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 20years at 25℃;Designed cycle life more than 1200 cycles at 80% DOD at 25℃/77℉.
- Acid-proof bolt:
  It is of a special shape of funnel having the function of iltering 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.

maxton
Maxton Power Tech Co.,Ltd
www.maxtonpower.com
info@maxtonpower.com

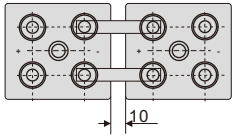
MPPS2-1500 (2V1500Ah)

Specifications

Nominal Voltage		2 V
Rated capacity (10 hour rate)		1500 Ah
Dimensions (±3mm)	Total Height (Include terminal)	850mm (33.5inches)
	Height	795mm (31.3inches)
	Length	275mm (10.8 inches)
	Width	210mm (8.3inches)
Approx Weight (±5%)	Without electrolyte	75.0Kg (165.4lbs)
	With Electrolyte	105.0Kg (231.4lbs)
	Electrolyte weight (d=1.24kg/l)	Approx 30.0Kg (66.1lbs)

Battery picture and construction

Connection method for reference:

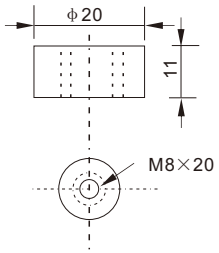


Battery Construction

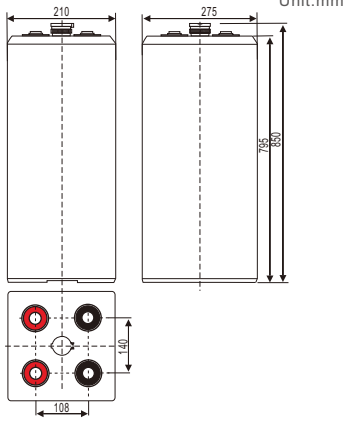
Component	Positive plate	Negative plate	Container	Cover
Raw material	Lead dioxide	Lead	SAN transparent	ABS
Component	Electrolyte	Separator	Safety valve	Terminal
Raw material	Dilute sulfuric acid	PVC	Porous rubber	Copper

Outer dimension and terminal

Terminal:TP



Outer dimensions(±3mm) Unit:mm



Characteristics

Capacity 25℃(77℉)	10 hour rate(150A,1.8V) 3 hour rate(383A,1.75V) 1 hour rate(840A,1.60V)	1500Ah 1148Ah 840Ah
Internal Resistance	Full charged battery at 25℃(77℉)	Approx 0.32 mΩ
Capacity affected by Temperature (10hour rate)	40℃ (104℉) 25℃ (77℉) 0℃ (32℉) -15℃ (5℉)	102% 100% 85% 65%
Remaining capaicty Self-Discharge At 25℃(77℉)	Capacity after 3 month storage Capacity after 6 month storage	88% 76%
Terminal type		TP
Max. Discharge current 25℃/(77℉)		7500A (5Seconds)
Nominal operating temperature		25℃ ±5℃(77□ ±9□)
Operating Temperature Range	Discharge Charge Storage	-15℃～50℃ (5℉～122℉) -10℃～50℃ (14℉～122℉) -20℃～50℃ (-4℉～122℉)
Charge methods (constant Voltage) At 25℃(77℉)	Cycle use	Initial Charging Current less than 375 A Voltage 2.40-2.45V Temperature compensation:-5mV/℃
	Standby use	Voltage 2.25-2.30V Temperature compensation:-3mV/℃

Constant current discharge (25℃ , 77 ℉)

Unit:A

Constant Current(Amp) Discharge Table at 25℃(77℉)										
Time	30min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.70V	1170	810	495	386	309	272	231	177	152	81.6
1.75V	1140	786	488	383	308	270	230	176	152	81.6
1.80V	1098	768	476	371	299	263	222	170	150	81.0
1.85V	1038	720	447	348	281	248	209	159	143	77.4

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

Constant power discharge (25℃ , 77 ℉)

Unit:watts

Constant Power(Watt) Discharge Table at 25℃(77℉)										
Time	30min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.70V	2184	1530	954	756	606	536	456	350	303	164
1.75V	2130	1500	936	750	606	533	452	348	300	164
1.80V	2058	1458	918	726	585	516	438	338	299	162
1.85V	1914	1350	858	678	545	480	408	314	278	150

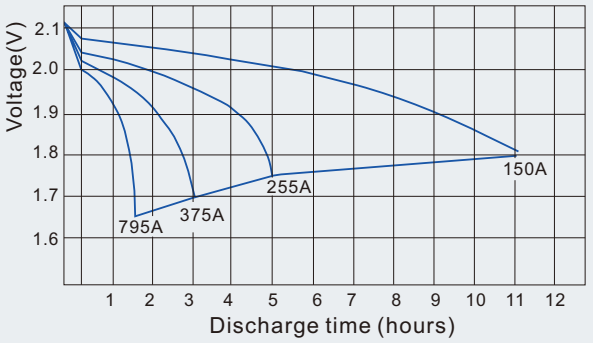
(Above characteristics data are average values obtained within three charge/discharge cycles,not the minimum values.)

OPzS Battery (Tubular plate technology)
Flooded Lead Acid Rechageable Battery

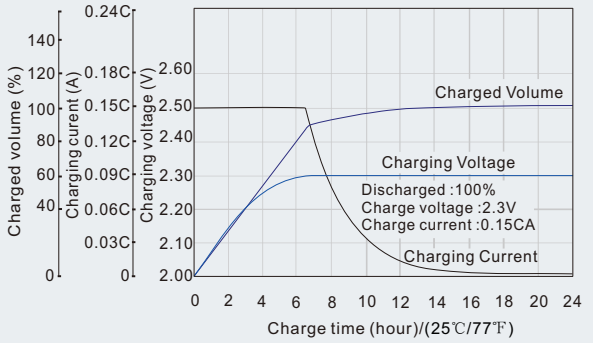
info@maxtonpower.com
www.maxtonpower.com
Maxton Power Tech Co.,Ltd

MPPS2-1500 (2V1500Ah)

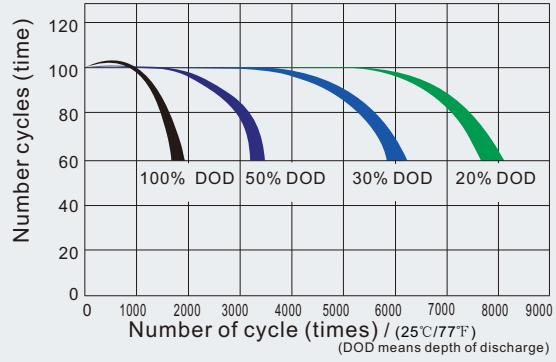
Discharge characteristics (25℃,77℉)



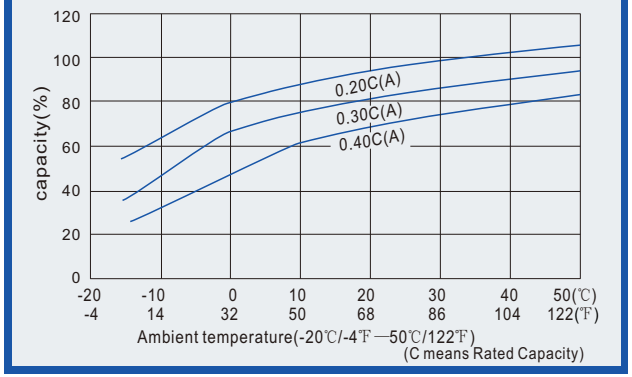
Charge characteristics (25℃,77℉)



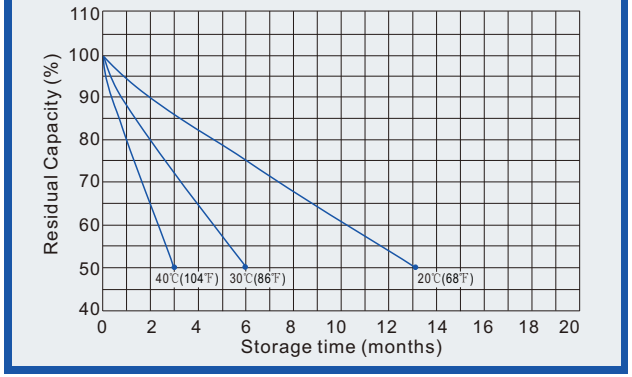
Life characteristics of Cyclic Use (25℃,77℉)



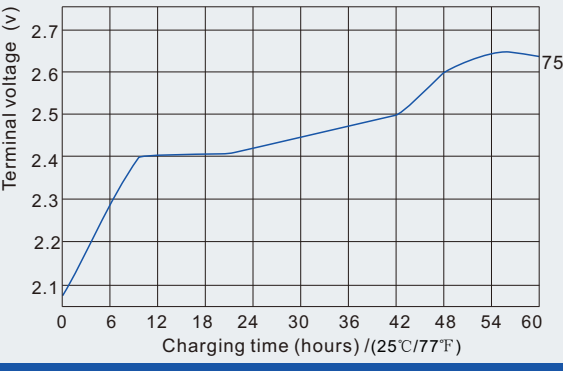
Effect of Temperature on capacity



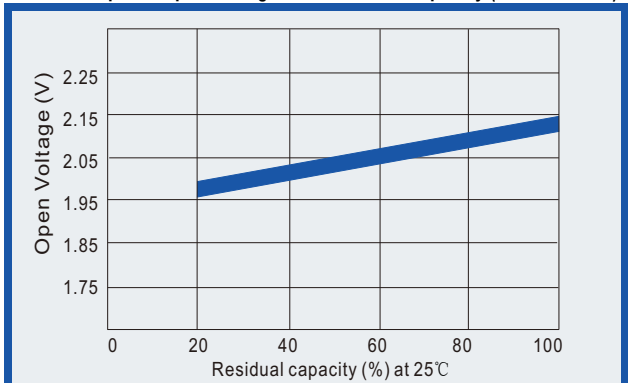
Self-discharge characteristics(with full charging)



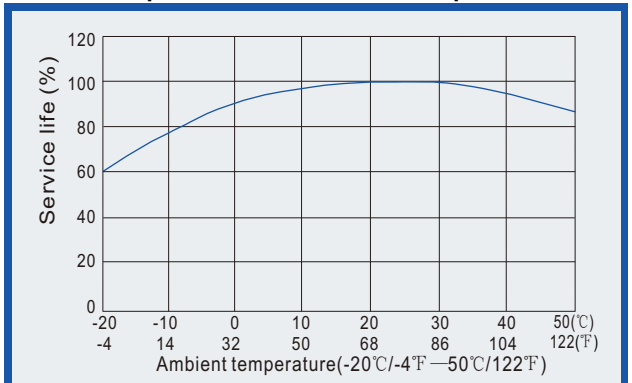
Initial charging characteristics



Relationships for open voltage and remained capacity (for reference)



Relationship for service life and temperature



Effect of discharge rate on capacity