

## ATN1240[12V40AH/10HR]

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

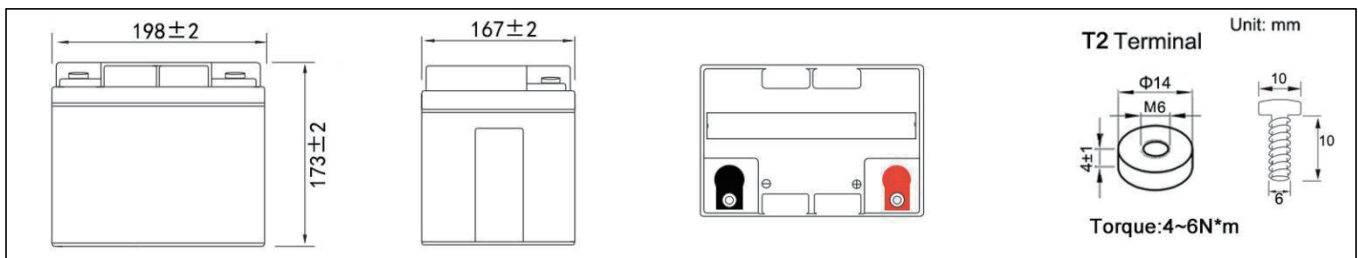
- \* Positive . . . . . Lead dioxide
- \* Electrolyte . . . . . Sulfuric acid
- \* Separator . . . . . Fiber glass
- \* Container . . . . . ABS(UL94-HB)/Flame Retardant ABS (UL94-V0)
- \* Negative . . . . . Lead
- \* Safety Valve . . . . . EPDR
- \* Terminal . . . . . Copper



### Specification

Battery Model	Nominal Voltage		12V (6 cells per unit)	
	Rated capacity (10 Hour rate)		40Ah	
Dimension	Length	Width	Height	Total Height
	198mm (7.79 inches)	167mm (6.57 inches)	173mm (6.81 inches)	173mm (6.81 inches)
Approx Weight	11.80kg(26.01 lbs) ± 3%			
Internal Resistance	Full charged at 25°C(77°F):Approx 8.35mΩ			
Maximum Charge Current	12A			
Max.discharge current	600A (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(2.15A, 10.5V)	10 hour rate(4.0A, 10.5V)	5 hour rate(7.17A, 10.5V)	1 hour rate(27.5A, 9.6V)
	43.0Ah	40.0Ah	35.85Ah	27.5Ah
Capacity affected by Temp.(10HR)	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)

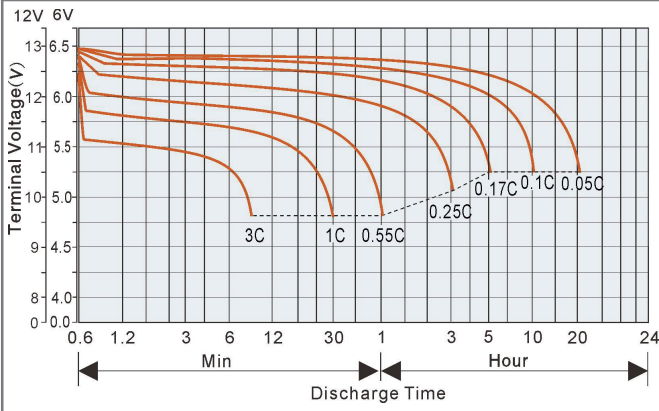


### Terminal Type

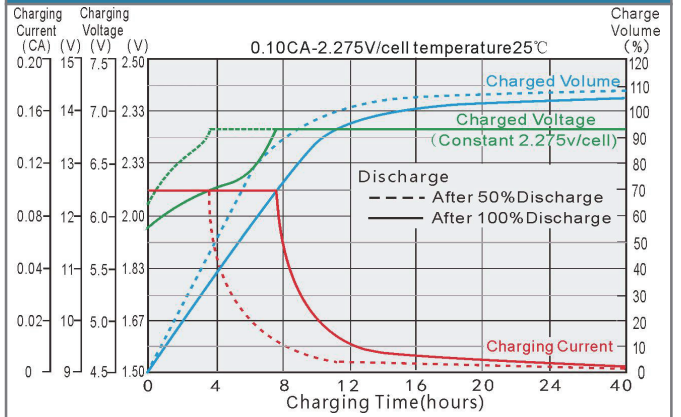
### Constant Current(Amp) and Constant Power(Watt) Discharge Table at 25°C(77°F)

F.V/Time		5min	10min	15min	20min	30min	1h	2h	3h	5h	8h	10h	20h
1.85V/cell	A	114	82.9	65.0	54.7	41.5	24.00	14.50	10.30	6.95	4.77	3.88	2.10
	W	213	155.8	122.8	104.0	80.0	46.50	28.26	20.21	13.70	9.46	7.76	4.25
1.80V/cell	A	124	88.3	68.6	57.5	43.1	24.85	14.88	10.49	7.07	4.83	3.95	2.13
	W	229	165.1	128.2	108.6	82.4	47.88	28.95	20.58	13.93	9.57	7.85	4.29
1.75V/cell	A	132	92.9	71.7	59.9	44.5	25.63	15.21	10.66	7.17	4.89	4.00	2.15
	W	244	173.3	132.7	112.1	84.6	49.09	29.55	20.89	14.12	9.66	7.93	4.32
1.70V/cell	A	140	97.3	74.8	61.8	45.9	26.31	15.55	10.81	7.27	4.94	4.03	2.17
	W	257	180.6	137.0	115.1	86.8	50.19	30.11	21.16	14.31	9.75	8.01	4.34
1.67V/cell	A	146	100.9	76.8	63.1	46.8	26.75	15.78	10.94	7.35	4.98	4.05	2.18
	W	264	185.3	140.0	116.9	88.1	50.88	30.45	21.35	14.44	9.82	8.05	4.35
1.60V/cell	A	156	107.3	80.5	65.8	48.3	27.50	16.15	11.15	7.48	5.05	4.10	2.20
	W	279	193.1	146.3	121.1	90.4	52.20	31.06	21.61	14.60	9.92	8.12	4.38

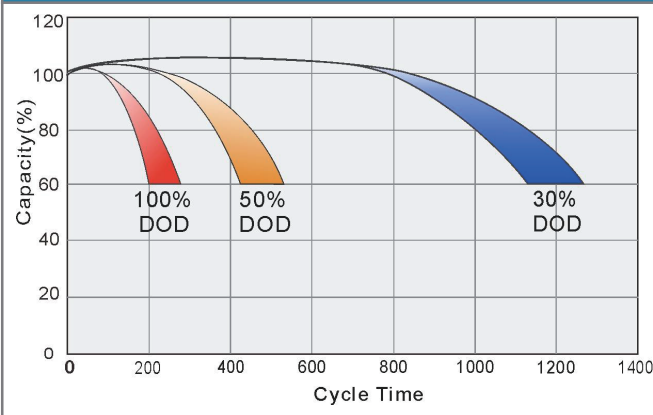
## Discharge characteristic curve (25°C/77°F)



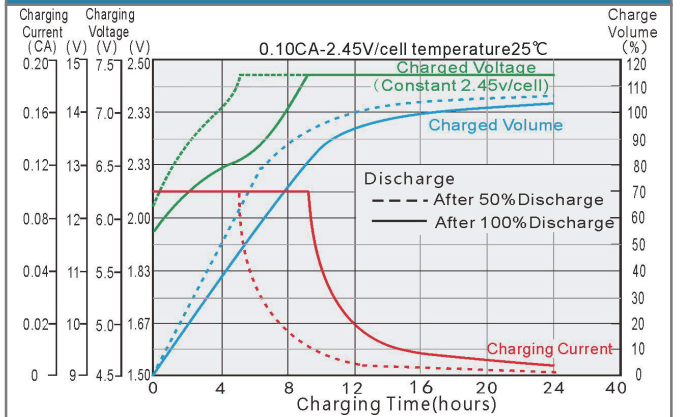
## Charging characteristic curve of floating charge (25°C/77°F)



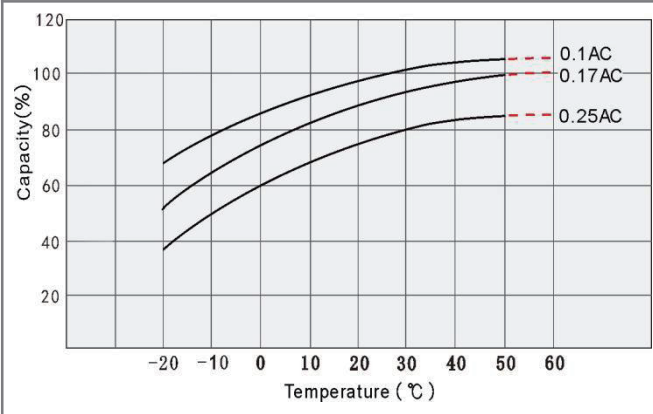
## Cycle service life in relation to depth of discharge



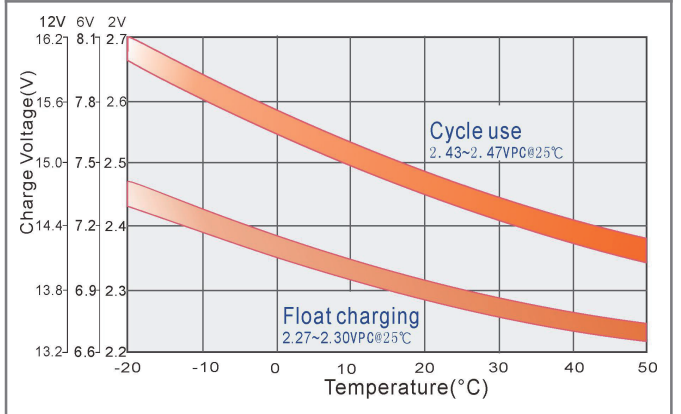
## Cyclic charging characteristic curve (25°C/77°F)



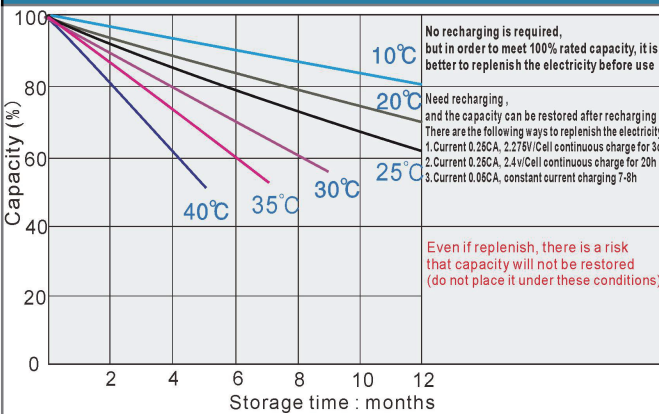
## Relationship between temperature and capacity



## Relationship between charging voltage and temperature



## Self discharge characteristics



## Temperature vs Float Life

