



[1] EU-TYPE EXAMINATION CERTIFICATE

[2] Equipment or Protective System intended for use in potentially explosive atmospheres - Directive 2014/34/EU Annex III - MODULE B: EU-TYPE EXAMINATION

[3] EU-type Examination Certificate number: **IMQ 20 ATEX 047 X**

[4] PRODUCT: **LED Explosion-proof lamp**
TYPE/SERIES: **BC9304*-L*** series**

[5] MANUFACTURER: **ZHEJIANG TORMIN ELECTRICAL CO., LTD.**

[6] ADDRESS: **No.2, Gangteng Rd, Yongxing Subdistrict, Longwan District
325024 WENZHOU CITY, ZHEJIANG PROVINCE - CHINA**

[7] This equipment and any acceptable variation thereto are specified in the annex to this certificate and the documents therein referred to.

[8] IMQ, notified body N° 0051, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in Report No.: **AT24-0102414-01/B**

[9] Compliance with Essential Health and Safety Requirements, except in respect of those listed at item 18 of the annex, has been assured by compliance with:

EN IEC 60079-0:2018; EN 60079-1:2014; EN 60079-7:2015; EN IEC 60079-7:2015/A1:2018; EN 60079-31:2014

Additional standard: IEC 60079-31:2022 ed. 3.0

[10] If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate

[11] This EU - TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

[12] The marking of the equipment or protective system shall include the following:



II 2G Ex db eb IIC T6 or T5 or T4 Gb
II 2D Ex tb IIIC T80°C or T95°C or T130°C Db

THIS CERTIFICATE CANCELS AND REPLACES THE PREVIOUS ONE. IT INCLUDES 1 ANNEX.

FIRST ISSUE	2020/11/27
CURRENT ISSUE	2024/07/16
PREVIOUS ISSUE	2021/04/26
EXPIRING DATE	2034/07/15

B.U. PRODUCT
CERTIFICATION SECTOR - MANAGER

This Certificate may only be reproduced in its entirety and without any change. It is subject to the general rules for assessing conformity to community directives for which IMQ operates as notified body n°. 0051 and to the special requirements for Directive 2014/34/EU (ATEX) "Equipment and protective systems for potentially explosive atmospheres" annex III - MODULE B - EU Type-examination.



PRD N° 005 B

Membro degli Accordi di Mutuo
Riconoscimento EA, IAF e ILAC
Signatory of EA, IAF and ILAC
Mutual Recognition Agreements

[13]

Annex

[14]

EU-type Examination Certificate number: **IMQ 20 ATEX 047 X**

Description of product:

[15]

BC9304 series LED Explosion-proof lamp are of type "db" "eb" and "tb". The enclosure material is Aluminum. The material of light transmitting part is toughened glass. The LED Explosion-proof lamp has two "db" compartments and one "eb" compartment. For BC9304P : three cable entries are provided on the "eb" compartment. For BC9304S : two cable entries are provided on the "eb" compartment. Light source is LED, their rated power are as following: 150W, 120W, 100W, 80W. LED source is not convergent and cannot be converted into convergent by transparent part therefore transparent part gives a significant attenuation of irradiance.

Models Identification:

[15.1]

Product model	Power	Rated voltage	Frequency	The environment temperature/ Temperature classes	
				Ta ≤ 40°C	Ta ≤ 55°C
BC9304P-L80 BC9304S-L80	80W	100~277V AC	50Hz/60Hz	T6/T80°C	T6/T80°C
BC9304P-L100 BC9304S-L100	100W	100~277V AC		T6/T80°C	T6/T80°C
BC9304P-L120 BC9304S-L120	120W	100~277V AC		T6/T80°C	T5/T95°C
BC9304P-L150 BC9304S-L150	150W	100~277V AC		-	T4/T130°C

[15.2]

Ratings: see above table on Power and Rated voltage

[15.3]

Safety Ratings: Not Applicable

[15.4]

Ambient temperature and temperature classes:

Ambient temperature Ta: -40°C to +40°C, or Ta -40°C to +55°C .
Temperature class accordingly to table at clause [15.1].

[15.5]

Degree of protection (IP code): IP66

[15.6]

Warnings:

WARNING - AFTER DEENERGIZING, DELAY 10 MINUTES BEFORE OPENING
WARNING - POTENTIAL ELECTROSTATIC CHARGING HAZARD - SEE INSTRUCTIONS
WARNING -LED LIGHT SOURCE CANNOT BE REPLACED.DO NOT OPEN THE LIGHT CAVITY
CAUTION - USE FASTENERS WITH YIELD STRESS≥700MPa.

[16]

Report: AT24-0102414-01/B

[16.1]

Routine (factory) tests:

[13] Annex

[14] EU-type Examination Certificate number: **IMQ 20 ATEX 047 X**

The manufacturer shall carry out the routine test prescribed at clauses 27 of the EN 60079-0. The manufacturer shall carry out the routine overpressure test prescribed at clauses 16.1 of the EN 60079-1, at 10,4 bar for the LED chamber, and at 12,1 bar for the control device chamber. The routine test of clause 7.1 of EN 60079-7 shall be performed at a test voltage of 1560V for 1 min.

[16.2] **Conformity with the documentation:**

The manufacturer shall carry out the verifications or tests necessary to ensure that the product complies with the documentation.

Marking the equipment in accordance with Clause 29 of EN 60079-0, the manufacturer attests on his own responsibility that:

- the equipment has been constructed in accordance with the applicable requirements of the relevant standards in safety matters;
- the routine verifications and routine tests in 28.1 of EN 60079-0 have been successfully completed with positive results.

[16.3] **Installation conditions:**

Above referred equipment is foreseen to be installed in locations where there are environmental conditions, as clearly specified at clause 1, par. 2 of EN 60079-0.

Installation and use in atmospheric and environmental conditions that are out of above mentioned intervals request special considerations and additional measures by the side of installer or user.

These should be specified to the manufacturer by the user;

It is not a required by applicable standard listed in [9] that the certification body confirm suitability for the adverse conditions.

Installation of equipment has to proceed according to EN 60079-14.

The product is delivered with an integral cable gland. No other cable glands can be applied. Only the cable gland parts supplied by the manufacturer shall be used.

[17] **Special Condition of use (X):**

- Connect the external connection facility to the equipotential bonding conductor provided;
- Repair of the threaded joints must be made in compliance with the structural specifications provided by the manufacturer. Repairs must not exceed the values specified in tables 3 and 4 of IEC 60079-1:2014.

[18] **Essential Health and safety Requirements:**

This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed in [9].

This Certificate **does not** cover hazards coming from environmental conditions different from those clearly and precisely indicated and covered in clause 1 of EN 60079-0.

ESHR 1.2.7 According Annex VIII of the Directive

ESHR 1.4 Not verified.

ESHR 1.5 Not verified.

ESHR 3 Not applied.

In addition to the Essential Health and Safety Requirements (EHSRs) covered by the standards listed at [9], the following are considered relevant to this product, and conformity is demonstrated in the report:

[13] **Annex**

[14] EU-type Examination Certificate number: **IMQ 20 ATEX 047 X**

None

[19] **Descriptive documents:** DL- AT24-0102414-01/B rev. 0 issued on 2024-07-15.

[20] **Certification Validity Conditions:**

The use of this Certificate is subject to the Certification Scheme and to the Regulation applicable to holders of IMQ Certificates.

The validity of this certificate is subject to the condition that the manufacturer complies with the results of the document review and of the pertinent requirement if any included, recorded in the relevant copy of documentation as per 19.

One copy of the mentioned documentation is kept in IMQ file.

[21] **Variations**

Issue 1:

- added models BC9304P-L150 and BC9304S-L150, with rated power 150W
- added marking for new models: Ex db eb IIC T4 Gb; Ex tb IIIC T130°C Db

Issue 2:

- Address change
- IEC 60079-31:2022 ed. 3.0 including as additional standard