

# **Crawl Space Dehumidifier**

Model 1850CS | Specification Sheet

SPECIFICATIONS				
Capacity <sup>(1)</sup>		95 ppd		
Energy Factor <sup>(1)</sup>		2.2 L/kW-h		
Airflow @ varying E (external static pres				
	0.0" w.c.	265 CFM		
	0.2" w.c.	230 CFM		
	0.4" w.c.	200 CFM		
Voltage, phase, frequency		120VAC, 1, 60 Hz		
Current draw <sup>(1)</sup>		8.0 Amps		
Noise		54 dBA ducted, 60 dBA unducted		
Dimensions: (cabinet only) <sup>(2)</sup>	Width	121/2"		
	Height	141⁄2"		
	Length	27½"		
Weight		70 lbs.		
Inlet air operating co	onditions during			
-Dehumidification:		50°F-104°F, 40°F dew point min.		
-Ventilation:		40°F-140°F, 0%-99% RH (non-condensing)		

 $<sup>^{(1)}</sup>$ Rated capacity, energy factor, and current draw measured at 80°F/60% RH inlet air at 0.0 ESP.

<sup>(2)</sup> Height does not include adjustable feet. The width excludes the filter doors and length excludes the duct collars.

FEATURES			
Control <sup>(3)</sup>	Built-in digital control with top or front mounting options		
Crawl space alert	40' Cable with LED light		
Cabinet insulation	½" EPS		
Air discharge orientation	Top or end		
Inlet/Outlet duct collars	10" dia.		
Backdraft damper at outlet	Not included		
Filter	$\frac{1}{2}$ " washable, MERV 8		
Refrigerant	R410A		
Coil type	Corrosion-resistant aluminum		
8' Power cord	Plug type		
Hardwire option	Yes, field-configurable		
Discharge air temperature rise	10°F-30°F		
Drain connection <sup>(4)</sup>	3/4" PVC adapters		
Included drain tubing	10' length		
Warranty	5 Years		
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<sup>&</sup>lt;sup>(3)</sup>The Model 1850 controls to an "RH" set point. The Model 1850CS controls to a "Dew Point" set point which is ideal for unconditioned spaces. Model 1850 ships with the control located on the top of the unit and the 1850CS ships with the control located on the front.

<sup>(4)</sup> Adapters for threaded connection or plastic hose included. Model 1850CS includes 10' of drain tubing.









#### PRINCIPLE OF OPERATION

The Aprilaire Model 1850CS Crawl Space 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. 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.

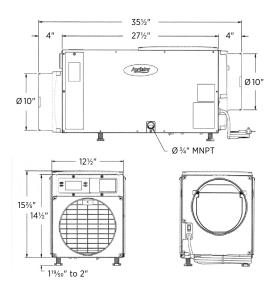
#### APPLICATION

The Model 1850CS controls to a "Dew Point" set point which is ideal for unconditioned spaces. It removes up to 70 pints per day with a low current draw—keeping crawl spaces dry without unwanted increases to the utility bill.

This unit also includes a crawl space alert which is an LED installed in the living space that ensures homeowners their Model 1850CS is functioning properly. The light turns on to notify homeowners that the unit is in need of service.

#### **CIRCULATION**

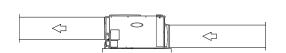
The Model 1850CS can be programmed to circulate the air within a crawl space. This evens out relative humidity levels and temperature in the space, eliminating variations in the environment.



## **INSTALL APPLICATION**

#### Inlet and Outlet Ducted

- Dehumidifier is ducted using 10" duct round flexible or hard duct.
- Air is pulled into the dehumidifier directly from the crawl space, dehumidified and returned back to the crawl space.
- Adding ductwork can help circulate the air around the crawl space.



### **Included Accessory**



#### Model 5427 Crawl Space Alert

- 40' cable with LED
- LED illuminates when the dehumidification set point can't be reaches or when service is required
- Provides customer peace of mind knowing the dehumidifier is functioning properly

## **Optional Control**



# Model 76 Dehumidifier Control

- On, Off buttons
- Wall-mounted living space control
- As a "External Control" it displays RH and controls to an RH value for basements
- As a "Remote Control" it displays RH and controls to dew point for crawl spaces

# **Optional Accessories**



#### Model 4856 Condensate Pump

- 22 ft. lift
- Low profile
- 120 V



#### Model 5822 Hanging Kit

Weight: 3 lbs.
Supports up to 200 lbs.

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 specifications		
Differential	3% RH			
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		

