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

GB/T 28847.6-2023

**Building automation and control systems - Part 6: Data
communication protocol conformance testing**

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foreword

This document is in accordance with the provisions of GB/T 1:1-2020 "Guidelines for Standardization Work Part 1: Structure and Drafting Rules for Standardization Documents"

drafting:

This document is Part 6 of GB/T 28847 "Building Automation and Control Systems": GB/T 28847 has released the following parts:

- Part 1: Overview;
- Part 2: Hardware;
- Part 3: Function;
- Part 5: Data communication protocol;
- Part 6: Data communication protocol conformance test:

This document was drafted with reference to ISO 16484-6:2014 "Building Automation and Control Systems Part 6: Data Communication Conformance Test":

The degree of consistency is not equivalent:

Introduction

GB/T 28847 "Building Automation and Control Systems" is proposed to be divided into seven parts:

- Part 1: Overview;
- Part 2: Hardware;
- Part 3: Function;
- Part 4: Application;

--- Part 5: Data communication protocol;

--- Part 6: Data communication protocol conformance test;

--- Part 7: Engineering realization:

This document is Part 6 of GB/T 28847 "Building Automation and Control Systems", which is used to verify the consistency of data communication protocols in Part 5

Whether the network layer protocol, logical link layer protocol, data link layer protocol, application service and other functions in the performance statement (PICS) can be implemented correctly, and

Realize the data communication and interconnection among the system management equipment, control equipment, on-site execution equipment, and network equipment hardware specified in Part 2:

Communication, meeting the information security and confidentiality, monitoring function, display function, operation function, redundancy function, control function, data

Management function, device management function, recording function, self-diagnosis function, communication function, integration function and other functions, etc., and comply with Part 1

The overall requirements of the system overview can realize the analysis, classification, processing and judgment of various types of information collected, and the distributed monitoring of various equipment

Control and management, so that each subsystem and its equipment are always running in an orderly, coordinated, efficient and controlled state:

Building Automation and Control Systems

Part 6: Data communication protocol conformance test

1 Scope

This document specifies the content of the data communication protocol conformance test in the building automation and control system, including: protocol implementation conformance statement

EPICS file rules, protocol implementation conformance statement EPICS test content, conformance test script language TCSL regulations, supported

Supporting object function test, application service startup test, application service execution test, network layer protocol test, logical link layer protocol test, data

According to link layer protocol test, special function test, IP function test and test result report, etc:

This document is applicable to the conformance test of data communication protocols between devices in building automation and control systems:

2 Normative references

This document has no normative references:

3 Terms and Definitions

The following terms and definitions apply to this document:

3:1

local network localnetwork

A network to which BACnet devices are directly connected:

3:2

remotenetwork

A network of BACnet devices can only be accessed through one or more routers:

3:3

Test database testdatabase

A database of BACnet functions and objects created by reading the contents of EPICS:

4 Symbols and abbreviations

4:1 Symbols

The following symbols apply to this document:

C: Conditional

L: Data Link (Prefix) [DataLink (Prefix)]

M: Mandatory