

(1) TYPE-EXAMINATION CERTIFICATE



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

TÜV 15 ATEX 7672 X

- (4) **Equipment:** Explosion Proof Lighting Type: Kbrownbear (80W,100W,120W,150W)
- (5) **Manufacturer:** SHENZHEN KHJ SEMICONDUCTOR LIGHTING CO.,LTD.
- (6) **Address:** 4-5 Floor, Building B, Chuang Xin Industrial Park, Jingtian Rd, Xintian Guanlan Longhua New district, Shenzhen, China
- (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 Notified Body 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 GC/Ex7672.00/15
- (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 60079-15: 2010 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 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 3 G Ex nR IIC T5 or T6 Gc
II 3 D Ex tc IIIC T95°C or T85°C Dc

TÜV Rheinland ExNB for explosion protected equipment

Cologne, 2016-01-06

Dipl.-Ing. Andreas Maschke

This Type-Examination Certificate without signature and stamp shall not be valid.
This 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) **Type Examination Certificate**
TÜV 15 ATEX 7672 X

(15) **Description of equipment**

15.1 Equipment and type:

Explosion Proof Lighting
Type: Kbrownbear (80W,100W,120W,150W)

15.2 Description

General product information

The explosion proof lighting type Kbrownbear (80W, 100W, 120W, 150W) is suitable for hazardous area zone 2 and zone 22.

There is coating on the metallic enclosure and the thickness of coating is 0.08mm-0.1mm. There are two types color of coating on the enclosure of lamp(RAL 7040-Fenstergrau and RAL 2011-Tieforange).

The lamp is consist of two restricted-breathing enclosure lamp body and power supply.M12 screw as the test port of lamp body, and NPT3/4', G3/4' or M25 as the test port of power supply.

The installation method of lamp included ceiling mount/stanchion mount/pendant mount and Built-in mount.

The external earthing of the enclosure of the explosion proof lighting is considered.

There are three types cable gland (NPT3/4', G3/4' and M25) on the enclosure of the power supply of the lamp, and the cable entry on the enclosure of the lamp body is M16.

15.3 Technical Data

Parameters

Electrical parameters

Rated voltage 100VAC~277VAV (50Hz / 60Hz)

Rated power 80W, 100W, 120W, 150W

Thermal parameters

Ambient temperature range $-40^{\circ}\text{C} \leq \text{Ta} \leq +65^{\circ}\text{C}$, $-40^{\circ}\text{C} \leq \text{Ta} \leq +55^{\circ}\text{C}$

Temperature class T6 80W ($-40^{\circ}\text{C} \leq \text{Ta} \leq +55^{\circ}\text{C}$)

T5 80W ($-40^{\circ}\text{C} \leq \text{Ta} \leq +65^{\circ}\text{C}$)

100W, 120W, 150W ($-40^{\circ}\text{C} \leq \text{Ta} \leq +55^{\circ}\text{C}$)

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(16) **Test-Report No.** GC/Ex7672.00/15

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

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.

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

1. This equipment shall be installed and maintained by specialist personnel who familiar with nR equipment(EN 60079-15), or qualified engineers.
2. Only the power cable provided by manufacturer can be used. The power cable shall be fixed as close as the enclosure of the lamp after the equipment was installed.
3. The end user must install external earthing wire according to Operation & Maintenance Manual before use.
4. 80W lamp can be used at ambient temperature of $-40^{\circ}\text{C}\sim+55^{\circ}\text{C}$ and $-40^{\circ}\text{C}\sim+65^{\circ}\text{C}$, other lamps can be used at ambient temperature of $-40^{\circ}\text{C}\sim+55^{\circ}\text{C}$.
5. The restricted-breathing enclosure of the equipment shall be re-tested according to operation & maintenance manual after maintained or repaired. For example: change O-ring.
6. All O-rings shall be maintained and replaced per two years. If the O-ring was damaged or permanent deformation during maintenance or repair, end user need replace the O-ring immediately. Only O-rings of manufacturer can be used.
7. The lamp can be used in Zone 2 and Zone 22 only.
8. If the power cable was changed, the cable itself shall be comply with the restricted-breathing test according to Annex E.1 in EN 60079-14

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

Covered by afore mentioned standard

TÜV Rheinland ExNB für explosion protected equipment

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