

Deep Cycle VRLA AGM Battery

VTD12-230

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.

12V Voltage	230Ah Capacity	AGM Technology	Deep Cycle
-----------------------	--------------------------	--------------------------	----------------------



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

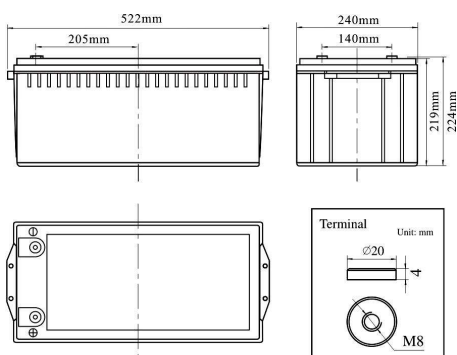


COMPLIED STANDARDS

IEC 60896-21/22	JIS C8704
YD/T799	ISO9001
GB/T 19638	CE

DIMENSIONS & WEIGHT

Length(mm)	522 ± 1
Width(mm)	240 ± 1
Height(mm)	219 ± 1
Total Height(mm)	225 ± 1
Weight(kg)	65.0 ± 3%



TECHNICAL SPECIFICATIONS

Nominal Voltage		12V(6 cells per unit)
Design Floating Life @25°C		15 Years
Nominal Capacity @25°C (20 hour rate@11.5A,10.8V)		230Ah
Capacity @25°C	10hour rate (19.8A,10.8V)	198Ah
	5 hour rate (35.0A,10.5V)	175Ah
	1 hour rate (127.1A,9.6V)	127.1Ah
Internal Resistance	Full Charged Battery@25°C	≤3.2mΩ
Ambient Temperature	Discharge	-15°C~45°C
	Charge	-15°C~45°C
	Storage	-15°C~45°C
Max.Discharge Current@25°C		960A(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 46A Voltage 13.6-13.8V
	Cycle Use	Initial Charging Current Less than 46A 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	100h
1.60V	343.6	204.5	145.2	127.1	77.6	54.5	37.0	24.4	21.8	12.4	2.64
1.65V	337.4	200.8	142.6	124.7	76.2	53.5	36.4	24.0	21.4	12.1	2.59
1.70V	331.1	197.1	139.9	122.4	74.7	52.5	35.7	23.6	21.0	11.9	2.54
1.75V	324.9	193.3	137.3	120.1	73.3	51.5	35.0	23.1	20.6	11.7	2.49
1.80V	312.4	185.9	132.0	115.5	70.5	49.5	33.7	22.2	19.8	11.5	2.44

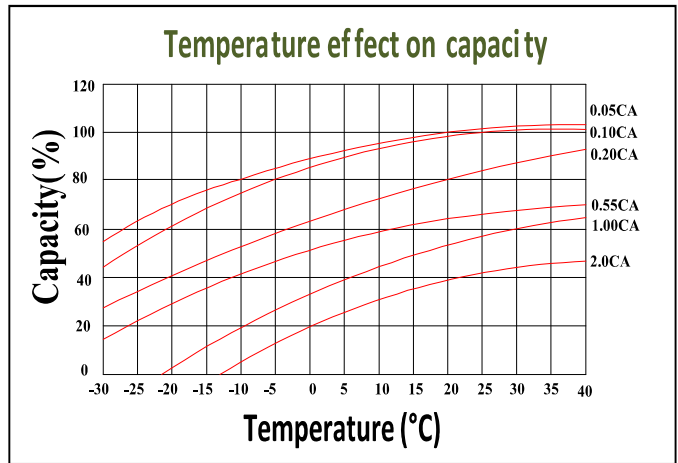
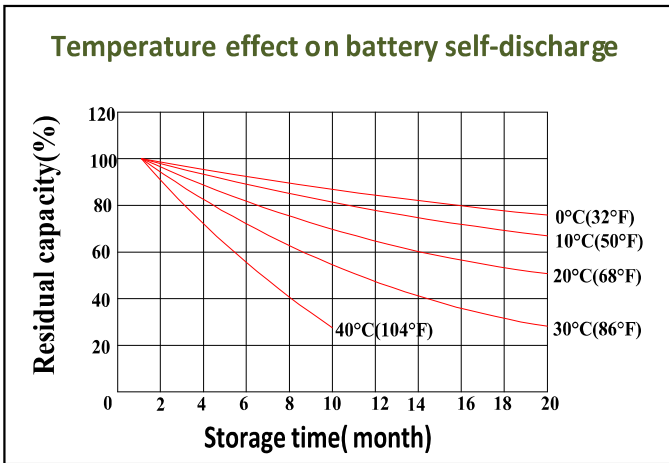
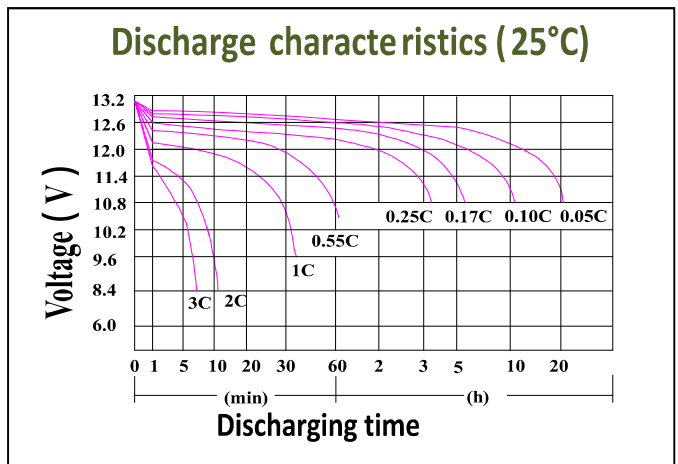
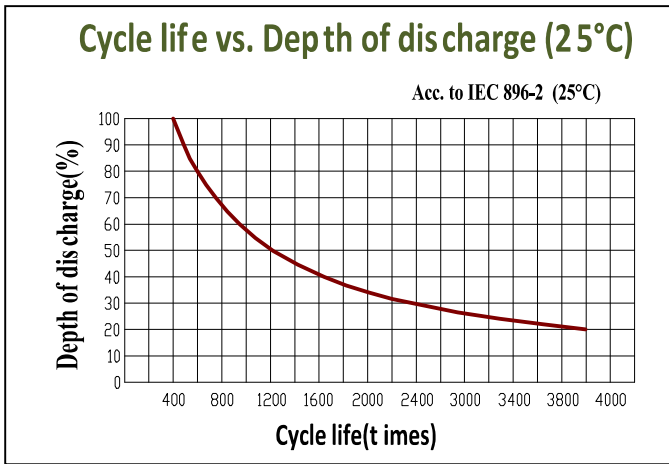
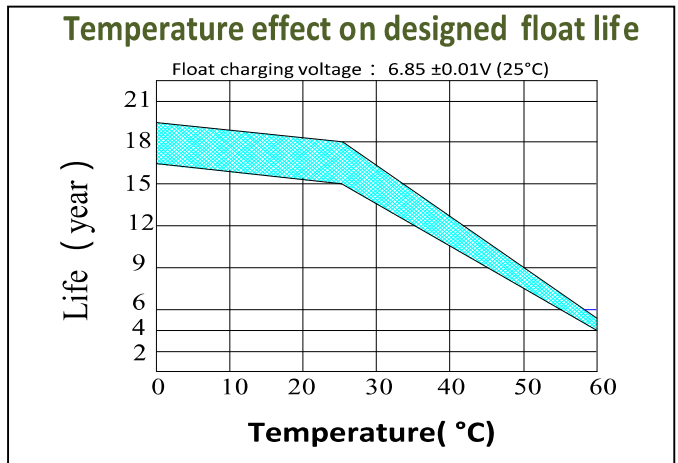
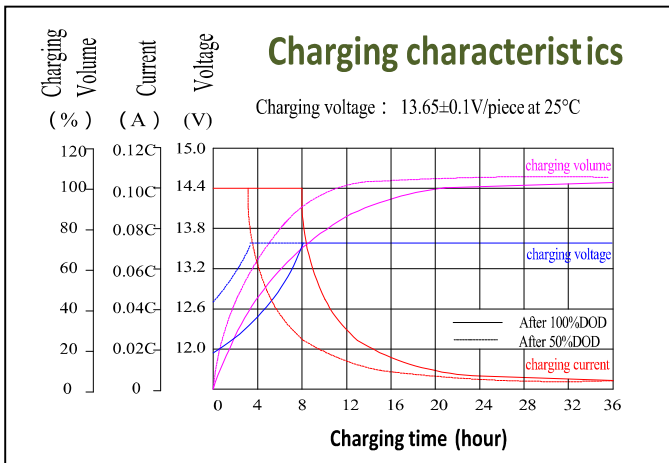
Discharge Constant Power per Cell (Watts at 25°C)

F.V/Time	15min	30min	45min	1h	2h	3h	5h	8h	10h	20h	100h
1.60V	661.5	393.6	279.5	244.6	149.3	104.8	71.3	47.1	41.9	22.9	5.08
1.65V	649.5	386.5	274.4	240.1	146.6	102.9	70.0	46.2	41.2	22.4	4.98
1.70V	637.5	379.3	269.3	235.7	143.9	101.0	68.7	45.3	40.4	22.0	4.89
1.75V	625.4	372.2	264.3	231.2	141.2	99.1	67.4	44.5	39.6	21.6	4.79
1.80V	601.4	357.9	254.1	222.3	135.7	95.3	64.8	42.8	38.1	21.2	4.70

Note The above data are average values, and can be obtained within 3 charge/discharge cycles. These are not minimum values. Cell and battery designs/specifications are subject to modification without notice. Contact **VALIANT** for the latest information.

Deep Cycle VRLA AGM Battery **VTD12-230**

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 resister	Female Copper Insert M8(torque :10~11N.m)	Advanced AGM separator for high pressure cell design	Dilute high purity sulphuric acid	Two layers epoxy resin seal