



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 TPS 17.0007X

Issue No: 0

Certificate history:

Issue No. 0 (2017-11-02)

Status: **Current**

Page 1 of 3

Date of Issue: **2017-11-02**

Applicant: **NEW WISDOM INVESTMENT LIMITED**
ROOM 1501 GRAND MILLENNIUM PLAZA (LOWER BLOCK) 181 QUEEN'S ROAD
CENTRAL
Hong Kong

Equipment: **Caplight for use in mines**

Optional accessory:

Type of Protection: **"ia" "op is"**

Marking:

Ex ia op is I Ma IEC 60079-35-1 (0°C ≤ T_a ≤ 40°C) IP54

*Approved for issue on behalf of the IECEx
Certification Body:*

Frank Zhu

Position:

Technical Certifier

*Signature:
(for printed version)*

Frank Zhu

Date:

2017-11-02

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](http://www.iecex.com).

Certificate issued by:

TÜV SÜD Product Service GmbH
Ridlerstr. 65
D-80339 Munich
Germany



Product Service



IECEx Certificate of Conformity

Certificate No: IECEx TPS 17.0007X Issue No: 0
Date of Issue: 2017-11-02 Page 2 of 3
Manufacturer: NEW WISDOM INVESTMENT LIMITED
ROOM 1501 GRAND MILLENNIUM PLAZA (LOWER BLOCK) 181 QUEEN'S ROAD CENTRAL
Hong Kong

Additional Manufacturing location(s):

SHENZHEN ZHONGFUNENG ELECTRIC EQUIPMENT CO.,LTD

1F/4F , 9 ZhangBei Avenue, ZhangBei Village, Ailian Community, Longcheng Street, Longgang District, 518172, Shenzhen
China

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 electrical 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 60079-11 : 2011 Edition:6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
IEC 60079-28 : 2015 Edition:2	Explosive atmospheres - Part 28: Protection of equipment and transmission systems using optical radiation
IEC 60079-35-1 : 2011 Edition:1.0	Explosive atmospheres – Part 35-1: Caplights for use in mines susceptible to firedamp – General requirements – Construction and testing in relation to the risk of explosion

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:

GB/CML/ExTR17.0149/00

Quality Assessment Report:

DE/TPS/QAR17.0008/00



IECEx Certificate of Conformity

Certificate No: IECEx TPS 17.0007X

Issue No: 0

Date of Issue: 2017-11-02

Page 3 of 3

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

Model WISDOM-KL5M-11, WISDOM-KL8M-05, WISDOM-KL12M-03 are caplights with cord for use in mines. These caplights are Group I Equipment with EPL Ma. They are comprised of battery enclosure, interconnection cable and head piece. All of them are supplied by Li-ion batteries in parallel. They have the same circuit diagram and PCB layout. The difference between the models are the numbers of batteries in parallel, dimension of battery enclosure and the type reference of Li-ion batteries. See model difference and rating in annex.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- 1) Operating temperature: $0^{\circ}\text{C} \leq T_a \leq 40^{\circ}\text{C}$.
- 2) Charging temperature (in non-hazardous location): $0^{\circ}\text{C} \leq T_a \leq 40^{\circ}\text{C}$.
- 3) Only use the battery charger from NEW WISDOM to charge the caplight.

Warning label

WARNING: DO NOT CHARGE THE BATTERY IN HAZARDOUS LOCATION.

DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE IS PRESENT.

Annex:

[Annex to COC IECEx TPS 17.0007X.pdf](#)



IECEx Certificate of Conformity



Product Service

Order no. 64105160629201

Client no.01635

Annex to certificate: IECEx TPS 17.0007X

Applicant: New Wisdom investment limited
Room 1501 Grand millennium plaza (lower block)
181 Queens road central
Hongkong

Apparatus: Caplight for use in mines

Type(s) WISDOM-KL5M-11, WISDOM-KL8M-05, WISDOM-KL12M-03

Description of equipment

Model WISDOM-KL5M-11, WISDOM-KL8M-05, WISDOM-KL12M-03 are caplights with cord for use in mines. These caplights are Group I Equipment with EPL Ma. They are comprised of battery enclosure, interconnection cable and head piece. All of them are supplied by Li-ion batteries in parallel. They have the same circuit diagram and PCB layout. The difference between the models are the numbers of batteries in parallel, dimension of battery enclosure and the type reference of Li-ion batteries.

See model difference in the following table.

Model difference

Model no.	Rated voltage	Battery type reference	Battery number	Rated capacity	Dimension of battery enclosure
WISDOM-KL5M-11	3.7V d.c.	UR18650ZY	3	7800mAh	85 x 94 x 36 mm
WISDOM-KL8M-05	3.7V d.c.	UR18650ZY	4	10400mAh	103 x 94 x 36 mm
WISDOM-KL12M-03	3.7V d.c.	NCR18650B	4	14000mAh	103 x 94 x 36 mm

Rated characteristics

Model	WISDOM-KL5M-11	WISDOM-KL8M-05	WISDOM-KL12M-03
Rate voltage	3.7V		
Rated battery capacity	7800mAh	10400mAh	14000mAh
Operating temperature	$0 \leq T_a \leq 40^{\circ}\text{C}$		
Charging temperature	$0 \leq T_a \leq 40^{\circ}\text{C}$		
Degree of protection by enclosure	IP54 (tested according to IEC 60079-0)		

Warning label

WARNING: DO NOT CHARGE THE BATTERY IN HAZARDOUS LOCATION.
DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE IS PRESENT.

Routine tests

No

Special conditions for safe use

- 1) Operating temperature: $0^{\circ}\text{C} \leq T_a \leq 40^{\circ}\text{C}$.
- 2) Charging temperature(in non-hazardous location): $0^{\circ}\text{C} \leq T_a \leq 40^{\circ}\text{C}$.
- 3) Only use the battery charger from NEW WISDOM to charge the caplight.