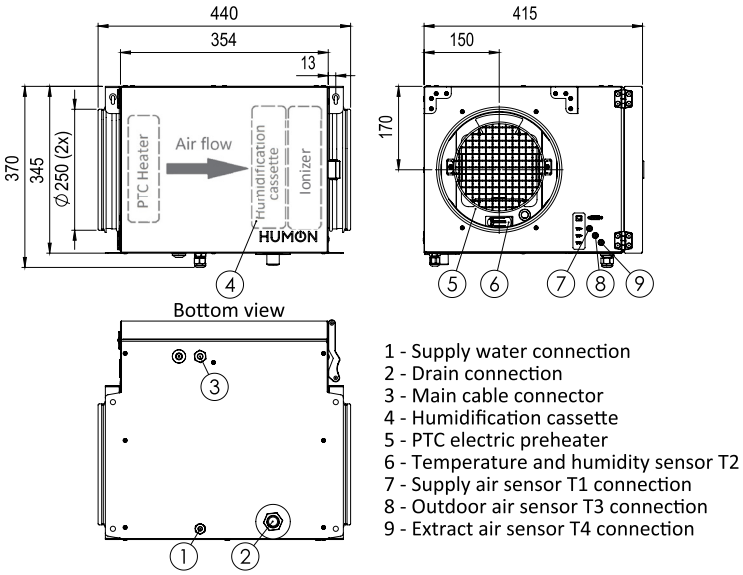
ADIABATIC DUCT HUMIDIFIER

H250

HUMON





1 - Supply water connection
2 - Drain connection
3 - Main cable connector
4 - Humidification cassette
5 - PTC electric preheater
6 - Temperature and humidity sensor T2
7 - Supply air sensor T1 connection
8 - Outdoor air sensor T3 connection
9 - Extract air sensor T4 connection

DESCRIPTION

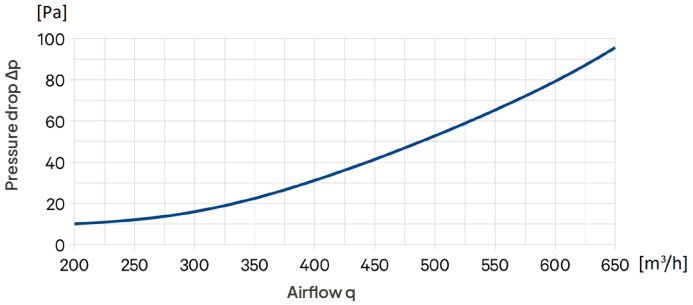
HUMON is a duct-mounted adiabatic supply air humidifier designed for small and medium-sized applications, such as residential houses, apartments, and offices. The humidification process is based on the natural evaporation of water.

The customer shall provide the required electrical power supply, water supply, and drainage connection. The unit is installed in the supply air duct of the ventilation system, between the air handling unit (AHU) and the air supply outlets serving the conditioned spaces. The purpose of the HUMON unit is to provide continuous humidification of the supply air within the ventilation system. As the supply air passes through the wetted humidification medium, water evaporates into the air stream through an adiabatic process, increasing its moisture content. The integrated water filter removes Legionella bacteria from the water supply. The integrated ionizer helps reduce the concentration of bacteria and viruses in the supply air. Together, these components contribute to safe operation and help maintain hygienic supply air conditions. The HUMON humidifier is manufactured from aluminium-zinc-coated steel sheet with C4-M / C3-H corrosion resistance classification. The HUMON humidifier is intended for indoor installation in environments where the ambient temperature is maintained between +5°C and +40°C

TECHNICAL DATA

Description	Parameters
Dimensions WxHxL	415 x 345 x 354 mm
Air duct connections	Ø250 mm
Humidification capacity	0–4,8 l/h
Power supply	230 V/50 Hz
Rated current	14,1 A
Heater power	1400 W
Average annual consumption	500–1200 kWh
Water consumption	0–9 l/h
Water supply connection	1/2" male thread
Drain connection	90° elbow ½" – ½"
Operating airflow	200–700 m³/h
Weight	11,7 kg
Water quality	Hardness < 9 dGH, 3,2 mg-eq/l, TDS < 350 ppm
Factory settings	Supply air settings 50%, 18°C Indoor humidification up to 45% Start-up is triggered by the outdoor air temperature below +12°C

TECHNICAL DATA



Factors affecting indoor air humidification:

- Outdoor humidity and temperature
- Type of HRV unit
- Supplied airflow
- The relative humidity and temperature settings for the supplied air
- Interior finishing and furniture materials
- Ventilation system operation features
- Water temperature

Technical data are subject to changes without prior notice 2026 10 27

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HUMON humidifies the ventilation system's supply air according to the set parameters. The recommended reference values for relative humidity are established in the national Hygiene standards. The desired relative humidity values are easily set in the device control system.

SAFETY AND CONNECTION FUNCTIONS

- PTC heater with automatic overheating protection
- Airflow sensor for humidifier start/stop
- Additional on/off dry contact
- 0–10 V external start-up input
- Option to connect pressure switch for airflow indication
- Option to connect external humidity controller
- External extract air humidity sensor T4

ADVANTAGES

- Quiet operation. The humidifier components reduce the noise level in the supply air duct by an average of 5 dB(A)
- The supplied air is humidified up to the relative humidity of 75%. (The humidification intensity depends on the outdoor air temperature and humidity in the supply duct after the HRV unit)
- Built-in PTC air preheater ensures adiabatic humidification process conditions
- Touchscreen control panel for convenient parameter setting
- Integrated water filter to trap Legionella bacteria
- Ionizer for air purification from viruses and bacteria
- Removable stainless steel drain tray for hygienic maintenance
- Inspection door with a locking handle for easier maintenance
- Housing made of aluminium-zinc-coated steel sheets for high corrosion resistance

Outdoor air parameters		Heat exchanger type	Supply air parameters before the humidifier			Additional humidity gain, RH, %	Relative humidity after the humidifier, RH, %
T, °C	RH, %		T, °C	RH, %	Q, m³/h		
10	80	Plate	19	45	300	27	
					500	25	
	90			50	300	27	
					500	23	
5	80			32	300	36	
					500	29	
	90			36	300	34	
					500	27	
0	80			22	300	40	
					500	29	
	90			25	300	40	
					500	27	
-5	80			15	300	45	
					500	30	
	90			16	300	45	
					500	30	
-10	80			9	300	46	
					500	33	
	90			11	300	46	
					500	32	
10	80	Rotary	19	45	300	27	
					500	25	
	90			47	300	27	
					500	23	
5	80			33	300	36	
					500	29	
	90			34	300	34	
					500	27	
0	80			30	300	40	
					500	29	
	90			31	300	40	
					500	27	
-5	80			28	300	45	
					500	30	
	90			28	300	45	
					500	30	
-10	80			27	300	46	
					500	33	
	90			28	300	46	
					500	32	
10	80	Enthalpy plate	19	51	300	27	
					500	25	
	90			51	300	27	
					500	23	
5	80			48	300	36	
					500	29	
	90			49	300	34	
					500	27	
0	80			45	300	40	
					500	29	
	90			46	300	40	
					500	27	
-5	80			43	300	45	
					500	30	
	90			43	300	45	
					500	30	
-10	80			42	300	46	
					500	33	
	90			43	300	46	
					500	32	



Calculation conditions: 20°C/50% in the room; +19°C before the humidifier; +18°C after the humidifier

Legend: T, °C air temperature; RH, % relative humidity; Q, m3/h airflow.

Note: when the relative humidity after the humidifier reaches 75%, humidification is automatically stopped.

CE

Tested and certified
The device complies with the EMC Directive (2014/30/EU) and Low Voltage Directive (2014/35/EU).

To find out more visit:
www.humon.lt/en

Country of origin: Lithuania