

# VRLA AGM SEALED LEAD ACID Battery VTA12-20

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  
Voltage

20Ah  
Capacity

AGM  
Technology

VRLA  
Battery



### GENERAL FEATURES

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

### APPLICATIONS

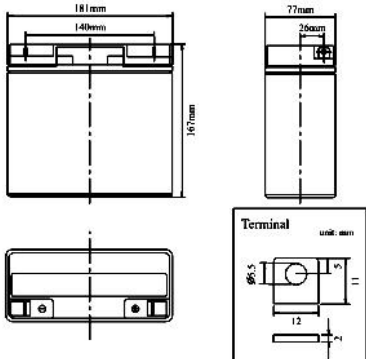
- Telecom, controls, remote site
- UPS and inverter systems
- Solar and wind systems
- Emergency backup power systems
- RV and marine

### COMPLIED STANDARDS



### DIMENSIONS & WEIGHT

Length(mm/inch)	181/7.13
Width(mm/inch)	77/3.03
Height(mm/inch)	167/6.57
Total Height(mm/inch)	167/6.57
Weight(kg/lbs)(±3%)	6.1/13.5



### TECHNICAL SPECIFICATIONS

Nominal Voltage		12V(6 cells per unit)
Design Floating Life @25°C		8 Years
Nominal Capacity @25°C(20 hour rate@1.00A,10.8V)		20Ah
Capacity @25°C	10hour rate (1.90A,10.8V)	19Ah
	5 hour rate (3.56A,10.5V)	17.8Ah
	1 hour rate (13.2A,9.6V)	13.2Ah
Internal Resistance	Full Charged Battery@25°C	≤11.0mΩ
Ambient Temperature	Discharge	-15°C~45°C
	Charge	-15°C~45°C
	Storage	-15°C~45°C
Max.Discharge Current@25°C		120A (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 6.0A Voltage 13.6-13.8V
	Cycle Use	Initial Charging Current Less than 6.0A Voltage 14.4-14.9V

### BATTERY DISCHARGE TABEL

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

F.V/Time	15min	30min	45min	1h	2h	3h	5h	8h	10h	20h
1.60V	33.11	22.00	15.40	13.20	8.25	5.65	3.77	2.53	2.09	1.10
1.65V	32.50	21.60	15.12	12.96	8.10	5.55	3.70	2.49	2.06	1.08
1.70V	31.90	21.20	14.84	12.72	7.95	5.45	3.63	2.44	2.02	1.06
1.75V	31.30	20.80	14.56	12.48	7.80	5.35	3.56	2.40	1.98	1.04
1.80V	30.10	20.00	14.00	12.00	7.50	5.14	3.43	2.30	1.90	1.00

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

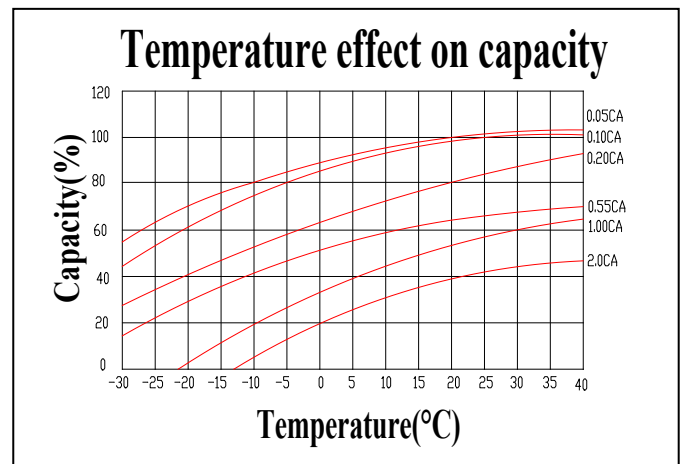
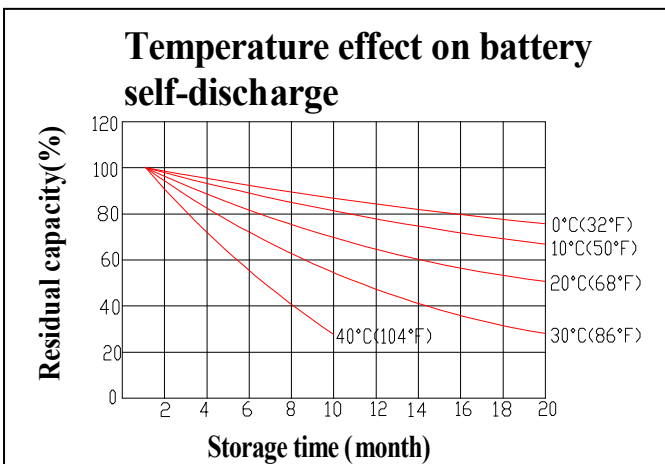
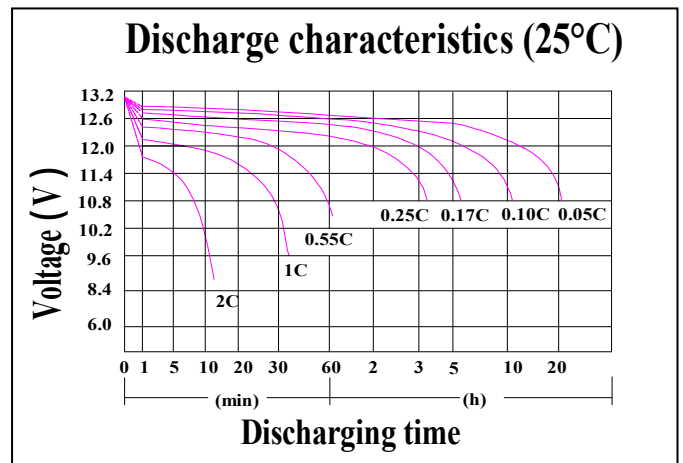
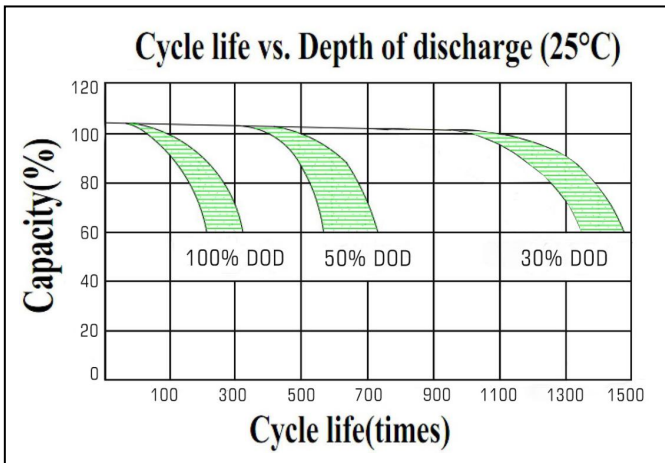
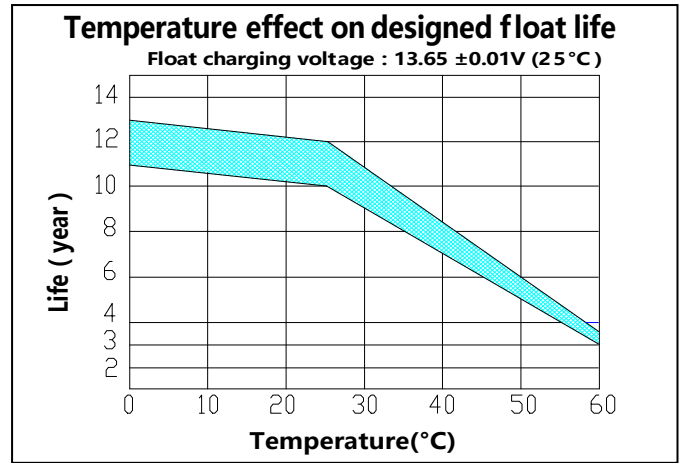
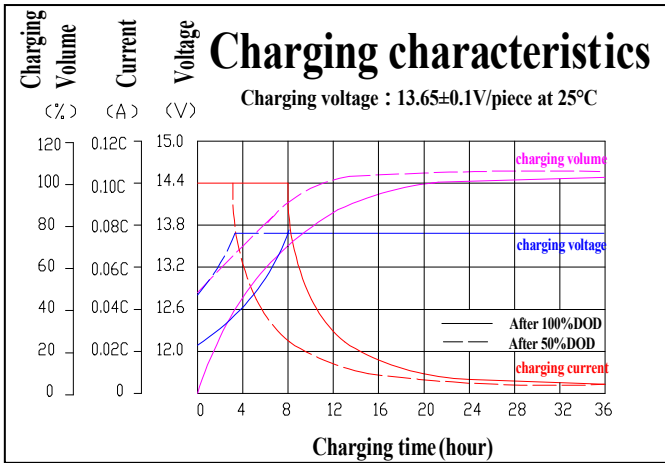
F.V/Time	15min	30min	45min	1h	2h	3h	5h	8h	10h	20h
1.60V	63.73	42.35	29.65	25.41	15.88	10.88	7.26	4.88	4.03	2.12
1.65V	62.57	41.58	29.11	24.95	15.59	10.69	7.12	4.79	3.96	2.08
1.70V	61.41	40.81	28.57	24.49	15.30	10.49	6.99	4.70	3.88	2.04
1.75V	60.25	40.04	28.03	24.02	15.02	10.29	6.86	4.61	3.81	2.00
1.80V	57.94	38.50	26.95	23.10	14.44	9.89	6.60	4.43	3.66	1.93

Note: The above data is based on average values and can typically be achieved within 3 charge/discharge cycles. Battery designs and specifications are subject to change without notice. Contact Valiant for the latest information.

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# VTA12-20

## 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	Fire resistance ABS (UL94-V0)	Flame Si-Rubber and aging resistance	Female Copper Insert M6	Advanced AGM separator for high pressure cell design	Dilute high purity sulfuric acid	Two layers epoxy resin seal