

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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MPPS2-600 (2V600Ah)

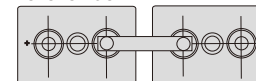
Specifications

Nominal Voltage		2 V
Rated capacity (10 hour rate)		600 Ah
Dimensions (±3mm)	Total Height (Include terminal)	700mm (27.6inches)
	Height	645mm (25.4inches)
	Length	145mm (5.71inches)
	Width	206mm (8.11inches)
Approx Weight (±5%)	Without electrolyte	31.0Kg (58.3lbs)
	With Electrolyte	43.0Kg (94.8lbs)
	Electrolyte weight (d=1.24kg/l)	Approx 12Kg (26.46lbs)

Battery picture and construction



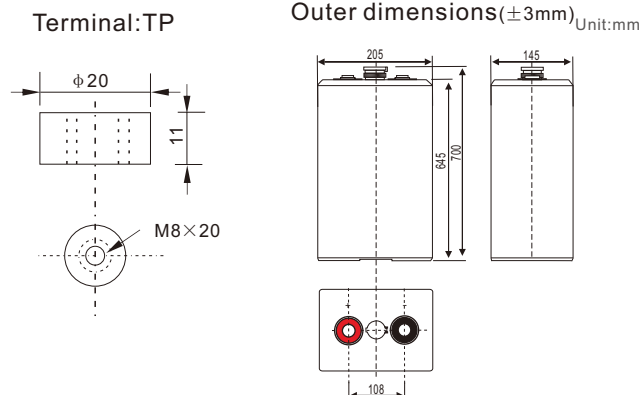
Connection method for reference:



Battery Construction

Component	Positive plate	Negative plate	Container	Cover
Raw material	Lead dioxide	Lead	SAN transparent	ABS
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(60A, 1.8V) 3 hour rate(153A, 1.75V) 1 hour rate(336A, 1.60V)	600Ah 460Ah 336Ah
Internal Resistance	Full charged battery at 25°C(77°F)	Approx 0.65 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)	3000A (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 150 A 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	468	324	198	154	124	109	92.4	70.8	60.6	32.8
1.75V	456	316	195	153	123	108	91.8	70.2	60.6	32.8
1.80V	440	306	190	148	119	105	88.8	67.8	60.0	32.4
1.85V	416	288	179	139	112	99	83.4	63.6	57.0	31.0

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

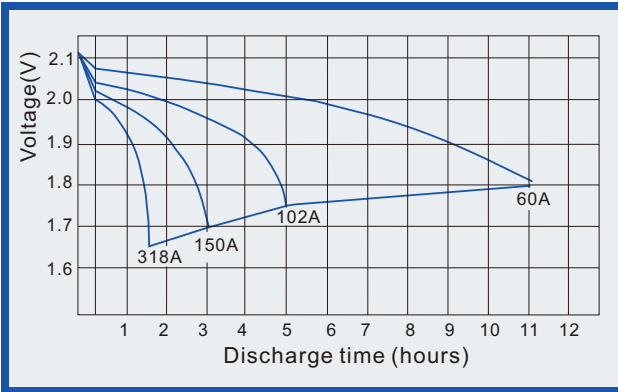
Constant power discharge (25°C , 77 °F)

Unit:watts

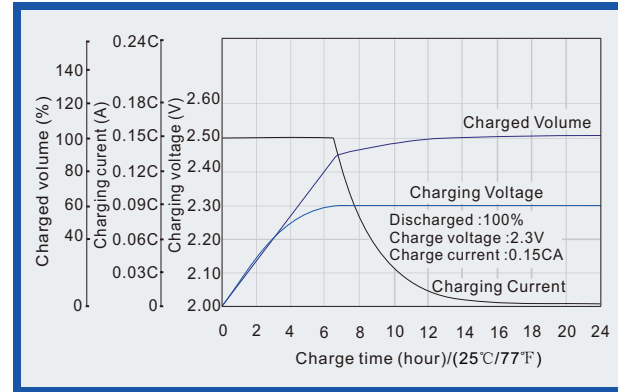
Time	30min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.70V	874	612	382	304	244	214	182	140	121	65.4
1.75V	852	600	376	300	242	214	181	139	120	65.4
1.80V	824	582	366	292	234	206	175	135	119	64.8
1.85V	766	540	342	270	218	192	163	125	111	60.0

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

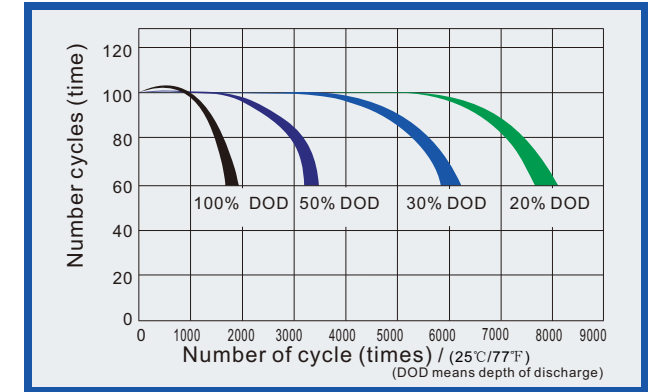
Discharge characteristics (25°C, 77°F)



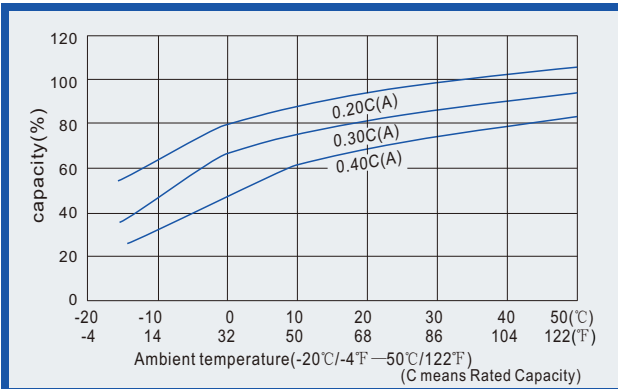
Charge characteristics (25°C, 77°F)



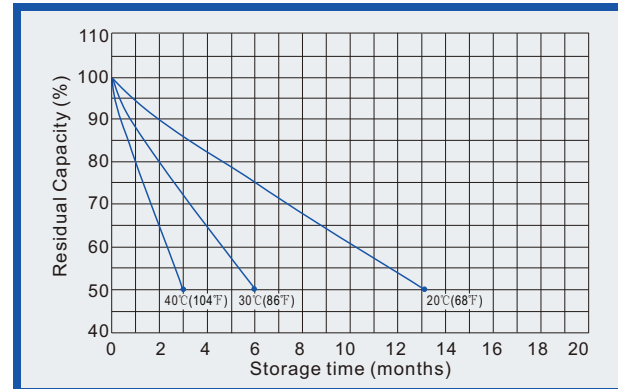
Life characteristics of Cyclic Use (25°C, 77°F)



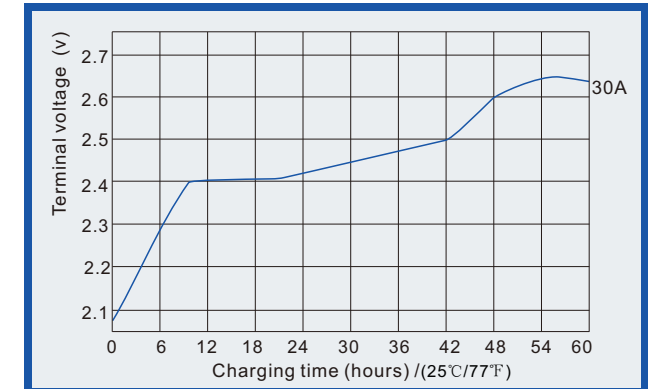
Effect of Temperature on capacity



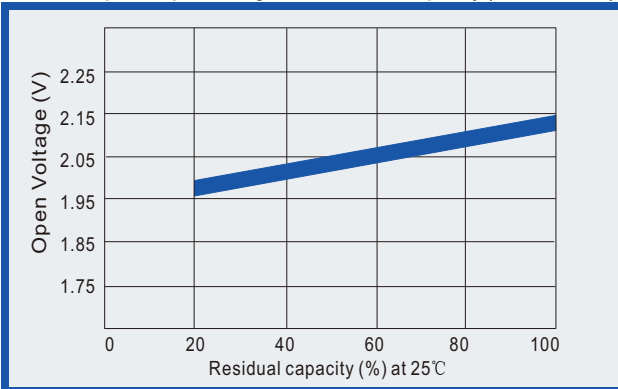
Self-discharge characteristics (with full charging)



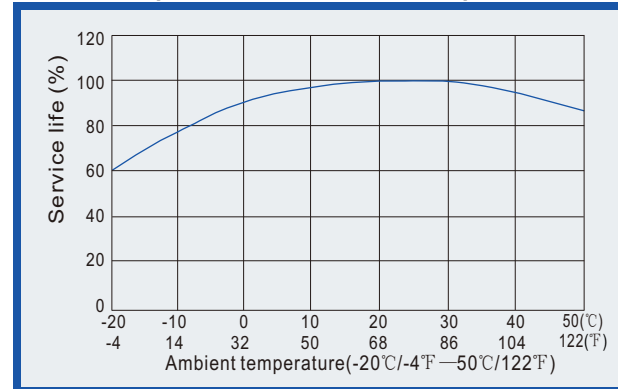
Initial charging characteristics



Relationships for open voltage and remained capacity (for reference)



Relationship for service life and temperature



Effect of discharge rate on capacity

