



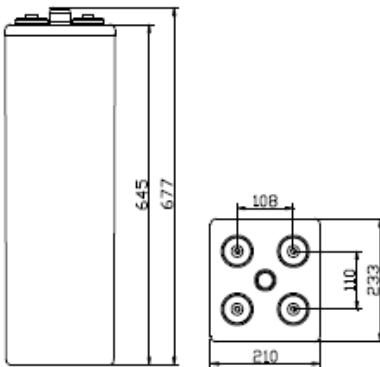
## Application

- 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 applicatio

## Terminal Dimensions



## Standards & Certifications

### 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

#### 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

XK06-044-00012

#### Product Quality Test Free Certificate

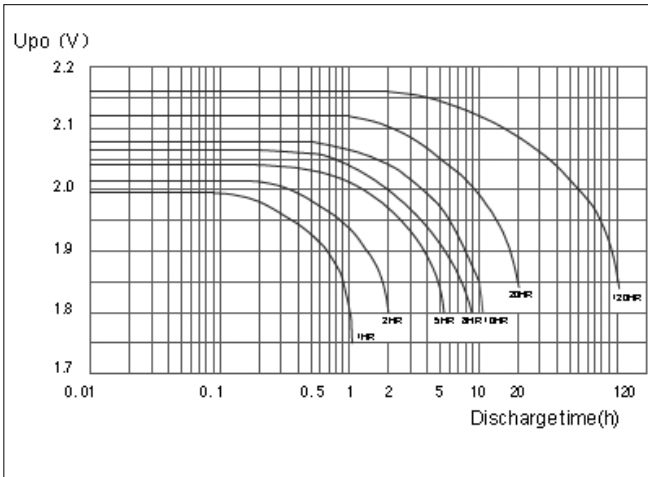
(2006)GM(321630488)

#### Export product quality license

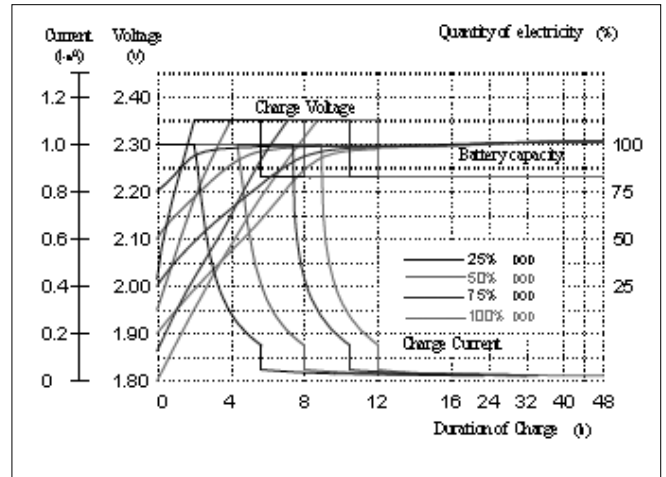
- Electrolyte: primary material adopts Germany gas silicon dioxide, the material will be the thin collosol state when it's injected initially, and it can fill the whole plate space of battery, and each part of plate can react evenly. The flooded electrolyte design can avoid dry up of battery when it's 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-SiO<sub>2</sub> 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, 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.

Battery Model	10 OPzV 1000
Rated voltage	2V
Capacity(25 °C)	1000Ah @ 10hr to 1.80V per cell
Weight	80kg (176 lb)
Reference internal	0.26mOhm@ 25°C(77°F)
Resistance (charged)	7885A (0.1S reference value)
Short circuit current	
Max discharge current	3000A (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	200A
Charge voltage @ 25 °C	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

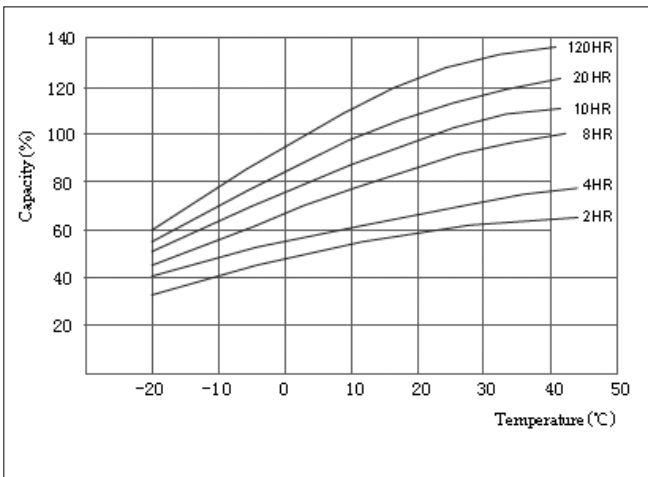
Discharge Characteristic



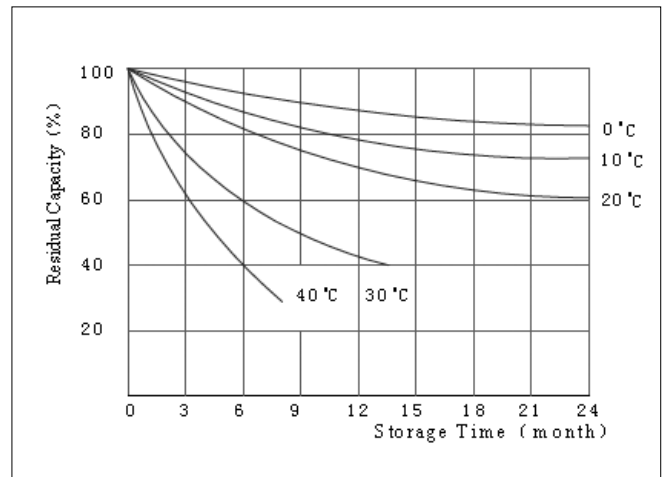
Constant voltage charge



Relationship of Capacity and Temperature



Relationship of Residual and Storage



Constant current discharge ratings-amperes at 25 °C

	5MIN	10MIN	15MIN	30MIN	45MIN	1HR	1,5HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR	100HR	120HR
1.90V	855	749	504	490	470	390	310	275	215	180	154	107	89	46,38	12,10	10,26
1.85V	902	787	588	550	498	430	340	295	228	190	162	112	93	51,01	12,74	10,8
1.80V	966	953	812	700	560	520	400	332	250	204	173	120	102	53,56	13,18	11,17
1.75V	1005	972	931	780	621	560	418	347	260	210	176	122	103	55,70	13,51	11,4

Constant power discharge ratings-watts at 25 °C

	5MIN	10MIN	15MIN	30MIN	45MIN	1HR	1,5HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR	100HR	120HR
1.90V	1620	1404	776	696	661	626	563	500	411	347	298	217	108	102,7	24,20	20,52
1.85V	1674	1462	895	781	721	661	613	565	430	386	331	237	204	111,0	25,23	21,38
1.80V	1776	1753	1284	1138	1039	940	813	685	547	447	378	267	227	115,0	25,83	21,89
1.75V	1837	1778	1480	1288	1177	1065	905	745	579	473	395	271	229	117,5	26,07	22,10