

The OPzS series is a traditional tubular plate flooded battery which offers 20+ years design life According to the standard IEC60896-11. With a new design and technical improvement, it offers maximum efficiency and reliability for the widest variety of applications. This series is highly suited for all standby power applications that require the highest levels of reliability and security.

2V Voltage	1000Ah Capacity	Tubular Flooded	20+years Design life
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Complied standards

- IEC 60896-11
- DIN40736
- IEC61427
- Eurobat guide, long life

Features and Benefits

- Tubular positive plate with prolonged cycle life
- Wide operating temperature range from -40°C to 60°C
- Tubular positive plate with prolonged cycle life
- Lead calcium die cast grid with improved corrosion resistance capability
- Dry charged package and delivery ensure longer shelf life
- Explosive-proof with special designed vented plug
- Excellent deep discharge recovery capability

Construction

- Positive plate Tubular plate with die cast Pb-Ca alloy grid
- Negative plate - Balanced Pb-Ca grid for improved recombination

Efficiency

- Separator - Leaf shape rubber separator
- Electrolyte - Dilute high purity sulphuric acid of 1.240 specific Gravity
- Battery container is SAN, cover is ABS
- Pillar seal - 100% factory tested, proven two layers epoxy resin Seal
- Relief valve - Complete with integrated flame arrestor

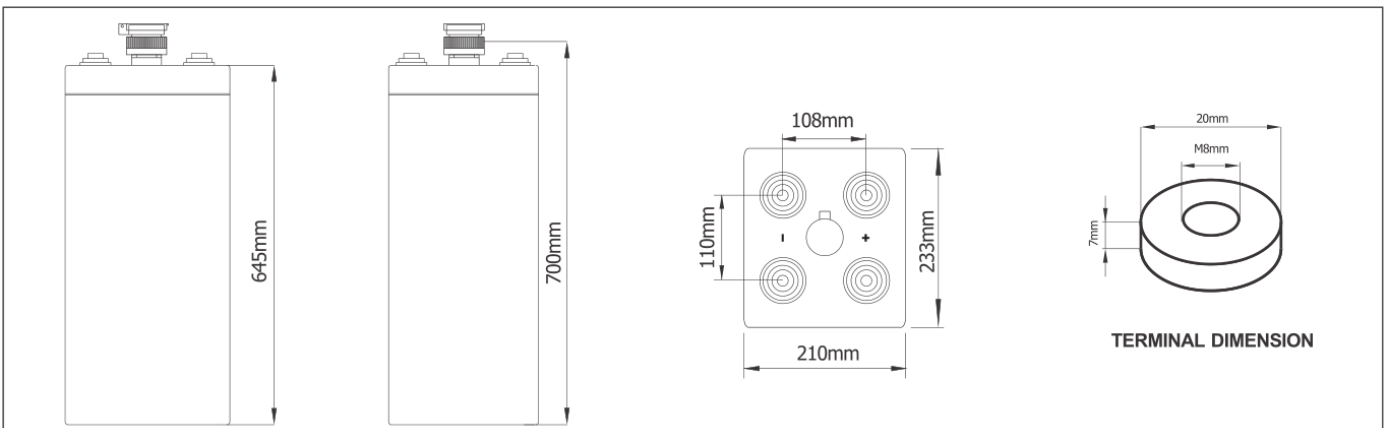
Applications

- Telecom
- Electric Utilities
- Railroad Utilities
- Outdoor applications
- Power Utility
- UPS systems
- Photovoltaic Systems
- Medical Equipments
- Renewable Energy Systems

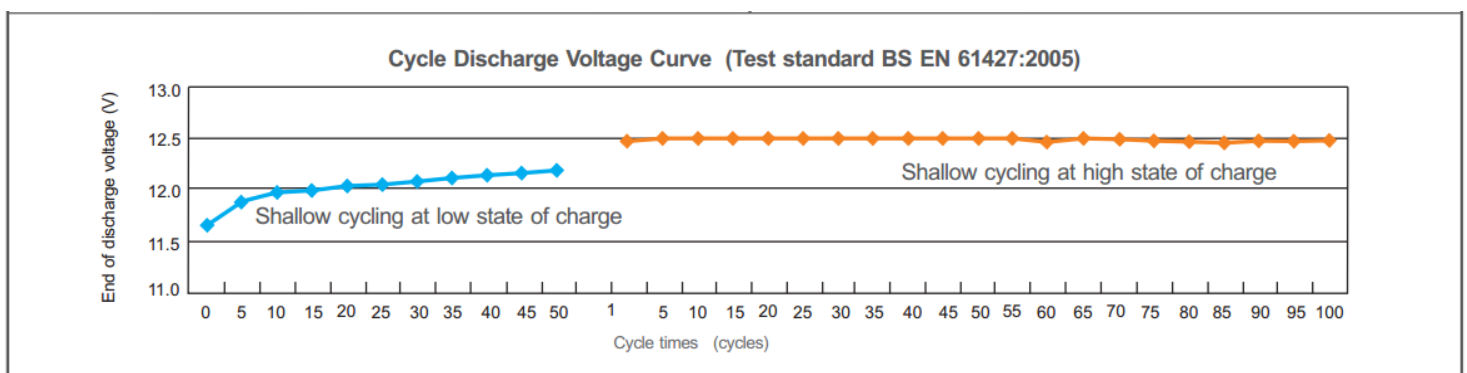
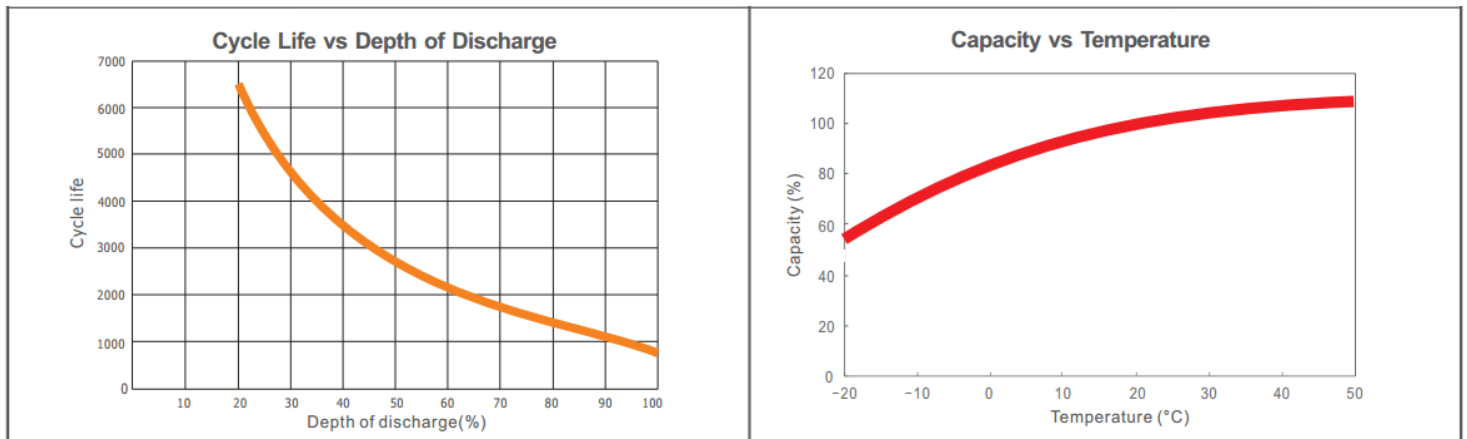
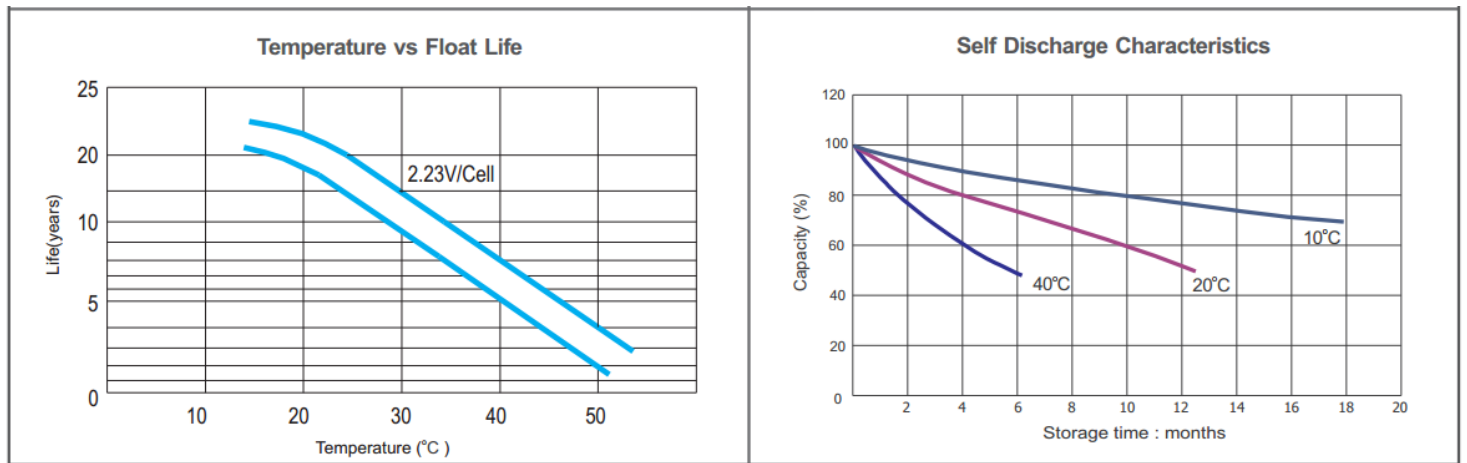
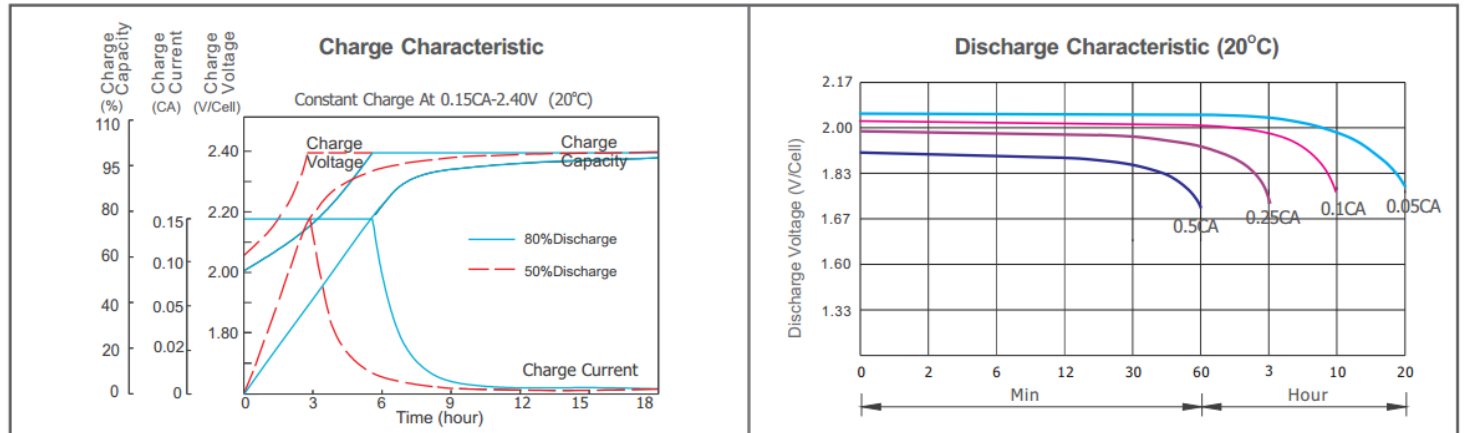
Technical Specifications

Nominal Voltage.....	2V(1 cells per unit)
Nominal Capacity(20°C).....	1000Ah
Dimension(mm).....	L233 x W210 x H645 x TH700mm
Approx. Weight	
Without electrolyte.....	53.5kg (118lbs)
With electrolyte.....	73.5kg(162lbs)
Electrolyte(Diluted sulphuric acid of 1.240g/cm³ (20°C)).....	20kg
Terminal Type.....	Female Copper Insert M8(torque:10~12N.m)
Internal Resistance.....	0.44mΩ(fully Charged @20°C)
Max.Charge Current.....	200A
Max.Discharge Current (5s).....	2500A
Short Circuit Current.....	4500A
Ambient Temperature	
Discharge.....	-25-65°C
Charge.....	-20-65°C
Storage.....	-15-40°C
Capacity Affected by Temp.(10 hour)	
105% @40°C	
85% @0°C	
60% @-20°C	
Self-Discharge @20°C.....	Approx.4% per month
Charge Voltage @20~25°C	
Float charge voltage.....	2.21V-2.25V
Equalize Charge Voltage.....	2.35V-2.40V

Dimensions



Performance Characteristics



Battery Discharge

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

F.V./Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.90V	399	363	330	323	299	234	189	159	139	103	91.0	50.1
1.85V	431	413	406	404	340	259	209	176	163	109	95.0	52.3
1.80V	688	660	646	556	437	305	256	200	173	123	100	55.0
1.75V	826	792	768	636	487	330	265	208	178	125	103	57.8

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

F.V./Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.90V	774	704	632	611	575	500	411	347	298	217	188	101
1.85V	836	802	779	759	654	565	430	386	331	237	204	110
1.80V	1335	1281	1098	1016	857	685	547	447	378	267	220	114
1.75V	1602	1537	1126	1023	864	712	579	473	395	271	229	117

Long time discharge capacity for solar & wind applications

Capacity	C ₂₄ (Ah)	C ₄₈ (Ah)	C ₇₂ (Ah)	C ₁₀₀ (Ah)	C ₁₂₀ (Ah)	C ₂₄₀ (Ah)
OPzS2-1000	1130	1240	1300	1350	1370	1400
Final Voltage	1.85 V					

Solar & wind applications parameters settings

Over voltage disconnect:	2.47±0.01V/cell @ 20~25°C
Regulation/equalize voltage:	2.40±0.01V/cell @ 20~25°C
Array reconnection voltage:	2.23±0.005V/cell @ 20~25°C
Float voltage setting:	2.25±0.005V/cell @ 20~25°C
Low voltage alarm voltage:	1.95±0.005V/cell @ 20~25°C
Low voltage disconnect:	1.90±0.005V/cell @ 20~25°C
Load reconnect voltage:	2.09±0.01V/cell @ 20~25°C
Temp. compensate coefficient:	-4mV/cell/°C