

## General features for MPPV Series battery (OPzV)

- \* Tubular positive plate; separator with the combined application of porous rubber and porous PVC, separator is with a high porosity & good corrosion resistance. Gelled electrolyte technology.
- \* Computer designed lead, calcium tin alloy grid for high power density.
- \* Long service life, maintenance-free during the whole service life.
- \* Alloy (no antimony) and internal oxygen recombination ensure low gassing.
- \* High cyclic ability, no internal short circuits in the GEL structure.
- \* Easy to move and handle, easy using cable connectors or copper connectors in the battery connection..



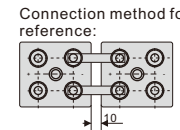
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**MPPV2-800 (2V800Ah)**

## Specifications

Nominal Voltage		2 V
Rated capacity (10 hour rate)		800 Ah
Dimensions (±3mm)	Total Height (Include terminal)	681mm (26.8inches)
	Height	646mm (25.4inches)
	Length	191mm (7.52inches)
	Width	206mm (8.11inches)
Approx weight (±5%)		60.0Kg (132.4lbs)

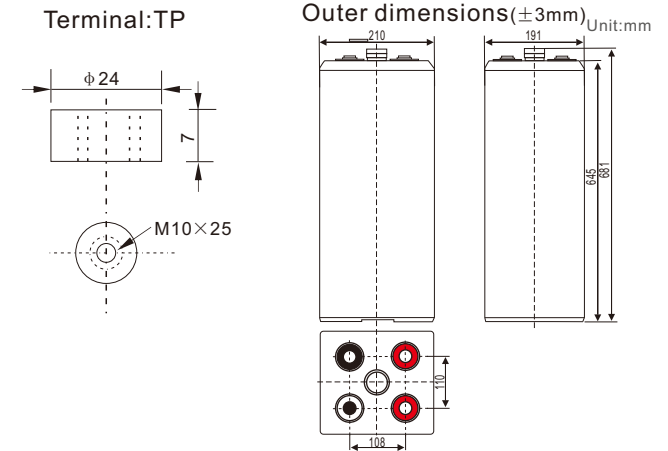
## Battery picture and construction



### Battery Construction

Component	Positive plate	Negative plate	Container	Cover
Raw material	Lead dioxide	Lead	ABS	ABS
Component	Electrolyte	Separator	Safety valve	Terminal
Raw material	Gelled acid	PVC	Rubber	Copper

## Outer dimension and terminal



## Characteristics

Capacity 25°C(77°F)	10 hour rate(80A, 1.8V) 3 hour rate(212A, 1.75V) 1 hour rate(420A, 1.75V)	800Ah 626Ah 420Ah
Internal Resistance	Full charged battery at 25°C(77°F)	Approx 0.65 mΩ
Capacity affected by Temperature (10hour rate)	40°C (104°F) 25°C (77°F) 0°C (32°F) -15°C (5°F)	103% 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	94% 88% 75%
Terminal type	TP (copper)	
Max. Discharge current 25°C/(77°F)	4000A (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 1600 A Voltage 2.35-2.45V Temperature compensation:-3mV/°C Voltage 2.25-2.30V Temperature compensation:-3mV/°C

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

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

Unit:A

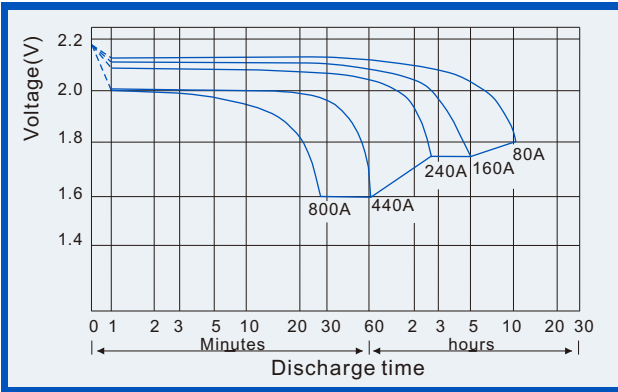
Unit:watts

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

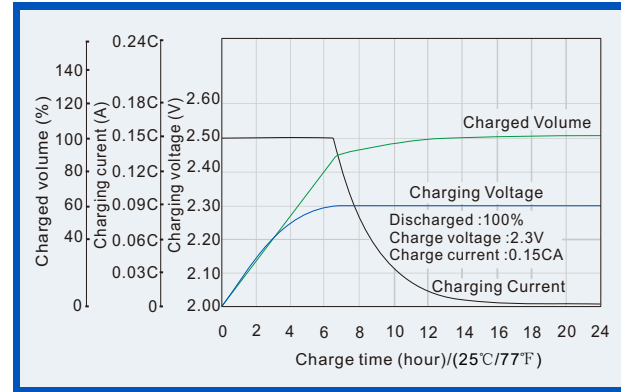
Time	30min	1h	2h	3h	5h	6h	8h	10h	20h	24h	48h	100h	
1.65V	A	696.0	460.0	301.3	236.0	162.7	131.6	106.7	93.3	48.1	39.9	21.3	10.5
	W	1460	940	673	472	305	292	241	180	91	82	54	28
1.70V	A	676.0	440.0	284.0	222.7	153.3	124.4	102.3	88.0	47.1	39.7	21.2	10.5
	W	1372	912	660	456	300	283	232	175	90	81	54	28
1.75V	A	640.0	420.0	268.0	212.0	145.3	118.3	97.7	84.0	45.6	39.6	20.9	10.4
	W	1255	888	643	441	296	275	224	168	89	80	54	28
1.80V	A	616.0	400.0	253.3	200.0	136.0	112.9	94.3	80.0	43.2	39.5	20.8	10.3
	W	1116	832	628	424	288	264	216	164	88	79	54	28
1.85V	A	580.0	380.0	241.3	188.0	130.7	107.6	88.8	75.6	40.8	37.6	20.7	10.3
	W	968	812	596	403	276	252	207	156	83	76	53	27

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

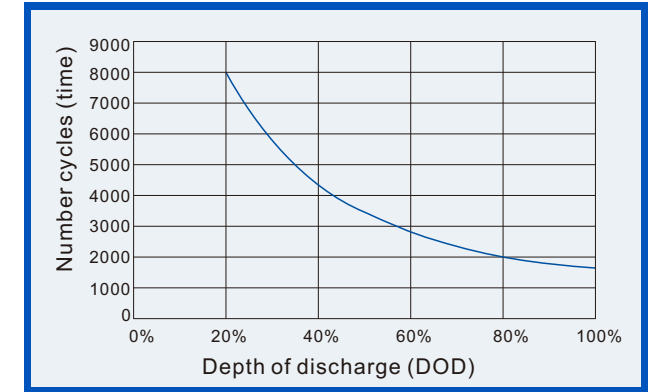
**Discharge characteristics (25°C, 77°F)**



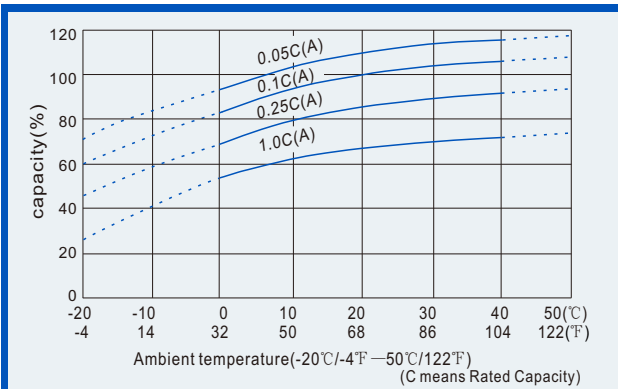
**Charge characteristics (25°C, 77°F)**



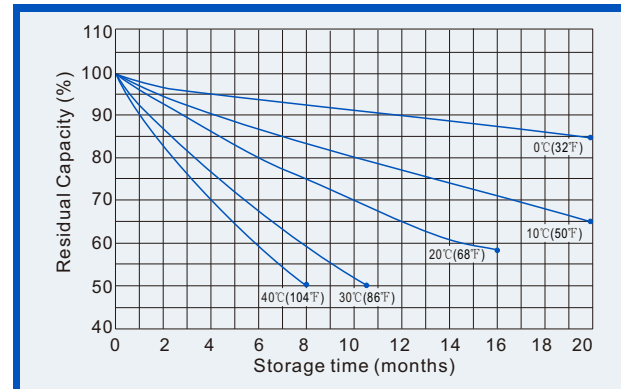
**Life characteristics of Cyclic Use (25°C, 77°F)**



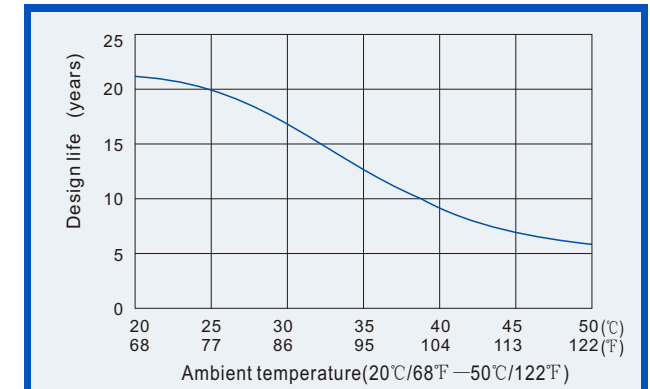
**Effect of Temperature on capacity**



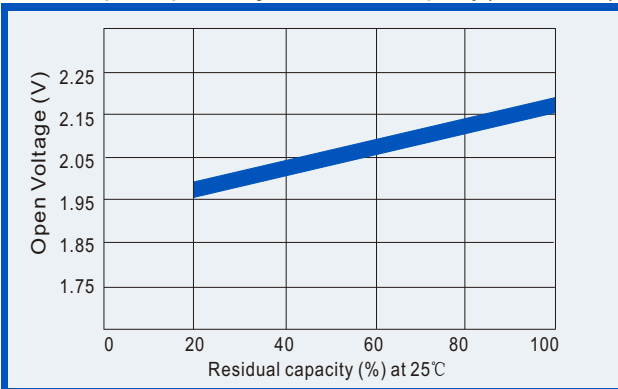
**Self-discharge characteristics (with full charging)**



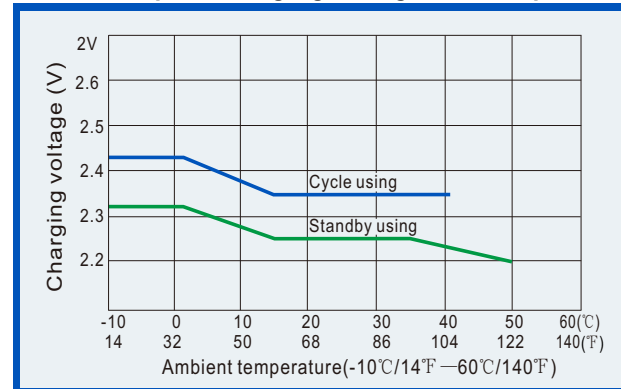
**Relationships for design life and temperature**



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



**Relationship for charging voltage and temperature**



**Effect of temperature on capacity**

