

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	100Ah 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

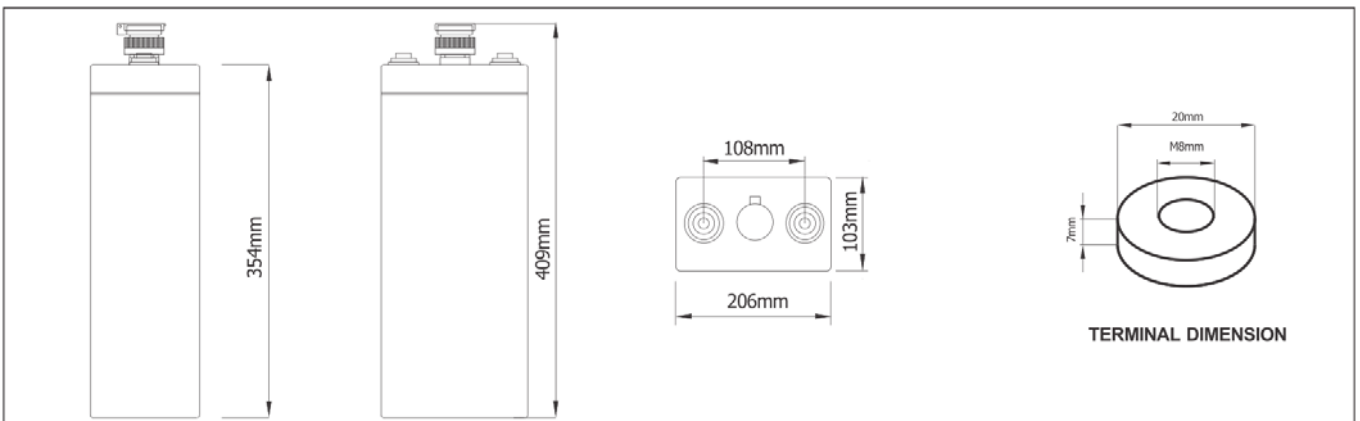
Applications

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

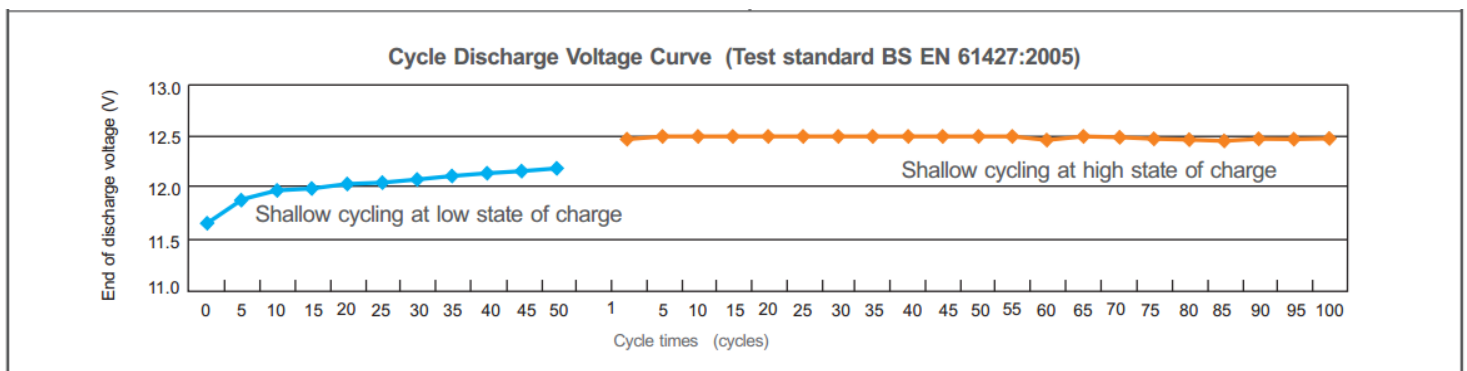
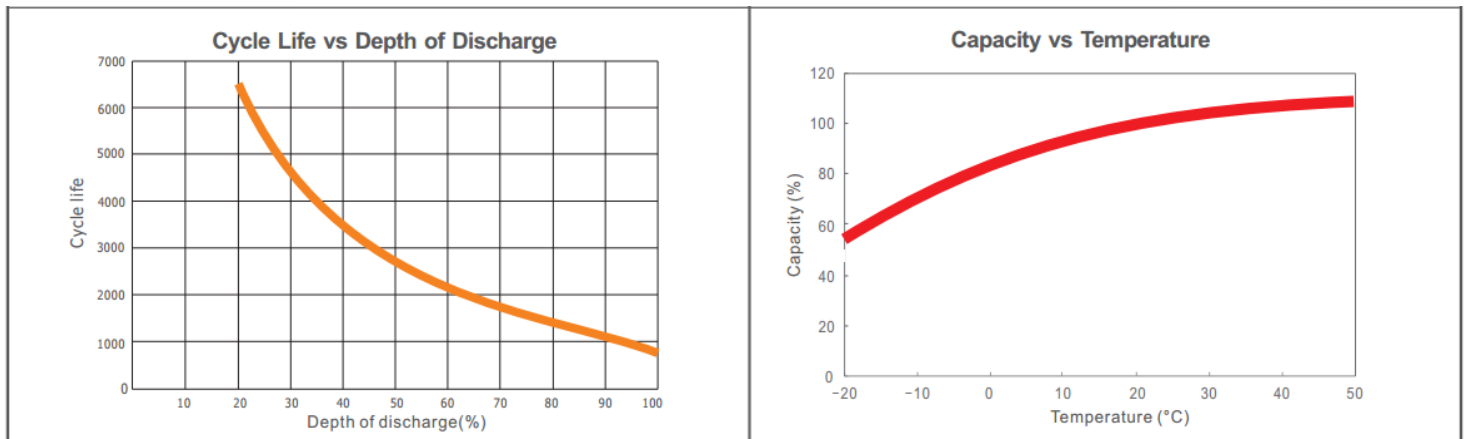
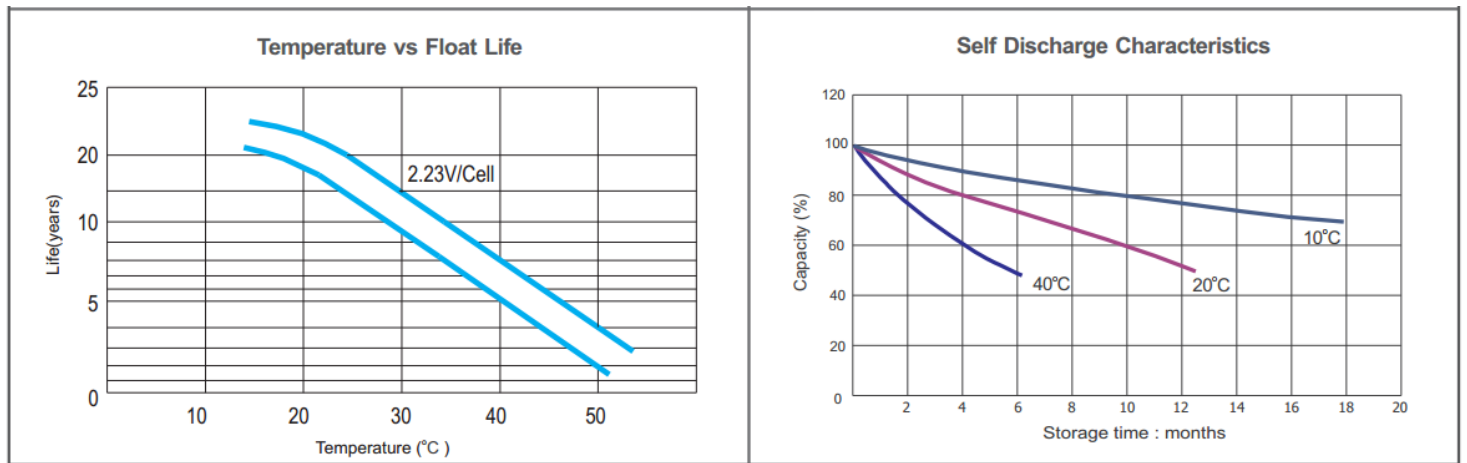
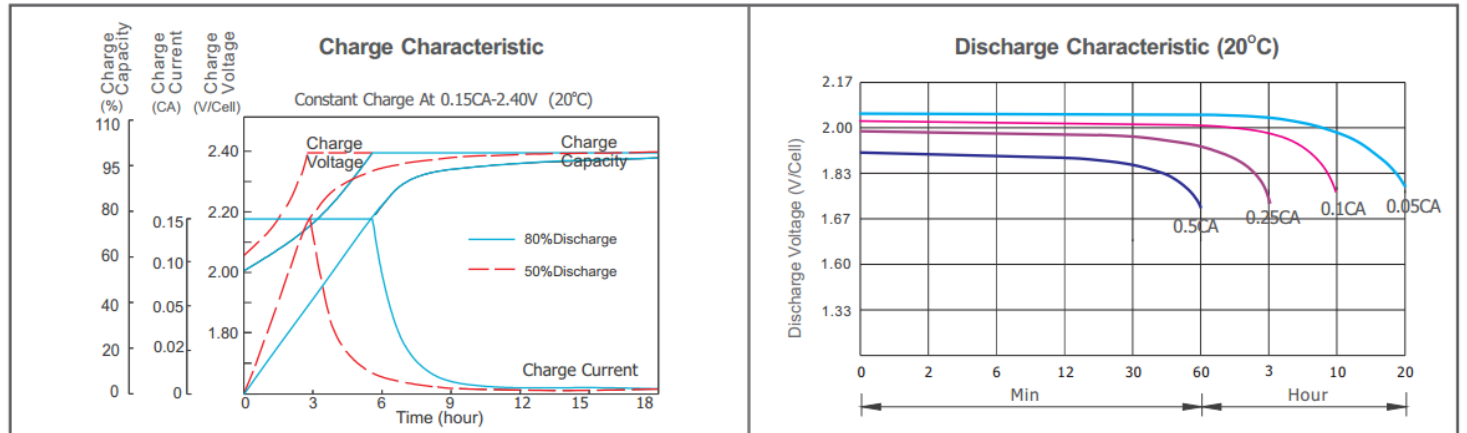
Technical Specifications

Nominal Voltage.....	2V(1 cells per unit)
Nominal Capacity(20°C).....	100Ah
Dimension(mm).....	L103 x W206 x H354 x TH409mm
Approx. Weight	
Without electrolyte.....	8.0kg (17.6lbs)
With electrolyte.....	12.0kg (26.5lbs)
Electrolyte(Diluted sulphuric acid of 1.240g/cm³ (20°C)).....	4.0kg
Terminal Type.....	Female Copper Insert M8(torque:10~12N.m)
Internal Resistance.....	0.9mΩ(fully Charged @20°C)
Max.Charge Current.....	20A
Max.Discharge Current (5s).....	1000A
Short Circuit Current.....	2200A
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	39.9	36.3	33.0	32.3	29.9	23.4	18.9	15.9	13.9	10.3	9.10	5.01
1.85V	43.1	41.3	40.6	40.4	34.0	25.9	20.9	17.6	16.3	10.9	9.50	5.23
1.80V	68.8	66.0	64.6	55.6	43.7	30.5	25.6	20.0	17.3	12.3	10.0	5.50
1.75V	82.6	79.2	76.8	63.6	48.7	33.0	26.5	20.8	17.8	12.5	10.3	5.78

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	77.4	70.4	63.2	61.1	57.5	50.0	41.1	34.7	29.8	21.7	18.8	10.1
1.85V	83.6	80.2	77.9	75.9	65.4	56.5	43.0	38.6	33.1	23.7	20.4	11.0
1.80V	134	128	110	102	85.7	68.5	54.7	44.7	37.8	26.7	22.0	11.4
1.75V	160	154	113	102	86.4	71.2	57.9	47.3	39.5	27.1	22.9	11.7

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)
OPzS2-100	113	124	130	135	137	140
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 coefficienty:	-4mV/cell/°C