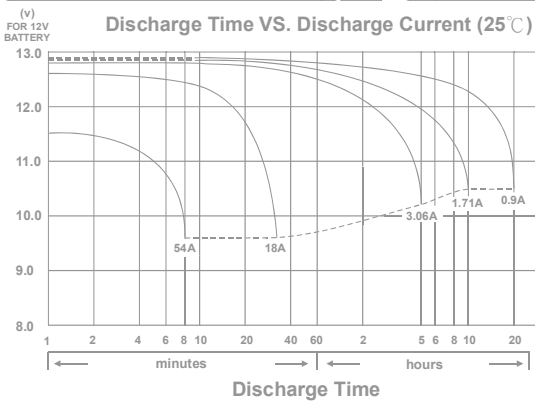
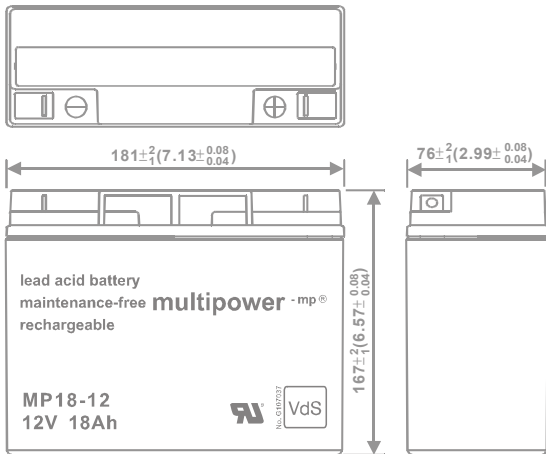
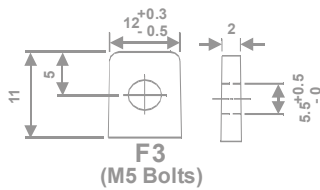


RECHARGEABLE SEALED LEAD ACID BATTERY

SPECIFICATION



MP18-12

Nominal Voltage(V) 12V

Nominal Capacity

20 hour rate	(0.9A to 10.50V)	18Ah
10 hour rate	(1.71A to 10.50V)	17.1Ah
5 hour rate	(3.06A to 10.20V)	15.3Ah
1 C	(18A to 9.60V)	10.2Ah
3 C	(54A to 9.60V)	7.2Ah

Weight Approx. 6.3kg(13.86Lbs.)

Internal Resistance (at 1KHz) Approx. 10 mΩ

Maximum Discharge Current for

5 seconds: 270A

Charging Methods at 25°C(77°F)

Cycle use:

Charging Voltage 14.4 to 15.0V

Coefficient -5.0mv/°C/cell

Maximum Charging Current: 5.4A

Standby use:

Float Charging Voltage 13.50 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

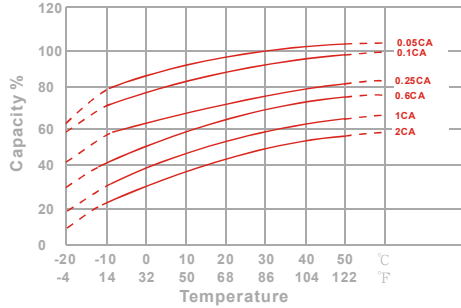
(UL94 HB flame retardant case / cover)

Terminal

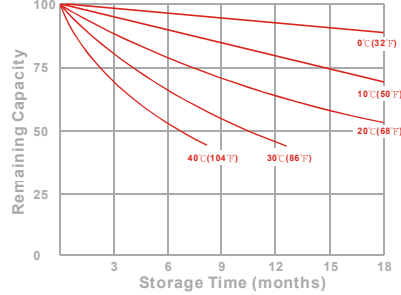
F3

CHARACTERISTIC & PERFORMANCE DATA

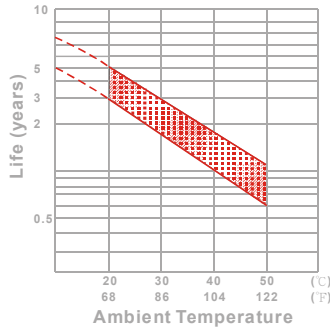
Effect of Temperature on Capacity 25°C(77°F)



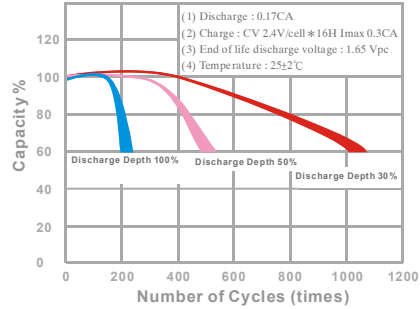
Capacity Retention Characteristic



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	604	709	778	821	832	845	857
10	min	424	485	529	556	563	572	580
15	min	384	428	458	476	481	486	492
30	min	199	214	229	239	242	245	248
60	min	122	128	133	137	138	140	142
120	min	70.4	73.6	75.4	77.9	78.5	79.2	80.1
180	min	52.4	54.5	55.9	57.1	57.5	58.0	58.6
240	min	41.2	43.0	44.1	45.0	45.3	45.7	46.2
300	min	35.7	37.1	37.8	38.4	38.6	38.9	39.3
600	min	21.3	22.0	22.5	22.9	23.0	23.2	23.4
1200	min	11.0	11.4	11.7	11.9	12.0	12.1	12.2

- 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	67.0	72.7	76.3	79.5	80.8	82.2	84.6
10	min	40.6	43.8	46.3	48.5	49.4	50.4	52.1
15	min	33.6	36.3	38.0	39.5	40.1	40.8	41.7
30	min	17.6	19.1	20.2	21.1	21.4	21.8	22.3
60	min	10.2	10.8	11.3	11.7	11.8	12.0	12.2
120	min	6.01	6.23	6.37	6.49	6.53	6.58	6.65
180	min	4.34	4.51	4.61	4.69	4.72	4.76	4.82
240	min	3.51	3.60	3.67	3.72	3.74	3.77	3.80
300	min	3.02	3.09	3.14	3.18	3.19	3.21	3.23
600	min	1.76	1.81	1.85	1.88	1.89	1.90	1.91
1200	min	0.939	0.958	0.973	0.984	0.987	0.991	0.995

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%)