# JC12-45

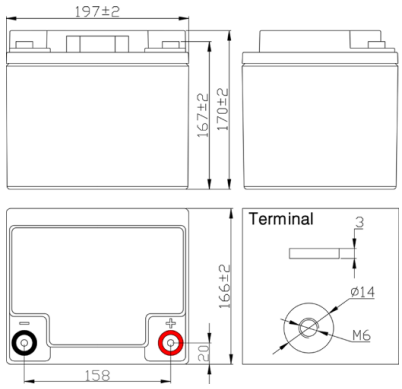
12V 45Ah




JAPCELL JC12-45 is an AGM battery. It is designed for stand-by applications such as UPS-systems.

## SPECIFICATION

| | |
|---|---|
| **Nominal Voltage** | 12V (6 cells in series) |
| **Rated Capacity** | 45.0Ah ($C_{10}$,1.80V/cell) |
| **Dimensions(mm)** | 197Length x 166Width x 170mm(max.170)Height |
| **Nominal Capacity @25℃ (Ah)** | 20 Hour rate (2.412A to 10.8 volts) 48.2Ah<br>10 Hour rate (4.545A to 10.8 volts) 45.4Ah<br>5 Hour rate (7.781A to 10.8 volts) 38.9Ah<br>1 Hour rate (28.49A to 10.5 volts) 28.4Ah |
| **Approx. Weight** | 13.8 kg |
| **Terminal** | F11 |
| **Max.Discharge Current** | 360A @25℃ (5s) |
| **Internal Resistance** | 8.0mΩ @25℃ |
| **Floating Design Life** | 10 years @25℃ |
| **Ambient Temperature** | Charge：-15℃~50℃<br>Discharge：-20℃~60℃<br>Storage：-20℃~50℃ |
| **Container Material** | A.B.S, UL94-HB, UL94-V0, Optional |
| **Self Discharge** | VRLA batteries can be stored for more than 6 months at 25℃.<br>Self-Discharge ratio less than 3%per month at 25℃.<br>Please charge batteries before using. |




## CONSTANT CURRENT DISCHARGE CHARACTERISTICS (A), (25℃)

| F.V/Time | 5min | 10min | 15min | 30min | 60min | 2H | 3H | 5H | 8H | 10H | 20H |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **1.60V/cell** | 150.8 | 96.75 | 78.75 | 50.63 | 29.25 | 17.48 | 12.10 | 8.114 | 5.589 | 4.725 | 2.592 |
| **1.70V/cell** | 132.8 | 87.75 | 75.38 | 49.28 | 28.85 | 17.26 | 11.95 | 8.019 | 5.499 | 4.635 | 2.502 |
| **1.75V/cell** | 119.3 | 81.00 | 71.33 | 47.93 | 28.49 | 17.03 | 11.81 | 7.898 | 5.445 | 4.590 | 2.457 |
| **1.80V/cell** | 103.5 | 73.35 | 66.83 | 46.08 | 27.90 | 16.80 | 11.59 | 7.781 | 5.364 | 4.545 | 2.412 |

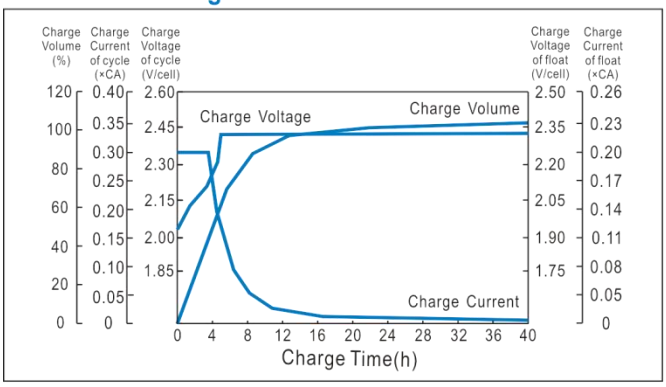
# JC12-45

12V 45Ah

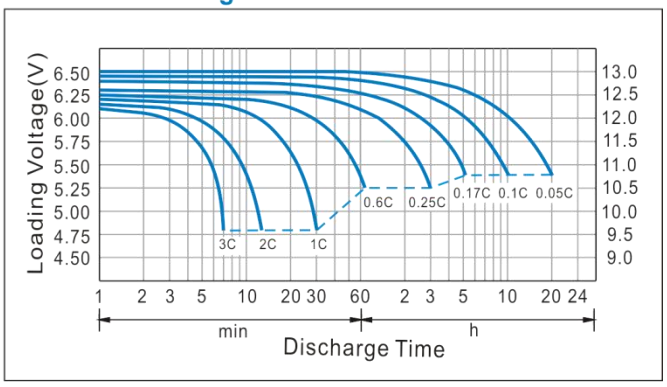
## CONSTANT WATTAGE DISCHARGE CHARACTERISTICS (WATT), (25℃)

| F.V/Time | 5min | 10min | 15min | 30min | 60min | 2H | 3H | 5H | 8H | 10H | 20H |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **1.60V/cell** | 260.0 | 172.5 | 143.1 | 94.50 | 56.06 | 34.09 | 23.99 | 16.13 | 11.12 | 9.411 | 5.180 |
| **1.70V/cell** | 234.5 | 159.4 | 138.8 | 92.80 | 55.53 | 33.80 | 23.76 | 15.98 | 10.97 | 9.255 | 5.004 |
| **1.75V/cell** | 213.7 | 149.2 | 132.5 | 91.06 | 55.07 | 33.50 | 23.55 | 15.78 | 10.89 | 9.180 | 4.914 |
| **1.80V/cell** | 188.0 | 136.9 | 125.3 | 88.32 | 54.17 | 33.32 | 23.16 | 15.56 | 10.73 | 9.090 | 4.824 |

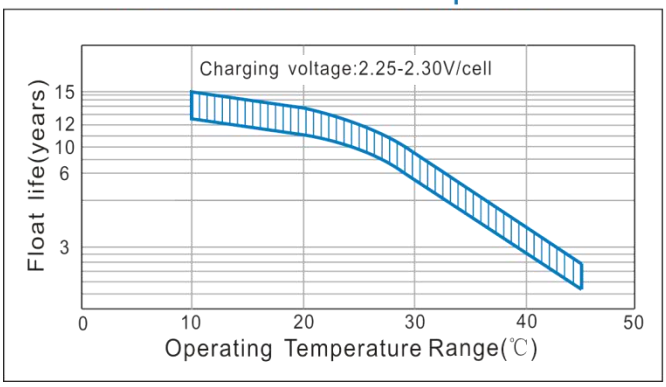
### Charge Characteristics Curve



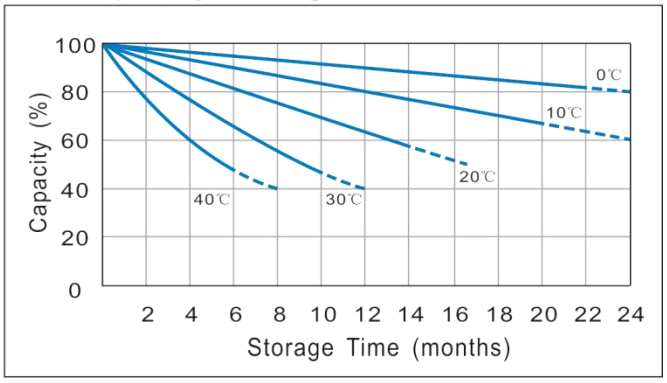

### Discharge Characteristics Curve




### Float Service Life VS Temperature




### Capacity Storage Characteristics




## CAPACITY FACTORS WITH DIFFERENT TEMPERATURE

| Battery type | | -20℃ | -10℃ | 0℃ | 5℃ | 10℃ | 20℃ | 25℃ | 30℃ | 40℃ | 45℃ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **GEL Battery** | **6V & 12V** | 50% | 70% | 83% | 85% | 90% | 98% | 100% | 102% | 104% | 105% |
| | **2V** | 60% | 75% | 85% | 88% | 92% | 99% | 100% | 103% | 105% | 106% |
| **AGM Battery** | **6V & 12V** | 46% | 66% | 76% | 83% | 90% | 98% | 100% | 103% | 107% | 109% |
| | **2V** | 55% | 70% | 80% | 85% | 92% | 99% | 100% | 104% | 108% | 110% |

## CHARGING METHOD

☼ Charging Procedure：

| Application | Charging method | Charge voltage at 25℃ | Temperature compensation coefficient of charging voltage | Max.charging current | Temperature |
|---|---|---|---|---|---|
| For standby power source | Constant voltage charging (With current restriction) | 2.25~2.30 V/cell | -3mV/℃/cell | 0.2CA | -15~50℃ |
| For cycle service | | 2.40~2.45 V/cell | -4mV/℃/cell | 0.3CA | |

☼ Charge the batteries at least once every six months, if they are stored at 25℃.

Constant Voltage: -0.2C×2h+2.40~2.45V/cell×24h, Max. Current 0.25CA

Constant Current: -0.2C×2h+0.1C×12h

Fast: -0.2C×2h+0.3C×4h