DIN EN 12975:2022-06 (E)

Solar collectors - General requirements

Contents

Page

European foreword 4

1 Scope 5

2 Normative references 5

3 Terms and definitions 5

4 Symbols and abbreviations 6

5 Requirements 6
5.1 General 6
5.2 Tests 7
5.3 Documentation 7
5.4 Performance indicators 7
5.5 Recommended tests 7
5.5.1 Pressure drop 7
5.5.2 Fire safety 7

6 Documentation and labelling 8
6.1 Drawings and data sheets 8
6.2 Labelling 8
6.3 Installation instruction 8

Annex A (normative) Conversion of test results according to earlier standards 10

A.1 Conversion of test results 10
A.3 Performance parameters of collectors tested under EN ISO 9806:2013 11

Annex B (normative) Solar collector performance rating 13

B.1 Gross Yield calculation 13
B.1.1 Introduction 13
B.1.2 Gross Thermal Yield GTY(op,Loc) 13
B.1.3 Gross Electric Yield GEY(op,Loc) 13
B.1.4 Gross Solar Yield GSY(op,Loc) 14
B.2 European climatic reference conditions 14

Annex C (normative) Solar collector families and design tolerances 19

C.1 Collector families 19
C.1.1 General 19
C.1.2 General family concept 19
C.1.3 Size families 19
C.1.4 Collector glass thickness families 20
C.2 Design tolerances 20
C.2.1 General 20
C.2.2 Coloured frames 20
C.2.3 Riser distances 20
C.2.4 Header tube diameters 20

Annex D (normative) Solar collector retesting guideline 21

Annex E (normative) Reaction to fire testing 22

E.1 General 22
E.2 Standard EN 13823 (Single burning item test) 22
E.3 Standard EN ISO 11925-2 (Single flame source test) 22
E.4 Field of direct application 22

Annex F (normative) External fire exposure to roofs testing 23

F.1 General 23
F.2 Field of direct application 23

Bibliography 24