

## HC-300



## HC-300 Desiccant Dehumidifier

### ADVANTAGES

- High efficiency humidity control
- Light, compact, durable and corrosion resistant construction
- Easy inspection and maintenance
- Simple ductwork and humidistat connections

# HC-300

## Desiccant Dehumidifier

Munters compact dehumidifier combines state-of-the-art desiccant technology in a self-contained unit to provide dependability and long operating life for humidity control at virtually any temperature. The HC-300 is perfect for product drying, mold and mildew control, corrosion protection, storage and condensation control, while providing an industry leading 1.7 lb water/kWh\* moisture removal efficiency.

**Process air:** Flow rate of 150-300 SCFM. 9.7 lb/hr\* moisture removal. Capable of processing saturated, conditioned or outside air. Industry leading 1.7 lb water/kWh\* moisture removal efficiency.

**Contact air seals:** Separate process and reactivation air streams to minimize leakage and improve performance.

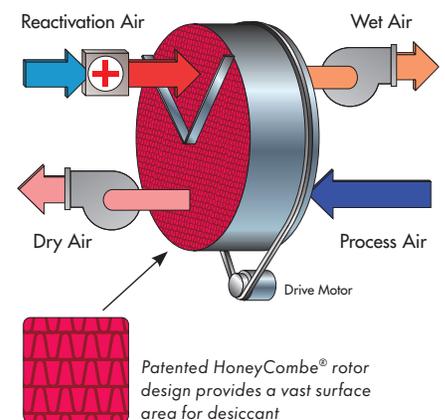
**Electrical controls:** Simple automatic control system monitors and controls unit functions. Automatic restart after power failure. Visual indicators and contacts for remote run and fault status. Elapse time meter. Auto/Manual selection switch with humidistat connection kit and optional low voltage humidistat.

**Drive system:** Continuous rotation, with simple drive belt arrangement and few moving parts.

**Reactivation utility:** Solid-state energy modulation of heater reduces energy consumption that optimizes desiccant media regeneration. Includes independent reactivation fan and high temperature protection.

**Dehumidifier housing:** Light and durable weld aluminum cabinet with hinged front access panel. Process and reactivation airflow insulation to reduce heat loss and condensation risk. Blower motors and control isolated from air streams, and fan guards provided for safety. Volume control dampers for adjusting process and reactivation air streams. Compact size for minimal space requirements and easy installation.

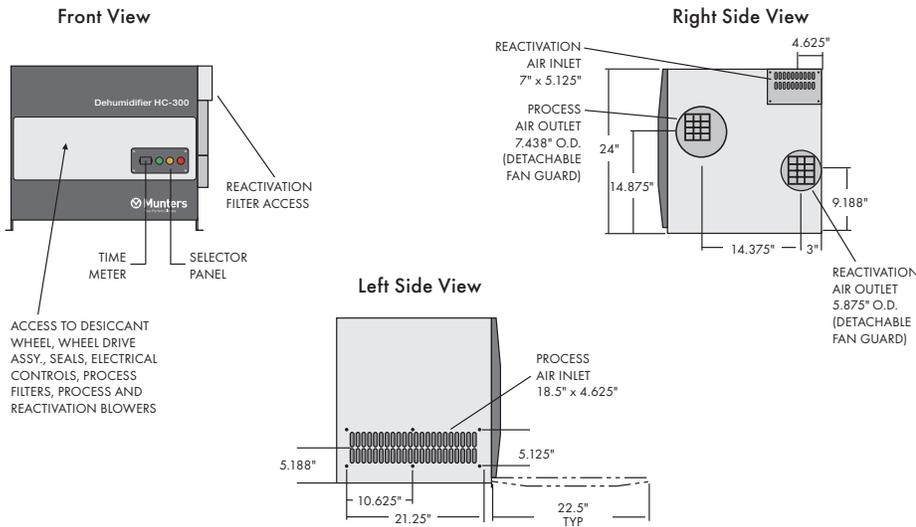
\* 75°F and 85 gpp entering air conditions using actual running power of reactivation heater.



*In the 1950's Munters invented modern industrial dehumidification when it introduced the self-regenerating desiccant rotor, the heart of the dehumidifier.*

*Today, Munters offers rotors with multiple desiccant formulations and is the acknowledged expert in the integration of rotors into dehumidification systems and air handlers.*

# Model HC-300



Model	Max Length (in)	Max Width (in)	Max Height (in)	Max Weight (lb)
HC-300	30	23.5	24	115

## Suggested Specification Guide

Dehumidifier shall be of a type proven in satisfactory operation for a minimum of 10 years. Dehumidifier shall be of the non-cycling sorption type with a single desiccant rotary structure. The casing will be fabricated as a unitized body with welded aluminum construction for maximum strength and durability. Suitable access panel shall allow access for inspection or servicing without disconnecting ducting or electrical wiring. Airflow balancing dampers to be furnished.

The rotary structure shall be a monolithic fabricated extended surface consisting of inert silicates reinforced with uniform diameter glass fibers for maximum strength. The fabricated structure shall be smooth and continuous in the direction of airflow without interruptions or sandwich layers which restrict airflow or create a leakage path at joining surfaces. Desiccant shall not channel, cake or fracture due to repeated temperature and moisture cycling. The materials of construction shall be water washable, non-toxic and NFPA 255-ASTM E84 compliant.

Full face contact pressure seals shall be provided to separate the process and reactivation air streams and eliminate detrimental leakage of air or moisture with static pressure differentials of up to 3" of water gauge.

Dehumidifier shall be factory assembled; fully automatic, complete with HoneyCombe® desiccant wheel, reactivation heaters, reactivation energy control system, roughing filters, industrial drive motor, fans, non-ratcheting desiccant drive unit, automatic controller and all components' auxiliaries. Reactivation energy modulation shall be stepless solid state proportioning type. Dehumidifier shall be functionally tested at the manufacturer's factory and shipped complete with all components necessary to maintain normal operation.

\*Continual engineering and research for product improvement may result in design and specification changes. Consult factory for certified technical data.

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## Technical Specifications\*

Process volume: 150-300 SCFM

Process E.S.P: 1.75" W.G.\*\*

Max reactivation volume: 100 SCFM

Reactivation E.S.P: 1.25" W.G.\*\*

Max reactivation heater:

HC-300 = 6kW@240/480V

Utilities: 208-240/1/60, 208-240/3/60, 460/3/60

Maximum FLA:

HC-300 = 31A @ 240V/1/60Hz

HC-300 = 19A @ 240V/3/60Hz

HC-300 = 9.7A @ 460V/3/60Hz

Max dBA: 75 (three feet from dehumidifier except in path of airflows)

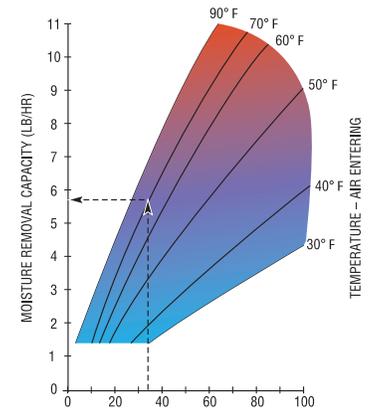
Filters: Washable metal roughing filters

Options:

- Humidstat for on/off control
- Constant process blower
- Process inlet transitions for round duct
- Precool module, water/glycol

\*\*Ducted application with fan guard removed

## HC-300 Performance



**Example:**

Process air in at 35% RH and 70°F will hold space at 35% RH with a moisture load of 5.8 lb/hr. To find the temperature of process outlet air ( $T_{PO}$ ) solve:

$$T_{PO} = .9 (3.6W + T_{PI}) + 23 \text{ where}$$

$T_{PI}$  = temperature process inlet air °F

**Example:**

$$T_{PO} = .9 (3.6 \times 5.8 + 70) + 23$$

$$T_{PO} = 105^\circ\text{F}$$



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