



### 2V TUBULAR GEL SERIES VRLA BATTERY

OPzV range battery adopts traditional tubular gel technology, adopts patent gel electrolyte. The products are used as standby power for communication, power, military and broadcast and television system. They possess precise ABS heat seal technology between container and lid and patented post seal structure. Provide better deep cycle performance versus AGM. The design float life is 18+ years.



- Complied standards
- IEC 60896-21/22
  - UL1989
  - JIS C8704
  - GB/T19639

### Specifications

|                             |   |
|-----------------------------|---|
| Battery Model               | 16OpzV2000  |
| Nominal Voltage             | 2V  |
| Rated Capacity              | 2000Ah (10hour rate) to 1.80V/cell @25°C (77°F)                     |
| Typical Weight              | 148kg   |
| Internal Resistance         | Approx 0.142m Ω   |
| Operating Temperature Range | Operation (maximum ): -40°C~55°C (-40°F~131°F)                      |
|                             | Operation (recommended ): 15°C~25°C (59°F~77°F)                     |
|                             | Storage : -20°C~40°C (-4°F~104°F)                                   |
| Float Voltage               | 2.23V/cell@25°C (77°F)  |
| Charge Current              | 200A(Recommendation) 500A(Maxmum)                                   |
| Equalize and Cycle Service  | 2.35V~2.40V/cell@25°C (77°F)  |
| Self Discharge              | The residual capacity is above 94% after 90 days storage(25°C/77°F) |
| Terminal                    | M8 Female Large Size Copper Post                                    |
| Terminal Hardware Torque    | 15 ±1.0Nm   |
| Container Material          | ABS (V0optional )   |

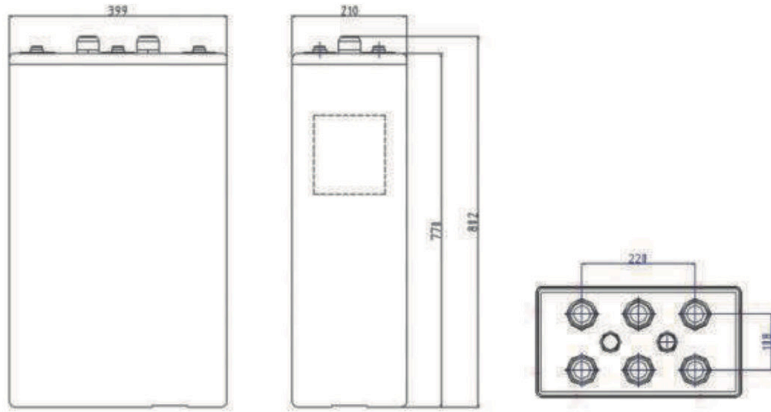
### Discharge Data with Constant Current Units: Amperes (25°C, 77°F)

| End voltage | 15min | 30min | 1h   | 2h  | 3h  | 4h  | 5h  | 6h  | 8h  | 10h | 16h   | 24h  | 48h  | 100h |
|-------------|-------|-------|------|-----|-----|-----|-----|-----|-----|-----|-------|------|------|------|
| 1.60V       | 2171  | 1734  | 1188 | 737 | 532 | 422 | 361 | 318 | 256 | 210 | 135.5 | 94.1 | 51.7 | 29.0 |
| 1.65V       | 2096  | 1677  | 1159 | 722 | 524 | 417 | 357 | 314 | 254 | 209 | 134.9 | 94.1 | 51.2 | 28.5 |
| 1.70V       | 1973  | 1608  | 1125 | 705 | 515 | 411 | 352 | 309 | 251 | 208 | 134.3 | 93.1 | 50.8 | 28.1 |
| 1.75V       | 1871  | 1548  | 1092 | 686 | 504 | 404 | 347 | 303 | 246 | 205 | 132.3 | 91.1 | 50.2 | 27.3 |
| 1.80V       | 1650  | 1416  | 1040 | 660 | 492 | 395 | 339 | 295 | 241 | 200 | 128.5 | 89.2 | 49.4 | 26.5 |
| 1.85V       | 1389  | 1191  | 967  | 626 | 476 | 383 | 328 | 285 | 234 | 196 | 126.5 | 86.2 | 47.0 | 25.6 |
| 1.90V       | 1049  | 1016  | 772  | 545 | 426 | 356 | 305 | 263 | 212 | 176 | 113.6 | 79.2 | 43.9 | 23.6 |

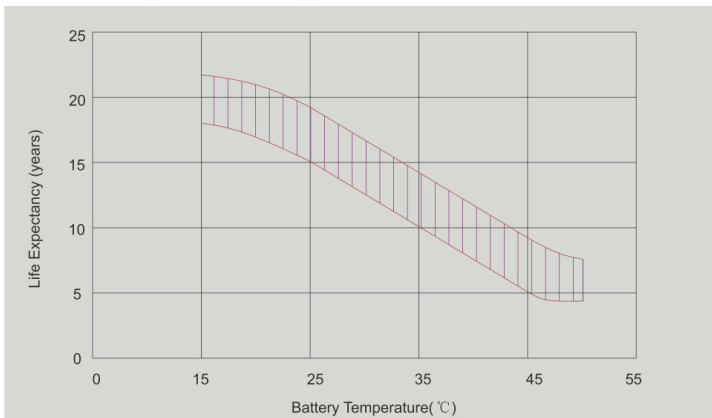
### Discharge Data with Constant Power Units: Watts per cell (25 °C, 77 °F)

| End voltage | 15min | 30min | 1h   | 2h   | 3h   | 4h  | 5h    | 6h    | 8h    | 10h   | 16h   | 24h   |
|-------------|-------|-------|------|------|------|-----|-------|-------|-------|-------|-------|-------|
| 1.60V       | 4343  | 3439  | 2633 | 1445 | 1099 | 873 | 733.6 | 635.0 | 527.1 | 442.8 | 285.9 | 193.8 |
| 1.65V       | 4135  | 3257  | 2449 | 1436 | 1091 | 867 | 728.6 | 630.5 | 523.5 | 439.8 | 283.9 | 192.5 |
| 1.70V       | 3947  | 3109  | 2294 | 1416 | 1076 | 855 | 718.5 | 622.0 | 516.3 | 433.7 | 280.0 | 189.9 |
| 1.75V       | 3736  | 2983  | 2158 | 1376 | 1049 | 822 | 693.0 | 610.2 | 507.9 | 425.7 | 274.8 | 187.1 |
| 1.80V       | 3495  | 2864  | 2036 | 1327 | 1020 | 802 | 661.3 | 579.0 | 480.0 | 403.9 | 260.7 | 177.2 |
| 1.85V       | 3270  | 2752  | 1894 | 1277 | 970  | 762 | 643.5 | 554.9 | 460.0 | 387.1 | 250.0 | 169.8 |
| 1.90V       | 3056  | 2511  | 1686 | 1158 | 937  | 742 | 622.6 | 503.2 | 417.0 | 351.1 | 226.7 | 154.0 |

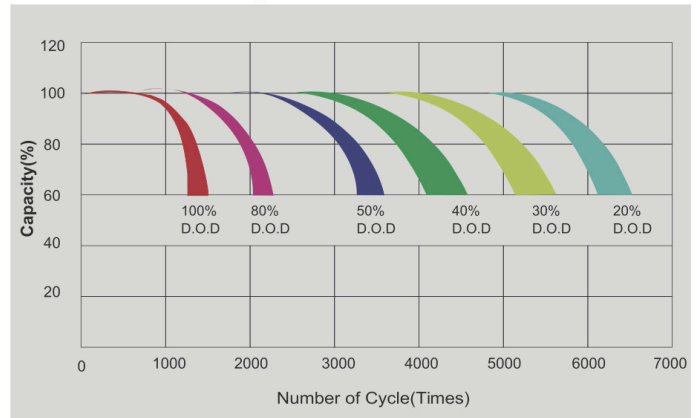
#### Dimensions-mm[inch]



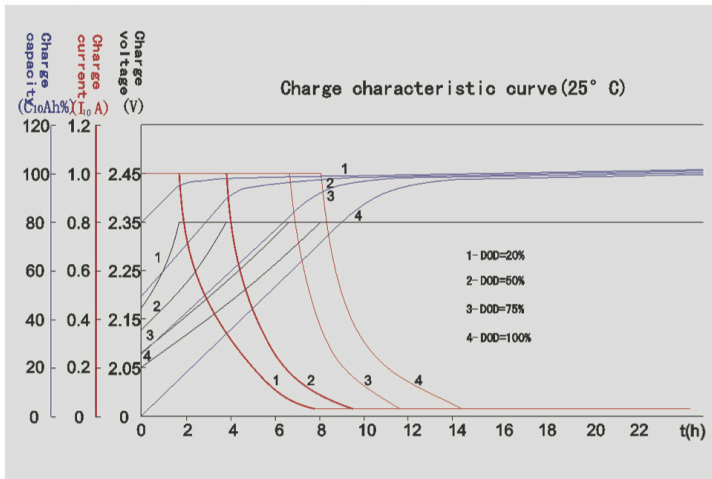
#### Effect of temperature on long term float life



#### Life characteristics of cyclic use



#### Charge characteristic Curve for cyclic use



#### Discharge characteristic Curve

