**☐** Motive Battery





☐ Reserve Battery

**☐** Motorcycle Battery



**Energy Storage Battery-Tubular GEL Technology-OPzV Series** 

# OPzV250E

### (2V 250Ah) **GENERAL FEATURES**

- 20 years design life at floating condition
- Wide operating temperature range from -40°C to +60°C
- Tubular positive plate with prolonged cycle life
- Fumed silica gel electrolyte
- lead-calcium grid significantly improves the corrosion resistance ability
- Low self-discharge rate and long shelf life
- Excellent deep discharge recovery capability

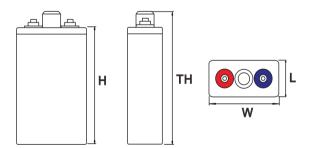
### Application

- Renewable energy system
- Hybrid solar power system
- Uninterrupted Power Supply (UPS)
- Communications and electric equipment
- Emergency lighting equipment
- Fire alarm and security systems
- Control equipment, and other factory automation equipment
- Emergency power supply (EPS)
- Lighting equipment

#### Dimension

Unit:mm

Length 124±2mm / 4.88inch Width 206±2mm / 8.11inch Container Height 356±3mm / 14.02inch **Total Height** 389±3mm / 15.31inch

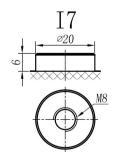


Unit:mm

**Terminal Type:** 

Weight

21.7kg 47.84lbs











This document is subject to change without prior notification

| M | loti | ve | Ba | tte | ry |
|---|------|----|----|-----|----|
|   |      |    |    |     |    |





■ Reserve Battery

**■** Motorcycle Battery

## OPzV250E

| Specificaion                |                  |  |  |  |  |  |
|-----------------------------|------------------|--|--|--|--|--|
| Nominal Voltage             |                  | 2V   |  |  |  |  |
|                             |                  | 265Ah 20hr Rate(1.80V/cell)  |  |  |  |  |
| Rated Capacity(25°C)        |                  | 250Ah 10hr Rate(1.80V/cell)  |  |  |  |  |
|                             |                  | 218Ah 5hr Rate(1.75V/cell)   |  |  |  |  |
|                             |                  | 196Ah 3hr Rate(1.70V/cell)   |  |  |  |  |
|                             |                  | 150Ah 1hr Rate(1.60V/cell)   |  |  |  |  |
| Container Material          |                  | ABS (Fire-proofing ABS container available)  |  |  |  |  |
| Operating                   | Discharge        | -40 ∼ +60°C  |  |  |  |  |
| Temperature                 | Charge           | 0 ~ +40°C  |  |  |  |  |
| Range                       | Storage          | -20 ~ +40°C  |  |  |  |  |
|                             | 40°C / 104°F     | 106%   |  |  |  |  |
| Capacity                    | 25°C / 77°F      | 100%   |  |  |  |  |
| Effected by<br>Temperature  | 0°C / 32°F       | 86%  |  |  |  |  |
|                             | -20°C / -4°F     | 60%  |  |  |  |  |
|                             | Float Voltage    | 2.23V/cell@25°C,Compensation Factor: -3mV/cell/°C  |  |  |  |  |
| <b>Charge Voltage</b>       | Equalize Voltage | 2.35 -2.40V/cell@25°C, Compensation Factor: -3mV/cell/°C   |  |  |  |  |
|                             | Cycle Voltage    | 2.40 -2.50V/cell@25°C, Compensation Factor: -5mV/cell°C  |  |  |  |  |
| Max Charging C              | Current          | 50A (0.2C)   |  |  |  |  |
| Max. Discharge Current (5S) |                  | 1500A  |  |  |  |  |
| Internal Resistance         |                  | 0.73mΩ   |  |  |  |  |
| Self Discharge              |                  | <3%, OPZV series stored at 25 ° C require a supplementary charge every six<br>months, the charging interval would shrink when the ambient temperature went<br>higher |  |  |  |  |

#### Discharge Performance

| Constant Current Discharge Table (25°C/77°F) Unit: A |     |     |     |      |      |      |      |      |      |
|--|-----|-----|-----|------|------|------|------|------|------|
|  |     |     | 1h  |      |      |      |      |      |      |
| 1.85V/cell   | 179 | 144 | 113 | 77.9 | 59.4 | 41.0 | 29.2 | 24.2 | 12.8 |
| 1.80V/cell   | 199 | 158 | 125 | 82.5 | 62.3 | 42.5 | 30.4 | 25.0 | 13.3 |
| 1.75V/cell   | 213 | 169 | 131 | 86.5 | 63.8 | 43.6 | 31.1 | 25.6 | 13.6 |
| 1.70V/cell   | 225 | 178 | 138 | 89.0 | 65.2 | 44.6 | 31.5 | 26.0 | 13.8 |
| 1.65V/cell   | 238 | 188 | 143 | 91.5 | 66.4 | 45.4 | 32.0 | 26.2 | 13.9 |
| 1.60V/cell   | 251 | 194 | 150 | 93.0 | 67.0 | 45.8 | 32.3 | 26.5 | 14.0 |

| Constant Power Discharge Table (25°C/77°F) Unit: W |     |     |     |     |     |      |      |      |      |
|--|-----|-----|-----|-----|-----|------|------|------|------|
| F.V/Time   |     |     |     |     |     |      |      |      |      |
| 1.85V/cell   | 337 | 273 | 217 | 150 | 115 | 79.9 | 57.3 | 47.6 | 25.3 |
| 1.80V/cell   | 366 | 294 | 235 | 158 | 120 | 82.2 | 59.1 | 48.8 | 26.0 |
| 1.75V/cell   | 385 | 309 | 245 | 165 | 122 | 84.0 | 60.2 | 49.7 | 26.5 |
| 1.70V/cell   | 402 | 323 | 256 | 168 | 124 | 85.6 | 60.7 | 50.2 | 26.8 |
| 1.65V/cell   | 416 | 337 | 264 | 172 | 126 | 86.7 | 61.4 | 50.5 | 26.9 |
| 1.60V/cell   | 432 | 342 | 273 | 174 | 127 | 87.2 | 61.8 | 50.8 | 27.0 |

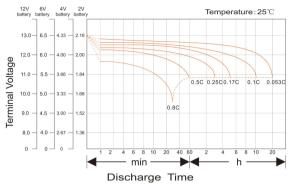
**Motive** 

**Energy Storage Battery** 

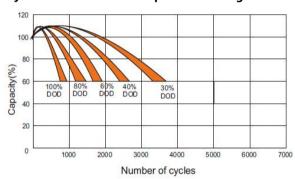
**Reserve Battery** 

**☐** Motorcycle Battery

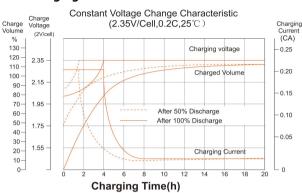
#### **Discharge Characteristics Curve**



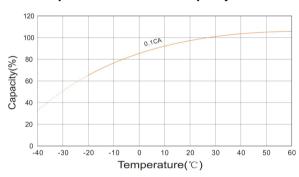
#### Cycle life in relation to depth of Discharge



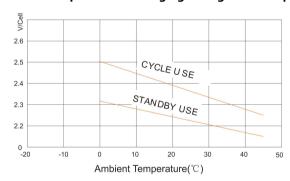
#### **Charging Characteristics Curve**



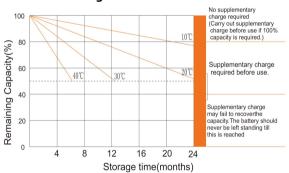
#### Temperature effects on Capacity



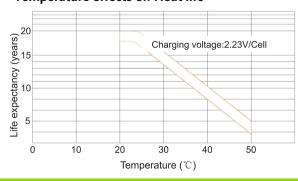
### Relationship between charging voltage and temperature



#### **Self-discharge Characteristics**



#### **Temperature effects on Float life**



#### Life Characteristics of Standby use

