

General features for MPPS Series battery (OPzS)

- * Tubular positive plate; separator with the combined application of porous rubber and porous PVC, separator is with a high porosity & good corrosion resistance.
- * Computer designed lead, calcium tin alloy grid for high power density.
- * Long service life, float or cyclic applications: designed floating life is 20 years at 25°C; Designed cycle life more than 1200 cycles at 80% DOD at 25°C/77°F.
- * Acid-proof bolt: It is of a special shape of funnel having the function of filtering acid smog and retarding flame, it can measure the density and temperature of electrolyte.
- * Ensuring sufficient electrolyte for battery discharge.
- * Battery container is transparent, easy checks electrolyte.



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MPPS2-800 (2V800Ah)

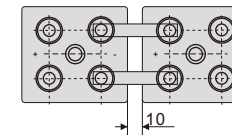
Specifications

Nominal Voltage		2 V
Rated capacity (10 hour rate)		800 Ah
Dimensions (±3mm)	Total Height (Include terminal)	700mm (27.6inches)
	Height	645mm (25.4inches)
	Length	191mm (7.52inches)
	Width	210mm (8.3inches)
Approx Weight (±5%)	Without electrolyte	44.0Kg (97.0lbs)
	With Electrolyte	60.0Kg (132.3lbs)
	Electrolyte weight (d=1.24kg/l)	Approx 16Kg (35.3lbs)

Battery picture and construction



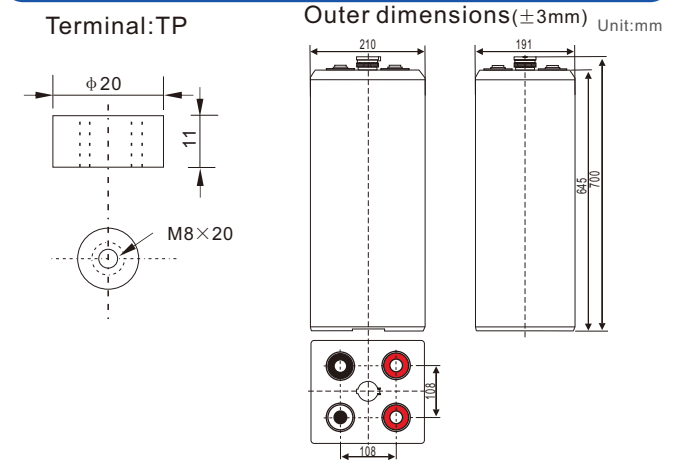
Connection method for reference:



Battery Construction

Component	Positive plate	Negative plate	Container	Cover
Raw material	Lead dioxide	Lead	SAN transparent	SAN
Component	Electrolyte	Separator	Safety valve	Terminal
Raw material	Dilute sulfuric acid	PVC	Porous rubber	Copper

Outer dimension and terminal



Characteristics

Capacity 25°C(77°F)	10 hour rate(80A, 1.8V) 3 hour rate(204A, 1.75V) 1 hour rate(448A, 1.60V)	800Ah 612Ah 448Ah
Internal Resistance	Full charged battery at 25°C(77°F)	Approx 0.5 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	88% 76%
Terminal type	TP (copper)	
Max. Discharge current 25°C/(77°F)	4000A (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)	Boost charge: Initial Charging Current less than 200A Voltage 2.40-2.45V Temperature compensation: -3mV/°C Floating charge: Voltage 2.23-2.25V Temperature compensation: -3mV/°C	

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

Unit:A

Time	30min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.70V	624	432	264	206	165	145	123	94.4	80.8	43.5
1.75V	608	419	260	204	164	144	122	93.6	80.8	43.5
1.80V	586	410	254	198	159	140	118	90.4	80.0	43.2
1.85V	554	384	238	186	150	132	111	84.8	76.2	41.3

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

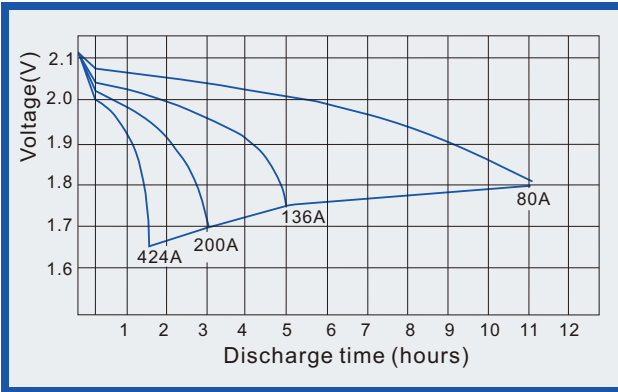
Constant power discharge (25°C , 77 °F)

Unit:watts

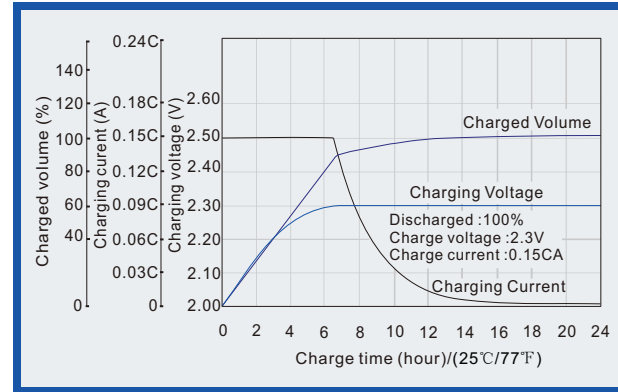
Time	30min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.70V	1165	816	509	403	323	286	243	186	162	87.2
1.75V	1136	800	499	400	323	284	241	186	160	87.2
1.80V	1098	778	490	387	312	275	234	180	159	86.4
1.85V	1021	720	458	362	290	256	218	167	148	80.0

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

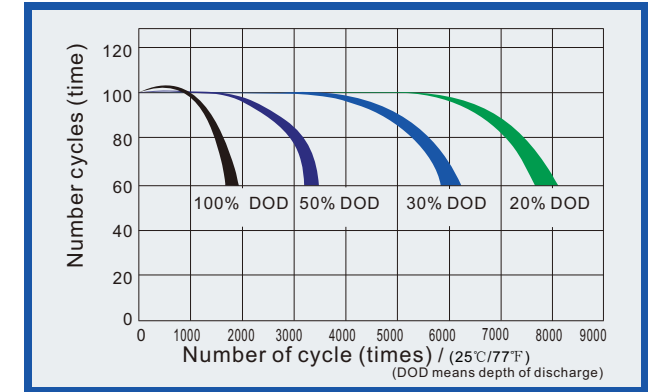
Discharge characteristics (25°C, 77°F)



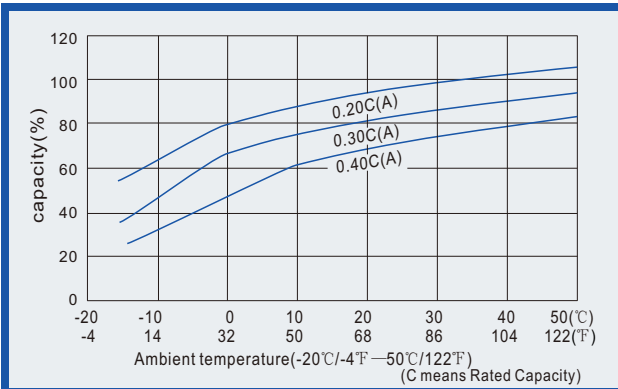
Charge characteristics (25°C, 77°F)



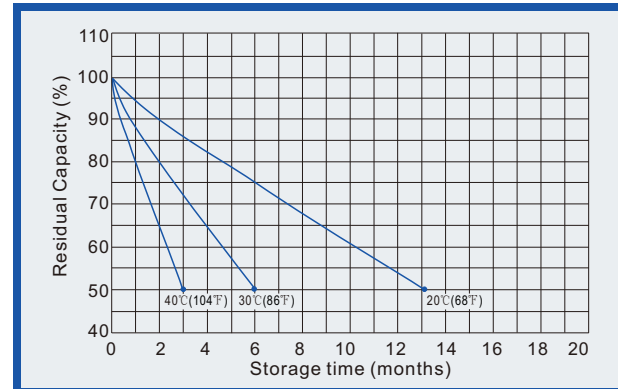
Life characteristics of Cyclic Use (25°C, 77°F)



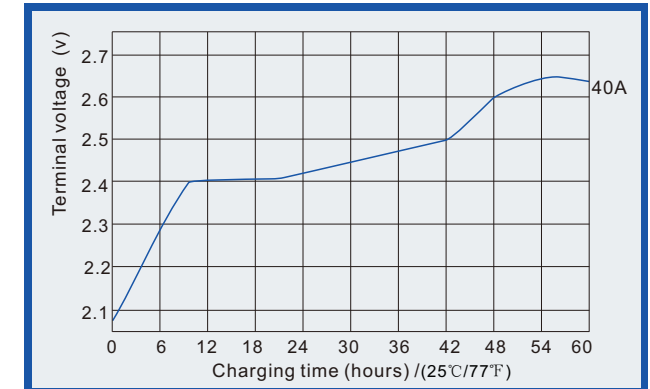
Effect of Temperature on capacity



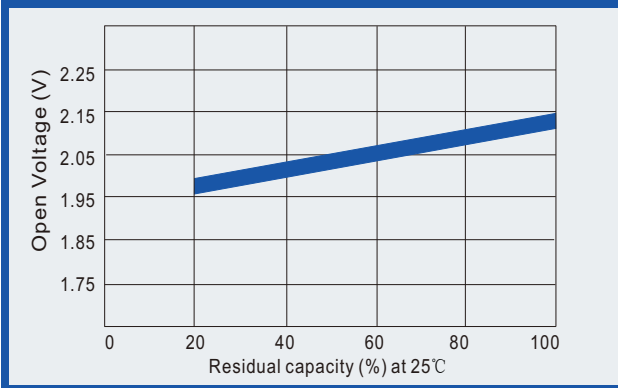
Self-discharge characteristics (with full charging)



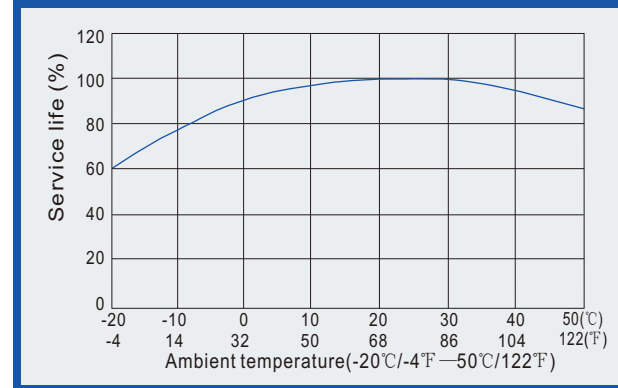
Initial charging characteristics



Relationships for open voltage and remained capacity (for reference)



Relationship for service life and temperature



Effect of discharge rate on capacity

