



6-GFMJ-50 12V gel battery



Application

- Telecom
- Switching power supply
- CATV
- Oil and gas
- UPS, medical facilities
- Solar energy
- Street lamp
- Other situation with normal application

Features of performance application

- ✚ Designed service life of 15 years
- ✚ High cycle service life
- ✚ Wider temperature range
- ✚ Excellent deep cycle performance
- ✚ Excellent high rate discharge performance
- ✚ Stronger constant power discharge capability
- ✚ Better charge acceptability
- ✚ Better safety performance and reliability
- ✚ Performance/price ratio is high and yearly operating cost is low
- ✚ Environment protection and energy saving

Rated voltage	12 V
Capacity@ 25°C(77°F)	50Ah @ 10hr to 10.8V
Weight	About 21kg (46.2 lb)
Reference internal resistance (charged)	About 6.38mΩ@ 25°C(77°F)
Short-circuit current	About 1881A (0.1S reference value)
Max discharge current	150A (5sec)
Self-discharge	< 20% 180 days @ 25°C (77°F)
Temperature range	Application: -20°C~50°C(-4°F~122°F) Storage: 5°C~40°C(41°F~104°F) Recommendation: 20°C~30°C(68°F~86°F)
Max charge current	7.5A
Charge voltage @ 25°C(77°F)	Float charge: 13.5V, average charge: 14.1V Temperature compensation factor: -18 mV/°C
Terminal output	M8 copper terminal (HPb59-1)
Recharge time	See figure 2

Execution standard:

IEC60896-21/22 BS EN 61427-2002
Q/321284KCC 03-2006 YD/T 1360

Authentication and certificate:

Certificate of Qualification on Perfecting Measurement & Measuring System
GB/T19022 ISO10012:2003、IDT
Quality Management System Authentication
GB/T19001 NO.03006Q10002R0M-2

Environmental Management System Authentication

ISO 14001 NO.010607E2024R1M-2
Occupational Health Management System Authentication

GB/T28001 NO.010607S10147R0M-2

Product authentication:

YD/T1360 NO.030074640566R1M

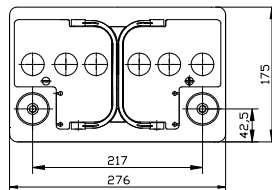
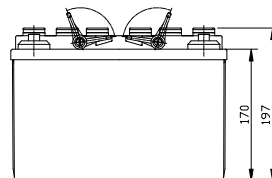
CE authentication

EN 61000-6-3:2001+A11:2004
EN 61000-6-1:2001

National Industrial Product Production License

XK06-044-00012

Product Quality Test Free Certificate



Structure feature of Shuangdeng 12V gel battery

- Electrolyte: primary material adopts Germany gas silicon dioxide, and special technology is adopted; the material will be the thin collosol state when it's injected initially, and the material will be gel state in finished battery, accordingly, leakage and lamination are avoided.
- Plate: both positive plate and negative plate adopt pasted plate, the distance is shorter, the strong current discharging capability is strong; the grid is composed of multi-component alloy whose hydrogen evolution potential is higher, the corrosion resistance is fine and service life is long; the utilization rate of active substance is high and charge receptivity is strong.
- Battery case lid: made of ABS material, corrosion is prevented, strength is high and appearance is beautiful. The case lid is sealed by hot-melting, reliability is high and potential leakage risk can be prevented.
- 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.

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	8hr	10hr	20hr	100hr	120hr
11.40	102.6	64.0	59.9	34.6	30.4	24.0	17.5	14.5	10.4	8.1	6.8	4.9	4.4	2.37	0.58	0.49
11.10	114.0	71.1	66.5	38.5	33.7	26.7	19.5	16.2	11.6	9.0	7.6	5.4	4.8	2.60	0.62	0.52
10.80	120.0	74.8	70.0	40.5	35.5	28.1	20.5	17.0	12.2	9.5	8.0	5.7	5.1	2.73	0.64	0.54
10.50	126.0	78.5	73.5	42.5	37.3	29.5	21.5	17.9	12.8	10.0	8.4	6.0	5.4	2.83	0.66	0.55

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	8hr	10hr	20hr	100hr	120hr
11.40	849	693	482	429	340	271	224	186	134	104	88	62	56	28.44	6.96	5.88
11.1	1067	872	605	540	427	340	245	203	146	114	96	68	61	30.89	7.37	6.18
10.8	1286	1050	729	650	515	410	274	211	151	118	99	71	63	32.10	7.53	6.35
10.5	1520	1125	783	680	535	420	287	221	159	124	104	74	66	33.77	7.64	6.37



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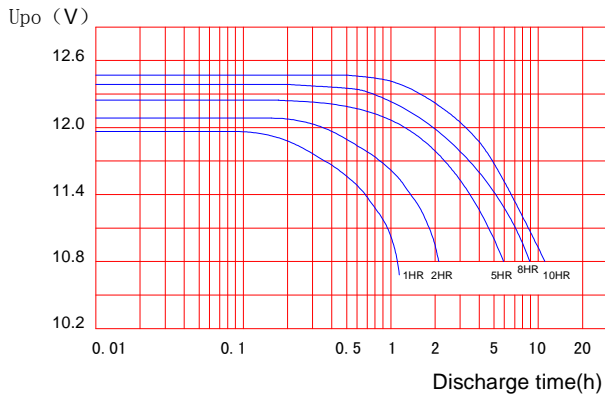


Figure 1 Discharge characteristic curve (20°C)

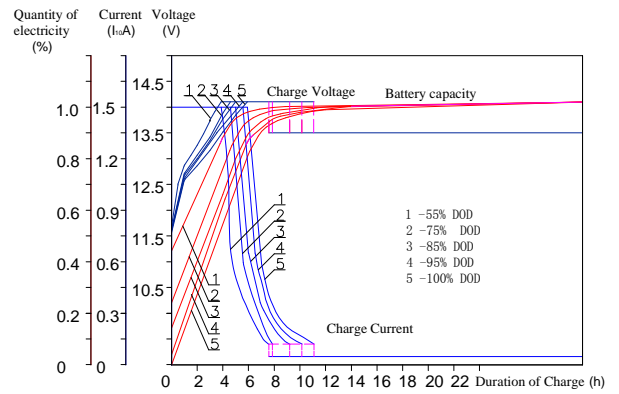


Figure 2 Constant voltage charge characteristic curve

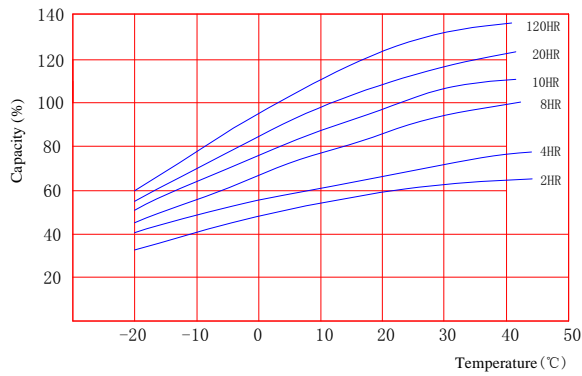


Figure 3 Relation curves between capacity and temperature

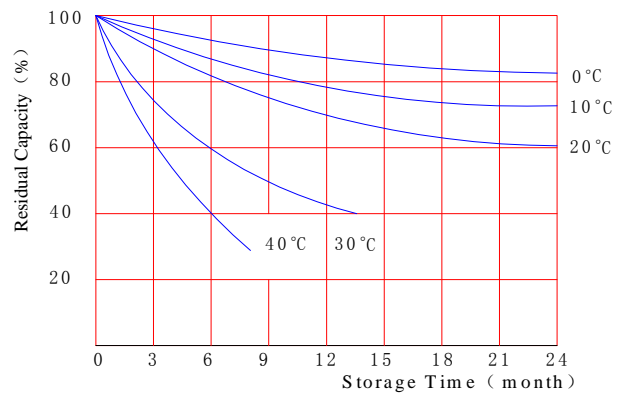


Figure 4 Self-discharge characteristic curve

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