

XL series VRLA batteries are recognized as the most reliable and high quality battery system in the industry. By combining the service life reliability of a flooded battery with the performance energy density of a valve-regulated battery, XL series batteries designed with advanced AGM (Absorbent Glass Mat) technology, Long service life designed with 10 years. it is highly suited to telecom, UPS, renewable energy system, power stations and similar applications.

2V Voltage	650Ah Capacity	AGM Technolog	20 years Design life
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Complied standards

- IEC 60896-21/22
- JIS C8704
- GB/T19639

Features and Benefits

- Thick plate with high Tin low Calcium alloy
- High Reliability and Good Quality
- High gas recombination efficiency
- High Power Density
- Long Service Life, in Float or Cyclic

Construction

- Positive plate - Thick high Sn low Ca grid to resist corrosion and prolong life
- Negative plate - Balanced Pb-Ca grid for improved recombination efficiency
- Separator - Advanced AGM separator for ultra low float current
- Electrolyte - Dilute high purity sulphuric acid
- Battery container and cover - ABS
- Pillar seal - 100% factory tested, proven two layers epoxy resin seal
- Relief valve - Complete with integrated flame arrestor

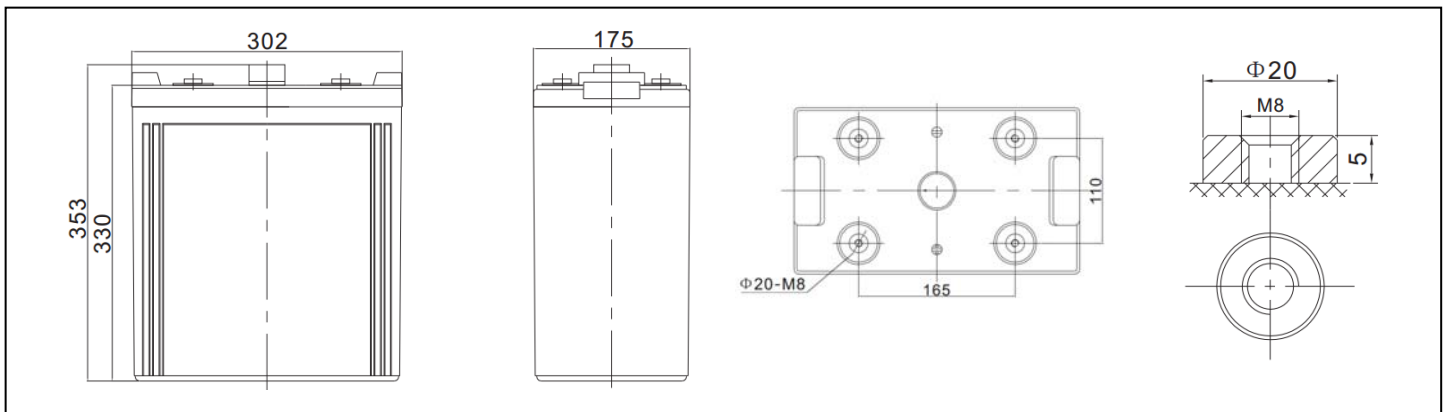
Applications

- Telecom
- Electric Utilities
- UPS systems
- Control Equipments
- Security Systems
- Medica Equipments
- Railroad Utilities
- Photovoltaic Systems
- Renewable Energy Systems

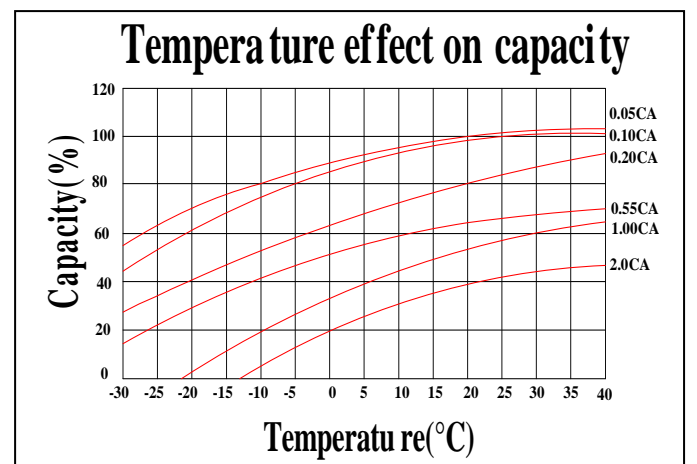
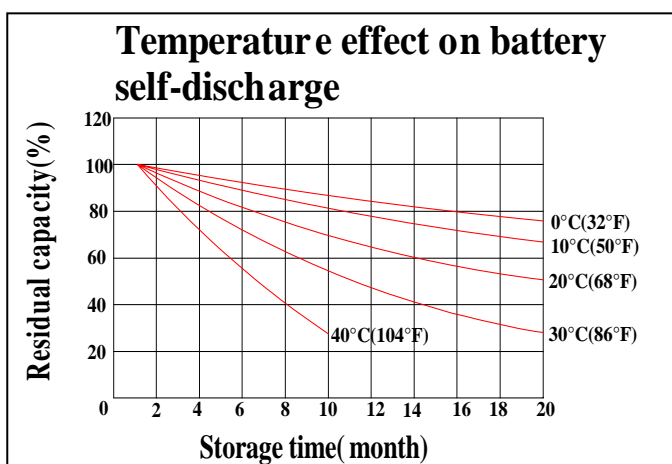
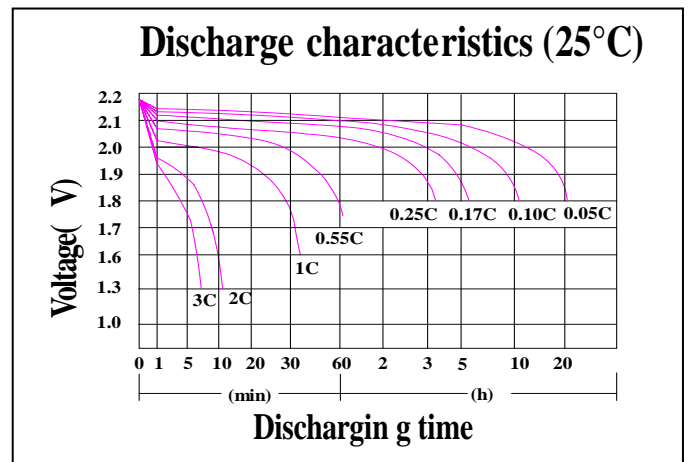
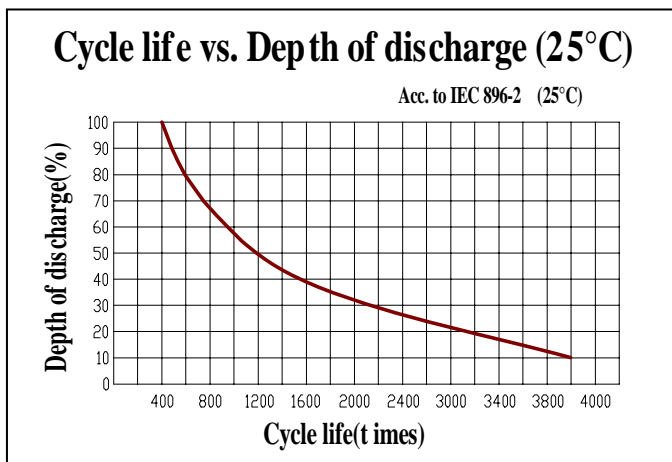
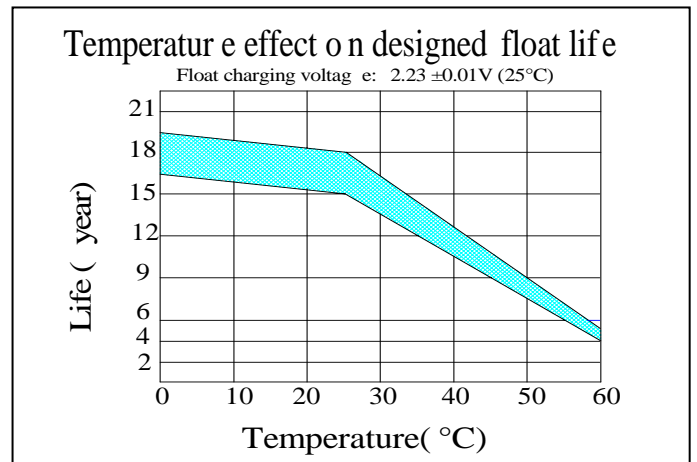
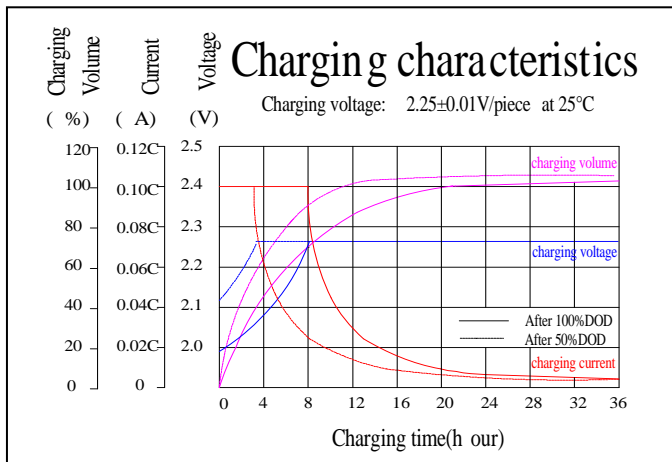
Technical Specifications

Nominal Voltage.....	2V (1 cells per unit)
Nominal Capacity(20°C)	
20hour rate(34.5A,1.8V).....	636Ah
10hour rate(65A,1.8V).....	650Ah
5hour rate(113.1A,1.75V).....	565.5Ah
1hour rate(384.1A,1.6V).....	384.1Ah
Dimension(mm).....	L302 x W175 x H330 x TH353mm
Approx. Weight	40kg
Terminal Type.....	Female Copper Insert M8 (torque:10~12N.m)
Internal Resistance.....	0.38mΩ(fully Charged @20°C)
Max.Charge Current.....	97.5A
Max.Discharge Current (5s).....	3100A
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.....	2.23V-2.27V
Equalize Charge Voltage.....	2.33V-2.37V

Dimensions



Performance Characteristics



Battery Discharge

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

F.V/Time	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.60V	626.6	473.2	387.4	232.4	175.5	141.4	119.2	103.2	81.8	68.0	35.6
1.65V	598.7	458.9	377.0	227.0	171.9	139.5	117.5	101.8	80.7	67.2	35.1
1.70V	574.7	442.0	365.3	220.4	168.1	136.5	115.1	100.1	79.7	66.3	35.0
1.75V	550.7	429.0	354.9	214.1	163.8	133.6	113.1	98.4	78.4	65.7	34.6
1.80V	521.8	409.5	340.6	205.5	158.0	129.2	109.7	96.1	77.0	65.0	34.5

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

F.V/Time	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.60V	1148.6	879.0	728.7	441.5	335.9	272.1	230.6	201.0	160.6	134.2	70.6
1.65V	1108.4	860.3	714.1	433.9	330.6	269.6	228.3	198.9	158.9	132.9	69.8
1.70V	1072.1	833.3	695.9	423.2	325.0	264.8	224.3	196.0	157.0	131.4	69.0
1.75V	1036.1	814.6	679.6	412.8	317.7	260.3	221.1	193.1	154.8	130.3	68.4
1.80V	989.2	782.3	655.1	397.9	307.2	252.5	215.2	189.2	152.2	129.1	67.9

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

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	Female Copper Insert	Advanced AGM separator for high pressure cell design	Dilute high purity sulphuric acid	Two layers epoxy resin seal