# VTA6-7 (6V 7.0AH/20HR) SEALED LEAD ACID Battery

VALIANT VTA series are designed with AGM technology and high-performance lead plates using 99.99% virgin lead. VTA is perfectly suited for backup power systems such as UPS, security, and emergency lighting systems. They are sealed maintenance free and valve regulated, also referred to as VRLA and SLA.

**6V 7Ah** **AGM Technology**


## Applications

- UPS
- Emergency Lighting
- Electric Scooter
- Mobility

## General Features

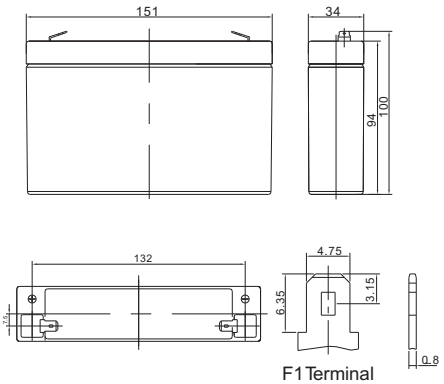
- Non-spillable construction design
- Long life span: 5-8 years in floating applications
- High Quality AGM separator: extends cycle life and prevents short circuit
- 99.99% virgin lead plates ensure high quality and high reliability
- Flame-resistant ABS material: increases the strength of battery container

**COMPLIED STANDARDS**

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

## Dimensions & Weight

| | |
|---|---|
| Length(mm/inch) | 151/5.95 |
| Width(mm/inch) | 34/1.34 |
| Height(mm/inch) | 95/3.74 |
| Total Height(mm/inch) | 101/3.98 |
| Weigt(kg/lbs)(±3%) | 1.08/2.38 |




## Technical Specifications

| | | |
|---|---|---|
| Nominal Voltage | | 6V (3 cells per unit) |
| Design Floating Life @ 25℃ | | 5 Years |
| Nominal Capacity @ 25℃ | 20 hour rate@0.35A, 5.4V | 7Ah |
| Capacity @ 25℃ | 10 hour rate (0.67A, 5.4V) | 6.70Ah |
| | 5 hour rate (1.25A, 5.25V) | 6.25Ah |
| | 1 hour rate (4.62A, 4.8V) | 4.62Ah |
| Internal Resistance | Full Charged Battery@ 25℃ | ≤16.0mΩ |
| Ambient Temperature | Discharge | -15℃~45℃ |
| | Charge | -15℃~45℃ |
| | Storage | -15℃~45℃ |
| Max.Discharge Current | | @ 25℃ 42A(5s) |
| Capacity affected by Temperature (10 hour ) | 40℃ | 105% |
| | 25℃ | 100% |
| | 0℃ | 85% |
| | -15℃ | 65% |
| Self-Discharge@25℃per Month | | 3% |
| Charge (Constant Voltage) @ 25°C | Standby Use | Initial Charging Current Less than 2.1A Voltage 6.8-6.9V |
| | Cycle Use | Initial Charging Current Less than 2.1A Voltage 7.2-7.45V |

## 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 | 11.59 | 7.70 | 5.39 | 4.62 | 2.89 | 1.98 | 1.32 | 0.89 | 0.73 | 0.39 |
| 1.65V | 11.38 | 7.56 | 5.29 | 4.54 | 2.84 | 1.94 | 1.30 | 0.87 | 0.72 | 0.38 |
| 1.70V | 11.17 | 7.42 | 5.19 | 4.45 | 2.78 | 1.91 | 1.27 | 0.85 | 0.71 | 0.37 |
| 1.75V | 10.96 | 7.28 | 5.10 | 4.37 | 2.73 | 1.87 | 1.25 | 0.84 | 0.69 | 0.36 |
| 1.80V | 10.53 | 7.00 | 4.90 | 4.20 | 2.63 | 1.80 | 1.20 | 0.81 | 0.67 | 0.35 |

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

| F.V/Time | 15min | 30min | 45min | 1h | 2h | 3h | 5h | 8h | 10h | 20h |
|---|---|---|---|---|---|---|---|---|---|---|
| 1.60V | 22.31 | 14.82 | 10.38 | 8.89 | 5.56 | 3.81 | 2.54 | 1.71 | 1.41 | 0.74 |
| 1.65V | 21.90 | 14.55 | 10.19 | 8.73 | 5.46 | 3.74 | 2.49 | 1.68 | 1.39 | 0.73 |
| 1.70V | 21.49 | 14.28 | 10.00 | 8.57 | 5.36 | 3.67 | 2.45 | 1.65 | 1.36 | 0.71 |
| 1.75V | 21.09 | 14.01 | 9.81 | 8.41 | 5.26 | 3.60 | 2.40 | 1.61 | 1.33 | 0.70 |
| 1.80V | 20.28 | 13.48 | 9.43 | 8.09 | 5.05 | 3.46 | 2.31 | 1.55 | 1.28 | 0.67 |

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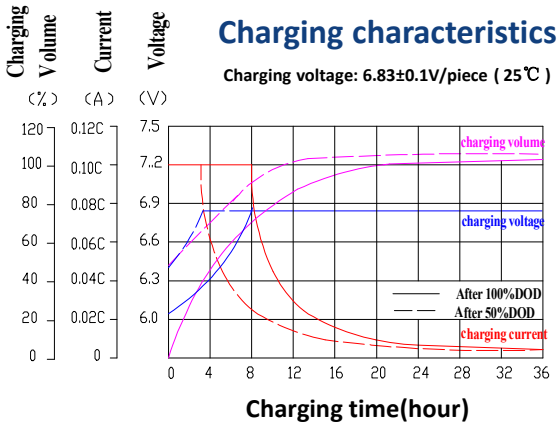
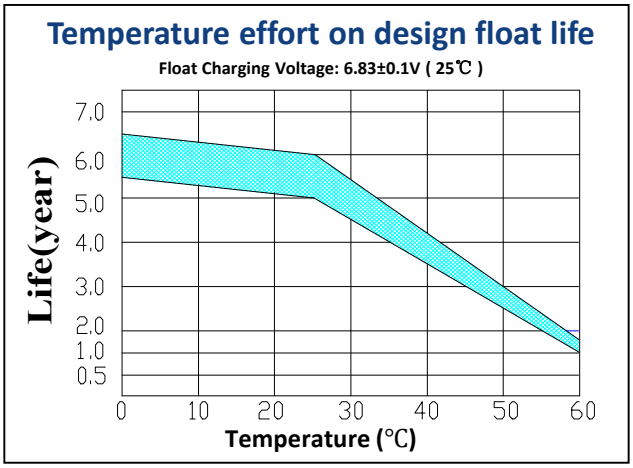
## Performance Characteristics

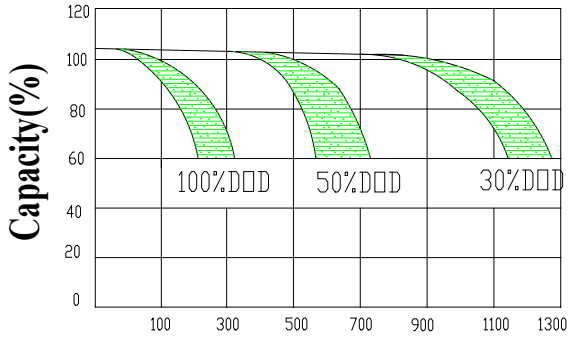
### Charging characteristics



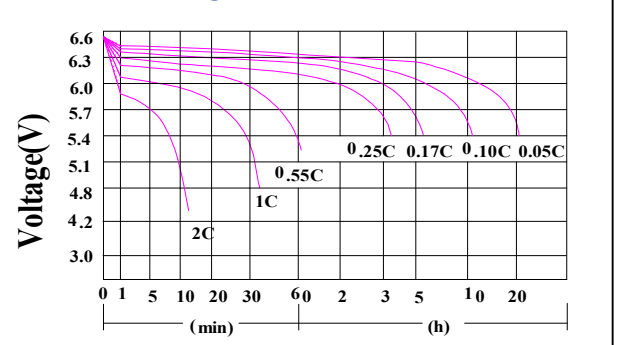

### Temperature effort on design float life



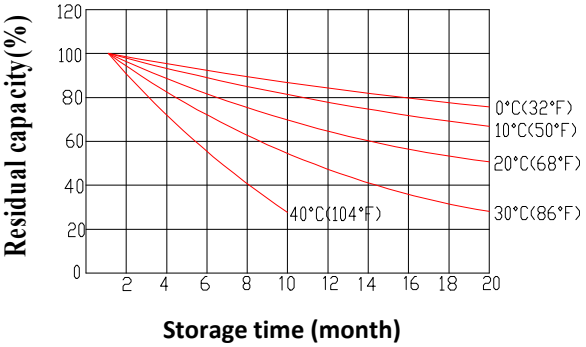

### Cycle life vs. Depth of Discharge (25℃)



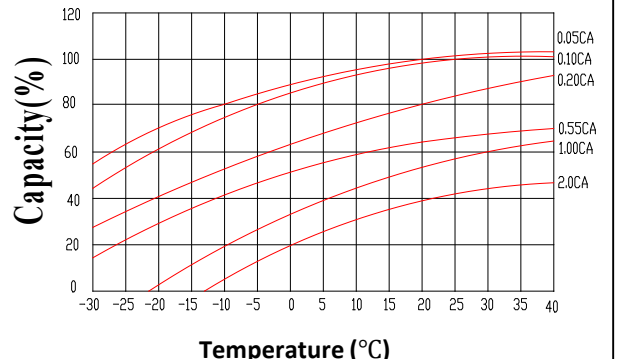

### Discharge characteristics (25℃)




### Temperature effort on battery self-discharge




### Temperature effect on capacity




## 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 | F1 | Advanced AGM separator for high pressure cell design | Dilute high purity sulfunc acid | Two layers epoxy resin seal |