

DE-HUMIDIFIER CUM (ENVIRONMENTAL CONTROLLER)

Humidity Range : 35% RH Accuracy : +/-3% RH

These equipments are capable of maintaining Relative Humidity of 35% RH to 45% RH & are mainly used in Pharmaceutical Laboratories, Capsules, Strip Packing, Tablet Section, Packing rooms, Processing Industries, Printing & Lithography, Photographic Industries, Communication equipment rooms, Computer & data storage various other purposes.

Construction :

Heavy gauge construction of CRCA sheet or AISI Stainless Steel. Robust angular structure, removable casing panels makes all parts easily accessible for adjustments & service when required

Working of the Environment Controller (De-humidifier Cum Humidifier)

The equipment is based on refrigeration principle. It removes the moisture content of humid air in an enclosed room & condenses the moisture of the humid air into water, which continuously drops into a tray. No chemicals or dehydrating substances are used, Relative Humidity can be maintained depending upon the cubic feet volume, the temp. & no of occupants in the room, the walls & ceilings should be vapour proof to minimize infiltration of moisture into the room. It is also connected with a humidification system which increases the humidity in case there is low Humidity & maintains automatically.

Refrigeration System :

It is fitted with a hermetically sealed compressors to operate on 230 volts +/-5% A. C, Single phase 50Hz, with heat exchanging coil, water condensing coil & fan motor assembly. The unit is mounted on a trolley with a water collection tank at the bottom. Humidification system has boiler tank with boiler heater, S.S water reservoir tank with float valve is provided to create humidity in case of low humidity.

Dimensions

Horizontal Model overall Size : 30"H x 18"W x 18"D
Vertical Model overall Size : 42"H x 22"W x 24"D

Application :

The following are the required conditions for Installation of Environmental controller (De-Humidifier).

CAPACITY	ROOM VOLUME	NO OF OCCUPANTS IN THE ROOM
1.0 tonne	2500 cu.ft	5
1.5 tonnes	3750 cu.ft	7
2.0 tonnes	5000 cu.ft	9

Room Temperature :

When operating the equipment the room temp. will tend to rise on account of its moisture removal latent heat load & the electrical motor operating in the equipment, A sufficient capacity Air Conditioner given below to be installed along with the Environmental Controller (De-Humidifier) The total heat load thus added to the room is given under.

Environmental Controller (De-Humidifiers) Capacity	Approx. Heat Load added to the room.	Air Condition
1 tonne 1. 5 tonnes 2 tonnes	2500 BTU 9000 BTU. 12000 BTU	1 tonne 1.5 tonnes 2 tonnes.

RH conditions :

A few of the typical temperature & the corresponding Relative Humidity conditions attainable in a room are given here under.

Room Temp. is maintained at	RH of the room (approx)
70C F or higher	45%
74C F or higher	40%
81C F or higher	45%