

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	500Ah 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

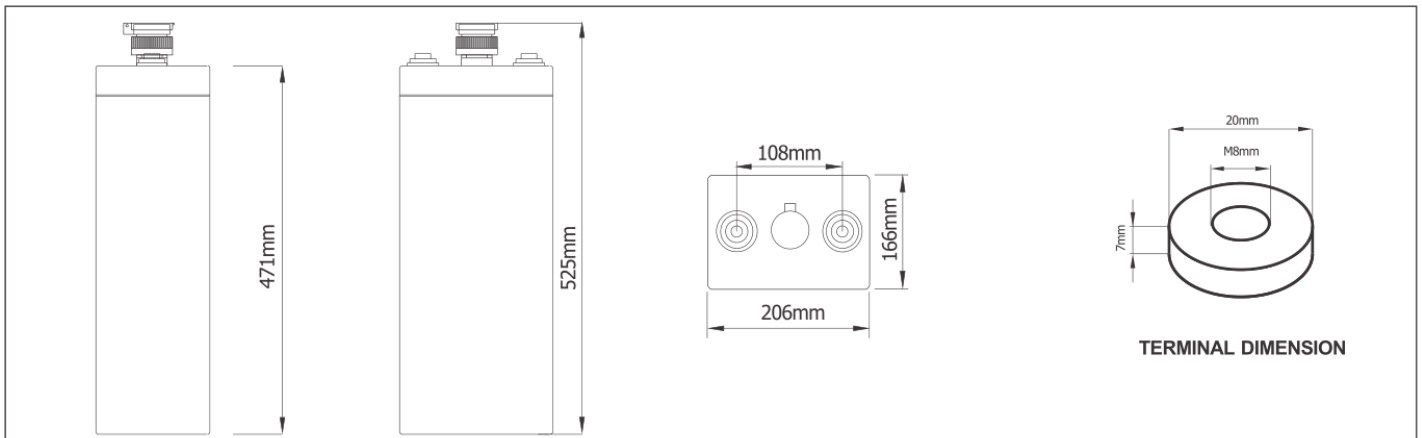
Applications

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

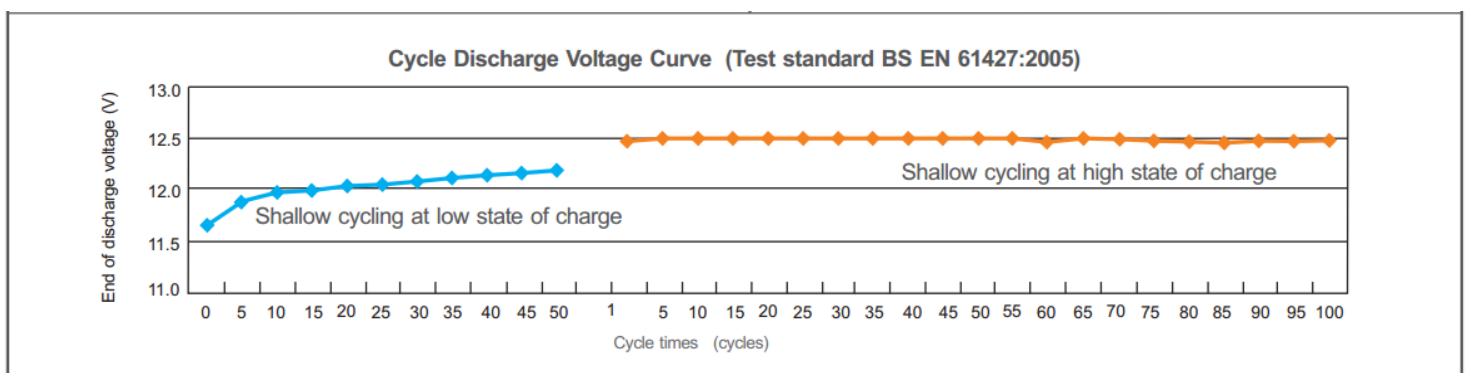
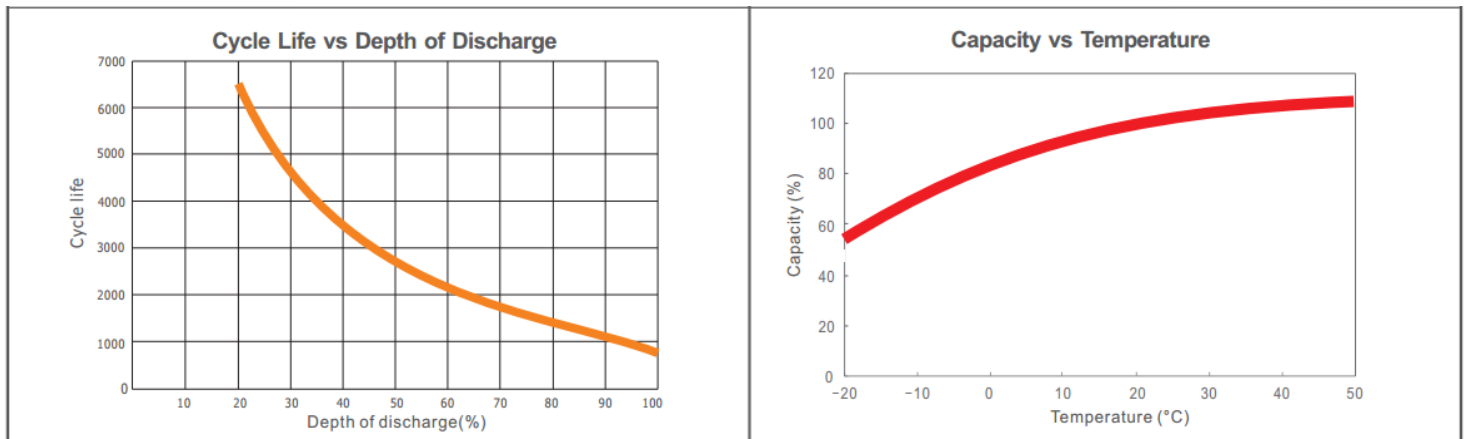
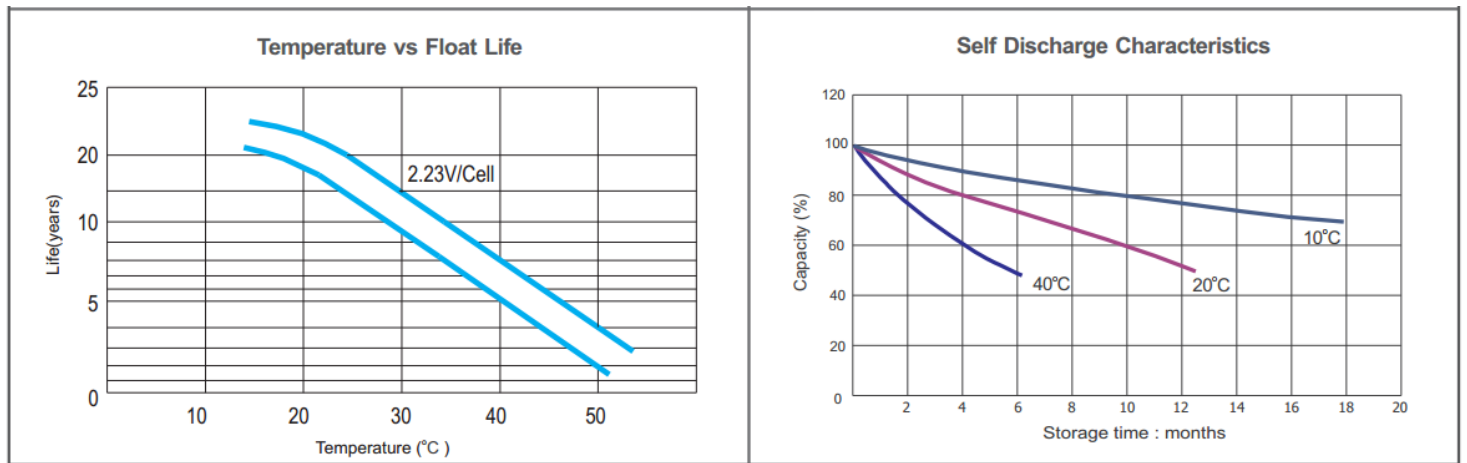
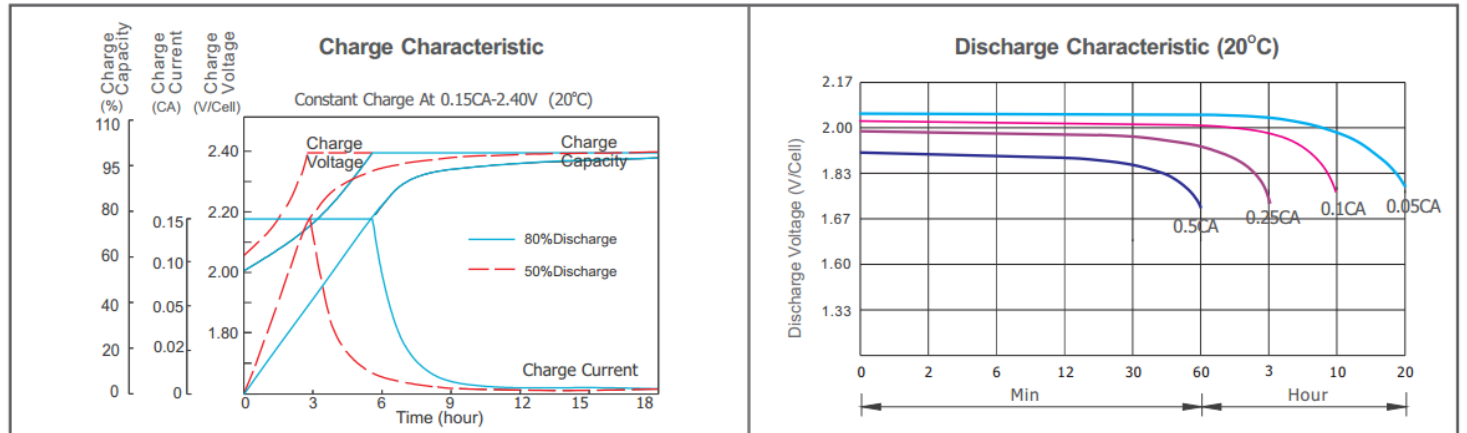
Technical Specifications

Nominal Voltage.....	2V(1 cells per unit)
Nominal Capacity(20°C).....	500Ah
Dimension(mm).....	L166 x W206 x H471 x TH525mm
Approx. Weight	
Without electrolyte.....	26.0kg (57.3lbs)
With electrolyte.....	36.0kg (79.4lbs)
Electrolyte(Diluted sulphuric acid of 1.240g/cm³ (20°C)).....	10.0kg
Terminal Type.....	Female Copper Insert M8(torque:10~12N.m)
Internal Resistance.....	0.55mΩ(fully Charged @20°C)
Max.Charge Current.....	100A
Max.Discharge Current (5s).....	1200A
Short Circuit Current.....	3650A
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	200	182	165	162	150	117	94.5	79.5	69.5	51.5	45.5	25.0
1.85V	216	207	203	202	170	130	105	88.0	81.5	54.5	47.5	26.1
1.80V	344	330	323	278	219	153	128	100	86.5	61.5	50.0	27.5
1.75V	413	396	384	318	244	165	133	104	89.0	62.5	51.5	28.9

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	387	352	316	306	288	250	206	174	149	109	94.0	50.4
1.85V	418	401	390	380	327	283	215	193	166	119	102	54.9
1.80V	668	641	549	508	429	343	274	224	189	134	110	57.1
1.75V	801	769	563	512	432	356	290	237	198	136	115	58.5

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)
OPzS2-500	565	620	650	675	685	700
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

