

DIN EN 13053:2007-11 (E)

Ventilation for buildings - Air handling units - Rating and performance for units, components and sections

Contents		Page
Foreword		4
1	Scope	6
2	Normative references	6
3	Terms and definitions	8
4	Symbols and abbreviations	10
5	Ratings and performance of the entire air handling unit	13
5.1	General	13
5.2	Testing of aerodynamic performance	13
5.2.1	Characteristics and quantities	13
5.2.2	Test method	15
5.2.3	Measurement procedure	15
5.2.4	Evaluation of results	17
5.3	Testing of acoustic performance	17
5.3.1	General	17
5.3.2	Specific requirements concerning the set-up of acoustic tests	18
5.4	Tolerances	22
5.5	Test report	23
6	Ratings and performance of the entire air handling unit	26
6.1	General	26
6.2	Casing	26
6.3	Fan section	28
6.3.1	General	28
6.4	Coils	29
6.4.1	General	29
6.4.2	Testing	29
6.4.3	Construction	29
6.4.4	Cooler/Droplet Eliminator	29
6.5	Heat recovery sections	30
6.5.1	General	30
6.5.2	Classifications and requirements	30
6.5.3	Testing	32
6.6	Damper sections	32
6.6.1	General	32
6.6.2	Requirements and testing	33
6.7	Mixing sections	33
6.7.1	General	33
6.7.2	Categories and characteristics	33
6.7.3	Requirements	34
6.7.4	Measurements	36
6.7.5	Field testing of mixing efficiency	37
6.8	Humidifiers	37
6.8.1	General	37
6.8.2	Categories	38
6.8.3	Requirements	38
6.9	Filter sections	40

6.9.1	General requirements	40
6.9.2	Filters installed in air handling units	41
6.10	Passive sound attenuation sections	42
7	Extended hygiene requirements for special applications	42
7.1	General	42
7.2	Accessibility	42
7.3	Smoothness	42
7.4	Inspection windows and lights	43
7.5	Drainage/prevention of condensation, humidifiers	43
7.6	Air leakage	43
8	Instructions for installation, operation and maintenance	43
8.1	Installation	43
8.2	Operation and maintenance	43
8.3	Documentation and labelling	44
Annex A (informative) Air handling units - Heat recovery - Defrosting - Requirements and testing ..		45
A.1	General	45
A.2	Defrosting	45
A.2.1	Defrosting heat factor	45
A.2.2	Non-cyclic defrosting	45
A.2.3	Cyclic defrosting	45
A.3	Testing	46
A.3.1	Test rig	46
A.3.2	Duty points	47
A.3.3	Test procedures	47
A.3.4	Testing of defrosting heat factor	47
A.3.5	Total measuring time	47
A.4	Test report	48
A.4.1	The heat recovery device	48
A.4.2	The defrosting heat factor	48
Bibliography		49