

Motive Battery

Energy Storage Battery

Reserve Battery

Motorcycle Battery



Energy Storage Battery-Tubular GEL Technology-OPzV Series

OPzV420E

(2V 420Ah)

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



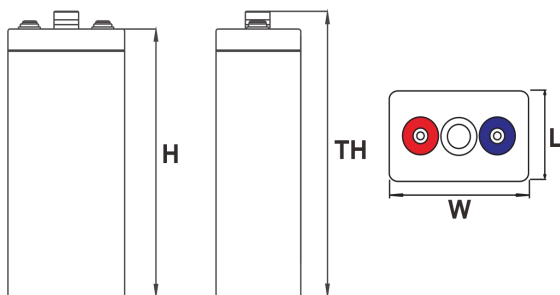
Application

- ◆ 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

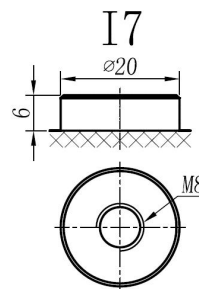
| | |
|------------------|---------------------|
| Length | 145±2mm / 5.71inch |
| Width | 206±2mm / 8.11inch |
| Container Height | 473±3mm / 18.62inch |
| Total Height | 505±3mm / 19.88inch |



Terminal

Unit:mm

Terminal Type: I7



Weight

32kg 70.55lbs



This document is subject to change without prior notification

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OPzV420E

Specification

| | | |
|---|---|--|
| Nominal Voltage | 2V | |
| Rated Capacity(25°C) | 445Ah | 20hr Rate(1.80V/cell) |
| | 420Ah | 10hr Rate(1.80V/cell) |
| | 367Ah | 5hr Rate(1.75V/cell) |
| | 329Ah | 3hr Rate(1.70V/cell) |
| | 251Ah | 1hr Rate(1.60V/cell) |
| Container Material | ABS (Fire-proofing ABS container available) | |
| Operating Temperature Range | Discharge | -40 ~ +60°C |
| | Charge | 0 ~ +40°C |
| | Storage | -20 ~ +40°C |
| Capacity Effected by Temperature | 40°C / 104°F | 106% |
| | 25°C / 77°F | 100% |
| | 0°C / 32°F | 86% |
| | -20°C / -4°F | 60% |
| Charge Voltage | Float Voltage | 2.23V/cell@25°C, Compensation Factor: -3mV/cell/°C |
| | 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 Current | 84A (0.2C) | |
| Max. Discharge Current (5S) | 2520A | |
| Internal Resistance | 0.55mΩ | |
| Self Discharge | <3%, OPZV series stored at 25 °C require a supplementary charge every six months, the charging interval would shrink when the ambient temperature went higher | |

Discharge Performance

Constant Current Discharge Table (25°C/77°F) Unit: A

| F.V/Time | 15min | 30min | 1h | 2h | 3h | 5h | 8h | 10h | 20h |
|------------|-------|-------|-----|-----|-----|------|------|------|------|
| 1.85V/cell | 301 | 241 | 190 | 131 | 100 | 68.9 | 49.1 | 40.7 | 21.5 |
| 1.80V/cell | 335 | 266 | 209 | 139 | 105 | 71.4 | 51.1 | 42.0 | 22.3 |
| 1.75V/cell | 357 | 283 | 220 | 145 | 107 | 73.3 | 52.2 | 43.1 | 22.8 |
| 1.70V/cell | 379 | 300 | 231 | 150 | 110 | 75.0 | 52.9 | 43.6 | 23.1 |
| 1.65V/cell | 399 | 316 | 241 | 154 | 112 | 76.3 | 53.8 | 44.1 | 23.3 |
| 1.60V/cell | 421 | 326 | 251 | 156 | 113 | 77.0 | 54.3 | 44.5 | 23.4 |

Constant Power Discharge Table (25°C/77°F) Unit: W

| F.V/Time | 15min | 30min | 1h | 2h | 3h | 5h | 8h | 10h | 20h |
|------------|-------|-------|-----|-----|-----|-----|-------|------|------|
| 1.85V/cell | 566 | 458 | 365 | 253 | 194 | 134 | 96.3 | 79.9 | 42.5 |
| 1.80V/cell | 615 | 494 | 395 | 265 | 202 | 138 | 99.3 | 81.9 | 43.7 |
| 1.75V/cell | 647 | 520 | 412 | 276 | 205 | 141 | 101.1 | 83.6 | 44.5 |
| 1.70V/cell | 675 | 543 | 430 | 283 | 209 | 144 | 102.0 | 84.3 | 45.1 |
| 1.65V/cell | 699 | 566 | 444 | 289 | 212 | 146 | 103.2 | 84.8 | 45.2 |
| 1.60V/cell | 726 | 574 | 459 | 292 | 213 | 147 | 103.9 | 85.4 | 45.3 |



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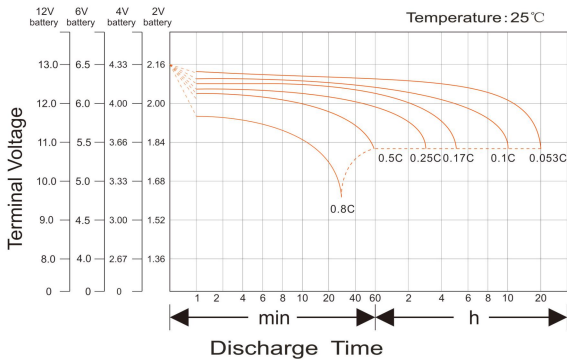


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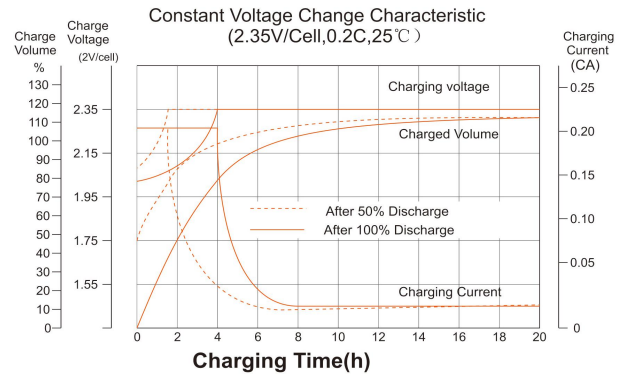


Motorcycle Battery

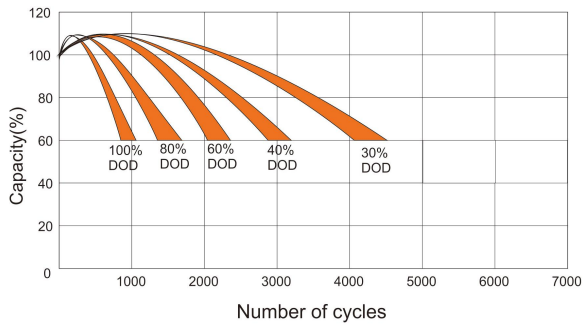
Discharge Characteristics Curve



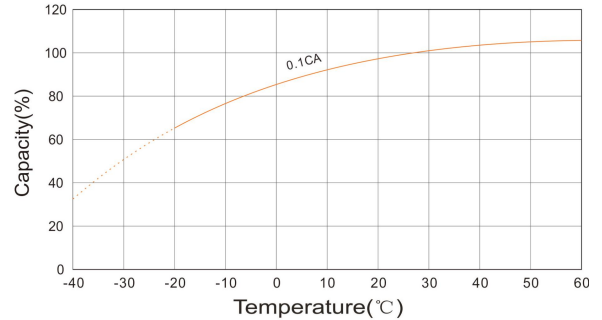
Charging Characteristics Curve



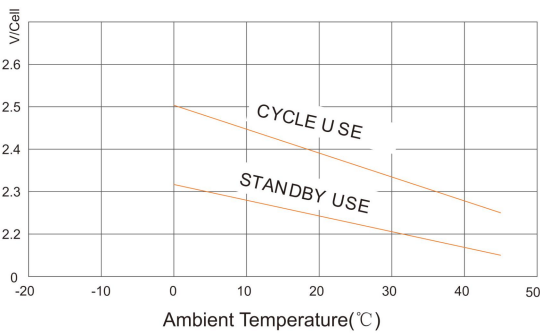
Cycle life in relation to depth of Discharge



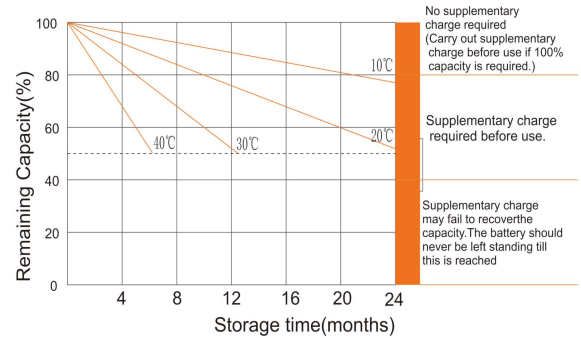
Temperature effects on Capacity



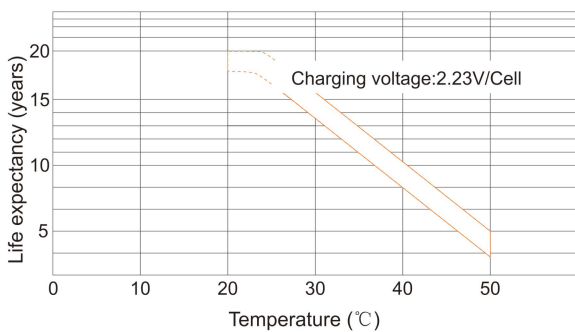
Relationship between charging voltage and temperature



Self-discharge Characteristics



Temperature effects on Float life



Life Characteristics of Standby use

