

# multipower - mp®

## RECHARGEABLE SEALED LEAD ACID BATTERY

## SPECIFICATION



### MPL12100H

**Nominal Voltage(V)** 12V

#### Nominal Power

15 mins rate: 100W/cell to 1.67V/cell

#### Nominal Capacity

20 hour rate	(1.4A	to	10.50V)	28.0Ah
8 hour rate	(3.36A	to	10.50V)	26.9Ah
5 hour rate	(4.76A	to	10.20V)	23.8Ah

**Weight Approx.** 9.2kg (20.2Lbs.)

**Internal Resistance (at 1KHz) Approx.** 9.2 mΩ

#### Maximum Discharge Current for

**5 seconds:** 420A

#### Charging Methods at 25°C (77°F)

Maximum Charging Current:	8.4A
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

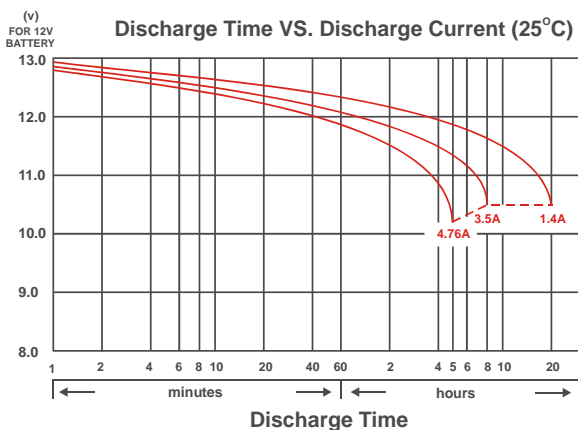
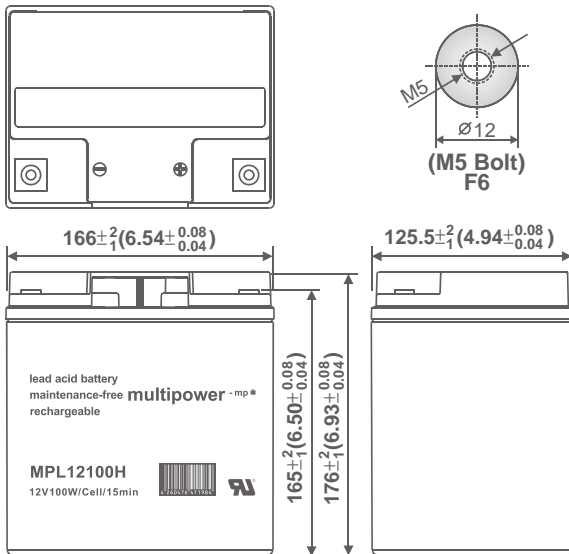
**Terminal** F6

#### Description of torque value of hard ware for the terminals:

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

#### Design Life

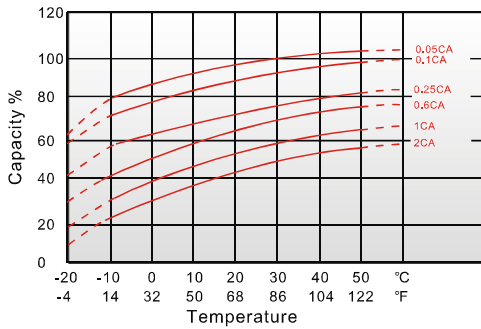
Eurobat (20°C) : 10/12 Years Long Life



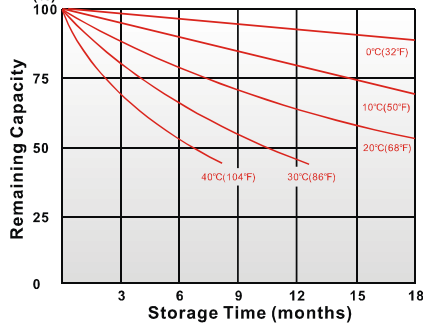
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## CHARACTERISTIC & PERFORMANCE DATA

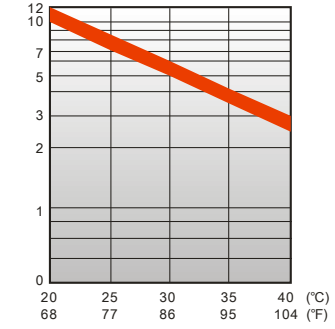
Effect of Temperature on Capacity 25°C(77°F)



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	181	210	234	245	255	264	273
4	min	157	172	186	199	211	221	231
5	min	139	161	179	186	191	196	200
6	min	130	156	166	173	180	185	190
8	min	125	139	145	150	155	160	165
10	min	107	118	124	128	133	135	137
15	min	86.4	94.7	102	104	106	108	110
20	min	76.6	82.3	83.4	84.3	85.1	85.9	86.7
30	min	54.4	58.7	59.9	60.7	61.4	62.1	62.8
45	min	45.4	48.5	49.4	49.9	50.3	50.6	50.9
60	min	35.0	36.5	36.9	37.2	37.5	37.8	38.2
90	min	25.0	25.9	26.5	26.9	27.3	27.5	27.7
120	min	21.0	21.9	22.3	22.5	22.6	22.8	23.0
180	min	15.5	16.2	16.4	16.6	16.7	16.8	16.9
240	min	11.9	12.4	12.7	12.8	12.9	13.0	13.1
300	min	10.0	10.4	10.5	10.6	10.7	10.8	10.9
600	min	5.56	5.72	5.85	5.86	5.88	5.89	5.91
1200	min	3.00	3.03	3.09	3.11	3.12	3.14	3.15

- 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	92.5	115	133	148	158	167	172
4	min	80.5	96.5	109	114	119	124	128
5	min	72.5	88.0	102	107	112	116	119
6	min	70.8	83.8	90.5	96.9	103	108	113
8	min	68.3	75.3	81.6	85.4	88.4	90.6	92.6
10	min	57.1	63.9	66.2	69.6	72.4	75.2	77.7
15	min	44.6	49.0	52.7	54.6	56.1	57.6	58.6
20	min	35.7	39.2	42.1	43.7	44.9	46.1	46.9
30	min	27.8	29.9	31.0	31.9	32.6	33.2	33.4
45	min	21.1	22.6	23.0	24.2	24.7	24.9	25.1
60	min	16.3	17.4	18.1	18.6	19.1	19.3	19.4
90	min	12.6	13.6	14.0	14.4	14.7	15.0	15.2
120	min	10.6	11.3	11.5	11.8	11.9	12.2	12.3
180	min	7.39	7.69	7.94	8.05	8.18	8.35	8.38
240	min	5.97	6.09	6.23	6.34	6.41	6.48	6.51
300	min	4.95	5.08	5.19	5.33	5.38	5.42	5.45
600	min	2.74	2.82	2.91	2.93	2.95	2.97	2.98
1200	min	1.45	1.48	1.51	1.53	1.54	1.55	1.56

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%)