

## RECHARGEABLE SEALED LEAD ACID BATTERY

## SPECIFICATION



### MPL12-12

Nominal Voltage (V) 12V

#### Nominal Capacity

|              |                   |         |
|--------------|-------------------|---------|
| 20 hour rate | (0.6A to 10.50V)  | 12.00Ah |
| 10 hour rate | (1.14A to 10.50V) | 11.40Ah |
| 5 hour rate  | (2.04A to 10.20V) | 10.20Ah |
| 1 C          | (12A to 9.60V)    | 7.60Ah  |
| 3 C          | (36A to 9.60V)    | 4.80Ah  |

Weight 4.02kg (8.84lbs.)

Internal Resistance (at 1KHz) Approx. 11 mΩ

#### Maximum Discharge Current for

5 seconds: 180A

#### Charging Methods at 25°C (77°F)

Maximum Charging Current: 3.6A

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 | 92% |
| 3 month | 90% |
| 6 month | 80% |

#### Case Material

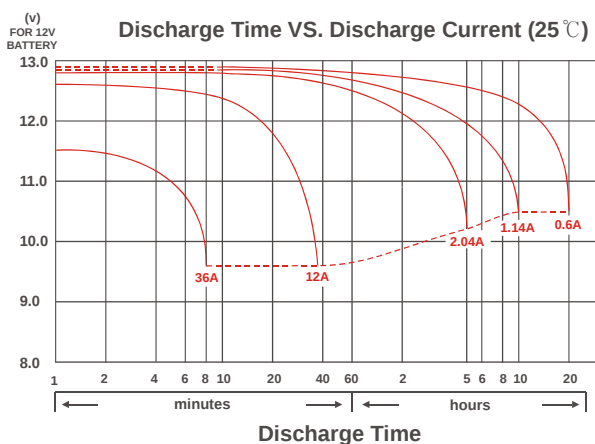
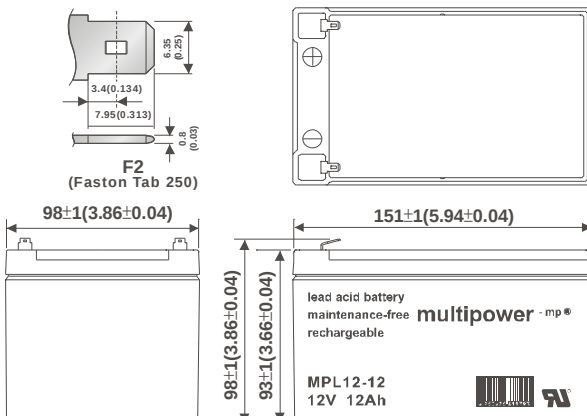
ABS UL94 HB

#### Terminal

F2 (Faston Tab 250)

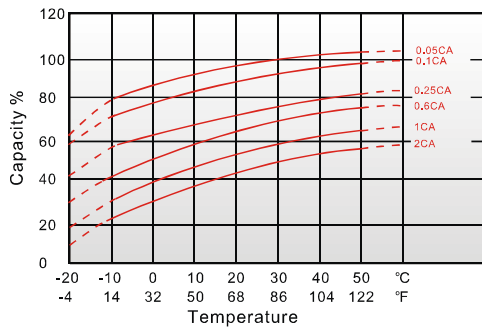
#### Design Life

Eurobat (20°C) : 10+ years

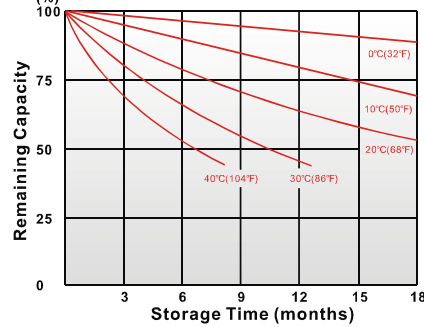


## CHARACTERISTIC & PERFORMANCE DATA

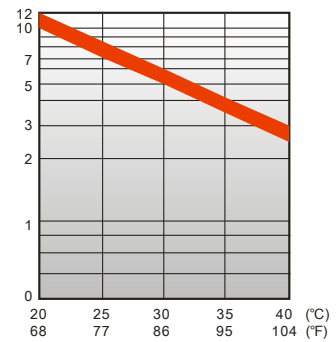
Effect of Temperature on Capacity 25°C(77°F)



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        |     |       |       |       |       |       |       |       |
| 5           | min | 77.2  | 84.2  | 89.3  | 94.8  | 97.3  | 99.7  | 105   |
| 10          | min | 56.5  | 60.3  | 63.0  | 65.3  | 66.2  | 67.5  | 68.8  |
| 15          | min | 42.2  | 45.3  | 47.2  | 48.5  | 49.2  | 49.8  | 51.0  |
| 30          | min | 26.7  | 28.0  | 29.0  | 30.0  | 30.3  | 30.7  | 31.2  |
| 60          | min | 14.9  | 15.9  | 16.6  | 17.2  | 17.3  | 17.5  | 17.7  |
| 120         | min | 7.80  | 8.60  | 9.02  | 9.22  | 9.28  | 9.38  | 9.52  |
| 180         | min | 5.40  | 6.15  | 6.53  | 6.68  | 6.97  | 7.10  | 7.20  |
| 240         | min | 4.43  | 4.97  | 5.22  | 5.37  | 5.43  | 5.52  | 5.62  |
| 300         | min | 4.12  | 4.35  | 4.51  | 4.65  | 4.72  | 4.77  | 4.83  |
| 600         | min | 2.43  | 2.55  | 2.62  | 2.66  | 2.68  | 2.70  | 2.72  |
| 1200        | min | 1.29  | 1.31  | 1.35  | 1.37  | 1.39  | 1.40  | 1.43  |

### - Discharge Rates in Amperes per Battery 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        |     |       |       |       |       |       |       |       |
| 5           | min | 37.8  | 41.8  | 44.6  | 47.5  | 48.8  | 50.1  | 52.7  |
| 10          | min | 28.1  | 30.3  | 31.5  | 32.7  | 33.2  | 33.8  | 34.6  |
| 15          | min | 21.3  | 22.6  | 23.7  | 24.6  | 25.0  | 25.4  | 26.1  |
| 30          | min | 12.6  | 13.5  | 14.1  | 14.6  | 14.8  | 15.0  | 15.3  |
| 60          | min | 8.55  | 8.74  | 8.86  | 8.97  | 9.02  | 9.08  | 9.16  |
| 120         | min | 4.71  | 4.84  | 4.95  | 5.04  | 5.08  | 5.13  | 5.18  |
| 180         | min | 3.14  | 3.33  | 3.40  | 3.46  | 3.49  | 3.52  | 3.56  |
| 240         | min | 2.15  | 2.26  | 2.35  | 2.42  | 2.45  | 2.49  | 2.74  |
| 300         | min | 1.98  | 2.06  | 2.12  | 2.18  | 2.20  | 2.23  | 2.27  |
| 600         | min | 1.19  | 1.22  | 1.24  | 1.26  | 1.27  | 1.28  | 1.29  |
| 1200        | min | 0.619 | 0.626 | 0.645 | 0.654 | 0.661 | 0.669 | 0.683 |

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%)