



SHENZHEN KHJ SEMICONDUCTOR LIGHTING CO., LTD.

Operation & Maintenance Manual

K Polarbear Series-V0



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1. Brief Introduction

1.1. LED source, aluminium alloy explosion proof enclosure. Small size, high intensity and light weight. Integration design, indirection input cable, high safety and stability.

2. Application

2.1. Suitable for petroleum, petrochemical industry. Used for area lighting in oil well sites, petrochemical units, warehouse.
2.2. Ambient temperature from -40°C to 55°C.

3. Executive standard

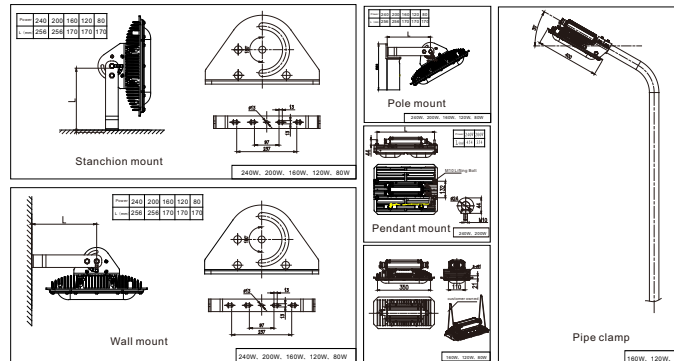
3.1. IEC 60079-0 Explosive atmospheres - Part 0: Equipment - General requirements.
3.2. IEC60598-2-1 Luminaires - Part 2 : Particular requirements. Fixed general purpose luminaires.

4. Caution

4.1. This product should be installed and maintained by qualified electrician only.
4.2. Do not install where the marked operating temperatures exceed the ambient temperature of the hazardous areas.
4.3. Do not operate in ambient temperatures above those indicated on the floodlight nameplate.
4.4. Make sure the electrical power is OFF before making installation and maintenance.
4.5. Luminaire housing must be grounded.
4.6. Do not touch the luminaire while energized.
4.7. Do not use the cable comes with light for regular illumination, it is only for test and shall not be installed with light.

5. Installation method

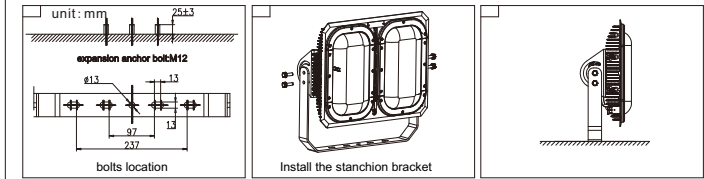
(pipe clamp is only for 80W polar bear series products.)



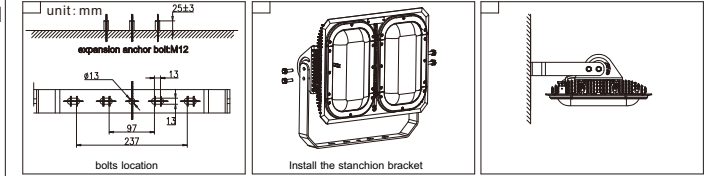
5.1. Select the right installation method as needed. make related M12 expansion anchor bolts according to different hole location.
5.2. Install and fasten the accessories to the right places on the light, install the light with flat washer, lock washer and bolt nut to the expansion anchor bolts, Installation steps of each installation methods as below:

Individual tips of each installation method:

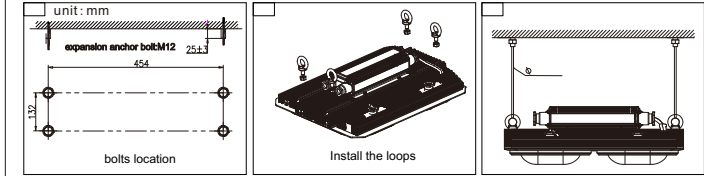
5.2.1. Stanchion mount



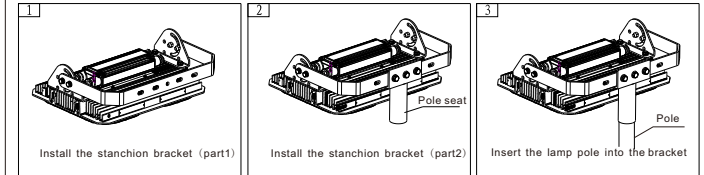
5.2.2. Wall mount



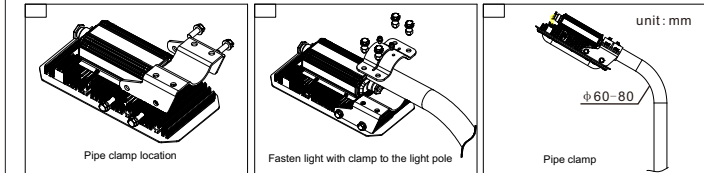
5.2.3. Pendant mount



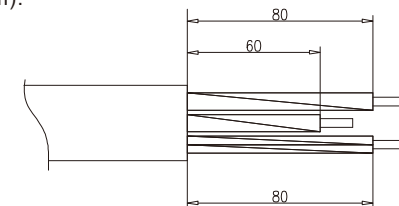
5.2.4. Pole mount



5.2.5. Pipe mount

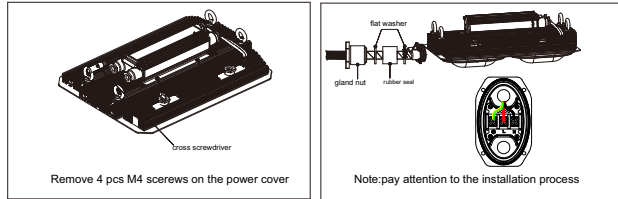


5.3. According to the installation location, select suitable three core cable (OD: 8-14 mm) with strip length (L:80mm, N: 60mm, GND:80mm).

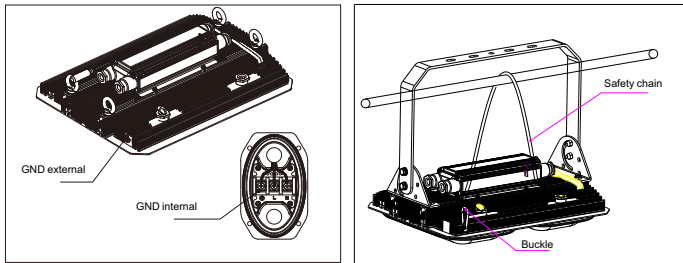


5.4. Remove 4pcs M4 screws with hex wrench and open the side cover.

- 5.5. Remove the gland nut.
- 5.6. Put the cable through nut, flat washer, rubber seal and flat washer to the cable terminal.
- 5.7. Connect positive and negative pole to the right terminal, connect the ground pole with screws in the terminal compartment.



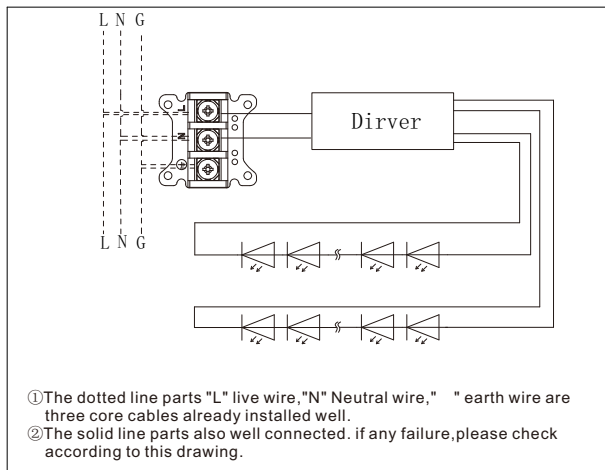
- 5.8. Fix the terminal compartment cover and fasten nut with screws.
- 5.9. Connect the ground pole with screws as remarked, and fasten it. install the safety chain, one end to the light, the other end to the installing surface.



- 5.10. Fix this luminaire in right place and connect to the AC power.
- 5.11. In condition that lights are installed in cascading, all cable entries must be extended in a same way, entry of the last light must be sealed with cable cap.
- 5.12. The quantity of cascading light:

Power	240 W	200 W	160 W	120 W	80 W
Cable specification	3 × 1.5 ²	3 × 1.5 ²	3 × 1.5 ²	3 × 1.5 ²	3 × 1.5 ²
Quantity	High voltage(220V-240V)	3	4	6	8
	Low voltage(100V-130V)	1	2	2	3

- 5.13. luminaire wiring diagram:



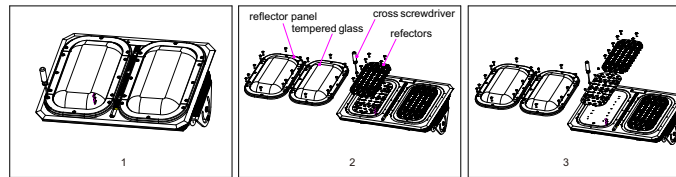
6. Operation

- 6.1. After installation, the luminaire will work while connecting to AC power.
- 6.2. Do not use lights with missing accessories or parts.
- 6.3. Do not touch the luminaire while energized.

7. Maintenance :

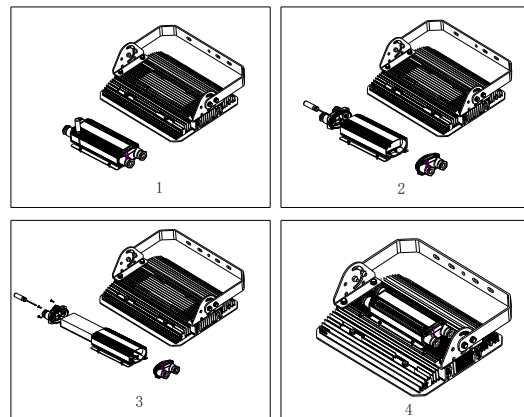
7.1. LED Replacement

- 7.1.1. Remove the M5 screws with hex wrench and open the cover. As picture 1.
- 7.1.2. Take off the decorative cover and reflector with cross screwdriver (for led spotlight, should take off the lens tabletting)
- 7.1.3. Replace the new PCB, fix it, and connect the lead wire between PCB and Power supply.
- 7.1.4. Install the Decorative cover, put the cover and fix the cover tightly.



7.2. Power supply replacement

- 7.2.1. Remove 4pcs M5 screws with hex key from the cover and open it.
- 7.2.2. Remove 8pcs M4 screw with Malfunction Diagnosis and Correction and take off the power supply.
- 7.2.3. Replace a new power supply and fasten it well.
- 7.2.4. Fix the cover and fasten nut with screws, make sure the position of rubber seal is correct



8. Optional Parts

NO.	Installation accessories	Picture	Material	Weight (Kg)	QTY	Remarks
1	Pipe clamp		Q235	2.1	1	/
2	Loop		45#	0.2	4	/
3	Stanchion Bracket		Q235	4.2	1	/
4	Stanchion Bracket2		Q235	1.63	1	/

9. Malfunction Diagnosis and Correction

Malfunction Diagnosis	Analysis	Correction
Fail to work	No power	Check the circuit
	LED damaged	Replace LED in secure condition
	Driver damaged	Replace LED driver in secure condition
Other problems		Contact KHJ service center

Do NOT conduct any on-site maintenance .

10. Maintenance

- 10.1. Carry out regular cleaning.
- 10.2. Do NOT clean the light while energized.
- 10.3. Do NOT clean the light when it's working.