

OPzS2-420 2Volt 420Ah

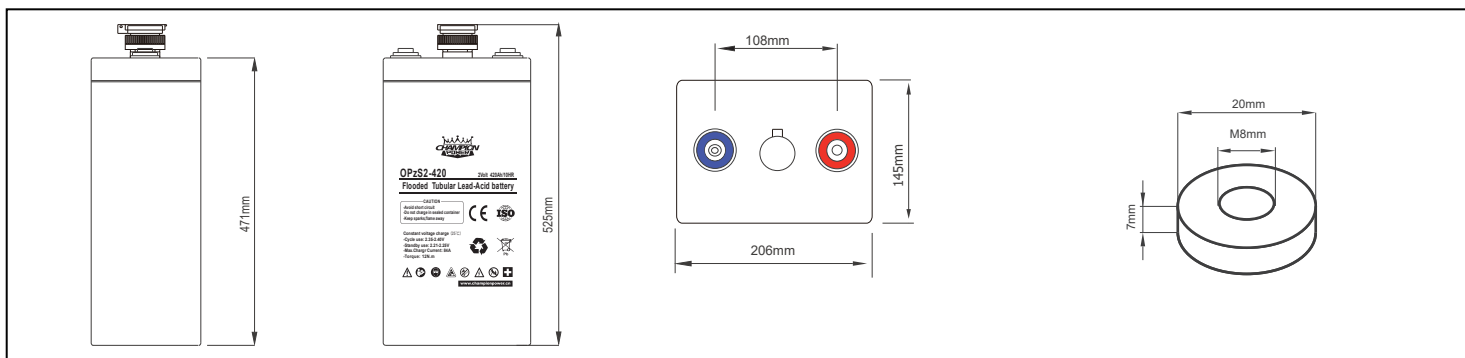
OPzS Series Battery

OPzS series is a traditional tubular plate flooded battery which offers 25+ 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.

Specification

Battery Model	Nominal Voltage	2V		
	Rated Capacity (10Hour rate)	420Ah		
Floating Design Life @ 20°C	25+ years			
Dimension	Length	Width	Height	Total Height
	145mm	206mm	471mm	525mm
Approx Weight	Dry weight	24.0Kg		
	Wet weight	32.0Kg		
Electrolyte	Diluted Sulphuric acid of 1.240g/cm ³ (20°C)			
	Acid weight: 8.0Kg			
Internal Resistance	Full charged at 20°C(77°F): Approx 0.65mΩ			
Max.Chargr Current	84A			
Max.Discharge Current	1000A(5s)			
Short Circuit Current	3500A			
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)			
Terminal Type	Female copper insert M8 (torque:10~12N.m)			
Container Material	SAN			

Outer dimension (mm)



Terminal Type (mm)

Constant Current Discharge Characteristics:Amps 20°C

F.V / TIME	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h
1.60V	647	446	411	331	223	155	117	98	79	54	45
1.65V	606	409	374	312	216	152	115	97	78	53	44
1.70V	512	351	332	286	203	148	113	95	76	52	43
1.75V	454	322	303	261	192	142	111	93	75	51	42
1.80V	413	304	276	222	177	136	108	91	73	51	42
1.85V	303	233	214	184	145	121	98	84	70	48	40
1.90V	193	149	144	135	114	98	82	72	61	44	36

Long Time Dscharge Capacity

Capacity (Ah)	C ₁₀	C ₂₀	C ₂₄	C ₄₈	C ₇₂	C ₁₀₀	C ₁₂₀	C ₂₄₀
	Final Voltage	1.80V	1.85V					

Constant Power Discharge Characteristics:W/caell 20°C

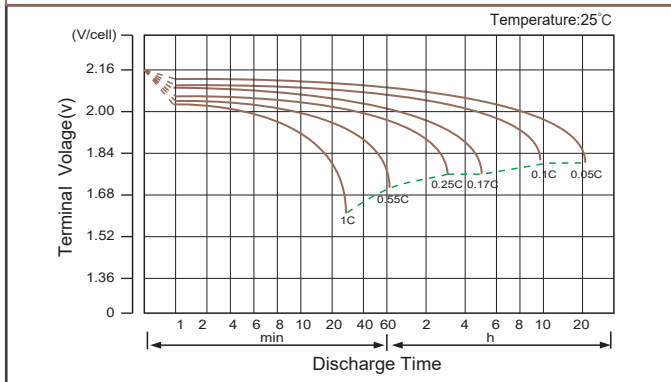
F.V / TIME	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h
1.60V	1067	758	703	574	392	278	212	179	146	101	84
1.65V	1024	710	654	551	387	277	212	178	144	100	83
1.70V	896	619	590	514	368	272	210	176	143	99	83
1.75V	804	577	545	474	353	265	209	175	142	99	82
1.80V	748	553	504	410	329	257	206	173	141	98	80
1.85V	560	435	401	347	277	234	190	164	138	96	79
1.90V	371	287	280	263	224	194	164	143	122	88	73

Parameters Settings

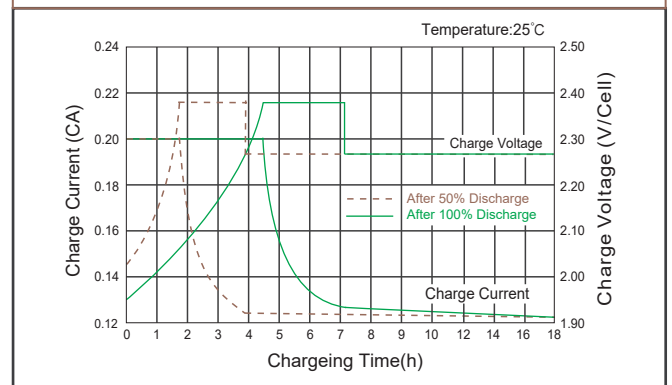
Over voltage disconnect	2.47±0.01V/cell @ 20~25°C
Regulation/equalize voltage	2.40±0.01V/cell @ 20~25°C
Array roconnection voltage	2.23±0.005V/cell @ 20~25°C
Float voltage setting	2.25±0.005V/cell @ 20~25°C
Low voltage alarm voltage	1.95±0.005V/cell @ 20~25°C
Low voltage disconnect	1.90±0.005V/cell @ 20~25°C
Load reconnect voltage	2.09±0.01V/cell @ 20~25°C
Temp. compensate coefficient	-4mV/cell/°C

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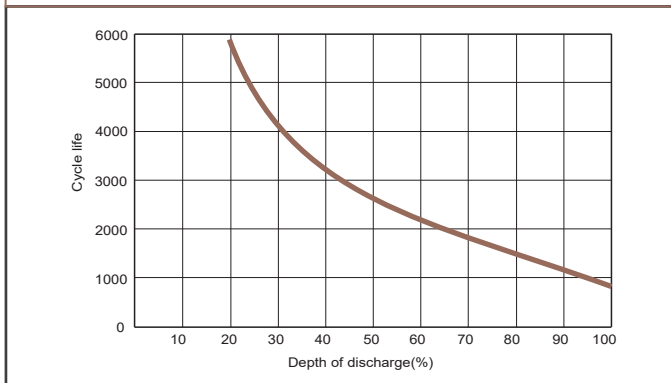
Discharge characteristic Curve



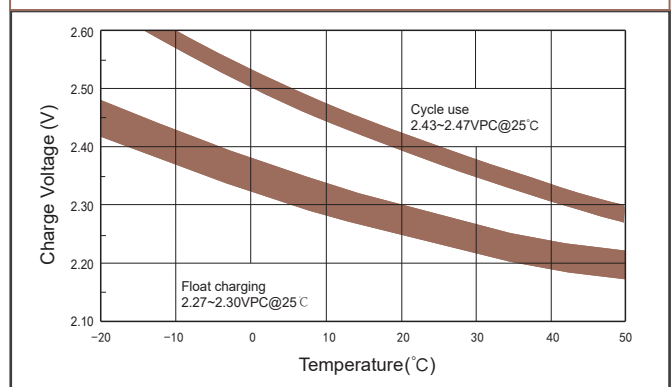
Charge Characteristic Curve for Cycle Use(IUU)



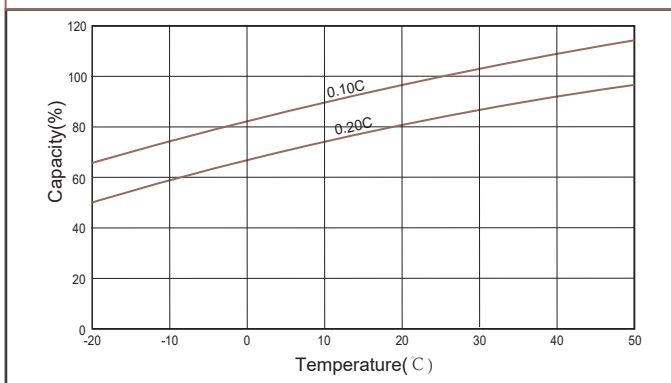
Cycle Life vs Depth of Discharge



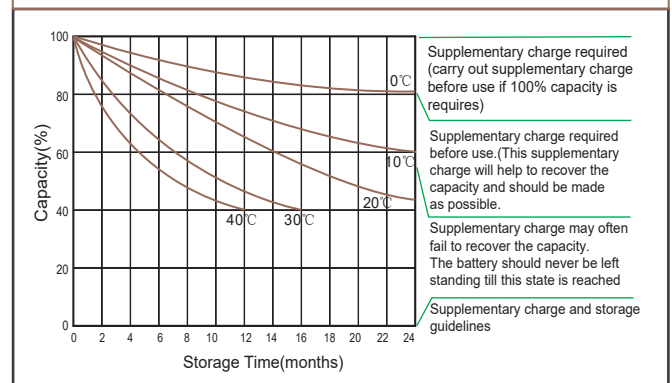
Relationship Between Charging Voltage And Temperature



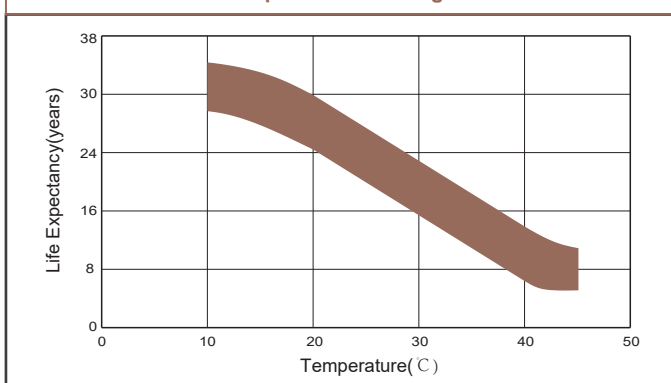
Temperature Effects On Capacity



Storage Characteristics



Effect Of emperature On Long Term Life



Relationship of OCV And State of Charge(20°C)

