

multipower - mp[®]

RECHARGEABLE SEALED LEAD ACID BATTERY

SPECIFICATION



MP3-12N

Nominal Voltage(V) 12V

Nominal Capacity

20 hour rate	(0.15A	to	10.50V)	3.000Ah
10 hour rate	(0.285A	to	10.50V)	2.850Ah
5 hour rate	(0.51A	to	10.20V)	2.550Ah
1 C	(3A	to	9.60V)	1.600Ah
3 C	(9A	to	9.60V)	1.050Ah

Weight Approx. 1.3kg (2.86Lbs.)

Internal Resistance (at 1KHz) Approx. 45 mΩ

Maximum Discharge Current for

5 seconds: 45A

Charging Methods at 25°C (77°F)

Cycle use:

Charging Voltage 14.7 to 14.8V

Coefficient -5.0mV/°C/cell

Maximum Charging Current: 0.9A

Standby use:

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%

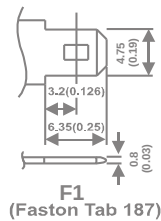
Case Material

(UL94 HB flame retardant case / cover)

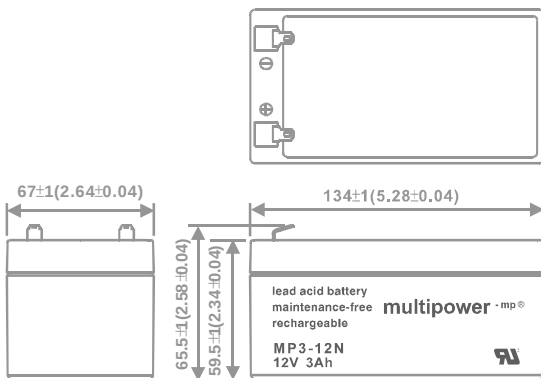
ABS

Terminal

F1 (Faston Tab 187)

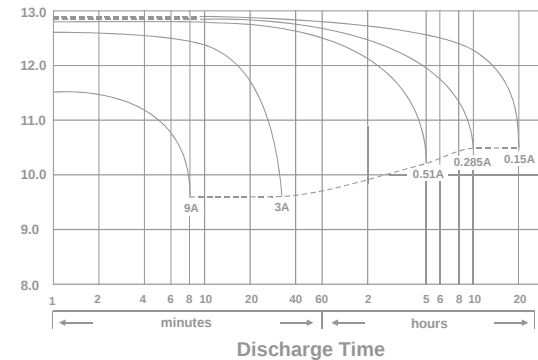


F1
(Faston Tab 187)



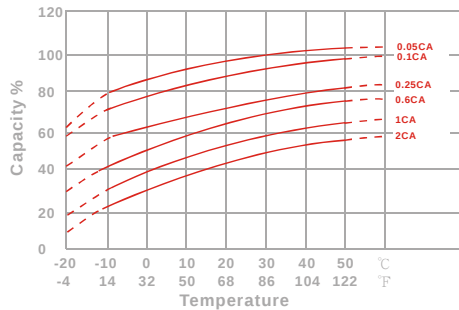
(V)
FOR 12V
BATTERY

Discharge Time VS. Discharge Current (25 °C)

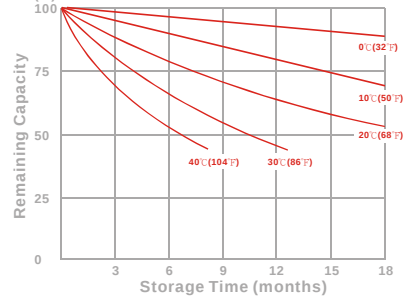


CHARACTERISTIC & PERFORMANCE DATA

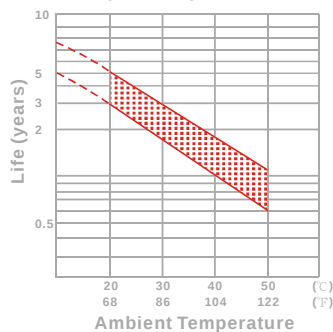
Effect of Temperature on Capacity 25°C (77°F)



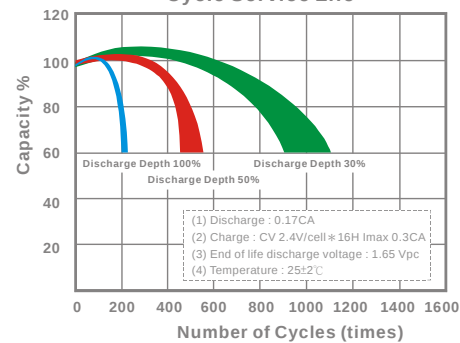
Capacity Retention Characteristic



Trickle (or float) Service Life



Cycle Service Life



- PERFORMANCE DATA

Discharge Rates in Watts 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
Time								
5	min	94.2	106	114	121	125	128	132
10	min	68.1	74.7	80.1	84.1	86.2	87.9	90.0
15	min	51.8	57.6	60.5	63.7	65.3	67.0	69.1
30	min	30.2	33.1	34.9	37.1	37.9	38.6	39.2
60	min	17.3	19.2	20.6	21.8	22.4	22.8	23.3
120	min	10.2	11.1	11.9	12.7	13.1	13.5	14.1
180	min	7.62	8.73	9.34	9.76	9.94	10.2	10.6
240	min	5.81	6.53	7.02	7.26	7.39	7.61	7.95
300	min	4.94	5.55	5.97	6.17	6.28	6.41	6.62
600	min	3.28	3.49	3.58	3.65	3.69	3.72	3.77
1200	min	1.79	1.85	1.90	1.92	1.93	1.95	1.98

- 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
Time								
5	min	7.95	9.24	10.3	11.1	11.5	12.0	12.6
10	min	5.87	6.52	7.07	7.46	7.62	7.79	8.08
15	min	4.49	5.03	5.37	5.71	5.86	6.02	6.23
30	min	2.56	2.87	3.03	3.10	3.12	3.14	3.17
60	min	1.54	1.72	1.81	1.88	1.92	1.94	1.99
120	min	0.945	0.993	1.04	1.08	1.10	1.12	1.15
180	min	0.679	0.718	0.752	0.786	0.807	0.826	0.861
240	min	0.556	0.581	0.604	0.625	0.634	0.646	0.663
300	min	0.472	0.493	0.511	0.526	0.533	0.542	0.554
600	min	0.273	0.289	0.301	0.306	0.308	0.311	0.313
1200	min	0.147	0.154	0.158	0.161	0.163	0.165	0.167

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%)