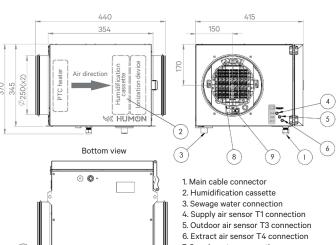
# ADIABATIC DUCT TYPE HUMIDIFIER HUMON H250







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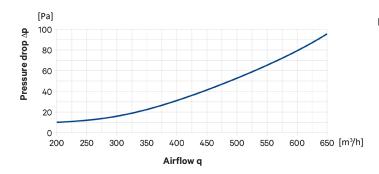
- 7. Supply water connection 8. PTC electric preheater
  - 9. Temperature and humidity sensor T2

## DESCRIPTION

HUMON is an adiabatic duct type humidifier intended for humidification of supply air in small and medium-sized spaces, such as family houses, flats and offices. Humidification is based on natural evaporation processes. Suitable power supply, fresh water connection and wastewater trap should be provided by the Customer. In all cases, the device should be installed in the ventilation system's supply air duct between the HRV unit and the air outlet to the premises. The purpose of the HUMON device is to ensure continuous humidification of the supply air in the ventilation system. The air passing through the evaporating media becomes more moisturised and slightly cooled due to the adiabatic humidification process. The water filter integrated in the HUMON humidifier cleans the water, removing Legionella bacteria. The ionisation device helps to clean the supply air from viruses and bacteria. All the integrated safety equipment guarantees the safe and healthy operation of the device. The HUMON humidifier is made of aluminium zinc-coated steel sheets (corrosion class C4-M/C3-H). It can be installed in premises with a temperature range from +5 to +40°C.

### **TECHNICAL DATA**

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# **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	12,1 A		
Rated power, total	1400 W		
Energy consumption	6,5 W in stand by mode 10 W during humidification and ionisation 700–1400 W when the heater is operating		
Water consumption	0–7.5 l/h (depending on set points)		
Water supply connection	¾ internal thread with a connection to a 4 mm tube		
Water drain tray connection	$^{1\!\!/}_{2}$ thread adapter to the 16 mm spiral drainage tube		
Operating air volume	200–700 m³/h		
Weight	11,7kg		
Water quality	Hardness < 8,5 dGH, 5 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		

#### Factors affecting indoor air moisturisation:

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

# ADIABATIC DUCT TYPE HUMIDIFIER **HUMON H250**

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HUMON ensures humidification of the supply air under pre-defined parameters in the ventilation system. 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 start/stop humidifier
- Additional on/off dry contact
- 0–10 V external start-up input
- Option to connect pressure relay for airflow indication

- Option to connect external humidity regulator
- 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
- Touch-type control panel for convenient parameter setting
- Integrated water filter to trap Legionella bacteria
- Bipolar ionisation device for air purification from viruses and bacteria
- Removable stainless steel drain tray for hygienic operation
- Inspection door with a locking handle for easier maintenance
- · Housing made of aluminium zinc-coated steel sheets for high corrosion protection

Outdoor air parameters		at nger	Supply air par	Supply air parameters before the humidifier		The amount of moisture		
T, ⁰C	RH, %	Heat exchanger type	T, ℃ RH, % Q,		Q, m³/h	additionally, RH, %	The amount of relative humidity after the humidifier, RH, $\%$	
	80			45	300 500	27 25		
10					300	25		
	90			50	500	23		
	00			00	300	36		
5	80			32	500	29		
5	90				300	34	0 0	
					500	27		
	80	ω		22	300 500	40 29		
0		Plate	19		300	40		
	90			25	500	27		
	80	1		15	300	45		
-5	80				500	30		
-5	90			16	300	45	0 0	
					500	30		
	80			9	300 500	46 33	0 0	
-10					300	46		
	90			11	500	32		
	80			/ 5	300	27		
10	80			45	500	25		
10	90			47	300	27		
					500	23		
	80			33	300 500	36 29		
5					300	34		
	90			34	500	27		
	00			00	300	40		
0	80	Rotary	19	9 <u>30</u> 31 -	500	29		
0	90	Rot	19		300	40		
			-		500	27		
	80			28	300 500	45 30		
-5					300	45		
	90			28	500	30		
	80	1		27	300	46		
-10	80		27	500	33			
10	90			28	300	46		
	1				500	32	0 0 0 0	
	80				51	300 500	27 25	
10					300	27		
	90			51	500	23	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
	80	1		48	300	36		
5	00			40	500	29	0 0	
0	90			49	300	34		
		ate	Enthalpy plate 61		500 300	27 40		
	80	d		45	500	29	0 0	
0		(dle		46	300	40		
	90	l th			500	27		
-5	80	<u> </u> ш		43	300	45		
				43	500	30		
	90			43	300	45		
					500 300	30 46		
-10	80			42	500	33	0 0 0 0	
				10	300	46		
	90		1	43	500	32		

Note: when the amount of relative humidity after the humidifier is up to 75%, the intensity of humidification automatically reduces. Marking: T. ºC air temperature: RH. % relative humidity: Q. m3/h air quantity.

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



Manufacturer: UAB MK Technika www.mktechnika.lt/en/