ATENCO POWER TECH CO. LTD

ATN12120[12V120AH/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℃, 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

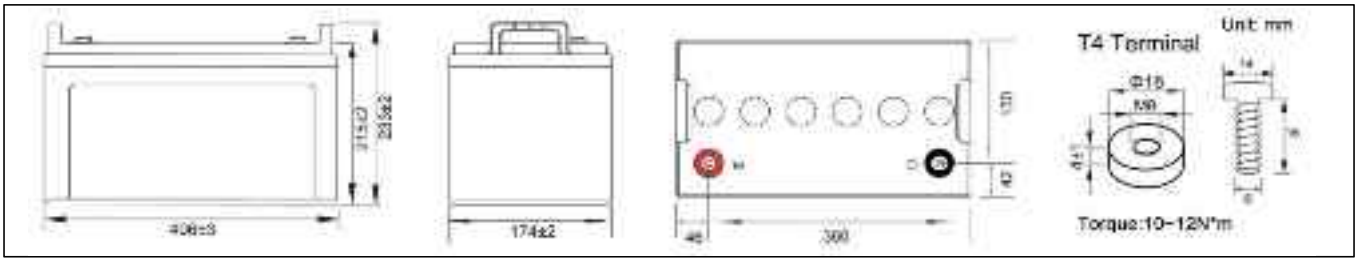
Construction

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

Specification

Battery Model	Nominal Voltage		12V (6 cells per unit)	
	Rated capacity (10 Hour rate)		120Ah	
Dimension	Length	Width	Height	Total Height
	406mm (15.98 inches)	174mm (6.85 inches)	215mm (8.46 inches)	233mm (9.17 inches)
Approx Weight	32.8kg(72.31lbs) ± 3%			
Internal Resistance	Full charged at 25℃(77℉): Approx 3.90mΩ			
Maximum Charge Current	45A			
Max.discharge current	1200A (5Sec.)			
Operating Temperature Range	Nominal Operating Temperature	Discharge	Charge	Storage
	25℃(77℉)	-15℃~ 50℃ (5℉~122℉)	-15℃~ 40℃ (5℉~104℉)	-15℃~ 40℃ (5℉~104℉)
Capacity @ 25℃ (77℉)	10 hour rate(12.1A,10.5V)	5 hour rate(21.5A,10.5V)	3 hour rate(32.7A,10.2V)	1 hour rate(75.1A,9.6V)
	121.0Ah	107.5Ah	98.1Ah	75.1Ah
Capacity affected by Temp.(10HR)	40℃ (104℉)	25℃ (77℉)	0℃ (32℉)	-15℃ (5℉)
	102%	100%	85%	65%
Charge method	Float Charging Voltage		Equalization Charging Voltage	
	13.5 ~ 13.8 VDC/Unit at 25℃ (77℉)		14.4~ 15.0 VDC/Unit at 25℃ (77℉)	

Outer dimension (mm)



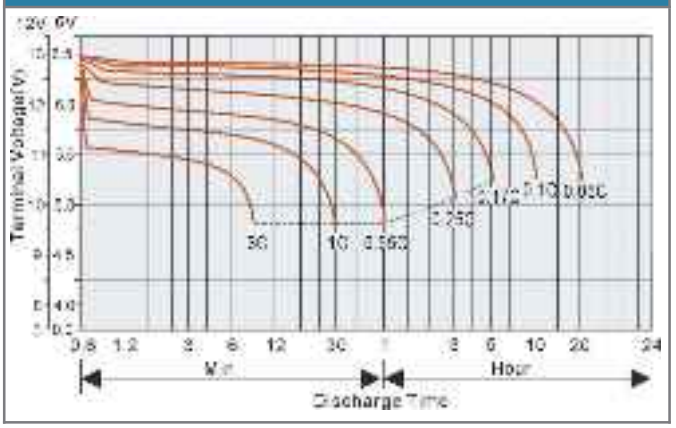
Terminal Type

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

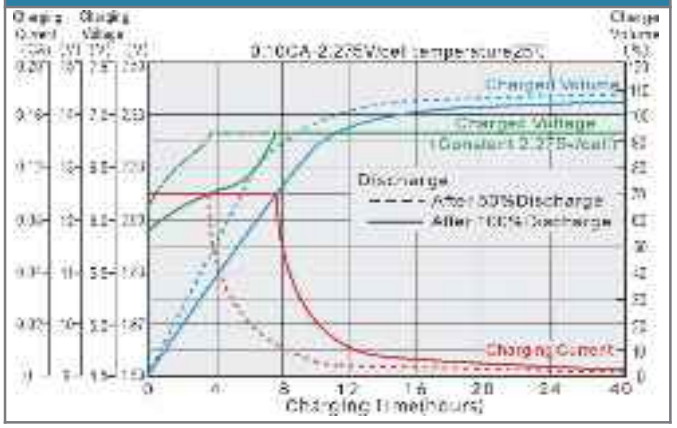
F.V/Time		5min	10min	15min	20min	30min	1h	2h	3h	5h	8h	10h	20h
1.85V/cell	A	245	202	174	148	109	65.1	41.2	31.0	20.9	14.20	11.78	6.37
	W	466	386	333	284	211	126.7	80.7	61.0	41.4	28.30	23.71	12.95
1.80V/cell	A	267	215	182	153	113	67.5	42.2	31.6	21.2	14.46	11.95	6.44
	W	503	405	345	293	218	130.5	82.4	61.9	41.9	28.65	24.00	13.01
1.75V/cell	A	289	226	191	158	118	69.9	43.1	32.2	21.5	14.70	12.10	6.50
	W	536	424	358	300	226	134.1	83.8	62.7	42.4	29.00	24.20	13.08
1.70V/cell	A	312	237	198	163	122	72.2	44.0	32.7	21.9	14.90	12.22	6.56
	W	568	442	371	307	231	137.3	85.2	63.5	43.1	29.32	24.41	13.17
1.67V/cell	A	326	246	204	167	124	73.3	44.7	33.1	22.2	14.99	12.30	6.59
	W	591	453	380	313	234	139.2	86.1	64.1	43.5	29.48	24.52	13.21
1.60V/cell	A	349	262	212	173	128	75.1	45.8	33.8	22.7	15.20	12.44	6.65
	W	629	476	392	324	240	142.6	87.6	65.1	44.2	29.80	24.75	13.29

Note: The above datas are average values. (Edition 2023-05)

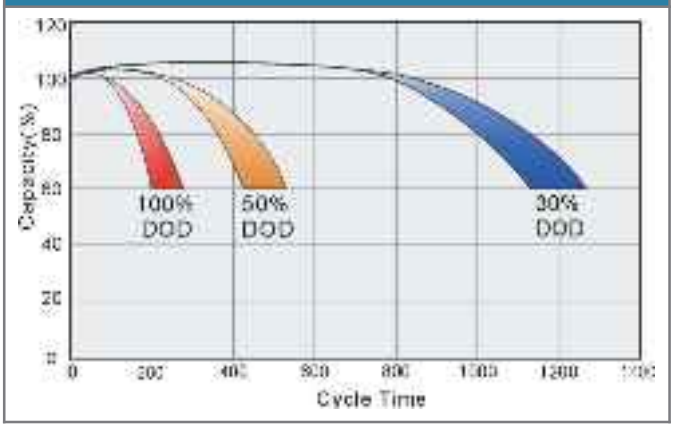
Discharge characteristic curve (25℃/77℉)



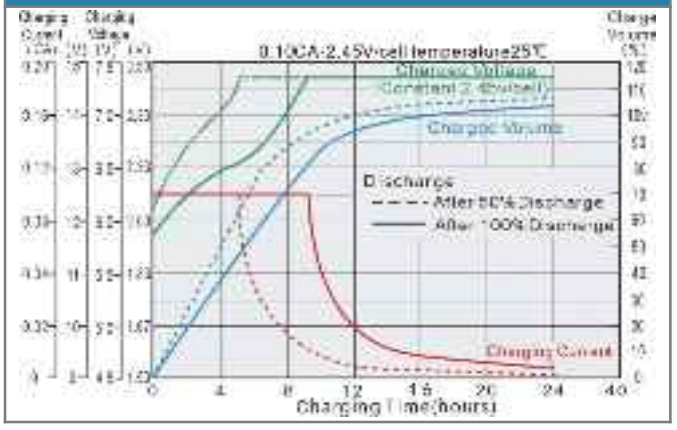
Charging characteristic curve of floating charge(25℃/77℉)



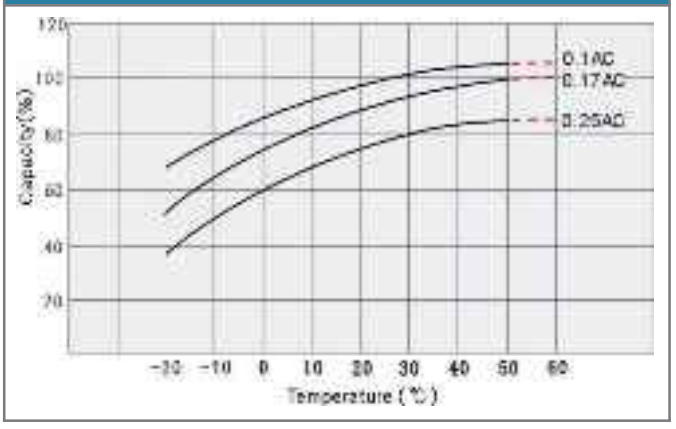
Cycle service life in relation to depth of discharge



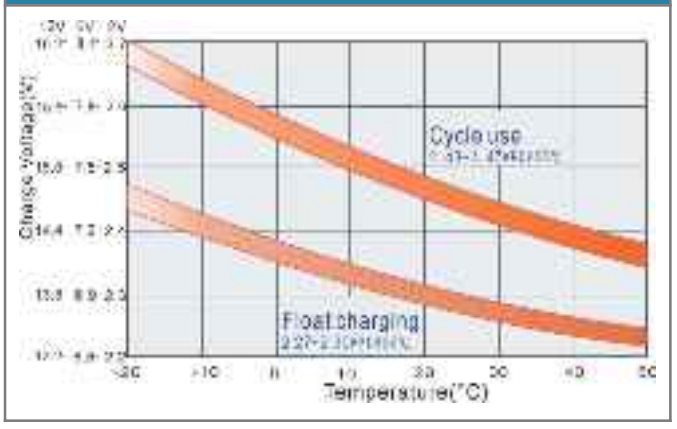
Cyclic charging characteristic curve (25℃/77℉)



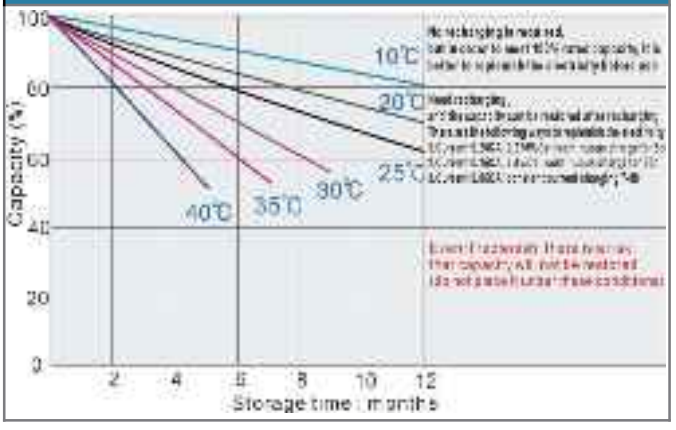
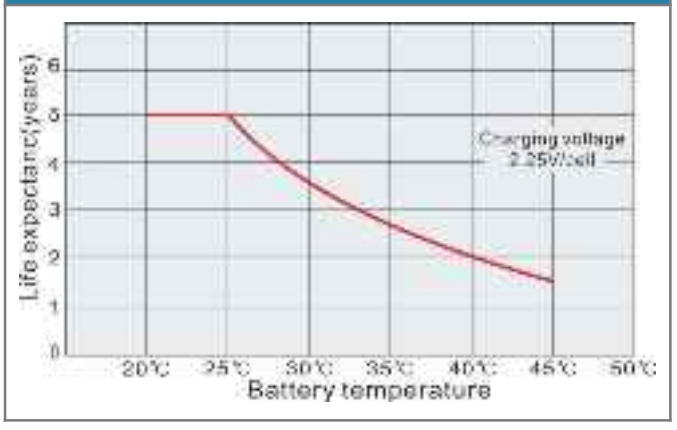
Relationship between temperature and capacity



Relationship between charging voltage and temperature



Self discharge characteristics



Temperature vs Float Life