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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MP12-80 (12V80Ah)

Specifications

Nominal Voltage			12V
Rated capacity (10 hour rate)			80 Ah
Dimensions (±2mm)	Total Height	T16	216 mm (8.50 inches)
		T33	228 mm (8.98 inches)
	Height		208 mm (8.19 inches)
	Length		260 mm (10.2 inches)
	Width		169 mm (6.65 inches)
Weight Approx (±3%)			22.5 Kg (49.6 lbs)

Battery picture and construction

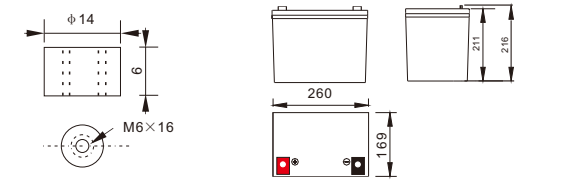
Battery Construction

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

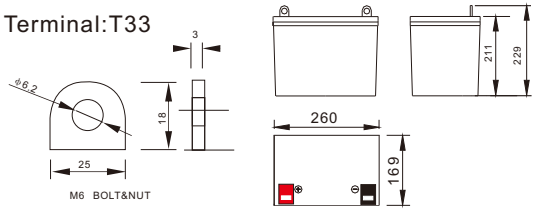
Outer dimension and terminal

Terminal:T16

Outer dimensions(±2mm) Unit:mm



Terminal:T33



Characteristics

Capacity 25℃(77℉)	10 hour rate(8.0 A,10.8V) 5 hour rate(12.8A,10.5V) 1 hour rate(48 A,9.6V)	80Ah 64Ah 48Ah
Internal Resistance	Full charged battery at 25℃(77℉)	Approx 5.5 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 T33)
Max. Discharge current 25℃/(77℉)		800A (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 20A Voltage 14.5-14.9V Temperature compensation:-30mV/℃
	Standby use	Voltage 13.6-13.8V 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	256	169	136	91.2	48.0	28.0	20.6	16.0	13.2	9.36	8.40	4.54
	W	2644	1803	1459	981	518	307	229	180	150	107	97	52.7
10.20V	A	248	152	128	87.2	45.1	26.7	20.0	15.6	13.0	9.12	8.24	4.40
	W	2650	1701	1434	979	510	308	232	181	151	107	97	51.6
10.50V	A	240	136	112	81.6	43.7	26.1	19.5	15.4	12.8	9.04	8.08	4.40
	W	2622	1550	1279	939	506	302	227	180	150	106	96	52.0
10.80V	A	231	128	104	75.2	42.2	25.4	19.0	15.1	12.5	8.80	8.00	4.32
	W	2596	1481	1200	871	492	298	224	179	148	104	95	51.5
11.10V	A	224	120	96	67.2	40.8	24.8	18.4	14.7	12.2	8.56	7.60	4.08
	W	2536	1393	1119	786	480	293	219	175	145	103	91.7	49.4

(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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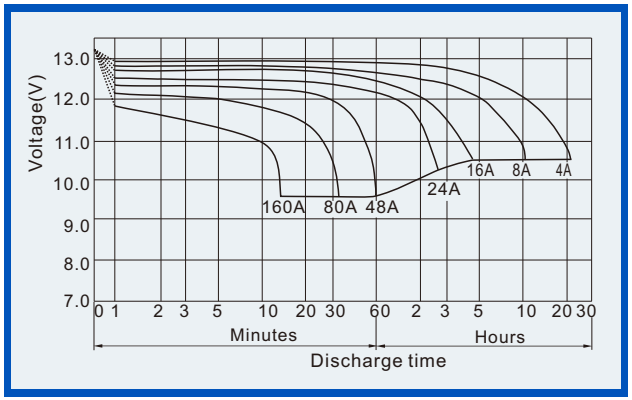
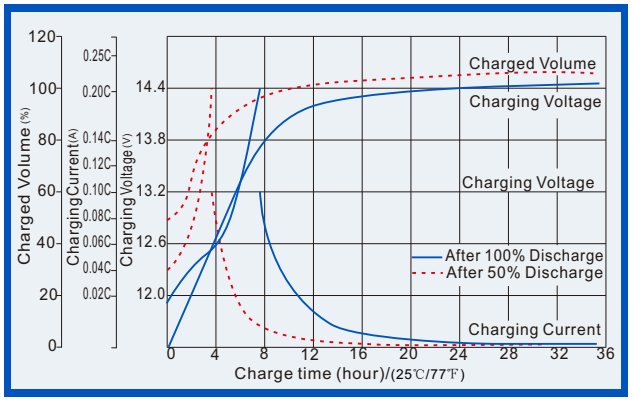
MP12-80 (12V80Ah)

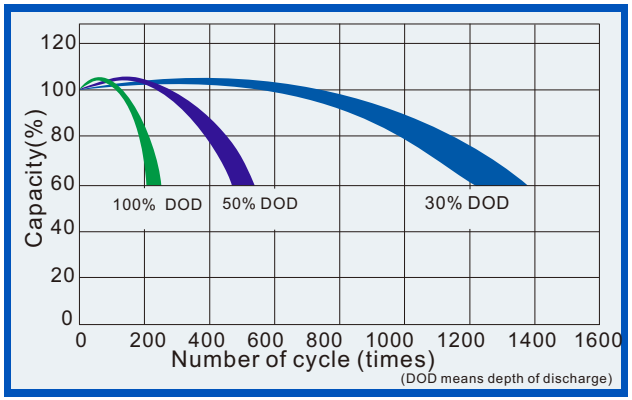
Discharge characteristics (25℃,77℉)



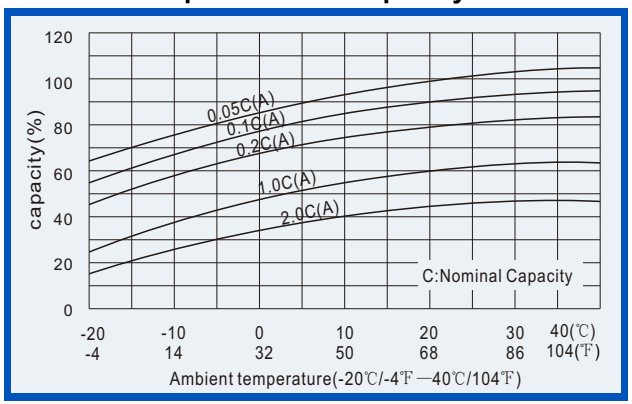
Charge characteristics (25℃,77℉)



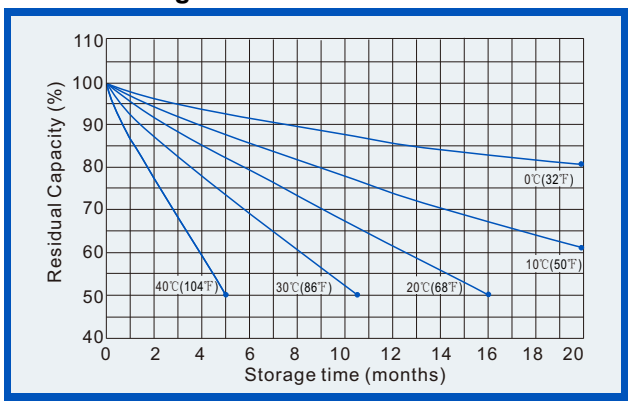
Life characteristics of Cyclic Use (25℃,77℉)



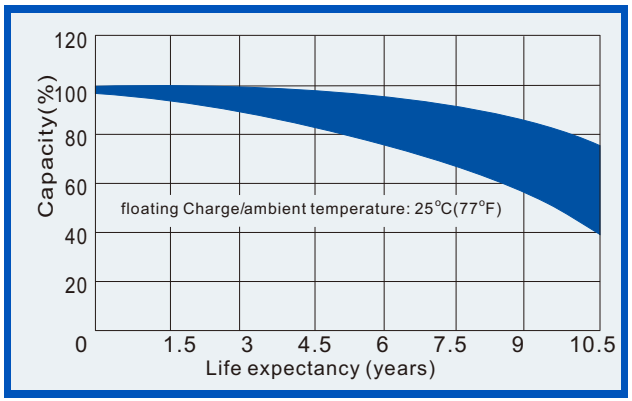
Effect of Temperature on capacity



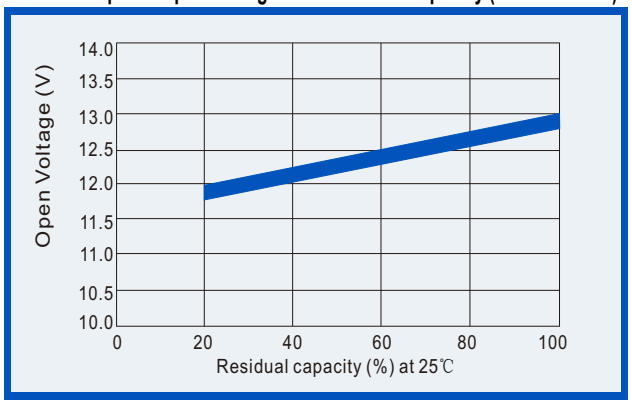
Self-discharge characteristics



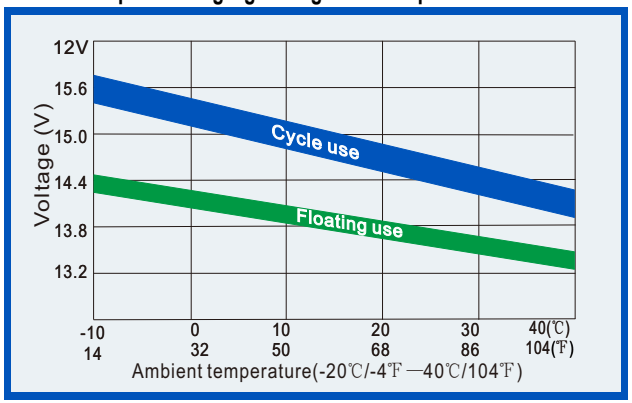
Life Characteristics of float service (25℃,77℉)



Relationships for open voltage and remained capacity (for reference)



Relationship for charging voltage and temperature



Temperature effects on floating life