

# Maintenance-Free Rechargeable Sealed Lead-Acid Battery

## DM12-18 (12V18AH)

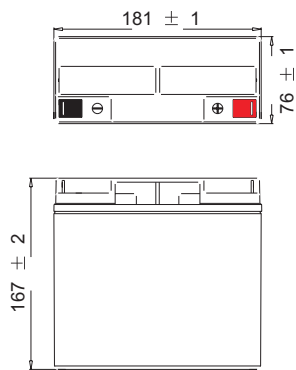
## Specification



### Application

- UPS
- Toys
- Power tools
- Medical Equipment
- Control Equipment
- Communication Equipment
- Alarm and security system

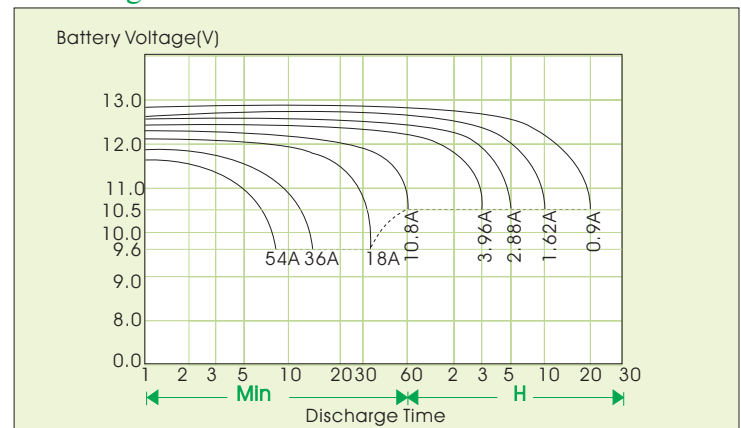
### Dimensions(mm)



|                        |                         |        |
|------------------------|-------------------------|--------|
| Nominal voltage        |                         | 12V    |
| Rated Capacity (20 HR) |                         | 18AH   |
| Approx Weight          |                         | 5.24kg |
| Terminal               | Standard                | B1-M5  |
|                        | Optional                |        |
| Operation Temperature  |                         |        |
| Charge                 | 0°C(32°F)~40°C(104°F)   |        |
| Discharge              | -20°C(-4°F)~50°C(122°F) |        |
| Storage                | -20°C(-4°F)~40°C(104°F) |        |

|   |                         |   |
|---|-------------------------|---|
| Capacity<br>25°C (77°F)                               | 20 hour rate (0.9A)     | 18AH  |
|   | 10 hour rate (1.62A)    | 16.2AH  |
|   | 5 hour rate (2.88A)     | 14.4AH  |
|   | 1 hour rate (10.8A)     | 10.8AH  |
| Capacity affected<br>by temperature                   | 40°C (104°F)            | 103%  |
|   | 25°C (77°F)             | 100%  |
|   | 0°C (32°F)              | 86%   |
|   | -15°C (5°F)             | 65%   |
| Self-discharge at<br>25°C (77°F)<br>(Before recharge) | Capacity after 3 month  | 91%   |
|   | Capacity after 6 month  | 82%   |
|   | Capacity after 12 month | 64%   |
| Constant<br>voltage<br>charge                         | Cycle                   | Initial Charging Current ≤ 5.4A<br>14.4V~15V at 25°C (77°F) |
|   | Standby                 | 13.5V~13.8V at 25°C (77°F)                                  |
| Max discharge current for 5 secretary                 |                         | 270A  |

### Discharge characteristic



Note: Discharge shall be cut-off at 10.5V if discharge at  $< 1C_A$  and at 9.6V if at  $\geq 1C_A$ . It is recommended to recharge battery by constant-voltage charge immediately after use

### Constant current (Amp) and Constant Power (Watt) Discharge Table at 25°C (77°F)

| Final voltage | Time (min) | 5       | 10     | 15     | 20     | 30     | 60     | 120   | 180   | 300   | 600   |
|---------------|------------|---------|--------|--------|--------|--------|--------|-------|-------|-------|-------|
|               |            | 1.80VPC | A      | 73.24  | 47.05  | 35.24  | 29.43  | 20.19 | 9.56  | 6.71  | 3.92  |
|               | W          | 769.00  | 494.00 | 370.00 | 309.00 | 212.00 | 127.00 | 70.50 | 51.50 | 33.50 | 18.50 |
| 1.75VPC       | A          | 73.62   | 47.52  | 35.52  | 29.71  | 20.48  | 10.80  | 7.01  | 3.96  | 2.88  | 1.62  |
|               | W          | 773.00  | 499.00 | 373.00 | 312.00 | 215.00 | 130.00 | 73.66 | 53.57 | 35.21 | 19.00 |
| 1.70VPC       | A          | 73.71   | 47.71  | 35.71  | 29.90  | 20.67  | 12.57  | 7.13  | 4.11  | 2.95  | 1.68  |
|               | W          | 774.00  | 501.00 | 375.00 | 314.00 | 217.00 | 132.00 | 75.60 | 55.19 | 36.18 | 20.00 |
| 1.65VPC       | A          | 73.90   | 47.90  | 35.90  | 30.09  | 20.86  | 12.76  | 7.28  | 4.23  | 3.02  | 1.73  |
|               | W          | 776.00  | 503.00 | 377.00 | 316.00 | 219.00 | 134.00 | 76.46 | 55.62 | 36.60 | 20.20 |
| 1.60VPC       | A          | 74.10   | 48.00  | 36.00  | 30.19  | 20.95  | 12.86  | 7.33  | 4.36  | 3.11  | 1.79  |
|               | W          | 778.00  | 504.00 | 378.00 | 317.00 | 220.00 | 135.00 | 77.00 | 56.00 | 36.83 | 20.60 |