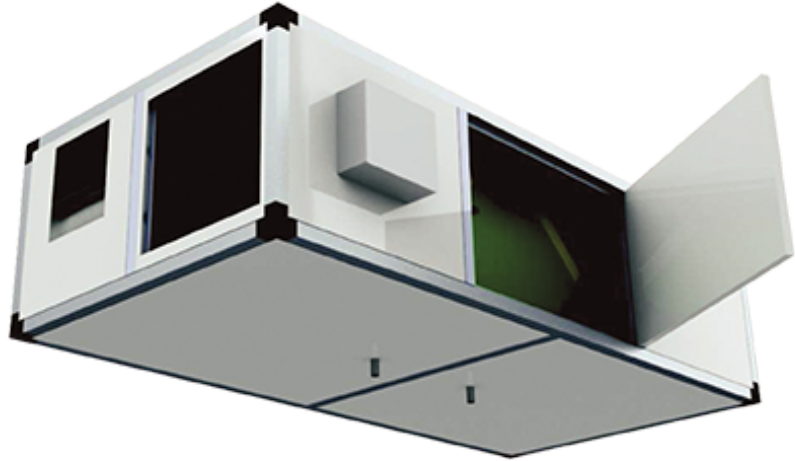


# Heat recovery unit UTNR-A Platinum 040÷500



Air flow rate: 400-4.700 m<sup>3</sup>/h

- √ **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**



Web code: UTNR3

**Fresh air terminal unit 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: fresh air inlet and forward blade dual intake centrifugal exhaust type with a directly coupled electric motor; optionally, EC Brushless technology high efficiency electric motors. Fan unit installed on anti-vibration mountings to prevent the transmission of vibration to the structure. The EC fans can be factory set for operation with constant flow rate (specification to be provided in order)
- 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/m<sup>3</sup>.
- 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 thermohygrometric 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. For each size you may choose between 2 available power outputs
- 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 a rectangular base made of glass wool covered with a protective film of glass fibre and micro-stretched sheet metal.
- KRMS - Section 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.
- PCU - Control panel for wall mounting installation, allows the winter/summer environment temperature to be controlled, gives consent to activate or exclude the water coil (ON/OFF Valves control) or the electrical resistance. Selects the operating speed of the fan between minimum, medium, maximum and controls the freecooling function.
- PCU - Control panel for wall mounting installation, allows the winter/summer environment temperature to be controlled, gives consent to activate or exclude the water coil (ON/OFF Valves control) or the electrical resistance. Selects the operating speed of the fan through 0/10 V adjustment and controls the freecooling function.
- KPCUEM - adds a board to interface Modbus with BMS to the KPCUE control functions.

Full Controls

- KRFCFS - Electrical panel complete with: DDC programmable microprocessor regulator. BMS interfacing Integrated as standard with Modbus RTU protocol, main disconnecting switch, relay to control various users, terminal blocks for quick connection of all machine components, auxiliary circuit supply with suitable transformer 230/12-24V.

USER PANELS (for KRFCFS)

- KHMIG - Interface terminal with black monochrome graphic display with LED backlighting.
- KHMIR - Interface terminal complete with integrated room temperature probe with black monochrome graphic display with LED backlighting.
- KCW - White decorative plate for control panel.
- KCB - Black decorative plate for control panel.
- KWMS - Wall mounting installation support for control panel.

Valves and actuators

- KV3V - PN40 Mixer/diverter 3-way regulation ball valves, female threaded hydraulic connections.
- KV2V - PN40 2-way regulation ball valves, female threaded hydraulic connections.
- KVMM - Actuator for ball regulation valves with modulating control 0/10 Vdc 24 Vac power supply.
- KVOM - Actuator for 230V On/Off valves.
- KDMA-S - Actuator for modulating damper 0-10V 24V with spring return.
- KDMA - Actuator for modulating damper 0-10V 24V without spring return.
- KDOA - Actuator for ON/OFF damper with spring return.

All the probes, actuators and valves on the Full Control section are also available.

## Technical Data

UTNR-A PLATINUM MODEL		40	75	100	150	200	320	400	500
Type of Unit		Non-residential- Bidirectional	Non-residential- Bidirectional	Non-residential- Bidirectional	Non-residential- Bidirectional	Non-residential- Bidirectional	Non-residential- Bidirectional	Non-residential- Bidirectional	Non-residential- Bidirectional
Outdoor air filters		F7	F7	F7	F7	F7	F7	F7	F7
Return air filters		M5	M5	M5	M5	M5	M5	M5	M5
Bypass		Motorisable side bypass damper	Motorisable side bypass damper	Motorisable side bypass damper	Motorisable side bypass damper	Motorisable side bypass damper	Motorisable side bypass damper	Motorisable side bypass damper	Motorisable side bypass damper
<b>TECHNICAL SPECIFICATIONS</b>									
Nominal air flow rate	m <sup>3</sup> /h	400	750	1000	1500	2050	3200	3800	4700
<b>STANDARD FANS</b>									
❶ Nominal available static pressure	Pa	160	120	180	160	120	180	n.d.	n.d.
❷ Max available static pressure	Pa	160	120	180	160	120	180	n.d.	n.d.
❸ Specific fan power (SFP)	W/(m <sup>3</sup> /s)	740	934	1105	1102	1078	1054	n.d.	n.d.
❹ Sound power level	dB(A)	58	61	61	64	64	68	n.d.	n.d.
Speed N <sup>o</sup> /Regulation 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	230-1-50	230-1-50	230-1-50	n.d.	n.d.
<b>BRUSHLESS EC FANS</b>									
❶ Nominal available static pressure	Pa	160	120	180	160	120	180	200	200
❷ Max available static pressure	Pa	340	160	520	500	540	375	330	200
❸ Specific fan power (SFP)	W/(m <sup>3</sup> /s)	705	742	1059	1048	898	1040	949	935
❹ Sound power level	dB(A)	57	60	59	61	59	64	66	68
Speed N <sup>o</sup> /Regulation Type		0-10 V							
Electrical supply	V-ph-Hz	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50
<b>COUNTERFLOW HEAT RECOVERY</b>									
❶ Winter Efficiency	%	83,6	82,9	81,6	83,3	83,7	86,8	84,1	84,2
❷ Summer Efficiency	%	75,5	75,9	74,5	75,1	75,6	78	75	75,1
❸ Efficiency Regulation EC 1253/2014	%	75,9	76,4	75	75,6	76	76,3	75,5	75,6
<b>DIMENSIONS AND WEIGHTS</b>									
Length/Height/Depth HORIZONTAL vers.	mm	1480/380/800	1940/480/990	1940/480/990	2200/550/1000	2200/550/1400	2500/680/1400	2500/680/1400	2500/680/1700
Weight HORIZONTAL vers.	kg	90	140	150	170	200	230	260	300
Length/Depth/Height VERTICAL vers.	mm	1480/3420/830	1940/520/1070	1940/520/1070	2200/520/1080	2200/720/1480	2500/720/1480	2500/720/1480	2500/680/1780
Weight VERTICAL vers.	kg	90	150	160	180	220	250	280	330

Data at the following conditions:

- ❶ Values referring to the nominal air flow rate considering the pressure drops of the heat recovery and the F7 filter.
- ❷ Values referring to the nominal air flow rate and Nominal available static pressure.
- ❸ Radiated sound power level from casing.
- ❹ Outdoor air T: -5°C, 80% RH; Ambient air T: 20°C, 50% RH.
- ❺ Outdoor air T: 32°C, 50% RH; Amb. air T: 26°C, 50% RH.
- ❻ 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. declines all responsibility for possible mistakes in this document and reserves the right to alter the features of their products without notice.

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