

## **GFX-1000** 10 OPzS 1000



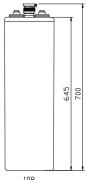
#### **Application:**

- Solar and wind power system
- Electric power, nuclear power
- Telecommunication
- UPS
- Marine

#### Features of performance application

- Designed service life of 22 years
- Supplement water period is 0.25-1 year (normal) 1-2 year (choose water content recombination
- High cycle service life
- Wide operation temperature range
- Excellent deep cycle performance
- Superior low current discharge performance
- Better safety performance and reliability
- Modular and installation design
- Performance/price ratio is high and yearly operating cost is low
- Environmental friendly

| Rated voltage   | 2 V   |  |  |  |  |  |  |  |
|---|---|--|--|--|--|--|--|--|
| Capacity@<br>25°C(77°F)                                       | 1000Ah @ 10hr to 1.80V per cell   |  |  |  |  |  |  |  |
| Weight  | Without electrolyte: about 57 kg (125.4 lb) With electrolyte: about 77 kg (169.4 lb)  |  |  |  |  |  |  |  |
| electrolyte density<br>(charged)                              | 1.240±0.01g/cm3 (20°C) (68°F)   |  |  |  |  |  |  |  |
| Reference internal resistance (charged) Short-circuit current | About 0.37mΩ@ 25°C(77°F) About 5243A (0.1S reference value)   |  |  |  |  |  |  |  |
| Max discharge current   | 3000A (5sec)  |  |  |  |  |  |  |  |
| Self-discharge  | < 10% 90 days @ 25°C (77°F)   |  |  |  |  |  |  |  |
| Temperature range   | Application: $-20^{\circ}\text{C} \sim 50^{\circ}\text{C}(-4^{\circ}\text{F} \sim 122^{\circ}\text{F})$<br>Storage: $0^{\circ}\text{C} \sim 20^{\circ}\text{C}(32^{\circ}\text{F} \sim 68^{\circ}\text{F})$<br>Recommendation: $20^{\circ}\text{C} \sim 25^{\circ}\text{C}(68^{\circ}\text{F} \sim 77^{\circ}\text{F})$ |  |  |  |  |  |  |  |
| Max charge current  | 150A  |  |  |  |  |  |  |  |
| Charge voltage<br>@ 25°C (77°F)                               | Float charge: 2.23V, average charge: 2.35V Temperature compensation factor: -3 $mV$ °C  |  |  |  |  |  |  |  |
| Terminal output   | M10 copper terminal (HPb59-1)   |  |  |  |  |  |  |  |





#### **Execution standard:**

IEC60896-11 DIN40736 BS EN 61427-2002 GB/T13337.1

Q/321284KCC 03-2006

Authentication and certificate: **Certificate of Qualification on Perfecting** Measurement & Measuring System

GB/T19022-2003

ISO10012:2003、IDT

Quality Management System Authentication

GB/T19001-2000

NO.03006Q10002R0M-2

**Environmental Management System** Authentication

ISO 14001:2004

NO.010607E2024R1M-2

Occupational Health Management **System Authentication** 

### Structure features of Shuangdeng GFX series acid-proof stationary battery: Plate: positive plate adopts tubular type plate which can effectively prevent

- active substance falling, positive plate frame is made of complex alloy, the alloy crystal particle is tiny and dense, the corrosion-resisting performance is good and service life is long. The negative plate adopts pasted plate, grid adopts radiated structure, which enhances utilization ratio of active substance and discharge capability of strong current; moreover, the charge reception capability is strong.
- Battery case: adopt AS transparent case with corrosion prevention, high strength and beautiful appearance, the internal structure and state of battery can be directly observed via transparent case.
- Separator: the combined separator of multi-hole corrugated plastic plate and micro-bore rubber separator have bigger electrolyte storage space, which enhances dispersion speed of electrolyte, greatly reduces internal resistance of battery and prevents dendrite short circuit after deep discharge.
- strong current carrying capacity and corrosion resistance. The unique terminal post sealing structure can effectively eliminate the stress which is generated due to plate extension, leakage is avoided, sealing reliability of terminal post is ensured and service life of battery is greatly increased.
- filter acid fume and prevent flame, the density and temperature of electrolyte can be measured directly, use is safe and maintenance is convenient.

Terminal sealing: the built-in copper-core lead-based terminal post has GB/T28001-2001 NO.010607S10147R0M-2 CE authentication EN 61000-6-3:2001+A11:2004 EN 61000-6-1:2001 Acid resistant bolt: adopt special funnel-shaped acid resistant bolt which can **National Industrial Product Production** License XK06-044-00012

Discharge current at different final voltages and different discharge rates unit: A (25°C, 77°F)

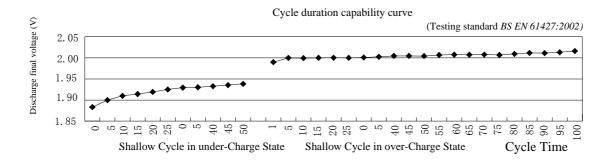
|  | 5min | 10min | 15min | 30min | 45min | 1hr | 1.5hr | 2hr | 3hr | 4hr  | 5hr | 8 hr | 10 hr | 20hr  | 100 hr | 120hr |
|--|------|-------|-------|-------|-------|-----|-------|-----|-----|------|-----|------|-------|-------|--------|-------|
| 1.90V  | 399  | 363   | 330   | 323   | 305   | 299 | 250   | 234 | 189 | 159  | 139 | 103  | 91    | 50.41 | 13.76  | 11.48 |
| 1.85V  | 431  | 413   | 406   | 404   | 351   | 340 | 288   | 259 | 209 | 176  | 163 | 109  | 95    | 55.45 | 14.48  | 12.08 |
| 1.80V  | 688  | 660   | 646   | 556   | 444   | 437 | 320   | 305 | 256 | 200  | 173 | 123  | 103   | 58.22 | 14.99  | 12.50 |
| 1.75V  | 826  | 792   | 768   | 636   | 506   | 487 | 358   | 330 | 265 | 208  | 178 | 125  | 105   | 60.55 | 15.36  | 12.82 |
| Discharge power at different final voltages and different discharge rates unit: W (25°C, 77°F) |      |       |       |       |       |     |       |     |     |      |     |      |       |       |        |       |
|  | 5min | 10min | 15min | 30min | 45min | 1hr | 1.5hr | 2hr | 3hr | 4hr  | 5hr | 8 hr | 10 hr | 20hr  | 100 hr | 120hr |
| 1.0037   | 774  | 704   | 622   | 611   | 502   | 575 | 520   | 500 | 411 | 2.47 | 200 | 217  | 100   | 100.0 | 27.52  | 22.06 |

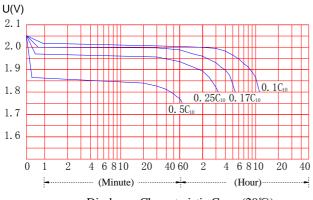
|      |            | 5min | 10min | 15min | 30min | 45min | 1hr | 1.5hr | 2hr | 3hr | 4hr | 5hr | 8 hr | 10 hr | 20hr  | 100 hr | 120hr |
|------|------------|------|-------|-------|-------|-------|-----|-------|-----|-----|-----|-----|------|-------|-------|--------|-------|
| 1.90 | 0 <b>V</b> | 774  | 704   | 632   | 611   | 593   | 575 | 538   | 500 | 411 | 347 | 298 | 217  | 188   | 100.8 | 27.52  | 22.96 |
| 1.85 | 5V         | 836  | 802   | 779   | 759   | 707   | 654 | 610   | 565 | 430 | 386 | 331 | 237  | 204   | 109.8 | 28.67  | 23.92 |
| 1.80 | 0V         | 1335 | 1281  | 1098  | 1016  | 937   | 857 | 771   | 685 | 547 | 447 | 378 | 267  | 227   | 114.1 | 29.38  | 24.50 |
| 1.75 | 5V         | 1602 | 1537  | 1126  | 1023  | 944   | 864 | 760   | 712 | 579 | 473 | 395 | 271  | 229   | 116.9 | 29.64  | 24.74 |

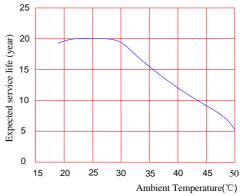


# GFX-1000 10 OPzS 1000



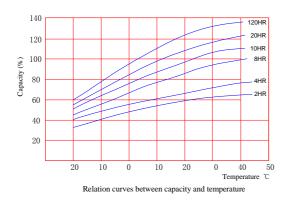






Relation curves between temperature and service Life





Free service line: +86-4008-899-886

FAX: +86-25-83176850 Tel: +86-25-83176860 E-mail:gjpt@chinashoto.com

E-mail: joyce.zhong@chinashoto.com Web: http://www.chinashoto.cn/