

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.

4V Voltage	4.5Ah Capacity	AGM Technolog	General Purpose
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Complied standards  
 • IEC 60896-21/22  
 • JIS C8704  
 • GB/T19639

**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

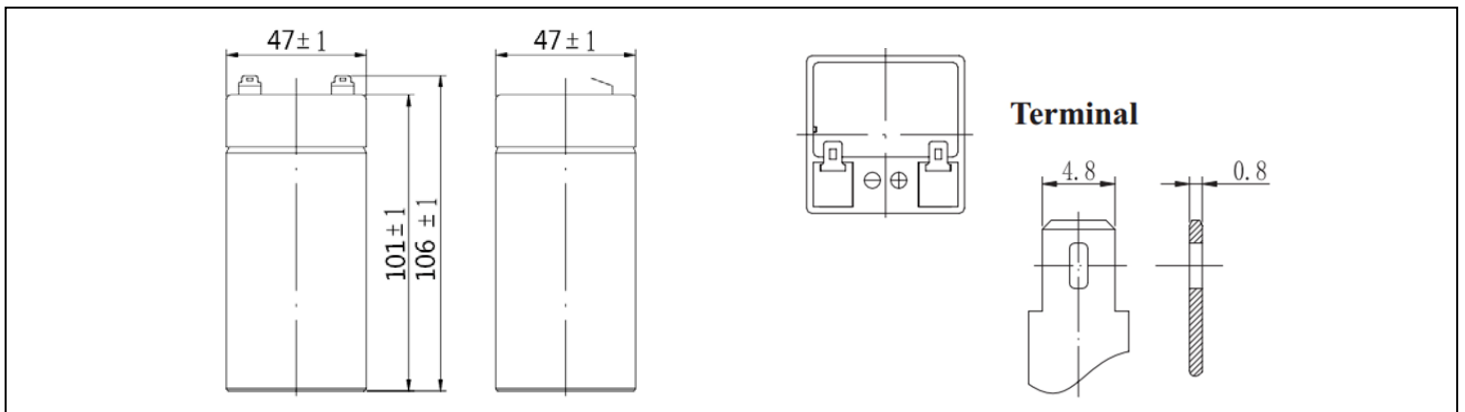
**Applications**

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

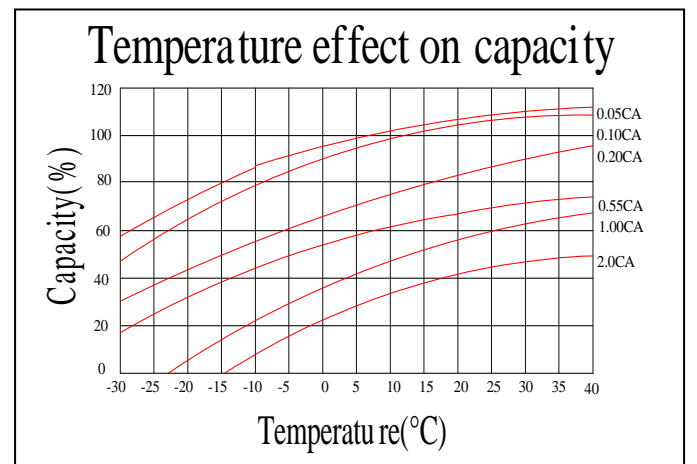
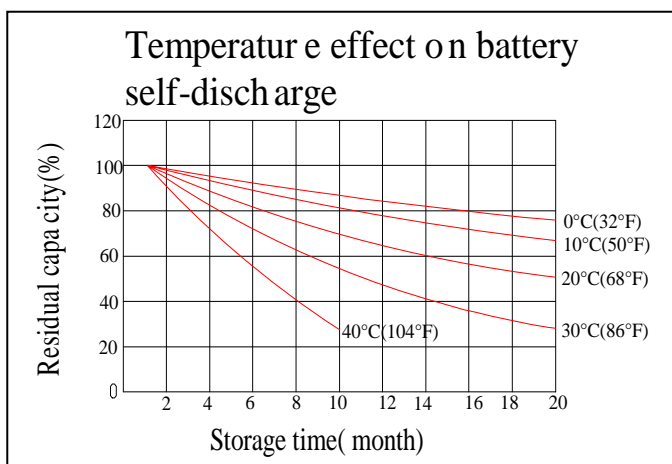
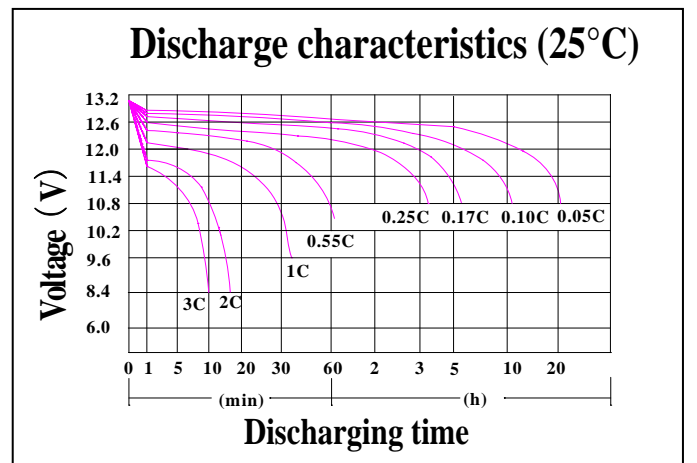
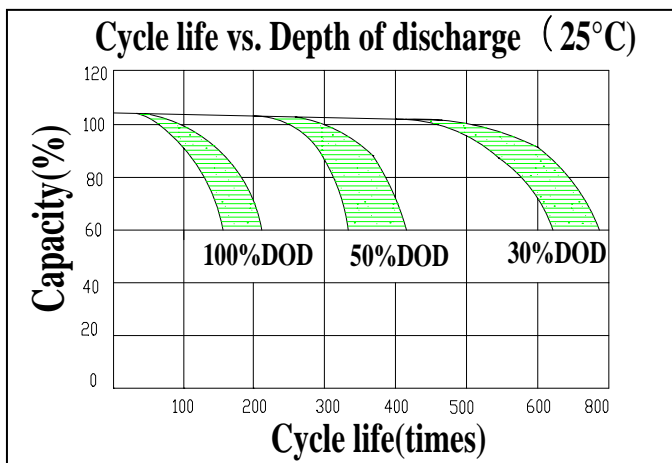
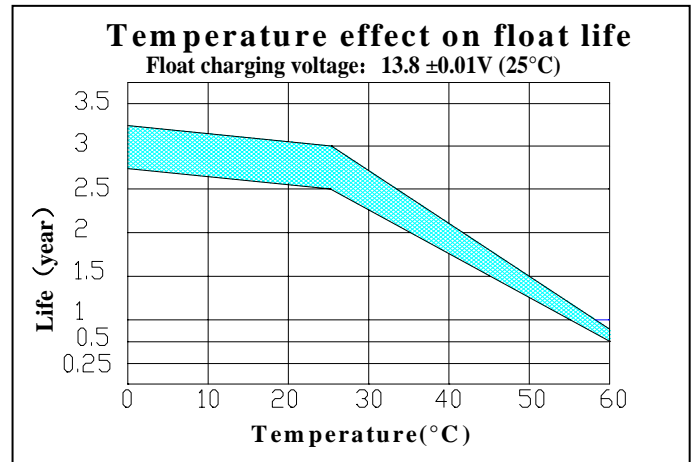
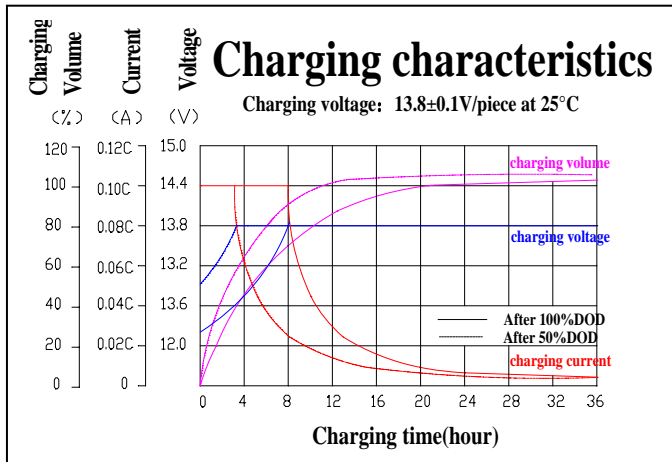
**Technical Specifications**

Nominal Voltage.....	4V (2 cells per unit)
Nominal Capacity(20°C)	
20hour rate(0.2A,3.5V).....	4.5Ah
10hour rate(0.42A,3.5V).....	4.2Ah
1hour rate(2.93A,3.2V).....	2.93Ah
Dimension(mm).....	L47 x W47 x H101 x TH107mm
Approx. Weight .....	0.5kg
Terminal Type.....	F1
Internal Resistance.....	17mΩ(fully Charged @20°C)
Max.Charge Current.....	1.35A
Max.Discharge Current (5s).....	67.5A
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.....	4.53V-4.60V
Equalize Charge Voltage.....	4.80V-5.00V

**Dimensions**



Performance Characteristics



## Battery Discharge

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

F.V/Time	5min	10min	15min	30min	60min	2h	3h	4h	5h	10h	20h
3.20V	17.1	10.8	8.55	4.77	2.93	1.60	1.15	0.92	0.78	0.42	0.228
3.30V	16.6	10.5	8.34	4.67	2.88	1.59	1.14	0.91	0.78	0.42	0.227
3.40V	15.9	10.0	8.04	4.53	2.81	1.58	1.13	0.91	0.77	0.42	0.226
3.50V	15.2	9.61	7.76	4.42	2.75	1.55	1.13	0.90	0.77	0.42	0.225
3.60V	14.4	9.07	7.35	4.26	2.67	1.51	1.09	0.87	0.74	0.41	0.221

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

F.V/Time	5min	10min	15min	30min	60min	2h	3h	4h	5h	10h	20h
3.20V	63.6	40.6	32.5	18.2	11.3	6.23	4.54	3.64	3.11	1.70	0.91
3.30V	61.7	39.4	31.7	17.9	11.1	6.20	4.52	3.62	3.09	1.69	0.91
3.40V	59.2	37.8	30.5	17.3	10.8	6.14	4.49	3.60	3.07	1.68	0.91
3.50V	56.6	36.1	29.5	16.9	10.6	6.05	4.46	3.57	2.94	1.67	0.90
3.60V	53.4	34.1	27.9	16.3	5.15	5.90	4.32	3.47	2.95	1.64	0.88

(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.187	Advanced AGM separator for high pressure cell design	Dilute high purity sulphuric acid	Two layers epoxy resin seal