

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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MPF12-150 (12V150Ah)

Specifications

Nominal Voltage		12V
Rated capacity (10 hour rate)		150 Ah
Dimensions (±2mm)	Total Height	288 mm (11.34 inches)
	Height	288 mm (11.34 inches)
	Length	551 mm (21.70 inches)
	Width	109 mm (4.29 inches)
Weight Approx (±3%)		46.0 Kg (101.41 lbs)

Battery picture and construction



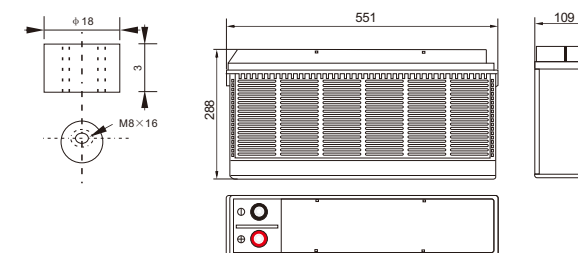
Terminal:

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

Terminal: T46 Outer dimensions(±2mm) Unit:mm



Characteristics

Capacity 25°C(77°F)	10 hour rate(15A,10.8V) 5 hour rate(24A,10.5V) 1 hour rate(90 A,9.6V)	150Ah 120Ah 90Ah
Internal Resistance	Full charged battery at 25°C(77°F)	Approx 4.0 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	T46	
Max. Discharge current 25°C/(77°F)	1200A (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	Initial Charging Current less than 37.5 A 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

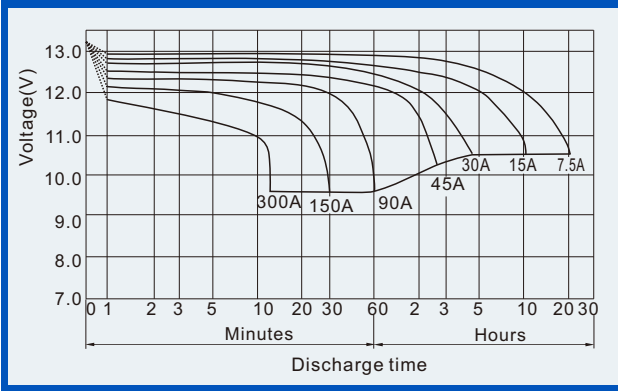
Constant Current(Amp) and Constant Power(Watt) Discharge Table at 25°C(77°F)

Time		5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
		9.60V	A	480	317	255	171.0	90.0	52.5	38.6	30.0	24.8	17.55
	W	4958	3380	2736	1839	972	576	429	338	281	201	182	98.9
10.20V	A	465	286	240	163.5	84.6	50.1	37.5	29.3	24.3	17.10	15.45	8.25
	W	4969	3189	2689	1835	957	577	434	340	283	200	182	96.8
10.50V	A	450	255	210	153.0	81.9	48.9	36.6	28.8	24.0	16.95	15.15	8.25
	W	4916	2906	2398	1761	948	567	426	337	281	199	179	97.5
10.80V	A	434	241	195	141.0	79.2	47.7	35.7	28.4	23.4	16.50	15.00	8.10
	W	4867	2776	2250	1634	922	559	421	335	277	196	178	96.5
11.10V	A	419	226	180	126.0	76.5	46.5	34.5	27.6	22.8	16.05	14.25	7.65
	W	4754	2612	2099	1474	900	550	410	329	272	192	172.0	92.7

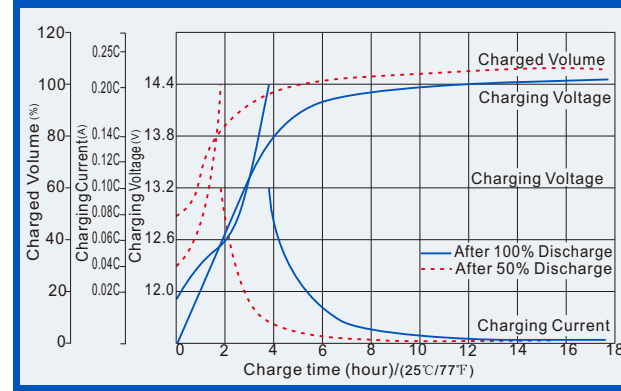
(Above characteristics data are average values obtained within three charge/discharge cycles, not the minimum values.)

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

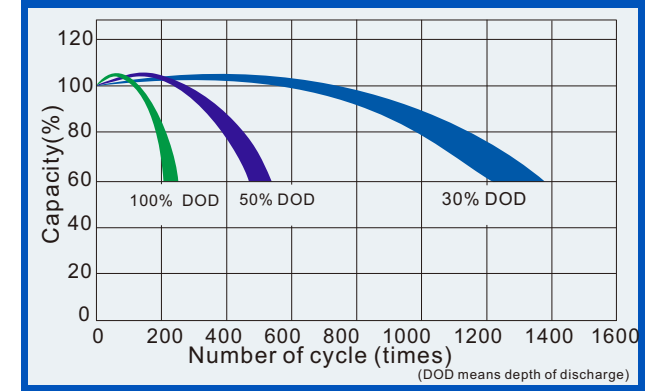
Discharge characteristics (25°C, 77°F)



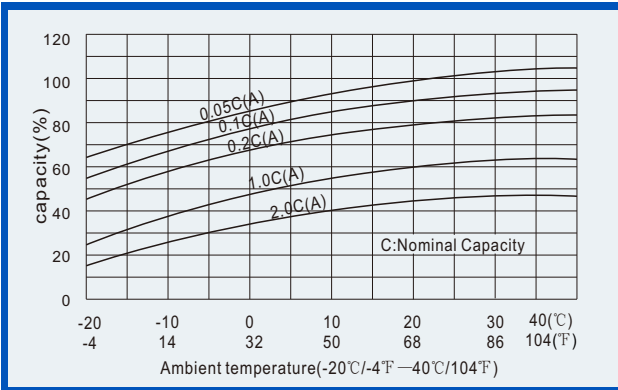
Charge characteristics (25°C, 77°F)



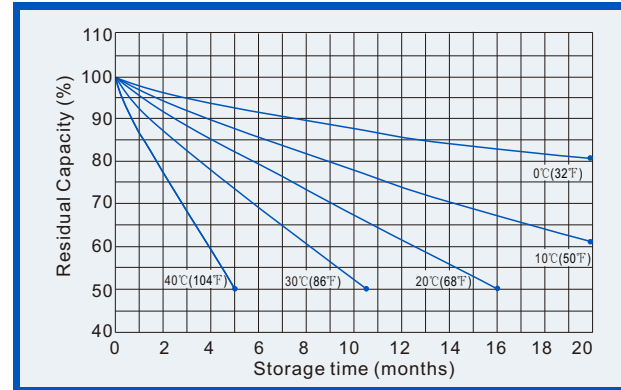
Life characteristics of Cyclic Use (25°C, 77°F)



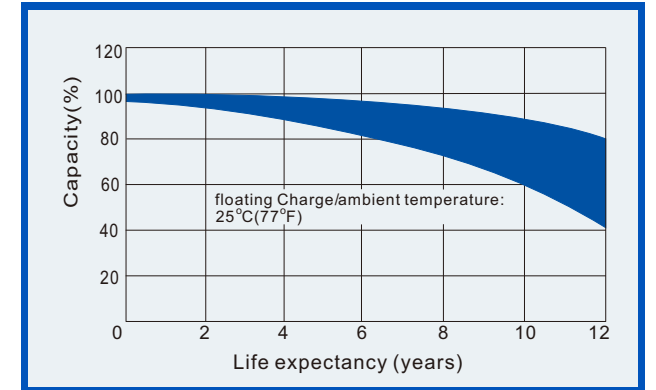
Effect of Temperature on capacity



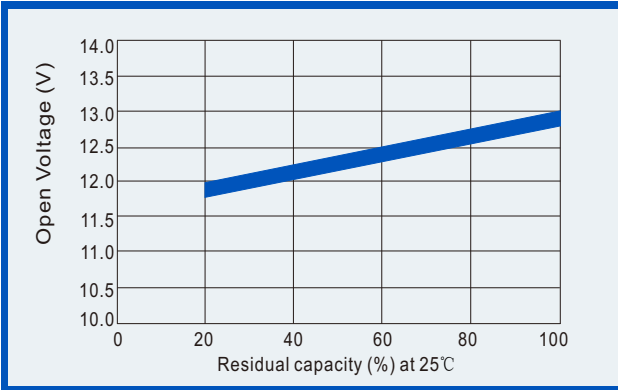
Self-discharge characteristics



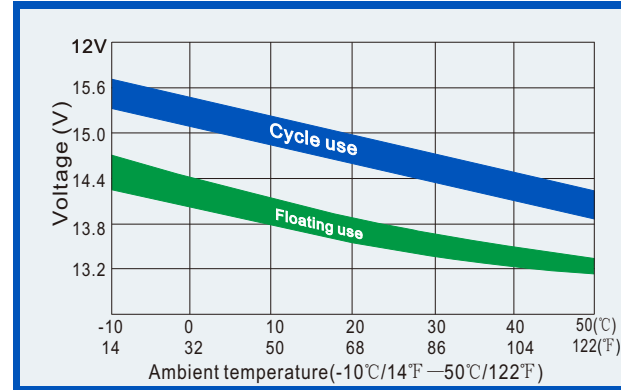
Life Characteristics of float service (25°C, 77°F)



Relationships for open voltage and residual capacity (for reference)



Relationship for charging voltage and temperature



Temperature effects on floating life

