

Harmonized system of quality assessment for electronic components: Generic specification: Varistors

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The Electronic Components Standards Committee, under whose direction this British Standard was prepared, consists of representatives from the following Government department and scientific and industrial organizations:

- British Electrical and Allied Manufacturers' Association (BEAMA)
- Electricity Supply Industry in England and Wales
- Electronic Components Industry Federation*
- Electronic Engineering Association
- Institution of Electronic & Radio Engineers
- Ministry of Defence*
- National Supervising Inspectorate*
- Post Office*
- Society of British Aerospace Companies Limited
- Telecommunication Engineering & Manufacturing Association (TEMA)
- Trades Union Congress

The organizations marked with an asterisk in the above list, were directly represented on the committee entrusted with the preparation of this British Standard.

This British Standard, having been prepared under the direction of the Electronic Components Standards Committee, was published under the authority of the Executive Board on 29 December 1978

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National foreword

This British Standard has been prepared under the direction of the Electronic Components Standards Committee. It is identical with CENELEC Electronic Components Committee CECC 42000 “*Harmonized system of quality assessment for electronic components: Generic specification: Varistors*”, including Amendment No. 1 (1982), Amendment No. 2 (1983) and Amendment No. 3 (1986).

This standard is a harmonized specification within the CECC system.

Terminology and conventions. The text of the CECC specification has been approved as suitable for publication, without deviation, as a British Standard. Some terminology and certain conventions are not identical with those used in British Standards; attention is especially drawn to the following.

The comma has been used throughout as a decimal marker. In British Standards it is current practice to use a full point on the baseline as the decimal marker.

Cross references. The British Standard harmonized with CECC 00100 is BS E9000 “*General requirements for electronic components of assessed quality harmonized with the CENELEC Electronic Component Committee System*” Part 1 “*Basic rules*”.

For each of the following International Standards referred to in the text there is a corresponding British Standard; these are as listed below:

International Standard	Corresponding British Standard
ISO 3:1973	BS 2045:1965 <i>Preferred numbers</i> (Technically equivalent)
ISO 1000:1973	BS 5555:1976 <i>SI units and recommendations for the use of their multiples and of certain other units</i> (Identical)
IEC 27-1:1971	BS 1991 <i>Recommendations for letter symbols, signs and abbreviations</i> Part 1:1976 <i>General</i> Part 6:1975 <i>Electrical science and engineering</i> (Technically equivalent)
IEC 62:1974	BS 1852:1975 <i>Marking codes for resistors and capacitors</i> (Identical)
IEC 63:1963	BS 2488:1966 <i>Schedule of preferred numbers for resistance of resistors and the capacitance of capacitors for telecommunication equipment</i> (Technically equivalent)
IEC 68	BS 2011 <i>Basic environmental testing procedures</i> (Identical)
IEC 117	BS 3939 <i>Graphical symbols for electrical power telecommunications and electronics diagrams</i> (Related)
IEC 410:1973	BS 6001:1972 <i>Sampling procedures and tables for inspection by attributes</i> (Technically equivalent)
IEC 695-2-2:1980	BS 6458 <i>Fire hazard testing for electrotechnical products</i> Part 2: <i>Methods of test</i> Section 2.2: <i>Needle-flame test</i> (Identical)
CECC 00006:1973	BS E9006:1976 <i>Harmonized system of quality assessment for electronic components. Basic specification. Environmental test procedures</i> (Identical)

International Standard	Corresponding British Standard
CECC 00007:1973	BS E9007:1975 <i>Harmonized system of quality assessment for electronic components. Basic specification. Sampling plans and procedures for inspection by attributes</i> (Identical)

The references to IEC 60-2 and IEC 294, for which there are no corresponding British Standards, constitute informative matter only, and since no mandatory requirements are involved, the validity of this British Standard is not affected.

Detail specification layout. In the event of conflict between the requirements of this specification and the provisions of BS E9000 the latter shall take precedence except that the front page layout will be in accordance with BS 9000 Circular Letter No. 15 dated August 1977.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i to iv, the CECC title page, pages ii to iv, pages 1 to 24, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

European Committee for Electrotechnical Standardization (CENELEC)
Cenelec Electronic Components Committee

CECC

English version

Harmonized System of Quality Assessment for
Electronic Components

GENERIC SPECIFICATION:

VARISTORS

Système Harmonisé d'Assurance de la Qualité
des Composants Electroniques

SPECIFICATION GNERIQUE:

VARISTANCES

Harmonisiertes Gütebestätigungssystem für
Bauelemente der Elektronik

FACHGRUNDSPEZIFIKATION:

VARISTOREN



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Edition
Issue
Ausgabe

CECC 42000

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Foreword

The CENELEC Electronic Components Committee (CECC) is composed of those member countries of the European Committee for Electrotechnical Standardization (CENELEC) who wish to take part in a harmonized System for electronic components of assessed quality.

The object of the System is to facilitate international trade by the harmonization of specifications and quality assessment procedures for electronic components, and by the grant of an internationally recognized Mark, or Certificate, of Conformity. The components produced under the System are thereby accepted by all member countries without further testing.

This document has been formally approved by the CECC, and has been prepared for those countries taking part in the System who wish to prepare and issue detail specifications for VARISTORS. It should be read in conjunction with document CECC 00100: Basic Rules (1974).

At the date of printing of this document, the member countries of the CECC are Belgium, Denmark, France, Germany, Ireland, Italy, the Netherlands, Norway, Sweden, Switzerland and the United Kingdom, and copies of it can be obtained from the National Committees of the CENELEC in these countries.

Preface

This generic specification was prepared by CECC Working Group 4: “Resistors”.

In accordance with the requirements of document CECC 00100 it is based, wherever possible, on the Recommendations of the International Electrotechnical Commission.

The text of this generic specification was circulated to the CECC for voting in the documents listed below and was ratified by the CECC for printing as a CECC Specification.

Document	Voting date	
CECC(Secretariat)333	3 June	1975
CECC(Secretariat)379	8 November	1975
CECC(Secretariat)530	27 November	1976
CECC(Secretariat)531	27 November	1976
CECC(Secretariat)549	20 November	1976
CECC(Secretariat)590	14 May	1977
CECC(Secretariat)869	October	1979
CECC(Secretariat)975		
CECC(Secretariat)1034	January	1981
CECC(Secretariat)1344	April	1983

Section 1. Scope

This specification applies to varistors with symmetrical voltage-current characteristics.

Varistors are classified into sub-families according to their field of application and technology of manufacture.

Examples: Low-voltage varistors for telephone equipment
 Varistors for general application
 Varistors for surge suppression

Section 2. General

2.1 Related documents

ISO 3	(1973)	<i>Preferred numbers. Series of preferred numbers.</i>
ISO 1000	(1973)	<i>SI units and recommendations for the use of their multiples and of certain other units.</i>
IEC 27-1	(1971)	<i>Letter symbols to be used in electrical technology. Part 1: General.</i>
	(1974)	Amendment No. 1.
IEC 50	—	<i>International Electrotechnical Vocabulary.</i>
IEC 60-2	(1973)	<i>High voltage test techniques. Part 2: Test procedures.</i>
IEC 62	(1974)	<i>Marking codes for resistors and capacitors.</i>
IEC 63	(1963)	<i>Preferred number series for resistors and capacitors.</i>
	(1967)	Amendment No. 1.
IEC 68	—	<i>Basic environmental testing procedures.</i> (See CECC 00006).
IEC 117	—	<i>Recommended graphical symbols.</i>
IEC 294	(1969)	<i>Measurement of the dimensions of a cylindrical component having two axial terminations.</i>
IEC 410	(1973)	<i>Sampling plans and procedures for inspection by attributes.</i> (See CECC 00007).
IEC 695-2-2	(1980)	<i>Fire hazard testing — Part 2: Test methods — Needle flame test.</i>
CECC 00100	(1974)	<i>Basic Rules</i>
CECC 00006	(1973)	<i>Basic specification: Basic environmental testing procedures</i>
CECC 00007	(1973)	<i>Basic specification: Sampling plans and procedures for inspection by attributes</i>

2.2 Units, symbols and terminology

2.2.1 General

Units, graphical symbols, letter symbols and terminology shall, wherever possible, be taken from the following documents:

ISO 1000, *SI Units and recommendations for the use of their multiples and of certain other units.*

IEC 27, *Letter symbols to be used in electrical technology.*

IEC 50, *International Electrotechnical Vocabulary.*

IEC 117, *Recommended graphical symbols.*

2.2.2 to 2.2.14 contain additional terminology applicable to varistors. Appendix B contains terminology applicable to a particular sub-family.

Where additional items are required, they shall be derived in accordance with the principles of the documents listed above.