

DEHXXCDA

Dehumidifier

DEHXXCDA1080 (80 PPD)

DEHXXCDA1100 (100 PPD)



Turn to the experts

Product Data



A210054CA

The Carrier Dehumidifier controls the humidity level in the entire home. A powerful blower inside the dehumidifier draws air into the cabinet, filters the air and removes moisture, then discharges the dry air into the HVAC system or dedicated area of the home. Inside the cabinet, a sealed refrigeration system removes moisture by moving the air through a series of tubes and fins that are kept colder than the dew point of the incoming air. The dew point is the temperature at which moisture in the air will condense, much like what occurs on the outside of a cold glass on a hot summer day. The condensed moisture drips into the dehumidifier drain pan to a drain tube routed to the nearest floor drain or condensate pump. After the moisture is removed, the air moves through a second coil where it is reheated before being sent back into the home.

The air leaving the dehumidifier will be warmer and drier than the air entering the dehumidifier.

FEATURES AND BENEFITS

Easy, Versatile Control

The on-board LCD control provides a user-friendly interface for setting desired dehumidification levels. For even greater convenience, the whole-home dehumidifier can be controlled with a relative humidity thermostat or from an available remote control.

Maintenance and Cleaning

Because routine filter cleaning ensures top performance, the dehumidifier control features a built-in "clean filter" reminder. A convenient access door on two sides of the cabinet allows for quick and easy removal and cleaning of the washable Merv 8 filter.

Quiet Comfort

The precision-tuned fan and motor quietly and efficiently pull air into the dehumidifier with sound levels comparable to most furnaces and fan coils.

Customized to your needs

Available in 80 or 100 Pint Per Day (PPD) sizes, this dehumidifier offers versatility to fit your comfort needs. It can be zoned to provide separate humidity control for two areas. It can also be installed as a standalone unit or in multiple ducting configurations and locations such as a closet, basement attic or crawlspace.

Protects Your Air and Furnishings

Excess humidity in the home can wreak havoc on indoor air quality and furnishings. By pulling moisture from the indoor air, the whole home dehumidifier not only enhances personal comfort, but also protects the furnishings and enhances the quality of the air that the occupants breathe every day.

Specifications

Table 1 – Product Features

Controls	Built-in Digital Control
Cabinet Insulation	1/2-in. EPS
Air Discharge Orientation	Top or End
Inlet/Outlet Duct Collars	10-in. Diameter
Backdraft damper at Outlet	Included
Filter	1/2-in. washable, MERV 8
Refrigerant	Puron®
Coil	Aluminum Tubing with Aluminum Fins, E-coated for Corrosion Resistance
Power Cord	Plug Type, 8-foot, NEMA 5-15P
Hard-wire Option	Yes, field configurable
Discharge Air Temperature Rise	10°F - 30°F
Drain connection	3/4-in. PVC with 1/2-in. Tubing Adaptor
Warranty	5 years
Energy Star Qualified	Yes, Most Efficient

Table 2 – Product Specifications

	DEHXXCDA1080	DEHXXCDA1100
Capacity, PPD @ 0.2 w.c.	80 @ 80°F/60% RH 64 @ 73°F/60% RH	100 @ 80°F/60% RH 84 @ 73°F/60% RH
Energy Factor, L/kW-h	2.8 @ 80°F/60% RH 2.3 @ 73°F/60% RH	2.6 @ 80°F/60% RH 2.3 @ 73°F/60% RH
Airflow @ varying E.S.P. (External Static Pressure - dry coil)		
0.0 In. W.C.	185 CFM	280 CFM
0.2 In. W.C.	135 CFM	245 CFM
0.4 In. W.C.	85 CFM	210 CFM
0.6 In. W.C.	N/A	175 CFM
Voltage, Phase, Frequency	120V, 1, 60 Hz	
Current Draw, min, Amps	5.1	6.9
Noise, dBA	45 ducted; 49 unducted	55 ducted; 59 unducted
Dimensions, in. (cabinet, without collars)	14W x 15H x 26L	
Packaged Dimensions, in.	19.5W x 20.5H x 32L	
Operating Weight, lb.	63	64
Shipping Weight, lb	81	82
Inlet Air Operating Conditions	50°F - 104°F, 40°F dew point min.	
Ambient / Ventilation	Integrated Vent Control 40°F - 140°F, 0% - 99% RH (non-condensing)	
Compressor		
Model	ASN68E12VER	ASN83E11VER
Refrigeration Capacity, Btu/h	6800 nominal 6323.4 at rated condition	8300 nominal 7855.8 at rated condition
Power Input	654.3	813.5
Amount of Charge, oz.	13.25	14.0

Table 3 – DEHXXCDA1080 Extended Performance Table

		Capacity	L/kWh	Capacity	L/kWh	Capacity	L/kWh	Capacity	L/kWh
Ambient Dry Bulb °F	90	77	2.42	101	2.92	123	3.28	143	3.55
	80	59	2.20	80	2.80	99	3.30	118	3.68
	70	42	1.84	60	2.48	77	3.04	93	3.51
	60	28	1.40	42	2.02	56	2.59	70	3.11
		50		60		70		80	
		Ambient Relative Humidity %							

		Outlet Air T	Outlet Air RH	Outlet Air T	Outlet Air RH	Outlet Air T	Outlet Air RH	Outlet Air T	Outlet Air RH
Ambient Dry Bulb °F	90	117	16	124	15	131	14	138	14
	80	101	18	106	18	112	17	118	16
	70	85	21	90	20	95	20	99	19
	60	71	24	75	23	78	23	82	22
		50		60		70		80	
		Ambient Relative Humidity %							

Table 4 – DEHXXCDA1100 Extended Performance Table

		Capacity	L/kWh	Capacity	L/kWh	Capacity	L/kWh	Capacity	L/kWh
Ambient Dry Bulb °F	90	92	2.17	126	2.77	158	3.24	187	3.60
	80	70	1.91	100	2.60	129	3.18	155	3.65
	70	50	1.52	76	2.25	100	2.88	123	3.43
	60	33	1.10	53	1.77	74	2.39	93	2.96
		50		60		70		80	
		Ambient Relative Humidity %							

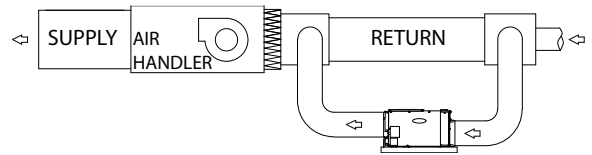
		Outlet Air T	Outlet Air RH	Outlet Air T	Outlet Air RH	Outlet Air T	Outlet Air RH	Outlet Air T	Outlet Air RH
Ambient Dry Bulb °F	90	111	21	117	20	124	19	130	18
	80	96	23	101	23	106	22	112	21
	70	82	26	86	25	90	25	94	24
	60	68	30	72	29	75	28	78	27
		50		60		70		80	
		Ambient Relative Humidity %							

NOTE: The **Outlet Air T** and **Outlet Air RH** sections in the tables above are for **reference only**. The numbers are not performance criteria.

INSTALLATION OPTIONS

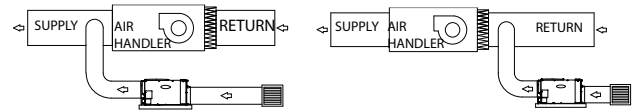
Main Return to Main Return – RECOMMENDED

- This application can be used when a supply duct is not available.
- Air is pulled from the return duct, dehumidified, and returned to the return duct.
- Assures that the dehumidified air is mixed with the rest of the air in the duct before it re-enters the house.
- This application is used for whole-home dehumidification.



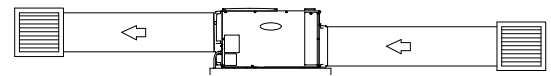
Dedicated Return to Main Supply or AC Return

- This application can be used when a return or supply duct is not available.
- Air is pulled through a dedicated return grille, dehumidified, and returned to the supply plenum or return.
- This application is used for whole-home dehumidification.



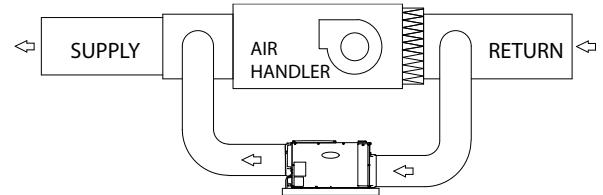
Inlet and Outlet Ducted to Dedicated Grilles

- For homes without duct work.
- Dries a specific area that has a moisture issue (basement, crawlspaces, etc.).
- Dehumidifier can be located in a closet, mechanical room, or unfinished area and ducted into a finished room.



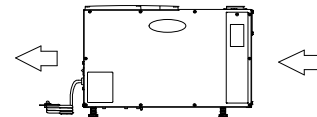
Main Return to Main Supply

- Air is pulled from the return duct, dehumidified, and returned to the supply plenum.
- This application is used for whole-home dehumidification.



Unducted – Freestanding

- Air is pulled into the dehumidifier directly from the space, dehumidified, and returned back to the space.
- Dries a specific area that has a moisture issue (basements, crawlspaces, etc.).
- It can be used for whole-home dehumidification.



A210056

Control



- On / Off buttons
- Wall mounted living space control
- Displays RH and controls to an RH value
- Remote control for crawlspace applications and sealed attics

Fig. 1 – Model 76 Wall Mount Dehumidifier Control

A210055

Table 5 – Model 76 Control Specifications

Electrical	External	Remote
Input Voltage and Current	24VAC ± 20% 25 mA nominal, 50 mA max	9VDC (supplied by dehumidifier control board)
Output	Dry contact, normally open	Communication (RS485)
Control		
Control Range	40% – 80% RH	1 (less dry) – 7 (more dry) 65°F Dew Point
Accuracy	± 5% RH	See Dehumidifier Specifications
Differential	3% RH	
Low Limit	49°F Dew Point	50°F Dry Bulb
High Limit	99° Dry Bulb	105°F Dry Bulb