

General features for MPF Series (AGM) battery

- * Thick pasted plates with high quality lead-tin-calcium alloy grids for long service life, design life 10+years in float service.
- * Battery comply to the most popular international standards, like IEC60896-21/22, etc.
- * Centralized venting system for gas ventilation.
- * High conductivity connectors and terminal. High reliability terminal sealing.
- * Self regulating relief valve: Lower-pressure self-return valve prevents ingress of oxygen in the atmosphere.
- * Thick positive plates and balanced negative plates.
- * Scientific grids designed to resist corrosion and increase battery service, also ensure optimum recombination efficiency.
- * Low resistance microporous glassfibre, the electrolyte is absorbed within this materials.
- * flame retardant ABS is available upon require.
- * Easy installation: robust copper terminals providing high conductivity, easy connection, front access terminals for easy & quick connection.



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MPF12-200 (12V200Ah)

Specifications

Nominal Voltage		12V
Rated capacity (10 hour rate)		200 Ah
Dimensions (±2mm)	Total Height	316 mm (12.44 inches)
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	Length	560 mm (22.05 inches)
	Width	125 mm (4.92 inches)
Weight Approx (±3%)		56.0 Kg (123.5 lbs)

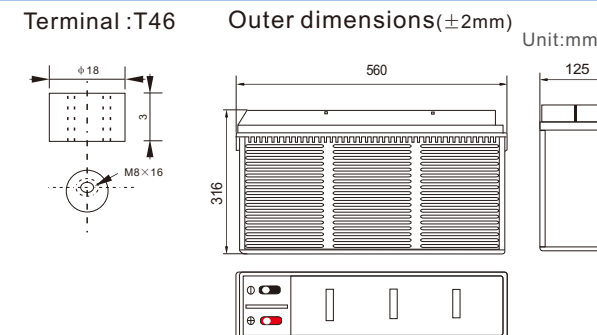
Battery picture and construction



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	Fibreglass	Rubber	Copper

Outer dimension and terminal



Characteristics

Capacity 25°C(77°F)	10 hour rate(20A, 10.8V)	200Ah
	5 hour rate(32A, 10.5V)	160Ah
	1 hour rate(120 A, 9.6V)	120Ah
Internal Resistance	Full charged battery at 25°C(77°F)	Approx 3.3mΩ
Capacity affected by Temperature (10hour rate)	40°C (104°F)	102%
	25°C (77°F)	100%
	0°C (32°F)	85%
Remaining capacity Self-Discharge At 25°C(77°F)	-15°C (5°F)	65%
	Capacity after 3 month storage	91%
	Capacity after 6 month storage	82%
Capacity after 12 month storage		64%
Terminal type		T46
Max. Discharge current 25°C/(77°F)		1150A (5Seconds)
Nominal operating temperature		25°C±5°C(77°F ±9°F)
Operating Temperature Range	Discharge	-15°C ~50°C (5°F ~122°F)
	Charge	-10°C ~50°C (14°F ~122°F)
	Storage	-20°C ~50°C (-4°F ~122°F)
Charge methods (constant Voltage) At 25°C(77°F)	Cycle use	Initial Charging Current less than 50.0A Voltage 14.5-14.9V Temperature compensation:-30mV/°C
	Standby use	Voltage 13.5-13.8V Temperature compensation:-18mV/°C

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

Unit:A

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

Unit:watts

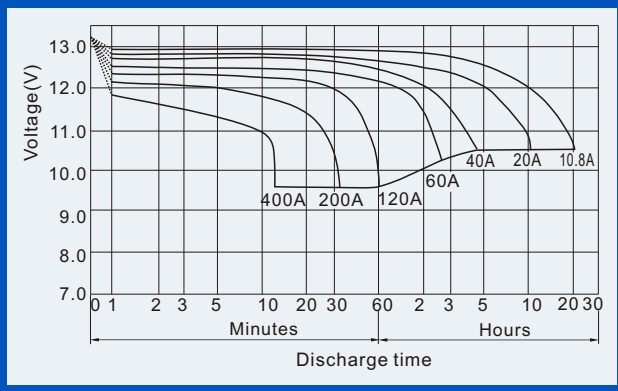
Constant Current(Amp) and Constant Power(Watt) Discharge Table at 25°C(77°F)

Time		5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
		9.60V	A	641	422	340	228.0	120.0	70.0	51.4	40.0	33.0	23.40
	W	6611	4507	3648	2451	1296	769	572	450	375	268	243	131.9
10.20V	A	620	381	320	218.0	112.8	66.8	50.0	39.0	32.4	22.80	20.60	11.00
	W	6626	4252	3585	2447	1276	770	579	453	378	267	242	129.0
10.50V	A	600	341	280	204.0	109.2	65.2	48.8	38.4	32.0	22.60	20.20	11.00
	W	6554	3875	3198	2348	1265	756	569	449	375	266	239	130.0
10.80V	A	578	321	260	188.0	105.6	63.6	47.6	37.8	31.2	22.00	20.00	10.80
	W	6490	3702	3000	2178	1229	745	561	446	369	261	238	128.6
11.10V	A	559	301	240	168.0	102.0	62.0	46.0	36.8	30.4	21.40	19.00	10.20
	W	6339	3483	2798	1966	1200	733	546	438	363	256	229.4	123.6

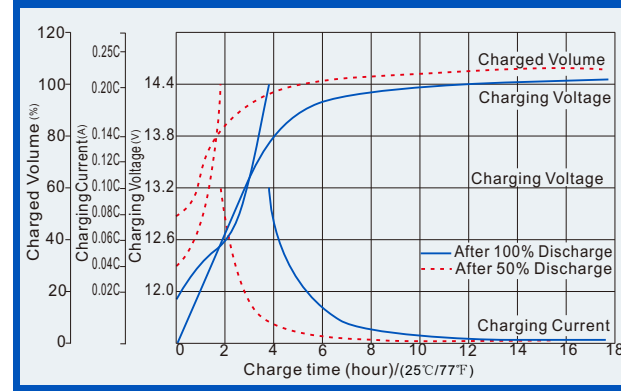
(Above characteristics data are average values obtained within three charge/discharge cycles, not the minimum values.)

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

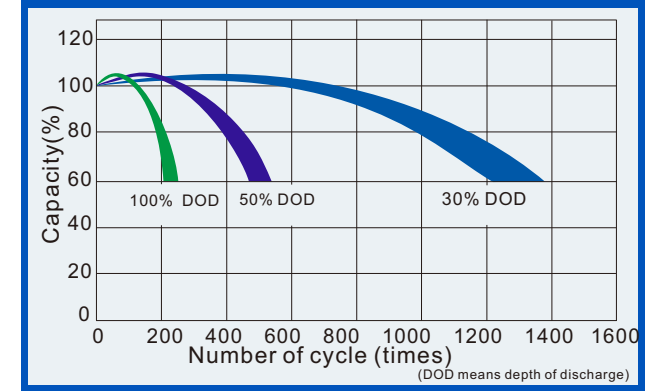
Discharge characteristics (25°C, 77°F)



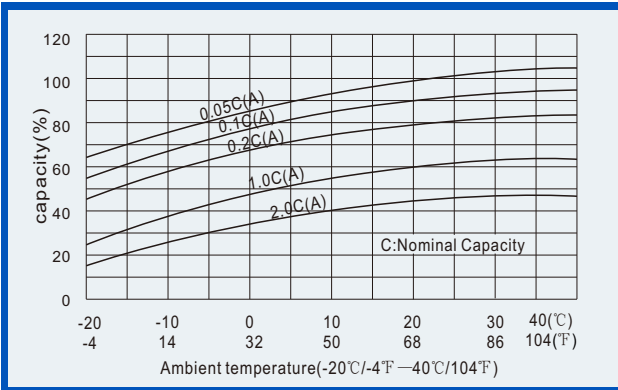
Charge characteristics (25°C, 77°F)



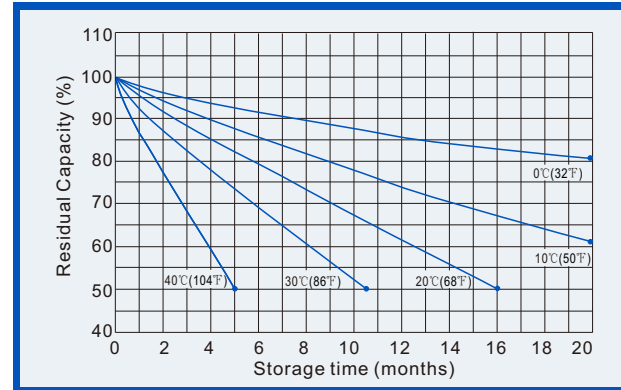
Life characteristics of Cyclic Use (25°C, 77°F)



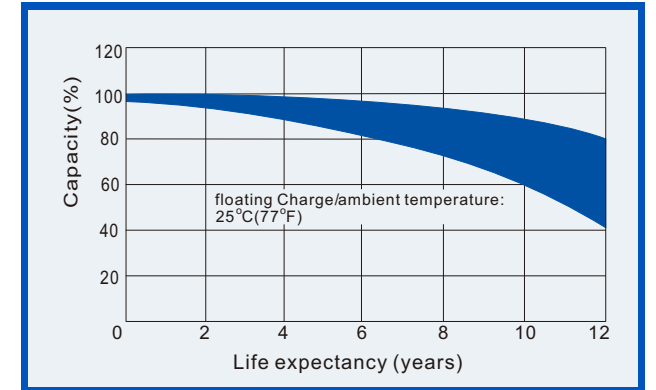
Effect of Temperature on capacity



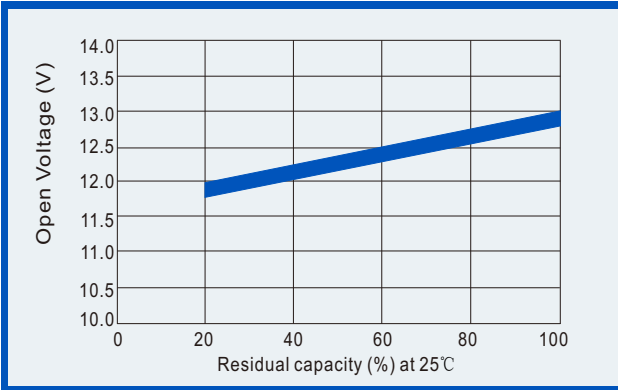
Self-discharge characteristics



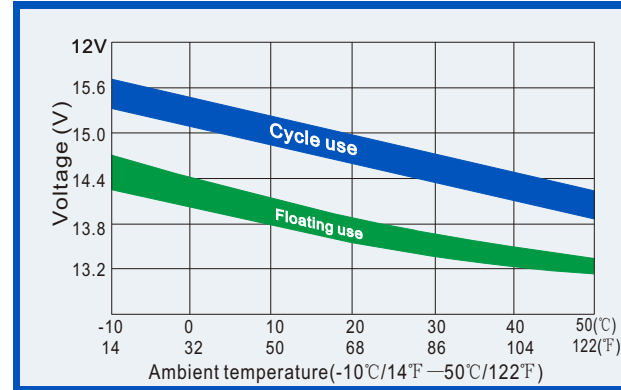
Life Characteristics of float service (25°C, 77°F)



Relationships for open voltage and residual capacity (for reference)



Relationship for charging voltage and temperature



Temperature effects on floating life

