



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 CML 24.0118X	Page 1 of 3	Certificate history:
Status:	Current	Issue No: 0	
Date of Issue:	2024-11-06		
Applicant:	Zhejiang Tormin Electrical Co., Ltd. No. 2, Gangteng Road, Yongxing Subdistrict, Longwan District Wenzhou City, Zhejiang Province 325024 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:

D R Stubbings

Position:

Technical Consultant

Signature:
(for printed version)

Date:
(for printed version)

2024-11-06

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 E&E CML Limited
Unit 1, Newport Business Park
New Port Road
Ellesmere Port, CH65 4LZ
United Kingdom





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Manufacturer: **Zhejiang Tormin Electrical Co., Ltd.**
No. 2, Gangteng Road, Yongxing Subdistrict, Longwan District
Wenzhou City, Zhejiang Province 325024
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

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:

GB/CML/ExTR24.0214/00

Quality Assessment Report:

NL/CNEX/QAR23.0001/01



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

LED Explosion-proof Light BC9700-L Series

See Annex for full description.

SPECIFIC CONDITIONS OF USE: YES as shown below:

See Annex

Annex:

[Certificate Annex IECEx CML 24.0118X Issue 0 \(2\).pdf](#)

Annexe to: IECEx CML 24.0118X Issue 0
Apparatus: LED Explosion-proof Light BC9700-L Series
Applicant: Zhejiang Tormin Electrical Co., Ltd



Description

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 chambers, one for the light source and the other one for power supply (referred as electrical chamber including LED driver and terminals); the chambers are made electrically interconnected through encapsulated explosion-proof bushings. O-rings are placed between all enclosure joints so as to meet the requirements of the standard for dust-tight enclosure for IP66 rating.

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°C~+40°C and -40°C~+55°C depending on the associated maximum surface temperature as shown below.

Code designation

Each product is identified on the label by a model code as explained by the coding scheme reported below:

No.	Type	Power	Input Voltage	Beam angle	Maximum ambient temperature Vs. Temperature class and maximum surface temperature			
					Ta<+40°C		Ta <+55°C	
1	BC9700-L50-□	50 W	90-305VAC 50Hz/60Hz	40° 60° 80° 100° 60X 80° 90X 110°	T5	95°C	T4	130°C
2	BC9700-L60-□	60 W			T5	95°C	T4	130°C
3	BC9700-L80-□	80 W			T5	95°C	T4	130°C
4	BC9700-L100-□	100 W			T4	130°C	T4	130°C
5	BC9700-L120-□	120 W			T4	130°C	T4	130°C
6	BC9700-L150-□	150 W			T4	130°C	T4	130°C
7	BC9700-L180-□	180 W			T3	195°C	T3	195°C
8	BC9700-L200-□	200 W			T3	195°C	T3	195°C

Electrical characteristics

Input voltage: 90-305V AC,

Input frequency. 50/60Hz,

Rated power: 50W, 60W, 80W, 100W, 120W, 150W, 180W, 200W



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Nomenclature for model - BC9700-L□-□

BC	9700	-	L	□	-	□
1)	2)		3)	4)		5)

- 1) Fixed explosion-proof lighting
- 2) Design Number
- 3) Light type: LED
- 4) Power (W): 50W, 60W, 80W, 100W, 120W, 150W, 180W, 200W
- 5) beam angle: 40°, 60°, 80°, 100°, 60X 80°, 90X 110°

Notes:

- IECEx EUT 17.0013X is superseded by this certificate.
- The product covered by Issue 0 of this certificate remains identical to that previously covered by IECEx EUT 17.0013X.
- Where IECEx EUT 17.0013X is specified in other product certification, or other technical specifications, this certificate reference for the product shall be used in its place; updating of the other product certificate or technical specification is not required.

Conditions of Manufacture

The following conditions are required of the manufacturing process for compliance with the certification.

- i. Each unit shall be subjected to a routine overpressure test in accordance with the requirements of IEC 60079-1:2014 Ed. 7 clause 16. The test shall be conducted at a pressure as per the table below:

No.	Types	Static Overpressure Test
1	BC9700-L□-40°	Exd illuminant chamber test value at least 10.5bar.
		Exd electrical chamber test value at least 13.5bar..
2	BC9700-L□-60°	Exd illuminant chamber test value at least 10.5bar
		Exd electrical chamber test value at least 13.5bar.
3	BC9700-L□-80°	Exd illuminant chamber test value at least 11.6bar..
		Exd electrical chamber test value at least 13.5bar.
4	BC9700-L□-100°	Exd illuminant chamber test value at least 11.1bar.
		Exd electrical chamber test value at least 13.5bar.
5	BC9700-L□-60°x80°	Exd illuminant chamber test value at least 11.1 bar.
		Exd electrical chamber test value at least 13.5bar.
6	BC9700-L□-90°x110°	Exd illuminant chamber test value at least 9.6 bar.
		Exd electrical chamber test value at least 13.5bar.

Note: The static overpressure test include bushings of between Exd illuminant and Exd electrical chamber



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Specific Conditions of Use

The following conditions relate to safe installation and/or use of the equipment.

1. The width of flameproof joint is more than the minimum values specified in IEC 60079-1 standard. If needed, repair of the flameproof joints must only be made in compliance with the structural specifications provided by the manufacturer.
2. Repair of the threaded joints must be made in compliance with the specifications provided by the manufacturer. Repairs must not be made on the basis of values specified in table 4 of IEC 60079-1:2014.
3. The entries shall be equipped with IECEx certified cable glands with a compatible mode of protection for the intended use.



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