

# HYGEN

## DATASHEET



Lithium Battery For Solar Street Light

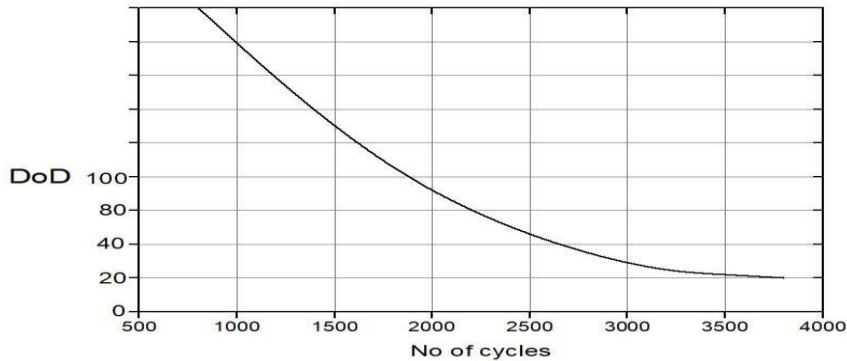
## Battery Series

### HGE50/60/75/82/100AH



Type	HGE50A12.8	HGE75A12.8	HGE82A12.8	HGE100A12.8
Rated Voltage	12.8V			
Working Voltage	10V-14.6V			
Internal Resistance	5150mOhm			
Rated Capacity	50AH	75AH	82AH	100AH
Standard charge Current	10A(0.2C)	15A(0.2C)	16A(0.2C)	20A(0.2C)
Standard discharge Current	10A(0.2C)	15A(0.2C)	16A(0.2C)	20A(0.2C)
Max charge Current	15A(adjustable)	20A(adjustable)	20A(adjustable)	25A(adjustable)
Max discharge Current	15A(adjustable)	20A(adjustable)	20A(adjustable)	25A(adjustable)
Energy	640WH	960WH	1050WH	1280WH
Size	142*98*324	142*98*426	142*98*494	142*98*596
Working Temperature	-20°(-60°) (Discharge) 0°(-45°) (Charge)			
Storage Temperature	-20~25°C (less than 1 year) -20°C~40 °C (less than 3 months) -20°C~6S °C (less than 7 days)			
Safety Test	Test Method and Condition			Criteria
Drop Test	Drop the battery onto wood ground from 2 meter height.			No explosion No fire/fracture.
Vibration Test	After standard charging, fixed the cell to vibration table and subjected to vibration cycling that the frequency is to be varied at the rate of 1Hz per minute between 10Hz and 55Hz, the excursion of the vibration is 1.6mm. The cell shall be vibrated for 30 minutes per axis of XYZ axes.			No explosion No fire/fracture
Crush	Crush between two flat plates. Applied force is about 13KN (1.72Mpa) for 30min.			No explosion No fire/fracture

Short Circuit @ 20°C	Each test sample battery,in turn,is to be short circuited by connecting positive and negative terminal of battery with thick Cu wire having maximum resistance of 10 ohm.Test are to be conducted at room temperature( 20±2°C)	No explosion No fire/fracture
Short Circuit @ 60°C	Each test sample battery,in turn,is to be short circuited by connecting positive and negative terminal of battery with thick Cu wire having maximum resistance of 10 ohm.Test are to be conducted at temperature( 60±2°C)	No explosion No fire/fracture
Impact	A 56 mm diameter bar is inlashed into the bottom of a 10 Kg weight and the weight is to be dropped from the height of 1 m onto the sample battery and then bar will be across the center of the sample	No explosion No fire/fracture
Forced Discharge	Discharge at a current of 1C for 2.5 hours.	No explosion No fire/fracture



#### Note

1. Do not Over-discharges,after the short time excessively discharge, and then charge immediately cannot affect the use, but the long time excessively discharges can cause the losing of battery performance, battery function. The battery long-term does not be used, it is able to be over-discharge, because of its automatic flashover characteristic. In order to prevent the battery over-discharge, the battery should maintain certain electric quantity The battery should store in the temperature range follow specification book. If the battery need to be stored over 6 month, the customer should charge the battery additionally.
2. Do not expose to, dispose of the battery in fire.
3. Do not put the battery in a charger or equipment with wrong terminals connected
- 4.Avoid shorting circuit the battery
- 5.Avoid excessive physical shock or vibration.
- 6.Do not disassemble or deform the battery.
- 7.Do not immerse in water.
8. Do not use the battery mixed with other type batteries.
9. Keep out of the reach of children

1a.tore the battery in a cool, dry and well-ventilated area.