

# GFX-3000 24 OPzS 3000



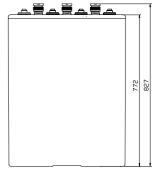
### **Application:**

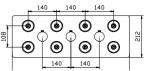
- Solar and wind power system
- Electric power, nuclear power
- Telecommunication
- UPS
- Marine

### 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)	3000Ah @ 10hr to 1.80V per cell								
Weight	Without electrolyte: about 163 kg (358.6 lb) With electrolyte: about 225 kg (495.0 lb)								
electrolyte density (charged)	1.240±0.01g/cm3 (20°C) (68°F)								
Reference internal resistance (charged) Short-circuit current	About 0.24mΩ@ 25°C(77°F) About 8083A (0.1S reference value)								
Max discharge current	9000A (5sec)								
Self-discharge	< 10% 90 days @ 25°C (77°F)								
Temperature range	Application: $-20^{\circ}\text{C} \sim 50^{\circ}\text{C}(-4^{\circ}\text{F} \sim 122^{\circ}\text{F})$ Storage: $0^{\circ}\text{C} \sim 20^{\circ}\text{C}(32^{\circ}\text{F} \sim 68^{\circ}\text{F})$ Recommendation: $20^{\circ}\text{C} \sim 25^{\circ}\text{C}(68^{\circ}\text{F} \sim 77^{\circ}\text{F})$								
Max charge current	450A								
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

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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

## $Structure\ features\ of\ Shuang deng\ GFX\ series\ acid-proof\ stationary\ battery:$

- 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 c	lifferent dis	scharge rates	unit:	$A(25^{\circ}\mathbb{C},77^{\circ}\mathbb{F})$

	5min	10min	15min	30min	45min	1hr	1.5hr	2hr	3hr	4hr	5hr	8 hr	10 hr	20hr	100 hr	120hr
1.90V	978	890	809	793	792	789	745	698	526	463	404	296	257	150	40.14	33.64
1.85V	1057	1050	1049	1048	1022	947	858	810	599	516	453	331	284	165	42.25	35.41
1.80V	1589	1578	1551	1503	1269	1267	943	926	760	599	521	370	311	173.2	43.73	36.65
1.75V	1938	1925	1891	1770	1447	1437	1056	1011	775	633	548	377	313	180.1	44.82	37.57

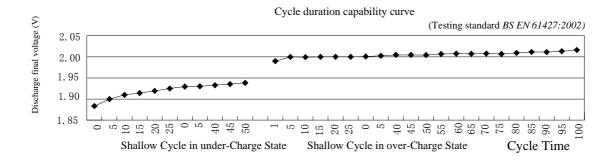
Dischar	Discharge power at different final voltages and different discharge rates unit: $W(25^{\circ}C, 77^{\circ}F)$															
	5min	10min	15min	30min	45min	1hr	1.5hr	2hr	3hr	4hr	5hr	8 hr	10 hr	20hr	100 hr	120hr
1.90V	1758	1598	1543	1523	1501	1478	1394	1309	1087	933	811	588	509	300.0	80.28	67.28
1.85V	1899	1886	1895	1871	1784	1696	1592	1487	1223	1032	893	640	550	326.7	83.66	70.11
1.80V	3083	3062	2688	2592	2420	2248	2047	1846	1485	1224	1036	737	615	339.5	85.71	71.83
1.75V	3761	3735	2738	2693	2491	2288	2086	1883	1532	1235	1039	743	623	347.6	86.50	72 51

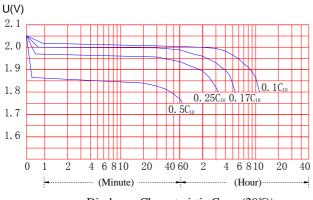


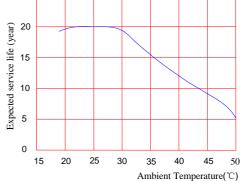
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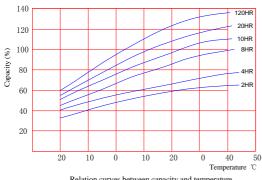






Discharge Characteristic Curve(20°C)

Relation curves between temperature and service Life



Relation curves between capacity and temperature

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