UTair VR300T

Air treatment system able to renew exhaust air

Vertical dehumidifier for floor/wall application complete with heat recovery cross counter flow able to recover over 90% of the extracted air from bathrooms or from the other rooms in renewal function.
The bypass damper enables the FreeCooling when the external conditions are very good and the integration function ensures a supply of sensible heat as an alternative to the neutral dehumidification with the possibilities of managing both the flow and the temperature of air inlet. The fans are EC high efficiency and a compensation software ensures a constant flow rate even in the presence of complicated ducts or filtering sections in progressive clogging. Possibility to add both a humidifier and an anti-pollen and/or fine dust F7 filter and a VOC air quality sensor.

technical specifications

- extraction with recovery of sensible heat bathrooms air always activated also by a sensor detecting person presence (not supply by UT) with possible delay of the switching off;
- partial or total air extraction with recovery of sensible heat in other rooms according to the quality air sensor (optional code UT2040) and /or time slots or external request;
- air dehumidifying in summer in neutral function or with the integration function using the chilled water of the system;
- dehumidification in winter with little heat gain excluding water of the system;
- heat integration in summer or in winter using the pre-treatment water coil and the water of the system;
- humidification energy-saving with ultrasound system (optional code UT2043);
- free cooling in case the external conditions are better or at least able to improve the thermo-hygrometric values of the different rooms (optional code UT2041);
- optional filter F7 for the supply air flow to retain even pollen or fine dust in the air after having been treated (optional code UT2042);
- high static pressure EC and energy-saving fans with integrated software to compensate loss of pressure of the system or to keep constant the set flow rates when filters are not cleaned or to ensure the dynamic flows calculated according to climate curves;
- high efficiency rotary compressor, double air/water condenser, thermostatic valve to optimize the performance of the cooling circuit and ecological freon gas R134a;
- modulating valves for the hydronic circuit for the exclusion or modulation of the water flow according to the temperature or the system requirements;
- incoming air filter with high G3 /4 surface for easy inspection and accessibility in cleaning.

The unit is equipped with bypass damper according to the new EC regulations 1253/2014 and 1254/2014 that apply from 01/01/2016.

renew

When the quality of the air falls below the level of comfort the function renewal is activated. In this case the air drawn into the rooms comes partly or totally from outside. To reduce the energy required to bring the temperature of the outside air to the desired conditions, a high efficiency heat exchanger with cross counter flows is used; it is able to pre-treat and reduce the thermal difference of the renewed air exploiting the energy of the renewal air. A second fan provides to expel the foul and energetically exhausted air to the output of the heat recovery unit.

recirculation

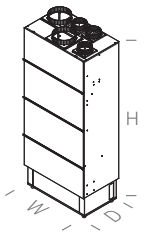
It is also possible to use the machine only for the movement of the air within the rooms disabling the extraction and switching the bypass damper, creating a passage between the recovery circuit and the discharge one: this function is particularly useful when you simply want to standardize thermo-hygrometric conditions in all environments, compensating any difference created by solar gains or otherwise. Equally valid is the dehumidification in recirculation when the outside air conditions are particularly bad and the indoor latent load is very high.

freecooling

The Free Cooling accessory function allows the air taken from outside to bypass the heat recovery if it has definitely better characteristics when compared to the internal conditions of the environment, minimizing the costs of ventilation: we can compare this situation to the opening of windows in a beautiful spring day.

technical specifications

		UTair VR300T
features	nominal air flow	150 ÷ 350 m³/h
	air flow extraction/renewal	100 ÷ 300 m³/h
	highest available pressure (500 m³/h)	400 Pa
	nominal efficiency (300 m³/h):	87 %
	condensed humidity *	27 l/day
	moisture produced *	12 l/day
	electrical power absorbed up to speed *	350 W
	maximum absorbed electrical power *	390 W
	water coil cooling capacity *	1000 W
	sensible integration cooling capacity *	800 W
	water flow (15°C)	240 l/h
	water pressure drop	15 kPa
	sound pressure level	36 dB(A) a 1 m
	fans	constant flow EC fans
	refrigerant gas R134a	110 gr
	power supply (Vac / Ph / Hz)	230 / 1 / 50
	user / installation manual	
dimensions and weight	dimensions (W x H x D) 700 x 1690 x 434 mm	
	weight 60 kg	



notes

* at the following conditions:

enviroment return air temperature:	26°C - 65% R.H.
water coil supply temperature:	15°C

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