

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..



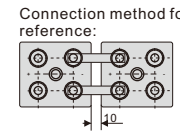
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MPPV2-1500 (2V1500Ah)

Specifications

Nominal Voltage	2 V	
Rated capacity (10 hour rate)	1500 Ah	
Dimensions (±3mm)	Total Height (Include terminal)	831mm (32.7inches)
	Height	795mm (31.3inches)
	Length	275mm (10.8inches)
	Width	210mm (8.27inches)
Approx weight (±5%)	106.0Kg (233.8lbs)	

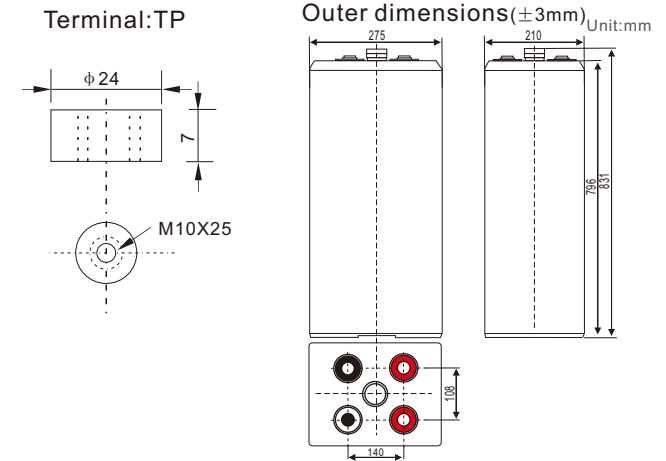
Battery picture and construction



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(150A, 1.8V)	1500Ah
	3 hour rate(397A, 1.75V)	1191Ah
	1 hour rate(865A, 1.60V)	865Ah
Internal Resistance	Full charged battery at 25°C(77°F)	Approx 0.25 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)	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)	7500A (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 375 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)

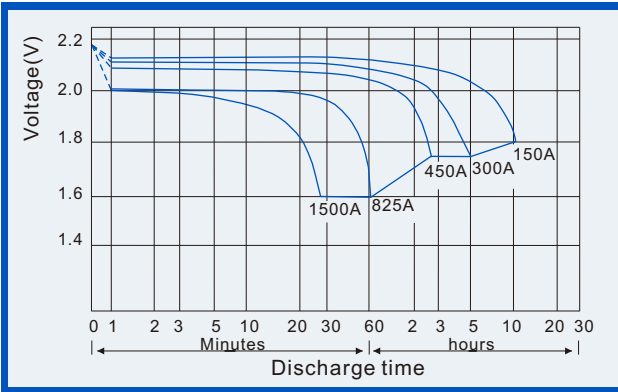
Unit:watts

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

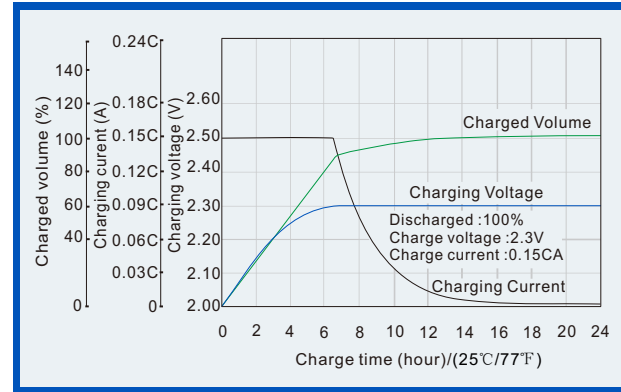
Time		30min	1h	2h	3h	5h	6h	8h	10h	20h	24h	48h	100h
		1.65V	A	1305.0	862.5	565.0	442.5	305.0	246.8	200.0	175.0	90.3	74.8
	W	2738	1763	1263	885	573	548	453	338	170	153	101	53
1.70V	A	1267.5	825.0	532.5	417.5	287.5	233.3	191.8	165.0	88.3	74.5	39.8	19.7
	W	2573	1710	1238	855	563	530	435	328	168	152	101	52
1.75V	A	1200.0	787.5	502.5	397.5	272.5	221.8	183.3	157.5	85.5	74.3	39.3	19.5
	W	2353	1665	1205	828	555	515	420	315	167	150	101	52
1.80V	A	1155.0	750.0	475.0	375.0	255.0	211.8	176.8	150.0	81.0	74.0	39.0	19.4
	W	2093	1560	1178	795	540	495	405	308	165	149	101	52
1.85V	A	1087.5	712.5	452.5	352.5	245.0	201.8	166.5	141.8	76.5	70.5	38.8	19.3
	W	1815	1523	1118	755	518	473	388	293	156	142	100	52

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

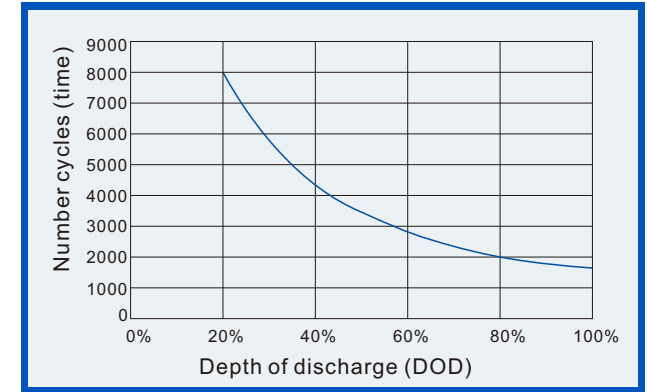
Discharge characteristics (25°C, 77°F)



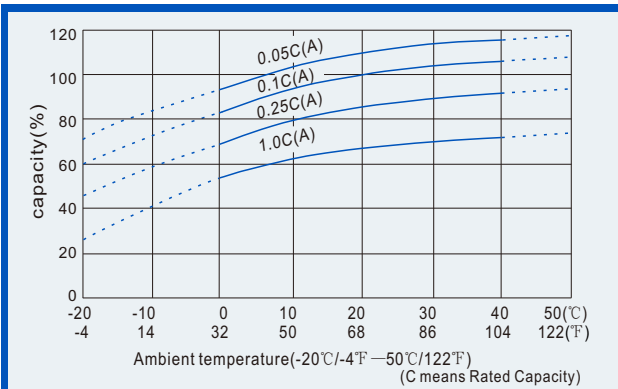
Charge characteristics (25°C, 77°F)



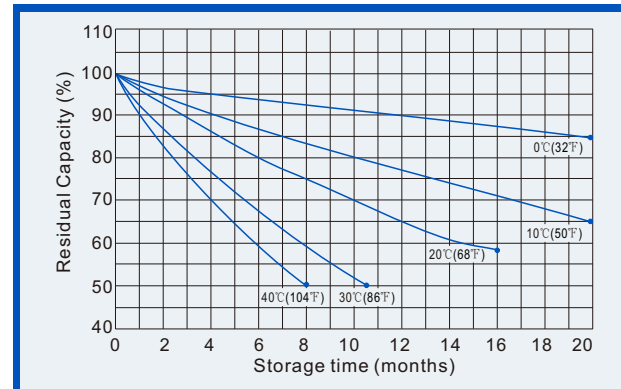
Life characteristics of Cyclic Use (25°C, 77°F)



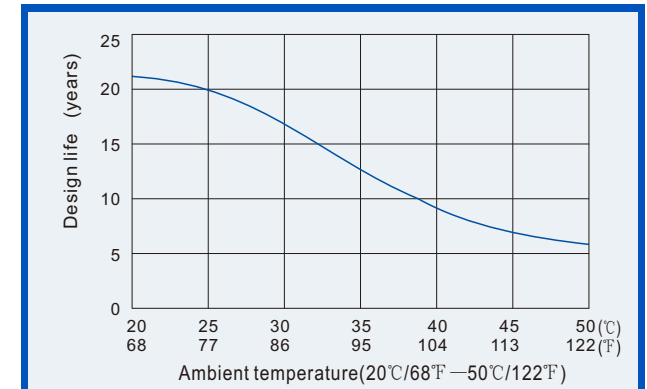
Effect of Temperature on capacity



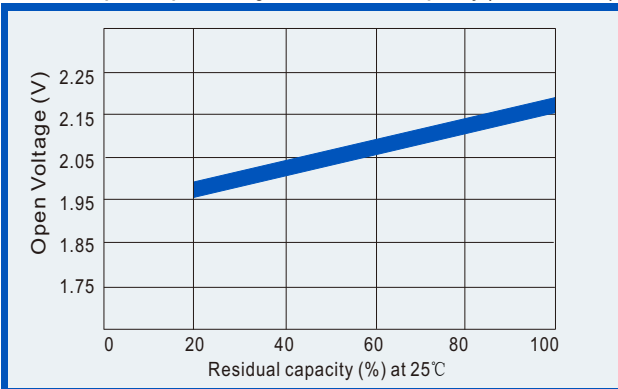
Self-discharge characteristics (with full charging)



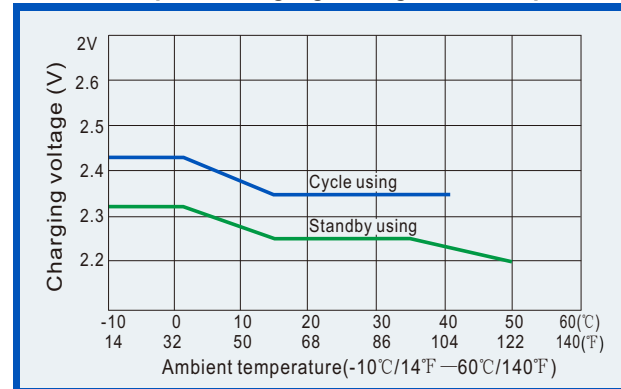
Relationships for design life and temperature



Relationships for open voltage and remained capacity (for reference)



Relationship for charging voltage and temperature



Effect of temperature on capacity

