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 CML 16.0113X	Issue No: 0	Certificate history: Issue No. 0 (2017-01-06)
Status:	**Current**	Page 1 of 3	
Date of Issue:	**2017-01-06**		

Applicant: **CZ Explosion-proof Electric Appliances Co. Ltd**
No. 1 Qixing Road,
Qixing Town,
Nanhu District,
Jiaxing,
Zhejiang,
314002,
China
China

Equipment: **CZ0878d Series Explosion-proof floodlight light fittings**

Optional accessory:

Type of Protection: **Flameproof, increased safety, optical, dust**

Marking: Ex db eb op is IIB T* Gb
Ex tb op is IIIC T*°C Db - See Annex for details of temperature classes
(-20°C ≤Ta≤ +40°C/+55°C)

Approved for issue on behalf of the IECEx Certification Body: H M Amos MIET

Position: Technical Manager

Signature:
(for printed version)

Date: January 6, 2017

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:

Certification Management Limited
Unit 1, Newport Business Park
New Port Road
Ellesmere Port, CH65 4LZ
United Kingdom

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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 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 60079-1 : 2014-06 Edition:7.0	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-28 : 2015 Edition:2	Explosive atmospheres - Part 28: Protection of equipment and transmission systems using optical radiation
IEC 60079-31 : 2013 Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
IEC 60079-7 : 2015 Edition:5.0	Explosive atmospheres – Part 7: Equipment protection by increased safety "e"

*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/ExTR16.0151/00

Quality Assessment Report:

CN/CQM/QAR08.0001/05

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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

CZ0878d Series Explosion-proof floodlight light fittings

See Annex for full description and Conditions of Mnaufacture

CONDITIONS OF CERTIFICATION: YES as shown below:

See Annex for Conditions of Certtification

Annex:

Annex IECEx CML 16.0113X Iss 0.pdf

Annexe to:	IECEx CML 16.0113X Issue 0
Applicant:	CZ Explosion-proof Electric Appliances Co. Ltd.
Apparatus:	CZ0878d Series Explosion-proof floodlight light fittings

Product Description

The CZ0878d Series Explosion-proof floodlight light fittings are a range of flameproof and dust tight luminaires for use in IIA and IIB Zone 1 and Zone 2 explosive gas atmospheres, and Zone 21 and Zone 22 ignitable dust atmospheres.

There are two types of enclosure. The first type houses metal halide, high pressure sodium, or electromagnetic energy saving lamps. The second type houses an LED array. Both types are manufactured from cast aluminium alloy (ADC12) and comprise a lamp body with integral increased safety terminal chamber and cover, lamp cover with cemented window, and in the first type of enclosure, a removable side cover designed to facilitate easy lamp replacement.

The main enclosure chamber houses the lamp, reflector, ballast, and other electrical components. A bushing assembly is installed between the main chamber and the terminal chamber which houses a previously certified terminal block. The terminal chamber has two threaded holes for the fitting of appropriately certified cable glands.

All covers are fitted with sealing gaskets to maintain the necessary ingress protection.

LED versions may either be supplied for use with a mounting bracket for floodlight operation, or for use with a pole for street lamp operation.

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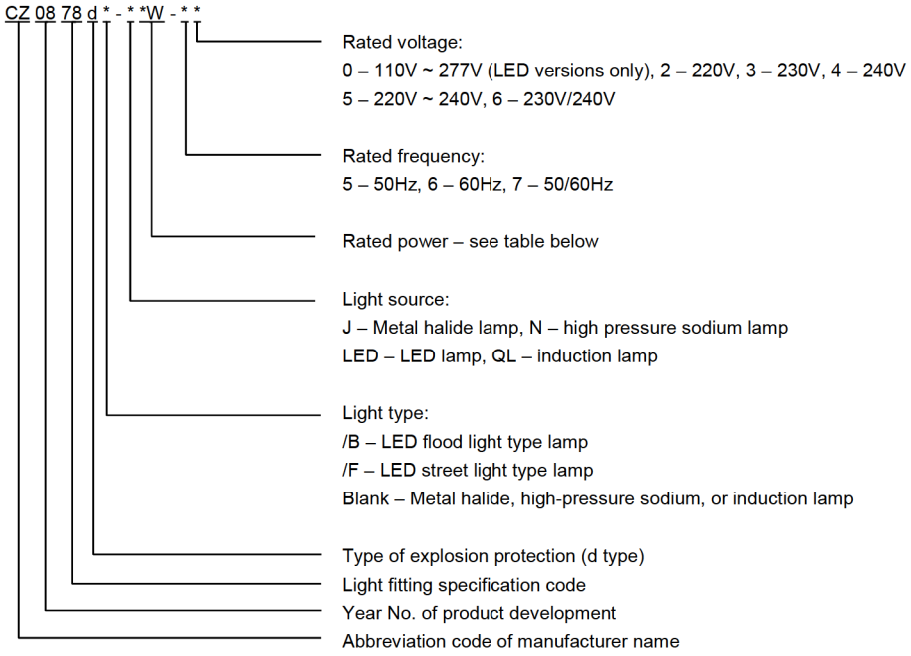
The various lamp and power options are defined by the part number as follows:



The following power ratings are available:

Lamp type	Power (W)
J – Metal halide	250
	400
N – high pressure sodium	250
	400
QL – induction lamp	85
LED – LED	120
	160
	200

The temperature class and ambient temperature range of each model is given by the following table:

Product type code	Explosive gas atmosphere		Explosive dust atmosphere	
	Temperature class		Maximum surface temperature (°C)	
	-20°C≤T_a≤+40°C	-20°C≤T_a≤+55°C	-20°C≤T_a≤+40°C	-20°C≤T_a≤+55°C
CZ0878d-J250W-**	T3	T3	150	165
CZ0878d-J400W-**	T3	n/a	195	n/a
CZ0878d-N250W-**	T3	T3	150	165
CZ0878d-N400W-**	T3	n/a	185	n/a
CZ0878d-QL85W-**	T5	T4	85	100
CZ0878d*-LED120W-**	T5	T4	90	105
CZ0878d*-LED160W-**	T5	T4	90	105
CZ0878d*-LED200W-**	T5	T4	90	105

Conditions of manufacture

The following are conditions of manufacture

i. The manufacturer shall perform an overpressure test on all units manufactured. The test shall be carried out for at least 10 seconds as required by IEC 60079-1:2014, clause 15.2.3. The enclosure shall be tested at a pressure of 1000kPa. Empty enclosures may be used for the tests, but the bushing shall be in place for testing. There shall be no permanent deformation or damage to the enclosures and no leakage through the bushing cement.

ii. The manufacturer shall perform a dielectric strength test on all units manufactured in accordance with IEC 60079-7:2015, clause 7.1 at the following voltages:

- For LED versions, 1554Vrms (+5%, -0%)
- All other versions 1550Vrms (+5%, -0%)

The test voltage shall be applied for a minimum of 60 seconds and no breakdown shall occur. Alternatively, the test shall be carried out at 1.2 times the test voltage and maintained for a minimum of 100ms.

Conditions of Certification

i. The equipment incorporates flamepaths whose length is greater than the minimum stated in Table 2 of IEC 60079-1:2014. As this is the case, the flameproof joints are not intended to be repaired.

ii. 400W versions shall be used in a maximum ambient temperature of +40°C only.

iii. The internal and external earth connections shall be securely connected. The protective conductor shall have a minimum cross sectional area equal to or greater than that of the phase conductors

iv. Only cable glands and blanking elements complying with IEC/EN60079-0, IEC 60079-7, and IEC 60079-31 with type of protection Ex e IIC Gb and Ex tb IIIC Db and ingress protection IP66 shall be used for connecting to the terminal enclosure.

v. External cabling may reach a temperature of 16K above ambient for LED versions and 27K above ambient for metal halide and high-pressure sodium types. Appropriate cable and entry devices shall to selected.

vi. The equipment must be installed in low impact risk locations only.

vii. The fasteners securing the cover to the enclosure have a property class of A2-70

viii. Observe the following warnings:

"After de-energizing, delay 30 minutes before opening", "Do not open when an explosive atmosphere is present",

Dust applications only - "Potential electrostatic charging hazard – see instructions".