MinuteBank

VRLA Battery **MM 40-12** 12V40AH

Medium-size Battery

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:10 to 12 years (Design life is based on ideal conditions; actual battery lifespan may vary with usage, maintenance, and environment.)
- Cycle use 1: Up to 260 cycles at 100% DOD
- Cycle use 2: Up to 500 cycles at 50% DOD

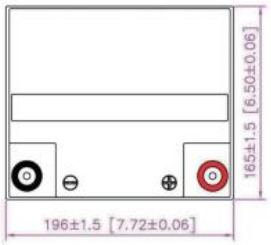
Application:

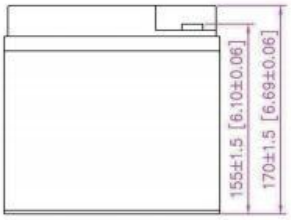
- Telecommunications
- Uninterruptible Power Supply (UPS)
- Electric Power System (EPS)
- Emergency backup power supply
- Alarm and security system
- Communication power supply
- DC power supply
- Auto control system

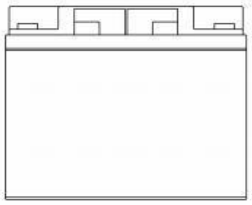
Construction:

- Component.....Raw material
- Positive.....Lead dioxide
- Negative.....Lead
- Container.....UL94-HB (Optional UL94-V0)
- Cover.....UL94-HB (Optional UL94-V0)
- Sealant..... Epoxy
- Safety valve.....Rubber
- Terminal.....Copper/Pb
- Separator..... Fiber glass
- Electrolyte.....Sulfuric acid

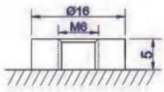
ISO9001 ISO14001 ISO45001 CE







M6 Bolt & Nut
T11 Terminal



M6 Bolt
B4 Terminal

Specification:

Battery Model	MM 40-12 12V40AH			
Designed Floating Life	10 to 12 years			
Capacity (25℃)	20HR(2.080A,10.8V)	10HR(4.000A,10.8V)	5HR(6.740A,10.5V)	1HR(22.200A,10.5V)
	41.60AH	40.00AH	33.70AH	22.20AH
Dimensions	Length	Width	Height	Total Height
	196 mm	165 mm	170mm	170mm
Approx. Weight	13.20Kg ±3%			
Internal Resistance	Full charged at 25℃: ≤7.5 mΩ			
Self Discharge	2% of capacity declined per month at (25℃)			
max discharge current	176A			
Capacity Affected by Temp.(20HR)	40℃	25℃	0℃	-15℃
	102%	100%	85%	65%
Charge Voltage(25℃)	Cycle use		Float use	
	14.40-15.00V(-30mV/℃), max. Current:10.00A		13.50-13.80V (-20mV/℃)	

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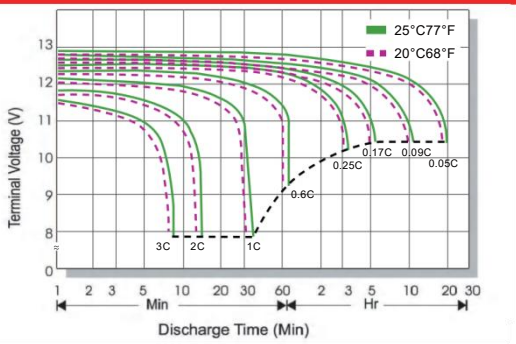
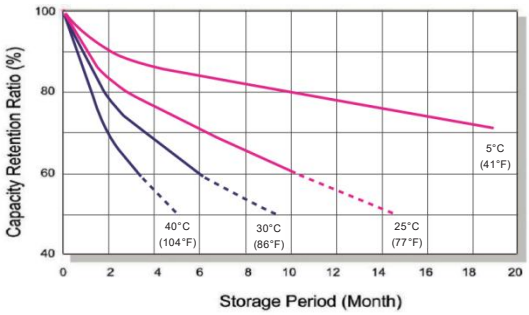
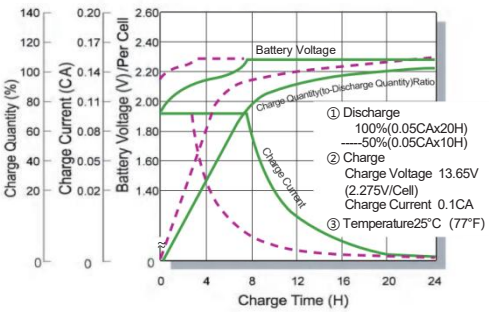
Terminal Voltage (V) and Discharge Time



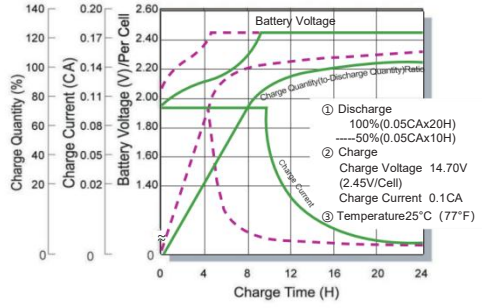
Capacity Retention Characteristic



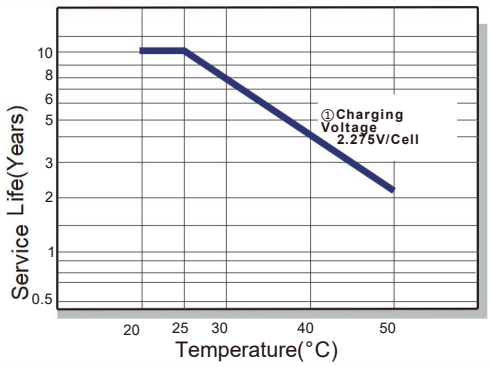
Battery Vlotage and Charge Time for Standby Use



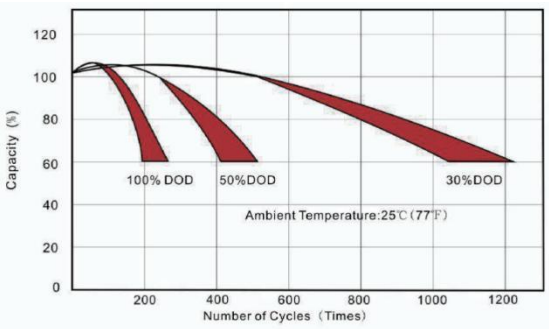
Battery Vlotage and Charge Time for Cycle Use



Tickle(or Float) Service Life



Cycle Service Life



Constant Current Discharge(CC,Unit:A) at 25℃(77℉)

F.V/Time	5Min	10Min	15Min	30Min	1Hr	2Hr	3Hr	4Hr	5Hr	6Hr	10Hr	20Hr
1.85V/Cell	96.0	60.2	56.8	42.1	21.4	14.20	9.49	7.64	6.49	5.98	3.92	2.04
1.80V/Cell	97.9	67.24	57.9	42.9	21.8	14.48	9.67	8.16	6.61	6.10	4.00	2.08
1.75V/Cell	99.8	72.5	59.0	43.7	22.2	14.75	9.86	8.32	6.74	6.21	4.07	2.12
1.70V/Cell	108.7	77.7	62.6	45.5	22.6	15.01	10.03	8.47	6.86	6.32	4.14	2.15
1.67V/Cell	119.7	80.1	67.8	48.0	22.8	15.17	10.14	8.60	6.93	6.39	4.19	2.18
1.60V/Cell	129.7	82.8	71.4	50.1	23.1	15.33	10.25	8.71	7.00	6.46	4.23	2.20

Constant Power Discharge (CP,Unit:W) at 25℃(77℉)

F.V/Time	5Min	10Min	15Min	30Min	1Hr	2Hr	3Hr	4Hr	5Hr	6Hr	10Hr	20Hr
1.85V/Cell	171.0	111.2	105.7	77.0	40.2	26.84	18.13	15.7	12.52	11.60	7.68	4.02
1.80V/Cell	174.3	124.6	107.7	78.5	41.0	27.37	18.48	16.6	12.76	11.83	7.84	4.10
1.75V/Cell	177.6	132.9	109.8	80.0	41.7	27.88	18.83	16.9	13.00	12.05	7.98	4.18
1.70V/Cell	193.6	138.8	116.4	83.3	42.5	28.37	19.16	17.2	13.24	12.26	8.11	4.24
1.67V/Cell	213.1	142.0	126.2	87.8	42.9	28.67	19.36	17.4	13.38	12.40	8.21	4.29
1.60V/Cell	230.8	146.0	132.7	91.7	43.4	15.33	19.57	17.5	13.51	12.53	8.29	4.33