Humidity Cabinets

The comprehensive range of humidity cabinets includes active RH models and saturated salt solution models.

CONSTRUCTION

All LEEC humidity cabinets have stainless-steel chambers and adjustable shelves. They have sealed water-tight chambers making them suitable for humidity's up to 98%. High quality CFC-free polyurethane thermal insulation wraps the chamber for excellent stability. Two 12mm access ports are included for inserting monitoring probes into the chamber. The exterior is finished in white polyester powder coat paint.

TEMPERATURE CONTROL

Control of heating and cooling is performed with great accuracy, achieving typical temperature stability of ±0.5°C. The chamber is fan assisted as standard. The microprocessor based digital temperature controller allows the chamber performance to be easily verified on a dual colour LED display.

SAFETY

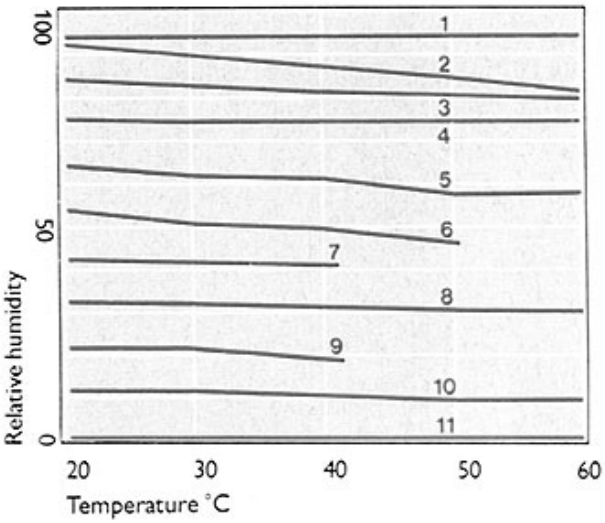
Heat-only models feature a digital over temperature cut out and alarm.

Directly cooled models feature a digital over & under temperature cut out and alarms. The cut out will disconnect the heating or cooling system if an over or under temperature situation occurs. A warning light and audible alarm gives clear indication when the chamber temperature goes out of limits.

HUMIDITY CONTROL (SALT SOLUTION TYPES)

Salts type models rely on forced evaporation of known saturated salt solutions. The saturated salt solution is poured directly into the chamber base. This is a simple and reliable method of humidity control.

Temperature and relative humidities normally attainable in 20°C ambient temperature. Material to be placed in tray to obtain indicated values of relative humidity shown in graph.



Curve	Material
1	Distilled water
2	Potassium nitrate-saturated solution
3	Potassium chloride-saturated solution
4	Sodium chloride-saturated solution
5	Sodium nitrite-saturated solution
6	Sodium dichromate-saturated solution
7	Potassium carbonate-saturated solution
8	Magnesium chloride-saturated solution
9	Potassium acetate-saturated solution
10	Lithium chloride-saturated solution
11	Silica gel-dried

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Company Registration No. 01459141 Cardiff. VAT No. 309 805 649

Humidity Cabinets

Specification – Salt Solution Types

	SFC2 (Heat only)	SFC3 (Heat only)	SFC2C (Directly cooled)	SFC3C (Directly cooled)
Temperature **				
Range	Ambient +5°C to +60°C		+5°C to +60°C	
Control	±0.2°C at 37°C		±0.2°C at 20°C	
Variation	±0.5°C at +37°C		±0.5°C at 20°C	
Refrigerant	N/A		R134a	
Protection Type	Over temperature only		Over and under temperature	
Humidity				
Range	0% to 98% RH			
Control	Basic control only (by means of appropriate saturated salt solution)			
Construction				
Chamber	Stainless steel		Stainless steel	
Exterior	White painted steel		White painted steel	
Access Port	Two 12mm ports		Two 12mm ports	
Insulation	CFC-free		CFC-free	
Chamber Capacity	150 L	320 L	150 L	320 L
Shelves Included	4	6	4	6
Inner Glass Doors	1	2	1	2
External Dimensions (H x W x D mm)	880 x 635 x 660	1550 x 635 x 660	1075 x 635 x 660	1745 x 635 x 660
Internal Dimensions (H x W x D mm)	590 x 510 x 490	1275 x 510 x 490	590 x 510 x 490	1275 x 510 x 490
Weight	75 KG	120 KG	100 KG	145 KG
Power Rating	200 Watts	250 Watts	800 Watts	850 Watts
Electrical Supply	220/240V AC, 50 Hz	220/240V AC, 50 Hz	220/240V AC, 50 Hz	220/240V AC, 50 Hz
Warranty	1 year	1 year	1 year	1 year

** Temperature specification for model SFC2C at 20°C ambient.

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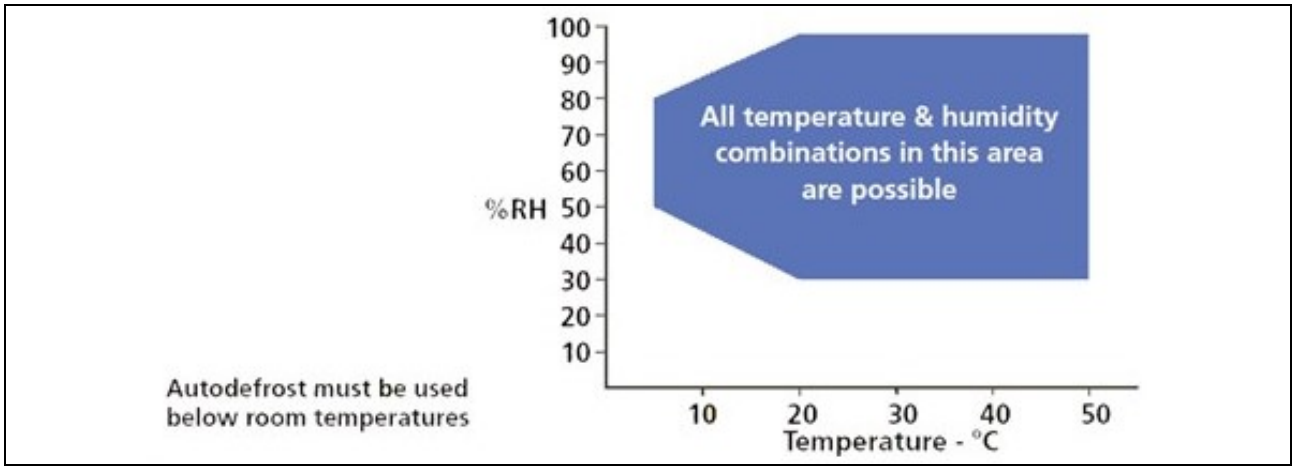
Humidity Cabinets

HUMIDITY CONTROL (ULTRASONIC TYPES)

All /RH models are fitted with an ultrasonic fine mist humidity generator, which is located inside the chamber. The microprocessor humidity controller accurately monitors and adjusts the chamber humidity level automatically. All RH models can dehumidify as well as increase humidity.

It should be noted that not all combinations of humidity and temperature are possible. Temperature and humidity performance varies according to the combination selected. Please contact LEEC for advice on which model will best meet your requirements.

Typical operating range (Model SFC3C/RH with ultrasonic humidifier)



Standard Features:

- Microprocessor controller with digital display
- Stainless-steel chamber and shelves
- Digital over / under temperature protection
- Inner glass doors
- Two 12mm cable access ports
- Energy efficient heating and cooling systems
- Fan assisted
- High quality thermal insulation

Options:

- Additional stainless-steel shelves
- Digital Data Recorder with USB *(pictured)*
- Temperature / humidity mapping
- 4-20mA analogue output

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Humidity Cabinets

Specification – Ultrasonic Types

	SFC2C/RH (Directly cooled)	SFC3C/RH (Directly cooled)
Temperature *		
Range	+5°C to +50°C	+5°C to +50°C
Control	±0.5°C at 20°C	±0.5°C at 20°C
Variation	±0.5°C at 20°C	±0.5°C at 20°C
Refrigerant	R134a	R134a
Protection Type	Over and under temperature	Over and under temperature
Humidity		
Range	30% to 98% RH	
Control	Typically ±5% at 20°C operating temperature	
Construction		
Chamber	Stainless steel	Stainless steel
Exterior	White painted steel	White painted steel
Access Port	Two 12mm ports	Two 12mm ports
Insulation	CFC-free	CFC-free
External Dimensions (H x W x D mm)	1075 x 635 x 660	1745 x 635 x 660
Internal Dimensions (H x W x D mm)	590 x 510 x 490	1275 x 510 x 490
Chamber Capacity	150 L	320 L
Shelves Included	4	6
Inner Glass Doors	1	2
Weight	100 KG	145 KG
Power Rating	800 Watts	850 Watts
Electrical Supply	220/240V AC, 50 Hz	220/240V AC, 50 Hz
Warranty	1 year	1 year

* Temperature specification for model SFC2C/RH at 20°C ambient.

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