TECHNICAL REPORT

RAPPORT TECHNIQUE

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CEN/TR 12098-7

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English Version

Energy performance of buildings - Controls for heating systems - Part 7: Accompanying TR EN 12098-3:2022 - Modules M3-5,6,7,8

Energieeffizienz von Gebäuden - Mess-, Steuer- und Regeleinrichtungen für Heizungen - Teil 7: Begleitender TR zu EN 12098-3:2022 - Module M3-5,6,7,8

This Technical Report was approved by CEN on 23 October 2022. It has been drawn up by the Technical Committee CEN/TC 247.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
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European foreword

This document (CEN/TR 12098-7:2022) 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 supersedes CEN/TR 12098-7:2016 and CEN/TR 12098-8:2016.

CEN/TR 12098-7:2022 includes the following significant technical changes with respect to CEN/TR 12098-7:2016:

— respecting the presentation of this project in the frame EPB in accordance with the drafting rules;

— improvements in line with EN 12098-5:2017.

Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

Introduction

This document is part of the set of EPB (Energy Performance of Building) standards that aim to support the implementation of the Energy Performance of Buildings Directive (EPBD). This document contains informative contents for users to properly understand, apply and nationally adapt the EPB standards.

This document follows the basic principles (CEN/TS 16628, *Energy Performance of Buildings — Basic Principles for the set of EPB standards*) and detailed technical rules (CEN/TS 16629, *Energy Performance of Buildings — Detailed Technical Rules for the set of EPB-standards*) elaborated by CEN.

The detailed technical rules of 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 one, where all informative content is collected.

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

Table 1 — Position of this document (in casu M3–5, 6, 7, 8), within the modular structure of the set of EPB standards

Submodule	Overarching Descriptions	Building (as such) Descriptions	Technical Building System Descriptions	Heating	Cooling	Ventilation	Humidification	Dehumidification	Domestic Hot waters	Lighting	Building automation and control	PV, wind...
sub1	M1	M2		M3	M4	M5	M6	M7	M8	M9	M10	M11
1	General	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	x								
6	Building Occupancy and Operating Conditions	Heat Transfer by Infiltration and Ventilation	Distribution and control	x								
7	Aggregation of Energy Services and Energy Carriers	Internal Heat Gains	Storage and control	x								
8	Building Partitioning	Solar Heat Gains	Generation and control	x								
9	Calculated Energy Performance	Building Dynamics (thermal mass)	Load dispatching and operating conditions									
10	Measured Energy Performance	Measured Energy Performance	Measured Energy Performance									
11	Inspection	Inspection	Inspection									
12	Ways to Express Indoor Comfort		BMS									
13	External Environment Conditions											
14	Economic Calculation											
NOTE	The shaded modules are not applicable.											

1 Scope

This document refers to EN 12098-3:2022, *Energy performance of buildings — Controls for heating systems — Part 3: Control equipment for electrical heating systems — Modules M3-5,6,7,8.*

It contains information to support the correct understanding, use and national adaption of EN 12098-3:2022.

This document does not contain any normative provisions.

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.

EN 12098-3:2022, *Energy performance of buildings — Controls for heating systems — Part 3: Control equipment for electrical heating systems — Modules M3-5,6,7,8*

EN ISO 7345, *Thermal performance of buildings and building components — Physical quantities and definitions (ISO 7345)*

EN ISO 52000-1:2017, *Energy performance of buildings — Overarching EPB assessment — Part 1: General framework and procedures (ISO 52000-1)*

EN ISO 52120-1:2022, *Energy performance of buildings — Contribution of building automation, controls and building management — Part 1: General framework and procedures (ISO 52120-1)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN ISO 7345, EN ISO 52000-1:2017, EN 12098-3:2022 (the accompanied EPB standard) and EN ISO 52120-1:2022 apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

4 Symbols and abbreviations

4.1 Symbols

For the purposes of this document, the symbols given in EN ISO 52000-1:2017 and EN 12098-3:2022 (the accompanied EPB standard) apply.

4.2 Abbreviations

Table 2 shows the abbreviations used in this document.

Table 2 — Abbreviations

Abbreviations	Explanation
OTC	outside temperature compensated
RTC	room temperature control
FSS	fixed start-stop scheduling
OSS	optimum start-stop scheduling