

#### MHB MS Series--Small-size batteries

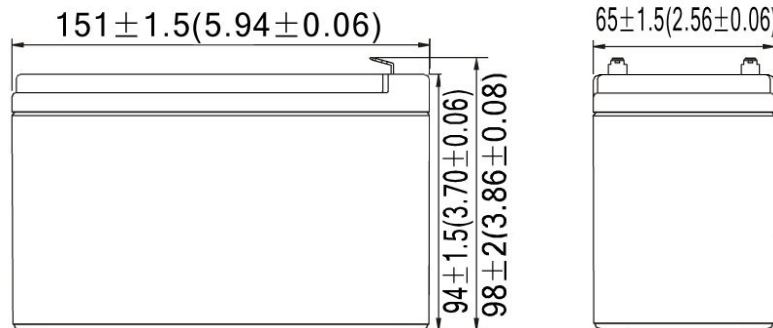
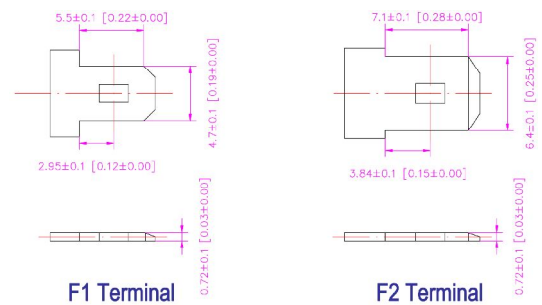
- 100% before shipment testing, stable and reliable long-term quality
- patented grid alloy formula and updated manufacturing technique
- completely sealed and maintenance-free, low self-discharge
- Excellent charging and re-charging acceptance
- Cycle use: More than 260 cycles at 100% DOD
- Floating & standby use: 3-5 years

#### Application:

- Alarm System
- Cable Television
- Communication Equipment
- Emergency Power System
- Security System
- Medical Equipment
- UPS
- Power tools
- Control Equipment
- Toys

#### Construction:

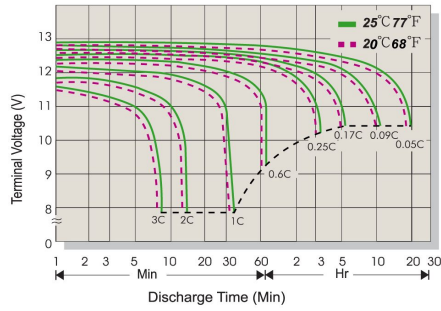
- Component .....Raw material
- Positive .....Lead dioxide
- Negative .....Lead
- Container .....ABS
- Cover .....ABS
- Sealant .....Epoxy
- Safety valve .... Rubber
- Terminal .....Copper
- Separator .....Fiber glass
- Electrolyte .....Sulfuric acid



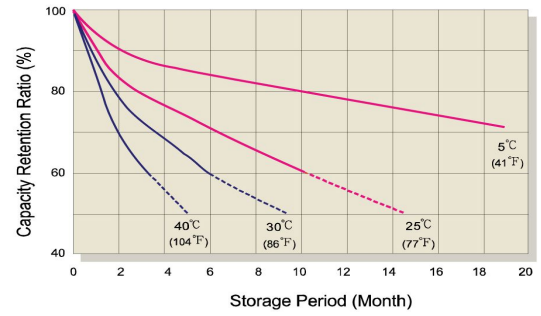
#### Speification:

Battery Model	MS 7-12A 12V7.0AH			
Designed Floating Life	3~5 Years			
Capacity (25°C)	20HR(0.35A,10.5V)	10HR(0.673A,10.5V)	5HR(1.26A,10.5V)	1HR(4.19A,10.5V)
	7.00AH	6.73AH	6.30AH	4.19AH
Dimensions	Length	Width	Height	Total Height
	151mm (5.94inch)	65mm (2.56inch)	94mm (3.70inch)	98mm (3.86inch)
Approx. Weight	2.15Kg (4.74 lbs) ±5%			
Internal Resistance	Full charged at 25°C : ≤33mΩ			
Self Discharge	3% of capacity declined per month at (25°C)			
SCapacity Affected by Temp.(20HR)	40°C	25°C	0°C	-15°C
	102%	100%	85%	65%
Charge Voltage(25oC)	Cycle use		Float use	
	14.4-15.0V(-30mV/°C), max. Current: 2.10A		13.6-13.8V (-20mV/°C)	

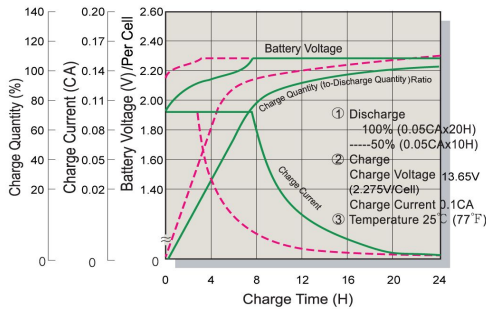
### Terminal Voltage (V) and Discharge Time



### Capacity Retention Characteristic



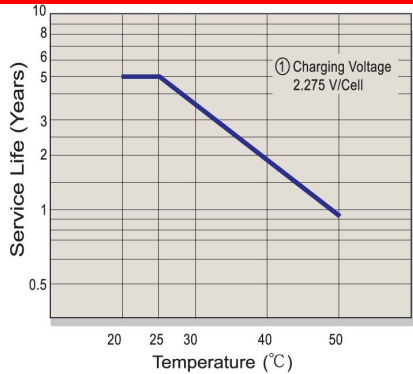
### Battery Voltage and Charge Time for Standby Use



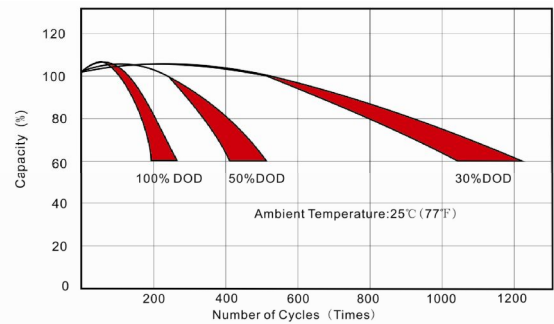
### Battery Voltage and Charge Time for Cycle Use



### Tickle(or Float) Service Life



### Cycle Service Life



### Constant Current Discharge (CC, Unit: A) at 25°C (77°F)

F.V/Time	5Min	10Min	15Min	30Min	1Hr	2Hr	3Hr	4Hr	5Hr	6Hr	10Hr	20Hr
1.85V/Cell	19.31	14.26	10.34	6.96	4.04	2.31	1.77	1.413	1.213	0.989	0.649	0.337
1.80V/Cell	19.68	14.53	10.54	7.09	4.12	2.36	1.80	1.440	1.237	1.008	0.661	0.344
1.75V/Cell	20.04	14.81	10.74	7.23	4.19	2.40	1.84	1.467	1.260	1.027	0.673	0.350
1.70V/Cell	21.85	15.69	11.38	7.51	4.27	2.45	1.87	1.493	1.282	1.045	0.685	0.356
1.67V/Cell	24.05	17.03	12.35	7.93	4.31	2.47	1.89	1.509	1.296	1.056	0.693	0.360
1.60V/Cell	26.06	17.91	12.99	8.27	4.36	2.50	1.91	1.525	1.310	1.068	0.700	0.364

### Constant Power Discharge (CP, Unit: W) at 25°C (77°F)

F.V/Time	5Min	10Min	15Min	30Min	1Hr	2Hr	3Hr	4Hr	5Hr	6Hr	10Hr	20Hr
1.85V/Cell	37.65	27.81	20.16	13.57	7.88	4.51	3.45	2.76	2.37	1.93	1.26	0.66
1.80V/Cell	38.37	28.34	20.55	13.83	8.03	4.60	3.52	2.81	2.41	1.97	1.29	0.67
1.75V/Cell	39.09	28.87	20.94	14.09	8.18	4.69	3.58	2.86	2.46	2.00	1.31	0.68
1.70V/Cell	42.60	30.60	22.19	14.65	8.32	4.77	3.65	2.91	2.50	2.04	1.34	0.69
1.67V/Cell	46.90	33.20	24.08	15.47	8.41	4.82	3.68	2.94	2.53	2.06	1.35	0.70
1.60V/Cell	50.81	34.93	25.33	16.13	8.50	4.87	3.72	2.97	2.55	2.08	1.37	0.71