



# GFX-1500 12 OPzS 1500



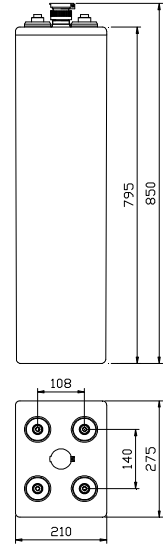
### Application:

- 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 valve)
- ✚ 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@ 25°C(77°F)	1500Ah @ 10hr to 1.80V per cell
Weight	Without electrolyte: about 82 kg ( 180.4 lb) With electrolyte: about 112kg ( 246.4 lb)
electrolyte density (charged)	1.240±0.01g/cm <sup>3</sup> (20°C) (68°F)
Reference internal resistance (charged)	About 0.32mΩ@ 25°C(77°F)
Short-circuit current	About 6063A (0.1S reference value)
Max discharge current	4500A (5sec)
Self-discharge	< 10% 90 days @ 25°C (77°F)
Temperature range	Application: -20°C ~ 50°C(-4°F ~ 122°F) Storage: 0°C~20°C(32°F~68°F) Recommendation: 20°C~25°C(68°F~77°F)
Max charge current	225A
Charge voltage @ 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**

GB/T28001-2001

NO.010607S10147R0M-2

### CE authentication

EN 61000-6-3:2001+A11:2004

EN 61000-6-1:2001

### National Industrial Product Production License

XK06-044-00012



### 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.
- Terminal sealing: the built-in copper-core lead-based terminal post has 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.
- Acid resistant bolt: adopt special funnel-shaped acid resistant bolt which can filter acid fume and prevent flame, the density and temperature of electrolyte can be measured directly, use is safe and maintenance is convenient.

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

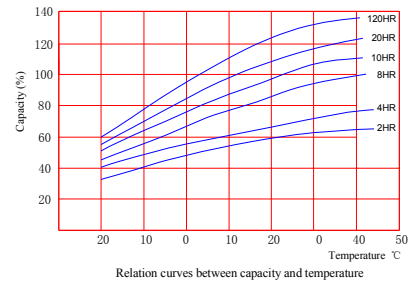
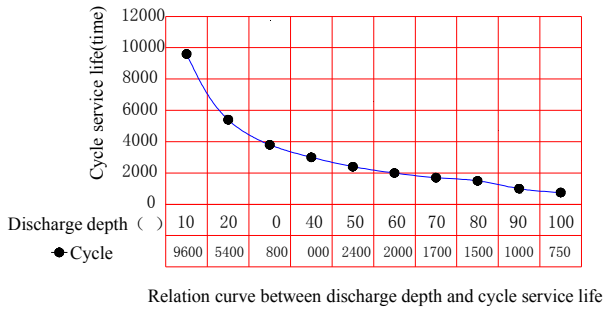
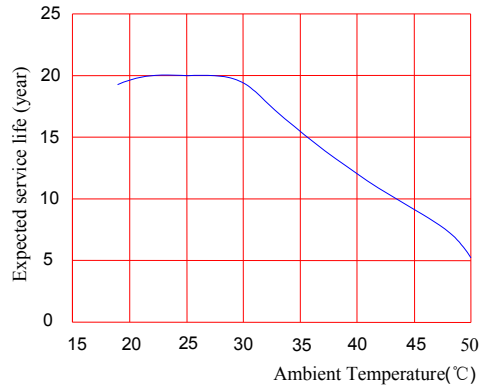
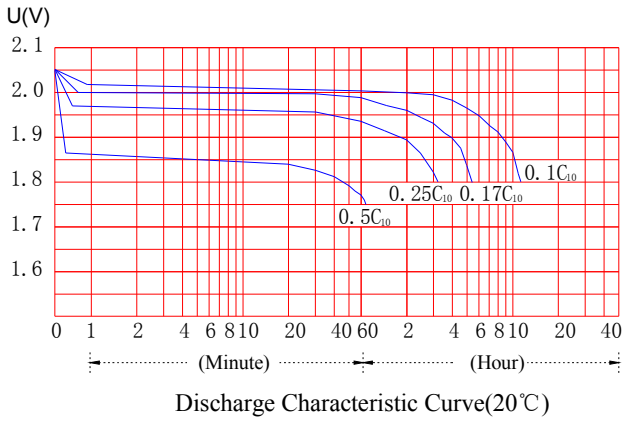
	5min	10min	15min	30min	45min	1hr	1.5hr	2hr	3hr	4hr	5hr	8 hr	10 hr	20hr	100 hr	120hr
1.90V	525	477	433	426	403	394	373	323	263	231	202	148	131	75	20.12	16.86
1.85V	562	543	531	524	519	508	429	394	301	258	226	165	142	82.50	21.18	17.75
1.80V	844	817	788	751	640	633	471	463	360	289	261	185	155	86.62	21.92	18.37
1.75V	1013	981	945	885	730	719	528	506	387	317	274	189	157	90.09	22.47	18.83

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

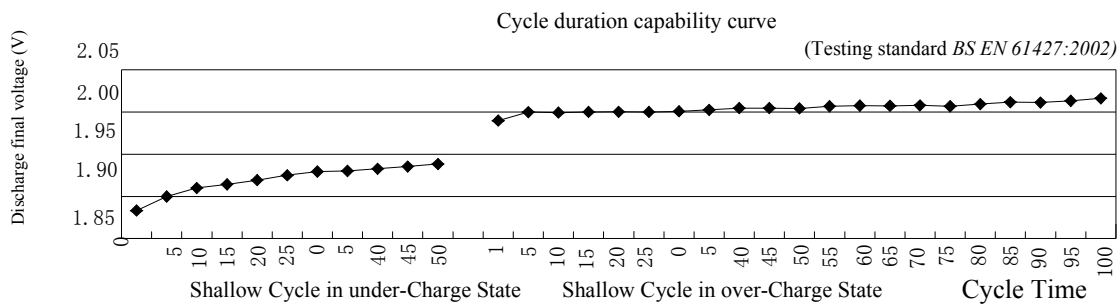
	5min	10min	15min	30min	45min	1hr	1.5hr	2hr	3hr	4hr	5hr	8 hr	10 hr	20hr	100 hr	120hr
1.90V	942	857	770	762	751	739	697	655	545	466	405	294	254	150.0	40.24	33.72
1.85V	1008	977	947	936	892	848	796	744	612	517	447	320	275	163.4	41.94	35.15
1.80V	1637	1586	1343	1295	1210	1124	1024	924	742	612	519	367	306	169.8	42.96	36.01
1.75V	1965	1903	1399	1313	1215	1116	979	946	803	645	537	378	309	173.9	43.37	36.34



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Remark: a) test circumstances: 20-30°C, relative humidity is 50~80percent;  
 b) charge mode: electricity of charge is equal to 105~115percent of discharge  
 c) residual capacity is 80 percent C<sub>10</sub>



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The above data is only taken as reference instead of inspection standard. Additional notification won't be available for parameter change due to improvement and regulation of product. Inspection shall be performed in accordance with standards.

We must make a statement, when the battery service life and safe operating performance is confirmed, the test condition will be stricter; accordingly, the battery shall not be used in these conditions, because it's difficult for battery to reach expected service life.