PD CEN/TR 15500-2:2016

BSI Standards Publication

# Energy Performance of Buildings — Control for heating, ventilating and air-conditioning applications

## Part 2: Accompanying TR prEN 15500-1:2015 - Modules M3-5, M4-5,M5-5

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## National foreword

This Published Document is the UK implementation of CEN/TR 15500-2:2016.

The UK participation in its preparation was entrusted to Technical Committee RHE/16, Performance requirements for control systems.

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

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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# Energy Performance of Buildings - Control for heating, ventilating and air-conditioning applications - Part 2: Accompanying TR prEN 15500-1:2015 - Modules M3-5,M4-5,M5-5

Begleitender TR zu EN 15500

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## European foreword

This document (CEN/TR 15500-2:2016) has been prepared by Technical Committee CEN/TC 247 "Building Automation, Controls and Building Management", the secretariat of which is held by SNV.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

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

This document is currently divided into the following parts:

— Control for heating, ventilating and air-conditioning applications — Part 1: Electronic individual zone control equipment — Modules M3-5,M4-5,M5-5 [currently at Enquiry stage];

— Control for heating, ventilating and air-conditioning applications — Part 2: Accompanying prEN 15500-1:2016 Modules M3-5,M4-5,M5-5 [the present Technical Report; currently at Voting stage].



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# Introduction

The CENSE project, the discussions between CEN and the Concerted action highlighted the high page count of the entire package due to a lot of “textbook” information. This resulted in flooding and confusing the normative text.

A huge amount of informative contents shall indeed be recorded and available for users to properly understand, apply and nationally adapt the EPB standards.

The detailed technical rules CEN/TS 16629 Detailed Technical Rules ask for a clear separation between normative and informative contents:

— to avoid flooding and confusing the actual normative part with informative content;

— to reduce the page count of the actual standard;

— to facilitate understanding of the package.

Therefore each EPB standard shall be accompanied by an informative technical report, like this one, where all informative contents is collected.

Table 1 shows the relative position of this TR within the EN EPB set of standards.



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**Table 1 — Position of this TR within the EPBD set of standards**

| Over-arching | Building (as such) | Technical Building System | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Descriptions | Descriptions | Descriptions | Heating | Cooling | Ventilation | Humidification | Dehumidification | Domestic Hot waters | Lighting | Building automation and control | PV, wind, .. |
| M1 | M2 | | M3 | M4 | M5 | M6 | M7 | M8 | M9 | M10 | M11 |
| General | General | General | | | | | | | | | |
| Common terms and definitions; symbols, units and subscripts | Building Energy Needs | Needs | | | | | | | | | |
| Application | (Free) Indoor Conditions without Systems | Maximum Load and Power | | | | | | | | | |
| Ways to Express Energy Performance | Ways to Express Energy Performance | Ways to Express Energy Performance | | | | | | | | | |
| Building Functions and Building Boundaries | Heat Transfer by Transmission | Emission and control | x | x | x | | | | | | |
| Building Occupancy and Operating Conditions | Heat Transfer by Infiltration and Ventilation | Distribution and control | | | | | | | | | |
| Aggregation of Energy Services and Energy Carriers | Internal Heat Gains | Storage and control | | | | | | | | | |
| Building Partitioning | Solar Heat Gains | Generation and control | | | | | | | | | |
| Calculated Energy Performance | Building Dynamics (thermal mass) | Load dispatching and operating conditions | | | | | | | | | |



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| Over-arching | Building (as such) | Technical Building System | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Descriptions** | **Descriptions** | **Descriptions** | **Heating** | **Cooling** | **Ventilation** | **Humidification** | **Dehumidification** | **Domestic Hot waters** | **Lighting** | **Building automation and control** | **PV, wind, ..** |
| **M1** | **M2** | | **M3** | **M4** | **M5** | **M6** | **M7** | **M8** | **M9** | **M10** | **M11** |
| Measured Energy Performance | Measured Energy Performance | Measured Energy Performance | | | | | | | | | |
| Inspection | Inspection | Inspection | | | | | | | | | |
| Ways to Express Indoor Comfort | | BMS | | | | | | | | | |
| External Environment Conditions | | | | | | | | | | | |
| Economic Calculation | | | | | | | | | | | |

# 1 Scope

This Technical Report refers to prEN 15500-1, *Control for heating, ventilating and air-conditioning applications — Part 1: Electronic individual zone control equipment — Modules M3-5,M4-5,M5-5*.

It contains information to support the correct understanding, use and national adaption of prEN 15500-1:2016.

This Technical Report does not contain any normative provision.

# 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.

prEN 15500-1:2016, *Control for heating, ventilating and air-conditioning applications — Part 1: Electronic individual zone control equipment — Modules M3-5,M4-5,M5-5*

EN ISO 7345:1995, *Thermal insulation - Physical quantities and definitions (ISO 7345:1987)*

prEN ISO 52000-1:2016, *Energy performance of buildings — Overarching EPB assessment — Part 1: General framework and procedures (ISO/DIS 52000-1:2015)*



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