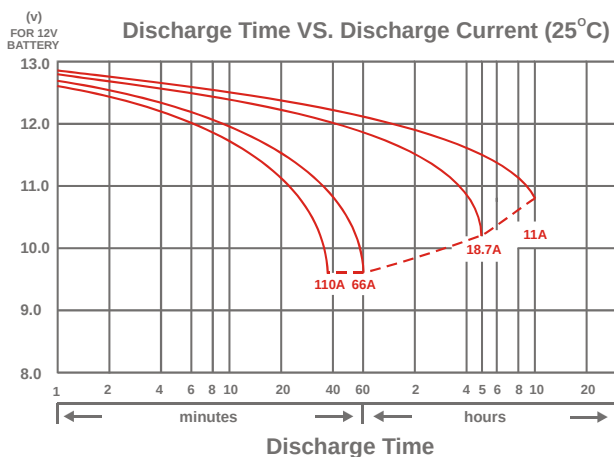
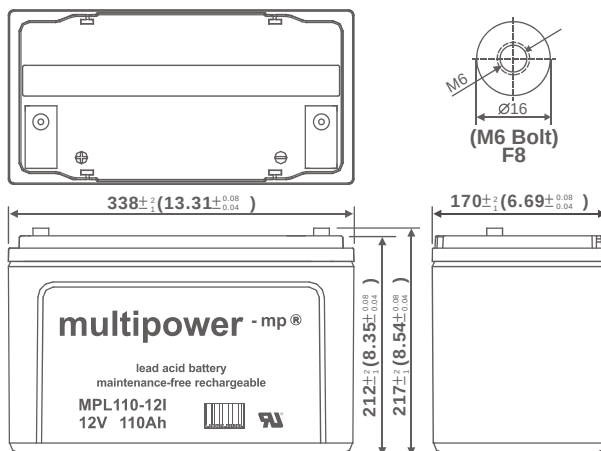




### MPL110-12I

**Nominal Voltage(V)** 12V

#### Nominal Capacity

|              |        |    |         |          |
|--------------|--------|----|---------|----------|
| 10 hour rate | (11A   | to | 10.80V) | 110.00Ah |
| 5 hour rate  | (18.7A | to | 10.20V) | 93.50Ah  |
| 1 hour rate  | (66A   | to | 9.60V)  | 66.00Ah  |
| 1 C          | (110A  | to | 9.60V)  | 69.67Ah  |

**Weight Approx.** 31.2kg (68.6Lbs.)

**Internal Resistance (at 1KHz) Approx.** 5 mΩ

#### Maximum Discharge Current for

**5 seconds:** 1200A

#### Charging Methods at 25°C (77°F)

Maximum Charging Current: 33A

Standby use:

Float Charging Voltage 13.5 to 13.8V

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** ABS UL94 HB

**Terminal** F8

#### Description of torque value of hard ware for the terminals:

Recommended torque value M6: 7 N-m (71 kgf-cm)

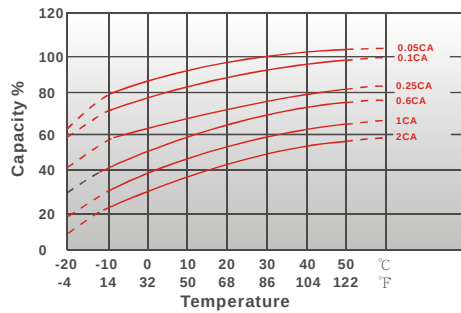
Maximum allowable torque value M6: 10 N-m (102 kgf-cm)

#### Design Life

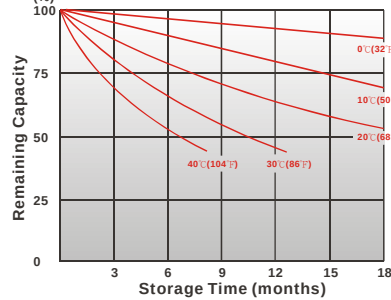
Eurobat(20°C): 10/12 years

## CHARACTERISTIC & PERFORMANCE DATA

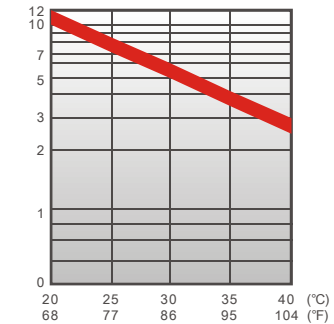
Effect of Temperature on Capacity 25°C(77°F)



Capacity Retention Characteristic



Trickle (or float) Service Life



### - PERFORMANCE DATA

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

| End Voltage |     | 1.85V | 1.80V | 1.75V | 1.70V | 1.67V | 1.65V | 1.60V |
|-------------|-----|-------|-------|-------|-------|-------|-------|-------|
| Time        |     |       |       |       |       |       |       |       |
| 10          | min | 393   | 429   | 469   | 498   | 499   | 512   | 515   |
| 15          | min | 336   | 364   | 380   | 400   | 404   | 416   | 419   |
| 30          | min | 208   | 220   | 229   | 238   | 241   | 246   | 248   |
| 60          | min | 142   | 142   | 142   | 143   | 145   | 146   | 147   |
| 90          | min | 92.6  | 97.4  | 101   | 104   | 105   | 107   | 108   |
| 120         | min | 75.8  | 79.7  | 82.5  | 84.2  | 85.2  | 86.5  | 87.3  |
| 180         | min | 56.7  | 59.7  | 61.3  | 62.2  | 62.8  | 63.7  | 64.4  |
| 240         | min | 40.0  | 42.2  | 46.7  | 47.5  | 48.4  | 49.3  | 49.8  |
| 300         | min | 36.5  | 38.9  | 40.0  | 40.8  | 41.3  | 42.0  | 42.3  |
| 600         | min | 19.1  | 21.1  | 21.6  | 22.2  | 22.6  | 22.7  | 22.8  |
| 1200        | min | 11.1  | 11.4  | 11.7  | 11.9  | 12.1  | 12.1  | 12.2  |

### - Discharge Rates in Amperes per Batterie to Various End Voltages at 25°C (77°F)

| End Voltage |     | 1.85V | 1.80V | 1.75V | 1.70V | 1.67V | 1.65V | 1.60V |
|-------------|-----|-------|-------|-------|-------|-------|-------|-------|
| Time        |     |       |       |       |       |       |       |       |
| 10          | min | 220   | 232   | 245   | 254   | 260   | 270   | 285   |
| 15          | min | 177   | 194   | 214   | 220   | 224   | 232   | 241   |
| 30          | min | 118   | 123   | 126   | 128   | 130   | 131   | 133   |
| 60          | min | 57.0  | 60.2  | 64.0  | 67.3  | 69.4  | 70.2  | 72.0  |
| 90          | min | 40.0  | 43.2  | 45.4  | 46.3  | 47.2  | 48.6  | 49.8  |
| 120         | min | 27.6  | 32.1  | 35.6  | 39.1  | 39.9  | 40.9  | 42.2  |
| 180         | min | 23.7  | 26.3  | 31.0  | 32.8  | 33.3  | 34.0  | 35.0  |
| 240         | min | 20.2  | 21.5  | 22.8  | 23.2  | 23.5  | 24.0  | 24.5  |
| 300         | min | 16.9  | 17.4  | 18.5  | 19.2  | 19.7  | 19.9  | 20.2  |
| 600         | min | 10.3  | 11.0  | 11.0  | 11.1  | 11.2  | 11.2  | 11.2  |
| 1200        | min | 5.45  | 5.62  | 5.70  | 5.80  | 5.90  | 5.90  | 6.00  |

All data on the 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%)