

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.

<b>2V</b> Voltage	<b>3000Ah</b> Capacity	<b>Tubular</b> Flooded	<b>20+years</b> 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

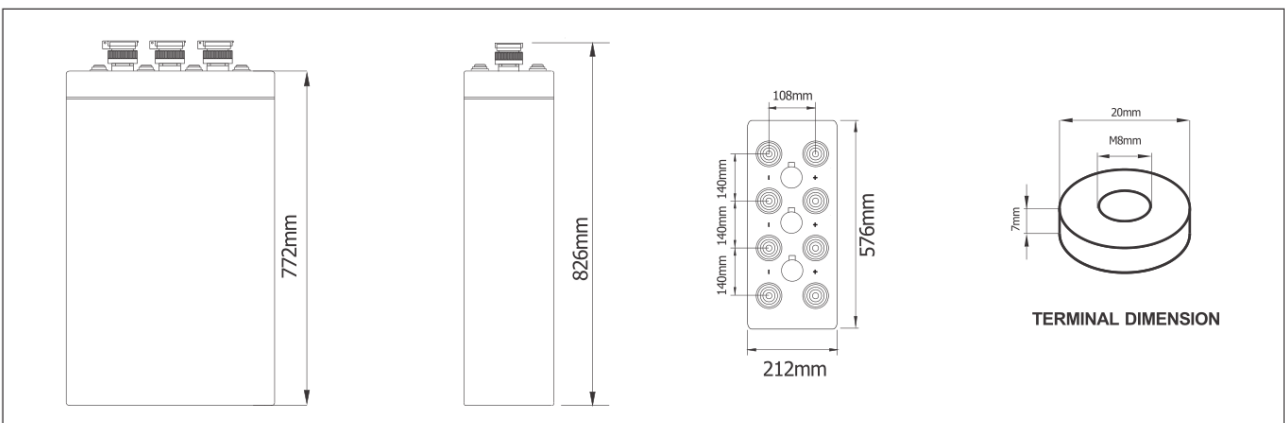
**Applications**

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

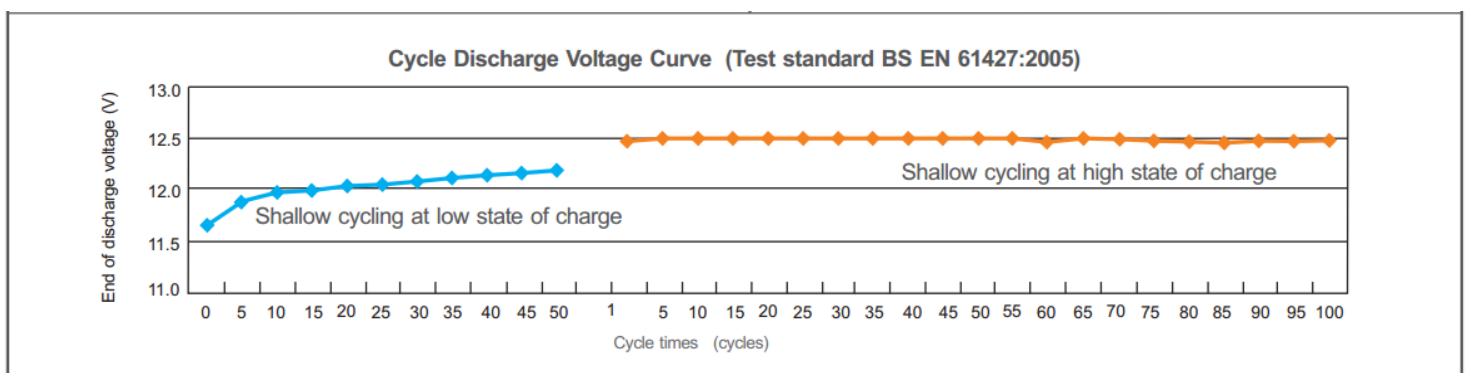
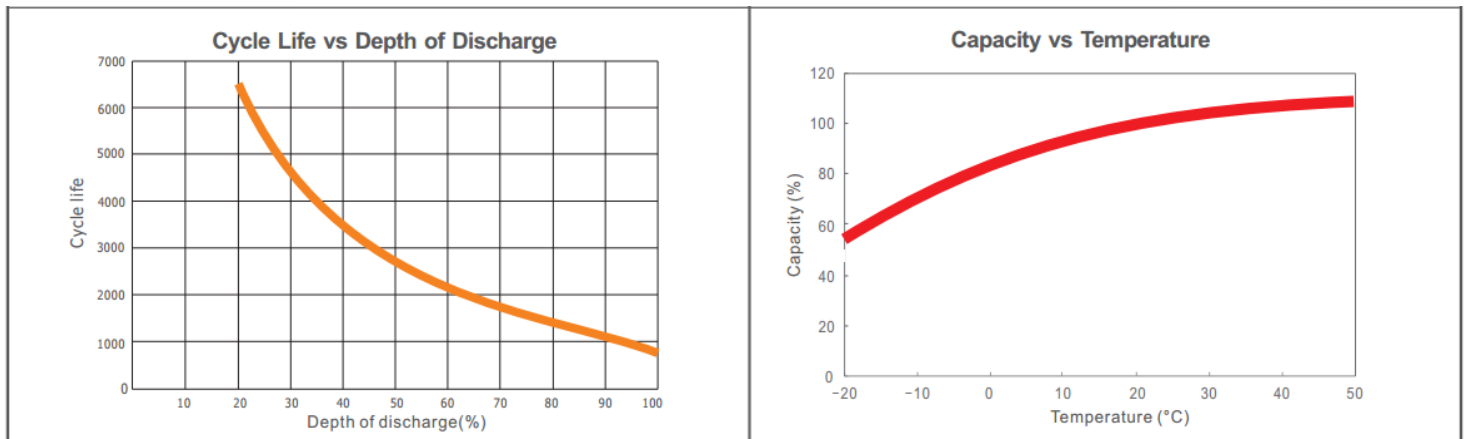
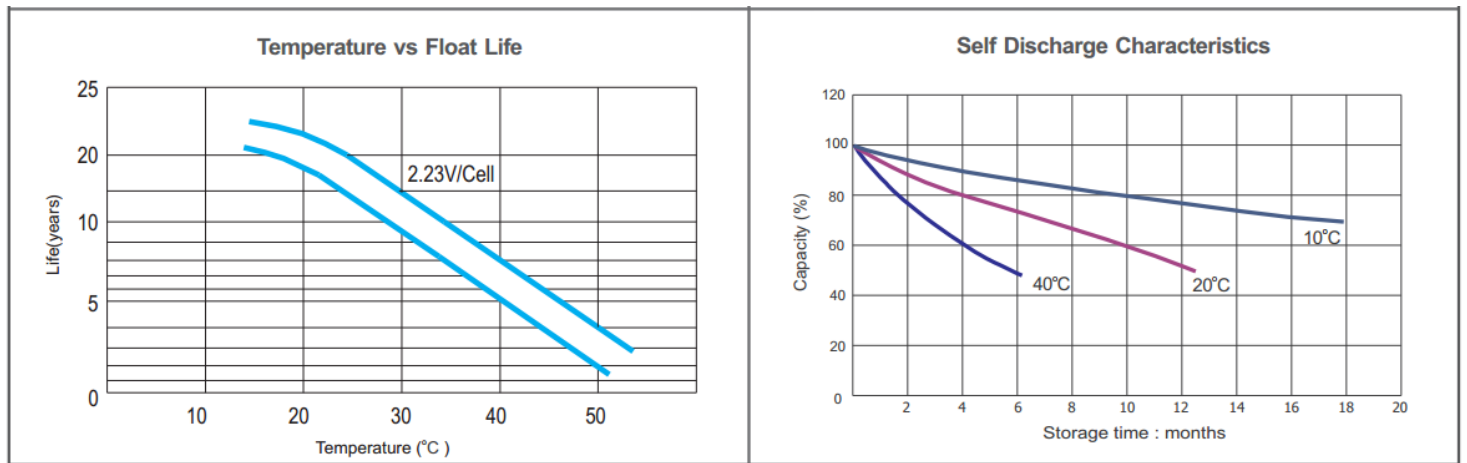
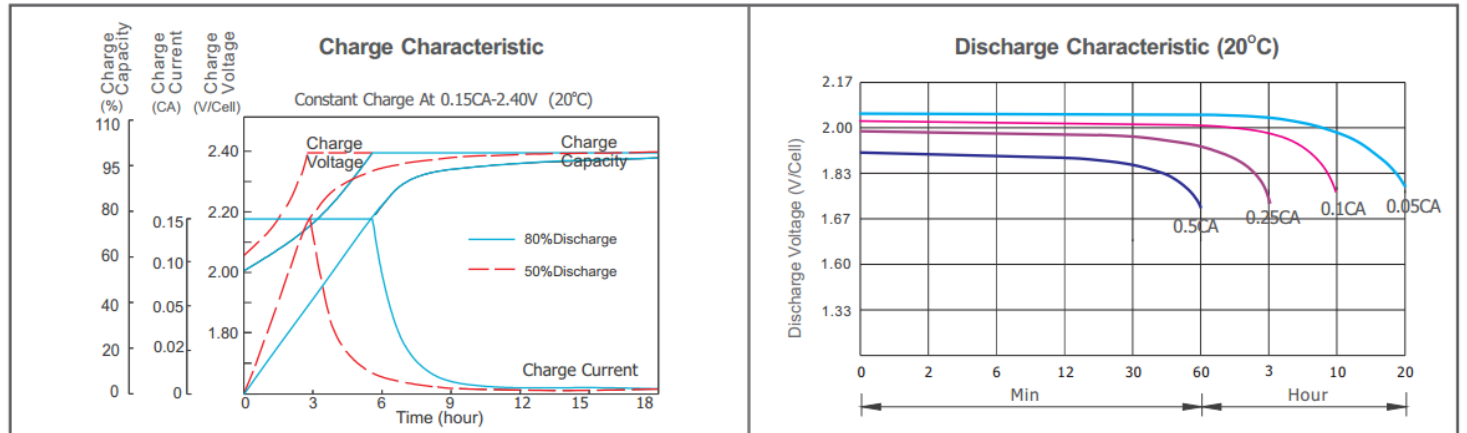
**Technical Specifications**

Nominal Voltage.....	2V(1 cells per unit)
Nominal Capacity(20°C).....	3000Ah
Dimension(mm).....	L576 x W212 x H772 x TH826mm
Approx. Weight	
Without electrolyte.....	155kg (342lbs)
With electrolyte.....	218kg(481lbs)
Terminal Type.....	Female Copper Insert M8(torque:10~12N.m)
Internal Resistance.....	0.28mΩ(fully Charged @20°C)
Max.Charge Current.....	600A
Max.Discharge Current (5s).....	4000A
Short Circuit Current.....	7200A
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	958	871	792	775	897	702	567	477	417	309	273	150
1.85V	1034	991	974	970	1020	777	627	528	489	327	285	157
1.80V	1651	1584	1550	1334	1311	915	768	600	519	369	300	165
1.75V	1982	1901	1843	1526	1461	990	795	624	534	375	309	173

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	1974	1795	1612	1558	1725	1500	1233	1041	894	651	564	302
1.85V	2132	2045	1986	1935	1962	1695	1290	1158	993	711	612	329
1.80V	3404	3267	2800	2591	2571	2055	1641	1341	1134	801	660	342
1.75V	4085	3919	2871	2609	2592	2136	1737	1419	1185	813	687	351

Long time discharge capacity for solar & wind applications

Capacity	C <sub>24</sub> (Ah)	C <sub>48</sub> (Ah)	C <sub>72</sub> (Ah)	C <sub>100</sub> (Ah)	C <sub>120</sub> (Ah)	C <sub>240</sub> (Ah)
OPzS2-3000	3390	3720	3900	4050	4110	4200
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