



● NPM General Series Battery

NPM General Series VRLA batteries are designed with AGM (Absorbent Glass Mat) technology, High performance plates and electrolyte to give extra power output for common power backup system. NPM series Batteries are the general purpose batteries with 10 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
- *Alarm system
- *Marine equipment
- *Fire and Security System

● General Features

- *Safety Sealing
- *Non-spillable construction
- *High Reliability and Stability
- *Sealed and Maintenance-free
- *Safety and Quality certification
- *Long Life and low self-discharge design

● Construction

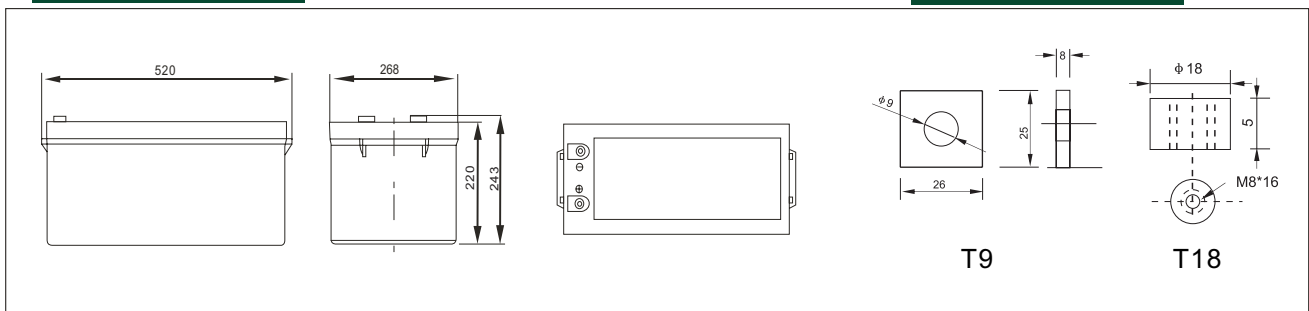
- *PositiveLead dioxide
- *ElectrolyteSulfuric acid
- *SeparatorFiber glass
- *ContainerABS(UL94-HB), Flammability Resistance of UL94-V2 can be available upon request
- *NegativeLead
- *Safety ValveEPDR
- *TerminalCopper

● Specification

Battery Model	Nominal Voltage				12V			
	Rated capacity (10 Hour rate)				230Ah			
Dimensions	Length		Width		Height		Total Height	
	520mm (20.47 inches)		268mm(10.55 inches)		220mm(8.66 inches)		243mm (9.57 inches)	
Approx Weight	69.5kg(153.22lbs) ±3%							
Capacity 25°C (77°F)	10 hour (23A,10.8V)		5 Hour (36.8A,10.5V)		3Hour(57.5A,10.2V)		1 Hour (138A,9.6V)	
	230Ah		184Ah		172.5Ah		138Ah	
Max.discharge current	1840A (5Sec.)							
Internal Resistance	Full charged at 25 °C: Approx 2.5mΩ							
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 Use				Float Use			
	14.10-14.40V (Initial charging current less than 92A)				13.50-13.80V			

● Outer dimensions (mm)

● Terminal Type (mm)

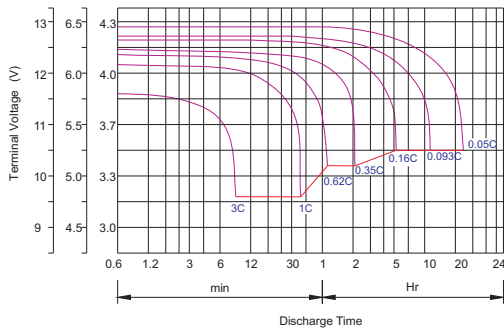


Constant Current(Amp) and Constant Power(Watt) Discharge Table at 25°C (77°F)

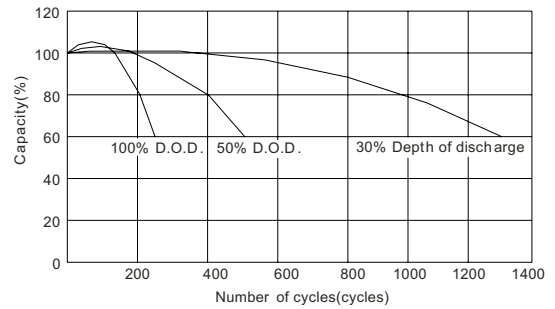
Time		5min	10min	15min	30min	1hr	2hr	3hr	4hr	5hr	8hr	10hr	20hr
9.60V	A	736.7	485.3	391.2	262.2	138.0	80.5	59.1	46.0	38.0	26.9	24.2	13.0
	W	7602.6	5183.0	4194.8	2819.2	1490.4	883.9	657.9	517.5	431.5	308.4	278.9	151.6
10.20V	A	713.5	437.9	368.5	250.7	129.7	76.8	57.5	44.9	37.3	26.2	23.7	12.7
	W	7619.8	4889.8	4123.1	2814.4	1467.1	885.4	665.9	521.5	434.4	306.8	278.3	148.4
10.50V	A	690.2	391.7	322.2	234.6	125.6	75.0	56.1	44.2	36.8	26.0	23.2	12.7
	W	7537.3	4455.9	3677.3	2699.8	1454.2	869.6	653.9	516.7	431.4	305.6	274.9	149.5
10.80V	A	665.2	369.2	299.5	216.2	121.4	73.1	54.7	43.5	35.9	25.3	23.0	12.4
	W	7463.1	4257.0	3449.8	2504.9	1413.6	856.6	645.4	513.3	424.1	299.8	273.4	147.9
11.10V	A	642.9	345.9	276.5	193.2	117.3	71.3	52.9	42.3	35.0	24.6	21.9	11.7
	W	7289.9	4005.8	3218.0	2260.4	1379.4	842.8	628.5	504.0	417.2	294.7	263.8	142.2



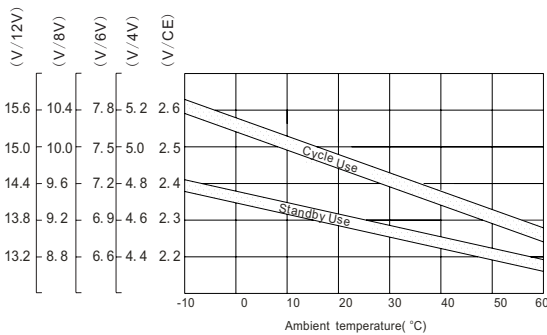
Discharge characteristic Curve



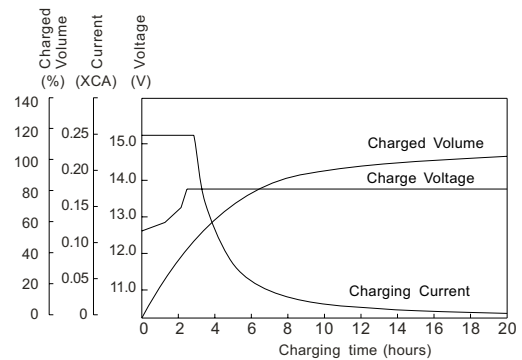
Cycle service life in relation to depth of discharge



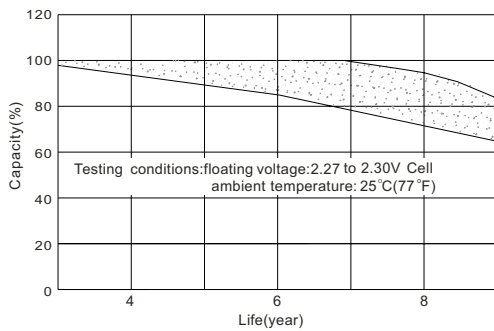
Relationship between charging voltage and temperature



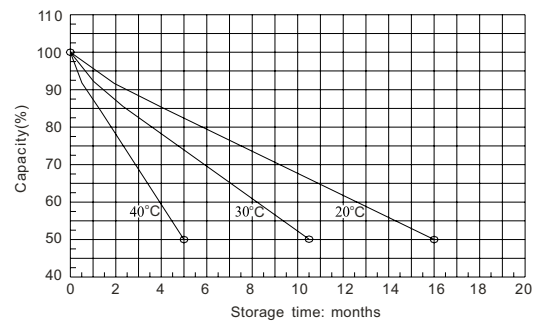
Constant voltage charging characteristic (0.25CA, at 25°C)



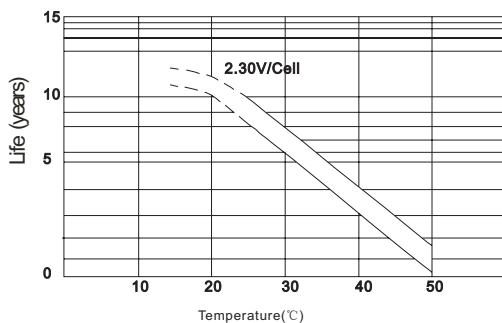
Life characteristics of standby use



Self-discharge characteristic



Temperature effects on float life



Charge characteristic Curve for standby use

