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Electricity metering data exchange - The DLMS/COSEM suite - Part 6-1: Object Identification System (OBIS)

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 62056-6-1

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Supersedes EN 62056-6-1:2013

English Version

Electricity metering data exchange - The DLMS/COSEM suite - Part 6-1: Object Identification System (OBIS) (IEC 62056-6-1:2015)

Echange des données de comptage de l'électricité - La suite DLMS/COSEM - Partie 6-1: Système d'identification des objets (OBIS)
(IEC 62056-6-1:2015)

Datenkommunikation der elektrischen Energiemessung - DLMS/COSEM - Teil 6-1: COSEM Object Identification System (OBIS)
(IEC 62056-6-1:2015)

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European Committee for Electrotechnical Standardization
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European foreword

The text of document 13/1649/FDIS, future edition 2 of IEC 62056-6-1, prepared by IEC/TC 13 "Electrical energy measurement, tariff- and load control" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 62056-6-1:2016.

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• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2019-12-09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 62056-6-1:2013.

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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
		Communication system for meters and remote reading of meters - Part 1: Data exchange	EN 13757-1	2002
IEC 62053-23	2003	Electricity metering equipment (a.c.) - Particular requirements -- Part 23: Static meters for reactive energy (classes 2 and 3)	EN 62053-23	2003
IEC 62056-6-2	-	Electricity metering data exchange - The DLMS/COSEM suite - Part 6-2: COSEM interface classes	EN 62056-6-2	-
IEC 62056-21	2002	Electricity metering - Data exchange for meter reading, tariff and load control -- Part 21: Direct local data exchange	EN 62056-21	2002
IEC/TR 61000-2-8	2002	Electromagnetic compatibility (EMC) -- Part-2-8: Environment - Voltage dips and short interruptions on public electric power supply systems with statistical measurement results		-
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	-	-

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INTRODUCTION

This second edition of IEC 62056-6-1 has been prepared by IEC TC13 WG14 with a significant contribution of the DLMS User Association, its D-type liaison partner.

This edition is in line with the DLMS UA Blue Book Edition 11.0. This edition specifies new OBIS codes related to new applications and includes some editorial improvements.

In 2014, the DLMS UA has published Blue Book Edition 12.0 adding several new features regarding functionality, efficiency and security while keeping full backwards compatibility.

The intention of the DLMS UA is to bring also these latest developments to international standardization. Therefore, IEC TC13 WG14 launched a project to bring these new elements also to the IEC 62056 series that will lead to Edition 3.0 of the standard

Data identification

The competitive electricity market requires an ever-increasing amount of timely information concerning the usage of electrical energy. Recent technology developments enable to build intelligent static metering equipment, which is capable of capturing, processing and communicating this information to all parties involved.

To facilitate the analysis of metering information, for the purposes of billing, load, customer and contract management, it is necessary to uniquely identify data items, whether collected manually or automatically, via local or remote data exchange, in a manufacturer-independent way. The definition of identification codes to achieve this – the OBIS codes – is based on DIN 43863-3:1997, *Electricity meters – Part 3: Tariff metering device as additional equipment for electricity meters – EDIS – Energy Data Identification System.*

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ELECTRICITY METERING DATA EXCHANGE – THE DLMS/COSEM SUITE –

Part 6-1: Object Identification System (OBIS)

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1 Scope

This part of IEC 62056 specifies the overall structure of the OBject Identification System (OBIS) and the mapping of all commonly used data items in metering equipment to their identification codes.

OBIS provides a unique identifier for all data within the metering equipment, including not only measurement values, but also abstract values used for configuration or obtaining information about the behaviour of the metering equipment. The ID codes defined in this standard are used for the identification of:

- logical names of the various instances of the ICs, or objects, as defined in IEC 62056-6-2;
- data transmitted through communication lines;
- data displayed on the metering equipment, see Clause A.2.

This standard applies to all types of metering equipment, such as fully integrated meters, modular meters, tariff attachments, data concentrators, etc.

To cover metering equipment measuring energy types other than electricity, combined metering equipment measuring more than one type of energy or metering equipment with several physical measurement channels, the concepts of medium and channels are introduced. This allows meter data originating from different sources to be identified. While this standard fully defines the structure of the identification system for other media, the mapping of non-electrical energy related data items to ID codes needs to be completed separately.

NOTE EN 13757-1 defines identifiers for metering equipment other than electricity: heat cost allocators, cooling, heating, gas, cold water and hot water.

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 TR 61000-2-8:2002, *Electromagnetic compatibility (EMC) – Part 2-8: Environment – Voltage dips and short interruptions on public electric power supply systems with statistical measurement results*

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 62053-23:2003, *Electricity metering equipment (a.c.) – Particular requirements – Part 23: Static meters for reactive energy (classes 2 and 3)*