Your reliable battery solution

Shenzhen XYC Electronic Co.,Ltd.

OPzV2-500 2V500Ah(10hr)

OPzV series

2V TUBULAR GEL SERIES VRLA BATTERY

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 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 voltage | 500 Ah capacity | Tubular gel | 20+ years design life



Design for Frequent Cyclic Charge and Discharge Applications Under Extreme Environments.

Design Life

Up to 20 years in standby service at 25°C(77°F)

Operating Temperature Range

Nominal Operating Temperature:20°C(68°F)

Discharge:-40°C ~65°C(-40°F~149°F)

Charge:-30°C ~65°C(-22°F~149°F)

Storage:-25°C ~45°C(-13°F~113°F)

Float Charging Voltage(20~25°C)

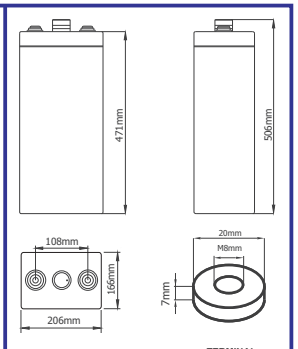
2.25~2.29 V (-3mV/°C/cell)

Equlization Charging Voltage(20~25°C)

2.35~2.4 V (-3mV/°C/cell)

Specification

Nominal Voltage	2V		
Nominal Capacity	500Ah @10hr-rate to 1.80V per cell @20°C		
Weight	Approx.37.3Kg(82.2lbs)		
Maximum Discharge Current	2000A(5sec)		
Internal Resistance	Approx.0.75mohm(fully charged @20°C)		
Short Circuit Current	2600A		
Maximum Charge Current	100A		
Terminal types	Femal Copper Insert M8		
Terminal tightening torque	10~12N.m		
Container Material	ABS(UL94-V0 optional)		
Dimensions	Length(L)	206mm	8.11inch
	Width(W)	166mm	6.54inch
	Container Height(H)	471mm	18.54inch
	Overall Height(H)	506mm	19.92inch



Constant Current Discharge Characteristics: Amps (20°C)

F.V/Time	10min	15min	30min	1h	2h	3h	5h	8h	10h
1.90V	180	175	163	137	117	98.0	72.6	51.9	43.8
1.87V	245	229	203	160	131	108	78.7	55.1	46.3
1.85V	282	258	222	175	144	116	83.8	57.7	48.1
1.83V	328	287	240	193	154	123	85.8	59.5	49.0
1.80V	367	333	269	212	162	129	87.5	60.3	50.0
1.75V	390	366	315	231	169	132	89.2	61.3	50.5
1.70V	424	402	346	244	176	135	90.7	62.2	51.5
1.65V	495	452	377	260	181	137	92.6	63.2	52.4
1.60V	539	497	400	268	185	140	94.6	64.4	53.4

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

F.V/Time	10min	15min	30min	1h	2h	3h	5h	8h	10h
1.90V	347	338	318	269	231	195	145	104	88.4
1.87V	464	435	388	309	255	213	156	110	92.7
1.85V	526	484	420	334	278	226	165	114	95.6
1.83V	606	533	449	364	294	237	167	115	96.4
1.80V	669	609	496	396	306	245	168	116	97.4
1.75V	697	659	573	425	316	248	169	117	97.2
1.70V	748	713	621	443	324	250	170	118	98.3
1.65V	859	790	667	465	329	252	172	119	99.1
1.60V	916	850	693	471	331	253	174	120	100

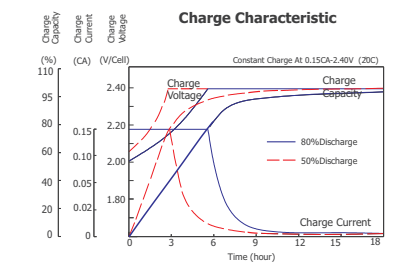
PARAMETERS FOR SOLAR & WIND APPLICATIONS

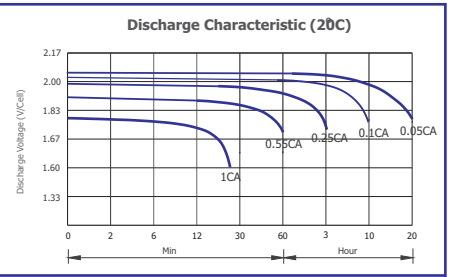
Long time discharge capacity for Solar & Wind applications

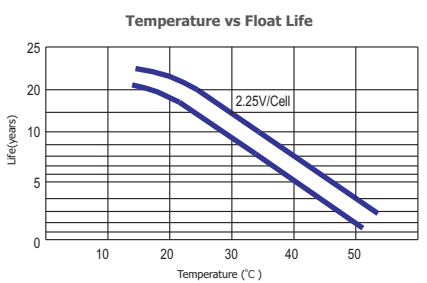
Capacity	C_{20} (Ah)	C_{24} (Ah)	C_{48} (Ah)	C_{72} (Ah)	C_{100} (Ah)	C_{120} (Ah)	C_{240} (Ah)
OPzV2-500	545	565	610	630	636	640	652
Final Voltage	1.80V	1.85V					

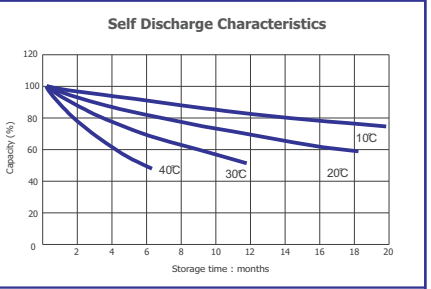
Solar & Wind applications parameters settings

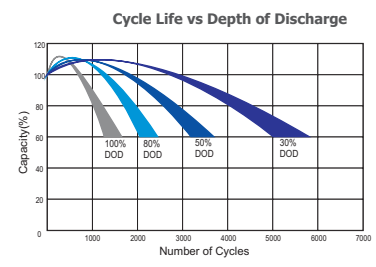
Over voltage disconnect:	2.45±0.01V/cell @ 20～25°C
Regulation/equalize voltage:	2.40±0.01V/cell @ 20～25°C
Array roconnection voltage:	2.25±0.005V/cell @ 20～25°C
Float voltage setting:	2.27±0.005V/cell @ 20～25°C
Low voltage alarm voltage:	1.95±0.005V/cell @ 20～25°C
Low voltage disconnect:	1.90±0.005V/cell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

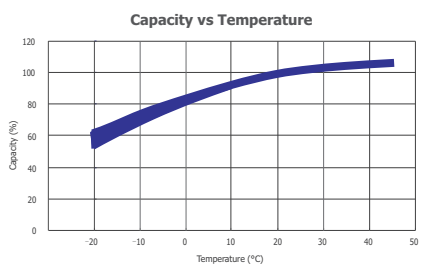


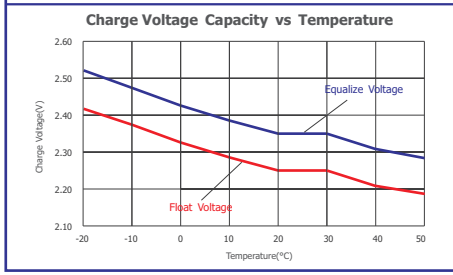


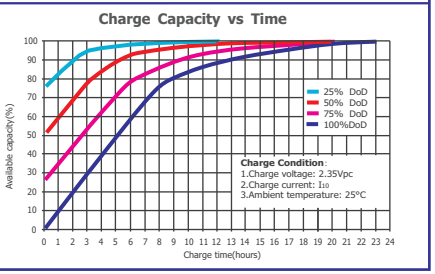












FINAL VOLTAGE SETTINGS RECOMMENDED ACCORDING TO THE DISCHARGE CURRENT

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

www.xyc-battery.com

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