

# multipower - mp®

## RECHARGEABLE SEALED LEAD ACID BATTERY

## SPECIFICATION



### MPC15-12

Nominal Voltage(V) 12V

#### Nominal Capacity

|              |        |    |         |         |
|--------------|--------|----|---------|---------|
| 20 hour rate | (0.75A | to | 10.50V) | 15.00Ah |
| 2 hour rate  | (6A    | to | 9.60V)  | 12.00Ah |
| 1 C          | (15A   | to | 9.60V)  | 8.50Ah  |
| 3 C          | (45A   | to | 9.60V)  | 6.00Ah  |

Weight Approx. 4.5kg (9.9Lbs.)

Internal Resistance (at 1KHz) Approx. 9 mΩ

#### Maximum Discharge Current for

5 seconds: 225A

#### Charging Methods at 25°C (77°F)

|                            |               |
|----------------------------|---------------|
| Cycle use:                 |               |
| Charging Voltage           | 14.7 to 14.8V |
| Coefficient -5.0mV/°C/cell |               |
| Maximum Charging Current:  | 4.5A          |
| Standby use:               |               |
| Float Charging Voltage     | 13.5 to 13.8V |
| Coefficient -3.0mV/°C/cell |               |

#### Operating Temperature Range

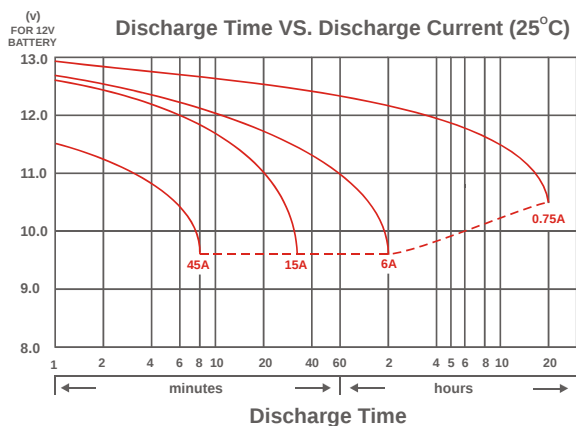
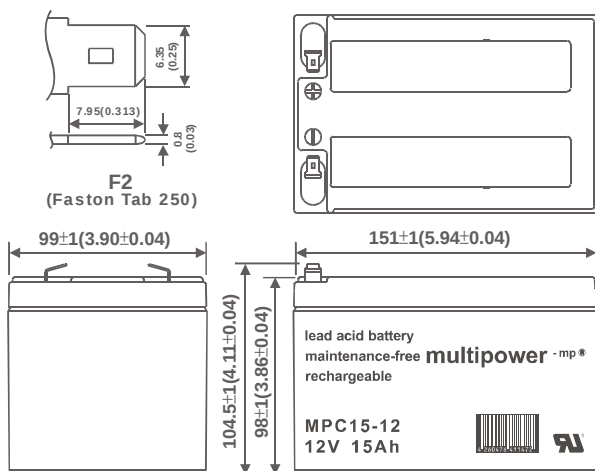
|           |             |    |              |
|-----------|-------------|----|--------------|
| Charge    | -15°C (5°F) | to | 40°C (104°F) |
| Discharge | -15°C (5°F) | to | 50°C (122°F) |
| Storage   | -15°C (5°F) | to | 40°C (104°F) |

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

|         |     |
|---------|-----|
| 1 month | 92% |
| 3 month | 90% |
| 6 month | 80% |

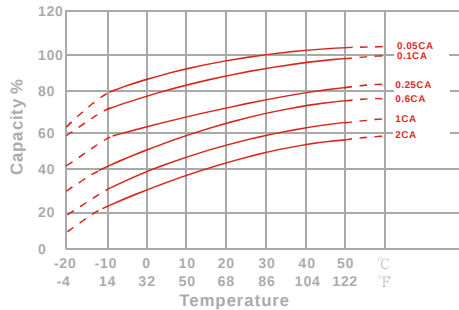
Case Material ABS UL94 HB

Terminal F2

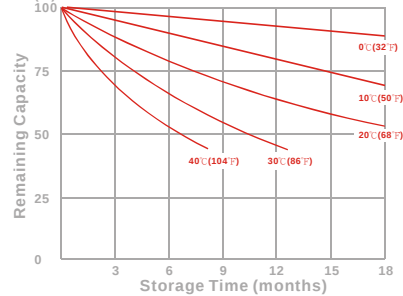


## CHARACTERISTIC & PERFORMANCE DATA

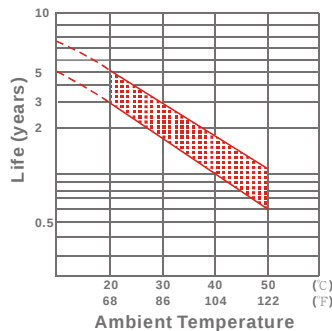
Effect of Temperature on Capacity 25°C(77°F)



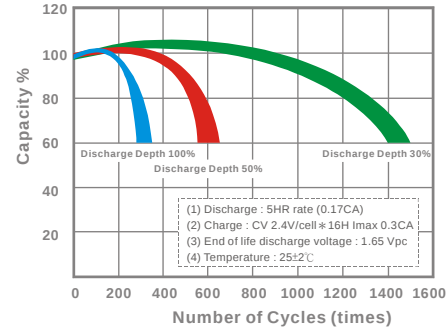
Capacity Retention Characteristic



Trickle (or float) Service Life



Cycle Service Life



### - PERFORMANCE DATA

Discharge Rates in Watts 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 | 87.6  | 93.9  | 98.6  | 104   | 110   | 113   | 116   |
| 10          | min | 59.9  | 71.4  | 72.9  | 74.1  | 74.8  | 75.6  | 76.3  |
| 15          | min | 49.4  | 54.4  | 56.1  | 57.3  | 58.1  | 59.6  | 60.6  |
| 30          | min | 29.8  | 31.6  | 32.5  | 33.6  | 34.0  | 34.2  | 34.8  |
| 60          | min | 17.2  | 17.9  | 18.6  | 19.0  | 19.2  | 19.3  | 19.5  |
| 120         | min | 9.72  | 10.2  | 10.4  | 10.7  | 10.7  | 10.8  | 11.0  |
| 180         | min | 6.95  | 7.17  | 7.33  | 7.46  | 7.51  | 7.55  | 7.65  |
| 240         | min | 5.42  | 5.69  | 5.87  | 5.93  | 5.96  | 5.99  | 6.01  |
| 300         | min | 4.60  | 4.72  | 4.80  | 4.87  | 4.91  | 4.94  | 4.96  |
| 600         | min | 2.76  | 2.79  | 2.83  | 2.86  | 2.89  | 2.98  | 3.00  |
| 1200        | min | 1.43  | 1.49  | 1.53  | 1.56  | 1.59  | 1.60  | 1.61  |

### - 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 | 46.3  | 51.0  | 55.3  | 59.5  | 62.8  | 64.3  | 67.7  |
| 10          | min | 32.4  | 39.7  | 41.7  | 42.3  | 44.0  | 44.4  | 46.3  |
| 15          | min | 26.7  | 30.2  | 32.1  | 32.3  | 33.8  | 34.7  | 36.3  |
| 30          | min | 16.1  | 17.5  | 18.6  | 19.7  | 20.6  | 20.8  | 21.8  |
| 60          | min | 8.80  | 9.22  | 9.56  | 9.83  | 10.0  | 10.1  | 10.1  |
| 120         | min | 4.74  | 4.95  | 5.07  | 5.19  | 5.22  | 5.28  | 5.51  |
| 180         | min | 3.48  | 3.57  | 3.65  | 3.71  | 3.73  | 3.77  | 3.83  |
| 240         | min | 2.69  | 2.74  | 2.81  | 2.87  | 2.89  | 2.94  | 2.99  |
| 300         | min | 2.34  | 2.39  | 2.42  | 2.45  | 2.46  | 2.48  | 2.50  |
| 600         | min | 1.23  | 1.29  | 1.34  | 1.37  | 1.38  | 1.39  | 1.40  |
| 1200        | min | 0.692 | 0.741 | 0.750 | 0.756 | 0.758 | 0.761 | 0.764 |

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%)