# Canden ENVIRONMENTAL CONTROL SYSTEMS

## Industrial Grade Dehumidifier

Model 1873V3 | Specification Sheet

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SPECIFICATIONS				
Capacity	300 ppd			
Energy Factor	2.5 L/kW-h			
Airflow @ 0.6" w.c. (extern static pressure - dry coil)	al 500 CFM			
Electrical Data				
Voltage, Phase, Frequer	acy 277VAC, 1 phase, 60 Hz			
Operating Amp	9.5 Amps			
Power (Watts	s) <sup>(1)</sup> 2270			
Min. Circuit Ampacity	y <sup>(2)</sup> 15A			
Max. Overcurrent Protection	n <sup>(3)</sup> 25A			
Dimensions: Wid	dth 28½"			
(cabinet only) Hei	ght 19"			
Len	ngth 23"			
Weight	145 lbs			
Ventilation	Input available			

<sup>03</sup>Rated capacity and energy factor test done and current draw measured in accordance with AHAM DH-1 2008 at 80°F/60% RH inlet air at 0.0 ESP. <sup>20</sup>Use when selecting wire size and type. <sup>43</sup>Use when sizing the breaker or fuse.

combinationSupply Dimensions6" x 15" (Qty 4)Inlet Dimensions14" x 14"FilterMERV 11 disposableRefrigerantR410ACoil TypeE-coatedHardwireYes	FEATURES			
Supply Dimensions6" x 15" (Qty 4)Inlet Dimensions14" x 14"FilterMERV 11 disposableRefrigerantR410ACoil TypeE-coatedHardwireYesDrain Connection*¾" NPT female bottom connection*				
Inlet Dimensions14" x 14"FilterMERV 11 disposableRefrigerantR410ACoil TypeE-coatedHardwireYesDrain Connection*3⁄4" NPT female bottom connectionLeveling FeetIncluded	In-line, top, bottom, side, any combination			
Filter     MERV 11 disposable       Refrigerant     R410A       Coil Type     E-coated       Hardwire     Yes       Drain Connection*     ¾" NPT female bottom connection       Leveling Feet     Included	6" x 15" (Qty 4)			
RefrigerantR410ACoil TypeE-coatedHardwireYesDrain Connection*¾″ NPT female bottom connection*Leveling FeetIncluded	14" x 14"			
Coil Type     E-coated       Hardwire     Yes       Drain Connection*     ¾" NPT female bottom connection*       Leveling Feet     Included				
Hardwire     Yes       Drain Connection*     ¾" NPT female bottom connection       Leveling Feet     Included				
Drain Connection*     3⁄4" NPT female bottom connection       Leveling Feet     Included				
Leveling Feet Included				
	<sup>3</sup> / <sub>4</sub> " NPT female bottom connection			
Hanging Brackets for Included				
Threaded Rod				
Warranty 5 Years				

\* Requires drain trap



#### **PRINCIPLE OF OPERATION**

The Aprilaire Model 1873V3 Dehumidifier is 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 the control determines a need for operation.

#### APPLICATION

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The Aprilaire Model 1873V3 Dehumidifier is the perfect solution for the precise management of humidity required in an indoor growing environment.

#### **CIRCULATION**

The Model 1873V3 can also be programmed to circulate air within a grow facility. Proper air flow carries moisture away from the plants, helping to prevent fungus, disease and plant pests from damaging the crop. Circulating the air also maximizes the application of  $CO_2$  in the grow facility.



## Installation Options For the Aprilaire 1873V3 Dehumidifiers

APPLICATIONS	
<ul> <li>Suspended</li> <li>Air is pulled into the dehumidifier directly from the space, dehumidified and returned to the space.</li> <li>The dehumidifier is hung from the ceiling to save space in the facility.</li> </ul>	
<ul><li>Freestanding</li><li>Air is pulled into the dehumidifier directly from the space, dehumidified and returned to the space.</li></ul>	
<ul> <li>Inlet and Outlet ducted</li> <li>Ducted to circulate air to equalize humidity, temperature and move CO<sub>2</sub></li> <li>Dehumidifier located in adjacent room and ducted to space requiring dehumidification.</li> <li>Great for drying room applications where space may be limited.</li> </ul>	

## **Optional Controls**











#### Model 8840

Easy-to-use color touch screen with all control options on the home screen.

#### Model 8830

Easy-to-use touch screen with all control options on the home screen.

#### Model 8820

Easy-to-use touch screen designed for temperature and humidity control.

#### Model 8082 Sensor

Monitor temperature and humidity in multiple locations. Readings averaged to balance temperature and humidity.

## **Included Control**



#### Model 76

Dedicated monitoring and control of each dehumidifier at canopy height.

MODEL 76 SPECIFICATIONS				
Electrical	External	Remote		
Input voltage and current	Voltage: 24VAC +/20% Current: 25mA (nominal), 50mA (max.) at 24VAC	Voltage: 35VDC (supplied by dehumidifier control board)		
Output	Dry contact, normally open	Communication (RS485)		
Control	External	Remote		
Control range	40% - 80% RH	1 (less dry) - 7 (more dry) 65°F - 40°F dew point		
Accuracy	+/-5% RH	See dehumidifier		
Differential	3% RH	specifications		
Low limit	40°F dew point	50°F dry bulb, 40°F dew point min.		
High limit	99°F dry bulb	105°F dry bulb		

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