

General features for MPb Series (AGM) battery

- * Stable quality & high reliability.
- * Unique construction and sealing technique guarantees.
- * Design life 10years in float service;the battery comply to the most popular international standards,like IEC60896-21/22,etc
- * Maintenance-free operation.
- * UL-recognized component.
- * Heavy duty grids:
The heavy-duty lead calcium-alloy grids ,provide an extra margin of performance and service life in float & cyclic.
- * Case and cover are available in both standard and flame retardant ABS.
- * Low self discharge;low pressure venting system.



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MP12-100 (12V100Ah)

Specifications

Nominal Voltage		12V	
Rated capacity (10 hour rate)		100 Ah	
Dimensions (±2mm)	Total Height	T16	218mm (8.58inches)
		T10	235mm (9.25inches)
	Height	213 mm (8.39 inches)	
	Length	331 mm (13.0 inches)	
Width	173 mm (6.81inches)		
Weight Approx (±3%)		30.0 Kg (66.1lbs)	

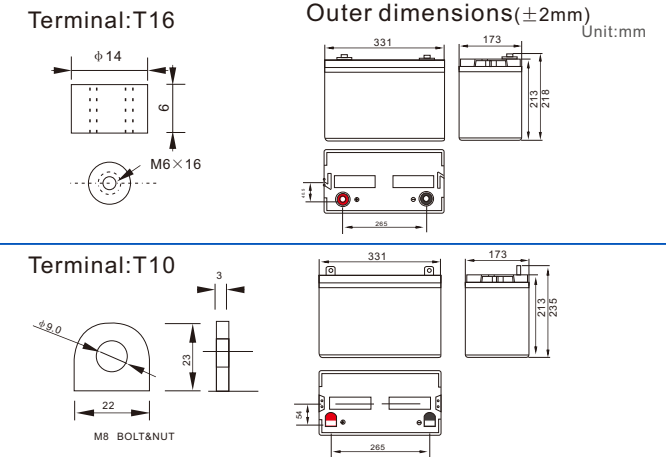
Battery picture and construction



Battery Construction

Component	Positive plate	Negative plate	Container	Cover
Raw material	Lead dioxide	Lead	ABS	ABS
Component	Electrolyte	Separator	Safety valve	Terminal
Raw material	Dilute sulfuric acid	Fiberglass	Rubber	Copper

Outer dimension and terminal



Characteristics

Capacity 25°C(77°F)	10 hour rate(10.0 A,10.8V) 5 hour rate(16.0A,10.5V) 1 hour rate(60 A,9.6V)	100 Ah 80Ah 60Ah
Internal Resistance	Full charged battery at 25°C(77°F)	Approx 4.5 mΩ
Capacity affected by Temperature (10hour rate)	40°C (104°F) 25°C (77°F) 0°C (32°F) -15°C (5°F)	102% 100% 85% 65%
Remaining capacity Self-Discharge At 25°C(77°F)	Capacity after 3 month storage Capacity after 6 month storage Capacity after 12 month storage	91% 82% 64%
Terminal type	T16 (Option T10)	
Max. Discharge current 25°C/(77°F)	800A (5Seconds)	
Nominal operating temperature	25°C ±5°C(77°F ±9°F)	
Operating Temperature Range	Discharge Charge Storage	-15°C ~50°C (5°F ~122°F) -10°C ~50°C (14°F ~122°F) -20°C ~50°C (-4°F ~122°F)
Charge methods (constant Voltage) At 25°C(77°F)	Cycle use Standby use	Initial Charging Current less than 25 A Voltage 14.5-14.95V Temperature compensation:-30mV/°C Voltage 13.5-13.8V Temperature compensation:-18mV/°C

Constant current discharge (25°C , 77 °F)

Constant power discharge (25°C , 77 °F)

Unit:A

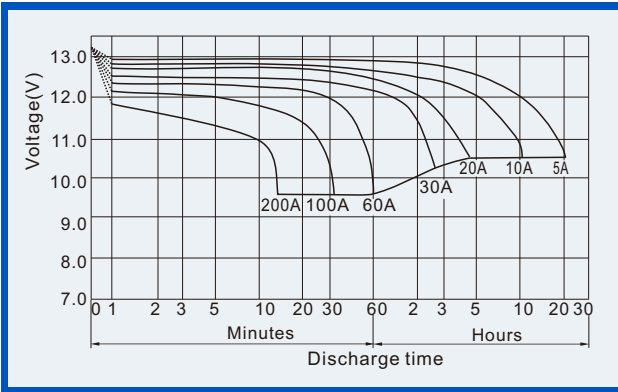
Unit:watts

Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
9.60V	A	320.3	211.0	170.1	114.0	60.0	35.0	25.7	20.0	16.5	11.7	5.7
	W	3305.5	2253.5	1823.8	1225.7	648.0	384.3	286.0	225.0	187.6	134.1	65.9
10.20V	A	310.2	190.4	160.2	109.0	56.4	33.4	25.0	19.5	16.2	11.4	5.5
	W	3312.9	2126.0	1792.6	1223.6	637.9	385.0	289.5	226.7	188.9	133.4	64.5
10.50V	A	300.1	170.3	140.1	102.0	54.6	32.6	24.4	19.2	16.0	11.3	5.5
	W	3277.1	1937.3	1598.8	1173.8	632.3	378.1	284.3	224.6	187.6	132.9	65.0
10.80V	A	289.2	160.5	130.2	94.0	52.8	31.8	23.8	18.9	15.6	11.0	5.4
	W	3244.8	1850.9	1499.9	1089.1	614.6	372.4	280.6	223.2	184.4	130.4	64.3
11.10V	A	279.5	150.4	120.2	84.0	51.0	31.0	23.0	18.4	15.2	10.7	5.1
	W	3169.5	1741.6	1399.1	982.8	599.8	366.4	273.2	219.1	181.4	128.1	61.8

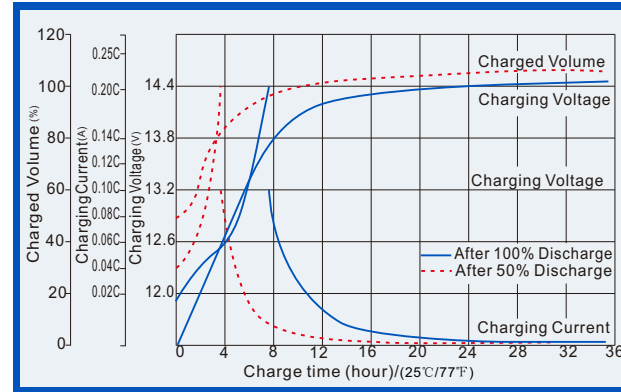
(Above characteristics data are average values obtained within three charge/discharge cycles,not the minimum values.)

VRLA Battery (AGM technology) Maintenance-free Sealed Lead Acid Rechargeable Battery

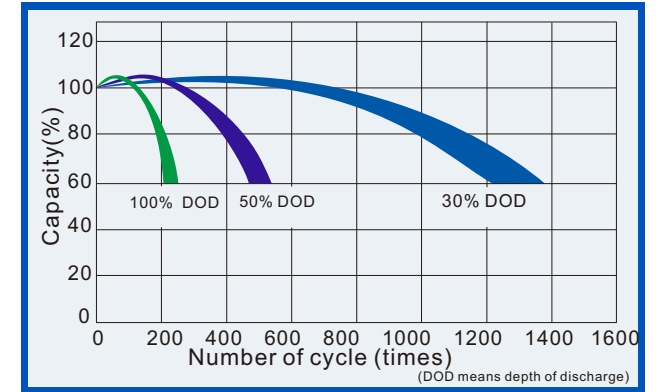
Discharge characteristics (25°C, 77°F)



Charge characteristics (25°C, 77°F)



Life characteristics of Cyclic Use (25°C, 77°F)



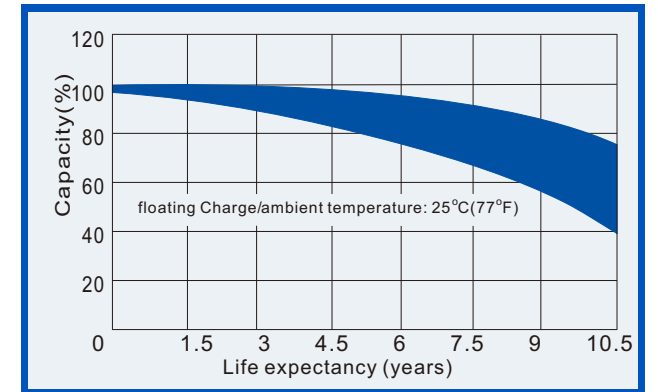
Effect of Temperature on capacity



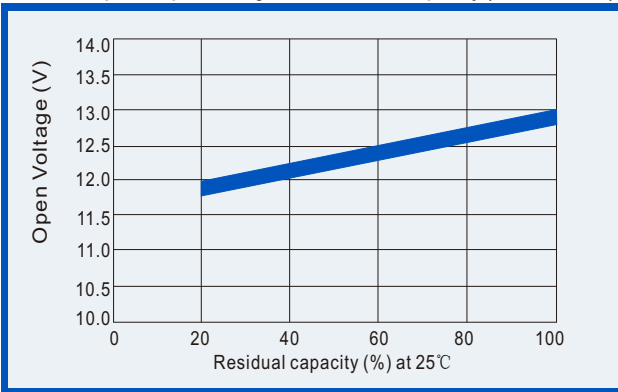
Self-discharge characteristics



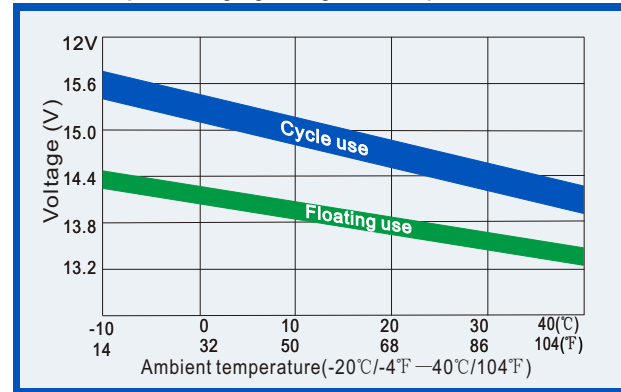
Life Characteristics of float service (25°C, 77°F)



Relationships for open voltage and remained capacity (for reference)



Relationship for charging voltage and temperature



Temperature effects on floating life

