MHB BATTERY

VRLA Battery HR1223W

23W/Cell/15Min

Minhua HR Series High-rate Sealed Maintenance-free Lead-acid Battery

- Using high purity electrolytic lead as the active material, excellent charge-discharge performance and very low self-discharge rate, very conducive to storage and use
- Unique design and formula, excellent high-rate discharge performance
- Fully sealed maintenance-free, no need to supplement the electrolyte during use
- The designed service life is more than 3 years under floating charging mode

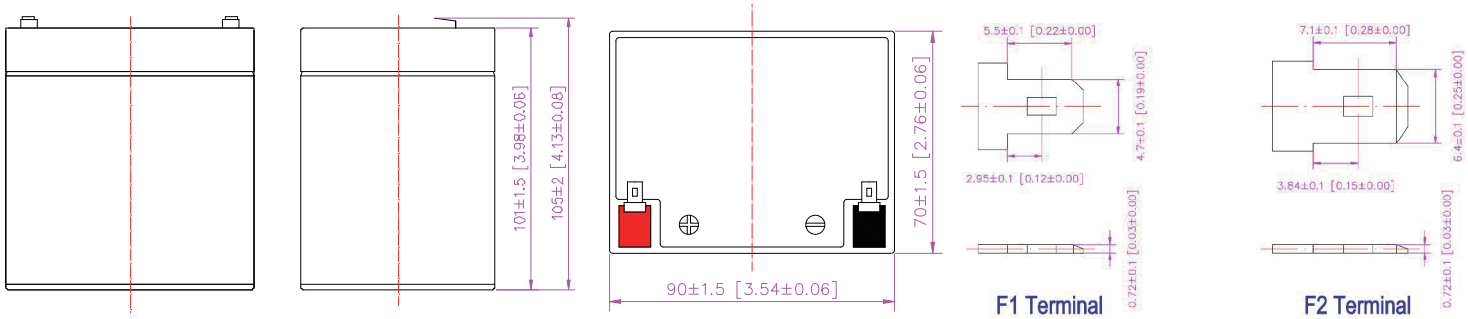
Application Area:

- Automatic alarm system
- Electrical automatic control system
- Uninterrupted power system
- Fire Control System
- General uninterruptible power system
- Centralized large-scale power system
- Distributed small-scale power system
- Power supply system for power tools

Material:

- Component.....material
- Positive plate...Lead dioxide
- Negative plate..Spongy lead
- Battery case..... ABS Engineering plastics
- Safety valve..... Fluorinated rubber
- Wire terminal..... Silver-plated copper
- Isolation plate..... Ultrafine glass fiber
- Electrolyte..... Analytical pure sulfuric

ISO9001 ISO14001 G2M20204 MH 28617



Technical Parameters:

Battery model	HR1223W（23W/cell/15Min）			
Battery life designed	more than 3 years in the float charging mode			
Capacity designed (25℃)	20HR(0.262A,10.5V)	10HR(0.496A,10.5V)	5HR(0.891A,10.5V)	1HR(3.034A,10.5V)
	5.24 0AH	4.960 AH	4.455 AH	3.034 AH
Battery size	Length	Width	Height	Total Height
	90 mm	70 mm	101 mm	105 mm
Battery weight	1.83 KG±3%			
Nominal internal resistance	100% charging is completed at 25 ° C environment≤31.00 mΩ			
Self-discharge rate	2% self-discharge rate per month,at 25 ° C environment			
Capacity at different temperatures (20HR)	40℃	25℃	0℃	-15℃
	102%	100%	85%	65%
Charging voltage (25℃)	Circulation mode		Floating charge mode	
	14.4-15.0V(-30mV/℃), Max Charge Current 1.57A		13.5-13.8V (-20mV/℃)	

FUJIAN MINHUA POWER SOURCE CO., LTD.

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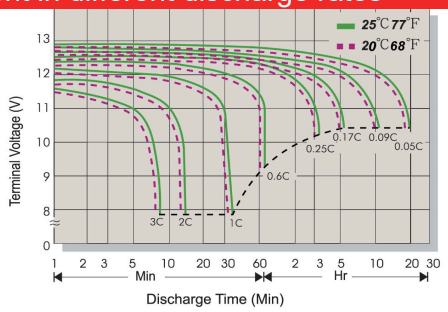
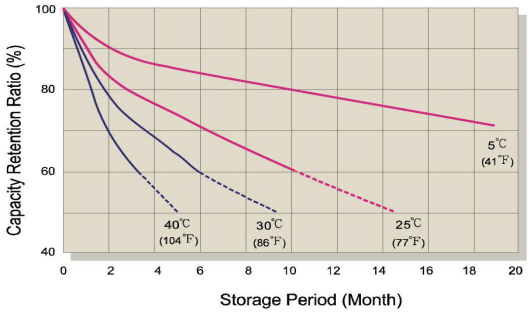
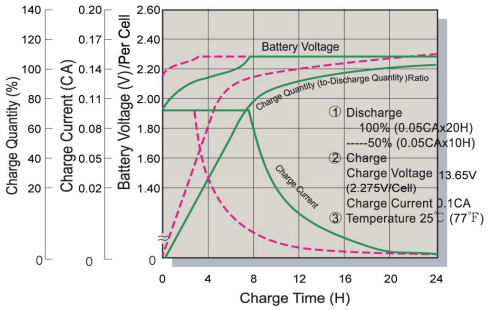
Discharge characteristics under constant current in different discharge rates



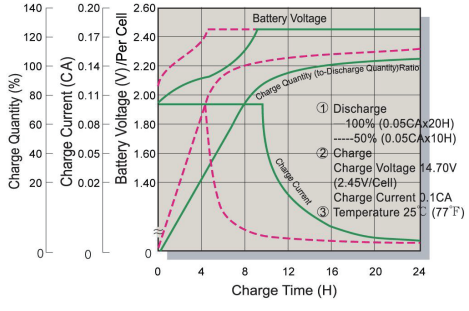
Capacity retention rate at different temperatures



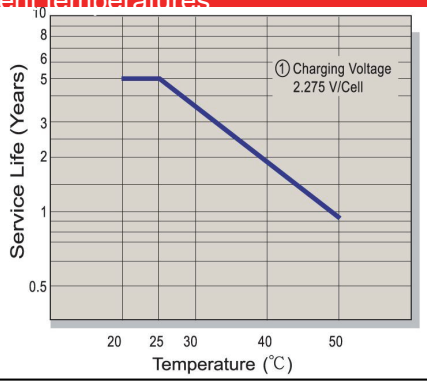
Correlation between charging time and battery voltage in floating charge mode



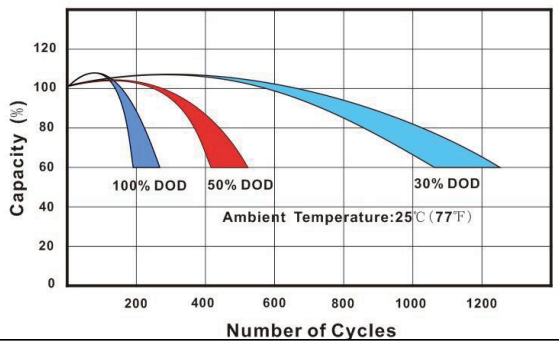
Correlation between charging time and battery voltage in cyclic mode



The life time characteristics in floating charge mode at different temperatures



Cycle life characteristics at different discharge depths



Discharge characteristics in constant current **(CC,Unit:A) at 25℃(77℉)**												
F.V/Time	5Min	10Min	15Min	30Min	1Hr	2Hr	3Hr	4Hr	5Hr	6Hr	10Hr	20Hr
1.80V/Cell	14.72	11.43	10.11	5.05	2.978	1.740	1.324	1.052	0.874	0.747	0.487	0.257
1.75V/Cell	15.00	11.65	10.30	5.14	3.034	1.773	1.349	1.072	0.891	0.761	0.496	0.262
1.70V/Cell	16.35	12.35	10.61	5.35	3.087	1.804	1.373	1.091	0.906	0.774	0.505	0.267
1.67V/Cell	18.00	13.40	11.02	5.65	3.120	1.823	1.387	1.103	0.916	0.783	0.510	0.269
1.60V/Cell	19.50	14.10	11.64	5.89	3.154	1.843	1.402	1.115	0.926	0.791	0.516	0.272
Discharge characteristics in constant power **(CP,Unit:W) at 25℃(77℉)**												
F.V/Time	5Min	10Min	15Min	30Min	1Hr	2Hr	3Hr	4Hr	5Hr	6Hr	10Hr	20Hr
1.80V/Cell	28.72	22.30	19.72	9.85	5.807	3.393	2.582	2.052	1.705	1.456	0.950	0.501
1.75V/Cell	29.25	22.72	20.09	10.03	5.916	3.457	2.631	2.091	1.737	1.484	0.968	0.511
1.70V/Cell	31.89	24.08	20.69	10.43	6.020	3.517	2.677	2.128	1.767	1.510	0.985	0.520
1.67V/Cell	35.11	26.13	21.49	11.02	6.085	3.555	2.706	2.150	1.786	1.526	0.995	0.525
1.60V/Cell	38.03	27.49	23.00	11.49	6.151	3.593	2.735	2.174	1.805	1.543	1.006	0.531