



# GEL BATTERY OPzV Series

**OPzV250 (2V 250Ah)**



The battery is manufactured with PVC-SiO<sub>2</sub> separator and colloidal or fumed silica. The tubular positive plate and pasted negative plate is applied. The batteries use silica gel to immobilize the electrolyte inside the battery. The proven silica gel technology improves battery cycle life and performance at various ambient temperatures.

## Battery Construction

| COMPONENT    | POSITIVE PLATE | NEGATIVE PLATE | CONTAINER | COVER | SAFETY VALVE | TERMINAL | SEPARATOR            | ELECTROLYTE   |
|--------------|----------------|----------------|-----------|-------|--------------|----------|----------------------|---------------|
| Raw material | Tubular        | Lead           | ABS       | ABS   | Rubber       | Copper   | PVC-SiO <sub>2</sub> | Fumed Silicon |

## Performance Characteristics

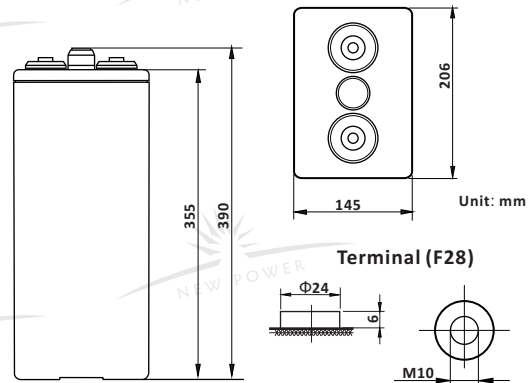
- **Nominal Voltage** ..... 2V
- **Number of Cell** ..... 1
- **Nominal Capacity (77°F / 25°C)**
  - 100 Hour rate (3.0A, 1.85V) ..... 300Ah
  - 10 Hour rate (25A, 1.8V) ..... 250Ah
  - 3 Hour rate (64.3A, 1.75V) ..... 193Ah
  - 1Hour rate (148.0A, 1.60V) ..... 148Ah
- **Internal Resistance**
  - Fully charged battery (77°F / 25°C) ..... 0.7mΩ
- **Operating Temperature Range**
  - Discharge ..... -20 ~ 65°C
  - Charge ..... -10 ~ 65°C
  - Store ..... -20 ~ 65°C
- **Self-Discharge 68°F (20°C)**
  - Capacity declined per month ..... 1.5%
- **Max. discharge current 77°F / 25°C** ..... 1800A(5S)
- **Charge Methods: constant voltage charge 77°F / 25°C**
  - Cycle use ..... 2.38 ~ 2.42V
  - Max. Current ..... 37.5A
  - Standby use ..... 2.23 ~ 2.27V

## General Features

- **The battery has a long service life, under float charging, ambient temperature 25°C, it can operate 15-20 years.**
- **High cycle service life.**
- **Excellent recovery from deep discharge and good deep discharge cycle capability.**
- **The battery has a low self-discharge, keep over 60% of the rated capacity after 2 years stored under 20°C.**
- **Better temperature resistance performance.**
- **Excellent deep cycle performance.**
- **Superior low current discharge performance.**
- **Better high temperature performance.**
- **Stronger constant power discharge capability.**
- **Better charge reception capability.**
- **Better safety performance and reliability.**
- **Modular and personified installation design.**

## Dimensions and Weight

| Type          | Length   | Width    | Height | Total Height | Approx. Weight |
|---------------|----------|----------|--------|--------------|----------------|
| SI Units      | 206mm    | 124mm    | 355mm  | 390mm        | 21.5Kg         |
| English Units | 8.11inch | 4.88inch | 14inch | 15.44inch    | 47.4lbs        |



## Constant Current Discharge (Amperes at 77°F/25°C)

| V/cell | 15min | 30min | 1h  | 3h   | 5h   | 10h  | 24h  | 48h | 100h |
|--------|-------|-------|-----|------|------|------|------|-----|------|
| 1.65   | 315   | 235   | 148 | 67.1 | 47.3 | -    | -    | -   | -    |
| 1.70   | 285   | 214   | 139 | 65.1 | 44.8 | -    | -    | -   | -    |
| 1.75   | 269   | 203   | 130 | 64.3 | 43.6 | 25.5 | -    | -   | -    |
| 1.80   | 253   | 191   | 128 | 62.5 | 41.9 | 25.0 | -    | -   | -    |
| 1.85   | 236   | 174   | 122 | 61.1 | 40.9 | 23.6 | 11.5 | 6.0 | 3.0  |

## Constant Power Discharge (Watts at 77°F/25°C)

| V/cell | 15min | 30min | 1h  | 3h  | 5h   | 10h  | 24h  | 48h  | 100h |
|--------|-------|-------|-----|-----|------|------|------|------|------|
| 1.65   | 614   | 459   | 294 | 134 | 94.3 | -    | -    | -    | -    |
| 1.70   | 556   | 417   | 276 | 129 | 89.3 | -    | -    | -    | -    |
| 1.75   | 524   | 395   | 259 | 127 | 87.1 | 50.7 | -    | -    | -    |
| 1.80   | 492   | 373   | 254 | 124 | 83.6 | 49.8 | -    | -    | -    |
| 1.85   | 461   | 339   | 244 | 121 | 81.4 | 47.0 | 12.9 | 11.9 | 8.3  |

(Note: The above characteristics data are average values obtained within three charge/discharge cycles not the minimum values.)



