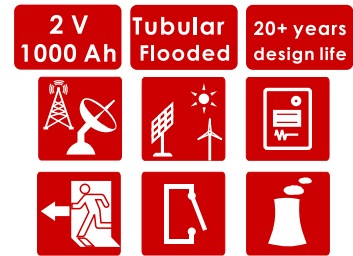


## 2V TUBULAR FLOODED SERIES BATTERY

The OPzS series is a traditional tubular plate flooded battery which offers 20+ years design life according to the standard IEC60896-11. With a new design and technical improvement, it offers maximum efficiency and reliability for the widest variety of applications. This series is highly suited for all standby power applications that require the highest levels of reliability and security.



### SPECIFICATIONS

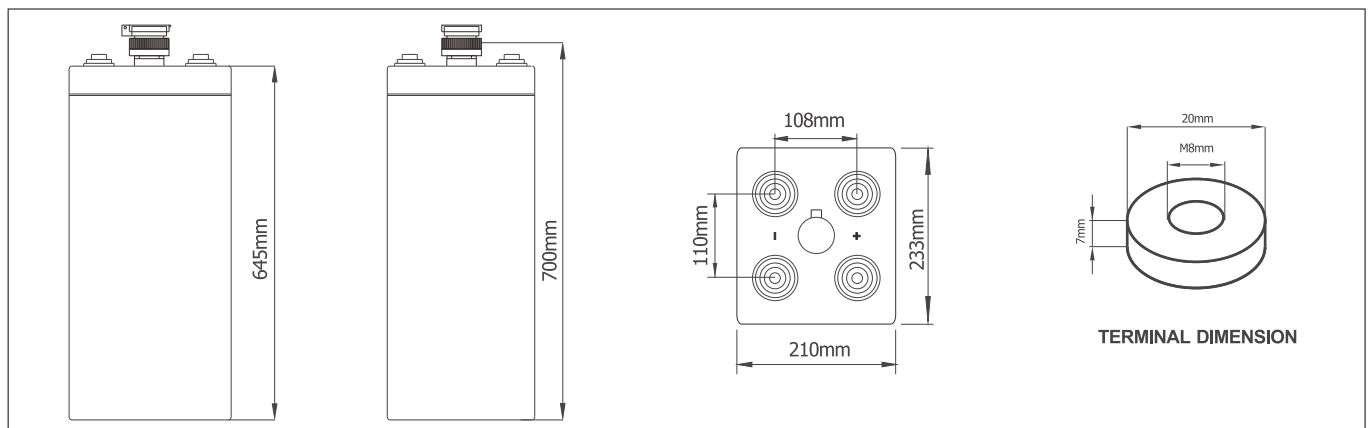
|                               |   |
|-------------------------------|---|
| Nominal Voltage (V)           | 2   |
| Designed Floating Life (20°C) | 20+ Years   |
| Nominal Capacity (20°C)       | 1000 Ah @ C <sub>10</sub> (to 1.80Vpc)  |
| Dimensions                    | L233mm × W210mm × H700mm  |
| Approx. Weight                | Without electrolyte: 53.5Kg (118 lbs)<br>With electrolyte: 73.5Kg (162 lbs)   |
| Electrolyte                   | Diluted sulphuric acid of 1.240 g/cm <sup>3</sup> (20°C)<br>Acid weight: 20Kg |
| Terminal Type                 | Female Copper Insert M8 (torque:10~12N.m)                                     |
| Internal Resistance           | Approx. 0.45mOhm (fully charged @ 20°C)                                       |
| Max. Charge Current           | 200 A   |
| Max. Discharge Current (5S)   | 2500 A  |
| Short Circuit Current         | 4500 A  |
| Self Discharge                | Approx. 4% per month @ 20°C   |
| Ambient Temperature           | Discharge: -25~65°C<br>Charge: -20~65°C<br>Storage: -15~40°C                  |
| Float Charge Voltage          | 2.23V @25°C (-3mV / °C/ cell)   |
| Equalize Charge Voltage       | 2.35V @25°C   |
| Container Material            | SAN   |



### Complied standards

- IEC 60896-11
- DIN40736
- IEC61427
- Eurobat guide, long life
- BS6290 part 4
- UL1989

### DIMENSIONS



### BATTERY DISCHARGE TABLE

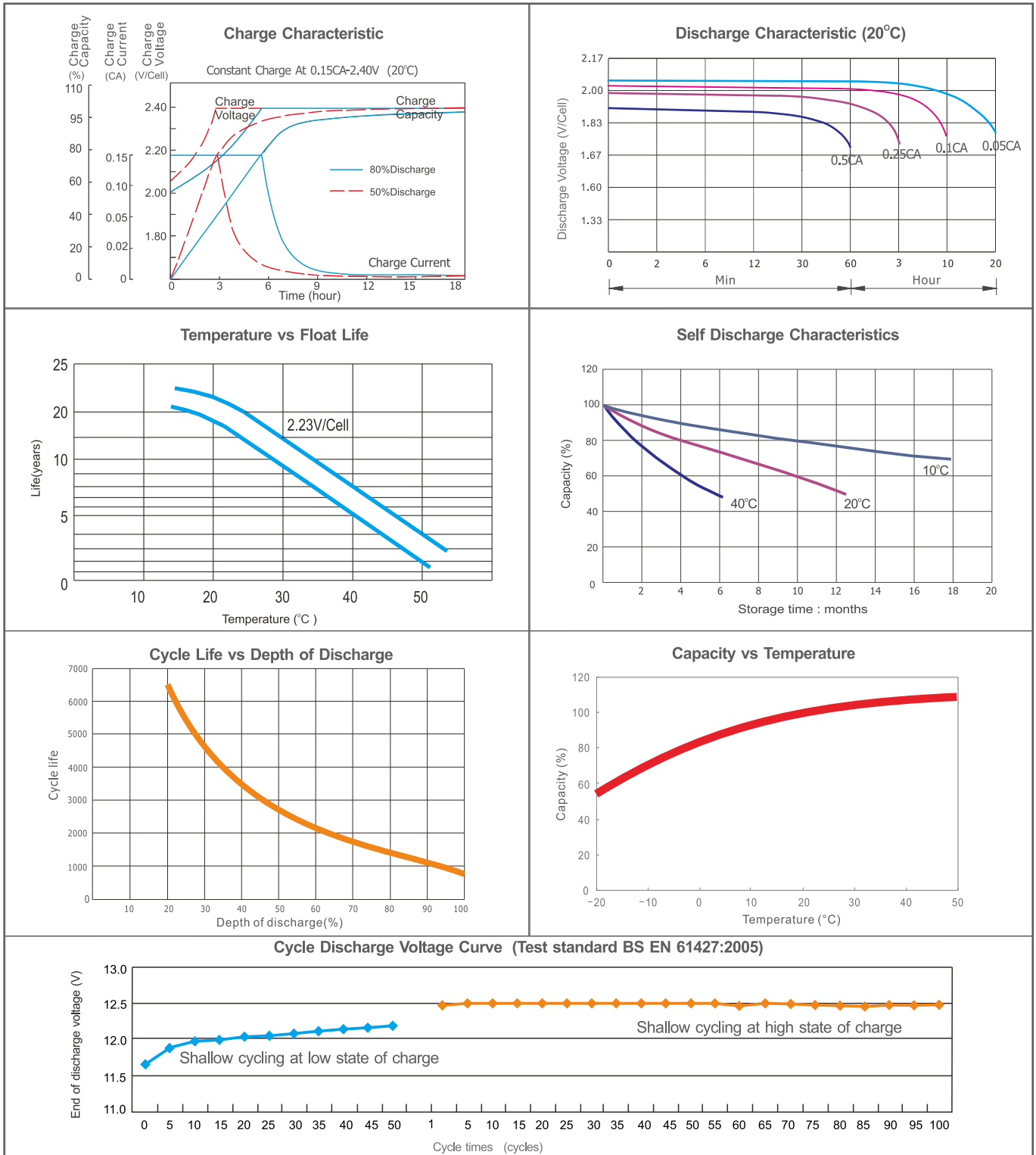
#### Constant Current Discharge Characteristics: Amps (20°C)

| F.V./Time | 5m in | 10m in | 15m in | 30m in | 1h  | 2h  | 3h  | 4h  | 5h  | 8 h | 10 h | 20h  |
|-----------|-------|--------|--------|--------|-----|-----|-----|-----|-----|-----|------|------|
| 1.90V     | 399   | 363    | 330    | 323    | 299 | 234 | 189 | 159 | 139 | 103 | 91.0 | 50.1 |
| 1.85V     | 431   | 413    | 406    | 404    | 340 | 259 | 209 | 176 | 163 | 109 | 95.0 | 52.3 |
| 1.80V     | 688   | 660    | 646    | 556    | 437 | 305 | 256 | 200 | 173 | 123 | 100  | 55.0 |
| 1.75V     | 826   | 792    | 768    | 636    | 487 | 330 | 265 | 208 | 178 | 125 | 103  | 57.8 |

#### Constant Power Discharge Characteristics: W/cell (20°C)

| F.V./Time | 5m in | 10m in | 15m in | 30m in | 1h  | 2h  | 3h  | 4h  | 5h  | 8 h | 10 h | 20h |
|-----------|-------|--------|--------|--------|-----|-----|-----|-----|-----|-----|------|-----|
| 1.90V     | 774   | 704    | 632    | 611    | 575 | 500 | 411 | 347 | 298 | 217 | 188  | 101 |
| 1.85V     | 836   | 802    | 779    | 759    | 654 | 565 | 430 | 386 | 331 | 237 | 204  | 110 |
| 1.80V     | 1335  | 1281   | 1098   | 1016   | 857 | 685 | 547 | 447 | 378 | 267 | 220  | 114 |
| 1.75V     | 1602  | 1537   | 1126   | 1023   | 864 | 712 | 579 | 473 | 395 | 271 | 229  | 117 |

## CHARACTERISTICS



### Long time discharge capacity for Solar & Wind applications

| Capacity      | C <sub>24</sub><br>(Ah) | C <sub>48</sub><br>(Ah) | C <sub>72</sub><br>(Ah) | C <sub>100</sub><br>(Ah) | C <sub>120</sub><br>(Ah) | C <sub>240</sub><br>(Ah) |
|---------------|-------------------------|-------------------------|-------------------------|--------------------------|--------------------------|--------------------------|
| OPzS2-1000    | 1130                    | 1240                    | 1300                    | 1350                     | 1370                     | 1400                     |
| Final Voltage | 1.85 V                  |                         |                         |                          |                          |                          |

### Solar & Wind applications parameters settings

|                               |                         |
|-------------------------------|-------------------------|
| Over voltage disconnect:      | 2.47±0.01V/cell @ 25°C  |
| Regulation/equalize voltage:  | 2.40±0.01V/cell @ 25°C  |
| Array reconnection voltage:   | 2.23±0.005V/cell @ 25°C |
| Float voltage setting:        | 2.25±0.005V/cell @ 25°C |
| Low voltage alarm voltage:    | 1.95±0.005V/cell @ 25°C |
| Low voltage disconnect:       | 1.90±0.005V/cell @ 25°C |
| Load reconnect voltage:       | 2.09±0.01V/cell @ 25°C  |
| Temp. compensate coefficient: | -4mV/cell/°C            |

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Note: All above information shall be changed without prior notice, CHISEN reserves the right to explain and update 2/2