



# XT Series-XT1290 12V 9.0Ah (20hr)

XT series General Purpose VRLA batteries are designed with AGM(Absorbent Glass Mat) technology. XT series offers 5 years( $\leq 20Ah$ ) and 10 years( $\geq 20Ah$ ) full maintenance free design life. With a compact design and good reliability, this series is highly suited for security and alarm systems, UPS systems, emergency light systems and other small backup applications.



## Features and Benefits

- Wide operating temperature range from -15°C to 50°C
- Can be used at vertical or horizontal orientation
- Balanced design for both floating and cyclic operation
- Maintenance-free operation
- Low self-discharge rate and long shelf life

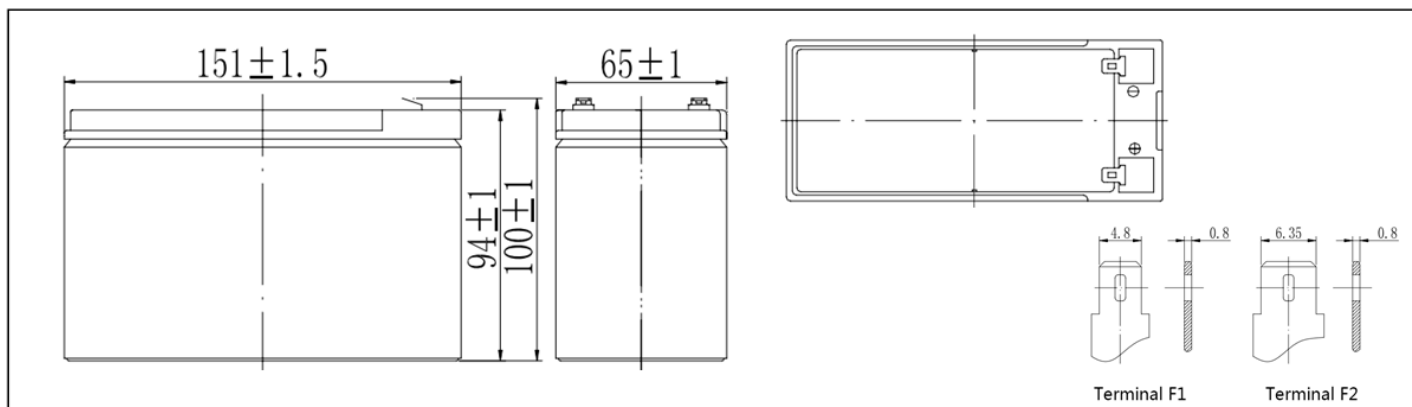
## Applications

- Alarm systems
- Communication Equipments
- Control equipments
- Security systems
- Medica Equipments
- UPS systems
- Power tools
- Toys
- Emergency Power Systems
- Photovoltaic Systems
- Security Systems

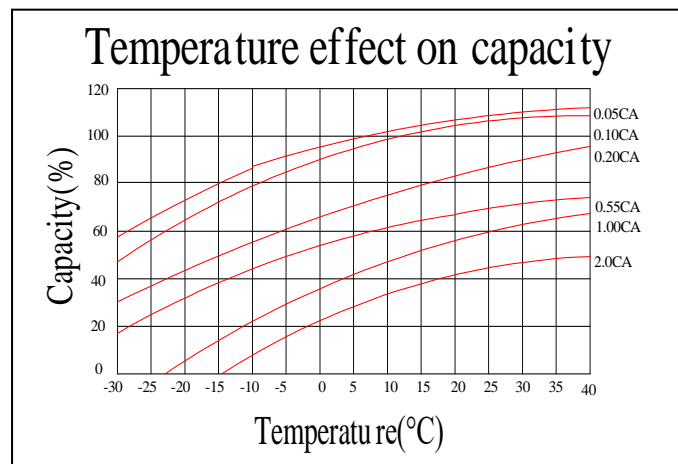
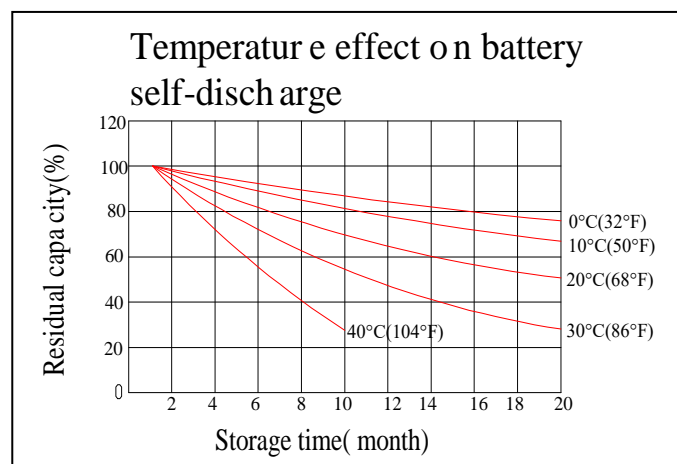
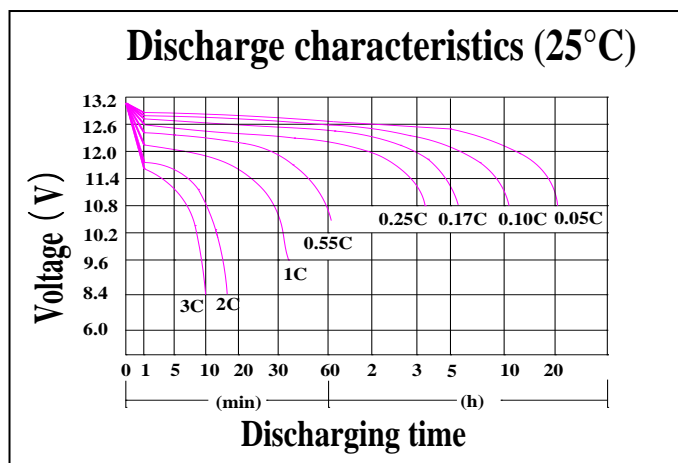
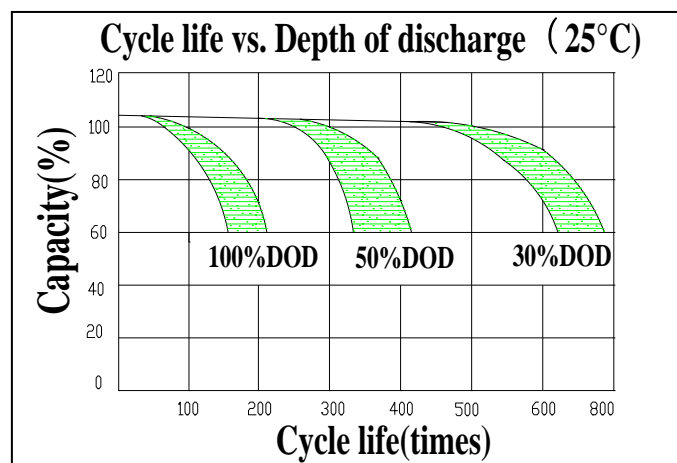
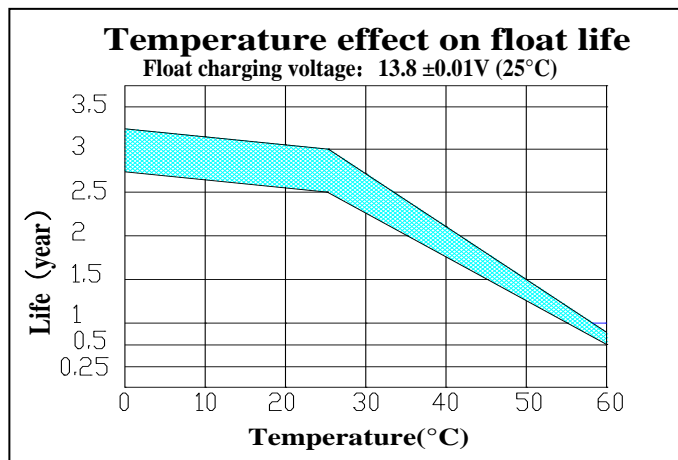
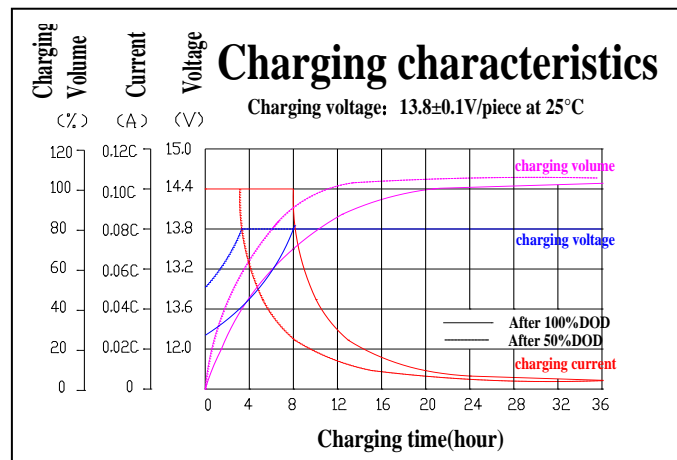
## Technical Specifications

Nominal Voltage.....	12V
Nominal Capacity(20°C)	9.0Ah
20hour rate(0.45A,10.8V).....	9.0Ah
10hour rate(0.86A,10.8V).....	8.6Ah
5hour rate(1.6A,10.5V).....	8Ah
1hour rate(6A,9.6V).....	6Ah
Dimension (mm).....	L151 x W65 x H95 x TH100mm
Approx. Weight .....	2.6kg
Terminal Type.....	F1 or F2
Internal Resistance.....	18mΩ (fully Charged @20°C)
Max.Charge Current.....	2.7A
Max.Discharge Current (5s).....	145A
Ambient Temperature	
Discharge.....	-15-45°C
Charge.....	-15-45°C
Storage.....	-15-45°C
Capacity Affected by Temp.(10 hr capacity)	
105% @40°C	
100% @25°C	
85% @0°C	
65% @-15°C	
Self-Discharge @20°C.....	Approx. 3% per month
Charge Voltage @20~25°C	
Float charge voltage.....	13.6V-13.8V
Equalize Charge Voltage.....	14.4V-14.9V

## Dimensions:



## Performance Characteristics





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## Batteries Discharge:

Discharge Constant Current per Cell (Amperes at 25°C)

F.V/Time	5min	10min	15min	30min	45min	1h	2h	3h	5h	8h	10h	20h
1.60V	30.7	19.8	14.9	9.90	6.93	5.99	3.71	2.54	1.70	1.14	0.94	0.50
1.65V	30.1	19.4	14.6	9.72	6.80	5.88	3.65	2.50	1.67	1.12	0.93	0.49
1.70V	29.6	19.1	14.36	9.54	6.68	5.77	3.58	2.45	1.63	1.10	0.91	0.48
1.75V	29.0	18.7	14.09	9.36	6.55	5.66	3.51	2.41	1.60	1.08	0.89	0.47
1.80V	27.9	18.0	13.54	9.00	6.30	5.45	3.38	2.31	1.54	1.04	0.86	0.45

Discharge Constant Power per Cell (Watts at 25°C)

F.V/Time	5min	10min	15min	30min	45min	1h	2h	3h	5h	8h	10h	20h
1.60V	59.1	38.1	28.7	19.1	13.34	11.53	7.15	4.90	3.27	2.19	1.81	0.95
1.65V	58.0	37.4	28.2	18.7	13.10	11.32	7.02	4.81	3.21	2.15	1.78	0.94
1.70V	56.9	36.7	27.6	18.4	12.86	11.11	6.89	4.72	3.15	2.12	1.75	0.92
1.75V	55.9	36.0	27.1	18.0	12.61	10.90	6.76	4.63	3.09	2.08	1.72	0.90
1.80V	53.7	34.7	26.1	17.3	12.13	10.48	6.50	4.45	2.97	2.00	1.65	0.87

(Note) The above characteristics data are average values obtained within three charge/discharge cycle not the minimum values.

## Battery Construction

Component	Positive plate	Negative plate	Container & Cover	Safety valve	Terminal	Separator	Electrolyte	Pillar seal
Features	Thick high Sn low Ca grid with special paste	Balanced Pb-Ca grid for improved recombination efficiency	ABS (UL94-V0 optional)	Flame Si-Rubber and aging resister	Copper No.250 (No.187 optional)	Advanced AGM separator for high pressure cell design	Dilute high purity sulphuric acid	Two layers epoxy resin seal