

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..



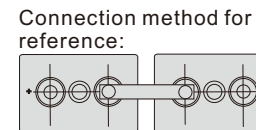
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MPPV2-350 (2V350Ah)

Specifications

Nominal Voltage		2 V
Rated capacity (10 hour rate)		350 Ah
Dimensions (±3mm)	Total Height (Include terminal)	506mm (19.9inches)
	Height	470mm (18.5inches)
	Length	124mm (4.88inches)
	Width	206mm (8.11inches)
Approx weight (±5%)		26.5Kg (58.3lbs)

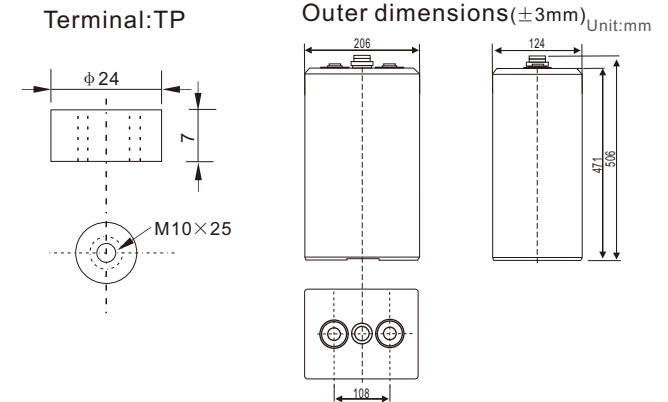
Battery picture and construction



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(35A, 1.8V) 3 hour rate(93A, 1.75V) 1 hour rate(206A, 1.60V)	350Ah 279Ah 206Ah
Internal Resistance	Full charged battery at 25°C(77°F)	Approx 0.8 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)	1750A (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 87.5 A Voltage 2.35-2.45V Temperature compensation:-4mV/°C Voltage 2.25-2.30V Temperature compensation:-3mV/°C

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

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

Unit:A

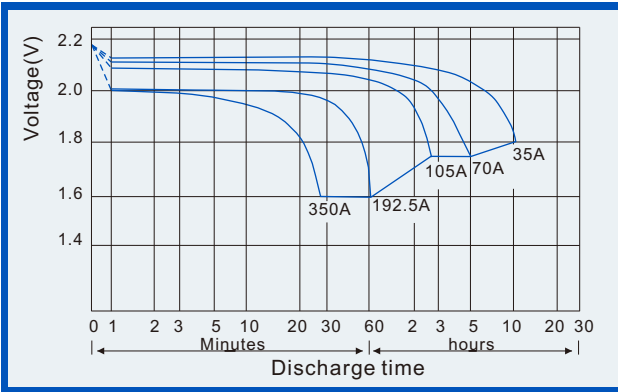
Unit:watts

Constant Current(Amp) and Constant Power(Watt) Discharge Table at 25°C(77°F)

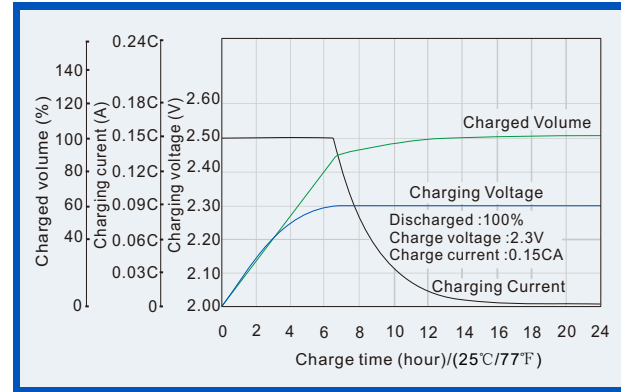
Time		30min	1h	2h	3h	5h	6h	8h	10h	20h	24h	48h	100h
1.65V	A	305	201	132	103	71	58	47	41	21	17	9	5
	W	639	411	295	207	134	128	106	79	40	36	24	12
1.70V	A	296	193	124	97	67	54	45	39	21	17	9	5
	W	600	399	289	200	131	124	102	76	39	35	24	12
1.75V	A	280	184	117	93	64	52	43	37	20	17	9	5
	W	549	389	281	193	130	120	98	74	39	35	24	12
1.80V	A	270	175	111	88	60	49	41	35	19	17	9	5
	W	488	364	275	186	126	116	95	72	39	35	23	12
1.85V	A	254	166	106	82	57	47	39	33	18	16	9	5
	W	424	355	261	176	121	110	90	68	36	33	23	12

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

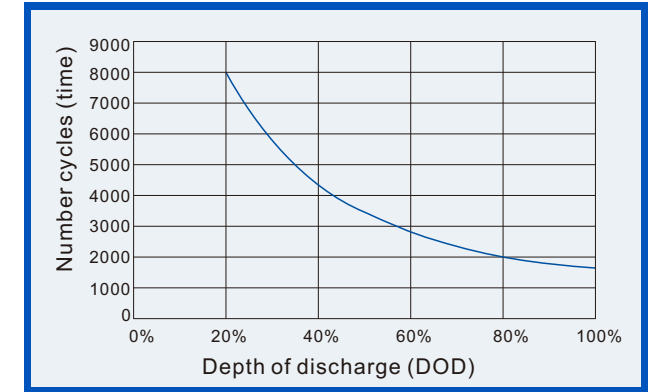
Discharge characteristics (25°C, 77°F)



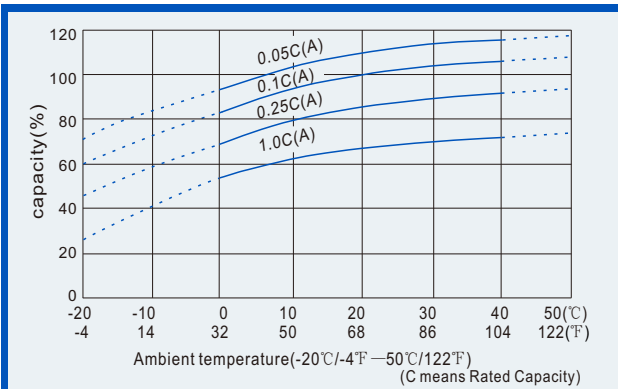
Charge characteristics (25°C, 77°F)



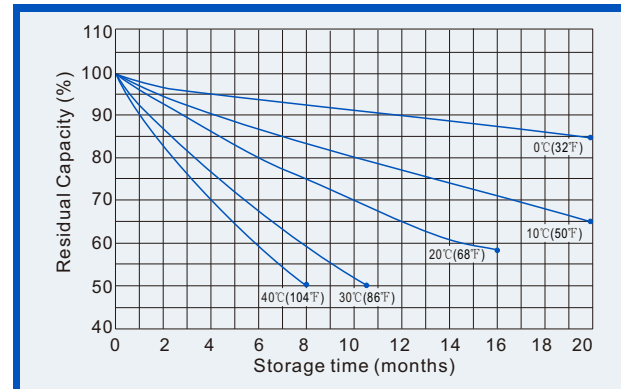
Life characteristics of Cyclic Use (25°C, 77°F)



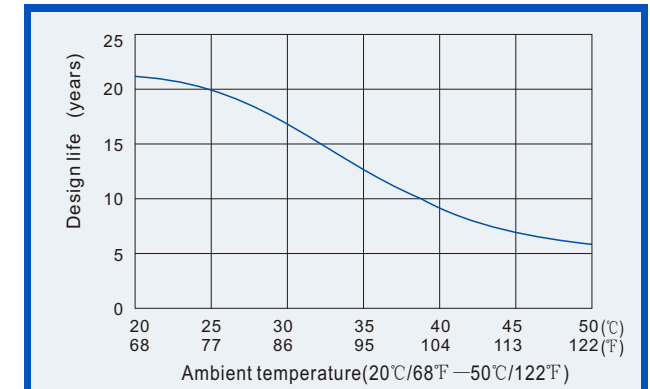
Effect of Temperature on capacity



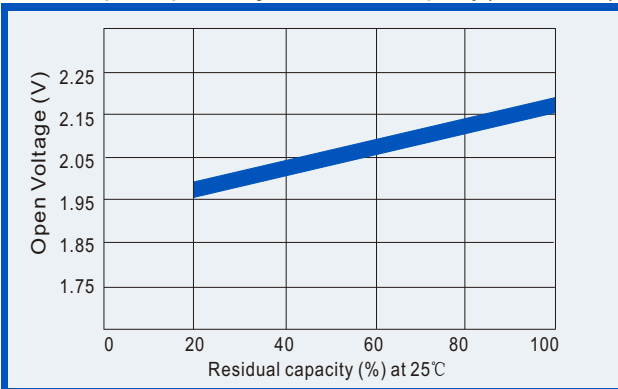
Self-discharge characteristics (with full charging)



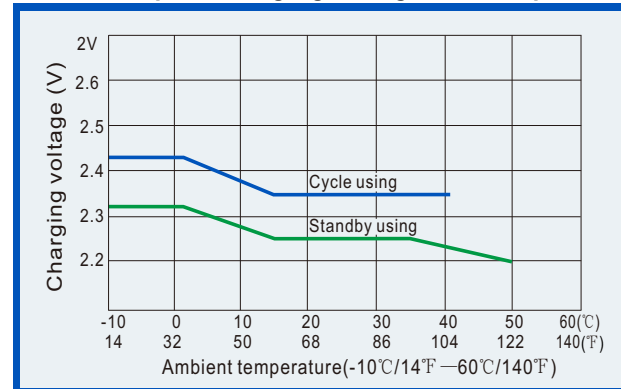
Relationships for design life and temperature



Relationships for open voltage and remained capacity (for reference)



Relationship for charging voltage and temperature



Effect of temperature on capacity

