



### Applications

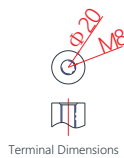
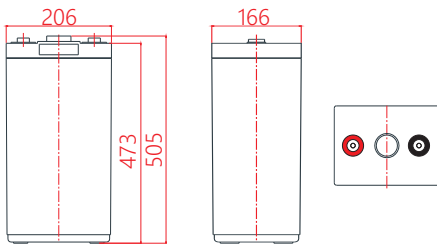
- > Solar / wind energy and other new energy storage
- > Power systems
- > Telecommunications system
- > UPS/EPS
- > Auto control system
- > Other general purpose

### General Features

- > Nanosilica colloidal electrolyte and tubular plate design to enhance battery performance
- > Tubular plate design makes long battery life
- > Relatively rich electrolyte, high temperature and low temperature performance is superior
- > Long cycle life, excellent deep cycle discharge ability
- > Excellent charge acceptance ability
- > Precision sealing technology



Dimension: 166(L)×206(W) ×473(H) ×505(TH) Unit: mm



### Specification

Nominal Voltage	2V	
Nominal Capacity	500Ah	
Design life	20 years	
Terminal	M8	
Approx. Weight	Approx 41.0kg (90.4lbs)	
Container Material	ABS	
Rated Capacity	500Ah	10Hour Rate (50.0A to 1.80V)
	378Ah	3Hour Rate (126A to 1.80V)
	278Ah	1Hour Rate (278A to 1.75V)
Internal resistance	Full charged at 25°C: 0.50 mΩ	
Max. Discharge Current	4000A(5S)	
Operating Temperature	Discharge:	-40 ~60°C(-40~ 140°F)
	Charge:	-20 ~50 °C(-4~ 122°F)
	Storage:	-20 ~50°C(-4~ 122°F)
Charge current:	Max.100A ; Recom.50A	
Charge Method (25 °C)	Float Charge: 2.23-2.27V, recom.2.25V(-3mV/ °C)	
	Equalize charge:2.30-2.35V, recom.2.35V(-4mV/ °C)	
	Cycle charge:2.40-2.50V, recom.2.40V(-5mV/ °C)	
Self discharge	3% of capacity declined per month at 25°C	

### Constant Current Discharge Characteristics Unit: A (25°C, 77°F)

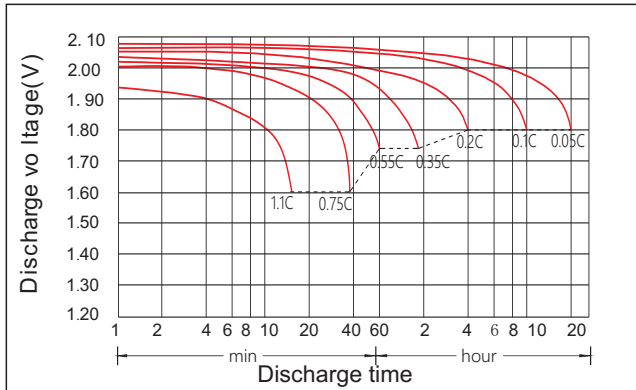
FV/Time	15min	30min	1h	2h	3h	5h	8h	10h	20h
1.60V	546	436	303	187	134	92.0	64.7	53.0	28.4
1.65V	521	417	298	183	132	90.7	63.7	52.7	28.1
1.70V	495	391	287	179	130	89.0	62.7	51.7	27.7
1.75V	467	365	278	174	128	87.0	62.0	51.0	27.3
1.80V	419	334	260	168	126	84.7	60.7	50.0	26.7
1.85V	354	298	243	162	121	81.7	59.0	49.0	26.0

### Constant Power Discharge Characteristics Unit: W ( 25°C, 77°F )

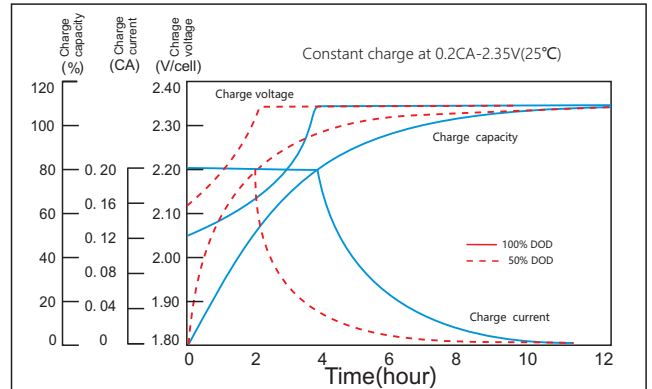
FV/Time	15min	30min	1h	2h	3h	5h	8h	10h	20h
1.60V	1092	867	588	367	282	189	135	112	60.0
1.65V	1041	825	558	361	274	186	133	107	58.7
1.70V	994	789	542	355	267	182	130	107	57.3
1.75V	942	755	523	346	259	177	127	105	56.0
1.80V	895	727	525	336	251	172	124	102	54.7
1.85V	821	688	481	318	240	164	119	99	53.0

## OPZV2-500

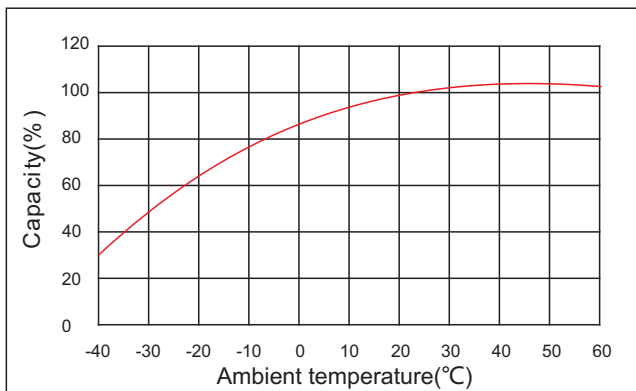
### Discharge characteristic



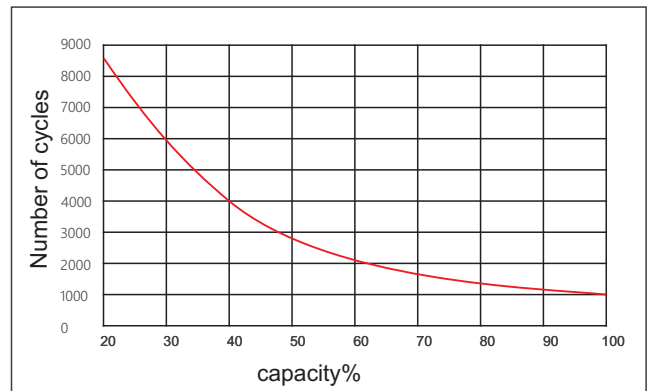
### Charging characteristic



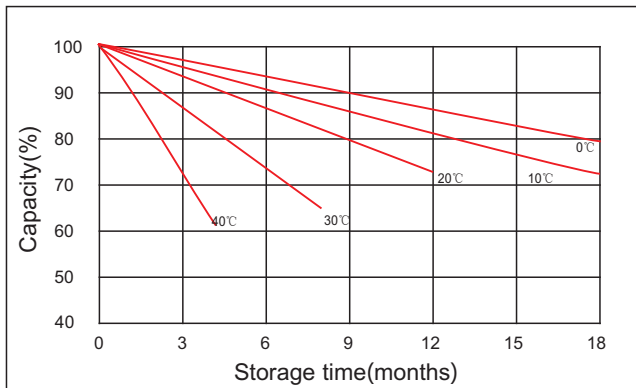
### The effect of temperature on capacity



### The effect of discharge depth on cycle life



### Curves of self-discharge



### Curves of open circuit voltage vs. capacity

