

## General features for MPb Series (AGM) battery

- \* Stable quality & high reliability.
- \* Unique construction and sealing technique guarantees.
- \* Design life 10years in float service;the battery comply to the most popular international standards,like IEC60896-21/22,etc
- \* Maintenance-free operation.
- \* UL-recognized component.
- \* Heavy duty grids:  
The heavy-duty lead calcium-alloy grids ,provide an extra margin of performance and service life in float & cyclic.
- \* Case and cover are available in both standard and flame retardant ABS.
- \* Low self discharge;low pressure venting system.



**Maxton Power Tech Co.,Ltd**  
www.maxtonpower.com  
info@maxtonpower.com

**MP6-190 (6V190Ah)**

## Specifications

|                               |              |                       |
|-------------------------------|--------------|-----------------------|
| Nominal Voltage               |              | 6V                    |
| Rated capacity (10 hour rate) |              | 190 Ah                |
| Dimensions<br>(±2mm)          | Total Height | 227 mm (8.93 inches)  |
|                               | Height       | 223 mm (8.77 inches)  |
|                               | Length       | 306 mm (12.04 inches) |
|                               | Width        | 169 mm (6.63 inches)  |
| Weight Approx (±3%)           |              | 27.5 Kg (60.7 lbs)    |

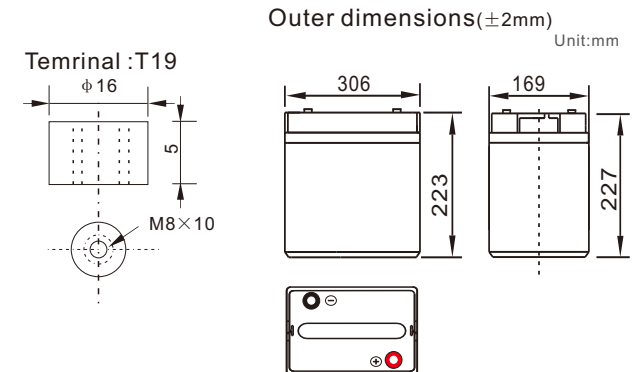
## Battery picture and construction



### Battery Construction

|              |                      |                |              |          |
|--------------|----------------------|----------------|--------------|----------|
| Component    | Positive plate       | Negative plate | Container    | Cover    |
| Raw material | Lead dioxide         | Lead           | ABS          | ABS      |
| Component    | Electrolyte          | Separator      | Safety valve | Terminal |
| Raw material | Dilute sulfuric acid | Fiberglass     | Rubber       | Copper   |

## Outer dimension and terminal



## Characteristics

|   |   |  |
|---|---|--|
| Capacity<br>25°C(77°F)                                  | 10 hour rate(19A,5.4V)<br>5 hour rate(30.4A,5.25V)<br>1 hour rate(114A,4.8V)                        | 190Ah<br>152Ah<br>114Ah  |
| Internal Resistance                                     | Full charged battery at 25°C(77°F)  | Approx 1.0mΩ   |
| Capacity<br>affected<br>by Temperature<br>(10hour rate) | 40°C (104°F)<br>25°C (77°F)<br>0°C (32°F)<br>-15°C (5°F)  | 102%<br>100%<br>85%<br>65%   |
| Remaining capacity<br>Self-Discharge<br>At 25°C(77°F)   | Capacity after 3 month storage<br>Capacity after 6 month storage<br>Capacity after 12 month storage | 91%<br>82%<br>64%  |
| Terminal type   | T19   |  |
| Max. Discharge current 25°C/(77°F)                      | 1400A (5Seconds)  |  |
| Nominal operating temperature                           | 25°C ±5°C(77°F ±9°F)  |  |
| Operating<br>Temperature<br>Range                       | Discharge<br>Charge<br>Storage  | -15°C ~50°C (5°F ~122°F)<br>-10°C ~50°C (14°F ~122°F)<br>-20°C ~50°C (-4°F ~122°F)   |
| Charge methods<br>(constant Voltage)<br>At 25°C(77°F)   | Cycle use<br>Standby use  | Initial Charging Current less than 47.5 A<br>Voltage 7.25-7.45V<br>Temperature compensation:-15mV/°C<br>Voltage 6.75-6.90V<br>Temperature compensation:-9mV/°C |

## Constant current discharge (25°C , 77 °F)

Unit:A

## Constant power discharge (25°C , 77 °F)

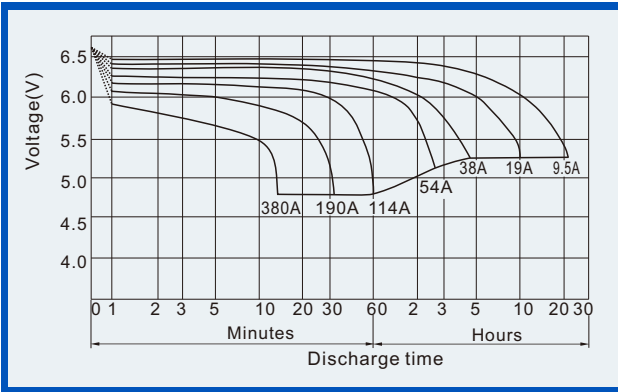
Unit:watts

| Time  | 5min | 10min | 15min | 30min | 1h   | 2h  | 3h   | 4h   | 5h   | 8h   | 10h  | 20h   |
|-------|------|-------|-------|-------|------|-----|------|------|------|------|------|-------|
| 4.80V | A    | 609   | 401   | 323   | 217  | 114 | 66.5 | 48.8 | 38.0 | 31.4 | 22.2 | 10.8  |
|       | W    | 3140  | 2141  | 1733  | 1164 | 616 | 365  | 272  | 214  | 178  | 127  | 62.6  |
| 5.10V | A    | 589   | 362   | 304   | 207  | 107 | 63.5 | 47.5 | 37.1 | 30.8 | 21.7 | 10.45 |
|       | W    | 3147  | 2020  | 1703  | 1162 | 606 | 366  | 275  | 215  | 179  | 127  | 61.3  |
| 5.25V | A    | 570   | 324   | 266   | 194  | 104 | 61.9 | 46.4 | 36.5 | 30.4 | 21.5 | 10.5  |
|       | W    | 3113  | 1840  | 1519  | 1115 | 601 | 359  | 270  | 213  | 178  | 126  | 61.8  |
| 5.40V | A    | 549   | 305   | 247   | 179  | 100 | 60.4 | 45.2 | 35.9 | 29.6 | 20.9 | 10.26 |
|       | W    | 3083  | 1758  | 1425  | 1035 | 584 | 354  | 267  | 212  | 175  | 124  | 61.1  |
| 5.55V | A    | 531   | 286   | 228   | 160  | 97  | 58.9 | 43.7 | 35.0 | 28.9 | 20.3 | 9.69  |
|       | W    | 3011  | 1655  | 1329  | 934  | 570 | 348  | 260  | 208  | 172  | 122  | 58.7  |

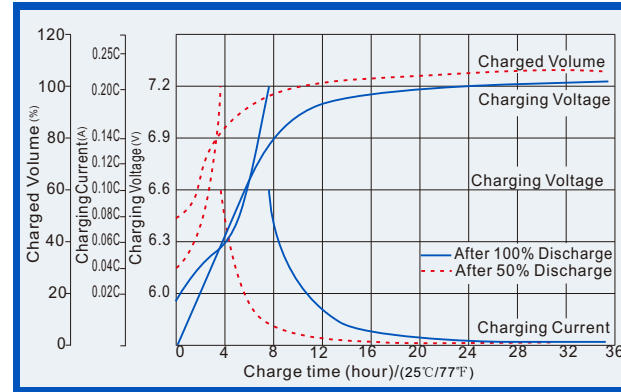
(Above characteristics data are average values obtained within three charge/discharge cycles,not the minimum values.)

# VRLA Battery (AGM technology) Maintenance-free Sealed Lead Acid Rechargeable Battery

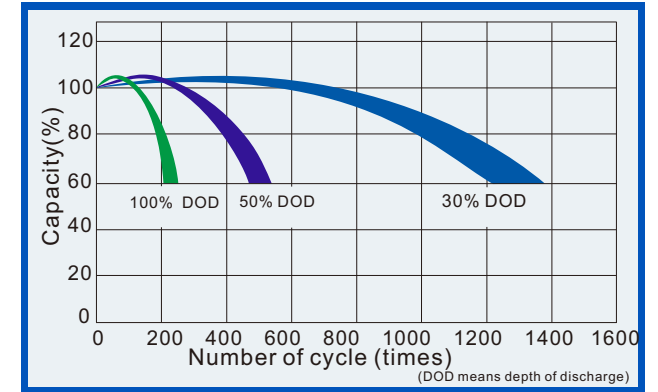
**Discharge characteristics (25°C, 77°F)**



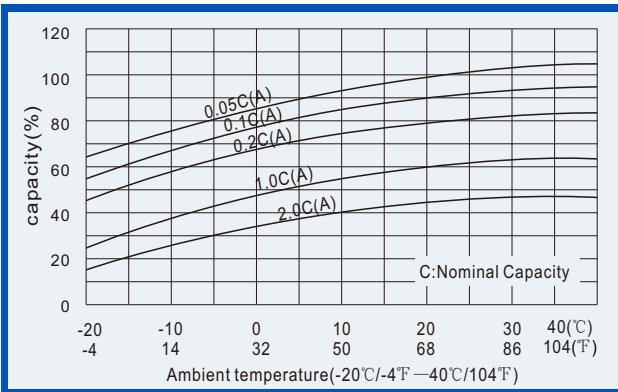
**Charge characteristics (25°C, 77°F)**



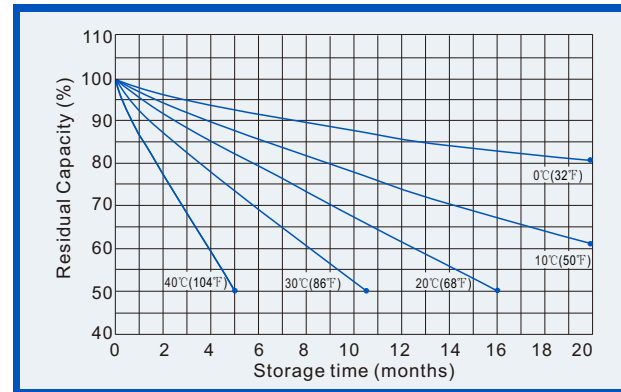
**Life characteristics of Cyclic Use (25°C, 77°F)**



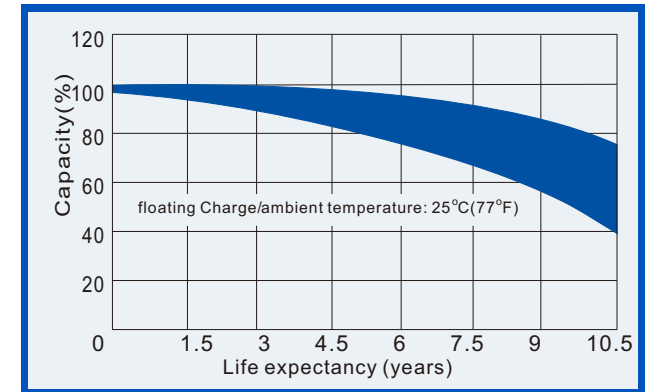
**Effect of Temperature on capacity**



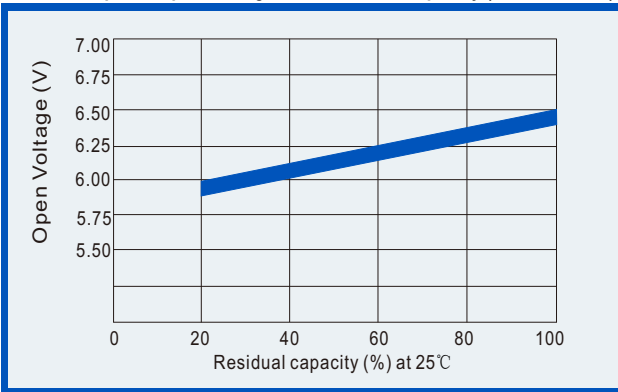
**Self-discharge characteristics**



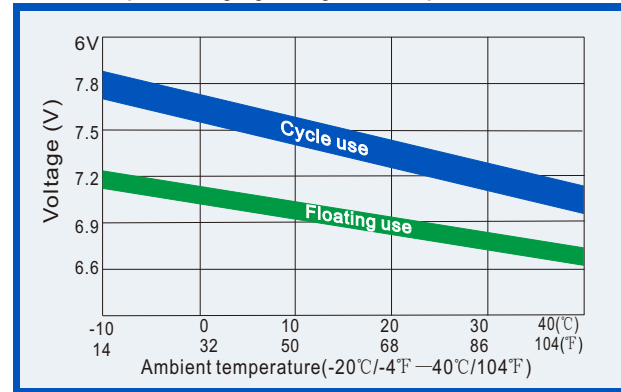
**Life Characteristics of float service (25°C, 77°F)**



**Relationships for open voltage and remained capacity (for reference)**



**Relationship for charging voltage and temperature**



**Temperature effects on floating life**

