

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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MP12-80B (12V80Ah)

Specifications

Nominal Voltage			12V
Rated capacity (20 hour rate)			80Ah
Dimensions (±2mm)	Total Height	T16	179mm (7.05 inches)
		T9	179 mm (7.05 inches)
	Height		179 mm (7.05 inches)
	Length		350 mm (130.8 inches)
	Width		166 mm (6.54 inches)
Weight Approx (±3%)			22.5 Kg (49.61 lbs)

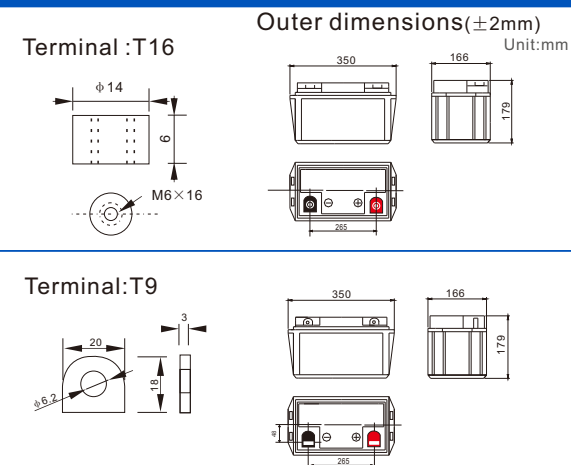
Battery picture and construction



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)	20 hour rate(4.0A,10.5V) 10 hour rate(7.36A,10.8V) 5 hour rate(11.8A,10.5V) 1 hour rate(44.2A,9.6V)	80Ah 73.6Ah 59Ah 44.2 Ah
Internal Resistance	Full charged battery at 25°C(77°F)	Approx 6mΩ
Capacity affected by Temperature (20hour rate)	40°C (104°F) 25°C (77°F) 0°C (32°F) -15°C (5°F)	102% 100% 85% 65%
Remaining capacity	Capacity after 3 month storage	91%
Self-Discharge At 25°C(77°F)	Capacity after 6 month storage Capacity after 12 month storage	82% 64%
Terminal type	T16 (Option T9)	
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 20A Voltage 14.50-14.90V Temperature compensation:-30mV/°C Voltage 13.50-13.80V Temperature compensation:-18mV/°C

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

Unit:A

Constant Current(Amp) and Constant Power(Watt) Discharge Table at 25°C(77°F)												
Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
9.60V	A 236	155	125	83.9	44.2	25.8	18.9	14.7	12.1	8.61	7.73	4.17
	W 2433	1659	1342	902	477	283	211	166	138	99	89	48.5
10.20V	A 228	140	118	80.2	41.5	24.6	18.4	14.4	11.9	8.39	7.58	4.05
	W 2438	1565	1319	901	469	283	213	167	139	98	89	47.5
10.50V	A 221	125	103	75.1	40.2	24.0	18.0	14.1	11.8	8.32	7.43	4.05
	W 2412	1426	1177	864	465	278	209	165	138	98	88	47.8
10.80V	A 213	118	96	69.2	38.9	23.4	17.5	13.9	11.5	8.10	7.36	4.00
	W 2388	1362	1104	802	452	274	207	164	136	96	87	47.6
11.10V	A 206	111	88	61.8	37.5	22.8	16.9	13.5	11.2	7.88	6.99	3.75
	W 2333	1282	1030	723	441	270	201	161	134	94	84.4	45.5

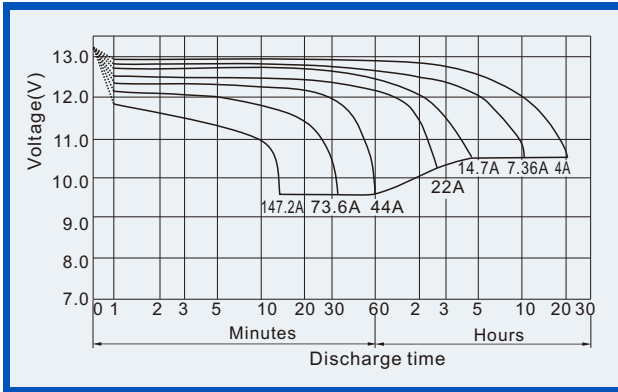
(Above characteristics data are average values obtained within three charge/discharge cycles,not the minimum values.)

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

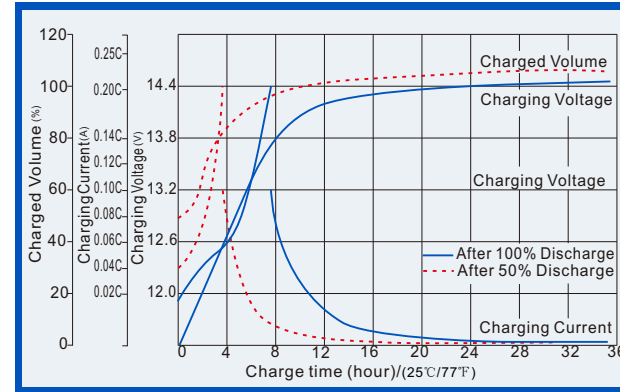
Unit:watts

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

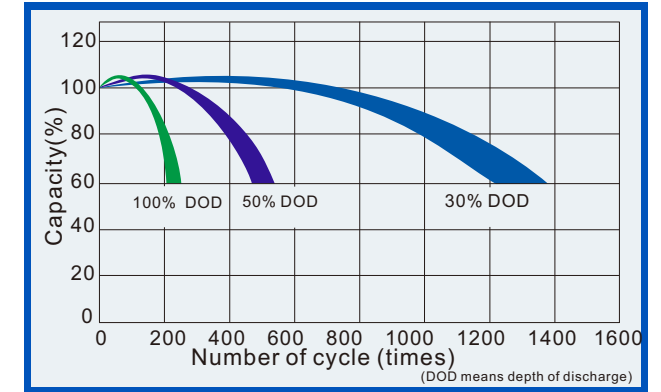
Discharge characteristics (25°C, 77°F)



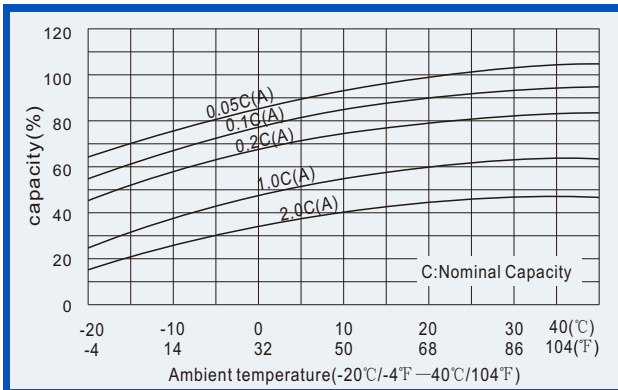
Charge characteristics (25°C, 77°F)



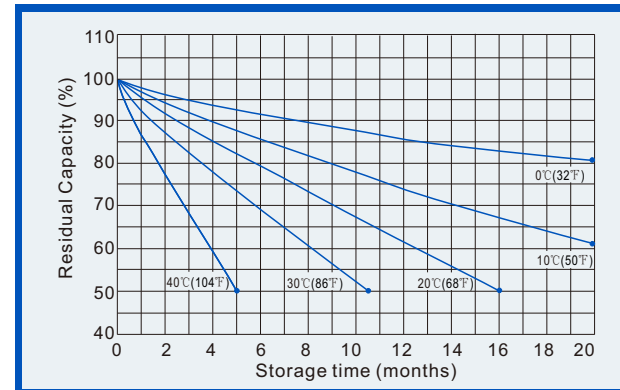
Life characteristics of Cyclic Use (25°C, 77°F)



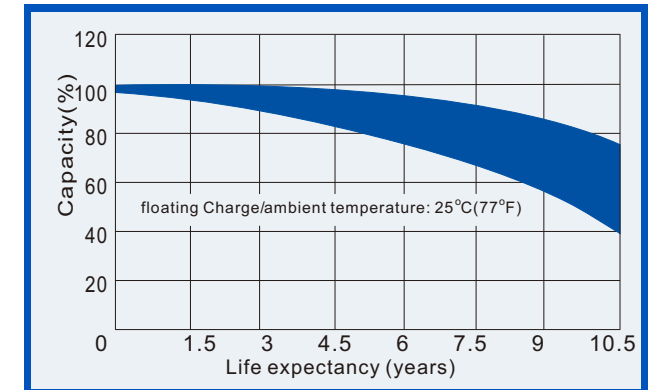
Effect of Temperature on capacity



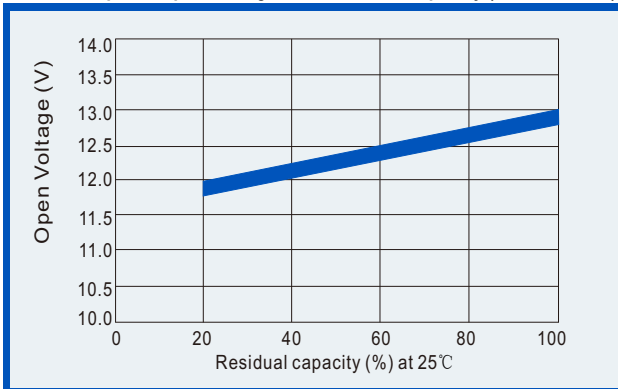
Self-discharge characteristics



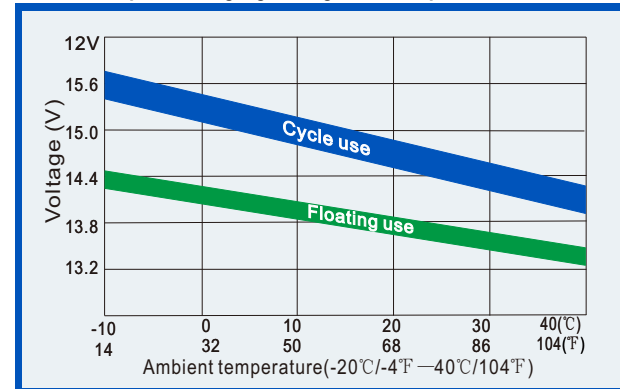
Life Characteristics of float service (25°C, 77°F)



Relationships for open voltage and remained capacity (for reference)



Relationship for charging voltage and temperature



Temperature effects on floating life

