

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>2000Ah</b> Capacity	<b>Tubular</b> Flooded	<b>20+years</b> Design 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

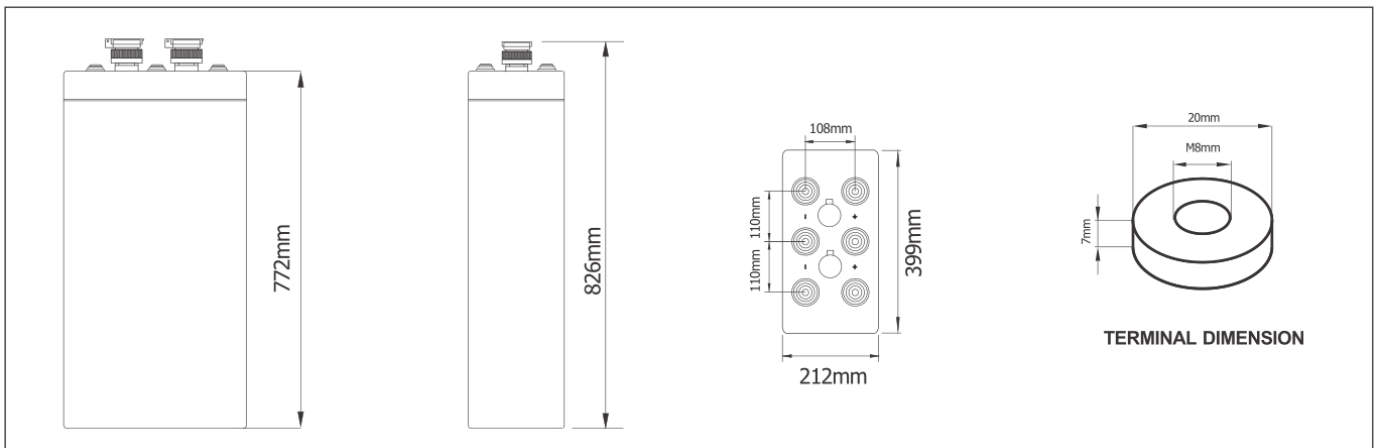
## Construction

- 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

## Dimensions

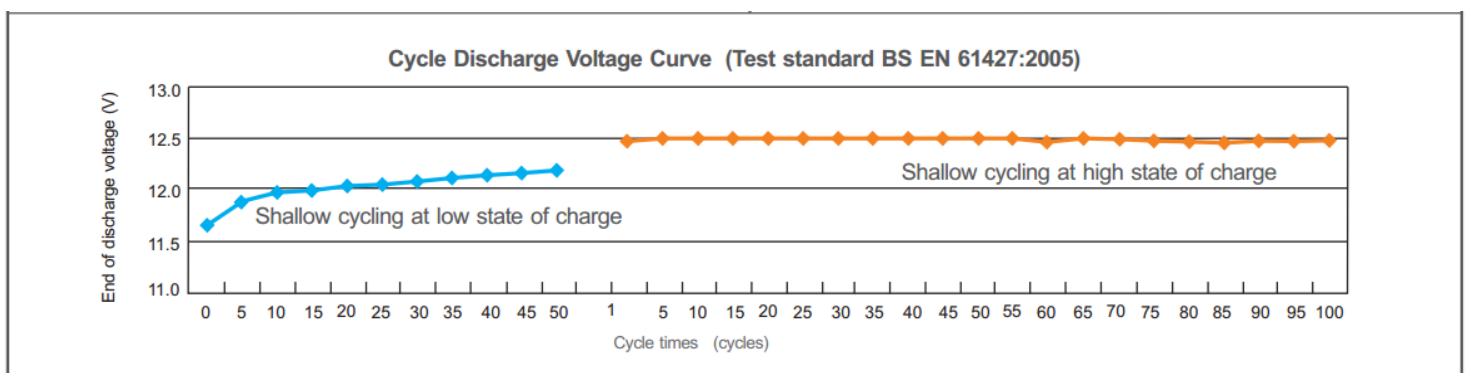
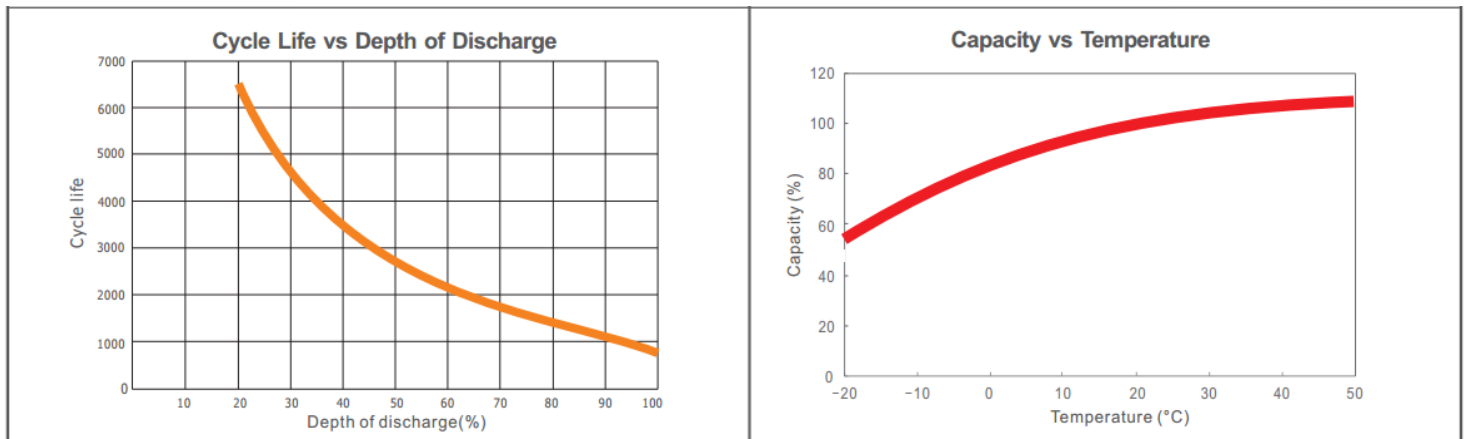
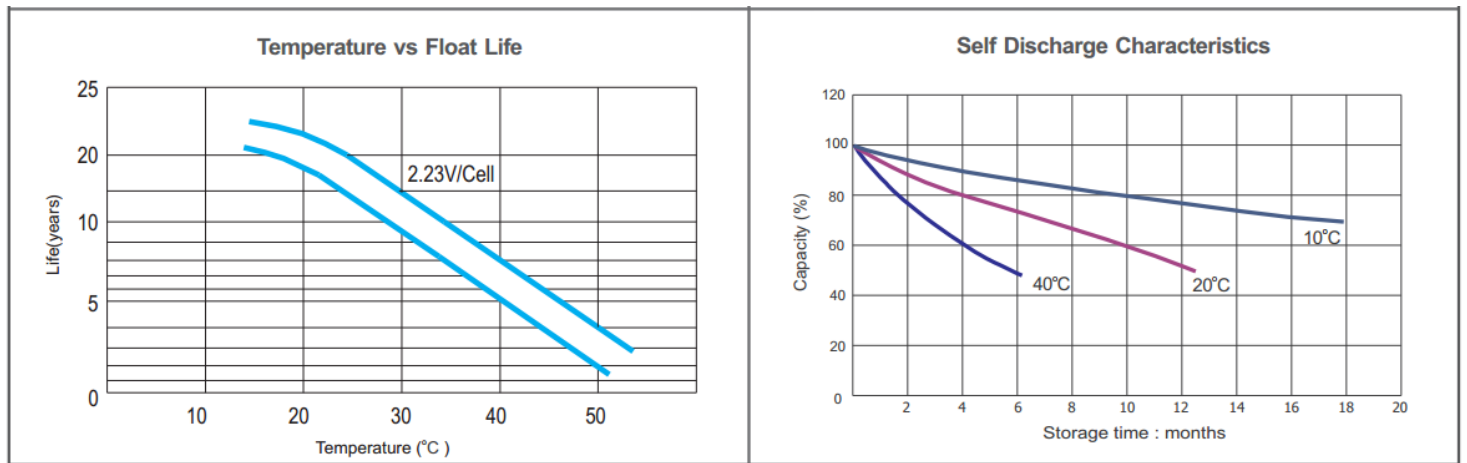
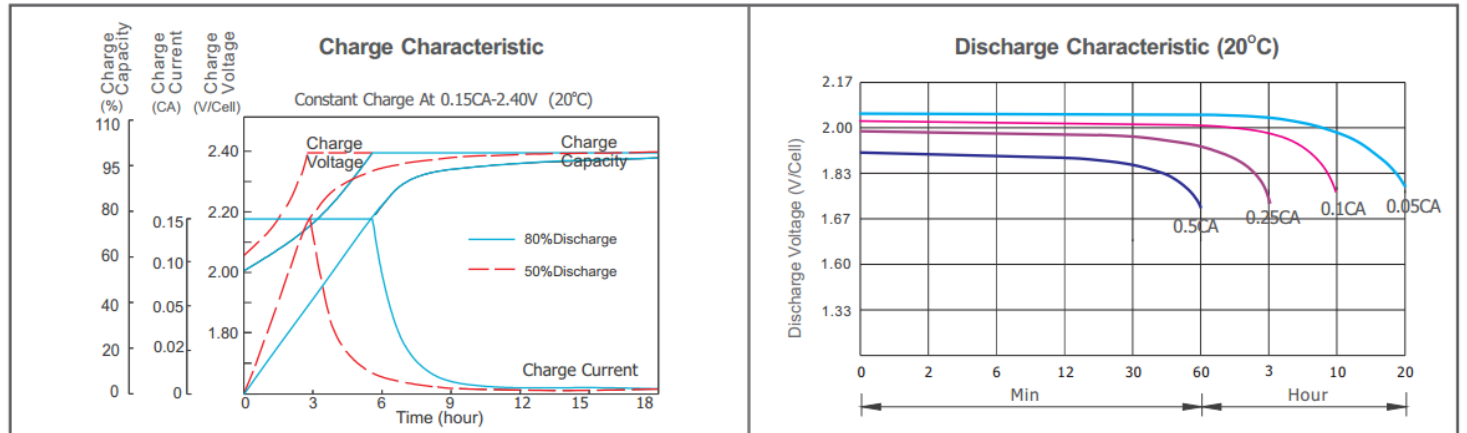


- Complied standards**
- IEC 60896-11
  - DIN40736
  - IEC61427
  - Eurobat guide, long life

## Technical Specifications

Nominal Voltage.....	2V(1 cells per unit)
Nominal Capacity(20°C).....	2000Ah
Dimension(mm).....	L399 x W212 x H772 x TH826mm
Approx. Weight	
Without electrolyte.....	106kg (234lbs)
With electrolyte.....	146kg(322lbs)
Electrolyte(Diluted sulphuric acid of 1.240g/cm³ (20°C)).....	40kg
Terminal Type.....	Female Copper Insert M8(torque:10~12N.m)
Internal Resistance.....	0.33mΩ(fully Charged @20°C)
Max.Charge Current.....	400A
Max.Discharge Current (5s).....	3600A
Short Circuit Current.....	6000A
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

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	678	617	561	549	598	468	378	318	278	206	182	100
1.85V	733	702	690	687	680	518	418	352	326	218	190	105
1.80V	1170	1122	1098	945	874	610	512	400	346	246	200	110
1.75V	1404	1346	1306	1081	974	660	530	416	356	250	206	116

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	1316	1197	1074	1039	1150	1000	822	694	596	434	376	202
1.85V	1421	1363	1324	1290	1308	1130	860	772	662	474	408	220
1.80V	2270	2178	1867	1727	1714	1370	1094	894	756	534	440	228
1.75V	2723	2613	1914	1739	1728	1424	1158	946	790	542	458	234

Long time discharge capacity for solar &amp; 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)
OPzS2-2000	2260	2480	2600	2700	2740	2800
Final Voltage	1.85V					

Solar &amp; 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