

Heat recovery unit

UTNR-A Platinum

Air flow rate 400÷4.700 m³/h

Features



Horizontal or Vertical Version

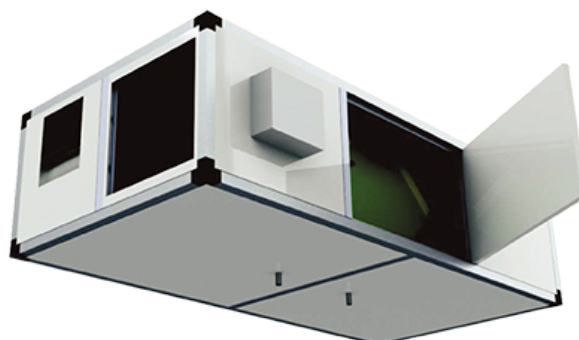
Very high efficiency heat recovery Eurovent Certificate

Multi-speed or Brushless EC fans

F7 and M5 high efficiency filters

Double sandwich wall with high insulation capacity

Tax incentives*



Fresh air terminal units with counterflow opposing flow static heat recovery.

Construction features

- Recovery unit: very high yield static type with aluminium plates with back-current flows with close step. Extraction of side exchange pack from top or bottom depending on models and versions
- 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, made 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.
- Filtering section: filtration sections made of compact cell filters with low pressure drop polypropylene media, removable from the side, with ISO 16890 ePM1 55% efficiency class (F7 EN 779) in fresh flow and ISO 16890 ePM10 55% (M5 EN 779) in exhaust flow.
- Factory-installed dirty filter differential pressure switches
- Condensate drain pan made of galvanised sheet steel with condensate drain connection from the bottom.
- Integrated free cooling or thawing by-pass system. Thanks to the presence of a motorised damper next to the heat recovery, a bypass system can be created to manage freecooling or thawing depending on thermo-hygrometric needs or conventions

Versions

- UTNR-A/O PLATINUM - Recovery unit with opposing flow heat exchanger, horizontal installation and with standard multi-speed fans
- UTNRE-A/O PLATINUM - Recovery unit with opposing flow heat exchanger, horizontal installation and with Brushless EC fans that reduce power consumption for ventilation at equal performance.
- UTNR-A/V PLATINUM - Recovery unit with opposing flow heat exchanger, installed vertically and with standard multi-speed fans
- UTNRE-A/V PLATINUM - Recovery unit with opposing flow heat exchanger, installed vertically and with Brushless EC fans that reduce 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 including rain cover, 80 mm-high base and an outdoor electrical box (the kit does not include the roof for any additional accessory modules)

Factory fitted accessories

- BER - PRE-POST - Pre-heating electrical resistance

(no frost function) installed inside, complete with filament-type safety thermostats and control relays to contain pressure drops.

- BA - Internal hot water reheating coil.
- BAATG - Antifreeze thermostat installed downstream of the water reheating coil.
- ERF7-F7 efficiency return filter

Separately supplied accessories

- 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 set up 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-A PLATINUM MODEL | | 40 | 75 | 100 | 150 | 200 | 320 | 400 | 500 |
|------------------------------------------------------------|-----------------------|-----------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|
| Outdoor air filters | | F7 | F7 | F7 | F7 | F7 | F7 | F7 | F7 |
| Return air filters | | M5 | M5 | M5 | M5 | M5 | M5 | M5 | M5 |
| TECHNICAL SPECIFICATIONS | | | | | | | | | |
| Nominal air flow rate | m ³ /h | 400 | 750 | 1000 | 1500 | 2050 | 3200 | 3800 | 4700 |
| STANDARD FANS | | | | | | | | | |
| Motor type | | AC | AC | AC | AC | AC | AC | n.d. | n.d. |
| ① Nominal available static pressure | Pa | 160 | 120 | 180 | 160 | 120 | 180 | n.d. | n.d. |
| ① Max. available static pressure | Pa | 160 | 120 | 180 | 160 | 120 | 180 | n.d. | n.d. |
| ② Specific fan power (SFP) | W/(m ³ /s) | 740 | 934 | 1105 | 1102 | 1078 | 1054 | n.d. | n.d. |
| ③ Sound power level | dB(A) | 58 | 61 | 61 | 64 | 64 | 68 | n.d. | n.d. |
| Speed No./Adjustment Type | | 3 | 3 | 3 | 3 | 3 | 3 | n.d. | 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. | n.d. |
| BRUSHLESS EC FANS | | | | | | | | | |
| Motor type | | EC | EC | EC | EC | EC | EC | EC | EC |
| ① Nominal available static pressure | Pa | 160 | 120 | 180 | 160 | 120 | 180 | 200 | 200 |
| ① Max. available static pressure | Pa | 340 | 210 | 520 | 500 | 540 | 375 | 330 | 200 |
| ② Specific fan power (SFP) | W/(m ³ /s) | 705 | 742 | 1059 | 1048 | 898 | 1040 | 949 | 935 |
| ③ Sound power level | dB(A) | 57 | 60 | 59 | 61 | 59 | 64 | 66 | 68 |
| Speed No./Adjustment Type | | 0-10 V | 0-10 V | 0-10 V | 0-10 V | 0-10 V | 0-10 V | 0-10 V | 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 | 230-1-50/60 |
| COUNTERFLOW HEAT RECOVERY | | | | | | | | | |
| ④ Winter Efficiency | % | 83,6 | 82,9 | 81,6 | 83,3 | 83,7 | 86,8 | 84,1 | 84,2 |
| ④ Summer Efficiency | % | 75,5 | 75,9 | 74,5 | 75,1 | 75,6 | 78 | 75 | 75,1 |
| ④ Efficiency Regulation EC 1253/2014 | % | 75,9 | 76,4 | 75 | 75,6 | 76 | 76,3 | 75,5 | 75,6 |
| 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 | 500 |
| HORIZONTAL vers. length | mm | 1480 | 1940 | 1940 | 2200 | 2200 | 2500 | 2500 | 2500 |
| HORIZONTAL vers. height | mm | 380 | 480 | 480 | 550 | 550 | 680 | 680 | 680 |
| HORIZONTAL vers. depth | mm | 800 | 990 | 990 | 1000 | 1400 | 1400 | 1400 | 1700 |
| HORIZONTAL vers. weight | kg | 90 | 140 | 150 | 170 | 200 | 230 | 260 | 300 |
| VERTICAL vers. length | mm | 1480 | 1940 | 1940 | 2200 | 2200 | 2500 | 2500 | 2500 |
| VERTICAL vers. depth | mm | 420 | 520 | 520 | 520 | 720 | 720 | 720 | 720 |
| VERTICAL vers. height | mm | 830 | 1070 | 1070 | 1080 | 1480 | 1480 | 1480 | 1780 |
| VERTICAL vers. weight | kg | 90 | 150 | 160 | 180 | 220 | 250 | 280 | 330 |
| Condensate drain | inch | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" |

Data at the following conditions:

- ① Values referring to the nominal air flow rate considering the pressure drops of the heat recovery and the F7 filter.
- ② Values referring to the nominal air flow rate and Nominal available static pressure.
- ③ Radiated sound power level from casing.
- ④ Outdoor air T: -5°C, 80% UR; Ambient air T: 20°C, 50% UR.
- ⑤ Outdoor air T: 32°C, 50% UR; Amb. air T: 26°C, 50% UR.
- ⑥ Dry nominal conditions, measured according to En 308 in balanced flows. Outdoor air 5°C D.B.; Ambient air 25°C D.B.
- ⑦ Outdoor air T: 32°C, 50% UR; Amb. air T: 26°C, 50% UR.
- ⑧ Dry nominal conditions, measured according to En 308 in balanced flows. Outdoor air 5°C D.B.; Ambient air 25°C D.B.



RHOSS S.P.A.
Via Oltre Ferrovia, 32
33033 Codroipo (UD) - ITALY
tel. [+39 0432 911611](tel:+390432911611)
rhoss@rhoss.com

rhoss.com

RHOSS S.P.A. non si assume alcuna responsabilità per eventuali errori del presente stampato e si ritiene libera di variare senza preavviso le caratteristiche dei propri prodotti.