PRINCIPLE OF OPERATION

The Aprilaire E100 Dehumidifiers are designed to dehumidify the air coming into the unit by passing the incoming air over an evaporator coil to drop the air temperature below the dew point of the air. Moisture is removed from the air and drained out of the unit to a common floor or waste drain. The air is then reheated in the condenser coil and exits the unit.

Dehumidification occurs until the set point is reached, then shuts off until periodic sampling determines a need for operation.

APPLICATION

The E100 Dehumidifiers are perfect for a wide range of applications including whole-home dehumidification and control of moisture in basements and crawl spaces.

CIRCULATION

The Model E100 can also be programmed to circulate air, which evens out relative humidity levels and temperature in the treated space, eliminating variations in the environment.
INSTALLATION OPTIONS FOR THE APRILAIRE E100 DEHUMIDIFIERS
Shown in horizontal applications, can be installed in vertical applications as well.

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 rest of the air in the duct before it re-enters the house.
- This application is for whole-home dehumidification.

Dedicated Return to Main Supply or Dedicated Return to A/C 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 for whole-home dehumidification.

Inlet and Outlet ducted to dedicated grilles
- For homes without duct work. Use of the Model 5546 Living Space Duct Kit recommended.
- Dries a specific area that has a moisture issue (basements, crawl spaces, sealed attics, 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 for whole-home dehumidification.

Optional Accessories

Model 5822 Hanging Kit
27" W x 3" H x 38" L
Weight: 18 lbs.
Working Load: 400 lbs.

Model 5546 Living Space Duct Kit
See dedicated grilles installation example above.

Optional Wall-Mount Controls

Model 8620/8620W with IAQ Control
- Universal 2H/2C or 4H/2C HP
- Event-Based™ Air Cleaning
- Humidity or Ventilation
- Touch screen
- Wi-Fi (8620W only)

Model 8910/8910W with IAQ Control
- Universal 3H/3C or 4H/2C HP
- Event-Based™ Air Cleaning
- Humidity and Ventilation
- 2-Part 3-Wire design
- Touch screen
- Wi-Fi (8910W only)

Model 8920W with IAQ Control
- Universal 3H/3C or 4H/2C HP
- Event-Based™ Air Cleaning
- Humidity and Ventilation
- 2-Part 3-Wire design
- Full-color touch screen
- Wi-Fi

Model 76 Wall Mount Dehumidifier Control
- On, Off buttons
- Wall-mounted living space control
- Displays RH and controls to an RH value
- Remote control for crawl space applications and sealed attics

MODEL 76 SPECIFICATIONS

<table>
<thead>
<tr>
<th>Electrical</th>
<th>External</th>
<th>Remote</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input voltage and current</td>
<td>Voltage: 24VAC +/-20% Current: 25mA (nominal), 50mA (max.) at 24VAC</td>
<td>Voltage: 35VDC (supplied by dehumidifier control board)</td>
</tr>
<tr>
<td>Control range</td>
<td>40% 80% RH</td>
<td>1 (less dry)-7 (more dry) 65°F-40°F dew point</td>
</tr>
<tr>
<td>Accuracy</td>
<td>+/-5% RH</td>
<td>See dehumidifier specifications</td>
</tr>
<tr>
<td>Differential</td>
<td>3% RH</td>
<td></td>
</tr>
<tr>
<td>Low limit</td>
<td>40°F dew point</td>
<td>50°F dry bulb, 40°F dew point min.</td>
</tr>
<tr>
<td>High limit</td>
<td>99% dry bulb</td>
<td>105°F dry bulb</td>
</tr>
</tbody>
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