



SPECIFICATIONS

STEAM CAPACITY	
120 Volts/60 Hz max amperage (16 Amps) reduced amperage operation (11.5 Amps)*	5.6 lbs./hr (16.0 gpd) 4.0 lbs./hr (11.5 gpd)
208 Volts/60 Hz max amperage (16 Amps) reduced amperage operation (11.5 Amps)*	10.4 lbs./hr (30.0 gpd) 7.1 lbs./hr (20.5 gpd)
240 Volts/60 Hz max amperage (16 Amps) reduced amperage operation (11.5 Amps)*	12.0 lbs./hr (34.6 gpd) 8.1 lbs./hr (23.3 gpd)

Cabinet – enclosure	Metal—22 gauge side, top and front access panels powder painted
Cabinet – access	Easy front access to canister compartment and electrical compartment
Steam dispersion tube (steam distributor)	Stainless steel tube with properly-sized thermal-resin tubelets
Type of steam canister	Disposable canister—factory installed
	Zinc-plated, low-carbon steel electrodes permanently fixed inside the canister
	Plug-type connectors fixed to the molded canister top
LED indicator lights	Water level and overfilling sensor within canister
	On/Off button and operating indicator light
	Fill indicator
LED indicator lights	Steam indicator
	Drain indicator
	Service light—end of canister life

Drain water temperature	Drain water not to exceed 140°F. Tempered with cold fill water
Door switch safety	Door switch removes all power to canister for maintenance and troubleshooting
Modulating configuration (proportional)	- Modulating 0-10 Vdc or 0-20mA - Modulating 2-10 Vdc or 4-20mA
Unit control configuration	Water level control
	Automatic refill, high water cutoff, and automatic drain-down
	Monitor the amperage draw
Unit dimension	Optimize water conductivity, minimize energy waste, and maximize cylinder life.
	Controls drain/flush cycles
	10 $\frac{1}{8}$ " W x 20 $\frac{7}{8}$ " H x 7 $\frac{1}{8}$ " D
Supply/Drain connection	Supply: $\frac{1}{4}$ " copper compression fitting— Drain: $\frac{7}{8}$ " for flex hose
Weight – unit only/ operating weight	23 lbs./27 lbs.
Installation accessories included	6 ft. of commercial grade steam hose, 10 ft. drain hose, clamps/hardware
Warranty	5 Years
Agency recognized	ETL, (UL 998)
National electrical code	ANSI/NFPA 70 NEC
Supply water conductivity	125 to 1250 microS/cm
Supply water pressure range	25 to 120 psi

*Capacity adjustment is accomplished by using a dip switch.

Water Hardness—3 to 36 grain per gallon, water filtration typically not necessary. Canister replacement once per humidifier season under normal conditions. Canister life will depend on water quality and run time. Unit will automatically notify when canister must be replaced.

▶ APPLICATIONS

High capacity – One unit can provide between 11.5 and 34.6 gallons per day.

Electrode type humidifier – Generates steam by energizing two electrodes that extend into the steam canister. Current flowing between the electrodes causes the water to boil, creating steam.

Modulating input signal – The Model 801 accepts an input signal of modulating 0-10 Vdc or 0-20mA, and modulating 2-10 Vdc or 4-20mA.

Internal control board – Manages the complete operation of the humidifier. Fills and drains to maintain proper amperage draw and water level and notifies when service is required.

Versatile mounting options – Remote and duct-mounted options. Steam dispersion tube, steam hose and drain tube included in the box. Fan Pack option also available (see Model 866).

Dispersion and absorption – Steam dispersion technology ensures proper absorption of steam into the air, preventing condensation in duct.

Display panel – Provides power switch for on/off operation, illuminates LEDs to show fill, drain, steam operations and diagnostics.

Water level sensor – Manages the water level in the steam canister to prevent over filling.

Back flow protection – Air gap in the fill cap prevents pressure build up.

Automatic drain and fill cycle – Unit flushes and fills periodically to maintain the proper conductivity.

Drain water tempering – Unit uses cold inlet water to temper the canister water, reducing the drain water temperature below 140°F to protect PVC piping and condensation pumps.

End-of-Season drain – After a 72-hour period with no call for humidity, the humidifier will drain the water from the canister. Unit will remain in stand-by until next call for humidification.

Operating time monitor – Accumulates actual humidifier run time to activate periodic drain and fill cycles, end-of-season drain function and monitors the life of canister.

Easy to maintain – Canister does not require cleaning or scrubbing—simply remove it and replace.

BASIC APRILAIRE STEAM HUMIDIFIER OPERATION

The Aprilaire Steam Humidifier delivers humidity in the form of steam to the conditioned space via the HVAC system duct. The humidifier generates steam by energizing two electrodes that extend into a disposable canister filled with water. Current flowing between the electrodes causes the water to boil, creating steam. Water is introduced to the humidifier through a fill valve to a fill cup located in the top of the cabinet. The fill cup serves as an overflow reservoir and provides an air gap between the humidifier and water source. The steam canister is filled from the bottom. The canister is seated in a drain cup assembly which includes a drain valve. The drain and fill valves work together to maintain water level in the canister to satisfy the demand of the modulating control based on the electrical conductivity of the water.

CONTROL OPERATION

To modulate the steam output of the Model 801 a modulating control must be used.

When the modulating control detects RH below the set point, the humidifier energizes the electrodes in the canister to provide steam. Steam is delivered into the duct work via the steam hose and dispersion tube. The dispersion tube is fitted with openings called “Tubelets™”. The dispersion tube and Tubelets are designed to distribute steam over a wide area in the duct and any condensation that may form in the dispersion tube and steam hose will be drained back into the canister. Humidification may be required when there is no need for heating or cooling. For this to occur, the HVAC systems blower must be activated before steam is introduced to the duct. If the modulating control does not activate the HVAC system on a call for humidity, we recommend using a blower activation relay. The modulating control will vary the modulating steam humidifier’s output based on the difference between the set point and actual RH. The modulating control sends a proportional signal to the modulating steam humidifier, providing precise control of

the living space humidity. Humidity can also be distributed directly into the living space via the Fan Pack. Refer to the Model 866 operation and specifications for more detail.

THE OPTIONAL APRILAIRE MODEL 63 AUTOMATIC DIGITAL MODULATING CONTROL (ADMC) PACKAGE, INCLUDES THE FOLLOWING ITEMS

- + Wall-mounted digital humidistat: provides a proportional signal of modulating 0-10 Vdc or 0-20mA, and modulating 2-10 Vdc or 4-20mA, and operating in a range from 0 to 100% RH within a precision of 3% (see specification for Model 63)
- + Duct humidity sensor: measures the RH in the duct and responds to the needs of the ADMC wall-mounted humidistat. It also can be used as a high humidity sensor.
- + Outdoor temperature sensor for temperature compensation
- + Blower activation relay: when there is a call for humidity and HVAC system is idle, the blower activation relay will turn ON the HVAC system blower to add humidity.

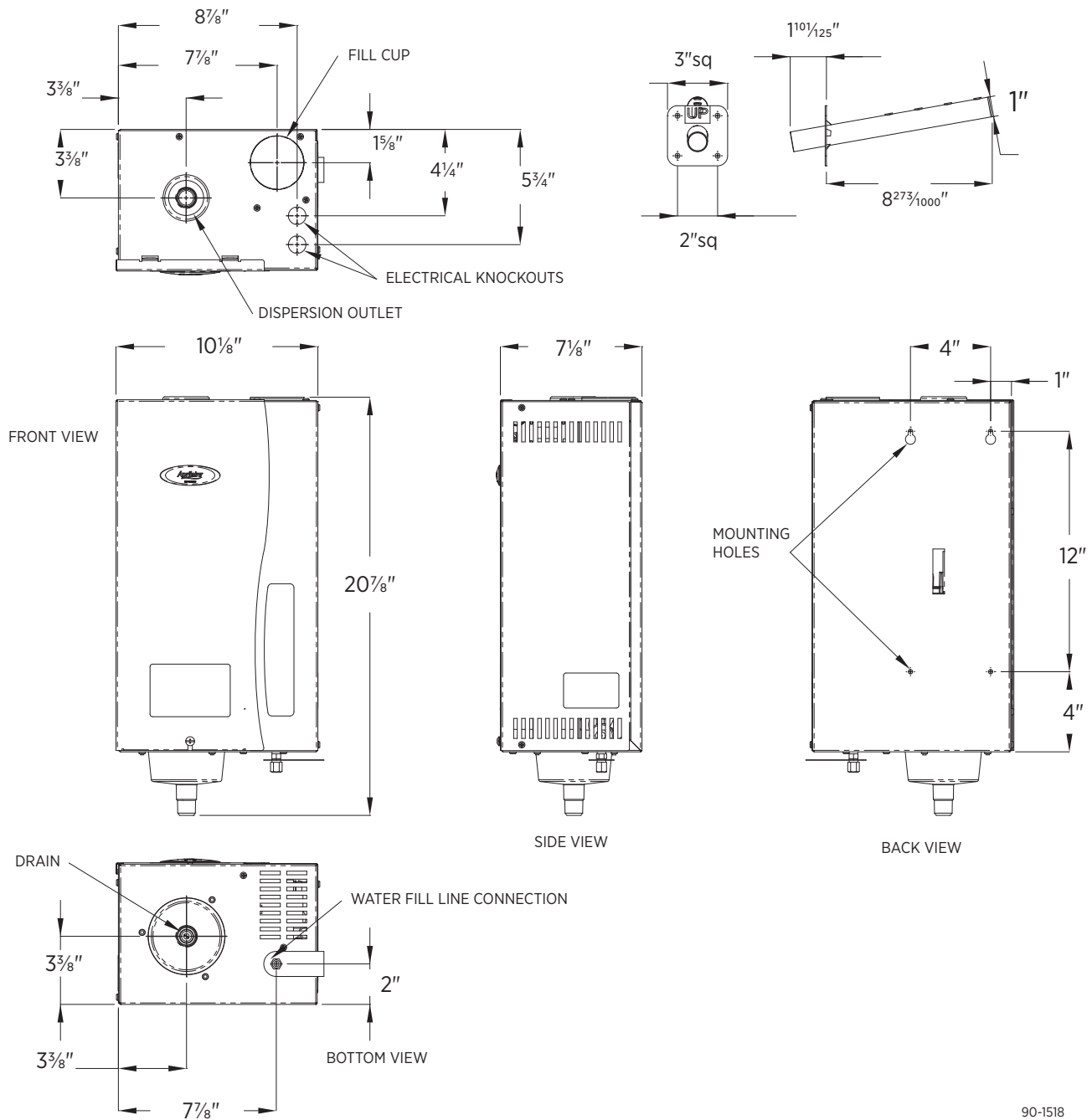
** Model 63 is sold separately*



OTHER AVAILABLE ACCESSORIES

High humidity limit switch (4594): prevents high humidity levels in the duct. Airflow switch (4592): airflow proving switch to ensure airflow in the duct.

MODELS 801 DIMENSIONAL INFORMATION



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