

STEAM HUMIDIFIER: DRISTEEM HUMIDI-TECH® (HT)

The Humidi-tech resistive steam humidifier from DriSteem provides sterile, odorless, and hygienically perfect steam humidification for a wide range of applications and building types, including healthcare and pharmaceutical, museums, art galleries, commercial, industrial, and government facilities, and more. DriSteem Humidi-tech humidifiers with Space Distribution Units (SDU) disperse steam with no visible vapor trail, making Humidi-tech ideal for use in finished spaces. Humidi-tech can also be used together with a dispersion tube or a panel for in-duct steam distribution.

Technical Characteristics

- 2.7 - 46 kg/h capacity, link up to 16 units for capacity up to 740 kg/h
- Reliable and low maintenance resistive heating elements
- Available for potable, softened and DI/RO water types
- Wide range of standard voltages,
 - Including 230V- 1 phase, 400V- 3 phase, 50-60hz
 - 24VAC internal power circuit
- Vapor-logic® controller with LCD keypad
- 18-gauge 304-stainless steel evaporative chamber with Heli-arc welded seams



Main Features

- Accurate relative humidity control, suitable for most humidification requirements (+/- 3% of output)
- Standard Solid State Relay (SSR) control with an infinitely variable performance range of 0-100%
- Electronically monitored water level
 - HT model for potable/softened water
 - HT-DI for Reverse Osmosis (RO)/De-ionized (DI) water
- Scale Management
 - Full-drain options minimize energy and water consumption and removes precipitated minerals from cleanable evaporating chamber
 - User-adjustable water skimming feature drains away water surface debris and contaminants to reduce maintenance need.
 - Constant thermal expansion and contraction of heating elements continuously sheds mineral buildup
- Hygiene: Adjustable End-of-Season drain (HT model standard, HT-DI model requires an additional option)
 - An electric drain valve allow tank to drain automatically at the end of a humidification season
- Semi-rigid steam hose connection standard and hard pipe optional
- Enclosure is designed and secured to prevent accidental contact with electrical components.
- Removable cover allows easy access to evaporating chamber and electrical connections allowing tank removal for service
- Pre-punched keyhole-style mounting holes located on 16" (406 mm) centers for ease of wall mounting and leveling.

- Tank temperature control – shown real time on the display.
 - Maintain the evaporating chamber water temperature above freezing
 - Maintain a user-defined preset evaporating chamber water temperature
 - Allow rapid warm-up of water in evaporating chamber after a call for humidity, providing 100% operation until steam production occurs
 - Provide backup over-temperature protection for the over-temperature switch
- Over-temperature switch: A factory-mounted and wired UL-listed limit control sensor with manual reset shall sense an over-temperature condition and de-energize heater circuit controls.
- Factory warranty: 2 years after installation or 27 months from ship date.

Vapor-logic® Controller Details

The Vapor-logic controller with keypad display is standard on each Humidi-tech steam humidifier and provides accurate, responsive RH control, while the PID control tunes the system for maximum performance

- Operation
 - BACnet, LonTalk, or Modbus allow interoperability with multiple building automation systems.
 - All relevant control signal connections (mA and VDC) of external humidity controllers are possible, 0 (2)- 10 V or 0 (4)- 20 mA)
 - Web interface provides the capability to set up, view, and adjust system functions via Ethernet, either directly or remotely through a network.
 - Real-time clock allows time-stamped alarm and message tracking, and accurate drain and flush scheduling.
 - Programmable outputs allow remote signaling and device activation.
 - Possibility for three (3) external limit controls: air flow proving switch, high limit humidity device (ON/OFF humidistat or modulating high limit transmitter), and master enable/disable
 - Contactor wear leveling distributes cycles among multiple contactors for equal wear and longer contactor life.
 - Auxiliary temperature sensor/transmitter allows temperature compensation control to prevent window condensation, or air temperature monitoring, such as in a duct
- Troubleshooting and Maintenance
 - USB port allows easy firmware updates, and data backup and restore capability.
 - All software updates can be downloaded from Dristeem website (www.dristeem.com), free of charge
 - Data logs (from half week up to 15 weeks) can be downloaded to a PC for viewing and analyzing operating parameters, energy use, messages, alarms.
 - Cycle counter triggers a message when it's time to replace contactors
 - Test outputs function to verify component operation
 - Test humidifier function using simulated demand to validate performance
- Keypad Interface
 - Easy-to-use menus for all humidifier functions.
 - Protocols, messages, and alarms presented on the illuminated display



Vapor-logic controller keypad display

Technical Characteristics

Type* (-)	Steam Cap (kg/h)	Amps (A)	Voltage** (V)	Phase (Ph)	Steam Outlet (DN)	Dimensions HxWxD (mm)	Transp. Weight (k)
HT-2	2.5	8	230	1	DN40	614x409x472	37
HT-4	5.4	8.7	400	3	DN40	614x409x472	37
HT-6	8.2	13	400	3	DN40	614x409x472	41
HT-8	10.9	17.3	400	3	DN40	614x409x472	41
HT-10	13.6	15.2	400	3	DN50	614x409x472	43
HT-12	16.3	17.3	400	3	DN50	614x409x472	43
HT-14	19.1	20.2	400	3	DN50	614x409x472	43
HT-16	21.8	23.1	400	3	DN50	614x409x472	43
HT-21	28.6	30.3	400	3	DN50	614x409x472	44
HT-25	34	36.1	400	3	DN50	614x409x472	44
HT-30	40.8	43.3	400	3	DN50	614x409x472	47
HT-34	46.3	49.1	400	3	DN50	614x409x472	47

* HT model for standard potable and softened water, HT-DI for Reverse Osmosis and De-Ionized water

**50-60Hz range

Approvals

- CE, ETL certification

Options

- LonTalk interface
- 316 SS tank
- End of Season Drain for HT-DI

Accessories

- High limit Humidistat
- Airflow proving switch
- RH transmitter
- Condensate pump
- Drain water tempering device (*Drane-cooler™*): Drain water is automatically cooled down to below 60°C before entering the drain, allowing the use of PVC piping.

Product Resources

- Humidi-tech resistive humidifier product resources:
www.dristeem.com/support-and-literature/literature-product-resources/by-product/humidi-tech



EUROPEAN PRODUCT SPECIFICATIONS

Steam Humidifier: DriSteem Humidi-tech® (HT)



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