



# VTA12-50 (12V 50AH/20HR) SEALED LEAD ACID Battery

The Valiant VTA series AGM batteries are designed for float and cycling applications. The VTA series offers a 30% higher cycle life than standard AGM and a 10-year float life that is achieved through a slightly different active paste material and a slightly stronger electrolyte. They are perfectly suited for UPS/Telecom, remote site, and emergency power systems.

**12V  
50Ah**

**AGM  
Technology**

**VRLA  
Battery**



## Applications

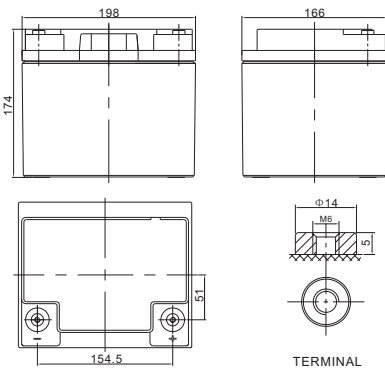
- Telecom, controls, remote site
- UPS and inverter systems
- Solar and wind systems
- Emergency backup power systems
- RV and marine

## General Features

- 30% more cycle life
- Deep discharge recovery, 700 cycles @ 50% DOD
- Thick plate design with high tin/low calcium alloy
- 10 years service life in floating applications
- High power density

## Dimensions & Weight

Length(mm/inch)	198/7.80
Width(mm/inch)	166/6.54
Height(mm/inch)	174/6.85
Total Height(mm/inch)	174/6.85
Weight(kg/lbs)(±3%)	12.9/28.5



## Technical Specifications

Nominal Voltage		12V (6 cells per unit)
Design Floating Life @ 25°C		8 Years
Nominal Capacity @ 25°C	20 hour rate@2.5A,10.8V	50Ah
Capacity @ 25°C	10 hour rate (4.5A, 10.8V)	45Ah
	5 hour rate (8.3A, 10.5V)	41.5Ah
	1 hour rate (29.9A,9.6V)	29.9Ah
Internal Resistance	Full Charged Battery@ 25°C	≤9.0mΩ
Ambient Temperature	Discharge	-15°C~45°C
	Charge	-15°C~45°C
	Storage	-15°C~45°C
Max.Discharge Current		@ 25°C 270A(5s)
Capacity affected by Temperature (10 hour )	40°C	105%
	25°C	100%
	0°C	85%
	-15°C	65%
Self-Discharge@25°C per Month		3%
Charge (Constant Voltage) @ 25°C	Standby Use	Initial Charging Current Less than 11.25A Voltage 13.6-13.8V
	Cycle Use	Initial Charging Current Less than 11.25A Voltage 14.4-14.9V



**COMPLIED STANDARDS**  
 IEC 60896-21/22      JIS C8704  
 YD/T799              BS6290 part4  
 GB/T 19638              CE

## Battery Discharge Table

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

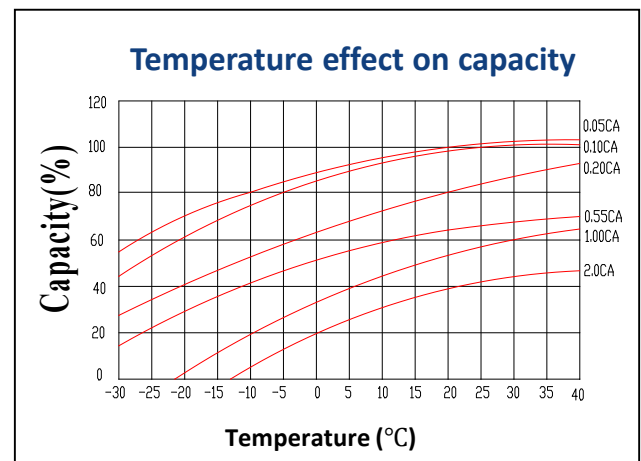
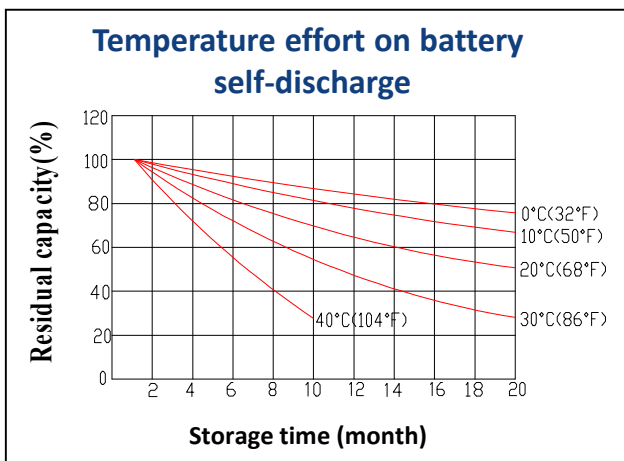
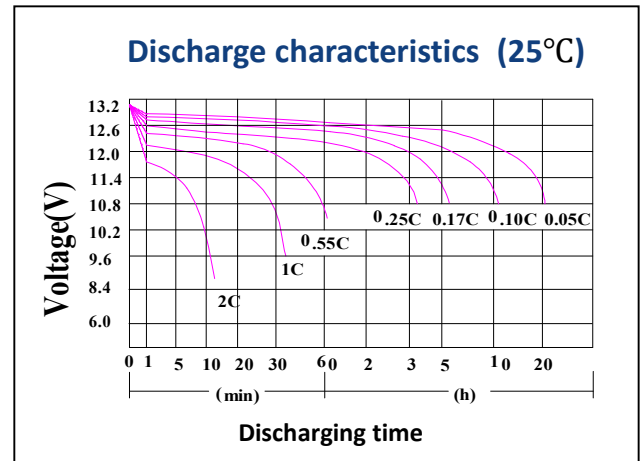
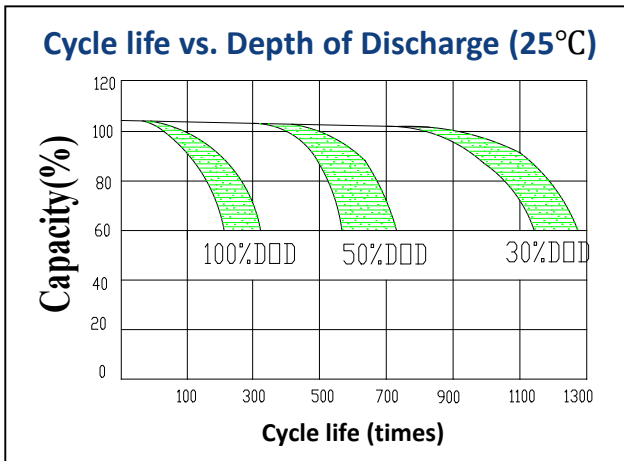
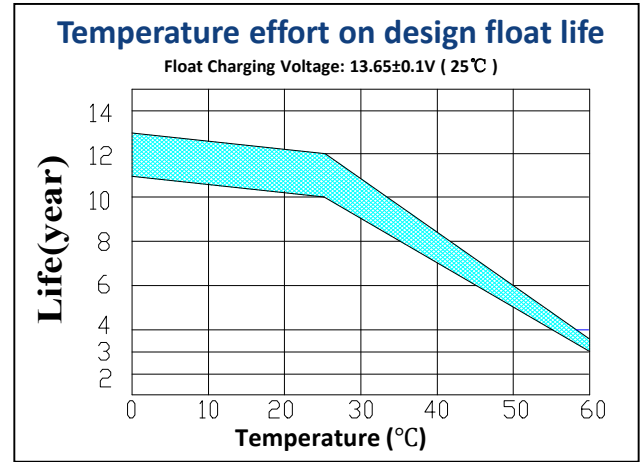
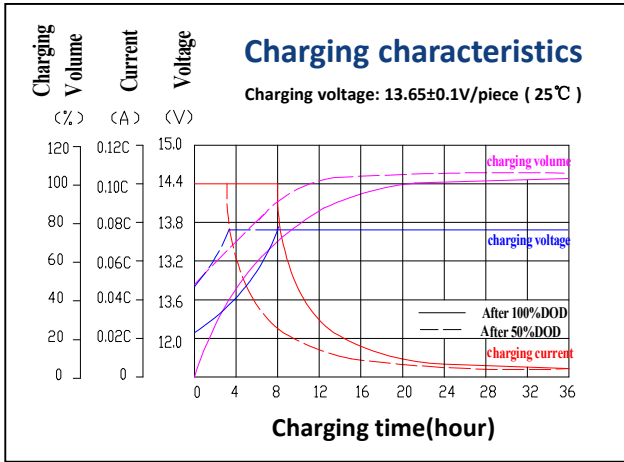
F.V/Time	15min	30min	45min	1h	2h	3h	5h	8h	10h	20h
1.60V	76.0	47.3	34.0	29.9	18.2	13.4	8.6	5.3	4.68	2.59
1.65V	72.9	46.0	33.0	29.1	17.9	13.1	8.5	5.1	4.64	2.57
1.70V	69.6	44.8	32.1	28.3	17.6	12.9	8.4	5.1	4.59	2.55
1.75V	66.4	43.5	31.2	27.5	17.1	12.5	8.3	5.1	4.54	2.52
1.80V	63.3	42.2	30.3	26.7	16.7	12.2	8.1	5.0	4.50	2.50

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

F.V/Time	15min	30min	45min	1h	2h	3h	5h	8h	10h	20h
1.60V	141.8	88.2	63.2	55.8	34.1	24.9	16.0	9.8	8.68	4.82
1.65V	135.8	85.8	61.6	54.3	33.4	24.4	15.8	9.6	8.68	4.82
1.70V	129.9	83.5	59.9	52.8	32.8	24.0	15.5	9.5	8.57	4.71
1.75V	124.0	81.1	58.2	51.3	32.0	23.4	15.3	9.5	8.46	4.71
1.80V	118.1	78.8	56.5	49.8	31.2	22.8	15.1	9.4	8.36	4.61



## Performance Characteristics



## 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-VO optional)	Flame Si-Rubber and aging resistant	M6	Advanced AGM separator for high pressure cell design	Dilute high purity sulfuric acid	Two layers epoxy resin seal