

## 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..



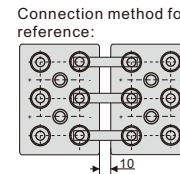
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## MPPV2-2000 (2V2000Ah)

### Specifications

Nominal Voltage		2 V
Rated capacity (10 hour rate)		2000 Ah
Dimensions (±3mm)	Total Height (Include terminal)	807mm (31.7inches)
	Height	772mm (30.4inches)
	Length	399mm (15.7inches)
	Width	210mm (8.27inches)
Approx weight (±5%)		150.0Kg (330.8lbs)

### Battery picture and construction



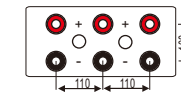
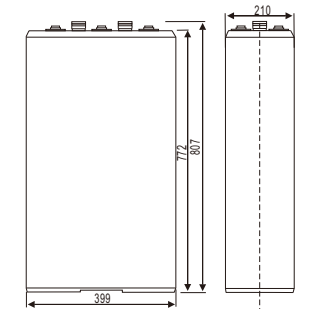
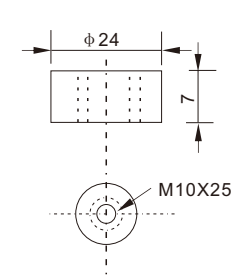
#### Battery Construction

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

Terminal: TP

Outer dimensions(±3mm) Unit:mm



### Characteristics

Capacity 25°C(77°F)	10 hour rate(200A, 1.8V) 3 hour rate(530A, 1.75V) 1 hour rate(1050A, 1.75V)	2000Ah 1590Ah 1050Ah
Internal Resistance	Full charged battery at 25°C(77°F)	Approx 0.60mΩ
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)	8000A (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 375 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

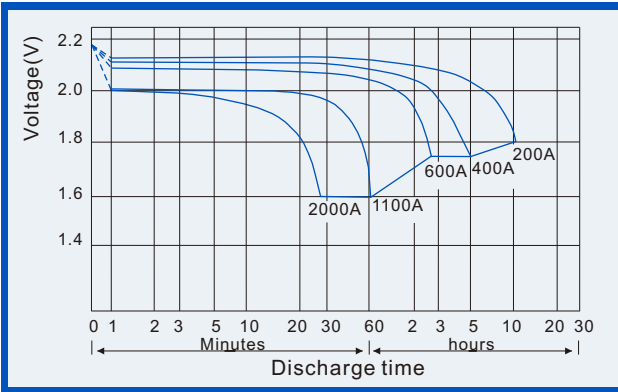
Unit:watts

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

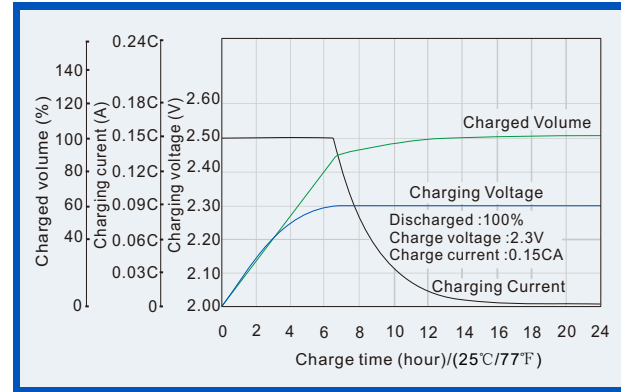
Time		30min	1h	2h	3h	5h	6h	8h	10h	20h	24h	48h	100h
1.65V	A	1740.0	1150.0	753.3	590.0	406.7	329.0	266.7	233.3	120.3	99.7	53.3	26.3
	W	3650	2350	1683	1180	763	730	603	450	227	204	135	70
1.70V	A	1690.0	1100.0	710.0	556.7	383.3	311.0	255.7	220.0	117.7	99.3	53.0	26.2
	W	3430	2280	1650	1140	750	707	580	437	224	202	135	70
1.75V	A	1600.0	1050.0	670.0	530.0	363.3	295.7	244.3	210.0	114.0	99.0	52.3	26.0
	W	3137	2220	1607	1103	740	687	560	420	222	200	134	69
1.80V	A	1540.0	1000.0	633.3	500.0	340.0	282.3	235.7	200.0	108.0	98.7	52.0	25.8
	W	2790	2080	1570	1060	720	660	540	410	220	198	134	69
1.85V	A	1450.0	950.0	603.3	470.0	326.7	269.0	222.0	189.0	102.0	94.0	51.7	25.8
	W	2420	2030	1490	1007	690	630	517	390	208	189	134	69

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

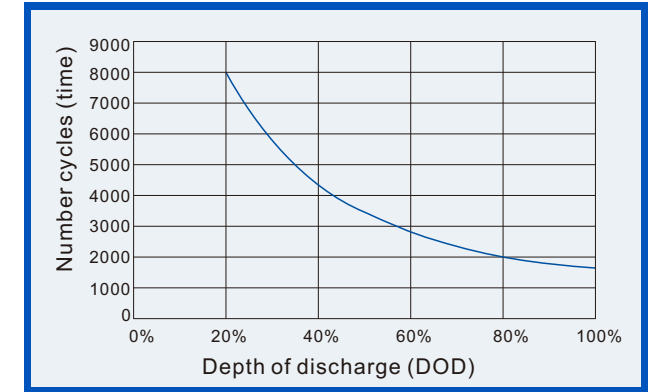
**Discharge characteristics (25°C, 77°F)**



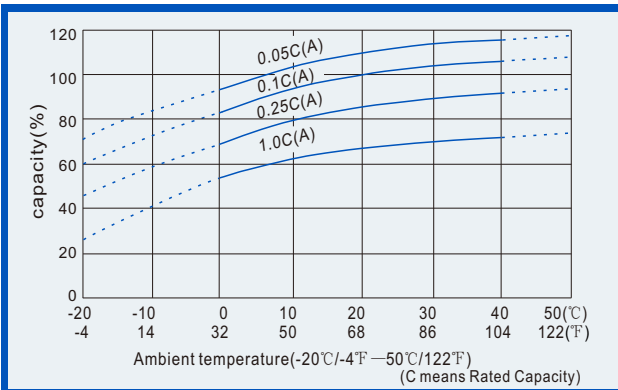
**Charge characteristics (25°C, 77°F)**



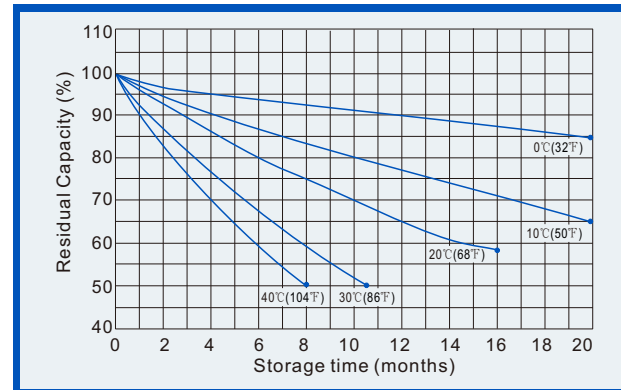
**Life characteristics of Cyclic Use (25°C, 77°F)**



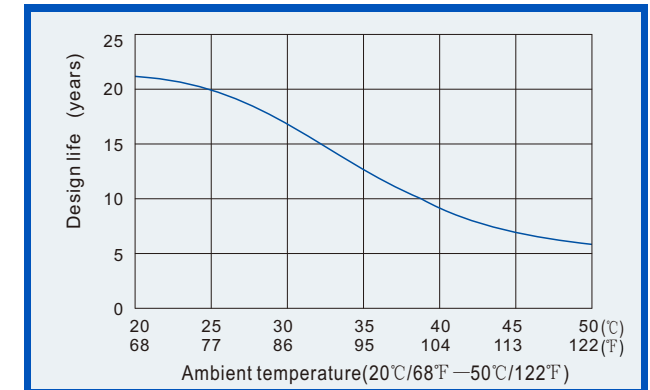
**Effect of Temperature on capacity**



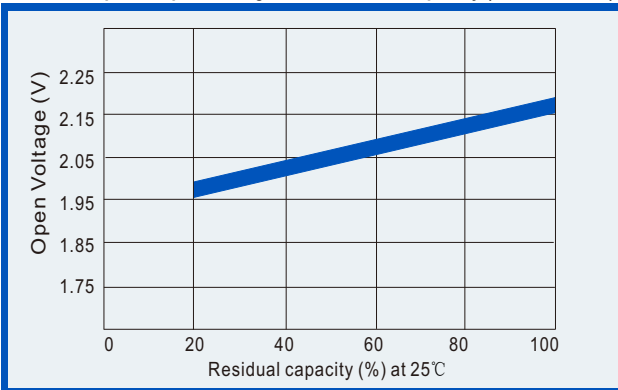
**Self-discharge characteristics (with full charging)**



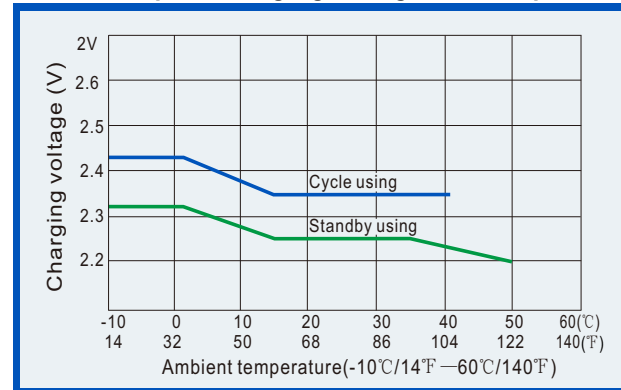
**Relationships for design life and temperature**



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



**Relationship for charging voltage and temperature**



**Effect of temperature on capacity**

