



# PROFESSIONAL PORTABLE DEHUMIDIFIERS

# **FDNP SERIES**

The Fral portable professional dehumidifiers of the series FDNP are high-performance appliances, equipped with robust galvanized steel frame coated with epoxy resins and mounted on 2 big wheels that make it easy to move even in yard environments or in case of obstacles. 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 collection tank, allowing condensate pumping up to a height of 3.5 meters from the machine positioning level.

#### **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**

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

## **ACCESSORIES**

ACCESSORIES	STANDARD	OPTIONAL	X NOT AVAILABLE
Hot gas defrost			
Hour counter			
Electronic humidistat			
Condensate lifting pump			
Electronic control			
Energy meter			

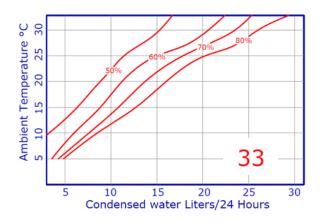
## **DIMENSIONS AND WEIGHTS**

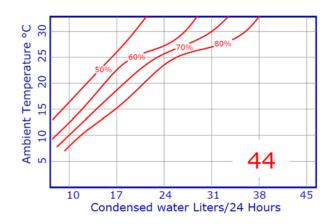
Width	480 mm	480 mm	560 mm	560 mm
Height	750 mm	800 mm	800 mm	1000 mm
Depth	370 mm	500 mm	520 mm	570 mm
Weight	35 kg	39 kg	45 kg	57 kg

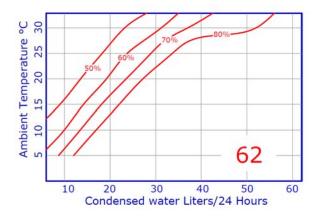
# **DIMENSIONS AND WEIGHTS WITH PACKING**

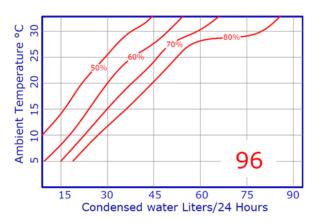
Width	440 mm	430 mm	590 mm	450 mm
Height	820 mm	840 mm	850 mm	1070 mm
Depth	430 mm	440 mm	590 mm	580 mm
Weight	37 kg	41 kg	48 kg	59 kg

# 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%
FDNP 33	6	8	9	13	11	16	14	20	18	24	26	33
FDNP 44	8	11.5	12	17	15	21	19	26	24	31	36	44
SUPERDRY 62	10	17	14	22	19	27	23	34	27	36	52	62
FDNP 96	18	26	24	37	30	45	37	52	44	56	80	96