

MHB MM Series—Medium-size Battery

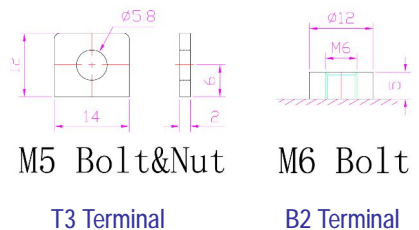
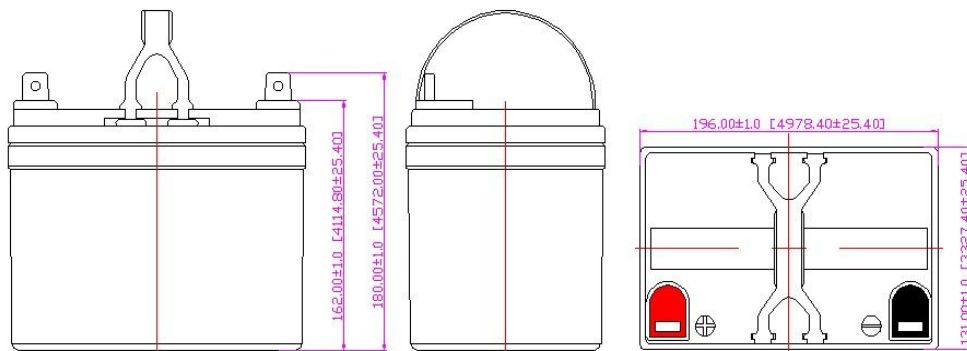
- High performance, completely maintenance-free, low self-discharge
- 100% precise quality testing, stable quality and high reliable performance
- Unique grid alloy formula and updated manufacturing technique
- Floating & standby use: up to 8 years
- Cycle use 1: Up to 260 cycles at 100% DOD
- Cycle use 2: Up to 500 cycles at 50% DOD

Application:

- Telecommunications
- Uninterruptable Power Supply (UPS)
- Electric Power System (EPS)
- Emergency backup power supply
- Alarm and security system
- Communication power supply
- DC power supply
- Auto control system

Construction:

- ComponentRaw material
- PositiveLead dioxide
- NegativeLead
- ContainerABS
- CoverABS
- SealantEpoxy
- Safety valve Rubber
- TerminalCopper/Pb
- SeparatorFiber glass
- Electrolyte Sulfuric acid

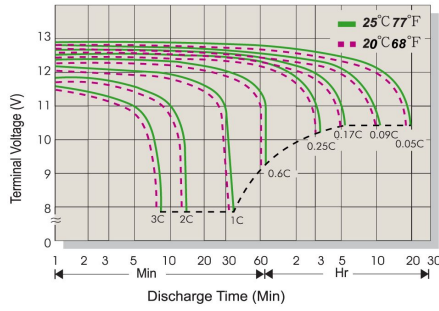


Specification:

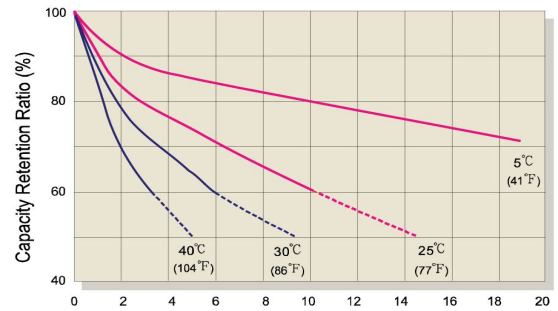
Battery Model	MM 33-12Q 12V33AH			
Designed Floating Life	Up to 5 Years			
Capacity (25°C)	20HR(1.63A,10.8V)	10HR(3.27A,10.8V)	5HR(5.38A,10.5V)	1HR(18.2A,10.5V)
	32.60AH	32.70AH	26.90AH	18.20AH
Dimensions	Length	Width	Height	Total Height
	196mm (7.72inch)	131mm (5.16inch)	161mm (6.34inch)	180mm (7.09inch)
Approx. Weight	10.80Kg (23.81 lbs) ±5%			
Internal Resistance	Full charged at 25°C: ≤16.0mΩ			
Self Discharge	2% of capacity declined per month at (25°C)			
Capacity Affected by Temp.(20HR)	40°C	25°C	0°C	-15°C
	102%	100%	85%	65%
Charge Voltage(25°C)	Cycle use		Float use	
	14.40-15.00V(-30mV/°C), max. Current:9.90A		13.50-13.80V (-20mV/°C)	

FUJIAN MINHUA POWER SOURCE CO., LTD.

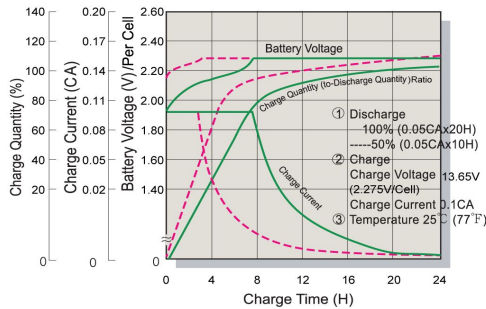
Terminal Voltage (V) and Discharge Time



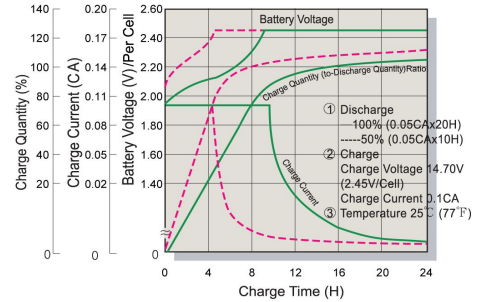
Capacity Retention Characteristic



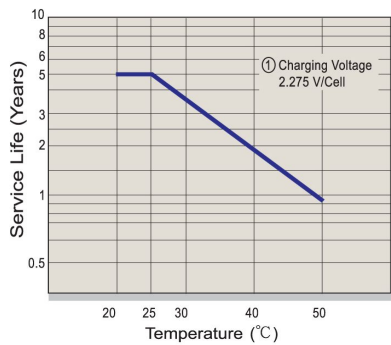
Battery Voltage and Charge Time for Standby Use



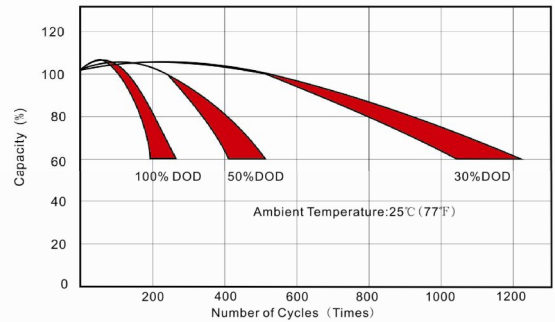
Battery Voltage and Charge Time for Cycle Use



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	73.8	54.3	47.2	28.5	16.8	9.9	7.4	6.21	5.11	4.70	3.13	1.61
1.80V/Cell	76.6	56.4	49.0	29.5	17.5	10.3	7.7	6.46	5.32	4.90	3.27	1.63
1.75V/Cell	84.3	59.2	51.4	30.7	18.2	10.6	7.9	6.53	5.38	4.95	3.30	1.66
1.70V/Cell	94.2	62.1	53.9	32.2	18.5	10.8	8.1	6.59	5.43	5.00	3.33	1.71
1.67V/Cell	104.2	64.9	56.3	33.1	19.2	11.1	8.3	6.66	5.48	5.04	3.36	1.73

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	140.2	103.3	89.6	54.1	31.9	18.8	14.0	11.79	9.71	8.93	5.96	3.06
1.80V/Cell	145.5	107.2	93.1	56.1	33.2	19.5	14.6	12.28	10.11	9.31	6.20	3.19
1.75V/Cell	160.1	112.6	97.7	58.4	34.5	20.1	15.0	12.41	10.21	9.40	6.27	3.23
1.70V/Cell	179.0	117.9	102.4	61.2	35.2	20.5	15.3	12.53	10.31	9.49	6.33	3.26
1.67V/Cell	197.9	123.3	107.0	62.9	36.5	21.1	15.7	12.65	10.42	9.58	6.39	3.29