SLOVENSKI STANDARD
SIST EN 62056-8-5:2018

01-januar-2018

Nadomešča:

SIST-TS CLC/TS 52056-8-5:2015

Izmenjava podatkov pri merjenju električne energije - Niz DLMS/COSEM - 8-5. del: Ozkopasovni OFDM G3-PLC komunikacijski profil za sosednje mreže

Electricity metering data exchange - The DLMS/COSEM suite - Part 8-5: Narrow-band OFDM G3-PLC communication profile for neighbourhood networks

Ta slovenski standard je istoveten z: EN 62056-8-5:2017

ICS:

17.220.20	Merjenje električnih in magnetnih veličin	Measurement of electrical and magnetic quantities
35.240.50	Uporabniške rešitve IT v industriji	IT applications in industry
91.140.50	Sistemi za oskrbo z elektriko	Electricity supply systems

SIST EN 62056-8-5:2018 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 62056-8-5

November 2017

ICS 35.110; 17.220; 91.140.50

Supersedes CLC/TS 52056-8-5:2015

English Version

Electricity metering data exchange - The DLMS/COSEM suite - Part 8-5: Narrow-band OFDM G3-PLC communication profile for neighbourhood networks (IEC 62056-8-5:2017)

Échange des données de comptage de l'électricité - La suite DLMS/COSEM - Partie 8-5 : Profil de communication OFDM G3-CPL à bande étroite pour les réseaux de voisinage (IEC 62056-8-5:2017)

Datenkommunikation der elektrischen Energiemessung - DLMS/COSEM - Teil 8-5: Schmalband-OFDM-G3-PLC-Kommunikationsprofil für Nachbarschaftsnetzwerke (IEC 62056-8-5:2017)

This European Standard was approved by CENELEC on 2017-09-14. 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 62056-8-5:2017 E

European foreword

The text of document 13/1708/CDV, future edition 1 of IEC 62056-8-5, prepared by IEC/TC 13 "Electrical energy measurement and control" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 62056-8-5:2017.

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)	2018-06-14
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2020-09-14

This document supersedes CLC/TS 52056-8-5:2015.

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.

Endorsement notice

The text of the International Standard IEC 62056-8-5:2017 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 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 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	-	International Electrotechnical Vocabulary - 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 62056-1-0	-	Electricity metering data exchange - The DLMS/COSEM suite - Part 1-0: Smart metering standardisation framework	EN 62056-1-0	-
IEC 62056-4-7	2015	Electricity metering data exchange - The DLMS/COSEM suite -- Part 4-7: DLMS/COSEM transport layer for IP networks	EN 62056-4-7	2016
IEC 62056-5-3	2017	Electricity metering data exchange - The DLMS/COSEM suite - Part 6-2: COSEM interface classes	EN 62056-5-3	2017
IEC 62056-6-1	-	Electricity metering data exchange - The DLMS/COSEM suite - Part 6-1: Object Identification System (OBIS)	FprEN 62056-6-1	-
IEC 62056-6-2	-	Electricity metering data exchange - The DLMS/COSEM suite - Part 6-2: COSEM interface classes	FprEN 62056-6-2	-
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
IEC/TR 62051	-	Electricity metering - Glossary of terms	-	-
IEC/TR 62051-1	-	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	-	-
IEEE 802.15.4	-	IEEE Standard for Low-Rate Wireless Networks	-	-
IETF RFC 2460	-	Internet Protocol - Version 6 (IPv6) - Specification	-	-
IETF RFC 4193	-	Unique Local IPv6 Unicast Addresses	-	-
IETF RFC 4291	-	IP Version 6 Addressing Architecture	-	-
IETF RFC 4861	-	Neighbor Discovery for IP version 6 (IPv6)	-	-
IETF RFC 4862	-	IPv6 Stateless Address Autoconfiguration	-	-
IETF RFC 4944	-	Transmission of IPv6 Packets over IEEE 802.15.4 Networks	-	-

IETF RFC 6282	-	Compression Format for IPv6 Datagrams over IEEE 802.15.4-Based Networks	-	-
IETF RFC 768	-	User Datagram Protocol	-	-
ITU-T G.9903	2014	SERIES G: TRANSMISSION SYSTEMS AND MEDIA, DIGITAL SYSTEMS AND NETWORKS - Access networks - In premises networks - Narrow-band orthogonal frequency division multiplexing power line communication transceivers for G3-PLC networks	-	-

IEC 62056-8-5

Edition 1.0 2017-08

INTERNATIONAL STANDARD

colour inside

Electricity metering data exchange – The DLMS/COSEM suite – Part 8-5: Narrow-band OFDM G3-PLC communication profile for neighbourhood networks

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

ICS 17.220; 35.110; 91.140.50

ISBN 978-2-8322-4612-2

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CONTENTS

INTERNATIONAL ELECTROTECHNICAL COMMISSION

ELECTRICITY METERING DATA EXCHANGE – THE DLMS/COSEM SUITE –

Part 8-5: Narrow-band OFDM G3-PLC communication profile for neighbourhood networks

FOREWORD

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G3-PLC Alliance
<Tour ENEDIS
34 Place des Corolles
92079 Paris La Défense Cedex>
www.g3-plc.com

International Standard IEC 62056-8-5 has been prepared by IEC technical committee 13: Electrical energy measurement and control.

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

CDV	Report on voting
13/1708/CDV	13/1740/RVC

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

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.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

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

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

A bilingual version of this publication may be issued at a later date.

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

As defined in IEC 62056-1-0, the IEC 62056 DLMS/COSEM suite provides specific communication profile standards for communication media relevant for smart metering.

Such communication profile standards specify how the COSEM data model and the DLMS/COSEM application layer can be used on the lower, communication media-specific protocol layers.

Communication profile standards refer to communication standards that are part of the IEC 62056 DLMS/COSEM suite or to any other open communication standard.

This International Standard specifies the DLMS/COSEM communication profile for ITU-T G.9903:2014 PLC communication based on OFDM technology.

ITU-T G.9903 PLC is designed to meet the following aims:

- Robustness: the communication profile shall be suited to severe powerline environments (see 5.3.2);
- Performance and scalability: it embeds adaptive modulation to use the proper modulation according to the quality of the link (see 5.3.2) within dense environments (up to 2 000 nodes in the same PAN);
- Security: it shall offer a secure environment (see 7.4);
- Openness: it shall be based on open standards in order to support multi-supplier solutions (see Clause 5);
- Flexibility and future proof: it shall be able to support future applications through using IPv6 networking capabilities (see 5.3.4).

This standard follows the rules defined in IEC 62056-5-3:2017, Annex A.