

# multipower - mp <sup>®</sup>

## RECHARGEABLE SEALED LEAD ACID BATTERY

## SPECIFICATION



### MP12-12B

**Nominal Voltage (V)** 12V

#### Nominal Capacity

20 hour rate	(0.6A to 10.50V)	12.00Ah
10 hour rate	(1.14A to 10.50V)	11.40Ah
5 hour rate	(2.04A to 10.20V)	10.20Ah
1 C	(12A to 9.60V)	6.40Ah
3 C	(36A to 9.60V)	4.20Ah

**Weight Approx.** 3.75kg (8.25lbs)

**Internal Resistance (at 1KHz) Approx.** 13 mΩ

#### Maximum Discharge Current for

**5 seconds:** 180A

#### Charging Methods at 25°C (77°F)

Cycle use:	
Charging Voltage	14.70V to 14.80V
Coefficient	-5.0mv/°C/cell
Maximum Charging Current:	3.6A
Standby use:	
Float Charging Voltage	13.50V to 13.80V
Coefficient	-3.0mv/°C/cell

#### Operating Temperature Range

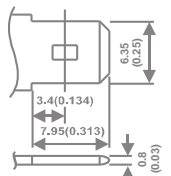
Charge	-15°C (5°F) to 40°C (104°F)
Discharge	-15°C (5°F) to 50°C (122°F)
Storage	-15°C (5°F) to 40°C (104°F)

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

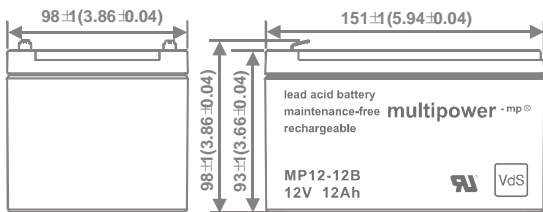
1 month	92%
3 month	90%
6 month	80%

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

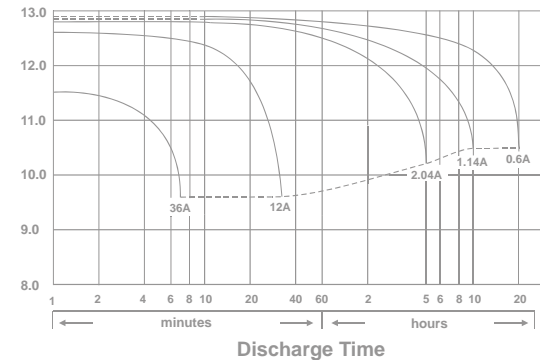
**Terminal** F2 (Faston Tab 250)



**F2**  
(Faston Tab 250)

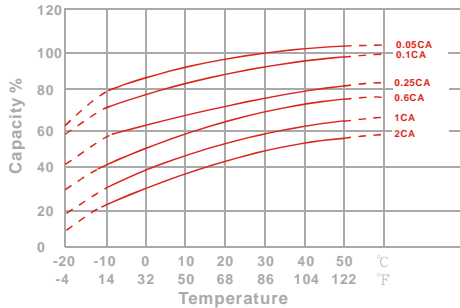


(V) FOR 12V BATTERY  
**Discharge Time VS. Discharge Current (25°C)**

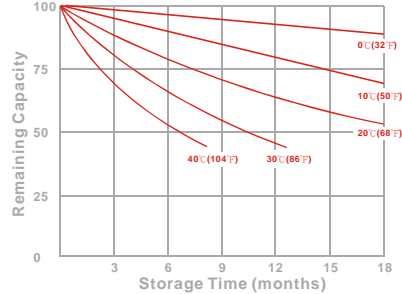


## CHARACTERISTIC & PERFORMANCE DATA

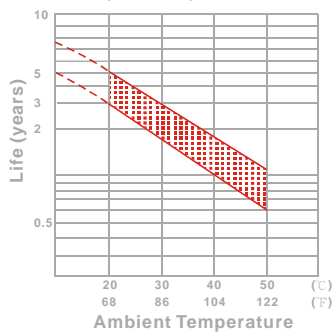
Effect of Temperature on Capacity 25°C (77°F)



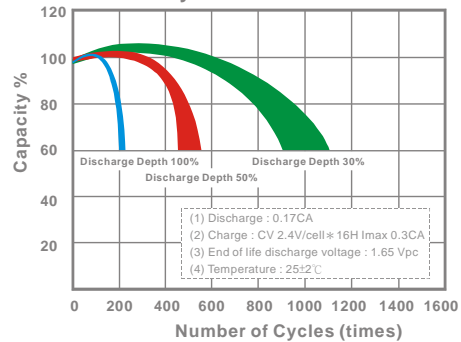
Capacity Retention Characteristic



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	405	451	485	520	536	552	582
10	min	288	315	329	344	349	357	366
15	min	232	246	255	264	267	272	279
30	min	133	142	148	152	154	156	158
60	min	94.7	98	100	102	103	104	105
120	min	51.8	53.5	54.3	54.9	55.1	55.4	55.9
180	min	33.9	35.2	36.3	37.2	37.6	38.1	38.5
240	min	28.7	29.3	29.8	30.4	30.7	31.2	31.6
300	min	23.7	24.5	25.1	25.8	26	26.3	26.9
600	min	14.0	14.4	14.6	14.8	14.9	15.0	15.1
1200	min	7.16	7.25	7.48	7.59	7.68	7.77	7.94

### - 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	37.2	41.4	44.5	47.7	49.1	50.6	53.4
10	min	25.7	28.1	29.4	30.7	31.2	31.9	32.7
15	min	19.8	21.3	22.1	22.9	23.2	23.5	24.2
30	min	11.4	12.1	12.6	13.0	13.1	13.3	13.5
60	min	8.21	8.40	8.52	8.63	8.68	8.74	8.82
120	min	4.21	4.36	4.47	4.56	4.59	4.63	4.68
180	min	2.87	3.06	3.13	3.19	3.22	3.25	3.29
240	min	2.38	2.43	2.47	2.52	2.55	2.58	2.62
300	min	1.97	2.03	2.08	2.14	2.16	2.19	2.23
600	min	1.16	1.18	1.20	1.22	1.23	1.24	1.25
1200	min	0.592	0.599	0.618	0.627	0.634	0.642	0.656

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%)