

## GEL Series Battery

### Range Summary

By combining the newly developed nano gel electrolyte with high density paste, Vvution created an innovative range of VTG batteries. The range offers high recharge efficiency at the very low charge current. The acid stratification is highly depressed by adding of gel. This range battery is highly suited to energy storage for renewable energy such as PV and wind turbine power systems applications.

### Application

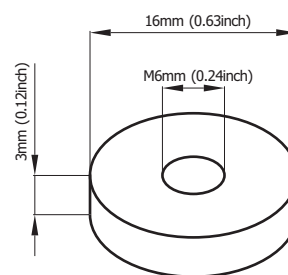
- Photovoltaic system
- Renewable Energy System
- Electric Utility
- Outdoor control Equipment
- Railroad Utility

### General Features

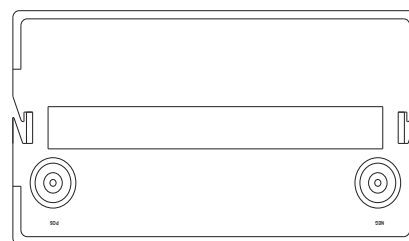
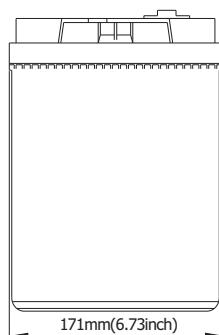
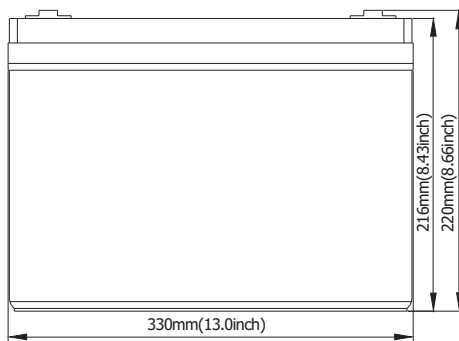
- 12 years float life at 20°C
- Up to 5 years design life at renewable energy applications
- Wide operating temperature range of -15 to 60°C
- Nano gel electrolyte eliminate the acid stratification and prolong cycle life
- Round trip efficiency as high as 85%
- Thick positive flat plate with high density paste
- Low self-discharge rate and long shelf life( 1 year at 25°C)
- Excellent deep discharge recovery capability

### Construction

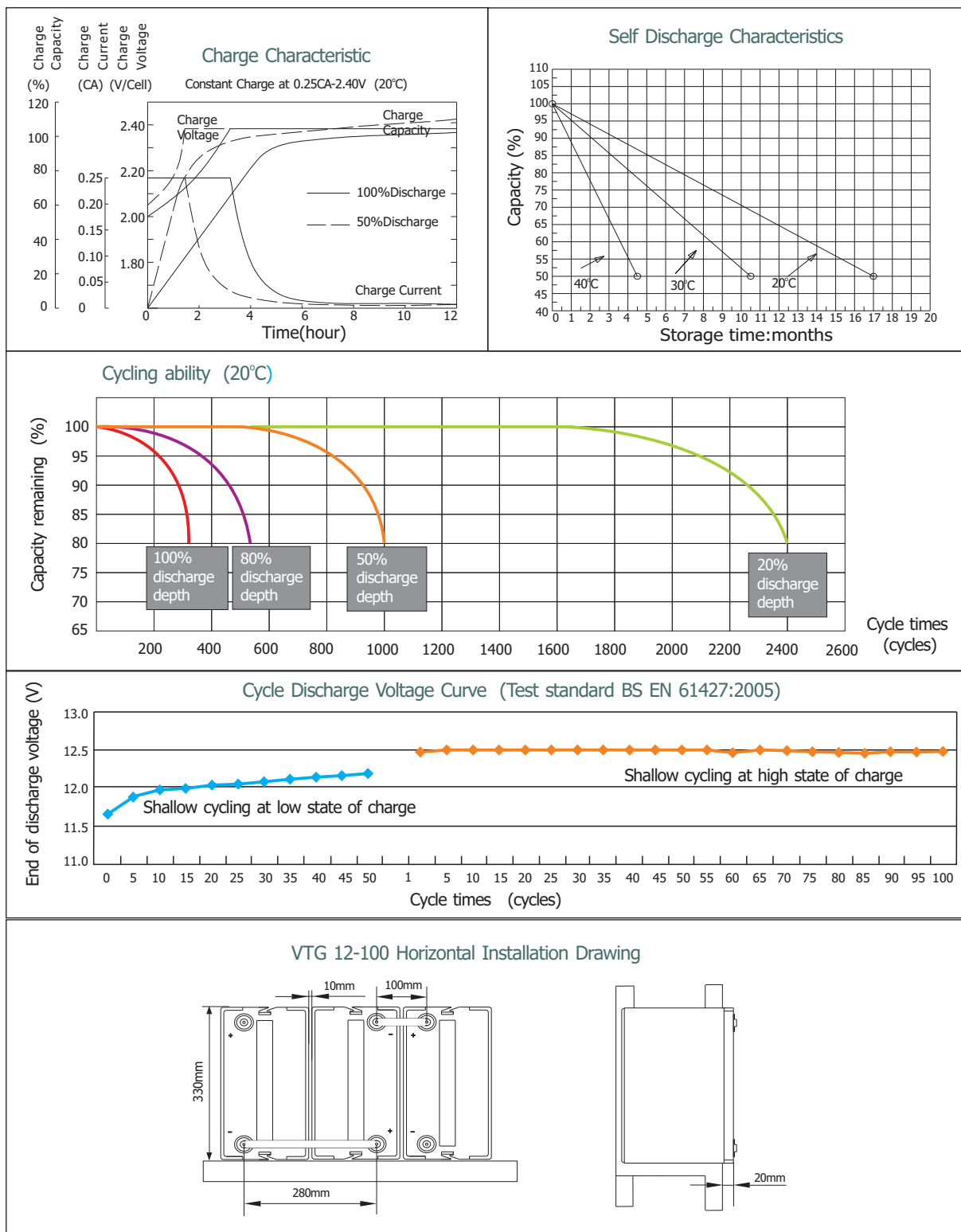
- Positive .....Lead dioxide
- Negative .....Lead
- Container.....ABS
- Cover .....ABS
- Sealant .....Epoxy Resin
- Safety valve .....EPDR
- Terminal .....Copper
- Separator .....AGM
- Electrolyte .....Acid with gel



Terminal Dimensions



| Battery Model                                  | VTG 12-100                                  |                   |                       |                   |
|------------------------------------------------|---------------------------------------------|-------------------|-----------------------|-------------------|
| Designed Floating Life                         | 12 Years                                    |                   |                       |                   |
| Designed Cycle Life<br>(According to IEC61427) | 5 Years                                     |                   |                       |                   |
| Capacity(20°C)                                 | 10HR(10A,1.80V)                             | 24HR(4.42A,1.80V) | 48HR(2.31A,1.80V)     | 100HR(1.2A,1.80V) |
|                                                | 100Ah                                       | 106Ah             | 111Ah                 | 120Ah             |
| Dimensions                                     | Length                                      | Width             | Height                | Total Height      |
|                                                | 330mm(13.0inch)                             | 171mm(6.73inch)   | 214mm(8.43inch)       | 220mm(8.66inch)   |
| Approx. Weight                                 | 28Kg                                        |                   |                       |                   |
| Internal Resistance                            | Full charged at 20°C: 0.005 Ohm             |                   |                       |                   |
| Self Discharge                                 | 3% of capacity declined per month at (20°C) |                   |                       |                   |
| Capacity Affected<br>by Temp.(10HR)            | 40°C                                        | 20°C              | 0°C                   | -15°C             |
|                                                | 109%                                        | 100%              | 85%                   | 65%               |
| Charge Voltage(20°C)                           | Cycle use                                   |                   | Float use             |                   |
|                                                | 14.4-14.8V(-30mV/ °C), max. Current: 25A    |                   | 13.6-13.8V(-18mV/ °C) |                   |



### Constant current discharge ratings-amperes at 20°C

| TIME            | 1h   | 3h   | 5h   | 10h  | 24h  | 48h  | 72h  | 100h | 120h |
|-----------------|------|------|------|------|------|------|------|------|------|
| CUT-OFF VOLTAGE | 1.80 | 1.80 | 1.80 | 1.80 | 1.80 | 1.80 | 1.80 | 1.80 | 1.80 |
| CAPACITY(Ah)    | 65   | 75   | 87   | 100  | 106  | 111  | 116  | 120  | 123  |

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| Quality Management System Authentication<br>GB/T19001-2008<br>NO.00113Q29865ROM/4200 | CE authentication<br>CE12-GPE 120171 |            |
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