

Single-room decentralised heat recovery unit

HRU-WALL-PEG



Description

HRU-WALL-PEG is a single-room decentralized heat recovery unit for concealed installation. The unit comes with a ceramic heat exchanger which boasts a maximum heat recovery ratio of 82% (the nominal heat recovery ratio is $\eta=74.3\%$ as per EN 13141-8:2011).

The energy-efficient EC fan changes the running direction every 70 seconds to alternate between air supply and air exhaust. Low energy consumption and extremely low operating noise make this heat recovery unit a recommended solution for non-stop operation. The heat recovery unit has three speed levels to choose from, depending on the size of the area and indoor demands.

HRU-WALL-100-25-PEG provides a sufficient air change level in areas up to 19m².

HRU-WALL-150-60-PEG provides a sufficient air change level in areas up to 45m².

We recommend installing the devices in pairs.

Product code example

Product code: **HRU-WALL - 100 - 25 - PEG**

type _____
 diameter _____
 capacity _____
 type of air intake _____

Dimensions

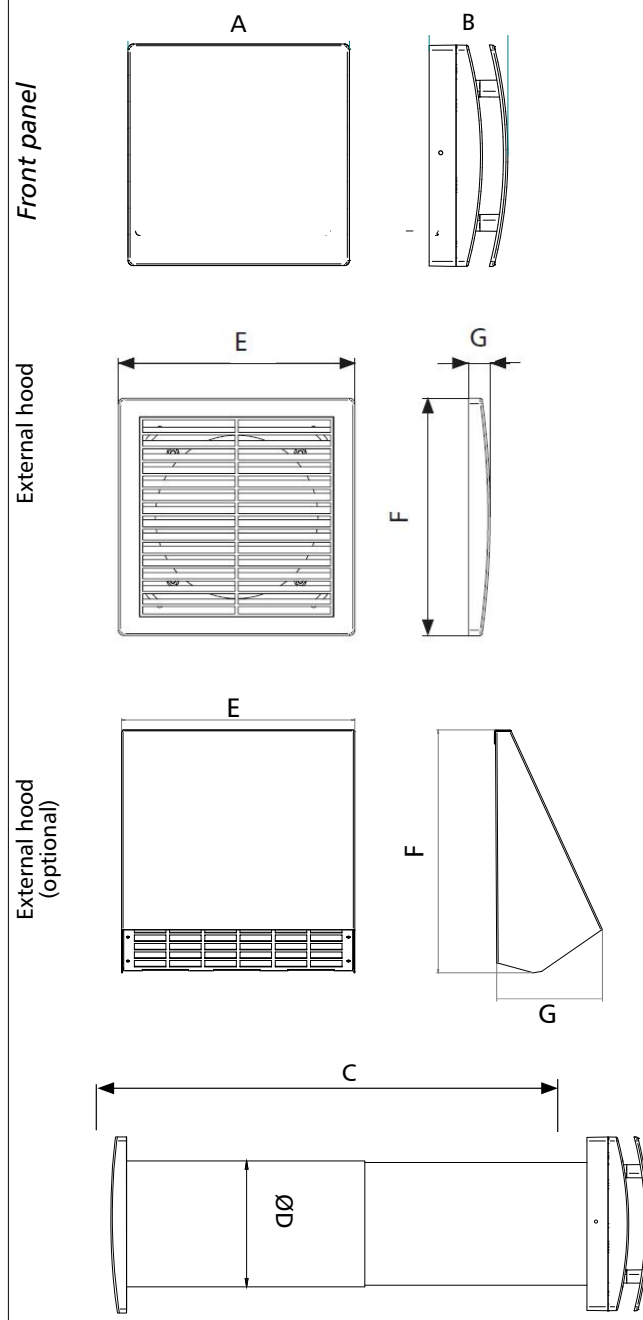


Table dimensions

	HRU-WALL-100-25-PEG [mm]	HRU-WALL-150-60-PEG [mm]	HRU-WALL-USUA-100 [mm]	HRU-WALL-USUA-150 [mm]
Dimension A	164	218	-	-
Dimension B	46	51	-	-
Dimension C	300-570	300-570	-	-
Dimension D	110	159	-	-
Dimension E	164	218	205	255
Dimension F	164	218	205	255
Dimension G	20	20	100	130

Single-room decentralized heat recovery unit **HRU-WALL-PEG**

Construction

Front cover

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

Energy efficient EC fan

Due to its advance design and technology it consumes only 2.6W of power at its peak (for HRU-WALL-PEG-100-25) or only 3.5W (for HRU-WALL-RC-PEG-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.

Telescopic inner pipe

Regulation: 300-570 mm. High quality material, impact and UV-resistant, made from 100% recycled ABS, black colour. A cerami exchanger is placed in the pipe.

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 (HRU-WALL-RC-PEG).

Outer grille

External aluminium cover HRU-WALL-USUA painted in RAL 9010 colour or HRU-WALL-USUA-...-RAL painted in any RAL colour

Outer grille (optional)

External steel cover HRU-WALL-USUA or HRU-WALL-USUA-...-RAL painted RAL with acoustic lining and insect screen. Standard RAL 9010.

Remote controller / controller

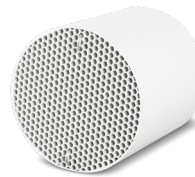
The unit is supplied with an infrared remote controller as standard (HRU-WALL-RC-PEG), as well as its support base which can be wall mounted. A magnet keeps the controller attached to the base. The controller is equipped with an LCD display to visualise the setting to be transferred to the unit. Controller with 3 two-position switches, surface / flush mounted for HRU-WALL-PEG (option).



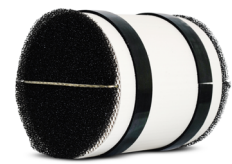
HRU-WALL-PEG



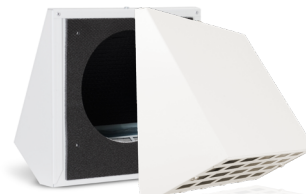
HRU-WALL-RC-PEG



HRU-WALL-PEG



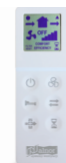
HRU-WALL-RC-PEG



HRU-WALL-PEG
(option)



HRU-WALL-RC-PEG
(standard)

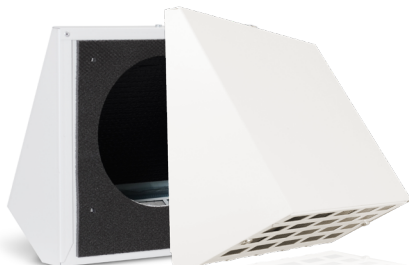


Single-room decentralised heat recovery unit

HRU-WALL-PEG

Other versions

HRU-WALL-USUA-100 / HRU-WALL-USUA-150
additional external hood HRU-WALL-USUA
painted in RAL 9010 colour



HRU-WALL-USUA-100-RAL / HRU-WALL-USUA-150-RAL
An external hood, painted in any RAL colour



HRU-WALL-WREV-150 + HRU-WALL-WREV-FRAME + HRU-WALL-WREV-GRILL
a window reveal module for intake and exhaust applications



Intended use

A system of single-duct decentralized heat recovery units offers the most efficient performance when two identical units are operated in two areas located near one another and connected to a single, common speed controller — HRU-WALL-CONTR-I (or any three-position control switch). This installation configuration allows synchronizing the alternating air flow direction of both units to have one extract air while the other supplies air. An external sensor (which senses relative air humidity or CO₂ level) can be connected in parallel to control the heat recovery system (to increase fan speed if required).

Example temperature values for the 2nd air supply speed

Indoor temp. [°C]	Outdoor temp. [°C]	Air supply temp. [°C]*	
		HRU-WALL-150	HRU-WALL-100
20	0	17.4	16.4
20	-10	16.1	14.6
20	-20	14.8	12.8

* Supply air temperature measured at the 2nd air supply speed

How to order

Standart version with plastic external grille
HRU-WALL-100-25-PEG / HRU-WALL-150-60-PEG

Version with metal hood, painted in RAL 9010
HRU-WALL-...-...-PEG + HRU-WALL-USUA-...

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

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

Single-room decentralized heat recovery unit **HRU-WALL-PEG**

Controller

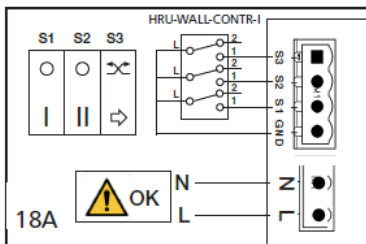


HRU-WALL-CONTR-I
flush-mounted controller

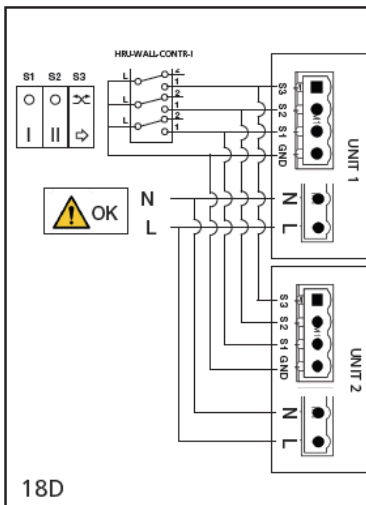
HRU-WALL-CONTR
surface controller

Note!
Controller is not included in the set,
sold separately

Connection of the HRU-WALL-CONTR-I controller



Connection of 2 HRU-WALL units with a single HRU-WALL-CONTR-I controller



Energy class

Model	Sound level [dB]	Air flow rate [m³/h]	Energy class
HRU-WALL-100-25-PEG	35	10/18/25	A
HRU-WALL-150-60-PEG	38	20/40/60	A

ENERG
енергия · ενεργεια

HRU-WALL-150-60

Y UA
IE IA

38
dB

60
m³/h

ENERGIA · ЕНЕРГИЯ · ΕΝΕΡΓΕΙΑ · ENERGIJA · ENERGY · ENERGIE · ENERGI
2016 1254/2014

Technical specifications

Type	Air flow rate [m³/h]	Power [W]	Sound pressure [dB(A)] 3 m	Efficiency [%]	Ambient temp. [°C]	Weight [kg]
HRU-WALL-100-25-PEG	10/18/25	1,2/1,7/2,6	10/15/29	74	-20° +50°	2.1
HRU-WALL-150-60-PEG	20/40/60	1,4/2,3/3,8	10/18/26	74	-20° +50°	4.0
HRU-WALL-100-25 + USUA	10/18/25	1,2/1,7/2,6	10/15/29	74	-20° +50°	2.4
HRU-WALL-150-60 + USUA	20/40/60	1,4/2,3/3,8	10/18/26	74	-20° +50°	4.3

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

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Supplier's name or trade mark	ALNOR Systemy Wentylacji			ALNOR Systemy Wentylacji		
Model identifier	HRU-WALL-100-25-PEG			HRU-WALL-150-60-PEG		
Specific energy consumption (SEC) [kWh/(m ² .a)] (cold, average, warm)	-75,6	-37,5	-15,6	-76,4	-38,2	-16,2
Energy class	A+	A	E	A+	A	E
Declared typology	Bidirectional			Bidirectional		
Type of drive	Multi-speed			Multi-speed		
Type of heat recovery system	Regenerative			Regenerative		
Thermal efficiency ¹ [%]	74			74		
Maximum flow rate [m ³ /h] ²	25			60		
Maximum fans' electric power input [W]	2,6			3,8		
Sound power level LWA [dB(A)]	35			38		
Reference flow rate [m ³ /h] ³	17			41		
Reference pressure difference [Pa] ⁴	10			10		
SPI [W/m ³ /h] ⁵	0,07			0,05		
Control	Manual control			Manual control		
Control factor	1			1		
Declared maximum leakages ⁶	External: 1% Internal: NA			External: 1% Internal: NA		
Mixing rate	-			-		
Position and description of visual filter warning	NA			NA		
Internet address for pre-/dis-assembly instructions	https://www.ventilation-alnor.co.uk/			https://www.ventilation-alnor.co.uk/		
The annual electricity consumption (AEC) [kWh/a] (cold, average, warm)	1	1	1	0,7	0,7	0,7
The annual heating saved (AHS) [kWh/a] (cold, average, warm)	78,0	39,9	18,0	78,2	40,0	18,1

1: According to EN 13141-7:2010

2: According to EN 13141-7:2010 with at pressure difference 100Pa

3: According to EN 13141-7:2010 at 70% of maximum flow at static pressure difference 50Pa

4: According to EN 13141-7:2010

5: According to EN 13141-7:2010 at reference point - 70% of maximum air flow

6: According to EN 13141-7:2010