

DIN EN ISO 11855-2:2022-04 (E)

Building environment design - Embedded radiant heating and cooling systems - Part 2: Determination of the design heating and cooling capacity (ISO 11855-2:2021)

Contents	Page
European foreword	3
Foreword	4
Introduction	5
1 Scope	6
2 Normative references	6
3 Terms and definitions	6
4 Symbols	6
5 Concept of the method to determine the heating and cooling capacity	8
6 Heat exchange coefficient between surface and space	9
7 Simplified calculation methods for determining heating and cooling capacity or surface temperature	11
7.1 Universal single power function	12
7.2 Thermal resistance methods	14
8 Use of basic calculation programmes	17
8.1 Basic calculation programmes	17
8.2 Items to be included in a complete computation documentation	18
9 Calculation of the heating and cooling capacity	18
Annex A (normative) Calculation of the heat flux	19
Annex B (informative) General resistance method	41
Annex C (informative) Pipes embedded in wooden construction	47
Annex D (normative) Method for verification of FEM and FDM calculation programmes	55
Annex E (normative) Values for heat conductivity of materials and air layers	58
Annex F (informative) Maximal surface temperatures for floor heating systems	60
Bibliography	61