

## General features for MPt Series (AGM) battery

- \* Absorbent Glass Mat (AGM) technology for efficient gas recombination of up to 99% and freedom from electrolyte maintenance or water adding.
- \* Computer designed lead, calcium tin alloy grid for high power density.
- \* Long service life, float or cyclic applications.
- \* UL-recognized component.
- \* No need of balanced charge or boost.
- \* Valve Regulated & High Discharge Rate Capability.
- \* Maintenance-free operation. Low self discharge.
- \* Case and cover are available in both standard and flame retardant ABS.
- \* Battery comply to the most popular international standards, like IEC60896-21/22, etc.



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**MP2-150 (2V150Ah)**

## Specifications

Nominal Voltage		2 V
Rated capacity (10 hour rate)		150 Ah
Dimensions (±2mm)	Total Height	227 mm (8.94 inches)
	Height	206 mm (8.15 inches)
	Length	172 mm (6.77 inches)
	Width	102 mm (4.02 inches)
Weight Approx (±3%)		8.5 Kg (18.7 lbs)

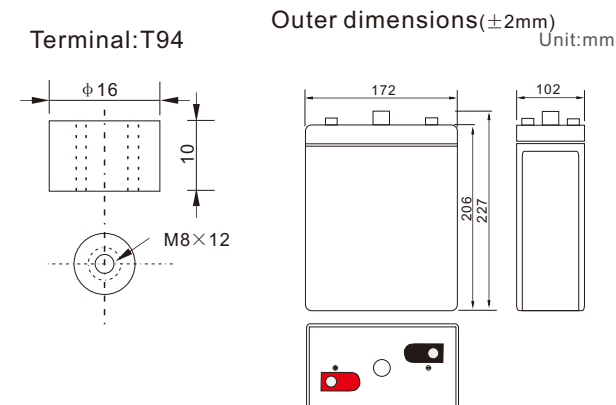
## Battery picture and construction



### 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(15A, 1.8V) 5 hour rate(24A, 1.75V) 1 hour rate(90 A, 1.6V)	150Ah 120Ah 90Ah
Internal Resistance	Full charged battery at 25°C(77°F)	Approx 0.95mΩ
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	T94	
Max. Discharge current 25°C/(77°F)	1120A (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 37.5 A Voltage 2.42-2.48V Temperature compensation:-5mV/°C Voltage 2.25-2.30V Temperature compensation:-3mV/°C

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

Unit:A

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

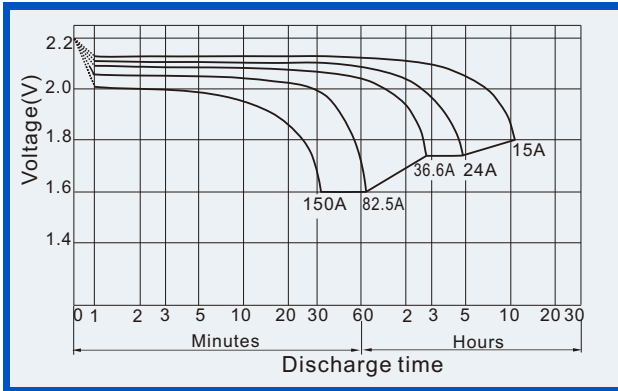
Unit:watts

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
1.60V	A	480	317	255	171	90	52.5	38.6	30.0	24.8	17.6	15.8	9
	W	826	563	456	306	162	96	71.5	56.3	46.9	33.5	30.3	16
1.70V	A	465	286	240	164	85	50.1	37.5	29.3	24.3	17.1	15.5	8.3
	W	828	532	448	306	159	96	72.4	56.7	47.2	33.3	30.3	16.1
1.75V	A	450	255	210	153	82	48.9	36.6	28.8	24.0	17.0	15.2	8.3
	W	819	484	400	293	158	95	71.1	56.2	46.9	33.2	29.9	16.3
1.80V	A	434	241	195	141	79	47.7	35.7	28.4	23.4	16.5	15.0	8.1
	W	811	463	375	272	154	93	70.2	55.8	46.1	32.6	29.7	16.1
1.85V	A	419	226	180	126	77	46.5	34.5	27.6	22.8	16.1	14.3	7.7
	W	792	435	350	246	150	92	68.3	54.8	45.3	32.0	28.7	15.5

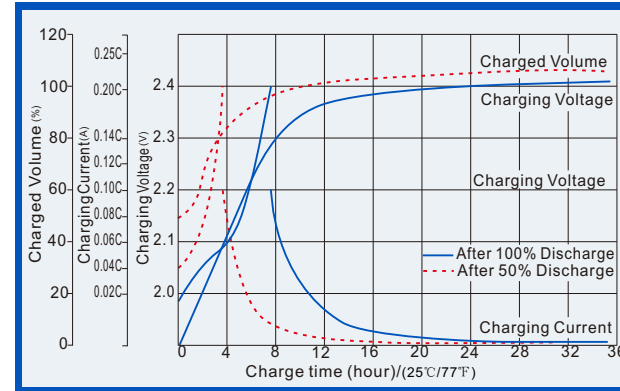
(Above characteristics data are average values obtained within three charge/discharge cycles, not the minimum values.)

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

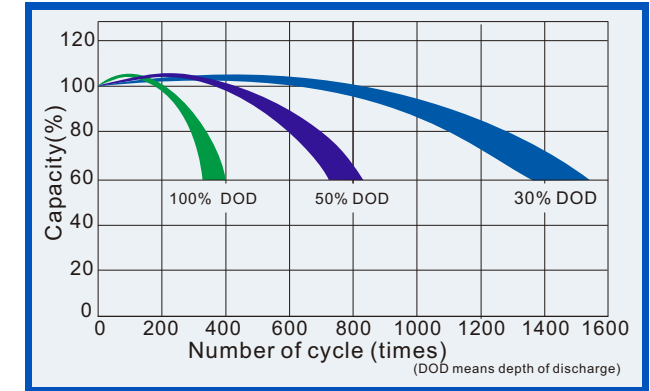
**Discharge characteristics (25°C, 77°F)**



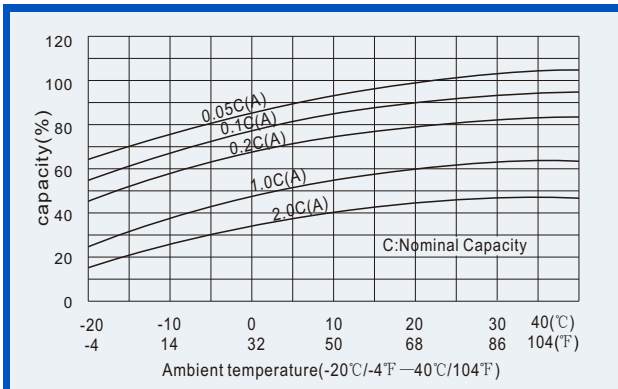
**Charge characteristics (25°C, 77°F)**



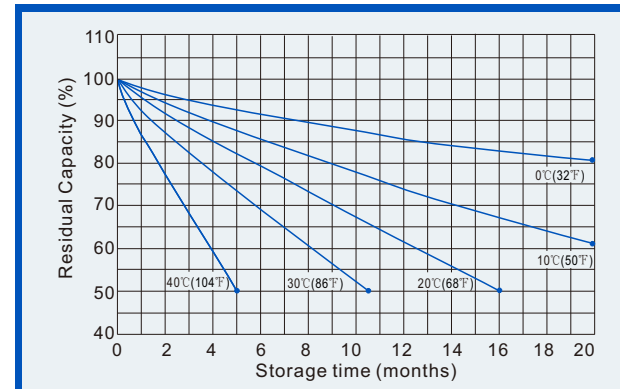
**Life characteristics of Cyclic Use (25°C, 77°F)**



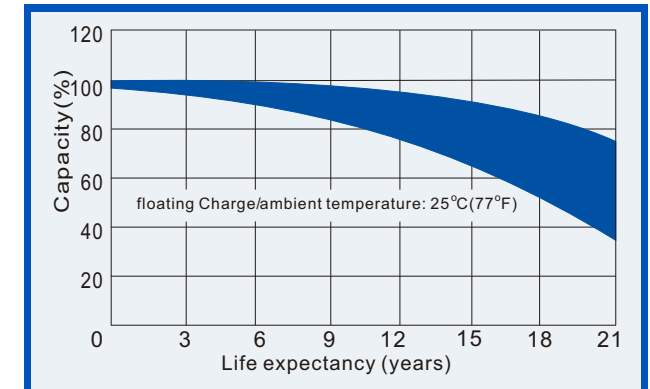
**Effect of Temperature on capacity**



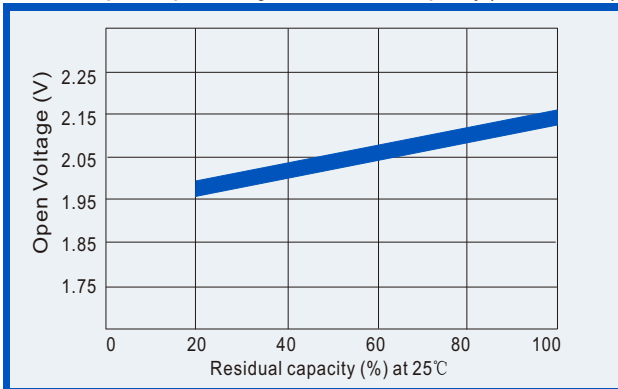
**Self-discharge characteristics**



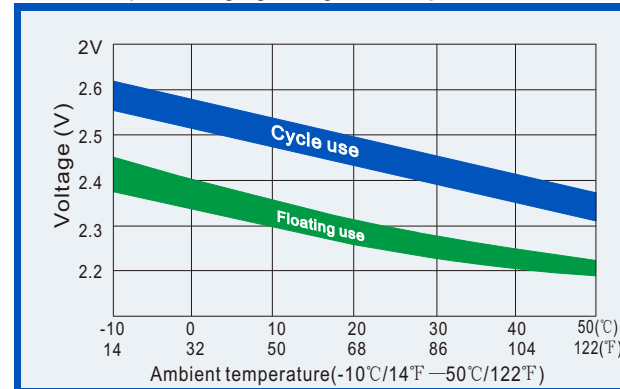
**Life Characteristics of float service (25°C, 77°F)**



**Relationships for open voltage and remained capacity (for reference)**



**Relationship for charging voltage and temperature**



**Temperature effects on floating life**

