

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

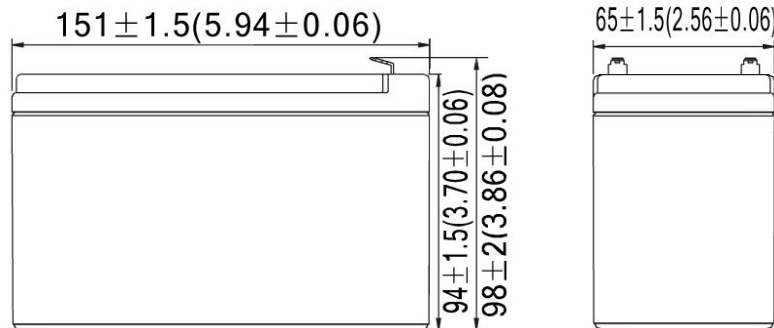
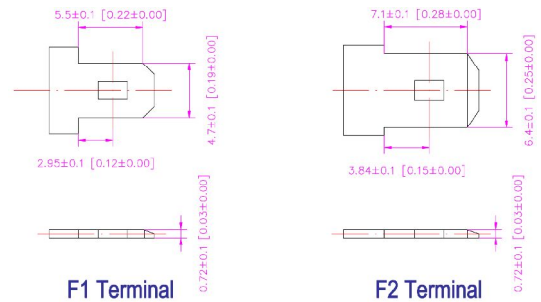
- 100% before shipment testing, stable and reliable long-term quality
- patented grid alloy formula and updated manufacturing technique
- completely sealed and maintenance-free, low self-discharge
- Excellent charging and re-charging acceptance
- Cycle use: More than 260 cycles at 100% DOD
- Floating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

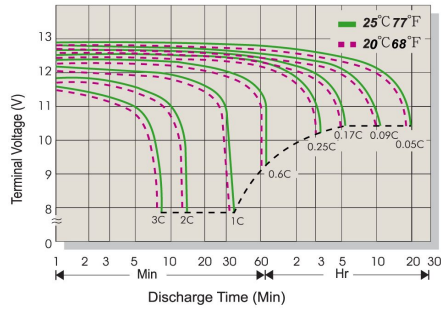
- Component .....Raw material
- Positive .....Lead dioxide
- Negative .....Lead
- Container .....ABS
- Cover .....ABS
- Sealant .....Epoxy
- Safety valve .... Rubber
- Terminal .....Copper
- Separator .....Fiber glass
- Electrolyte .....Sulfuric acid



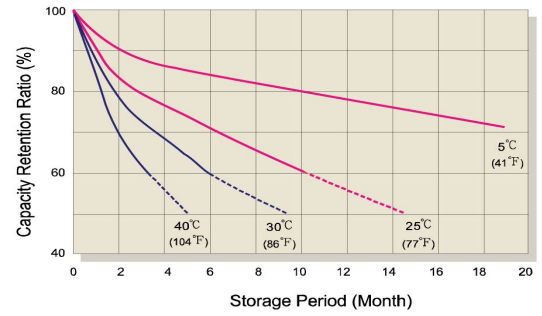
#### Speification:

Battery Model	MS 7-12B 12V7.0AH			
Designed Floating Life	3~5 Years			
Capacity (25℃)	20HR(0.35A,10.5V)	10HR(0.663A,10.5V)	5HR(1.19A,10.5V)	1HR(4.05A,10.5V)
	7.00AH	6.63AH	5.95AH	4.05AH
Dimensions	Length	Width	Height	Total Height
	151mm (5.94inch)	65mm (2.56inch)	94mm (3.70inch)	98mm (3.86inch)
Approx. Weight	2.05Kg (4.52 lbs) ±5%			
Internal Resistance	Full charged at 25℃ : ≤35mΩ			
Self Discharge	3% of capacity declined per month at (25℃)			
Capacity Affected by Temp.(20HR)	40℃	25℃	0℃	-15℃
	102%	100%	85%	65%
Charge Voltage(25oC)	Cycle use		Float use	
	14.4-15.0V(-30mV/℃), max. Current: 2.10A		13.6-13.8V (-20mV/℃)	

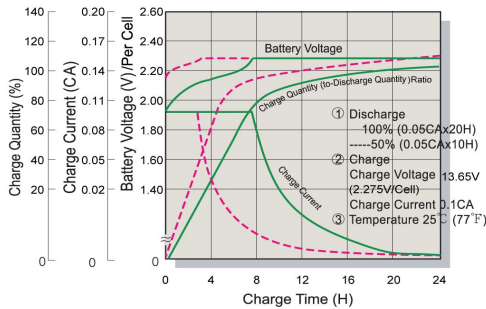
### Terminal Voltage (V) and Discharge Time



### Capacity Retention Characteristic



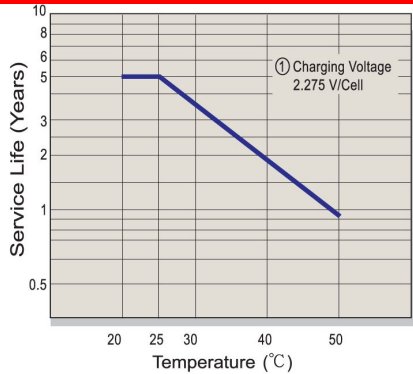
### Battery Voltage and Charge Time for Standby Use



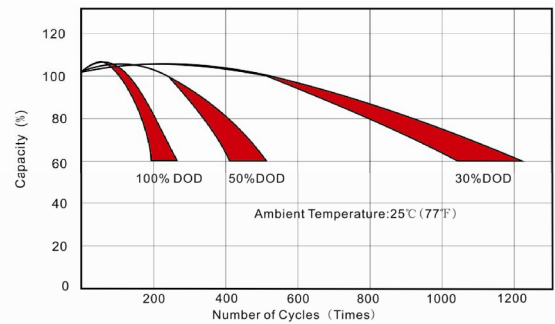
### Battery Voltage and Charge Time for Cycle Use



### 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	18.30	13.05	10.00	6.62	3.90	2.28	1.74	1.380	1.146	0.979	0.639	0.337
1.80V/Cell	18.64	13.30	10.19	6.75	3.98	2.32	1.77	1.406	1.168	0.998	0.651	0.344
1.75V/Cell	18.99	13.55	10.39	6.88	4.05	2.37	1.80	1.432	1.190	1.017	0.663	0.350
1.70V/Cell	20.70	14.36	11.01	7.15	4.12	2.41	1.83	1.458	1.211	1.034	0.675	0.356
1.67V/Cell	22.79	15.58	11.94	7.55	4.17	2.44	1.85	1.473	1.224	1.045	0.682	0.360
1.60V/Cell	24.69	16.39	12.57	7.87	4.21	2.46	1.87	1.489	1.237	1.057	0.689	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	35.68	25.44	19.51	12.92	7.61	4.45	3.38	2.69	2.23	1.91	1.25	0.66
1.80V/Cell	36.36	25.93	19.88	13.16	7.76	4.53	3.45	2.74	2.28	1.95	1.27	0.67
1.75V/Cell	37.04	26.41	20.25	13.41	7.90	4.62	3.51	2.79	2.32	1.98	1.29	0.68
1.70V/Cell	40.37	28.00	21.47	13.94	8.04	4.70	3.58	2.84	2.36	2.02	1.32	0.69
1.67V/Cell	44.45	30.37	23.29	14.72	8.13	4.75	3.61	2.87	2.39	2.04	1.33	0.70
1.60V/Cell	48.15	31.96	24.51	15.35	8.22	4.80	3.65	2.90	2.41	2.06	1.34	0.71