MinuteBank

VRLA Battery **MS5-12** 12V5.0AH

MS Series Battery

MS Series

Small-size Battery Battery

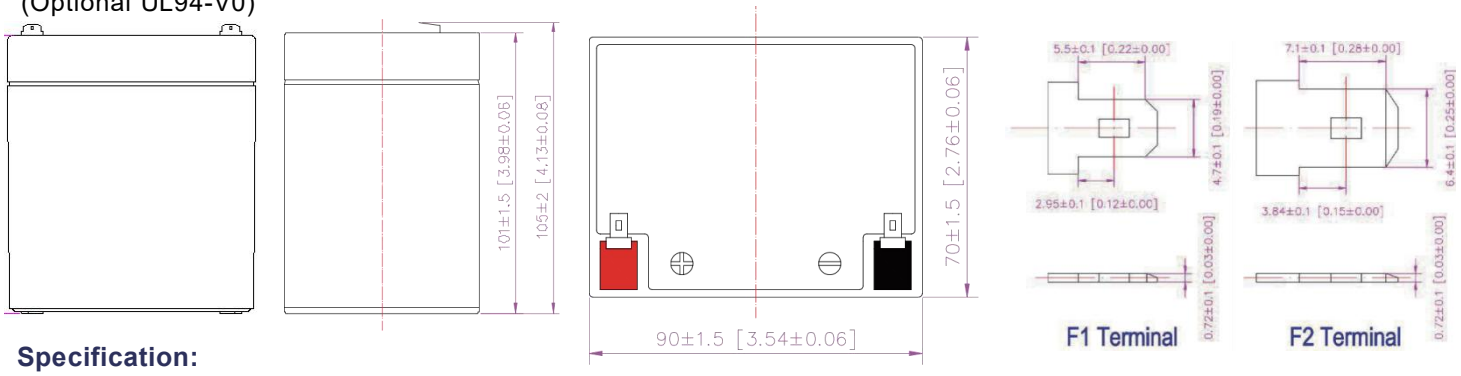
- High performance, completely maintenance-free, low self-discharge
- 100% precise quality testing, stable quality and high reliable performance
- Unique grid alloy formula and updated manufacturing technique
- Floating & standby use:10 to 12 years (Design life is based on ideal conditions; actual battery 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



Specification:

Battery Model	MS 5-12 12V5.0AH			
Designed Floating Life	3～5Years			
Capacity (25℃)	20HR(0.250A,10.5V)	10HR(0.480A,10.5V)	5HR(0.780A,10.5V)	1HR(2.900A,10.5V)
	5.00 AH	4.80AH	3.90AH	2.90AH
Dimensions	Length	Width	Height	Total Height
	90 mm	70 mm	101 mm	105 mm
Approx. Weight	1.60Kg ±3%			
Internal Resistance	Full charged at 25℃ : ≤26.5mΩ			
Self Discharge	2% of capacity declined per month at (25℃)			
max discharge current	28.5A			
Capacity Affected by Temp.(20HR)	40℃	25℃	0℃	-15℃
	102%	100%	85%	65%
Charge Voltage(25℃)	Cycle use		Float use	
	14.4-15.0V(-30mV/℃), max. Current: 1.50A		13.5-13.8V (-20mV/℃)	

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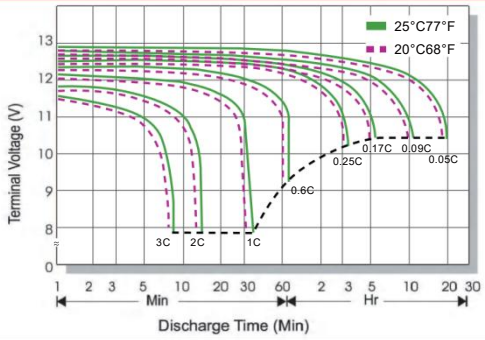
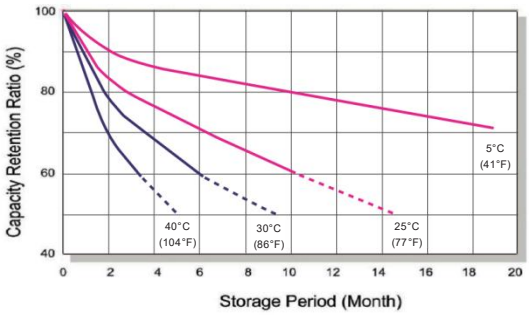
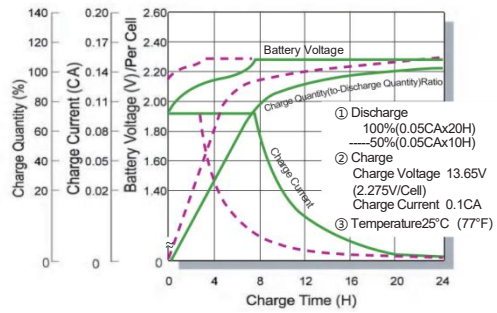
Terminal Voltage (V) and Discharge Time



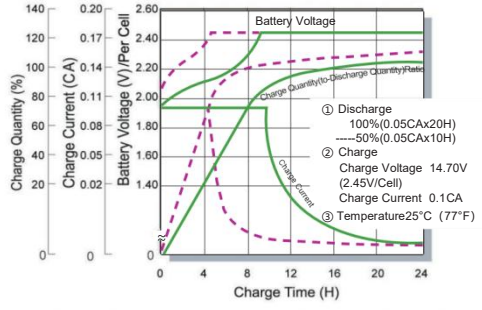
Capacity Retention Characteristic



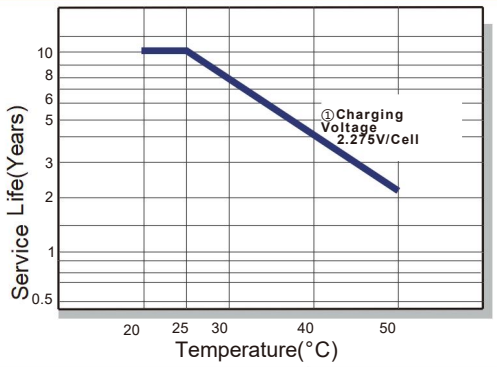
Battery Vlotage and Charge Time for Standby Use



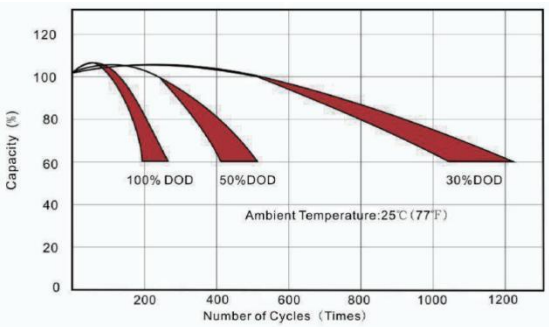
Battery Vlotage and Charge Time for Cycle Use



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
1.80V/Cell	16.3	11.7	9.3	5.0	2.8	1.62	1. 15	0.97	0.77	0.70	0.48	0.25
1.75V/Cell	16.6	11.9	9.5	5. 1	2.9	1.65	1. 17	0.99	0.78	0.71	0.48	0.25
1.70V/Cell	17. 1	12.2	9.7	5.2	3.0	1.70	1.21	1.02	0.81	0.73	0.50	0.26
1.67V/Cell	17.7	12.7	10. 1	5.5	3. 1	1.76	1.26	1.06	0.84	0.76	0.52	0.27
1.60V/Cell	18.7	13.4	10.7	5.8	3.3	1.86	1.33	1.12	0.89	0.80	0.55	0.28

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

F.V/Time	5Min	10Min	15Min	30Min	1Hr	2Hr	3Hr	4Hr	5Hr	6Hr	10Hr	20Hr
1.80V/Cell	29.8	21.3	17.2	9.2	5.3	3.05	2.20	1.89	1.48	1.35	0.93	0.48
1.75V/Cell	30.3	21.7	17.6	9.3	5.4	3. 11	2.24	1.93	1.51	1.37	0.95	0.49
1.70V/Cell	31.2	22.4	18. 1	9.6	5.6	3.20	2.31	1.98	1.56	1.41	0.98	0.51
1.67V/Cell	32.4	23.3	18.8	10.0	5.8	3.33	2.40	2.06	1.62	1.47	1.01	0.53
1.60V/Cell	34.3	24.6	19.9	10.5	6. 1	3.51	2.53	2.18	1.71	1.55	1.07	0.56