

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..



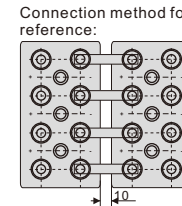
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MPPV2-3000 (2V3000Ah)

Specifications

Nominal Voltage		2 V
Rated capacity (10 hour rate)		3000 Ah
Dimensions (±3mm)	Total Height (Include terminal)	807mm (31.7inches)
	Height	772mm (30.4inches)
	Length	576mm (22.7inches)
	Width	212mm (8.35inches)
Approx weight (±5%)		209.0Kg (460lbs)

Battery picture and construction



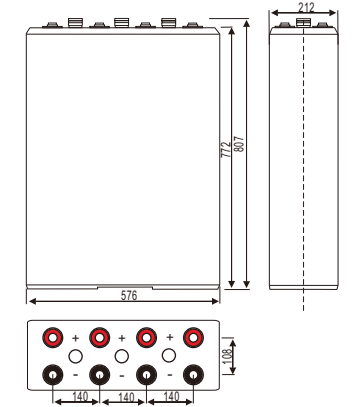
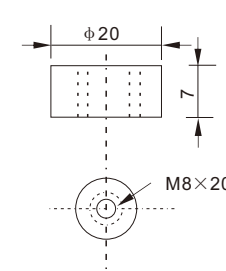
Battery Construction

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(300A, 1.8V) 3 hour rate(780A, 1.75V) 1 hour rate(1710A, 1.60V)	3000Ah 2340Ah 1710Ah
Internal Resistance	Full charged battery at 25°C(77°F)	Approx 0.15 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)	12000A (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) 0°C ~45°C (32°F ~113°F) -15°C ~45°C (5°F ~113°F)
Charge methods (constant Voltage) At 25°C(77°F)	Cycle use Standby use	Initial Charging Current less than 600A 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	2499	1683	1029	792	639	546	468	369	306	161
1.70V	2424	1641	1020	786	633	540	465	366	303	161
1.75V	2364	1608	1005	780	630	537	462	363	303	160
1.80V	2277	1560	978	756	612	522	447	351	300	159
1.85V	2163	1482	930	717	582	495	426	333	285	151

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

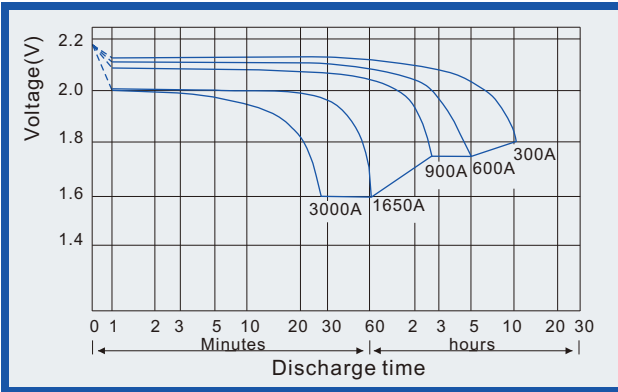
Constant power discharge (25°C , 77 °F)

Unit:watts

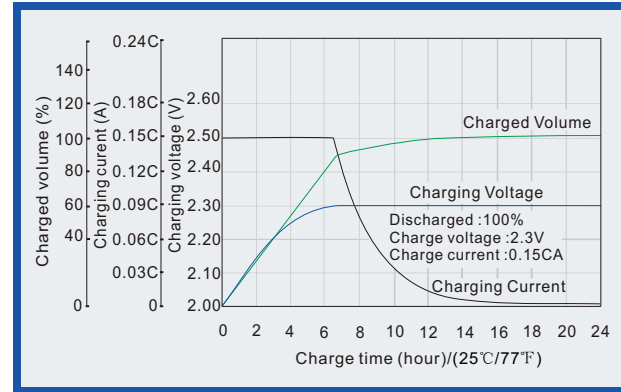
Time	30min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.65V	4674	3201	1986	1551	1251	1074	924	729	606	324
1.70V	4530	3120	1968	1539	1241	1065	918	723	606	321
1.75V	4419	3057	1938	1530	1236	1059	909	720	600	321
1.80V	4257	2961	1890	1482	1197	1026	882	696	597	318
1.85V	4044	2817	1797	1407	1137	975	837	660	567	302

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

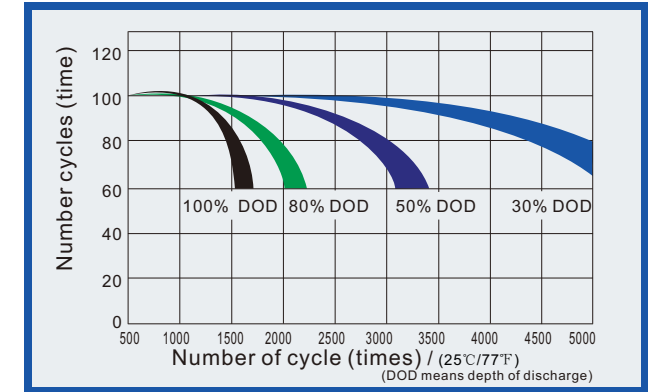
Discharge characteristics (25°C, 77°F)



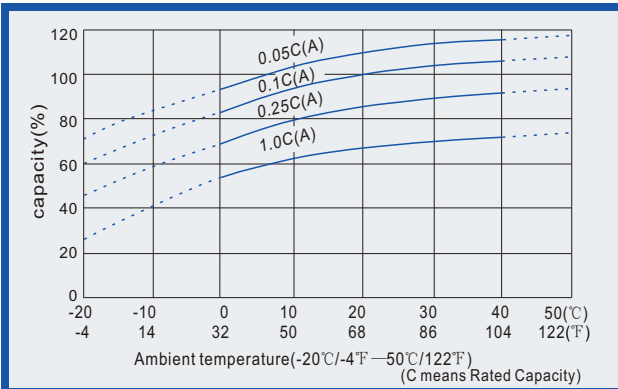
Charge characteristics (25°C, 77°F)



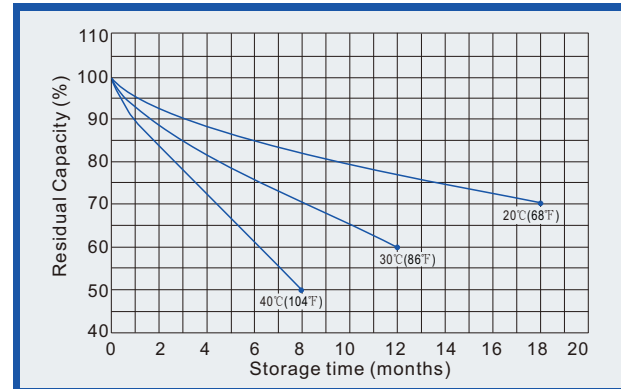
Life characteristics of Cyclic Use (25°C, 77°F)



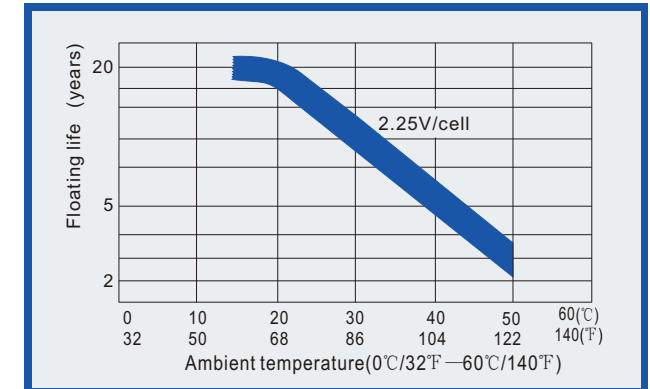
Effect of Temperature on capacity



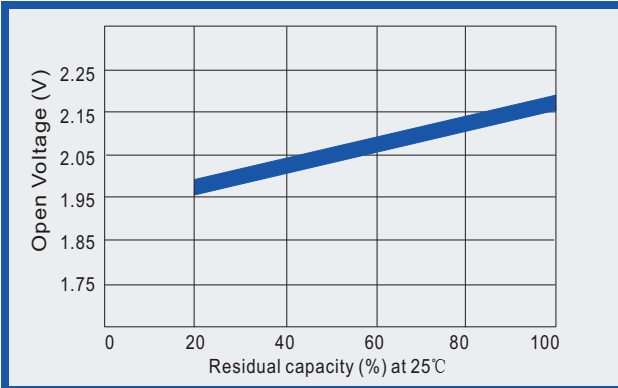
Self-discharge characteristics (with full charging)



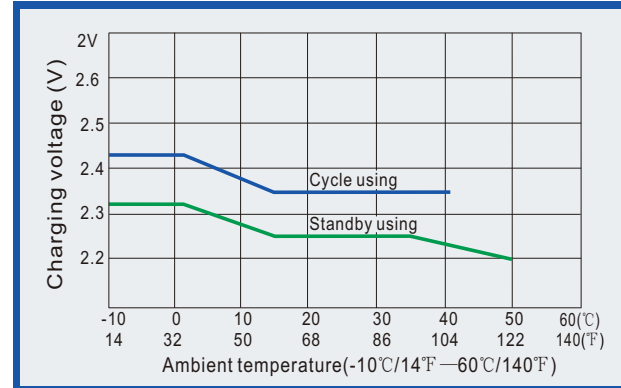
Relationships for floating life and temperature



Relationships for open voltage and remained capacity (for reference)



Relationship for charging voltage and temperature



Effect of temperature on capacity

