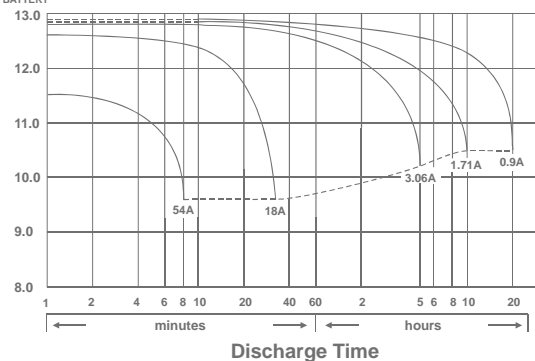


(V) FOR 12V BATTERY  
Discharge Time VS. Discharge Current (25 °C)



### MP18-12A

**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** 6.3kg(13.86Lbs.) With ±5%

**Internal Resistance (at 1KHz) Approx.** 10 mΩ

#### Maximum Discharge Current for

**5 seconds:** 270A

#### Charging Methods at 25 (77 °C)

Cycle use:

Charging Voltage 14.7 to 14.8V

Coefficient -5.0mV/°C /cell

Maximum Charging Current: 5.4A

Standby use:

Float Charging Voltage 13.5 to 13.8V

Coefficient -3.0mV/°C /cell

#### Operating Temperature Range

Charge -15 (5 °C) to 40 (104 °F)

Discharge -15 (5 °C) to 50 (122 °F)

Storage -15 (5 °C) to 40 (104 °F)

#### Charge Retention (shelf life) at 20 (68 °C)

1 month 92%

3 month 90%

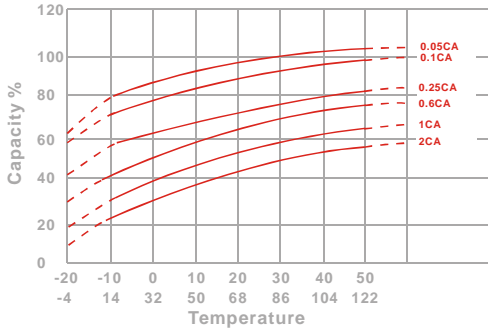
6 month 80%

**Case Material** ABS UL94 HB

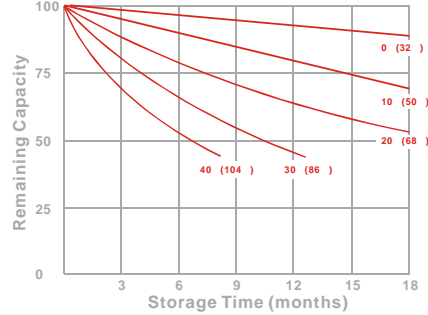
**Terminal** F3

## CHARACTERISTIC & PERFORMANCE DATA

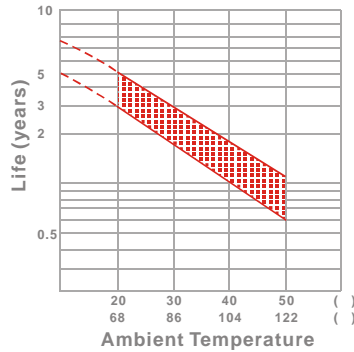
Effect of Temperature on Capacity 25 (77 °C)



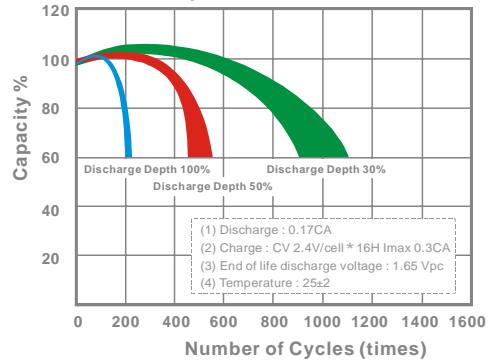
Capacity Retention Characteristic



Trickle (or float) Service Life



Cycle Service Life



### - PERFORMANCE DATA

Discharge Rates in Watts to Various End Voltages at 25 (77 °C)

Time	End Voltage							
	1.85V	1.80V	1.75V	1.70V	1.67V	1.65V	1.60V	
5	min	101	118	130	137	139	141	143
10	min	70.7	80.8	88.2	92.7	93.8	95.4	96.6
15	min	61.2	68.5	73.4	76.5	77.3	78.2	79.1
30	min	33.2	35.6	38.2	39.9	40.3	40.8	41.3
60	min	20.3	21.3	22.2	22.8	23.0	23.3	23.7
120	min	11.7	12.3	12.6	13.0	13.1	13.2	13.4
180	min	8.73	9.08	9.32	9.52	9.58	9.67	9.76
240	min	6.87	7.17	7.35	7.50	7.55	7.62	7.70
300	min	5.95	6.18	6.30	6.40	6.43	6.48	6.54
600	min	3.55	3.67	3.75	3.82	3.83	3.87	3.90
1200	min	1.83	1.90	1.95	1.98	2.00	2.02	2.03

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

Time	End Voltage							
	1.85V	1.80V	1.75V	1.70V	1.67V	1.65V	1.60V	
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<6min(+15%~-15%), 6min X<10min(+12%~-12%),10min X < 60min(+8%~-8%), X > 60min(+5%~-5%)