



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

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

Certificate No.: IECEx NEP 18.0022X

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Certificate history:

Status: Current

Issue No: 2

Issue 1 (2019-05-17)

Issue 0 (2019-01-25)

Date of Issue: 2023-12-29

Applicant: WAROM TECHNOLOGY INCORPORATED COMPANY
No. 555, Baoqian Road, Jiading District, Shanghai 201808, China
China

Equipment: Explosion-proof LED Lightings typed HRD91-LED*-**

Optional accessory:

Type of Protection: Flameproof enclosure "d", Increased safety "e", Protection by enclosure "t"

Marking: HRD91-LED50-**

Ex db IIC T6/T5 Gb (Terminal BK3); Ex db eb IIC T6/T5 Gb (Terminal G5/3-Ex); Ex tb IIIC T80°C/T95°C Db

HRD91-LED100-**

Ex db IIC T5/T4 Gb (Terminal BK3); Ex db eb IIC T5/T4 Gb (Terminal G5/3-Ex); Ex tb IIIC T85°C/T100°C Db

Ta: (-20~+43)°C or (-20~+58)°C

Approved for issue on behalf of the IECEx
Certification Body:

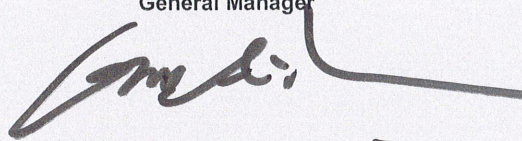
Guo Aihua

Position:

General Manager

Signature:
(for printed version)

Date:
(for printed version)


Dec. 29, 2023

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Certificate issued by:

**Shanghai Inspection and Testing Institute of Instruments
and Automatic Systems Co., Ltd. (SITI/IAS)/
National Supervision and Inspection Center for Explosion
Protection and Safety of Instrumentation (NEPSI)
103 Cao Bao Road
Shanghai 200233
China**



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Manufacturer: **WAROM TECHNOLOGY INCORPORATED COMPANY**
No. 555, Baoqian Road, Jiading District, Shanghai 201808, China
China

Manufacturing
locations:

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 equipment 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 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-1:2014 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

IEC 60079-31:2022 Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure "t"
Edition:3.0

IEC 60079-7:2017 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:5.1

This Certificate **does not** indicate compliance with 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:

CN/NEP/ExTR18.0022/01

Quality Assessment Report:

CN/NEP/QAR18.0001/03



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The explosion-proof LED Lightings were provided by two lamp enclosures: HRD91-LED50-** for maximum lamp power 50W and HRD91-LED100-** for maximum lamp power 100W. Each enclosure contains light source chamber, drive chamber with constant current source inside and terminal chamber with two cemented joints among them. Three chamber enclosures consist of shell body and cover, made of die-casting aluminium ZL102.

In the light source chamber, there are toughened glass, LED array and reflector. And inside the Ex "d" or Ex "e" terminal chamber, terminals are intended for connection to external circuits. The explosion-proof LED Lightings in the mounting types of hook, pendant pole, wall type and pole type have integral cable gland. The explosion-proof LED Lightings in the mounting types of ceiling have two threaded holes for certified cable gland or blanking plug.

The degree of protection of explosion-proof LED Lightings is IP66 (IEC60529).

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. The relation between applicable ambient temperature, temperature class and maximum temperature are as below:

Product type	Ambient temperature	Explosive gas atmosphere	Explosive dust atmosphere
		Temperature class	Maximum surface temp.
HRD91-LED50-**	-20°C~+43°C	T6	T80°C
	-20°C~+58°C	T5	T95°C
HRD91-LED100-**	-20°C~+43°C	T5	T85°C
	-20°C~+58°C	T4	T100°C

2. When Explosion-proof LED Lightings with ceiling mounting type are installed in explosive atmosphere, cable gland or blanking plug, with type of protection Ex tb IIIC Db, threaded type M25×5 or 3/4"NPT and degree of protection IP66, shall be adopted. An additional seal shall be used when parallel threads employed.

3. Contact the original manufacturer for the information of dimension of flameproof joint.

4. The Special fastener shall have a property class of A2-70.

5. The clamping test was passed with 25% of required value, the user shall provide additional clamping of the cable to ensure that pulling is not transmitted to the terminations.

6. Observe the warning:

WARNING-DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE IS PRESENT!

WARNING-POTENTIAL ELECTROSTATIC CHARGING HAZARD – SEE INSTRUCTIONS!



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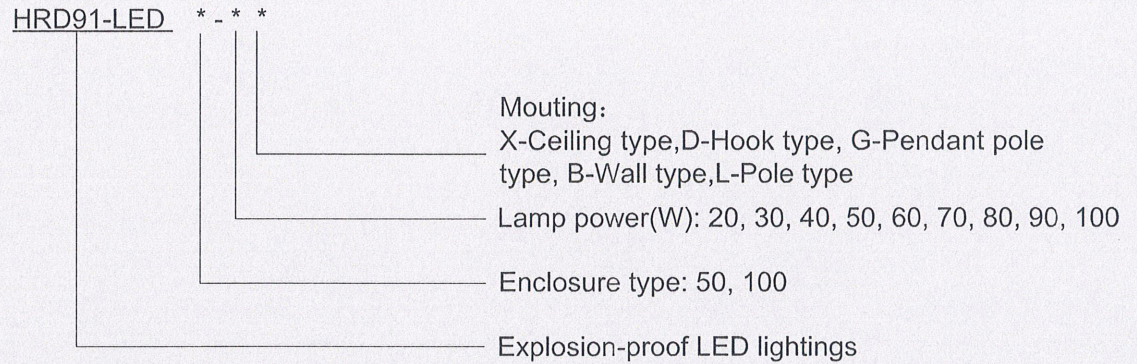
DETAILS OF CERTIFICATE CHANGES (for issues 1 and above) issue 2:

- 1.Changed in the toughened glass of both lamp enclosures.
- 2.Update standard with IEC60079-1, IEC60079-7, IEC60079-31.
- 3.Remove IEC60079-28 and the marking "op is".
- 4.Cements in the bushings and cemented joints of glass are changed.
- 5.The temperature class and the maximum surface temperature for HRD91-LED100-** are changed.
- 6.Some typo errors.

Annex:

[Annex to IECEx NEP 18.0022X.02.pdf](#)

1. Type definition



2. Electrical parameters

Product type	Nominal power(W)	Rating voltage
HRD91-LED50-20*	20	AC 100~277V 50/60Hz, AC 220~240V 50/60Hz, DC100~250V
HRD91-LED50-30*	30	
HRD91-LED50-40*	40	
HRD91-LED50-50*	50	
HRD91-LED100-60*	60	
HRD91-LED100-70*	70	
HRD91-LED100-80*	80	
HRD91-LED100-90*	90	
HRD91-LED100-100*	100	