

(1) EC TYPE-EXAMINATION CERTIFICATE



- (2) Equipment and Protective Systems intended for use in Potentially Explosive Atmosphere - **Directive 94/9/EC**
- (3) EC Type-Examination Certificate Number

TÜV 14 ATEX 7492 X

- (4) **Equipment:** Universal Explosion Proof LED Lighting Type THT-EX1217**PE6*
- (5) **Manufacturer:** TOP HI-TECH CO.,LTD.
- (6) **Address:** 5F,NO.113,Zhongcheng Rd, Tucheng Dist, New Taipei City 236, Taiwan (R.O.C)
- (7) This equipment and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.
- (8) The TÜV Rheinland Zertifizierungsstelle for ex-protected products of TÜV Rheinland Industrie Service GmbH, Notified Body No. 0035 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies this equipment 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 atmosphere, given in Annex II to the Directive.

The examination and test results are recorded in the confidential report 557/Ex492.00/14

- (9) Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule of this certificate, has been assessed by reference to:

EN 60079-0: 2012

EN 60079-1: 2007

EN 60079-31: 2009

except the requirements, which are listed under item (18).

- (10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.
- (11) This EC-Type-Examination Certificate relates only to the design and specification for construction of the equipment or protective system. It does not cover the process for actual manufacture or supply of the equipment or protective system, for which further requirements of the directive are applicable.
- (12) The marking of the equipment shall include the following:



II 2 G Ex d IIB+H2 T6...T4 Gb



II 2 D Ex tb IIIC T105°C Db

TÜV Rheinland ExNB for explosion protected equipment

Cologne, 2015-04-13

Dipl.-Ing. Klauspeter Graff

This EC-Type-Examination Certificate without signature and stamp shall not be valid.
This EC-Type-Examination Certificate may be circulated only without alteration. Extracts or alterations are subject to approval by the TÜV Rheinland Notified Body of TÜV Rheinland Industrie Service GmbH, Am Grauen Stein 51105 Köln
Tel. +49 (0) 221 806-0 Fax. + 49 (0) 221 806 114

(13)

Annex to

(14)

EC-Type Examination Certificate TÜV 14 ATEX 7492 X

(15)

Description of equipment

15.1 Equipment and type:

Universal Explosion Proof LED Lighting type THT-EX1217**PE6*

The description of type code:

| THT-EX | 1217 | C | E | P | E | 6 | 2* |
|------------|------------|--|---|---------------|----------------|----------------------|---|
| THT-EX | Model Name | Color of LED Light | Voltage | LED Carrier | Top Cover Type | LED Quantity Require | LED Watts Choose |
| Brand Name | 1217 | C (Cool White) W (Warm White) | A=24V B=100V C=110V D=200V E=220V F=120V G=208V AC Power | P= In Tank | E (1217) | 6 (6 LED) | 1=10W 2=20W A=10W+20W B=10W+33W D=10W+20W +33W |

*LED Watts Choose Table

| | | |
|---|-----------------------------|--|
| 1 | Single LED=10W | Total LED Power=60W(10WX6) |
| 2 | Single LED=20W | Total LED Power=120W(20WX6) |
| A | Single LED=10W and 20W | Total LED Power=110W(10WX1, and 20WX5) |
| B | Single LED=10W and 33W | Total LED Power=106W(10WX4, and 33WX2) |
| D | Single LED=10W, 20W and 33W | Total LED Power=116W(10WX3, 20WX1 and 33WX2) |

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15.2 Description

General product information

The lamp Universal Explosion Proof LED Lighting type THT-EX1217**PE6* is suitable for hazardous area zone 1, zone 2, zone 21 and zone 22.

The lamp has metallic enclosure with a coating on it.

The method of lamp install included hanging/ceiling/wall, stanchion 25°/90° and pendant.

The external earthing of enclosure is considered.

15.3 Technical Data

Parameters

Electrical parameters

| | | |
|---------------|--------|------------------|
| Rated voltage | 24VAC | THT-EX1217*APE6* |
| | 100VAC | THT-EX1217*BPE6* |
| | 110VAC | THT-EX1217*CPE6* |
| | 120VAC | THT-EX1217*FPE6* |
| | 200VAC | THT-EX1217*DPE6* |
| | 208VAC | THT-EX1217*GPE6* |
| | 220VAC | THT-EX1217*EPE6* |

| | | |
|-------------|------|------------------|
| Rated power | 60W | THT-EX1217**PE61 |
| | 106W | THT-EX1217**PE6B |
| | 110W | THT-EX1217**PE6A |
| | 116W | THT-EX1217**PE6D |
| | 120W | THT-EX1217**PE62 |

Thermal parameters

Ambient temperature range $-20^{\circ}\text{C} \leq T_a \leq +40^{\circ}\text{C}$

| | | |
|-------------------|----|------------------------|
| Temperature class | T6 | THT-EX1217*APE6* |
| | T5 | THT-EX1217WEPE6* |
| | | THT-EX1217CEPE6*(60Hz) |
| | T4 | THT-EX1217CEPE6*(50Hz) |

(16) **Test-Report No.** 557/Ex492.00/14

Parts of the device, which already fulfill the requirements for the category, were not approved and assessed by TÜV Rheinland Industrie Service.

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The applicability and assembly of mechanical and electrical parts and components were assessed and approved by TÜV Rheinland Industrie Service with respect to the requirements of explosion protection.

The Universal Explosion Proof LED Lighting type: THT-EX1217**PE6* is evaluated by the standards EN 60079-0:2009, EN 60079-1:2007 and EN 60079-31:2009.
The lamps can be used in explosion atmosphere of gas and dust.

(17) **Special Conditions for safe use**

1. When M25 cable gland will be installed by end user, the rest unused holes shall be blocked by screw plug which comply with the requirements of standards EN 60079-1 and EN 60079-31.
2. The power cable will be installed by end user, and the end user can use the cable which is specified in the user manual only.
3. The end user must install external earthing wire according to user manual before use..

(18) **Basic Safety and Health Requirements**

Covered by afore mentioned standard

TÜV Rheinland ExNB für explosion protected equipment

Cologne, 2015-04-13

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