

ICS 17.220.20

CCS N 22



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 17215.676-2018

**Electricity metering data exchange -- The DLMS/COSEM suite --
Part 76: The 3-layer, connection-oriented HDLC based
communication profile**

Issued on: December 28, 2018

Implemented on: July 1, 2019

**Issued by: State Administration for Market Regulation, China National
Standardization Administration**

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Foreword

GB/T 17215 "AC measuring equipment" is divided into several parts, GB/T 17215.6 "DLMS/COSEM component electrical measurement data

Exchange is divided into the following sections.

- Part 10. Intelligent Measurement Standardization Framework;
- Part 11. DLMS/COSEM communication configuration standard template;
- Part 31. Local area network use based on twisted pair carrier signals;
- Part 46. Data link layer using HDLC protocol;
- Part 47. DLMS/COSEM transmission layer based on IP network;
- Part 53. DLMS/COSEM application layer;
- Part 61. Object Identification System (OBIS);
- Part 62. COSEM interface class;
- Part 73. Wired and wireless M-Bus communication configurations for local and community networks;
- Part 76. HDLC-based connection-oriented three-layer communication configuration;
- Part 91. Communication configuration using the WEB service to access the COSEM server via CAS;
- Part 97. Communication configuration based on TCP-UDP/IP network.

This part is the 76th part of GB/T 17215.6.

This part is drafted in accordance with the rules given in GB/T 1.1-2009.

This section uses the translation method equivalent to IEC 62056-7-6.2013 "Electrical Measurement Data Exchange DLMS/COSEM Components Sections 7-6

Part. HDLC-based connection-oriented Layer 3 communication configuration.

The documents of our country that have a consistent correspondence with the international documents referenced in this part are as follows.

---GB/T 17215.646-2018 Electrical measurement data exchange DLMS/COSEM components - Part 46. Based on HDLC

Data link layer of the protocol (IEC 62056-46.2002, IDT);

---GB/T 17215.653-2018 Electrical Measurement Data Exchange DLMS/COSEM Components Part 53. DLMS/CO-

SEM application layer (IEC 62056-5-3..2017, IDT);

--- GB/T 19897.1-2005 Automatic meter reading system - Low-level communication protocol - Part 1. Direct local data exchange (IEC 62056-21.2002, MOD);

--- GB/T 19897.3-2005 Automatic meter reading system - Low-level communication protocol - Part 4. Connection-oriented asynchronous data exchange

Physical layer service process (IEC 62056-42.2002, IDT).

This section has made the following editorial changes.

--- The standard name was changed from part 7-6 to part 76.

1 Scope

This part of GB/T 17215.6 specifies HDLC-based connection-oriented DLMS/COSEM three-layer communication configuration.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only dated versions apply to this article.

Pieces. For undated references, the latest edition (including all amendments) applies to this document.

IEC 62056-21.2002 Electrical measurement data exchange, meter reading, rate and load control - Part 21. Direct local data exchange

(Electricity metering data exchange for meter reading, tariff and load control - Part 21. Direct local Data exchange)

IEC 62056-42.2002 Electrical measurement data exchange, meter reading, rates and load control - Part 42. Connection-oriented asynchronous data

Physical layer services and processes exchanged

(Electricity metering data exchange for meter reading, tariff and load control - Part 42.

Physical layer services and procedures for connection-oriented asynchronous data exchange)
Change)

IEC 62056-46:2002 Data exchange for metering, rate and load control - Part 46. s

Data link layer (Electricity metering - Data exchange for meter reading, tariff and load control - Part 46.

Data link layer using HDLC protocol)

Amendment 1:2006

IEC 62056-5-3:2013 Electrical Measurement Data Exchange DLMS/COSEM Components
Part 5-3. DLMS/COSEM

Use layer (Electricity metering data exchange - The DLMS/COSEM suite - Part 5-3.
DLMS/COSEM application

Layer)

3 Terms, definitions and abbreviations

The following abbreviations apply to this document.

AA. Application Association (Application Association);

AARQ. Application Connection Request - one of the ACPDUs of the ACSE
(A-Associate Request - an APDU of the ACSE);

ACSE. Connection Control Service Element (Association Control Service Element);

AL. Application Layer (Application Layer);

APDU. Application Layer Protocol Data Unit (Application Layer Protocol Data Unit);

ASO. Application Service Object (Application Service Object);

Client. The site requesting service, in the HDLC-based connection-oriented three-layer
communication configuration as the primary station (A station, asking

for services. In the case of the 3-layer, CO HDLC based profile it is the master station);

.cnf. confirm the service primitive (confirm service primitive);