



MPL1280H

Nominal Voltage(V) 12V

Nominal Power

15 mins rate: 80W/cell to 1.67V/cell

Nominal Capacity

| | | | | |
|--------------|--------|----|---------|---------|
| 20 hour rate | (1A | to | 10.50V) | 20.00Ah |
| 8 hour rate | (2.25A | to | 10.50V) | 18.00Ah |
| 5 hour rate | (3.4A | to | 10.20V) | 17.00Ah |

Weight Approx. 5.95kg (13.1Lbs.)

Internal Resistance (at 1KHz) Approx. 10 mΩ

Maximum Discharge Current for

5 seconds: 300A

Charging Methods at 25°C (77°F)

| | |
|---------------------------|----------------|
| Maximum Charging Current: | 6A |
| Boost Charging Voltage | 14.4 to 15.0V |
| Boost Charge Time | 8-9Hr |
| 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 | 98% |
| 3 month | 96% |
| 6 month | 94% |

Case Material ABS UL94 HB

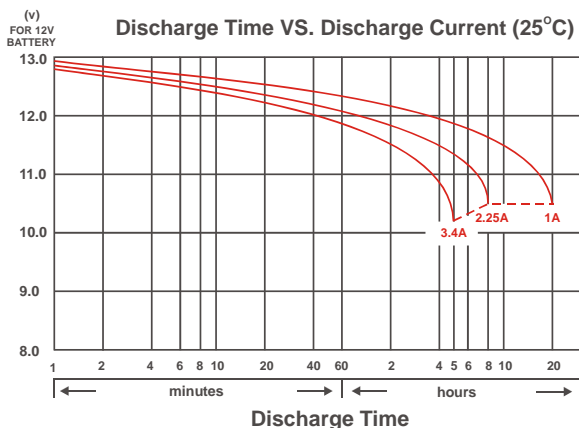
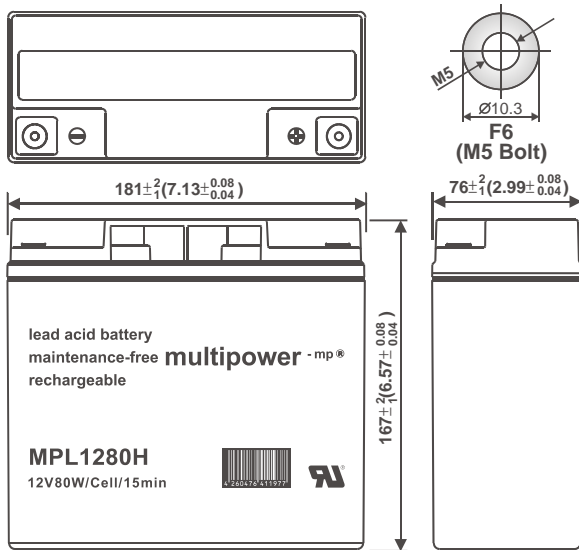
Terminal M5

Description of torque value of hard ware for the terminals:

| | |
|--------------------------------|---------------------|
| Recommended torque value | M5: 4N·m (41kgf·cm) |
| Maximum allowable torque value | M5: 6N·m (61kgf·cm) |

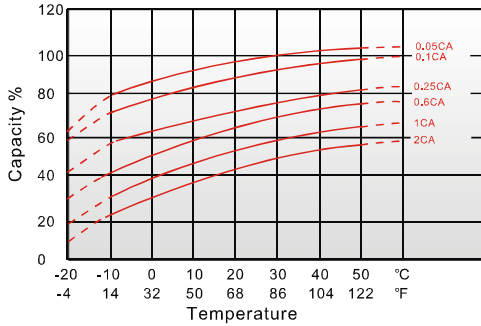
Design Life

Eurobat (20°C) : 10/12 Years Long Life

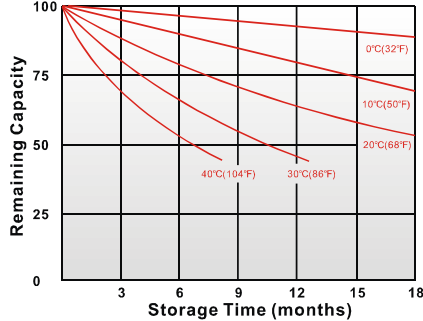


CHARACTERISTIC & PERFORMANCE DATA

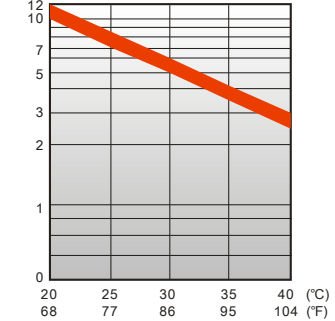
Effect of Temperature on Capacity 25°C(77°F)



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 |
|-------------|-----|-------|-------|-------|-------|-------|-------|-------|
| 2 | min | 199 | 228 | 250 | 259 | 267 | 271 | 274 |
| 4 | min | 162 | 180 | 191 | 198 | 200 | 202 | 204 |
| 5 | min | 148 | 161 | 169 | 175 | 178 | 181 | 184 |
| 6 | min | 144 | 151 | 156 | 161 | 165 | 168 | 170 |
| 8 | min | 115 | 123 | 127 | 131 | 134 | 136 | 138 |
| 10 | min | 93.4 | 101 | 108 | 110 | 112 | 114 | 116 |
| 15 | min | 65.2 | 72.2 | 78.4 | 79.2 | 80.0 | 80.6 | 81.0 |
| 20 | min | 60.8 | 64.2 | 66.9 | 67.3 | 67.7 | 68.1 | 68.5 |
| 30 | min | 39.5 | 43.2 | 46.2 | 47.0 | 47.6 | 48.2 | 48.6 |
| 45 | min | 34.9 | 35.8 | 36.6 | 37.1 | 37.6 | 37.9 | 38.2 |
| 60 | min | 22.7 | 23.8 | 24.6 | 25.4 | 26.2 | 26.6 | 26.8 |
| 90 | min | 18.5 | 19.3 | 19.8 | 20.1 | 20.3 | 20.5 | 20.6 |
| 120 | min | 12.2 | 12.7 | 13.0 | 13.5 | 13.6 | 13.7 | 13.8 |
| 180 | min | 9.53 | 9.88 | 10.1 | 10.3 | 10.4 | 10.5 | 10.6 |
| 240 | min | 7.63 | 7.93 | 8.12 | 8.22 | 8.32 | 8.40 | 8.46 |
| 300 | min | 6.65 | 6.88 | 7.00 | 7.10 | 7.13 | 7.16 | 7.18 |
| 480 | min | 4.59 | 4.75 | 4.83 | 4.88 | 4.91 | 4.93 | 4.95 |
| 600 | min | 3.55 | 3.72 | 3.80 | 3.82 | 3.84 | 3.86 | 3.88 |
| 1200 | min | 1.92 | 1.98 | 2.02 | 2.06 | 2.09 | 2.12 | 2.15 |

- 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 |
|-------------|-----|-------|-------|-------|-------|-------|-------|-------|
| 2 | min | 112 | 128 | 135 | 142 | 148 | 154 | 159 |
| 4 | min | 78.5 | 97.2 | 104 | 109 | 113 | 116 | 118 |
| 5 | min | 73.4 | 81.4 | 88.5 | 93.2 | 96.5 | 99.0 | 101 |
| 6 | min | 67.9 | 75.9 | 83.2 | 85.0 | 86.5 | 87.5 | 88.2 |
| 8 | min | 61.5 | 65.7 | 69.5 | 71.2 | 72.4 | 73.3 | 73.9 |
| 10 | min | 51.2 | 55.0 | 57.2 | 58.8 | 60.0 | 61.2 | 62.2 |
| 15 | min | 40.0 | 41.6 | 43.0 | 43.7 | 44.5 | 45.1 | 45.5 |
| 20 | min | 32.5 | 34.0 | 34.9 | 35.2 | 35.5 | 35.8 | 36.0 |
| 30 | min | 22.7 | 23.9 | 24.3 | 24.5 | 24.7 | 24.9 | 25.1 |
| 45 | min | 16.5 | 17.4 | 18.1 | 18.6 | 18.8 | 19.2 | 19.5 |
| 60 | min | 11.6 | 12.2 | 12.7 | 13.1 | 13.5 | 13.7 | 13.9 |
| 90 | min | 9.27 | 10.1 | 10.8 | 11.1 | 11.3 | 11.5 | 11.6 |
| 120 | min | 6.16 | 6.56 | 6.90 | 7.16 | 7.43 | 7.56 | 7.70 |
| 180 | min | 4.73 | 4.90 | 5.00 | 5.08 | 5.11 | 5.17 | 5.21 |
| 240 | min | 3.88 | 3.97 | 4.04 | 4.09 | 4.12 | 4.15 | 4.17 |
| 300 | min | 3.30 | 3.37 | 3.42 | 3.46 | 3.48 | 3.50 | 3.51 |
| 480 | min | 2.14 | 2.23 | 2.30 | 2.32 | 2.33 | 2.34 | 2.35 |
| 600 | min | 1.90 | 1.96 | 2.00 | 2.02 | 2.03 | 2.04 | 2.05 |
| 1200 | min | 0.952 | 0.984 | 1.01 | 1.03 | 1.04 | 1.05 | 1.05 |

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%)