



GFMJ-800 8 OPzV 800



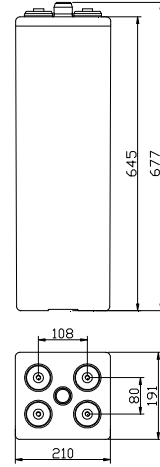
Application:

- Solar energy, wind energy
- Electric power, nuclear power
- Communication
- Ship, maritime affairs
- UPS, medical facilities and emergency lighting
- Situation with high environmental protection and energy-saving

Features of performance application

- ✚ Designed service life of 20 years
- ✚ High cycle service life
- ✚ Better temperature resistance performance
- ✚ Excellent deep cycle performance
- ✚ Superior low current discharge performance
- ✚ Stronger constant power discharge capability
- ✚ Better charge acceptability
- ✚ Better safety performance and reliability
- ✚ Modular and personified installation design
- ✚ High Performance/price ratio and low yearly operating cost
- ✚ Eco-friendly, cycle application

Rated voltage	2 V
Capacity@ 25°C(77°F)	800Ah @ 10hr to 1.80V per cell
Weight	About 64.5kg (141.9 lb)
Reference internal resistance (charged)	About 0.3mΩ@ 25°C(77°F)
Short-circuit current	About 6833A (0.1S reference value)
Max discharge current	2400A (5sec)
Self-discharge	< 20% 180 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	160A
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)
Recharge time	See figure 2



Structure features of Shuangdeng GFMJ series VRLA gel battery:

- Electrolyte: primary material adopts Germany gas silicon dioxide, the material will be the thin collosol state when it's injected initially, and it can fill the whole plate space of battery, and each part of plate can react evenly. The flooded electrolyte design can avoid dry up of battery when it's in high temperature and over charged, the thermal capacity is big and heat-elimination is fine, accordingly, thermal runaway can be avoided. The electrolyte is in the gel state in finished battery without flowing, accordingly, leakage and lamination can be avoided.
- Plate: positive plate adopts tubular type plate which can effectively prevent active substance falling, the positive plate frame is molded with multi-component alloy, the crystal particle of alloy structure is tiny and dense, the corrosion-resisting performance is fine and service life is long. Negative plate adopts pasted plate, the grid adopts radiated structure which enhances utilization ratio of active substance and discharge capability of strong current, and the charge reception capability is strong.
- Battery case: it's made of ABS material, corrosion prevention is fine, strength is high, and appearance is beautiful, it can be sealed with lid reliably which can prevent potential leakage risk.
- Separator: adopt special micro-pore PVC-SiO₂ separator from Europe AMER-SIL Company, the porosity of separator is big and resistance is low. It has bigger electrolyte storage space.
- Terminal sealing: the built-in copper core lead-base terminal post has stronger current carrying capacity and corrosion resistance. The unique double sealing structure of terminal post can effectively avoid leakage, to guarantee reliability of terminal post sealing.
- Safety valve: adopt Germany technology, constant opening and closing valve, high reliability, the accumulator case expansion, damage and electrolyte dry up can be avoided.



Execution standard:

- IEC60896-21/22 DIN40742
- BS EN 61427-2002
- YD/T 1360-2005
- 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

Product authentication:

- YD/T1360-2005

NO.030074640567R1M

CE authentication

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

EN 61000-6-1:2001

National Industrial Product Production License

XXK06-044-00012

Product Quality Test Free Certificate

(2006)GM(321630488)

Export product quality license

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	684	599	404	392	376	312	248	220	172	144	124	86	72	37.08	9.67	8.20
1.85V	721	630	470	440	399	344	272	236	183	152	130	90	75	40.78	10.18	8.64
1.80V	773	762	649	560	448	416	344	266	200	164	139	96	82	42.81	10.53	8.94
1.75V	804	778	744	624	497	448	378	278	208	168	141	98	83	44.52	10.79	9.16

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	1296	1123	740	654	616	578	489	400	329	278	239	174	150	74.16	19.34	16.40
1.85V	1340	1170	852	739	675	611	531	451	368	308	265	190	164	80.74	20.16	17.11
1.80V	1421	1402	1028	911	832	753	651	549	437	358	304	213	182	83.91	20.64	17.52
1.75V	1470	1422	1185	1030	942	853	724	595	464	380	317	217	184	85.92	20.82	17.68



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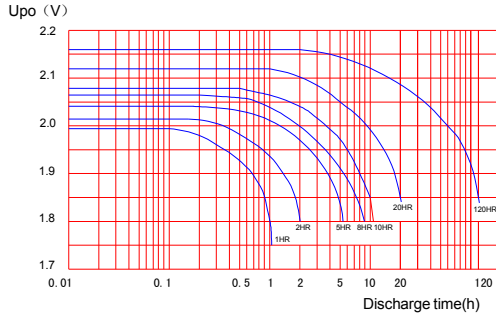


Figure 1 Discharge characteristic curve (20°C)

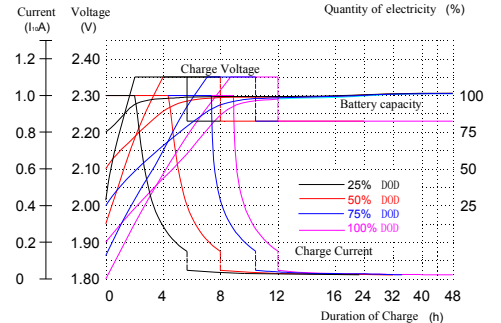


Figure 2 Constant voltage charge characteristic curve

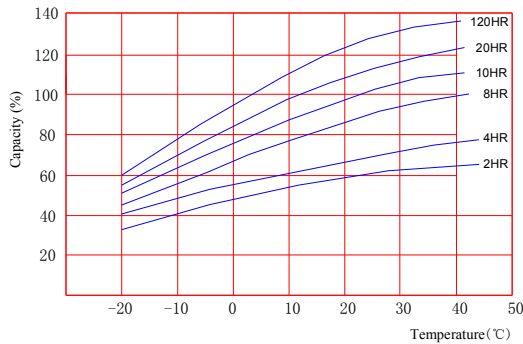


Figure 3 Relation curves between capacity and temperature

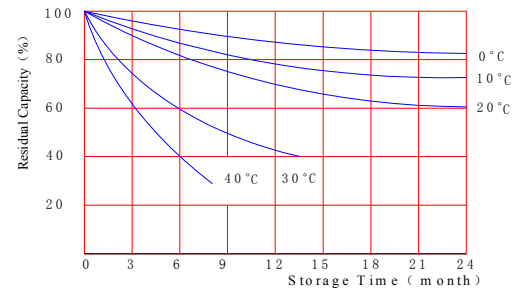


Figure 4 Self-discharge characteristic curve

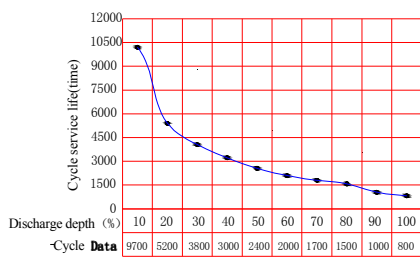


Figure 5 Relation curve between discharge depth and cycle service life

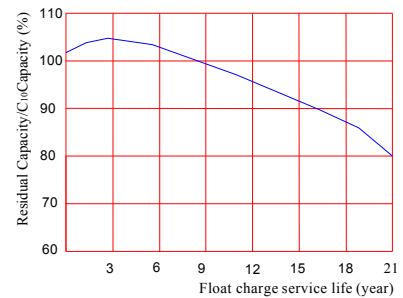


Figure 6 Relation curve between Float charge service life and residual capacity

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

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The above data are 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.