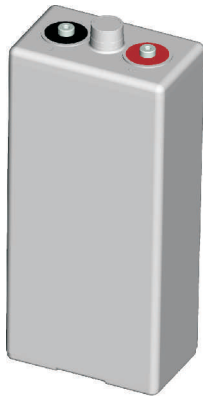




## OPzV600 (2V600AH) Tubular GEL Battery



### Specification

|                        |  |                               |
|------------------------|--|-------------------------------|
| Nominal Voltage        | 2V   |                               |
| Capacity               | 600.0Ah@10hr to 1.80V/cell                         |                               |
| Dimension              | Length   | 145±2mm (5.17 inches)         |
|                        | Width  | 206±3mm (8.11 inches)         |
|                        | Container Height                                   | 646±3mm (25.4 inches)         |
|                        | Total Height (with Terminal)                       | 681±3mm (26.8 inches)         |
| Approx Weight          | Approx 46.0 kg (101.4lbs)                          |                               |
| Container Material     | ABS  |                               |
| Rated Capacity         | 600 AH/60.0A                                       | (10hr, 1.80V/cell, 20°C/68°F) |
|                        | 520 A H/104A                                       | (5hr, 1.75V/cell, 20°C/68°F)  |
|                        | 456 AH/152A  | (3hr, 1.75V/cell, 20°C/68°F)  |
|                        | 341 AH/341A  | (1hr, 1.60V/cell, 20°C/68°F)  |
| Max. Discharge Current | 4800A (5s)   |                               |
| Internal Resistance    | Approx 0.62mΩ                                      |                               |
| Operating Temp. Range  | Discharge  | -20~55°C (-4~131°F)           |
|                        | Charge   | 0~40°C (32~104°F)             |
|                        | Storage  | -20~50°C (-4~122°F)           |
| Cycle Use              | Initial Charging Current less than 150.0A. Voltage |                               |
|                        | 2.40V~2.50V at 20°C(68°F)Temp. Coefficient -5mV/°C |                               |
| Standby Use            | No limit on Initial Charging Current Voltage       |                               |
|                        | 2.25V~2.30V at 20°C(68°F)Temp. Coefficient -3mV/°C |                               |
| Self-discharge         | <2% pre month @ 20°C(68°F)                         |                               |

### Applications

- ◆ Solar energy/wind energy
- ◆ Electric power/nuclear power
- ◆ Communication
- ◆ Ship, maritime affairs
- ◆ UPS, medical facilities and emergency lighting
- ◆ Situation with high environmental protection and energy-saving
- ◆ Better safety performance and reliability
- ◆ Designed service life of 22 years

### Main Technical Advantages

- ◆ Plate: positive plate adopts tubular plate which can prevent active material falling, and adopts multi-component alloy frame. have fine corrosion-resisting performance and long service life. Negative plate adopts special radiated structure.
- ◆ Separator: adopt special micro-pore PVC-SiO<sub>2</sub> separator from Europe AMER-SIL Company, separator have big porosity and low resistance.
- ◆ Electrolyte: adopts Germany gas silicon dioxide, electrolyte in gel state in the battery without flowing, leakage and lamination can be avoided.
- ◆ Safety valve: adopt Germany technology, constant opening and closing, accumulator case expansion, damage and electrolyte dry up can be avoided.

### Constant Current Discharge (Amperes) at 20 °C (68°F)

| F.V/Time   | 10min | 15min | 30min | 1h  | 2h  | 3h  | 5h   | 8h   | 10h  |
|------------|-------|-------|-------|-----|-----|-----|------|------|------|
| 1.85V/cell | 409   | 389   | 335   | 267 | 177 | 137 | 94.2 | 65.8 | 56.2 |
| 1.80V/cell | 503   | 470   | 390   | 301 | 195 | 149 | 102  | 70.5 | 60.0 |
| 1.75V/cell | 595   | 526   | 416   | 313 | 200 | 152 | 104  | 71.7 | 60.9 |
| 1.70V/cell | 668   | 574   | 440   | 325 | 205 | 156 | 105  | 72.6 | 61.6 |
| 1.65V/cell | 717   | 607   | 458   | 335 | 209 | 158 | 107  | 73.5 | 62.3 |
| 1.60V/cell | 750   | 628   | 469   | 341 | 212 | 160 | 108  | 74.1 | 62.7 |

### Constant Power Discharge (Watts) at 20 °C (68°F)

| F.V/Time   | 10min | 15min | 30min | 1h  | 2h  | 3h  | 5h  | 8h  | 10h |
|------------|-------|-------|-------|-----|-----|-----|-----|-----|-----|
| 1.85V/cell | 761   | 730   | 640   | 517 | 344 | 268 | 185 | 130 | 112 |
| 1.80V/cell | 919   | 871   | 738   | 578 | 376 | 290 | 199 | 139 | 119 |
| 1.75V/cell | 1069  | 962   | 779   | 598 | 385 | 295 | 202 | 141 | 121 |
| 1.70V/cell | 1178  | 1034  | 816   | 617 | 393 | 300 | 205 | 143 | 122 |
| 1.65V/cell | 1243  | 1076  | 840   | 631 | 399 | 304 | 207 | 144 | 123 |
| 1.60V/cell | 1276  | 1098  | 853   | 637 | 402 | 306 | 208 | 145 | 124 |

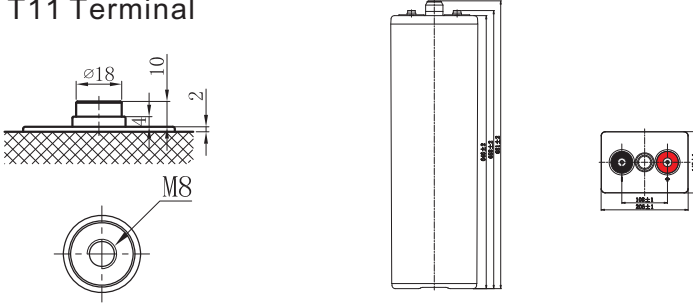
**Note** The above data are average values, and can be obtained with 3 charge/discharge cycles. These are not minimum values.



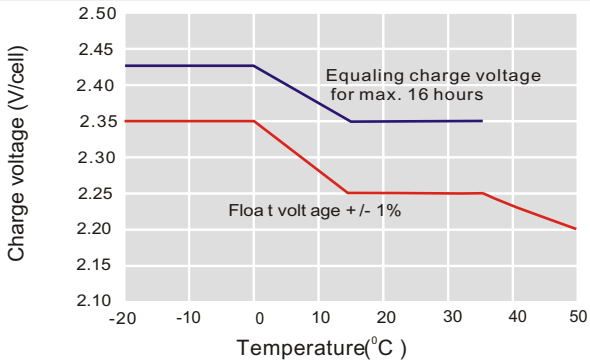
## OPzV600 (2V600AH) Tubular GEL Battery

### Dimensions

#### T11 Terminal

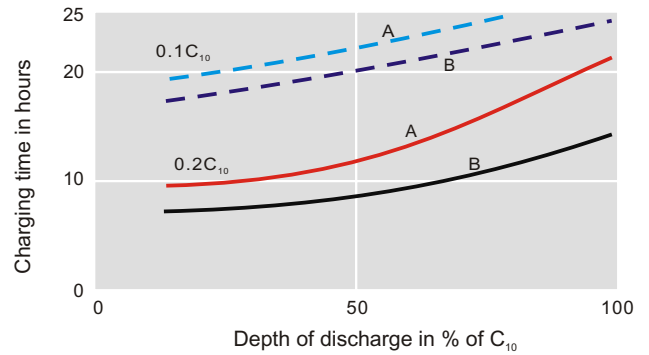


### Discharge Characteristics



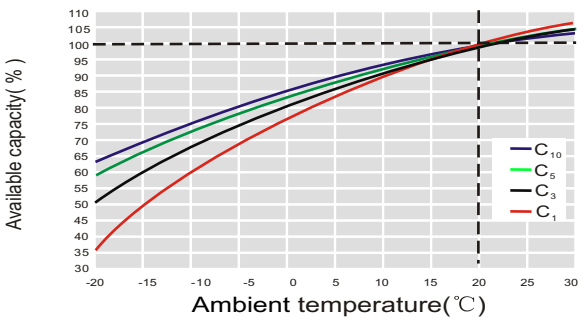
For continuous charging we recommend a voltage of 2.25 V. The charging voltage must be compensated to the curve for continuously different battery ambient temperature.

### Charging Characteristics

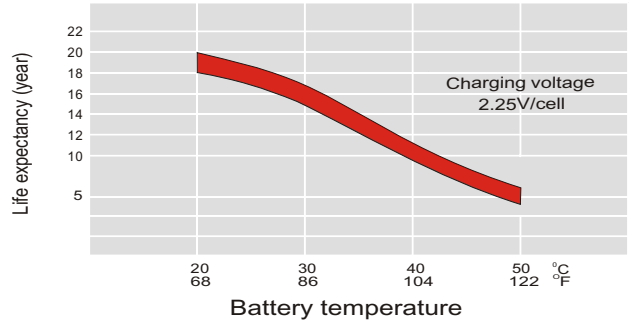


Charge voltage:  
 A—2.25 V/cell      B—2.40 V/cell  
 - - - State of charge 100 %      — State of charge 90 %

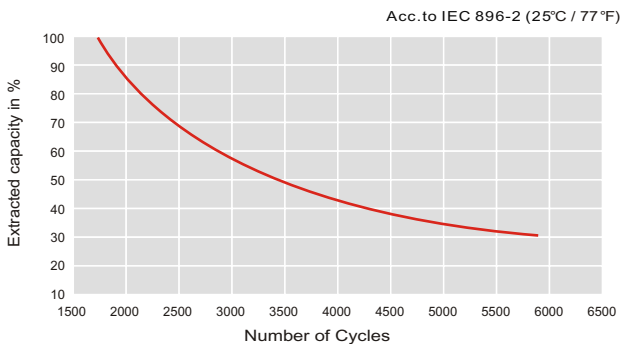
### Temperature Effects in Relation to Battery Capacity



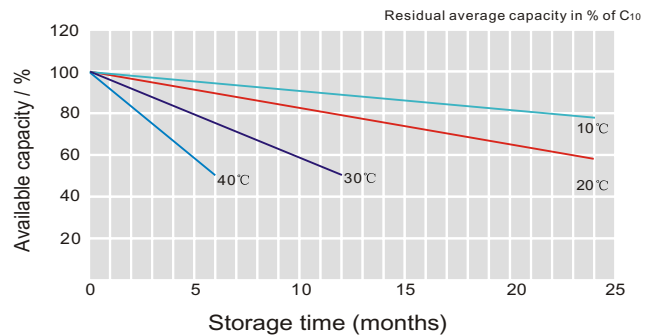
### Effect of Temperature on Long Term Float Life



### Cycle Life in Relation to Depth of Discharge



### General Relation of Capacity VS. Storage Time



### JYC OPzV BATTERIES

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