



Deep Cycle Series Battery

NPD series VRLA batteries are superior deep cycle design with thick plates, high-density active materials And Slightly stronger electrolyte, Which can withstand repeated deep cyclic applications. Deep cycle series Batteries are the special design batteries with 18 years floating design life at 25°C. Meet with IEC, BS, JIS and Eurobat standard.

Application

- *Emergency Power System
- *Communication equipment
- *Telecommunication systems
- *Uninterruptible power supplies
- *Electric bicycle and wheelchairs, etc.
- *Power tools
- *Golf cars and buggies
- *Marine equipment
- *Solar and wind power system

General Features

- *Safety Sealing
- *Non-spillable construction
- *High power density
- *Excellent recovery from Deep discharge
- *Thick plates and high active materials
- *Longer Life and low self-discharge design

Specification

Construction

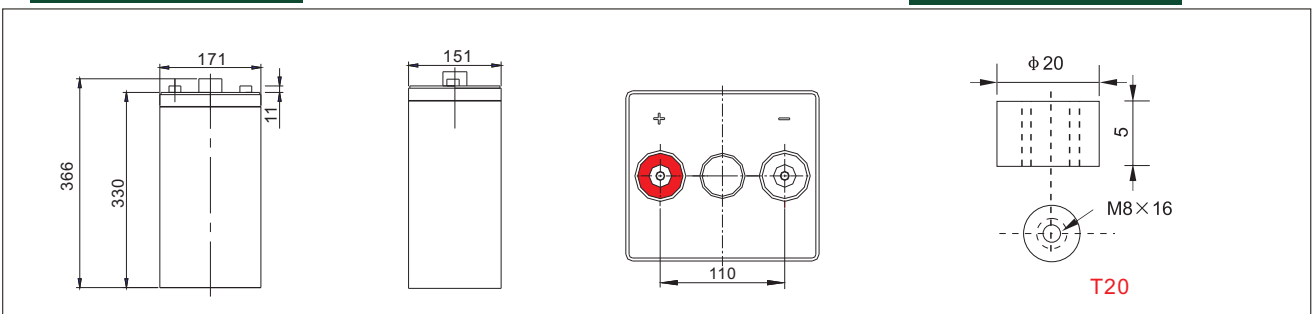
- *PositiveLead dioxide
- *ElectrolyteSulfuric acid
- *SeparatorFiber glass
- *ContainerABS(UL94-HB), Flammability Resistance of UL94-V2 can be available upon request
- *NegativeLead
- *Safety ValveEPDR
- *TerminalCopper



Battery Model	Nominal Voltage		2V	
	Rated capacity(10 Hour rate)		300Ah	
Dimensions	Length	Width	Height	Total Height
	171mm (6.73 inches)	151mm(5.94 inches)	330mm(12.99 inches)	366mm (14.41 inches)
Approx Weight	18.8kg(41.45lbs)±3%			
Capacity 25°C (77°F)	10 Hour rate (30A,1.80V)	5 Hour rate (51A,1.75V)	3Hour rate (75A,1.70V)	1 Hour rate (165A,1.60V)
	300Ah	255Ah	225Ah	165Ah
Max discharge current	3000A(5 Sec.)			
Internal Resistance	Full charged at 25 °C (77°F): Approx 0.47mΩ			
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 Use		Float Use	
	2.35-2.40V (Initial charging current less than 120A)		2.25-2.30V	

Outer dimensions (mm)

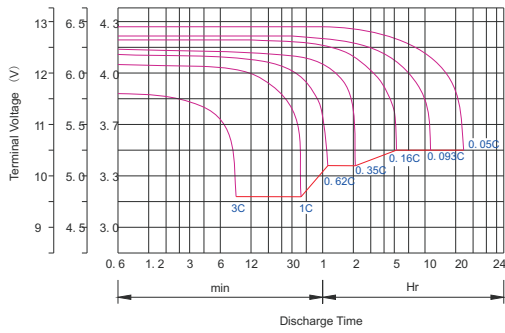
Terminal Type (mm)



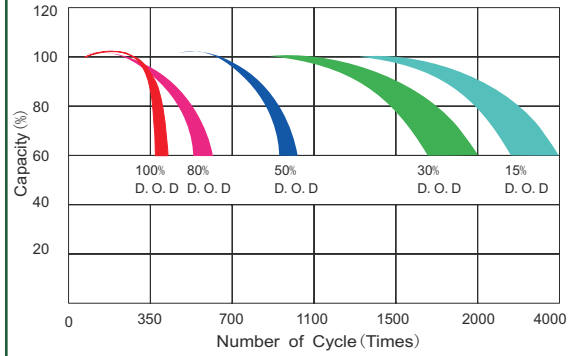
Constant Current(Amp) and Constant Power(Watt) Discharge Table at 25°C (77°F)													
Time		5min	10min	15min	30min	1hr	2hr	3hr	4hr	5hr	8hr	10hr	20hr
1.60V	A	961	633	510	342	180.0	105.0	77.1	60.0	49.5	35.1	31.5	17.0
	W	1653	1127	912	613	324.0	192.2	143.0	112.5	93.8	67.0	60.6	33.0
1.70V	A	931	571	481	327	169.2	100.2	75.0	58.5	48.6	34.2	30.9	16.5
	W	1656	1063	896	612	318.9	192.5	144.8	113.4	94.4	66.7	60.5	32.3
1.75V	A	900	511	420	306	163.8	97.8	73.2	57.6	48.0	33.9	30.3	16.5
	W	1639	969	799	587	316.1	189.0	142.2	112.3	93.8	66.4	59.8	32.5
1.80V	A	868	482	391	282	158.4	95.4	71.4	56.7	46.8	33.0	30.0	16.2
	W	1622	925	750	545	307.3	186.2	140.3	111.6	92.2	65.2	59.4	32.2
1.85V	A	839	451	361	252	153.0	93.0	69.0	55.2	45.6	32.1	28.5	15.3
	W	1585	871	700	491	299.9	183.2	136.6	109.6	90.7	64.1	57.3	30.9



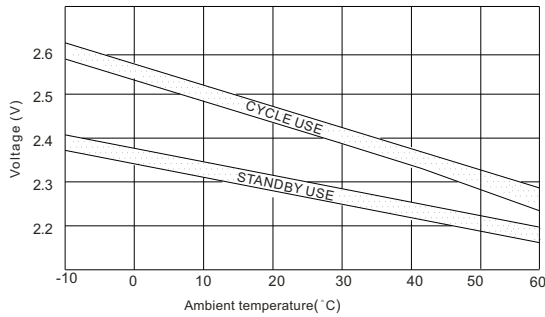
Discharge characteristic Curve



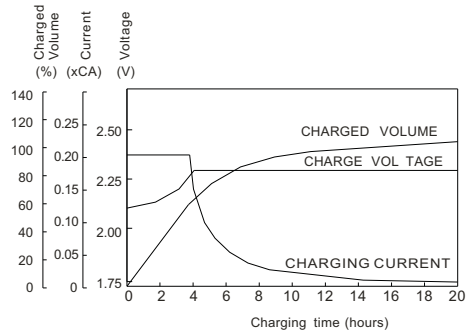
Cycle service life in relation to depth of discharge



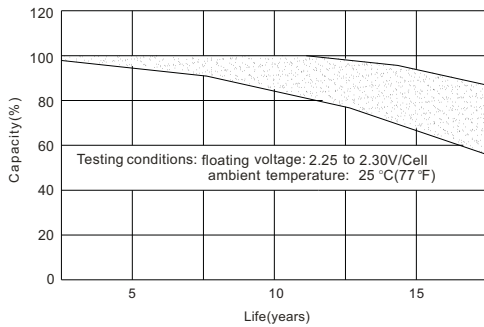
Relationship between charging voltage and temperature



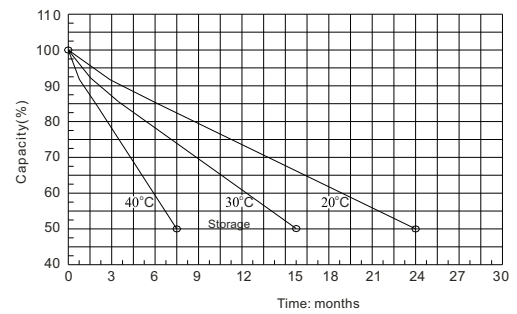
Constant voltage charging characteristic (0.25CA, at 25°C)



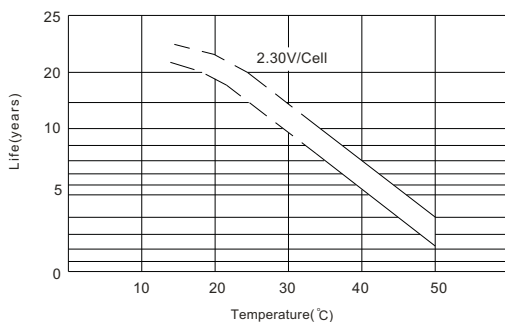
Life characteristics of standby use



Self-discharge characteristic



Temperature effects on float life



Charge characteristic Curve for standby use

