



BSI Standards Publication

Electricity metering equipment — Particular requirements

Part 24: Static meters for fundamental component
reactive energy (classes 0,5S, 1S, 1, 2 and 3)

National foreword

This British Standard is the UK implementation of EN IEC 62053-24:2021+A11:2021. It is derived from IEC 62053-24:2020. It supersedes BS EN IEC 62053-24:2021, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee PEL/13, Electricity Meters.

A list of organizations represented on this committee can be obtained on request to its committee manager.

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Amendments/corrigenda issued since publication

Date	Text affected
31 August 2021	Implementation of CENELEC amendment A11:2021: addition of Annex ZZ

English Version

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

Équipement de comptage de l'électricité - Exigences
particulières - Partie 24: Compteurs statiques d'énergie
réactive de composante fondamentale (classes 0,5S, 1S, 1,
2 et 3)
(IEC 62053-24:2020)

Elektrizitätszähler - Besondere Anforderungen - Teil 24:
Elektronische Grundschrwingungs-Blindverbrauchsähler
der Genauigkeitsklassen 0,5 S, 1 S, 1, 2 und 3
(IEC 62053-24:2020)

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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

European foreword

The text of document 13/1804/FDIS, future edition 2 of IEC 62053-24, 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 62053-24:2021.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2021-10-02
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2024-04-02

This document supersedes EN 62053-24:2015 and all of its amendments and corrigenda (if any).

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.

Endorsement notice

The text of the International Standard IEC 62053-24:2020 was approved by CENELEC as a European Standard without any modification.

Foreword to amendment A11

This document EN IEC 62053-24:2021/A11:2021 has been prepared by CLC/TC 13 "Electrical energy measurement and control".

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- latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2022-05-19
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2024-05-19

This document amends EN IEC 62053-24:2021.

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For relationship with EU Directive(s) / Regulation(s), see informative Annex ZZ, which is an integral part of this document.

Any feedback and questions on this document should be directed to the users' national committee. A complete listing of these bodies can be found on the CENELEC website.

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

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.

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.cenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60375	2018	Conventions concerning electric circuits	EN IEC 60375	2018
IEC 62052-11	2020	Electricity metering equipment - General requirements, tests and test conditions - Part 11: Metering equipment	EN IEC 62052-11	2021

Annex ZZ (informative)

Relationship between this European standard and the essential requirements of Directive 2014/30/EU [2014 OJ L96] aimed to be covered

This European standard has been prepared under a Commission's standardisation request as regards harmonised standards in support of Directive 2014/30/EU relating to electromagnetic compatibility, 'M/552' / C(2016) 7641 final of 30.11.2016, to provide one voluntary means of conforming to essential requirements of Directive 2014/30/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to electromagnetic compatibility [2014 OJ L96].

Once this standard is cited in the Official Journal of the European Union under that Directive, compliance with the normative clauses of this standard given in Table ZZ.1 confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding essential requirements of that Directive, and associated EFTA regulations.

Table ZZ.1 — Correspondence between this European standard and Annex I of Directive 2014/30/EU [2014 OJ L96]

Essential requirements of Directive 2014/30/EU	Clause(s) / sub-clause(s) of this EN	Remarks / Notes
Annex I. 1 (b) (electromagnetic compatibility), immunity	7.10 for the following tests of Table 4 : — Radiated, radio-frequency, electromagnetic field immunity test – test with current (related to 9.3.5) — Electrical fast transient/burst immunity test (related to 9.3.6) — Immunity to conducted disturbances, induced by radio-frequency fields (related to 9.3.7) — Test for immunity to conducted, differential mode disturbances and signalling in the frequency range 2 kHz to 150 kHz at AC power ports (related to 9.3.8) — Damped oscillatory wave immunity test (related to 9.3.11) — External static magnetic fields (related to 9.3.12) — Power frequency magnetic field immunity test (related to 9.3.13) — Harmonics in the current and voltage circuits – 5th harmonic test (related to 9.4.2.2) — Interharmonics in the current circuit – burst fired waveform test (related to 9.4.2.3) — Odd harmonics in the current circuit (related to 9.4.2.4) — DC and even harmonics – half-wave rectified waveform test (related to 9.4.2.5)	

WARNING 1 — Presumption of conformity stays valid only as long as a reference to this European standard is maintained in the list published in the Official Journal of the European Union. Users of this standard should consult frequently the latest list published in the Official Journal of the European Union.

WARNING 2 — Other Union legislation may be applicable to the product(s) falling within the scope of this standard.

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Figure A.1 – Acceptable percentage error limits, transformer operated (S) and directly connected meters, $I_n = 5 \text{ A}$, $I_{\text{max}} = 10 \text{ A}$, $\text{PF} = 1,0$ 16