

HB120 LED Solar Powered Marine Light (15-20NM)



Description:

Our HB120 Solar Marine Navigation Light is our latest innovation in marine safety technology. This cutting-edge lighting solution is designed to enhance the visibility and safety of boats during low-light conditions, ensuring that marine vessels can navigate safely and effectively regardless of the time of day or weather conditions.

The Marine Light is powered by solar energy, making it an environmentally friendly and sustainable option for boat owners. The light's solar panel absorbs sunlight during the day, converting it into energy that powers the bright LED lights during the night. This means that boat owners can enjoy reliable and continuous illumination without the need for batteries or external power sources.

The light is easy to install and can be mounted on any part of the boat, including the bow, stern, or mast. Its robust and waterproof construction ensures that it can withstand the harsh marine environment, providing long-lasting performance and durability. Additionally, the light is designed to meet international marine safety standards, making it suitable for use in both inland and coastal waters.

Featuring a 360-degree visibility range, it enhances the visibility of boats, helping to prevent collisions and accidents on the water. The bright LED lights are highly visible from a distance, allowing other vessels to easily spot and identify the boat, even in foggy or dark conditions.

Major functions & features

- Ultra-bright LEDs, reliable light source ensures long lifespan
- Complies to IALA Recommendations E-200-1
- Four-side solar panels and integrated MPPT maximize sunlight collection
- Integrated MPPT (Maximized Power Point Tracking) for maximizing sunlight collection
- Automatic night activation
- Integrated SBM (Smart Battery Management) for saving energy to extend autonomy
- Fresnel optical lens provides excellent light distribution
- Lens made from durable, UV-stabilized LEXAN polycarbonate
- Aluminum base with powder painted, corrosion-resistant
- Autonomy up to 25 days once fully charged during insufficient sunlight days
- Automatically off after being packed for 18 hours
- Integrated handle
- Protective vent for expelling battery gas and reduce condensation
- Bird spike against birds landing and nesting
- No regular maintenance
- Excellent shock and vibration resistant
- Convenient ON/OFF switch
- Installs in seconds
- Extremely Reliable and cost saving.
- Dip switch for fixed type to flashing changeable
- Optional GPS synchronization function



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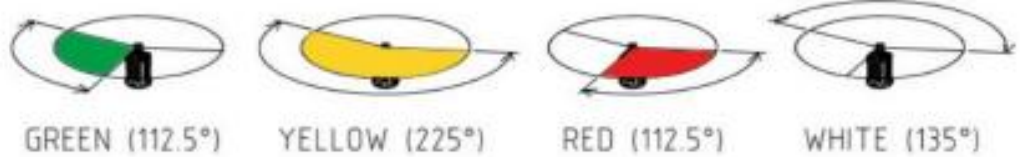


Specifications:

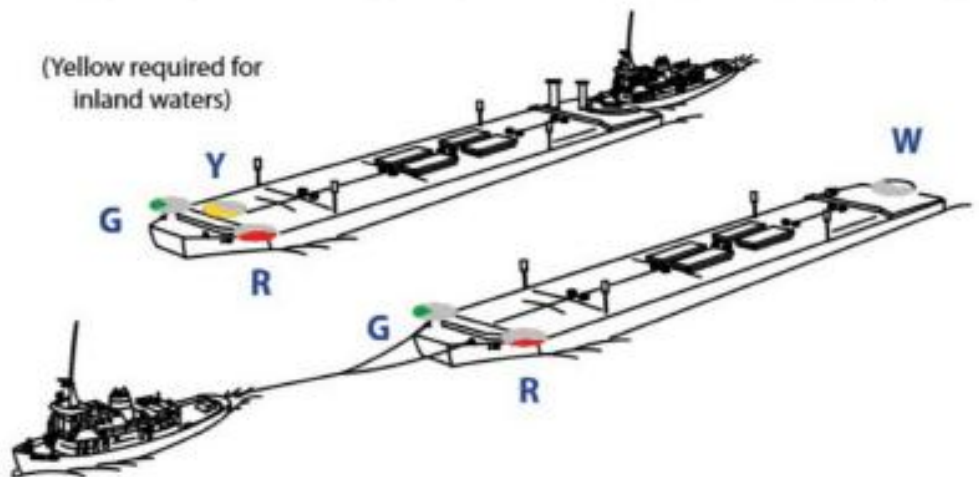
Item		HB120
ELECTRICAL CHARACTERISTIC	Light intensity	≥2500cd
	Visible distance	15- 20nm
	Vertical Divergence	±7.5 Degree
	Horizontal Divergence	360 Degree
	Light source type	LED
	LED Color	Red,white, yellow, green or blue
	LED Lifespan	100,000 Hours
OPERATION	Woke mode	Flashing or steady burning
	Flash Pattern(optional)	Flashing: 20/30/40/60FPM; Default: 40FPM;
	Flash duration	670ms
	Photocell sensitivity	70-100 Lux
	Autonomy	25 days(flashing), 8 days(steady burning)
POWER SUPPLY	Power consumption	30W
	Solar panel	Solar module, mono-crystalline silicon 12V/20W
	Solar Efficiency	21%
	Battery capacity	High-efficiency 12V/20AH Lithium battery
	Battery replacement	Replaceable
MECHANICAL STRUCTURE	Lens Material	PC
	Housing Material	Aluminum alloy
	IP Ingress	IP66
	Weight	9.8KG
	Dimensions	Φ 234*360mm
	Reserved bolt mounting dimensions	Φ 200*M14(4 mounting holes)
	Operating Temperature	-30℃ ~ +55℃
	Storage Temperature	-40℃ ~ +55℃
	Suitable areas:	PSH≥3
	Ambient humidity	≤95%(No condensation)
	Wind resistance level	240km/h
	Atmospheric Transparency Coefficient	0.85
OTHERS	Warranty	2 years for light

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Advantage:

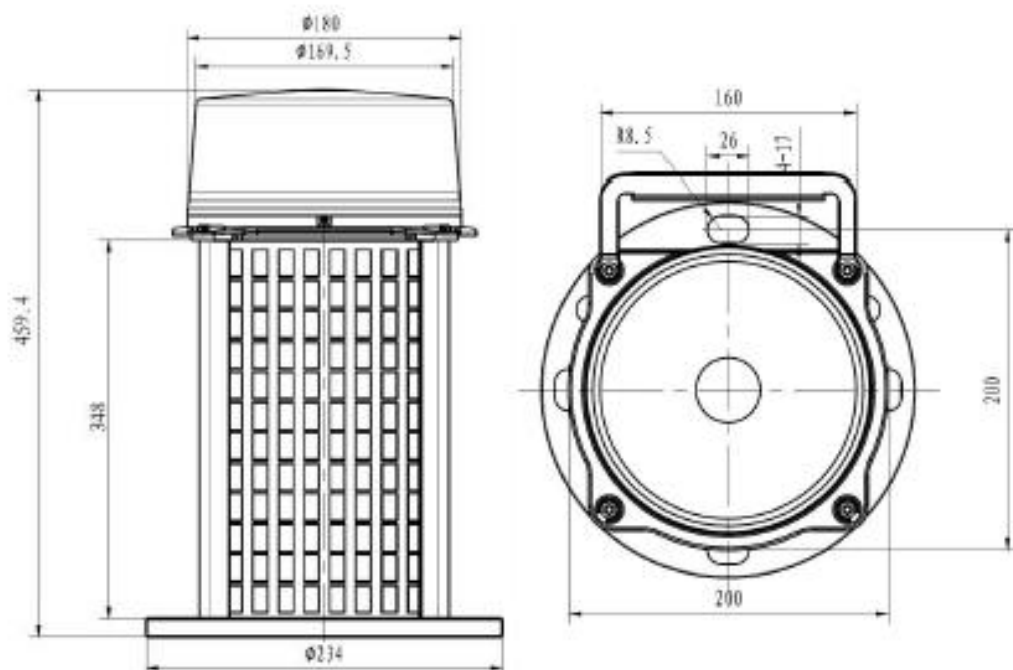


(Yellow required for inland waters)



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Mounting dimension(mm)



Installation positions for different types of ships:



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Installation

- ① Mount the solar light in the most suitable place such as under direct sunlight, to ensure its continuous operation. If there is no mounting surface, we can customize special mounting bracket as request
- ② When first operation, if the solar does not light up in dark places, please put the light under direct sunlight for approx. 12hrs
- ③ Use 4XM8 screws to fix the light base on the smooth place
- ④ Turn on the dip switch, the light will start to work (ensure the light is in dark place or use a black cloth to cover the solar panel if in the daytime)



Turn On the dip switch



Operation

In daylight, the solar panel charges the battery using the Energy Management System (EMS). The capacity of the battery ensures that even with poor levels of sunlight over an extended period, the lantern has enough reserve power to continue to perform reliably. Stored battery energy then powers the LED during the night.

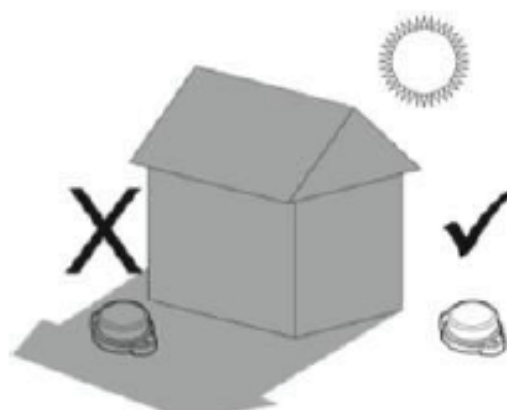
Test

- ① Adjust the self-locking switch to "ON" position on the lamp base, the lamp will turn on; and to the "OFF" position, it will turn off when you check the lamp.
- ② Remember to cover solar panels during the day if want the lamp to work.
- ③ If the lamp has GPS function, the fixture need to be kept in an open area outside and the GPS function will work after 5-10 minutes.

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Storage:

When put the lamp into the warehouse for storage, turn the lamp off. Check the battery state and it is better to charge the battery every 3 months.



Maintenance

Although the Solar Obstruction Light is maintenance-free, if want the lamp to work more efficiently, please use a soft sponge or cloth to clean the solar panel regularly. A mild non-abrasive cleanser can be used for more stubborn residue. Clean more frequently during drier months as dust accumulates more quickly. Check the exterior for cracks, missing or broken hardware.

Recycling

This product may contain substances that could be harmful to the environment or human health if improperly handled at the product's end of life. Check your local municipality for electronics recycles. The batteries are rechargeable Lithium batteries. Consult your local laws for information on recycling

Precautions:

- The part of material of products is PC(like lamp cover and lamp shell), so it cannot direct or indirect touch the organic solvent, such as industrial alcohol, banana oil, isopropyl alcohol, carbon tetrachloride, cyclohexanone and so on, otherwise, the product will be corrosion.
- Please read the instruction manual carefully before operation.
- For protection of batteries during transport and storage, adjust the dip switch on the light base to "OFF" position.
- Built in Lithium battery, after being used 450 times(15 months), the battery capacity is approx. 80% of previous capacities, at this moment, please replace the battery in time.
- Please make sure that the ambient temperature conditions should match this product. Otherwise, it will not work properly.
- Please do not look light horizontally to protect your eyes while the light working.
- The flash rate 40FPM by default. If you need to customize, please inform the lamp manufacturer before purchasing.
- This product is a sealed structure; should not be tampered with by anyone other than professional. Otherwise, the company will not guarantee.

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Battery replacement:

Note: when the light is in storage, please put it outside to charge the battery every 3 months

① Turn OFF Switch



② Open the Housing



③ Replacement of the battery



④ Screw the light tightly



How to charge battery:

If store the light for more than 3 months in your warehouse, then the light battery needs to be charged, there are total two methods to charge the battery:

Option 1: Open the box and take out the light, and put the light under the sunlight directly, and open the battery switch, charge the battery by sun energy for more than 10 hrs. Turn off the battery switch after a full charge.

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Option 2:

- ① Turn off the light and open the housing
- ② Find the two wires with the marking BAT+ and BAT- , which are the battery wires(see below).



- ③ Adjust the switching power supply to 12V 2.5A.
- ④ Connect the two Bat wires to 12V2.5A switching power supply.
- ⑤ Charge the battery with 12V2.5A switch power supply for more than 10 hrs
- ⑥ After full charge the battery, screw the lights tightly and put the light outside under sunlight, then the light starts to work

Applications:

- High rise building marking
- Telecom tower marking
- Road obstruction marking
- Navigation aid
- Port, dock entrance walkway
- Buoy marking
- Offshore gas& oil platform
- Yacht Clubs
- Boat Houses
- Piers
- Safety & Hazard Prevention
- Barge Lights
- Mooring Lights
- Bridges
- Oil Boom Lights

