

ISO 13253:2011-07 (E)

Ducted air-conditioners and air-to-air heat pumps - Testing and rating for performance

Contents		Page
Foreword		v
1	Scope	1
2	Normative references	1
3	Terms and definitions	2
4	Symbols	4
5	Airflow	7
5.1	General	7
5.2	Indoor airflow setting	7
5.3	ESP for rating	7
5.4	Outdoor airflow	9
5.5	Unit supplied without indoor fan	9
6	Cooling tests	9
6.1	Cooling capacity tests	9
6.2	Maximum cooling performance test	11
6.3	Minimum cooling performance test	13
6.4	Condensate control and enclosure sweat performance test	15
7	Heating tests	16
7.1	Heating capacity tests	16
7.2	Maximum heating performance test	21
7.3	Minimum heating performance test	22
8	Test methods and uncertainties of measurement	23
8.1	Test methods	23
8.2	Uncertainty of measurement	24
8.3	Test tolerances for steady-state cooling and heating capacity tests	25
8.4	Test tolerances for steady state performance tests	26
9	Test results	27
9.1	Capacity results	27
9.2	Data to be recorded	28
9.3	Test report	31
10	Marking provisions	32
10.1	Nameplate requirements	32
10.2	Nameplate information	32
10.3	Split systems	32
11	Publication of ratings	32
11.1	Standard ratings	32
11.2	Other ratings	33
Annex A (normative) Airflow settings for ducted units		34
Annex B (normative) Test requirements		39

Annex C (informative) Airflow measurement	45
Annex D (normative) Calorimeter test method	51
Annex E (normative) Indoor air enthalpy test method	59
Annex F (informative) Compressor calibration test method	65
Annex G (informative) Refrigerant enthalpy test method	68
Annex H (informative) Outdoor air enthalpy test method	70
Annex I (informative) Indoor calorimeter confirmative test method	73
Annex J (informative) Outdoor calorimeter confirmative test method	75
Annex K (informative) Balanced-type calorimeter confirmative test method	77
Annex L (informative) Cooling condensate measurements	78
Annex M (normative) Supplemental requirements when rating fan-less (coil-only) type units	79
Annex N (informative) Pictorial examples of the heating capacity test procedures given in 7.1	82
Bibliography	89