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English Version

Electricity metering data exchange - The DLMS/COSEM suite -
Part 8: SMITP B-PSK PLC communication profile for
neighbourhood networks - Including: The Original-SMITP PLC B-
PSK communication profile, The Original-SMITP Local data
exchange profile and The Original-SMITP IP communication
profile

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Foreword

This document (CLC/TS 50568-8:2015) has been prepared by CLC/TC 13, "Electrical energy measurement and control".

The following date is fixed:

- latest date by which the existence of (doa) 2015-07-24
this document has to be announced
at national level

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This document has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association.

The European Committee for Electrotechnical Standardization (CENELEC) draws attention to the fact that it is claimed that compliance with this International Standard may involve the use of a maintenance service concerning the stack of protocols on which the present Technical Specification CLC/TS 50568 is based.

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

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Introduction

This Technical Specification is based on the results of the European OPEN Meter project, Topic Energy 2008.7.1.1, Project no.: 226369, www.openmeter.com.

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1 Scope

This Technical Specification contains 4 profile specifications

- the DLMS/COSEM SMITP B-PSK PLC Profile (clause 4)
- the Original-SMITP B-PSK PLC Profile (clause 5)
- the Original-SMITP IP Profile (clause 6)
- the Original-SMITP Local data exchange profile (clause 7)

The **DLMS/COSEM SMITP B-PSK profile** (see Clause 4) defines the use of the CLC/TS 50568-4 communication protocol and methods to access and exchange data modelled by the COSEM objects of EN 62056-6-2 via the EN 62056-5-3 application layer. This clause is in line with the DLMS/COSEM suite as described in EN 62056-1-0.

The **Original-SMITP Profiles** (Clauses 5, 6 and 7) define the use of the CLC/TS 50568-4 communication protocol and methods to access and exchange data modelled by the Original-SMITP Data Model (clause 10) via the Original-SMITP Application Layer (Clause 9). These clauses are not part of the DLMS/COSEM suite as described EN 62056-1-0.

NOTE The expression Original-SMITP refers to the open Smart Metering Information and Telecommunication Protocol originally developed and maintained by the Meters and More Association (see Foreword). The Original SMITP specifications were developed prior to the availability of the DLMS/COSEM SMITP B-PSK profile.

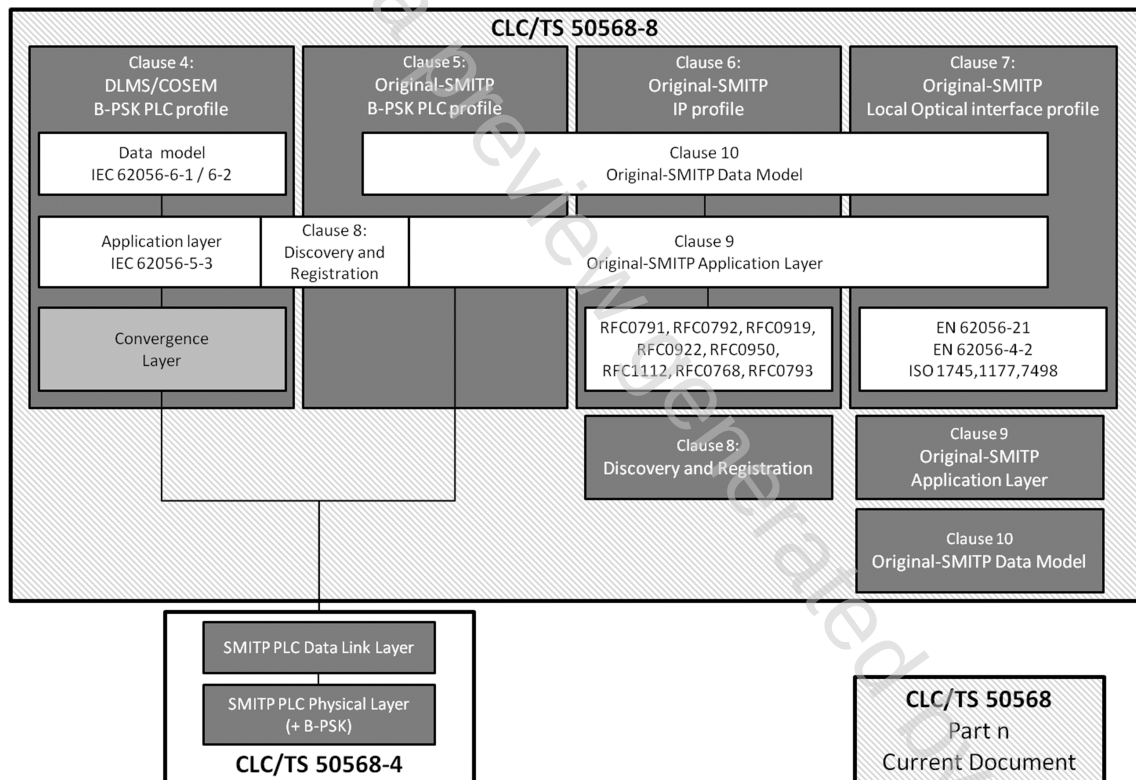


Figure 1 – Document structure of CLC/TS 50568-8

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.

CLC/TS 50568-4:2015, *Electricity metering data exchange — The Smart Metering Information and Telecommunication Protocols (SMITP) suite — Part 4: Physical layer based on B-PSK modulation + Data Link Layer*

EN 62056-21, *Electricity metering — Data exchange for meter reading, tariff and load control — Direct local data exchange (IEC 62056-21)*

EN 62056-42, *Electricity metering — Data exchange for meter reading, tariff and load control — Part 42: Physical layer services and procedures for connection-oriented asynchronous data exchange (IEC 62056-42)*

EN 62056-5-3, *Electricity metering data exchange – The DLMS/COSEM Suite - Part 5-3: DLMS/COSEM application layer (IEC 62056-5-3)*

EN 62056-6-2, *Electricity metering data exchange – The DLMS/COSEM Suite - Part 6-2: COSEM Interface classes (IEC 62056-6-2)*

SP 800-38A, Morris Dworkin, *Recommendation for Block Cipher Modes of Operation - Methods and Techniques*, December 2001

NIST SP 800-38B, Morris Dworkin, *Recommendation for Block Cipher Modes of Operation: The CMAC Mode for Authentication*, May 2005

ISO 1745, *Information processing — Basic mode control procedures for data communication systems*

ISO 1177, *Information processing — Character structure for start/stop and synchronous character oriented transmission*

ISO 7498, *Information processing systems — Open systems interconnection — Basic reference model*