

## 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..



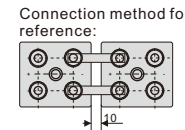
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**MPPV2-1500 (2V1500Ah)**

## Specifications

Nominal Voltage	2 V	
Rated capacity (10 hour rate)	1500 Ah	
Dimensions (±3mm)	Total Height (Include terminal)	831mm (32.7inches)
	Height	795mm (31.3inches)
	Length	275mm (10.8inches)
	Width	210mm (8.27inches)
Approx weight (±5%)	106.0Kg (233.8lbs)	

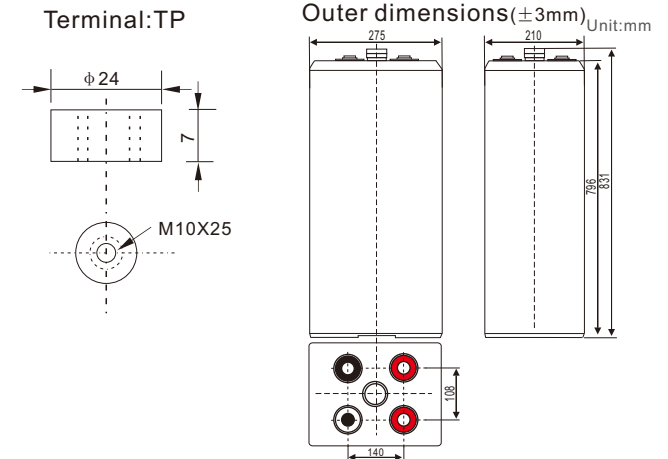
## Battery picture and construction



### 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



## Characteristics

Capacity 25°C(77°F)	10 hour rate(150A,1.8V)	1500Ah
	3 hour rate(397A,1.75V)	1191Ah
	1 hour rate(787.5A,1.75V)	787Ah
Internal Resistance	Full charged battery at 25°C(77°F)	Approx 0.55mΩ
Capacity affected by Temperature (10hour rate)	40°C (104°F)	103%
	25°C (77°F)	100%
	0°C (32°F)	85%
Remaining capacity Self-Discharge At 25°C(77°F)	-15°C (5°F)	65%
	Capacity after 3 month storage	94%
	Capacity after 6 month storage	88%
	Capacity after 12 month storage	75%
Terminal type	TP (copper)	
Max. Discharge current 25°C/(77°F)	7500A (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 375 A Voltage 2.35-2.45V Temperature compensation:-3mV/°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)

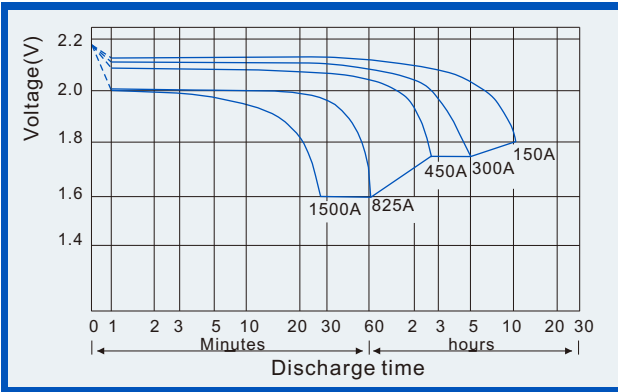
Unit:watts

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

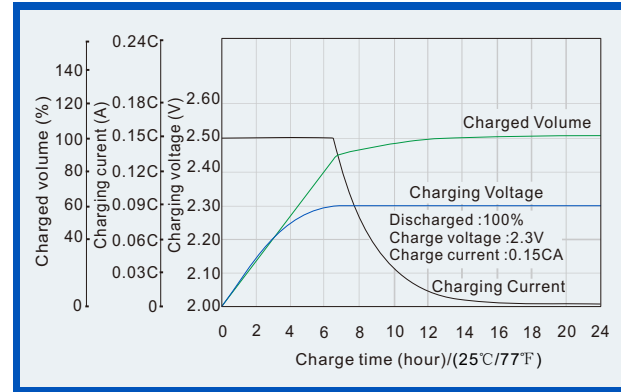
Time		30min	1h	2h	3h	5h	6h	8h	10h	20h	24h	48h	100h
1.65V	A	1305.0	862.5	565.0	442.5	305.0	246.8	200.0	175.0	90.3	74.8	40.0	19.7
	W	2738	1763	1263	885	573	548	453	338	170	153	101	53
1.70V	A	1267.5	825.0	532.5	417.5	287.5	233.3	191.8	165.0	88.3	74.5	39.8	19.7
	W	2573	1710	1238	855	563	530	435	328	168	152	101	52
1.75V	A	1200.0	787.5	502.5	397.5	272.5	221.8	183.3	157.5	85.5	74.3	39.3	19.5
	W	2353	1665	1205	828	555	515	420	315	167	150	101	52
1.80V	A	1155.0	750.0	475.0	375.0	255.0	211.8	176.8	150.0	81.0	74.0	39.0	19.4
	W	2093	1560	1178	795	540	495	405	308	165	149	101	52
1.85V	A	1087.5	712.5	452.5	352.5	245.0	201.8	166.5	141.8	76.5	70.5	38.8	19.3
	W	1815	1523	1118	755	518	473	388	293	156	142	100	52

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

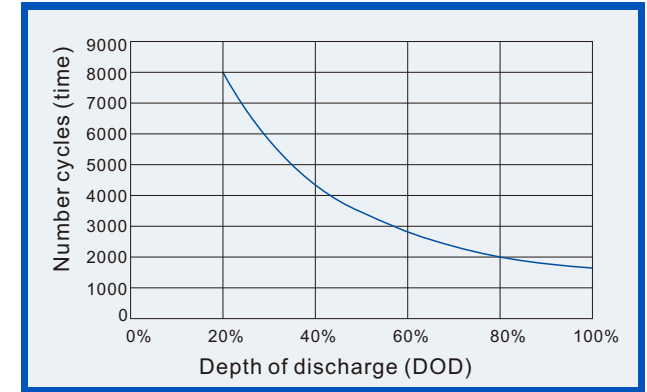
**Discharge characteristics (25°C, 77°F)**



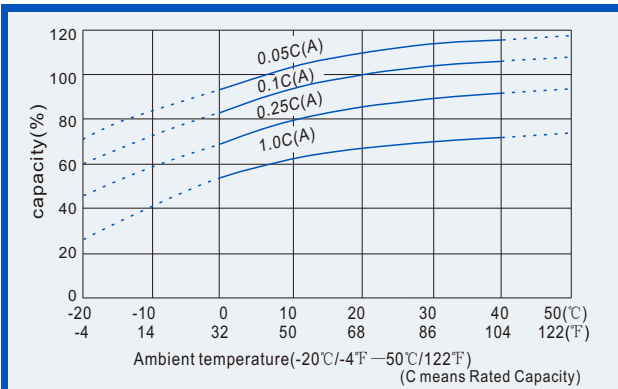
**Charge characteristics (25°C, 77°F)**



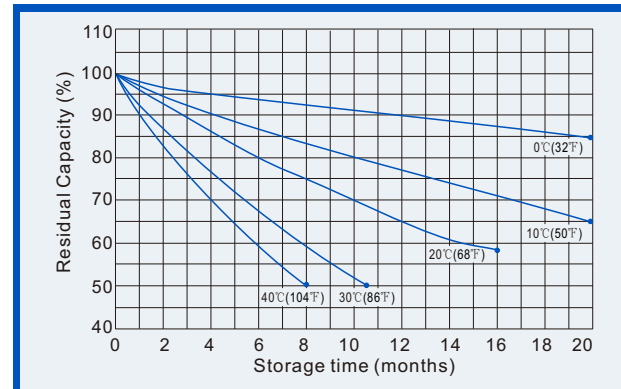
**Life characteristics of Cyclic Use (25°C, 77°F)**



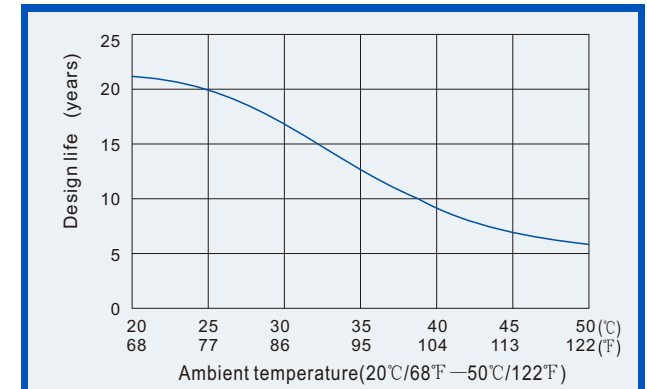
**Effect of Temperature on capacity**



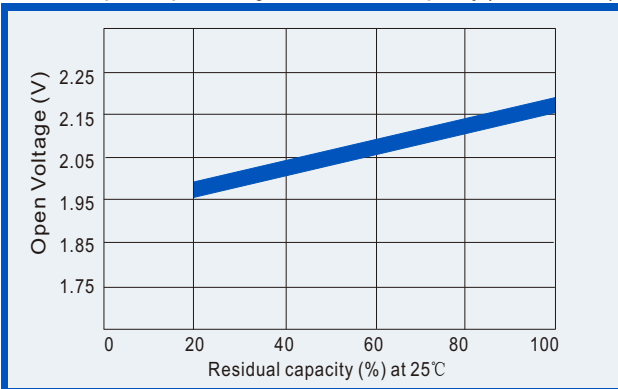
**Self-discharge characteristics (with full charging)**



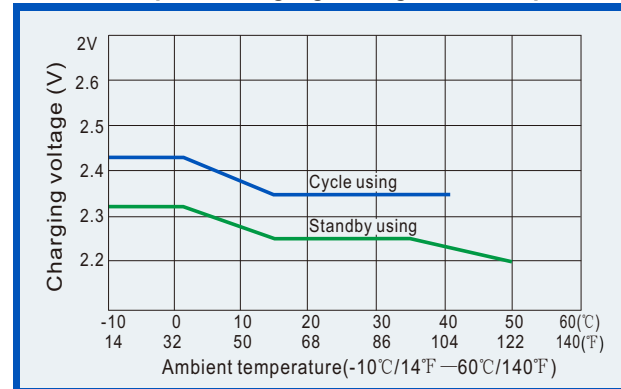
**Relationships for design life and temperature**



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



**Relationship for charging voltage and temperature**



**Effect of temperature on capacity**

