



GFX-490 7 OPzS 490



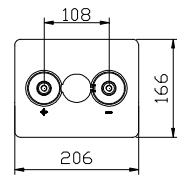
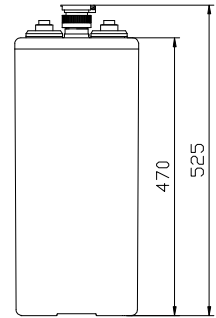
Application:

- 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)	490Ah @ 10hr to 1.80V per cell
Weight	Without electrolyte: about 29 kg (63.8 lb) With electrolyte: about 39 kg (85.8 lb)
electrolyte density (charged)	1.240±0.01g/cm3 (20°C) (68°F)
Reference internal resistance (charged)	About 0.45mΩ@ 25°C(77°F)
Short-circuit current	About 4311A (0.1S reference value)
Max discharge current	1470A (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	73.5A
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)

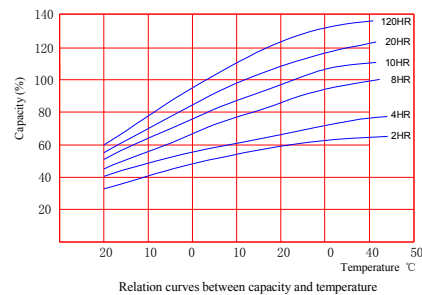
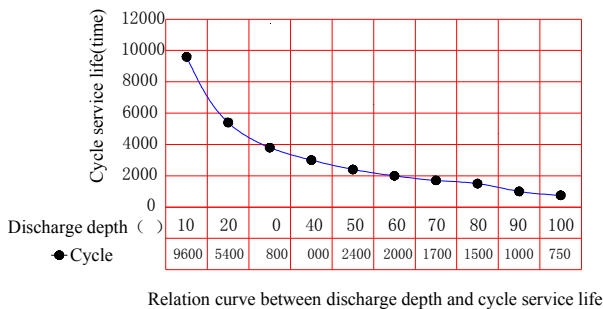
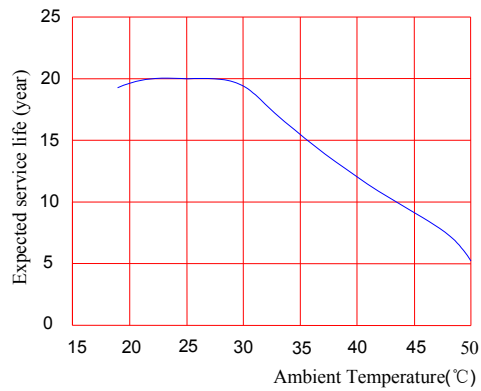
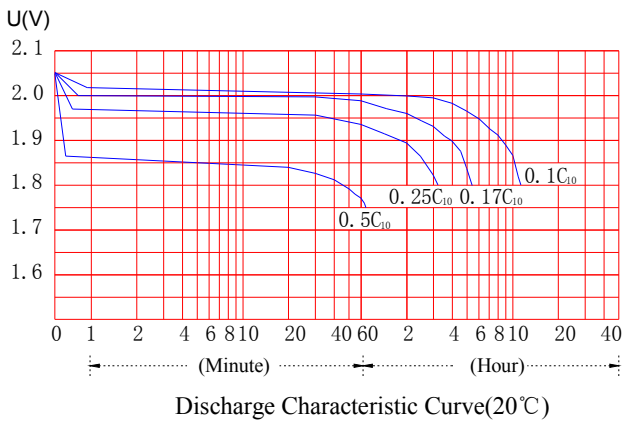
	5min	10min	15min	30min	45min	1hr	1.5hr	2hr	3hr	4hr	5hr	8 hr	10 hr	20hr	100 hr	120hr
1.90V	235	214	194	191	180	176	137	127	95	78	69	52	47	25.41	6.75	5.65
1.85V	259	257	268	251	207	200	159	145	115	86	76	56	49	27.95	7.10	5.95
1.80V	370	361	351	305	242	233	163	158	124	100	89	63	53	29.34	7.35	6.24
1.75V	444	434	419	345	276	256	183	171	130	104	91	64	54	30.51	7.53	6.49

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

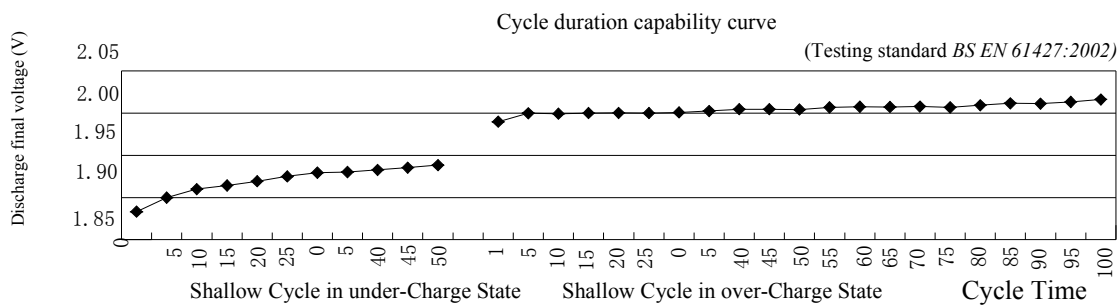
	5min	10min	15min	30min	45min	1hr	1.5hr	2hr	3hr	4hr	5hr	8 hr	10 hr	20hr	100 hr	120hr
1.90V	423	385	354	342	327	312	284	255	199	166	143	104	89	50.82	13.50	11.30
1.85V	466	462	439	425	389	352	317	282	221	184	158	112	97	55.34	14.06	11.78
1.80V	718	701	625	561	505	449	392	334	262	214	180	126	105	57.51	14.41	12.23
1.75V	861	841	645	630	567	504	431	358	274	222	185	128	109	58.88	14.53	12.53



GFX-490 7 OPzS 490



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 C₁₀



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/>

Shuangdeng Group promises to provide excellent engineering service for customers, including product solution, installation design and on-site maintenance.

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.