

STN	Elektrické merače energie Testovacie zariadenia, techniky a postupy Časť 3: Automatizovaný systém testovania meračov (AMTS)	STN EN IEC 62057-3 35 6134
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Electrical energy meters - Test equipment, techniques and procedures - Part 3: Automatic meter testing system (AMTS)

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 08/24

Obsahuje: EN IEC 62057-3:2024, IEC 62057-3:2024

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EUROPEAN STANDARD

EN IEC 62057-3

NORME EUROPÉENNE

EUROPÄISCHE NORM

May 2024

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English Version

Electrical energy meters - Test equipment, techniques and procedures - Part 3: Automatic meter testing system (AMTS) (IEC 62057-3:2024)

Compteurs d'énergie électrique - Équipement, techniques et procédures d'essai - Partie 3: Système d'essai automatisé des compteurs d'énergie électrique (AMTS) (IEC 62057-3:2024)

Elektrische Energiezähler - Prüfgeräte, Techniken und Verfahren - Teil 3: Automatisches Zählerprüfsystem (AMTS) (IEC 62057-3:2024)

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EN IEC 62057-3:2024 (E)**European foreword**

The text of document 13/1916/FDIS, future edition 1 of IEC 62057-3, prepared by IEC/TC 13 "Electrical energy measurement and control" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 62057-3:2024.

The following dates are fixed:

latest date by which the document has to be implemented at national level (dop) 2025-02-28
by publication of an identical national standard or by endorsement

latest date by which the national standards conflicting with the (dow) 2027-05-28
document have to be withdrawn

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In the official version, for Bibliography, the following note has to be added for the standard indicated:

IEC 62052-11:2020 NOTE Approved as EN IEC 62052-11:2021 (not modified)¹

¹ As impacted by EN IEC 62052-11:2021+A11:2022 and EN IEC 62052-11:2021+A12:2024.

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

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NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cencenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60204-1 (mod)	2016	Safety of machinery - Electrical equipment of machines - Part 1: General requirements	EN 60204-1	2018
+ AMD1	2021		+ A1	— ²
IEC 61010-1	2010	Safety requirements for electrical equipment for measurement, control, and laboratory use - Part 1: General requirements	EN 61010-1	2010
+ A1 (mod)	2016		+ A1	2019
IEC 61140	-	Protection against electric shock - Common aspects for installation and equipment	EN 61140	-
IEC 61180	2016	High-voltage test techniques for low-voltage equipment - Definitions, test and procedure requirements, test equipment	EN 61180	2016
IEC 61326-1	2020	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 1: General requirements	EN IEC 61326-1	2021
IEC 62052-31	2015	Electricity metering equipment (AC) - General requirements, tests and test conditions - Part 31: Product safety requirements and tests	EN 62052-31	2016
IEC 62053-21	2020	Electricity metering equipment - Particular requirements - Part 21: Static meters for AC active energy (classes 0,5, 1 and 2)	EN IEC 62053-21	2021
-	-		+ A11	2021

² Under preparation. Stage at the time of publication: EN 60204-1:2018/prA1:2020.

EN IEC 62057-3:2024 (E)

IEC 62053-22	2020	Electricity metering equipment - Particular requirements - Part 22: Static meters for AC active energy (classes 0,1S, 0,2S and 0,5S)	EN IEC 62053-22	2021
-	-		+ A11	2021
IEC 62053-23	2020	Electricity metering equipment - Particular requirements - Part 23: Static meters for reactive energy (classes 2 and 3)	EN IEC 62053-23	2021
-	-		+ A11	2021
IEC 62053-24	2020	Electricity metering equipment - Particular requirements - Part 24: Static meters for fundamental component reactive energy (classes 0,5S, 1S, 1, 2 and 3)	EN IEC 62053-24	2021
-	-		+ A11	2021
IEC 62054-21	2004	Electricity metering (a.c.) - Tariff and load control - Part 21: Particular requirements for time switches	EN 62054-21	2004
+ AMD1	2017		+ A1	2017
IEC 62057-1	2023	Electrical energy meters - Test equipment, techniques and procedures - Part 1: Stationary meter test units (MTUs)	EN IEC 62057-1	2023
IEC 62058-31 (mod)2008		Electricity metering equipment (AC) - Acceptance inspection - Part 31: Particular requirements for static meters for active energy (classes 0,2 S, 0,5 S, 1 and 2)	EN 62058-31	2010



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INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Electrical energy meters – Test equipment, techniques and procedures –
Part 3: Automatic meter testing system (AMTS)**

**Compteurs d'énergie électrique – Équipement, techniques et procédures d'essai –
Partie 3: Système d'essai automatisé des compteurs d'énergie électrique (AMTS)**





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IEC Secretariat
3, rue de Varembe
CH-1211 Geneva 20
Switzerland

Tel.: +41 22 919 02 11
info@iec.ch
www.iec.ch

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IEC 62057-3

Edition 1.0 2024-04

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Electrical energy meters – Test equipment, techniques and procedures –
Part 3: Automatic meter testing system (AMTS)**

**Compteurs d'énergie électrique – Équipement, techniques et procédures d'essai –
Partie 3: Système d'essai automatisé des compteurs d'énergie électrique (AMTS)**

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**ELECTRICAL ENERGY METERS –
TEST EQUIPMENT, TECHNIQUES AND PROCEDURES –****Part 3: Automatic meter testing system (AMTS)**

FOREWORD

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The text of this International Standard is based on the following documents:

Draft	Report on voting
13/1916/FDIS	13/1919/RVD

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

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

A list of all parts in the IEC 62057 series, published under the general title *Electrical energy meters – Test equipment, techniques and procedures*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn, or
- revised.

INTRODUCTION

This document aims to define the basic performance requirements for AMTS, while the construction mode and the technical details depend on agreement between manufacturers and users, so as not to limit or inhibit innovation and technological advancement;

This document refers to the existing standards to the maximum extent so that the consistency in the IEC community can be ensured.

ELECTRICAL ENERGY METERS – TEST EQUIPMENT, TECHNIQUES AND PROCEDURES –

Part 3: Automatic meter testing system (AMTS)

1 Scope

This part of IEC 62057 applies to an automatic meter testing system (AMTS) permanently installed in a controlled environment. It covers the functions, technical requirements and acceptance methods of an AMTS. It also applies to a newly manufactured AMTS to test static active or reactive energy meters on 50 Hz or 60 Hz networks with an AC voltage up to 600 V (phase to neutral).

NOTE The controlled environment refers to places that meet the test requirements of meters.

This document defines the kind of AMTS that can continuously and automatically carry out all the test items specified in IEC 62058-31, including visual inspection, AC voltage test, no-load condition, starting current, accuracy and meter constant test.

This document does not apply to:

- data interfaces to the meter and test procedures of data interface;
- industrial controllers, industrial personal computers, and servers supplied along with the AMTS.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 60204-1:2016, *Safety of machinery - Electrical equipment of machines - Part 1: General requirements*

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IEC 61010-1:2010/AMD1:2016

IEC 61140, *Protection against electric shock – Common aspects for installation and equipment*

IEC 61180:2016, *High-voltage test techniques for low-voltage equipment – Definitions, test and procedure requirements, test equipment*

IEC 61326-1:2020, *Electrical equipment for measurement, control and laboratory use – EMC requirements – Part 1: General requirements*

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

IEC 62053-21:2020, *Electricity metering equipment – Particular requirements – Part 21: Static meters for AC active energy (classes 0,5, 1 and 2)*

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IEC 62053-22:2020, *Electricity metering equipment – Particular requirements – Part 22: Static meters for active energy (classes 0,1S, 0,2S and 0,5S)*

IEC 62053-23:2020, *Electricity metering equipment) – Particular requirements – Part 23: Static meters for reactive energy (classes 2 and 3)*

IEC 62053-24:2020, *Electricity metering equipment – Particular requirements – Part 24: Static meters for fundamental component reactive energy (classes 0,5S, 1S, 1, 2 and 3)*

IEC 62054-21:2004, *Electricity metering (a.c.) – Tariff and load control – Part 21: Particular requirements for time switches*
IEC 62054-21:2004/AMD1:2017

IEC 62057-1:2023, *Electrical energy meters – Test equipment, techniques and procedures – Part 1: Stationary meter test units (MTUs)*

IEC 62058-31:2008, *Electricity metering equipment (AC) – Acceptance inspection – Part 31: Particular requirements for static meters for active energy (classes 0,2 S,0,5 S,1 and 2)*

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