SHENZHEN XYC ELECTRONIC CO., LTD

OPzV2-2500 *2V 2500Ah (10hr)*

OPzV series adopts an immobilized gel and tubular positive plate technology. It offers high reliability and Stable performance, By using diecasted 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 out door applications, renewable energy systemsand other harsh environment applications.

2V	2500Ah	Tubular	20+years
Voltage	Capacity	Gel	Design life

CE

Complied standards

- IEC 60896-21/22
- DIN40742
- IEC61427
- YD/T1360
- Eurobat guide, long life
- BS6290 part 4

Features and Benefits

- Excellent deep cycling performance;
- Wide operating temperature range from -40°C to 60°C
- Tubular positive plate with prolonged cycle life
- Fumed Silica gel electrolyte
- Lead Calcium die cast grid with improved corrosion resistance capability
- Low self-discharge rate and long shelf life (1 year at 25°C)
- Excellent deep discharge recovery capability

Construction

- Positive plate – Tubular plate with die cast Pb-Sb alloy grid
- Negative plate – Balanced Pb-Ca grid for improved recombination efficiency
- Electrolyte – Dilute high purity sulphuric acid with fumed Silica gel
- Battery container and cover – 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
- Control Equipments
- Security Systems
- Medical Equipments
- UPS systems
- Renewable Energy system

Technical Specifications

Nominal Voltage.....2V(1 cells per unit)

Nominal Capacity(20°C).....2500Ah

Dimension(mm).....L487 x W212 x H772 x TH807mm

Approx. Weight 185kg (407.86lbs)

Terminal Type.....Female Copper Insert M8(torque:10~12N.m)

Internal Resistance.....0.2mΩ(fully Charged @20°C)

Max.Charge Current.....500A

Max.Discharge Current (5s).....4000A

Short Circuit Current.....10000A

Ambient Temperature

Discharge.....-40-65°C

Charge.....-30-65°C

Storage.....-25-45°C

Capacity Affected by Temp.(10 hour)

105% @40°C

85%@0°C

60%@-20°C

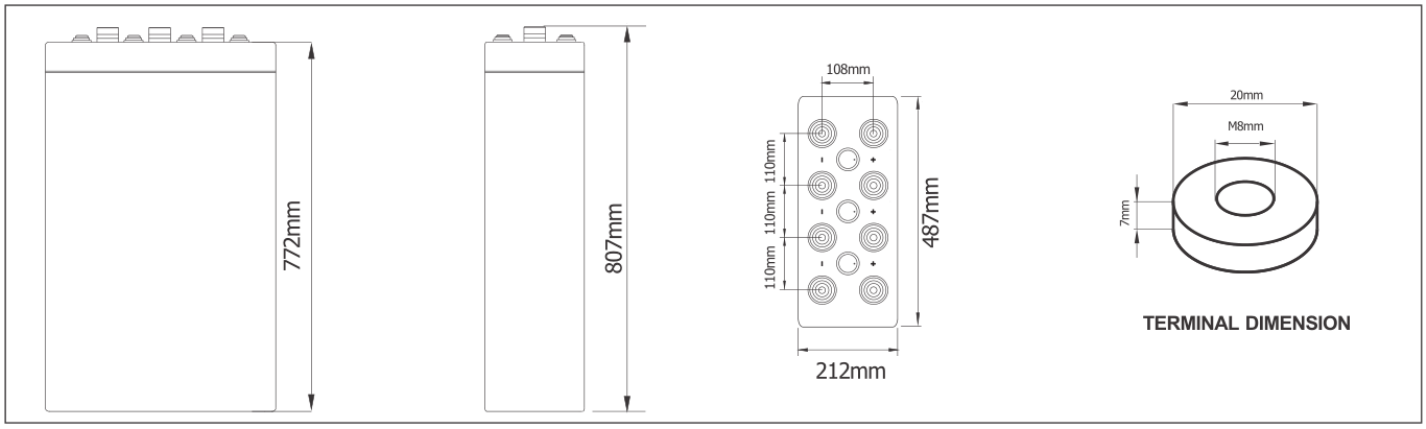
Self-Discharge @20°C.....Approx. 2% per month

Charge Voltage @20~25°C

Float charge voltage.....2.25V-2.29V

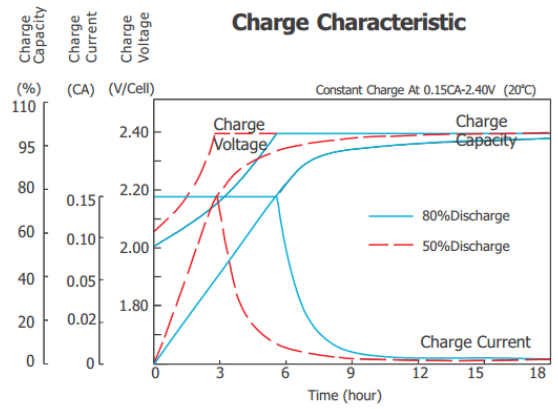
Equalize Charge Voltage.....2.35V-2.40V

Dimensions

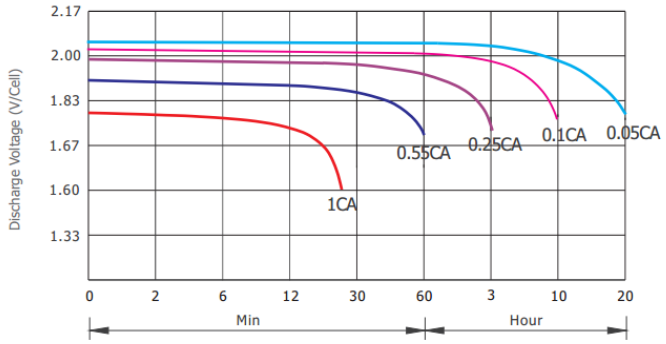


Performance Characteristics

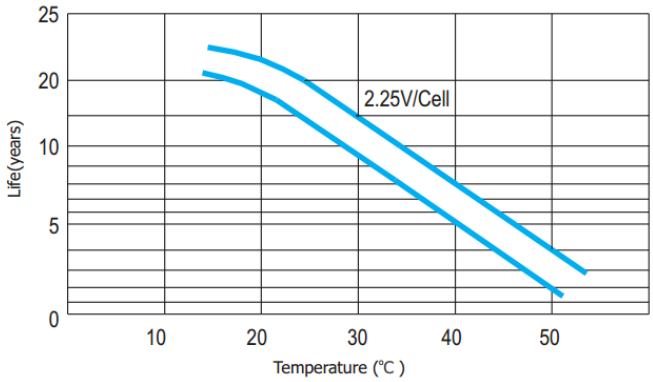
Charge Characteristic



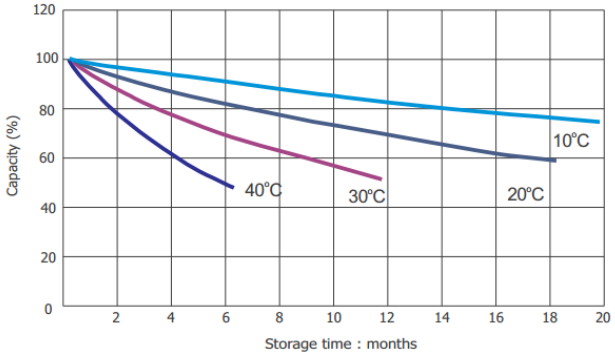
Discharge Characteristic (20°C)



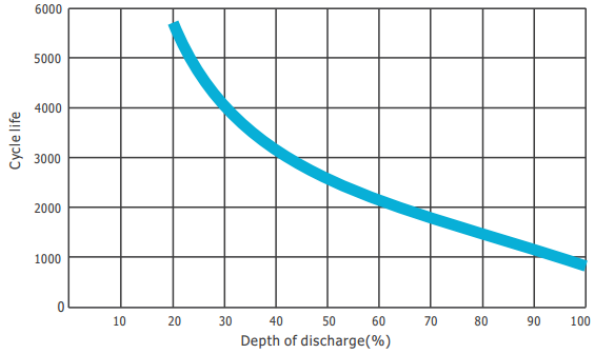
Temperature vs Float Life



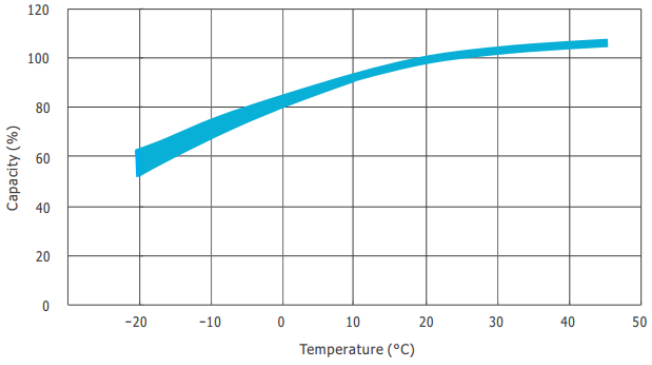
Self Discharge Characteristics



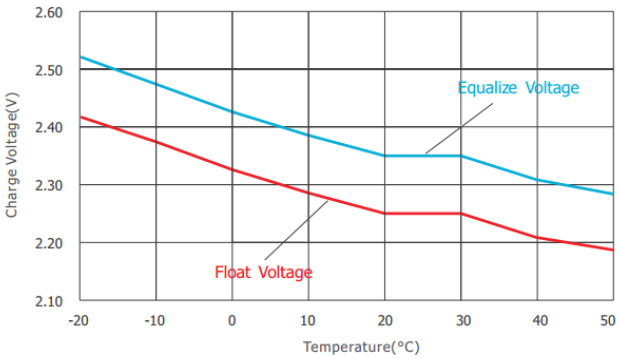
Cycle Life vs Depth of Discharge



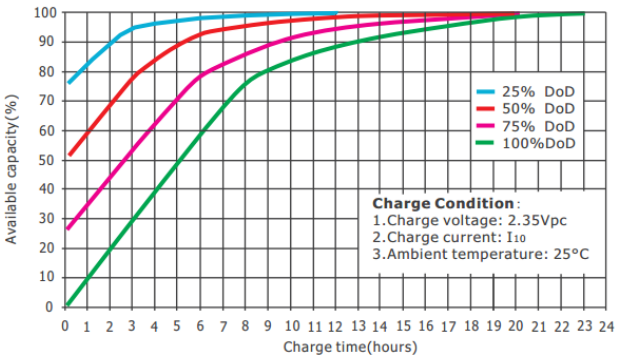
Capacity vs Temperature



Charge Voltage Capacity vs Temperature



Charge Capacity vs Time



Battery Discharge

Discharge Constant Current per Cell (Amperes at 25° C)

F.V/Time	10min	15min	30min	1h	2h	3h	5h	8h	10h
1.90V	885	860	804	679	584	490	363	259	214
1.87V	1206	1126	997	792	653	540	394	276	227
1.85V	1387	1271	1094	865	720	581	419	288	236
1.83V	1616	1415	1182	954	770	613	429	298	240
1.80V	1809	1641	1323	1051	811	644	437	301	250
1.75V	1918	1801	1552	1144	847	662	446	306	252
1.70V	2087	1978	1705	1208	880	674	453	311	257
1.65V	2437	2228	1858	1285	905	686	463	316	262
1.60V	2654	2445	1970	1326	924	698	473	322	267

Discharge Constant Power per Cell (Watts at 25° C)

F.V/Time	10min	15min	30min	1h	2h	3h	5h	8h	10h
1.90V	1709	1666	1566	1332	1154	976	726	522	433
1.87V	2285	2141	1911	1530	1277	1063	782	551	454
1.85V	2591	2384	2067	1651	1391	1132	824	572	468
1.83V	2984	2624	2209	1800	1470	1183	833	584	473
1.80V	3292	3000	2441	1960	1532	1227	841	586	477
1.75V	3434	3242	2823	2103	1578	1242	846	588	486
1.70V	3685	3512	3059	2193	1619	1252	852	592	492
1.65V	4227	3892	3282	2301	1646	1259	859	594	496
1.60V	4511	4185	3414	2333	1654	1263	868	599	500

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)
OPzV2-2500	2690	2720	3030	3120	3188	3160	3200
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

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