3E ENERTECH ENERGY EQUATIONS FZ-LLC

OPzV800-2 2V800AH

equating energy

3E GreenStack Series

The OPzV series adopts an Immobilized Gel and Tubular Positive Plate technology. It offers high reliability and stable performance. By using die-casted positive grid and patented active material formula, it exceeds the DIN standard values and offer 20+ years design life in float service. It is very suitable for cyclic use under extreme operating conditions. This series is recommended for telecom outdoor applications, renewable energy systems and other harsh environment applications.

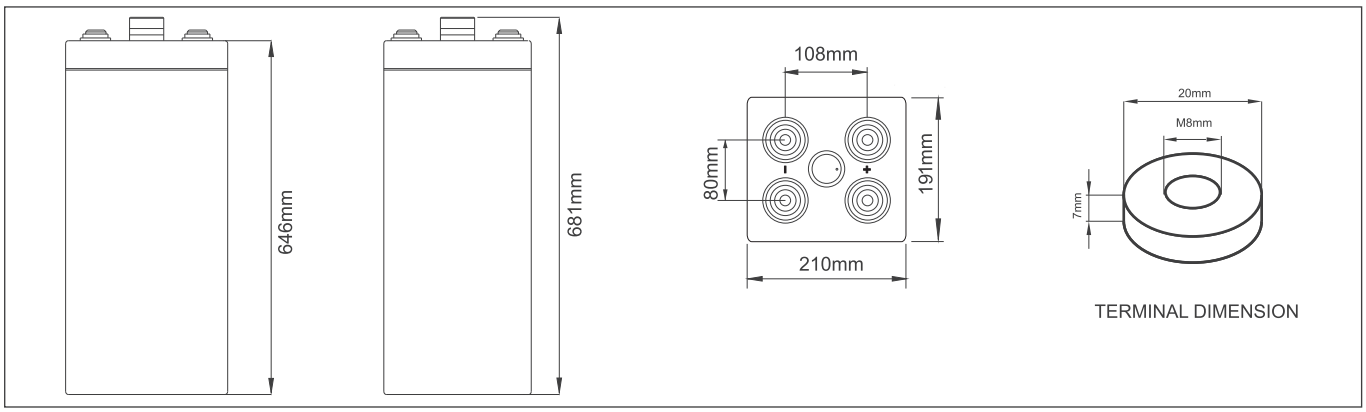
2 V	800 Ah	Tubular	20+ years
Voltage	Capacity	Gel	Design Life

SPECIFICATIONS

Nominal Voltage (V)	2
Designed Floating Life (20°C)	20+ Years
Nominal Capacity (20°C)	800 Ah @ C_{10} (to 1.80Vpc)
Demensions	L191mm×W210mm×H681mm
Approx. Weight	60.0 kg (132.3 lbs)
Terminal Type	Female Copper Insert M8 (torque:10~12N.m)
Internal Resistance	Approx. 0.46mOhm (fully charged @ 20°C)
Max. Charge Current	160 A
Max. Discharge Current (5S)	2000 A
Short Circuit Current	4300 A
Self Discharge	Approx. 2% per month @ 20°C
Ambient Temperature	Discharge: -40~65°C Charge: -30~65°C Storage: -25~45°C
Float Charge Voltage (20~25°C)	2.25-2.29V (-3mV /°C/ cell)
Equalize Charge Voltage (20~25°C)	2.35-2.40V (-5mV /°C/ cell)
Container Material	ABS(UL94-V0 optional)

ISO 9001 | ISO 14001 | OHSAS 18001 | CE | RoHS

DIMENSIONS



TERMINAL DIMENSION

BATTERY DISCHARGE TABLE

Constant Current Discharge Characteristics: Amps (20°C)

F.V/Time	10min	15min	30min	1h	2h	3h	5h	8h	10h
1.90V	289	281	263	221	188	158	117	83.5	69.7
1.87V	394	368	326	257	210	174	127	88.7	73.6
1.85V	453	415	357	281	232	187	135	92.8	76.5
1.83V	528	462	386	310	247	197	138	95.7	78.0
1.80V	591	536	432	341	261	207	141	96.9	80.0
1.75V	626	588	507	372	273	213	143	98.5	81.2
1.70V	682	646	557	393	283	217	146	100	82.7
1.65V	796	728	607	418	291	221	149	102	84.3
1.60V	867	799	644	431	297	225	152	104	85.9

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

F.V/Time	10min	15min	30min	1h	2h	3h	5h	8h	10h
1.90V	558	544	511	433	371	314	234	168	141
1.87V	746	699	624	497	411	342	251	177	148
1.85V	846	779	675	537	447	364	265	184	152
1.83V	975	857	721	585	473	380	268	186	154
1.80V	1075	980	797	637	493	395	271	188	155
1.75V	1122	1059	922	684	508	400	272	189	156
1.70V	1204	1147	999	713	521	403	274	190	158
1.65V	1381	1271	1072	748	529	405	276	191	159
1.60V	1474	1367	1115	758	532	406	279	193	161

PARAMETERS FOR SOLAR & WIND APPLICATIONS

Long time discharge capacity for Solar & Wind applications

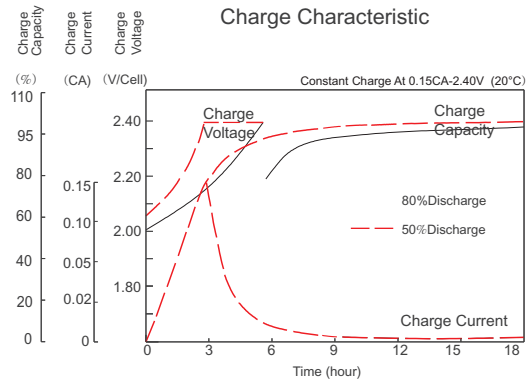
Capacity	C_{20} (Ah)	C_{24} (Ah)	C_{48} (Ah)	C_{72} (Ah)	C_{100} (Ah)	C_{120} (Ah)	C_{240} (Ah)
OPzV2-800	870	900	976	1008	1020	1032	1055
Final Voltage	1.80V	1.85V					

Solar & Wind applications parameters settings

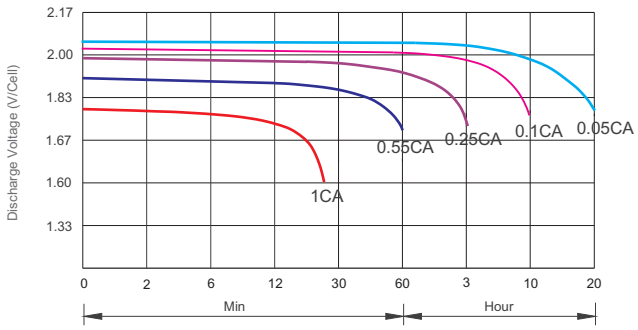
Over voltage disconnect:	2.45±0.01V/cell @ 20～25°C
Regulation/equalize voltage:	2.40±0.01V/cell @ 20～25°C
Array roconnection voltage:	2.25±0.005V/cell @ 20～25°C
Float voltage setting:	2.27±0.005V/cell @ 20～25°C
Low voltage alarm voltage:	1.95±0.005V/cell @ 20～25°C
Low voltage disconnect:	1.90±0.005V/cell @ 20～25°C
Load reconnect voltage:	2.09±0.01V/cell @ 20～25°C
Temp. compensate coefficienty:	-5mV/cell/°C

CHARACTERISTICS

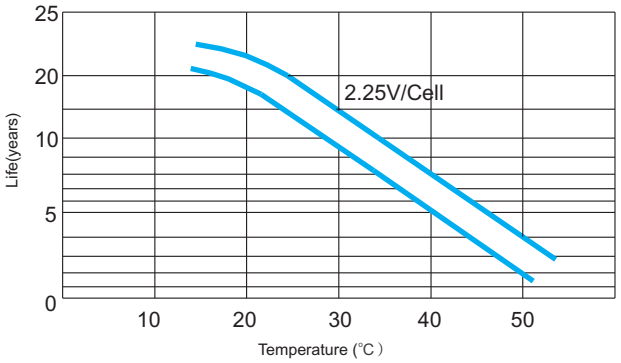
Charge Characteristic



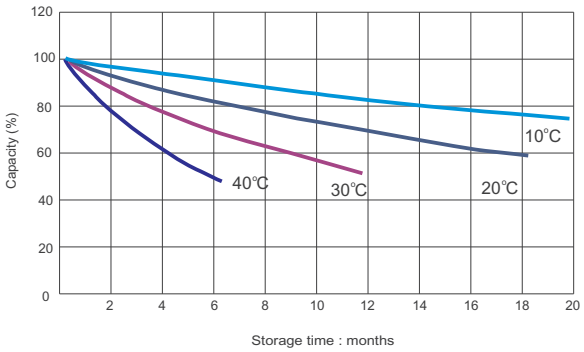
Discharge Characteristic (20°C)



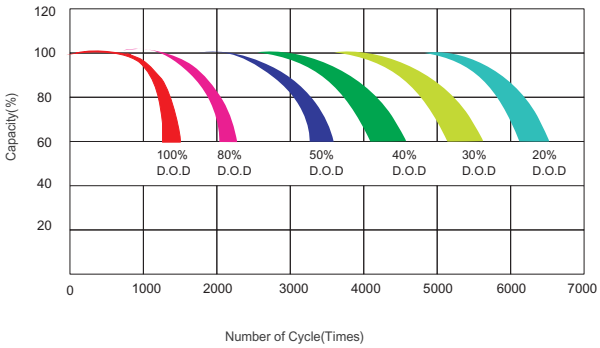
Temperature vs Float Life



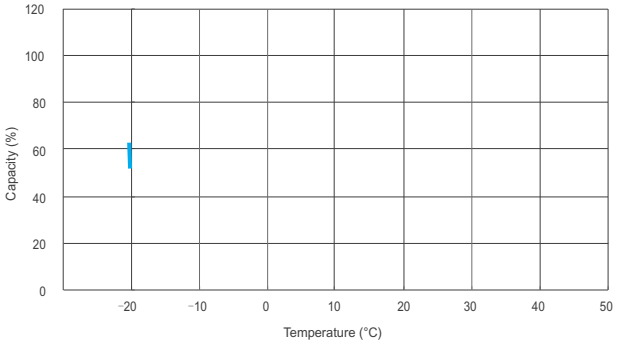
Self Discharge Characteristics



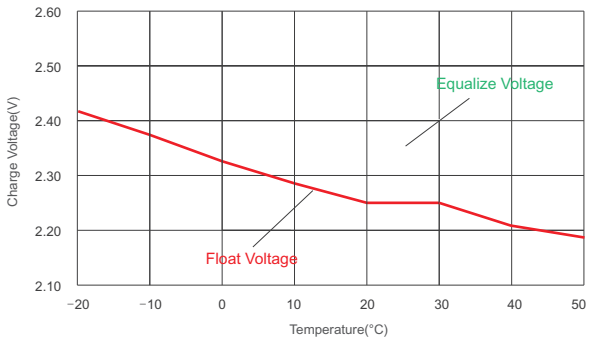
Life characteristics of cyclic use



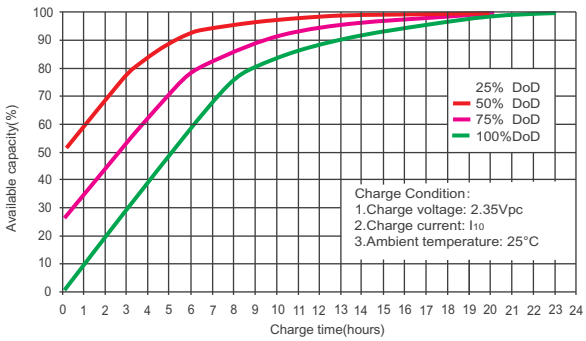
Capacity vs Temperature



Charge Voltage Capacity vs Temperature



Charge Capacity vs Time



FINAL VOLTAGE SETTINGS RECOMMENDED ACCORDING TO THE DISCHARGE CURRENT

Discharge Current I (A)	I < 0.05C	0.05C ≤ I < 0.08C	0.08C ≤ I < 0.2C	0.2C ≤ I < 0.6C	0.6C ≤ I < 1.0C	1C≤I ≤ 2C
Final of Voltage	≥1.90 Vpc	≥1.85 Vpc	≥1.80 Vpc	≥1.75 Vpc	≥1.7 Vpc	≥1.6 Vpc