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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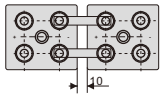
MPPV2-1500 (2V1500Ah)

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%)		103.5Kg (228lbs)

Battery picture and construction

Connection method for reference:

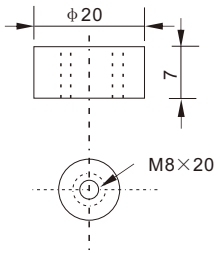


Battery Construction

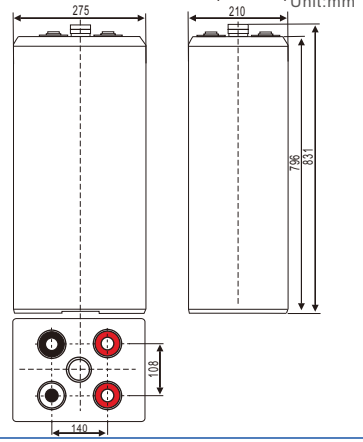
Component	Positive plate	Negative plate	Container	Cover
Raw material	Lead dioxide	Lead	ABS	ABS
Component	Electrolyte	Separator	Safety valve	Terminal
Raw material	Gelled acid	PVC	Rubber	Copper

Outer dimension and terminal

Terminal:TP



Outer dimensions(±3mm) Unit:mm



Characteristics

Capacity 25℃(77℉)	10 hour rate(150A,1.8V) 3 hour rate(390A,1.75V) 1 hour rate(855A,1.60V)	1500Ah 1170Ah 855Ah
Internal Resistance	Full charged battery at 25℃(77℉)	Approx 0.25 mΩ
Capacity affected by Temperature (10hour rate)	40℃ (104℉) 25℃ (77℉) 0℃ (32℉) -15℃ (5℉)	103% 100% 85% 65%
Remaining capaicty Self-Discharge At 25℃(77℉)	Capacity after 3 month storage Capacity after 6 month storage Capacity after 12 month storage	94% 88% 75%
Terminal type		TP (copper)
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 450 A Voltage 2.40-2.50V Temperature compensation:-3mV/℃
	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
1.65V	1250	842	515	396	320	273	234	185	153	80.7
1.70V	1212	821	510	393	317	270	233	183	152	80.6
1.75V	1182	804	503	390	315	269	231	182	152	80.1
1.80V	1139	780	489	378	306	261	224	176	150	79.5
1.85V	1082	741	465	359	291	248	213	167	143	75.6

(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
1.65V	2337	1601	993	776	626	537	462	365	303	162
1.70V	2265	1560	984	770	621	533	459	362	303	161
1.75V	2210	1529	969	765	618	530	455	360	300	161
1.80V	2129	1482	945	741	599	513	441	348	299	159
1.85V	2022	1409	899	704	569	488	419	330	284	151

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

OPzV Battery
(Maintenance-free;Tubular plate & GEL technology)

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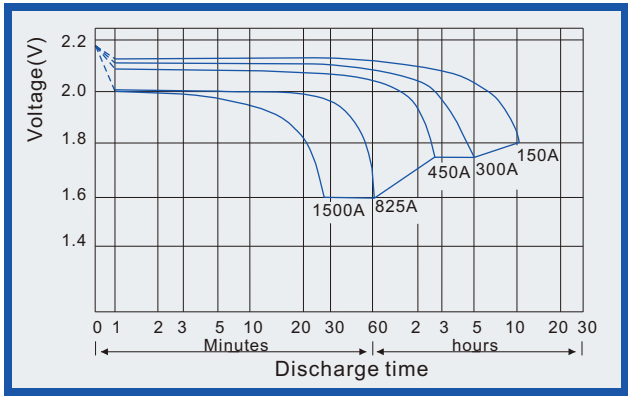
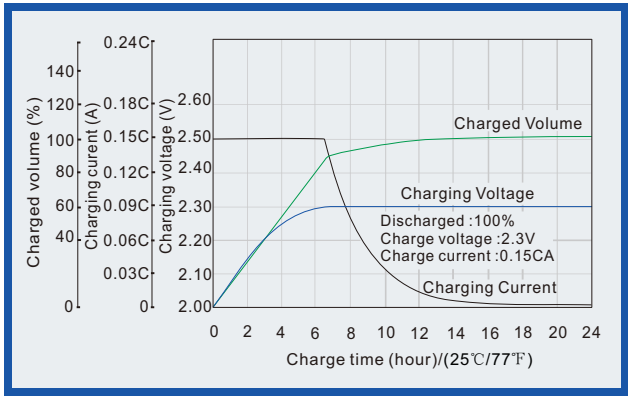
MPPV2-1500 (2V1500Ah)

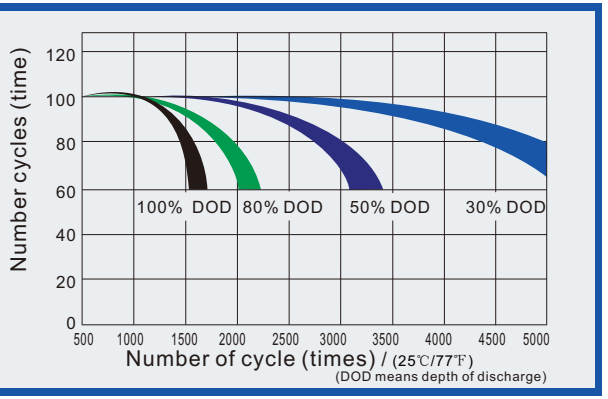
Discharge characteristics (25℃,77℉)



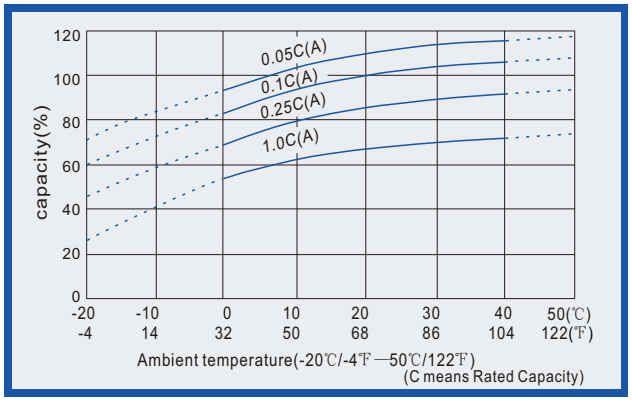
Charge characteristics (25℃,77℉)



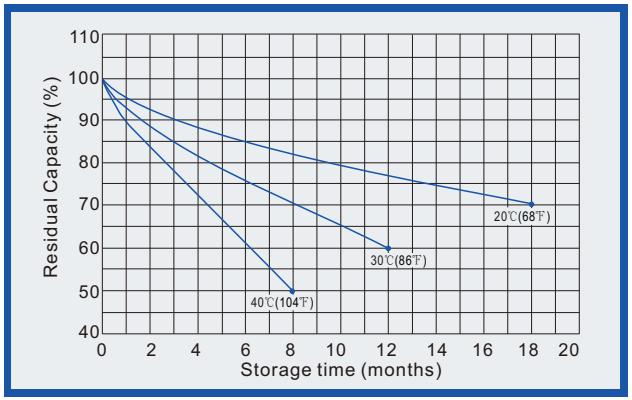
Life characteristics of Cyclic Use (25℃,77℉)



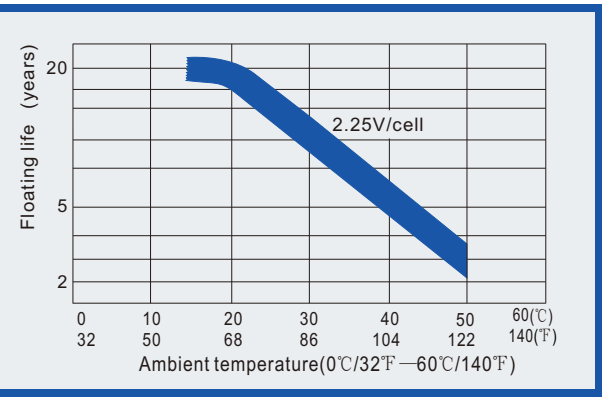
Effect of Temperature on capacity



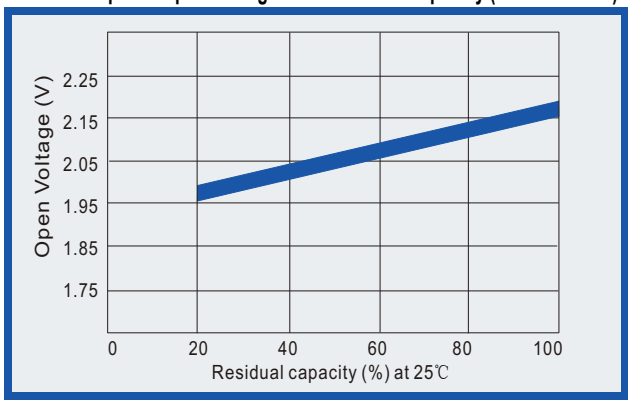
Self-discharge characteristics(with full charging)



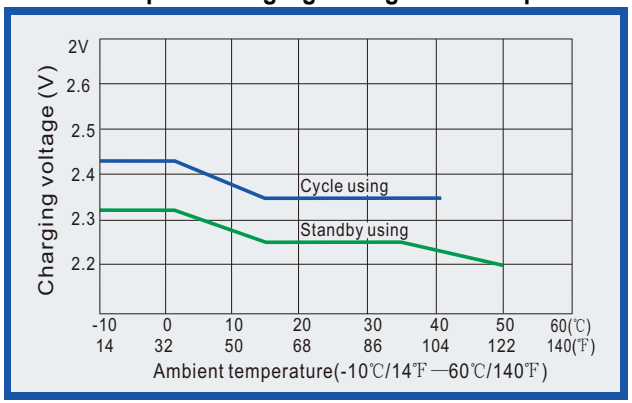
Relationships for floating life and temperature



Relationships for open voltage and remained capacity (for reference)



Relationship for charging voltage and temperature



Effect of temperature on capacity