

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..



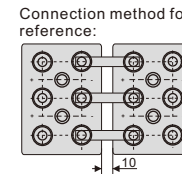
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MPPV2-2000 (2V2000Ah)

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%)		143.0Kg (315lbs)

Battery picture and construction



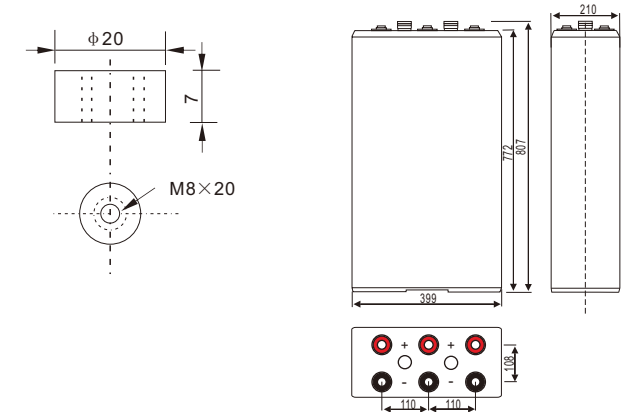
Battery Construction

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(520A, 1.75V) 1 hour rate(1140A, 1.60V)	2000Ah 1560Ah 1140Ah
Internal Resistance	Full charged battery at 25°C(77°F)	Approx 0.23 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)	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 500A 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	1666	1122	686	528	426	364	312	246	204	108
1.70V	1616	1094	680	524	422	360	310	244	202	107
1.75V	1576	1072	670	520	420	358	308	242	202	107
1.80V	1518	1040	652	504	408	348	298	234	200	106
1.85V	1442	988	620	478	388	330	284	222	190	101

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

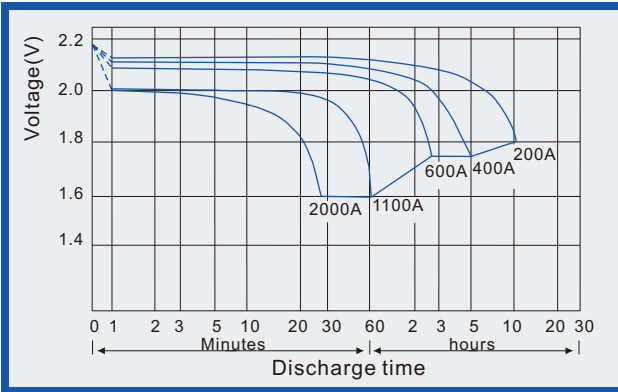
Constant power discharge (25°C , 77 °F)

Unit:watts

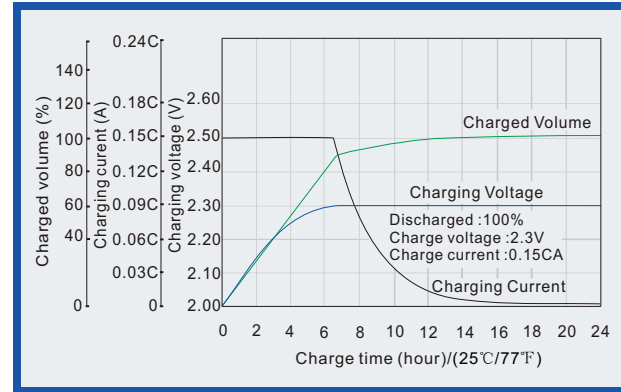
Time	30min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.65V	3116	2134	1324	1034	834	716	616	486	404	216
1.70V	3020	2080	1312	1026	828	710	612	482	404	214
1.75V	2946	2038	1292	1020	824	706	606	480	400	214
1.80V	2838	1976	1260	988	798	684	588	464	398	212
1.85V	2696	1878	1198	938	758	650	558	440	378	201

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

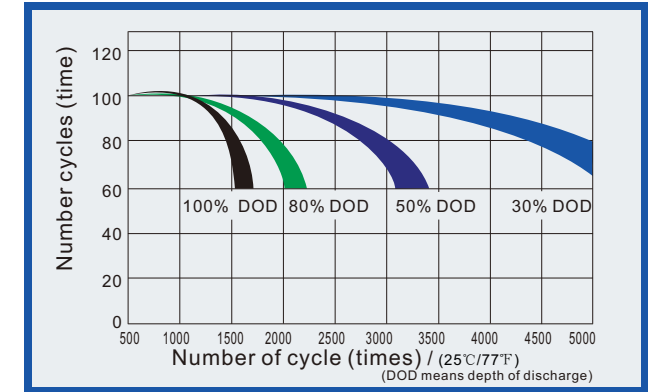
Discharge characteristics (25°C, 77°F)



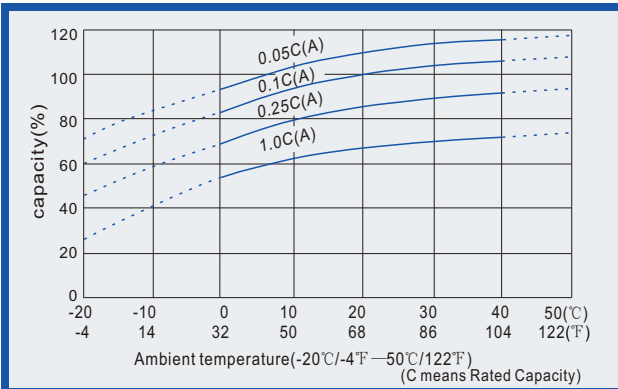
Charge characteristics (25°C, 77°F)



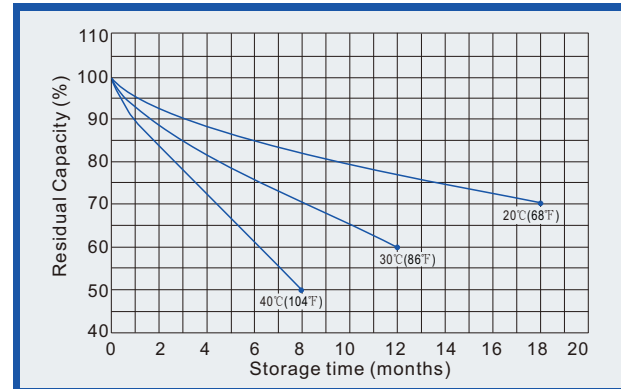
Life characteristics of Cyclic Use (25°C, 77°F)



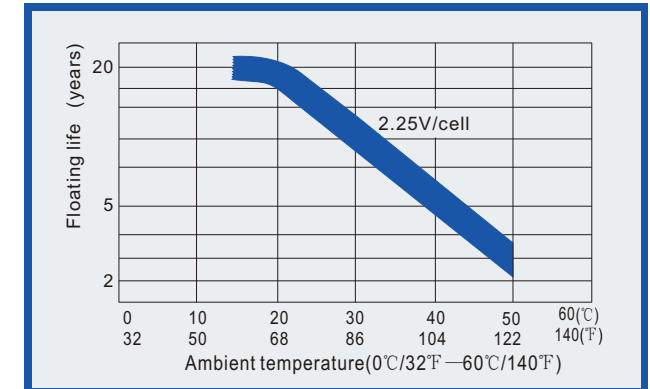
Effect of Temperature on capacity



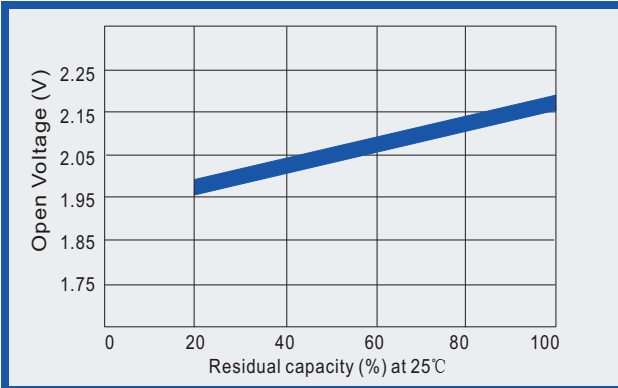
Self-discharge characteristics (with full charging)



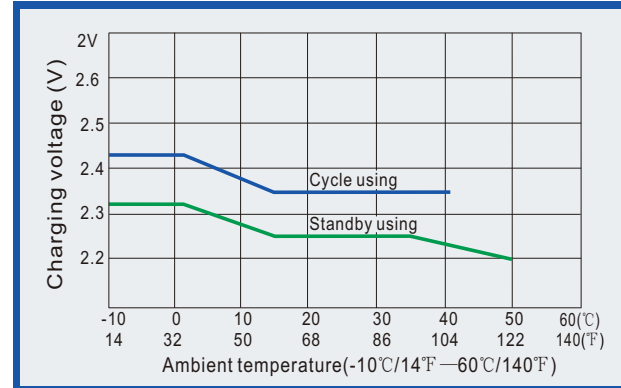
Relationships for floating life and temperature



Relationships for open voltage and remained capacity (for reference)



Relationship for charging voltage and temperature



Effect of temperature on capacity

