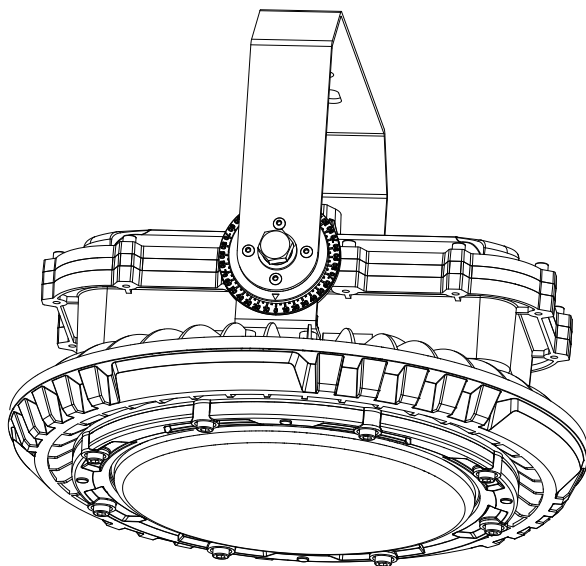


EXPLOSION PROOF LIGHT



Zone 1

Zone 2

Zone 21

Zone 22

INSTALLATION INSTRUCTIONS

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1. PRODUCT DESCRIPTION

1.This LED explosion-proof Light is designed for use in explosive atmospheres zone1, zone2, and zone21, zone22, the type of protection of the equipment is "db" and "tb".This equipment can be used in hazardous areas with gas group IIB and dust group IIC, and the equipment protection level is Gb and Db.

2.Integrated type of high bay, adopt SMD LED on aluminum base, make aluminum base completely attached to heat sink which is composed of lamp body to make sure excellent heat dissipation, leading to long lifetime.

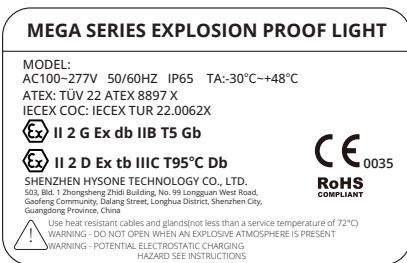
3.Adopt silicon encapsulated sealed power supply whose body is made of aluminum alloy, put it inside the aluminum body closely to heat sink to make sure heat dissipated from power supply.

4.Cover made of high quality glass which has high-strength, impact resistant, heat resistant, corrosion-resistant.

5.Completely sealed to waterproof, dust-proof, corrosion-resistant.

6.Smart appearance, equipped with hanging hook or bracket, it can be installed easily.

NAMEPLATE



- 2.1.2 Staff working on assembly and maintenance, therefore have a particular responsibility. They require precise knowledge of the applicable standards and regulations.
- 2.1.3 These instructions give a brief summary of the most important safety measures. It supplements the corresponding regulations which the staff must study.
- 2.1.4 Incorrect or impermissible use or non-compliance with these instructions invalidates our warranty provision.
- 2.1.5 No changes to the device impairing its explosion performance are permitted.
- 2.1.6 Any damage can invalidate the Ex-performance.
- 2.1.7 National safety regulations.
- 2.1.8 National accident prevention regulations.
- 2.1.9 National installation regulations(e.g.IEC 60079-14).
- 2.1.10 Generally recognized technical regulations.
- 2.1.11 Safety guidelines in these operating instructions.
- 2.1.12 The characteristic values of this series of explosion proof light have been provided in the product manual.

2.2 Safety instructions when assembling and dismantling and adjustment

- 2.2.1 Cut off power supply firstly when lamp assembling and dismantling and adjustment.
- 2.2.2 Need to use gland with explosion-proof certification (M25x1.5-6H).

- 2.2.3 Thread the prepared $\Phi 8\text{-}\Phi 14\text{mm}$ three-core cable through the clamping nut, washers, seal, and gland body. Leave 70-100mm of cable protruding from the gland for termination.

2. SAFETY INSTRUCTIONS

2.1 Safety instructions when putting into service

- 2.1.1 Working in hazardous areas, the safety of personnel and plant depends on complying with all relevant safety regulations.

- 2.2.4 Use a hex key to loosen the 12 screws on the power supply housing cover, then remove the cover.
- 2.2.5 Use a spanner to tighten the explosion-proof cable gland (with the cable already threaded through) into the cable entry on the power supply housing cover, and then tighten the clamping nut.
- 2.2.6 Inside the power supply housing, explosion-proof connection terminals marked 'N', 'L', and 'Earth' (or 'Ground') have been installed. Connect the blue wire of the cable to the 'N' explosion-proof terminal, the brown wire to the 'L' explosion-proof terminal, and the yellow-green wire to the earth explosion-proof terminal.
- 2.2.7 Inspect whether the O-ring in the seal groove of the power supply housing is still properly in place.
- 2.2.8 Position the cover onto the power supply housing and tighten the 12 screws with a hex key.
- 2.2.9 Tighten the locking screw or put the cable into the explosion-proof conduit.
- 2.2.10 Punch the expansion screw into the wall and open the junction box.
- 2.2.11 Fix the lamp with screws.
- 2.2.12 Connect the cable/ explosion-proof conduit to the junction box.
- 2.2.13 Connect the blue wire and brown wire to the "N" and "L" respectively, and Yellow-green wire to the ground wire.
- 2.2.14 Close the junction box.

2.3 Safety instructions when maintenance, overhaul and repair (Malfunction handling)

Item	Analysis	Trouble shooting	Remark
Light is out	a. Wiring loose	a. Power off firstly, open cover and fasten screw.	1.The repair and maintenance should be performed by the professional and qualified person 2.Do not perform maintenance in flammable or explosive atmospheres. Operate only in safe areas!
	b.Driver damaged	b. Open cover and please don't touch LED source. Use multimeter to test two ends of LED board and check voltage. If no voltage and eliminate point a, then it must be driver damaged.	
	c. LED source damaged	c. If not because a&b point, then must be LED source damaged, then should arrange factory repair.	

2.4 Safety instructions when installation

- 2.4.1 Please note the protection of gap of flameproof joint.
- 2.4.2 Working on live parts is prohibited.
- 2.4.3 Please pay attention to protecting the sealing property of the wiring cavity.

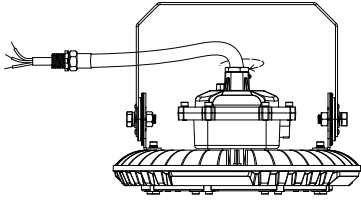
2.5 Safety instructions when adjustment

- 2.5.1 De-energize and lockout/tagout main power.
- 2.5.2 Confirm that the current environment is a safe one.
- 2.5.3 Use NIOSH P100 respirator in Zone 21/22 areas.
- 2.5.4 Check dust accumulation.
- 2.5.5 Clean with a damp cloth. Never file/sand!

2.6 Training

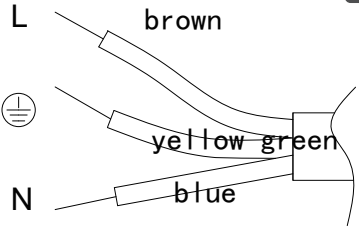
Technicians require CompEx Ex05 (Dust) + Ex01-Ex04 (Gas) certification

2.7 Bracket type



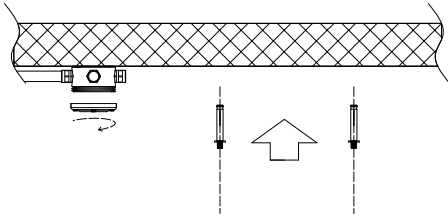
Step 1

Tighten the locking screw or put the cable into the explosion-proof conduit



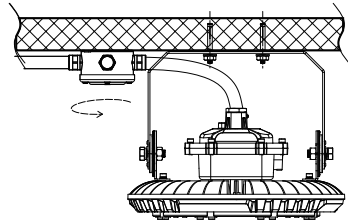
Step 5

Connect the blue wire and brown wire to the "N" and "L" respectively. Yellow-green wire to the ground wire.



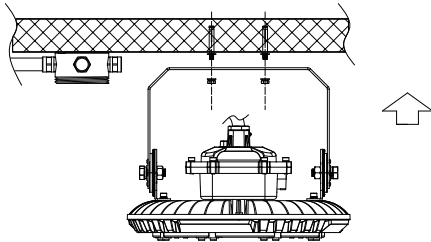
Step 2

Punch the expansion screw into the wall and open the junction box.



Step 6

Close the junction box.



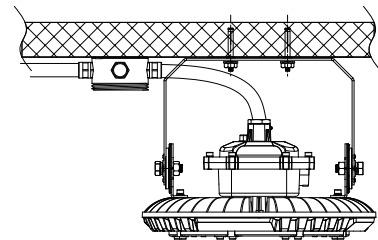
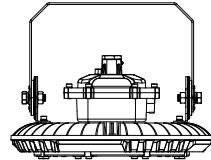
Step 3

Fix the lamp with screws.



Note: Please turn off the power supply before open the junction box.

2.8 Mounting Type

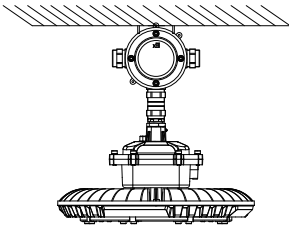


Step 4

Connect the cable/ explosion-proof conduit to the junction box.

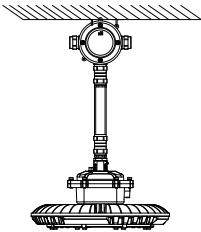
1

Ceiling-mounted



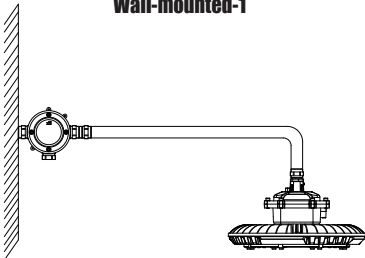
2

Pipe suspension



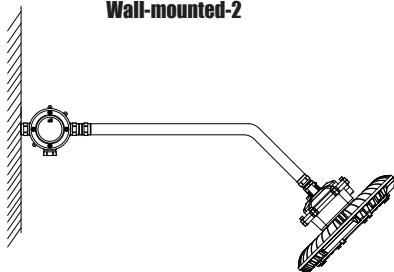
3

Wall-mounted-1



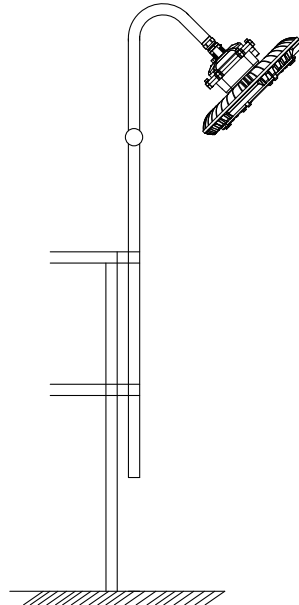
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Wall-mounted-2



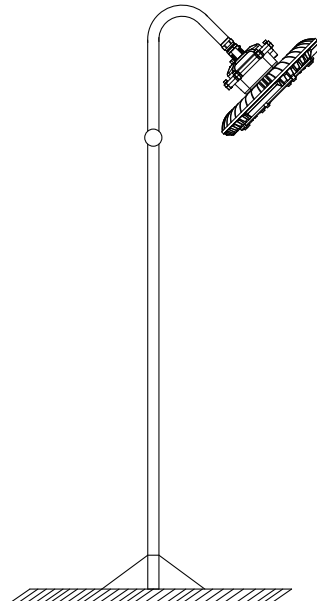
5

Post-mounted guardrail



6

Flange-mounted vertical post





Any special mounting type, please contact with our relevant staff, and we will provide you the best plan

5. IMPORTANT INFORMATION FOR EX EQUIPMENT

Warning Marking: ELECTROSTATIC CHARGING HAZARD: CLEAN ONLY WITH A DAMP CLOTH.

Specific conditions of use

- Tamb: -30°C to +48°C
- End user shall use certified cable gland with suitable type of protection for installation purpose. Minimum IP65 for chosen cable gland.
- Electrostatic charging hazard-clean only with a damp cloth.

Misuse condition

- Misuse in transport, storage, installation, operation maintenance and repair.
- Typical abnormal handling due to carelessness.
- Non-intended operation by cleaning staff, craftsman fire-fighters etc.

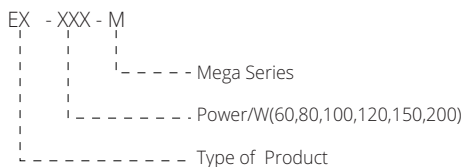
Essential tools

- Non-Sparking Torque Wrench
- Anti-Static Brush Set
- Damp cloth
- Ex-certified Multimeter

3. MODEL LIST

Model name	Description
EX060M	60W
EX080M	80W
EX100M	100W
EX120M	120W
EX150M	150W
EX200M	200W

Type designation (explanation of naming rule)



4. PARAMETERS:

Name of Product	Mega Series Explosion Proof Light		
Model	EX060M/EX080M/EX100M/EX120M/EX150M/EX200M		
Rated voltage	AC100-277V		
Frequency	50Hz/60Hz		
PF	≥0.90		
Lamp efficiency	≥150lm/w		
Color Temperature	2700-6500K		
CRI	>70		
Degree of protection of enclosure IP	IP65		
Working Life	>50000h		
Ambient temperature	-30 °C to +48 °C		
Degree of protection	IK10		
Corrosion-resistant class	WF2		
Luminaire Dimensions	Φ356mm×282mm(±10)		
Outer carton size	430mm×430mm×290mm(±5)		
Net weight / Gross weight	EX060M	9.71Kg(±0.2)	11.71Kg(±0.2)
	EX080M	9.71Kg(±0.2)	11.71Kg(±0.2)
	EX100M	9.71Kg(±0.2)	11.71Kg(±0.2)
	EX120M	9.93Kg(±0.2)	11.93Kg(±0.2)
	EX150M	9.93Kg(±0.2)	11.93Kg(±0.2)
	EX200M	9.98Kg(±0.2)	11.98Kg(±0.2)
Lamp inlet cable	Φ8mm ~ Φ14mm		
Cable Entry	M25×1.5-6H		

List of standards

IEC 60079-0:2017

EN IEC 60079-0:2018

IEC 60079-1:2014

EN 60079-1:2014

IEC 60079-31:2022

EN 60079-31:2014

Explosion-proof Mark:

ATEX



II 2 G Ex db IIB T5 Gb

II 2 D Ex tb IIIC T95°C Db

IECEX

Ex db IIB T5 Gb

Ex tb IIIC T95°C Db

Explosion Protection Certificate Number:

ATEX: TÜV 22 ATEX 8897 X

IECEX CoC: IECEX TUR 22.0062X

External earthing

- Pan head screws M4×6.
- External teeth Lock Washers M4.
- Maximum torque 3N·M ,grounding cable diameter not less than 4mm².
- Insert the screw through the grounding lug on the grounding cable and the external tooth lock washer in sequence, then use a Phillips screwdriver to secure it to the ground stud on the power supply housing.

6.STORAGE AND TRANSPORT

6.1 During transport, there must be no strong impact, exposure to the rain, forbid throwing, collision, neither heavy load.

6.2 Products should be stored in a place where there is no snow and rain intrusion, (0-40) °C, with good ventilation conditions, without acid and other corrosive gas or dust in the air.

7.OPEN BOX AND INSPECT

7.1 Inspect the carton and the quantity of work light, instruction, certification, packing sheet and accessory.

7.2 Inspect product appearance is ok and mark is in good condition.

7.3 Please read instruction before your usage in case wrong operation leads to accident or damage of light. Check the light is in good condition before usage. The explosion proof light should be stored in a cool, dry and clean environment.

8. DISPOSAL/RECYCLING

Put relevant items in a dedicated garbage bin.

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