

multipower - mp[®]

RECHARGEABLE SEALED LEAD ACID BATTERY

SPECIFICATION



MP4.5-4

Nominal Voltage(V) 4V

Nominal Capacity

20 hour rate	(0.225A	to	5.4V)	4.50Ah
10 hour rate	(0.419A	to	5.4V)	4.19Ah
5 hour rate	(0.756A	to	5.25V)	3.78Ah
1 C	(4.5A	to	4.8V)	2.45Ah
3 C	(13.5A	to	4.8V)	1.57Ah

Weight Approx. 600g(1.32Lbs.)

Internal Resistance (at 1KHz) Approx. 30 mΩ

Maximum Discharge Current for

5 seconds: 42A

Charging Methods at 25°C(77°F)

Cycle use:	
Charging Voltage	4.8 to 5.0V
Coefficient	-10.0mv/°C/cell
Maximum Charging Current:	1.35 A
Standby use:	
Float Charging Voltage	4.5 to 4.6V
Coefficient	-6.0mv/°C/cell

Operating Temperature Range

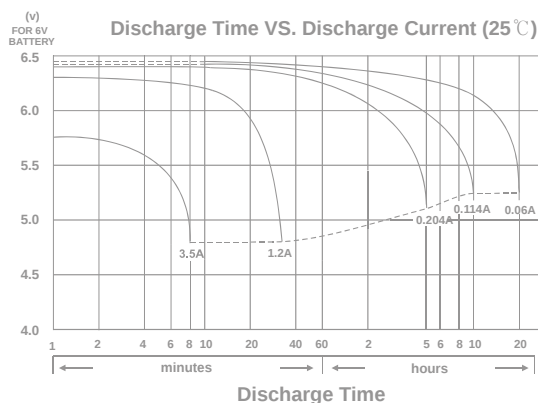
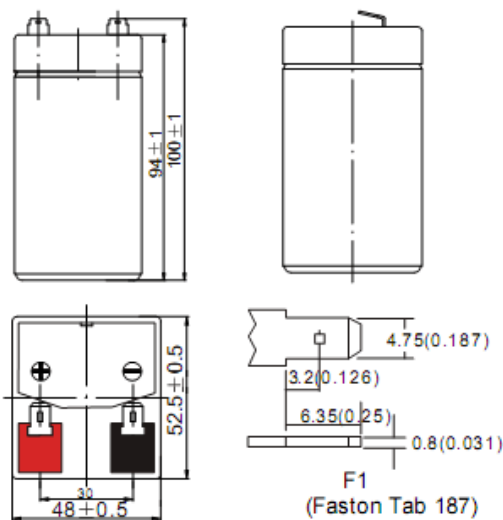
Charge	0°C(32°F) to 40°C(104°F)
Discharge	-15°C(5°F) to 50°C(122°F)
Storage	-15°C(5°F) to 40°C(104°F)

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

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

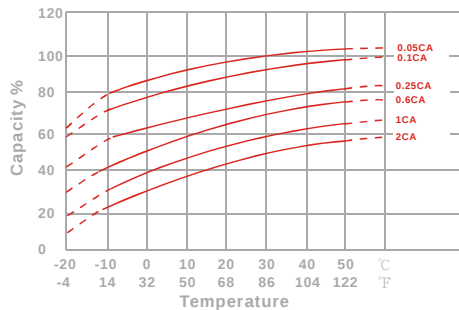
Case Material ABS
(UL94 HB flame retardant case / cover)

Terminal F1(Faston Tab 187)

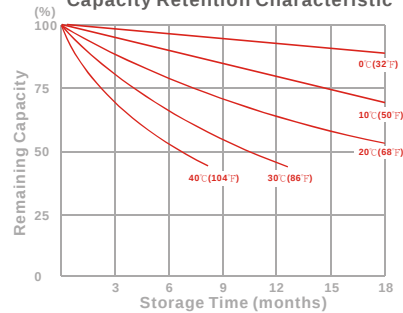


CHARACTERISTIC & PERFORMANCE DATA

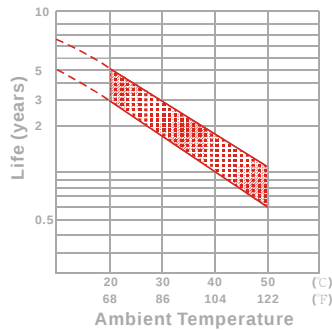
Effect of Temperature on Capacity 25°C(77°F)



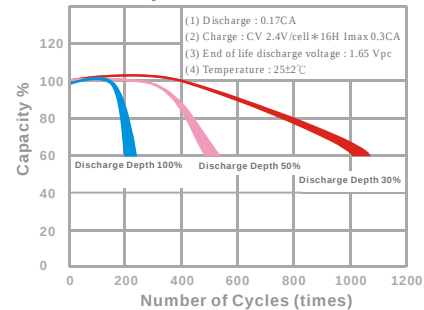
Capacity Retention Characteristic



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	16.3	19.8	23.2	26	26.8	28.3	29.2
10	min	11.5	13.6	15.2	16.6	17.1	17.6	18.1
15	min	9.55	11	12	12.9	13.4	13.4	13.9
30	min	6.74	7.41	7.86	8.2	8.34	8.48	8.62
60	min	4.28	4.58	4.8	4.97	5.04	5.15	5.22
120	min	2.63	2.78	2.88	2.98	3.06	3.05	3.13
180	min	2.01	2.1	2.16	2.22	2.26	2.27	2.31
240	min	1.66	1.73	1.78	1.81	1.84	1.84	1.87
300	min	1.41	1.46	1.49	1.52	1.54	1.55	1.57
600	min	0.815	0.838	0.849	0.858	0.87	0.866	0.876
1200	min	0.45	0.452	0.453	0.459	0.46	0.463	0.464

- 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	8.64	10.6	12.6	14.3	15.0	15.7	16.5
10	min	6.02	7.19	8.13	8.96	9.29	9.64	10
15	min	4.97	5.76	6.35	6.88	7.17	7.27	7.58
30	min	3.46	3.83	4.09	4.29	4.41	4.47	4.6
60	min	2.17	2.34	2.46	2.57	2.63	2.67	2.73
120	min	1.33	1.41	1.47	1.53	1.58	1.58	1.63
180	min	1.01	1.06	1.1	1.14	1.16	1.17	1.19
240	min	0.831	0.874	0.901	0.924	0.95	0.943	0.966
300	min	0.706	0.736	0.756	0.775	0.79	0.792	0.808
600	min	0.404	0.419	0.427	0.434	0.44	0.44	0.447
1200	min	0.223	0.225	0.227	0.231	0.23	0.234	0.236

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%)