

# multipower - mp®

## RECHARGEABLE SEALED LEAD ACID BATTERY

## SPECIFICATION



### MP7-12B

**Nominal Voltage (V)** 12V

**Nominal Power**  
15 mins rate: 28W/cell to 1.60V/cell

**Nominal Capacity**

20 hour rate	(0.35A	to	10.50V)	7.00Ah
10 hour rate	(0.665A	to	10.50V)	6.65Ah
5 hour rate	(1.19A	to	10.20V)	5.95Ah
1 C	(7A	to	9.60V)	4.43Ah
3 C	(21A	to	9.60V)	2.80Ah

**Weight Approx.** 2.20kg (4,85lbs)

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

**Maximum Discharge Current for 5 seconds:** 105A

#### Charging Methods at 25°C (77°F)

##### Cycle use:

Charging Voltage 14.70V to 14.80V

Coefficient -5.0mV/°C/cell

Maximum Charging Current : 2.1A

##### 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%

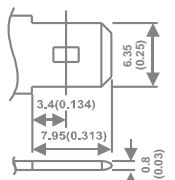
#### Case Material

(UL94 HB flame retardant case / cover)

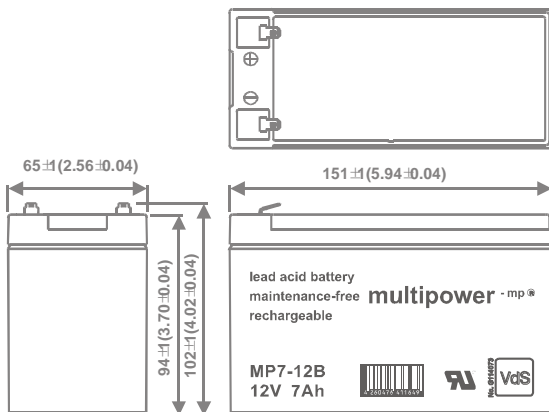
ABS

#### Terminal

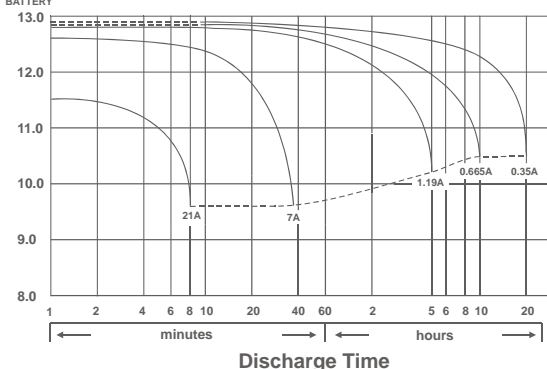
F2 (Faston Tab 250)



F2  
(Faston Tab 250)

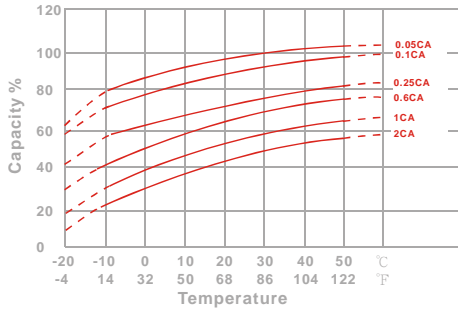


(V) FOR 12V BATTERY  
**Discharge Time VS. Discharge Current (25 °C)**

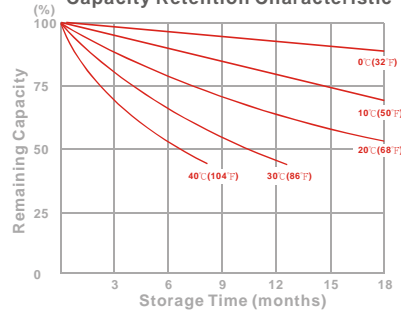


## CHARACTERISTIC & PERFORMANCE DATA

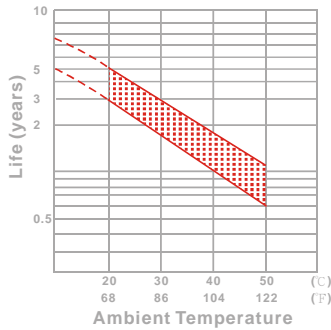
Effect of Temperature on Capacity 25°C(77°F)



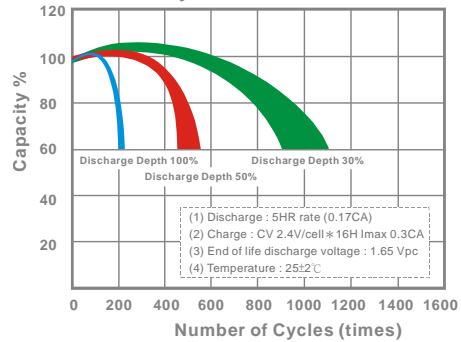
Capacity Retention Characteristic



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	43.8	47.0	49.0	51.0	51.8	52.8	54.3
10	min	30.0	31.8	33.2	34.3	34.8	35.5	36.5
15	min	24.0	25.2	25.8	26.5	26.8	27.3	28.0
30	min	12.1	12.9	13.6	14.1	14.3	14.4	14.6
60	min	7.70	8.38	8.63	8.87	8.97	9.08	9.23
120	min	4.10	4.52	4.72	4.92	4.98	5.07	5.20
180	min	3.08	3.32	3.48	3.62	3.67	3.72	3.80
240	min	2.85	2.93	3.00	3.05	3.07	3.10	3.15
300	min	2.47	2.53	2.58	2.62	2.63	2.65	2.68
600	min	1.36	1.40	1.42	1.43	1.44	1.44	1.45
1200	min	0.690	0.705	0.718	0.728	0.732	0.737	0.743

- 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	23.1	26.2	27.8	29.1	29.6	30.5	31.7
10	min	16.1	17.3	18.1	18.6	18.9	19.2	19.8
15	min	12.6	13.1	13.5	13.8	14.0	14.1	14.3
30	min	6.54	7.05	7.28	7.47	7.56	7.68	7.85
60	min	4.02	4.25	4.41	4.52	4.58	4.63	4.71
120	min	2.26	2.38	2.45	2.49	2.51	2.54	2.57
180	min	1.65	1.74	1.79	1.82	1.83	1.85	1.88
240	min	1.35	1.40	1.44	1.47	1.49	1.51	1.53
300	min	1.10	1.16	1.21	1.25	1.27	1.28	1.29
600	min	0.667	0.675	0.682	0.687	0.690	0.694	0.698
1200	min	0.339	0.346	0.350	0.353	0.355	0.357	0.359

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%)