

OPzS Deep Cycle Tubular Flooded Battery

OPzS2-300

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
300Ah

Flooded
Technology

Tubular
Plate



Applications

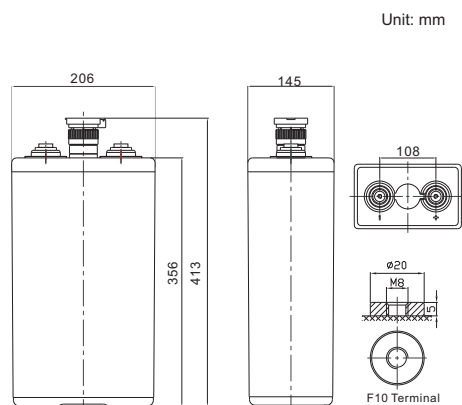
- Solar & Wind Power system
- Nuclear power station
- Telecom backup power supply
- energy saving requirements
Emergency Power System

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



Cells Per Unit	1
Voltage Per Unit	2
Nominal Capacity	300Ah@10hr-rate to 1.85V per cell @25°C
Weight	Without Electrolyte 18.5 kg/With Electrolyte 24.5kg
Internal Resistance	Approx. 0.7 mΩ
Terminal	F10(M8)
Max. Discharge Current	1400A (5 sec)
Design Life	20 years (floating charge)
Maximum Charging Current	45.0 A
Reference Capacity	C24 359.1AH C48 404.0AH C72 424.2AH C100 433.9AH C120 442.6AH C240 450.0AH
Float Charging Voltage	2.23 V~2.25 V @ 25°C Temperature Compensation: -3mV/°C/Cell
Cycle Use Voltage	2.40 V~2.45 V @ 25°C Temperature Compensation: -4mV/°C/Cell
Operating Temperature Range	Discharge: -15°C~50°C Charge: 0°C~40°C Storage: -15°C~50°C
Normal Operating Temperature Range	25°C ± 5°C
Self Discharge	CSPOWER 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.
Container Material	A.B.S. UL94-HB, UL94-V0 Optional.

Length	145±1mm (5.71 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

Battery Discharge Table

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

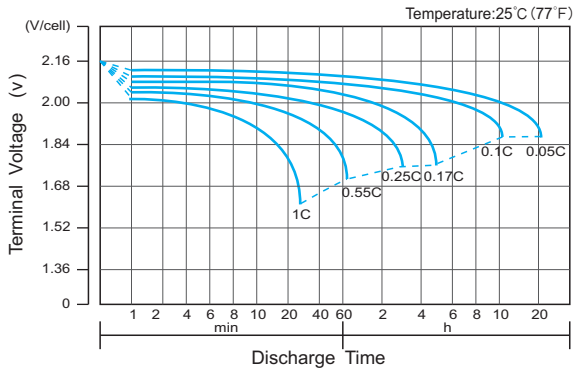
F.V/ Time	30min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.90V	159.6	126.5	89.22	68.01	53.87	47.88	41.90	32.69	28.04	16.12
1.87V	178.4	139.5	95.71	72.40	56.86	50.64	44.42	34.22	29.30	16.84
1.83V	204.4	155.7	103.8	77.44	59.85	52.92	45.99	35.75	30.56	17.57
1.80V	227.1	168.7	107.7	79.72	61.05	54.15	47.25	36.67	31.50	18.11
1.75V	253.1	180.7	112.6	82.27	62.06	55.12	48.20	37.28	32.13	18.47
1.70V	279.0	186.6	115.8	84.22	63.14	55.98	48.83	37.58	32.45	18.66
1.65V	287.8	198.2	119.7	86.31	64.04	56.75	49.46	37.89	32.76	18.84
1.60V	300.1	205.1	124.3	89.21	65.84	57.96	50.09	38.19	33.08	19.02

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

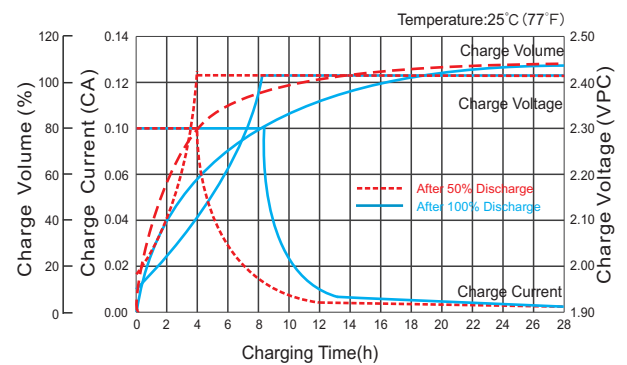
F.V/ Time	30min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.90V	305.5	242.9	172.5	132.2	105.4	94.11	82.85	65.39	57.14	32.85
1.87V	336.2	263.8	182.9	139.8	111.1	99.34	87.57	68.14	59.58	34.26
1.83V	376.6	287.6	194.7	147.8	116.5	103.5	90.41	70.58	61.72	35.49
1.80V	411.5	306.8	201.2	151.7	118.7	105.7	92.61	72.11	63.25	36.37
1.75V	446.4	320.5	207.7	155.3	120.3	107.2	94.19	73.03	64.17	36.89
1.70V	478.7	323.8	212.9	158.5	122.2	108.7	95.13	73.64	64.78	37.24
1.65V	486.8	338.1	218.8	161.8	123.8	109.9	96.08	74.25	65.08	37.42
1.60V	492.7	348.6	224.0	165.8	126.9	111.9	96.71	74.55	65.39	37.59

Performance Characteristics

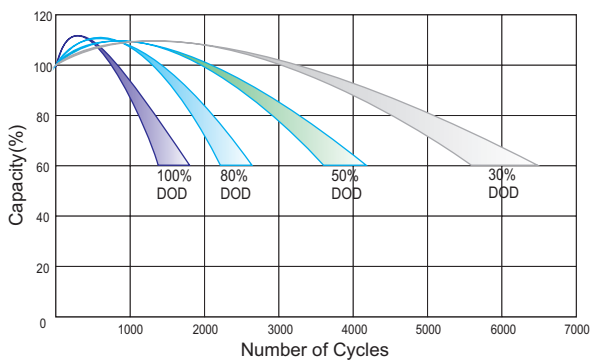
Discharge Characteristics Curve



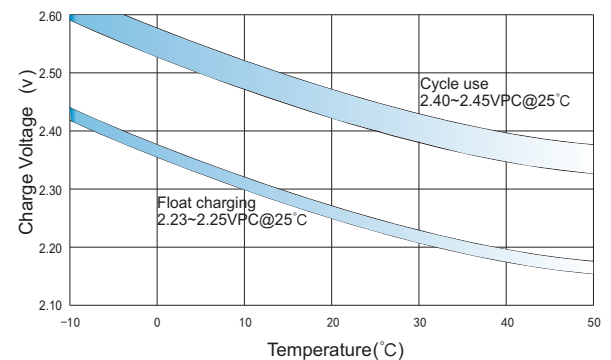
Charge Characteristic Curve for Cycle Use(IU)



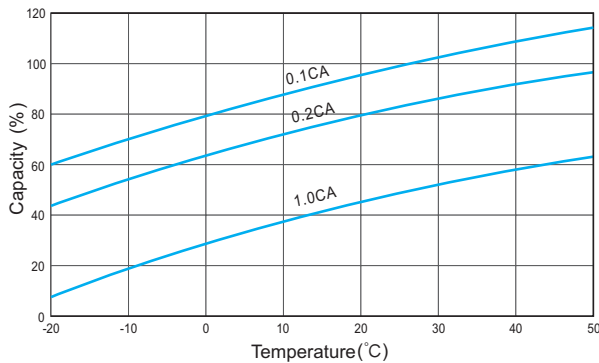
Cycle Life in Relation to Depth of Discharge



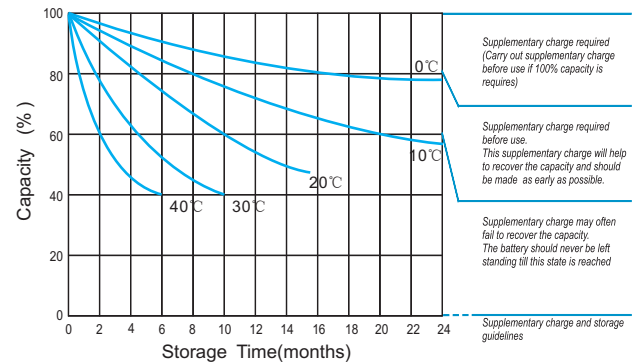
Relationship Between Charging Voltage and Temperature



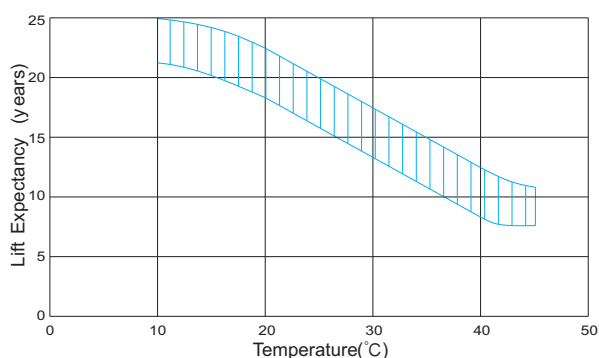
Temperature Effects on Capacity



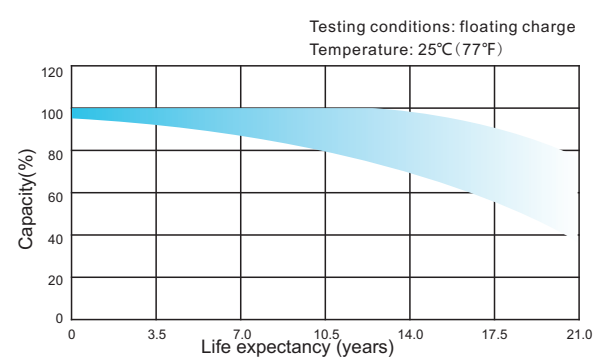
Storage Characteristics



Effect of Temperature on Long Term Life



Life Characteristics Of Standby Use



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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