Elektri mõõteseadmed (vahelduvvool). Tarbimise ja koormuse kontrollimise seadmed. Osa 21: Erinõuded programmkelladele

Electricity metering (a.c.) Tariff and load control Part 21: Particular requirements for time switches

EESTI STANDARDI EESSÕNA **NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN 62054-21:2004 sisaldab Euroopa standardi EN 62054-21:2004 ingliskeelset teksti. Käesolev dokument on jõustatud 14.12.2004 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN 62054-21:2004 consists of the English text of the European standard EN 62054-21:2004. This document is endorsed on 14.12.2004 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.

Käsitlusala: Describes hardware and protocol specifications for local meter data exchange. In such systems, a hand-held unit (HHU) or a unit with equivalent functions is connected to a tariff device or a group of devices.	**Scope:** Describes hardware and protocol specifications for local meter data exchange. In such systems, a hand-held unit (HHU) or a unit with equivalent functions is connected to a tariff device or a group of devices.

ICS 91.140.50

Võtmesõnad:

EUROPEAN STANDARD **EN 62054-21**

NORME EUROPÉENNE

EUROPÄISCHE NORM October 2004

ICS 91.140.50 Partially supersedes EN 61038:1992 + A1:1996 + A2:1998

English version

Electricity metering (a.c.) – Tariff and load control Part 21: Particular requirements for time switches

(IEC 62054-21:2004)

Equipment de comptage de l'électricité (c.a.) –
Tarification et contrôle de charge
Partie 21: Prescriptions particulières pour horloges de tarification
(CEI 62054-21:2004)

Wechselstrom-Elektrizitätszähler –
Tarif- und Laststeuerung
Teil 21: Besondere Anforderungen an Schaltuhren
(IEC 62054-21:2004)

CENELEC

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

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

Ref. No. EN 62054-21:2004 E

Foreword

The text of document 13/1308/FDIS, future edition 1 of IEC 62054-21, prepared by IEC TC 13, Equipment for electrical energy measurement and load control, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 62054-21 on 2004-07-06.

This standard, in conjunction with EN 62052-21, supersedes EN 61038:1992 + A1:1996 + A2:1998.

This standard is to be used in conjunction with EN 62052-21 and the relevant parts of the EN 62059 series.

The following dates were fixed:

– latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2005-05-01
– latest date by which the national standards conflicting with the EN have to be withdrawn	(dow)	2007-07-01

This European Standard has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association and covers essential requirements of EC Directive(s). See Annex ZZ.

Annexes ZA and ZZ have been added by CENELEC.

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Endorsement notice

The text of the International Standard IEC 62054-21:2004 was approved by CENELEC as a European Standard without any modification.

Corrigendum to text of IEC 62054-21:2004

In subclause 7.6.4,

- **replace** "Field strength of the unmodulated signal 10 V/m" by "At field strength of 10 V/m (measured according to EN 61000-4-3)".

- **replace** "Field strength of the unmodulated signal 30 V/m" by "At field strength of 30 V/m (measured according to EN 61000-4-3)".

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Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

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

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

Publication	Year	Title	EN/HD	Year
IEC 62052-21	2004	Electricity metering equipment (AC) - General requirements, tests and test conditions Part 21: Tariff and load control equipment	EN 62052-21	-[1)]

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Annex ZZ
(informative)

Coverage of Essential Requirements of EC Directives

This European Standard has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association and within its scope the standard covers all relevant essential requirements as given in Article 4 of the EC Directive 89/336/EEC.

Compliance with this standard provides one means of conformity with the specified essential requirements of the Directive[s] concerned.

WARNING: Other requirements and other EC Directives may be applicable to the products falling within the scope of this standard.

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1) To be published.

INTERNATIONAL STANDARD

IEC 62054-21

First edition
2004-05

**Electricity metering (a.c.) –
Tariff and load control –**

**Part 21:
Particular requirements for time switches**

Reference number
IEC 62054-21:2004(E)

Publication numbering

As from 1 January 1997 all IEC publications are issued with a designation in the 60000 series. For example, IEC 34-1 is now referred to as IEC 60034-1.

Consolidated editions

The IEC is now publishing consolidated versions of its publications. For example, edition numbers 1.0, 1.1 and 1.2 refer, respectively, to the base publication, the base publication incorporating amendment 1 and the base publication incorporating amendments 1 and 2.

Further information on IEC publications

The technical content of IEC publications is kept under constant review by the IEC, thus ensuring that the content reflects current technology. Information relating to this publication, including its validity, is available in the IEC Catalogue of publications (see below) in addition to new editions, amendments and corrigenda. Information on the subjects under consideration and work in progress undertaken by the technical committee which has prepared this publication, as well as the list of publications issued, is also available from the following:

- **IEC Web Site (www.iec.ch)**

- **Catalogue of IEC publications**

  The on-line catalogue on the IEC web site (www.iec.ch/searchpub) enables you to search by a variety of criteria including text searches, technical committees and date of publication. On-line information is also available on recently issued publications, withdrawn and replaced publications, as well as corrigenda.

- **IEC Just Published**

  This summary of recently issued publications (www.iec.ch/online_news/ justpub) is also available by email. Please contact the Customer Service Centre (see below) for further information.

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INTERNATIONAL STANDARD

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Electricity metering (a.c.) – Tariff and load control –

Part 21: Particular requirements for time switches

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Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

PRICE CODE P

For price, see current catalogue

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

ELECTRICITY METERING (AC) – TARIFF AND LOAD CONTROL –

Part 21: Particular requirements for time switches

FOREWORD

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 62054-21 has been prepared by IEC technical committee 13: Equipment for electrical energy measurement and load control.

This standard, in conjunction with IEC 62052-21, cancels and replaces IEC 61038:1990, *Electricity metering – Tariff and load control – Particular requirements for time switches* and all amendments. .

This standard is to be used in conjunction with IEC 62052-21 and the relevant parts of the IEC 62059 series.

The text of this standard is based on the following documents:

FDIS	Report on voting
13/1308/FDIS	13/1317/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

IEC 62054 consists of the following parts, under the general title: *Electricity metering (a.c.) Tariff and load control*:

IEC 62054-11: Particular requirements for electronic ripple control receivers

(Replaces the particular requirements of IEC 61037.)

IEC 62054-21: Particular requirements for time switches

(Replaces the particular requirements of IEC 61038.)

The committee has decided that the contents of this publication will remain unchanged until 2013. At this date, the publication will be

- reconfirmed;
- withdrawn;
- replaced by a revised edition, or
- amended.

A bilingual version of this standard may be issued at a later date.

INTRODUCTION

This standard distinguishes between protective class I and protective class II equipment

The test levels are regarded as minimum values to guarantee the proper functioning of the equipment under normal working conditions. For special application, other test levels might be necessary and should be agreed on between the user and the manufacturer.

For information, the relevant parts of IEC 62052, IEC 62054 and IEC 62059 are listed below.

IEC 62052-21 Electricity metering equipment (a.c.) – General requirements, tests and test conditions – Part 21: Tariff and load control equipment

(Replaces the general requirements of IEC 61037 and IEC 61038.)

IEC 62054-11 Electricity metering (a.c.) – Tariff and load control – Part 11: Particular requirements for electronic ripple control receivers

(Replaces the particular requirements of IEC 61037.)

IEC 62054-21 Electricity metering (a.c.) – Tariff and load control – Part 21: Particular requirements for time switches

(Replaces the particular requirements of IEC 61038.)

IEC 62059-11 Electricity metering equipment – Dependability – Part 11: General concepts

IEC 62059-21 Electricity metering equipment – Dependability – Part 21: Collection of meter dependability data from the field

IEC 62059-41 Electricity metering equipment – Dependability – Part 41: Reliability prediction[1]

[1] To be published.

ELECTRICITY METERING (AC)– TARIFF AND LOAD CONTROL –

Part 21: Particular requirements for time switches

1 Scope

This part of IEC 62054 specifies particular requirements for the type test of newly manufactured indoor time switches with operation reserve that are used to control electrical loads, multi-tariff registers and maximum demand devices of electricity metering equipment.

The time switch keeps the real time, it may keep the date, it may be capable of handling leap years, it may support daylight saving, i.e. it modifies the deviation of local time to GMT according to the relevant regulations. The time switch may have a synchronization capability. The time switch also holds a schedule of switching actions, which may be specified in terms of time, day of the week, date within a month or a year. The time switch controls the output elements depending on the time and the schedule of switching actions stored.

This standard gives no requirements for constructional details internal to the time switch.

In the case where time switch functionality is integrated into multifunction electricity metering equipment, the relevant parts of this standard apply.

This standard covers time switches with analogue mechanical dials or electronic digital displays that are

– synchronous; or
– crystal-controlled.

This standard does not cover the acceptance tests and the conformity tests. Nevertheless, an example of what could be an acceptance test is given in Annex A .

The dependability aspect is covered by the documents of the IEC 62059 series.

When using this standard in conjunction with IEC 62052-21, the requirements of this standard take precedence over those of IEC 62052-21 with regard to any item already covered in it.

2 Normative references

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

IEC 62052-21:200X *Electricity metering equipment (a.c.) – General requirements, tests and test conditions – Part 21: Tariff and load control equipment* [2]

3 Terms and definitions

For the purposes of this document, the definitions of IEC 62052-21 apply.

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[2] To be published.