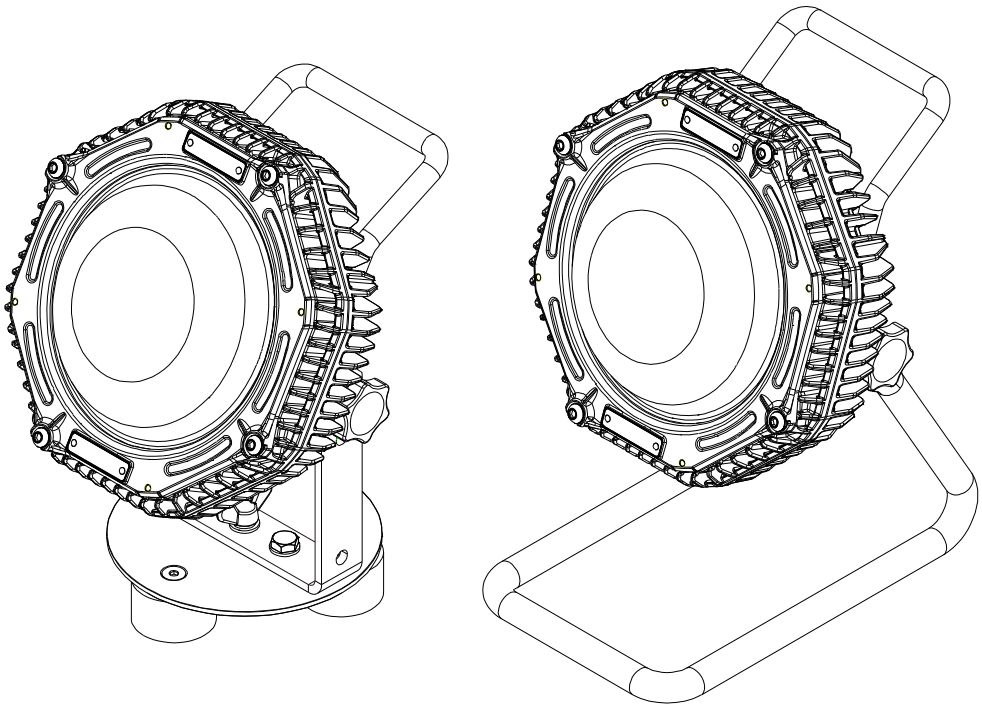
Operation & Maintenance Manual



II 2 G / II 2 D

Product Important Information

Type Of Protection	Ex db, Ex tb		
Protection Standards	EN 60079-0:2018, EN 60079-1:2014, EN 60079-31:2014 IEC 60079-0:2017, IEC 60079-1:2014, IEC 60079-31:2013 EN 55015, EN 61547, EN 61000-3-2, EN 61000-3-3, EN 60598-1, EN 60598-2-5, EN 62031, EN 62493, IEC 62321-4, IEC 62321-5, IEC 62321-6, IEC 62321-7-1, IEC 62321-7-2, IEC 62321-8		
Area Classfiction	Zone 1 and Zone 2 Areas to (IEC)EN 60079-10-1,Zone 21 and Zone 22 Areas to (IEC)EN 60079-10-2		
Installation	(IEC)EN 60079-14		
Certificate	EPT 18 ATEX 2977 X/IECEx CQM 15.0039X/CML 22 UKEX 1362 X		
Equipment Coding	Ex db IIC T* Gb，Ex tb IIIC T* Db		
Temperature Class	Rated power (W)	-20℃ ⩽ Ta ⩽ +55℃	
		Gas	Dust
	10	T6	T80℃
	15	T6	T80℃
ATEX/UKCA Coding	II 2 G / II 2 D		
Ingress Protection	IP66 (IEC)EN 60529		
Cable entry	Not applicable		
CE/UKCA Mark	The CE/UKCA marking of this product applies to EU directives 2014/35/EU, 2014/30/EU, 2012/19/EU , 2011/65/EU and 2014/34/EU respectively. The Equipment is declared to meet the provisions of the ATEX/UKCA directive(2014/34/EU)by reason of the EU Type Examination and compliance with the Essential Health and Safety Requirements		

SYMBOL	MEANING
UK CA CE	The symbol reported complies with annex X of the directive 2014/34/EU and identify that the product meets the Essential Health and Safet Requirement(E.H.S.R)of the directive.
XXXX	Registered number of the Notified Body involved in the verification of the product
Ex	Specific symbol of ATEX/UKCA directive 2014/34/EU,given in the Annex II of the directive
II 2GD	This category comprises products designed to be capable of remaining within their operational parameters stated by the manufacturer and based on a high level of protection for their intended use, in areas in which explosive atmospheres caused by mixtures of air and gases, vapours, mists or air/dust mixtures are likely to occur. The explosion protection relating to this category must function in such a way as to provide a sufficient level of safety even in the event of equipment with operating faults or in dangerous operating conditions which normally have to be taken into account.
Ex db	Type of protection applied to enclosure in which the parts which can ignite an explosive gas atmosphere are placed and which can withstand the pressure developed during an internal explosion of an explosive mixture, and which prevents the transmission of the explosion to the explosive gas atmosphere surrounding the enclosure
Ex tb	Type of protection based on the risk of the electrical equipment becoming an ignition source in an explosive dust atmosphere
II C	Group of gas for which the equipment is suitable
III C	Group of dust for which the equipment is suitable
T*	Temperature class for gas
T*℃	Temperature class for dust
Gb	Equipment protection level, equipment for explosive gas atmospheres, having a "high" level of protection
Db	Equipment protection level equipment for explosive dust atmospheres, having a "high" level of protection
-20℃ ≤Ta≤+55℃	Ambient temperature range

01.Introduction LED light ATEX/UKCA and IECEx

- This user manual covers the range of ATEX/UKCA and IECEx portable luminaire.
  These luminaires are constructed with corrosion resistant epoxy coated aluminum alloy body and high impact resistance tempered glass diffuser.
- portable luminaire are available from 10W to 15W, providing ideal solutions for a wide range of harsh and hazardous applications.

02.Electrical Supplies

	Size:Ø220*102mm	
Voltage Range(AC)	26VDC	
Charge Voltage(VAC)	100-277 VAC	
Power Watts(W)	10W	15W
Standard Current Range(A)	2.0A	
Battery	22.2V 4.4Ah	
Light Duration	≥10 hours	≥6 hours
Charge time	＜3 hours	
Power Factor	≥0.89	

03.General

- These instructions should be read fully and carefully before attempting to install the luminaire.
  For details of servicing operations, opening etc. see section 6.
- Copies of these instructions should be held in a safe place for future reference.
  It is the responsibility of the installer to ensure that the apparatus selected is fit for it is intended purpose and that the installation, operation and maintenance of the apparatus complies with applicable regulations, standards or codes of practice. Installation should be carried out in accordance with (IEC)EN60079-14 or with a local hazardous area code of practice, whichever is appropriate.
- Risk of electrostatic discharge:
  a.Avoid mounting near fast moving streams of air and in areas where effective charging mechanism that could lead to brush propagating discharges could sussist.
- Certification details on the nameplate must be verified against the application requirements before installation.
- The information in this leaflet is correct at the time of publication.
- Use in Combustible Dust Atmospheres.
  a.De-rating of the surface temperature will be required where dust clouds may be present
  b.Do not allow dust to accumulate in layers
  c.Dust in layers has the potential to form ignitable clouds and to burn at lower temperatures
- Refer to (IEC)EN60079-10-1,(IEC)EN60079-10-2&(IEC)EN60079-14 for additional details of selection and installation.
- Install the equipment as far away as possible from heating/cooling sources or areas subject to sudden temperature changes.

3.1 Tools

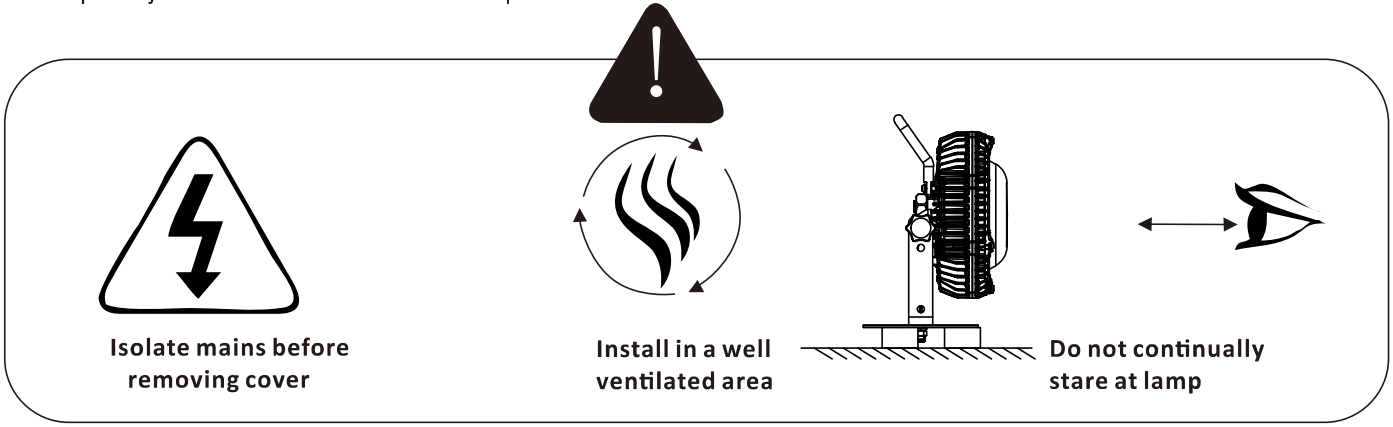
- 4 mm and 5 mm flat blade screwdriver, large cross head screwdriver and inner hexagon counter wrench, pliers, knife, wire s tripper and cutter.

3.2 Mounting

- Luminaire should be installed where access for maintenance is practical and in accordance with lighting design information. Refer to the note in 3. concerning electrostatic charge.
- See 6 installation diagram for installation mode and method.

04.Safety instruction

- Read this leaflet carefully before commencing to install the luminaire unit and retain it for future use.
  carried out by suitably qualified personnel.
- Check the certification to ensure that the Zone, mains supply, ambient temperature present and "T" rating are suitable for the environment the unit is being installed in.
- Do not open when energised,after de-energising,delay10 minutes before opening .
- Do not open when an explosive gas atmosphere is present.
- To ensure the safety of the equipment, ensure that the 'flame-path' on Zone 1 variants are free from any corrosion.
  No repairs are possible to flameproof joints if in doubt please consult the manufacturer.
- External fasteners must have a yield strength of at least 450N/mm²
- On Zone 1 variants the LED assembly contains no user service able parts, the luminaire must not be operated without all the individual LED covers in position, the IP66 rating must be maintained.
- Potential electrostatic charging hazard.
- Charge the battery in non-hazardous location only.
- Please charge and discharge the battery every 6 months if the lamp is not used for a long time.
- The flameproof joints are not intended to be repaired.

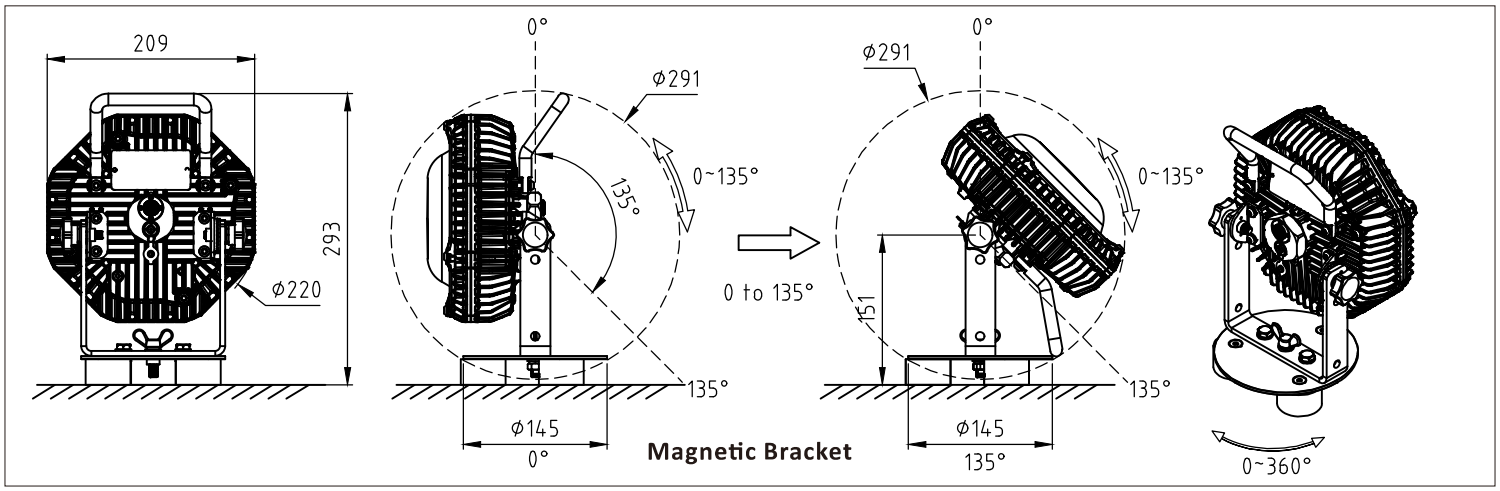


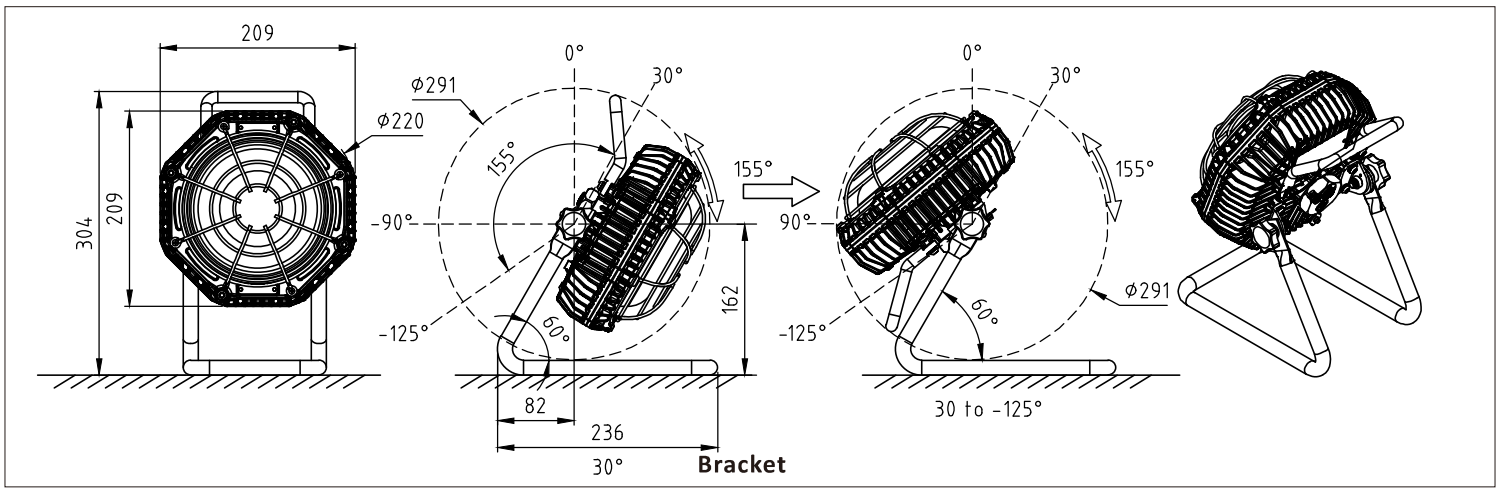
05.Charge display

- Red indicator light means charging;
- Green indicator light means battery is fully charged.

06.Installation method

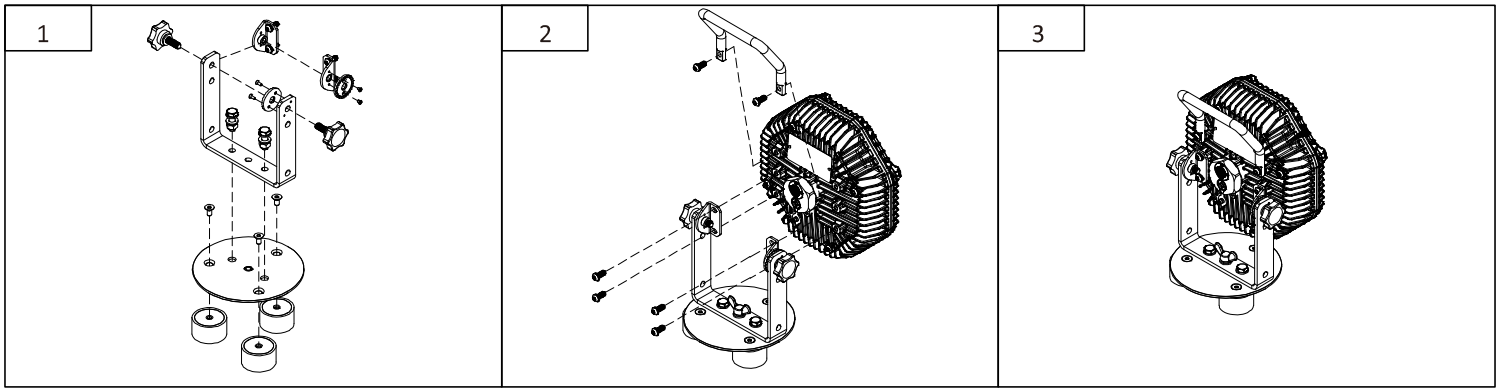
Based on the use of the scene and actual requirements, we have designed the following installation methods for customers to choose from：

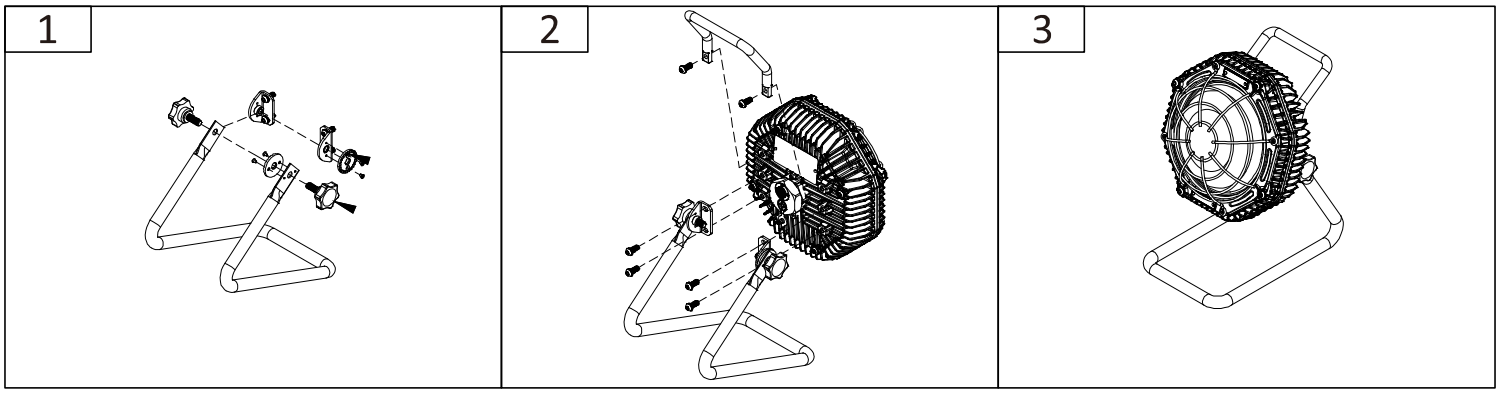




6.1 Installation decomposition

It is the responsibility of the installer to ensure that the apparatus selected is fit for it is intended purpose and that the installation, operation and maintenance of the apparatus complies with applicable regulations, standards or codes of practice.
Installation should be carried out in accordance with (IEC)EN60079-14 or with local hazardous area code of practice, whichever is appropriate.
Please refer to the following installation drawing for different installation methods.





Note: the size of the structure is for reference only. We reserve the right to optimize and adjust some parts of the structure without notice.

07.Repairs Maintenance

Visual tests and checks should be carried out at intervals described by the appropriate regulations, (IEC)EN 60079-17,and should include the following(including but not limited to).

- Check for mechanical damage/corrosion.
- Check connections, fixings.
- Check for undue accumulations of dust, dirt or moisture.
- Check for unauthorized modifications.

Periodic inspection of the enclosure seal should be checked out to ensure that the seal is sound.
If the luminaire has been subject to abnormal conditions, for example, severe mechanical impact or chemical spillage, it must be de-energised until it has been inspected by an authorized and competent person.

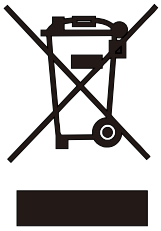
08.Cleaning of luminaire

- The complete luminaire (without disassemble) can be cleaned with neutral water solution.
  After cleaning, rinse or wipe dry with clean water.
- It is forbidden to use any chemical or hydrocarbon solvent cleaner to clean the diffuser, otherwise serious damage may be caused.
- The equipment must be periodically cleaned in order to avoid the formation of dust layers.

09.Disposal of Material

General
Disposal of the luminaire as waste should be carried out in accordance with national regulations.
Any disposal must satisfy the requirements of the WEEE directive [2012/19/EU] and therefore must not be treated as commercial waste.
The unit is mainly made from incombustible materials.
The control gear contains plastic,resin and electronic components.
All electrical components may give off noxious fumes if incinerated.

9.1 .Battery Disposal
Lithium batteries are defined as 'controlled waste' under the hazardous waste regulations and the person disposing needs to observe a 'duty of care'.
They must be stored and transported safely and any necessary pollution control forms completed prior to transportation.
Take care to fully discharge batteries before transporting, or otherwise ensure that there can be no release of stored energy in transit.
For further details refer to our technical department.



To comply with the Waste Electrical and Electronic Equipment directive 2012/19/EU the apparatus cannot be classified as commercial waste and as such must be disposed of or recycled in such a manner as to reduce the environmental impact.

10.Transportation

Weatherproof measures should be taken during transportation.
It is strictly forbidden to load and unload violently, and it is strictly forbidden to drop and roll from high altitude, so as to prevent mechanical damage.

11.Storage

The luminaire should be stored in ventilated,non-dropping and non-liquid warehouse at the temperature of -20℃ to +40℃ and relative humidity ≤95%RH.
The surroundings should be kept from corrosive gases which may damage metal and insulation.

12.Warning

WARNING – DO NOT OPEN WHEN ENERGISED
WARNING – AFTER DE-ENERGISING, DELAY 10 MINUTES BEFORE OPENING
CAUTION – USE FASTENERS WITH YIELD STRESS ≥ 450MPa
WARNING – POTENTIAL ELECTROSTATIC CHARGING HAZARD,CLEAN ONLY WITH A DAMP CLOTH
WARNING – DO NOT OPEN WHEN AN EXPLOSIVE GAS ATMOSPHERE IS PRESENT

13.Optional Parts

No.	Installation accessories	Part No.	Picture	Material	Weight(Kg)	QTY	Remark
1	Magnetic Bracket	MB-FF-O		Q235	1.2	1	Magnet bracket
2	Bracket	PB-FF-O		SUS304	0.56	1	Stainless steel bracket