

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

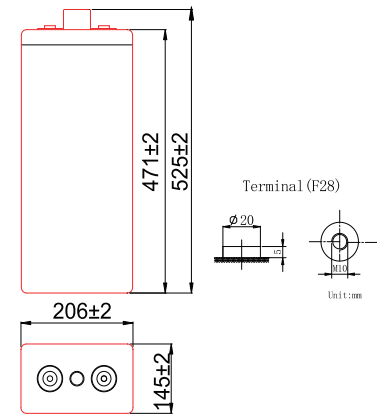
- Compliance with IEC, BS, JIS and EU standards.
- UL, CE Certified
- ISO45001,ISO9001 and ISO14001 certified production facilities

Specifications

Rated Voltage	2V	
Nominal Capacity	420Ah	(C ₁₀ , 1.8V)
Approx Weight	Without Electrolyte 22.1kg/With Electrolyte 31.5kg	
Terminal	F28	
Rated Capacity(25°C)	612 Ah	(240hr, 2.55A, 1.85V)
	504 Ah	(100hr, 5.04A, 1.85V)
	420 Ah	(10hr, 42.0A, 1.80V)
	353 Ah	(5hr, 70.6A, 1.80V)
Max.Discharge/Charge Current	2100A(5s) / 105A	
Max.Short Circuit Current	4075A	
Internal Resistance(25°C)	Approx 0.8mΩ	
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 105A. Voltage 2.4V~2.45V at 25°C(77°F)Temp. Coefficient -5mV/°C
	Standby Use	Initial Charging Current less than 105A. 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	206±2mm (8.11 inches)
Width	145±2mm (5.71 inches)
Container Height	471±2mm (18.5 inches)
Total Height	525±2mm (20.7 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

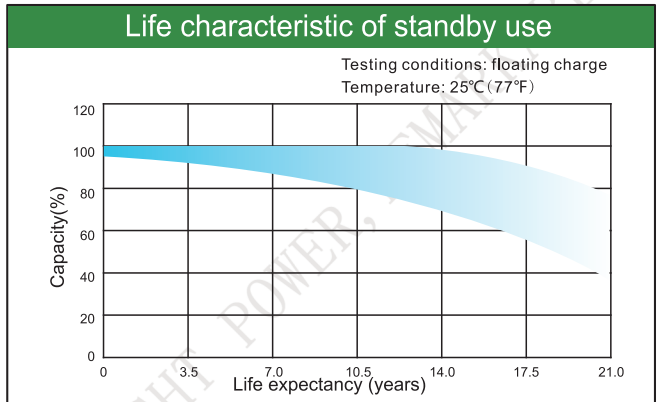
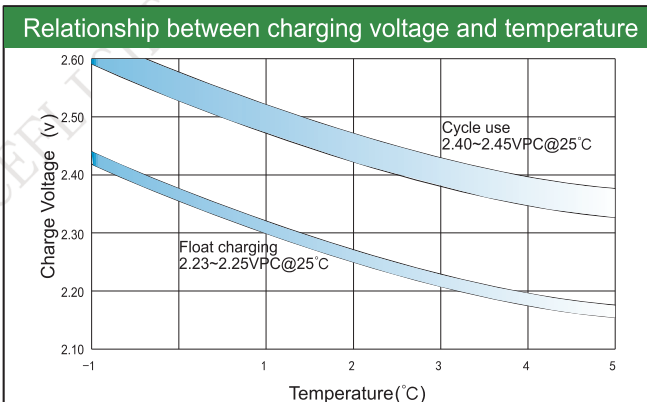
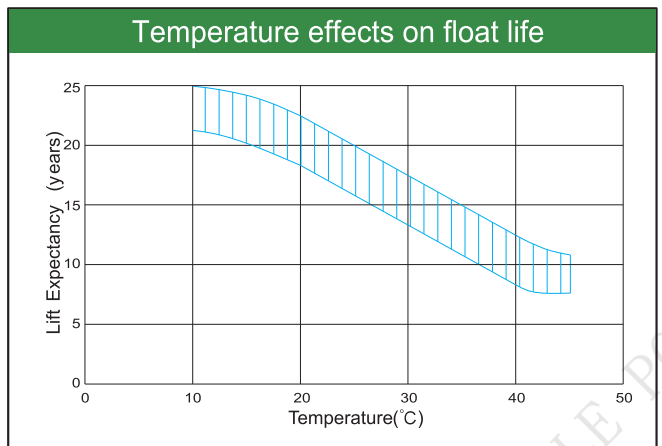
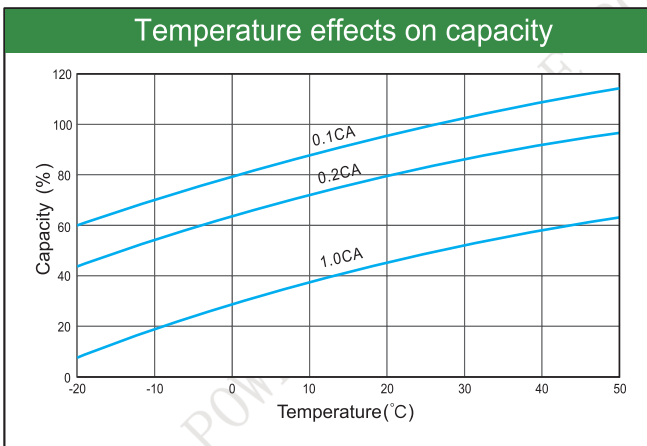
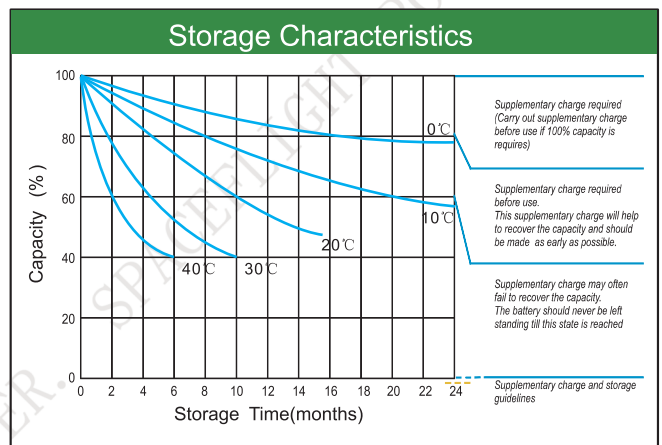
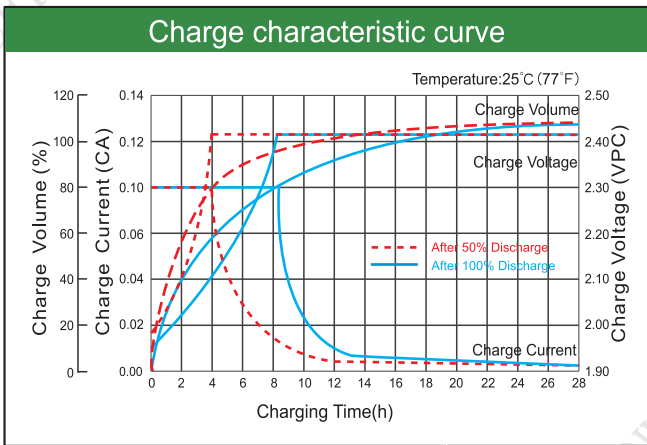
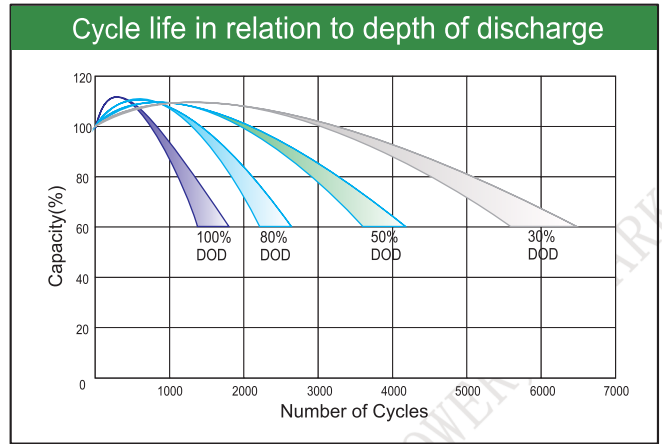
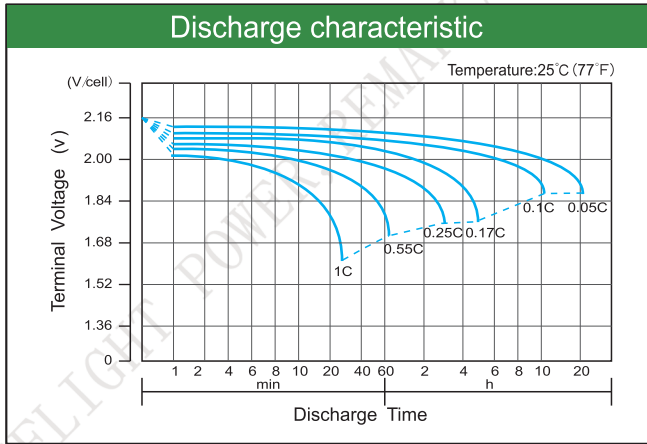
Constant Current Discharge (Amperes) at 25°C(77°F)

E.V/Time	1h	3h	5h	10h	24h	48h	100h	120h	240h
1.70V	212	107	73.1	42.8	-----	-----	-----	-----	-----
1.75V	198	105	71.4	42.8	22.3	12.2	-----	-----	-----
1.80V	185	100	70.6	42.0	21.8	12.2	-----	-----	-----
1.85V	181	97.4	66.4	40.7	21.4	11.8	5.04	4.37	2.55
1.90V	170	92.4	64.3	39.1	20.2	11.3	4.96	4.28	2.52

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

E.V/Time	1h	3h	5h	10h	24h	48h	100h	120h	240h
1.70V	398	204	139	82.7	-----	-----	-----	-----	-----
1.75V	375	201	137	82.7	44.3	24.5	-----	-----	-----
1.80V	353	191	136	82.3	43.5	24.3	-----	-----	-----
1.85V	349	189	130	80.6	42.8	23.8	10.20	8.90	5.25
1.90V	331	181	127	78.1	40.6	23.1	10.10	8.78	5.17

Note: The above characteristics data are average values obtained Within three charge/discharge cycles not the minimum.



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