



LAF
Dehumidifiers

LAF 51

Condensing dehumidifiers for professional use

VEAB condensation dehumidifiers are designed for professional use in applications with high requirements in terms of capacity. LAF dehumidifiers are therefore suitable in buildings under construction and after water damage to obtain a sufficiently low humidity in building materials, carpets and wall coverings. In cellars and warehouses, LAF dehumidifiers will keep the right humidity level to prevent issues with corrosion, odours and mould. Drying with LAF dehumidifiers is very economical and efficient. Energy consumption is minimal as compared with heating and subsequent ventilation of humidity. 700 Wh of heating energy is gained for each litre of water that is dehumidified.

- On-demand defrosting
- Operating temperature 3-30 °C
- Operating humidity range 40-100% RH
- Shuts off automatically when the container is full
- Easy to handle—large wheels make it easy to move (Ø 250 mm)
- Robust durable design suitable for construction sites
 - can be lifted with handle
- LAF 51S/51E2S is stackable

Design

Casing made of lacquered galvanised sheet metal.

Built-in collection container with a level sensor and option to attach a drain hose (Ø 13 mm).

Electronic on-demand defrosting ensures quick and efficient defrosting.

LAF 51 dehumidifiers are stackable two high to save space when storing.

IPX4 degree of protection (splash-proof design).

Electrical Heating, Addition -E2S

LAF 51E2S comes with an integrated 1500 W electrical heating element.

The model includes switches to run the dehumidifier with or without electrical heating.

A permanently set room thermostat regulates the electrical heating to 20 °C.

Connection

LAF 51 comes with a two-metre 230 V connection cable and has an earthed plug.



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Approvals

Our dehumidifiers are manufactured in accordance with the following directives:

LVD directive: EN 60335-1 and EN 60335-2-40

EMC directives: EN 61000-6-1 and EN 61000-6-3

EMF directive: EN 62233



Product Range Overview

Type		LAF 51S	LAF 51E2S
Operating range 40-100	% RH	40-100	40-100
Operating range	°C	+3 - +30	+3 - +30
Voltage	V	230 VAC 1-ph.	230 VAC 1-ph.
Fuse	A	10	10
Power consumption, max.	W	490	2000
Power cons. at 20 °C, 60% RH	W	385	385*
Radiated heat at 20 °C, 60% RH	W	1170	2670 ³
Dehumidification at 20 °C, 60% RH	l/day	13.5	13.5
Dehumidification at 30°C, 80% RH	l/day	29.7	29.7
Power cons. at 20 °C, 60% RH	kW/l	0.69	0.69 ¹
Coolant		R 290	R 290
Minimum floor area	m ²	9	9
Air volume	m ³ /h	390	390
Sound pressure level ²	dB(A)	54	54
Volume of collection container	l	9	9
Degree of protection		IPX4	IPX4
Weight	kg	35	35.5
Depth	mm	440	440
Width	mm	540	540
Height	mm	980	980

¹⁾ Power consumption excludes possible additional heating.

²⁾ Measured at 3 metres from dehumidifier.

³⁾ Includes heating elements.

How the Dehumidifier Works

The built-in fan continuously circulates the ambient air through the dehumidifier. As the humid air flows through the evaporator (cooling battery), it is cooled down to the dew point and condensation water is precipitated. The water runs down into the container.

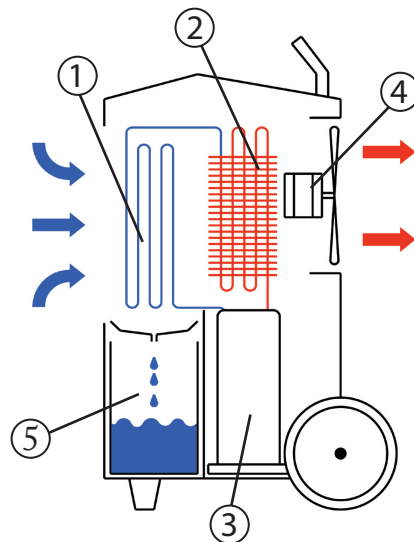
The integrated level sensor stops the dehumidifier when the water container is full.

The dry and cold air then continues on through the condenser where it is heated, partly by the compressor heat and partly by the energy recovered during the earlier conversion of vapour to water.

The dry and warm air is again blown out into the room to absorb more humidity.

Under certain temperature/humidity conditions, frost builds up on the cooling coil. The automatic defroster is then switched on once per hour and directs the warm gas to the cooling coil so that the frost thaws and runs down into the collection container (hot gas defrosting).

In order to accelerate dessication, the LAF 51E2S has an integrated electrical heating that increases the temperature in the room and thus leads to faster dessication.

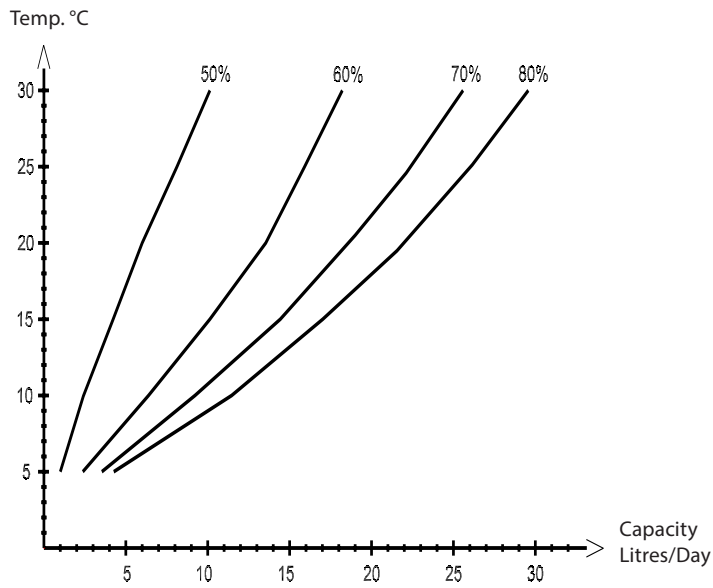


- 1. Evaporator
- 2. Condenser
- 3. Compressor

- 4. Fan
- 5. Collection container

Capacity




Capacity LAF 51



Dehumidification Tips

- Place the dehumidifier in such a way that it generates the best possible air circulation in the room.
- Keep doors and windows shut.
- Higher ambient temperatures accelerate dehumidification.
- At humidity levels below 50%, untreated iron will not rust.
- At humidity levels below 65%, there is no significant mould growth on wood surfaces.

Accessories

	Product
	<p>Hygrostat LAF-HY A hygrostat is available as an accessory to control the humidity in the room. The hygrostat is connected to the dehumidifier by means of a plug that is directly inserted to dehumidifier's normal cable connection. Includes mounted cables. IP21 degree of protection. (Not for use on construction sites.)</p>
	<p>Operating time counter LAF-OHM The operating time counter measures the compressor's operating time. Can supplied factory installed on the dehumidifier or as an accessory for subsequent installation.</p>
	<p>Wall bracket LAF-W For permanent installation of the dehumidifier.</p>



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