IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: IECEx UL 18.0047X

Issue No: 0

Certificate history:
Issue No. 0 (2018-11-28)

Status: **Current**

Date of Issue: **2018-11-28**

Applicant: **Top Hi-Tech Co. Ltd.**
9F, No. 1, Zhongshan Rd.
Tucheng District
New Taipei City 236
Taiwan

Equipment: **LED Luminaire, Model L1733N Series**

Optional accessory:

Type of Protection: **Restricted Breathing "nR", Dust Protection by Enclosure "tb"**

Marking:

Ex nR IIC T4…T5…T6 Gc

Ex tb IIIC T110°C…T100°C…T85°C Db

-20°C ≤ Ta ≤ +40°C (for DC LED module type only)

-20°C ≤ Ta ≤ +50°C (for AC LED module type only)

Approved for issue on behalf of the IECEx Certification Body:

Katy A. Holdredge

Position:

Senior Staff Engineer

Signature:
(for printed version)

Date:

2018-11-28

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 the Official IECEx Website.

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, No. 1, Zhongshan Rd. Tucheng District New Taipei City 236 **Taiwan**	

Additional Manufacturing location(s):

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 apparatus 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 : 2011 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-15 : 2010 Edition:4	Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
IEC 60079-31 : 2013 Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"

*This Certificate **does not** indicate compliance with electrical 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/ExTR18.0055/00

Quality Assessment Report:

DE/TUR/QAR13.0016/02

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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The Model L1733N Series of LED luminaires is suitable for use in hazardous location classified as Zone 2 and Zone 21. This luminaire consists of one “nR”/”tb” LED array chamber.

Please see Annex for additional information.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- The luminaire shall not be opened.
- Potential electrostatic charging hazard – see instructions.
- The luminaire does not have a test port fitted.

Annex:

Annex to IECEx UL 18.0047X Issue 0.pdf

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TYPE DESIGNATION

Nomenclature for Luminaires:

The complete luminaire catalogue number example is as follows:

Cat. No.	THT	H	1733	A	N	A	C	9	S0
	1	2	3	4	5	6	7	8	9

1 – Brand name
THT = Top Hi-Tech Co., Ltd.

2 – Category of product
H = HazLoc LED lighting

3 – Model name
1733 = Model L1733N series

4 – Designates power type of light source
A = AC LED module (Mfr. Everlight)
B = DC LED module (Mfr. Alder)

5 – Designates type of Top Cover
N = No top cover

6 – Designates type of LED module
A = DOB type (For AC LED module only)
K = SMD type (For AC/DC LED module)

7 – Designates CCT of LED
C = Cool white
W = Warm white

8 – Designates voltage
1 = 110 Vac (For AC LED module type only)
2 = 220 Vac (For AC LED module type only)
9 = 277 Vac (For AC LED module type only)
H = 100-277 Vac (For DC LED module type only)

9 – Designates wattage of LED luminaire
K0 = 110 W (For DC and SMD LED module type only)
L0 = 120 W (For AC and DOB/SMD LED module type)
M0 = 130 W (For DC and SMD LED module type only)
N0 = 140 W (For AC and DOB/SMD LED module type)
P0 = 150 W (For AC/DC and SMD LED module type)
Q0 = 160 W (For AC and DOB LED module type only)
S0 = 180 W (For AC and DOB LED module type only)

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Models covered are as follows:

Model	Ambient Temperature range	Gas Temperature Code	Dust Temperature Rating
THTH1733ANA*1L0	-20°C to +50°C	T4	T110°C
THTH1733ANA*1N0	-20°C to +50°C	T4	T110°C
THTH1733ANA*1Q0	-20°C to +50°C	T4	T110°C
THTH1733ANA*1S0	-20°C to +50°C	T4	T110°C
THTH1733ANA*2L0	-20°C to +50°C	T4	T110°C
THTH1733ANA*2N0	-20°C to +50°C	T4	T110°C
THTH1733ANA*2Q0	-20°C to +50°C	T4	T110°C
THTH1733ANA*2S0	-20°C to +50°C	T4	T110°C
THTH1733ANA*9L0	-20°C to +50°C	T4	T110°C
THTH1733ANA*9N0	-20°C to +50°C	T4	T110°C
THTH1733ANA*9Q0	-20°C to +50°C	T4	T110°C
THTH1733ANA*9S0	-20°C to +50°C	T4	T110°C
THTH1733ANK*1L0	-20°C to +50°C	T5	T100°C
THTH1733ANK*1N0	-20°C to +50°C	T5	T100°C
THTH1733ANK*1P0	-20°C to +50°C	T5	T100°C
THTH1733ANK*2L0	-20°C to +50°C	T5	T100°C
THTH1733ANK*2N0	-20°C to +50°C	T5	T100°C
THTH1733ANK*2P0	-20°C to +50°C	T5	T100°C
THTH1733ANK*9L0	-20°C to +50°C	T5	T100°C
THTH1733ANK*9N0	-20°C to +50°C	T5	T100°C
THTH1733ANK*9P0	-20°C to +50°C	T5	T100°C
THTH1733BNK*HK0	-20°C to +40°C	T6	T85°C
THTH1733BNK*HM0	-20°C to +40°C	T6	T85°C
THTH1733BNK*HP0	-20°C to +40°C	T6	T85°C

PARAMETERS RELATING TO THE SAFETY

THTH1733ANA*1L0 – 110 Vac, 50/60 Hz, 120 W
THTH1733ANA*1N0 – 110 Vac, 50/60 Hz, 140 W
THTH1733ANA*1Q0 – 110 Vac, 50/60 Hz, 160 W
THTH1733ANA*1S0 – 110 Vac, 50/60 Hz, 180 W
THTH1733ANA*2L0 – 220 Vac, 50/60 Hz, 120 W
THTH1733ANA*2N0 – 220 Vac, 50/60 Hz, 140 W
THTH1733ANA*2Q0 – 220 Vac, 50/60 Hz, 160 W
THTH1733ANA*2S0 – 220 Vac, 50/60 Hz, 180 W
THTH1733ANA*9L0 – 277 Vac, 50/60 Hz, 120 W
THTH1733ANA*9N0 – 277 Vac, 50/60 Hz, 140 W
THTH1733ANA*9Q0 – 277 Vac, 50/60 Hz, 160 W
THTH1733ANA*9S0 – 277 Vac, 50/60 Hz, 180 W
THTH1733ANK*1L0 – 110 Vac, 50/60 Hz, 120 W
THTH1733ANK*1N0 – 110 Vac, 50/60 Hz, 140 W
THTH1733ANK*1P0 – 110 Vac, 50/60 Hz, 150 W
THTH1733ANK*2L0 – 220 Vac, 50/60 Hz, 120 W
THTH1733ANK*2N0 – 220 Vac, 50/60 Hz, 140 W
THTH1733ANK*2P0 – 220 Vac, 50/60 Hz, 150 W
THTH1733ANK*9L0 – 277 Vac, 50/60 Hz, 120 W

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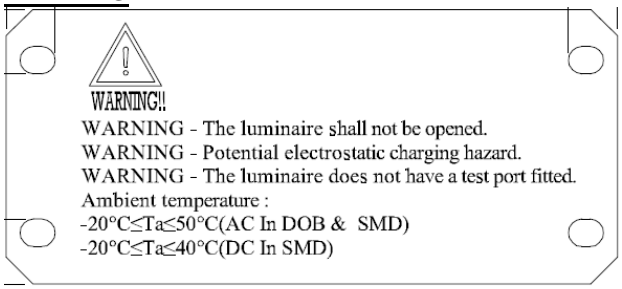
THTH1733ANK*9N0 – 277 Vac, 50/60 Hz, 140 W
THTH1733ANK*9P0 – 277 Vac, 50/60 Hz, 150 W
THTH1733BNK*HK0 – 100-277 Vac, 50/60 Hz, 110 W
THTH1733BNK*HM0 – 100-277 Vac, 50/60 Hz, 130 W
THTH1733BNK*HP0 – 100-277 Vac, 50/60 Hz, 150 W

MARKING



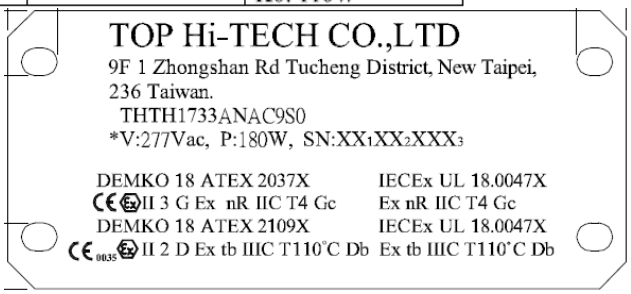
①②③④⑤ See Table 1
* See Table 2

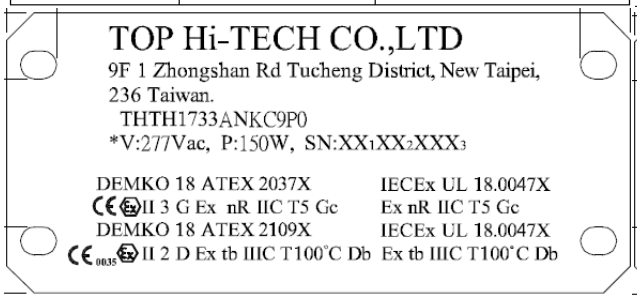
Table 1

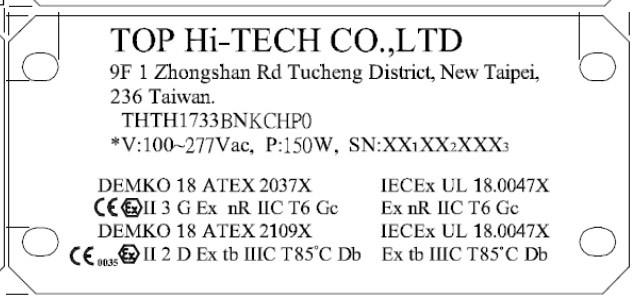
①	②	③	④	⑤
* A: AC In LED B: DC In LED	* A: DOB Type K: SMD Type	C: Cool white W: Warm white	1: 110V 2: 220V 9: 277V H: 100~277V	S0: 180W Q0: 160W P0: 150W N0: 140W M0: 130W L0: 120W K0: 110W

Table 2

LED Module	Voltage	Wattage
DC In SMD	100~277V	110W / 130W / 150W
AC In SMD	110V / 220V/ 277V	120W / 140W / 150W
AC In DOB	110V / 220V/ 277V	120W / 140W / 160W / 180W







ROUTINE EXAMINATIONS AND TESTS

Routine restricted breathing testing according to clause 23.2.3.2.1.2 of IEC 60079-15 is required.