General features for MPb Series (AGM) battery

- Stable quality & high reliability.
- Unique contstruction 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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Maxton Power Tech Co.,Ltd
www.maxtonpower.com
info@maxtonpower.com

MP12-44 (12V44Ah)

Specifications

Nominal Voltage			12V
Rated capacity (10 hour rate)			44Ah
Dimensions (±2mm)	Total Height	T16	171 mm (6.73 inches)
		T9	171 mm (6.73 inches)
	Height		171 mm (6.73 inches)
	Length		197 mm (7.73 inches)
	Width		166 mm (6.54inches)
Weight Approx (±3%)			12.9Kg (28.4 lbs)

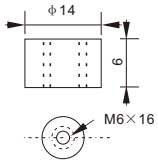
Battery picture and construction

Battery Construction

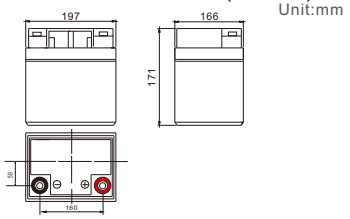
Component	Positive plate	Negative plate	Container	Cover
Raw material	Lead dioxide	Lead	ABS	ABS
Component	Electrolyte	Separator	Safety valve	Terminal
Raw material	Dilute sulfuric acid	Fiberglass	Rubber	Copper

Outer dimension and terminal

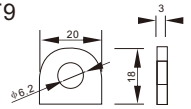
Terminal:
T16

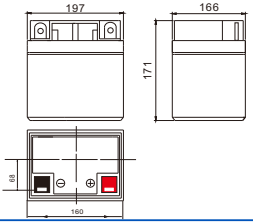


Outer dimensions(±2mm)
Unit:mm



Terminal:
T9





Characteristics

Capacity 25℃(77℉)	10 hour rate(4.4 A,10.8V) 5 hour rate(7.0A,10.5V) 1 hour rate(26.4A,9.6V)	44Ah 35Ah 26.4Ah
Internal Resistance	Full charged battery at 25℃(77℉)	Approx 8 mΩ
Capacity affected by Temperature (10hour rate)	40℃ (104℉) 25℃ (77℉) 0℃ (32℉) -15℃ (5℉)	102% 100% 85% 65%
Remaining capaicty Self-Discharge At 25℃(77℉)	Capacity after 3 month storage Capacity after 6 month storage Capacity after 12 month storage	91% 82% 64%
Terminal type		T16 (Option T9)
Max. Discharge current 25℃/(77℉)		440A (5Seconds)
Nominal operating temperature		25℃ ±5℃(77℉ ±9℉)
Operating Temperature Range	Discharge Charge Storage	-15℃～50℃ (5℉～122℉) -10℃～50℃ (14℉～122℉) -20℃～50℃ (-4℉～122℉)
Charge methods (constant Voltage) At 25℃(77℉)	Cycle use	Initial Charging Current less than 11.0A Voltage 14.5-14.9V Temperature compensation:-30mV/℃
	Standby use	Voltage 13.5-13.8V Temperature compensation:-18mV/℃

Constant current discharge (25℃ , 77 ℉)

Unit:A

Constant power discharge (25℃ , 77 ℉)

Unit:watts

Constant Current(Amp) and Constant Power(Watt) Discharge Table at 25℃(77℉)

Time		5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
9.60V	A	163	119	84	51	26.4	15	11.3	8.8	7.3	5.1	4.6	2.49
	W	1729	1262	888	537	306	178	131	102	84	59	53	28.9
10.20V	A	143	108	75	48.0	24.8	14.7	11.0	8.6	7.1	5.0	4.5	2.43
	W	1592	1201	830	532	287	170	127	99	83	58	52	28.2
10.50V	A	138	103	70	47	24.0	14.3	10.7	8.4	7.0	5.0	4.4	2.40
	W	1567	1168	798	529	278	166	124	98	82	58	52	27.8
10.80V	A	133	98	66	45	23.0	14.0	10.5	8.3	6.9	4.8	4.4	2.38
	W	1547	1137	768	528	270	163	122	96	80	56	51	27.7
11.10V	A	128	92	62	44	22.0	13.6	10.1	8.1	6.7	4.7	4.18	2.26
	W	1518	1100	733	524	267	162	120	95	80	56	50	26.9

(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 Rechageable Battery

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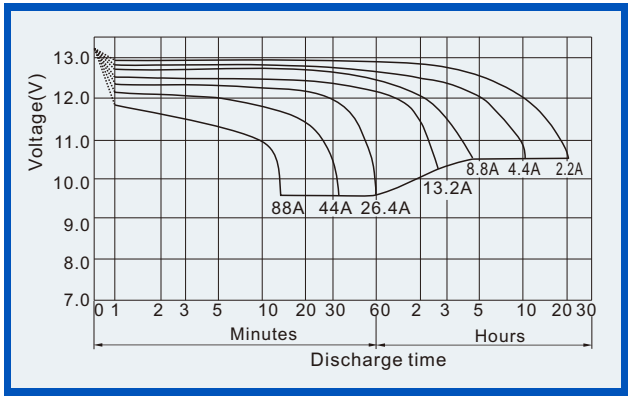
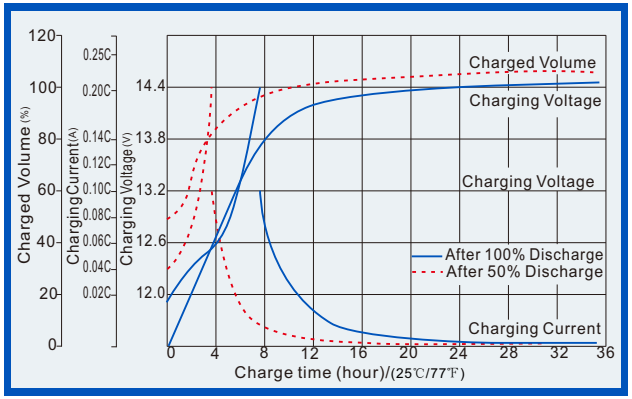
MP12-44 (12V44Ah)

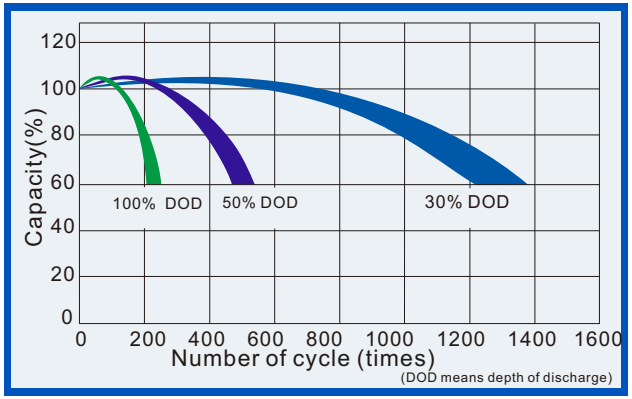
Discharge characteristics (25℃,77°F)



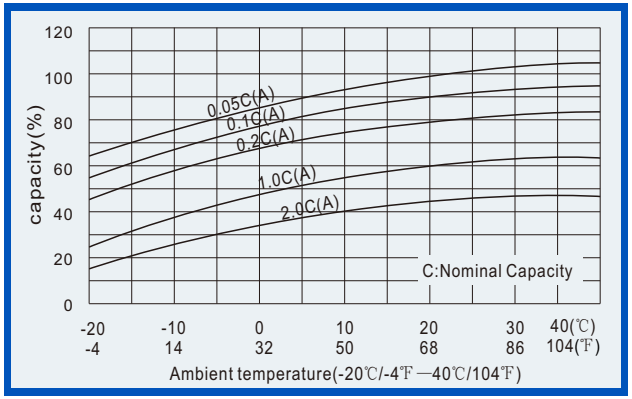
Charge characteristics (25℃,77°F)



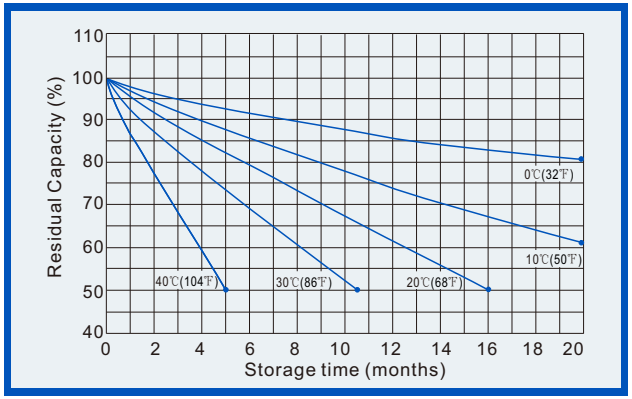
Life characteristics of Cyclic Use (25℃,77°F)



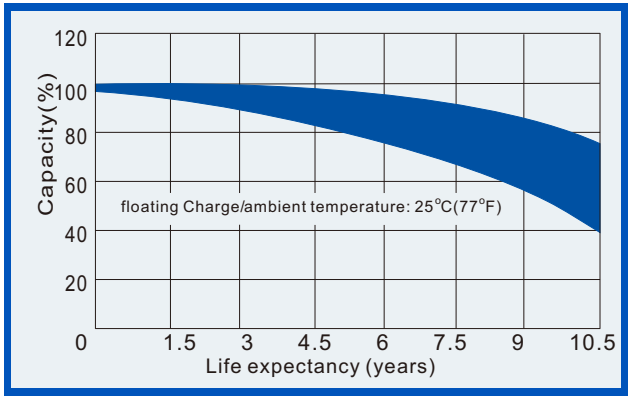
Effect of Temperature on capacity



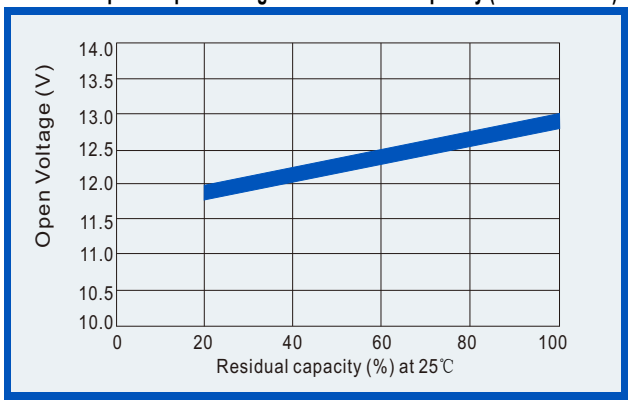
Self-discharge characteristics



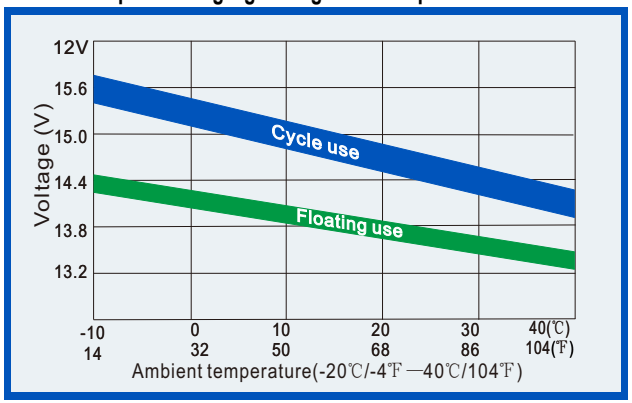
Life Characteristics of float service (25℃,77°F)



Relationships for open voltage and remained capacity (for reference)



Relationship for charging voltage and temperature



Temperature effects on floating life