

# multipower - mp®

## RECHARGEABLE SEALED LEAD ACID BATTERY

## SPECIFICATION



### MP7,2-12B

Nominal Voltage (V) 12V

#### Nominal Capacity

|              |         |    |         |        |
|--------------|---------|----|---------|--------|
| 20 hour rate | (0.36A  | to | 10.50V) | 7.20Ah |
| 10 hour rate | (0.684A | to | 10.50V) | 6.84Ah |
| 5 hour rate  | (1.224A | to | 10.20V) | 6.12Ah |
| 1 C          | (7.2A   | to | 9.60V)  | 4.08Ah |
| 3 C          | (21.6A  | to | 9.60V)  | 2.88Ah |

Weight Approx. 2.4kg (5.28lbs)

Internal Resistance (at 1KHz) Approx. 22 mΩ

#### Maximum Discharge Current for

5 seconds: 108A

#### Charging Methods at 25°C (77°F)

Cycle use:

Charging Voltage 14.70V to 14.80V

Coefficient -5.0mV/°C/cell

Maximum Charging Current: 2.16A

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%

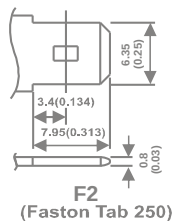
#### Case Material

(UL94 HB flame retardant case / cover)

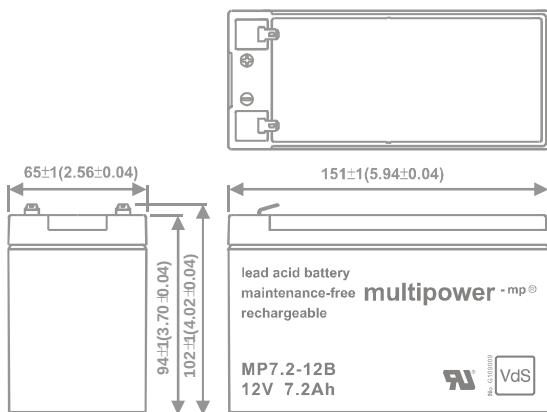
ABS

#### Terminal

F2 (Faston Tab 250)

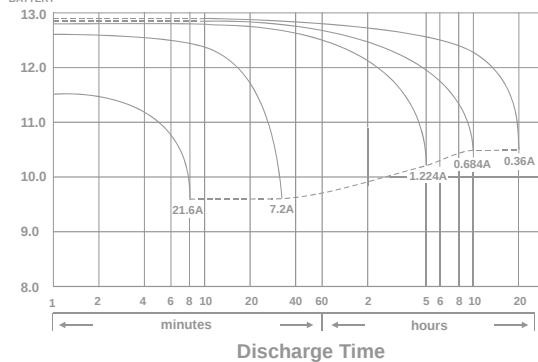


F2  
(Faston Tab 250)



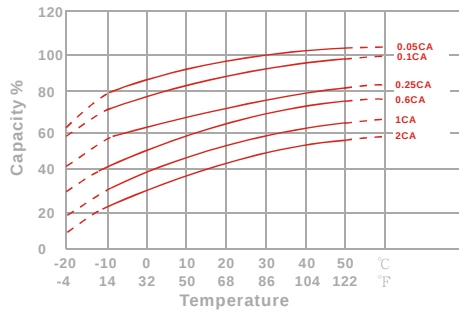
(V)  
FOR 12V  
BATTERY

Discharge Time VS. Discharge Current (25 °C)

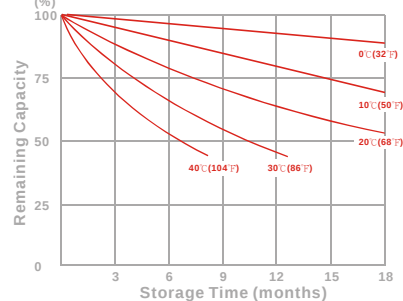


## CHARACTERISTIC & PERFORMANCE DATA

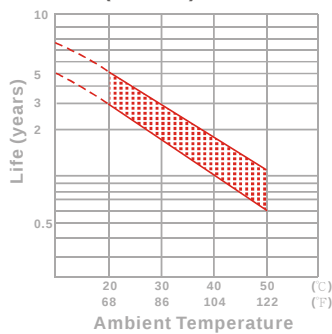
Effect of Temperature on Capacity 25°C (77°F)



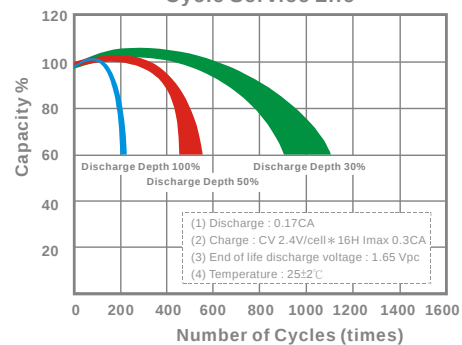
Capacity Retention Characteristic



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 |     | 1.85V | 1.80V | 1.75V | 1.70V | 1.67V | 1.65V | 1.60V |
|-------------|-----|-------|-------|-------|-------|-------|-------|-------|
| Time        |     |       |       |       |       |       |       |       |
| 5           | min | 257   | 288   | 302   | 315   | 321   | 326   | 335   |
| 10          | min | 179   | 188   | 196   | 204   | 209   | 212   | 218   |
| 15          | min | 146   | 153   | 157   | 161   | 162   | 165   | 169   |
| 30          | min | 78.2  | 82.1  | 84.7  | 86.8  | 87.6  | 88.4  | 89.6  |
| 60          | min | 50.6  | 52.4  | 53.8  | 54.9  | 55.3  | 55.8  | 56.7  |
| 120         | min | 25.3  | 26.3  | 27.8  | 31.3  | 31.6  | 31.9  | 32.4  |
| 180         | min | 19.6  | 20.7  | 21.6  | 22.4  | 22.6  | 22.9  | 23.2  |
| 240         | min | 17.2  | 18.0  | 18.6  | 18.9  | 19.0  | 19.2  | 19.4  |
| 300         | min | 14.8  | 15.3  | 15.8  | 16.1  | 16.2  | 16.3  | 16.4  |
| 600         | min | 8.17  | 8.35  | 8.49  | 8.61  | 8.65  | 8.70  | 8.76  |
| 1200        | min | 4.16  | 4.31  | 4.42  | 4.50  | 4.53  | 4.56  | 4.62  |

### - Discharge Rates in Amperes 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 | 23.5  | 26.4  | 28.1  | 29.7  | 30.5  | 31.3  | 32.6  |
| 10          | min | 16.2  | 17.0  | 18.2  | 18.6  | 18.8  | 19.1  | 19.8  |
| 15          | min | 12.5  | 13.1  | 13.6  | 13.9  | 14.0  | 14.2  | 14.5  |
| 30          | min | 6.61  | 6.92  | 7.14  | 7.30  | 7.38  | 7.45  | 7.61  |
| 60          | min | 3.98  | 4.13  | 4.25  | 4.36  | 4.39  | 4.42  | 4.48  |
| 120         | min | 2.05  | 2.14  | 2.21  | 2.27  | 2.29  | 2.32  | 2.35  |
| 180         | min | 1.63  | 1.69  | 1.75  | 1.80  | 1.82  | 1.84  | 1.87  |
| 240         | min | 1.30  | 1.37  | 1.42  | 1.45  | 1.46  | 1.47  | 1.49  |
| 300         | min | 1.11  | 1.16  | 1.23  | 1.25  | 1.26  | 1.27  | 1.28  |
| 600         | min | 0.650 | 0.680 | 0.721 | 0.728 | 0.732 | 0.737 | 0.747 |
| 1200        | min | 0.341 | 0.357 | 0.377 | 0.382 | 0.384 | 0.387 | 0.392 |

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%)