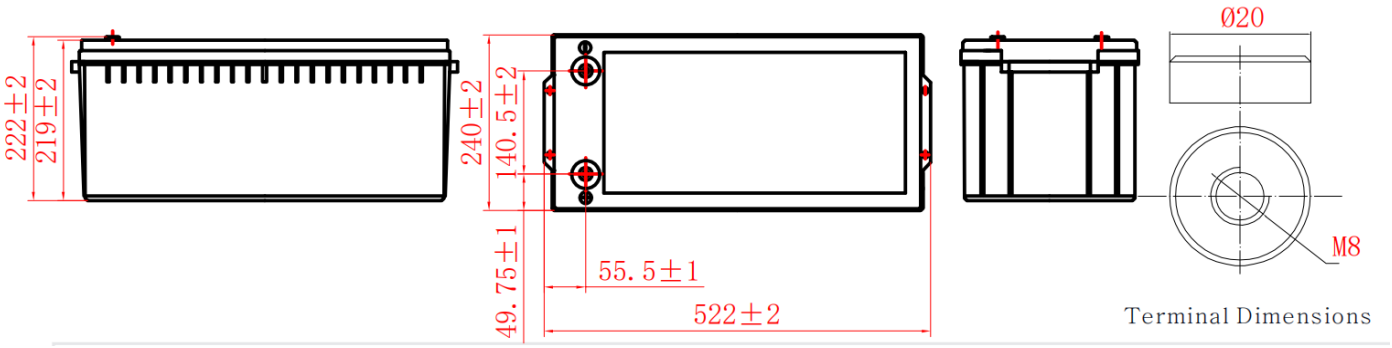
# JM Series lead-acid battery JM12-180(A)

## 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:522(L)×240(W) ×219(H)×222(TH)/(±3)** **Unit: mm**




| Specification | |
|---|---|
| Nominal Voltage | 12V |
| Nominal Capacity | 180Ah@10hour-rate to 1.80V per cell @25℃ |
| Design life | 10 years |
| Terminal | M8 |
| Approx. Weight | Approx54.0kg±3% (119±3%lbs) |
| Container Material | ABS(UL94-HB, UL94-V0 Optional) |
| short-circuit current | 2181A |
| Internal resistance(Full charged at 25°C: ) | 5.5 mΩ |
| Self discharge | 3% of capacity declined per month at 25°C |
| **Operating Temperature** | |
| Discharge: | -20 ~50℃(-4~ 122°F) |
| Charge : | -20 ~50℃(-4~ 122°F) |
| Storage: | -20 ~50℃(-4~ 122°F) |
| **Charge Method(25 °C)** | |
| Charge current: | Max. 45A;Recom.18A |
| 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) |

## Standards

Executive standard: IEC 60896-21/22、GB/T 19638.1-2014

## Applications

▶UPS/EPS
▶Power systems
▶Telecommunications system
▶Emergency lighting、Auto control system
▶Solar/wind generating storage cyclic
▶Other general purpose

## Rated Capacity

| | |
|---|---|
| 10Hour Rate (18.0A to 10.8V) | 180.0Ah |
| 3Hour Rate (47.9A to 10.2V) | 143.7Ah |
| 1Hour Rate (113.8A to 9.6V) | 113.8Ah |

## Attain Certificate

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.

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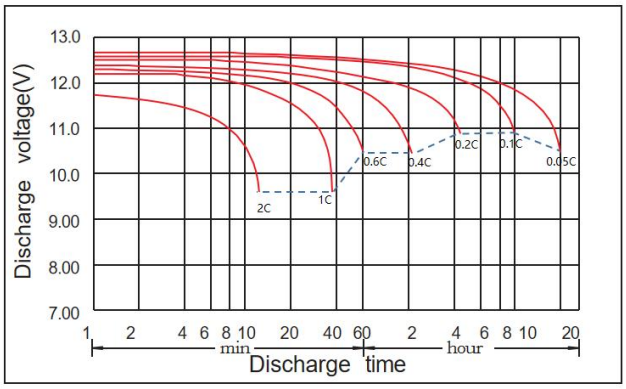
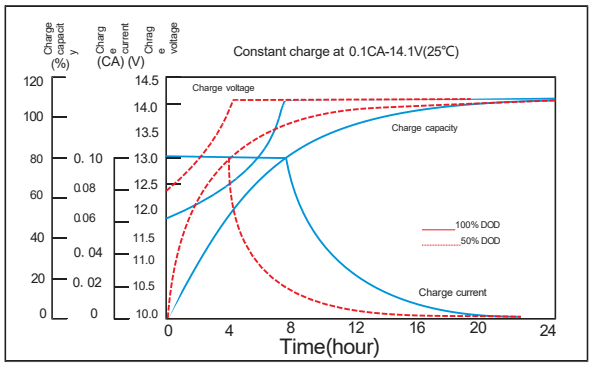
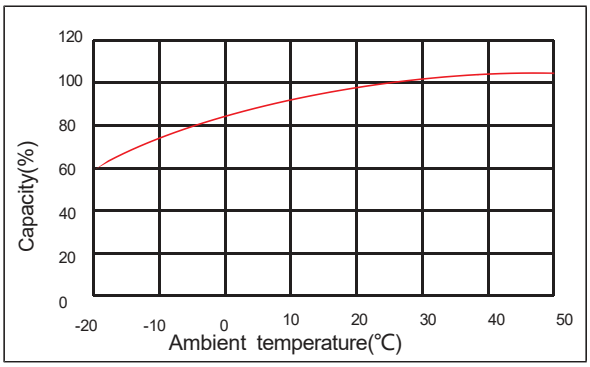
## Discharge characteristic



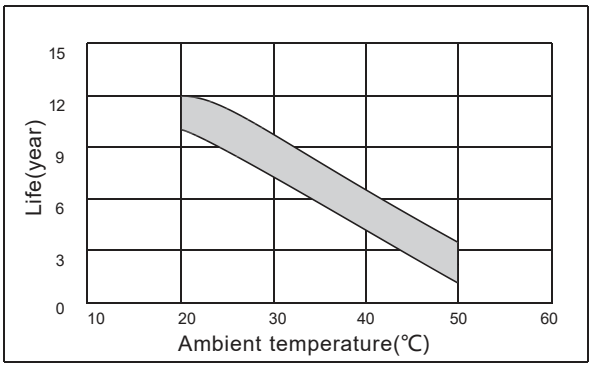

## Charging characteristic




## The effect of temperature on capacity




## The effect of temperature on float life




**Constant Current Discharge Characteristics Unit:A (25℃,77℉)**

| FV/Time | 15min | 30min | 45min | 1h | 1.5h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.60V | 315.5 | 191.2 | 142.9 | 113.8 | 84.6 | 67.5 | 50.8 | 40.9 | 34.8 | 29.6 | 22.8 | 19.0 | 9.93 |
| 1 65V | 303.1 | 183.6 | 137.1 | 109.4 | 82.0 | 66.0 | 49.2 | 39.6 | 33.9 | 29.2 | 22.6 | 18.8 | 9.78 |
| 1.70V | 283.9 | 175.5 | 131.1 | 104.8 | 78.8 | 63.2 | 47.9 | 38.7 | 33.0 | 28.5 | 22.2 | 18.5 | 9.69 |
| 1.75V | 264.2 | 166.0 | 125.3 | 101.5 | 75.6 | 61.0 | 46.4 | 37.7 | 32.2 | 27.8 | 21.9 | 18.2 | 9.63 |
| 1 80V | 248.8 | 161.5 | 120.8 | 97.1 | 72.0 | 59.1 | 45.9 | 36.6 | 31.4 | 27.0 | 21.5 | 18.0 | 9.54 |
| 1.85V | 206.5 | 136.7 | 105.4 | 85.4 | 65.1 | 52.3 | 40.4 | 33.2 | 28.5 | 24.6 | 20.2 | 16.6 | 9.15 |

**Constant Power Discharge Characteristics Unit: W/cell (25℃ ,77℉ )**

| FV/Time | 15min | 30min | 45min | 1h | 1.5h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.60V | 554.3 | 347.3 | 260.0 | 208.5 | 156.5 | 124.2 | 95.8 | 76.6 | 65.5 | 56.8 | 44.6 | 37.3 | 19.6 |
| 1 65V | 537.7 | 336.9 | 251.6 | 202.5 | 152.6 | 122.1 | 94.4 | 74.8 | 64.0 | 56.3 | 44.2 | 36.9 | 19.3 |
| 1.70V | 511.2 | 325.3 | 248.6 | 197.2 | 150.4 | 118.1 | 90.4 | 73.1 | 62.6 | 55.1 | 43.6 | 36.4 | 19.1 |
| 1.75V | 482.6 | 314.1 | 238.4 | 193.0 | 146.2 | 115.0 | 89.8 | 71.5 | 61.2 | 53.9 | 43.1 | 36.0 | 19.0 |
| 1 80V | 456.4 | 303.2 | 229.4 | 185.1 | 138.7 | 113.1 | 87.4 | 70.7 | 59.8 | 53.0 | 42.4 | 35.6 | 18.9 |
| 1.85V | 380.3 | 263.8 | 203.8 | 165.3 | 128.8 | 103.5 | 78.5 | 65.0 | 56.0 | 48.4 | 39.9 | 33.5 | 17.8 |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