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 17.0008X

Issue No: 0

Certificate history:
Issue No. 0 (2017-12-04)

Status: **Current**

Date of Issue: **2017-12-04**

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 ≤ Ta ≤ 40°C) IP54

Approved for issue on behalf of the IECEx Certification Body: Frank Zhu

Position: Technical Certifier

Signature:
(for printed version)

Date: 2017-12-4

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:

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

Product Service

IECEx Certificate of Conformity

Certificate No: IECEx TPS 17.0008X Issue No: 0

Date of Issue: 2017-12-04 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/ExTR17.0203/00

Quality Assessment Report:

DE/TPS/QAR17.0008/00

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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

WISDOM LAMP 6 series are cordless caplights for use in mines. These caplights are Group I Equipments with EPL Ma. They have the same headpiece enclosure. All components including batteries and PCB are located inside. They are supplied by single Li-ion battery or two Li-ion batteries in parallel. All of them have the same circuit diagram and PCB layout. The difference between the models are the numbers of batteries, type reference of Li-ion batteries and some resistor values. See model difference in the following table.

See model difference in the annex.

Warning label

WARNING: DO NOT CHARGE THE BATTERY IN HAZARDOUS LOCATION.

DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE IS PRESENT.

SPECIFIC CONDITIONS OF USE: YES as shown below:

1) Operating temperature: 0°C≤Ta≤40°C.

2) Charging temperature (in non-hazardous location): 0°C ≤ Ta ≤ 40°C.

3) Only use the battery charger from NEW WISDOM to charge the caplight.

Model no. NWB30, input voltage: 100~240V, 50/60Hz,1A; Output: 6.8V d.c., 0.5A.

4) Charging parameters: Um=7.56V, Im=0.5A.

Annex:

Annex to COC IECEx TPS 17.0008X.pdf

IECEx Certificate of Conformity

Order no. 64105160629301 Client no.01635
Annex to certificate: IECEx TPS 17.0008X
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 LAMP 6A-01, WISDOM LAMP 6B-01,
WISDOM LAMP 6C-01, WISDOM LAMP 6D-01

Product Service

Description of equipment

WISDOM LAMP 6 series are cordless caplights for use in mines. These caplights are Group I Equipments with EPL Ma. They have the same headpiece enclosure. All components including batteries and PCB are located inside. They are supplied by single Li-ion battery or two Li-ion batteries in parallel. All of them have the same circuit diagram and PCB layout. The difference between the models are the numbers of batteries, type reference of Li-ion batteries and some resistor values. See model difference in the following table.

See model difference in the following table.

Model difference

Model no.	Rated voltage	Battery type reference	Battery number	Rated capacity	R12(Ω)	R17(Ω)	R22(Ω)
WISDOM LAMP 6A-01	3.7V d.c.	NCR18650B	2	7000mAh	22KΩ	0.02Ω	10.2KΩ
WISDOM LAMP 6B-01	3.7V d.c.	UR18650ZY	2	5200mAh	53.6KΩ	0.02Ω	10.2KΩ
WISDOM LAMP 6C-01	3.7V d.c.	NCR18650B	1	3500mAh	22KΩ	0.04Ω	10.5KΩ
WISDOM LAMP 6D-01	3.7V d.c.	UR18650ZY	1	2600mAh	62KΩ	0.04Ω	10.2KΩ

Rated characteristics

Model	WISDOM LAMP 6A-01	WISDOM LAMP 6B-01	WISDOM LAMP 6C-01	WISDOM LAMP 6D-01
Rate voltage	3.7V			
Rated battery capacity	7000mAh	5200mAh	3500mAh	2600mAh
Operating temperature	0 ≤ Ta ≤ 40°C			
Charging temperature	0 ≤ Ta ≤ 40°C			
Degree of protection by enclosure	IP54 (tested according to EN 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

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GmbH
Certification Body for Products
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80339 Munich
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Product Service

Order no. 64105160629301 Client no.01635

Annex to certificate: IECEx TPS 17.0008X

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 LAMP 6A-01, WISDOM LAMP 6B-01,
WISDOM LAMP 6C-01, WISDOM LAMP 6D-01

Special conditions for safe use

1) Operating temperature: 0°C≤Ta≤40°C.
2) Charging temperature (in non-hazardous location): 0°C ≤ Ta ≤ 40°C.
3) Only use the battery charger from NEW WISDOM to charge the caplight.
Model no. NWB30, input voltage: 100~240V, 50/60Hz,1A; Output: 6.8V d.c., 0.5A.

4) Charging parameters: Um=7.56V, Im=0.5A.

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