

RECHARGEABLE SEALED LEAD ACID BATTERY

SPECIFICATION

MP65-12S



Nominal Voltage (V) 12V

Nominal Capacity

| | | | | |
|--------------|---------|----|---------|---------|
| 20 hour rate | (3.25A | to | 10.50V) | 65.00Ah |
| 10 hour rate | (6.175A | to | 10.50V) | 61.75Ah |
| 5 hour rate | (11.05A | to | 10.20V) | 55.25Ah |
| 1 C | (65A | to | 9.60V) | 36.83Ah |
| 3 C | (195A | to | 9.60V) | 26.00Ah |

Weight Approx. 22.4kg (49.38lbs)

Internal Resistance (at 1KHz) Approx. 3.5 mΩ

Maximum Discharge Current for

5 seconds: 780A

Charging Methods at 25°C (77°F)

| | |
|---------------------------|------------------|
| Cycle use: | |
| Charging Voltage | 14.70V to 14.80V |
| Coefficient | -5.0mV/°C/cell |
| Maximum Charging Current: | 16.25A |
| Standby use: | |
| Float Charging Voltage | 13.50V to 13.80V |
| Coefficient | -3.0mV/°C/cell |

Operating Temperature Range

| | |
|-----------|-----------------------------|
| Charge | -15°C (5°F) to 40°C (104°F) |
| Discharge | -15°C (5°F) to 50°C (122°F) |
| Storage | -15°C (5°F) to 40°C (104°F) |

Charge Retention (shelf life) at 20°C (68°F)

| | |
|---------|-----|
| 1 month | 98% |
| 3 month | 94% |
| 6 month | 85% |

Case Material

(UL94 HB flame retardant case / cover)

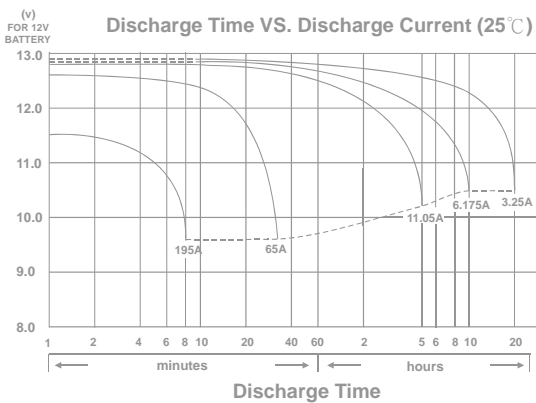
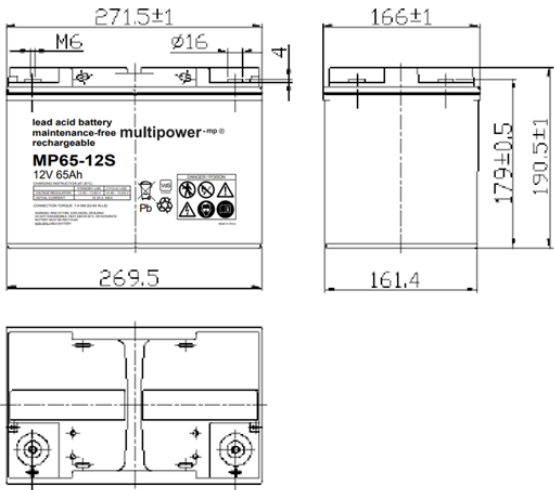
ABS

Terminal

F8

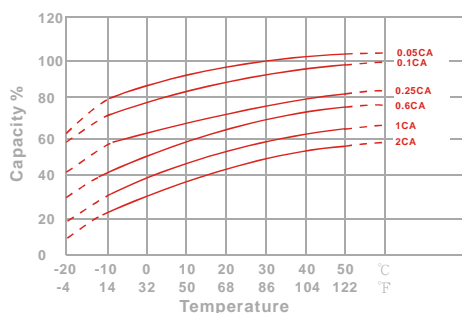
Description of torque value of hard ware for the terminals:

| | |
|--------------------------------|-------------------------|
| Recommended torque value | M6: 7 N-m (71 kgf-cm) |
| Maximum allowable torque value | M6: 10 N-m (102 kgf-cm) |

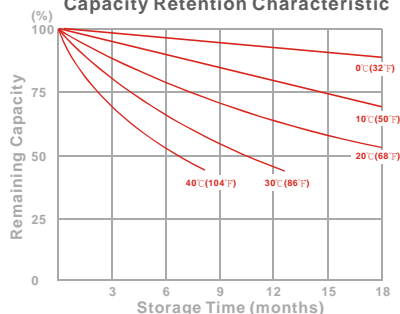


CHARACTERISTIC & PERFORMANCE DATA

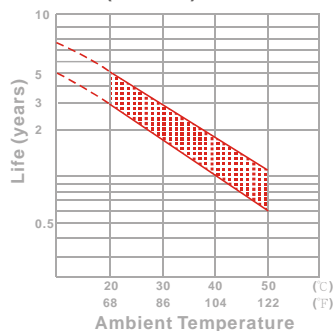
Effect of Temperature on Capacity 25°C (77°F)



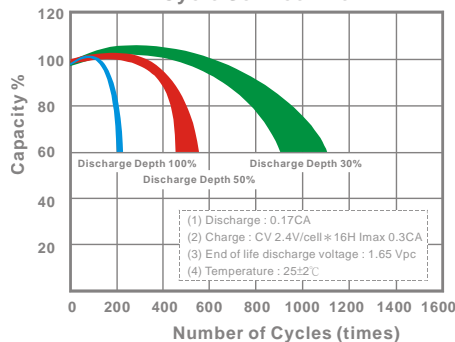
Capacity Retention Characteristic



Trickle (or float) Service Life



Cycle Service Life



- PERFORMANCE DATA

Discharge Rates in Watts to Various End Voltages at 25°C (77°F)

| End voltage | 5 min | 10 min | 15 min | 20 min | 30 min | 45 min | 1 hour | 2 hrs | 3 hrs | 5 hrs | 10 hrs | 20 hrs |
|-------------|-------|--------|--------|--------|--------|--------|--------|-------|-------|-------|--------|--------|
| 9.60 V | 2190 | 1616 | 1254 | 1036 | 782 | 578 | 460 | 263 | 190 | 127 | 70.5 | 39.1 |
| 9.90 V | 2089 | 1568 | 1228 | 1021 | 773 | 575 | 457 | 261 | 189 | 126 | 70.2 | 38.8 |
| 10.02 V | 2025 | 1533 | 1216 | 1010 | 767 | 571 | 454 | 259 | 188 | 125 | 69.9 | 38.7 |
| 10.20 V | 1961 | 1499 | 1203 | 998 | 761 | 567 | 452 | 257 | 187 | 124 | 69.6 | 38.6 |
| 10.50 V | 1833 | 1434 | 1159 | 974 | 748 | 556 | 447 | 254 | 185 | 123 | 68.6 | 38.5 |
| 10.80 V | 1671 | 1342 | 1104 | 933 | 721 | 539 | 436 | 249 | 181 | 119 | 67.1 | 38.1 |

Rates in Amperes to Various End Voltages at 25°C (77°F)

| End voltage | 5 min | 10 min | 15 min | 20 min | 30 min | 45 min | 1 hour | 2 hrs | 3 hrs | 5 hrs | 10 hrs | 20 hrs |
|-------------|-------|--------|--------|--------|--------|--------|--------|-------|-------|-------|--------|--------|
| 9.60 V | 219 | 158 | 120 | 97.2 | 71.6 | 52.0 | 40.9 | 23.0 | 16.6 | 11.0 | 6.07 | 3.36 |
| 9.90 V | 208 | 152 | 117 | 95.2 | 70.6 | 51.5 | 40.5 | 22.8 | 16.4 | 10.9 | 6.03 | 3.32 |
| 10.02 V | 201 | 148 | 115 | 93.9 | 69.9 | 51.1 | 40.2 | 22.6 | 16.3 | 10.8 | 5.99 | 3.30 |
| 10.20 V | 195 | 145 | 114 | 92.7 | 69.3 | 50.7 | 40.0 | 22.4 | 16.1 | 10.7 | 5.95 | 3.28 |
| 10.50 V | 182 | 138 | 109 | 90.1 | 67.8 | 49.5 | 39.4 | 22.0 | 15.9 | 10.5 | 5.82 | 3.25 |
| 10.80 V | 165 | 129 | 103 | 85.8 | 64.9 | 47.7 | 38.2 | 21.5 | 15.4 | 10.1 | 5.68 | 3.20 |

spec. sheet is an average value:

The tolerance range : $X < 6\text{min}$ (+15%~-15%), $6\text{min} \leq X < 10\text{min}$ (+12%~-12%), $10\text{min} \leq X < 60\text{min}$ (+8%~-8%), $X \geq 60\text{min}$ (+5%~-5%)