



Oliter design each battery by heart

## OPzV Tubular-Gel Battery

2V1000AH

### FEATURES

- Low self-discharge and long shelf life
- Non-Spillable construction
- Safety valve installation for explosion proof
- Exceptional deep discharge recovery performance
- 99.7% pure lead calcium grids and A recognized Component of U.L

### APPLICATION

- Photovoltaic system
- Telecommunications
- Emergency Power System
- Power plant and power transformer system
- Control Equipment



### SPECIFICATIONS

|                             |                                                                                                                                                                                                                                                                                                                              |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Nominal Voltage             | 2V                                                                                                                                                                                                                                                                                                                           |
| Nominal Capacity            | 1000Ah@10 hour rate F.V.(1.80V/cell)                                                                                                                                                                                                                                                                                         |
| Approx. Weight              | 77Kg                                                                                                                                                                                                                                                                                                                         |
| Terminals                   | M8 Female Large Size Copper Post                                                                                                                                                                                                                                                                                             |
| Internal Resistance         | $\leq 0.33\text{m}\Omega$ (Fully Charged)                                                                                                                                                                                                                                                                                    |
| Max. Discharge Current      | 3000A (3min)                                                                                                                                                                                                                                                                                                                 |
| Max. Charge Current         | 250A                                                                                                                                                                                                                                                                                                                         |
| Operating Temperature Range | Charge: $-20^{\circ}\text{C}\sim 50^{\circ}\text{C}$ ( $-4^{\circ}\text{F}\sim 122^{\circ}\text{F}$ )<br>Discharge: $-40^{\circ}\text{C}\sim 55^{\circ}\text{C}$ ( $-40^{\circ}\text{F}\sim 131^{\circ}\text{F}$ )<br>Storage: $-20^{\circ}\text{C}\sim 40^{\circ}\text{C}$ ( $-4^{\circ}\text{F}\sim 104^{\circ}\text{F}$ ) |
| Self Discharge              | About 2.0% of capacity declined per month at ( $25^{\circ}\text{C}$ )                                                                                                                                                                                                                                                        |



### DIMENSION(mm/inch)

### OUTER DIMENSIONS

### TERMINAL TYPE

#### Length

233±2.0mm (9.32±0.08inch)

#### Width

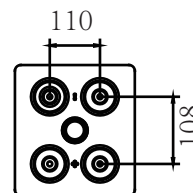
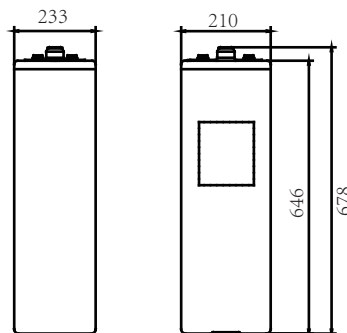
210±2.0mm (8.40±0.08inch)

#### Container Height

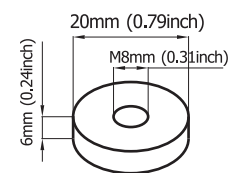
646±2.0mm (25.84±0.08inch)

#### Total Height

678±2.0mm (27.12±0.08inch)



#### Terminal



[M8 BOLT]

Terminal Hardware Initial Torque:13(5.5Nm±5%)

### Constant power discharge characteristics at 25°C/77°F Unit:W

| F.V/Time | 15MIN  | 30MIN  | 1HR    | 2HR   | 3HR   | 5HR   | 10HR  | 20HR  | Charge Voltage |                      |
|----------|--------|--------|--------|-------|-------|-------|-------|-------|----------------|----------------------|
| 1.70V    | 1827.5 | 1487.5 | 1152.5 | 677.5 | 533.8 | 366.3 | 197.5 | 112.1 | Cycle use      | 2.35-2.40V<br>(±4mV) |
| 1.75V    | 1682.5 | 1427.5 | 1105.0 | 660.0 | 521.3 | 361.3 | 195.0 | 110.4 |                |                      |
| 1.80V    | 1490.0 | 1342.5 | 973.8  | 642.5 | 502.5 | 355.0 | 192.5 | 110.3 | Max Current    | 250A                 |
| 1.90V    | 1107.5 | 998.8  | 793.8  | 590.0 | 441.3 | 320.0 | 172.5 | 102.0 |                |                      |

### Constant current discharge characteristics at 25°C/77°F Unit:A

| F.V/Time | 15MIN  | 30MIN | 1HR   | 2HR   | 3HR   | 5HR   | 10HR  | 20HR | Float Use            |  |
|----------|--------|-------|-------|-------|-------|-------|-------|------|----------------------|--|
| 1.70V    | 1060.0 | 860.0 | 585.0 | 357.5 | 265.0 | 177.5 | 102.5 | 58.0 | 2.25-2.30V<br>(±3mV) |  |
| 1.75V    | 940.0  | 802.5 | 560.0 | 347.5 | 260.0 | 176.3 | 101.3 | 57.6 |                      |  |
| 1.80V    | 820.0  | 700.0 | 520.0 | 332.5 | 250.0 | 173.8 | 100.0 | 57.4 |                      |  |
| 1.90V    | 520.0  | 490.0 | 390.0 | 275.0 | 215.0 | 155.0 | 88.8  | 52.6 |                      |  |

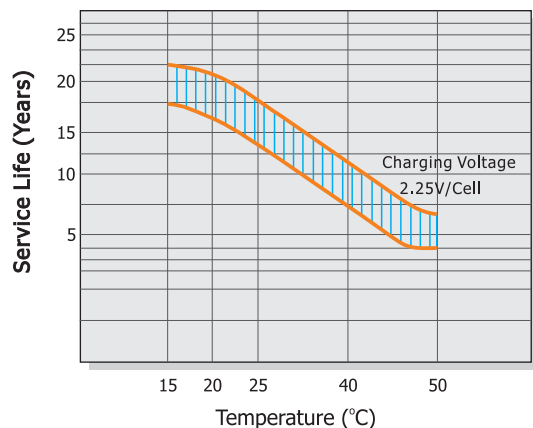


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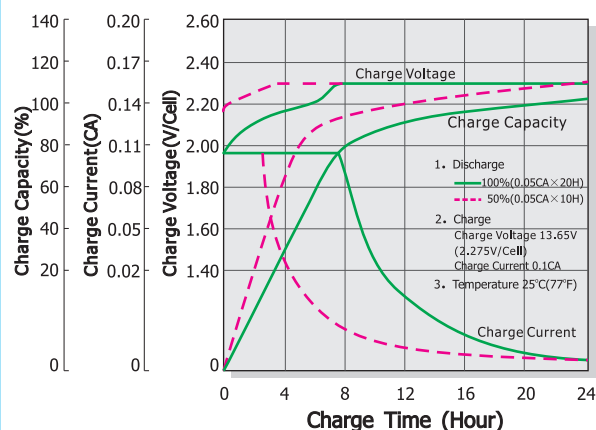
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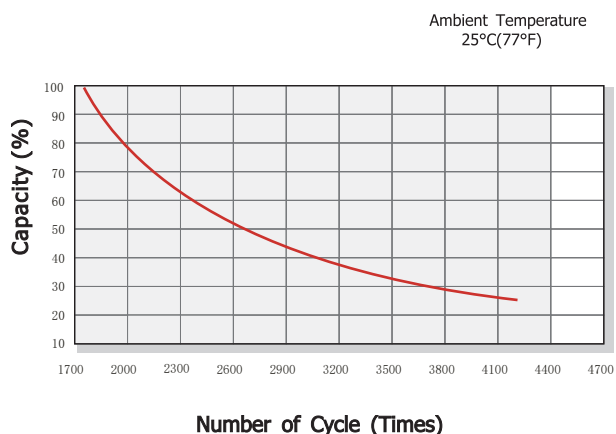
### Trickle(or Float) Service Life



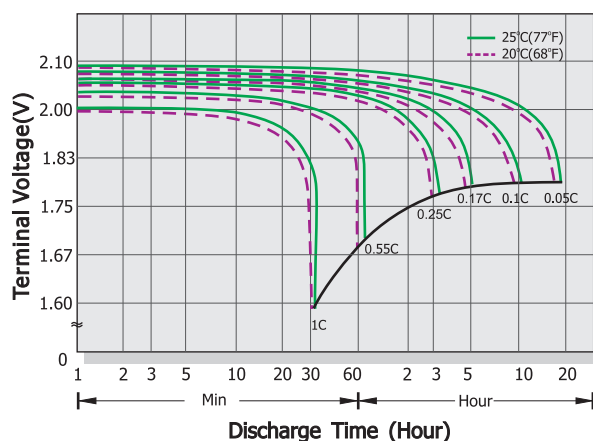
### Charge Characteristic



### Cycle Service Life



### Discharge Characteristic



### Capacity Factors With Different Temperature

| Battery Type |        | -20°C | -10°C | 0°C | 5°C | 10°C | 20°C | 25°C | 30°C | 40°C | 45°C |
|--------------|--------|-------|-------|-----|-----|------|------|------|------|------|------|
| GEL Battery  | 6V&12V | 55%   | 75%   | 85% | 88% | 90%  | 98%  | 100% | 102% | 104% | 105% |
|              | 2V     | 65%   | 80%   | 88% | 90% | 92%  | 99%  | 100% | 103% | 105% | 106% |
| AGM Battery  | 6V&12V | 46%   | 66%   | 76% | 83% | 90%  | 98%  | 100% | 103% | 107% | 109% |
|              | 2V     | 55%   | 70%   | 80% | 85% | 92%  | 99%  | 100% | 104% | 108% | 110% |