

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..



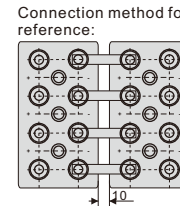
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MPPV2-3000 (2V3000Ah)

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%)		215.0Kg (474.1lbs)

Battery picture and construction



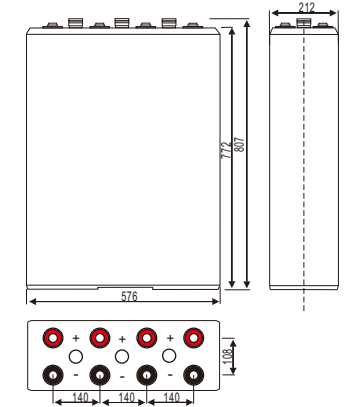
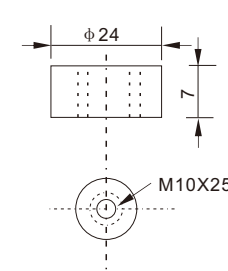
Battery Construction

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)	3000Ah
	3 hour rate(795A, 1.75V)	2385Ah
	1 hour rate(1575A, 1.75V)	1575Ah
Internal Resistance	Full charged battery at 25°C(77°F)	Approx 0.55 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)	12000A (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	0°C ~45°C (32°F ~113°F)
	Storage	-15°C ~45°C (5°F ~113°F)
Charge methods (constant Voltage) At 25°C(77°F)	Cycle use	Initial Charging Current less than 500 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)

Unit:A

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

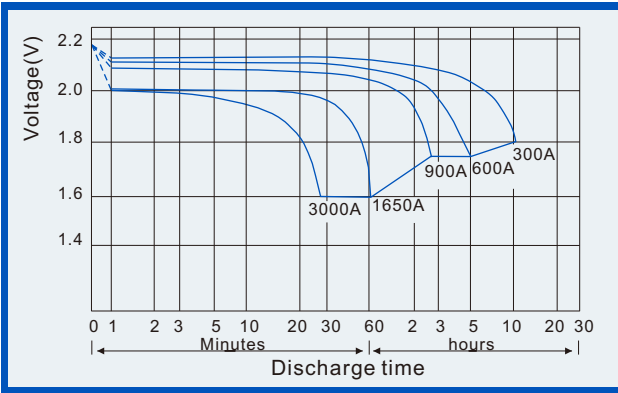
Unit:watts

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

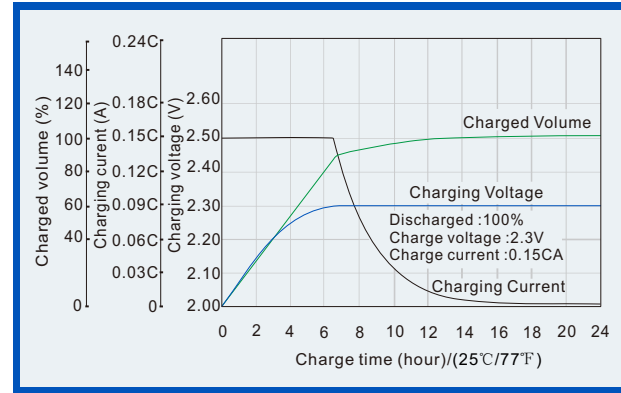
Time		30min	1h	2h	3h	5h	6h	8h	10h	20h	24h	48h	100h
1.65V	A	2610.0	1725.0	1130.0	885.0	610.0	493.5	400.0	350.0	180.5	149.5	80.0	39.4
	W	5475	3525	2525	1770	1145	1095	905	675	340	306	203	105
1.70V	A	2535.0	1650.0	1065.0	835.0	575.0	466.5	383.5	330.0	176.5	149.0	79.5	39.4
	W	5145	3420	2475	1710	1125	1060	870	655	337	303	202	105
1.75V	A	2400.0	1575.0	1005.0	795.0	545.0	443.5	366.5	315.0	171.0	148.5	78.5	39.0
	W	4705	3330	2410	1655	1110	1030	840	630	333	300	202	104
1.80V	A	2310.0	1500.0	950.0	750.0	510.0	423.5	353.5	300.0	162.0	148.0	78.0	38.8
	W	4185	3120	2355	1590	1080	990	810	615	330	297	201	104
1.85V	A	2175.0	1425.0	905.0	705.0	490.0	403.5	333.0	283.5	153.0	141.0	77.5	38.7
	W	3630	3045	2235	1510	1035	945	775	585	312	284	201	103

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

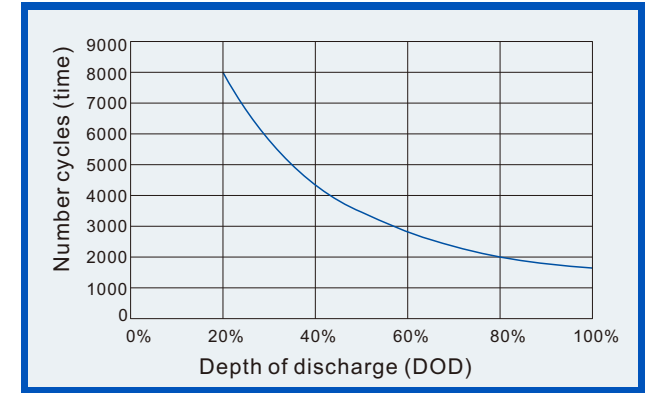
Discharge characteristics (25°C, 77°F)



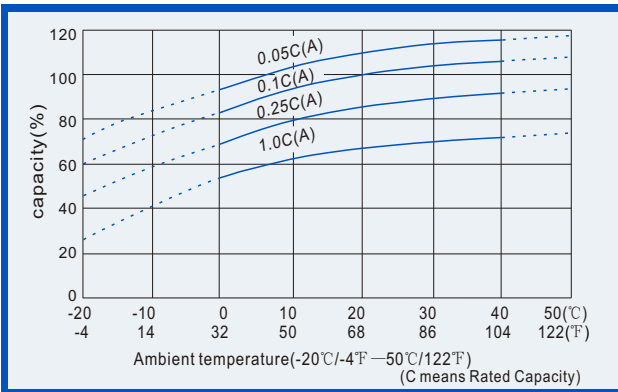
Charge characteristics (25°C, 77°F)



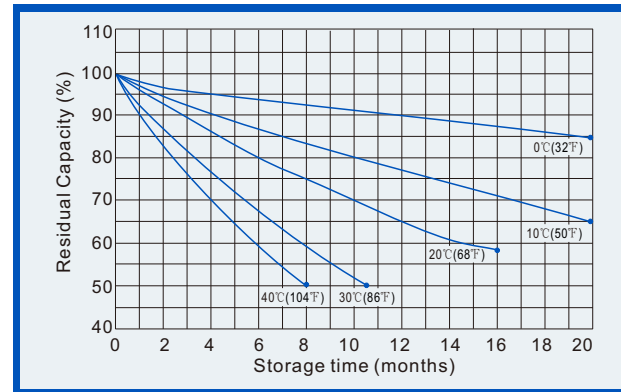
Life characteristics of Cyclic Use (25°C, 77°F)



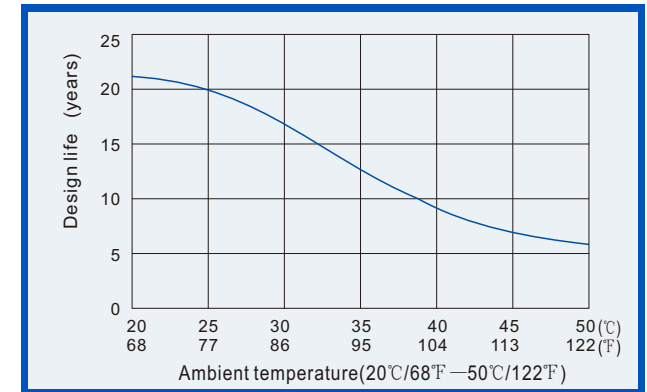
Effect of Temperature on capacity



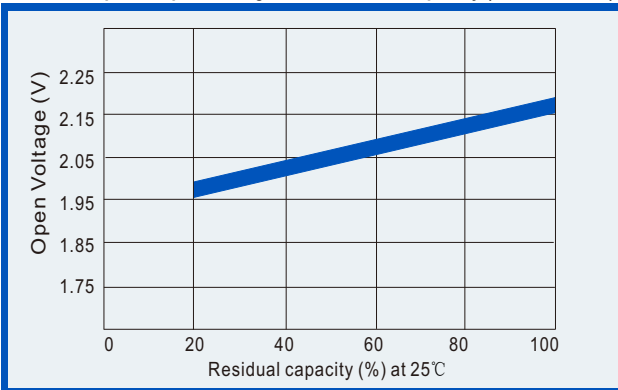
Self-discharge characteristics (with full charging)



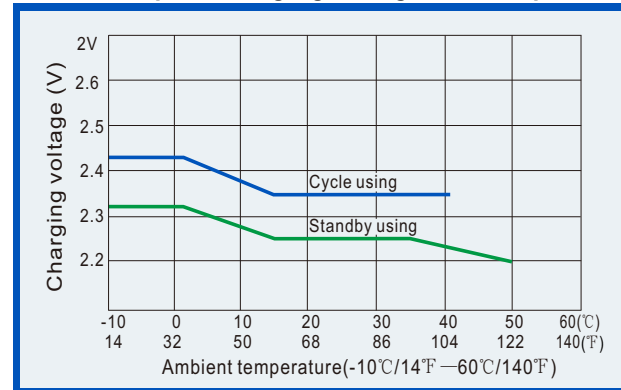
Relationships for design life and temperature



Relationships for open voltage and remained capacity (for reference)



Relationship for charging voltage and temperature



Effect of temperature on capacity

