

## OPzS Deep Cycle Tubular Flooded Battery

## OPzS2-250

CSPower OPzS series is flooded Lead Acid battery that adopts Tubular Plate technology to offer high reliability and performance. The Battery is designed and manufactured according to standards and with DIN40736-2/IEC60896-11 positive spine and patent formula of die-casting active material. OPzS series exceeds standard values with more DIN40736-2/IEC60896-11 than 20 years floating design even more suitable for life at 25°C and is cyclic use(PV/solar, traction etc) under extreme operating conditions.

2V  
250Ah

Flooded  
Technology

Tubular  
Plate



### Applications

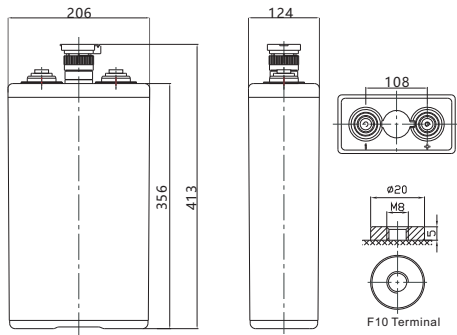
- Solar & Wind Power system
- Nuclear power station
- Telecom backup power supply
- energy saving requirements  
Emergency Power System

### General Features

- ✓ It can discharge at -40°C~70°C, Charge at 0-50°C
- ✓ Long life expectancy of 20+ years in floating condition
- ✓ Adopts quality silicon nano gel electrolyte
- ✓ Excellent deep discharge recovery capability
- ✓ Deep cycle performance: up to 3300

### Dimensions & Weight

### Technical Specifications



Unit: mm

Length	124±1mm (4.88 inches)
Width	206±1mm (8.11 inches)
Height	356±1mm (14.0 inches)
Total Height	413±1mm (16.3 inches)
Torque Value	10~12 N*m

<b>Cells Per Unit</b>	1
<b>Voltage Per Unit</b>	2
<b>Nominal Capacity</b>	250Ah@10hr-rate to 1.85V per cell @25°C
<b>Weight</b>	Without Electrolyte 15.8 kg/With Electrolyte 21.1kg
<b>Internal Resistance</b>	Approx. 0.76 mΩ
<b>Terminal</b>	F10(M8)
<b>Max. Discharge Current</b>	1200A (5 sec)
<b>Design Life</b>	20 years (floating charge)
<b>Maximum Charging Current</b>	37.5 A
<b>Reference Capacity</b>	C24 299.3AH C48 336.7AH C72 353.5AH C100 361.6AH C120 368.8AH C240 375.0AH
<b>Float Charging Voltage</b>	2.23 V~2.25 V @ 25°C Temperature Compensation: -3mV/°C/Cell
<b>Cycle Use Voltage</b>	2.40 V~2.45 V @ 25°C Temperature Compensation: -4mV/°C/Cell
<b>Operating Temperature Range</b>	Discharge: -15°C~50°C Charge: 0°C~40°C Storage: -15°C~50°C
<b>Normal Operating Temperature Range</b>	25°C ± 5°C
<b>Self Discharge</b>	Valve Regulated Lead Acid (VRLA) batteries can be stored for up to 6 months at 25°C and then recharging is recommended. Monthly Self-discharge ratio is less than 3.5% at 25°C. Please charged batteries before using.
<b>Container Material</b>	A.B.S. UL94-HB, UL94-V0 Optional.

### Battery Discharge Table

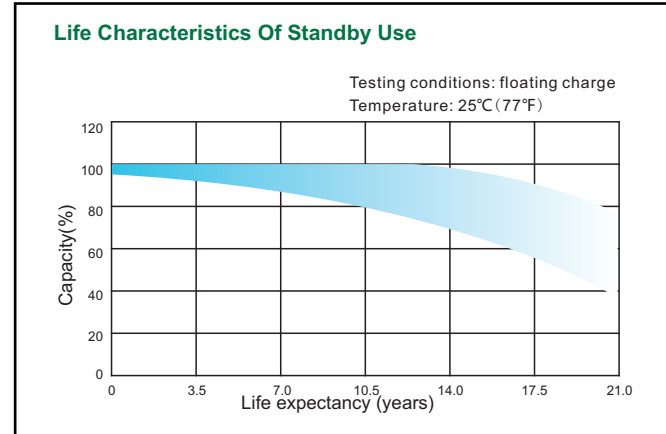
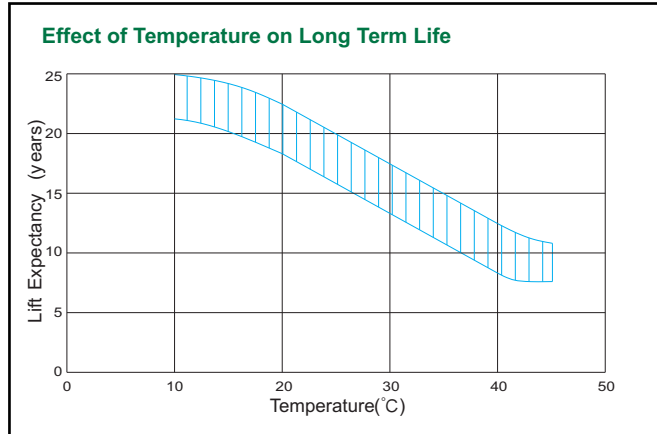
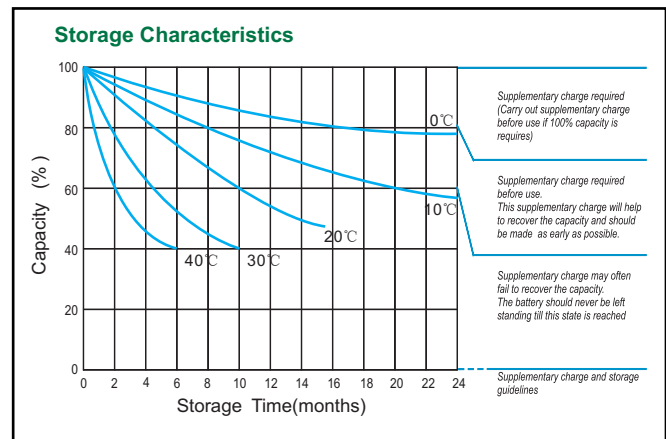
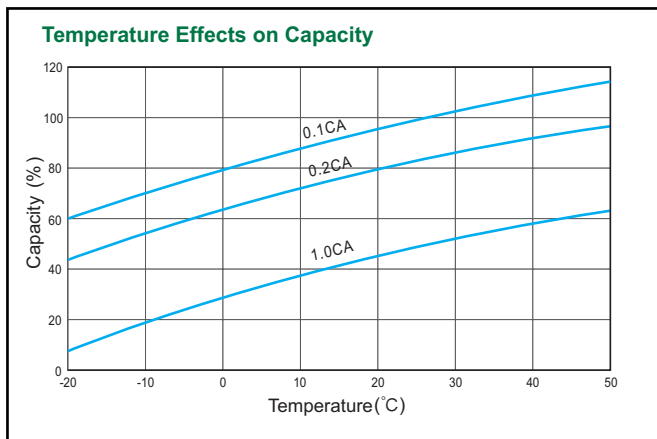
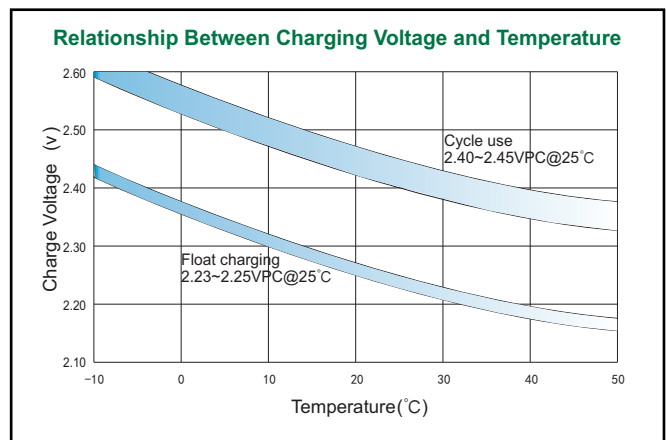
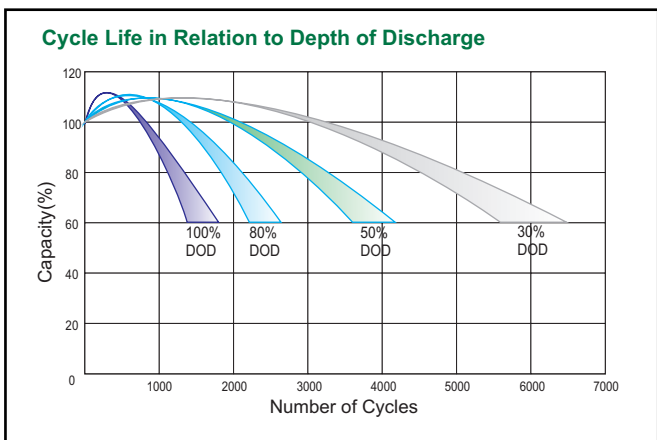
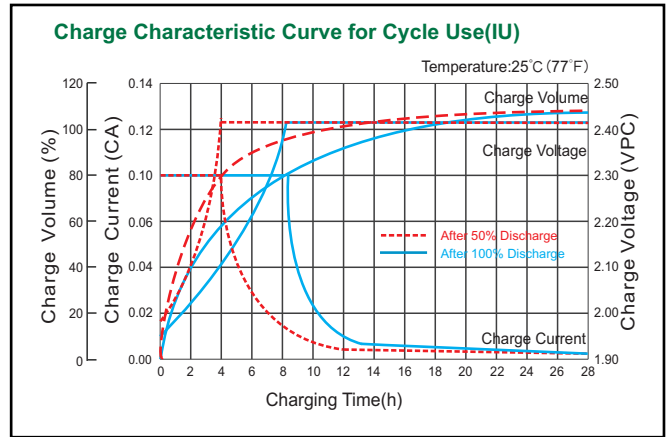
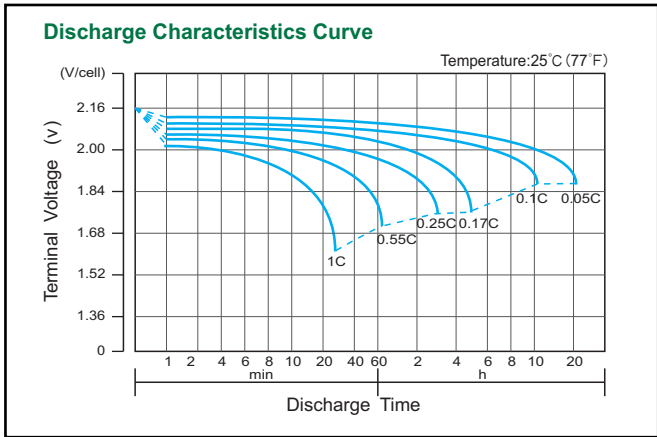
#### Discharge Constant Current per Cell (Amperes at 25° C)

F.V/ Time	30min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.90V	133.0	105.4	74.35	56.67	44.89	39.90	34.91	27.24	23.36	13.44
1.87V	148.7	116.3	79.76	60.33	47.38	42.20	37.01	28.52	24.41	14.04
1.83V	170.3	129.8	86.52	64.53	49.88	44.10	38.33	29.79	25.46	14.64
1.80V	189.3	140.6	89.76	66.43	50.87	45.12	39.38	30.56	26.25	15.09
1.75V	210.9	150.6	93.82	68.56	51.71	45.94	40.16	31.06	26.78	15.39
1.70V	232.5	155.5	96.52	70.18	52.62	46.65	40.69	31.32	27.04	15.55
1.65V	239.8	165.2	99.77	71.93	53.37	47.29	41.21	31.57	27.30	15.70
1.60V	250.1	170.9	103.6	74.34	54.86	48.30	41.74	31.83	27.56	15.85

#### Discharge Constant Power per Cell (Watts at 25° C)

F.V/ Time	30min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.90V	254.6	202.4	143.7	110.2	87.85	78.43	69.04	54.49	47.61	27.38
1.87V	280.2	219.8	152.4	116.5	92.60	82.79	72.98	56.78	49.65	28.55
1.83V	313.8	239.7	162.2	123.1	97.08	86.21	75.34	58.82	51.43	29.57
1.80V	342.9	255.7	167.7	126.4	98.93	88.07	77.18	60.09	52.71	30.31
1.75V	372.0	267.1	173.1	129.4	100.2	89.36	78.49	60.86	53.47	30.74
1.70V	398.9	269.8	177.4	132.1	101.8	90.57	79.28	61.36	53.98	31.04
1.65V	405.7	281.8	182.3	134.8	103.2	91.57	80.06	61.87	54.24	31.19
1.60V	410.6	290.5	186.7	138.1	105.8	93.21	80.59	62.13	54.49	31.33

### Performance Characteristics



**Note:** The above data are average values, and can be obtained within 3 charge/discharge cycles. These are not minimum values. Cell and battery designs/specifications are subject to modification without notice. Contact **CSPower** for the latest information.

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