



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

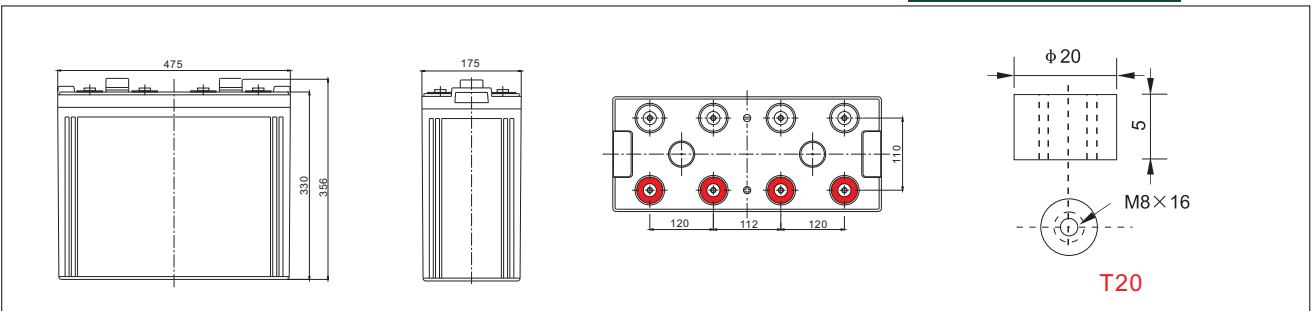
- *PositiveLead dioxide
- *ElectrolyteSulfuric acid
- *SeparatorFiber glass
- *ContainerABS(UL94-HB), Flammability Resistance of UL94-V2 can be available upon request
- *NegativeLead
- *Safety ValveEPDR
- *TerminalCopper

Specification

Battery Model	Nominal Voltage		2V	
	Rated capacity(10 Hour rate)		1200Ah	
Dimensions	Length	Width	Height	Total Height
	475mm (18.70 inches)	175mm(6.89 inches)	330mm(12.99 inches)	356mm (14.02 inches)
Approx Weight	65.0kg(143.3lbs)±3%			
Capacity 25°C (77°F)	10 Hour rate (120A,1.80V)	5 Hour rate (204A,1.75V)	3 Hour rate (300A,1.70V)	1 Hour rate (660A,1.60V)
	1200Ah	1020Ah	900Ah	660Ah
Max.discharge current	12000A(5 Sec.)			
Internal Resistance	Full charged at 25 °C (77°F): Approx 0.18mΩ			
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 480A)		2.25-2.30V	

Outer dimensions (mm)

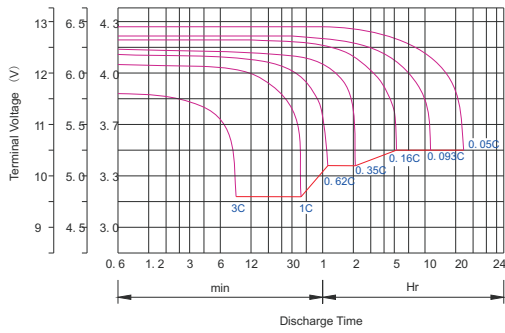
Terminal Type (mm)



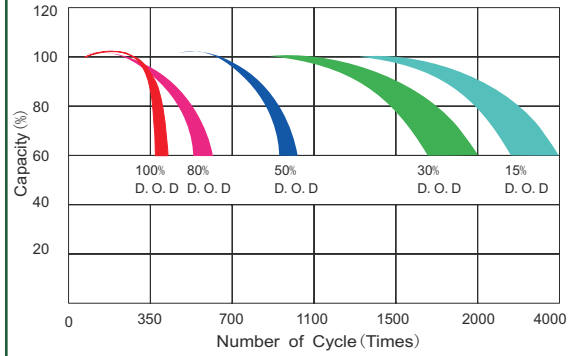
Constant Current(Amp) and Constant Power(Watt) Discharge Table at 25°C (77°F)													
Time		5min	10min	15min	30min	1hr	2hr	3hr	4hr	5hr	8hr	10hr	20hr
1.60V	A	3844	2532	2041	1368	720.0	420.0	308.4	240.0	198.0	140.4	126.0	68.0
	W	6611	4507	3648	2451	1296.0	768.6	572.1	450.0	375.2	268.2	242.6	131.9
1.70V	A	3722	2285	1922	1308	676.8	400.8	300.0	234.0	194.4	136.8	123.6	66.0
	W	6626	4252	3585	2447	1275.8	769.9	579.0	453.5	377.7	266.8	242.0	129.0
1.75V	A	3601	2044	1681	1224	655.2	391.2	292.8	230.4	192.0	135.6	121.2	66.0
	W	6554	3875	3198	2348	1264.5	756.2	568.6	449.3	375.2	265.8	239.0	130.0
1.80V	A	3470	1926	1562	1128	633.6	381.6	285.6	226.8	187.2	132.0	120.0	64.8
	W	6490	3702	3000	2178	1229.2	744.9	561.2	446.3	368.8	260.7	237.7	128.6
1.85V	A	3354	1805	1442	1008	612.0	372.0	276.0	220.8	182.4	128.4	114.0	61.2
	W	6339	3483	2798	1966	1199.5	732.8	546.5	438.3	362.8	256.3	229.4	123.6



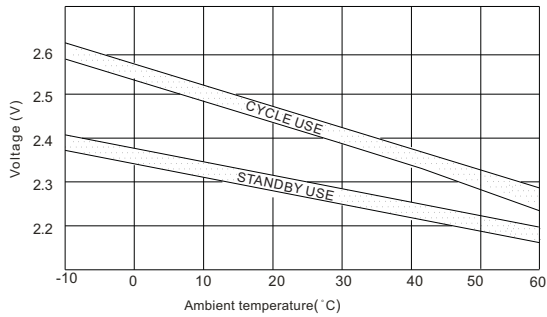
Discharge characteristic Curve



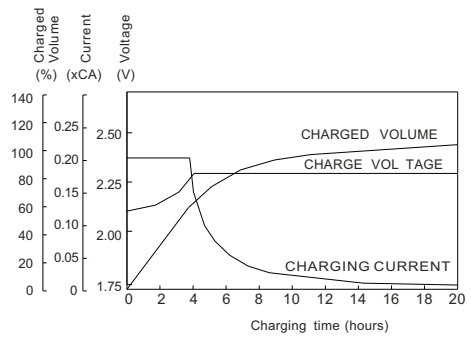
Cycle service life in relation to depth of discharge



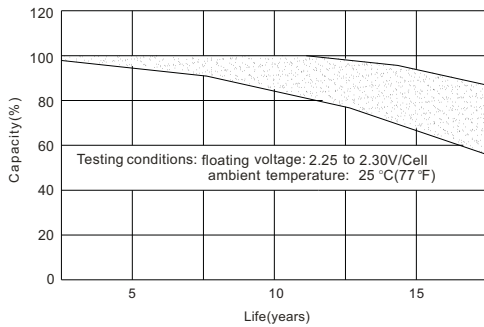
Relationship between charging voltage and temperature



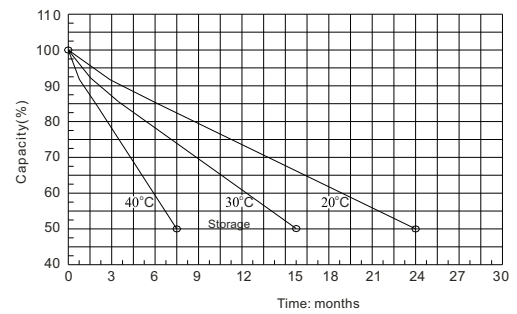
Constant voltage charging characteristic (0.25CA, at 25°C)



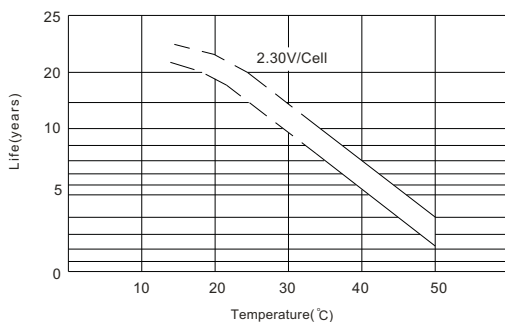
Life characteristics of standby use



Self-discharge characteristic



Temperature effects on float life



Charge characteristic Curve for standby use

