

## OPzS2-100 2Volt 100Ah

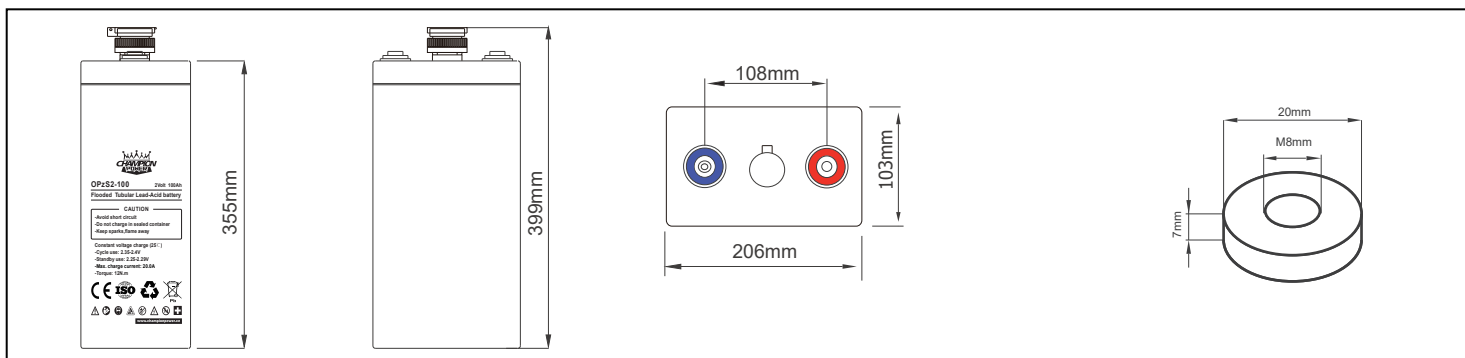
### OPzS Series Battery

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)	100Ah		
Floating Design Life @ 20°C	25+ years			
Dimension	Length	Width	Height	Total Height
	103mm	206mm	355mm	399mm
Approx Weight	Dry weight	8.70Kg		
	Wet weight	12.70Kg		
Electrolyte	Diluted Sulphuric acid of 1.240g/cm <sup>3</sup> (20°C)			
	Acid weight: 4.0Kg			
Internal Resistance	Full charged at 20°C(77°F): Approx 0.90mΩ			
Max.Chargr Current	20A			
Max.Discharge Current	1000A(5s)			
Short Circuit Current	2200A			
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	154	106	98	79	53	37	28	23	19	13	11
1.65V	144	97	89	74	51	36	27	23	19	13	10
1.70V	122	83	79	68	48	35	27	23	18	12	10
1.75V	108	77	72	62	46	34	26	22	18	12	10
1.80V	98	72	66	53	42	32	26	22	17	12	10
1.85V	72	55	51	44	35	29	23	20	17	12	9
1.90V	46	35	34	32	27	23	20	17	15	10	9

### Long Time Dscharge Capacity

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

### Constant Power Discharge Characteristics:W/caell 20°C

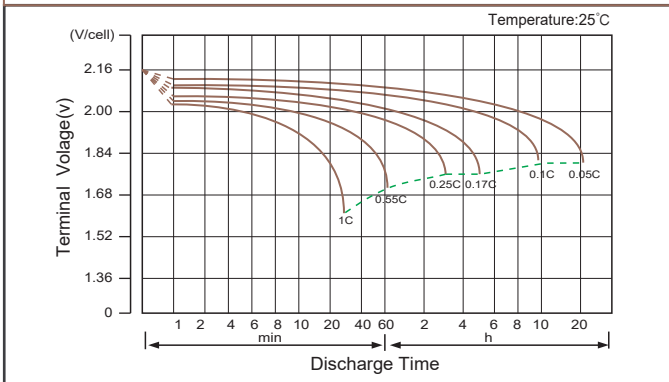
F.V / TIME	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h
1.60V	254	180	167	137	93	66	51	43	35	24	20
1.65V	244	169	156	131	92	66	50	42	34	24	20
1.70V	213	147	140	122	88	65	50	42	34	24	20
1.75V	191	137	130	113	84	63	50	42	34	24	19
1.80V	178	132	120	98	78	61	49	41	34	23	19
1.85V	133	104	95	83	66	56	45	39	33	23	19
1.90V	88	68	67	63	53	46	39	34	29	21	17

### Parameters Settings

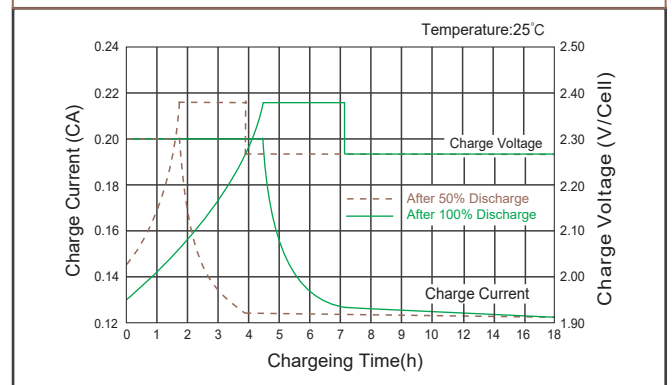
Over voltage disconnect	2.47±0.01V/cell @ 20~25°C
Regulation/equalize voltage	2.40±0.01V/cell @ 20~25°C
Array roconnection voltage	2.23±0.005V/cell @ 20~25°C
Float voltage setting	2.25±0.005V/cell @ 20~25°C
Low voltage alarm voltage	1.95±0.005V/cell @ 20~25°C
Low voltage disconnect	1.90±0.005V/cell @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

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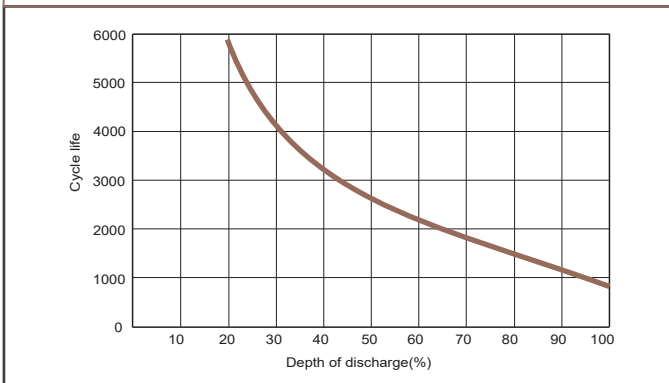
### Discharge characteristic Curve



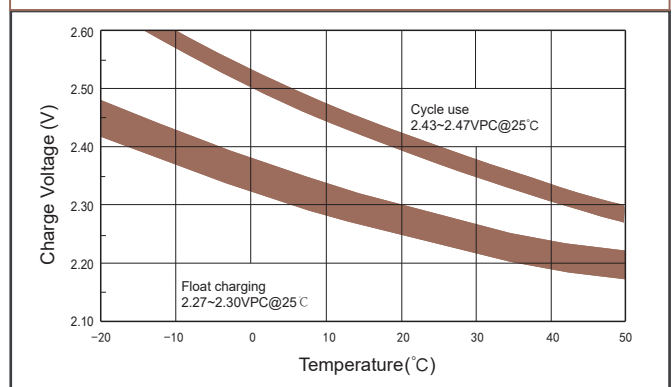
### Charge Characteristic Curve for Cycle Use(IUU)



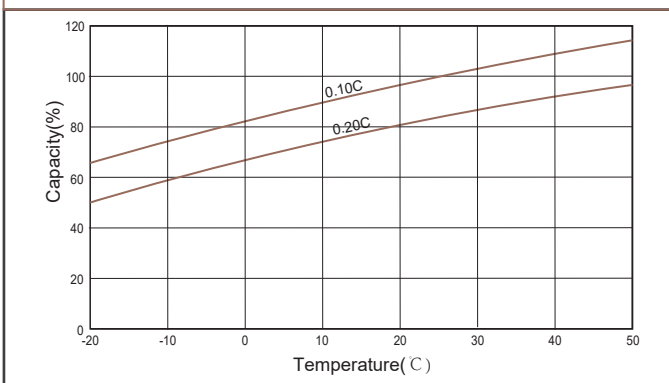
### Cycle Life vs Depth of Discharge



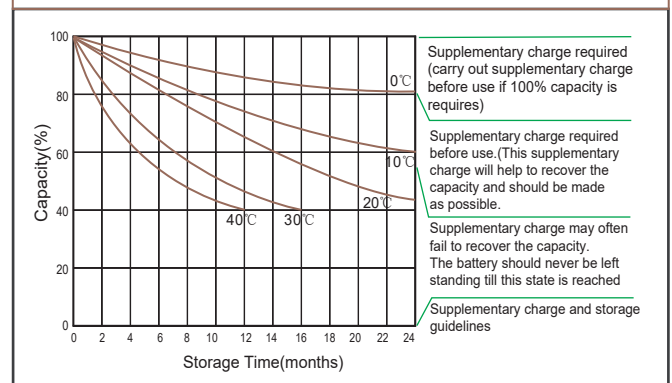
### Relationship Between Charging Voltage And Temperature



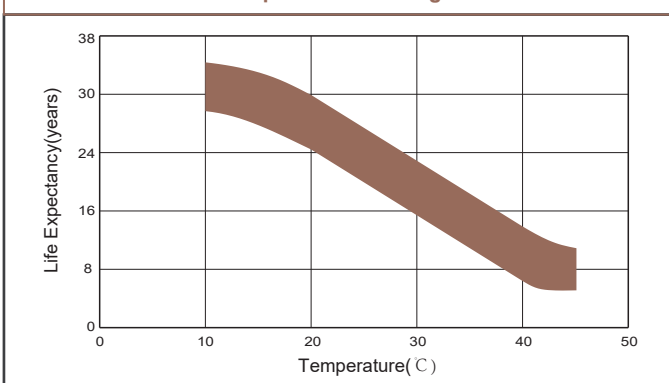
### Temperature Effects On Capacity



### Storage Characteristics



### Effect Of emperature On Long Term Life



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

