

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	420Ah Capacity	Tubular Flooded	20+years Design life
----------------------	--------------------------	---------------------------	--------------------------------



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

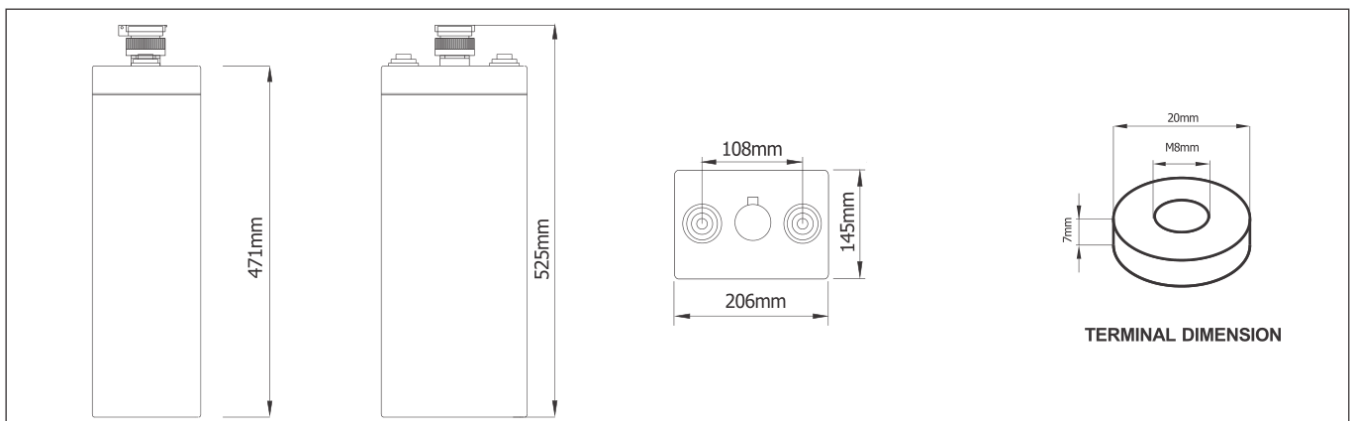
Applications

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

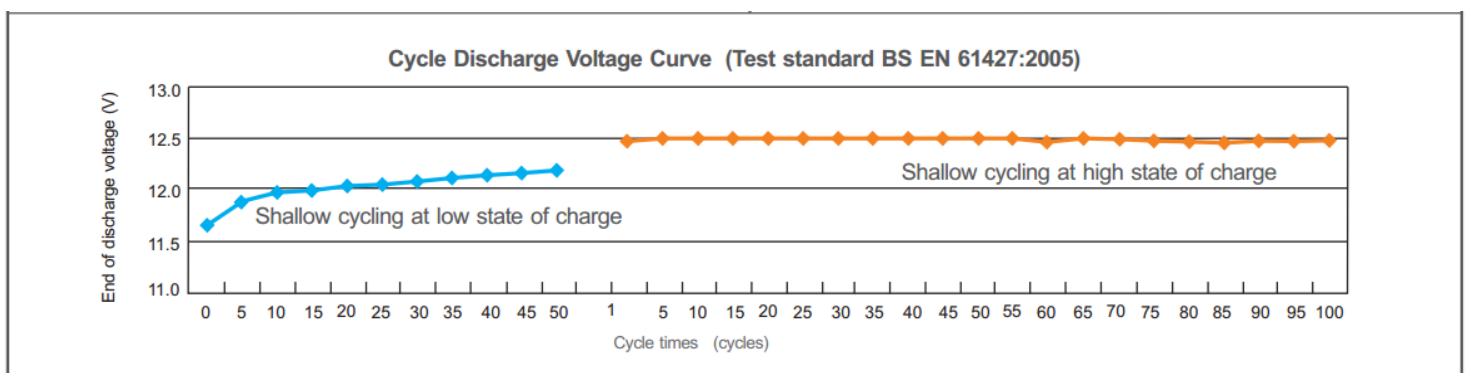
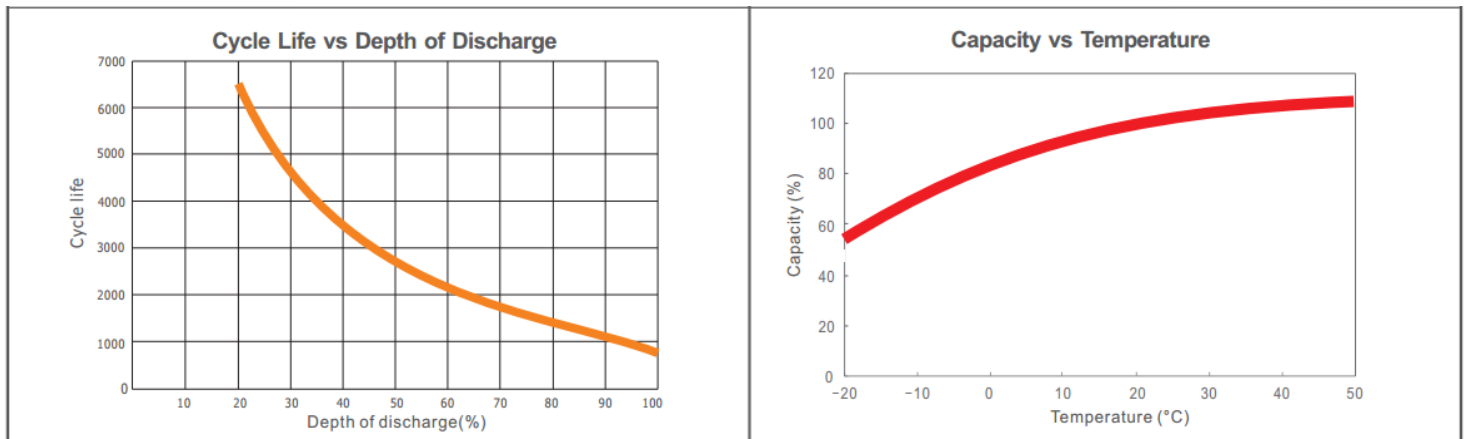
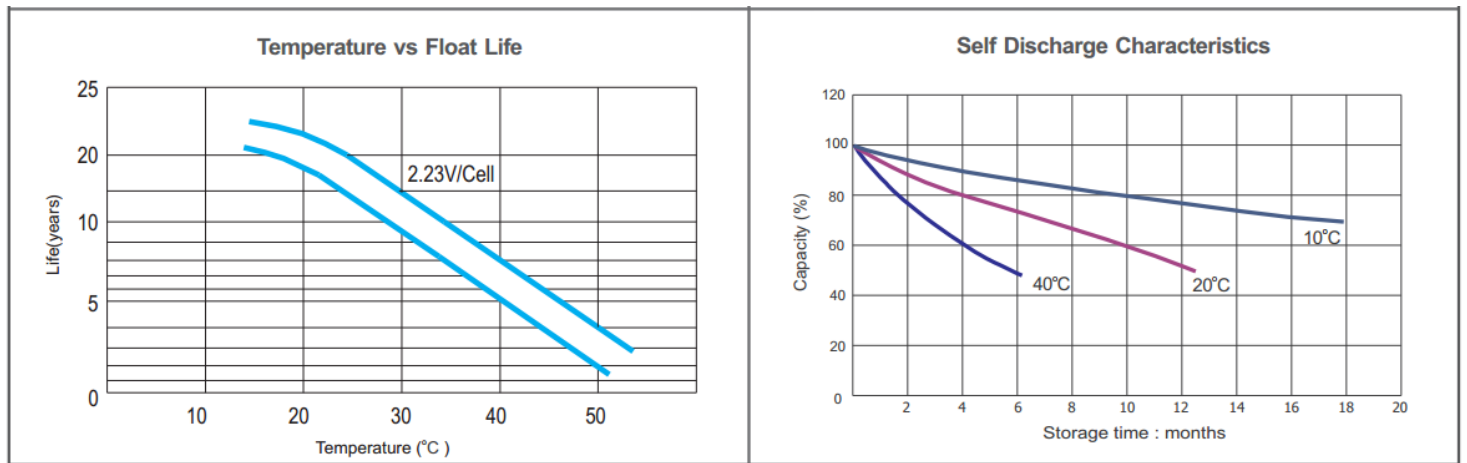
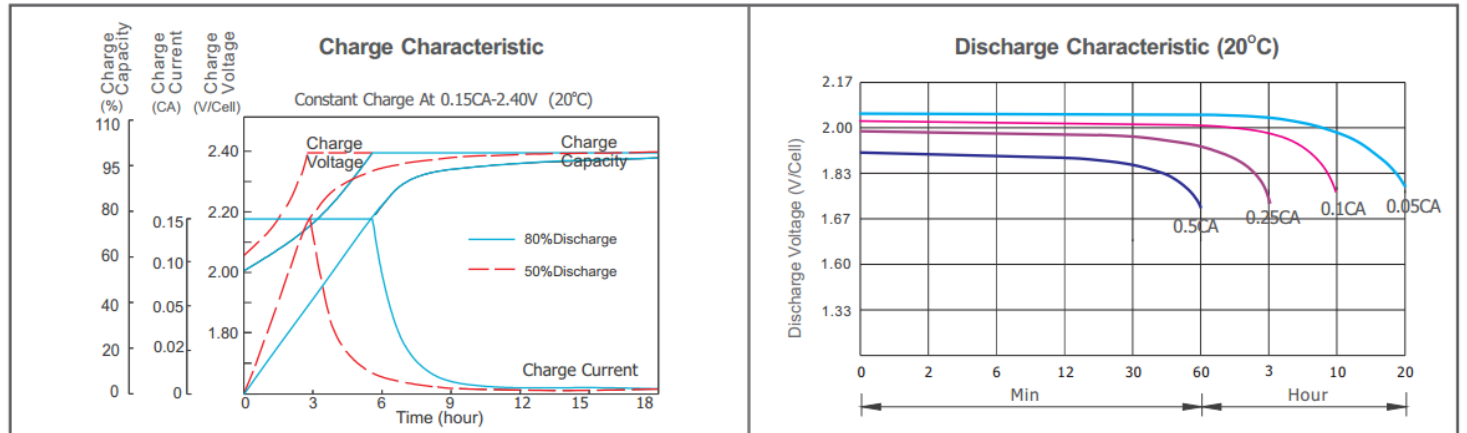
Technical Specifications

Nominal Voltage.....	2V(1 cells per unit)
Nominal Capacity(20°C).....	420Ah
Dimension(mm).....	L145 x W206 x H471 x TH525mm
Approx. Weight	
Without electrolyte.....	24.0kg (52.9lbs)
With electrolyte.....	32.0kg (70.6lbs)
Electrolyte(Diluted sulphuric acid of 1.240g/cm³ (20°C)).....	8.0kg
Terminal Type.....	Female Copper Insert M8(torque:10~12N.m)
Internal Resistance.....	0.57mΩ(fully Charged @20°C)
Max.Charge Current.....	84A
Max.Discharge Current (5s).....	1000A
Short Circuit Current.....	3500A
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	168	152	139	136	126	98.3	79.4	66.8	58.4	43.3	38.2	21.0
1.85V	181	173	171	170	143	109	87.8	73.9	68.5	45.8	39.9	21.9
1.80V	289	277	271	234	184	128	108	84.0	72.7	51.7	42.0	23.1
1.75V	347	333	323	267	205	139	111	87.4	74.8	52.5	43.3	24.3

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	325	296	265	257	242	210	173	146	125	91.1	79.0	42.3
1.85V	351	337	327	319	275	237	181	162	139	100	85.7	46.1
1.80V	561	538	461	427	360	288	230	188	159	112	92.4	47.9
1.75V	673	646	473	430	363	299	243	199	166	114	96.2	49.1

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)
OPzS2-420	475	521	546	567	575	588
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