

**RECHARGEABLE SEALED LEAD ACID BATTERY**

**SPECIFICATION**



**MP5,4-12**

**Nominal Voltage(V)** 12V

**Nominal Capacity**

20 hour rate	(0.27A to 10.50V)	5.4Ah
10 hour rate	(0.513A to 10.50V)	5.13Ah
5 hour rate	(0.918A to 10.20V)	4.59Ah
1 C	(5.4A to 9.60V)	3.06Ah
3 C	(16.2A to 9.60V)	2.16Ah

**Weight Approx.** 1.9kg(4.18Lbs.)

**Internal Resistance (at 1KHz) Approx.** 19 mΩ

**Maximum Discharge Current for 5 seconds:** 81A

**Charging Methods at 25°C(77°F)**

<b>Cycle use:</b>	
Charging Voltage	14.4 to 15.0V
Coefficient	-5.0mv/°C/cell
Maximum Charging Current:	1.62A
<b>Standby use:</b>	
Float Charging Voltage	13.50 to 13.80V
Coefficient	-3.0mv/°C/cell

**Operating Temperature Range**

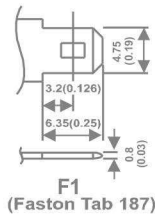
Charge	-15°C(5°F) to 40°C(104°F)
Discharge	-15°C(5°F) to 50°C(122°F)
Storage	-15°C(5°F) to 40°C(104°F)

**Charge Retention (shelf life) at 20°C(68°F)**

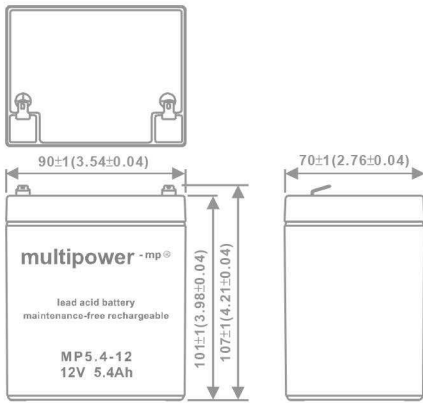
1 month	92%
3 month	90%
6 month	80%

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

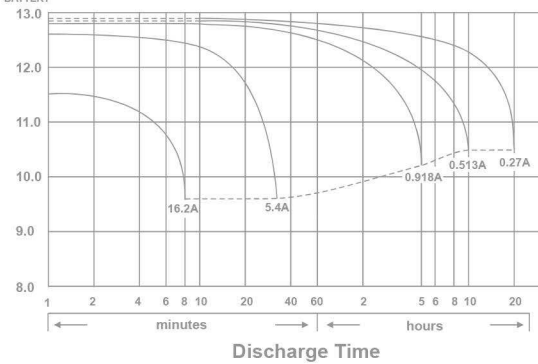
**Terminal** F1(Faston Tab 187)



F1 (Faston Tab 187)

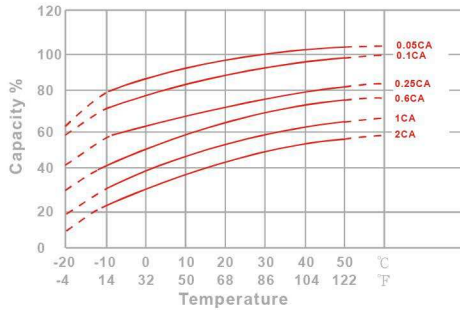


(V) FOR 12V BATTERY  
**Discharge Time VS. Discharge Current (25°C)**

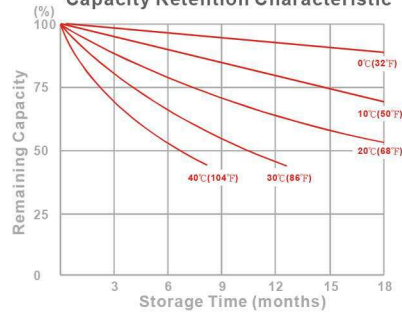


## CHARACTERISTIC & PERFORMANCE DATA

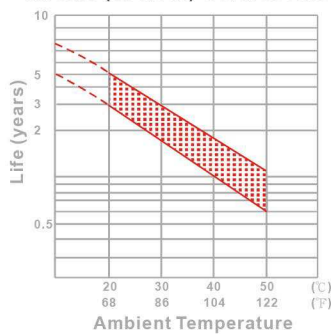
Effect of Temperature on Capacity 25°C(77°F)



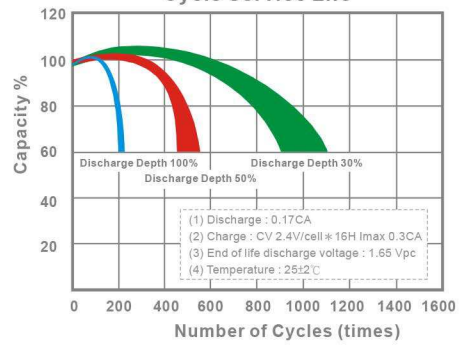
Capacity Retention Characteristic



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
5	min	218	237	249	261	266	273	282
10	min	157	169	178	184	187	191	197
15	min	122	131	135	139	141	143	146
30	min	66.9	70.3	72.7	75.1	75.9	76.8	77.5
60	min	35.7	37.6	38.8	40.2	40.9	41.6	42.4
120	min	18.8	20.3	21.2	21.9	22.3	22.8	23.5
180	min	15.2	16.3	17.1	17.8	18.1	18.4	18.9
240	min	12.1	12.9	13.6	14.0	14.2	14.4	14.7
300	min	10.4	11.2	11.7	11.9	12.0	12.1	12.3
600	min	6.05	6.53	6.89	7.02	7.08	7.14	7.23
1200	min	3.18	3.43	3.62	3.69	3.72	3.75	3.80

- 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	17.8	21.7	23.9	25.8	26.4	27.0	27.8
10	min	13.2	14.8	15.7	16.2	16.6	16.9	17.3
15	min	9.92	10.5	10.9	11.1	11.2	11.3	11.5
30	min	5.84	6.15	6.26	6.38	6.42	6.47	6.55
60	min	3.04	3.20	3.38	3.46	3.49	3.53	3.59
120	min	1.58	1.70	1.79	1.87	1.91	1.94	1.99
180	min	1.27	1.35	1.41	1.47	1.49	1.52	1.55
240	min	1.00	1.07	1.11	1.15	1.16	1.18	1.21
300	min	0.851	0.898	0.919	0.942	0.953	0.962	0.978
600	min	0.497	0.506	0.514	0.521	0.524	0.529	0.535
1200	min	0.268	0.274	0.279	0.284	0.286	0.287	0.291

All data on the spec. sheet is an average value:

The tolerance range : X<6min(+15%~-15%), 6min≤X<10min(+12%~-12%), 10min≤X<60min(+8%~-8%), X≥60min(+5%~-5%)