

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..



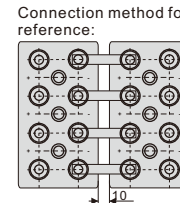
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MPPV2-2500 (2V2500Ah)

Specifications

Nominal Voltage		2 V
Rated capacity (10 hour rate)		2500 Ah
Dimensions (±3mm)	Total Height (Include terminal)	807mm (31.7inches)
	Height	772mm (30.4inches)
	Length	487mm (19.2inches)
	Width	212mm (8.34inches)
Approx weight (±5%)		185.0Kg (408lbs)

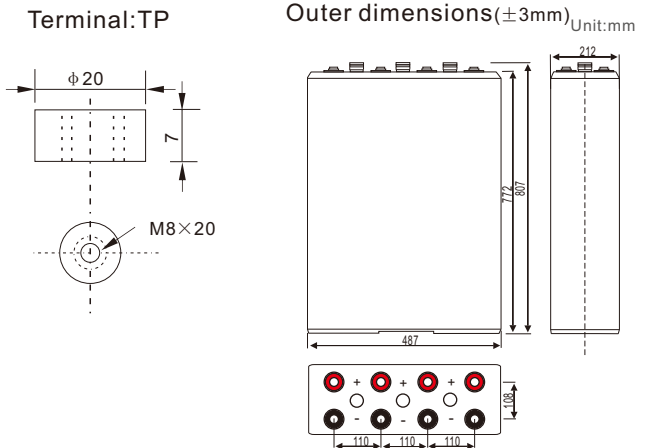
Battery picture and construction



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(250A, 1.8V)	2500Ah
	3 hour rate(662.5A, 1.75V)	1986Ah
	1 hour rate(1445A, 1.60V)	1445Ah
Internal Resistance	Full charged battery at 25°C(77°F)	Approx 0.20 mΩ
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)	12500A (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 625 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)

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

Unit:A

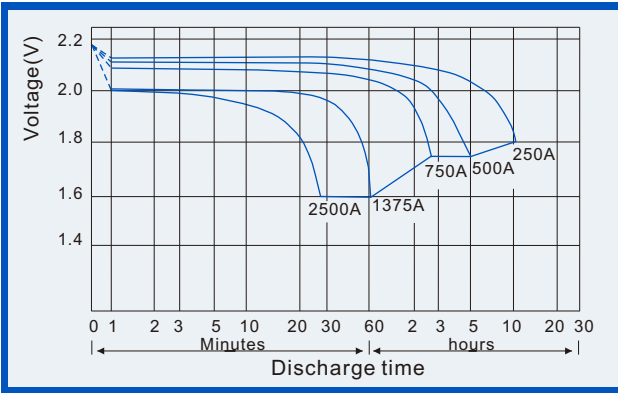
Unit:watts

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

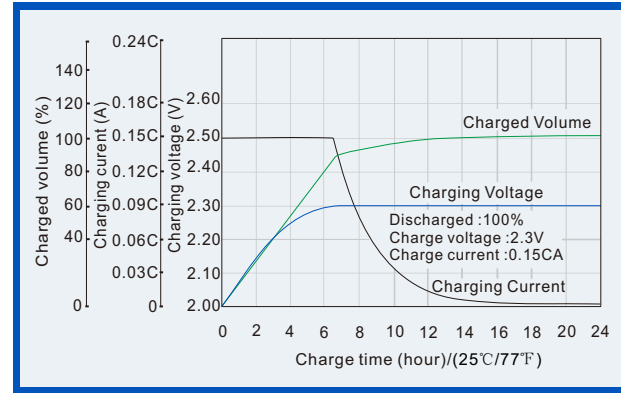
Time		30min	1h	2h	3h	5h	6h	8h	10h	20h	24h	48h	100h
1.65V	A	2175.0	1437.5	941.7	737.5	508.3	411.3	333.3	291.7	150.4	124.6	66.7	32.8
	W	4563	2938	2104	1475	954	913	754	563	283	255	169	88
1.70V	A	2112.5	1375.0	887.5	695.8	479.2	388.8	319.6	275.0	147.1	124.2	66.3	32.8
	W	4288	2850	2063	1425	938	883	725	546	280	253	168	87
1.75V	A	2000.0	1312.5	837.5	662.5	454.2	369.6	305.4	262.5	142.5	123.8	65.4	32.5
	W	3921	2775	2008	1379	925	858	700	525	278	250	168	87
1.80V	A	1925.0	1250.0	791.7	625.0	425.0	352.9	294.6	250.0	135.0	123.3	65.0	32.3
	W	3488	2600	1963	1325	900	825	675	513	275	248	168	86
1.85V	A	1812.5	1187.5	754.2	587.5	408.3	336.3	277.5	236.3	127.5	117.5	64.6	32.2
	W	3025	2538	1863	1258	863	788	646	488	260	236	167	86

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

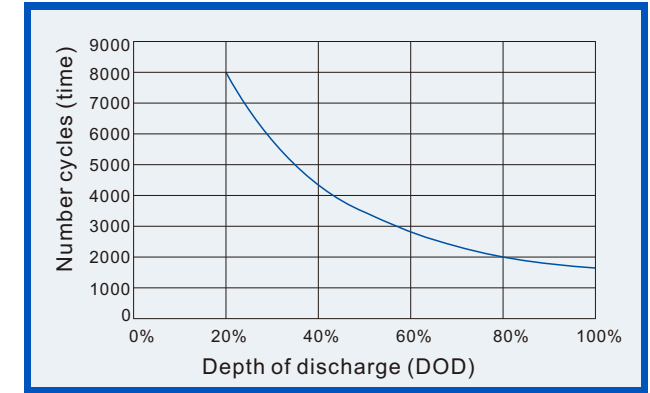
Discharge characteristics (25°C, 77°F)



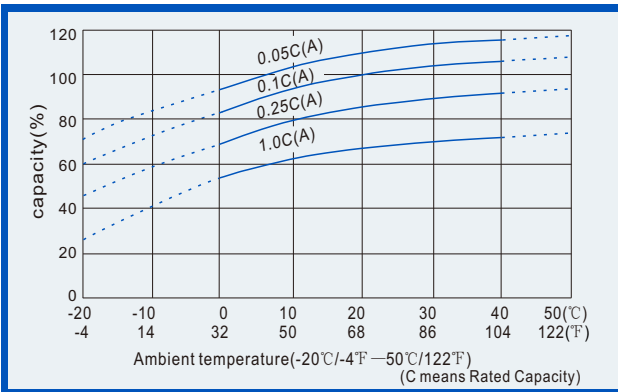
Charge characteristics (25°C, 77°F)



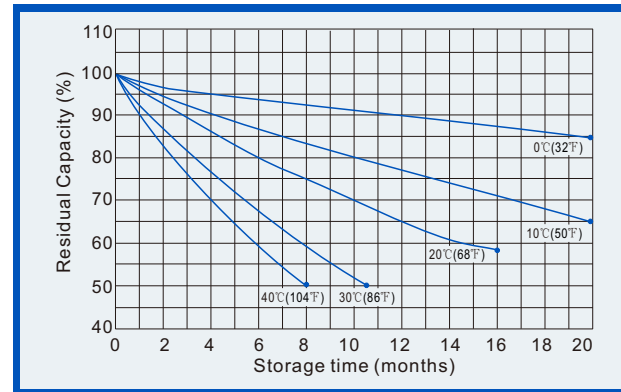
Life characteristics of Cyclic Use (25°C, 77°F)



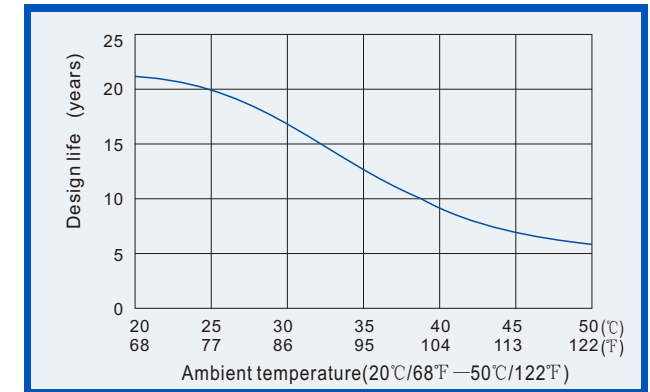
Effect of Temperature on capacity



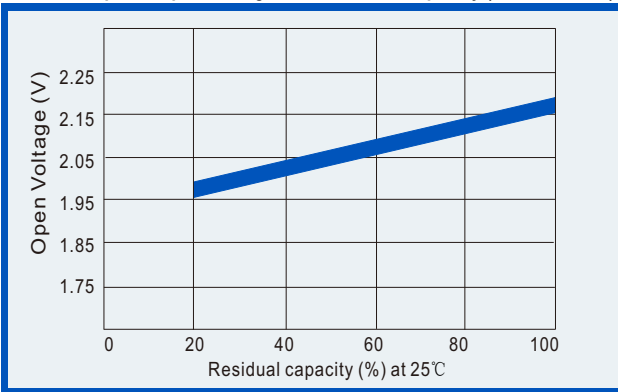
Self-discharge characteristics (with full charging)



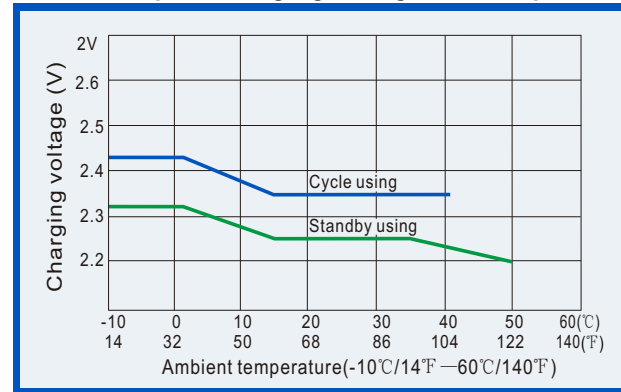
Relationships for design life and temperature



Relationships for open voltage and remained capacity (for reference)



Relationship for charging voltage and temperature



Effect of temperature on capacity

