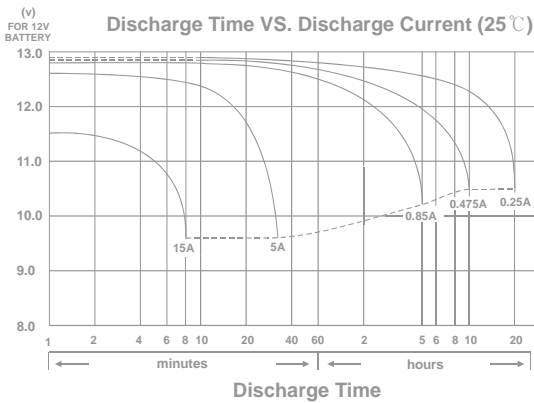
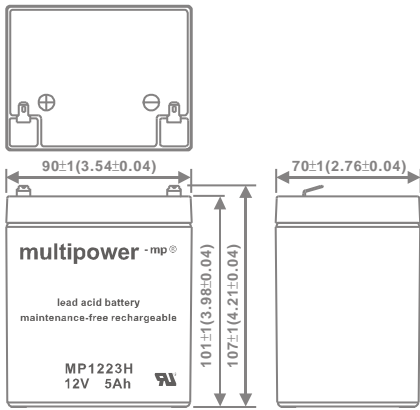
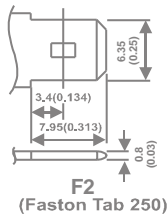


RECHARGEABLE SEALED LEAD ACID BATTERY

SPECIFICATION



MP1223H

Nominal Voltage (V) 12V

Nominal Power

15 mins rate: 23W/cell to 1.60V/cell

Nominal Capacity

| | | | | |
|--------------|---------|----|---------|--------|
| 20 hour rate | (0.25A | to | 10.50V) | 5.00Ah |
| 10 hour rate | (0.475A | to | 10.50V) | 4.75Ah |
| 5 hour rate | (0.85A | to | 10.20V) | 4.25Ah |
| 1 C | (5A | to | 9.60V) | 3.17Ah |
| 3 C | (15A | to | 9.60V) | 2.00Ah |

Weight Approx. 1.95kg (4.29lbs)

Internal Resistance (at 1KHz) Approx. 15 mΩ

Maximum Discharge Current for

5 seconds: 75A

Charging Methods at 25°C (77°F)

| | |
|----------------------------|------------------|
| Cycle use: | |
| Charging Voltage | 14.70V to 14.80V |
| Coefficient -5.0mv/°C/cell | |
| Maximum Charging Current: | 1.5A |
| 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)

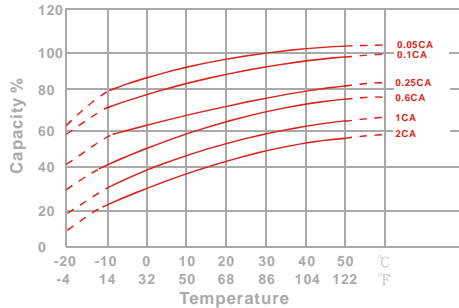
ABS

Terminal

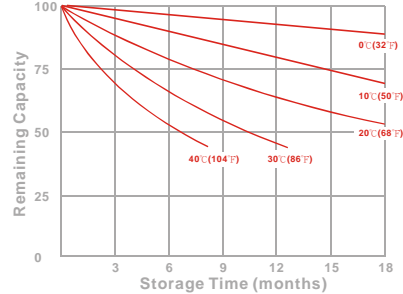
F2 (Faston Tab 250)

CHARACTERISTIC & PERFORMANCE DATA

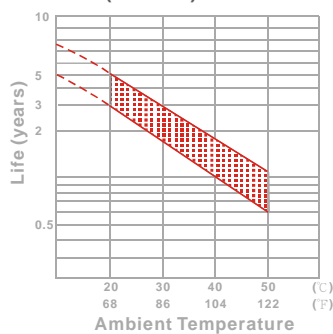
Effect of Temperature on Capacity 25°C(77°F)



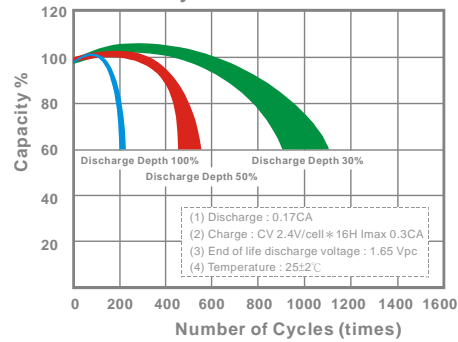
Capacity Retention Characteristic



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 |
|-------------|-----|-------|-------|-------|-------|-------|-------|-------|
| 5 | min | 223 | 239 | 257 | 274 | 281 | 288 | 296 |
| 10 | min | 161 | 174 | 183 | 191 | 193 | 197 | 202 |
| 15 | min | 133 | 142 | 146 | 148 | 149 | 150 | 151 |
| 30 | min | 72 | 76.4 | 78.5 | 79.9 | 80.4 | 80.8 | 81.5 |
| 60 | min | 35.8 | 38.7 | 40.2 | 41.6 | 42.3 | 42.9 | 43.7 |
| 120 | min | 18.9 | 21.8 | 23.1 | 23.9 | 24.2 | 24.6 | 25.2 |
| 180 | min | 14.6 | 15.9 | 17.1 | 18.2 | 18.6 | 18.9 | 19.5 |
| 240 | min | 11.8 | 13.1 | 13.8 | 14.2 | 14.4 | 14.6 | 14.9 |
| 300 | min | 10.6 | 11.3 | 11.9 | 12.2 | 12.3 | 12.4 | 12.6 |
| 600 | min | 6.13 | 6.61 | 6.97 | 7.11 | 7.16 | 7.22 | 7.31 |
| 1200 | min | 3.19 | 3.45 | 3.64 | 3.71 | 3.74 | 3.77 | 3.82 |

- 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 |
|-------------|-----|-------|-------|-------|-------|-------|-------|-------|
| 5 | min | 18.7 | 22.8 | 25.2 | 27.1 | 27.8 | 28.4 | 29.3 |
| 10 | min | 13.8 | 15.0 | 15.9 | 16.7 | 16.9 | 17.3 | 17.8 |
| 15 | min | 10.6 | 11.3 | 11.7 | 12.0 | 12.2 | 12.4 | 12.6 |
| 30 | min | 5.98 | 6.31 | 6.49 | 6.63 | 6.68 | 6.74 | 6.85 |
| 60 | min | 3.09 | 3.34 | 3.48 | 3.59 | 3.62 | 3.67 | 3.74 |
| 120 | min | 1.72 | 1.85 | 1.92 | 1.98 | 2.01 | 2.03 | 2.06 |
| 180 | min | 1.37 | 1.46 | 1.51 | 1.55 | 1.57 | 1.59 | 1.61 |
| 240 | min | 0.974 | 1.05 | 1.09 | 1.13 | 1.14 | 1.16 | 1.18 |
| 300 | min | 0.863 | 0.931 | 0.965 | 0.986 | 0.998 | 1.01 | 1.03 |
| 600 | min | 0.490 | 0.532 | 0.551 | 0.574 | 0.577 | 0.582 | 0.590 |
| 1200 | min | 0.257 | 0.291 | 0.297 | 0.302 | 0.304 | 0.307 | 0.311 |

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%)