ISO 5222-2:2025-02 (E)

Heat recovery ventilators and energy recovery ventilators - Testing and calculating methods for seasonal performance factor - Part 2: Sensible cooling recovery seasonal performance factors of heat recovery ventilators (HRV)

Contents

Page

Foreword iv

1 Scope 1

2 Normative references 1

3 Termsanddefinitions 1

4 Symbols and abbreviated terms 2

5 Tests 3
5.1 General requirements 3
5.2 Test conditions 3
5.3 Test methods 4
5.3.1 General 4
5.3.2 Energy saving stage limit temperature 4
5.3.3 Sensible cooling recovery performance test 4
5.3.4 The determination of bypass outdoor temperature 4
5.3.5 Measurement of power input of heat recovery ventilator with bypass ventilation function 4
5.3.6 Measurement of power input of heat recovery ventilator with no bypass ventilation function 5

6 Calculations 5
6.1 Gross sensible cooling recovery effectiveness (sc) 5
6.2 Calculation of seasonal performance factor of sensible cooling recovery (Fsc) 5
6.2.1 Reference outdoor air cooling load and sensible cooling recovery capacity 5
6.2.2 The characteristics of sensible cooling recovery capacity against outdoor temperature 6
6.2.3 Power input characteristics of sensible cooling recovery against outdoor temperature 7
6.2.4 Outdoor temperature bin distribution for cooling 7
6.2.5 Calculation of seasonal sensible cooling recovery capacity (Esc) 7
6.2.6 Calculation of seasonal sensible cooling recovery power input (Pin,E) 8
6.2.7 Calculation of seasonal performance factor for sensible cooling recovery (Fsc) 8

7 Test report 8

Annex A (Informative) The schematic diagram of HRVs cooling (C) operation 10

Annex B (informative) The default outdoor temperature bin distribution for cooling 12

Annex C (informative) Calculating method for seasonal performance factor when setting a specificapplicationcoolingload 13

Annex D (normative) The calculation of bypass outdoor temperature 15

Annex E (informative) Report template 16

Bibliography 18