

### OPzS Series Battery

SPACEFLIGHT OPzS Series battery is Tubular Flooded battery, designed with an innovative tubular plates which provide greater capacity and enhanced cycle life. The battery has been specifically designed for longer life, greater reliability and strong resilience to high temperature making them ideal for critical power applications and energy storage.

### Applications

- Solar and wind power systems
- Uninterruptible power supplies
- Communication systems
- Telecommunication systems
- Emergency Power Systems

### General Features

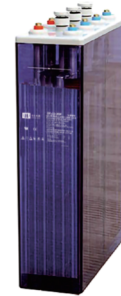
- 20 years designed floating life(25°C)
- Non-spillable construction
- Sealed and maintenance-free
- Advanced tubular positive plates
- Excellent recovery from deep discharge
- Longer Life and low self-discharge

### Standards

- Compliance with IEC, BS, JIS and EU standards.
- UL, CE Certified
- ISO45001, ISO9001 and ISO14001 certified production facilities

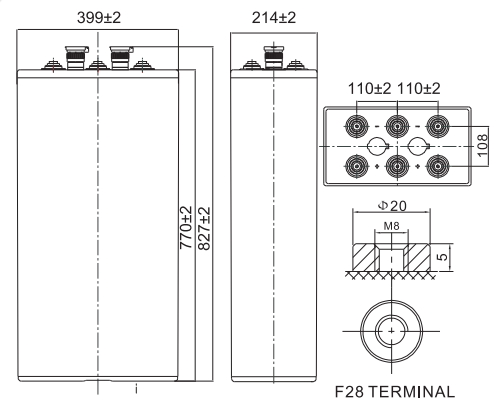
### Specifications

Rated Voltage	2V	
Nominal Capacity	2000Ah	(C <sub>10</sub> , 1.8V)
Approx Weight	Without Electrolyte 105.0kg/With Electrolyte 151.5kg	
Terminal	F28	
Rated Capacity(25°C)	2420 Ah	(20hr, 121A, 1.75V)
	2000 Ah	(10hr, 200A, 1.80V)
	1810.5 Ah	(5hr, 362.1A, 1.75V)
	1361 Ah	(1hr, 1361A, 1.60V)
Max. Discharge/Charge Current	10000A(5s) / 500A	
Max. Short Circuit Current	12800A	
Internal Resistance(25°C)	Approx 0.17mΩ	
Operating Temp. Range	Discharge	-20~60°C(-4~140°F)
	Charge	-10~50°C(14~122°F)
	Storage	-20~60°C(-4~140°F)
Nominal operating temperature	25±5°C	
Charge Voltage @25°C(77°F)	Cycle Use	Initial Charging Current less than 500A. Voltage 2.4V~2.45V at 25°C(77°F)Temp. Coefficient -5mV/°C
	Standby Use	Initial Charging Current less than 500A. Voltage 2.23V~2.25V at 25°C(77°F)Temp. Coefficient -3mV/°C
Temperature effects on capacity	40°C (104°F)	103%
	25°C (77°F)	100%
	0°C (32°F)	86%
	-15°C (5°F)	65%
Self Discharge(25°C)	Capacity after 3 months storage	91%
	Capacity after 6 months storage	82%
	Capacity after 12 months storage	65%



### Dimensions

unit:mm



Length	399±2mm (15.7 inches)
Width	214±2mm (8.42 inches)
Container Height	770±2mm (30.3 inches)
Total Height	827±2mm (32.5 inches)

### Battery Construction

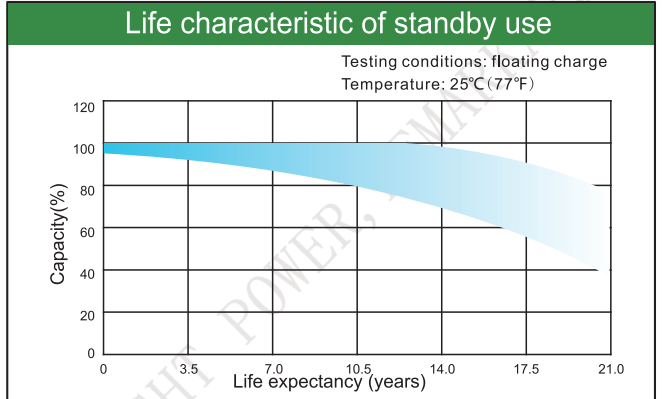
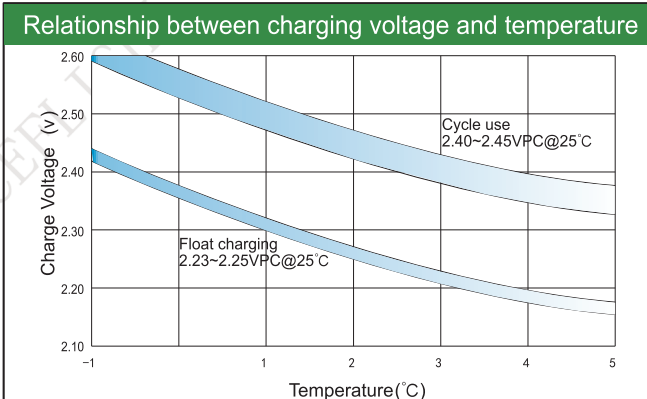
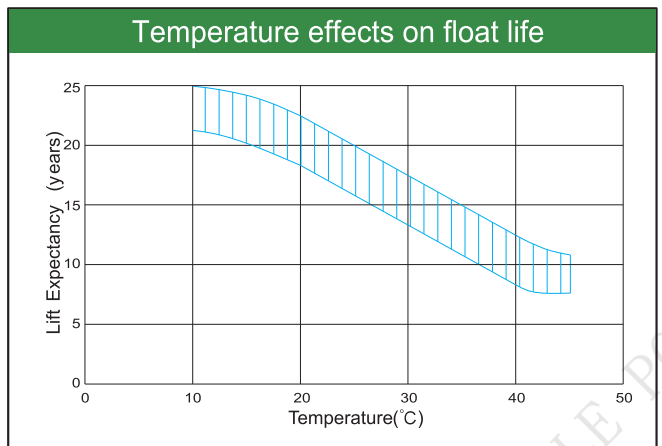
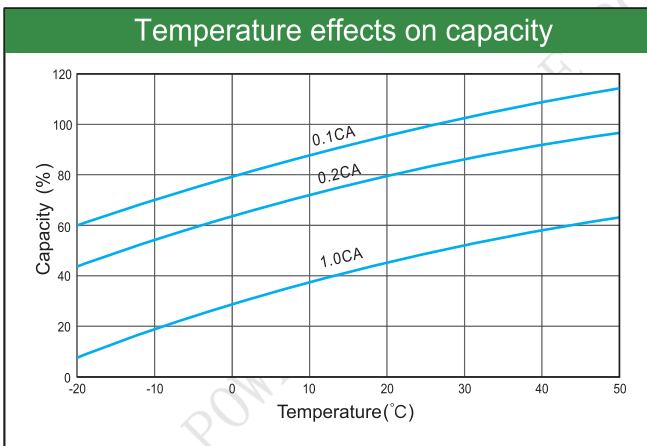
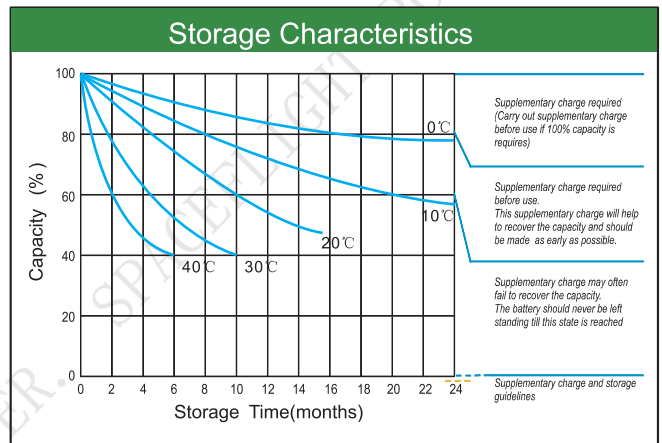
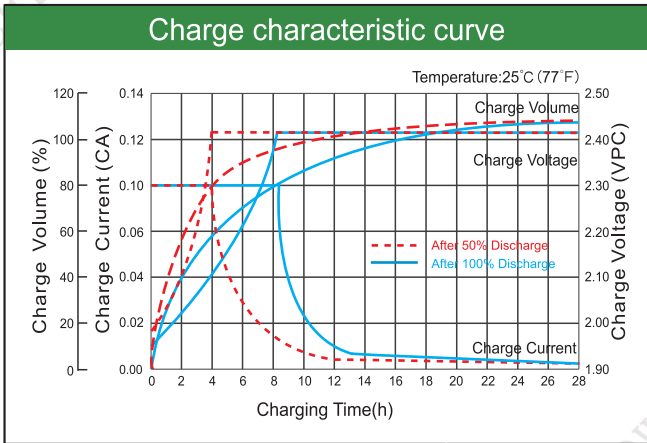
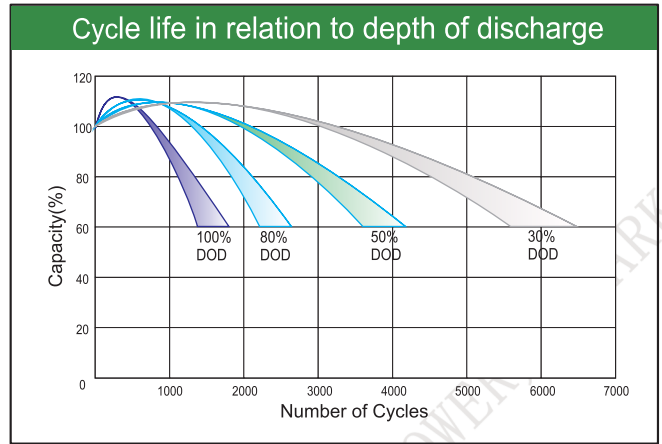
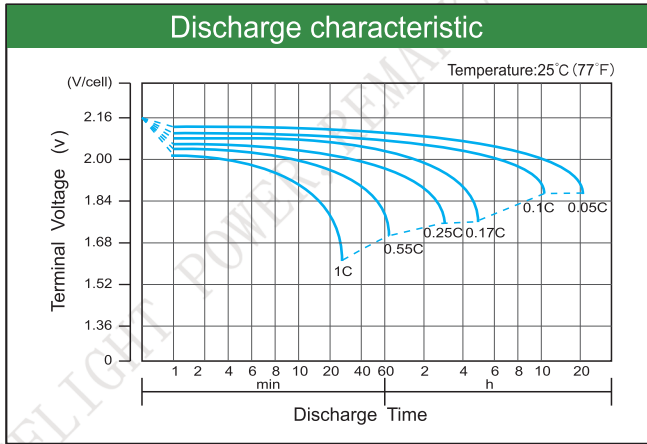
Component	Positive plate	Negative plate	Container	Safety valve	Terminal	Separator	Electrolyte
Raw material	Lead dioxide	Lead	ABS(UL94-HB) or FR(UL94-V0)	Rubber	Copper	PVC	Sulfuric acid

### Constant Current Discharge (Amperes) at 25°C(77°F)

E.V/Time	30min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.60V	2110	1361	806.1	586.9	452.5	379.5	330.7	260.2	218.9	125.9
1.65V	2046	1281	779.9	572.7	446.2	374.3	326.5	258.1	216.8	124.7
1.70V	1890	1241	758.1	559.4	438.5	368.6	322.3	256.0	214.7	123.5
1.75V	1696	1159	725.3	542.1	431.4	362.1	315.9	251.8	210.5	121.0
1.80V	1531	1033	671.8	509.5	412.4	346.2	302.3	240.2	200.0	115.0

### Constant Power Discharge (Watts/cell) at 25°C(77°F)

E.V/Time	30min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.60V	3570	2322	1473	1100	874.7	734.8	642.4	509.8	435.0	250.1
1.65V	3510	2223	1434	1078	863.5	726.7	636.1	505.6	432.9	248.9
1.70V	3333	2201	1399	1056	850.1	717.0	629.8	501.4	428.8	246.6
1.75V	3073	2107	1355	1032	838.9	706.7	619.3	495.2	422.7	243.1
1.80V	2851	1930	1271	977.9	804.2	678.0	595.0	476.3	405.4	233.1



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