

WECSOLAR+ JPC12-100

JPC Series lead-carbon battery



Applications

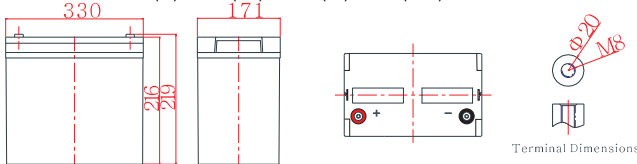
- › Solar / wind energy and other new energy storage
- › Hybrid vehicles, electric bicycles and other new energy vehicles
- › Other backup or cycle purposes

General Features

- › Lead-carbon composite negative plate, both capacitance and battery characteristics
- › Long cycle life, excellent deep cycle discharge ability
- › Excellent charge acceptance ability
- › Optimized capability of instant high-current discharging
- › Strong high and low temperature performance
- › Precision sealing technology



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



Specification

| | |
|------------------------|--|
| Nominal Voltage | 12V |
| Nominal Capacity | 100Ah(20hr) |
| Design life | 15 years |
| Terminal | M8 |
| Approx. Weight | Approx 28.0kg (61.7lbs) |
| Container Material | ABS |
| Rated Capacity | 100Ah 20Hour Rate (5.0A to 10.5V) |
| | 75.6Ah 3Hour Rate (25.2A to 10.5V) |
| | 62.6Ah 1Hour Rate (62.6A to 9.6V) |
| Internal resistance | Full charged at 25°C: 4.8 mΩ |
| Max. Discharge Current | 1200A(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.30.0A ; Recom.10.0~15.0A |
| 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 |

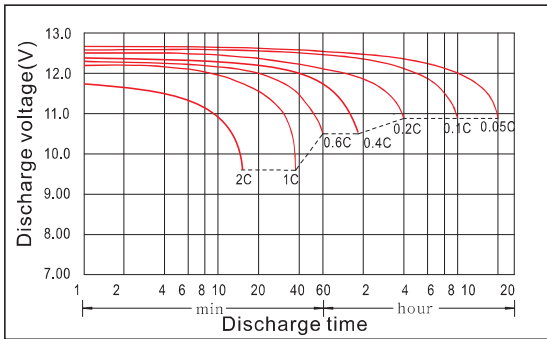
Constant Current Discharge Characteristics Unit: A (25°C, 77°F)

| FV/Time | 5min | 15min | 30min | 1h | 2h | 3h | 5h | 8h | 10h | 20h |
|---------|------|-------|-------|------|------|------|------|------|------|------|
| 1.60V | 328 | 176 | 107 | 62.6 | 35.9 | 26.1 | 17.5 | 11.5 | 9.67 | 5.08 |
| 1.65V | 318 | 171 | 105 | 62.2 | 35.7 | 25.8 | 17.3 | 11.4 | 9.58 | 5.05 |
| 1.70V | 305 | 167 | 103 | 61.8 | 35.5 | 25.4 | 17.1 | 11.3 | 9.49 | 5.02 |
| 1.75V | 281 | 162 | 102.5 | 60.9 | 34.9 | 25.2 | 17.0 | 11.2 | 9.39 | 5.00 |
| 1.80V | 251 | 151 | 98.1 | 59.3 | 34.3 | 25.0 | 16.5 | 11.1 | 9.30 | 4.98 |
| 1.85V | 224 | 134 | 89.5 | 55.0 | 32.5 | 23.5 | 15.7 | 10.7 | 9.02 | 4.89 |

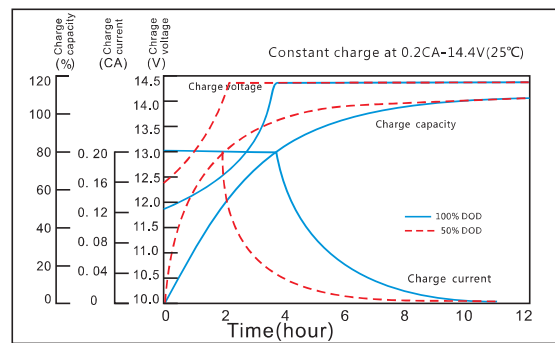
Constant Power Discharge Characteristics Unit: W/cell (25°C, 77°F)

| FV/Time | 5min | 15min | 30min | 1h | 2h | 3h | 5h | 8h | 10h | 20h |
|---------|------|-------|-------|-----|------|------|------|------|------|-------|
| 1.60V | 549 | 310 | 194 | 118 | 67.9 | 49.6 | 33.2 | 22.3 | 18.6 | 10.04 |
| 1.65V | 528 | 305 | 192 | 117 | 67.7 | 48.9 | 33.0 | 22.1 | 18.4 | 10.00 |
| 1.70V | 526 | 301 | 192 | 117 | 67.4 | 48.7 | 32.7 | 22.1 | 18.2 | 9.95 |
| 1.75V | 490 | 299 | 191 | 116 | 67.1 | 48.4 | 32.5 | 21.9 | 18.0 | 9.90 |
| 1.80V | 450 | 283 | 186 | 115 | 66.9 | 48.2 | 32.2 | 21.7 | 17.9 | 9.86 |
| 1.85V | 402 | 253 | 171 | 107 | 63.9 | 45.8 | 30.7 | 20.9 | 17.6 | 9.77 |

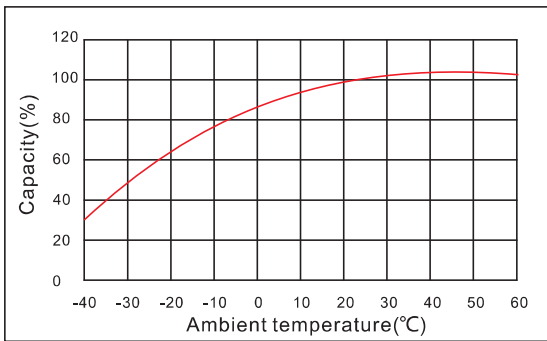
Discharge characteristic



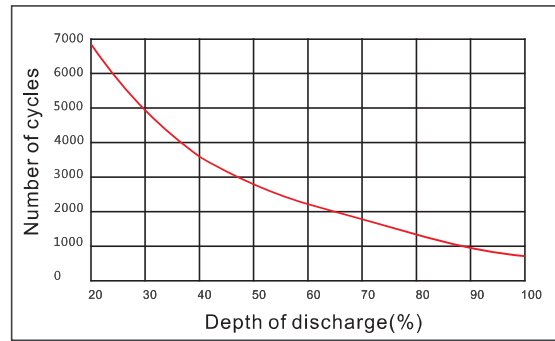
Charging characteristic



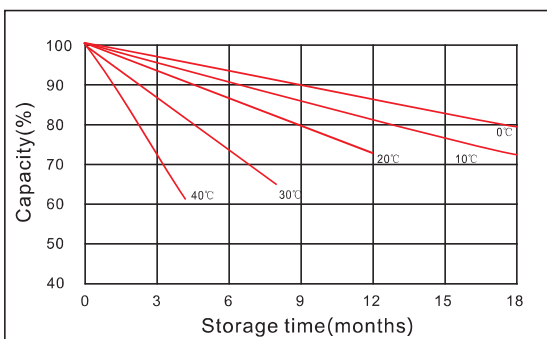
The effect of temperature on capacity



The effect of discharge depth on cycle life



Curves of self-discharge



Curves of open circuit voltage vs. capacity

