

Laboratory Danfoss Cooling Application Development Center, Danfoss Industries Private Limited, Plot No. A19/2, SIPCOT Industrial Growth Center, Oragadam Village, Sriperambudur Taluk, Kanchipuram, Tamil Nadu

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-7343

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Validity 06.06.2018 to 05.06.2020

Last Amended on --

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
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MECHANICAL TESTING

I. HEATING, VENTILATING AND AIR CONDITIONING (HVAC)				
1.	Air conditioner (Spilt, Cassette, Rooftop, Package, Ductable and Multiple Split System) Cooling & Heating	Capacity Rating	IS 1391 (Part 2) Clause 9.9 IS 8148 Clause 10.1	3.5 kW to 10.5 kW 10 kW to 90 kW
		Cooling Capacity	UAE.S/ISO 5151 Clause 5.1	Upto 8 kW / Upto 25 Pa
		Test Requirements	AHRI 390 Clause 5	3.5 kW to 90 kW
		Rating Requirements	AHRI 210/240 Clause 6 AHRI 1230 Clause 6 AHRI 340/360 Clause 6	Upto 19 kW 3.5 kW to 90 kW 19 kW to 90 kW
		Rating Capacity	EN 14511-1, 2, 3, 4 Clause 4	3.5 kW to 90 kW
		Heating Capacity (Heat Pump)	IS 1391 (Part 2) Clause 9.11	3.5 kW to 10.5 kW
		Power Consumption (Cooling)	IS 1391 (Part 2) Clause 9.7 IS 1391 (Part 1) Clause 10.8	3.5 kW to 10.5 kW
		Power Consumption (Heating by heat pump)	IS 1391 (Part 2) Clause 9.8 IS 1391 (Part 1) Clause 10.9	3.5 kW to 10.5 kW
		Power Consumption	IS 8148 Clause 10.6	10 kW to 90 kW
		Maximum Operating Conditions	IS 1391 (Part 2) Clause 9.4 IS 1391 (Part 1) Clause 10.4 IS 8148 Clause 10.2 AHRI 210/240 Clause 8.2 AHRI 340/360 Clause 8.2 EN 14511-1, 2, 3, 4 Clause 4.2.2	Qualitative
Enclosure Sweat	IS 1391 (Part 2) Clause 9.6 IS 1391 (Part 1) Clause 10.6 IS 8148 Clause 10.4	Qualitative		
Condensate control and enclosure sweat	UAE.S/ISO 5151 Clause 5.5 UAE.S-ISO 15042 Cl. 6.5	Qualitative		

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		performance	ISO 5151 Clause 5.5 ISO 13253 Clause 6.4 ISO 15042 Clause 6.5 AS/NZS 3823.1.1 Cl. 5.5 AS/NZS 3823.1.2 Cl. 6.4	
		Enclosure sweat and condensate disposal or draining	UAE.S/GSO ISO 13253 Clause 4.4/EN 14511-1, 2, 3, 4 Clause 4.6	Qualitative
		Condensate Disposal (Cooling)	AHRI 210/240 Clause 8.6 AHRI 1230 Clause 8.6 AHRI 1230 Clause 8.11	Qualitative
		Freeze-Up	IS 1391 (Part 2) Clause 9.5 IS 1391 (Part 1) Clause 10.5 IS 8148 Clause 10.3 UAE.S/ISO 15042 Cl. 6.4 ISO 15042 Clause 6.4 EN 14511-1, 2, 3, 4 Clause 4.2.3	Qualitative
		Cooling	IS 1391 (Part 1) Clause 9.1	3.5 kW to 10.5 kW
			UAE.S ISO 15042 Clause 6 ISO 13253 Clause 6 ISO 15042 Clause 6 SASO 2682 Clause 6 AS/NZS 3823.1.2 Clause 6 UAE.S/GSO ISO 13253-Cl. 4	3.5 kW to 90 kW
			ISO 5151 Clause 5 SASO 2681 Clause 5 AS/NZS 3823.1.1 Clause 6	Upto 8 kW / Upto 25 Pa
		Heating	IS 1391 (Part 1) Clause 9.2	3.5 kW to 10.5 kW
			UAE.S/GSO ISO 13253 Cl. 5 ISO 13253 Clause 7 ISO 15042 Clause 7 AS/NZS 3823.1.2 Clause 7	3.5 kW to 90 kW

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			UAE.S/ISO 5151 Clause 6 ISO 5151 Clause 6	Upto 8 kW / Upto 25 Pa
		Min. cooling, freeze-up air blockage & freeze-up drip performance	UAE.S/ISO 5151 Clause 5.3 ISO 5151 Clause 5.3 AS/NZS 3823.1.1 Cl. 5.3	Qualitative
		Minimum cooling performance	ISO 13253 Clause 6.3	Qualitative
		Insulation Effectiveness (Cooling)	AHRI 1230 Clause 8.5 AHRI 390 Clause 8.5 AHRI 210/240 Clause 8.5	Qualitative
		Insulation Efficiency (Cooling)	AHRI 1230 Clause 8.10 AHRI 340/360 Clause 8.4	Qualitative
		Low Temperature Operation for System	AHRI 1230 Clause 8.4	Qualitative
		Low Temperature Operation (Cooling)	AHRI 390 Clause 8.4 AHRI 210/240 Clause 8.4 AHRI 340/360 Clause 8.3	Qualitative
		High Temperature Operation Maximum	AHRI 390 Clause 8.2	Qualitative
		Operating Requirement for Systems	AHRI 1230 Clause 8.2	Qualitative
2.	Chiller (Air Cooled & Water Cooled)	Rating Requirements	AHRI 551/591 Clause 5 AHRI 550/590 Clause 5 IS 16590 Clause 6	7 kW to 200 kW
		Minimum Energy Performance Standard	SASO 2874 Clause 5	3.5 kW to 90 kW
3.	Room Fan Coils	Rating Requirements	ANSI/AHRI 440 Clause 6	7 kW to 70 kW
		Airflow & Electric Power Input Rating Condition	ANSI/AHRI 440 Clause 6.3.4	Qualitative
		Insulation Efficiency	ANSI/AHRI 440 Clause 8.1	Qualitative