

RECHARGEABLE SEALED LEAD ACID BATTERY

SPECIFICATION



MPL100-12FT

Nominal Voltage(V) 12V

Nominal Capacity

10 hour rate	(10A	to	10.80V)	100.00Ah
5 hour rate	(17A	to	10.20V)	85.00Ah
1 hour rate	(60A	to	9.60V)	60.00Ah
1 C	(100A	to	9.60V)	50.00Ah

Weight Approx. 30.0kg (66Lbs.)

Internal Resistance (at 1KHz) Approx. 4.3 mΩ

Maximum Discharge Current for

5 seconds: 1000A

Charging Methods at 25°C (77°F)

Cycle use:	
Charging Voltage	14.7 to 14.8V
Coefficient	-5.0mV/°C/cell
Maximum Charging Current:	30A
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	98%
3 month	94%
6 month	85%

Case Material

ABS UL94 HB

Terminal

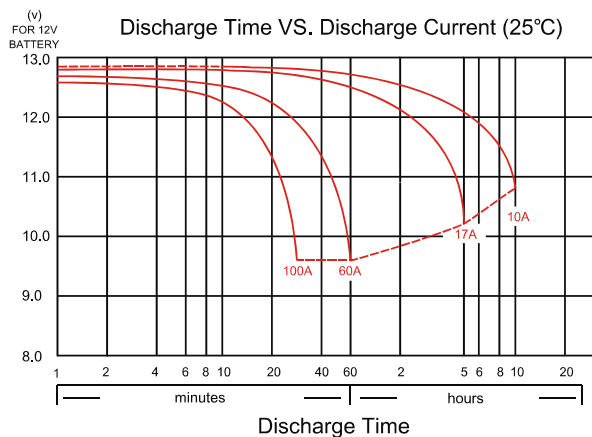
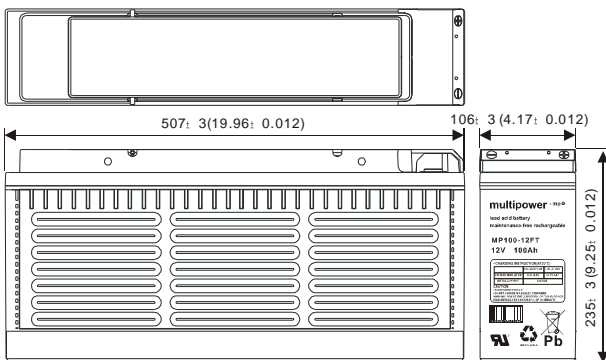
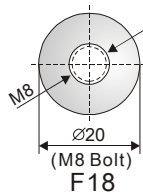
F18

Description of torque value of hard ware for the terminals:

Recommended torque value	M8: 12N·m (122kgf·cm)
Maximum allowable torque value	M8: 15N·m (153kgf·cm)

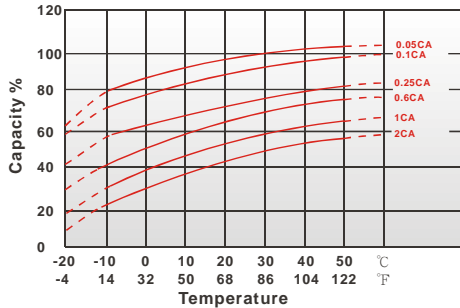
Design Life

Eurobat (20°C) : 10+ years

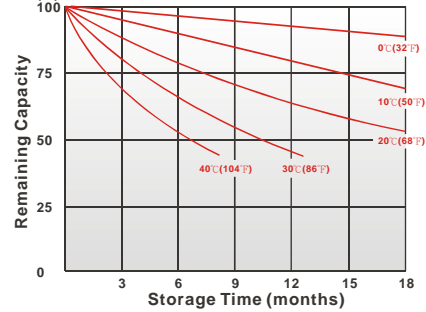


CHARACTERISTIC & PERFORMANCE DATA

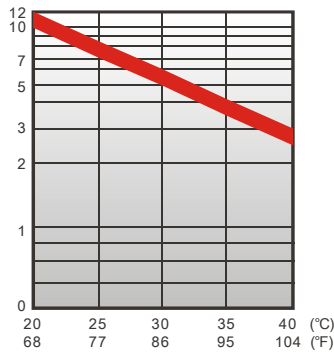
Effect of Temperature on Capacity 250 (77K)



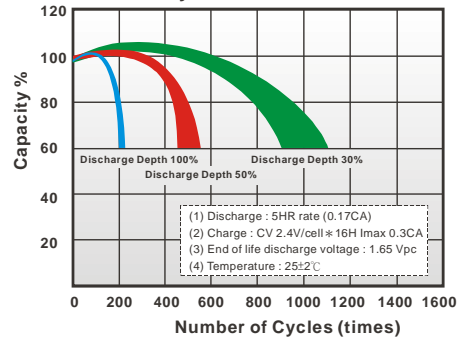
Capacity Retention Characteristic



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)

Time	End Voltage		1.85V	1.80V	1.75V	1.70V	1.67V	1.65V	1.60V
	min	max							
15	min	max	268	293	364	369	379	389	392
30	min	max	171	191	203	215	225	232	242
60	min	max	114	116	119	121	124	127	129
120	min	max	59.8	69.9	73.4	75.3	76.7	77.5	78.3
180	min	max	46.3	48.3	49.8	51.7	52.7	53.7	55.0
240	min	max	36.0	38.3	40.5	41.3	41.7	42.0	42.3
300	min	max	26.7	29.5	31.3	31.8	32.7	33.5	34.2
480	min	max	21.2	21.7	23.0	23.3	24.0	24.5	25.0
600	min	max	17.5	18.5	19.3	19.8	20.2	20.3	20.5
1200	min	max	8.67	9.83	10.5	10.7	10.8	10.8	11.0

- Discharge Rates in Amperes per Battery to Various End Voltages at 25°C(77°F)

Time	End Voltage		1.85V	1.80V	1.75V	1.70V	1.67V	1.65V	1.60V
	min	max							
15	min	max	135	153	189	190	194	198	202
30	min	max	100	105	109	112	115	118	125
60	min	max	54.5	60.0	61.5	62.4	63.6	64.3	64.7
120	min	max	32.2	34.4	36.0	36.8	37.5	38.3	39.7
180	min	max	24.3	25.1	26.4	26.7	27.0	27.4	27.8
240	min	max	18.2	19.1	20.0	20.3	20.5	20.8	21.1
300	min	max	15.8	16.4	17.0	17.3	17.7	18.0	18.3
480	min	max	10.5	11.3	11.7	11.9	12.0	12.1	12.2
600	min	max	9.5	10.0	10.1	10.2	10.3	10.4	10.5
1200	min	max	4.70	5.00	5.10	5.20	5.20	5.30	5.40

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%)