

# JM12-55



## JM Series lead-acid battery

### Applications

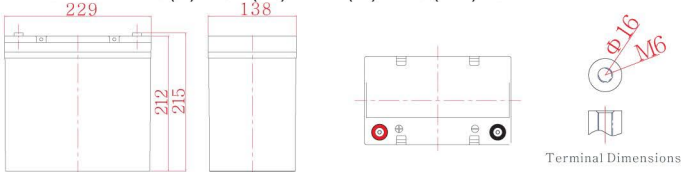
- › UPS/EPS
- › Power systems
- › Telecommunications system
- › Emergency lighting, Auto control system
- › Solar/wind generating storage cyclic
- › Other general purpose

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



Dimension: 229(L)×138(W)×212(H)×215(TH) Unit: mm



### Specification

|                        |   |
|------------------------|---|
| Nominal Voltage        | 12V   |
| Nominal Capacity       | 55Ah  |
| Design life            | 10 years  |
| Terminal               | M6  |
| Approx. Weight         | Approx 17.5kg (38.6lbs)                           |
| Container Material     | ABS   |
| Rated Capacity         | 55.0Ah → 10Hour Rate (5.50A to 10.8V)             |
|                        | 44.4Ah → 3Hour Rate (14.8A to 10.8V)              |
|                        | 36.0Ah → 1Hour Rate (36.0A to 10.5V)              |
| Internal resistance    | Full charged at 25°C: 8.6 mΩ                      |
| Max. Discharge Current | 660A(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. 13.8A ; Recom.5.5A                           |
| 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         |

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

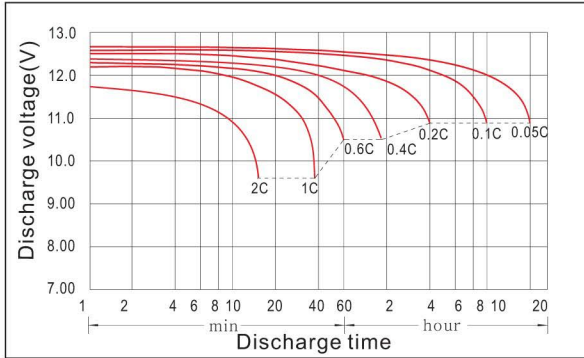
| FV/Time | 5min | 15min | 30min | 1h   | 2h   | 3h   | 5h   | 8h   | 10h  | 20h  |
|---------|------|-------|-------|------|------|------|------|------|------|------|
| 1.60V   | 194  | 104   | 63.3  | 37.0 | 21.2 | 15.4 | 10.3 | 6.79 | 5.72 | 3.00 |
| 1.65V   | 188  | 101   | 62.3  | 36.8 | 21.1 | 15.3 | 10.2 | 6.74 | 5.67 | 2.99 |
| 1.70V   | 180  | 98.8  | 61.2  | 36.5 | 21.0 | 15.0 | 10.1 | 6.68 | 5.61 | 2.97 |
| 1.75V   | 166  | 95.6  | 60.6  | 36.0 | 20.6 | 14.9 | 10.0 | 6.63 | 5.56 | 2.96 |
| 1.80V   | 149  | 89.1  | 58.0  | 35.1 | 20.3 | 14.8 | 9.76 | 6.58 | 5.50 | 2.94 |
| 1.85V   | 133  | 79.4  | 52.9  | 32.5 | 19.2 | 13.9 | 9.27 | 6.30 | 5.34 | 2.89 |

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

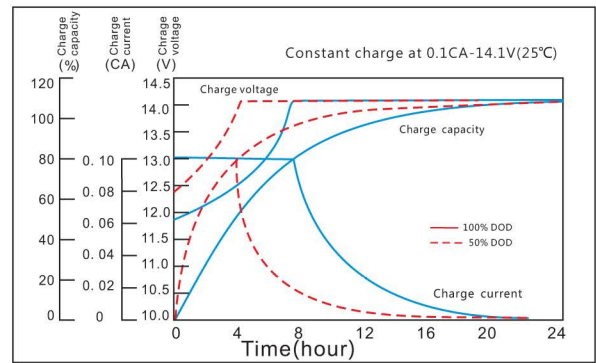
| FV/Time | 5min | 15min | 30min | 1h   | 2h   | 3h   | 5h   | 8h   | 10h  | 20h  |
|---------|------|-------|-------|------|------|------|------|------|------|------|
| 1.60V   | 325  | 183   | 115   | 70.0 | 40.2 | 29.3 | 19.6 | 13.2 | 11.0 | 5.94 |
| 1.65V   | 313  | 180   | 114   | 69.5 | 40.0 | 28.9 | 19.5 | 13.1 | 10.9 | 5.91 |
| 1.70V   | 311  | 178   | 114   | 68.9 | 39.9 | 28.8 | 19.4 | 13.0 | 10.8 | 5.89 |
| 1.75V   | 290  | 177   | 113   | 68.4 | 39.7 | 28.6 | 19.2 | 12.9 | 10.7 | 5.86 |
| 1.80V   | 266  | 167   | 110   | 67.9 | 39.6 | 28.5 | 19.0 | 12.8 | 10.6 | 5.83 |
| 1.85V   | 238  | 150   | 101   | 63.0 | 37.8 | 27.1 | 18.2 | 12.4 | 10.4 | 5.78 |

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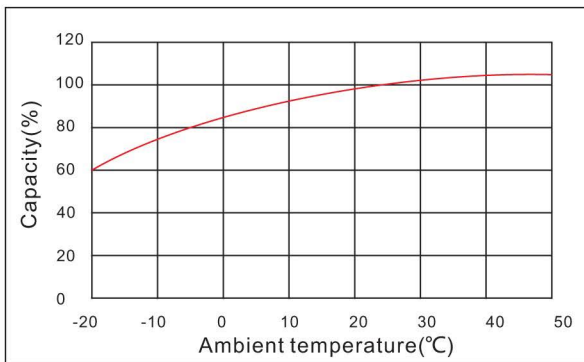
Discharge characteristic



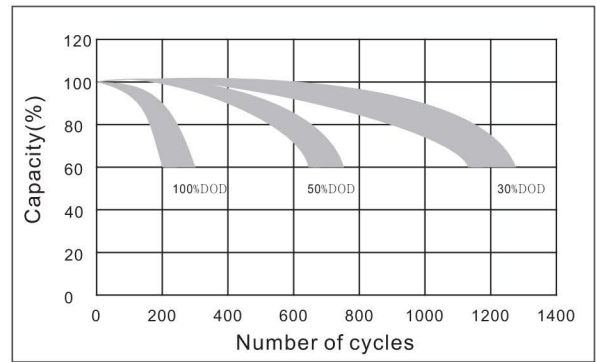
Charging characteristic



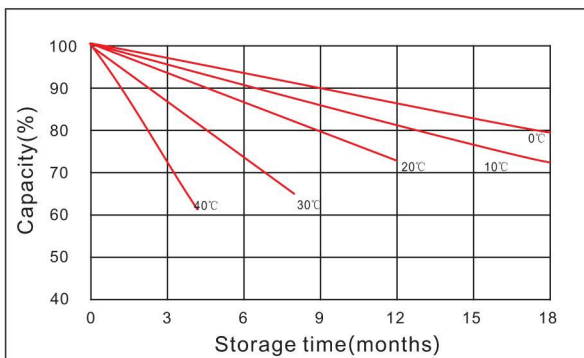
The effect of temperature on capacity



The effect of discharge depth on cycle life



Curves of self-discharge



The effect of temperature on float life

