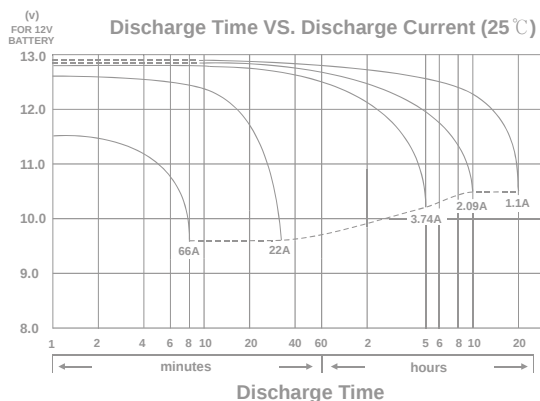
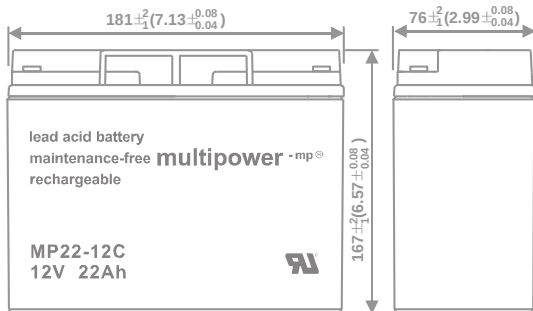
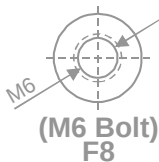


RECHARGEABLE SEALED LEAD ACID BATTERY

SPECIFICATION



MP22-12C

Nominal Voltage (V) 12V

Nominal Capacity

20 hour rate	(1.1A	to	10.50V)	22.00Ah
10 hour rate	(2.09A	to	10.50V)	20.90Ah
5 hour rate	(3.74A	to	10.20V)	18.70Ah
1 C	(22A	to	9.60V)	12.47Ah
3 C	(66A	to	9.60V)	8.80Ah

Weight Approx. 6.7kg (14.74lbs.)

Internal Resistance (at 1KHz) Approx. 8 mΩ

Maximum Discharge Current for

5 seconds: 330A

Charging Methods at 25°C (77°F)

Cycle use:

Charging Voltage 14.70 to 14.80V

Coefficient -5.0mv/°C/cell

Maximum Charging Current: 6.6A

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

F8

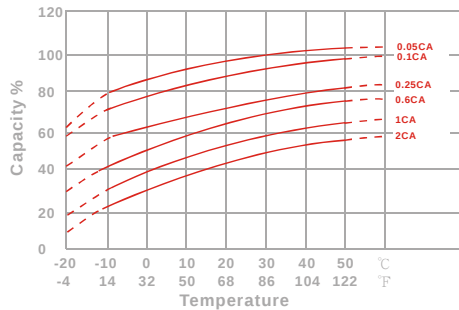
Description of torque value of hard ware for the terminals:

Recommended torque value M6: 5.39 N·m (55kg·cm)

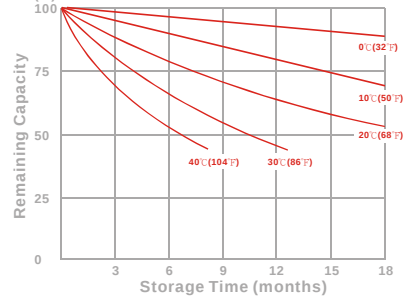
Maximum allowable torque value M6: 8.82 N·m (90kg·cm)

CHARACTERISTIC & PERFORMANCE DATA

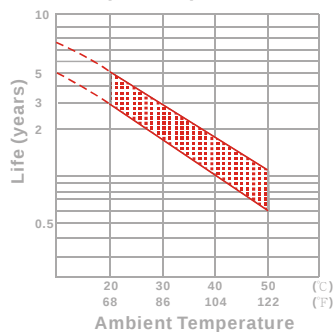
Effect of Temperature on Capacity 25°C (77°F)



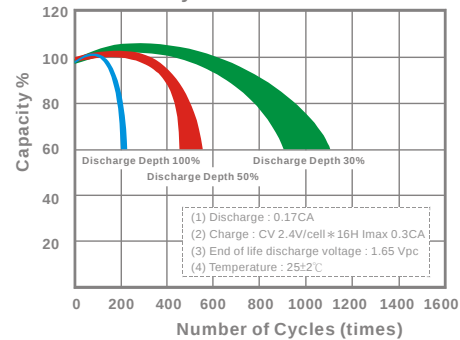
Capacity Retention Characteristic



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	912	1017	1086	1129	1140	1153	1165
10	min	585	653	697	724	731	740	748
15	min	435	481	511	529	534	539	545
30	min	231	256	271	281	284	287	290
60	min	152	155	157	158	159	160	161
120	min	78.5	80.6	81.9	83.0	83.4	83.9	84.6
180	min	63.2	64.7	65.6	66.4	66.7	67.0	67.5
240	min	50.7	51.8	52.6	53.2	53.5	53.8	54.2
300	min	43.7	44.5	45.1	45.4	45.6	45.8	46.1
600	min	25.8	26.4	26.7	26.8	26.9	27.0	27.2
1200	min	13.1	13.5	13.8	14.0	14.1	14.2	14.3

- 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	74.1	82.5	89.2	96.6	98.3	101	104
10	min	50.9	56.8	60.1	62.6	63.5	64.2	65.0
15	min	37.0	41.8	43.7	45.0	45.4	45.8	46.3
30	min	19.4	21.5	22.8	23.5	23.7	24.0	24.3
60	min	12.1	12.5	12.8	13.0	13.1	13.2	13.4
120	min	6.43	6.67	6.80	6.91	6.95	6.99	7.05
180	min	5.36	5.43	5.48	5.52	5.54	5.56	5.60
240	min	4.29	4.34	4.38	4.41	4.43	4.45	4.48
300	min	3.67	3.72	3.74	3.76	3.77	3.79	3.81
600	min	2.14	2.17	2.19	2.21	2.22	2.23	2.24
1200	min	1.11	1.13	1.14	1.15	1.16	1.17	1.18

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%)