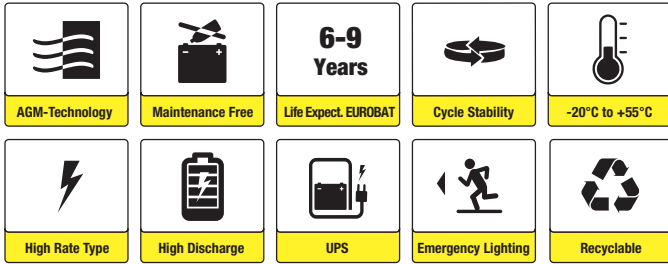




# MB12-5HR (12V5Ah)



## Applications

- UPS (High Rate)
- High Power Backup Supply
- Emergency Power Supply
- Emergency Lighting
- Starting Systems
- Power tools
- Electric starting

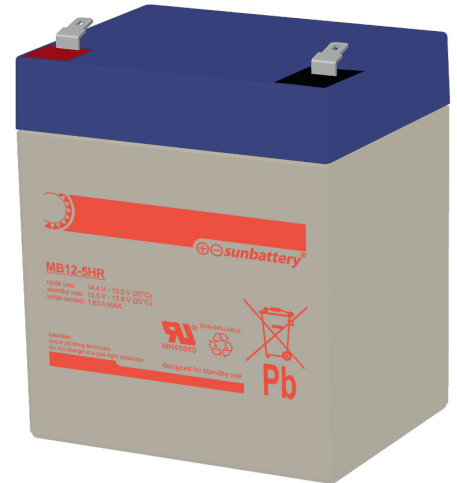
## Certificates



Conform to  
IEC60896-21&22

## Specifications

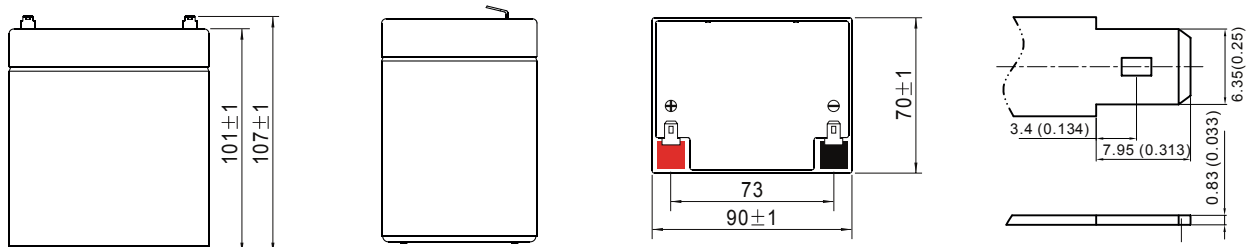
<b>Nominal Voltage</b>	12V	<b>Nominal Oper. Temp. R.</b>	25±3°C
<b>Watts (15min Rate)</b>	20.7 Watts at 1.67V/cell	<b>Cycle Use</b>	Initial Charging Current less than 1.62A. Voltage 14.4V~15.0V at 25°C. Temperature Coefficient -30mV/°C.
<b>Approx. Weight</b>	1.80kg	<b>Standby Use</b>	No limit on Initial Charging Current. Voltage 13.5V~13.8V at 25°C Temp. Coefficient -20mV/°C
<b>Terminal</b>	T2	<b>Capacity affected by Temp.</b>	40°C            103% 25°C            100% 0°C              86%
<b>Container Material</b>	ABS UL94 HB/UL94 V0	<b>Self Discharge</b>	MB batteries may be stored for up to 6 months at 25°C and then a freshening charge is required. For higher temperatures the time interval will be shorter.
<b>Rated Capacity (25°C)</b>	5.00Ah/0.50A, 10hr, 1.80V/cell 4.85Ah/0.606A, 8hr, 1.80V/cell 4.47Ah/0.894A, 5hr, 1.75V/cell 4.05Ah/1.35A, 3hr, 1.75V/cell 3.74Ah/3.74A, 1hr, 1.60V/cell	<b>Life Expectancy</b>	6-9 years according to EUROBAT
<b>Max. Discharge Current</b>	81A (5s)		
<b>Internal Resistance / Impedance (1kHz)</b>	Approx. 25mΩ		
<b>Operating Temp. Range</b>	Discharge:        -15~50°C Charge:            0-40°C Storage:           -15~40°C		



## Dimensions

### ■ T2 Terminal

Unit: mm [inches]





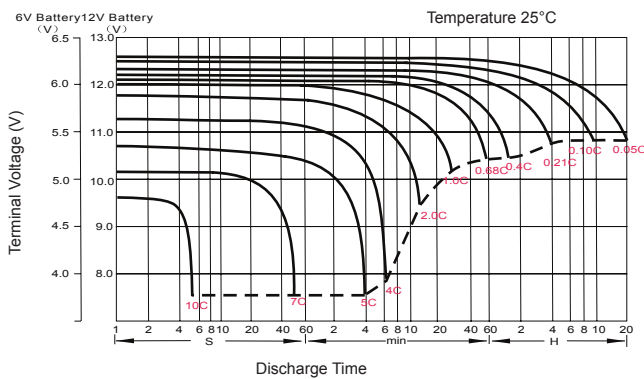
### Constant Current Discharge (Amperes) at 25°C

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	17.9	12.0	9.35	7.78	5.80	4.21	3.29	1.78	1.27	1.01	0.839	0.728	0.582	0.487	0.265
1.80V/cell	20.2	13.1	10.1	8.27	6.08	4.36	3.41	1.84	1.31	1.03	0.866	0.752	0.606	0.501	0.270
1.75V/cell	22.1	13.9	10.7	8.69	6.32	4.52	3.52	1.90	1.35	1.07	0.894	0.775	0.621	0.514	0.275
1.70V/cell	23.6	14.6	11.2	9.02	6.57	4.66	3.61	1.95	1.39	1.10	0.918	0.794	0.632	0.524	0.279
1.65V/cell	24.7	15.1	11.5	9.30	6.73	4.77	3.68	1.99	1.42	1.12	0.934	0.807	0.640	0.529	0.281
1.60V/cell	25.5	15.5	11.8	9.49	6.83	4.85	3.74	2.02	1.43	1.14	0.946	0.818	0.646	0.534	0.282

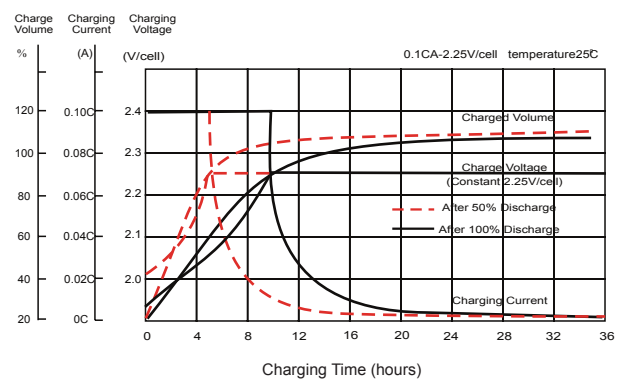
### Constant Power Discharge (Watts/cell) at 25°C

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	33.5	22.4	17.6	14.7	11.0	8.08	6.35	3.47	2.48	1.97	1.64	1.43	1.15	0.964	0.524
1.80V/cell	36.5	24.1	18.6	15.5	11.5	8.30	6.54	3.55	2.54	2.01	1.69	1.47	1.19	0.989	0.534
1.75V/cell	39.6	25.2	19.6	16.1	11.8	8.56	6.73	3.65	2.61	2.07	1.74	1.51	1.22	1.015	0.544
1.70V/cell	41.7	26.2	20.3	16.6	12.2	8.77	6.88	3.75	2.68	2.13	1.78	1.55	1.24	1.034	0.551
1.65V/cell	43.0	26.7	20.7	16.9	12.4	8.92	6.97	3.81	2.72	2.16	1.81	1.57	1.25	1.043	0.554
1.60V/cell	43.5	27.0	20.8	17.0	12.4	8.99	7.04	3.85	2.74	2.18	1.82	1.58	1.26	1.049	0.556

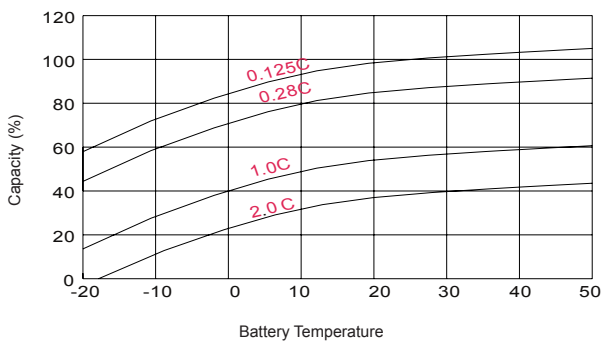
### Discharge Characteristics



### Float Charging Characteristics



### Temperature Effects in Relation to Battery Capacity



### Effect of Temperature on Long Term Float Life

