

● ATN12180[12V180AH/10HR]

ATN General (GP) 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. GP Series Batteries are the general purpose batteries with 5 years floating design life at 25°C, Meet with IEC,BS,JIS and Eurobat standard,UL(MH62092),CE approved.

● Application

- * Emergency Power System
- * Communication equipment
- * Telecommunication systems
- * Uninterruptible power supplies
- * Electric toy car and wheelchairs, etc.
- * Power tools
- * Alarm system
- * Marine equipment
- * Medical equipment
- * Fire and Security System



● General Features

- * Heavy Duty Grid
- * Mechanized assembly
- * Non-spillable construction
- * High Reliability and Stability
- * Sealed and Maintenance-free
- * Long Life and low self-discharge design

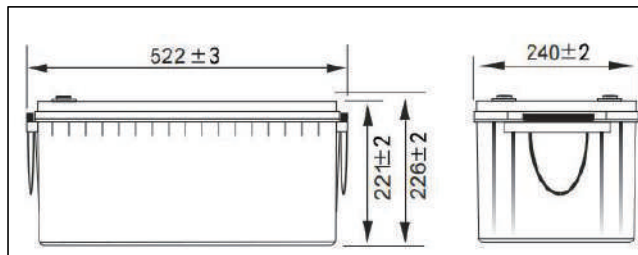
● Construction

- * Positive Lead dioxide
- * Electrolyte Sulfuric acid
- * Separator Fiber glass
- * Container ABS(UL94-HB)/Flame Retardant ABS (UL94-V0)
- * Negative Lead
- * Safety Valve EPDR
- * Terminal Copper

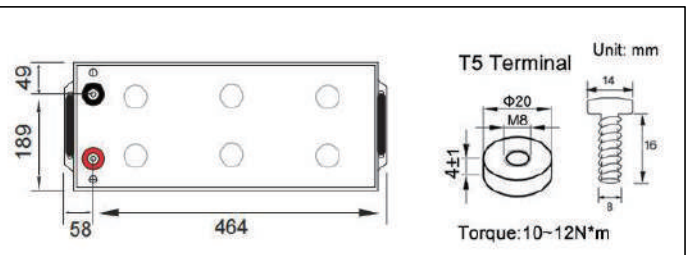
● Specification

Battery Model	Nominal Voltage		12V	
	Rated capacity (10 Hour rate)		180Ah	
	Cells Per battery		6	
Dimension	Length	Width	Height	Total Height
	522mm (20.55 inches)	240mm (9.44 inches)	221mm (8.70 inches)	226mm (8.89 inches)
Approx Weight	49kg(108.02lbs) ± 3%			
Capacity @ 25°C (77°F)	10 hour rate(18A,10.5V)	5 hour rate(30.25A,10.5V)	3 hour rate(43.96A,10.8V)	1 hour rate(101.5A,9.6V)
	180Ah	151.25Ah	131.88Ah	101.5Ah
Max.discharge current	1800A (5 Sec.)			
Internal Resistance	Full charged at 25°C (77°F) : Approx 3.2mΩ			
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 @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	
	14.40-14.70V (Initial charging current less than 54A)		13.50-13.80V	

● Outer dimension (mm)



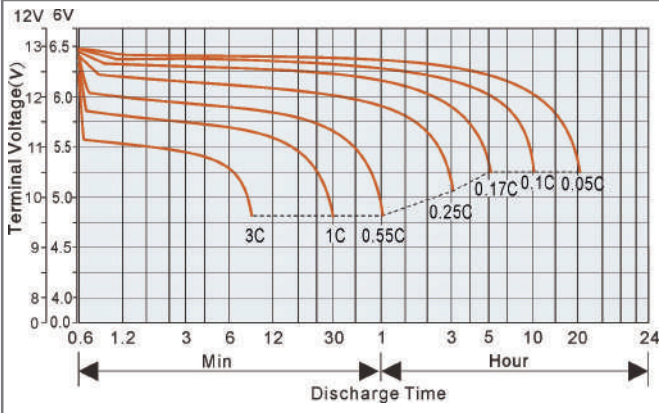
● Terminal Type



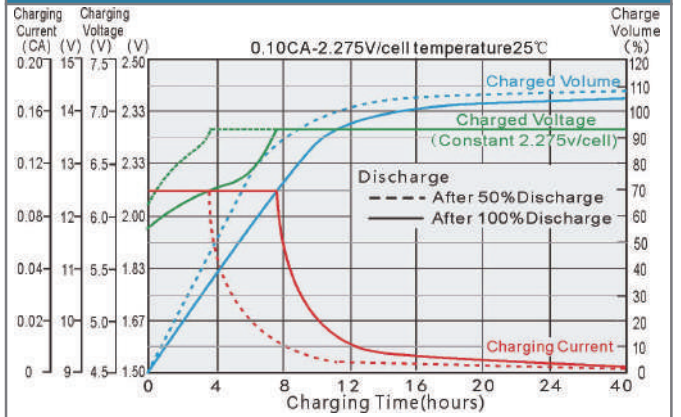
● Constant Current(Amp) and Constant Power(Watt) Discharge Table at 25°C(77°F)

F.V/time	15MIN	30MIN	60MIN	90MIN	2HR	3HR	5HR	8HR	10HR	20HR
1.60V	282.200	167.000	101.500	74.286	62.930	44.827	30.592	22.298	18.159	10.011
	544.646	332.664	202.493	148.327	125.913	89.691	61.209	44.615	36.332	20.030
1.67V	267.540	163.432	100.764	73.551	62.617	44.592	30.423	22.110	17.876	9.510
	516.756	325.719	201.039	146.896	125.390	89.382	60.982	44.331	35.842	19.068
1.70V	260.943	162.004	100.029	73.477	62.460	44.479	30.416	21.889	17.651	9.257
	504.404	322.885	199.813	146.807	125.129	89.180	60.984	43.909	35.408	18.569
1.75V	249.949	159.150	98.558	72.521	62.068	44.200	30.255	21.828	18.000	9.110
	483.650	317.426	197.361	145.042	124.322	88.665	60.691	43.820	35.131	18.288
1.80V	239.687	155.581	97.822	72.006	61.676	43.965	30.171	21.640	17.218	8.810
	464.513	310.449	196.135	144.372	123.561	88.238	60.552	43.474	34.590	17.699
1.85V	227.226	151.299	96.351	71.197	61.128	43.573	30.002	21.358	16.935	8.509
	440.818	302.123	193.474	143.106	122.517	87.538	60.274	42.950	34.057	17.112

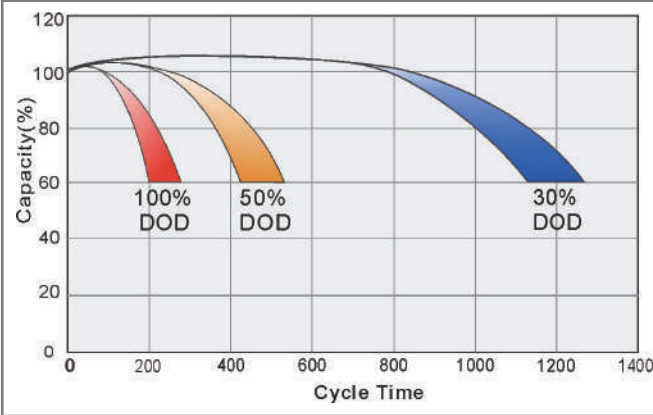
Discharge characteristic curve (25°C/77°F)



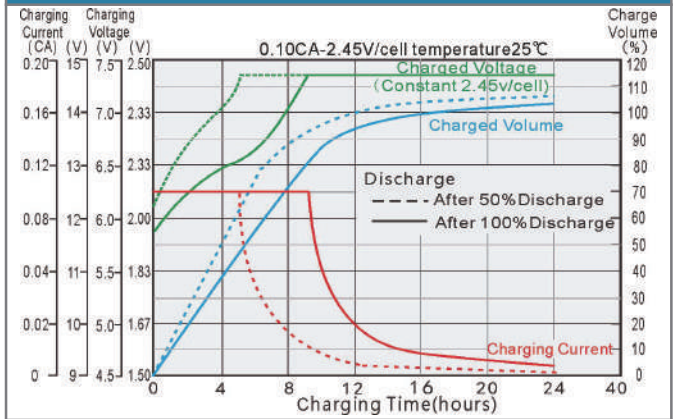
Charging characteristic curve of floating charge (25°C/77°F)



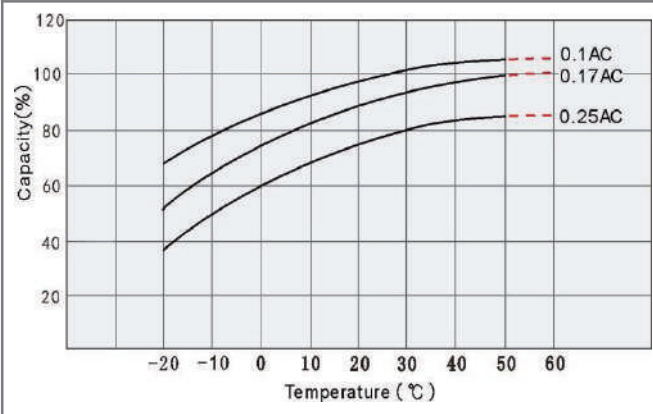
Cycle service life in relation to depth of discharge



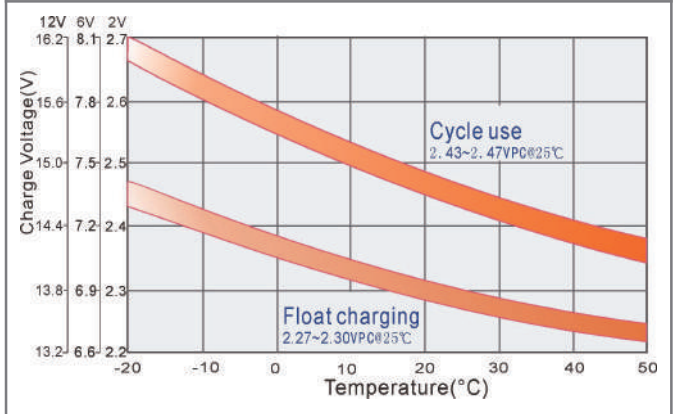
Cyclic charging characteristic curve (25°C/77°F)



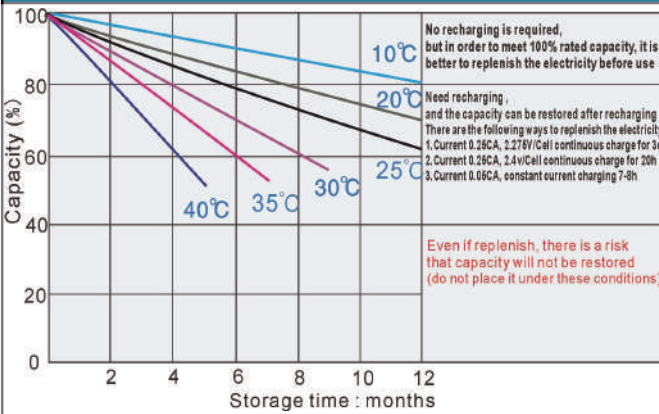
Relationship between temperature and capacity



Relationship between charging voltage and temperature



Self discharge characteristics



Temperature vs Float Life

