



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: IECEx SEV 19.0001X

Issue No: 0

Certificate history:

Issue No. 0 (2019-02-26)

Status: **Current**

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Date of Issue: **2019-02-26**

Applicant: **Cooper Electric (Changzhou) Co., Ltd.**
No.189, Liuyanghe Road,
Xinbei District, Changzhou,
Jiangsu Province, 213031
China

Equipment: **Hazardous Recessed LED Lighting HRL Series**

Optional accessory:

Type of Protection: **db, eb, ib, mb, op is, tb**

Marking:

Ex db eb ib mb op is IIC T6 Gb (EM Version with Safety Switch)
Ex db eb mb op is IIC T6 Gb (Normal version with Safety Switch)
Ex eb ib mb op is IIC T6 Gb (EM Version w/o Safety Switch)
Ex eb mb op is IIC T6 Gb (Normal version w/o Safety Switch)
Ex op is tb IIIC T80 °C Db (All types)

Approved for issue on behalf of the IECEx
Certification Body:

Martin Plüss

Position:

Manager Product Certification

Signature:
(for printed version)

Date:


2019-02-26

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

Eurofins Electrosuisse Product Testing AG
Luppenstrasse 3
CH-8320 FEHRALTORF
Switzerland



Electrosuisse
Product Testing



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Manufacturer: **Cooper Electric (Changzhou) Co., Ltd.**
No.189, Liuyanghe Road,
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China

Additional Manufacturing location(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:

The apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0 : 2011 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-1 : 2014-06 Edition:7.0	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-11 : 2011 Edition:6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
IEC 60079-18 : 2014 Edition:4.0	Explosive atmospheres - Part 18: Equipment protection by encapsulation "m"
IEC 60079-28 : 2015 Edition:2	Explosive atmospheres - Part 28: Protection of equipment and transmission systems using optical radiation
IEC 60079-31 : 2013 Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
IEC 60079-7 : 2015 Edition:5.0	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:

[CH/SEV/ExTR19.0001/00](#)

Quality Assessment Report:

[GB/BAS/QAR07.0041/08](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

Hazardous Recessed LED Lighting HRL Series

This HRL series of hazardous recessed LED lighting are suitable for use in hazardous location classified as Zone 1, Zone 2, Zone 21, Zone 22. The luminaire consists of case which is made of galvanized steel or SS316L and PC cover. It has an Ex eb chamber. Inside the chamber, the LED arrays are encapsulated by lens using sealing compound. The Ex mb LED driver and LED emergency inverter are installed in the housing, the Ex eb terminal block is installed to provide electrical connection while the Ex db safety switch is installed above the reflector to control luminaire. In the wall of chamber, four threaded holes are provided to install with cable gland/blanking elements. Only certified cable glands have to be used to wire the device and the unused entries need be blanked with suitable certified plugs. Both external and internal earthings are provided.

The degree of protection is IP66, according to IEC 60079-0 and IEC 60529

Classification of installation and use: Stationary

Ingress protection: IP66

Rated ambient temperature range (°C): -40 °C ... +55 °C (Normal version)
-25 °C ... +55 °C (EM version)

Rated ambient temperature range (°C) for Ex Components: N/A

Rated voltage: 100~240 V ac 50/60 Hz or 108~250 V dc

Rated power: 30 W/60 W

Battery: 9.6 V 3 Ah Ni-Cd or 9.6 V 6 Ah Ni-Cd

SPECIFIC CONDITIONS OF USE: YES as shown below:

POTENTIAL ELECTROSTATIC CHARGING HAZARD – SEE INSTRUCTIONS



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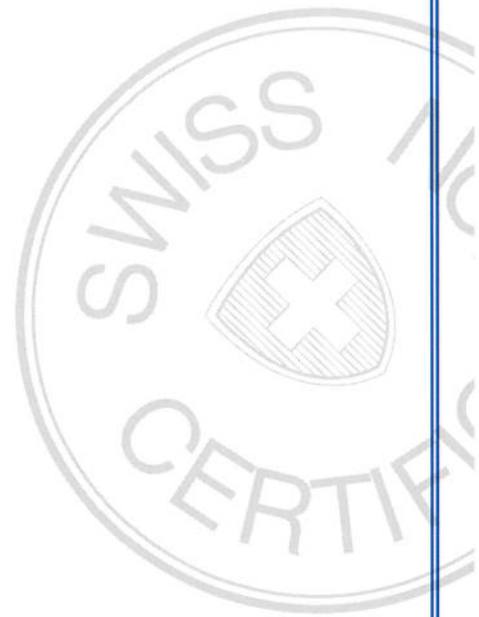
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Additional information:

Annex:

[IECEX SEV 19.0001X Annexe Issue 0.pdf](#)



Annexe to: IECEx SEV 19.0001X

Applicant Name: Cooper Electric (Changzhou) Co., Ltd.

Electrical Apparatus: Hazardous recessed LED lighting

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Catalog number definition:

Example Cat. No.	HRL	/3060	/00	/30W	/57	/EM	/1-225	/T1	/S
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

(1). HRL: Indicates basic catalog series designation.

(2). Indicates Outline Size:

/3060, (only for 30W models)

/3012, (only for 60W models)

/6060, (only for 60W models)

(3). Indicates Enclosure Material:

/00=Galvanized Steel

/16=SS316L

(4). Indicates Lighting Wattage:

/30W=30W

/60W=60W

(5). Indicates LED color temperature:

/30=3000K

/40=4000K

/50=5000K

/57=5700K

(6). Indicates Emergency Duration:

/Default= Non-Emergency

/EM2=25% Output 1.5h

/EM3=25% Output 3h

(7). Indicates wire and entry type:

/1-225=Single-ended 2×M25

/2-225=Through wiring 4×M25

/1-220=Single-ended 2×M20

/2-220=Through wiring 4×M20

(8). Indicates Terminal Type:

/Default=Double Row Terminal

/T1=Single Row Terminal

(9). Indicates safety switch:

/Default=W/O Safety Switch

/S=W/ Safety Switch



Annexe to:
IECEX SEV 19.0001X
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Models similarities and differences:

Catalog No.	Power	Driver		Inverter		Battery	LED Qty	LED parameter	Ta
		IECEX NEP 19.0001U		IECEX NEP 19.0002U					
HRL/3060/**/*/ *****	30W	ECHD30C300		N/A		N/A	56		-40 °C ~ +55 °C
		Input	Output						
		100- 240 VAC, 50/60 Hz or 108- 250 VDC	30 W 72- 100 VDC						
HRL/3060/**/*/ EM/*****	30W	ECHD30C300		ECHI30/075		9.6V 3Ah Ni-Cd or 9.6V 6Ah Ni-Cd	56	Current If=300 mA Voltage Vf=6~6.2 V Or Current If=600 mA Voltage Vf=6~6.2 V	-25 °C ~ +55 °C
		Input	Output	Input	Output				
		100- 240 VAC, 50/60 Hz or 108- 250VDC	30 W 72- 100 VDC	100- 240 VAC, 50/60 Hz or 108- 250 VDC	30 W 72- 100 VDC				
HRL/3012/**/*/ ***** HRL/6060/**/*/ *****	60W	ECHD60C600		N/A		N/A	112		-40 °C ~ +55 °C
		Input	Output						
		100- 240 VAC, 50/60 Hz or 108- 250 VDC	60 W 70- 100 VDC						
HRL/3012/**/*/ EM/***** HRL/6060/**/*/ EM/*****	60W	ECHD60C600		ECHI60/150		9.6 V 3 Ah Ni-Cd or 9.6 V 6 Ah Ni-Cd	112		-25 °C ~ +55 °C
		Input	Output	Input	Output				
		100- 240 VAC, 50/60 Hz or 108- 250 VDC	60 W 70- 100 VDC	100- 240VAC, 50/60Hz or 108- 250VDC	60 W 70- 100 VDC				

Used certified components

Ex component	Certificate No.	Ex classification
Cooper Crouse-Hinds GmbH Terminal strep type 2410-*	BVS 13 ATEX E 080 U IECEX BVX 13.0088U	II 2 G Ex e IIC Gb Ex eb IIC Gb
Cooper Electric (Changzou) Co. Ltd. Exe terminal type Exe T 6P	DEMKO 15 ATEX 1599U IECEX CQM 15.0053U	II 2 G Ex e IIC Gb Ex e IIC Gb
Cooper Electric (Changzhou) Co., Ltd. LED Driver, ECHD30C300, ECHD60C600	IECEX NEP 19.0001U	Ex mb IIC Gb
Cooper Electric (Changzhou) Co. LED Inverter ECHI30/075, ECHI60/150, ECHI30/075-S, ECHI60/150-S	IECEX NEP 19.0002U	Ex ib mb IIC Gb
Cooper Electric (Changzhou) Co. Nipple connector CNC-CE2, CNC-CE5	IECEX CQM 16.0024U	Ex e IIC Gb
Cooper Electric (Changzhou) Co. Safety Switch SSE-2	IECEX CQM 16.0018U	Ex db IIC