Heat recovery unit

UTNR-HE Platinum

Air flow rate 310÷4.250 m³/h

Features

Very high efficiency hygroscopic heat recovery Eurovent Certificate

Multi-speed or Brushless EC fans

F7 and M5 high efficiency filters

Double sandwich wall with high insulation capacity

Full control kit

Tax incentives*

Fresh air terminal units with enthalpy rotary heat recovery.

Construction features

• Recovery unit: high yield rotary type made of aluminium with hygroscopic surface. Electric induction motor with belt and pulley transmission. Recovery unit-motor assembly easily removed from the side for periodic maintenance.
• Fans: outdoor air intake and forward blade dual intake centrifugal exhaust type with a directly coupled electric motor; optionally, EC Brushless technology high efficiency electric motors. The fan unit is installed on anti-vibration mountings to prevent vibrations being transmitted to the structure.
• Structure: frame made with extruded aluminium profile with preloaded nylon joints. Sandwich buffer panels, 23 mm thick, with galvanised sheet steel on the inside and pre-painted on the outside with thermal and acoustic insulation made of injected polyurethane, with a density of 45 kg/m3.
• Integrated free cooling or thawing by-pass system. A by-pass system can be provided to manage freecooling or thawing based on requirements or thermo-hygrometric needs.
• Filtering section: filtration sections made of compact cell filters with low pressure drop polypropylene media, removable from the side, with efficiency class F7 in fresh flow and M5 in exhaust flow.
• Factory-installed dirty filter differential pressure switches
• Terminal block: already part of the machine to facilitate the electrical connections, fan controls and rotary recovery.

Versions

• UTNR-HE/O PLATINUM - Recovery unit with rotary heat exchanger, installed horizontally and with standard multi-speed fans
• UTNRE-A/O PLATINUM - Recovery unit with rotary heat exchanger, installed horizontally and with Brushless EC fans that reduce the power consumption for ventilation at equal performance.

Available orientation
• 01 - Right-hand connections
• 02 - Left-hand connections
The selected orientation must be specified to process the job order

Installation
• EXT- Outdoor installation

Factory fitted accessories

• ERF7-F7 efficiency return filter
• BP-Bypass control for free-cooling including: NC relay on board the panel (suitable for PCU and KPCUE) and 2 NTC probes on board the machine

Separately supplied accessories

• KBER - Reheating electrical resistance installed outside in a duct dedicated module, complete with filament-type

safety thermostats and control relays to contain pressure drops.
230/1/50 single-phase electrical supply for model 040 and 075. 400/3/50 three-phase for 100-400 models.
• KSBFR - Section containing hot/cold water coil to reheat or recool, placed outside the machine in front of the intake vent. Includes stainless steel condensate drain pan with drain connection from the bottom.
• KSBFR + ATG - Hot/cold water coil section with mounted antifreeze thermostat
• KSRE - Regulation damper preset for servo-control, consisting of a galvanised sheet steel frame with adjustable fins.
• KSSC - Duct silencer with rectangular baffles in mineral wool covered with a protective film of glass fibre and micro-stretched sheet metal.
• KRMS - Sections with three dampers for air mixing and recirculation (only for horizontal installation).
• KSPC - 4 circular connections.

Controls

• KCV2 - Speed selector for wall mounting installation, to select from 3 speeds: Off/heating/cooling switch; 3-speed switch; 230V power supply.
• PCUS – composed from the control unit on board of the unit + WALL LCD display , suitable for controlling units with 3-speed fans or EC Brushless
Functionality: control of the winter/summer ambient temperature, management of: water battery and antifreeze thermostat (ON/OFF or modulating valve control), electrical resistance of preheating and/or post-heating, air dampers, freecooling of heat recovery, air filter pressure switches, CO2 or Humidity sensor for automatic modulation of EC fans, integrated clock for time slot program.
• PCUSM- same functionality as PCUS card with Modbus RTU connection port
• FULL CONTROL- for a description of these controls, please refer to the relevant page

Technical data

UTNR-HE PLATINUM MODEL		40	75	100	150	200	320	400
Outdoor air filters		F7						
Return air filters		M5						
TECHNICAL SPECIFICATIONS								
Nominal air flow rate	m³/h	310	640	1000	1650	2400	3200	3800
STANDARD FANS								
Motor type		AC	AC	AC	AC	AC	AC	n.d.
❶ Nominal available static pressure	Pa	230	130	190	160	300	180	n.d.
❶ Maximum available static pressure	Pa	230	130	190	160	300	180	n.d.
❷ Specific fan power (SFP)	W/(m³/s)	1409	1443	1580	1036	806	1226	n.d.
❸ Sound pressure level	dB(A)	56	58	62	64	68	67	n.d.
Speed No./Adjustment Type		3	3	3	3	3	3	n.d.
Electrical supply	V-ph-Hz	230-1-50	230-1-50	230-1-50/60	230-1-50/60	230-1-50/60	230-1-50/60	n.d.
BRUSHLESS EC FANS								
Motor type		EC	EC	EC	EC	EC	EC	EC
❶ Nominal available static pressure	Pa	230	130	190	160	300	180	100
❶ Max. available static pressure	Pa	430	280	560	600	480	460	240
❷ Specific fan power (SFP)	W/(m³/s)	1045	1263	1102	842	617	869	1029
❸ Sound pressure level	dB(A)	55	57	61	60	66	64	64
Speed No./Adjustment Type		0-10 V						
Electrical supply	V-ph-Hz	230-1-50	230-1-50	230-1-50/60	230-1-50/60	230-1-50/60	230-1-50/60	230-1-50/60
COUNTERFLOW HEAT RECOVERY								
❹ Winter efficiency temp/enthalpy	%	79/74	74/69	73/58	74/60	75/62	74/60	73,5/59
❺ Summer efficiency temp/enthalpy	%	79/69	74/65	73/59	75/60	81/65	75/59,5	73/59
❻ Efficiency Regulation EC 1253/2014	%	74,2	74	73	73	73,7	74,3	73
OPERATING LIMITS								
Outdoor air humidity/temperature limit	°C/%	-5						
Outdoor air humidity/temperature limit with KRMS accessory	°C/%	-15						
Indoor air humidity/temperature limit	°C/%	+10						
DIMENSIONS AND WEIGHTS		**40**	**75**	**100**	**150**	**200**	**320**	**400**
Length	mm	1075	1075	1205	1400	1720	1940	1940
Height	mm	480	480	550	550	680	680	680
Depth	mm	800	800	1000	1000	1290	1500	1500
Weight	kg	70	75	105	140	180	230	250

Data at the following conditions:

❶ Values referred to the nominal air flow rate considering the pressure drops of the heat recovery and the F7 filter
❷ Values referred to the nominal air flow rate and Nominal available static pressure
❸ Sound pressure level referring to 1 m from the machine inlet in free field
❹ Outdoor air T: -5°C, 80% UR; Ambient air T: 20°C, 50% UR .
❺ Outdoor air T: 32°C, 50% UR; Amb. air T: 26°C, 50% UR .
❻ Dry nominal conditions, measured according to En 308 in balanced flows. Outdoor air 5°C D.B.; Ambient air 25°C D.B.
❺ Outdoor air T: 32°C, 50% UR; Amb. air T: 26°C, 50% UR .
❻ Dry nominal conditions, measured according to En 308 in balanced flows. Outdoor air 5°C D.B.; Ambient air 25°C D.B.

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