



ASSOCIATED ENVIRONMENTAL SYSTEMS

HD Series

TEMPERATURE AND HUMIDITY FLOOR CHAMBER



Description:

The HD series floor standing chamber can create a wide range of temperature and relative humidity levels with the maximum being -65°C to 180°C and 20% to 98% RH. The chambers range from 1 cubic foot to 64 cubic feet.

Standard Features:

- Interior: All stainless steel type 304
- Exterior: Heavy gauge cold rolled steel with powder coat paint
- 3" access port and plug on right side wall
- Adjustable digital high temperature safety
- Watlow F4 programmable controller with RS232 interface
- 12" or 8" multipane viewing window in door
- Internal light with external switch
- Casters (set of 4)



HD Series

Specifications

Options:

- Custom Port Sizes
- Shelf Modification
- LN₂/CO₂ Cooling
- CO₂ Scrubber
- Air Dryer for Lower Humidity Range
- IEEE-488 Interface
- Ethernet Interface
- Dry Nitrogen Purge
- Programmable Chart Recorder
- Adjustable High/Low Temperature Safety
- Water Cooled Condenser
- Water Recycling System
- Water Demineralizer Cartridge
- Noise Reduction Package
- Touch Screen Control

HD – 400 Series (Sm.)

Temperature Range: -17°C to +180°C (0°F to +356°F)

Compressors: Copeland, Single Stage

Controller: Watlow F4 Programmable Controller with RS232 Communication

| Model | Working Volume (cu. ft.) | Dimensions: (H" x W" x D") | Temp. Rise Time – Ambient to Upper Limit | Temp. Pull Down Time – Ambient to Lower Limit | Power Requirements |
|--------|--------------------------|--|--|---|--|
| HD-405 | 5 | Internal: 20 x 22 x 20 External: 69 x 31 x 44 | 40 min. | 20 min. | 1 Phase 220 Volt 60 Hz. 1 Phase 200 Volt 50 Hz. |
| HD-408 | 8 | Internal: 24 x 24 x 24 External: 70 x 33 x 43 | 40 min. | 25 min. | 1 Phase 220 Volt 60 Hz. 1 Phase 200 Volt 50 Hz. |
| HD-410 | 10 | Internal: 28 x 24 x 27 External: 71 x 33 x 52 | 40 min. | 25 min. | 1 Phase 220 Volt 60 Hz. 1 Phase 200 Volt 50 Hz. |
| HD-413 | 13 | Internal: 28 x 28 x 28 External: 71 x 37 x 52 | 40 min. | 25 min. | 3 Phase 220 Volt 60 Hz. 3 Phase 200 Volt 50 Hz. |
| HD-421 | 21 | Internal: 32 x 32 x 32 External: 72 x 41 x 54 | 40 min. | 20 min. | 3 Phase 220 Volt 60 Hz. 3 Phase 200 Volt 50 Hz. |

HD – 500 Series (Sm.)

Temperature Range: -37°C to +180°C (-35°F to +356°F)

Compressors: Copeland, Single Stage

Controller: Watlow F4 Programmable Controller with RS232 Communication

| Model | Working Volume (cu. ft.) | Dimensions: (H" x W" x D") | Temp. Rise Time – Ambient to Upper Limit | Temp. Pull Down Time – Ambient to Lower Limit | Power Requirements |
|--------|--------------------------|--|--|---|--|
| HD-505 | 5 | Internal: 20 x 22 x 20 External: 69 x 31 x 44 | 20 min. | 35 min. | 1 Phase 220 Volt 60 Hz. 1 Phase 200 Volt 50 Hz. |
| HD-508 | 8 | Internal: 24 x 24 x 24 External: 70 x 33 x 43 | 20 min. | 50 min. | 1 Phase 220 Volt 60 Hz. 1 Phase 200 Volt 50 Hz. |
| HD-510 | 10 | Internal: 28 x 24 x 27 External: 71 x 33 x 52 | 20 min. | 35 min. | 1 Phase 220 Volt 60 Hz. 1 Phase 200 Volt 50 Hz. |
| HD-513 | 13 | Internal: 28 x 28 x 28 External: 71 x 37 x 52 | 20 min. | 35 min. | 3 Phase 220 Volt 60 Hz. 3 Phase 200 Volt 50 Hz. |
| HD-521 | 21 | Internal: 32 x 32 x 32 External: 72 x 41 x 54 | 20 min. | 35 min. | 3 Phase 220 Volt 60 Hz. 3 Phase 200 Volt 50 Hz. |

HD – 200 Series (Sm.)

Temperature Range: -65°C to +180°C (-85°F to +356°F)

Compressors: Copeland, Cascade

Controller: Watlow F4 Programmable Controller with RS232 Communication

| Model | Working Volume (cu. ft.) | Dimensions: (H" x W" x D") | Temp. Rise Time – Ambient to Upper Limit | Temp. Pull Down Time – Ambient to Lower Limit | Power Requirements |
|--------|--------------------------|--|--|---|--|
| HD-205 | 5 | Internal: 20 x 22 x 20 External: 69 x 31 x 44 | 20 min. | 60 min. | 1 Phase 220 Volt 60 Hz. 1 Phase 200 Volt 50 Hz. |
| HD-208 | 8 | Internal: 24 x 24 x 24 External: 70 x 33 x 43 | 20 min. | 60 min. | 1 Phase 220 Volt 60 Hz. 1 Phase 200 Volt 50 Hz. |
| HD-210 | 10 | Internal: 28 x 24 x 27 External: 71 x 33 x 52 | 20 min. | 60 min. | 1 Phase 220 Volt 60 Hz. 1 Phase 200 Volt 50 Hz. |
| HD-213 | 13 | Internal: 28 x 28 x 28 External: 71 x 37 x 52 | 20 min. | 60 min. | 3 Phase 220 Volt 60 Hz. 3 Phase 200 Volt 50 Hz. |
| HD-221 | 21 | Internal: 32 x 32 x 32 External: 72 x 41 x 54 | 20 min. | 60 min. | 3 Phase 220 Volt 60 Hz. 3 Phase 200 Volt 50 Hz. |



HD Series

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Options:

- Custom Port Sizes
- Shelf Modification
- LN₂/CO₂ Cooling
- CO₂ Scrubber
- Air Dryer for Lower Humidity Range
- IEEE-488 Interface
- Ethernet Interface
- Dry Nitrogen Purge
- Programmable Chart Recorder
- Adjustable High/Low Temperature Safety
- Water Cooled Condenser
- Water Recycling System
- Water Demineralizer Cartridge
- Noise Reduction Package
- Touch Screen Control

HD – 400 Series (Lg.)

Temperature Range: -17°C to +180°C (0°F to +356°F)

Compressors: Copeland, Single Stage

Controller: Watlow F4 Programmable Controller with RS232 Communication

| Model | Working Volume (cu. ft.) | Dimensions: (H" x W" x D") | Temp. Rise Time – Ambient to Upper Limit | Temp. Pull Down Time – Ambient to Lower Limit | Power Requirements |
|--------|--------------------------|--|--|---|--|
| HD-427 | 27 | Internal: 36 x 36 x 36 External: 81 x 54 x 74 | 20 min. | 20 min. | 3 Phase 220 Volt 60 Hz. 3 Phase 200 Volt 50 Hz. |
| HD-432 | 32 | Internal: 38 x 38 x 38 External: 83 x 56 x 76 | 20 min. | 20 min. | 3 Phase 220 Volt 60 Hz. 3 Phase 200 Volt 50 Hz. |
| HD-449 | 49 | Internal: 42 x 42 x 44 External: 87 x 60 x 82 | 20 min. | 20 min. | 3 Phase 220 Volt 60 Hz. 3 Phase 200 Volt 50 Hz. |
| HD-464 | 64 | Internal: 48 x 48 x 48 External: 95 x 70 x 85 | 20 min. | 20 min. | 3 Phase 220 Volt 60 Hz. 3 Phase 200 Volt 50 Hz. |

HD – 500 Series (Lg.)

Temperature Range: -37°C to +180°C (-35°F to +356°F)

Compressors: Copeland, Single Stage

Controller: Watlow F4 Programmable Controller with RS232 Communication

| Model | Working Volume (cu. ft.) | Dimensions: (H" x W" x D") | Temp. Rise Time – Ambient to Upper Limit | Temp. Pull Down Time – Ambient to Lower Limit | Power Requirements |
|--------|--------------------------|--|--|---|--|
| HD-527 | 27 | Internal: 36 x 36 x 36 External: 81 x 54 x 74 | 20 min. | 35 min. | 3 Phase 220 Volt 60 Hz. 3 Phase 200 Volt 50 Hz. |
| HD-532 | 32 | Internal: 38 x 38 x 38 External: 83 x 56 x 76 | 20 min. | 50 min. | 3 Phase 220 Volt 60 Hz. 3 Phase 200 Volt 50 Hz. |
| HD-549 | 49 | Internal: 42 x 42 x 44 External: 87 x 60 x 82 | 20 min. | 35 min. | 3 Phase 220 Volt 60 Hz. 3 Phase 200 Volt 50 Hz. |
| HD-564 | 64 | Internal: 48 x 48 x 48 External: 95 x 70 x 85 | 20 min. | 35 min. | 3 Phase 220 Volt 60 Hz. 3 Phase 200 Volt 50 Hz. |

HD – 200 Series (Lg.)

Temperature Range: -65°C to +180°C (-85°F to +356°F)

Compressors: Copeland, Cascade

Controller: Watlow F4 Programmable Controller with RS232 Communication

| Model | Working Volume (cu. ft.) | Dimensions: (H" x W" x D") | Temp. Rise Time – Ambient to Upper Limit | Temp. Pull Down Time – Ambient to Lower Limit | Power Requirements |
|--------|--------------------------|--|--|---|--|
| HD-227 | 27 | Internal: 36 x 36 x 36 External: 81 x 54 x 74 | 20 min. | 70 min. | 3 Phase 220 Volt 60 Hz. 3 Phase 200 Volt 50 Hz. |
| HD-232 | 32 | Internal: 38 x 38 x 38 External: 83 x 56 x 76 | 20 min. | 70 min. | 3 Phase 220 Volt 60 Hz. 3 Phase 200 Volt 50 Hz. |
| HD-249 | 49 | Internal: 42 x 42 x 44 External: 87 x 60 x 82 | 20 min. | 70 min. | 3 Phase 220 Volt 60 Hz. 3 Phase 200 Volt 50 Hz. |
| HD-264 | 64 | Internal: 48 x 48 x 48 External: 95 x 70 x 85 | 20 min. | 70 min. | 3 Phase 220 Volt 60 Hz. 3 Phase 200 Volt 50 Hz. |