

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..



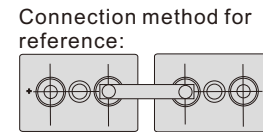
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MPPV2-250 (2V250Ah)

Specifications

Nominal Voltage		2 V
Rated capacity (10 hour rate)		250 Ah
Dimensions (±3mm)	Total Height (Include terminal)	390mm (15.3inches)
	Height	355mm (13.9inches)
	Length	124mm (4.88inches)
	Width	206mm (8.11inches)
Approx weight (±5%)		21.5Kg (47.3lbs)

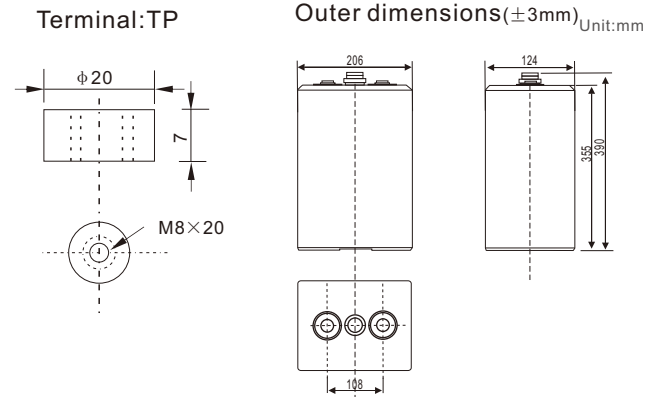
Battery picture and construction



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(25A, 1.8V) 3 hour rate(65A, 1.75V) 1 hour rate(142A, 1.60V)	250Ah 195Ah 142Ah
Internal Resistance	Full charged battery at 25°C(77°F)	Approx 1.0 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 Capacity after 12 month storage	94% 88% 75%
Terminal type	TP (copper)	
Max. Discharge current 25°C/(77°F)	1250A (5Seconds)	
Nominal operating temperature	25°C ±5°C(77°F ±9°F)	
Operating Temperature Range	Discharge Charge Storage	-15°C ~50°C (5°F ~122°F) -10°C ~50°C (14°F ~122°F) -20°C ~50°C (-4°F ~122°F)
Charge methods (constant Voltage) At 25°C(77°F)	Cycle use Standby use	Initial Charging Current less than 62.5A Voltage 2.40-2.50V Temperature compensation:-4mV/°C Voltage 2.25-2.30V Temperature compensation:-3mV/°C

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

Unit:A

Time	30min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.65V	208	140	85.8	66.0	53.3	45.5	39.0	30.8	25.5	13.5
1.70V	202	137	85.0	65.5	52.8	45.0	38.8	30.5	25.3	13.4
1.75V	197	134	83.8	65.0	52.5	44.8	38.5	30.3	25.3	13.4
1.80V	190	130	81.5	63.0	51.0	43.5	37.3	29.3	25.0	13.3
1.85V	180	124	77.5	59.8	48.5	41.3	35.5	27.8	23.8	12.6

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

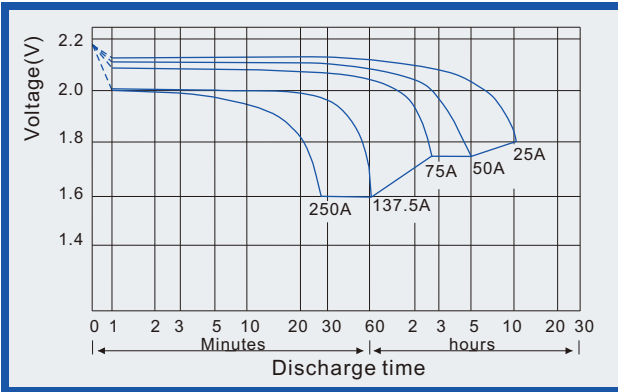
Constant power discharge (25°C , 77 °F)

Unit:watts

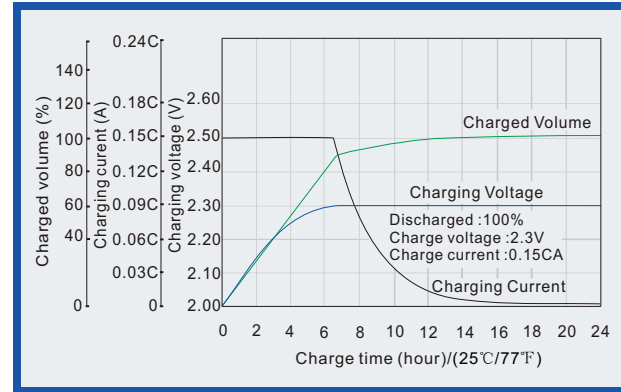
Time	30min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.65V	390	267	166	129	104	89.5	77.0	60.8	50.5	27.0
1.70V	378	260	164	128	104	88.8	76.5	60.3	50.5	26.8
1.75V	368	255	162	128	103	88.3	75.8	60.0	50.0	26.8
1.80V	355	247	158	124	100	85.5	73.5	58.0	49.8	26.5
1.85V	337	235	150	117	94.8	81.3	69.8	55.0	47.3	25.2

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

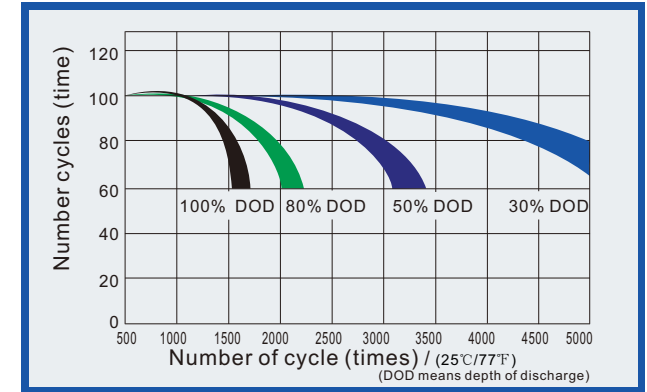
Discharge characteristics (25°C, 77°F)



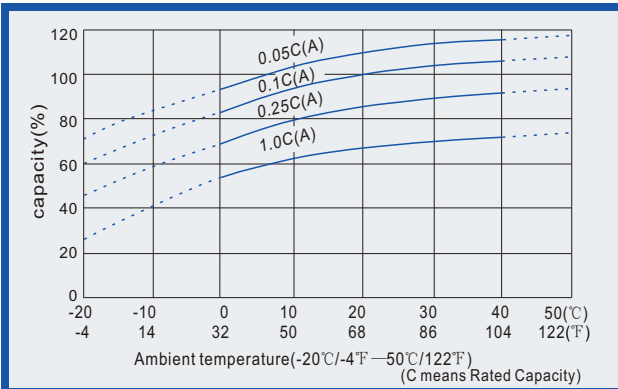
Charge characteristics (25°C, 77°F)



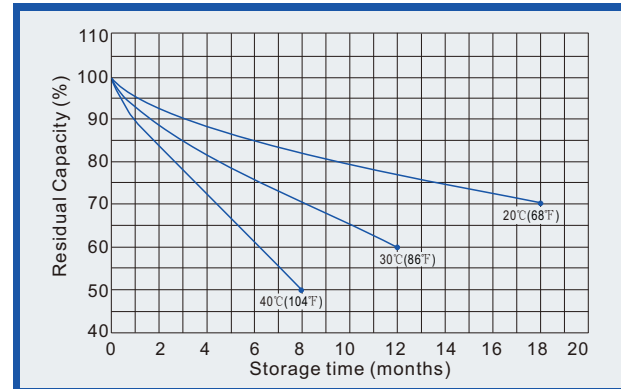
Life characteristics of Cyclic Use (25°C, 77°F)



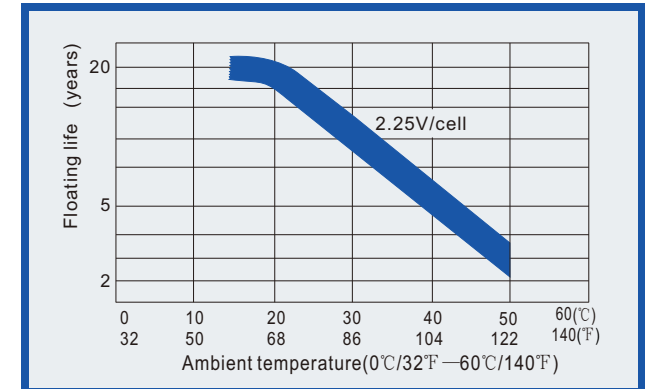
Effect of Temperature on capacity



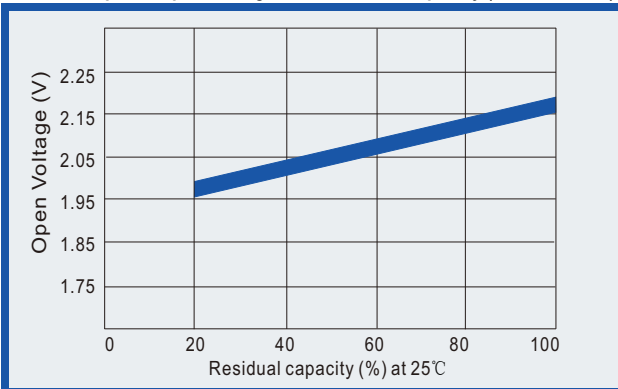
Self-discharge characteristics (with full charging)



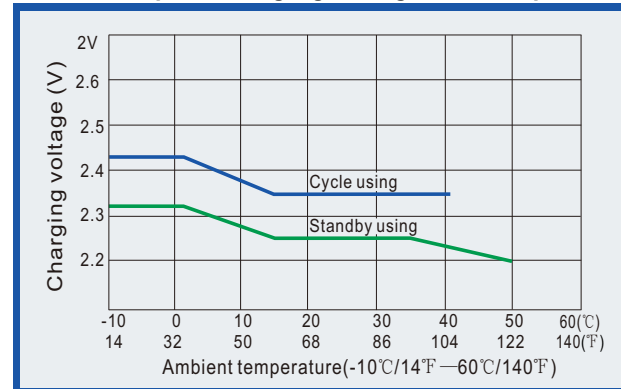
Relationships for floating life and temperature



Relationships for open voltage and remained capacity (for reference)



Relationship for charging voltage and temperature



Effect of temperature on capacity

