



**● OPzS Series Battery**

NAPEL OPzS battery is a traditional tubular plate flooded stationary battery, low maintenance, acid-proof and explosion-proof, Performances meet & exceed the standards specified in DIN40736. This type battery is most suited for all standby power applications that require the highest levels of reliability and security.

**● Application**

- \*Telecommunication equipment;
- \*UPS power supply;
- \*Solar power system;
- \*Wind power system;
- \*Electronic instruments Fire alarm and security devices.

**● General Features**

- \*Stable Quality & High Reliability
- \*Sealed Construction
- \*Long Service Life
- \*Low Maintenance Operation
- \*Low Pressure Venting System
- \*Heavy Duty Grids
- \*Low-self Discharge

**● Construction**

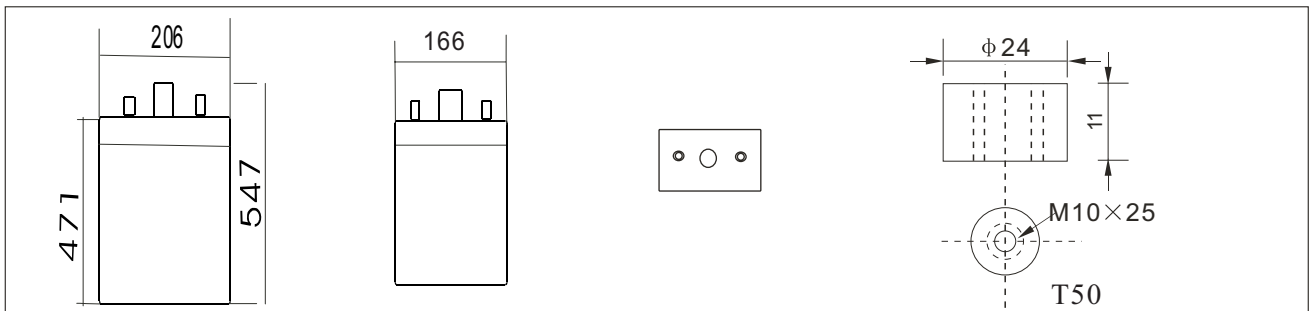
- \*Positive Plates: Robust tubular plates consisting of Pb-Sb multi-alloy;
- \*Negative Plates: Grid plate construction consisting of lead calcium alloy;
- \*Separator: Combined porous rubber and porous PVC separator;
- \*Container: transparent container with AS material Anti-corrosive, flame retardant;
- \*Acid-proof bolt: Filters acid smog and flame retardant;
- \*Terminals: cooper.

**● Specification**

Battery Model	Nominal Voltage		2V	
	Rated capacity(10 Hour rate)		500Ah	
Dimensions	Length	Width	Height	Total Height
	166mm (6.54 inches)	206mm(8.11 inches)	471mm(18.54 inches)	547 mm (21.54 inches)
Approx Weight	28.0kg(61.74lbs)±3% (DRY)			
Capacity 25 °C (77°F)	10 Hour rate(1.8V, 50A)	5Hour rate(1.75V,90.0A)	3 Hour rate(1.70V,128A)	1 Hour rate (1.60V, 280A)
	500Ah	450Ah	384Ah	280Ah
Maximum discharge current	1000A(5 sec.)			
Internal Resistance	Full charged at 25 °C (77°F): Approx 0.5mΩ			
Capacity affected by Temp. (10 HR)	40°C (104 °F)	25°C (77°F)	0°C (32°F)	-15°C (5°F)
	102%	100%	85%	65%
Self Discharge at 25°C (77°F)	After 3 months storage		After 6 months storage	After 12 months storage
	91%		82%	64%
Charge method 25 °C (77°F)	Cycle charging voltage		Float charging voltage	
	2.35-2.40V (Temperature compensation:-5mV/°C)		2.20-2.40V (Temperature compensation:-3mV/°C)	

**● Outer dimensions(mm)**

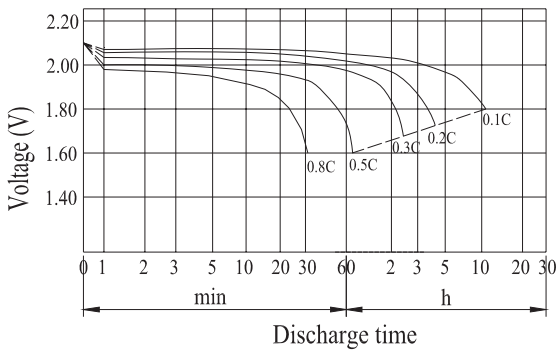
**● Terminal Type (mm)**



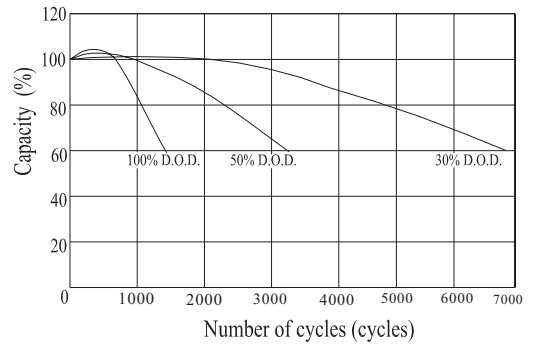
Constant Current(Amp) and Constant Power(Watt) Discharge Table at 25°C(77°F)												
Time		30min	60min	2hr	3hr	4hr	5hr	6hr	8hr	10hr	20hr	24hr
1.60V	A	410.0	280.0	167.0	131.0	105.0	92.4	78.6	60.1	50.9	27.5	23.9
	W	767.0	532.0	323.0	257.0	206.0	182.0	155.0	119.0	101.0	55.0	48.1
1.65V	A	402.0	276.0	166.0	130.0	105.0	91.9	78.1	59.7	50.8	27.4	23.9
	W	751.0	524.0	321.0	255.0	205.0	181.0	154.0	118.0	101.0	54.9	48.0
1.70V	A	390.0	269.0	165.0	128.0	103.0	90.6	77.0	58.9	50.7	27.4	23.8
	W	728.0	511.0	318.0	252.0	202.0	179.0	152.0	117.0	101.0	54.7	47.8
1.75V	A	380.0	263.0	163.0	128.0	103.0	90.6	77.0	58.9	50.7	27.4	19.9
	W	711.0	501.0	314.0	250.0	201.0	177.0	151.0	116.0	100.0	54.4	47.6
1.80V	A	360.0	255.0	158.0	124.0	99.4	87.3	74.2	56.7	50.0	27.0	23.5
	W	685.0	485.0	306.0	242.0	195.0	172.0	146.0	112.0	99.5	54.0	47.2



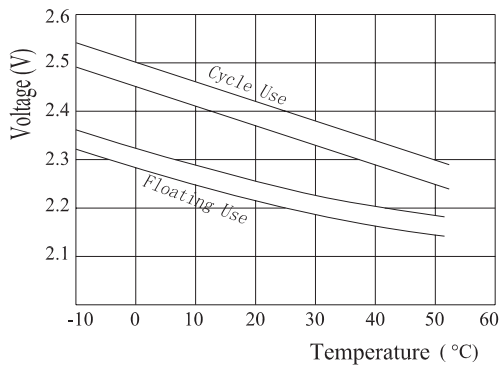
Discharge characteristic Curve



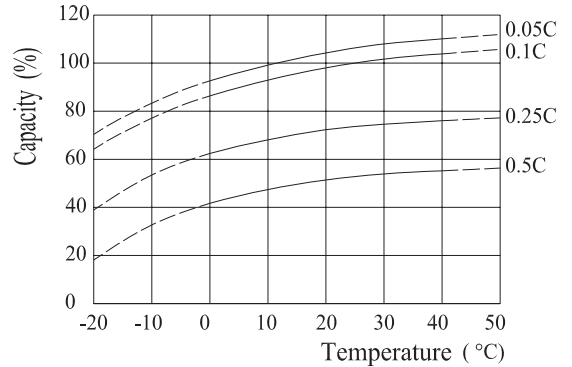
Cycle service life in relation to depth of discharge



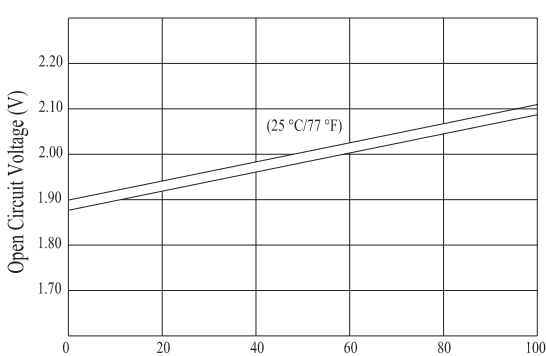
Relationship for charging voltage and temperature



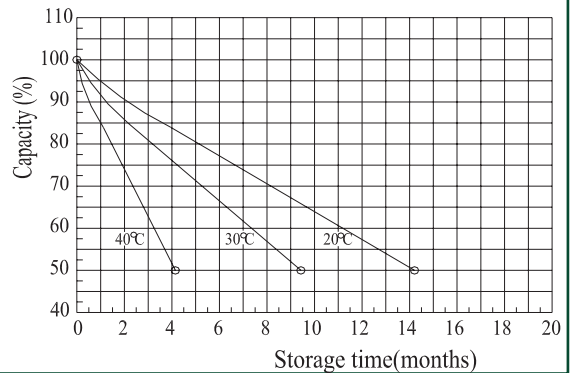
Temperature effect on Capacity



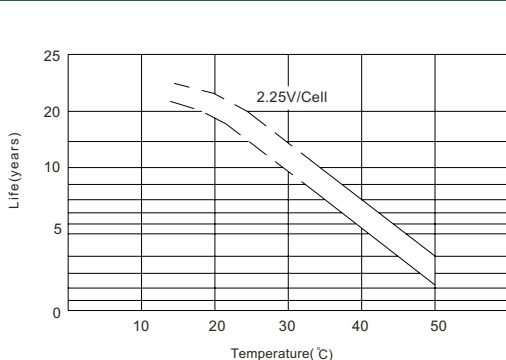
Relationship for Open Circuit Voltage and Residual Capacity 25



Self-discharge characteristic



Temperature effects on float life



Charge characteristic Curve for standby use

