

HDE

Portable dehumidifiers



HDE

The HDE portable dehumidifiers are designed for commercial and industrial applications where high performances are required.

These units can be used in cellars, yard rooms, food storage warehouses, and all those applications in which high dehumidification performances are required.

All units are equipped with hot gas defrost system to guarantee an excellent performance even at low ambient temperatures.

The robust AISI304 stainless steel frame and the sturdy transport wheels has been developed specifically for mobile use in the industrial sector.

All operating elements, connections and the electronic controller are fixed on the backside of the equipment, protected against bumps and accidental damages.

The model HDE 370 is also supplied with a two-stage ducted fan that ensures an available static pressure up to 300 Pa, granting so an excellent dehumidification in large rooms.

FEATURES

- AISI304 stainless steel frame
- Protection degree IP54
- Electronic controller
- Large, sturdy wheels
- Shockproof Controls
- Operating hours counter
- Hot gas defrost system
- 24V transformer for remote hygrometers/Dew point sensor
- Two stage radial fan with 300 Pa available static pressure (HDE370 only)
- Ready to plug in

ACCESSORIES

- Condensate discharge pump.

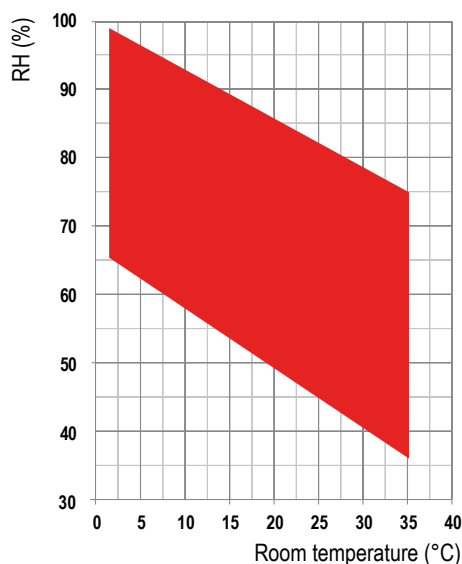
Models HDE		150	210	370
Refrigerant gas		R410A	R410A	R410A
Max Moisture removed 30°C - 80%r.F.	l/24h	40,8	71,7	93,2
Moisture removed 27°C - 60%r.F.	l/24h	29,6	53,0	65,3
Moisture removed 20°C - 60%r.F.	l/24h	21,5	39,4	48,0
Moisture removed 12°C - 70%r.F.	l/24h	15,9	32,1	38,8
Moisture removed 12°C - 70%r.F.	l/24h	11,9	26,2	30,9
Power supply	V/Ph/Hz	230/1/50	230/1/50	230/1/50
Maximum input power	A	0,70	0,94	2,40
Maximum input current	A	3,3	5,1	11,2
Operation temperature	°C	1 ÷ 35	1 ÷ 35	1 ÷ 35
Working range humidity	%	40 ÷ 99	40 ÷ 99	40 ÷ 99
Air flow	m ³ /h	600	800	1300
Fan speed		1	1	2
Available static pressure	Pa	-	-	300
Compressor	n°/type	1/Rotary	1/Rotary	1/Rotary
Sound power level ⁽¹⁾	dB(A)	55	56	65
Sound pressure level ⁽²⁾	dB(A)	47	48	57
Cabinet		AISI 304	AISI 304	AISI 304

Performances are referred to the following conditions:

(1) Sound power level calculated according to ISO 9614.

(2) Sound pressure level measured in free field, at 1 mt from the unit, directional factor Q=2 according to ISO 9614.

OPERATION LIMIT



FRAME

All HDE units are made from stainless steel AISI 304, to ensure the best resistance against the atmospheric agents. The frame is self-supporting with removable panels.

REFRIGERANT CIRCUIT

The refrigerant gas used in these units is R410A. The refrigerant circuit is made by using international primary brands components and according to ISO 97/23 concerning welding procedures. The refrigerant circuit includes: filter drier, capillary tube, Schrader valves for maintenance and control, solenoid valve, pressure safety device (according to PED regulation).

COMPRESSOR

The compressor is rotative type, with thermal protection embedded in the motor winding. Each compressor is mounted on rubber vibration dampers.

CONDENSER AND EVAPORATOR

The condensers and evaporators are made of copper pipes and aluminium fins. The diameter of the copper pipes is 3/8" and the thickness of the aluminium fins is 0,1 mm. The tubes are mechanically expanded into the aluminium fins to improve the heat exchange factor. The geometry of these condensers guarantees a low air side pressure drop and then the use of low rotation (and low noise emission) fans. All the units have a stainless steel drip tray. Besides this, each evaporator is supplied of a temperature probe used as automatic antifreeze sensor.

FAN HDE150-210

The fan is axial type, statically and dynamically balanced, supplied complete with protection grill according to EN 294. The electric motor is directly connected to the fan and equipped of an integrated thermal overload protection. The protection class of the motors is IP 55.

FAN HDE370

The fan is centrifugal type. It's statically

and dynamically balanced and supplied complete of the safety fan guard according to EN 294. It's mounted on the unit frame by interposition of rubber vibration dampers. The electric motor is at 4 poles (about 1500 rpm) directly connected to the fan and equipped of an integrated thermal overload protection. The protection class of the motors is IP 55.

AIR FILTER

It's supplied standard with the unit. It's made of filtering material in synthetic fibre without electrostatic charge. It can be removed for differential disposal, class G2, according to EN 779:2002.

MICROPROCESSOR

All HDE units are supplied standard with microprocessor controls. The microprocessor controls the following functions: compressor timing, automatic defrost cycles and alarms. An appropriate LCD display shows the operation mode of the unit, set point and alarms.

ELECTRIC BOX

The electric switch board is made according to electromagnetic compatibility norms CEE 73/23 and 89/336. The accessibility to the board is possible after removing the back panel of the unit. The following components are installed: compressor relay, green main switch On/Off, Black by-pass switch, remote hygrostat connection kit, run hour meter.

CONTROL AND PROTECTION DEVICES

All units are supplied with the following control and protection devices: defrost thermostat, who signals to the microprocessor control that a defrost cycle is needed and controls its termination.

TEST

All the units are fully assembled and wired at the factory, carefully evacuated and dried after leak tests under pressure and then charged with refrigerant R410A. They are all fully operational tested before shipment.

They all conform to European Directives and are individually marked with the CE label and provided with Conformity Declaration.

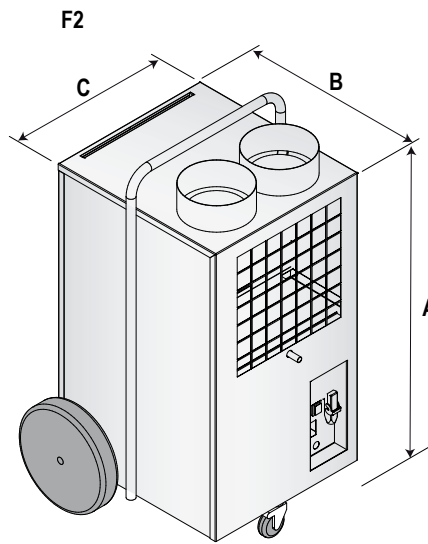
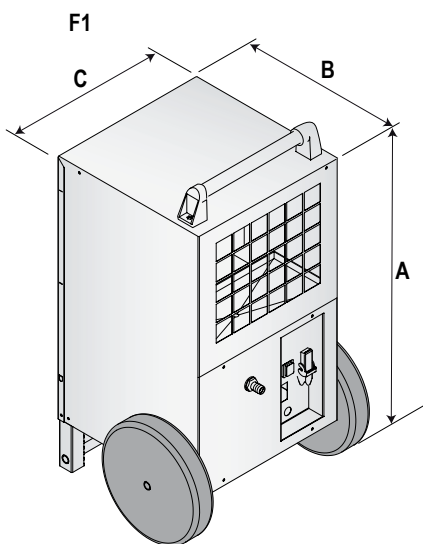
ACCESSORIES

CONDENSATE DISCHARGE PUMP

Centrifugal package type, with high available static pressure, it is supplied with water tank, one way valve and floating sensor device. The pump is supplied with an alarm contact who stops the compressor operation in case the pump does not run properly.

HDE Features	150	210	370
AISI304 stainless steel frame	●	●	●
Protection degree IP54	●	●	●
Electronic controller	●	●	●
Large, sturdy wheels	●	●	●
Shockproof Controls	●	●	●
Operating hours counter	●	●	●
Hot gas defrost system	●	●	●
24V transformer for remote hygrostats/Dew point sensor	●	●	●
Two stage radial fan with 300 Pa available static pressure	–	–	●
Ready to plug in	●	●	●
Condensate discharge pump	○	○	○

● Standard, ○ Optional, – Not available.



Mod.		A (mm)	B (mm)	C (mm)	Kg
150	F1	842	440	544	49,5
210	F1	892	440	544	56,4
370	F2	1072	553	610	82,0