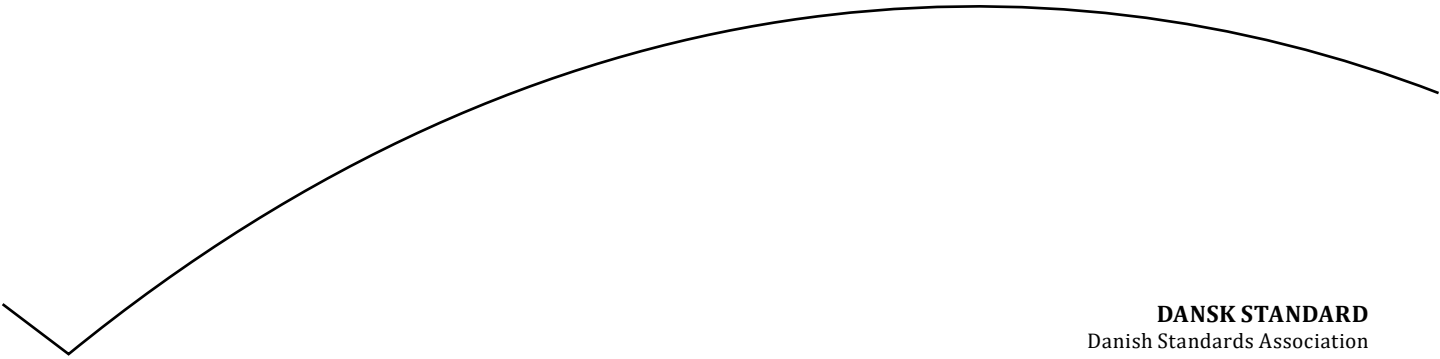


# Bygningers energieffektivitet – Påvirkning fra bygningsautomation, -regulering og -administration – Del 2: Forklaring og begrundelse af ISO 52127-1

Energy performance of buildings – Building automation, controls and building management – Part 2: Explanation and justification of ISO 52127-1 (ISO/TR 52127-2:2021)

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**DANSK STANDARD**  
Danish Standards Association

Göteborg Plads 1  
DK-2150 Nordhavn  
Tel: +45 39 96 61 01  
dansk.standard@ds.dk  
www.ds.dk

# DS/CEN ISO/TR 52127-2:2021

København

DS projekt: M341071

ICS: 91.120.10

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TECHNICAL REPORT

**CEN ISO/TR 52127-2**

RAPPORT TECHNIQUE

TECHNISCHER BERICHT

February 2021

ICS 91.120.10

Supersedes CEN/TR 16947-2:2016

English Version

**Energy performance of buildings - Building automation,  
controls and building management - Part 2: Explanation  
and justification of ISO 52127-1 (ISO/TR 52127-2:2021)**

Performance énergétique des bâtiments -  
Automatisation, régulation et gestion technique

du bâtiment - Partie 2: Explication et justification  
de l'ISO 52127-1 (ISO/TR 52127-2:2021)

This Technical Report was approved by CEN on 23 June 2020. It has been drawn up by the Technical Committee CEN/TC 247.

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EUROPÄISCHES KOMITEE FÜR NORMUNG

**CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels**

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## **European foreword**

This document ([CEN ISO/TR 52127-2:2021](#)) has been prepared by Technical Committee ISO/TC 205 "Building environment design" in collaboration with 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 supersedes [CEN/TR 16947-2:2016](#).

### **Endorsement notice**

The text of [ISO/TR 52127-2:2021](#) has been approved by CEN as [CEN ISO/TR 52127-2:2021](#) without any modification.



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**Energy performance of buildings —  
Building automation, controls and  
building management —**

Part 2:  
**Explanation and justification of  
ISO 52127-1**

*Performance énergétique des bâtiments — Automatisation,  
régulation et gestion technique du bâtiment —*

*Partie 2: Explication et justification de l'ISO 52127-1*



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ISO copyright office  
Ch. de Blandonnet 8 • CP 401  
CH-1214 Vernier, Geneva, Switzerland  
Tel. +41 22 749 01 11  
Fax +41 22 749 09 47  
copyright@iso.org  
www.iso.org



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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

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Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

This document was prepared by Technical Committee ISO/TC 205, *Building environment design*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 247, *Building Automation, Controls and Building Management*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

A list of all parts in the ISO 52127 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at [www.iso.org/members.html](http://www.iso.org/members.html).

## Introduction

This document consolidates information that is considered important for users to properly understand, apply and nationally adopt the EPB standards.

The detailed technical rules in [CEN/TS 16629](#) 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 should be accompanied by an informative Technical Report, like this document, where all informative contents are collected.

[Table 1](#) shows the relative position of this document within the EPB set of standards.

Table 1 — Position of this document within the EPB set of standards

		Technical building system									
Over-arching	Building (as such)	Descriptions	Heating	Cooling	Ventilation	Humidification	Dehumidification	Domestic hot waters	Lighting	Building automation and control	PV, wind...
Sub module	Descriptions	Descriptions	M3	M4	M5	M6	M7	M8	M9	M10	M11
1	General	General									
2	Common terms and definitions; symbols, units and subscripts	Building energy needs	Needs								
3	Application	(Free) Indoor conditions without systems	Maximum load and power								
4	Ways to express energy performance	Ways to express energy performance	Ways to express energy performance								
5	Building functions and building boundaries	Heat transfer by transmission	Emission and control								
6	Building occupancy and operating conditions	Heat transfer by infiltration and ventilation	Distribution and control								
7	Aggregation of energy services and energy carriers	Internal heat gains	Storage and control								
8	Building partitioning	Solar heat gains	Generation and control								

NOTE The shaded modules are not applicable.

Table 1 (continued)

		Technical building system										
Over-arching	Building (as such)	Descriptions	Heating	Cooling	Ventilation	Humidification	Dehumidification	Domestic hot waters	Lighting	Building automation and control	PV, wind...	
Sub module	Descriptions	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	
sub1	M1											
9	Calculated energy performance	Building dynamics (thermal mass)										
10	Measured energy performance	Measured energy performance										
11	Inspection	Inspection										
12	Ways to express indoor comfort									x		
13	External environment conditions											
14	Economic calculation											
NOTE The shaded modules are not applicable.												



# Energy performance of buildings — Building automation, controls and building management —

## Part 2: Explanation and justification of ISO 52127-1

### 1 Scope

This document contains information to support the correct understanding, use and adoption of ISO 52127-1.

### 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

[ISO 52127-1](#), *Energy performance of buildings — Building management system — Part 1: Module M10-12*

[ISO 7345](#), *Thermal insulation of buildings and building components — Physical quantities and definitions*

[ISO 52000-1](#), *Energy performance of buildings — Overarching EPB assessment — Part 1: General framework and procedures*