



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

Construction

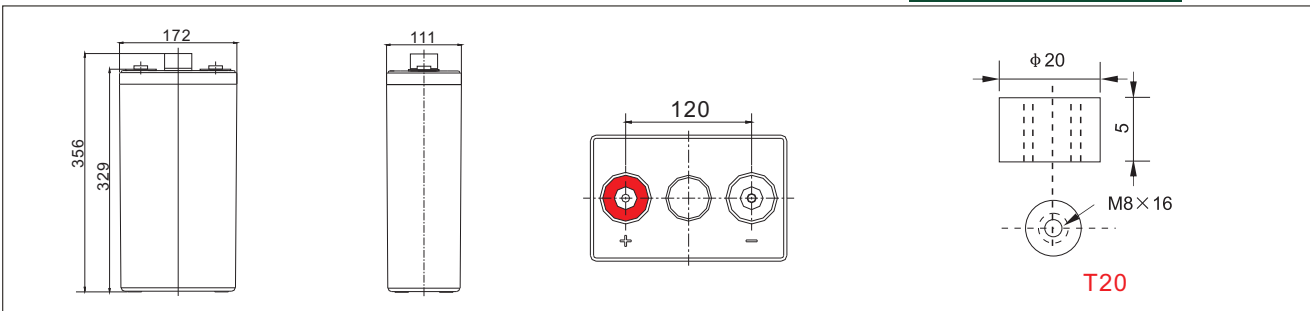
- *PositiveLead dioxide
- *ElectrolyteSulfuric acid
- *SeparatorFiber glass
- *ContainerABS(UL94-HB), Flammability Resistance of UL94-V2 can be available upon request
- *NegativeLead
- *Safety ValveEPDR
- *TerminalCopper

Specification

Battery Model	Nominal Voltage	2V		
	Rated capacity(10 Hour rate)	200Ah		
Dimensions	Length	Width	Height	Total Height
	172mm (6.77 inches)	111mm(4.37 inches)	329mm(12.95 inches)	356mm (14.02 inches)
Approx Weight	13.5kg(29.76lbs)±3%			
Capacity 25°C (77°F)	10 Hour rate (20A,1.80V)	5 Hour rate (34A,1.75V)	3 Hour rate (50A,1.70V)	1 Hour rate (110A,1.60V)
	200Ah	170Ah	150Ah	110Ah
Max. discharge current	2000A(5 Sec.)			
Internal Resistance	Full charged at 25 °C (77°F): Approx 0.65mΩ			
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 80A)		2.25-2.30V	

Outer dimensions (mm)

Terminal Type (mm)

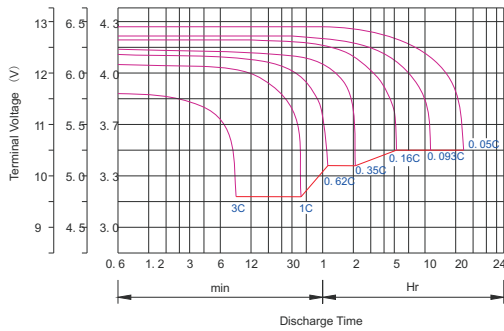


Constant Current(Amp) and Constant Power(Watt) Discharge Table at 25°C (77°F)

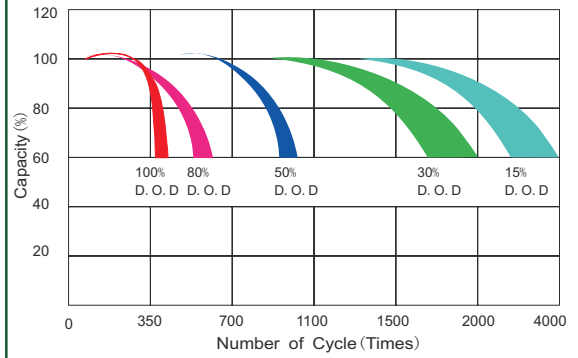
Time		5min	10min	15min	30min	1hr	2hr	3hr	4hr	5hr	8hr	10hr	20hr
1.60V	A	641	422	340	228	120.0	70.0	51.4	40.0	33.0	23.4	21.0	11.3
	W	1102	751	608	409	216.0	128.1	95.3	75.0	62.5	44.7	40.4	22.0
1.70V	A	620	381	320	218	112.8	66.8	50.0	39.0	32.4	22.8	20.6	11.0
	W	1104	709	598	408	212.6	128.3	96.5	75.6	63.0	44.5	40.3	21.5
1.75V	A	600	341	280	204	109.2	65.2	48.8	38.4	32.0	22.6	20.2	11.0
	W	1092	646	533	391	210.8	126.0	94.8	74.9	62.5	44.3	39.8	21.7
1.80V	A	578	321	260	188	105.6	63.6	47.6	37.8	31.2	22.0	20.0	10.8
	W	1082	617	500	363	204.9	124.1	93.5	74.4	61.5	43.5	39.6	21.4
1.85V	A	559	301	240	168	102.0	62.0	46.0	36.8	30.4	21.4	19.0	10.2
	W	1057	581	466	328	199.9	122.1	91.1	73.0	60.5	42.7	38.2	20.6



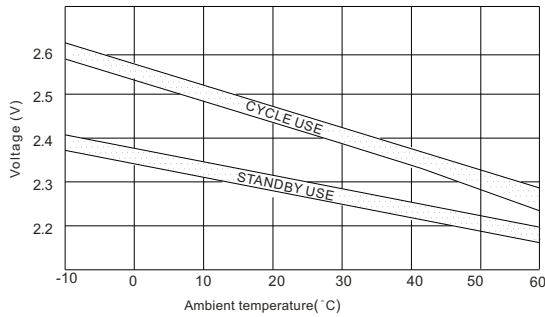
Discharge characteristic Curve



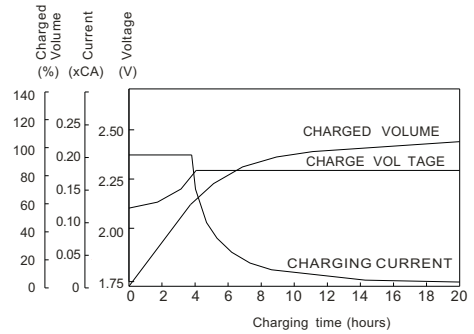
Cycle service life in relation to depth of discharge



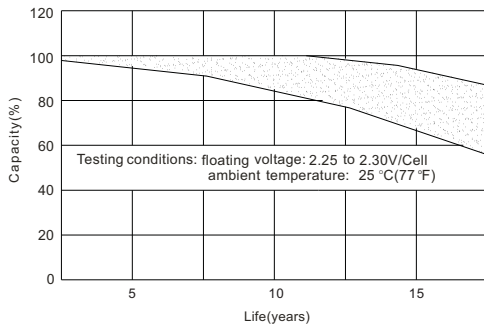
Relationship between charging voltage and temperature



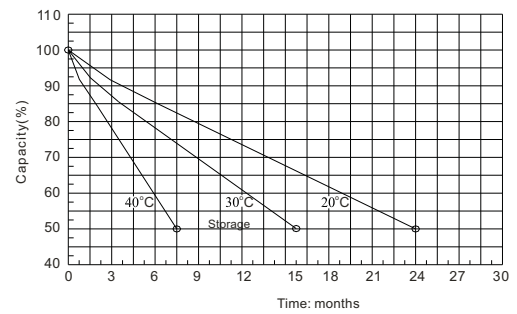
Constant voltage charging characteristic (0.25CA, at 25°C)



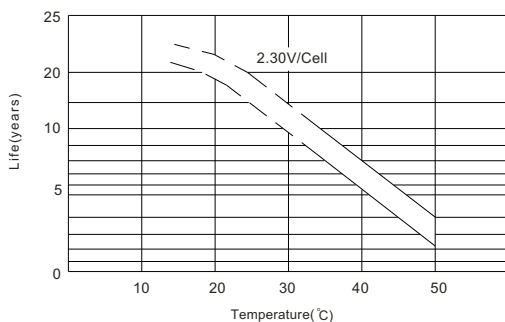
Life characteristics of standby use



Self-discharge characteristic



Temperature effects on float life



Charge characteristic Curve for standby use

