Co-Airo 150/200
Whole-house Dehumidifier

Features

Fresh Air Damper:

In the powered-on state, press the "Menu" button to enter the function selection. Cycle through to select the fresh air icon ⬆, then press the "Set" button to confirm activation. The icon will change from ⬆ to ⬆. If no operation is performed within 3 seconds, the icon will revert from ⬆ to ⬆, and the house icon in the central display will open, showing ≋.

Once the fresh air function is activated, the fresh air valve will operate in conjunction with the dehumidifier, turning on or off as needed.

When the fresh air function is active and the air valve is open, the ≋ will display dynamically; when the valve is closed, the ≋ will display statically.

To deactivate the fresh air function, perform the same steps, and the corresponding icons will change back.
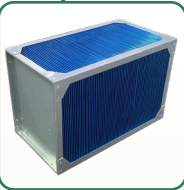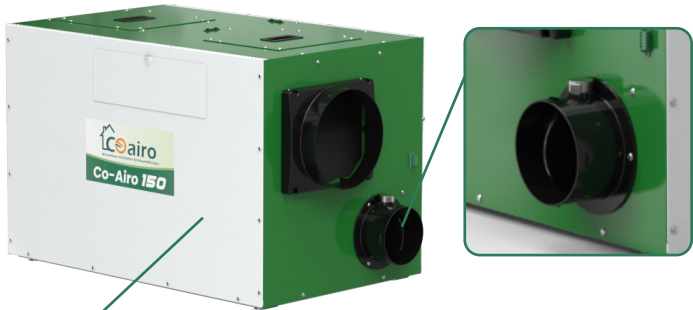
Pre-cooler (Black box):

The pre-cooler allows incoming air of varying temperatures to exchange heat internally, reducing the air temperature before it enters the evaporator. This pre-cooling process improves the overall efficiency of the dehumidification system.

Control:

Wired Controller; A3-A4 Terminal Strip (HVAC Central Control cMode)

A1-A9 Function Description

Item	Function Description	Remark
A1/A2	Dehumidifier Status Feedback: when the dehumidifier is on (standby), A1/A2 is active. If the dehumidifier is in a shutdown (fault) state, A1/A2 is disconnected.	Switch status output
A3/A4	If A3/A4 receives 24 V AC, the dehumidifier will automatically switch to central air conditioning control mode. The display will show "CC," and the dehumidifier will operate continuously. When A3/A4 is powered off, the dehumidifier enters shutdown mode, and the display shows "--". If the display shows "--", press the device power button to return to normal mode and turn the device back on. Once A3/A4 is powered on again, the dehumidifier will re-enter CC mode.	On/off control logic of central air conditioning mode
A5/A6	Normally Open: When connected, this indicates the external water level is full, triggering an E4 error code.	External water level: not connected.
A8/A9	Normally Closed: When disconnected, this also indicates the external water level is full, triggering an E4 error code.	External water level: short circuit.

Pre-cooler (Black Box)
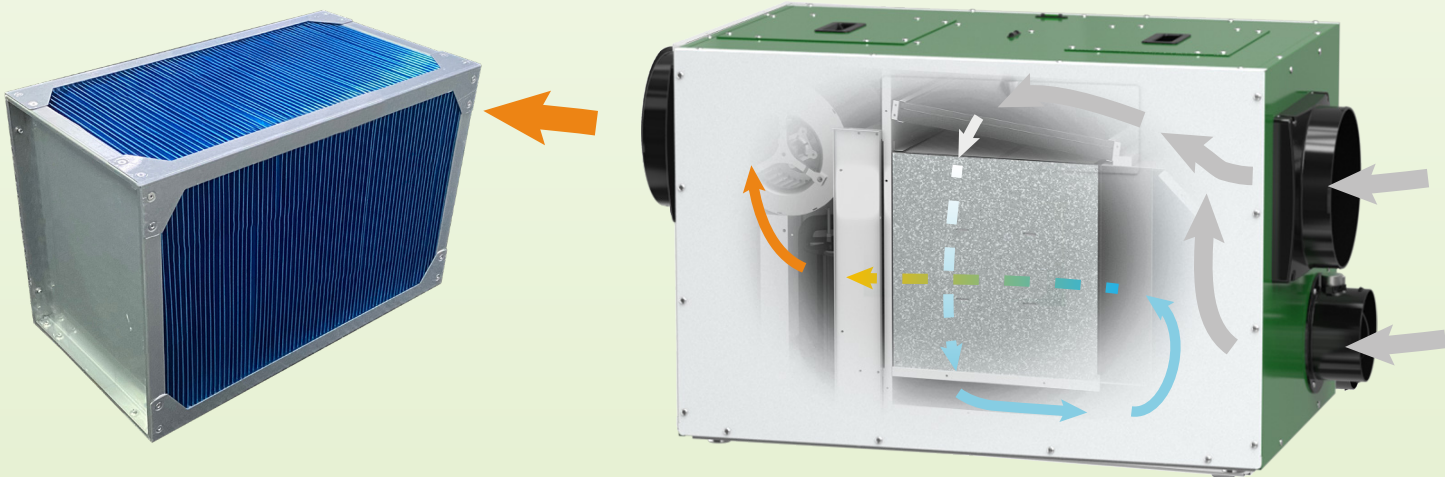
Whole-house Dehumidifier

Installation Options

1. Air inlet and outlet modes
Adjust the direction of the air outlet as needed. Each air outlet can be connected to an air duct.

Wind in from front
wind out from back

Wind in from the top
wind out from the back
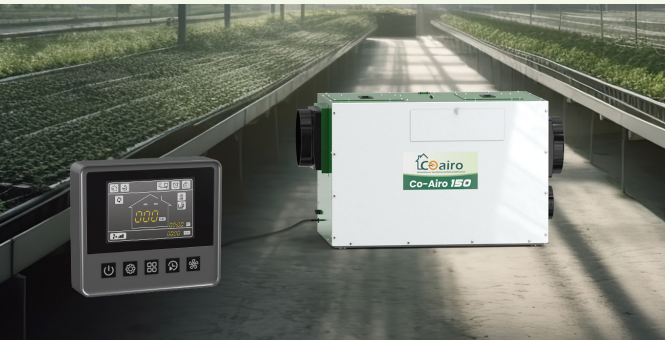
Wind in from front
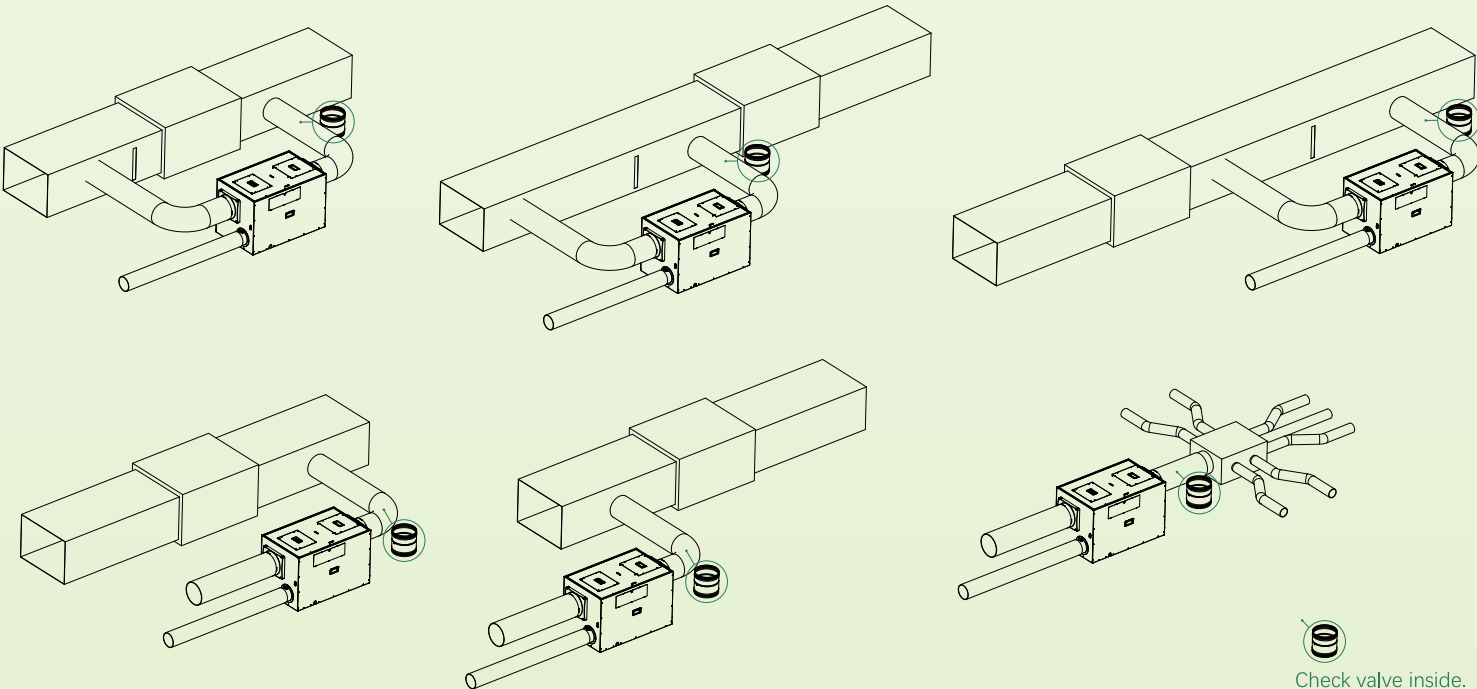wind out from top

Wind in from top
wind out from top

2. Hanging

Application   Agricultural application scenarios

Check Valve And Pipe Connection Diagram

Check valve inside.

Whole-house Dehumidifier

Specifications

Whole house dehumidifier 150 PPD - MERV-10+G1 filter test data

Working Conditions	DOE (22.78 °C/60% RH)	AHAM (26.7 °C/60% RH)	30 °C/80% RH
Dehumidification Capacity	115 PPD	140 PPD	200 PPD
Efficiency	3.4 L/kWh (Certification standards 3.3 L/kWh)	3.7 L/kWh	4.3 L/kWh
Efficiency	7.2 Pints/kWh	7.8 Pints/kWh	9.0 Pints/kWh

Whole house dehumidifier 200 PPD - MERV-10+G1 filter test data

Working Conditions	DOE (22.78°C/60% RH)	AHAM (26.7°C/60% RH)	30 °C/80% RH
Dehumidification Capacity	140 PPD	165 PPD	250 PPD
Efficiency	3.2 L/kWh	3.3 L/kWh	4.2 L/kWh
Efficiency	6.8 Pints/kWh	7.0 Pints/kWh	8.8 Pints/kWh

Note: Daily dehumidification capacity ≥ 155 PPD does not meet Energy Star Standards.

Performance standards for Energy Star certified residential dehumidifiers

Product Volume (ft³)	Comprehensive energy factor under test conditions (L/kWh)
≤8	2.09
>8	3.3

Excluded Products: Dehumidifiers with product capacities greater than 155 U.S. pints/day(73.34 liters/day) are not eligible for ENERGY STAR.

Noise in Constant Air Volume and Low Noise Mode

In 0 Pa static pressure, air volume value and noise value.

Mode	100	120	150	200
Constant Air Volume (m³/h)	525	525	650	700
Min. Noise	44dB	48dB	52dB	53dB
Max. Noise	55dB	62dB	64dB	65dB

Filter Replacement
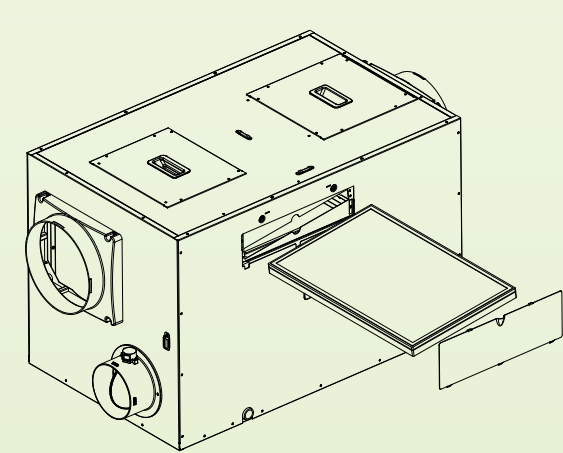
Whole-house Dehumidifier

Whole-home Specifications Summary

Unit	100 PPD	120 PPD	150 PPD	200 PPD
Performance				
AHAM Capacity	92	104	140	165
AHAM Efficiency	2.6	2.6	3.7	3.3
DOE Capacity	70	85	115	140
DOE Efficiency	2.2	2.4	3.4	3.2
Blower CFM				
Low Noise Mode	390 m³/h	390 m³/h	525 m³/h	525 m³/h
0" WG	525 m³/h	525 m³/h	650 m³/h	700 m³/h
Recommended Sizing (Building Size sq ft/volume)	2300	3000	3500	4500
Electrical				
AHAM Power (Watts)	685 W	785 W	745 W	975 W
Supply Voltage	115/1/60	115/1/60	115/1/60	115/1/60
Current Draw	5.9 A	6.8 A	6.5 A	8.5 A
Power Cord (Length and Plug Type)	5.4m (US std.)	5.4m (US std.)	5.4m (US std.)	5.4m (US std.)
Circuit Requirement (Amperage)	15 A	15 A	15 A	15 A
Duct Connections (Dimensions)				
Inlet	10″	10″	10″	10″
Outlet	10″	10″	10″	10″
Fresh Air	6″	6″	6″	6″
Drain Connection (Size)	φ 14 mm / 3/4" Threaded Female NPT	φ 14 mm / 3/4" Threaded Female NPT	φ 14 mm / 3/4" Threaded Female NPT	φ 14 mm / 3/4" Threaded Female NPT
Refrigerant (Type and Weight)	R32（425g)	R32（520g)	R32（610g)	R32（650g)
Unit Dimensions	22.64×14.65×19.88"	22.64×14.65×19.88"	37.3×23.4×24.3"	37.3×23.4×24.3"
Unit Weight	89.07 lbs	89.07 lbs	181.4 lbs	187.4 lbs
Shipping Dimensions	35.43×17.72×23.03"	35.43×17.72×23.03"	48.03×27.56×31.5"	48.03×27.56×31.5"
Shipping Weight	101.4 lbs	101.4 lbs	230.4 lbs	235.9 lbs
Loading Quantity	20": 120 Sets, 40": 268 Sets, 40"HQ: 268 Sets	20": 120 Sets, 40": 268 Sets, 40"HQ: 268 Sets	20": 36 Sets, 40": 84 Sets, 40"HQ: 84 Sets	20": 36 Sets, 40": 84 Sets, 40"HQ: 84 Sets
Check Valve Loading Quantity	20": 490 Sets, 40": 1064 Sets, 40"HQ: 1216 Sets			
Control Options				
Wired Controller	OPT	OPT	OPT	OPT
Thermostat by Others	OPT	OPT	OPT	OPT
Dampers				
Fresh Air	√	√	√	√
Supply Backflow	√	√	√	√
Outdoor Air Backflow	√	√	√	√
Flexible Ducting Positions	x	x	x	x
Sound Level (dBA)	44 Min. / 55 Max.	48 Min. / 62 Max.	52 Min. / 64 Max.	53 Min. / 65 Max.
Filtration Type	MERV-10	MERV-10	MERV-1 / MERV-10	MERV-1 / MERV-10