

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>600Ah</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

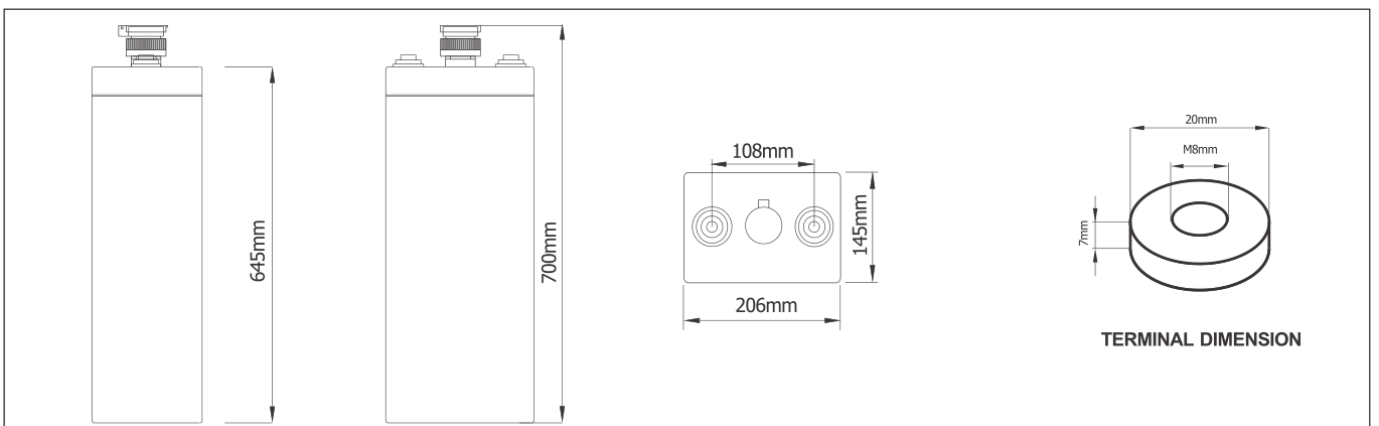
## Applications

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

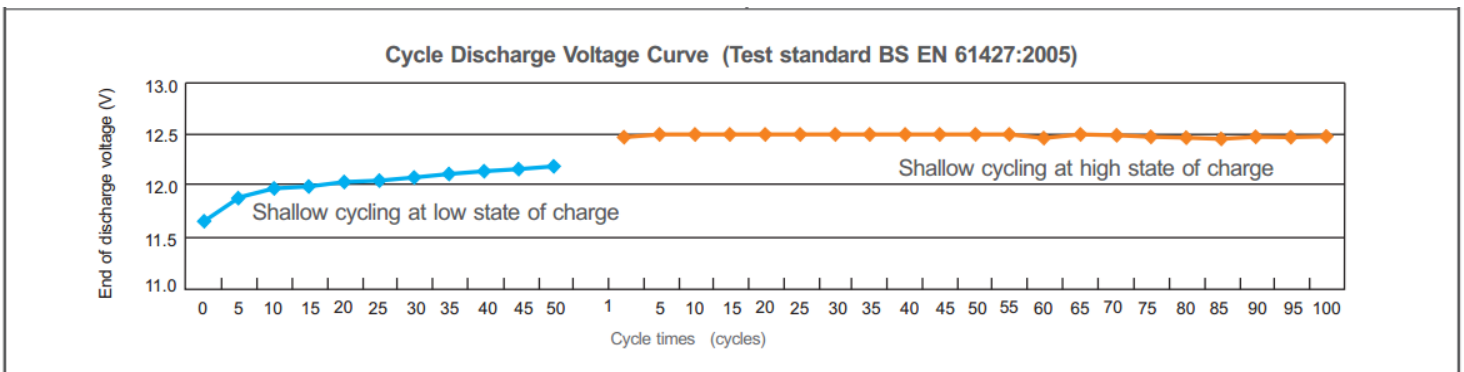
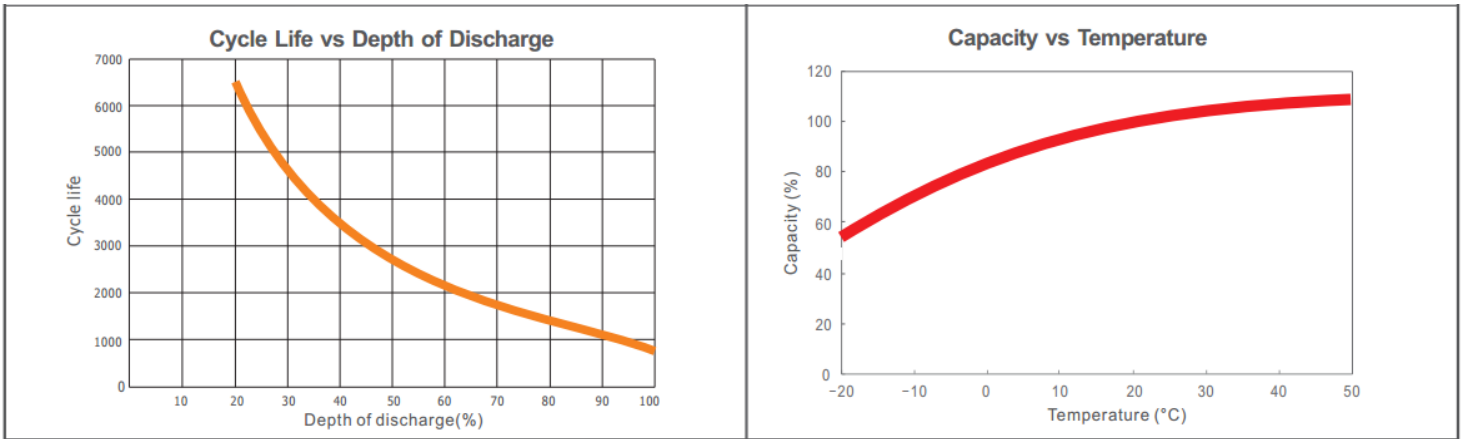
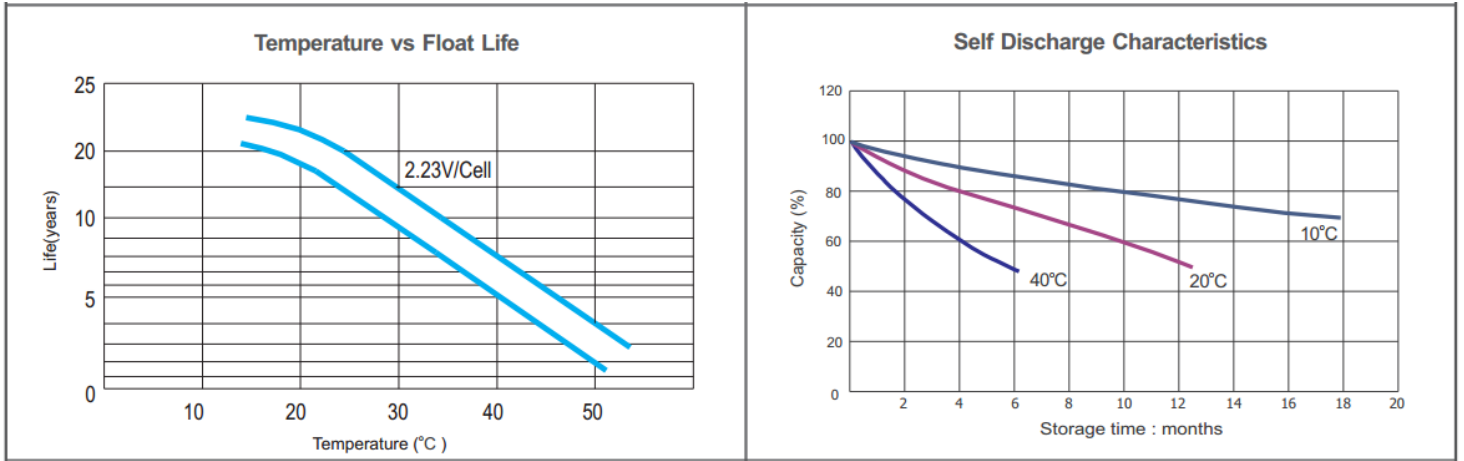
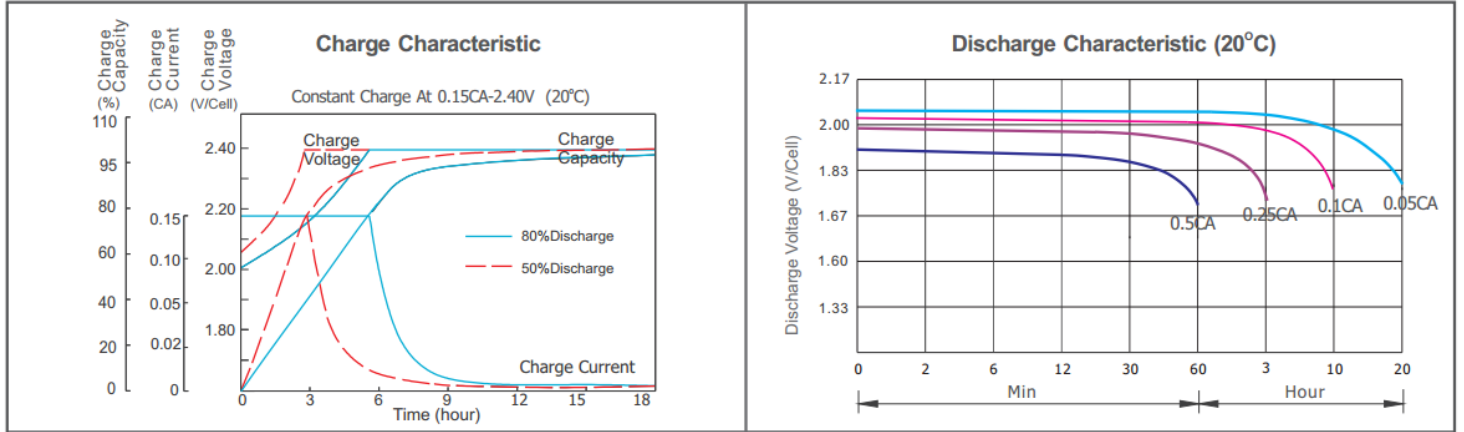
## Technical Specifications

Nominal Voltage.....	2V(1 cells per unit)
Nominal Capacity(20°C).....	600Ah
Dimension(mm).....	L145 x W206 x H645 x TH700mm
Approx. Weight	
Without electrolyte.....	32.0kg (75.0lbs)
With electrolyte.....	42.8kg (94.4lbs)
Electrolyte(Diluted sulphuric acid of 1.240g/cm³ (20°C)).....	10.8kg
Terminal Type.....	Female Copper Insert M8(torque:10~12N.m)
Internal Resistance.....	0.54mΩ(fully Charged @20°C)
Max.Charge Current.....	120A
Max.Discharge Current (5s).....	1500A
Short Circuit Current.....	3700A
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	8 h	10 h	20h
1.90V	239	218	198	194	179	140	113	95.4	83.4	61.8	54.6	30.0
1.85V	259	248	244	242	204	155	125	106	97.8	65.4	57.0	31.4
1.80V	413	396	388	334	262	183	154	120	104	73.8	60.0	33.0
1.75V	496	475	461	382	292	198	159	125	107	75.0	61.8	34.7

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

F.V./Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8 h	10 h	20h
1.90V	464	422	379	367	345	300	247	208	179	130	113	60.5
1.85V	502	481	467	455	392	339	258	232	199	142	122	65.9
1.80V	801	769	659	610	514	411	328	268	227	160	132	68.5
1.75V	961	922	676	614	518	427	347	284	237	163	137	70.1

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)
OPzS2-600	678	744	780	810	822	840
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

