

## **Application:**

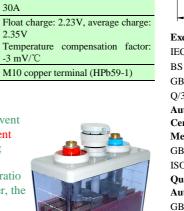
- Solar and wind power system
- Electric power, nuclear power
- Telecommunication
- UPS
- Marine

## Features of performance application

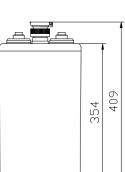
- Designed service life of 22 years
- Supplement water period is 0.25-1 year (normal) 4 1-2 year (choose water content recombination valve)
- High cycle service life
- Wide operation temperature range
- Excellent deep cycle performance
- Superior low current discharge performance
- Better safety performance and reliability
- 4 Modular and installation design
- 4 Performance/price ratio is high and yearly operating cost is low
- 4 Environmental friendly

## Structure features of Shuangdeng GFX series acid-proof stationary battery:

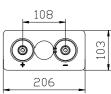
- Plate: positive plate adopts tubular type plate which can effectively prevent active substance falling, positive plate frame is made of multi-component alloy, the alloy crystal particle is tiny and dense, the corrosion-resisting performance is good and service life is long. The negative plate adopts 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: 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.



20°C



SHUANGDENG GROUI



**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

n 10min 1 110	15min 100	30min	45min	1hr	1.5hr	2hr	3hr	4ha	<b>5</b> 1	0.1	101			
110	100	01					JII	4hr	5hr	8 hr	10 hr	20hr	100 hr	120hr
	100	91	76	75	56	52	42	33	29	21	18	10.41	2.69	2.25
4 133	127	107	87	83	65	58	46	36	31	22	19	11.45	2.83	2.36
5 161	158	128	98	93	67	62	49	41	35	25	20	12.0	2.94	2.45
3 193	184	141	112	102	75	66	50	42	38	26	21	12.5	3.03	2.53
5	161	161 158	161 158 128	161 158 128 98	161 158 128 98 93	161 158 128 98 93 67	161 158 128 98 93 67 62	161 158 128 98 93 67 62 49	161 158 128 98 93 67 62 49 41	161 158 128 98 93 67 62 49 41 35	161 158 128 98 93 67 62 49 41 35 25	161 158 128 98 93 67 62 49 41 35 25 20	161 158 128 98 93 67 62 49 41 35 25 20 12.0	161 158 128 98 93 67 62 49 41 35 25 20 12.0 2.94

**GFX-200** 

4 OPzS 200

density

internal

2 V

(29.7 lb)

(39.6 lb)

600A (5sec)

Recommendation:

25°C(68°F~77°F)

122°F)

30A

2.35V

-3 mV/℃

About 3129A (0.1S reference value)

< 10% 90 days @ 25°C (77°F)

Application:  $-20^{\circ}\text{C} \sim 50^{\circ}\text{C}(-4^{\circ}\text{F})$ 

Storage: 0°C~20°C(32°F~68°F)

Rated voltage

Capacity@

Weight

electrolyte

(charged)

Reference

resistance (charged)

Short-circuit current

Temperature range

Max charge current

Charge voltage

@ 25°C(77°F)

Terminal output

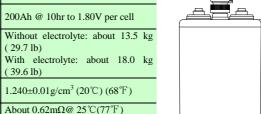
Self-discharge

Max discharge current

25℃(77°F)

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
1.90	218	198	178	165	150	135	121	107	83	68	58	40	33	20.8	5.38	4.49
1.85	240	238	218	193	173	152	135	118	90	74	64	44	37	22.6	5.60	4.67
1.80	320	312	293	249	220	190	164	137	106	85	72	49	42	23.5	5.76	4.80
1.75	383	374	336	280	244	208	177	145	109	87	73	51	44	24.1	5.85	4.88







GFX-200 4 OPzS 200



Cycle duration capability curve Discharge final voltage (V) (Testing standard BS EN 61427:2002) 2.05 2.00 1.95 1.90 1.85 10 15 20 25 0 10 40 45 50 00 Shallow Cycle in under-Charge State Shallow Cycle in over-Charge State Cycle Time U(V) 25 2.1 2.0 Expected service life (year) 20 1.9 15 0.  $1C_{10}$ 1.8 0. 25C<sub>10</sub> 0. 17C<sub>10</sub> 0. 5C<sub>10</sub> 10 1.7 1.6 5

Relation curves between temperature and service Life

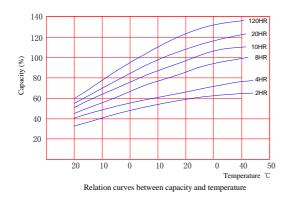
35

40

Ambient Temperature(℃)

45

50



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/

0

1

2

4 6 8 1 0

(Minute)

20

40 60 2

Discharge Characteristic Curve(20°C)

4 6 8 1 0

(Hour)

20 40

\_

0

15

20

25 30