

# DEEP CYCLE AGM VRLA Battery

# VTD2-1300

<b>2V</b> Voltage	<b>1300Ah</b> Capacity	<b>AGM</b> Technology	<b>VRLA</b> Battery
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The Valiant VTD series deep cycle AGM battery features special additives to the positive plate and advanced AGM separators which increase cycle life up to 70% higher compared with standard AGM batteries. This technology also provides up to 15 years of float life. The VTD series is highly suited for systems that rely heavily on battery storage power such as off-grid solar systems, RV and marine and electric vehicles.



### COMPLIED STANDARDS



### GENERAL FEATURES

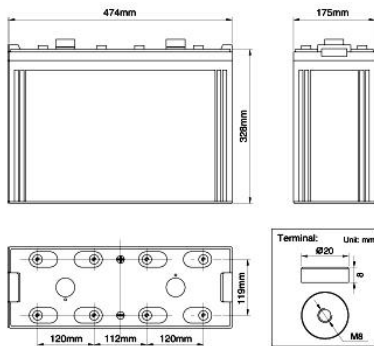
- Thicker plate with high Tin low Calcium alloy
- Deep discharge recovery, 1200cycle @ 50% DOD
- 2years full warranty in most applications
- Longer Service Life, in both Float or Cycling applications
- High Power Density

### APPLICATIONS

- Off-grid solar systems
- RV and marine
- UPS/Telecom
- Electric vehicle
- Golf cart

### DIMENSIONS & WEIGHT

Length(mm/inch)	474/18.6
Width(mm/inch)	175/6.89
Height(mm/inch)	330/13
Total Height(mm/inch)	365/14.4
Weight(kg/lbs)(±3%)	68.5/151



### TECHNICAL SPECIFICATIONS

Nominal Voltage		2V(1 cell per unit)
Design Floating Life @25°C		15 Years
Nominal Capacity @25°C(10 hour rate@130.0A,1.8V)		1300Ah
Capacity @25°C	20hour rate (68.6A,1.8V)	1372Ah
	5 hour rate (212A, 1.75V)	1060Ah
	1 hour rate (726A, 1.6V)	726Ah
Internal Resistance	Full Charged Battery@25°C	≤0.18mΩ
Ambient Temperature	Discharge	-15°C~45°C
	Charge	-15°C~45°C
	Storage	-15°C~45°C
Max.Discharge Current@25°C		2400A(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 180A Voltage 2.23-2.27V
	Cycle Use	Initial Charging Current Less than 180A Voltage 2.33-2.37V

### 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	1795	1188	884	726	462	330	224	148	132.0	70.0
1.65V	1763	1166	868	713	454	324	220	145	129.6	68.7
1.70V	1730	1145	852	700	445	318	216	142	127.2	67.4
1.75V	1697	1123	836	686	437	312	212	140	124.8	66.1
1.80V	1632	1080	804	660	420	300	204	134	130.0	68.6

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

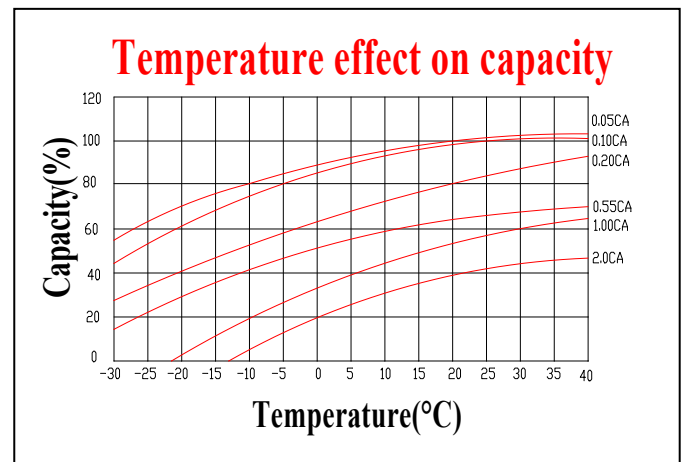
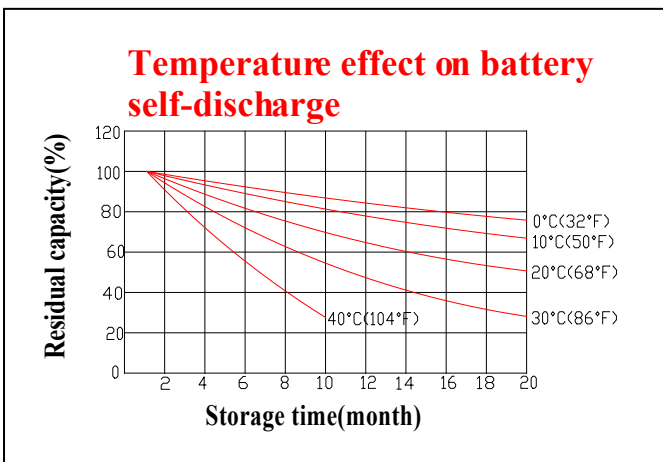
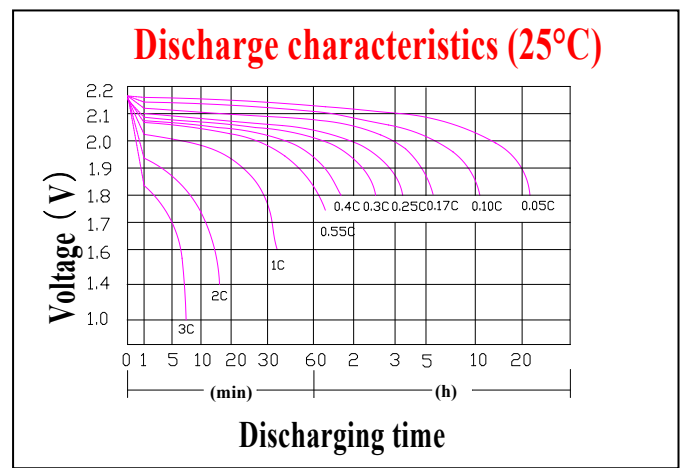
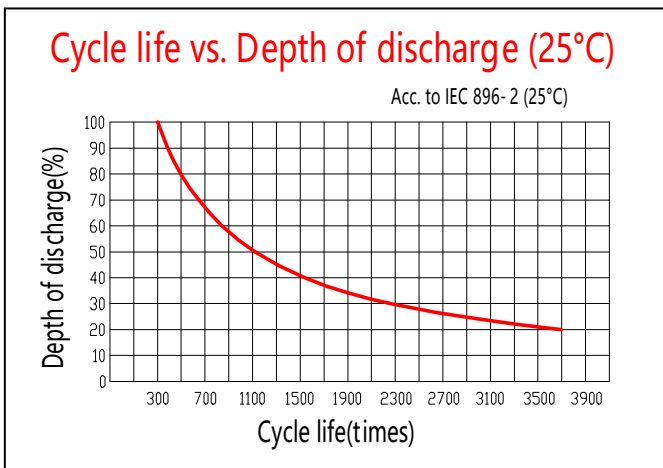
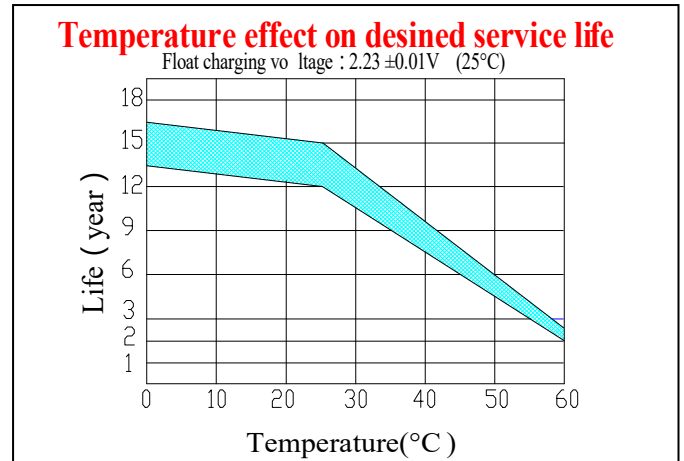
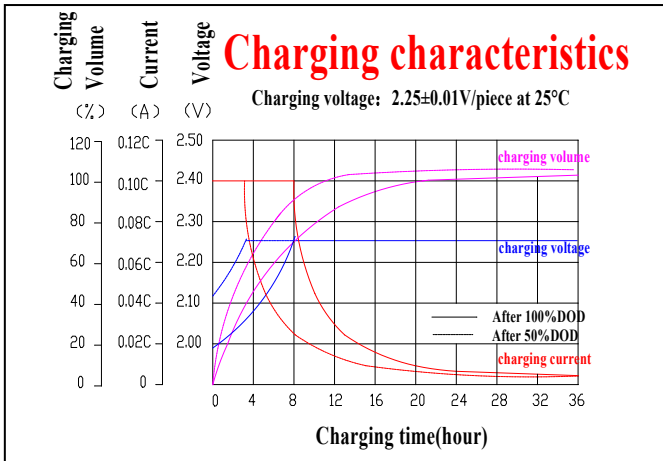
F.V/Time	15min	30min	45min	1h	2h	3h	5h	8h	10h	20h
1.60V	3456	2287	1702	1398	889	635	432	285	254.1	134.7
1.65V	3393	2245	1672	1372	873	624	424	279	249.5	132.2
1.70V	3330	2204	1641	1347	857	612	416	274	244.9	129.8
1.75V	3267	2162	1610	1321	841	601	408	269	240.2	127.3
1.80V	3142	2079	1548	1271	809	578	393	259	231.0	122.4

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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PERFORMANCE CHARACTERISTICS



BATTERY CONSTRUCTION

Component	Positive plate	Negative plate	Container & Cover	Safety valve
Features	Thick high Sn low Ca grid with Special paste	Balanced Pb-Ca grid for improved recombination efficiency	Fire resistant ABS (UL94-V0 optional)	Flame Si-Rubber and aging resistance
Component	Terminal	Separator	Electrolyte	Pillar seal
Features	Female Copper Insert	Advanced PVC /AGM separator for high pressure cell desbm	Dilute high purity sulfuric acid	Two layers epoxy resin seal