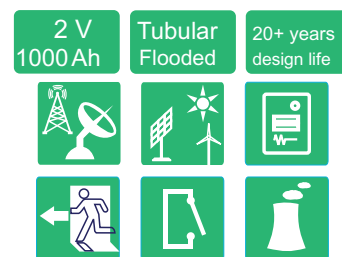


3E Tubular Series

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 and security. of reliability

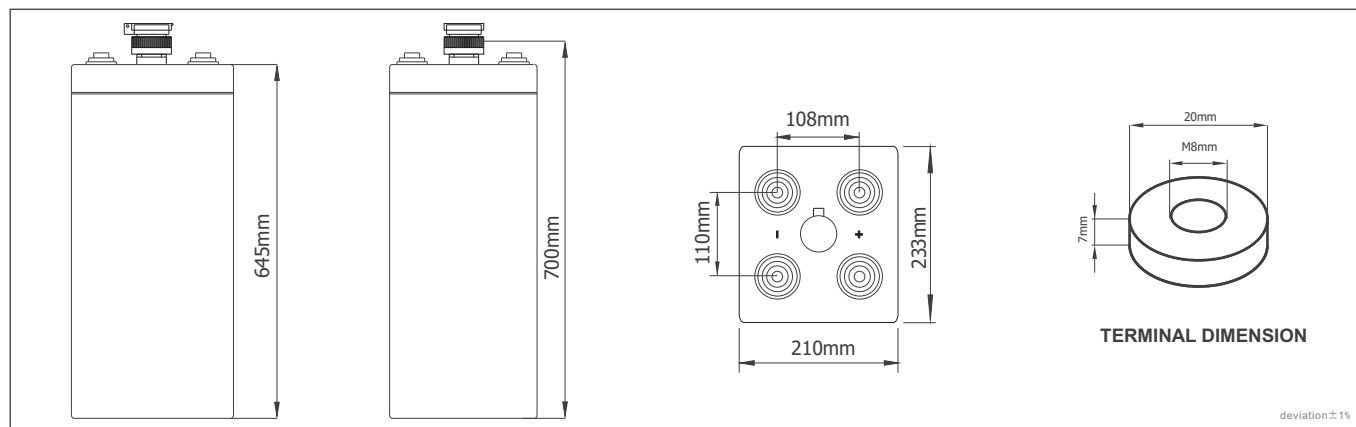
TECHNICAL SPECIFICATIONS

Nominal Voltage (V)	2
Designed Floating Life (20°C)	20+ Years
Nominal Capacity (20°C)	1000 Ah @ C10 (to 1.80Vpc)
Demensions	L233mm×W210mm×H700mm
Approx. Weight	Without electrolyte: 53.5Kg(118lbs) With electrolyte: 73.5Kg (162lbs)
Electrolyte	Diluted sulphuric acid of 1.240 g/cm ³ (20°C) Acid weight: 20Kg
Terminal Type	Female Copper Insert M8 (torque:10~12N.m)
Internal Resistance	Approx. 0.44mOhm (fully charged @ 20°C)
Max. Charge Current	200 A
Max. Discharge Current (5S)	2500 A
Short Circuit Current	4500 A
Self Discharge	Approx. 4% per month @ 20°C
Ambient Temperature	Discharge: -25~65°C) Charge: -20~65°C Storage: -15~40°C
Float Charge Voltage (20~25°C)	2.21-2.25V (-3mV /°C/ cell)
Equalize Charge Voltage (20~25°C)	2.35-2.40V (-5mV /°C/ cell)
Container Material	SAN



ISO 9001	ISO 14001	OHSAS 18001	CE	RoHS
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BATTERY DIMENSIONS



BATTERY DISCHARGE TABLE

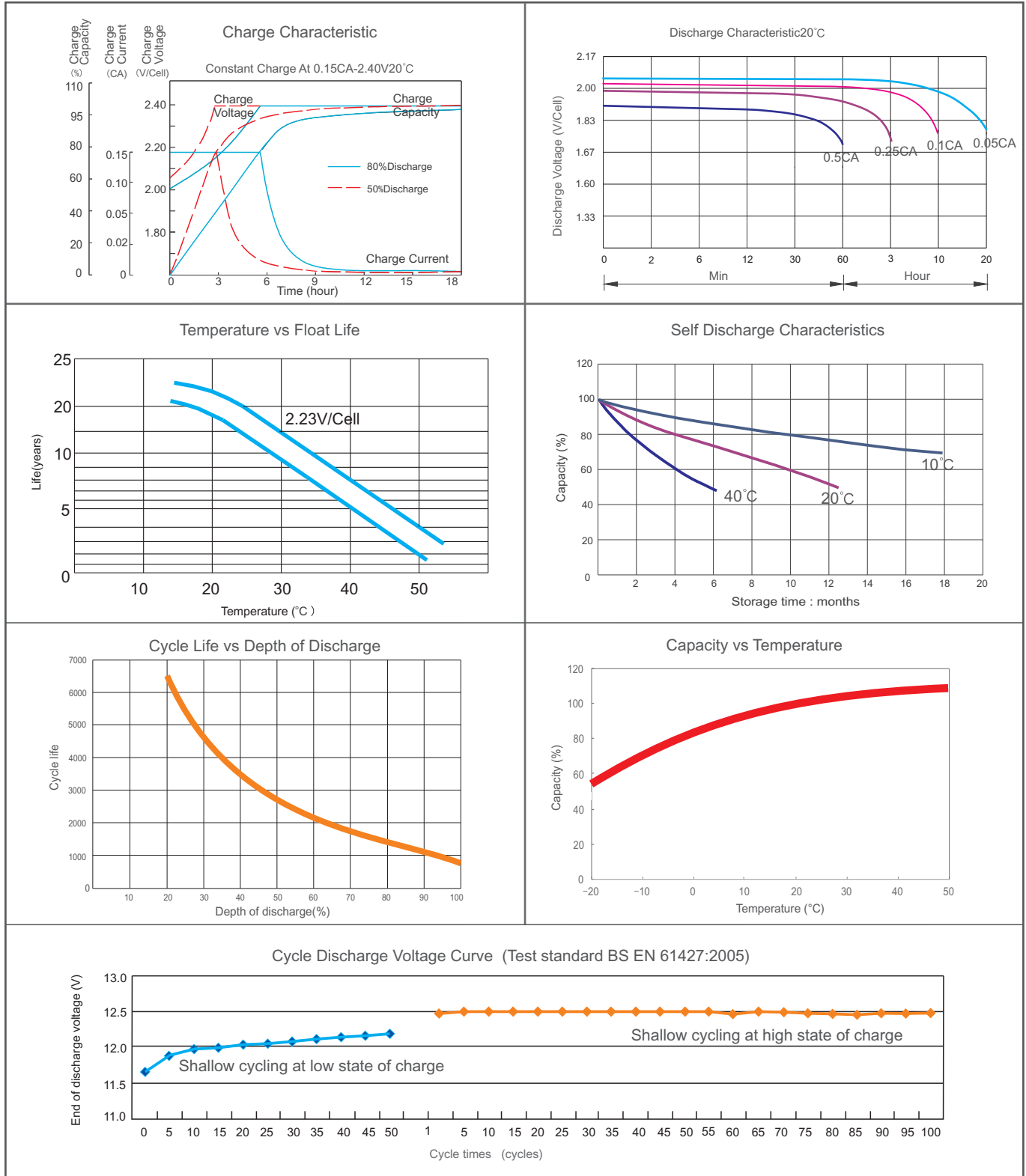
Constant Current Discharge Characteristics: Amps (20°C)

F.V./Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8 h	10 h	20h
1.90V	399	363	330	323	299	234	189	159	139	103	91.0	50.1
1.85V	431	413	406	404	340	259	209	176	163	109	95.0	52.3
1.80V	688	660	646	556	437	305	256	200	173	123	100	55.0
1.75V	826	792	768	636	487	330	265	208	178	125	103	57.8

Constant Power Discharge Characteristics: W/cell (20°C)

F.V./Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8 h	10 h	20h
1.90V	774	704	632	611	575	500	411	347	298	217	188	101
1.85V	836	802	779	759	654	565	430	386	331	237	204	110
1.80V	1335	1281	1098	1016	857	685	547	447	378	267	220	114
1.75V	1602	1537	1126	1023	864	712	579	473	395	271	229	117

CHARACTERISTICS



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)
OPzS2-1000	1130	1240	1300	1350	1370	1400
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

3E ENERTECH ENERGY EQUATIONS FZ-LLC