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EU-TYPE EXAMINATION CERTIFICATE

[2] **Equipment intended for use in potentially explosive atmospheres Directive 2014/34/EU – Annex III**

[3] Certificate Number: **EPT 16 ATEX 2483 X** **issue 1**

[4] Equipment: **LED Explosion-proof Light**

BC9700-L□-□ Series

[5] Manufacturer: **Zhejiang Tormin Electrical Co., Ltd.**

[6] Address: No.2, GangTeng Road, YongXing Subdistrict, LongWan District, WenZhou City, ZheJiang Province, P.R.China

[7] This equipment and its accepted variations are specified in the annex to this Certificate.

[8] Eurofins Product Testing Italy S.r.l., Notified Body n. 0477 in accordance with Article 21 of the Directive 2014/34/EU of the European Parliament and of the Council of 26th February 2014, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II of the Directive. The examination and test results are recorded in the confidential Report N° EPT.23.REL.06/2313056

[9] Compliance with the essential health and safety requirements is assured through the verification of them and by compliance with the following harmonized standards:

EN IEC 60079-0:2018, EN 60079-1:2014, EN 60079-31:2014

[10] If the sign "X" is placed after the Certificate number, it indicates that the equipment is subject to the special conditions for safe use specified in the annex to this Certificate.

[11] This EU-TYPE EXAMINATION CERTIFICATE relates only to the design, the exam and the tests of the specified equipment.
Further requirements of the Directive 2014/34/EU apply to the manufacture and supply of this equipment.
These requirements are not object of this Certificate.

[12] The equipment shall include the sign Ex and one of the following strings:

II 2 GD
Ex db IIC T5...T3 Gb -40 °C ≤ Ta ≤ +40 °C / 55 °C
Ex tb IIIC T95°C, T130°C, T195°C Db
The relationships between the ambient temperature ranges and temperature limits are reported in the equipment description.

Place and date of issue:
(DD-MM-YYYY)

Torino, 27-07-2023

Dionisio Bucchieri
Directive Responsible

Paolo Trisoglio
Managing Director

Eurofins Product Testing Italy
eurofins
Notified Body N. 0477

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L'ENTE ITALIANO DI ACCREDITAMENTO
PRD N° 119B
Signatory of EA, IAF and ILAC Mutual Recognition Agreements

This Certificate has 4 pages and it is reproducible only in its entirety. Conditions of validity are reported below.

CP-ATEX-MOD-26-00

[13]
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ANNEX
EU-TYPE EXAMINATION CERTIFICATE
N. EPT 16 ATEX 2483 X issue 1

[15] **Equipment 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.

Warning label

- WARNING: POTENTIAL ELECTROSTATIC CHARGING HAZARD – SEE INSTRUCTIONS
- WARNING: AFTER DE-ENERGIZING, DELAY 15 MINUTES BEFORE OPENING
- CAUTION- USE FASTENERS WITH YIELD STRESS ≥ 450MPA.

Code designation

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

Type	Power	Input Voltage	Beam angle	Maximum ambient temperature Vs. Temperature class and maximum surface temperature			
				Ta ≤ + 40°C		Ta ≤ + 55°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

[13]
[14]

ANNEX
EU-TYPE EXAMINATION CERTIFICATE
N. EPT 16 ATEX 2483 X issue 1

Electrical characteristics

Input voltage: 90~305V AC,

Input frequency: 50/60Hz,

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

Routine tests

• A routine overpressure test according to Cl.16.1 of EN 60079-1 must be performed for each type considering the test pressure values reported below:

No.	Type	Static method
1	BC9700-L□-40°	Ex d light source chamber shall not be less than 10.5bar.
		Ex d electrical chamber shall not be less than 13.5bar.
2	BC9700-L□-60°	Ex d light source chamber shall not be less than 10.5bar.
		Ex d electrical chamber shall not be less than 13.5bar.
3	BC9700-L□-80°	Ex d light source chamber shall not be less than 11.6bar.
		Ex d electrical chamber shall not be less than 13.5bar.
4	BC9700-L□-100°	Ex d light source chamber shall not be less than 11.1bar.
		Ex d electrical chamber shall not be less than 13.5bar.
5	BC9700-L□-60°x 80°	Ex d light source chamber shall not be less than 11.1bar.
		Ex d electrical chamber shall not be less than 13.5bar.
6	BC9700-L□-90°x 110°	Ex d light source chamber shall not be less than 9.6bar.
		Ex d electrical chamber shall not be less than 13.5bar.

[16] **Assessment Report n° EPT.23.REL.06/2313056**

This EU-Type Examination Certificate is released after the positive result of the conformity assessment of the Council Directive 2014/34/EU and to harmonized technical standards listed in this certificate performed by the Notified Body Eurofins Product Testing Italy S.r.l., and reported in the Assessment Report above cited.

[17] **Special condition for a safe use**

- The flameproof joints of the equipment mustn't be repaired.
- Use fasteners with yield stress ⩾ 450MPa

[13]
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ANNEX
EU-TYPE EXAMINATION CERTIFICATE
N. EPT 16 ATEX 2483 X issue 1

[18] **Essential Health and Safety Requirements**

Assured by compliance with harmonized standards.

[19] **Descriptive documents**

The equipment object of this Certificate is described by the scheduled documents included in the Assessment Report n° EPT.23.REL.06/2313056; these documents cannot be modified without the explicit authorization of the Notified Body.

[20] **Terms and conditions**

The product liability rests with the Manufacturer, his representative or, in the absence of a representative, with the importer, in accordance with the General Product Safety Directive 2001/95/EC.

The following conditions may render this certificate invalid:

- changes in the design or construction of the product;
- changes or amendments to the Directive;
- changes or amendments in the standards which form the basis for documenting compliance with the essential requirements of the 2014/34/EU Directive.

[21] **History**

Issue	Description	Date
0	First Emission.	26-07-2016
1	- The manufacturer's address has changed and the relevant documents have been updated accordingly. - The assessment was handled by considering the most recent standard editions.	27-07-2023

Dionisio Bucchieri
Directive Responsible

End of Certificate