

JM Series lead-acid battery

JM12-100



Applications

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

Specification

| | |
|---------------------------------|--|
| Nominal Voltage | 12V |
| Nominal Capacity | 100Ah |
| Design life | 10 years |
| Terminal | M8 |
| Approx. Weight | Approx 28.5kg (62.8lbs) |
| Container Material | ABS |
| Rated Capacity | 100Ah 10Hour Rate (10.0A to 10.8V) |
| | 80.7Ah 3Hour Rate (26.9A to 10.8V) |
| | 65.5Ah 1Hour Rate (65.5A to 10.5V) |
| Internal resistance | Full charged at 25°C: 5.0 mΩ |
| Max. Discharge Current | 1200A(5S) |
| Operating Temperature | Discharge: -20 ~50°C (-4 ~ 122°F) |
| | Charge: -20 ~50°C (-4 ~ 122°F) |
| | Storage: -20 ~50°C (-4 ~ 122°F) |
| Charge current: | Max.25A; Recom.10A |
| 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 |

- > 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
- > Excellent deep cycle discharge capability
- > Strong high and low temperature performance
- > Precision sealing technology
- > Long life



Dimension:330(L)×171(W)×216(H)×219(TH) Unit: mm



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

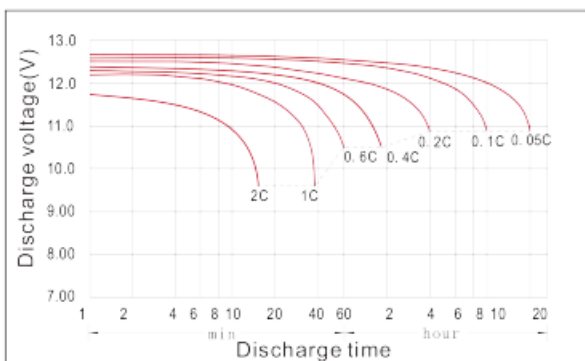
| FV/Time | 5min | 15min | 30min | 1h | 2h | 3h | 5h | 8h | 10h | 20h |
|---------|------|-------|-------|------|------|------|------|------|------|------|
| 1.60V | 352 | 189 | 115 | 67.3 | 38.6 | 28.0 | 18.8 | 12.4 | 10.4 | 5.46 |
| 1.65V | 342 | 184 | 113 | 66.9 | 38.4 | 27.7 | 18.6 | 12.3 | 10.3 | 5.43 |
| 1.70V | 328 | 180 | 111 | 66.4 | 38.1 | 27.3 | 18.4 | 12.2 | 10.2 | 5.40 |
| 1.75V | 302 | 174 | 110 | 65.5 | 37.5 | 27.0 | 18.2 | 12.1 | 10.1 | 5.38 |
| 1.80V | 270 | 162 | 105 | 63.8 | 36.8 | 26.9 | 17.7 | 12.0 | 10.0 | 5.35 |
| 1.85V | 241 | 144 | 96.2 | 59.1 | 35.0 | 25.3 | 16.9 | 11.5 | 9.70 | 5.26 |

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

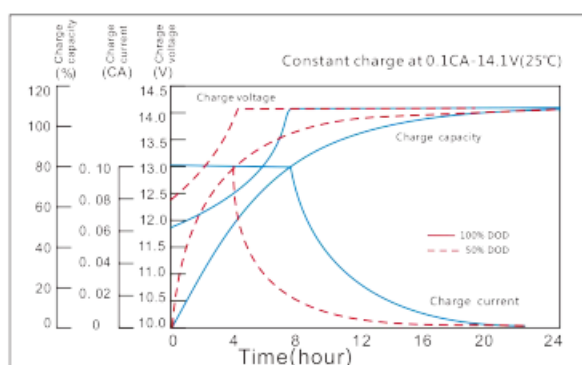
| FV/Time | 5min | 15min | 30min | 1h | 2h | 3h | 5h | 8h | 10h | 20h |
|---------|------|-------|-------|-----|------|------|------|------|------|------|
| 1.60V | 591 | 333 | 208 | 127 | 73.0 | 53.3 | 35.7 | 24.0 | 20.0 | 10.8 |
| 1.65V | 568 | 328 | 206 | 126 | 72.8 | 52.6 | 35.5 | 23.8 | 19.8 | 10.8 |
| 1.70V | 565 | 324 | 206 | 125 | 72.5 | 52.3 | 35.2 | 23.7 | 19.6 | 10.7 |
| 1.75V | 527 | 322 | 205 | 124 | 72.1 | 52.0 | 35.0 | 23.5 | 19.4 | 10.7 |
| 1.80V | 484 | 304 | 201 | 123 | 71.9 | 51.8 | 34.6 | 23.3 | 19.2 | 10.6 |
| 1.85V | 432 | 272 | 184 | 115 | 68.7 | 49.3 | 33.0 | 22.5 | 18.9 | 10.5 |

JM12-100

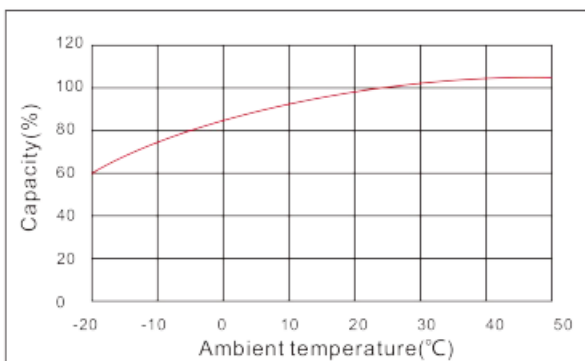
Discharge characteristic



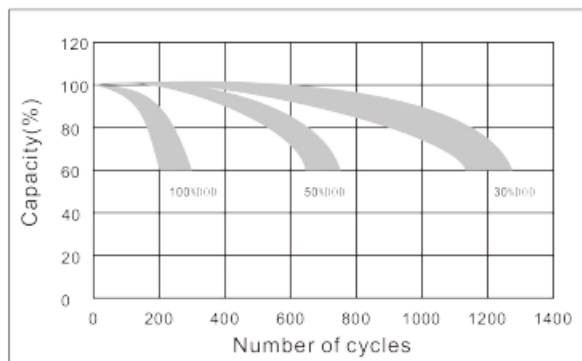
Charging characteristic



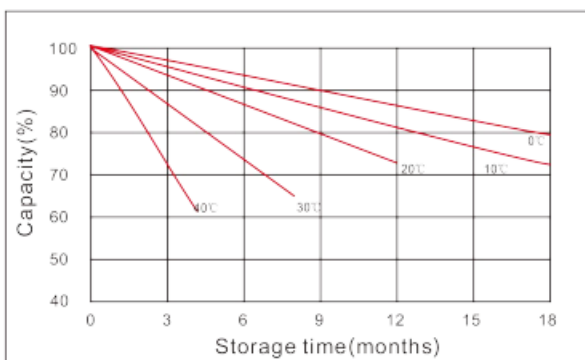
The effect of temperature on capacity



The effect of discharge depth on cycle life



Curves of self-discharge



The effect of temperature on float life

