

General features for MPE Series (Deep-cycle) battery

- * Absorbent Glass Mat (AGM) technology for efficient gas recombination of up to 99% and freedom from electrolyte maintenance or water adding.
- * Computer designed lead, calcium tin alloy grid for high power density.
- * UL-recognized component.
- * Long service life, float or cyclic applications.
- * Maintenance-free operation.
- * Low self discharge.
- * Case and cover are available in both standard and flame retardant ABS (Standard :UL94V0).



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MPE6-150 (6V150Ah)

Specifications

| | | |
|-------------------------------|--------------|----------------------|
| Nominal Voltage | | 6V |
| Rated capacity (10 hour rate) | | 150 Ah |
| Dimensions (±2mm) | Total Height | 252mm (9.92 inches) |
| | Height | 247 mm (9.72 inches) |
| | Length | 260 mm (10.2 inches) |
| | Width | 180 mm (7.09 inches) |
| Weight Approx (±3%) | | 23.5Kg (51.8 lbs) |

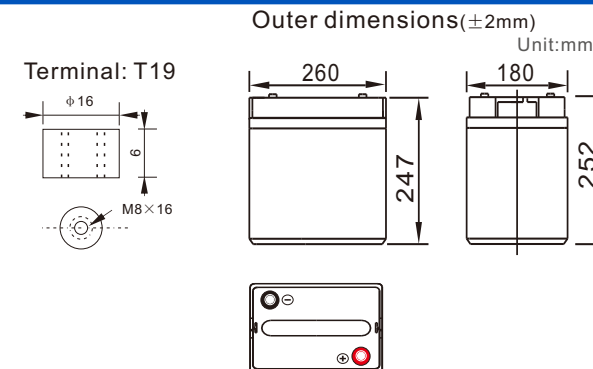
Battery picture and construction



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 25°C(77°F) | 10 hour rate(15.0 A,5.4V) 5 hour rate(24.0A,5.25V) 1 hour rate(90 A,4.8V) | 150 Ah 120Ah 90Ah |
| Internal Resistance | Full charged battery at 25°C(77°F) | Approx.2.0mΩ |
| Capacity affected by Temperature (10hour rate) | 40°C (104°F) 25°C (77°F) 0°C (32°F) -15°C (5°F) | 102% 100% 85% 65% |
| Remaining capacity Self-Discharge At 25°C(77°F) | Capacity after 3 month storage Capacity after 6 month storage Capacity after 12 month storage | 91% 82% 64% |
| Terminal type | T19 | |
| Max. Discharge current 25°C/(77°F) | 1100A (5Seconds) | |
| Nominal operating temperature | 25°C ±5°C(77°F ±9°F) | |
| Operating Temperature Range | Discharge Charge Storage | -20°C ~55°C (-4°F ~131°F) -10°C ~55°C (14°F ~131°F) -20°C ~55°C (-4°F ~131°F) |
| Charge methods (constant Voltage) At 25°C(77°F) | Cycle use Standby use | Initial Charging Current less than 37.5A Voltage 7.25-7.45V Temperature compensation:-15mV/°C Voltage 6.75-6.90V Temperature compensation:-9mV/°C |

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

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

Unit:A

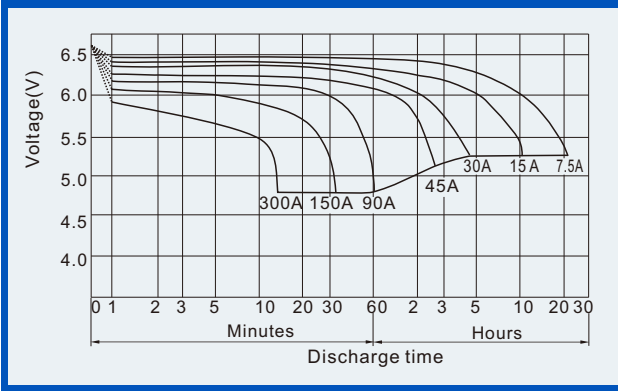
Unit:watts

| Time | 5min | 10min | 15min | 30min | 1h | 2h | 3h | 4h | 5h | 8h | 10h | 20h |
|-------|------|-------|-------|-------|-----|-----|------|------|------|------|------|------|
| 4.80V | A | 480 | 317 | 255 | 171 | 90 | 52.5 | 38.6 | 30.0 | 24.8 | 17.6 | 8.5 |
| | W | 2479 | 1690 | 1368 | 919 | 486 | 288 | 215 | 169 | 141 | 101 | 49.4 |
| 5.10V | A | 465 | 286 | 240 | 164 | 85 | 50.1 | 37.5 | 29.3 | 24.3 | 17.1 | 8.25 |
| | W | 2485 | 1595 | 1344 | 918 | 478 | 289 | 217 | 170 | 142 | 100 | 48.4 |
| 5.25V | A | 450 | 255 | 210 | 153 | 82 | 48.9 | 36.6 | 28.8 | 24.0 | 17.0 | 8.3 |
| | W | 2458 | 1453 | 1199 | 880 | 474 | 284 | 213 | 168 | 141 | 100 | 48.8 |
| 5.40V | A | 434 | 241 | 195 | 141 | 79 | 47.7 | 35.7 | 28.4 | 23.4 | 16.5 | 8.10 |
| | W | 2434 | 1388 | 1125 | 817 | 461 | 279 | 210 | 167 | 138 | 98 | 48.2 |
| 5.55V | A | 419 | 226 | 180 | 126 | 77 | 46.5 | 34.5 | 27.6 | 22.8 | 16.1 | 7.65 |
| | W | 2377 | 1306 | 1049 | 737 | 450 | 275 | 205 | 164 | 136 | 96 | 46.4 |

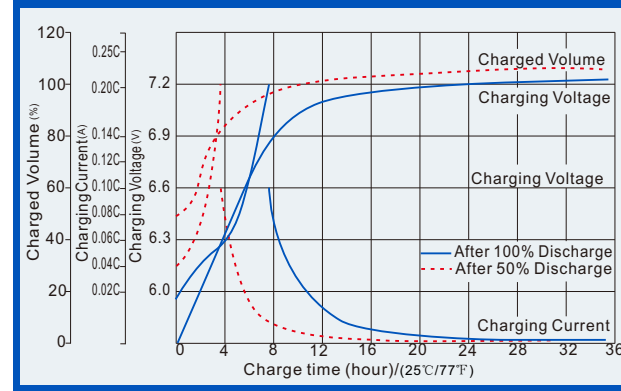
(Above characteristics data are average values obtained within three charge/discharge cycles,not the minimum values.)

Deep Cycle Battery (VRLA Battery, AGM technology) Maintenance-free Sealed Lead Acid Rechargeable Battery

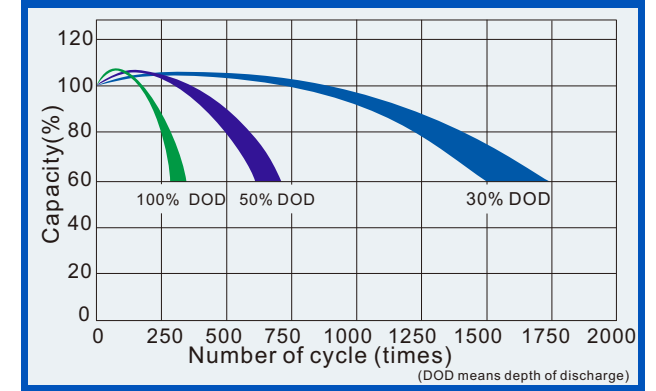
Discharge characteristics (25°C, 77°F)



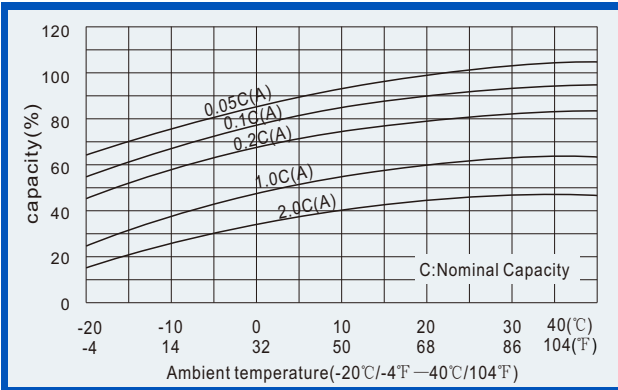
Charge characteristics (25°C, 77°F)



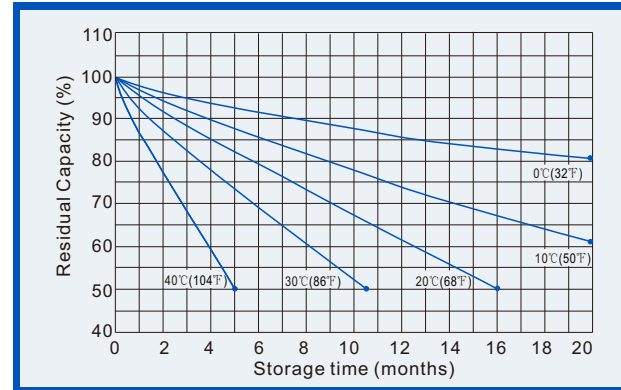
Life characteristics of Cyclic Use (25°C, 77°F)



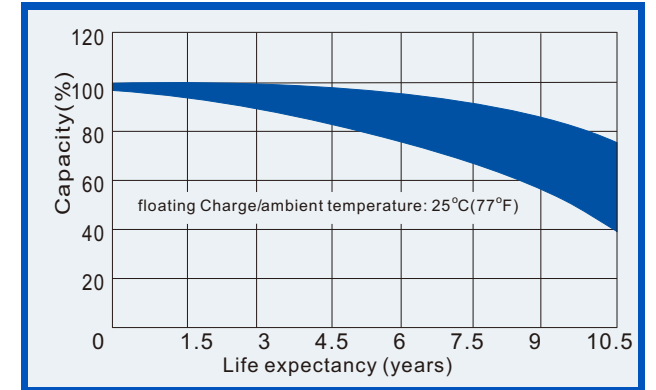
Effect of Temperature on capacity



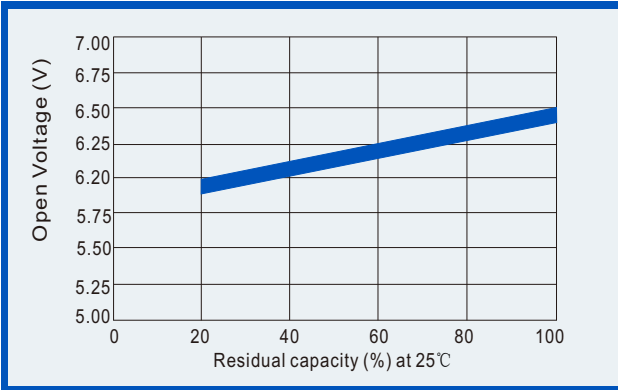
Self-discharge characteristics



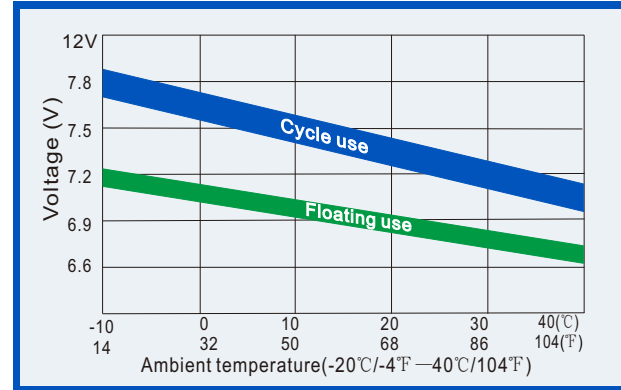
Life Characteristics of standby use (25°C, 77°F)



Relationships for open voltage and remained capacity (for reference)



Relationship for charging voltage and temperature



Temperature effects on floating life

