



SHENZHEN KHJ SEMICONDUCTOR LIGHTING CO., LTD.

Operation & Maintenance Manual

K Arowana Series-V2



<input type="checkbox"/>	Explosion Proof Lighting	Ex d II B T6 Gb Ex tb IIICT80°C Db Ip66
<input type="checkbox"/>	Industrial Lighting	

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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. Manufacturing plants, heavy industrial, chemical, petrochemical, pharmaceutical facilities, platforms, loading docks, tunnels, outdoor wall and stanchion mounted general area lighting.

2.2. Ambient temperature from -40°C to 55°C.

3. Executive standard

- 3.1. EN 60079-0 Explosive atmospheres-Part 0: Equipment-General requirements
- 3.2. EN 60079-1 Explosive atmospheres-Part 1: Equipment protection by flameproof enclosures "d"
- 3.3. EN 60079-31 Explosive atmospheres-Part 31: Equipment dust ignition protection by enclosure "t"
- 3.4. IEC 60079-0 Explosive atmospheres-Part 0: Equipment-General requirements
- 3.5. IEC 60079-1 Explosive atmospheres-Part 1: Equipment protection by flameproof enclosures "d"
- 3.6. IEC 60079-31 Explosive atmospheres-Part 31: Equipment dust ignition protection by enclosure "t"
- 3.7. EN 55015 Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment
- 3.8. EN 60598-1 Luminaires-Part 1: General requirements and tests
- 3.9. EN 62321 Electrotechnical products - Determination of levels of six regulated substances (lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls, polybrominated diphenyl ethers)
- 3.10. EN 60529 Degrees of protection provided by enclosure (IP code)

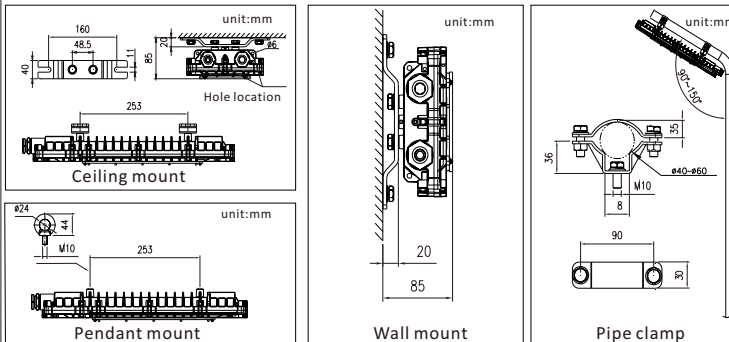
4. Product certification

4.1 The series of product carry ATEX, IECEx, ABS, CE and RoHS 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 the foodlight 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 cable comes with light for regular illum only for test and shall not be installed with light.

6. Installation method



6.1. There are 4 different installation methods: pendant mount, ceiling mount, wall mount and pipe clamp. Please select the right installation method as needed. As Charts shown below.

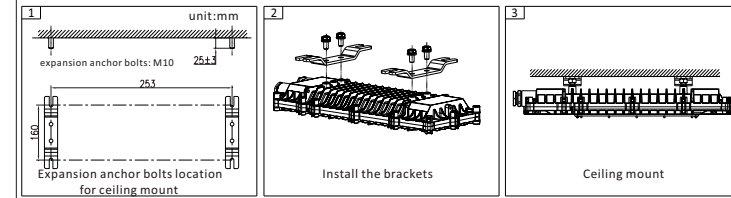
6.2. Install M10 expansion anchor bolts correctly as per different installation methods.

6.3. Fix the brackets to the right places on the light.

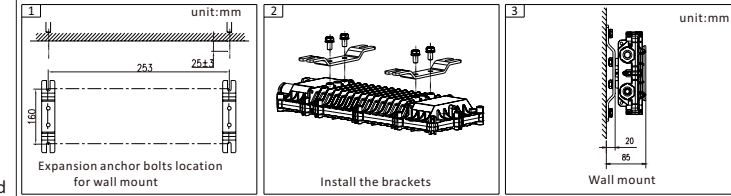
6.4. Install the light with flat washer, lock washer and bolt nut to the expansion anchor bolts.

6.5. Individual tips of each installation method:

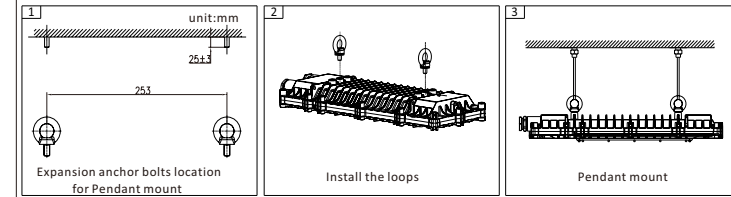
6.5.1. Ceiling mount



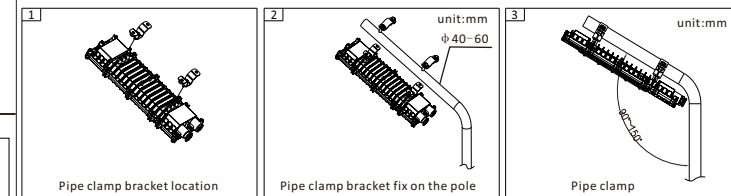
6.5.2. Wall mount



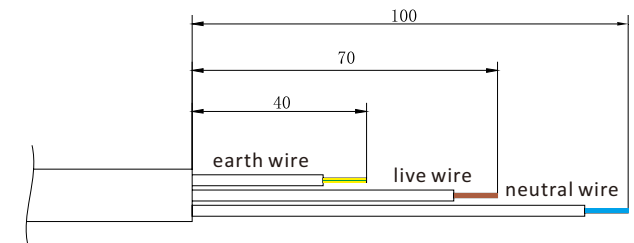
6.5.3. Pendant mount



6.5.4. Pipe clamp

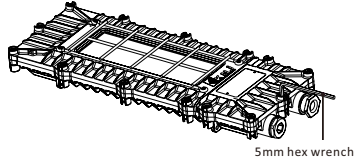


6.6. Select suitable three core cable (OD8-14mm) with strip length (L:110mm, N:85mm, GND:40mm) as per installation location.

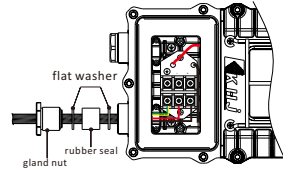


Three core cable OD: ϕ 8-14 mm

- 6.7.Remove 4pcs M6 screws with hex wrench and open the side cover.
- 6.8.Remove the gland nut, loosen the screws and wire clips.
- 6.9.Put the cable through nut, flat washer, rubber seal and flat washer to the cable terminal.



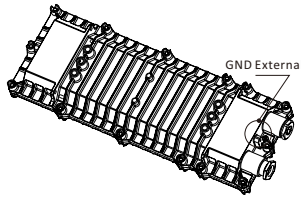
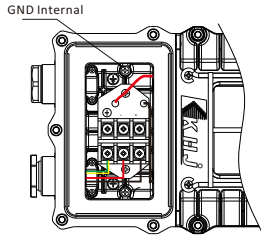
5mm hex wrench



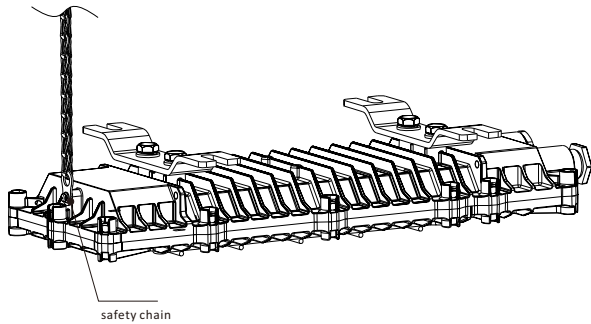
Please note the order of gland nut, flat washer and rubber seal

Remove 5pcs M6 screws on the terminal compartment cover

- 6.10.Connect positive and negative pole to the right terminal, connect the ground pole with screws in the terminal compartment.
- 6.11.Fasten the wire clips with screws.
- 6.12.Fix the terminal compartment cover back and fasten the gland nut.

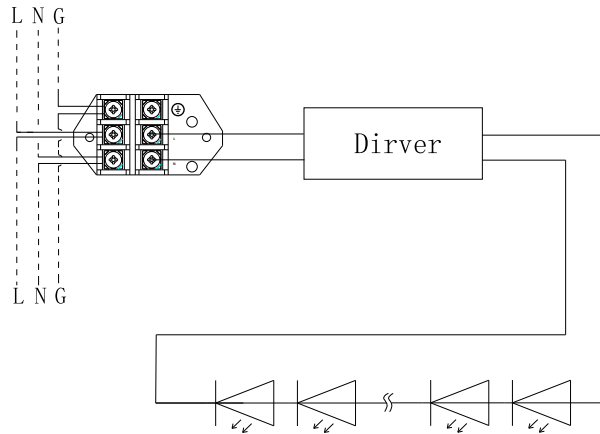


- 6.13.Connect the ground pole with screws as remarked,and fasten it.
- 6.14.Install the safety chain, one end to the light, the other end to the installing surface.



safety chain

- 6.15.Fix this luminaire in right place and connect to the AC power.
- 6.16.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.
- 6.17.luminaire wiring diagram.



①The dotted line parts "L" live wire,"N" Neutral wire,"⊕" earth wire are three core cables already installed well.

②The solid line parts also well connected. if any failure,please check according to this drawing.

- 6.18. Use correct washers and gaskets in the accessories pack as per cable OD.
- 6.19.Please stick to the assembling order when install the washers, glands and gaskets.
- 6.20.Fix the gland nut till only 2~3 screw threads are exposed.

7.Operation

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

8.Maintenance

8.1.LED Replacement

- 8.1.1. Remove 8pcs M6 screws with hex key from the cover and open it. (See chart 1)
- 8.1.2. Explosion proof luminaire: EX-KA30, remove the M3 screws on the PCB with philips screwdriver and take off the PCB. (See chart 2) remove the M4 screws with philips screwdriver and take off the reflector. (See chart 3)
- 8.1.3. replace a new PCB and fasten it well to the power supply board. (See Chart 4)
- 8.1.4. Fix the cover and compression nut with screws, pay attention to the position of rubber seal.

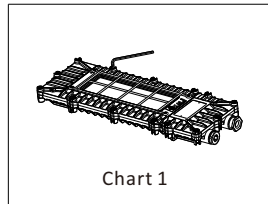


Chart 1

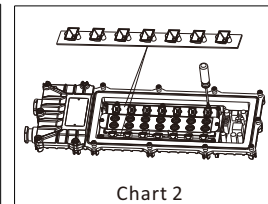


Chart 2

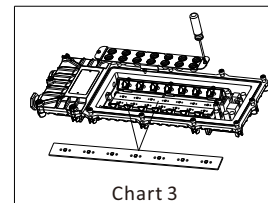


Chart 3

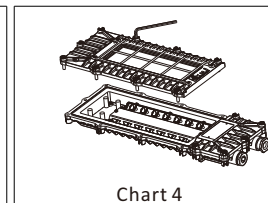
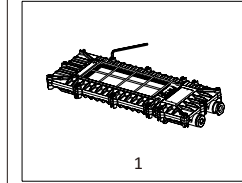


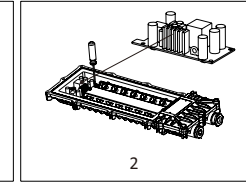
Chart 4

8.2.Power supply replacement

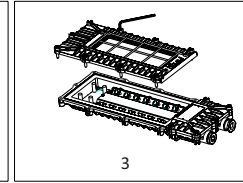
- 8.2.1.Remove 9pcs M6 screws with hex key from the cover and open it.
- 8.2.2.Remove 4pcs M4 screw with Malfunction Diagnosis and Correction and take off the power supply.
- 8.2.3.Replace a new power supply and fasten it well.
- 8.2.4.Fix the cover and fasten nut with screws, make sure the position of rubber seal is correct



1



2



3

9.Optional Parts

NO.	Name	Specification	Picture	Qty/luminaire	Remark
1	PCB	/		4	
2	Power supply	/		1	30W
3	Power supply	/		1	18W
4	compartment rubber seal	110601-06		1	
5	compartment rubber seal	110601-07		1	

10.Malfunction Diagnosis and Correction

Malfunction Diagnosis	Analysis	Correction
Fail to work	No power	Check the circuit
	LED damaged	Repalce 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

- 11.1 Repair of the flameproof joint must be made in compliance with the structural specifications provided by the manufacturer.
- 11.2 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.
- 11.3 The LED floodlights shall be mounted only in accordance with manufacture's instruction.
- 11.4 Warning: Do not open when energized.
- 11.5 Warning : After de-energizing, delay 10 minutes before opening.