Coupling capacitors and capacitor dividers -- Part 2: AC or DC single-phase coupling capacitor connected between line and ground for power line carrier-frequency (PLC) application



EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

| See Eesti standard EVS-EN 60358-2:2013 sisaldab | This Estonian standard EVS-EN 60358-2:2013 |
|---|--|
| Euroopa standardi EN 60358-2:2013 inglisekeelset | consists of the English text of the European standard |
| teksti. | EN 60358-2:2013. |
| 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 13.12.2013. | Date of Availability of the European standard is 13.12.2013. |
| Standard on kättesaadav Eesti Standardikeskusest. | The standard is available from the Estonian Centre for Standardisation. |

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ICS 29.120.99, 29.240.99, 31.060.70

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EUROPEAN STANDARD

EN 60358-2

NORME EUROPÉENNE EUROPÄISCHE NORM

December 2013

ICS 29.120.99; 29.240.99; 31.060.70

Supersedes HD 597 S1:1992 (partially)

English version

Coupling capacitors and capacitor dividers Part 2: AC or DC single-phase coupling capacitor connected between line and ground for power line carrier-frequency (PLC) application

(IEC 60358-2:2013)

Condensateurs de couplage et diviseurs capacitifs -

Partie 2: Condensateur de couplage monophasé à courant alternatif ou à courant continu connecté entre la ligne et la terre pour application aux liaisons à courant porteur sur lignes d'énergie (CPL) (CEI 60358-2:2013) Kopplungskondensatoren und kapazitive Teiler -

Teil 2: Einphasen-Kopplungskondensatoren für Wechsel- oder Gleichstrom, die für Trägerfrequenzübertragungen auf Hochspannungsleitungen (TFH-Übertragung) zwischen Außenleiter und Erde geschaltet sind (IEC 60358-2:2013)

This European Standard was approved by CENELEC on 2013-09-16. 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.

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Foreword

The text of document 33/531/FDIS, future edition 1 of IEC 60358-2, prepared by IEC/TC 33, "Power capacitors and their applications" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60358-2:2013.

The following dates are fixed:

| • | latest date by which the document has | (dop) | 2014-06-16 |
|---|--|-------|------------|
| | to be implemented at national level by | | |
| | publication of an identical national | | |
| | standard or by endorsement | | |
| • | latest date by which the national | (dow) | 2016-09-16 |
| | standards conflicting with the | | |
| | document have to be withdrawn | | |

This document supersedes HD 597 S1:1992 (partially).

This European Standard is to be used in conjunction with the latest edition of EN 60358-1 and its amendments. It was established on the basis of the first edition (2012) of that standard.

This Part 2 supplements or modifies the corresponding clauses in EN 60358-1.

When a particular subclause of Part 1 is not mentioned in this Part 2, that subclause applies as far as is reasonable. Where this Part 2 states "addition" or "replacement", the relevant text in Part 1 is to be adapted accordingly.

For additional clauses, subclauses, figures, tables or annexes, the following numbering system is used:

- subclauses, tables and figures which are additional to those in Part 1 are numbered starting from 200;
- additional annexes are lettered AA, BB etc.
- as the notes are integrated into the clauses, their numbering starts from 1 as usual.

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 60358-2:2013 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:

95/1/5

| IEC 60085 | NOTE | Harmonized as EN 60085. |
|------------------|------|--------------------------------|
| IEC 60721 Series | NOTE | Harmonized in EN 60721 series. |
| IEC 61462 | NOTE | Harmonized as EN 61462. |
| CISPR 16-1-1 | NOTE | Harmonized as EN 55016-1-1 |

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

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.

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

| Publication IEC 60060-1 | <u>Year</u> | <u>Title</u> High-voltage test techniques - Part 1: General definitions and test requirements | <u>EN/HD</u> al EN 60060-1 | <u>Year</u> |
|-----------------------------|--------------|---|-------------------------------|--------------|
| IEC 60060-2 | 0 | High-voltage test techniques - Part 2: Measuring systems | EN 60060-2 | |
| IEC 60358-1 + corr. July | 2012 2013 | Coupling capacitors and capacitor dividers - Part 1: General rules | EN 60358-1 + AC:2013 | 2012 2013 |
| IEC 60481 | | Coupling devices for power line carrier systems | - | - |
| IEC 61869-5 | | Instrument transformers - Part 5: Additional requirements for capacitor voltage transformers | | |
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INTRODUCTION

This series consists of the following parts:

- IEC 60358-1, Coupling capacitors and capacitor dividers – Part 1: General rules
- IEC 60358-2, Coupling capacitors and capacitor dividers - Part 2: AC or DC single-phase coupling capacitor connected between line and ground for power line carrier-frequency (PLC) application
- IEC 60358-31, Coupling capacitors and capacitor dividers – Part 3: AC or DC single-phase coupling capacitor connected between line and ground for harmonic-filters applications
- IEC 60358-42, Coupling capacitors and capacitor dividers - Part 4: AC or DC single-phase capacitor-divider and RC-divider connected between line and ground which which is a second of the (except for CVT's which belong to IEC 61869 series)

Under consideration.

Under consideration.

COUPLING CAPACITORS AND CAPACITOR DIVIDERS -

Part 2: AC or DC single-phase coupling capacitor connected between line and ground for power line carrier-frequency (PLC) application

1 Scope

Clause 1 of IEC 60358-1:2012 is applicable with the following additions:

This part of the IEC 60358 series applies to AC or DC single-phase coupling capacitors, with rated voltage $> 1\,000\,V$, connected between line and ground with a low voltage terminal either permanently earthed or connected to a device for power line carrier-frequency (PLC) applications at frequencies from 30 kHz to 500 kHz or similar applications (DC or AC) at power frequencies from 15 Hz to 60 Hz.

The transmission requirements for coupling devices for power line carrier (PLC) systems are defined in IEC 60481.

NOTE Diagrams of coupling capacitors to which this standard applies are given in Figure A.1.

2 Normative references

Clause 2 of IEC 60358-1:2012 is replaced by the following:

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.

IEC 60060-1, High-voltage test techniques – Part 1: General definitions and test requirements

IEC 60060-2, High-voltage test techniques – Part 2: Measuring systems

IEC 60358-1:2012, Coupling capacitors and capacitor dividers. - Part 1: General rules

IEC 60481, Coupling devices for power line carrier systems

IEC 61869-5, Instrument transformers – Part 5: Additional requirements for capacitor voltage transformers

3 Terms and definitions

Clause 3 of IEC 60358-1:2012 is applicable with the following additions:

For the purposes of this document, the terms and definitions given in Clause 3 of IEC 60358-1:2012, as well as the following apply.