Counter-flow, high-efficiency heat recovery unit

IDEO2 325 ECOWATT

Serial IDEO 325 ECOWATT

IDEO2 325-ECOWATT

Whole house heat recovery unit with a high-efficiency heat exchanger up to 92% with constant airflow setting, very low consumption EC motor and low sound level.
Provides a constant supply of fresh tempered air into the living spaces of a home whilst extracting condensation, smells and smoke from kitchens, bathrooms and toilets.
The central unit is completed with extraction outlets located in different rooms (kitchen, toilets, bathroom) and inlets located in the main rooms (dining room, bedrooms).

Features
-2 constant flow fans.
-Counter-flow heat exchanger with up to 92% performance.
-Wireless remote control.
-Wireless kitchen boost.
-F5 inlet filter with G4 pre-filter.
-G4 extraction filter.
-100% summer by-pass option for free cooling.
-4 nozzles, Ø 150/160 mm.
-1 drain for vertical fitting.
-1 antenna with potential transmission/reception range of 150 metres in a open space.
-1 wall bracket.
-Air tight construction.

Technical data

Acoustic characteristics

No sound information available.

Hz	63	125	250	500	1k	2k	4k	8k	Overall

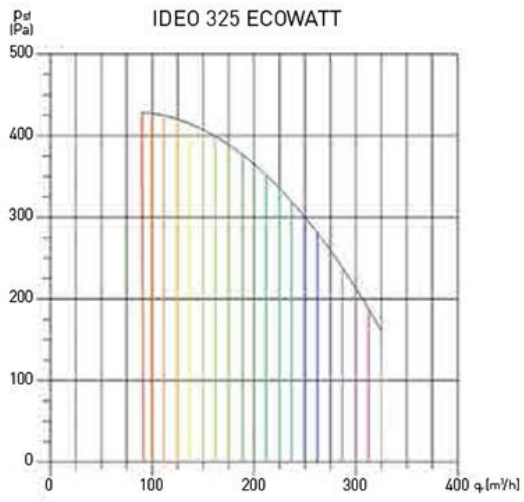
Technical characteristics

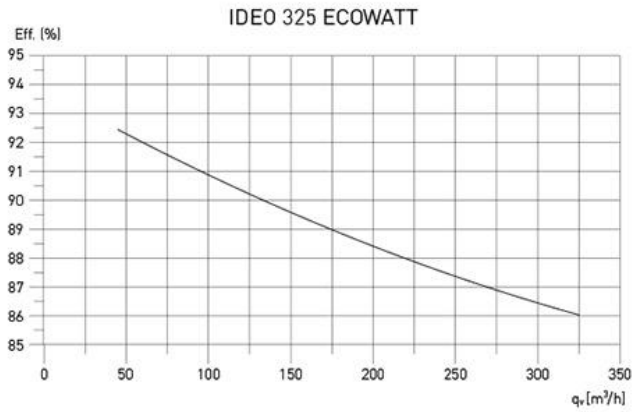
Working Point

Construction

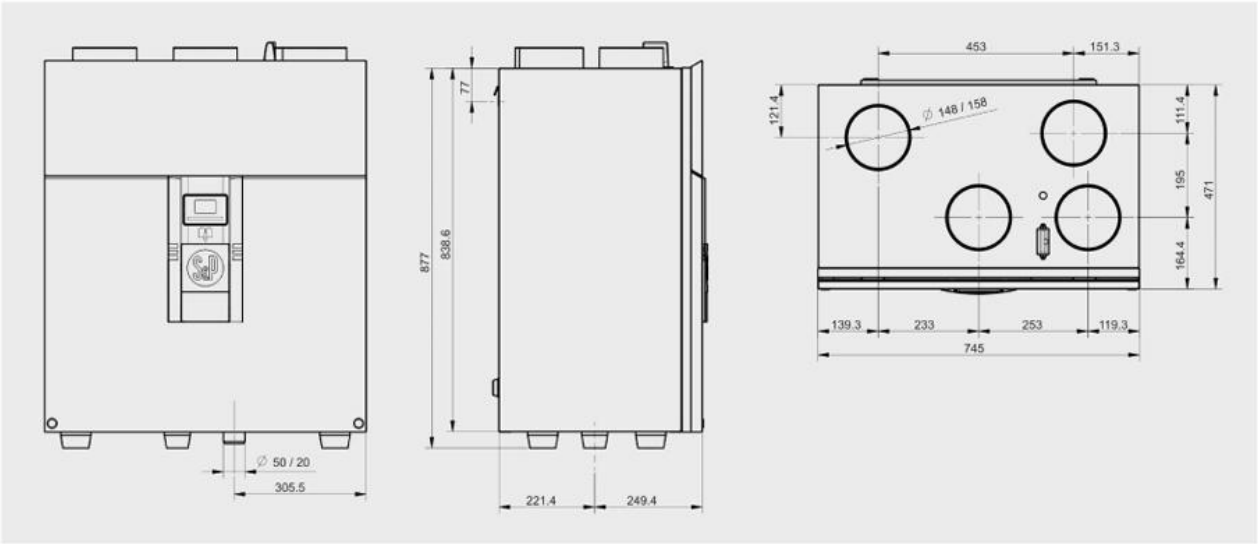
Motor Characteristics

Curves

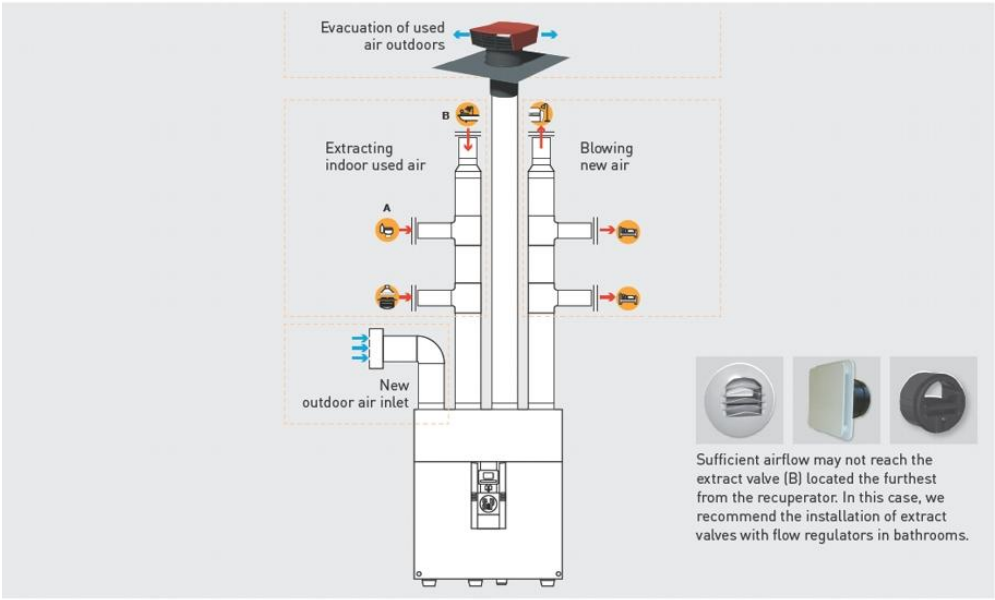




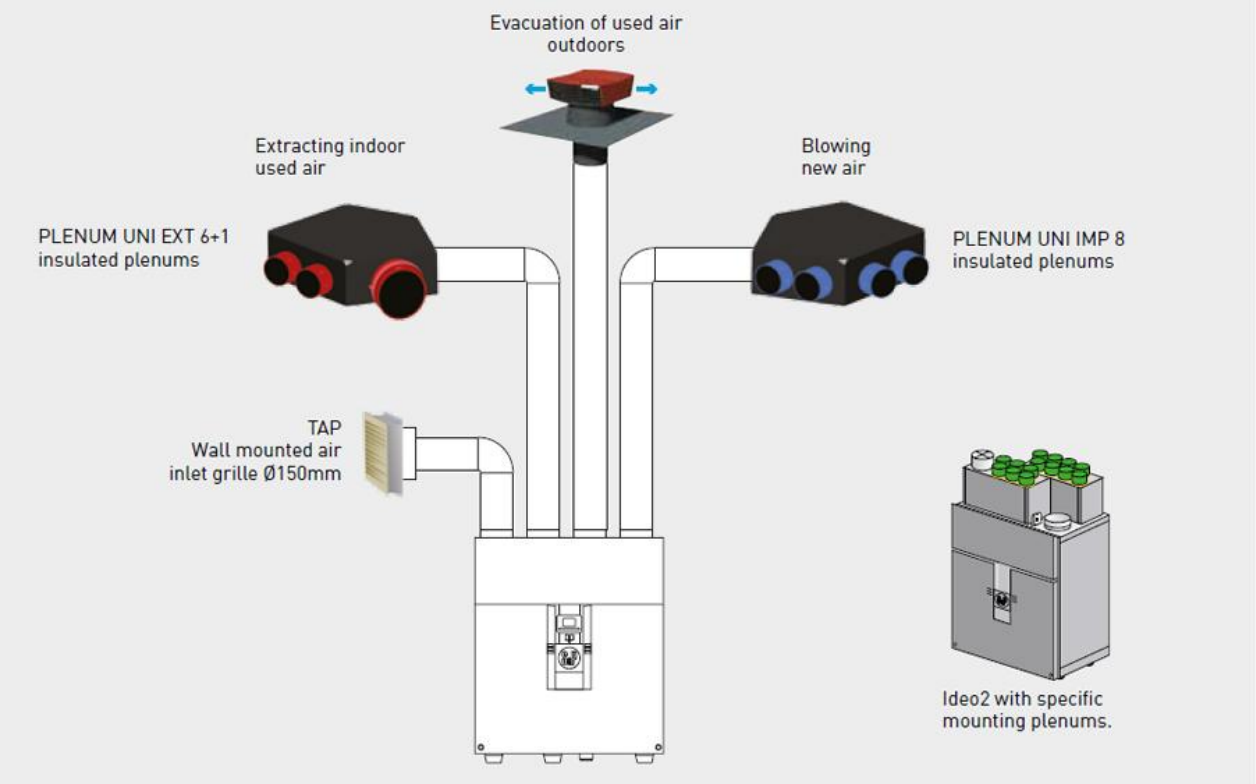
Dimensions



Fitting

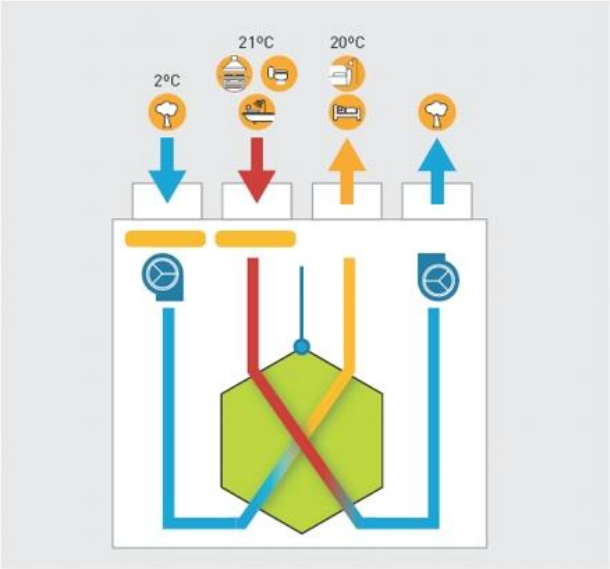


Installation



Heat recovery examples

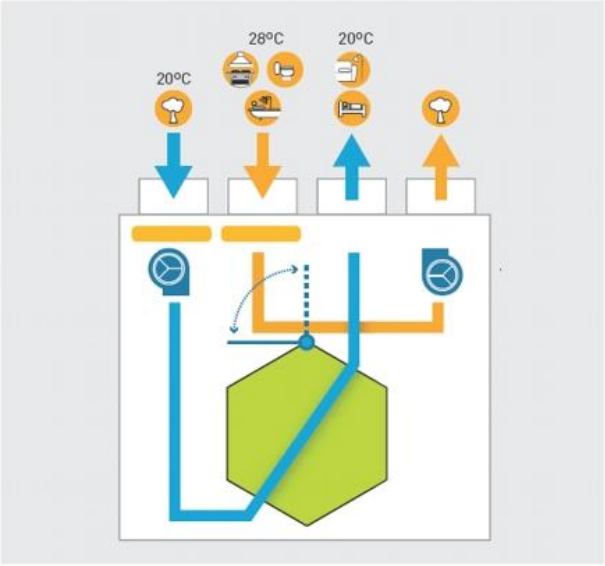
EXAMPLE OF HEAT RECOVERY IN WINTER



Operation without bypass
- Air inside home: 21ºC.
- Outdoor air: 2ºC.
- New air heated and blown into home: 19ºC.

With a mechanical extract ventilation system, the new air would enter at 2ºC through the air inlets, decreasing the temperature inside home. With the energy recovery ventilation systems, the new air would enter at 19ºC.

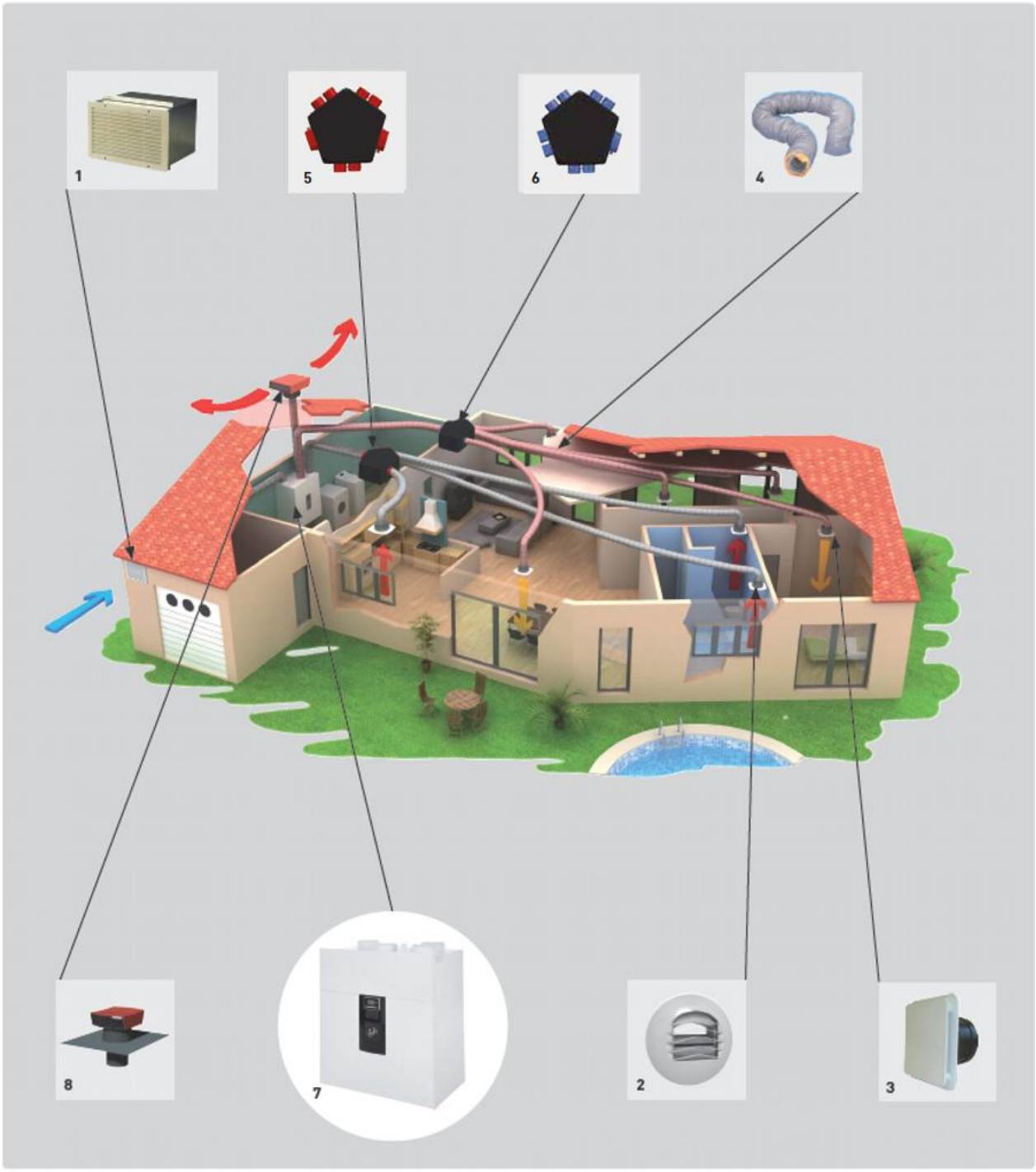
EXAMPLE OF HEAT RECOVERY IN SUMMER NIGHTS (FREE COOLING)



Operation with by-pass
- Air inside home: 28ºC.
- Outdoor air: 20ºC.
- New air heated and blown into home: 20ºC.

In addition, during summer nights, when outdoor air is colder than indoor air, the bypass is activated automatically so airflows do not cross each other.

Whole House Extract Units Single Dwellings



1. Air inlet grillle TAP.
2. Self-adjusting extraction valve BARJ / BARP.
3. Supply and extraction (Kitchen) valve BDOP.
4. PVC or rectangular plastic ducts.
5. Extraction plenum.
6. Supply plenum.
7. IDEO2: Counter-flow, high-efficiency heat recovery unit.
8. CT Roof termination.

Control

PROGRAMMABLE CONTROL

Each IDEO includes a programmable control.

The programmable control is a remote control operated by radiofrequency. Functions:

- 3 programming modes: 2 predefined and 1 manual.
- By-pass 100% automatic or manual.
- Automatic defrost mode.
- Absence mode.

The programmable control also incorporates indicator of:

- Hour.
- Indoor / outdoor temperature.
- Change filters.
- Energy saving in KW per month.
- Ventilation speed.
- Battery level.
- Radiofrequency signal intensity.

ErP Information

Ecodesign	
Commission regulation (EU) N°1253/2014 of July 2014	
Information requirements (Annex V)	
ProductoComercial	IDEO2 325-ECOWATT
Identifier	SP396728SCO682
SEC average climate (kWh/(m2.an))	-37,21
SEC class	A
SEC cold climate (kWh/(m2.an))	-75
SEC warm climate (kWh/(m2.an))	-13
Typology	RVU bidirectional
Type of drive	Variable speed drive
Type of HRC	Recuperative
Thermal efficiency (%)	86
Maximum flow rate (m3/h)	314
Electrical power input at maximum flow rate (W)	157,86
Sound power level (LWA)	46
Reference flow rate (m3/s)	0,0616
Reference pressure difference (Pa)	50
SPI (W/m3/h)	0,2515
Control factor	0,95
Control typology	Clock
Maximum internal leakage for BVU (%)	1.3
Maximum external leakage for BVU and UVU (%)	4.2
Mixing rate for BVU without duct connection (%)	Not applicable
Position of visual filter warning	Remote control
description of visual filter warning	Symbol
Instructions to install supply grilles	Not applicable
Instructions to install exhaust grilles	Not applicable
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Airflow sensitivity to pressure variation	Not applicable

Indoor/outdoor air tighness (m3/h)	Not applicable
Annual electricity consumption - Average climate	329,37
Annual electricity consumption - Warm climate	284,37
Annual electricity consumption - Cold climate	866,37
Annual heating saved - Average climate (kWh/a)	44,77
Annual heating saved - Warm climate (kWh/a)	20,24
Annual heating saved - Cold climate (kWh/a)	87,58