

Push-pull heat recovery unit with remote control

HRU-WALL-RC



Description

HRU-WALL-RC is a bidirectional ventilation unit, often described as decentralized or push-pull, with regenerative ceramic heat exchanger. It is intended for single room installation, usually installed in synchronised pairs. The heat exchanger material together with its unique honeycomb structure gives a maximal 82% thermal efficiency ratio (74% acc. to 1254/2014 EU Directive reference measuring point). The operating principle is analogous to HRU-WALL - unit is working in alternating flow mode, switches the air flow directions every 40-120 seconds (push-pull) and it's equipped with energy efficient EC fan (maximum power consumption is only 6 W for HRU-WALL-RC-150-60).

The unit casing is made of ABS plastic. A remote controller with LCD display is included in the set.

We recommend installing the devices in pairs.



Note!

The HRU-WALL-...-PEG model has an external, plastic grille.

The RC version has several advantages:

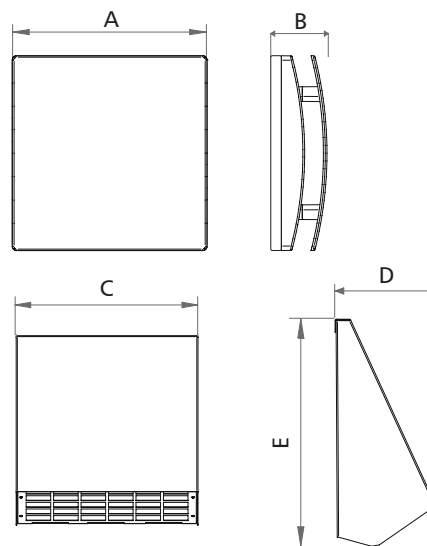
- Remote controller with an LCD
- 5 speeds: 10-14-17-21-25 m³/h (HRU-WALL-RC-100-25)
- 5 speeds: 20-30-40-50-60 m³/h (HRU-WALL-RC-150-60)
- Double filter (inner and outer side)
- Multicolour LED for status indication
- Automatically manages the cycle length in COMFORT mode
- Dirty filter visual indicator
- Boost function - maximum air flow for limited time
- Integrated humidity sensor – smart humidity control, increases speed if rapid rise of relative humidity is measured
- Anti-frost protection
- Free-cooling - only one direction.

Product code example

Product code: **HRU-WALL-RC - 150 - 60**

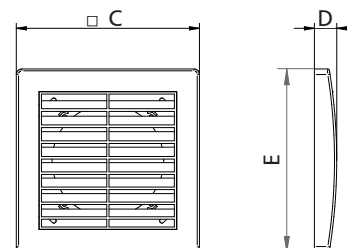
type _____
 diameter _____
 capacity _____

Dimensions

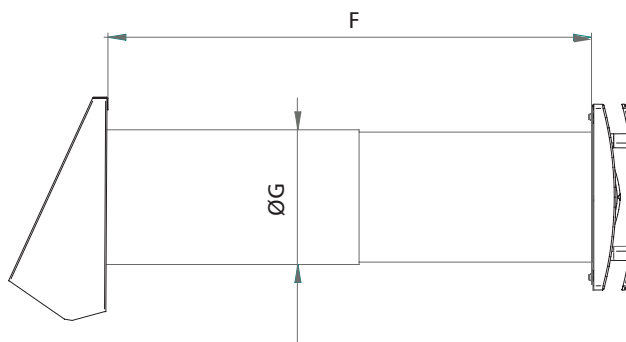


External hood

HRU-WALL-RC-150-60-PEG



Type	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]
HRU-WALL-RC-100-25	218	76	205	100	205
HRU-WALL-RC-150-60	218	76	255	130	255
HRU-WALL-RC-150-60-PEG	218	76	218	20	218



Type	F (mm)	G (mm)
HRU-WALL-RC-100-25	270÷510	108
HRU-WALL-RC-150-60	300÷560	158
HRU-WALL-RC-150-60-PEG	300÷560	158

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HRU-WALL-RC**Construction****1. Heat exchanger**

The ceramic, regenerative heat exchanger is a central and most important part of the unit. It has a honeycomb structure for high thermal efficiency and double-sided air filters.

**2. Energy efficient EC fan**

Due to its advanced design and technology it consumes only 6W of power at its peak (for HRU-WALL-RC-150-60) or only 3.5W (for HRU-WALL-RC-100-25). Unique design winglet-type impeller, providing enhanced aerodynamic properties, low noise and increased efficiency. High efficient reversible EC motor with integral thermal protection, mounted on sealed for life high quality ball bearings. Designed for continuous reversible running.

**3. Front cover**

Made of high quality, impact and UV-resistant ABS.

**4. Telescopic inner pipe**

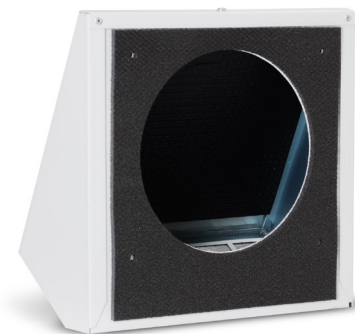
Telescopic pipe adaptable to the wall thickness from:

HRU-WALL-RC-100-25: 270-510 mm.

HRU-WALL-RC-150-60: 300-560 mm.

**5. Outer grille**

Outer grille with bug mesh.

**6. Remote control**

The unit is supplied with an infrared remote controller as standard, as well as its support base which can be wall mounted. A magnet keeps the controller attached to the base. The controller is equipped with an LCD display to visualise the setting to be transferred to the unit.



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Other versions

HRU-WALL-RC-150-60-PEG
with an external, plastic grille



HRU-WALL-USUA-150-60-RAL
with an external hood, painted in any RAL colour



HRU-WALL-RC-WREV-150-60
a window reveal module for intake and exhaust applications



Intended use

Most effective method is to use two synchronised units which are installed in closely located rooms. In such configuration one can set the alternating operation on both devices (when one unit extracts air, the other one intakes). Such synchronisation maintains pre-chosen operation modes on all connected devices:

- **COMFORT**
inversion time varies, optimised for acoustic and thermal comfort
- **EFFICIENCY**
inversion time is fixed, optimised for maximum thermal efficiency

In order to synchronise units a wire connection must be established using 2-pole twisted pair cable. It is possible to connect up to 10 units and control them with one remote. The Intake/Extract order among units will be set automatically.

Scenario during synchronization:

- Inversion time is synchronized, all units will change direction at the same moment,
- Devices must be turned on and off separately - turning one on will not start the other,
- Speed on each device can be set independently,
- Changing the mode to Intake / Extract / Alternate on each device is independent (for example, if we change one unit to Intake, the other will continue to operate in Alternate mode),
- Switching between COMFORT / EFFICIENCY modes is synchronized - selection in one unit, changes the mode in the other one as well,
- Inversion time is synchronized, all units will change direction at the same moment.

Example temperature values for the 3rd air supply speed.

Indoor temp. (°C)	Outdoor temp. (°C)	Air supply temp. (°C)*
20	0	17.4
20	-10	16.1
20	-20	14.8

* Supply air temperature measured at the 3rd air supply speed

How to order

Standard version with metal external hood
HRU-WALL-RC-100-25 / HRU-WALL-RC-150-60

Version with plastic external grille
HRU-WALL-RC-100-25-PEG / HRU-WALL-RC-150-60-PEG

Version with metal hood, painted in any RAL - provide the RAL colour with an order
HRU-WALL-RC-....-PEG + HRU-WALL-USUA-RAL

Version with window reveal hidden intake-exhaust
**HRU-WALL-RC-150-60-PEG +
HRU-WALL-WREV-150 (flat duct) +
HRU-WALL-WREV-FRAME (mounting frame) +
HRU-WALL-WREV-GRILL (grille)**

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HRU-WALL-RC**Technical specifications**

	HRU-WALL-RC-100-25	HRU-WALL-RC-150-60 / HRU-WALL-RC-150-60-PEB
Air flow rate [m ³ /h]	10/ 14/ 17/ 21/ 25	20 / 30 / 40 / 50 / 60
Power [W]	2/ 2/ 2,5/ 3/ 3,5	2 / 2,5 / 3,5 / 4,5 / 6
Sound pres- sure [dB(A)] 3m	9/ 14/ 18/ 23/ 27	10 / 14 / 20 / 24 / 26
Ambient temp. [°C]	-20° +50°	-20° +50°
Protection class	IPX4	IPX4
Frequency [Hz]	50	50
Voltage [V]	220-240	220-240
Weight [kg]	4.40	4.40

Air efficiency measured as per ISO 5801:2008

Heat recovery efficiency as per EN 13141-8:2011

Sound level measured as per ISO 3746:2010

Energy class

Model	Sound level (dB)	Air flow rate (m ³ /h)	Energy class
HRU-WALL-RC-100-25	39	25	A
HRU-WALL-RC-150-60	40	60	A
HRU-WALL-RC-150-60-PEG	40	60	A

The image shows an energy label for the HRU-WALL-RC-150-60 model. At the top left is the European Union flag. To its right is the 'ENERG' logo with 'енергия · ενεργεια' below it and 'Y IJA' and 'IE IA' in circles. Below the logo is the 'Nalnor' brand name and 'systemy wentylacji'. The model name 'HRU-WALL-RC-150-60' is prominently displayed. A vertical bar on the left shows energy efficiency classes from A+ (green) to G (red), with a black arrow pointing to class 'A'. Below this bar are two boxes: one for sound level '40 dB' with a speaker icon, and another for air flow rate '60 m³/h' with up and down arrows. At the bottom, the text 'ENERGIA · ЕНЕРГИЯ · ΕΝΕΡΓΕΙΑ · ENERGIJA · ENERGY · ENERGIE · ENERGI' is followed by '2018' on the left and '1254/2014' on the right.