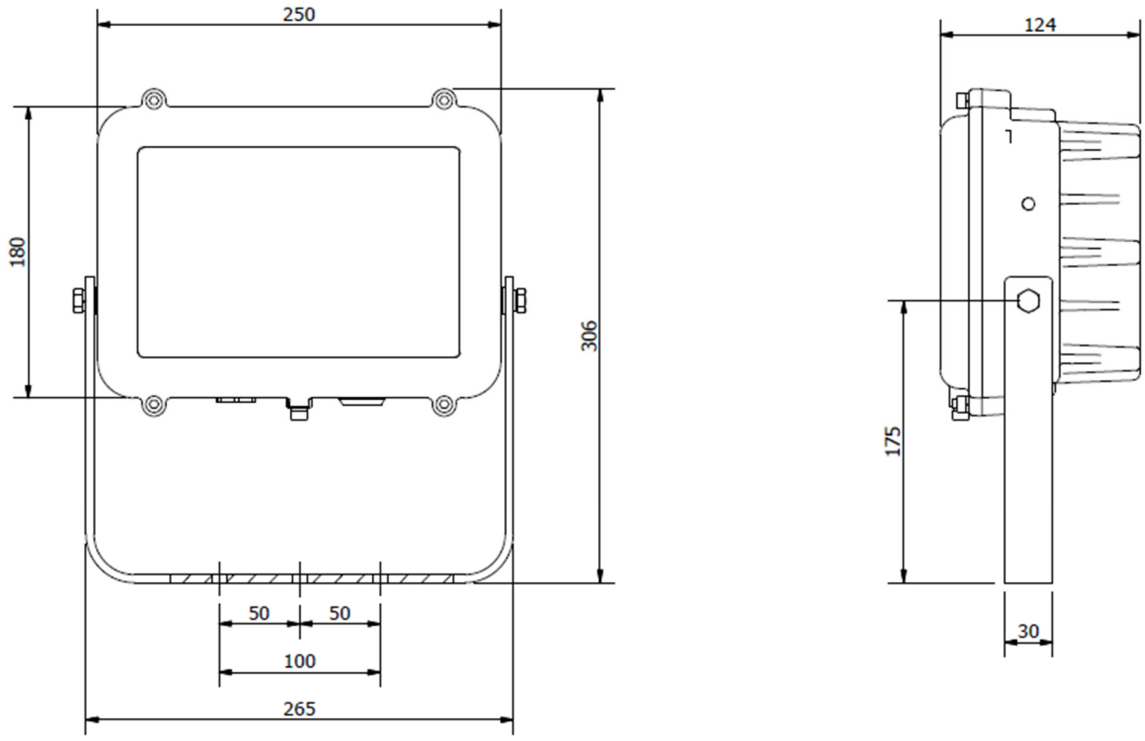
INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTIONS

HDN106 - Luminaires (Industrial)

Important: Please read these instructions carefully before installing or maintaining this equipment. Good electrical practices should be followed at all times and this data should be used as a guide only.



Weight 6kg

Windage – 0.045m²

UK

Type of Protection	N/A		
Standards	EN 60598-1		
Area Classification	Industrial (Non-Hazardous)		
Installation	(IEC) EN 60079-14		
Ambient	HDN106 100V to 254V 50/60Hz 127V to 250V DC -20°≤ Ta ≤+50°C	HDN106 18V to 54V AC/DC -20°≤ Ta ≤+55°C	
Ingress Protection	IP66/67		
Laser safety class	Class 1 LED product		
CE UK CA	The CE marking of this product applies to "The Electrical Equipment (Safety) Regulations 2006", "The Electromagnetic Compatibility Regulations 2004", the "Waste Electrical and Electronic Equipment Regulations 2006". [This legislation is the equivalent in UK law of EU directives 2014/35/EU, 2014/30/EU, 2012/19/EU respectively]. The UKCA marking of this product applies to "The Electrical Equipment (Safety) Regulations 2016", "The Electromagnetic Compatibility Regulations 2016", the "Waste Electrical and Electronic Equipment Regulations 2012 M Poutney Technical Manager		

1.0 Introduction

The Chalmit HDN106* range is a compact light source that uses ultra bright light emitting diodes to provide light from mains power. The LEDs are maintenance free and can last up to 150,000 hours @ 25°C ambient. They are housed in an impact and corrosion resistant marine grade aluminium enclosure with a toughened glass or polycarbonate lens. The control gear is electronic with regulated lamp output. The LEDs work equally well at very low temperatures as they do at high and produce a product with very low overall power consumption.

Important: Electrostatic Charging Hazard: Clean only with a damp cloth, when fitted with a polycarbonate lens.

LED White High Power.
Voltage ranges: 100 – 254V,
18 – 54V AC/DC

Electrical Operating Data @ 100-254V 50Hz	**24 x LED HDN106N0**	**48 x LED HDN106N1**	**96 x LED HDN106N2**	**144 x LED HDN106N3**	**192 x LED HDN106N4**
Power Watts	26W	43W	87W	131W	174W
Current Amps	0.27 – 0.11A	0.45 – 0.18A	0.91 – 0.36A	1.36 – 0.54A	1.82 – 0.72A

Electrical Operating Data @ 18-54V DC	**24 x LED HDN106N0**	**48 x LED HDN106N1**	**96 x LED HDN106N2**	**144 x LED HDN106N3**	**192 x LED HDN106N4**
Power Watts	27W	53W	106W	159W	212W
Current Amps	1.46 – 0.49A	2.93 – 0.97A	5.87 – 1.96A	8.8 – 2.93A	11.7 – 3.91A

For lumen output photometric data can be requested.

Power Factor	0.9 minimum
Over voltage	375V
Looping	The looping current rating is 12A. 4mm² terminals are standard.
Storage	Luminaires are to be stored in cool dry conditions -40°C to +50°C preventing ingress of moisture and condensation.

PAT Testing (Insulation) 500V DC MAX for 1 min

1.0 Installation and Safety

1.1 General

There are no health hazards associated with this product whilst in normal use. However, care should be exercised during the following operations. Within the UK installation should be carried out in accordance with the requirements of the *'Health and Safety at Work Act'*.
Handling and electrical work associated with this product to be in accordance with *the 'Manual Handling Operations Regulations'* and *'Electricity at Work Regulations, 1989'.* Your attention is drawn to the paragraphs (i) 'Electrical Supplies', (ii) 'Electrical Fault Finding and Replacement' and (iii) 'Inspection and Maintenance'.
The luminaires are class 1 and should be effectively earthed. Details on the rating plate must be verified against the application requirements before installation.
The information in this leaflet is correct at the time of publication. The company reserves the right to make specification changes as required.

1.2 Tools

5mm Allen Key (Hex)
Spanners for installing cable glands. Pliers, knife, wire strippers/cutters.

2.0 Electrical Supplies

The standard unit is rated for a nominal 100V-254V AC 50/60Hz and 127V-250V DC. A maximum voltage variation of +6%/-6% on the nominal is expected. (The safety limit is +10%). Equipment must not be operated outside of the rated voltage of the control gear. The lamp supply is regulated therefore the light output over the supply range is constant.

3.0 LED Array & Driver

This product is fitted with LEDs that can last up to 150,000 hours @ 25°C ambient. Therefore in many applications replacement of the LED array will be unnecessary. If replacement is required ensure mains supplies are isolated before commencing work. Remove the front cover and then remove the LED array assembly.
Care must be taken when disconnecting and reconnecting wiring.
If required contact Chalmit Technical.

4.0 Mounting

Luminaires should be installed where access for maintenance is practical and in accordance with any lighting design information provided for the installation.
The fitting is supplied with an eye bolt for a safety line.
NOTE: When mounting a triple unit, the 2 outermost and the centre mounting holes must be used to secure the stirrup in place.

5.0 Cabling and Cable Glands

5.1 Cables

The maximum conductor size is 4mm². Internal earth point is provided in the main terminal block. 300/500V cable ratings are adequate and no special internal construction is necessary. The standard looping cable size is up to 4mm². The selection of cable size must be suitable for the fuse rating. Terminals are supplied with suitability for looping. Where looping is used the maximum current is 12A. Terminals are accessed by removing the front cover and LED array. For Maximum cable temperature rise refer to nameplate..

5.2 Cable Glands

The installer and user must take responsibility for the selection of cables, cable glands and seals. Two tapped cable entries are provided, one with a plug and seal suitable for permanent use, the other with a travelling plug not suitable for use in service. Cable entries are M20x1.5.
The cable and gland assembly when installed must maintain the ingress protection rating of the luminaire.
The cable glands must be suitable for the application. Where brass cable glands are used in a corrosive environment, cadmium or nickel plating should be used.

6.0 Inspection and maintenance

Visual inspection should be carried out at a minimum of 12 monthly intervals and more frequently if conditions are severe.

7.0 Electrical fault finding and replacement

Any fault finding must be done by a competent electrician with the luminaire isolated.
Fault finding is by substitution with known good components.

8.0 Routine Maintenance

Individual organisations will have their own procedures. What follows are guidelines based on our experience:
Check that the LEDs are working.
Check for mechanical damage/corrosion.
Check for loose connections including earthing.
Check for undue accumulations of dust or dirt.
Verification of tightness of fixing, glands, blanking plugs etc. *Torque Values- Stirrup mounting point: 10Nm, Aluminium/Glass Diffuser fixing screws: 4Nm, Polycarbonate Diffuser fixing screws: 1.5 - 2Nm.*
Check for unauthorised modifications.
Check condition of enclosure gasket and fastenings.
Check for any accumulation of moisture.
Periodic inspection of the enclosure seal should be carried 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 authorised and competent person. If in doubt, the unit should be returned to Chalmit for examination and, if necessary, replacement.
Before re-assembling, all connections should be checked and any damaged cable replaced.

9.0 Disposal of Material

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. Take care to render these fumes harmless or avoid inhalation. Any local regulations concerning disposal must be complied with. Any disposal must satisfy the requirements of the WEEE directive [2012/19/EU and Regulations 2012] and therefore must not be treated as commercial waste.

To comply with the Waste Electrical and Electronic Equipment directive 2012/19/EU and Regulations 2012 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.

Chalmit Lighting is a leading supplier of Hazardous Area lighting products

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For technical support, please contact: techsupport@chalmit.com

	EU/UK-Declaration of conformity **UE-Déclaration de conformité** **EU-Konformitätserklärung**		
Manufacturer	Chalmit	Address	388 Hillington Road, Glasgow. G52 4BL Scotland UK
Product	HDN 106 Modular Industrial Floodlight.		
Catalogue	HDN106*****		
Area Classification	Industrial (Non- Hazardous)		
Ingress Protection	IP66/67		
Ambient	HDN106 100V to 254V 50/60Hz & 127V to 250V DC. -20°≤ Ta ≤+50°C HDN106 18V to 54V AC/DC. -20°≤ Ta ≤+55°C		

Terms of the directive: Prescription de la directive: Bestimmungen der Richtlinie:		Standard & Date Certified to Standard & date certifiée à Standard & Datum Zertifiziert nach	Standards Date Declared to Normes date Déclaré Standards Datum erklärt
2014/30/EU Regulations 2016	Electromagnetic compatibility	EN 55015 : 2019	
2014/30/UE	Compatibilité électromagnétique	EN 61547 : 2009	
2014/30/EU	Elektromagnetische Verträglichkeit	EN 61000-3-2 : 2019	
2014/35/EU Regulations 2016	Low voltage equipment	EN 60598-1 : 2015	
2014/35/UE	Équipements électriques à bas voltage	EN 60598-2-5 : 2015	
2014/35/EU	Niederspannungsgeräte / -systeme	EN 60529 : 1992+A2:2013	
2012/19/EU Regulations 2012	Waste of electrical and electronic equipment		
2012/19/UE	Déchets d'équipements électriques et électroniques		
2012/19/EU	Entsorgung der elektrischen und elektronischen Geräte / Systeme		
2011/65/EU Regulations 2012	RoHS II Directive		

On behalf of the Chalmit, I declare that, on the date the equipment accompanied by this declaration is placed on the market, the equipment conforms to all technical and regulatory requirements of the above listed directives.

En tant que représentant du fabricant Chalmit, je déclare qu'à la date où les équipements accompagnant cette déclaration sont mis sur le marché, ceux-ci sont conformes à toutes les dispositions réglementaires et techniques des directives énumérées ci-dessus.

Hiermit bestätige ich, im Namen von Chalmit, dass am Tag der Lieferung des Produkts/der Produkte zusammen mit dieser Erklärung das Gerät/die Geräte alle technischen und regulativen Anforderungen der oben aufgeführten Direktiven erfüllt.

Name and Date
Nom et Date
Name und Datum

Mark Poutney 09/08/2021

Technical Manager
Directeur technique
Technischer Leiter

Quality Management System Acreditation: **ISO 9001**

Système de Management Qualité Accréditation:
Qualitätsmanagementsystem Akkreditierung:
Environmental Management System. **ISO 14001**
Système de gestion de l'environnement. by/par/durch
Umwelt kontroll system. **Loyd's Register**
Certificate No./Certificat N°/Zertifikat Nr. **LRQ 4005876**