

Ferrite cores - Dimensions - Part 11: EC-cores for use in
power supply applications

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 62317-11:2016 sisaldab Euroopa standardi EN 62317-11:2016 ingliskeelset teksti.	This Estonian standard EVS-EN 62317-11:2016 consists of the English text of the European standard EN 62317-11:2016.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 26.02.2016.	Date of Availability of the European standard is 26.02.2016.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 29.100.10

Standardite reprodutseerimise ja levitamise õigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardikeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardikeskusega:

Aru 10, 10317 Tallinn, Eesti; koduleht www.evs.ee; telefon 605 5050; e-post info@evs.ee

The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without a written permission from the Estonian Centre for Standardisation.

If you have any questions about copyright, please contact Estonian Centre for Standardisation:

Aru 10, 10317 Tallinn, Estonia; homepage www.evs.ee; phone +372 605 5050; e-mail info@evs.ee

ICS 29.100.10

English Version

**Ferrite cores - Dimensions - Part 11: EC-cores for use in power
supply applications
(IEC 62317-11:2015)**

Noyaux ferrites - Dimensions - Partie 11: Noyaux EC
utilisés dans des applications d'alimentation électrique
(IEC 62317-11:2015)

Ferritkerne - Maße - Teil 11: EC-Kerne für den Einsatz in
Netzteilen
(IEC 62317-11:2015)

This European Standard was approved by CENELEC on 2015-12-23. 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.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.



European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

European foreword

The text of document 51/1077/CDV, future edition 1 of IEC 62317-11, prepared by IEC/TC 51 "Magnetic components and ferrite materials" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 62317-11:2016.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2016-09-23
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2018-12-23

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC [and/or CEN] shall not be held responsible for identifying any or all such patent rights.

Endorsement notice

The text of the International Standard IEC 62317-11:2015 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60205:2006	NOTE	Harmonized as EN 60205:2006.
----------------	------	------------------------------

CONTENTS

FOREWORD.....	3
INTRODUCTION.....	5
1 Scope.....	6
2 Normative references	6
3 Primary standards	6
3.1 General.....	6
3.2 Dimensions of EC-cores.....	6
3.2.1 Principal dimensions.....	6
3.2.2 Effective parameter and A_{\min} values	6
3.3 Main dimensions for coil formers.....	9
Annex A (normative) Example of standard coil formers	10
Annex B (normative) Calculation of the effective parameters of EC-cores	13
Bibliography.....	15
Figure 1 – Principal dimensions of EC-cores.....	7
Figure 2 – Main dimensions of coil formers for EC-cores.....	9
Figure A.1 – Main dimensions of coil formers for EC35, EC41, EC52, EC70 cores	10
Figure A.2 – Main dimensions of coil formers for EC90 core	11
Figure B.1 – Pair of EC cores	13
Table 1 – Principal dimensions of EC-cores	8
Table 2 – Effective parameter and A_{\min} values.....	8
Table 3 – Main dimensions of coil formers for EC-cores.....	9
Table A.1 – Main dimensions of coil formers (examples of Figure A.1 and A.2) for EC-cores	12

INTRODUCTION

IEC 62317 consists of the following parts, under the general title *Ferrite cores – Dimensions*:

- Part 1: General specification
- Part 2: Pot-cores for use in telecommunications, power supply, and filter applications
- Part 3: Dimensions of half pot-cores made of ferrite for inductive proximity switches¹
- Part 4: RM-cores and associated parts
- Part 5: EP-cores and associated parts for use in inductors and transformers
- Part 6: ETD-cores for use in power supplies
- Part 7: EER-cores
- Part 8: E-cores
- Part 9: Planar cores
- Part 10: PM-cores made of magnetic oxides and associated parts – Dimensions²
- Part 11: EC-cores for use in power supply applications
- Part 12: Dimensions of uncoated ring cores of magnetic oxides³

¹ Under consideration, currently available as IEC 62323.

² Under consideration, currently available as IEC 61247.

³ Under consideration, currently available as IEC 61604.

FERRITE CORES – DIMENSIONS –

Part 11: EC-cores for use in power supply applications

1 Scope

This part of IEC 62317 specifies the dimensions that are of importance for mechanical interchangeability for a preferred range of EC-cores, the essential dimensions of coil formers to be used with them, and the effective parameter values to be used in calculations involving them.

The selection of core sizes for this standard is based on the philosophy of including those sizes which are industrial standards, either by inclusion in national standards, or by broad-based use in industry. See 62317-1 for more detail concerning the philosophy of selecting core sizes to be included.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

Void.

3 Primary standards

3.1 General

Compliance with the following requirements ensures mechanical interchangeability of complete assemblies and wound coil formers.

3.2 Dimensions of EC-cores

3.2.1 Principal dimensions

The principal dimensions of EC-cores shall be as given in Figure 1 and Table 1.

3.2.2 Effective parameter and A_{\min} values

The effective parameter values of a pair of cores having the dimensions given in 3.2.1 are as shown in Table 2.

A_{\min} is specified in IEC 60205:2006, 2.2.