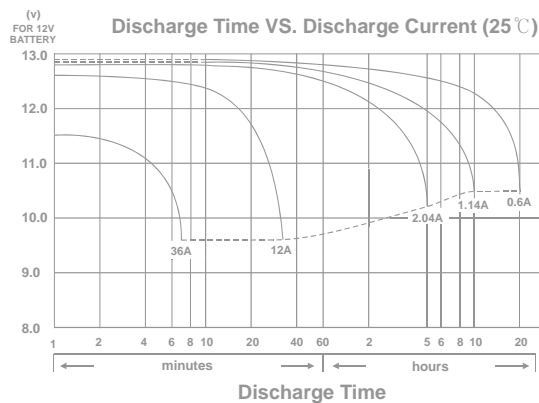
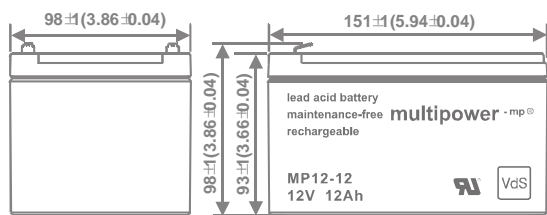
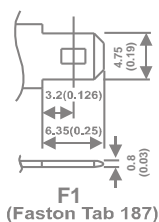


RECHARGEABLE SEALED LEAD ACID BATTERY

SPECIFICATION



MP12-12

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) | 6.40Ah |
| 3 C | (36A to 9.60V) | 4.20Ah |

Weight Approx. 3.75kg (8.25lbs)

Internal Resistance (at 1KHz) Approx. 13 mΩ

Maximum Discharge Current for

5 seconds: 180A

Charging Methods at 25°C (77°F)

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

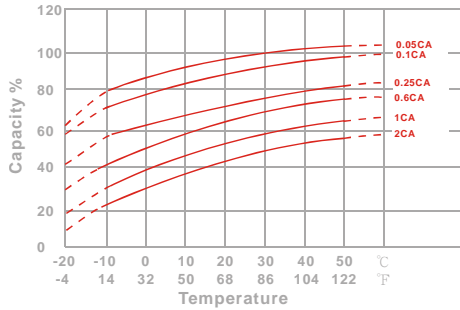
| | |
|---------|-----|
| 1 month | 92% |
| 3 month | 90% |
| 6 month | 80% |

Case Material ABS
(UL94 HB flame retardant case / cover)

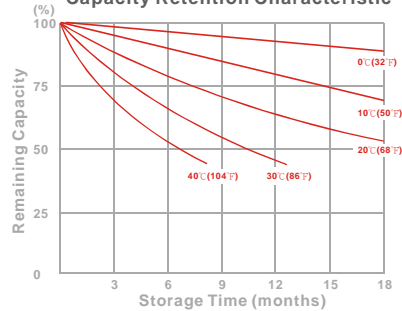
Terminal F1 (Faston Tab 187)

CHARACTERISTIC & PERFORMANCE DATA

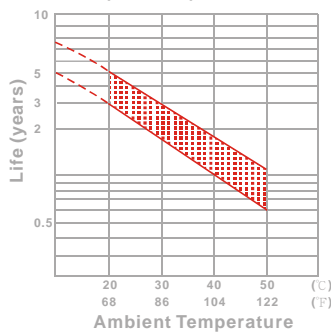
Effect of Temperature on Capacity 25°C (77°F)



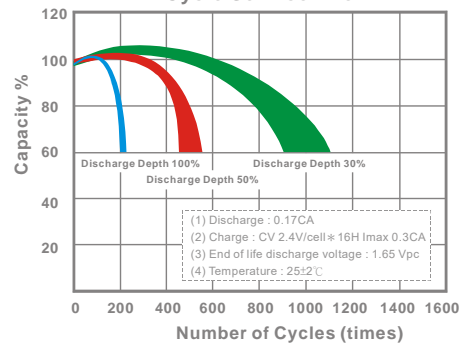
Capacity Retention Characteristic



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 | 405 | 451 | 485 | 520 | 536 | 552 | 582 |
| 10 | min | 288 | 315 | 329 | 344 | 349 | 357 | 366 |
| 15 | min | 232 | 246 | 255 | 264 | 267 | 272 | 279 |
| 30 | min | 133 | 142 | 148 | 152 | 154 | 156 | 158 |
| 60 | min | 94.7 | 98 | 100 | 102 | 103 | 104 | 105 |
| 120 | min | 51.8 | 53.5 | 54.3 | 54.9 | 55.1 | 55.4 | 55.9 |
| 180 | min | 33.9 | 35.2 | 36.3 | 37.2 | 37.6 | 38.1 | 38.5 |
| 240 | min | 28.7 | 29.3 | 29.8 | 30.4 | 30.7 | 31.2 | 31.6 |
| 300 | min | 23.7 | 24.5 | 25.1 | 25.8 | 26 | 26.3 | 26.9 |
| 600 | min | 14.0 | 14.4 | 14.6 | 14.8 | 14.9 | 15.0 | 15.1 |
| 1200 | min | 7.16 | 7.25 | 7.48 | 7.59 | 7.68 | 7.77 | 7.94 |

- 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 | 37.2 | 41.4 | 44.5 | 47.7 | 49.1 | 50.6 | 53.4 |
| 10 | min | 25.7 | 28.1 | 29.4 | 30.7 | 31.2 | 31.9 | 32.7 |
| 15 | min | 19.8 | 21.3 | 22.1 | 22.9 | 23.2 | 23.5 | 24.2 |
| 30 | min | 11.4 | 12.1 | 12.6 | 13.0 | 13.1 | 13.3 | 13.5 |
| 60 | min | 8.21 | 8.40 | 8.52 | 8.63 | 8.68 | 8.74 | 8.82 |
| 120 | min | 4.21 | 4.36 | 4.47 | 4.56 | 4.59 | 4.63 | 4.68 |
| 180 | min | 2.87 | 3.06 | 3.13 | 3.19 | 3.22 | 3.25 | 3.29 |
| 240 | min | 2.38 | 2.43 | 2.47 | 2.52 | 2.55 | 2.58 | 2.62 |
| 300 | min | 1.97 | 2.03 | 2.08 | 2.14 | 2.16 | 2.19 | 2.23 |
| 600 | min | 1.16 | 1.18 | 1.20 | 1.22 | 1.23 | 1.24 | 1.25 |
| 1200 | min | 0.592 | 0.599 | 0.618 | 0.627 | 0.634 | 0.642 | 0.656 |

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%)