valve regulated
sealed lead acid type
recharg eable battery

sun battery©

MB 12-7HR (12V 7.6AH)

Specification

Nominal Voltage	12V	
Nominal Capacity(8HR)	7.6AH	
Dimension	Length	151±1mm (5.95 inches)
	Width	65±1mm (2.56 inches)
	Container Height	94.5±1mm (3.72 inches)
	Total Height (with Terminal)	100±1mm (3.94 inches)
Approx Weight	Approx 2.75 kg (6.06lbs)	
Terminal	T2	
Container Material	ABS	
Rated Capacity	7.94 AH/0.794A	(10hr ,1.80V/cell,25°C/77°F)
	7.60 AH/0.95A	(8hr,1.75V/cell,25°C/77°F)
	6.76 AH/1.35A	(5hr,1.75V/cell,25°C/77°F)
	6.24 AH/2.08A	(3hr,1.75V/cell,25°C/77°F)
	5.42 AH/5.42A	(1hr,1.60V/cell,25°C/77°F)
Max. Discharge Current	114A (5s)	
Internal Resistance	Approx 18mΩ	
Operating Temp.Range	Discharge : -15～50°C (5～122°F) Charge : 0～40°C (32～104°F) Storage : -15～40°C (5～104°F)	
Nominal Operating Temp. Range	25±3°C (77±5°F)	
Cycle Use	Initial Charging Current less than 2.28A.Voltage 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C	
Standby Use	No limit on Initial Charging Current Voltage 13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C	
Capacity affected by Temperature	40°C (104°F)	103%
	25°C (77°F)	100%
	0°C (32°F)	86%
Self Discharge	MB series batteries may be stored for up to 6 months at 25°C(77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter.	
Life expectancy	6~10 years at 20°C with charge voltage2.25V/cell	



Applications

- *All purpose*
- *Uninterruptable Power Supply (UPS)*
- *Electric Power System (EPS)*
- *Emergency backup power supply*
- *Emergency light*
- *Railway signal*
- *Aircraft signal*
- *Alarm and security system*
- *Electronic apparatus and equipment*
- *Communication power supply*
- *DC power supply*
- *Auto control system*

MH45680 ISO14001 Intertek ETL SEMKO

ISO9001

Comform to:
IEC60896-21&22 and/or IEC61427

Constant Current Discharge (Amperes) at 25 °C (77 °F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	14.8	12.1	9.72	8.59	6.70	5.07	4.19	2.47	1.90	1.50	1.20	1.07	0.880	0.749	0.428
1.80V/cell	19.9	15.4	11.7	10.2	7.91	5.90	4.70	2.70	2.04	1.60	1.29	1.14	0.934	0.794	0.432
1.75V/cell	22.5	17.0	12.8	10.9	8.21	6.12	4.91	2.80	2.08	1.64	1.35	1.17	0.950	0.802	0.435
1.70V/cell	24.7	18.5	13.7	11.5	8.54	6.37	5.07	2.91	2.14	1.68	1.38	1.20	0.963	0.810	0.444
1.65V/cell	27.3	20.0	14.6	12.2	9.01	6.53	5.24	2.99	2.23	1.74	1.40	1.23	0.979	0.827	0.450
1.60V/cell	30.1	21.7	15.6	13.0	9.52	6.80	5.42	3.09	2.30	1.79	1.44	1.25	0.988	0.835	0.452

Constant Power Discharge (Watts) at 25 °C (77°F)

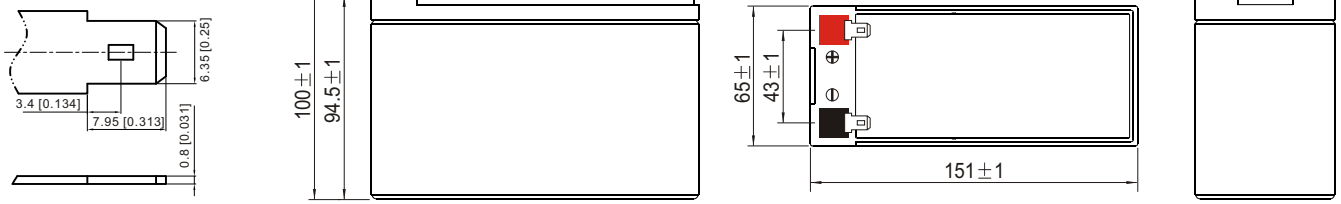
F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	27.1	22.3	18.1	16.2	12.8	9.75	8.08	4.80	3.70	2.93	2.35	2.09	1.74	1.48	0.848
1.80V/cell	36.1	28.2	21.6	18.9	14.8	11.3	9.01	5.20	3.96	3.11	2.51	2.24	1.84	1.57	0.854
1.75V/cell	39.8	30.5	23.3	20.1	15.3	11.6	9.38	5.37	4.02	3.17	2.63	2.29	1.87	1.58	0.860
1.70V/cell	42.6	32.5	24.6	21.0	15.8	12.0	9.65	5.58	4.12	3.25	2.69	2.34	1.89	1.60	0.876
1.65V/cell	46.3	34.7	25.9	22.1	16.5	12.2	9.90	5.70	4.28	3.35	2.71	2.38	1.91	1.63	0.887
1.60V/cell	49.9	36.8	27.3	23.3	17.3	12.6	10.2	5.86	4.39	3.44	2.77	2.42	1.93	1.64	0.890

Updated: 17.10.2013

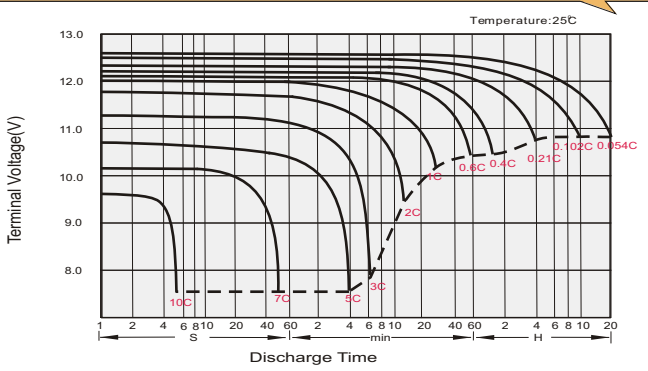
Dimensions

T2 Terminal

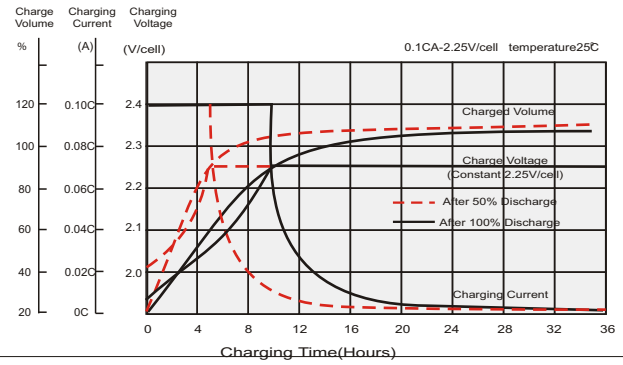
Unit: mm [inches]



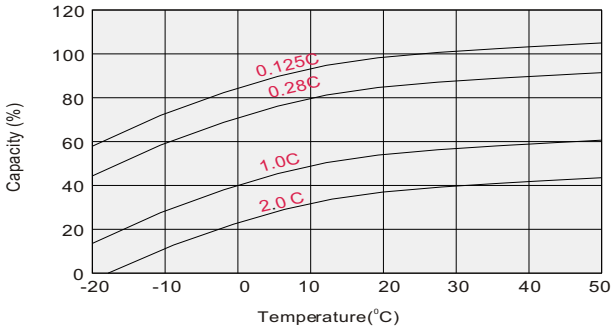
Discharge Characteristics



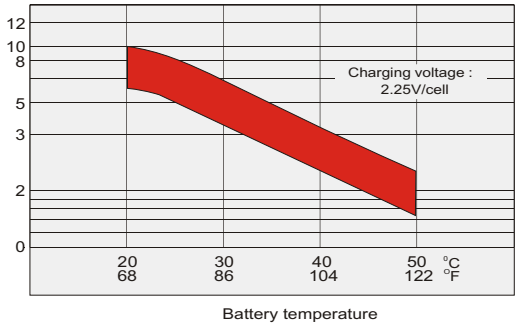
Float Charging Characteristics



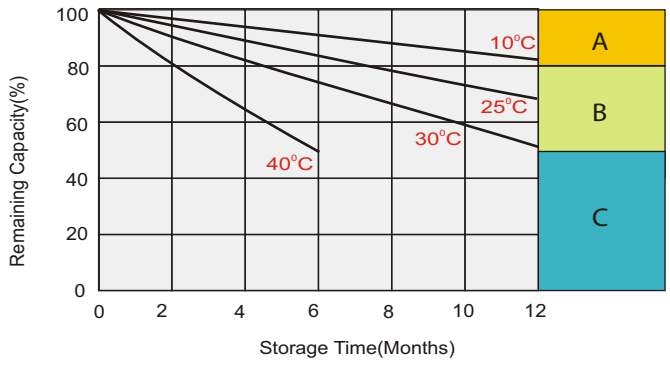
Temperature Effects in Relation to Batter Capacity



Effect of Temperature on Long Term Float Life



Cycle Life in Relation to Depth of Discharge



A No supplementary charge required
(Carry out supplementary charge before use if 100% capacity is required.)

B Supplementary charge required before use.Optional charging way as below:
1.Charged for above 3 days at limted current 0.25CA and constant volatge 2.25V/cell.
2.Charged for above 20hours at limted current 0.25CA and constant volatge 2.45V/cell.
3.Charged for 8~10hours at limted current 0.05CA .

C Supplementary charge may often fail to recover the capacity.
The battery should never be left standing till this is reached.