

Svenska Elektriska Kommissionen, SEK

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Elmätare – Del 22: Fordringar på elektroniska mätare för aktiv energi av noggrannhetsklass 0,2 S och 0,5 S

*Electricity metering equipment (a.c.) –**Particular requirements –**Part 22: Static meters for active energy (classes 0,2 S and 0,5 S)*

Som svensk standard gäller europastandarden EN 62053-22:2003. Den svenska standarden innehåller den officiella engelska språkversionen av EN 62053-22:2003.

Nationellt förord

Europastandarden EN 62053-22:2003

består av:

- **europastandardens ikraftsättningsdokument**, utarbetat inom CENELEC
- **IEC 62053-22, First edition, 2003 - Electricity metering equipment (a.c.) - Particular requirements - Part 22: Static meters for active energy (classes 0,2 S and 0,5 S)**

utarbetad inom International Electrotechnical Commission, IEC.

Tidigare utgiven svensk standard SS-EN 60687, utgåva 1, 1993, gäller ej fr o m 2006-03-01.

Standarder underlättar utvecklingen och höjer elsäkerheten

Det finns många fördelar med att ha gemensamma tekniska regler för bl a säkerhet, prestanda, dokumentation, utförande och skötsel av elprodukter, elanläggningar och metoder. Genom att utforma sådana standarder blir säkerhetskraven tydliga och utvecklingskostnaderna rimliga samtidigt som marknadens acceptans för produkten eller tjänsten ökar.

Många standarder inom elområdet beskriver tekniska lösningar och metoder som åstadkommer den elsäkerhet som föreskrivs av svenska myndigheter och av EU.

SEK är Sveriges röst i standardiseringsarbetet inom elområdet

Svenska Elektriska Kommissionen, SEK, svarar för standardiseringen inom elområdet i Sverige och samordnar svensk medverkan i internationell och europeisk standardisering. SEK är en ideell organisation med frivilligt deltagande från svenska myndigheter, företag och organisationer som vill medverka till och påverka utformningen av tekniska regler inom elektrotekniken.

SEK samordnar svenska intressenters medverkan i SEKs tekniska kommittéer och stödjer svenska experters medverkan i internationella och europeiska projekt.

Stora delar av arbetet sker internationellt

Utformningen av standarder sker i allt väsentligt i internationellt och europeiskt samarbete. SEK är svensk nationalkommitté av International Electrotechnical Commission (IEC) och Comité Européen de Normalisation Electrotechnique (CENELEC).

Standardiseringsarbetet inom SEK är organiserat i referensgrupper bestående av ett antal tekniska kommittéer som speglar hur arbetet inom IEC och CENELEC är organiserat.

Arbetet i de tekniska kommittéerna är öppet för alla svenska organisationer, företag, institutioner, myndigheter och statliga verk. Den årliga avgiften för deltagandet och intäkter från försäljning finansierar SEKs standardiseringsverksamhet och medlemsavgift till IEC och CENELEC.

Var med och påverka!

Den som deltar i SEKs tekniska kommittéarbete har möjlighet att påverka framtida standarder och får tidig tillgång till information och dokumentation om utvecklingen inom sitt teknikområde. Arbetet och kontakterna med kollegor, kunder och konkurrenter kan gynnsamt påverka enskilda företags affärsutveckling och bidrar till deltagarnas egen kompetensutveckling.

Du som vill dra nytta av dessa möjligheter är välkommen att kontakta SEKs kansli för mer information.

SEK

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English version

**Electricity metering equipment (a.c.) –
Particular requirements
Part 22: Static meters for active energy (classes 0,2 S and 0,5 S)
(IEC 62053-22:2003)**

Equipement de comptage
de l'électricité (c.a.) –
Prescriptions particulières
Partie 22: Compteurs statiques d'énergie
active (classes 0,2 S et 0,5 S)
(CEI 62053-22:2003)

Wechselstrom-Elektrizitätszähler -
Besondere Anforderungen
Teil 22: Elektronische
Wirkverbrauchszähler der
Genauigkeitsklassen 0,2 S und 0,5 S
(IEC 62053-22:2003)

This European Standard was approved by CENELEC on 2003-03-01. 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, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, 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 13/1283/FDIS, future edition 1 of IEC 62053-22, 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 62053-22 on 2003-03-01.

This European Standard supersedes EN 60687:1992 + corrigendum March 1993.

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) 2003-12-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2006-03-01

Annexes designated "normative" are part of the body of the standard.
In this standard, annexes A, B and ZA are normative.
Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 62053-22:2003 was approved by CENELEC as a European Standard without any modification.

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

NOTE When 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 60044-1 (mod)	1996	Instrument transformers Part 1: Current transformers	EN 60044-1	1999
IEC 60736	1982	Testing equipment for electrical energy meters	-	-
IEC 62052-11	2003	Electricity metering equipment (AC) - General requirements, tests and test conditions Part 11: Metering equipment	EN 62052-11	2003
IEC 62053-61	1998	Electricity metering equipment (a.c.) Particular requirements – Part 61: Power consumption and voltage requirements	EN 62053-61	1998

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ELECTRICITY METERING EQUIPMENT (AC) – PARTICULAR REQUIREMENTS –

Part 22: Static meters for active energy (classes 0,2 S and 0,5 S)

1 Scope

This part of IEC 62053 applies only to newly manufactured static watt-hour meters of accuracy classes 0,2 S and 0,5 S, for the measurement of alternating current electrical active energy in 50 Hz or 60 Hz networks and it applies to their type tests only.

It applies only to transformer-operated static watt-hour meters for indoor application consisting of a measuring element and register(s) enclosed together in a meter case. It also applies to operation indicator(s) and test output(s). If the meter has a measuring element for more than one type of energy (multi-energy meters), or when other functional elements, like maximum demand indicators, electronic tariff registers, time switches, ripple control receivers, data communication interfaces, etc. are enclosed in the meter case, then the relevant standards for these elements also apply.

NOTE IEC 60044-1 describes transformers having a measuring range of $0,01 I_n$ to $1,2 I_n$, or of $0,05 I_n$ to $1,5 I_n$, or of $0,05 I_n$ to $2 I_n$ and transformers having a measuring range of $0,01 I_n$ to $1,2 I_n$ for accuracy classes 0,2 S and 0,5 S. As the measuring ranges of a meter and its associated transformers have to be matched and as only transformers of classes 0,2 S and 0,5 S have the accuracy required to operate the meters of this standard, the measuring range of the meter will be $0,01 I_n$ to $1,2 I_n$.

It does not apply to:

- watt-hour meters where the voltage across the connection terminals exceeds 600 V (line-to-line voltage for meters for polyphase systems);
- portable meters and meters for outdoor use;
- data interfaces to the register of the meter;
- reference meters.

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

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 60044-1:1996, *Instrument transformers – Part 1: Current transformers*

IEC 60736:1982, *Testing equipment for electrical energy meters*

IEC 62052-11:2002, *Electricity metering equipment (a.c.) – General requirements, tests and test conditions – Part 11: Metering equipment*

IEC 62053-61:1998, *Electricity metering equipment (a.c.) - Particular requirements - Part 61: Power consumption and voltage requirements*