

## General features for MPE Series (Deep-cycle) 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.
- \* UL-recognized component.
- \* Long service life, float or cyclic applications.
- \* Maintenance-free operation.
- \* Low self discharge.
- \* Case and cover are available in both standard and flame retardant ABS (Standard :UL94V0).



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**MPE2-600 (2V600Ah)**

## Specifications

Nominal Voltage	2 V	
Rated capacity (10 hour rate)	600 Ah	
Dimensions (±2mm)	Total Height (Include top cover)	367 mm (14.5 inches)
	Height	331 mm (13.0 inches)
	Length	301 mm (11.9 inches)
	Width	175 mm (6.89inches)
Weight Approx (±3%)	36.5Kg (80.5 lbs)	

## Battery picture and construction



Terminal position:



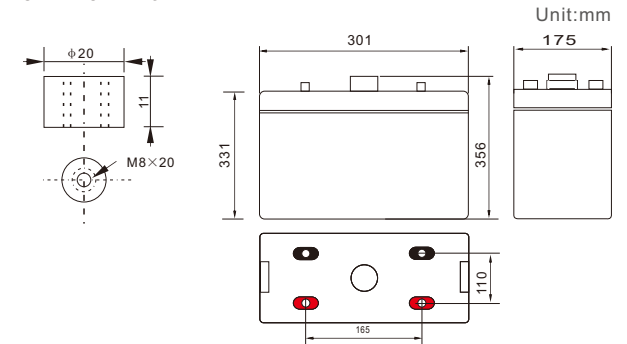
### Battery Construction

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:T20

Outer dimensions(±2mm)



(Total height 367mm includes the top cover)

## Characteristics

Capacity 25°C(77°F)	10 hour rate(60A, 1.8V)	600Ah
	5 hour rate(96A, 1.75V)	480Ah
	1 hour rate(360 A, 1.6V)	360Ah
Internal Resistance	Full charged battery at 25°C(77°F)	Approx 0.45 mΩ
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)	Capacity after 3 month storage	91%
	Capacity after 6 month storage	82%
	Capacity after 12 month storage	64%
Terminal type	T20	
Max. Discharge current 25°C/(77°F)	4000A (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 150 A Voltage 2.42-2.50V Temperature compensation:-5mV/°C
	Standby use	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)

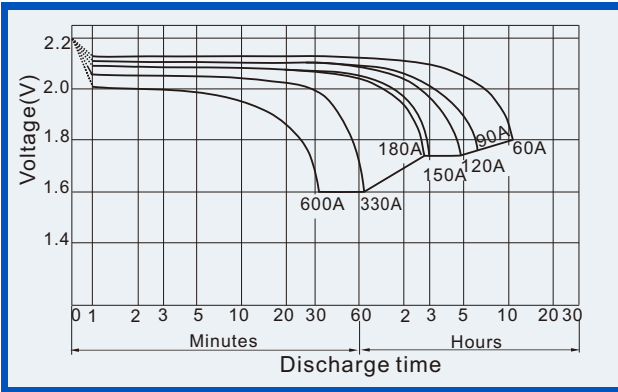
Unit:watts

Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V	A	1922	1266	1021	684	360	210.0	154.2	120.0	99.0	70.2	34
	W	3305	2253	1824	1226	648	384	286.0	225.0	187.6	134.1	66
1.70V	A	1861	1142	961	654	338	200.4	150.0	117.0	97.2	68.4	33.0
	W	3313	2126	1793	1224	638	385	289.5	226.7	188.9	133.4	64.5
1.75V	A	1801	1022	841	612	328	195.6	146.4	115.2	96.0	67.8	33.0
	W	3277	1937	1599	1174	632	378	284.3	224.6	187.6	132.9	65.0
1.80V	A	1735	963	781	564	317	190.8	142.8	113.4	93.6	66.0	32.4
	W	3245	1851	1500	1089	615	372	280.6	223.2	184.4	130.4	64.3
1.85V	A	1677	902	721	504	306	186.0	138.0	110.4	91.2	64.2	30.6
	W	3170	1742	1399	983	600	366	273.2	219.1	181.4	128.1	61.8

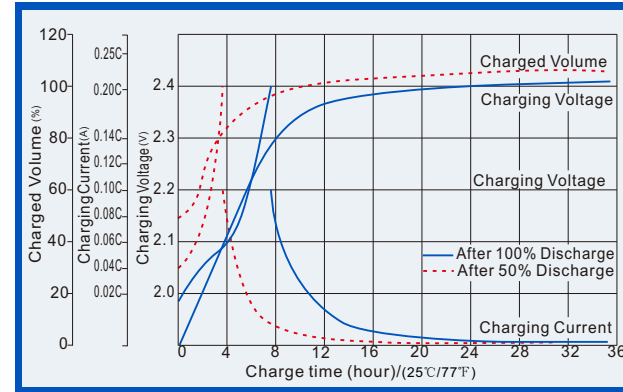
(Above characteristics data are average values obtained within three charge/discharge cycles,not the minimum values.)

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

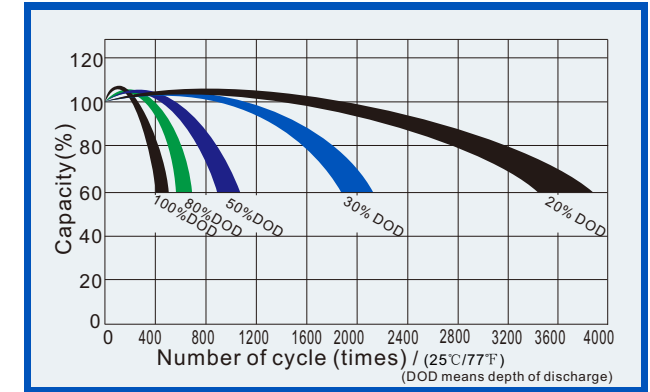
**Discharge characteristics (25°C, 77°F)**



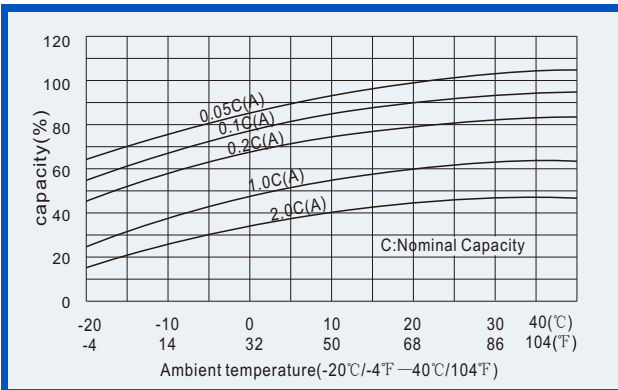
**Charge characteristics (25°C, 77°F)**



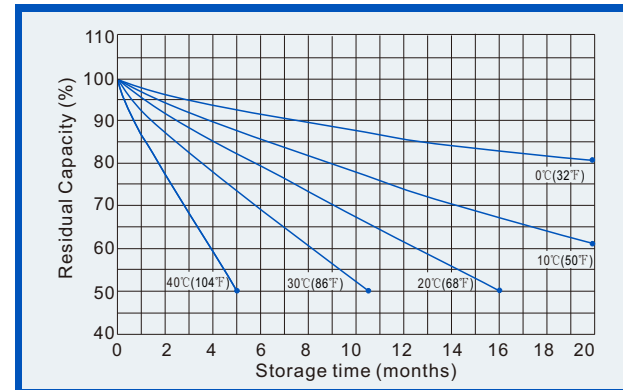
**Life characteristics of Cyclic Use (25°C, 77°F)**



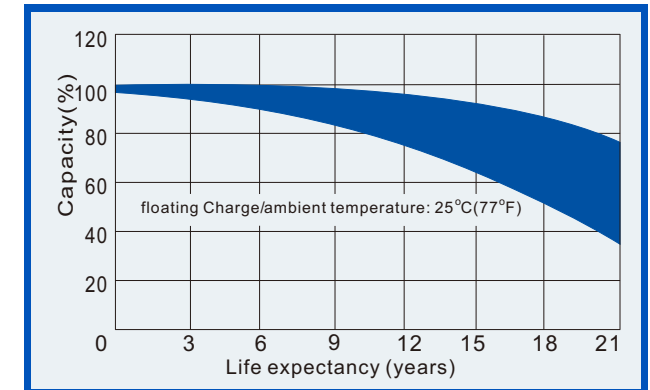
**Effect of Temperature on capacity**



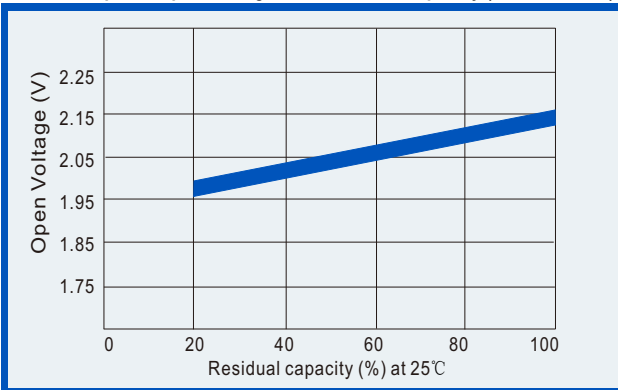
**Self-discharge characteristics**



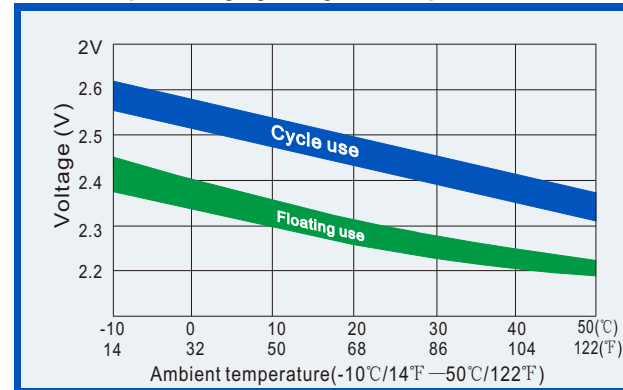
**Life Characteristics of float service (25°C, 77°F)**



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



**Relationship for charging voltage and temperature**



**Temperature effects on floating life**

