

RECHARGEABLE SEALED LEAD ACID BATTERY

SPECIFICATION



MPC30-121

Nominal Voltage(V) 12V

Nominal Capacity

20 hour rate	(1.5A to 10.50V)	30.00Ah
10 hour rate	(2.85A to 10.50V)	28.50Ah
5 hour rate	(5.1A to 10.20V)	25.50Ah
1 C	(30A to 9.60V)	17.00Ah
3 C	(90A to 9.60V)	12.00Ah

Weight Approx. 9.7kg (21.3Lbs.)

Internal Resistance (at 1KHz) Approx. 9.5 mΩ

Maximum Discharge Current for

5 seconds: 450A

Charging Methods at 25°C (77°F)

Cycle use:	
Charging Voltage	14.7 to 14.8V
Coefficient -5.0mV/°C/cell	
Maximum Charging Current:	9A
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)

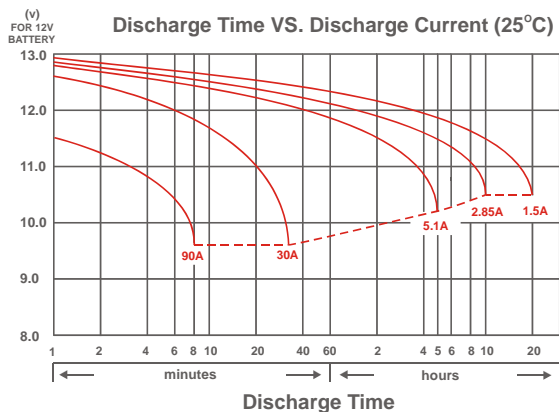
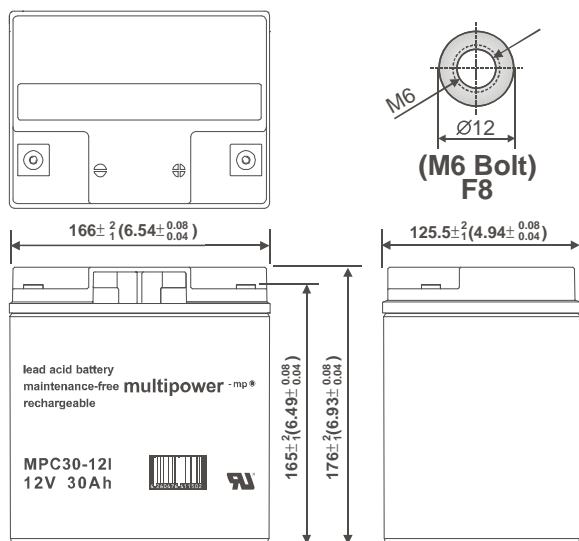
1 month	92%
3 month	90%
6 month	80%

Case Material ABS UL94 HB

Terminal F8

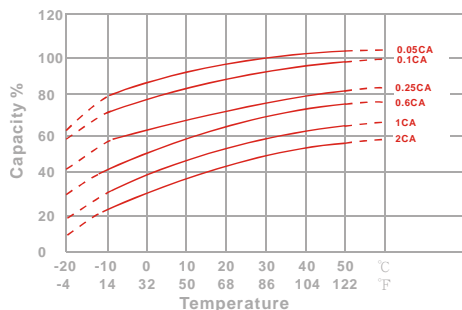
Description of torque value of hard ware for the terminals:

Recommended torque value	M6: 7 N·m (71 kgf·cm)
Maximum allowable torque value	M6: 10 N·m (102 kgf·cm)

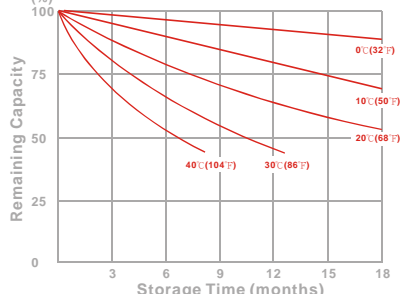


CHARACTERISTIC & PERFORMANCE DATA

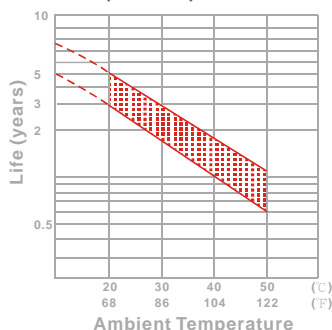
Effect of Temperature on Capacity 25°C (77°F)



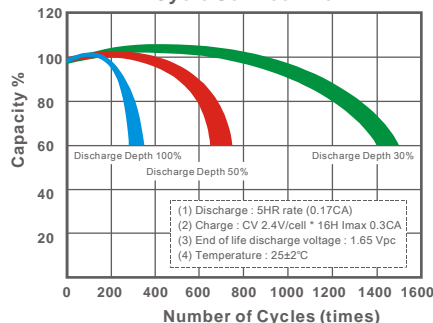
Capacity Retention Characteristic



Trickle (or float) Service Life



Cycle 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								
5	min	145	167	183	191	198	204	210
10	min	111	120	128	132	136	139	144
15	min	90.0	96.7	105	107	109	111	113
30	min	56.7	59.9	61.8	62.7	63.3	64.0	64.5
60	min	36.5	37.3	38.0	38.3	38.7	39.0	39.3
120	min	21.8	22.3	23.0	23.2	23.3	23.5	23.7
180	min	16.2	16.5	16.7	16.8	17.0	17.2	17.3
240	min	12.4	12.8	13.1	13.3	13.4	13.5	13.6
300	min	10.4	10.6	10.7	10.8	11.0	11.0	11.1
600	min	5.92	6.08	6.22	6.23	6.25	6.27	6.28
1200	min	3.18	3.22	3.28	3.30	3.32	3.33	3.35

- 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								
5	min	74.5	89.8	105	110	114	118	121
10	min	59.5	64.4	68.3	71.0	73.7	76.4	79.2
15	min	46.5	50.0	54.3	55.8	57.2	58.5	59.8
30	min	29.0	30.5	31.9	32.6	33.1	33.6	34.0
60	min	17.0	17.8	18.6	19.0	19.4	19.6	19.8
120	min	11.0	11.5	11.9	12.0	12.1	12.2	12.3
180	min	7.70	7.90	8.10	8.21	8.30	8.38	8.46
240	min	6.15	6.25	6.36	6.42	6.48	6.53	6.58
300	min	5.10	5.18	5.30	5.38	5.42	5.46	5.51
600	min	2.91	2.97	3.06	3.07	3.08	3.09	3.10
1200	min	1.53	1.56	1.60	1.61	1.62	1.63	1.63

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%)