BS EN 16836-3:2016

BSI Standards Publication

Communication systems for meters — Wireless mesh networking for meter data exchange

Part 3: Energy profile specification dedicated application layer

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National foreword

This British Standard is the UK implementation of EN 16836-3:2016.

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A list of organizations represented on this committee can be obtained on request to its secretary.

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Communication systems for meters - Wireless mesh networking for meter data exchange - Part 3: Energy profile specification dedicated application layer

Systèmes de communication des compteurs - Réseau maillé sans fil pour l'échange de données de compteurs - Partie 3 : Spécifications de la couche application spéciale <profil énergie>

Kommunikationssysteme für Zähler - Drahtloses Mesh-Netzwerk für den Zählerdatenaustausch - Teil 3: Energie-Profilspezifikation der speziellen Anwendungsschicht

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European foreword

This document (EN 16836-3:2016) has been prepared by Technical Committee CEN/TC 294 “Communication systems for meters”, the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by May 2017, and conflicting national standards shall be withdrawn at the latest by May 2017.

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Introduction

The EN 16836 series of standards details requirements for gas meters, water meters and heat meters that can interoperate with products in a mesh network that conform to this standard through a smart energy profile application layer. This standard refers to documents made freely available by the ZigBee Alliance, an organization which manages a mesh network specification (see www.zigbee.org/about/centc294).

This series of standards specifies how a mesh networking radio specification applies within the scope of European standards at the application layer, networking layer and also medium access control/physical layer (MAC/PHY).

EN 16836 consists of the following parts:

— EN 16836-1, *Communication systems for meters — Wireless mesh networking for meter data exchange — Part 1: Introduction and standardization framework*

— EN 16836-2, *Communication systems for meters — Wireless mesh networking for meter data exchange — Part 2: Networking layer and stack specification*

— EN 16836-3, *Communication systems for meters — Wireless mesh networking for meter data exchange — Part 3: Energy profile specification dedicated application layer*

This standard series is created in compliance with the terms of a memorandum of understanding (MOU) between CEN/CELELEC and the ZigBee Alliance. The principles underpinning the relationship between CEN/CENELEC and the ZigBee Alliance are described in the Consortium Bridge procedure. A copy of the MOU and the Consortium Bridge can be obtained from CEN/CENELEC.

NOTE The term 'ZigBee' and the ZigBee Logo are registered trademarks of the ZigBee Alliance and their use is subject to the conditions of membership.

1 Scope

This European Standard specifies requirements for the dedicated application layer of a communication protocol for the exchange of data from metering devices to other devices within a mesh network. This standard makes reference to a number of documents whereby core requirements are specified. This referencing is in compliance with the Bridge Consortium and additionally the Memorandum of Understanding between the ZigBee Alliance and CEN/CENELEC.

The EN 16836 series represents a feature subset of a larger standard and as such not all of the features specified in the referenced documents are specified in this standard, due to some features being outside the scope of CEN/TC 294. Where this is the case the out of scope feature has either been omitted or specified as excluded.

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.

EN 16836-1:2016, *Communication systems for meters and remote reading of meters — Wireless mesh networking for meter data exchange — Part 1: Introduction and standardization framework*

ZigBee Cluster Library – 07-5123 Rev 04, April 26, 2010

ZigBee Smart Energy Standard 07-5356 Rev 19, December 3, 2014

OTA Cluster Specification 09-5264 Rev 23, March 12, 2014

NOTE The above ZigBee documents and OTA Cluster Specification can be obtained from can be obtained from www.zigbee.org/about/centc294.

3 Terms and definitions

For the purposes of this document, the terms, definitions, acronyms and abbreviations given in

— ZigBee Cluster Library – 07-5123 Rev 04,

— ZigBee Smart Energy Standard 07-5356 Rev 19, and

— OTA Cluster Specification 09-5264 Rev 23

apply.

4 Requirements

4.1 General

The dedicated application layer shall be defined in this standard using the references specified in Tables 1 and 2.

This energy profile shall conform to the general framework given in EN 16836-1:2016, the network layer given in EN 16836-1:2016, and the requirements given in 4.2, 4.3, 4.4.

4.2 Cluster library

The requirements given in Table 1 are the basic requirements for this part of EN 16836 and are detailed in the ZigBee Cluster Library – 07-5123 Rev 04.

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