



# PROFESSIONAL PORTABLE DEHUMIDIFIERS

# FD ECO - FDND - FDNF SERIES

The Fral portable professional dehumidifiers of the series FDNF – FDND are high-performance appliances, equipped with robust galvanized steel frame painted with epoxy resins and mounted on 4 swivel casters that make it easy to move. They have a high efficiency air filter in polyurethane, washable and easily replaceable, and a very large condensate collection tank with the possibility of direct drain.

It is possible to install a condensate lifting pump instead of the tank, that allows condensate pumping up to a height of 15 meters from the machine positioning level.

The main characteristic of all the Fral portable professional models of the series FDNF - FDND is the evaporation coil that consists of smooth tubes in aluminium (with the exception of the ECO model). This unique arrangement derived from professional dehumidifiers allows a lower power consumption of the appliance, with a very high efficiency even at low relative humidity. All models include the defrost timer and Hot Gas defrost (except for ECO).

## FEATURES

### FRAME

The frame and the sheets are hot galvanised, epoxy powder coated, ensuring high strength and durability.

### COMPRESSOR

Rotative compressor, mounted on vibration dampers.

### REFRIGERANT CIRCUIT

Evaporator: the evaporation coil consists of smooth tubes in aluminium. The smooth tubes ensure a high yield of the dehumidifier, significantly reducing energy consumption, even at low relative humidity.

Condenser: the coil is made of copper pipes and aluminium fins, the wide size of the condenser fins ensures resistance to dust, long life and easy maintenance of the machine.

### CONDENSATE COLLECTION TANK

The condensate collection tank, installed as standard, is very large and can be easily removed. The machine is also ready for connection to a fixed condensate drain.

### CONDENSATE LIFTING PUMP

Optional in all versions, it replaces the condensate collection tank and allows to remove the condensed water up to a height of 15 mt with respect to the position of the machine. Equipped with an alarm for dehumidifier stop in the case of pump failure.

Alternatively, it is available a condensate lifting pump kit, easily applicable outside the dehumidifier, provided with malfunction alarm that switches off the machine.

### FAN

Axial fan, statically and dynamically balanced, long-lasting and durable.

### AIR FILTER

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

### MICROPROCESSOR

Controls the defrosting cycles with hot gas, the timer of the compressor and the alarm card.

### CONTROL PANEL

Located at the top of the machine.

Executed according to the European standards in force.

### 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 2014/35/EU of 26 February 2014 on the safety of electrical products for use in Low Voltage; 2014/30/EU of 26 February 2014 in the field of electromagnetic compatibility.

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

EN 60335-1, EN 60335-2-40, EN 55014-1, EN 55014-2, EN 50581

Other applied technical standards and specifications: EN 378-2,

IEC 60335-2-40:2018 with R1234yf refrigerant.

We also declare that the product is manufactured in compliance with the RoHS Directive in force, that is 2011/65/EU.

## TECHNICAL SPECIFICATIONS

	FD 33 ECO	FDND 33	FDNF 33	FDNF 44	FDNF 62	FDNF 96
Rated average power consumption (27 °C - 60% R.H.)	360 W	380 W	380 W	540 W	750 W	1000 W
Maximum power consumption (35 °C - 70% R.H.)	480 W	480 W	480 W	690 W	890 W	1200 W
Maximum current consumption (35 °C - 70% R.H.) F.L.A.	2.3 A	2.3 A	2.3 A	3.7 A	4.4 A	6 A
Start up current L.R.A.	8,5 A	8,5 A	8,5 A	12 A	24 A	21 A
Air flow	350 mc/h	380 mc/h	380 mc/h	450 mc/h	550 mc/h	1000 mc/h
Sound pressure level (3 meters in open field)	43 db (A)	43 db (A)	43 db (A)	46 db (A)	50 db (A)	52 db (A)
Refrigerant	R290	R290	R290	R290	R1234yf	R1234yf
Capacity of the condensate water tank	7 kg	8 kg	8 kg	8 kg	14 kg	14 kg
Fitting on the machine for condensate drain	16 mm	3/4"	3/4"	3/4"	3/4"	3/4"
Operational range (temperatures)	7÷35 °C	1÷35 °C	1÷35 °C	1÷35 °C	1÷32 °C	1÷32 °C
Operating range (relative humidity) T < 30 °C	35÷93%	30÷93%	30÷93%	30÷93%	30÷98%	30÷98%
Operating range (relative humidity) T 30÷32 °C	35÷90%	30÷90%	30÷90%	30÷90%	30÷90%	30÷90%
Operating range (relative humidity) T 32÷35 °C	35÷70%	30÷70%	30÷70%	30÷70%	30÷70%	30÷70%

## ACCESSORIES

STANDARD
  OPTIONAL
  NOT AVAILABLE

Hot gas defrost	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Hour counter	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Electronic humidistat	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Condensate lifting pump	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Electronic control	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Energy meter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

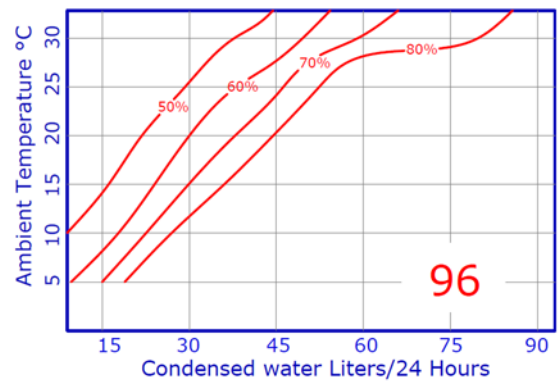
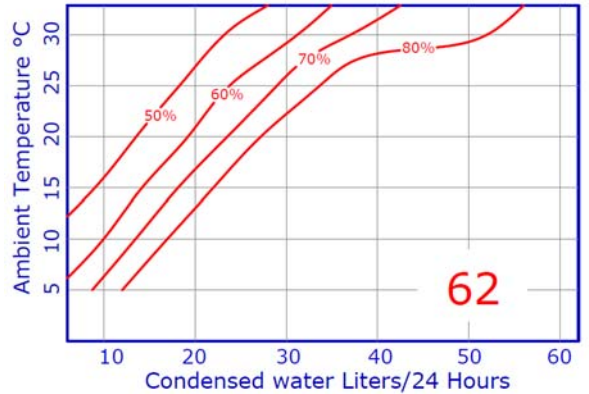
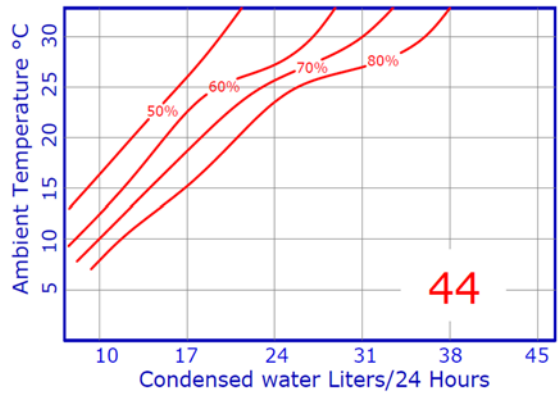
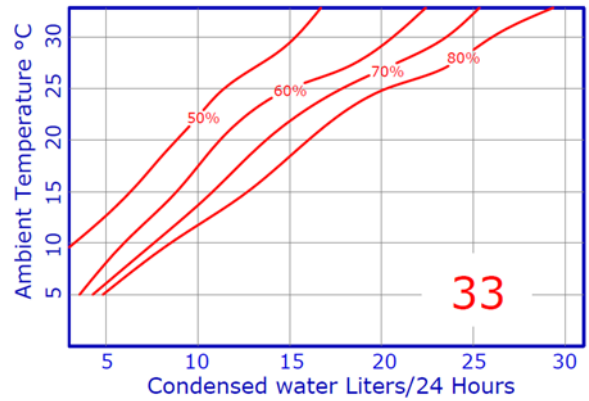
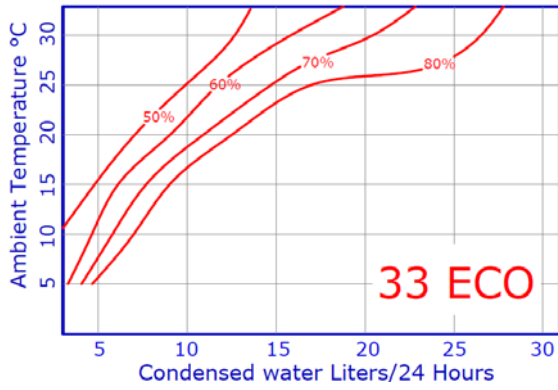
## DIMENSIONS AND WEIGHTS

Width	320 mm	350 mm	350 mm	350 mm	435 mm	545 mm
Height	595 mm	700 mm	690 mm	720 mm	770 mm	900 mm
Depth	330 mm	370 mm	370 mm	380 mm	410 mm	420 mm
Weight	23.5 kg	31.5 kg	31.5 kg	39 kg	42 kg	56 kg

## DIMENSIONS AND WEIGHTS WITH PACKING

Width	385 mm	450 mm	450 mm	440 mm	480 mm	580 mm
Height	660 mm	760 mm	760 mm	840 mm	840 mm	950 mm
Depth	385 mm	450 mm	450 mm	440 mm	480 mm	470 mm
Weight	24.5 kg	33.5 kg	33.5 kg	41 kg	44 kg	58 kg

# 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 33 ECO	4.5	7	5.5	9	9	12.5	11.5	17	13	19	26	33
FDND 33	6	8	9	13	11	16	15	19	18	24	26	33
FDNF 33	6	8	9	13	11	16	14	20	18	24	26	33
FDNF 44	8	11.5	12	17	15	21	19	26	24	31	36	44
FDNF 62	10	17	14	22	19	27	23	34	27	36	52	62
FDNF 96	18	26	24	37	30	45	37	52	44	56	80	96