

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	1000Ah	(C ₁₀ , 1.8V)
Approx Weight	Without Electrolyte 53.5kg/With Electrolyte 74.6kg	
Terminal	F28	

Rated Capacity(25°C)	1464 Ah	(240hr, 6.1A, 1.85V)
	1200 Ah	(100hr, 12A, 1.85V)
	1000 Ah	(10hr, 100A, 1.80V)
	840 Ah	(5hr, 168A, 1.80V)

Max. Discharge/Charge Current 5000A(5s) / 250A

Max. Short Circuit Current 8300A

Internal Resistance(25°C) Approx 0.45mΩ

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

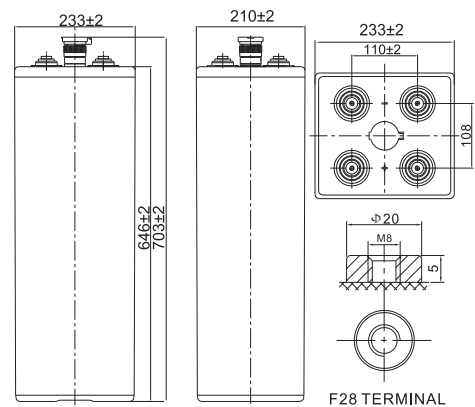
Charge Voltage @25°C(77°F)	Cycle Use	Initial Charging Current less than 250A. Voltage 2.4V~2.45V at 25°C(77°F)Temp. Coefficient -5mV/°C
	Standby Use	Initial Charging Current less than 250A. Voltage 2.23V~2.25V at 25°C(77°F)Temp. Coefficient -3mV/°C

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	233±2mm (9.17 inches)
Width	210±2mm (8.27 inches)
Container Height	646±2mm (25.4 inches)
Total Height	703±2mm (27.7 inches)

Battery Construction

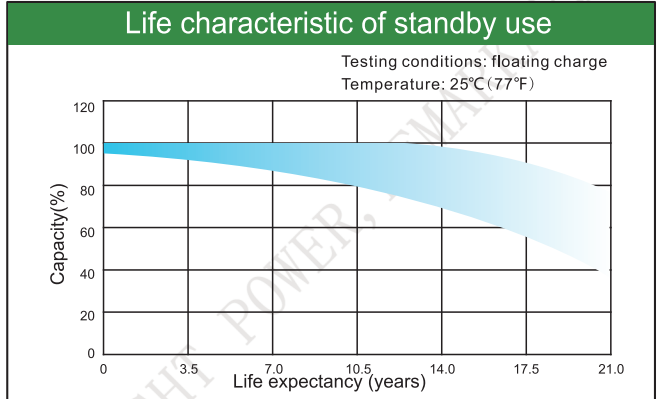
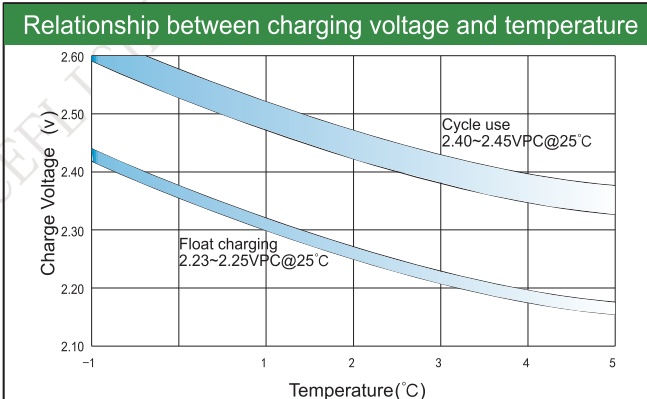
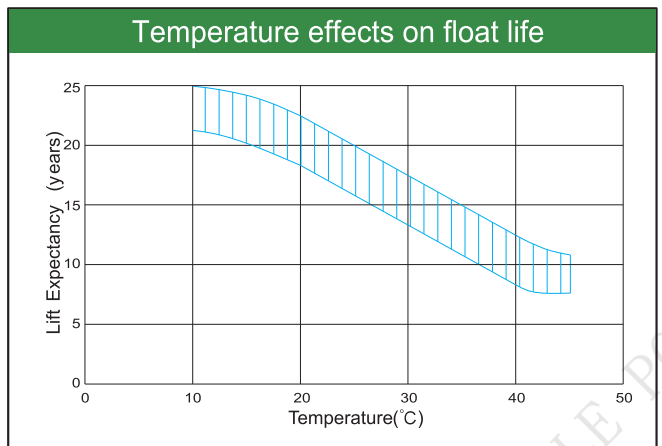
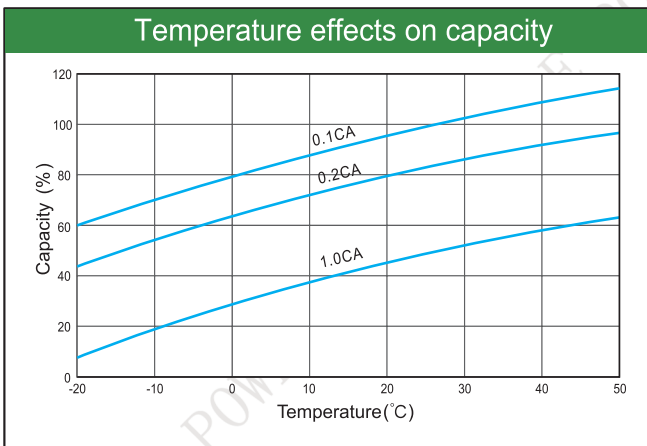
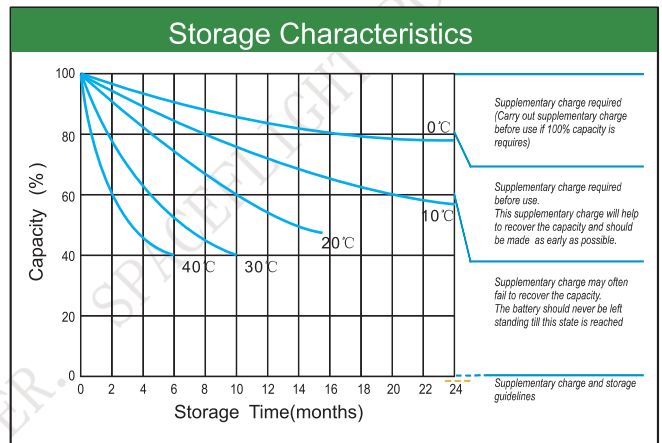
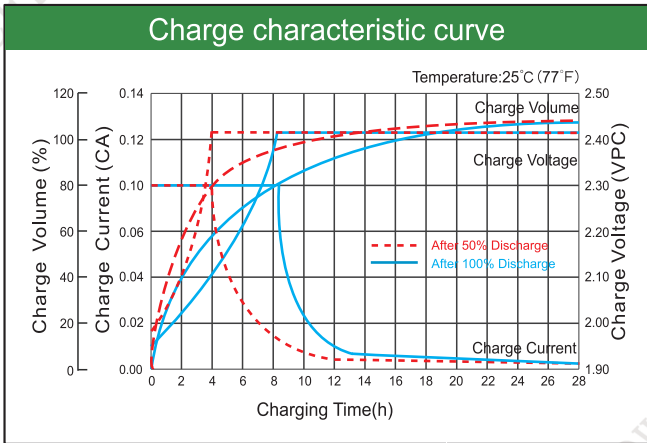
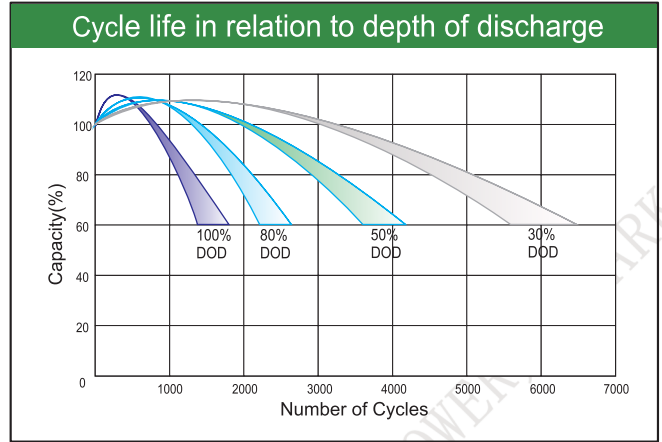
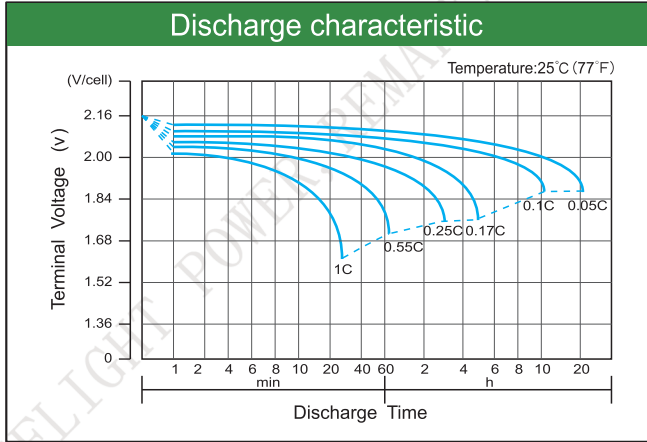
Component	Positive plate	Negative plate	Container	Safety valve	Terminal	Separator	Electrolyte
Raw material	Lead dioxide	Lead	ABS(UL94-HB) or FR(UL94-V0)	Rubber	Copper	PVC	Sulfuric acid

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

EndPoint Volts/Cell	30min	1h	2h	3h	4h	5h	6h	8h	10h	24h	48h	100h	120h	240h
1.70V	649	497	330	255	205	174	152	122	102	/	/	/	/	/
1.75V	598	470	320	250	203	170	150	120	102	53.0	29.0	/	/	/
1.80V	555	440	310	237	200	168	145	118	100	52.0	29.0	/	/	/
1.85V	505	432	290	232	190	158	140	115	97.0	51.0	28.0	12.0	10.4	6.10

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

EndPoint Volts/Cell	30min	1h	2h	3h	4h	5h	6h	8h	10h	24h	48h	100h	120h	240h
1.70V	1176	926	613	476	383	326	291	235	197	/	/	/	/	/
1.75V	1088	877	598	469	381	321	288	231	197	106	58.0	/	/	/
1.80V	1044	823	583	446	378	318	281	230	196	104	58.5	/	/	/
1.85V	961	814	549	441	363	304	275	227	192	102	56.5	24.4	21.2	12.5



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