



MS12-12(12V12Ah)

Rechargeable VRLA Battery



FEATURES

- AGM technology for efficient gas recombination and lower I.R.
- Individually tank-formated plates optimize uniformity of cell
- high performance alloy to secure corrosion-proof feature
- long service life, float or cyclic application
- Maintenance-free operation
- Sealed construction, no electrolyte leakage or spill
- Computer-aided design and manufacturing ensures quality products through control of process and standards

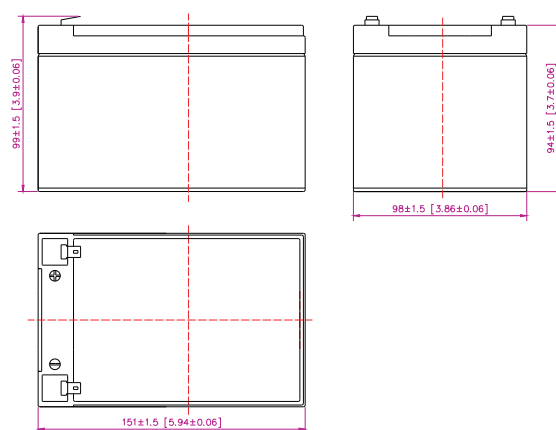
SPECIFICATION

Nominal Voltage	12V
Nominal Capacity	12Ah@20Hr-rate to 1.75V/cell
Approx. Weight	3.44Kg (7.58Lbs)
Internal Resistance	15.5mΩ(Fully Charged)@25°C
Self-Discharge	Average 3% of capacity declined per month@25°C
Nominal Operating Temp.	25±3°C (77±5°F)
Operating Temp. Range	Discharge: -20°C ~50°C (-4 ~122°F) Charge: -15~40°C (5 ~104°F) Storage: -20°C ~40°C (-4 ~104°F)
Max. Discharge Current	180A(5 sec.)
Capacity Affected by Temp.	40°C (104°F) 102% 25°C (77°F) 100% 0°C (32°F) 85% -15°C (5°F) 65%
Container Material	ABS(UL94-HB,UL94-V0 is optional)

OUTER DIMENSION

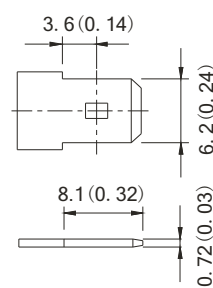
- Length 151±1.5(5.94±0.06)
- Width 98±1.5(3.86±0.06)
- Height 94±1.5(3.70±0.06)
- Total height 98±2.0(3.86±0.06)

Unit: mm(inch)

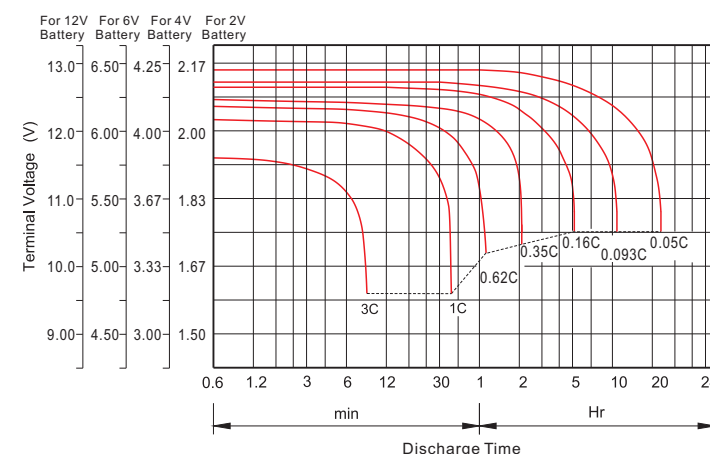


Terminal Type

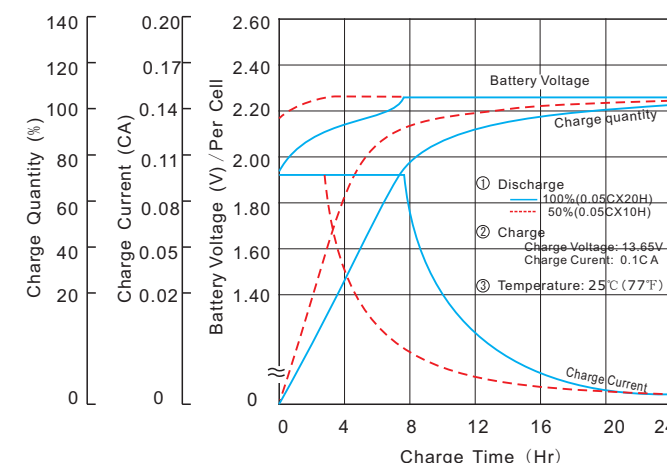
- Terminal F2



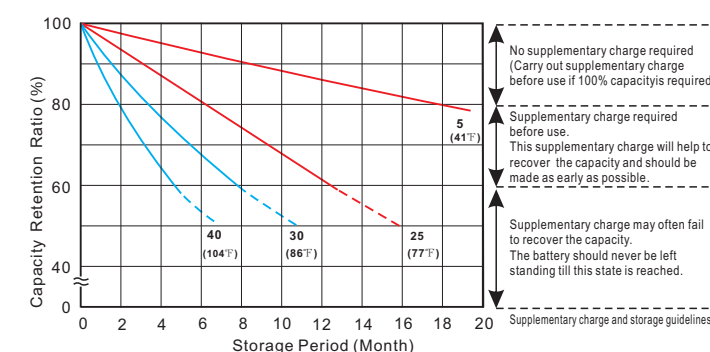
Discharge Characteristics@25



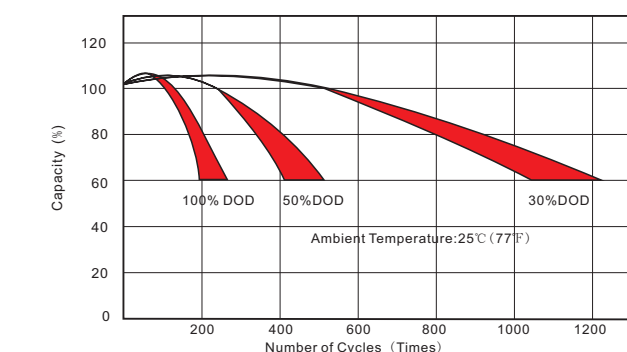
Charge Characteristics(Standby Use)



Capacity Retention Characteristics



Cycle Service life



Charge Procedure

Application	Constant Voltage Charge(V/cell)			Max. Charge Current
	Temperature	Set Point	Allowable Range	
Cycle Use	25°C (77°F)	2.425	2.40~2.45	0.3C
Standby Use	25°C (77°F)	2.275	2.25~2.30	

Note: Temp. Compensation Coefficient of Charge Voltage, Cycle use:-4mv/°C/cell, Standby Use:-3mv/°C/cell

Discharge Current VS. Discharge Voltage

Final Discharge Voltage(V/cell)	1.75	1.70	1.60	1.30
Discharge Current(A)	0.2C>(A)	0.2C<(A)<0.5C	0.5C<(A)<1C	(A)>1C

Constant Current (CC,Unit:A)&Constant Power(CP, Unit:W)Discarge Table at 25 (77°F)

F.V. (V/cell)	Model	Time											
		5 Min	10 Min	15 Min	30 Min	1 Hr	2 Hr	3 Hr	4 Hr	5 Hr	8 Hr	10 Hr	20 Hr
1.60V	CC(A)	43.20	28.32	21.00	13.80	7.20	4.20	3.09	2.48	2.11	1.39	1.13	0.62
	CP(W)	509.5	320.0	242.0	146.5	83.0	48.6	35.8	28.7	24.4	16.1	13.1	7.2
1.70V	CC(A)	39.60	27.10	19.30	13.10	6.76	4.03	3.00	2.40	2.06	1.37	1.12	0.61
	CP(W)	479.5	303.0	227.5	145.5	78.0	46.7	34.7	27.8	23.9	15.8	12.9	7.0
1.75V	CC(A)	36.05	25.32	18.00	12.70	6.54	3.95	2.95	2.28	2.06	1.35	1.10	0.60
	CP(W)	463.0	294.0	217.5	144.0	75.7	45.8	34.1	26.4	23.8	15.7	12.8	7.0
1.80V	CC(A)	34.64	24.20	16.80	12.35	6.32	3.85	2.90	2.24	1.95	1.31	1.07	0.59
	CP(W)	406.0	285.0	209.5	143.5	73.5	44.8	33.8	26.1	22.7	15.0	12.5	6.8
1.85V	CC(A)	32.04	22.80	15.60	12.00	6.10	3.75	2.75	2.20	1.87	1.28	1.05	0.57
	CP(W)	392.5	275.5	199.5	142.5	72.5	44.5	32.8	26.0	22.2	14.5	12.2	6.8

Note: The above data are average values, and can be obtained with 3 charge/discharge cycles.

"Experience the strength and realize the endurance"
FUJIAN MIN HUA POWER SOURCE CO., LTD
www.mhb-battery.com



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