



# 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](http://www.iecex.com)

|                     |                                                                                                                                                                       |             |                                                                              |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|------------------------------------------------------------------------------|
| Certificate No.:    | <b>IECEx SEV 18.0031X</b>                                                                                                                                             | Page 1 of 4 | <u>Certificate history:</u>                                                  |
| Status:             | <b>Current</b>                                                                                                                                                        | Issue No: 2 | <a href="#">Issue 1 (2024-06-14)</a><br><a href="#">Issue 0 (2019-08-26)</a> |
| Date of Issue:      | 2024-12-19                                                                                                                                                            |             |                                                                              |
| Applicant:          | <b>Zhejiang Tormin Electrical Co., Ltd.</b><br>No. 2, Gangteng Road, Yongxing Subdistrict, Longwan District<br>Wenzhou City, Zhejiang Province 325024<br><b>China</b> |             |                                                                              |
| Equipment:          | <b>LED Explosion Proof Light Type: BC5402 B,D Series</b>                                                                                                              |             |                                                                              |
| Optional accessory: |                                                                                                                                                                       |             |                                                                              |
| Type of Protection: | <b>n, t</b>                                                                                                                                                           |             |                                                                              |
| Marking:            | Ex nR IIC T6 Gc<br>Ex tc IIIC T80°C Dc                                                                                                                                |             |                                                                              |

Approved for issue on behalf of the IECEx  
Certification Body:

**Munira Gamma**

Position:

**Manager Product Certification**

Signature:  
(for printed version)

Date:  
(for printed version)

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Luppenstrasse 3  
8320 FEHRALTORF .  
**Switzerland**



E&E



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Issue No: 2

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

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

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 60079-15:2017** Explosive atmospheres - Part 15: Equipment protection by type of protection "n"  
Edition:5.0

**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:

**CH/SEV/ExTR18.0034/01**

Quality Assessment Report:

**NL/CNEX/QAR23.0001/01**



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**EQUIPMENT:**

Equipment and systems covered by this Certificate are as follows:

Equipment covered by this certificate as follows:

LED Explosion Proof Light Type: BC5402 B,D Series

Refer to Annexe for details.

**SPECIFIC CONDITIONS OF USE: YES as shown below:**

WARNING – POTENTIAL ELECTROSTATIC CHARGING HAZARD – SEE INSTRUCTIONS



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## DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

1. Update the standards from "IEC 60079-0:2011, Edition 6.0; IEC 60079-15:2010, Edition 4.0; IEC60079-31:2014, Edition 2.0" to "IEC 60079-0:2017, Edition 7.0; IEC 60079-15:2017, Edition 5.0; IEC 60079-31:2022, Edition 3.0".
2. Modify the model names with additional two letters to identify the emergency models with normal types.
3. Update marking plate to comply with latest standards, and change the rating term from "input voltage" to "rated voltage", and correct rated voltage, enclosure length and quantity of light sources of models BC5402BJ series and BC5402DJ series.
4. One routine test, electric strength test according to Clause 12.1 of IEC 60079-15:2017, is included as correction.

## Annex:

[IECEx SEV 18.0031X app i2\\_1.pdf](#)

**Annexe to:** IECEx SEV 18.0031X

**Issue No.: 2**  
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**Applicant Name:** Zhejiang Tormin Electrical Co., Ltd.

**Equipment:** LED Explosion Proof Light

**Description of product**

The BC5402B series and BC5402D series explosion proof light are mainly composed of a shell body and a plastic lampshade: for BC5402B series, an separate terminal box for LED driver termination is connected to the main shell body on one side and a side cover on the other side (for emergency mode, this side cover is substituted with a wiring cover); for BC5402D series, the equipment is of one-chamber structure, on both sides are mounted wiring covers. Ex cable glands shall be installed on-site, the unused cable entries shall be plugged by Ex blanking elements during working and serve as test port during inspection or maintenance. Li rechargeable battery-packages are provided for emergency mode. The lampshade is cemented with DC7091 glue to the shell body. The restricted-breathing protection is guaranteed by cementing in the lampshade and sealing rings in the enclosure or cover grooves. Both external and internal earthings are provided.

The degree of protection of the enclosure is IP66 / IP67, according to IEC 60079-0 and IEC 60529.

Type specifications:

BC5402B series:

| Model            | Rated power (W) | Rated power - emergency mode (W) | Enclosure length (mm) | Rated voltage          | T <sub>a</sub> = -40 °C ... +55 °C |                             |  |  |  |
|------------------|-----------------|----------------------------------|-----------------------|------------------------|------------------------------------|-----------------------------|--|--|--|
|                  |                 |                                  |                       |                        | Temperature class                  | Maximum surface temperature |  |  |  |
| BC5402B-L20      | 20              |                                  | 650                   | 100-240 V AC, 50/60 Hz | T6                                 | T80 °C                      |  |  |  |
| BC5402B-L30      | 30              |                                  |                       |                        |                                    |                             |  |  |  |
| BC5402B-L40      | 40              |                                  |                       |                        |                                    |                             |  |  |  |
| BC5402B-L50      | 50              |                                  |                       |                        |                                    |                             |  |  |  |
| BC5402B-L60      | 60              |                                  |                       |                        |                                    |                             |  |  |  |
| BC5402B-L80      | 80              |                                  |                       |                        |                                    |                             |  |  |  |
| BC5402BJ-L40-L15 | 40              | 15 (4 cells in series)           | 650                   |                        |                                    |                             |  |  |  |
| BC5402BJ-L40-L25 |                 | 25 (4 cells in series)           |                       |                        |                                    |                             |  |  |  |
| BC5402BJ-L15     |                 | 15 (4 cells in series)           |                       |                        |                                    |                             |  |  |  |
| BC5402BJ-L25     |                 | 25 (4 cells in series)           |                       |                        |                                    |                             |  |  |  |

BC5402D series:

| Model            | Rated power (W) | Rated power - emergency mode (W) | Enclosure length (mm) | Rated voltage          | T <sub>a</sub> = -40 °C ... +55 °C |                             |
|------------------|-----------------|----------------------------------|-----------------------|------------------------|------------------------------------|-----------------------------|
|                  |                 |                                  |                       |                        | Temperature class                  | Maximum surface temperature |
| BC5402D-L20      | 20              |                                  | 650                   | 220-240 V AC, 50/60 Hz | T6                                 | T80 °C                      |
| BC5402D-L30      | 30              |                                  |                       |                        |                                    |                             |
| BC5402D-L40      | 40              |                                  |                       |                        |                                    |                             |
| BC5402D-L50      | 50              |                                  |                       |                        |                                    |                             |
| BC5402D-L40-S    | 40              |                                  | 1100                  |                        |                                    |                             |
| BC5402D-L50-S    | 50              |                                  |                       |                        |                                    |                             |
| BC5402D-L60      | 60              |                                  |                       |                        |                                    |                             |
| BC5402D-L80      | 80              |                                  |                       |                        |                                    |                             |
| BC5402D-L100     | 100             |                                  |                       |                        |                                    |                             |
| BC5402DJ-L20-L3  | 20              | 3 (1 cell)                       | 650                   |                        |                                    |                             |
| BC5402DJ-L30-L3  | 30              |                                  |                       |                        |                                    |                             |
| BC5402DJ-L40-L3  | 40              |                                  | 1100                  |                        |                                    |                             |
| BC5402DJ-L50-L3  | 50              |                                  |                       |                        |                                    |                             |
| BC5402DJ-L20-L15 | 20              | 15 (4 cells in series)           |                       |                        |                                    |                             |
| BC5402DJ-L30-L15 | 30              |                                  |                       |                        |                                    |                             |
| BC5402DJ-L40-L15 | 40              |                                  |                       |                        |                                    |                             |
| BC5402DJ-L50-L15 | 50              |                                  |                       |                        |                                    |                             |
| BC5402DJ-L15     |                 |                                  |                       |                        |                                    |                             |
| BC5402DJ-L3      |                 | 3 (1 cell)                       | 650                   |                        |                                    |                             |