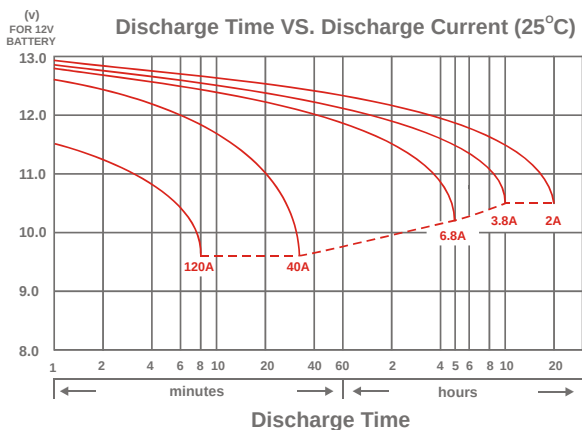
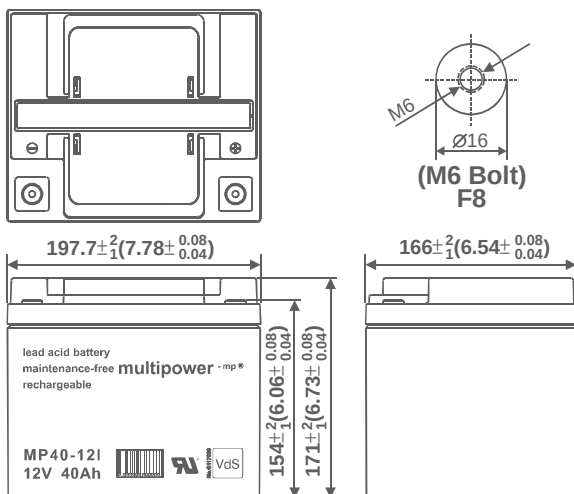




MP40-12I

Nominal Voltage(V) 12V

Nominal Capacity

20 hour rate	(2A	to	10.50V)	40.00Ah
10 hour rate	(3.8A	to	10.50V)	38.00Ah
5 hour rate	(6.8A	to	10.20V)	34.00Ah
1 C	(40A	to	9.60V)	21.33Ah
3 C	(120A	to	9.60V)	14.00Ah

Weight Approx. 12.6kg (27.7lbs.)

Internal Resistance (at 1KHz) Approx. 8.5 mΩ

Maximum Discharge Current for

5 seconds: 480A

Charging Methods at 25°C (77°F)

Maximum Charging Current: 12A

Standby use:

Float Charging Voltage 13.5 to 13.8V

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

Terminal

F8

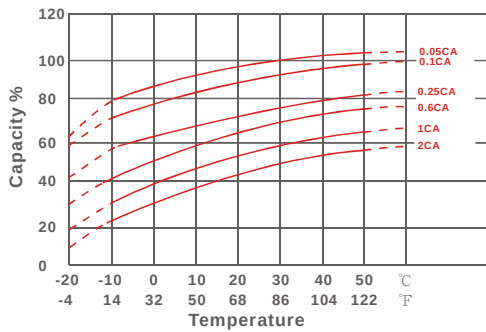
Description of torque value of hard ware for the terminals:

Recommended torque value M6: 7 N-m (71 kgf-cm)

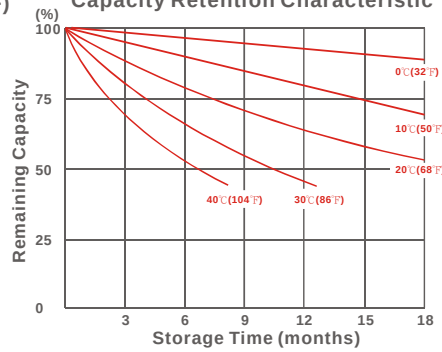
Maximum allowable torque value M6: 10 N-m (102 kgf-cm)

CHARACTERISTIC & PERFORMANCE DATA

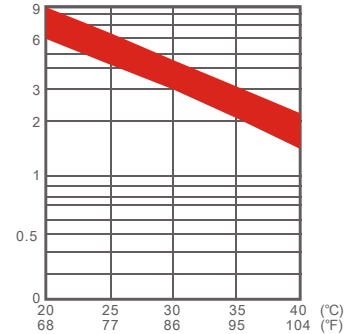
Effect of Temperature on Capacity 25°C(77°F)



Capacity Retention Characteristic



Trickle (or float) Service Life



- PERFORMANCE DATA

Discharge Rates in Watts per Cell 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								
10	min	113	133	149	159	163	163	166
15	min	101	113	123	128	130	131	132
20	min	90.7	98.2	102	105	106	106	107
25	min	79.2	83.5	87.0	88.7	89.2	89.5	90.0
30	min	70.7	73.8	75.8	76.5	76.7	77.0	77.3
45	min	56.5	59.2	62.5	62.7	63.0	63.2	63.3
60	min	43.8	45.8	46.8	47.3	47.5	47.7	47.8
90	min	33.7	35.0	35.7	36.0	36.2	36.5	36.7
120	min	27.7	28.7	29.2	29.5	29.7	29.8	30.0
180	min	19.2	19.8	20.2	20.3	20.5	20.5	20.7
240	min	15.4	15.9	16.1	16.2	16.3	16.4	16.4
300	min	13.2	13.6	13.7	13.8	13.9	13.9	14.0
480	min	9.03	9.22	9.37	9.47	9.52	9.55	9.63
600	min	7.80	7.95	8.05	8.13	8.18	8.22	8.27
1200	min	3.92	4.00	4.03	4.07	4.08	4.08	4.10

- 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								
10	min	66.4	77.0	86.2	92.3	94.2	94.4	96.2
15	min	55.1	61.6	66.8	69.6	70.6	71.2	72.2
20	min	47.4	51.3	53.3	55.0	55.5	55.8	56.3
25	min	39.9	42.1	43.9	44.7	45.0	45.1	45.4
30	min	35.9	37.5	38.5	38.9	39.0	39.1	39.2
45	min	28.7	30.1	31.5	31.9	32.0	32.1	32.2
60	min	22.5	23.5	24.0	24.3	24.4	24.5	24.6
90	min	17.2	17.9	18.2	18.4	18.5	18.6	18.7
120	min	13.9	14.4	14.7	14.8	14.9	15.0	15.1
180	min	9.63	10.0	10.1	10.2	10.2	10.3	10.3
240	min	7.70	7.94	8.03	8.09	8.13	8.15	8.20
300	min	6.57	6.76	6.82	6.87	6.90	6.93	6.97
480	min	4.49	4.58	4.65	4.70	4.73	4.75	4.79
600	min	3.87	3.95	4.00	4.04	4.06	4.08	4.10
1200	min	1.94	1.98	2.00	2.02	2.02	2.03	2.04

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%)