



EU Type Examination Certificate CML 23ATEX1277X Issue 1

- 1 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU
- 2 Equipment **CZ6474 Explosion Proof Light Fittings**
- 3 Manufacturer **CZ Electric Co.,Ltd**
- 4 Address **No.1 Qixing Rd, Nanhu District, Jiaxing, Zhejiang, China**
- 5 The equipment is specified in the description of this certificate and the documents to which it refers.
- 6 CML B.V., Chamber of Commerce No 67386717, Koopvaardijweg 32, 4906CV Oosterhout, The Netherlands, Notified Body Number 2776, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

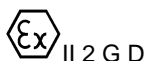
The examination and test results are recorded in the confidential reports listed in Section 12.

- 7 If an 'X' suffix appears after the certificate number, it indicates that the equipment is subject to conditions of safe use (affecting correct installation or safe use). These are specified in Section 14.
- 8 This EU Type Examination certificate relates only to the design and construction of the specified equipment or component. Further requirements of Directive 2014/34/EU Article 13 apply to the manufacture of the equipment or component and are separately certified.
- 9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the confidential report, has been demonstrated through compliance with the following documents:

EN IEC 60079-0:2018	EN 60079-1:2014	EN IEC 60079-7:2015+A1:2018
IEC 60079-11:2023	EN 60079-31:2014	

- 10 The equipment shall be marked with the following:

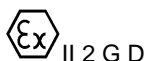
CZ6474/135 and CZ6474/145



Ex db IIC T6/T5 Gb (Ta ≥ -40°C)
 Ex db IIB+H2 Gb (Ta ≥ -60°C)
 Ex tb IIIC T80°C /T95°C Db
 IP 66

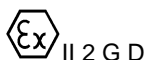
-60°C ≤ Ta ≤ +40/+55°C (IIB+H2)
 -40°C ≤ Ta ≤ +40/+55°C (IIC)

CZ6474/111, CZ6474/121, CZ6474/131



Ex db IIC T* Gb;
 Ex tb IIIC T***C Db;
 IP 66
 (* and ** See table below)

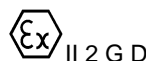
CZ6474/111, CZ6474/121 with IS buzzers



Ex db ib IIC T6 Gb
 Ex tb ib IIIC T80°C Db
 IP 66
 (* and ** See table below)

-60/-40°C ≤ Ta ≤ +40 /+55°C
 (+50 °C IS buzzers fitted)

CZ6474/235 and CZ6474/245



Ex db eb IIC T6/T5 Gb (Ta ≥ -40°C)
 Ex db eb IIB+H2 Gb (Ta ≥ -60°C)
 Ex tb IIIC T80°C/T95°C Db
 IP 66

-60°C ≤ Ta ≤ +40/+55°C (IIB+H2)
 -40°C ≤ Ta ≤ +40/+55°C (IIC)





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Type	Max Power	Version	Configurations	Max Ambient Temperature Ta		
				≤+40°C	≤ +50°C	≤ +55°C
CZ6474/135	60 W	All	Pendant (A); Rack (B); Wall (C); Pole (D); Ceiling (E).	T6 / T80°C	T6 / T80°C	T5 / T95°C
	90 W					
CZ6474/145	60 W	All				
	90 W					
CZ6474/235	60 W	All	Bracket (B); Lamp Cap 90°(C/E); Lamp Cap 25°(D).	T6 / T80°C	T6 / T80°C	T5 / T95°C
	90 W					
CZ6474/245	60 W	All				
	90 W					

Type	Max Power	Version	Configurations	Max Ambient Temperature Ta			
				≤+40°C	≤ +50°C	≤ +55°C	
CZ6474/111 (No IS Buzzers)	5 W	Flat Cover	Bracket (B); Portable (P); Recessed (R); Spot (H); Flat (S)	T6 / T80°C	T6 / T80°C	T5 / T95°C	
	12 W						T5/ T95°C
CZ6474/121 (No IS Buzzers)	5 W	U Cover		Tri Color Light/ Warning Light	T6 / T80°C	T6 / T80°C	T5 / T95°C
	12 W						

Type	Max Power	Version	Configurations	Max Ambient Temperature Ta			
				≤+40°C	≤ +50°C	≤ +55°C	
CZ6474/131 (No IS Buzzers)	5 W	Flat Cover	Wall (E)	T6 / T80°C	T6 / T80 °C	T5 / T95°C	
	12 W						T5/ T95°C
CZ6474/111 (IS Buzzers Fitted)	5 W	Flat Cover		Bracket (B); Portable (P); Recessed (R); Spot (H); Flat (S)	T6 / T80°C	T6 / T80 °C	N/A
CZ6474/121 (IS Buzzers Fitted)	5 W	U Cover		Tri Color Light/ Warning Light	T6 / T80°C	T6 / T80°C	N/A



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11 Description

CZ6474/135, CZ6474/145 Explosion-proof light fittings

A CZ6474/135 and CZ6474/145 series metallic explosion proof light fittings with a toughened glass light transmitting part. The light transmitted part is secured with epoxy to ensure degree of protection. The light fitting consists of two compartments, the electrical and lighting cavity, and the wiring cavity. The two compartments are secured together using a flameproof thread. The wiring cavity, located on the top of the light body can be fitted with multiple brackets to achieve various mounting orientations. All entries into the equipment are installed with suitably certified flameproof entry devices. An optional guard may also be added.

The joint board of electric and lighting cavity and wiring cavity are connected by a transition nut with flameproof thread.

CZ6474/111, CZ6474/121, CZ6474/131 Explosion-proof light fittings

The CZ6474/111 and CZ6474/131 Series explosion proof light fittings consist of a metallic enclosure with a threaded cover, with a flat toughened glass light transmitting part sealed with epoxy to ensure the degree of protection. The CZ6474/121 has a dome shaped light transmitting part. All entries into the equipment are installed with suitably certified flameproof entry devices.

U-shaped or flat-shaped PC mesh of different colours can be selected at the transparent parts outside the explosion-proof cavity.

CZ6474 Series model types CZ6474/1[]1 Tricolour Warning/ Warning Signal Light versions may include up to 2 Intrinsic Safety Buzzers within threaded (M25) Flameproof entry devices.

The Intrinsically Safe Buzzer is connected to either as a single high or low voltage intrinsic safety interface printed circuit board (PCB) located inside the CZ6474 Series Explosion-proof Light enclose. Up to 2 buzzers can be installed and connect to a single intrinsic safety interface PCB.

CZ6474/235, CZ6474/245 Explosion-proof light fittings

The CZ6474/235, CZ6474/245 Series explosion proof light fittings with a toughened glass light transmitting part. The light transmitted part is secured with epoxy to ensure degree of protection, The lighting fixtures consist of two compartments, the increased safety wiring cavity and the electric and lighting cavity which are separated using an encapsulated bushing. All entries into the equipment are installed with suitably certified flameproof entry devices. The lighting fixtures have multiple bracket arrangements to allow for various mounting orientations. An optional guard may also be added.

Ratings

CZ6474/135 and CZ6474/145	CZ6474/111, CZ6474/121, CZ6474/131 (No IS Buzzers fitted)	CZ6474/235 and CZ6474/245
100 – 250 VAC 50/60 Hz 127 – 250 VDC	100 - 250 VAC 50/60 Hz 127 - 250 VDC 20 - 40 VAC/VDC	100 - 250 VAC 50/60 Hz 127 – 250 VDC



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CZ6474/111, CZ6474/121

(IS Buzzers fitted)

CZ6474/1[]1 Tricolour Warning Light, or CZ6474/1[]1 Warning Signal Light

100 - 250 VAC, 5W, Um = 250 V

127 - 250 VDC, 5W, Um = 250 V

20 V - 40 VAC/VDC, 5W, Um = 60V.

Variation 1

This variation introduces the following modifications:

- i. The Introduction of IS Buzzers for use with CZ6474/111 and CZ6474/121 versions.

12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	06 Dec 2023	R15095A/00	Issue of prime certificate
1	21 Dec 2023	R15095B/00	Introduction of Variation 1

Note: Drawings that describe the equipment or component are listed in the Annex.

13 Conditions of Manufacture

The following conditions are required of the manufacturing process for compliance with the certification.

- i. Where the product incorporates certified parts or safety critical components, the manufacturer of the product defined on this certificate shall continually monitor these parts/components for any modifications introduced by the manufacturer(s) of these constituent parts. If the manufacturer of any constituent part introduces any changes which affect the compliance of the certified product that is the subject of this certificate, the manufacturer is required to have this certificate updated.
- ii. The manufacturer shall ensure that all Ex-Components are installed in accordance with their schedule of limitations, the creepage and clearance requirements of EN IEC 60079-7, manufacturer's instructions and that the equipment markings are within the service temperature range and ratings of all the Ex-Components fitted
- iii. The routine dielectric strength test on the Increased safety (eb) CZ6474/235, CZ6474/245 Series with applied voltage shall be performed at $2U + 1,000V$ with a minimum value of 1,500V (U = maximum rated voltage of the lamp), between each circuit and earthed metal parts as per EN IEC 60079-7 Clause 7.1.



- iv. Each enclosure shall be subjected to a routine static overpressure test in accordance with EN/IEC 60079-1:2014, clause 16.1. The test shall be carried out for at least 10 seconds. There shall be no evidence of permanent damage or deformation, nor shall there be any leakage through the enclosure walls.

Test sample	Max. reference pressure		The relative pressure applied shall be	
	Electrical light source cavity	Wiring cavity	Electrical light source cavity	
CZ6474/235	769 kPa	-	1.5 x reference pressure	1,200 kPa
CZ6474/245	972 kPa	-	1.5 x reference pressure	1,500 kPa
CZ6474/135	903 kPa	771 kPa	1.5 x reference pressure	1,400 kPa
CZ6474/145	890 kPa		1.5 x reference pressure	1,400 kPa

- v. The Intrinsically Safe Buzzers are not complete equipment. They have been assessed as being suitable for Gas Group IIC and Dust IIIC for Intrinsic Safety only and shall only be installed as part of a suitably certified enclosure for which they have been assessed and that provides the necessary Flameproof or Dust Ignition Proof protection.
- vi. The following limitations used in the Intrinsically Safe Buzzers must be considered:
- The Intrinsic Safety Buzzers shall only be used with the CZ6474 Series model types CZ6474/1[]1 Tricolour Warning/ Warning Signal Light versions.
 - Shall only be used with the 5 W versions (T6/T80°C in a maximum ambient temperature of +50 °C).
 - The rating of components on the interface printed circuit board limits the maximum ambient temperature to +50 °C (5 °C less than that for an enclosure without the IS Buzzers installed).
 - A maximum of 2 buzzers can be installed using a single interface Printed Circuit Board (PCB).
 - The following encapsulation materials are used in their construction:
 - PURE52/AP13 shall only be used in ambient temperatures -60°C to +50 °C.
 - WEVOPUR 552 FL shall only be used in ambient temperatures -40 °C to +50 °C.
 - The equipment must be marked with the applicable ambient temperature range of the material used.
 - The internal reference pressure of the Flameproof or Dust Ignition-proof shall not exceed 944 kPa.
 - The markings of the complete equipment shall include:
 - Um (60 V or 250 V) in addition to the ratings of the Flameproof/Dust Ignition-proof enclosure.
 - Applicable Gas Group (IIC or IIB+H2) and Dust (IIIC) that is relevant to the certified Flameproof or Dust Ignition Proof enclosure.
- vii. The threaded entry is rated IP 66. The buzzer is rated IP20.



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14 Specific Conditions of Use (Special Conditions)

The following conditions relate to safe installation and/or use of the equipment.

- i. Repair of the threaded joints must be made in compliance with the specifications provided by the manufacturer. Repairs must not be made only on the basis of values specified in table 4 of EN 60079-1.
- ii. Fasteners screws shall only be replaced with the correct type. Provided by the manufacturer.

Certificate Annex

Certificate Number CML 23ATEX1277
Equipment CZ6474 Explosion Proof Light Fittings
Manufacturer CZ Electric Co., Ltd



The following documents describe the equipment or component defined in this certificate:

Issue 0

CZ6474/235 and CZ6474/245 Explosion-proof light fittings

Drawing No	Sheets	Rev	Approved date	Title
2CZ6474-235.000.001	1 to 2	AA	14 Nov 2023	CZ6474/2□5-LED □W EXPLOSION-PROOF LIGHT FITTINGS
5CZ0871.000.001	1 of 1	AB	14 Nov 2023	M16 TRANSITION NUT ASSEMBLY
5CZ0873/LED.004.000	1 of 1	AA	14 Nov 2023	CZ0873/4LED TEMPERED GLASS COVER KIT
5CZ0873/LED.006.001	1 of 1	AA	14 Nov 2023	60W/LED LIGHT SOURCE ASSEMBLY
5CZ0874/LED.004.000	1 of 1	AA	14 Nov 2023	CZ0874/LED TEMPERED GLASS COVER KIT
5CZ0873/LED.002.001	1 of 1	AA	14 Nov 2023	45W/LED Light Source Assembly
5CZ0874/LED.003.001	1 of 1	AA	14 Nov 2023	90W/LED LIGHT SOURCE ASSEMBLY
8CZ0512.001.003	1 of 1	AA	14 Nov 2023	O RING FOR CONTACTOR
8CZ0871.000.024	1 of 1	AA	14 Nov 2023	CZ0871 LAMP DISK RING
8CZ0871.000.030	1 of 1	AA	14 Nov 2023	M4 SCREWS
8CZ0872.000.011	1 of 1	AA	14 Nov 2023	CZ0872 LAMP DISK RING
8CZ0873.000.001	1 of 1	AA	14 Nov 2023	CZ0873/1 ENCLOSURE OF LAMP
8CZ0873.000.001.1	1 of 1	AA	14 Nov 2023	CZ0873/2 Enclosure of lamp
8CZ0873.000.002	1 of 1	AA	14 Nov 2023	CZ0873 Junction box cover
8CZ0873.000.004	1 of 1	AA	14 Nov 2023	CZ0873/25° MOUNTING BRACKET
8CZ0873.000.005	1 of 1	AA	14 Nov 2023	CZ0873 PLATFORM LAMP MOUNTING BRACKET
8CZ0873.000.010	1 of 1	AA	14 Nov 2023	CZ0873 JUNCTION BOX RING
8CZ0873-LED.000.001.1	1 of 1	AA	14 Nov 2023	CZ0873/LED ENDOTHERMIC DISK-A
8CZ0873/LED.000.002	1 of 1	AA	14 Nov 2023	CZ0873/LED LAMP DISK
8CZ0873/LED.000.015	1 of 1	AA	14 Nov 2023	BL188/55 GLASS
8CZ0874/LED.000.002	1 of 1	AA	14 Nov 2023	CZ0874/LED LAMP DISK

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Manufacturer CZ Electric Co., Ltd



Drawing No	Sheets	Rev	Approved date	Title
8CZ0874/LED.000.015	1 of 1	AD	14 Nov 2023	BL241/57 GLASS
8CZ0874/LED.000.001.1	1 of 1	AA	14 Nov 2023	CZ0874/LED ENDOTHERMIC DISK A
8CZ874.000.001	1 of 1	AA	14 Nov 2023	CZ0874/1 ENCLOSURE OF LAMP
8CZ874.000.001.1	1 of 1	AA	14 Nov 2023	CZ0874/2 ENCLOSURE OF LAMP
8CZ0879.000.032	1 of 1	AA	14 Nov 2023	CZ0879 WALL TYPE MOUNTING

CZ6474/135 and CZ6474/145 Explosion-proof light fittings

Drawing No	Sheets	Rev	Approved date	Title
2CZ6474.001.001	1 to 2	AA	14 Nov 2023	CZ6474/1 □5□-LED□W EXPLOSION-PROOF LIGHT FITTINGS
5D8752.001.000	1 of 1	AA	14 Nov 2023	D8752-G1 1/2 PENDANT MOUNTING ACCESSORY
8BW.007.000	1 of 1	AA	14 Nov 2023	∅94x3 SEALING RING
8CZ6474.135.001	1 of 1	AA	14 Nov 2023	CZ6474/13 ENCLOSURE OF LAMP
8CZ6474.135.002	1 of 1	AA	14 Nov 2023	CZ6474/13 POLE MOUNTING ACCESSORY
8CZ6474.135.003	1 of 1	AA	14 Nov 2023	CZ6474/13 PENDANT COVER
8CZ6474.135.004	1 of 1	AA	14 Nov 2023	CZ6474/13 CEILING MOUNTING ACCESSORIES
8CZ6474.135.005	1 of 1	AA	14 Nov 2023	CZ6474/13 WALL MOUNTING ACCESSORIES
8CZ6474.145.001	1 of 1	AA	14 Nov 2023	CZ6474/14 ENCLOSURE OF LAMP
8D8752.000.001	1 of 1	AA	14 Nov 2023	D8752-G3/4 PENDANT MOUNTING ACCESSORY
8D8752.000.002	1 of 1	AA	14 Nov 2023	D8752-G1 1/2 PENDANT MOUNTING ACCESSORY
8D8752.000.003	1 of 1	AA	14 Nov 2023	D8752-M25 PRESSING NUT
8205.002.000	1 of 1	AA	14 Nov 2023	205 SEALING RING
8206.002.001	1 of 1	AA	14 Nov 2023	206d-M25 FLAME-PROOF SEALING RING

Certificate Annex

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Equipment CZ6474 Explosion Proof Light Fittings
Manufacturer CZ Electric Co., Ltd



CZ6474/111, CZ6474/121, CZ6474/131 Explosion-proof light fittings

Drawing No	Sheets	Rev	Approved date	Title
2CZ6474/111.000.001~009	1 to 2	AA	14 Nov 2023	CZ6474/1 □ 1 □ -LED □ □ W EXPLOSION-PROOF LIGHT FITTINGS
5CZ6474.111.001	1 of 1	AA	14 Nov 2023	CZ6474 TEMPERED GLASS COVER KIT
8CZ6474.111.024~25	1 of 1	AA	14 Nov 2023	∅ SWITCH SEALING BOARD
8CZ6474.111.032	1 of 1	AA	14 Nov 2023	CIRCLIP
5CZ6474.111.004	1 of 1	AA	14 Nov 2023	M20 TOUCH SWITCH MODULE
5CZ6474.111.005	1 of 1	AA	14 Nov 2023	M25 TOUCH SWITCH MODULE
5CZ6474.111.006	1 of 1	AA	14 Nov 2023	LIGHT SOURCE MODULE
5CZ6474.111.009~011	1 of 1	AA	14 Nov 2023	COMBINATION OF LIGHT SOURCE AND POWER SUPPLY MODULE
8CZ6474.111.001	1 of 1	AA	14 Nov 2023	CZ6474/111 ENCLOSURE OF LAMP
8CZ6474.111.002	1 of 1	AA	14 Nov 2023	CZ6474/1 □ 1 LAMP DISK
8CZ6474.111.003	1 of 1	AA	14 Nov 2023	SPOTLIGHT ALUMINUM BRACKET
8CZ6474.111.006	1 of 1	AA	14 Nov 2023	LAMP COVER INSIDE LINEAR
8CZ6474.111.007.1~5	1 of 1	AA	14 Nov 2023	TRICOLOR HIGH COVER
8CZ6474.111.008.1~4	1 of 1	AA	14 Nov 2023	TRICOLOR FLAT COVER
8CZ6474.111.009	1 of 1	AA	14 Nov 2023	CZ6474/1 □ 1 TOUGHENED GLASS
8CZ6474.111.020	1 of 1	AA	14 Nov 2023	6474 GLASS WASHER
8CZ6474.111.021	1 of 1	AA	14 Nov 2023	M20 SWITCH BODY
8CZ6474.111.022	1 of 1	AA	14 Nov 2023	M25 SWITCH BODY
8CZ6474.111.023	1 of 1	AA	14 Nov 2023	SWITCH BUTTON

Certificate Annex

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Manufacturer CZ Electric Co., Ltd



Issue 1

Drawing No	Sheets	Rev	Approved date	Title
2CZ6474.111.001~008	1 to 2	AA	21 Dec 2023	Structural Diagram
2CZ6474.111.007-008.1	1 of 1	AA	21 Dec 2023	CZ6474 Explosionproof Light
5CZ6474.111.002	1 of 1	AA	21 Dec 2023	INTRINSIC SAFETY TYPE BUZZER MODULE
5CZ6474.111.003	1 of 1	AA	21 Dec 2023	BUZZER CIRCUIT BOARD MODULE
8CZ6474.111.015	1 of 1	AA	21 Dec 2023	INTRINSIC SAFETY BUZZER BODY
8CZ6474.111.016	1 of 1	AA	21 Dec 2023	INTRINSIC SAFETY BUZZER COVER
8CZ6474.111.017	1 of 1	AA	21 Dec 2023	BUZZER SEALPLATE
8CZ6474.111.018	1 of 1	AA	21 Dec 2023	BUZZER CIRCUIT BOARD
8CZ6474.111.019	1 of 1	AA	21 Dec 2023	HND-2410 BUZZER HORN
8CZ6474.111.036	1 of 1	AA	21 Dec 2023	ELECTRICAL SCHEMATIC DIAGRAM
8CZ6474.111.037	1 of 1	AA	21 Dec 2023	(High voltage) PCB LAYOUT
8CZ6474.111.038	1 of 1	AA	21 Dec 2023	ELECTRICAL SCHEMATIC DIAGRAM
8CZ6474.111.039	1 of 1	AA	21 Dec 2023	(Low voltage) PCB LAYOUT