

## 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..



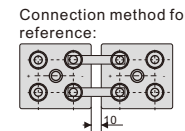
**Maxton Power Tech Co., Ltd**  
www.maxtonpower.com  
info@maxtonpower.com

**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%)		58.5Kg (129lbs)

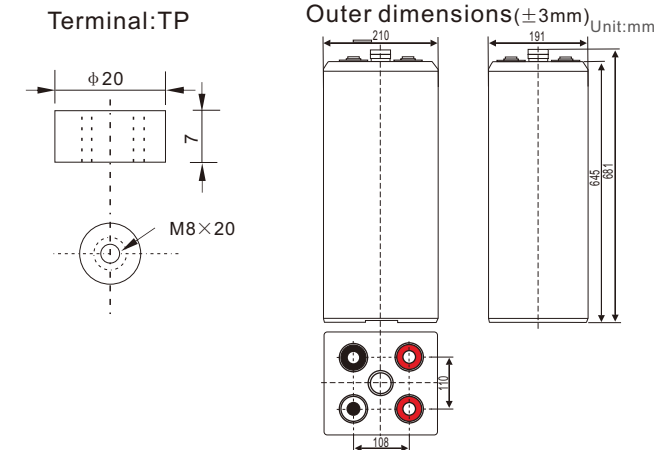
## Battery picture and construction



### 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)	800Ah
	3 hour rate(208A, 1.75V)	624Ah
	1 hour rate(454A, 1.60V)	454Ah
Internal Resistance	Full charged battery at 25°C(77°F)	Approx 0.6 mΩ
Capacity affected by Temperature (10hour rate)	40°C (104°F)	103%
	25°C (77°F)	100%
	0°C (32°F)	85%
	-15°C (5°F)	65%
Remaining capacity Self-Discharge At 25°C(77°F)	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)		4000A (5Seconds)
Nominal operating temperature		25°C ±5°C(77□ ±9□)
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 200A Voltage 2.40-2.50V Temperature compensation:-3mV/°C
	Standby use	Voltage 2.25-2.30V Temperature compensation:-3mV/°C

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

Unit:A

Time	30min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.65V	666	449	274	211	170	146	125	98.4	81.6	43.0
1.70V	646	438	272	210	169	144	124	97.6	80.8	43.0
1.75V	630	429	268	208	168	143	123	96.8	80.8	42.7
1.80V	607	416	261	202	163	139	119	93.6	80.0	42.4
1.85V	577	395	248	191	155	132	114	88.8	76.0	40.1

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

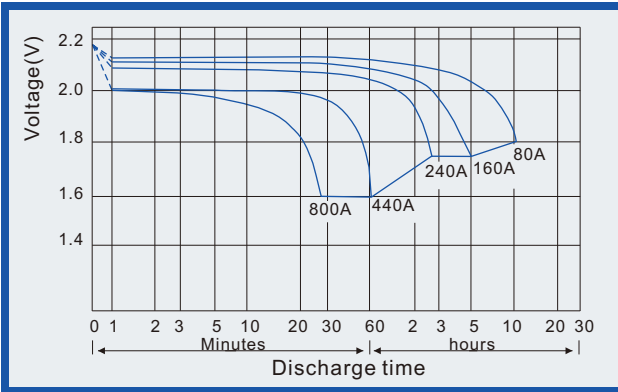
## Constant power discharge (25°C , 77 °F)

Unit:watts

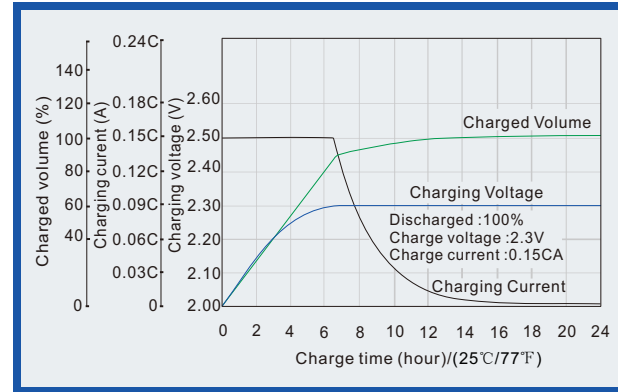
Time	30min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.65V	1246	854	530	414	334	286	246	194	162	86.4
1.70V	1208	832	525	410	331	284	245	193	162	85.6
1.75V	1178	815	517	408	330	282	242	192	160	85.6
1.80V	1135	790	504	395	319	274	235	186	159	84.8
1.85V	1078	751	479	375	303	260	223	176	151	80.6

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

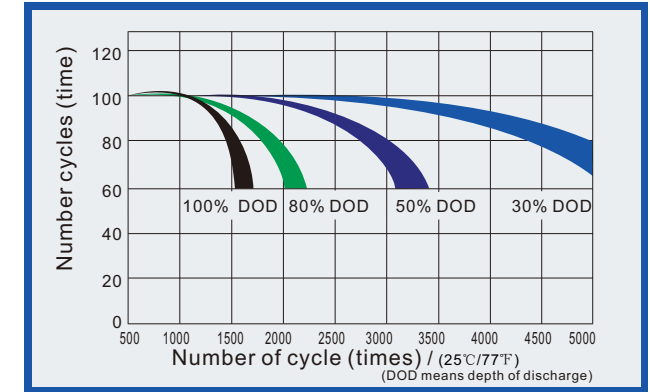
**Discharge characteristics (25°C, 77°F)**



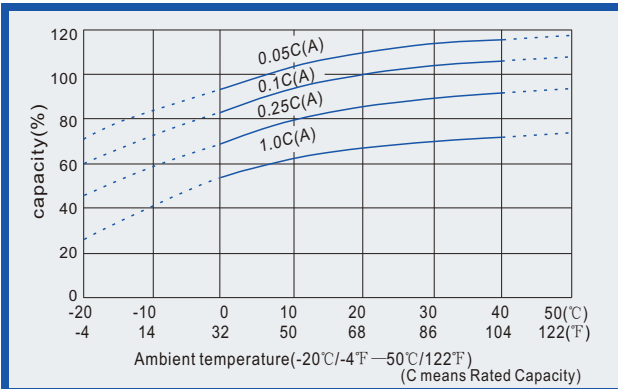
**Charge characteristics (25°C, 77°F)**



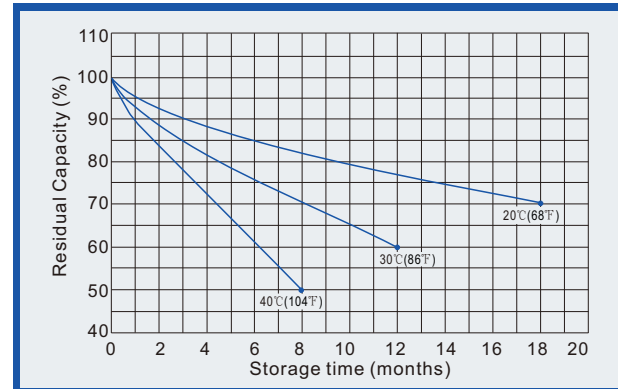
**Life characteristics of Cyclic Use (25°C, 77°F)**



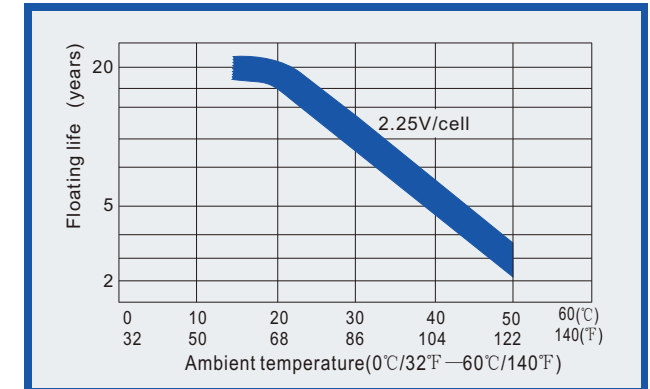
**Effect of Temperature on capacity**



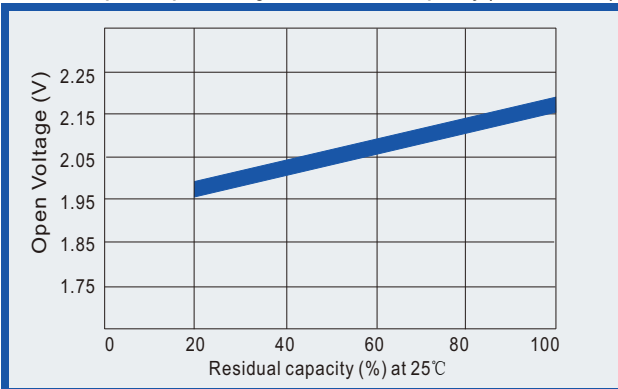
**Self-discharge characteristics (with full charging)**



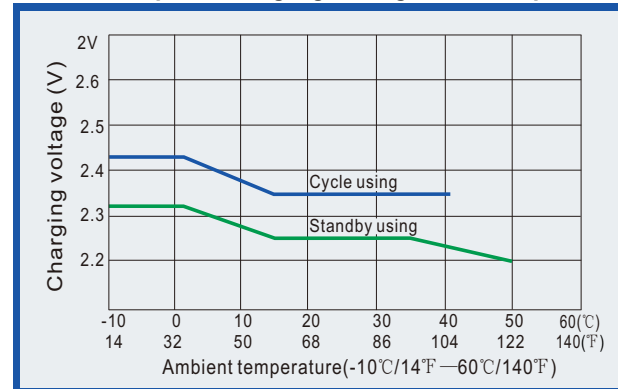
**Relationships for floating life and temperature**



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



**Relationship for charging voltage and temperature**



**Effect of temperature on capacity**

