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Standards

Irish Standard
I.S. EN 62056-6-1:2016

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

I.S. EN 62056-6-1:2016

Incorporating amendments/corrigenda/National Annexes issued since publication:

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National Foreword

I.S. EN 62056-6-1:2016 is the adopted Irish version of the European Document EN 62056-6-1:2016, Electricity metering data exchange - The DLMS/COSEM suite - Part 6-1: Object Identification System (OBIS)

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EUROPEAN STANDARD

EN 62056-6-1

NORME EUROPÉENNE

EUROPÄISCHE NORM

December 2016

ICS 17.220; 35.110; 91.140.50

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
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

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

EN 62056-6-1:2016

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- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2019-12-09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

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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.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
		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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IEC 62056-6-1

Edition 2.0 2015-11

INTERNATIONAL STANDARD

NORME INTERNATIONALE

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

**Échange des données de comptage de l'électricité – La suite DLMS/COSEM –
Partie 6-1: Système d'identification des objets (OBIS)**





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IEC 62056-6-1

Edition 2.0 2015-11

INTERNATIONAL STANDARD

NORME INTERNATIONALE

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

**Échange des données de comptage de l'électricité – La suite DLMS/COSEM –
Partie 6-1: Système d'identification des objets (OBIS)**

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CONTENTS

FOREWORD.....	5
INTRODUCTION.....	7
1 Scope.....	8
2 Normative references	8
3 Terms, definitions and abbreviations	9
4 OBIS code structure	9
4.1 Value groups and their use.....	9
4.2 Manufacturer specific codes	10
4.3 Reserved ranges.....	10
4.4 Summary of rules for manufacturer, utility, consortia and country specific codes.....	10
4.5 Standard object codes.....	11
5 Value group definitions – overview	11
5.1 Value group A	11
5.2 Value group B	12
5.3 Value group C.....	12
5.3.1 General	12
5.3.2 Abstract objects	13
5.4 Value group D.....	13
5.4.1 General	13
5.4.2 Consortia specific identifiers.....	13
5.4.3 Country specific identifiers	14
5.4.4 Identification of general and service entry objects.....	15
5.5 Value group E	15
5.6 Value group F	15
5.6.1 General	15
5.6.2 Identification of billing periods	16
6 Abstract objects (Value group A = 0).....	16
6.1 General and service entry objects – Abstract	16
6.2 Error registers, alarm registers / filters / descriptor objects – Abstract	20
6.3 List objects – Abstract.....	20
6.4 Register table objects – Abstract	20
6.5 Data profile objects – Abstract.....	21
7 Electricity (Value group A = 1).....	21
7.1 Value group C codes – Electricity (see Table 12 and Figure 2).....	21
7.2 Value group D codes – Electricity	23
7.2.1 Processing of measurement values (see Table 13)	23
7.2.2 Use of value group D for identification of other objects.....	25
7.3 Value group E codes – Electricity	25
7.3.1 General	25
7.3.2 Tariff rates	25
7.3.3 Harmonics	26
7.3.4 Phase angles.....	26
7.3.5 Transformer and line loss quantities	27
7.3.6 UNIPEDA voltage dips	30
7.3.7 Use of value group E for the identification of other objects.....	30

7.4	Value group F codes – Electricity	30
7.4.1	Billing periods	30
7.4.2	Multiple thresholds	31
7.5	OBIS codes – Electricity	31
7.5.1	General and service entry objects – Electricity	31
7.5.2	Error register objects – Electricity	34
7.5.3	List objects – Electricity	35
7.5.4	Data profile objects – Electricity	35
7.5.5	Register table objects – Electricity	35
8	Other media (Value group A= 15)	36
8.1	General	36
8.2	Value group C codes – Other media	36
8.3	Value group D codes – Other media	36
8.4	Value group E codes – Other media	36
8.5	Value group F codes – Other media	36
Annex A	(normative) Code presentation	37
A.1	Reduced ID codes (e.g. for IEC 62056-21)	37
A.2	Display	37
A.3	Special handling of value group F	37
A.4	COSEM	38
Annex B	(informative) Significant technical changes with respect to IEC 62056-6-1:2013	39
Bibliography	40
Index	41
Figure 1	– OBIS code structure and use of value groups	10
Figure 2	– Quadrant definitions for active and reactive power	23
Figure 3	– Model of the line and the transformer for calculation of loss quantities	27
Figure A.1	– Reduced ID code presentation	37
Table 1	– Rules for manufacturer, utility, consortia and country specific codes	11
Table 2	– Value group A codes	12
Table 3	– Value group B codes	12
Table 4	– Value group C codes – Abstract objects	13
Table 5	– Value group D codes – Consortia specific identifiers	13
Table 6	– Value group D codes – Country specific identifiers	14
Table 7	– OBIS codes for general and service entry objects	16
Table 8	– OBIS codes for error registers, alarm registers and alarm filters – Abstract	20
Table 9	– OBIS codes for list objects – Abstract	20
Table 10	– OBIS codes for register table objects – Abstract	20
Table 11	– OBIS codes for data profile objects – Abstract	21
Table 12	– Value group C codes – Electricity	21
Table 13	– Value group D codes – Electricity	23
Table 14	– Value group E codes – Electricity – Tariff rates	26
Table 15	– Value group E codes – Electricity – Harmonics	26
Table 16	– Value group E codes – Electricity – Extended phase angle measurement	27

Table 17 – Value group E codes – Electricity – Transformer and line losses.....	28
Table 18 – Value group E codes – Electricity – UNIPED voltage dips.....	30
Table 19 – OBIS codes for general and service entry objects – Electricity.....	31
Table 20 – OBIS codes for error register objects – Electricity.....	34
Table 21 – OBIS codes for list objects – Electricity.....	35
Table 22 – OBIS codes for data profile objects – Electricity.....	35
Table 23 – OBIS codes for register table objects – Electricity.....	35
Table 24 – Value group C codes – Other media.....	36
Table A.1 – Example of display code replacement.....	37
Table A.2 – Value group F – Billing periods.....	38

INTERNATIONAL ELECTROTECHNICAL COMMISSION

ELECTRICITY METERING DATA EXCHANGE – THE DLMS/COSEM SUITE –

Part 6-1: Object Identification System (OBIS)

FOREWORD

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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 62056-6-1 has been prepared by IEC technical committee 13:
Electrical energy measurement and control.

This second edition cancels and replaces the first edition of IEC 62056-6-1, published in 2013. It constitutes a technical revision.

The main technical changes with respect to the previous edition are listed in Annex B (informative).

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

FDIS	Report on voting
13/1649FDIS	13/1658/RVD

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 the 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.

Future standards in this series will carry the new general title as cited above. Titles of existing standards in this series will be updated at the time of the next edition.

The numbering scheme has changed from IEC 62056-XY to IEC 62056-X-Y. For example IEC 62056-61 becomes IEC 62056-6-1.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC website 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.

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*.

ELECTRICITY METERING DATA EXCHANGE – THE DLMS/COSEM SUITE –

Part 6-1: Object Identification System (OBIS)

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*

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