

---

---

**Merjenje električne energije (a.c./izmenični tok) – Krmiljenje tarif in bremen –  
21. del: Posebne zahteve za časovna stikala (IEC 62054-21:2004)**

Electricity metering (a.c.) - Tariff and load control - Part 21: Particular requirements  
for time switches (IEC 62054-21:2004)

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

[SIST EN 62054-21:2005](https://standards.iteh.ai/catalog/standards/sist/049e1209-799c-4297-85b9-954ea733c3f8/sist-en-62054-21-2005)

[https://standards.iteh.ai/catalog/standards/sist/049e1209-799c-4297-85b9-  
954ea733c3f8/sist-en-62054-21-2005](https://standards.iteh.ai/catalog/standards/sist/049e1209-799c-4297-85b9-954ea733c3f8/sist-en-62054-21-2005)

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

SIST EN 62054-21:2005

<https://standards.iteh.ai/catalog/standards/sist/049e1209-799c-4297-85b9-954ea733c3f8/sist-en-62054-21-2005>

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)

**ITeh STANDARD PREVIEW  
(standards.iteh.ai)**

[SIST EN 62054-21:2005](https://standards.iteh.ai/catalog/standards/sist/049e1209-799c-4297-85b9-954ea733c3f8/sist-en-62054-21-2005)

<https://standards.iteh.ai/catalog/standards/sist/049e1209-799c-4297-85b9-954ea733c3f8/sist-en-62054-21-2005>

This European Standard was approved by CENELEC on 2004-07-06. 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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

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

**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**

## 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.

**ITEH STANDARD PREVIEW**  
(standards.iteh.ai)  
<https://standards.iteh.ai/catalog/standards/sist/049e1209-799c-4297-85b9-95e737381c1c/iec-62054-21-2005>  
**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)".
-

**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.

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

**iTeh STANDARD PREVIEW**  
**Annex ZZ**  
**(standards.iteh.ai)**  
(informative)

**Coverage of Essential Requirements of EC Directives**

<https://standards.iteh.ai/catalog/standards/sist/049e1209-799c-4297-85b9-954ea733c3f8/sist-en-62054-21-2005>

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.

---

1) To be published.

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

SIST EN 62054-21:2005

<https://standards.iteh.ai/catalog/standards/sist/049e1209-799c-4297-85b9-954ea733c3f8/sist-en-62054-21-2005>

# INTERNATIONAL STANDARD

# IEC 62054-21

First edition  
2004-05

---

---

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

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

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

[SIST EN 62054-21:2005](https://standards.iteh.ai/catalog/standards/sist/049e1209-799c-4297-85b9-954ea733c3f8/sist-en-62054-21-2005)

<https://standards.iteh.ai/catalog/standards/sist/049e1209-799c-4297-85b9-954ea733c3f8/sist-en-62054-21-2005>

© IEC 2004 — Copyright - all rights reserved

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

International Electrotechnical Commission, 3, rue de Varembé, PO Box 131, CH-1211 Geneva 20, Switzerland  
Telephone: +41 22 919 02 11 Telefax: +41 22 919 03 00 E-mail: [inmail@iec.ch](mailto:inmail@iec.ch) Web: [www.iec.ch](http://www.iec.ch)



Commission Electrotechnique Internationale  
International Electrotechnical Commission  
Международная Электротехническая Комиссия

PRICE CODE

**P**

*For price, see current catalogue*

## CONTENTS

FOREWORD.....	3
INTRODUCTION.....	5
1 Scope.....	6
2 Normative references .....	6
3 Terms and definitions .....	6
4 Standard electrical values .....	7
5 Mechanical requirements and tests .....	7
5.1 Dials.....	7
5.2 Digital display.....	7
6 Climatic conditions, requirements and tests.....	7
7 Electrical requirements and tests.....	7
7.1 Supply voltage.....	7
7.2 Heating .....	8
7.3 Insulation .....	8
7.4 Output elements .....	9
7.5 Functional requirements and tests – accuracy.....	9
7.6 Electromagnetic compatibility (EMC) .....	12
7.7 Radio interference suppression.....	15
8 Test conditions and type test.....	15
<a href="https://standards.iteh.ai/catalog/standards/sist/049e1209-799c-4297-85b9-954ea733c318/sist-en-62054-21-2005">SIST EN 62054-21:2005</a>	
Annex A (informative) Acceptance tests.....	16

## 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.
- 2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
- 3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- 4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
- 5) IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with an IEC Publication.
- 6) All users should ensure that they have the latest edition of this publication.
- 7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 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.

**iTeh STANDARD PREVIEW**  
(standards.iteh.ai)  
<https://standards.iteh.ai/catalog/standards/sist/049e1209-799c-4297-85b9-954ea733c38/sist-en-62054-21-2005>

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<sup>1</sup>

[SIST EN 62054-21:2005](https://standards.iteh.ai/catalog/standards/sist/049e1209-799c-4297-85b9-954ea733c3f8/sist-en-62054-21-2005)

<https://standards.iteh.ai/catalog/standards/sist/049e1209-799c-4297-85b9-954ea733c3f8/sist-en-62054-21-2005>

---

<sup>1</sup> To be published.