



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 UL 21.0047X** Page 1 of 3 [Certificate history:](#)

Status: **Current** Issue No: 0

Date of Issue: 2021-11-16

Applicant: **Top Hi-Tech Co. Ltd.**
9F 1 Zhongshan Rd.
Tucheng District
New Taipei City 236
Taiwan

Equipment: **LED Luminaires, Model L2102 Series – THTE2102ABK*H** and THTE2102DBK*L****

Optional accessory:

Type of Protection: **Dust Ignition Protection by Enclosure "db" and "tb"**

Marking: Ex db IIC T6 Gb
Ex tb IIIC T85°C Db
-20°C ≤ Ta ≤ +40°C or -20°C ≤ Ta ≤ +50°C

Approved for issue on behalf of the IECEx
Certification Body:

Katy A. Holdredge

Position:

Senior Staff Engineer

Signature:
(for printed version)

Date:

2021-11-16

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:

UL LLC
333 Pfingsten Road
Northbrook IL 60062-2096
United States of America





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Manufacturer: **Top Hi-Tech Co. Ltd.**
9F 1 Zhongshan Rd.
Tucheng District
New Taipei City 236
Taiwan

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 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

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 Report:

[US/UL/ExTR21.0049/00](#)

Quality Assessment Report:

[DE/TUR/QAR13.0016/03](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The Model L2102 Series of LED luminaires is suitable for use in hazardous location classified as Zone 1 and Zone 21. This luminaire consists of one "db"/"tb" chamber. The enclosure material is aluminum alloy. The light-transmitting parts are made of tempered flat glass. The gasket is used to maintain the IP rating. The entry for wiring through integral cable gland maintains the degree of protection.

Please see Annex for additional information.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- The luminaire shall not be opened.
- The flameproof joints are not intended to be disassembled or repaired.
- Potential electrostatic charging hazard – see instructions.

Annex:

[Annex to IECEx UL 21.0047X Issue 0.pdf](#)



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TYPE DESIGNATION

Nomenclature for Luminaires:

The complete luminaire catalogue number example is as follows:

Cat.	THT	E	2102	A	B	K	C	H	F0
No.	1	2	3	4	5	6	7	8	9

1 – Brand name

THT = Top Hi-Tech Co., Ltd.

2 – Category of product

E = Explosion proof LED luminaire

3 – Model name

2102 = Model L2102 Series

4 – Designates LED luminaire supply type

A = AC supply

D = DC supply

5 – Designates input voltage of LED module

B = DC type

6 – Designates type of LED module

K = SMD type

7 – Designates CCT of LED

C = Cool white

W = Warm white

8 – Designates voltage of LED luminaire

H = 100~277 Vac

L = 125 Vdc

9 – Designates wattage of LED luminaire

C0 = 30 W

C5 = 35 W

D0 = 40 W

D5 = 45 W

E0 = 50 W

E5 = 55 W

F0 = 60 W

Models covered are as follows:

Models	Ambient Temperature range	Gas Temperature Code	Dust Temperature Rating
THTE2102ABKxHz	-20°C to +40°C	T6	T85°C
THTE2102DBKxLz	-20°C to +50°C	T6	T85°C

x can be C or W; z can be C0, C5, D0, D5, E0, E5 or F0



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PARAMETERS RELATING TO THE SAFETY

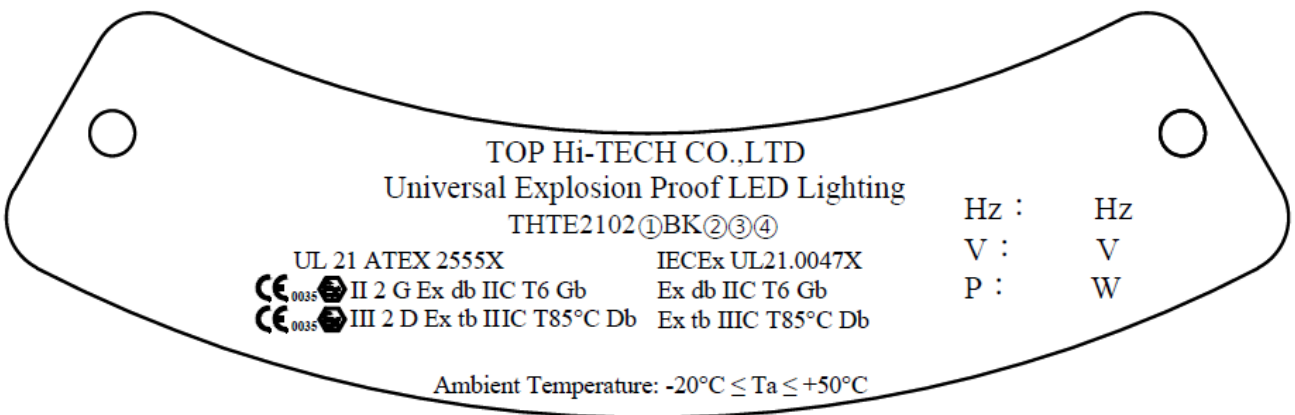
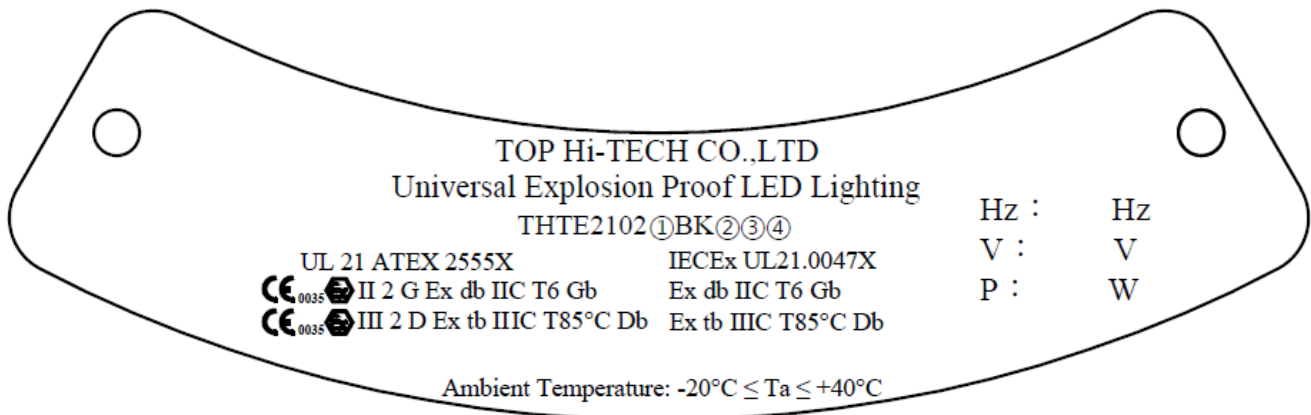
Electrical Rating:

Models	Frequency (Hz)	Voltage	Wattage (W)
THTE2102ABKxHz	50/60	100~277 Vac	30/35/40/45/50/55/60
THTE2102DBKxLz	50/60	125 Vdc	30/35/40/45/50/55/60

x can be C or W; z can be C0, C5, D0, D5, E0, E5 or F0

MARKING

Marking has to be readable and indelible; it has to include the following indications:



TOP Hi-TECH CO.,LTD Universal Explosion Proof LED Lighting
 THTE2102①BK②③④
 V: V P: W SN:xyy-zzz
 UL 21 ATEX 2555X IECEx UL21.0047X
 II 2 G Ex db IIC T6 Gb Ex db IIC T6 Gb
 III 2 D Ex tb IIIC T85°C Db Ex tb IIIC T85°C Db
 Ambient Temperature: -20°C ≤ Ta ≤ +40°C
 9F 1 Zhongshan Rd Tucheng District, New Taipei City, 236 Taiwan (R.O.C)



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TOP Hi-TECH CO.,LTD		Universal Explosion Proof LED Lighting	
THTE2102①BK②③④		UL 21 ATEX 2555X	IECEx UL21.0047X
V: V	P: W	SN:xyy-zzz	
Ambient Temperature: -20°C ≤ Ta ≤ +50°C		II 2 G Ex db IIC T6 Gb III 2 D Ex tb IIIC T85°C Db	Ex db IIC T6 Gb Ex tb IIIC T85°C Db
9F 1 Zhongshan Rd Tucheng District, New Taipei City, 236 Taiwan (R.O.C)			

TOP Hi-TECH CO.,LTD		Universal Explosion Proof LED Lighting	
THTE2102①BK②③④			
V: V	P: W	SN:xyy-zzz	
9F 1 Zhongshan Rd Tucheng District, New Taipei City, 236 Taiwan (R.O.C)			
UL 21 ATEX 2555X	IECEx UL21.0047X		
II 2 G Ex db IIC T6 Gb III 2 D Ex tb IIIC T85°C Db	Ex db IIC T6 Gb Ex tb IIIC T85°C Db	Ambient temperature: -20°C ≤ Ta ≤ +40°C	

TOP Hi-TECH CO.,LTD		Universal Explosion Proof LED Lighting	
THTE2102①BK②③④			
V: V	P: W	SN:xyy-zzz	
9F 1 Zhongshan Rd Tucheng District, New Taipei City, 236 Taiwan (R.O.C)			
UL 21 ATEX 2555X	IECEx UL21.0047X		
II 2 G Ex db IIC T6 Gb III 2 D Ex tb IIIC T85°C Db	Ex db IIC T6 Gb Ex tb IIIC T85°C Db	Ambient temperature: -20°C ≤ Ta ≤ +50°C	

<p>WARNING-The luminaire shall not be opened.</p> <p>WARNING-The flameproof joints are not intended to be disassembled or repaired.</p> <p>WARNING-Potential Electrostatic Charging Hazard-See Instructions.</p>	
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Model Code:

- ① Luminaire supply source type, A= AC supply (Only for Voltage 100~277Vac), D=DC supply (Only for Voltage 125Vdc)
- ② Designates CCT of LED, C = Cool White, W = Warm White
- ③ Designates voltage of luminaire, H=100~277Vac (Only for AC supply), L=125Vdc (Only for DC supply)
- ④ Designates wattage rating of the luminaire,
C0= 30W, C5= 35W, D0= 40W, D5= 45W, E0= 50W, E5= 55W, F0= 60W

ROUTINE EXAMINATIONS AND TESTS

Each piece of equipment defined above has to have successfully passed; before delivery:

- Routine overpressure tests in accordance with IEC 60079-1:2014 shall be conducted on all units in accordance with clause 15.2.3.2, at a pressure of 9.65 bar (140 psi) for a duration of not less than 10 seconds. There shall be no sign of damage, deformation or rupture that will invalidate the concept of protection.