Single-room decentralised heat recovery unit

HRU-WALL

Description

HRU-WALL 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 η=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 provides a sufficient air change level in areas up to 19m².
HRU-WALL-150-60 provides a sufficient air change level in areas up to 45m².
We recommend installing the devices in pairs.

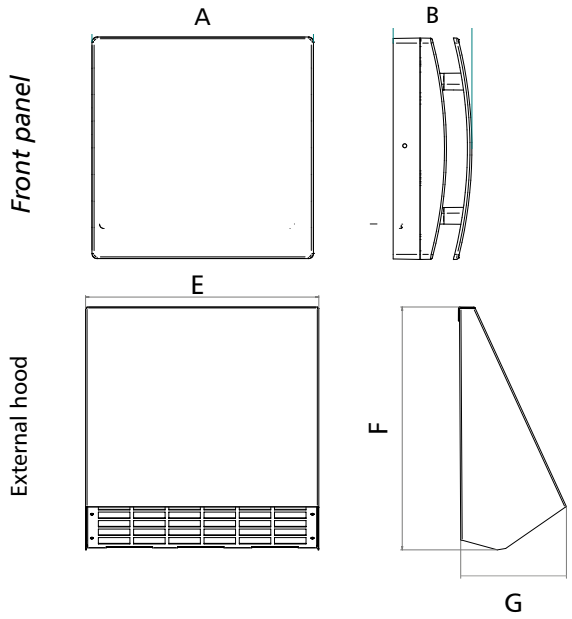
Note!
The HRU-WALL-...-PEG model has an external, plastic grille.

Product code example

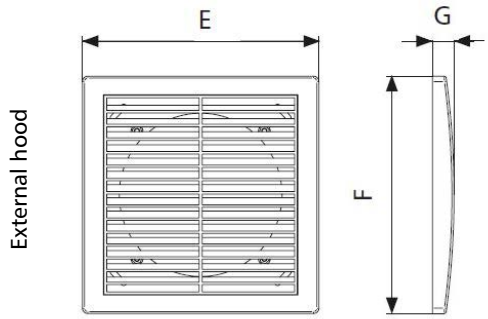
Product code: **HRU-WALL - 100 - 25**

type
diameter
capacity

Dimensions



HRU-WALL-...-PEG



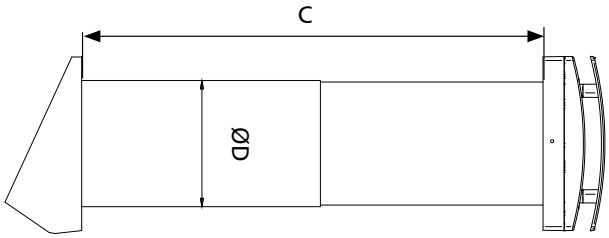


Table dimensions

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

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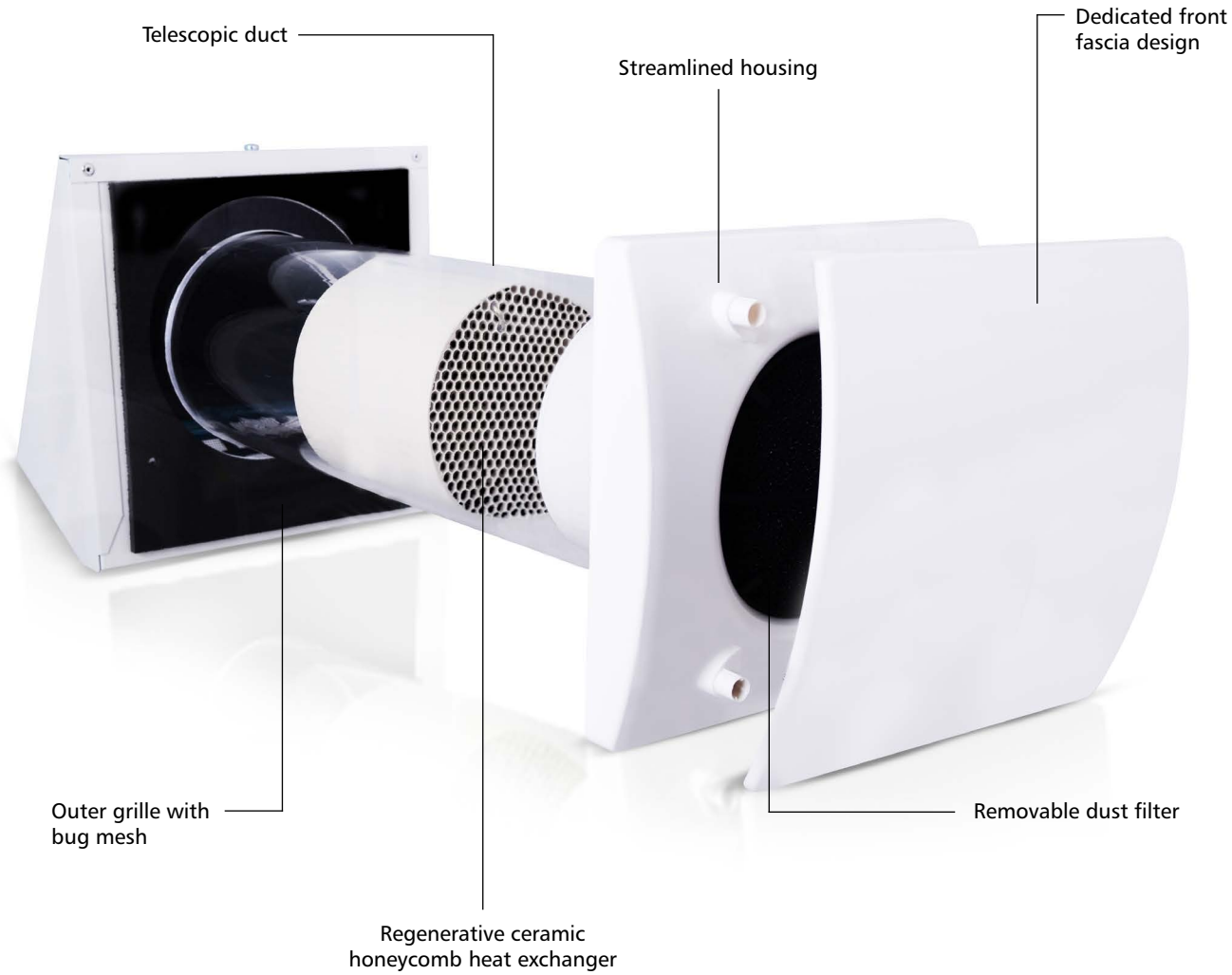
Design of the single-room heat recovery unit



Note!
Power cord is not included.

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Other versions

HRU-WALL-100-25-PEG / HRU-WALL-150-60-PEG
with an external, plastic grille

HRU-WALL-USUA-...-RAL
with 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 CO_2 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

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

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

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

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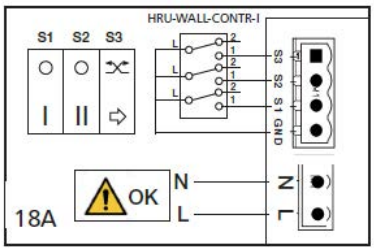
Controller

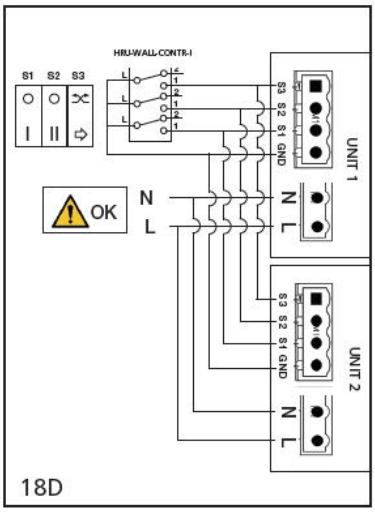
HRU-WALL-CONTR-I
controller

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

Connection of the HRU-WALL-CONTR-I controller

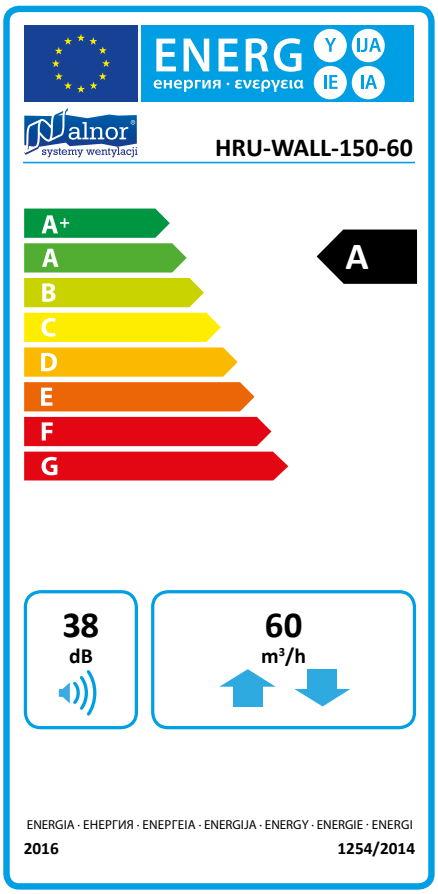


Connection of 2 HRU-WALL units with a single HRU-WALL-CONTR-I controller



Energy class

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



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	10/18/25	1,2/1,7/2,6	10/15/29	74	-20° +50°	2.4
HRU-WALL-150-60	20/40/60	1,4/2,3/3,8	10/18/26	74	-20° +50°	4.3
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

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			HRU-WALL-150-60		
Specific energy consuption (SEC) [kWh/(m^2.a)] (cold, average, warm)	-75,60	-37,45	-15,59	-76,18	-38,03	-16,18
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		
Maxium 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 facotr	1			1		
Declared maxiumum 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-assemlby instructions	https://www.ventilation-alnor.co.uk/			https://www.ventilation-alnor.co.uk/		
The annual electricity consumption (AEC) [kWh/a]	98	98	98	74	74	74
The annual heating saved (AHS) [kWh/a]	7804	3989	1804	7804	3989	1804

1: According to EN 13141-7:2010
2: According to EN 13141-7:2010 with at pressure diference 100Pa
3: According to EN 13141-7:2010 at 70% of maximum flow at static pressure diference 50Pa
4: According to EN 13141-7:2010
5: According to EN 13141-7:2010 at reference point - 70% of maxiumum air flow
6: According to EN 13141-7:2010