



Valve Regulated Lead-Acid Rechargeable Battery



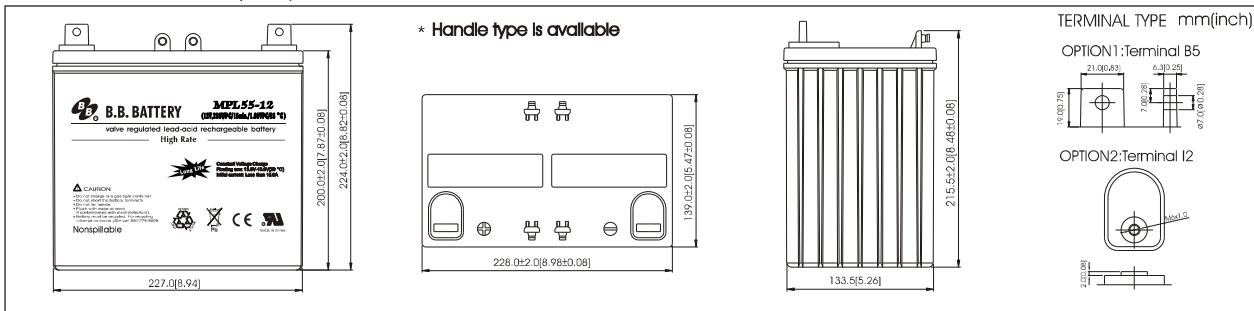
MPL55-12 (12V, 220W/Cell 15min.)

MPL55-12 is designed with multi-plate technology so that it owns unparalleled high energy density. The unique alloy composition imposes our battery with more than 300 cycles at 100% discharge depth and 6-8 years' float life as well. Highly automated production with advanced heat-sealing and through-partition technique ensures reliable performance which is superior to any other battery manufacturer. Since its case is made of polypropylene, the outdoor and indoor usage of this battery are both suitable.

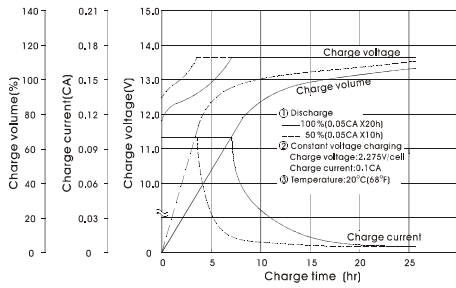
SPECIFICATIONS

| | |
|--|---|
| Nominal Voltage(V) | 12 V |
| Nominal Capacity(Ah)@25°C | |
| 10 hour rate F.V.1.75V/cell (5300 mA discharge to 10.5 Volts)..... | 53 Ah |
| 5 hour rate F.V.1.75V/cell (10100 mA discharge to 10.5 Volts)..... | 50.5Ah |
| 1 hour rate F.V.1.60V/cell (38000 mA discharge to 9.6 Volts)..... | 38.0Ah |
| Nominal Power by 15 mins rate F.V.1.60 V/cell(W/cell) | 220 W |
| Terminal Hardware Initial Torque | 58 kgf-cm (50 in-lbs; 5.6 N-m) |
| Approximate Weight | 17.8 Kg(39.2 Lb) |
| Internal Resistance | <6mΩ |
| Maximum Charging Current | 15.9A |
| Maximum Discharge Current for 5 sec: | 550 A |
| Short Circuit Current @ 0.1 sec: | 1500A min. |
| Cold Cranking Amp @ -18°C | 480 A |
| Operation Temperature | |
| Charge | 0°C(32°F)~50°C(122°F) |
| Discharge | -20°C(-4°F)~60°C(140°F) |
| Storage | -20°C(-4°F)~50°C(122°F) |
| Storage Duration | 6 months(20°C) |
| Container Material and Flammability | PP, UL94 - V0 & HB |
| Application | Telecom, UPS, Marine, Power station, Cable TV, etc. |

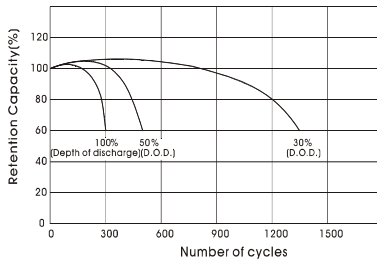
DIMENSIONS mm(inch)



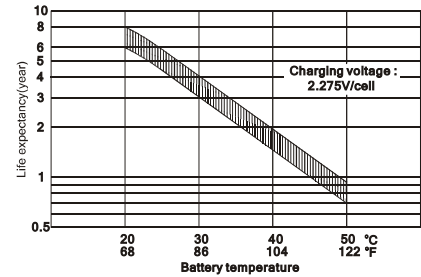
BATTERY CHARGING CHARACTERISTICS
(typical example of the charge characteristics for the standby use)



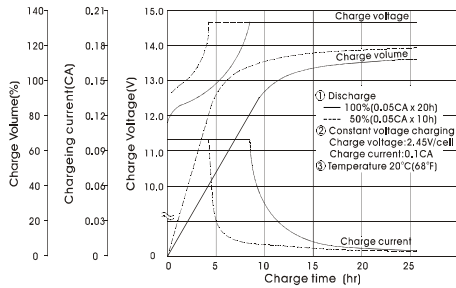
BATTERY LIFE CHARACTERISTICS OF CYCLIC USE
Testing Conditions: Discharge Current: 0.25C Amp(F.V.1.7V/cell)
Charging Current: 0.1C Amp
Charging Volume: 120% Of Discharge Capacity
Ambient Temperature: 20°C (68°F)



EFFECT OF TEMPERATURE ON LONG TERM FLOAT LIFE



BATTERY CHARGING CHARACTERISTICS
(typical example of the charge characteristics for the cycle use)



CHARGING PROCEDURE

| Application | Charging method | Charging Voltage at 20°C (V/cell) | Temperature compensation coefficient of charging voltage (mV/°C/cell) | Max. charging current (CA) | Charging time 0.1CA, 20°C (h) | | Temp (°C) |
|--------------------------|---|-----------------------------------|---|----------------------------|-------------------------------|---------------|-----------------|
| | | | | | 100% discharge | 50% discharge | |
| For standby power Source | Constant voltage & Constant current charging (with current restriction) | 2.25~2.30 | -3 | 0.3 | 24 | 20 | 0~50 (32~122°F) |
| For cycle service | | | | | 2.40~2.50 | -4 | |

CONSTANT POWER DISCHARGE CHARACTERISTICS @ 25°C(77°F)

| Final Voltage | Discharge time | | | | | | | | | |
|---------------|-------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 5Min | 10Min | 15Min | 20Min | 25Min | 30Min | 40Min | 50Min | 60Min | 90Min |
| | Battery output power(W) | | | | | | | | | |
| 10.80V | 1905 | 1400 | 1163 | 972 | 843 | 740 | 596 | 500 | 433 | 308 |
| 10.50V | 2135 | 1501 | 1230 | 1009 | 868 | 759 | 608 | 510 | 440 | 313 |
| 10.20V | 2277 | 1563 | 1270 | 1035 | 884 | 771 | 616 | 516 | 445 | 316 |
| 9.90V | 2370 | 1612 | 1300 | 1055 | 898 | 780 | 623 | 521 | 449 | 319 |
| 9.60V | 2440 | 1644 | 1320 | 1070 | 910 | 787 | 630 | 526 | 453 | 321 |

CONSTANT CURRENT DISCHARGE CHARACTERISTICS @ 25°C(77°F)

| Final Voltage | Discharge time | | | | | | | | | | | | |
|---------------|--------------------------------|-------|-------|-------|-------|-------|-------|-------|------|-------|------|-----|------|
| | 5Min | 10Min | 15Min | 20Min | 25Min | 30Min | 40Min | 50Min | 1Hr | 1.5Hr | 2Hr | 5Hr | 10Hr |
| | Battery output current(Ampere) | | | | | | | | | | | | |
| 11.10V | 154 | 111 | 93 | 77 | 66 | 58 | 47 | 39 | 35.0 | 24.7 | 19.8 | 8.5 | 4.9 |
| 10.80V | 176 | 123 | 101 | 83 | 71 | 62 | 50 | 42 | 36.4 | 25.7 | 20.7 | 9.2 | 5.2 |
| 10.50V | 193 | 132 | 106 | 87 | 74 | 64 | 51 | 43 | 37.0 | 26.2 | 21.0 | 9.4 | 5.3 |
| 10.20V | 206 | 138 | 110 | 89 | 76 | 65 | 52 | 43 | 37.4 | 26.5 | 21.2 | 9.4 | 5.3 |
| 9.90V | 215 | 142 | 113 | 91 | 77 | 66 | 52 | 44 | 37.7 | 26.8 | 21.4 | 9.5 | 5.3 |
| 9.60V | 222 | 145 | 115 | 92 | 78 | 67 | 53 | 44 | 38.0 | 27.0 | 21.5 | 9.5 | 5.3 |



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All data shall be changed without prior notice, BB reserves the right to explain and update the information contained herein.

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