



# DJM SERIES-General Purpose

## DJM1240(12V40AH)

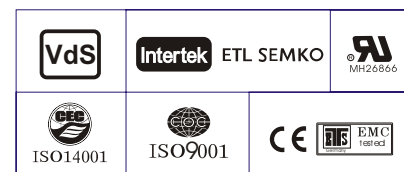
### Specification

|                                  |                                                                                                                                                                           |                                |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| Nominal Voltage                  | 12V                                                                                                                                                                       |                                |
| Nominal Capacity(20HR)           | 40.6AH                                                                                                                                                                    |                                |
| Dimension                        | Length                                                                                                                                                                    | 197±2mm (7.76 inches)          |
|                                  | Width                                                                                                                                                                     | 165±2mm (6.50 inches)          |
|                                  | Container Height                                                                                                                                                          | 170±2mm (6.69 inches)          |
|                                  | Total Height (with Terminal)                                                                                                                                              | 170±2mm (6.69 inches)          |
| Approx Weight                    | Approx 13.2 Kg (29.1 lbs)                                                                                                                                                 |                                |
| Terminal                         | T6                                                                                                                                                                        |                                |
| Container Material               | ABS                                                                                                                                                                       |                                |
| Rated Capacity                   | 40.6 AH/2.03A                                                                                                                                                             | (20hr , 1.80V/cell, 25°C/77°F) |
|                                  | 38.0 AH/3.80A                                                                                                                                                             | (10hr, 1.80V/cell, 25°C/77°F)  |
|                                  | 33.1 AH/6.61A                                                                                                                                                             | (5hr, 1.75V/cell, 25°C/77°F)   |
|                                  | 29.6 AH/9.88A                                                                                                                                                             | (3hr, 1.75V/cell, 25°C/77°F)   |
|                                  | 23.56 AH/23.56A                                                                                                                                                           | (1hr, 1.60V/cell, 25°C/77°F)   |
| Max. Discharge Current           | 456A (5s)                                                                                                                                                                 |                                |
| Internal Resistance              | Approx 10.0mΩ                                                                                                                                                             |                                |
| Operating Temp. Range            | Discharge : -15~50°C (5~122°F)                                                                                                                                            |                                |
|                                  | Charge : 0~40°C (32~104°F )                                                                                                                                               |                                |
|                                  | Storage : -15~40°C (5~104°F)                                                                                                                                              |                                |
| Nominal Operating Temp. Range    | 25±3°C (77±5°F )                                                                                                                                                          |                                |
| Cycle Use                        | Initial Charging Current less than 11.4A. Voltage<br>14.4V~15.0V at 25°C (77°F)Temp. Coefficient -30mV/°C                                                                 |                                |
| Standby Use                      | No limit on Initial Charging Current Voltage<br>13.5V~13.8V at 25°C (77°F)Temp. Coefficient -20mV/°C                                                                      |                                |
| Capacity affected by Temperature | 40°C (104°F)                                                                                                                                                              | 103%                           |
|                                  | 25°C (77°F)                                                                                                                                                               | 100%                           |
|                                  | 0°C (32°F)                                                                                                                                                                | 86%                            |
| Self Discharge                   | DJM series batteries may be stored for up to 6 months at 25°C (77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter. |                                |



### Applications

- ◆ UPS and EPS
- ◆ Emergency light
- ◆ Railway signal and aircraft signal system
- ◆ Marine and power stations Alarm and security system
- ◆ Electronic apparatus and equipment
- ◆ Communication power supply, DC power supply



### Constant Current Discharge (Amperes) at 25 °C (77°F)

| F.V/Time   | 10min | 15min | 20min | 30min | 45min | 1h   | 2h   | 3h   | 4h   | 5h   | 6h   | 8h   | 10h  | 20h  |
|------------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|
| 1.85V/cell | 44.5  | 37.4  | 33.2  | 27.5  | 21.2  | 18.2 | 11.8 | 8.84 | 7.24 | 6.09 | 5.34 | 4.28 | 3.68 | 1.96 |
| 1.80V/cell | 50.9  | 42.0  | 36.7  | 29.9  | 22.9  | 19.2 | 12.6 | 9.50 | 7.70 | 6.46 | 5.66 | 4.51 | 3.80 | 2.03 |
| 1.75V/cell | 57.8  | 47.3  | 40.5  | 32.5  | 25.0  | 20.9 | 13.1 | 9.88 | 7.97 | 6.61 | 5.83 | 4.66 | 3.90 | 2.08 |
| 1.70V/cell | 65.3  | 52.5  | 44.7  | 35.5  | 26.9  | 22.1 | 13.9 | 10.4 | 8.32 | 6.99 | 6.11 | 4.85 | 4.05 | 2.14 |
| 1.65V/cell | 70.1  | 56.2  | 47.6  | 37.4  | 28.5  | 22.9 | 14.4 | 10.8 | 8.65 | 7.21 | 6.33 | 5.02 | 4.17 | 2.20 |
| 1.60V/cell | 77.1  | 61.6  | 51.7  | 39.9  | 29.6  | 23.6 | 14.7 | 11.1 | 8.84 | 7.39 | 6.46 | 5.11 | 4.25 | 2.24 |

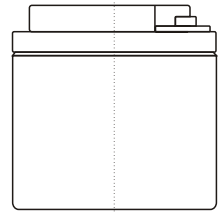
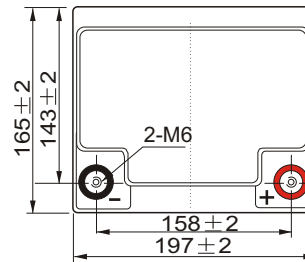
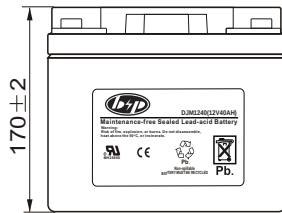
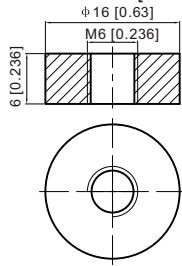
### Constant Power Discharge (Watts) at 25 °C (77°F)

| F.V/Time   | 10min | 15min | 20min | 30min | 45min | 1h   | 2h   | 3h   | 4h   | 5h   | 6h   | 8h   | 10h  | 20h  |
|------------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|
| 1.85V/cell | 83.0  | 70.5  | 63.2  | 53.0  | 41.2  | 35.4 | 23.1 | 17.4 | 14.3 | 12.1 | 10.6 | 8.54 | 7.36 | 3.93 |
| 1.80V/cell | 93.9  | 78.1  | 68.9  | 56.7  | 44.1  | 37.2 | 24.6 | 18.6 | 15.1 | 12.7 | 11.2 | 8.96 | 7.58 | 4.06 |
| 1.75V/cell | 104.9 | 87.0  | 75.4  | 61.1  | 47.7  | 40.3 | 25.5 | 19.3 | 15.6 | 13.0 | 11.5 | 9.24 | 7.78 | 4.16 |
| 1.70V/cell | 115.9 | 95.2  | 82.6  | 66.3  | 51.2  | 42.5 | 26.8 | 20.2 | 16.3 | 13.7 | 12.0 | 9.62 | 8.07 | 4.26 |
| 1.65V/cell | 123.3 | 101.1 | 87.2  | 69.4  | 53.7  | 43.7 | 27.7 | 21.0 | 16.8 | 14.1 | 12.4 | 9.92 | 8.29 | 4.39 |
| 1.60V/cell | 132.6 | 109.0 | 93.7  | 73.6  | 55.5  | 44.8 | 28.2 | 21.4 | 17.2 | 14.4 | 12.6 | 10.1 | 8.45 | 4.45 |

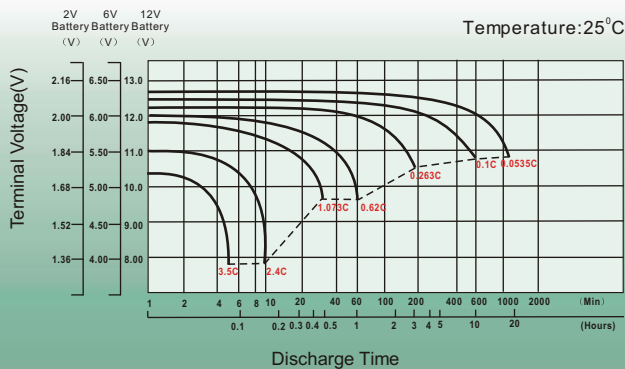
## Dimensions

### T6 Terminal

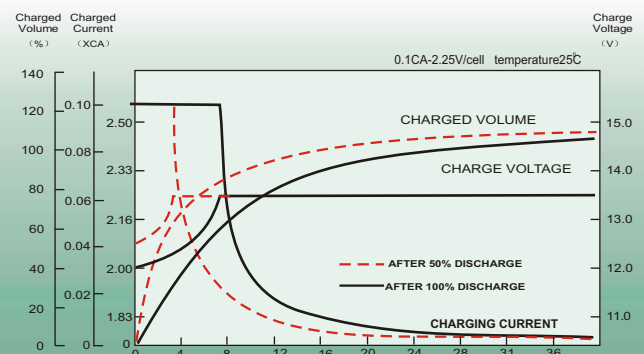
Unit: mm [inches]



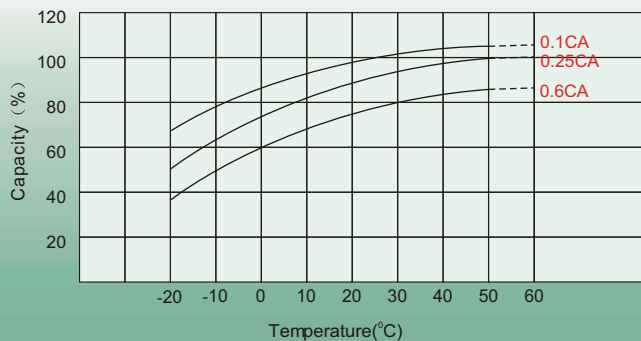
## Discharge Characteristics



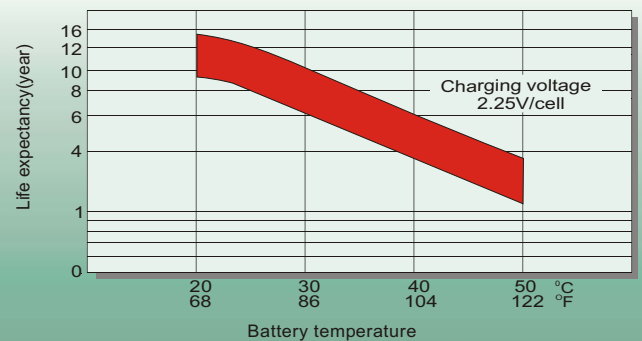
## Float Charging Characteristics



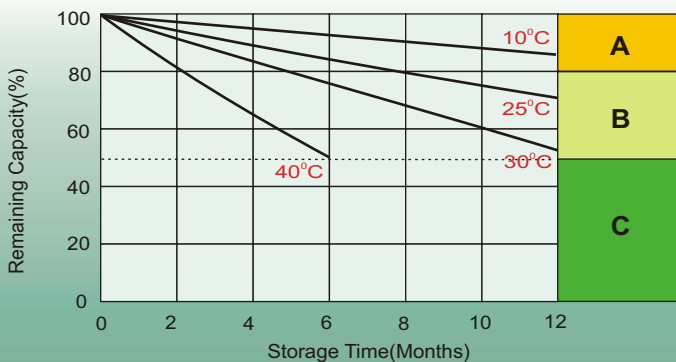
## Temperature Effects in Relation to Battery Capacity



## Effect of Temperature on Long Term Float Life



## Self Discharge Characteristics



**A**

No supplementary charge required  
(Carry out supplementary charge before use if 100% capacity is required.)

**B**

Supplementary charge required before use. Optional charging way as below:  
1. Charged for above 3 days at limited current 0.25CA and constant voltage 2.25V/cell.  
2. Charged for above 20 hours at limited current 0.25CA and constant voltage 2.45V/cell.  
3. Charged for 8-10 hours at limited current 0.05CA.

**C**

Supplementary charge may often fail to recover the capacity.  
The battery should never be left standing till this is reached.