

## 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.



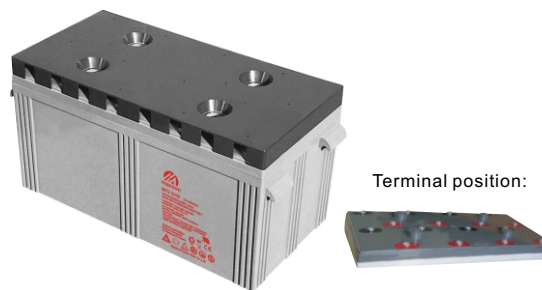
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**MP2-3000 (2V3000Ah)**

## Specifications

Nominal Voltage		2 V
Rated capacity (10 hour rate)		3000 Ah
Dimensions (±2mm)	Total Height (Include top cover)	382 mm (15.0 inches)
	Height	343mm (13.5 inches)
	Length	712 mm (28.0 inches)
	Width	353 mm (13.9 inches)
Weight Approx (±3%)		175.0 Kg (386.0lbs)

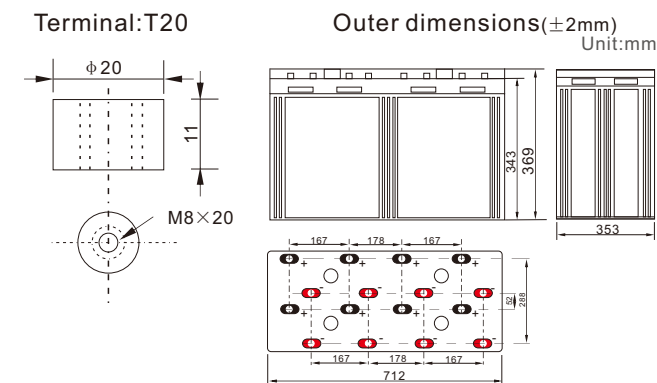
## Battery picture and construction



### 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



(Total height 382mm includes the top cover)

## Characteristics

Capacity 25°C(77°F)	10 hour rate(300A, 1.8V) 5 hour rate(480A, 1.75V) 1 hour rate(1800A, 1.6V)	3000Ah 2400Ah 1800Ah
Internal Resistance	Full charged battery at 25°C(77°F)	Approx 0.20mΩ
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	T20	
Max. Discharge current 25°C/(77°F)	15000A (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 750A 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

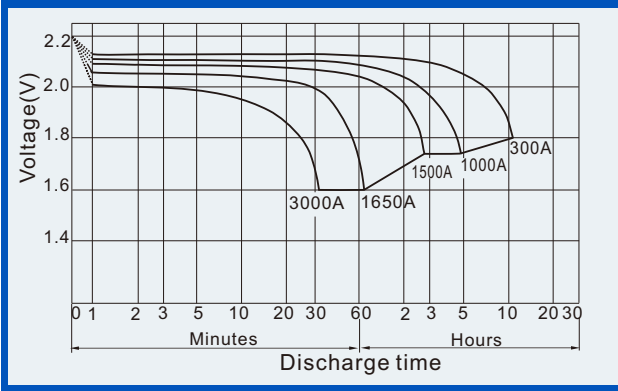
### Constant Current(Amp) and Constant Power(Watt) Discharge Table at 25°C(77°F)

Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V	A	9609	6330	5103	3420	1800	1050.0	771.0	600.0	495.0	351.0	170
	W	16527	11267	9119	6129	3240	1922	1430.2	1125.0	938.0	670.4	330
1.70V	A	9306	5712	4806	3270	1692	1002.0	750.0	585.0	486.0	342.0	165.0
	W	16565	10630	8963	6118	3189	1925	1447.5	1133.7	944.3	666.9	322.6
1.75V	A	9003	5109	4203	3060	1638	978.0	732.0	576.0	480.0	339.0	165.0
	W	16385	9687	7994	5869	3161	1890	1421.5	1123.2	937.9	664.4	325.1
1.80V	A	8676	4815	3906	2820	1584	954.0	714.0	567.0	468.0	330.0	162.0
	W	16224	9254	7500	5445	3073	1862	1403.0	1115.9	922.0	651.8	321.6
1.85V	A	8385	4512	3606	2520	1530	930.0	690.0	552.0	456.0	321.0	153.0
	W	15848	8708	6996	4914	2999	1832	1366.2	1095.7	907.0	640.7	309.1

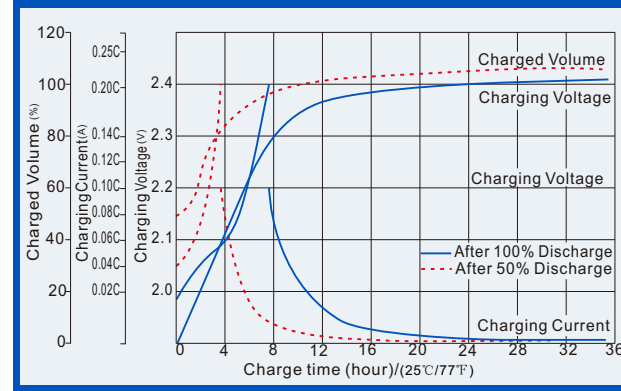
(Above characteristics data are average values obtained within three charge/discharge cycles, not the minimum values.)

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

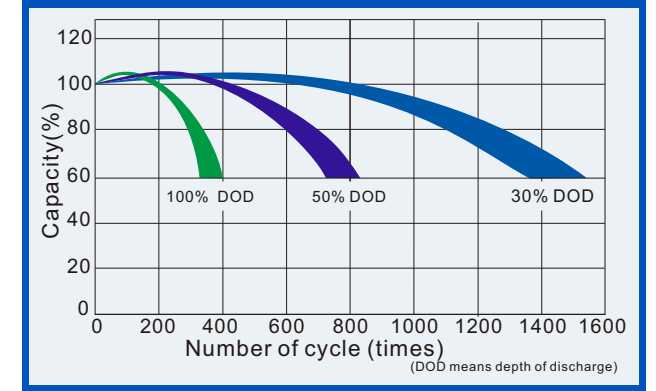
**Discharge characteristics (25°C, 77°F)**



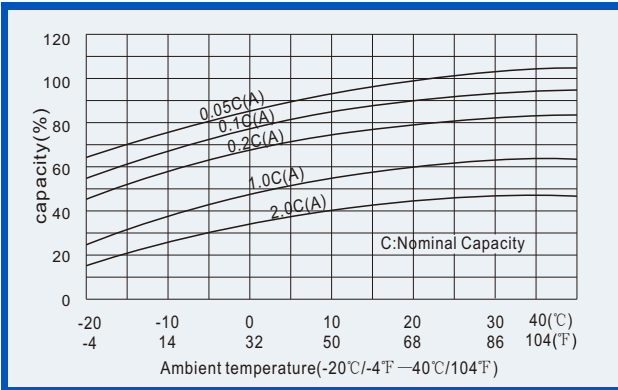
**Charge characteristics (25°C, 77°F)**



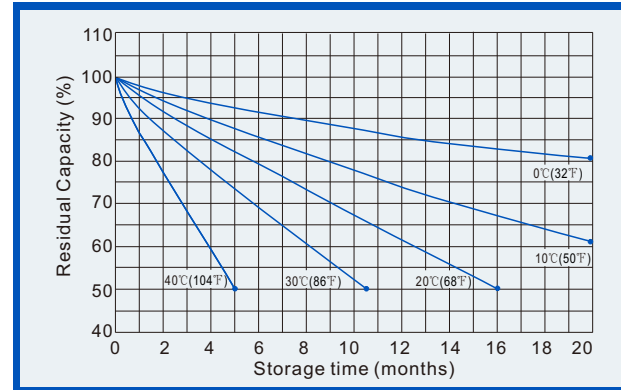
**Life characteristics of Cyclic Use (25°C, 77°F)**



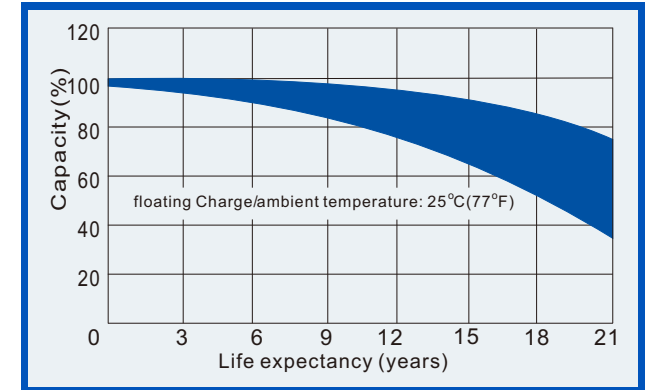
**Effect of Temperature on capacity**



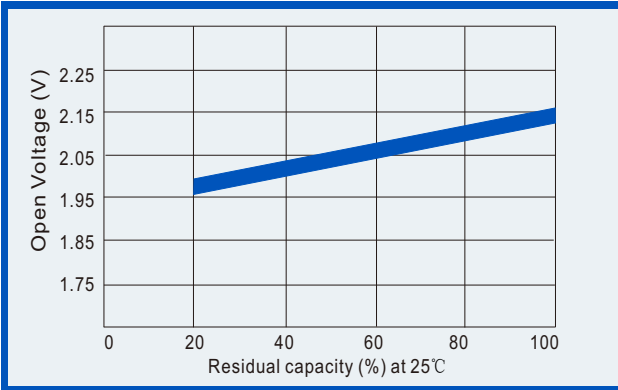
**Self-discharge characteristics**



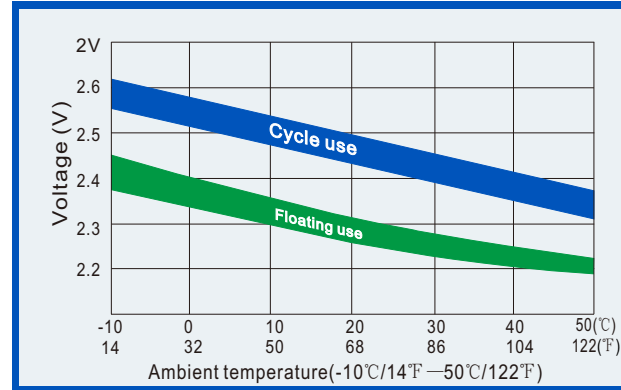
**Life Characteristics of float service (25°C, 77°F)**



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



**Relationship for charging voltage and temperature**



**Temperature effects on floating life**

