



**● 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**

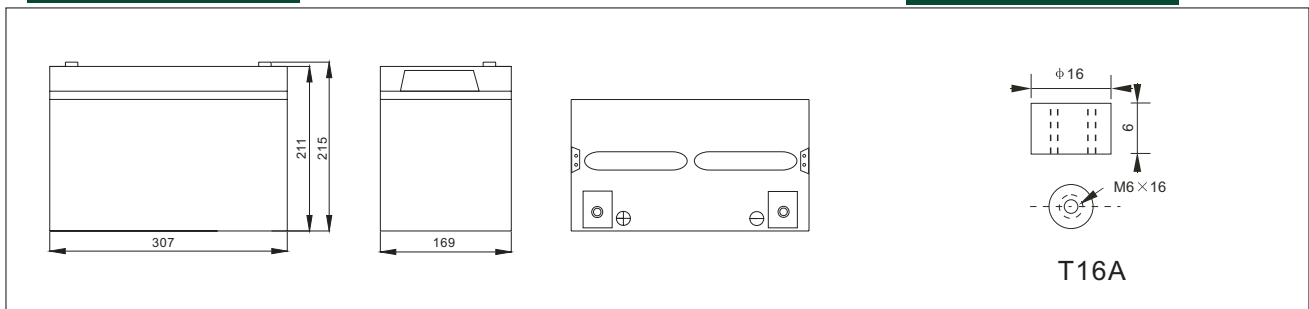
- \*Positive .....Lead dioxide
- \*Electrolyte .....Sulfuric acid
- \*Separator .....Fiber glass
- \*Container .....ABS(UL94-HB), Flammability Resistance of UL94-V2 can be available upon request
- \*Negative .....Lead
- \*Safety Valve .....EPDR
- \*Terminal .....Copper

**● Specification**

Battery Model	Nominal Voltage		12V	
	Rated capacity(10 Hour rate)		90Ah	
Dimensions	Length	Width	Height	Total Height
	307mm (12.09 inches)	169mm(6.65inches)	211mm(8.31 inches)	215mm (8.46 inches)
Approx Weight	27.0kg(59.52lbs) ±3%			
Capacity 25°C (77°F)	10 hour (9.0A,10.8V)	5 Hour ( 14.4A,10.5V)	3 Hour ( 22.5A,10.2V)	1 Hour (54A,9.6V)
	90Ah	72Ah	67.5Ah	54Ah
Max. discharge current	900A(5Sec.)			
Internal Resistance	Full charged at 25 °C: Approx 4.5mΩ			
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 36A)		13.50-13.80V	

**● Outer dimensions (mm)**

**● Terminal Type (mm)**

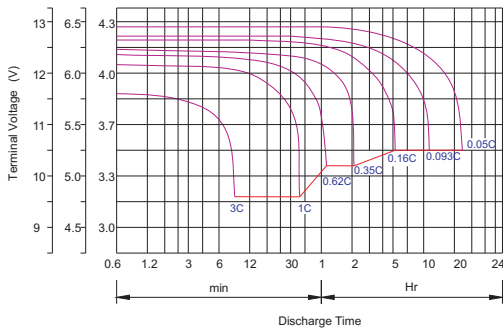


**Constant Current(Amp) and Constant Power(Watt) Discharge Table at 25°C (77°F)**

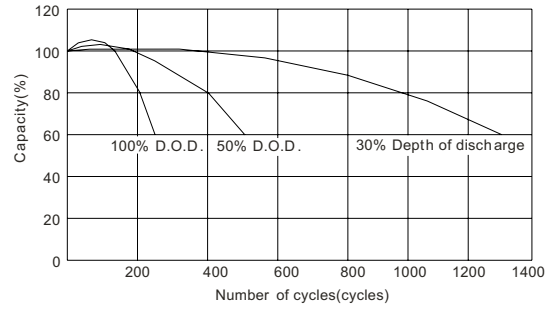
Time		5min	10min	15min	30min	1hr	2hr	3hr	4hr	5hr	8hr	10hr	20hr
9.60V	A	288.3	189.9	153.1	102.6	54.0	31.5	23.1	18.0	14.9	10.5	9.5	5.1
	W	2974.9	2028.1	1641.4	1103.2	583.2	345.9	257.4	202.5	168.8	120.7	109.1	59.3
10.20V	A	279.2	171.4	144.2	98.1	50.8	30.1	22.5	17.6	14.6	10.3	9.3	5.0
	W	2981.6	1913.4	1613.4	1101.3	574.1	346.5	260.6	204.1	170.0	120.0	108.9	58.1
10.50V	A	270.1	153.3	126.1	91.8	49.1	29.3	22.0	17.3	14.4	10.2	9.1	5.0
	W	2949.4	1743.6	1438.9	1056.4	569.0	340.3	255.9	202.2	168.8	119.6	107.6	58.5
10.80V	A	260.3	144.5	117.2	84.6	47.5	28.6	21.4	17.0	14.0	9.9	9.0	4.9
	W	2920.3	1665.8	1349.9	980.2	553.1	335.2	252.5	200.9	166.0	117.3	107.0	57.9
11.10V	A	251.6	135.4	108.2	75.6	45.9	27.9	20.7	16.6	13.7	9.6	8.6	4.6
	W	2852.6	1567.5	1259.2	884.5	539.8	329.8	245.9	197.2	163.3	115.3	103.2	55.6



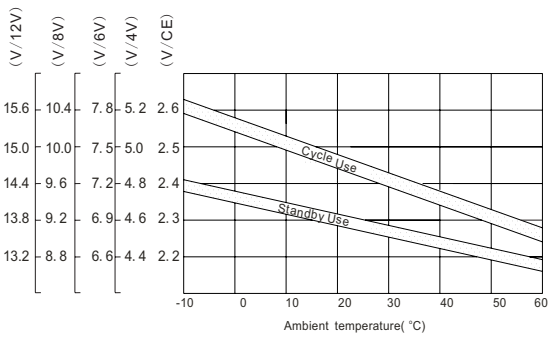
**Discharge characteristic Curve**



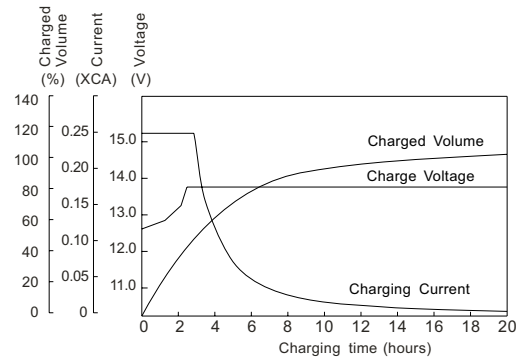
**Cycle service life in relation to depth of discharge**



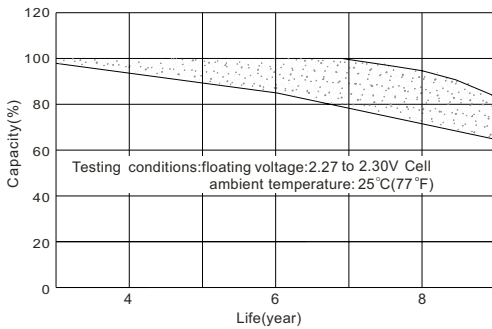
**Relationship between charging voltage and temperature**



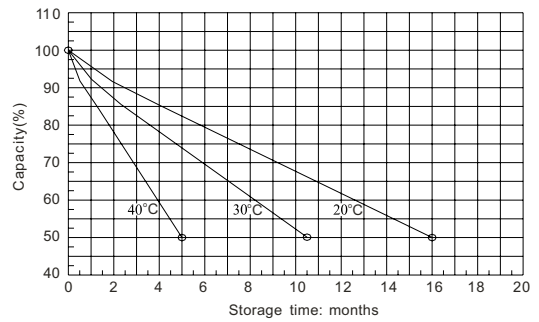
**Constant voltage charging characteristic (0.25CA, at 25°C)**



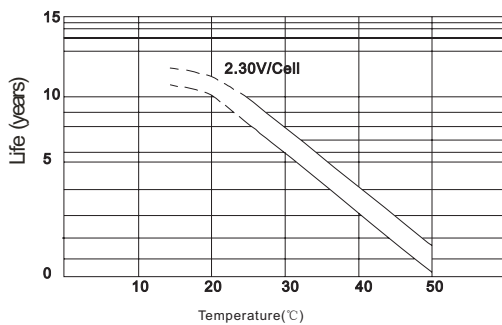
**Life characteristics of standby use**



**Self-discharge characteristic**



**Temperature effects on float life**



**Charge characteristic Curve for standby use**

