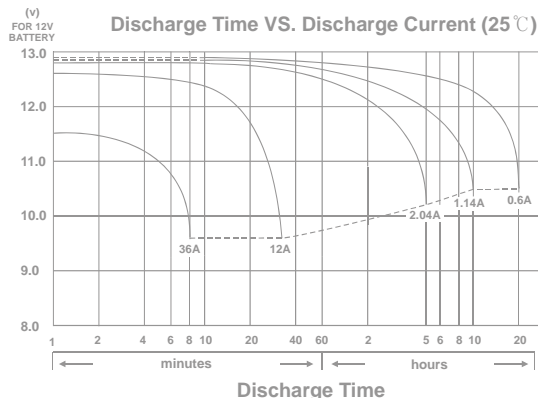
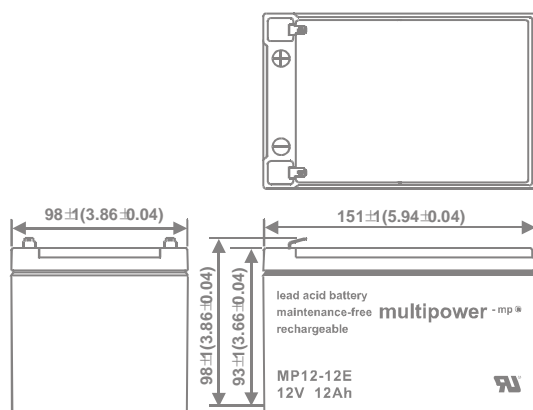
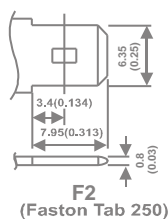


RECHARGEABLE SEALED LEAD ACID BATTERY

SPECIFICATION



MP12-12E

Nominal Voltage (V) 12V

Nominal Capacity

20 hour rate	(0.6A	to	10.50V)	12.00Ah
10 hour rate	(1.14A	to	10.50V)	11.40Ah
5 hour rate	(2.04A	to	10.20V)	10.20Ah
1 C	(12A	to	9.60V)	6.80Ah
3 C	(36A	to	9.60V)	4.80Ah

Weight Approx. 4.10kg (9.04lbs)

Internal Resistance (at 1KHz) Approx. 13 mΩ

Maximum Discharge Current for

5 seconds: 180A

Charging Methods at 25°C (77°F)

Cycle use:	
Charging Voltage	14.70V to 14.80V
Coefficient	-5.0mV/°C/cell
Maximum Charging Current:	3.6A
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)

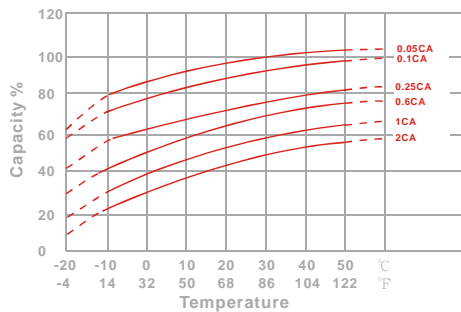
1 month	92%
3 month	90%
6 month	80%

Case Material ABS
(UL94 HB flame retardant case / cover)

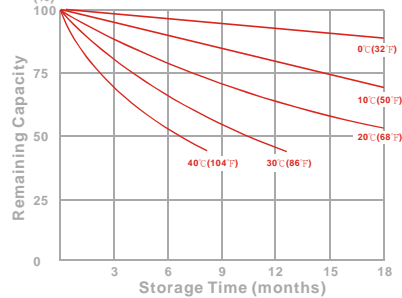
Terminal F2 (Faston Tab 250)

CHARACTERISTIC & PERFORMANCE DATA

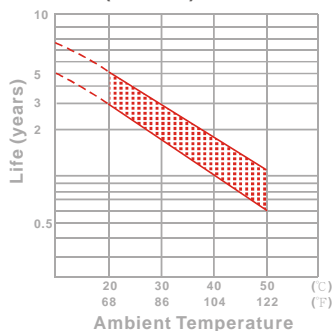
Effect of Temperature on Capacity 25°C (77°F)



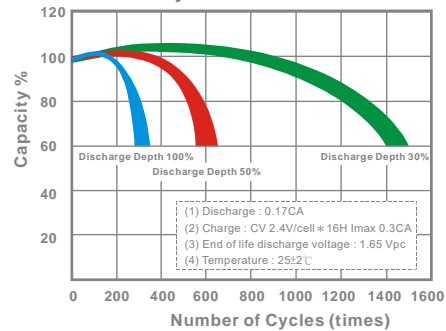
Capacity Retention Characteristic



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	407	453	487	522	538	554	584
10	min	302	329	343	358	363	371	380
15	min	235	249	258	267	270	275	282
30	min	136	145	151	155	157	159	161
60	min	95.2	98.5	101	103	105	106	107
120	min	52.6	54.3	55.1	55.7	55.9	56.2	56.7
180	min	34.6	35.9	37.0	37.9	38.3	38.8	39.2
240	min	29.2	29.8	30.3	30.9	31.2	31.7	32.1
300	min	24.4	25.2	25.8	26.5	26.7	27.0	27.6
600	min	14.4	14.8	15.0	15.2	15.3	15.4	15.5
1200	min	7.32	7.41	7.64	7.75	7.84	7.93	8.10

- 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	38.5	42.7	45.8	49.0	50.4	51.9	54.7
10	min	27.2	29.6	30.9	32.2	32.7	33.4	34.2
15	min	20.2	21.5	22.3	23.1	23.4	23.7	24.4
30	min	11.6	12.3	12.8	13.2	13.3	13.5	13.7
60	min	8.24	8.43	8.55	8.66	8.71	8.77	8.85
120	min	4.27	4.42	4.53	4.62	4.65	4.69	4.74
180	min	2.89	3.08	3.15	3.21	3.24	3.27	3.31
240	min	2.40	2.45	2.49	2.54	2.57	2.60	2.64
300	min	1.98	2.06	2.12	2.18	2.20	2.23	2.27
600	min	1.17	1.20	1.22	1.24	1.25	1.26	1.27
1200	min	0.599	0.606	0.625	0.634	0.641	0.649	0.663

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%)