SVENSK STANDARD SS-EN 62056-4-7

Fastställd	Utgåva	Sida	Ansvarig kommitté
2017-02-15	1	1 (1+40)	SEK TK 13

Elmätare – Datakommunikation för avläsning av elmätare och för styrning av tariff och belastning – Del 4-7: DLMS/COSEM transportskikt för IP-nät

Electricity metering data exchange – The THE DLMS/COSEM suite – Part 4-7: DLMS/COSEM transport layer for IP networks

Som svensk standard gäller europastandarden EN 62056-4-7:2016. Den svenska standarden innehåller den officiella engelska språkversionen av EN 62056-4-7:2016.

Nationellt förord

Europastandarden EN 62056-4-7:2016

består av:

– **europastandardens ikraftsättningsdokument,** utarbetat inom CENELEC

– **IEC 62056-4-7, First edition, 2015 - Electricity metering data exchange - The THE DLMS/COSEM suite - Part 4-7: DLMS/COSEM transport layer for IP networks**

utarbetad inom International Electrotechnical Commission, IEC.

Tidigare fastställd svensk standard SS-EN 62056-47, utgåva 1, 2008, gäller ej fr o m 2019-12-09.

ICS 17.220.00; 35.110.00; 91.140.50

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 62056-4-7

December 2016

ICS 17.220; 35.110; 91.140.50

Supersedes EN 62056-47:2007

English Version

Electricity metering data exchange - The DLMS/COSEM suite - Part 4-7: DLMS/COSEM transport layer for IP networks (IEC 62056-4-7:2015)

Échange des données de comptage de l'électricité - La suite DLMS/COSEM - Partie 4-7: Couche transport DLMS/COSEM pour réseaux IP
(IEC 62056-4-7:2015)

Datenkommunikation der elektrischen Energiemessung - DLMS/COSEM - Teil 4-7: DLMS/COSEM Transportschicht für IP-Netzwerke
(IEC 62056-4-7:2015)

This European Standard was approved by CENELEC on 2015-06-24. 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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Ref. No. EN 62056-4-7:2016 E

SEK Svensk Elstandard

European foreword

The text of document 13/1570/CDV, future edition 1 of IEC 62056-4-7, prepared by IEC/TC 13 "Electrical energy measurement and control" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 62056-4-7:2016.

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)	2017-06-09
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2019-12-09

This document supersedes EN 62056-47:2007.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC [and/or CEN] 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 62056-4-7:2015 was approved by CENELEC as a European Standard without any modification.

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

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

NOTE 1 When 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

Publication	Year	Title	EN/HD	Year
IEC 60050-300	2001	International Electrotechnical Vocabulary (IEV) - Electrical and electronic measurements and measuring instruments - Part 311: General terms relating to measurements - Part 312: General terms relating to electrical measurements - Part 313: Types of electrical measuring instruments - Part 314: Specific terms according to the type of instrument	-	-
IEC/TR 62051	1999	Electricity metering - Glossary of terms	-	-
IEC/TR 62051-1	2004	Electricity metering - Data exchange for meter reading, tariff and load control - Glossary of terms - Part 1: Terms related to data exchange with metering equipment using DLMS/COSEM	-	-
IEC 62056-5-3	2013	Electricity metering data exchange - The DLMS/COSEM suite - Part 5-3: DLMS/COSEM application layer	EN 62056-5-3	2014 [1)]
IEC 62056-6-2	2013	Electricity metering data exchange - The DLMS/COSEM suite - Part 6-2: COSEM interface classes	EN 62056-6-2	2013 [2)]
IEC 62056-9-7	2013	Electricity metering data exchange - The DLMS/COSEM suite - Part 9-7: Communication profile for TCP-UDP/IP networks	EN 62056-9-7	2013
STD 0006	-	User Datagram Protocol	-	-
STD 0007	-	Transmission Control Protocol	-	-

[1)] Superseded by EN 62056-5-3:2016 (IEC 62056-5-3:2016): DOW = 2019-12-09.

[2)] Superseded by EN 62056-6-2:2016 (IEC 62056-6-2:2016): DOW = 2019-12-09.

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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ELECTRICITY METERING DATA EXCHANGE – THE DLMS/COSEM SUITE –

Part 4-7: DLMS/COSEM transport layer for IP networks

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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The IEC takes no position concerning the evidence, validity and scope of this maintenance service.

The provider of the maintenance service has assured the IEC that he is willing to provide services under reasonable and non-discriminatory terms and conditions for applicants throughout the world. In this respect, the statement of the provider of the maintenance service is registered with the IEC. Information may be obtained from:

DLMS User Association
Zug/Switzerland
www.dlms.com

International Standard IEC 62056-4-7 has been prepared by IEC technical committee 13: Electrical energy measurement and control.

This first edition cancels and replaces IEC 62056-47 published in 2006. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

a) This standard is applicable now both for IP4 and IPv6 networks;

b) Latest editions of the IEC 62056 suite are referenced.

c) DLMS/COSEM IANA-registered port numbers added.

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

CDV	Report on voting
13/1570/CDV	13/1595/RVC

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.

A list of all parts in the IEC 62056 series, published under the general title *Electricity metering data exchange – The DLMS/COSEM suite*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC web site under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

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

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

INTRODUCTION

This standard specifies the DLMS/COSEM transport layer for IP (IPv4 or IPv6) networks. It shall be read together with IEC 62056-9-7:2013, *Electricity metering data exchange – The DLMS/COSEM suite – Part 9-7: Communication profile for TCP-UDP/IP networks.*

ELECTRICITY METERING DATA EXCHANGE – THE DLMS/COSEM SUITE –

Part 4-7: DLMS/COSEM transport layer for IP networks

1 Scope

This part of IEC 62056 specifies a connection-less and a connection oriented transport layer (TL) for DLMS/COSEM communication profiles used on IP networks.

These TLs provide OSI-style services to the service user DLMS/COSEM AL. The connection-less TL is based on the Internet Standard User Datagram Protocol (UDP). The connection-oriented TL is based on the Internet Standard Transmission Control Protocol (TCP).

The DLMS/COSEM TL consists of the UDP or TCP transport layer TCP and an additional sublayer, called wrapper.

Annex A shows how the OSI-style TL services can be converted to and from UDP and TCP function calls.

2 Normative references

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

IEC 60050-300:2001, *International Electrotechnical Vocabulary (IEV) – Electrical and electronic measurements and measuring instruments – Part 311: General terms relating to measurements – Part 312: General terms relating to electrical measurements – Part 313: Types of electrical measuring instruments – Part 314: Specific terms according to the type of instrument*

IEC TR 62051:1999, *Electricity metering – Glossary of terms*

IEC TR 62051-1:2004, *Electricity metering – Data exchange for meter reading, tariff and load control – Glossary of terms – Part 1: Terms related to data exchange with metering equipment using DLMS/COSEM*

IEC 62056-5-3:2013, *Electricity metering data exchange – The DLMS/COSEM suite – Part 5-3: DLMS/COSEM application layer*[1]

IEC 62056-6-2:2013, *Electricity metering data exchange – The DLMS/COSEM suite – Part 6-2: COSEM interface classes*[2]

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1 Edition 2 of IEC 62056-5-3 to be published.

2 Edition 2 of IEC 62056-6-2 to be published.

IEC 62056-9-7:2013, *Electricity metering data exchange – the DLMS/COSEM suite – Part 9-7: Communication profile for TCP-UDP/IP networks*

STD 0006, *User Datagram Protocol. Edited by Jon Postel, August 1980.* Available from: http://www.faqs.org/rfcs/std/std6.html

STD 0007, *Transmission Control Protocol. Edited by Jon Postel, September 1981.* Available from: http://www.faqs.org/rfcs/std/std7.html

NOTE See also Bibliography for other related Internet RFCs.