

● ATN1209[12V9.0AH/20HR]

ATN 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. 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

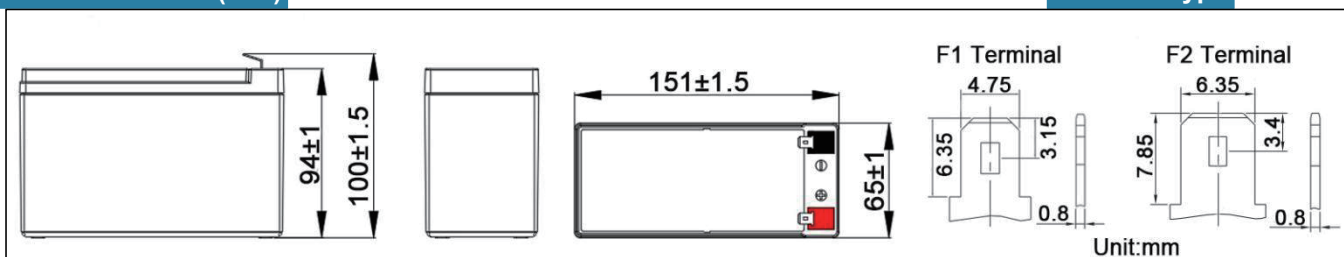
● Construction

- * 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 (6 cells per unit)	
	Rated capacity (20 Hour rate)		9.0Ah	
Dimension	Length	Width	Height	Total Height
	151mm (5.94 inches)	65mm (2.56 inches)	94mm (3.70 inches)	100mm (3.94 inches)
Approx Weight	2.35kg(5.18 lbs) ± 3%			
Internal Resistance	Full charged at 25°C(77°F):Approx 14.5mΩ			
Maximum Charge Current	2.70A			
Max.discharge current	135A (5Sec.)			
Operating Temperature Range	Nominal Operating Temperature	Discharge	Charge	Storage
	25°C(77°F)	-15°C~ 50°C(5°F~122°F)	-15°C~ 40°C(5°F~104°F)	-15°C~ 40°C(5°F~104°F)
Capacity @ 25°C (77°F)	20 hour rate(0.45A,10.5V)	10 hour rate(0.83A,10.5V)	5 hour rate(1.48A,10.5V)	1 hour rate(5.77A,9.6V)
	9.00Ah	8.30Ah	7.4Ah	5.80Ah
Capacity affected by Temp.(20HR)	40°C (104°F)	25°C (77°F)	0°C (32°F)	-15°C (5°F)
	102%	100%	85%	65%
Charge method	Float Charging Voltage		Equalization Charging Voltage	
	13.5 ~ 13.8 VDC/Unit at 25°C(77°F)		14.4 ~ 15.0 VDC/Unit at 25°C(77°F)	

● Outer dimension (mm)

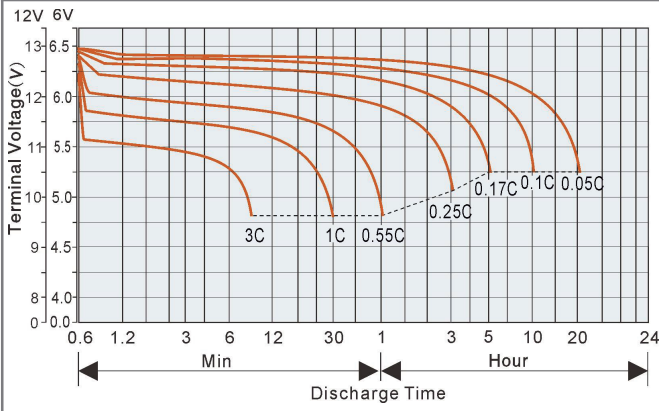


● Terminal Type

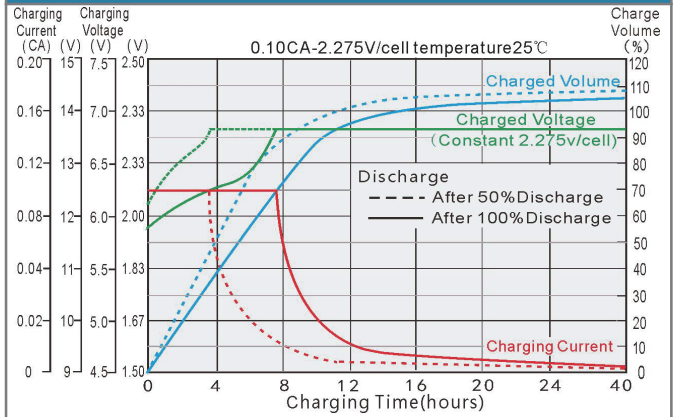
● Constant Current(Amp) and Constant Power(Watt) Discharge Table at 25°C(77°F)

F.V/Time		5min	10min	15min	20min	30min	1h	2h	3h	5h	8h	10h	20h
1.85V/cell	A	29.0	19.7	15.1	12.4	9.10	5.40	3.10	2.20	1.46	1.00	0.81	0.440
	W	55.0	37.5	29.0	23.9	17.80	10.60	6.11	4.35	2.89	1.98	1.63	0.891
1.80V/cell	A	30.5	20.6	15.7	12.8	9.30	5.48	3.14	2.22	1.46	1.01	0.82	0.447
	W	57.5	39.0	30.3	24.6	18.20	10.75	6.17	4.39	2.92	2.00	1.65	0.895
1.75V/cell	A	32.0	21.5	16.3	13.1	9.50	5.56	3.18	2.25	1.48	1.02	0.83	0.450
	W	60.1	40.5	31.4	25.2	18.50	10.88	6.22	4.43	2.94	2.02	1.66	0.898
1.70V/cell	A	33.5	22.2	16.8	13.4	9.70	5.63	3.21	2.28	1.50	1.03	0.84	0.453
	W	62.2	41.7	32.3	25.6	18.80	10.98	6.27	4.47	2.96	2.03	1.67	0.901
1.67V/cell	A	34.5	22.8	17.2	13.6	9.80	5.68	3.24	2.30	1.51	1.04	0.85	0.455
	W	63.5	42.7	33.0	25.9	18.90	11.05	6.30	4.49	2.97	2.04	1.68	0.904
1.60V/cell	A	36.5	23.5	18.0	13.9	9.90	5.77	3.28	2.32	1.53	1.05	0.86	0.460
	W	66.5	44.0	34.0	26.5	19.00	11.17	6.36	4.52	2.99	2.06	1.69	0.910

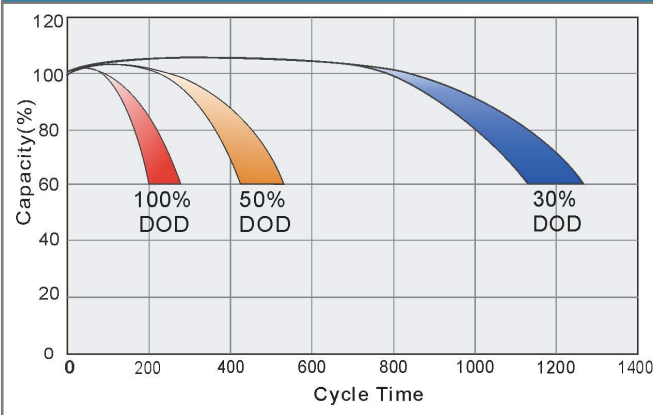
Discharge characteristic curve (25°C/77°F)



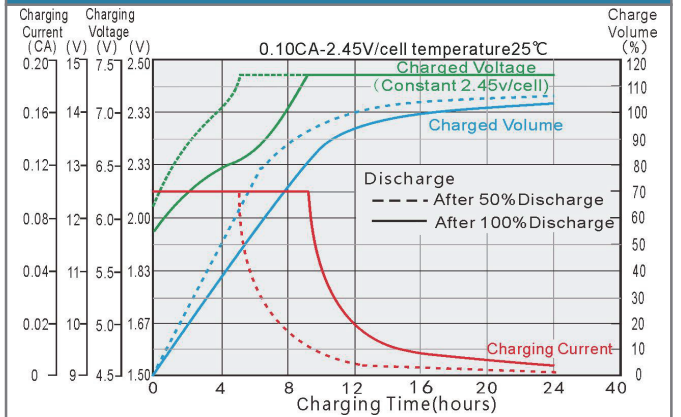
Charging characteristic curve of floating charge (25°C/77°F)



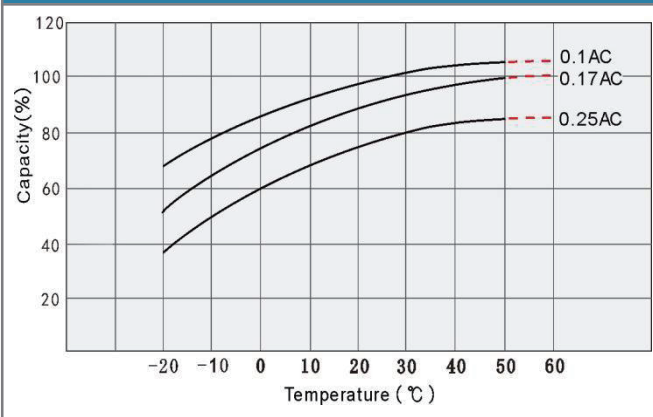
Cycle service life in relation to depth of discharge



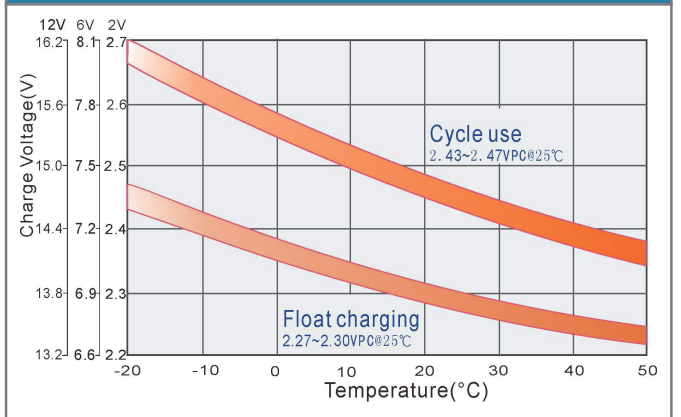
Cyclic charging characteristic curve (25°C/77°F)



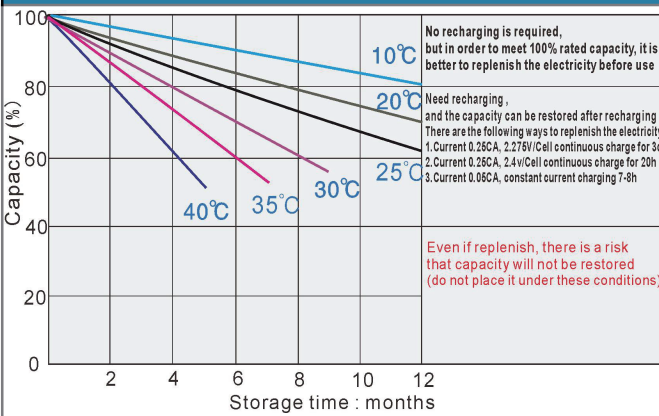
Relationship between temperature and capacity



Relationship between charging voltage and temperature



Self discharge characteristics



Temperature vs Float Life

