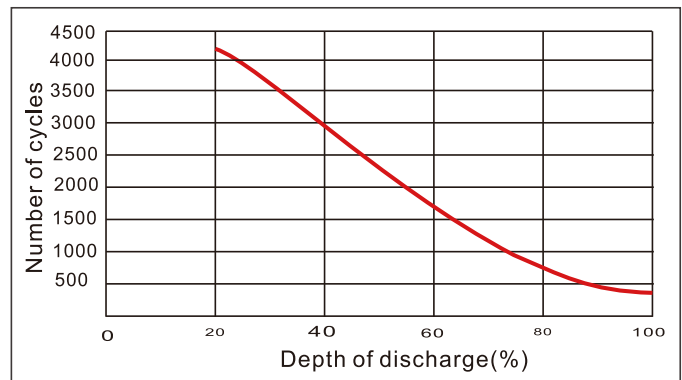
Charging characteristic



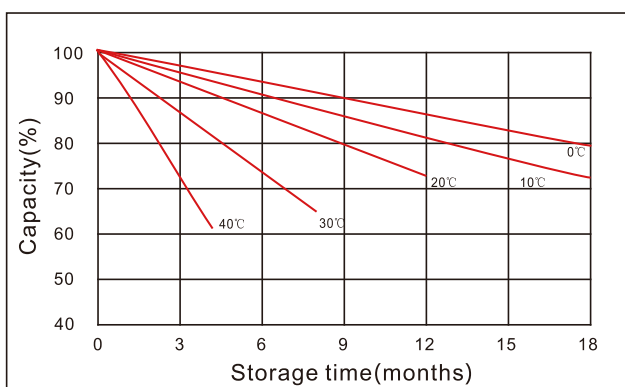
The effect of temperature on capacity



The effect of discharge depth on cycle life



Curves of self-discharge



Curves of open circuit voltage vs. capacity

