

MPL40-12

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)	25.33Ah
3 C	(120A	to	9.60V)	16.00Ah

Weight Approx. 13.4kg (29.5lbs.)

Internal Resistance (at 1KHz) Approx. 7.5 mΩ

Maximum Discharge Current for

5 seconds: 480A

Charging Methods at 25°C (77°F)

Maximum Charging Current: 12A

Standby use:

Float Charging Voltage 13.50V 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

Terminal

F8

Description of torque value of hard ware for the terminals:

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

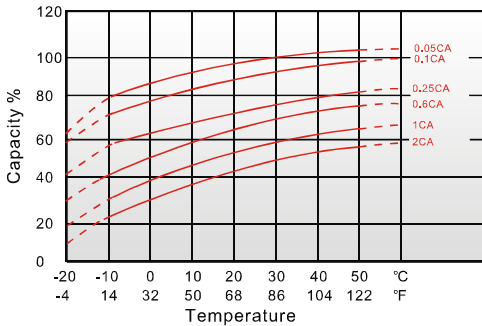
Maximum allowable torque value M6: 9 N-m (92kgf-cm)

Design Life

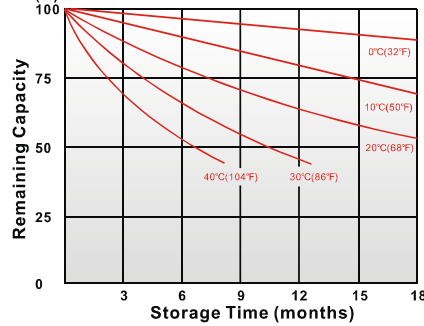
Eurobat (20°C) : 10+ years

CHARACTERISTIC & PERFORMANCE DATA

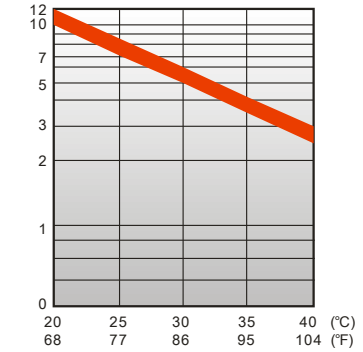
Effect of Temperature on Capacity 25°C(77°F)



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
5	min	204	215	227	230	232	235	237
10	min	166	178	196	198	200	203	205
15	min	134	140	147	149	151	153	154
20	min	111	116	122	123	123	124	125
30	min	83.9	87.0	90.8	92.0	93.1	93.8	94.5
60	min	54.8	55.7	56.8	58.0	59.3	60.0	60.8
90	min	41.4	41.7	42.4	43.3	44.5	44.6	44.9
120	min	32.5	32.8	33.6	33.8	34.0	34.1	34.3
180	min	22.8	23.0	23.4	23.6	23.8	23.9	24.1
240	min	17.3	17.6	17.9	18.3	18.4	18.6	19.0
300	min	14.4	15.0	15.2	15.3	15.4	15.4	15.5
480	min	9.46	9.67	9.89	9.94	10.0	10.0	10.1
600	min	6.86	7.05	7.27	7.40	7.50	7.57	7.74
1200	min	3.51	3.70	3.89	4.01	4.11	4.19	4.30

- 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
5	min	113	121	126	127	129	130	133
10	min	95.0	101	104	106	107	107	108
15	min	69.0	73.5	79.1	80.0	81.0	82.0	82.9
20	min	57.8	59.7	62.1	62.4	62.9	63.4	63.9
30	min	42.9	44.7	46.6	47.0	47.4	47.9	48.5
60	min	29.7	30.2	30.9	31.3	31.8	32.2	32.8
90	min	20.7	21.0	21.4	21.6	21.8	22.0	22.3
120	min	16.8	16.9	17.0	17.1	17.2	17.3	17.4
180	min	11.3	11.4	11.6	11.7	11.8	11.9	12.1
240	min	8.75	8.84	9.03	9.13	9.22	9.32	9.37
300	min	7.28	7.39	7.50	7.54	7.56	7.58	7.64
480	min	4.74	4.79	4.88	4.90	4.91	4.92	4.95
600	min	3.91	3.96	4.01	4.03	4.04	4.05	4.08
1200	min	2.03	2.06	2.12	2.13	2.14	2.15	2.15

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%)