



EU Type Examination Certificate CML 16ATEX3133U Issue 0

- 1 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU
- 2 Component **CZ0516 Increased safety control transformer module**
- 3 Manufacturer **CZ Explosion-proof Electric Appliances Co., Ltd.**
- 4 Address No. 1 Qixing Rd, Qixing
Town, Nanhu District,
Jiaxing, Zhejiang
China
- 5 The component is specified in the description of this certificate and the documents to which it refers.
- 6 Certification Management Limited, Unit 1 Newport Business Park, New Port Road, Ellesmere Port CH65 4LZ, UK, Notified Body Number 2503, 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 component 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 The 'U' suffix after the certificate number indicates that the component 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 60079-0:2012:A11:2013, Corr3
EN 60079-7:2015
- 10 The equipment shall be marked with the following:



II 2 G

Ex eb IIC Gb

-55°C ≤ Ta ≤ +55°C / 70°C



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11 Description

The CZ0516 Increased safety control transformer module is a range of component certified transformers suitable for incorporation into equipment for use in Zones 1 and Zone 2.

The primary and secondary windings are wound onto a non-metallic core former. A terminal rail is attached to the top of the transformer body and this is used to mount component certified terminal blocks.

The transformer is required to be used with an appropriately rated current limiting device and is suitable for use at 50 or 60Hz.

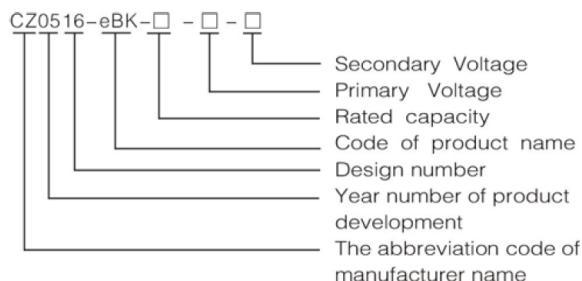
A range of power, primary voltage, and secondary voltages are available:

Power ratings: 100VA, 200VA, 400VA, 550VA, 750VA, 1200VA, 1600VA

Primary voltage (AC): 110V, 115V, 118V, 120V, 127V, 220V, 230V, 240V, 250V, 254V, 280V, 380V, 400V, 415V, 440V, 460V, 480V, 500V, 525V, 600V, 660V, 690V

Secondary voltage (AC) : 12V, 20V, 24V, 25V, 27V, 28V, 30V, 32V, 34V, 36V, 42V, 48V, 50V, 55V, 60V, 110V, 115V, 120V, 220V, 230V, 240V, 250V, 400V.

The product part number is defined as follows:



12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	11 July 2016	R1229A/00	Issue of prime certificate

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



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13 Conditions of manufacture

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

- 13.1 Where the product incorporates certified parts or safety critical components the manufacturer shall ensure that any changes to those parts or components do not affect the compliance of the certified product that is the subject of this certificate. A copy of this and any other component certificates shall be supplied with the equipment.
- 13.2 The transformer shall be subjected to electric strength tests as follows:
- Primary – secondary at a test voltage of $(1000 + 2U)\text{Vac}$ or 1500Vac (whichever is the greater) where U is the highest of primary and secondary voltages
 - All windings – earth at a test voltage of 500Vac for winding voltages up to 90Vac and for voltages over 90Vac , at a test voltage of $(1000 + 2U)\text{Vac}$ or 1500Vac (whichever is the greater) where U is the highest of primary and secondary voltages.

The test voltage to be applied for 60 s. Alternatively, a voltage of 20% higher may be applied for 1 s. There shall be no evidence of flashover or breakdown and the maximum current flowing shall not exceed 5 mA.

14 Schedule of Limitations

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

- 14.1 When installed, the transformer shall be subjected to electric strength tests as follows:
- Primary – secondary at a test voltage of $(1000 + 2U)\text{Vac}$ or 1500Vac (whichever is the greater) where U is the highest of primary and secondary voltages
 - All windings – earth at a test voltage of 500Vac for winding voltages up to 90Vac and for voltages over 90Vac , at a test voltage of $(1000 + 2U)\text{Vac}$ or 1500Vac (whichever is the greater) where U is the highest of primary and secondary voltages.

The test voltage to be applied for 60 s. Alternatively, a voltage of 20% higher may be applied for 1 s. There shall be no evidence of flashover or breakdown and the maximum current flowing shall not exceed 5 mA.

- 14.2 When installed, with equipment, a temperature test shall be carried out under full load conditions as defined by the current limiting device, in accordance with EN 60079-7:2015, clause 6.5. The following limits apply:
- If measured by thermometer, the winding temperature shall not exceed 135°C in the maximum equipment ambient temperature.
 - If measured by the resistance method, the winding temperature shall not exceed 155°C in the maximum equipment ambient temperature
 - When installed in equipment and marked with temperature classes T3 to T6, no part of the component shall reach a temperature in excess of the temperature class less 5K. Additionally, the non-metallic winding frame shall not exceed a maximum 250°C and the terminals 110°C , in the maximum equipment ambient temperature.
 - When installed in equipment and marked with temperature classes T1 or T2, no part of the component shall reach a temperature in excess of the temperature



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class less 10K. Additionally, the non-metallic winding frame shall not exceed 250°C and the terminals 110°C, in the maximum equipment ambient temperature.

- 14.3 The transformer is required to be used with an appropriately rated current limiting device.
- 14.4 The transformer when installed into equipment shall be installed in an enclosure meeting EN 60079-0, section 1.
- 14.5 At ambient temperatures above 55°C, the transformer must not be operated at more than 90% of the rated power

Certificate Annex



Certificate Number CML 16ATEX3133U
Equipment CZ0516 Increased safety control transformer module
Manufacturer CZ Explosion-proof Electric Appliances Co., Ltd.

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

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Drawing No	Sheets	Rev	Approved date	Title
2CZ0516.001.001	1 of 1	AA-6	11/07/2016	CZ0516 Increased safety control transformer module