

# Deep Cycle VRLA AGM Battery

# VTD8-170

<b>8V</b> Voltage	<b>170Ah</b> Capacity	<b>AGM</b> Technology	<b>Deep</b> Cycle
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The Valiant VTD series deep cycl 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

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

### GENERAL FEATURES

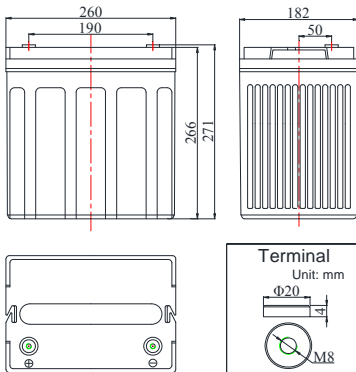
- Thicker plate with high Tin low Calcium alloy
- Deep discharge recovery, 1200cycle @ 50% DOD
- 2years full warranty in most applications Longer Service Life, in both Float or Cycling applications
- Longer Service Life, in both Float or Cycling applications
- High Power Density

### APPLICATIONS

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

### DIMENSIONS & WEIGHT

<b>Length(mm)/inches</b>	<b>260±1/10.24</b>
<b>Width(mm)/inches</b>	<b>182±1/7.17</b>
<b>Height(mm) / i n c h e s</b>	<b>266±1 / 10.47</b>
<b>Total Height(mm) /inches</b>	<b>271±1/10.67</b>
<b>Weight(kg) / l b t</b>	<b>34.0±3% / 74.96</b>



### TECHNICAL

Nominal Voltage		8V(4 cells per unit)
Design Floating Life @25°C		15 Years
Nominal Capacity @25°C (20 hour rate@8.5A,7.2V)		170Ah
Capacity @25°C	10hour rate (15.3A,7.2V)	153Ah
	5 hour rate (27.1A,7.0V)	135.5Ah
	1 hour rate (94.4A, 6.4V)	94.4Ah
Internal Resistance	Full Charged Battery@25°C	≤3.8 mΩ
Ambient Temperature	Discharge	-15°C~45°C
	Charge	-15°C~45°C
	Storage	-15°C~45°C
Max.Discharge Current@25°C		900A(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 34A Voltage 9.07-9.2V
	Cycle Use	Initial Charging Current Less than 34A Voltage 9.6-9.94V

### 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	100h
1.60V	218.8	139.3	102.9	94.4	59.9	42.1	28.6	18.9	16.8	9.18	2.04
1.65V	214.8	136.8	101.0	92.7	58.8	41.3	28.1	18.5	16.5	9.01	2.00
1.70V	210.8	134.2	99.1	91.0	57.8	40.5	27.6	18.2	16.2	8.84	1.96
1.75V	206.9	131.7	97.2	89.3	56.7	39.8	27.1	17.9	15.9	8.67	1.92
1.80V	198.9	126.7	93.5	85.9	54.5	38.3	26.0	17.2	15.3	8.50	1.89

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

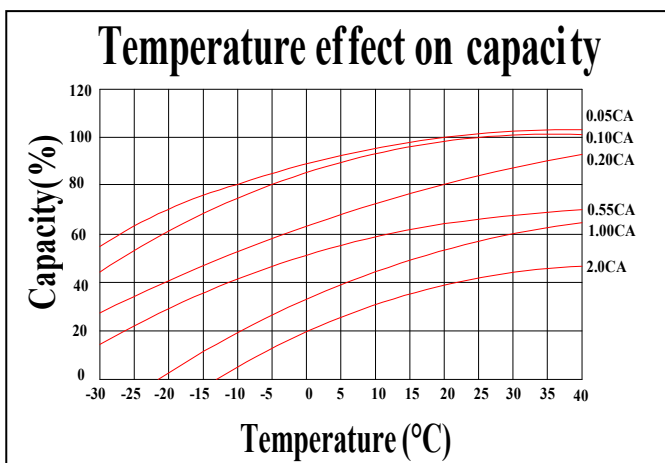
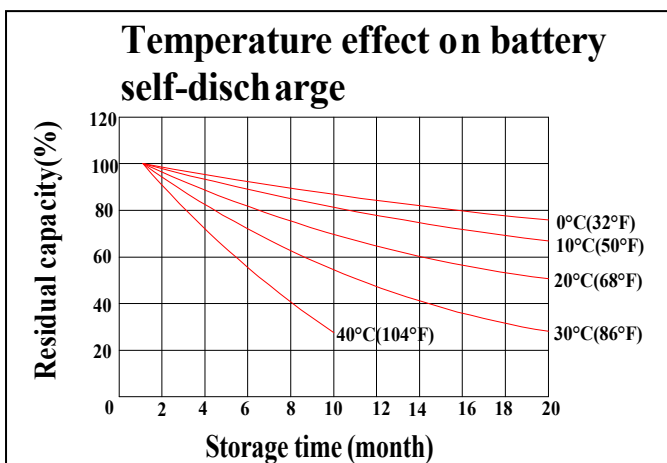
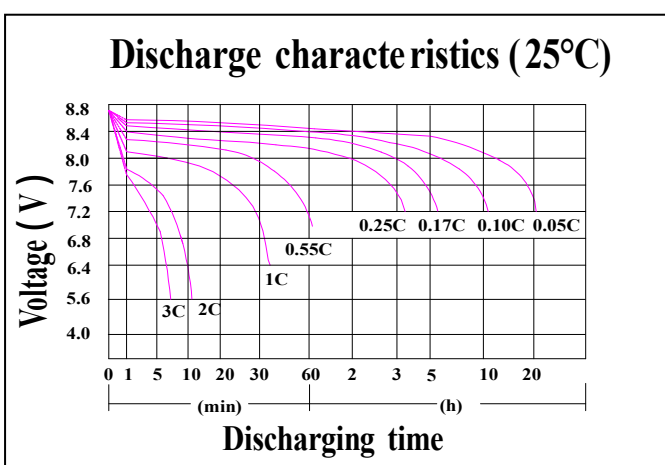
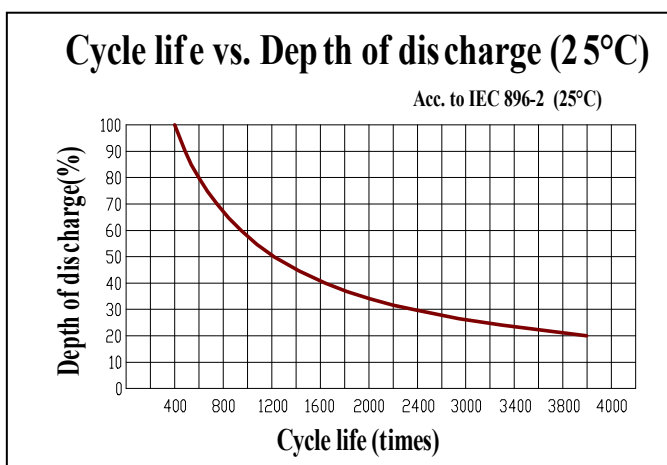
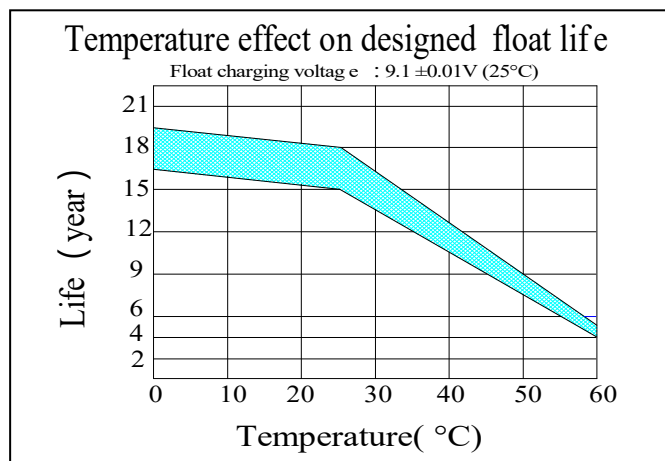
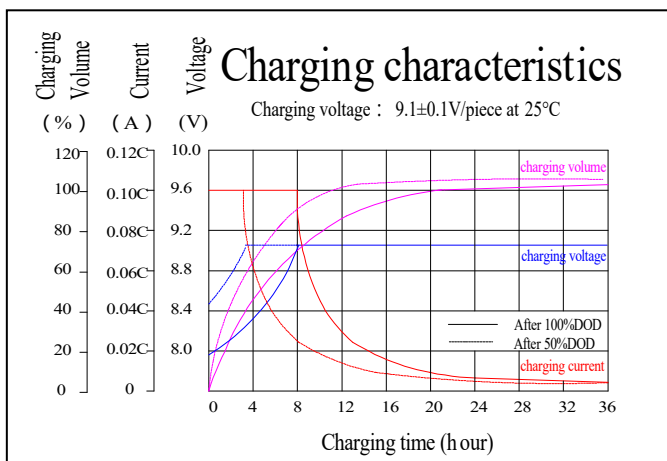
F.V/Time	15min	30min	45min	1h	2h	3h	5h	8h	10h	20h	100h
1.60V	421.2	268.2	198.0	181.8	115.4	81.0	55.1	36.4	32.4	17.7	3.92
1.65V	413.5	263.3	194.4	178.5	113.3	79.5	54.1	35.7	31.8	17.3	3.85
1.70V	405.9	258.4	190.8	175.2	111.2	78.0	53.1	35.0	31.2	17.0	3.78
1.75V	398.2	253.6	187.2	171.9	109.1	76.6	52.1	34.4	30.6	16.7	3.71
1.80V	382.9	243.8	180.0	165.3	104.9	73.6	50.1	33.1	29.5	16.4	3.63

**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.

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## 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 resistant ABS UL94-V0	Flame Si-Rubber and aging resistant	Female Copper Insert M8 (torque: $10 \sim 11N.m$ )	Advanced AGM separator for high pressure cell design	Dilute high purity sulphuric acid	Two layers epoxy resin seal