OPzV2-420

2Volt 420Ah

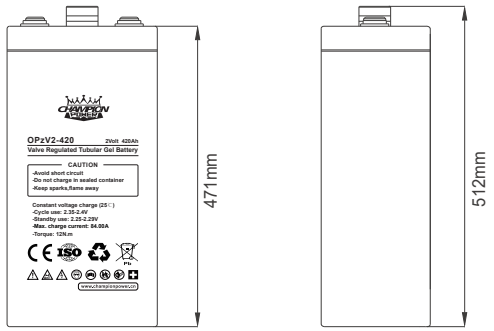
OPzV Series Battery

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 25+ 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, solar system and other harsh environment applications.

Specification

Battery Model	Nominal Voltage	2V		
	Rated Capacity (10Hour rate)	420Ah		
Floating Design Life @ 20℃	25+ years			
Dimension	Length	Width	Height	Total Height
	145mm	206mm	471mm	512mm
Approx Weight	32.00Kg			
Internal Resistance	Full charged at 20℃(77℉): Approx 0.70mΩ			
Max.Chargr Current	84A			
Max.Discharge Current	1500A(5s)			
Short Circuit Current	3400A			
Self Discharge	Approx. 2% per month @20℃			
Ambient Temperature	Discharge	-40~65℃		
	Charge	-30~65℃		
	Storage	-25~40℃		
Float Charge Voltage(20~25℃)	2.25~2.29V (-3mV/℃/cell)			
Equalize Charge Voltage(20~25℃)	2.35~2.40V(-5mV/℃/cell)			
Terminal Type	Female copper insert M8 (torque:10~12N.m)			
Container Material	ABS（UL94-V0 optional）			

Outer dimension (mm)



Terminal Type (mm)

Constant Current Discharge Characteristics:Amps 20℃

F.V/Time	10min	15min	30min	1h	2h	3h	5h	8h	10h
1.90V	154	150	140	118	100	84.0	62.2	44.5	36.8
1.87V	210	196	174	137	112	92.6	67.5	47.3	38.9
1.85V	241	221	190	150	123	100	71.8	49.4	40.4
1.83V	281	246	206	165	132	105	73.5	51.0	41.2
1.80V	315	286	230	182	139	110	75.0	51.7	42.0
1.75V	334	314	270	198	145	113	76.4	52.5	43.3
1.70V	363	344	297	209	151	116	77.7	53.3	44.1
1.65V	424	388	323	223	155	118	79.4	54.2	44.9
1.60V	462	426	343	230	158	120	81.1	55.2	45.8

Constant Power Discharge Characteristics:W/caell 20℃

F.V/Time	10min	15min	30min	1h	2h	3h	5h	8h	10h
1.90V	297	290	273	231	198	167	125	89.5	74.3
1.87V	398	373	333	265	219	182	134	94.4	77.9
1.85V	451	415	360	286	238	194	141	98.0	80.3
1.83V	519	457	385	312	252	203	143	99.0	81.0
1.80V	573	522	425	339	263	210	144	100	81.8
1.75V	598	564	491	364	271	213	145	101	83.3
1.70V	642	611	532	380	278	215	146	102	84.3
1.65V	736	678	571	399	282	216	147	103	85.0
1.60V	785	729	594	404	284	217	149	104	85.7

Long Time Dscharge Capacity

Capacity（Ah）	C_{10}	C_{20}	C_{24}	C_{48}	C_{72}	C_{100}	C_{120}	C_{240}
	420	462	475	512	529	536	542	557
Final Voltage	1.80V	1.85V						

Parameters Settings

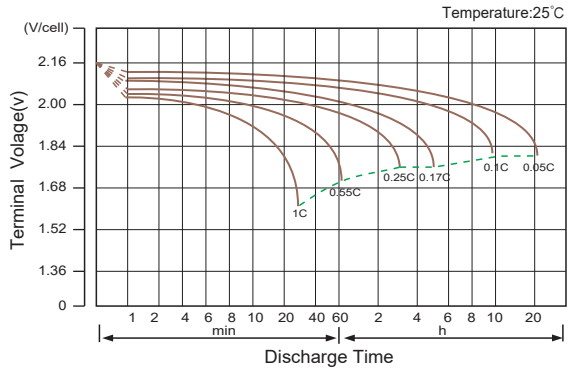
Over voltage disconnect	2.45±0.01V/cell @ 20~25℃
Regulation/equalize voltage	2.40±0.01V/cell @ 20~25℃
Array roconnection voltage	2.25±0.005V/cell @ 20~25℃
Float voltage setting	2.27±0.005V/cell @ 20~25℃
Low voltage alarm voltage	1.95±0.005V/cell @ 20~25℃
Low voltage disconnect	1.90±0.005V/cell @ 20~25℃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

Note: The above datas are average values. (Edition 2017-11)

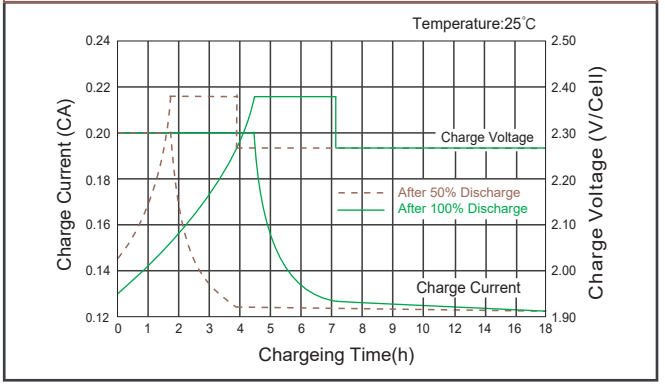
OPzV2-420

2Volt 420Ah

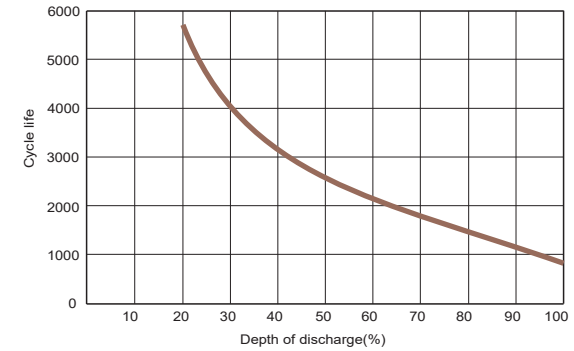
Discharge characteristic Curve



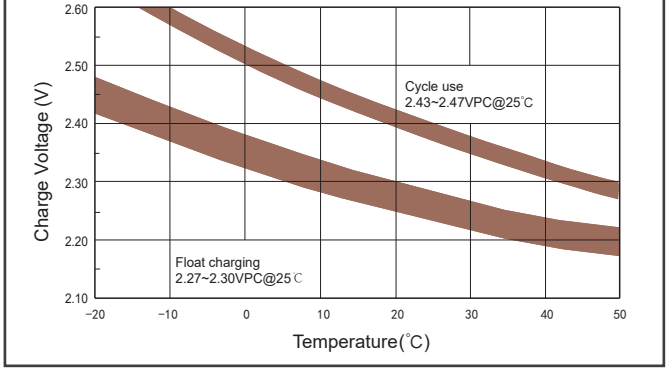
Charge Characteristic Curve for Cycle Use(IUU)



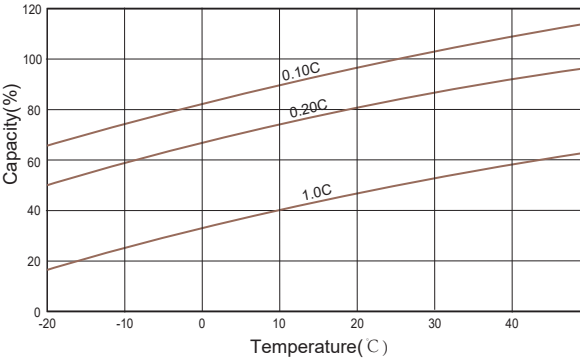
Cycle Life vs Depth of Discharge



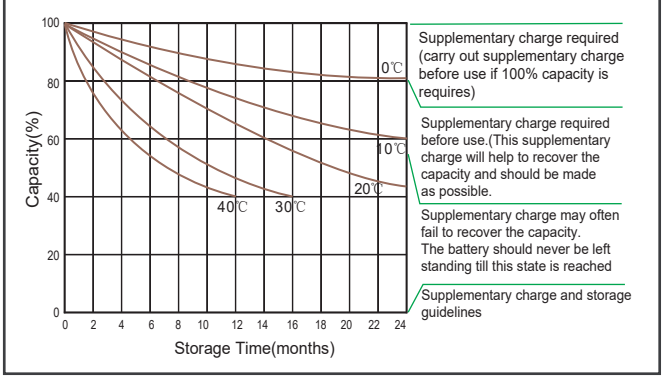
Relationship Between Charging Voltage And Temperature



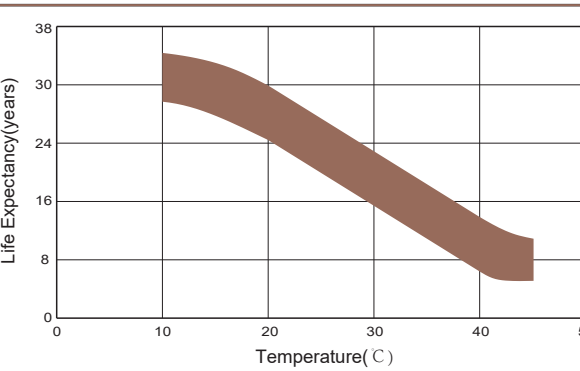
Temperature Effects On Capacity



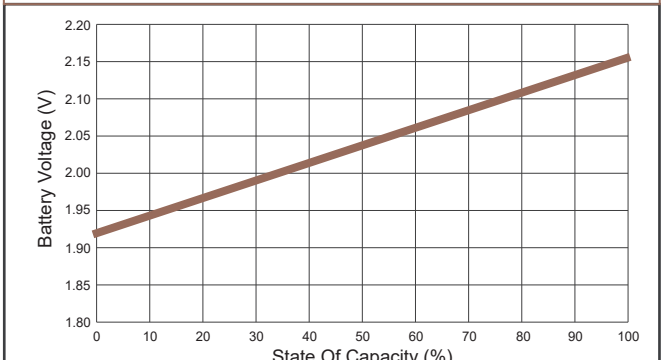
Storage Characteristics



Effect Of emperature On Long Term Life



Relationship of OCV And State of Charge(20℃)



Note: The above datas are average values. (Edition 2017-11)