



DEHUMIDIFIERS FD 1200-2000-3000

FD SERIES

The Fral industrial dehumidifiers of the series FD are suitable for humidity control in commercial and industrial spaces. Particularly sturdy and durable, they can be easily installed and are easy to maintain.

They can also be placed in environments for the preservation of food products or in industrial processes where humidity control is necessary.

They feature a washable air filter and must be connected to a fixed drain.

They are equipped with an onboard mechanical dehumidostat.

Is it possible to connect a remote digital dehumidostat.

The Fral fixed dehumidifiers of the series FD can be equipped with an optional HOT GAS defrosting system, with electronic and thermostatic control, and can work with temperatures close to 0 °C.

FEATURES

FRAME

MODELS FD

Structure with aluminium profiles and panels in sturdy galvanised sheet, painted with epoxy powder ensuring high resistance to atmospheric agents and aggressive environments.

CATAPHORESIS TREATMENT (optional)

Surface treatment capable of giving the evaporator a considerable resistance to corrosion.

COMPRESSOR

Scroll mounted on vibration dampers. Provided with resistance on the housing and thermal safety.

REFRIGERANT CIRCUIT

Evaporator and condenser: the coil is made of copper pipes and aluminium fins. Drying filter, Shrader valves, minimum and maximum pressure switch. Defrosting thermostat and solenoid valve in version S.

CONDENSATE COLLECTION TANK

MODELS FD

The tank is in non-corrosive stainless steel, the dehumidifier should be connected to a fixed drain, preventing the formation of double siphons. Attach a tube with 3/4" F coupling to the welded fitting of the tank.

CONDENSATE LIFTING PUMP (optional)

Pump on request.

FAN

Centrifugal double suction fan, built with sturdy blades in galvanized sheet, statically and dynamically balanced.

Protection degree: Three-speed fan.

IP

Standard IP21. On request IP44 (optional).

HOT GAS DEFROST

Enables to use the dehumidifier in environments with temperature up to 3 °C. It is a special hot gas injection system to accelerate the defrosting of the ice formed in the evaporator.

AIR SUPPLY

The air supply is supplied as standard on the side opposite to the air inlet, but you may require the dehumidifier in TOP version (with delivery on the top side of the machine).

AIR FILTER

The air filter, supplied as standard with the unit, is washable and easily replaceable. It is in Polyurethane and High-efficiency filter.

MICROPROCESSOR

Controls the defrosting cycles, the compressor timer and the alarm card. The dehumidifier is equipped with step sequence control.

CONTROL PANEL AND ELECTRICAL CONTROL PANEL

Located in the side area of the machine. IP protection degree.

Made in compliance with the European standards 73/23 and 89/336.

TESTING

Tests are performed to check the tightness of the refrigeration circuit. Electrical discharge tests and functional tests are performed as well.

TECHNICAL STANDARDS

This dehumidifier meets the essential requirements included in the Directives of the European Community 2006/95/EC of 12 December 2006 on the safety of electrical products for use in Low Voltage; 2004/108/EC of 15 December 2004 in the field of electromagnetic compatibility; 2006/42/EC of 17 May 2006 in the fields of machinery safety.

The conformity is declared with reference to the following harmonized technical standards:

CEI-EN 60335-2-40, CEI-EN 55014-1, CEI-EN 55014-2.

We also declare that the product is manufactured in compliance with the RoHS Directive in force, that is 2002/95/EC, transposed with the Legislative Decree of 25 July 2005 no. 151 (article 5).

TECHNICAL SPECIFICATIONS

	FD 1200	FD 2000	FD 3000
Rated Average Power Consumption (26,7 °C - 60% R.H.)	12,780 W	18,650 W	27,650 W
Maximum power consumption (35 °C - 95% R.H.)	17,250 W	27,400 W	21,400 W
Max. Current Consumption (35 °C - 95% R.H.) F.L.A.	29,1 A	47,3 A	70.3 A
Start up current L.R.A.	101.0 A	101.0 A	101.0 A
Sound Pressure Level (at 3 mts in free field)	71 db (A)	82 db (A)	85 db (A)
Refrigerant	R410a	R410a	R410a
Fitting on the machine for condensate drain	¾"	¾"	¾"
Operating range (temperatures)	7÷35 °C	7÷35 °C	7÷35 °C
Temperature operating range with optional hot gas defrosting system	0.5÷35 °C	0.5÷35 °C	0.5÷35 °C
Temperature operating range with optional under 0°C defrost system	-0.5÷35 °C	-0.5÷35 °C	-0.5÷35 °C
Operating range (relative humidity)	45÷99%	45÷99%	45÷99%
Cooling capacity (26°C indoor, 30°C outdoor)	37,550 W	60,650 W	90,250 W
Hot water coil heating capacity (environment 27°C, water 60/70 °C)	29,000 W	48,000 W	82,000 W
Available voltage	400/3~60 400/3~50	400/3~60 400/3~50	400/3~60 400/3~50

ACCESSORIES

Hot gas defrost	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Under 0°C defrost	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mechanical humidistat	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Hot water coil with three-way valve	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Electric resistances	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condensate lifting pump	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Digital dehumidostat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Digital thermostat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Evaporator cataphoresis treatment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stainless steel AISI 316 version	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

WEIGHTS

Weight	230.0 kg	660 kg	1050 kg
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TECHNICAL SPECIFICATIONS OUTSIDE UNIT

Maximum input current	1.35 A	1.89 A	2.4 A
Power supply - V/ph/Hz	400/3/50	400/3/50	400/3/50
Air flow	7,200 m³/h 2 m³/s	8,000 m³/h 2.2 m³/s	8,000 m³/h 2.2 m³/s
Sound pressure level	45 db (A)	48 db (A)	48 db (A)

CONDENSED WATER AT DIFFERENT AMBIENT TEMPERATURE AND HUMIDITY CONDITIONS (lt/24h)

	10 °C 60%	10 °C 80%	15 °C 60%	15 °C 80%	20 °C 60%	20 °C 80%	25 °C 60%	25 °C 80%	27 °C 60%	27 °C 80%	30 °C 80%	32 °C 90%
FD 1200	180	324	230	440	384	564	474	654	564	768	1000	1200
FD 2000	300	540	430	740	640	940	780	1060	940	1280	1650	2000
FD 3000	450	810	645	1060	960	1400	1170	1590	1410	1920	2050	3000

AIR FLOW AT DIFFERENT BACK PRESSURES (mc/h)

	180 Pa	200 Pa	220 Pa	240 Pa	260 Pa	280 Pa	300 Pa
FD 1200	8,500	8,100	8,000	8,000	7,900	7,800	7,200
FD 2000	16,500	16,200	16,000	15,800	15,100	15,000	14,000
FD 3000	21,000	21,000	20,500	20,000	19,500	19,000	19,000

OPTIONAL ACCESSORIES

HOT WATER COIL (optional)

Post-heating coil, which can be connected through a three-way valve to a hot water circuit. The valve is operated by a relay connected to the thermostat. The heating function can also be operated in the absence of a request on the part of the humidistat.

ELECTRIC RESISTANCE (optional)

The post heating electric resistances are operated by a relay connected to the thermostat. The post heating function can also be operated in the absence of a request on the part of the dehumidostat.

REMOTE DIGITAL HUMIDISTAT (optional)

Device that can be installed in an environment equipped for humidity control, which can be easily connected to the electrical system of the dehumidifier.

REMOTE DIGITAL THERMOSTAT (optional)

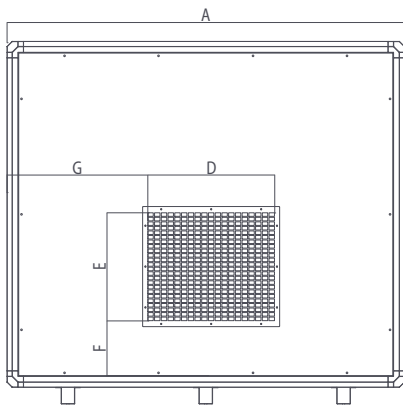
Device that can be installed in an environment for temperature control. It controls the power resistances (OPZ) or the 3-way valve that allows the passage of the hot water inside the post heating coil.

UNDER 0°C DEFROST

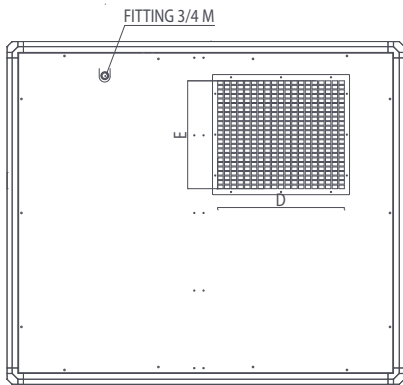
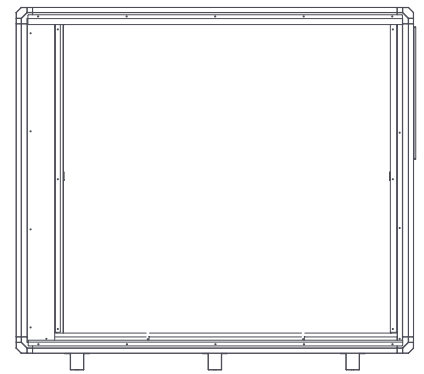
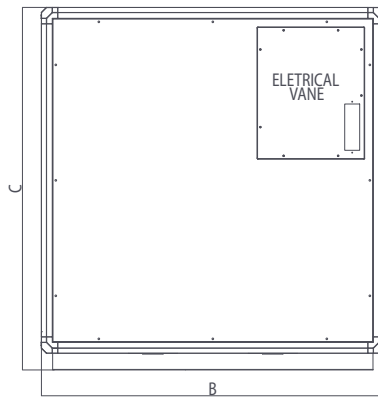
Kit that allows the dehumidifier to be installed in particularly cold environments, such as refrigerating rooms, with temperatures of up to 0 °C.

AVAILABLE STATIC PRESSURE INCREASE STAINLESS STEEL AISI VERSION

DIMENSIONAL DATA (mm) -
MODELS 1200 - 2000 - 3000



IN LINE VERSION



TOP SUPPLY VERSION

	A	B	C	D	E	F	G
FD 1200	1,640	1260	1,340	430	430	105	290
FD 2000	1,900	1,705	1,800	500	500	350	243
FD 3000	2,200	2,010	1,980	550	550	470	-



APPLICATIONS

SWIMMING POOLS

ARCHIVES

GYMS

STORAGE

IRONING ROOMS

LAUNDRY

RENTAL

HOTELS

INDUSTRY