



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 EUT 17.0013X** Page 1 of 4 [Certificate history:](#)
Issue 0 (2017-12-14)

Status: **Current** Issue No: 1

Date of Issue: 2019-12-19

Applicant: **Zhejiang Tormin Electrical Co., Ltd.**
No.35 Qingjiang Road, High-tech District, Wenzhou, Zhejiang, China
China

Equipment: **LED Explosion-proof Light BC9700-L Series**

Optional accessory:

Type of Protection: **Flameproof enclosure "d", Dust-tight enclosure "t"**

Marking: Ex db IIC T5...T3 Gb
Ex tb IIIC T95°C...T195°C Db

Approved for issue on behalf of the IECEx
Certification Body:

Dionisio Bucchieri

Position:

Head of IECEx Certification Body

Signature:
(for printed version)

Date:

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 www.iecex.com or use of this QR Code.



Certificate issued by:

Eurofins Product Testing Italy S.r.l.
Via Cuorgnè
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Italy



Product Testing



IECEx Certificate of Conformity

Certificate No.: **IECEx EUT 17.0013X**

Page 2 of 4

Date of issue: 2019-12-19

Issue No: 1

Manufacturer: **Zhejiang Tormin Electrical Co., Ltd.**
No.35 Qingjiang Road, High-tech District, Wenzhou, Zhejiang, China
China

Additional
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 60079-0:2011 Explosive atmospheres - Part 0: General requirements
Edition:6.0

IEC 60079-1:2014-06 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

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 Reports:

[CN/CQM/ExTR17.0004/00](#)

[IT/EUT/ExTR17.0020/00](#)

Quality Assessment Report:

[CN/CNE/QAR19.0002/00](#)



IECEx Certificate of Conformity

Certificate No.: IECEx EUT 17.0013X

Page 3 of 4

Date of issue: 2019-12-19

Issue No: 1

EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

BC9700-L series Explosion-proof lighting fixture can be used in environment with presence of explosive gas belonging to group IIC and dust belonging to group IIIC.

The lighting fixture is manufacturer according flameproof and dust-tight protection types.

It consists of two flameproof chamber, one for the illuminant (illuminant chamber) and the other one for power (electrical chamber); o-rings are adopted in the flameproof joints to fulfill the dust-proof requirements. The two chambers are connected with wire, which is encapsulated by epoxy resin. LED modules are installed in illuminant chamber, power supply and terminals are installed in electrical chamber.

The flameproof enclosure consists of main enclosure, front cover, electrical box enclosure, rear cover and transparent part. The enclosure parts are made of aluminum alloy and the light-transmitting part is made of toughened high borosilicate glass.

Explosion-proof light can be supplied complete with cable glands and/or plugs as part of the equipment. Alternatively third-parties certified cable glands or plugs can be used and these have to comply with type of protection Ex db IIC Gb/ Ex tb IIIC Db.

The equipment is designed for an operating temperature range of $-40^{\circ}\text{C} \div +40^{\circ}\text{C}$ and $-40^{\circ}\text{C} \div +55^{\circ}\text{C}$ depending on the associated maximum surface temperature as shown below:

Degree of protection provided by enclosure according to IEC 60529 and IEC 60079-0 is IP66.

Warnings:

WARNING - DO NOT OPEN WHEN ENERGIZED.

WARNING - USE THE CORRECT CABLE AND CABLE ENTRY AS PER INSTRUCTION MANUAL

WARNING - POTENTIAL ELECTROSTATIC CHARGING HAZARD - SEE INSTRUCTIONS.

WARNING - AFTER DE-ENERGIZING, DELAY 15 MINUTES BEFORE OPENING.

CAUTION- USE FASTENERS WITH YIELD STRESS $\geq 450\text{MPa}$.

Routine test:

Each unit shall withstand an overpressure test according to IEC 60079-1 clause 16.1. Refer to ExTR Reference No. CN/CQM/ExTR17.0004/00 for details

SPECIFIC CONDITIONS OF USE: YES as shown below:

- The flameproof joints of the equipment mustn't be repaired.
- Use fasteners with yield stress $\geq 450\text{MPa}$.

Type	Power	Input Voltage	Beam angle	Maximum ambient temperature Vs. Temperature class			
				$T_a \leq +40^{\circ}\text{C}$		$T_a \leq +55^{\circ}\text{C}$	
BC9700-L50	50 W	90-305VAC 50Hz/60Hz	40° 60° 80° 100° 60°X 80° 90°X 110°	T5	T95°C	T4	T130°C
BC9700-L60	60 W			T5	T95°C	T4	T130°C
BC9700-L80	80 W			T5	T95°C	T4	T130°C
BC9700-L100	100 W			T4	T130°C	T4	T130°C
BC9700-L120	120 W			T4	T130°C	T4	T130°C
BC9700-L150	150 W			T4	T130°C	T4	T130°C
BC9700-L180	180 W			T3	T195°C	T3	T195°C
BC9700-L200	200 W			T3	T195°C	T3	T195°C



IECEx Certificate of Conformity

Certificate No.: **IECEx EUT 17.0013X**

Page 4 of 4

Date of issue: 2019-12-19

Issue No: 1

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

QAR Reference has been updated