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Stalni upori za elektronsko opremo - 4. del: Področna specifikacija: Močnostni upori za montažo skozi prehodne luknje tiskanih vezij ali za pritrditev na šasijo

Fixed resistors for use in electronic equipment - Part 4: Sectional specification: Power resistors for through hole assembly on circuit boards (THT) or for assembly on chassis

Résistances fixes utilisées dans les équipements électroniques - Partie 4: Spécification intermédiaire: Résistances de puissance pour assemblage par trous traversants sur cartes de circuit imprimé (carte THT) ou pour assemblage sur châssis

Ta slovenski standard je istoveten z: prEN IEC 60115-4:2024

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Will supersede EN 140200:1996; EN
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English Version

**Fixed resistors for use in electronic equipment - Part 4: Sectional
specification: Power resistors for through hole assembly on
circuit boards (THT) or for assembly on chassis
(IEC 60115-4:2022)**

To be completed
(IEC 60115-4:2022)

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(IEC 60115-4:2022)

This draft European Standard is submitted to CENELEC members for enquiry.
Deadline for CENELEC: 2024-12-27.

The text of this draft consists of the text of IEC 60115-4:2022 (40/2920/CDV).

If this draft becomes a European Standard, CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

This draft European Standard was established by CENELEC in three official versions (English, French, German).
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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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Comité Européen de Normalisation Electrotechnique
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CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

prEN IEC 60115-4:2024 (E)**European foreword**

This document (prEN IEC 60115-4:2024) consists of the text of document IEC 60115-4:2022, prepared by IEC/TC 40 "Capacitors and resistors for electronic equipment".

This document is currently submitted to the Enquiry.

The following dates are proposed:

- latest date by which the existence of this document (doa) dor + 6 months has to be announced at national level
- latest date by which this document has to be (dop) dor + 12 months implemented at national level by publication of an identical national standard or by endorsement
- latest date by which the national standards (dow) dor + 36 months conflicting with this document have to be withdrawn (to be confirmed or modified when voting)

This document will supersede EN 140200:1996 and all of its amendments and corrigenda (if any).

This edition contains the following significant technical changes with respect to the previous edition:

- a) this edition employs a new document structure of the generic specification EN 60115-1:2023, where the tests of prior Clause 4 are given in Clauses 6 to 12 now;
- b) the definitions of product technologies and product classification levels of the generic specification, IEC 60115-1:2020, have been adopted;
- c) a basis for the optional specification of the lead eccentricity of axial leaded resistors has been amended in 4.2;
- d) the 'period-pulse high-voltage overload test' of IEC 60115-1:2020, 8.3 has been adopted as default test method in 5.3.9, thereby replacing the legacy test 'periodic-pulse overload test if IEC 60115-1:2020, 8.4;
- e) the revised solderability test of IEC 60115-1:2020, 11.1 has been adopted in 5.3.22 and 5.3.23;
- f) the combined solvent resistance test of IEC 60115-1:2020, 11.3 has been adopted in in 5.3.25;
- g) the 'endurance at room temperature test' of IEC 60115-1:2020, 7.2 has been reworked and adopted in 5.3.5;
- h) the 'single-pulse high-voltage overload test' of IEC 60115-1:2020, 8.2, applied with the pulse shape 10/700 in 5.3.8, is complemented with the optional alternative provided by the pulse shape 1,2/50;
- i) climatic tests for 'operation at low temperature' of IEC 60115-1:2020, 10.2, and for 'damp heat, steady state, accelerated' of IEC 60115-1:2020, 10.4, have been adopted as optional tests in 5.4.5. and 5.4.6, respectively;
- j) inclusion of an optional flammability test as 5.4.8;
- k) new guidance is provided in 6.2 on the presentation of stability requirements with their permissible absolute and relative deviations;

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- l) acceptance criteria for the visual inspection have been added in 6.5 and in Annex B;
- m) visual inspection for the primary and proximity packaging has been added in 6.5.3 and in 7.2
- n) the periodical evaluation of termination platings has been added as a new topic of quality assessment in 9.8;
- o) a new Annex C has been added to summarize workmanship requirements for the assembly of leaded power resistors, e.g. as given in the prior IEC 61192 series of standards;
- p) the informative Annex F on radial formed styles has been amended with details on a formed Z-bend style for surface-mount assembly;
- q) furthermore, this edition cancels and replaces the old CECC based EN edition published in 1996 and constitutes revisions related to tables and figures. (see Annex X)

Preceding documents on the subject covered by this specification have been:

- EN 140200:1996 + EN 140200:1996/A1:2001
- CECC 40 200:1981-00, 1973-00

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INTERNATIONAL STANDARD



**Fixed resistors for use in electronic equipment –
Part 4: Sectional specification: Power resistors for through hole assembly on
circuit boards (THT) or for assembly on chassis**

Document Preview

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

FIXED RESISTORS FOR USE IN ELECTRONIC EQUIPMENT –**Part 4: Sectional specification: Power resistors for through hole assembly on circuit boards (THT) or for assembly on chassis**

FOREWORD

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IEC 60115-4 has been prepared by IEC technical committee 40: Capacitors and resistors for electronic equipment. It is an International Standard.

This third edition cancels and replaces the second edition published in 1982 and Amendment 1:1993. This edition constitutes a technical revision and includes test conditions and requirements for lead-free soldering and assessment procedures meeting the requirements of a "zero defect" approach.

This edition includes the following significant technical changes with respect to the previous edition:

- a) the definitions of product technologies and product classification levels of the generic specification, IEC 60115-1:2020, have been adopted;
- b) a basis for the optional specification of the lead eccentricity of axial leaded resistors has been amended in 4.2;