

SLOVENSKI STANDARD
SIST EN 50470-1:2007/A1:2019
01-februar-2019

Oprema za merjenje električne energije (a.c.) - 1. del: Splošne zahteve, preskušanje in preskusni pogoji - Merilna oprema (razredni indeksi A, B in C) - Dopolnilo A1

Electricity metering equipment (a.c.) - Part 1: General requirements, tests and test conditions - Metering equipment (class indexes A, B and C)

Wechselstrom-Elektrizitätszähler - Teil 1: Allgemeine Anforderungen, Prüfungen und Prüfbedingungen - Messeinrichtungen (Genauigkeitsklassen A, B und C)
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Equipement de comptage d'électricité (c.a.) - Partie 1: Prescriptions générales, essais et conditions d'essai - Equipement de comptage (classes de précision A, B et C)

Ta slovenski standard je istoveten z: EN 50470-1:2006/A1:2018

ICS:

17.220.20	Merjenje električnih in magnetnih veličin	Measurement of electrical and magnetic quantities
91.140.50	Sistemi za oskrbo z elektriko	Electricity supply systems

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EUROPEAN STANDARD

EN 50470-1:2006/A1

NORME EUROPÉENNE

EUROPÄISCHE NORM

December 2018

ICS 91.140.50

English Version

Electricity metering equipment (a.c.) - Part 1: General requirements, tests and test conditions - Metering equipment (class indexes A, B and C)

Équipement de comptage d'électricité (c.a.) - Partie 1:
Prescriptions générales, essais et conditions d'essai -
Équipement de comptage (classes de précision A, B et C)

Wechselstrom-Elektrizitätszähler - Teil 1: Allgemeine
Anforderungen, Prüfungen und Prüfbedingungen -
Messeinrichtungen (Genauigkeitsklassen A, B und C)

This amendment A1 modifies the European Standard EN 50470-1:2006; it was approved by CENELEC on 2018-08-27. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment 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 amendment 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.

[SIST EN 50470-1:2007/A1:2019](https://standards.cenelec.eu/)

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Contents

	Page
European foreword	3
Introduction	4
1 Modifications to the Scope	4
2 Modifications to Clause 2, Normative references	4
3 Modifications to Clause 3, Terms and definitions	5
4 Modifications to Clause 5, Mechanical requirements and tests	6
5 Modifications to Clause 6, Climatic conditions	7
6 Modifications to Clause 7, Electrical requirements	8
7 Modifications to Annex A, Relationship between ambient air temperature and relative humidity	8
8 Modifications to Annex F, Test schedule – Recommended test sequences	8
9 Modifications to Annex ZZ	8
Annex ZZA (informative) Relationship between this European standard and the essential requirements of directive 2014/32/EU aimed to be covered	9
Annex ZZB (informative) Relationship between this European Standard and the essential requirements of Directive 2014/30/EU [2014 OJ L96] aimed to be covered	10

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European foreword

This document (EN 50470-1:2006/A1:2018) has been prepared by CLC/TC 13 “Electrical energy measurement and control”.

The following dates are fixed:

- latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2019-08-27
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2021-08-27

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

This document has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For the relationship with EU Directive(s) see informative Annex ZZA and Annex ZZB, which are integral parts of this document.

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EN 50470-1:2006/A1:2018 (E)

Introduction

The purpose of this amendment is to identify and remove all safety related requirements and tests of EN 50470-1:2006 that are replaced and extended by the complete set of requirements and tests in EN 62052-31:2016.

1 Modifications to the Scope

At the end of the clause, add the following:

"The safety aspect is covered by EN 62052-31:2016."

2 Modifications to Clause 2, Normative references

Add the following standard:

"EN 62052-31:2016, *Electricity metering equipment (AC) – General requirements, tests and test conditions – Part 31: Product safety requirements and tests (IEC 62052-31:2015)*

EN 55032:2015, *Electromagnetic Compatibility Of Multimedia Equipment - Emission Requirements*

EN 62058-11:2010, *Electricity metering equipment (AC) – Acceptance inspection – Part 11: General acceptance inspection methods (IEC 62058-11:2008)*"

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Remove the following standards:
<https://standards.iteh.ai/catalog/standards/sist/8dc285f9-8f02-4cc9-8d13-58caaf11db6c/sist-en-50470-1-2007-a1-2019>

"EN 60068-2-75:1997, *Environmental testing – Part 2-75: Tests – Test Eh: Hammer tests (IEC 60068-2-75:1997)*

EN 60085:2004, *Electrical insulation – Thermal classification (IEC 60085:2004)*

EN 60529:1991, + A1:2000, *Degrees of protection provided by enclosures (IP Code) (IEC 60529:1989 + A1:1999)*

EN 60695-2-10:2001, *Fire hazard testing – Part 2-10: Glowing/hot-wire based test methods – Glow-wire apparatus and common test procedure (IEC 60695-2-10:2000)*

EN 60695-2-11:2001, *Fire hazard testing – Part 2-11: Glowing/hot-wire based test methods – Glow-wire flammability test method for end-products (IEC 60695-2-11:2000)*

EN ISO 75-2:1996, *Plastics – Determination of temperature of deflection under load – Part 2: Plastic and ebonite (ISO 75-2:1993)*

HD 588.1 S1:1991, *High-voltage test techniques – Part 1: General definitions and test requirements (IEC 60060-1:1989 + corrigendum Mar. 1990)*

EN 55022:2006, *Information technology equipment – Radio disturbance characteristics – Limits and methods of measurement (CISPR 22:2005, mod.)"*

Update the reference to these standards:

"EN 61000-4-2:2009, *Electromagnetic compatibility (EMC) – Part 4-2: Testing and measurement techniques – Electrostatic discharge immunity test (IEC 61000-4-2:2008)*

EN 61000-4-3:2006, +A1:2008 +A2:2010, *Electromagnetic compatibility (EMC) – Part 4-3: Testing and measurement techniques – Radiated, radio-frequency, electromagnetic field immunity test*

EN 61000-4-4:2012, *Electromagnetic compatibility (EMC) – Part 4-4: Testing and measurement techniques – Electrical fast transient/burst immunity test (IEC 61000-4-4:2012)*

EN 61000-4-5:2014, *Electromagnetic compatibility (EMC) – Part 4-5: Testing and measurement techniques – Surge immunity test (IEC 61000-4-5:2014)*

EN 61000-4-6:2014, *Electromagnetic compatibility (EMC) – Part 4-6: Testing and measurement techniques – Immunity to conducted disturbances induced by radio-frequency fields (IEC 61000-4-6:2013)*

EN 61000-4-8:2010, *Electromagnetic compatibility (EMC) – Part 4-8: Testing and measurement techniques – Power frequency magnetic field immunity (IEC 61000-4-8:2009)*

EN 61000-4-12:2006, *Electromagnetic compatibility (EMC) – Part 4-12: Testing and measurement techniques – Oscillatory waves immunity test (IEC 61000-4-12:2006)*"

3 Modifications to Clause 3, Terms and definitions

3.2.18

auxiliary circuit

Replace the existing definition by: [SIST EN 50470-1:2007/A1:2019](https://standards.iteh.ai/catalog/standards/sist/8dc285f9-8f02-4cc9-8d13-8caaf11db6c/sist-en-50470-1-2007-a1-2019)
<https://standards.iteh.ai/catalog/standards/sist/8dc285f9-8f02-4cc9-8d13-8caaf11db6c/sist-en-50470-1-2007-a1-2019>

"See EN 62052-31:2016, 3.5.11"

3.3.1

indoor meter

Replace the existing definition by:

"See EN 62052-31:2016, 3.2.11"

3.3.2

outdoor meter

Replace the existing definition by:

"See EN 62052-31:2016, 3.2.12"

3.3.6

case

Replace the existing definition by:

"See EN 62052-31:2016, 3.2.5"

3.3.7

accessible conductive part

Change the title of this item from "accessible conductive part" to "accessible part"

Replace the existing definition by:

"See EN 62052-31:2016, 3.5.1"

EN 50470-1:2006/A1:2018 (E)**3.3.9****protective earth terminal**

Replace the existing definition by:

"See EN 62052-31:2016, 3.2.8 (protective conductor terminal)"

3.3.11**terminal cover**

Replace the existing definition by:

"See EN 62052-31:2016, 3.2.6"

Replace the existing definitions 3.4.1 to 3.4.2 by:

"See EN 62052-31:2016, 3.6"

Replace the existing definitions 3.4.4 to 3.4.9 by:

"See EN 62052-31:2016, 3.6"

3.7.1**type test**

Add the following at the end of the definition:

"See also EN 62052-31:2016, 3.4.1"

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4 Modifications to Clause 5, Mechanical requirements and tests

SIST EN 50470-1:2007/A1:2019

In 5.1 General mechanical requirements, replace the second paragraph and the dashed items by the following:

"Meters shall be designed and constructed in such a way as to avoid introducing any danger in normal use and under normal conditions, so as to ensure especially:

- protection against electrical shock, see EN 62052-31:2016, Clause 6;
- protection against mechanical hazards and stresses, see EN 62052-31:2016, Clauses 7 and 8;
- protection against spread of fire, see EN 62052-31:2016, Clause 9;
- personal safety against effects of excessive temperature, see EN 62052-31:2016, Clause 10;
- protection against penetration of dust and water, see EN 62052-31:2016, Clause 11;
- protection against liberated gases and substances, explosion and implosion, see EN 62052-31:2016, Clause 12."

In 5.2.2.1, Spring hammer test (Test Ehb), replace the existing text by:

"The test shall be performed as part of safety testing as specified in EN 62052-31:2016, 8.2."

In 5.4, Terminals – Terminal block(s) – Protective earth terminal, replace the existing text by:

"See EN 62052-31:2016, 6.5.2, 6.9.5 and 6.9.7."

In 5.5, Terminal cover(s), replace the existing text by:

"See EN 62052-31:2016, 6.9.4."

In 5.6, Clearance and creepage distances, replace the existing text by:

"See EN 62052-31:2016, 6.7."

In 5.7, Insulating encased meter of protective class II, replace the existing text by:

"See EN 62052-31:2016:

- 3.6.8, (protective) class II equipment;
- 5.4.5.1, Protective class and earthing;
- 6.5.2, Protective bonding;
- 6.8, Insulation requirements between circuits and parts, and Annex B, Examples for insulation between parts;
- 6.9.2, Insulating materials."

In 5.8, Resistance to heat and fire, replace the existing text by:

"See EN 62052-31:2016, Clause 9."

In 5.9, Protection against penetration of dust and water, replace the existing text by:

"See EN 62052-31:2016, Clause 11."

In 5.12, Marking of the meter, at the beginning of the subclause, add the following:

"This subclause shall be read together with EN 62052-31:2016, Clause 5.

For metrology related markings, the existing text applies. For safety related markings, EN 62052-31:2016 Clause 5 applies."

5 Modifications to Clause 6, Climatic conditions

In 6.1, Temperature range, at the beginning of the subclause, add the following:

"This subclause shall be read together with EN 62052-31:2016, 1.4.1, 1.4.2 and 1.4.3."

In 6.2, Relative humidity, replace the existing text by:

"The meter shall be designed to withstand the climatic conditions specified in EN 62052-31:2016, 1.4.1 c), 1.4.2 c) and 1.4.3. For a combined temperature and humidity test see 6.3.4 (of EN 50470-1)."