

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..



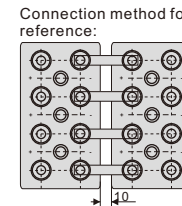
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MPPV2-2500 (2V2500Ah)

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%)		174.0Kg (383lbs)

Battery picture and construction



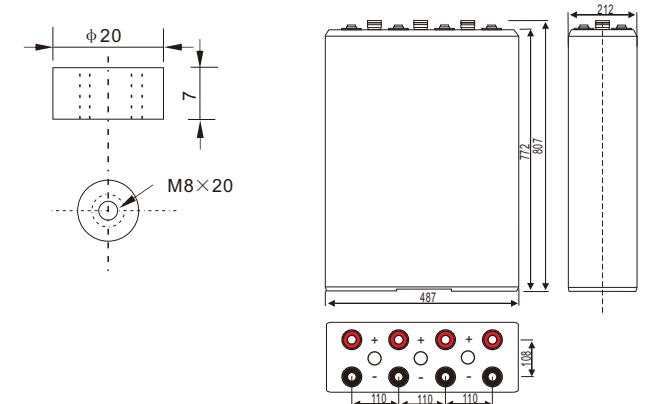
Battery Construction

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(250A, 1.8V) 3 hour rate(780A, 1.75V) 1 hour rate(1425A, 1.60V)	2500Ah 2340Ah 1425Ah
Internal Resistance	Full charged battery at 25°C(77°F)	Approx 0.20 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)	12500A (5Seconds)	
Nominal operating temperature	25°C ±5°C(77□ ±9□)	
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 625 A Voltage 2.40-2.50V Temperature compensation:-3mV/°C 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	2083	1403	858	660	533	455	390	308	255	135
1.70V	2020	1368	850	655	528	450	388	305	253	134
1.75V	1970	1340	838	650	525	448	385	303	253	134
1.80V	1898	1300	815	630	510	435	373	293	250	133
1.85V	1803	1235	775	598	485	413	355	278	238	126

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

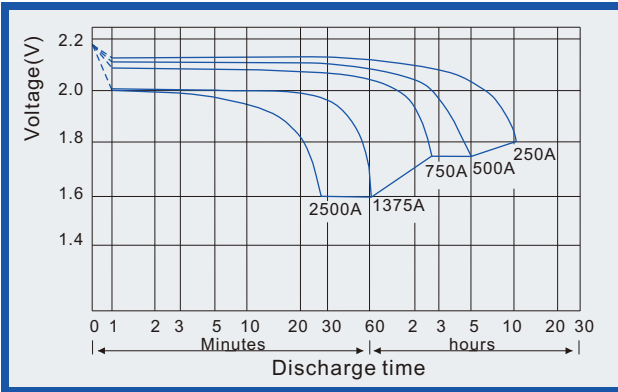
Constant power discharge (25°C , 77 °F)

Unit:watts

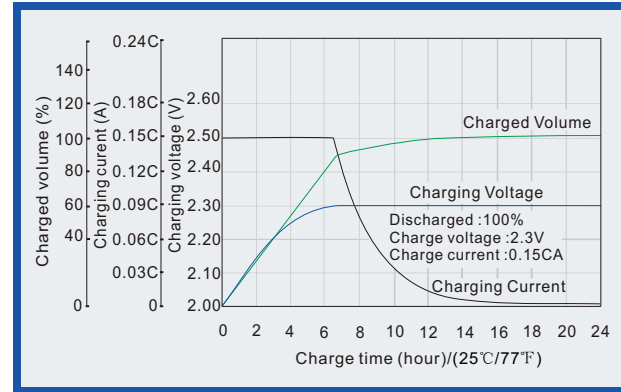
Time	30min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.65V	3895	2668	1655	1293	1043	895	770	608	505	270
1.70V	3775	2600	1640	1283	1035	888	765	603	505	268
1.75V	3683	2548	1615	1275	1030	883	758	600	500	268
1.80V	3548	2470	1575	1235	998	855	735	580	498	265
1.85V	3370	2348	1498	1173	948	813	698	550	473	252

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

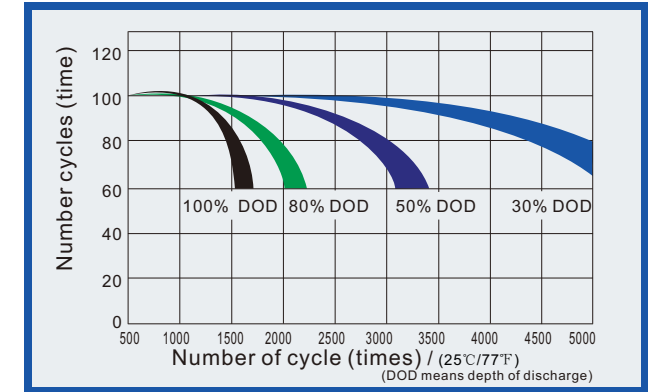
Discharge characteristics (25°C, 77°F)



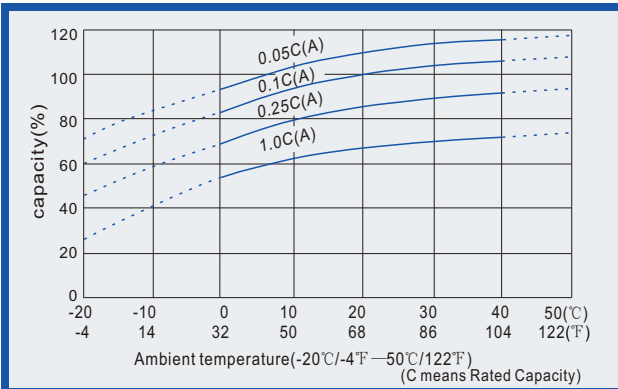
Charge characteristics (25°C, 77°F)



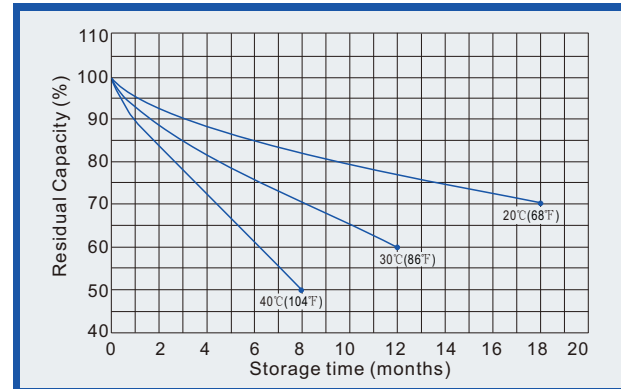
Life characteristics of Cyclic Use (25°C, 77°F)



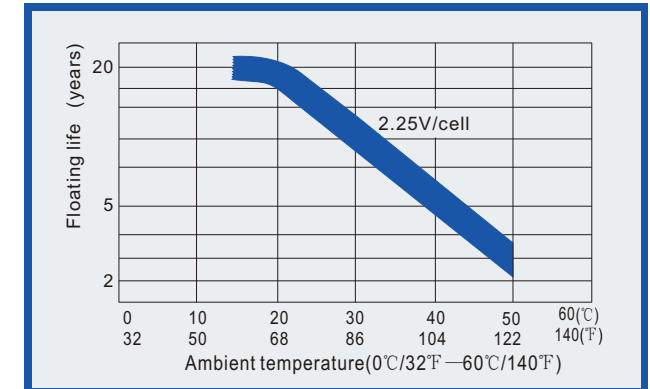
Effect of Temperature on capacity



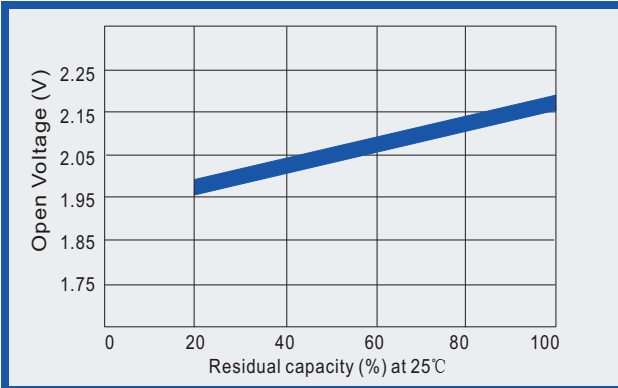
Self-discharge characteristics (with full charging)



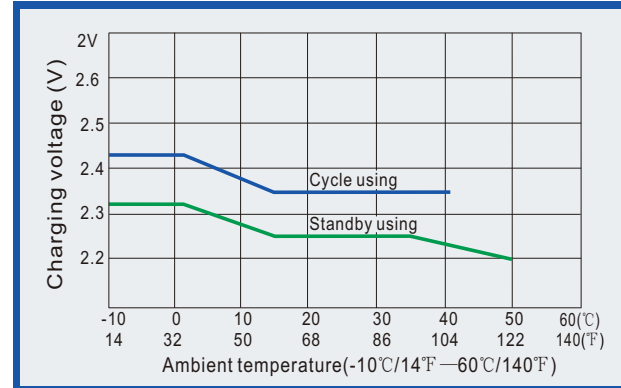
Relationships for floating life and temperature



Relationships for open voltage and remained capacity (for reference)



Relationship for charging voltage and temperature



Effect of temperature on capacity

