



SHENZHEN KHJ SEMICONDUCTOR LIGHTING CO., LTD.

Operation & Maintenance Manual

KBrownBear Series-V0



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1. Brief Introduction

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

2. Application

- 2.1. Suitable for petroleum, petrochemical industry.
- 2.2. Used for area lighting in oil well sites, petrochemical units, warehouse.
- 2.3. Suitable for area flood lighting in coal and non-explosion area, 6-12m high floor lighting and low explosion requirement area.
- 2.4. Ambient temperature from -40°C ~ +65°C.

3. Executive standard

- 3.1. IEC 60079-0 Electrical apparatus for explosive gas atmospheres--Part 1: General requirements
- 3.2. IEC 60079-15 Explosive atmospheres--Part 8: Equipment protection by type of protection "n"
- 3.3. EN 60079-0 Electrical apparatus for explosive gas atmospheres--Part 1: General requirements
- 3.4. EN 60079-15 Explosive atmospheres--Part 8: Equipment protection by type of protection "n"
- 3.5. EN 55015 Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment
- 3.6. EN 60598-1 Luminaires-Part 1: General requirements and tests
- 3.7. EN 62321 Electrotechnical products - Determination of levels of six regulated substances (lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls, polybrominated diphenyl ethers)
- 3.8. EN 60529 Degrees of protection provided by enclosure (IP code)

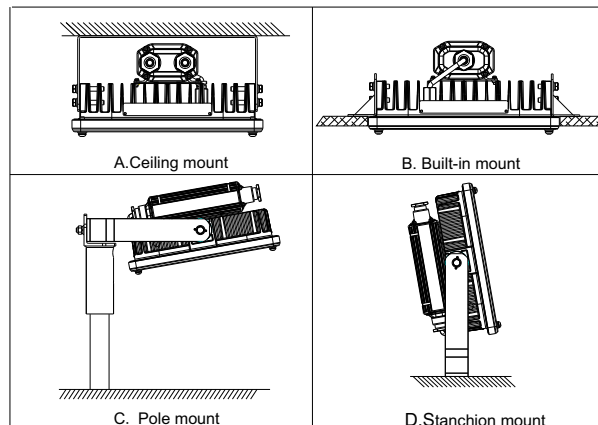
4. Product certification

4.1. The series of products carry ATEX Certification.

5. Caution

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

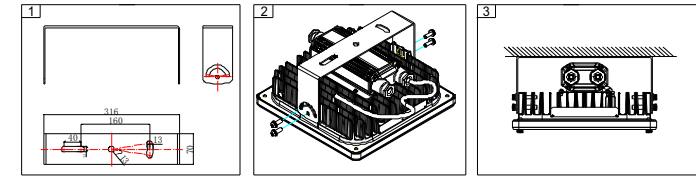
6. Installation method



6. 2. Install method:

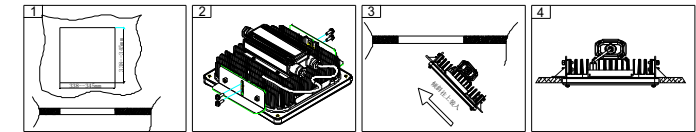
- 6.2.1 Select the right installation method as needed. Drill different hole location for related expansion anchor bolts.
- 6.2.2 Install and fasten the M10 or M8 screw blot to the right places on the luminaire. Fasten the flat washer, spring washer, luminaire and screws on the expansion anchor bolts. Installation steps of each installation methods as below:

A: Ceiling bracket mount step as below(Unit:mm):



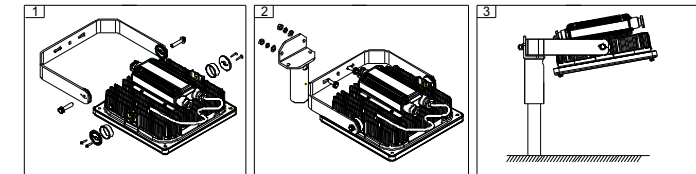
- 1) Dig one square hole of install surface, square hole L and W size: 338mm-345mm. The size can be adjust for different requirement.
- 2) Use 4*M8 screw blot to fix luminaire and built-in bracket.
- 3) Put the luminaire to square hole.
- 4) Install finished.

B: Stanchion bracket mount step as below(Unit:mm):



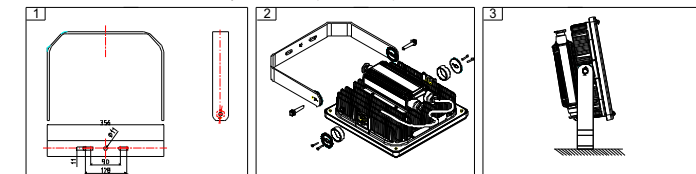
- 1) Fix stanchion bracket to the expansion anchor bolts.
- 2) Use 2*M10 screw blot to fix luminaire and stanchion bracket.
- 3) Install finished.

C: Pole bracket mount step as below(Unit:mm):



- 1) Fix stanchion bracket to the luminaire.
- 2) Use 2*M10 screw blot to fix luminaire and pole bracket.
- 3) Install finished.

D: Built-in bracket mount step as below(Unit:mm):



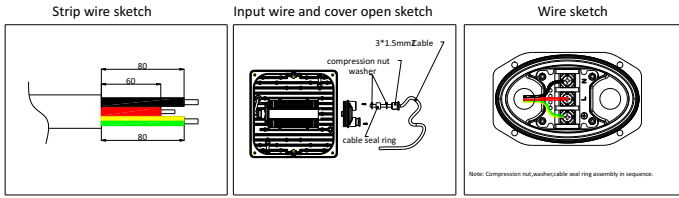
- 1) Fix ceiling bracket to the expansion anchor bolts.
- 2) Use 4*M8 screw blot to fix luminaire and ceiling bracket.
- 3) Install finished.

- 6.2.3 According to the installation location, select suitable three core cable (OD: 8-14 mm) with strip length (L:80mm, N: 60mm, GND:80mm).
6. 2. 4Use Philips screwdriver to remove 4PCS M4 screw and open the side cover

6.2.5 Remove the gland nut.

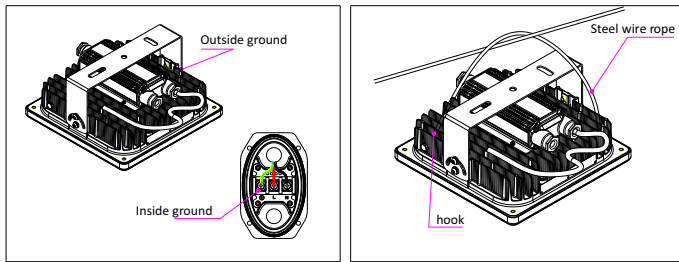
6.2.6 Put the cable through nut, flat washer, rubber seal and flat washer to the cable terminal.

6.2.7 Connect positive and negative pole to the right terminal, connect the ground pole with screws in the terminal compartment.



6.2.8 Fix the terminal compartment cover and fasten nut with screws.

6.2.9 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.



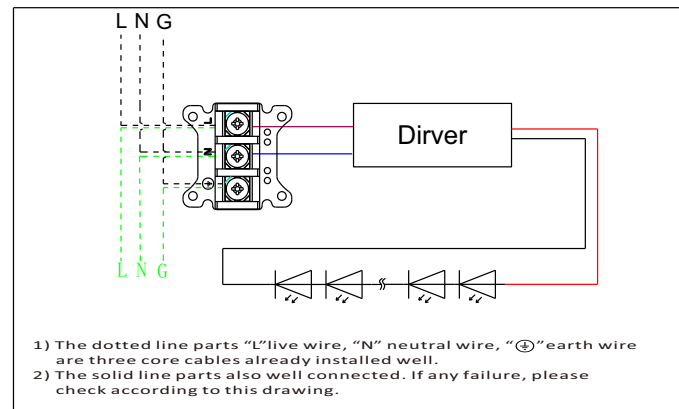
6.2.10 Fix this luminaire in the right place and connect to the AC power.

6.2.11 In condition that lights are installed in cascading, all cable entries must be extended in the same way, entry of the last light must be sealed with cable cap.

6.2.12 The quantity of cascading light:

Power		150W	120W	80W
Cable specification (mm)		3× 1.5 ²	3× 1.5 ²	3× 1.5 ²
Cascading Quantity (pcs)	High voltage (220V-240V)	4	6	8
	Low voltage (100V-130V)	2	3	4

6.2.13 Luminaire wiring diagram:



6.2.14 Notice of the luminaire installation

- According to the installed cable OD, select the right gasket and rubber seal.
- The assembly order of gasket, rubber seal and gland nut must strictly according to the assembling requirement
- Fix the gland nut till only 2~3 screw threads are exposed.
- Make sure that there is an additional length of at least 14mm cable left between cable terminal and internal end of the cable entry.

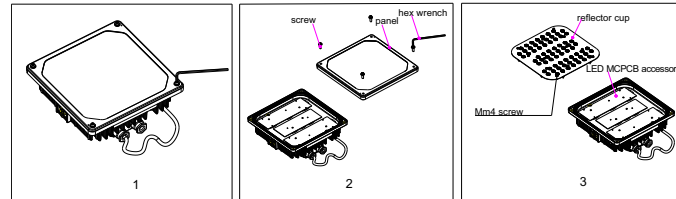
7. Operation and maintenance

- After installation, the luminaire will work connecting to AC power.
- Do not use lights with missing accessories or parts.
- Do not touch the luminaire while energized.
- Clean the luminaire regular time.
- Do not clean the luminaire when it working or electricity.
- Do not open when energized.

8. Luminaire repair

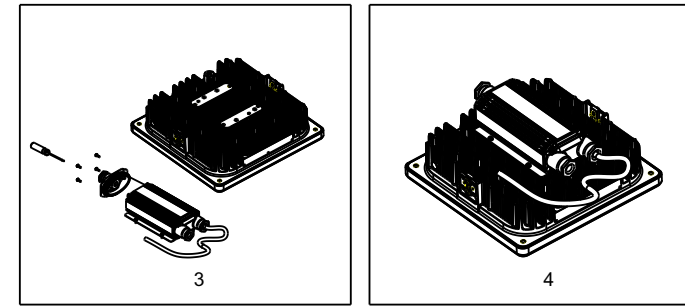
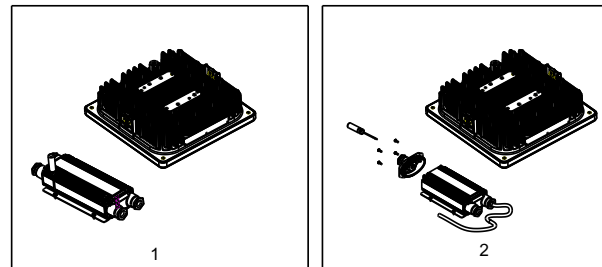
8.1 LED Replacement

- Remove the 4pcs M8 screws with hex wrench and open the cover (Figure 1).
- Remove the M4 screw of fixing reflector cup plate with Philips screwdriver, take off reflector cup plate component (Figure 2).
- Remove the M4 screw of fixing MCPCB with Philips screwdriver, take off MCPCB component (Figure 3).
- Change new MCPCB component, connect the wire of MCPCB and power supply, then fix MCPCB.
- Re-assembly the reflector cup and cover component in sequence.



8.2 Power supply replacement

- Remove 4pcs M4 screws of fixing power supply accessories with philips screwdriver, take off power supply accessories (Figure 1).
- Remove 4pcs M4 screws of fixing power supply output side cover with screwdriver, take off side cover (Figure 2).
- Take off the cable from cable terminal.
- Change new power supply accessories, plug the cable with cable terminal.
- Push the side cover to power supply accessories, use 4pcs M4 screws to fix side cover (Figure 3).
- Use 4pcs M4 screws to fix the power supply accessories to the luminaire (Figure 4).



9. Optional Parts

S/N	accessories Installation	Qty(pcs/set)			Remarks
		150W	120W	80W	
1	80W MCPCB Accessories	---	---	1	Including 42pcs LED source
2	120W MCPCB Accessories1	---	2	2	Including 21pcs LED source
3	120W MCPCB Accessories2	---	1	3	Including 18pcs LED source
4	150W MCPCB Accessories1	2	---	4	Including 25pcs LED source
5	150W MCPCB Accessories2	1	---	5	Including 22pcs LED source
6	80W Power Supply	---	---	6	Input: 100~277VAC, 1Amax Output: 35~46V, 1.8A
7	120W Power Supply	---	1	7	Input: 100~277VAC 1Amax Output: 37~49V, 2.4A
8	150W Power Supply	1	---	8	Input: 100~277VAC 1Amax Output: 46~59V, 2.4A
9	Seal Ring	1	1	9	
10	O Seal Ring	4	4	10	

10. 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 .

11. Maintenance

- Repair of the flameproof joint must be made in compliance with the structural specifications provided by the manufacturer.
- The assembly should be equipped with suitably certified cable glands with a compatible mode of protection for the intended use. The unused holes should be closed by suitably certified plugs.
- The LED floodlights shall be mounted only in accordance with manufacturer's instruction.
- Warning: Do not open when energized.
- Warning: After de-energizing, delay 10 minutes before opening.