DIN EN 13141-7:2026-08 (E)

Ventilation for buildings - Performance testing of components/products for residential ventilation - Part 7: Performance testing of ducted mechanical supply and exhaust ventilation units (including heat recovery) (includes Amendment A1:2025)

Contents

Page

European foreword 4

Introduction 6

1 Scope 8

2 Normative references 8

3 Terms and definitions 9

4 Symbols and abbreviations 13

5 Categories of heat exchangers 16

6 Requirements 16

7 Test methods 18
7.1 General 18
7.2 Performance testing of aerodynamic characteristics 18
7.2.1 Leakages 18
7.2.2 Air flow/pressure curve 20
7.2.3 Electrical power input 25
7.2.4 Filter bypass 25
7.3 Performance testing of thermal characteristics 26
7.3.1 General 26
7.3.2 Test operating conditions 26
7.3.3 Temperature conditions 27
7.3.4 Test procedure 29
7.3.5 Evaluation on supply air side (mandatory measurement) 30
7.3.6 Evaluation on exhaust air side (optional measurement) 31
7.3.7 Heat pump performance 31
7.3.8 Combined heat pump and air-to-air heat exchanger performance 32
7.4 Performance testing of acoustic characteristics 32
7.4.1 General 32
7.4.2 Noise radiated through the casing of the unit 32
7.4.3 Sound power level in duct connections of the unit 34

8 Test results 37
8.1 Test report 37
8.2 Product specifications 37
8.3 Leakages 37
8.4 Air flow/pressure curve 38
8.5 Heat pump exhaust air/outdoor air performances 38
8.6 Temperature ratios 38
8.7 Acoustic characteristics 39
8.8 Electrical power input 39

Annex A (informative) Example of some possible arrangements of heat recovery heat exchanger and/or heat pumps for category HRC1 40

Annex B (normative) Pressure leakage test method 42

B.1 External leakage 42
B.2 Internal leakage test 42

Annex C (normative) Tracer gas test method 44

C.1 General method for rating purposes 44
C.2 Augmented method for measuring instantaneous recirculation of ducted units under different operating conditions (optional) 45
C.3 Testing orders for tracer gas tests 46

Annex D (normative) Evaluation of maximum air volume flow and pressure 50

Annex E (normative) Evaluation of reference pressure 52

Annex F (normative) Connection boxes 53

Bibliography 55