

# ISO 11855-4:2021 (E)

## Building environment design — Embedded radiant heating and cooling systems — Part 4: Dimensioning and calculation of the dynamic heating and cooling capacity of Thermo Active Building Systems (TABS)

---

### Contents

	Foreword
	Introduction
1	Scope
2	Normative references
3	Terms and definitions
4	Symbols
5	The concept of thermally active building surfaces (TABS)
6	Calculation methods
6.1	General
6.2	Rough sizing method
6.3	Simplified sizing by diagrams
6.4	Simplified model based on FDM
6.4.1	Cooling system
6.4.2	Hydraulic circuit and slab
6.4.3	Room
6.4.4	Limits of the method
6.5	Dynamic building simulation programs
7	Effects of acoustic ceiling units on the cooling performance of TABS
8	Input for computer simulations of energy performance
Annex A	(informative) Simplified diagrams
Annex B	(normative) Calculation method
B.1	Pipe level
B.2	Thermal nodes composing the slab and room
B.3	Calculations for the generic h-th hour
B.4	Sizing of the system
Annex C	(informative) Tutorial guide for assessing the model
Annex D	(informative) Computer program

Page count: 58