

TWINFRESH  
COMFO  
RC-50-14



Power from

**1.5 W**

Air flow up to

**50 m<sup>3</sup>/h**

Sound pressure level from

**12 dBA**



TWINFRESH

The user-friendly TwinFresh Comfo RC-50-14 ventilator will provide the room with clean and fresh air. Significant reduction in ventilation heat loss due to heat recovery. Humidity balance and regulated air exchange create individually controlled microclimate.



**MODERN  
AND SILENT**

### FUNCTIONAL

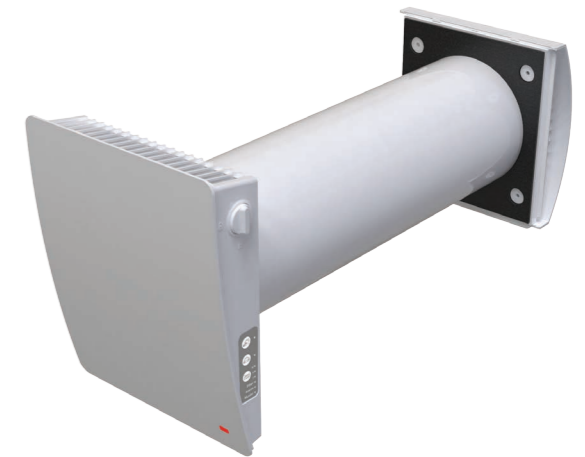
Many units can be connected to one control network.

### EFFICIENT

High heat recovery efficiency of up to 93 % is achieved due to the use of a cellular regenerator.

### USER-FRIENDLY

The design of the unit provides easy maintenance and installation.



High-quality soundproofing material is used keeping the noise of the unit at the level of human whisper.



The filters (G3) with antibacterial treatment, which retains its properties even after cleaning with water or a vacuum cleaner. Also, for better cleaning effect, an F8 filter is available (optional).



The capacity of one ventilator is enough to provide a room with the area of up to 30 m<sup>2</sup> with fresh air.



# EASY CONTROL



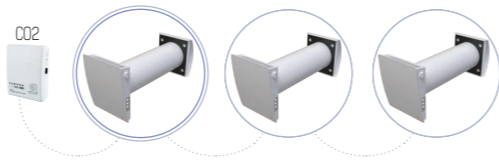
The unit modes are controlled via the sensor control panel located on the casing of the unit or via the remote control.

- Operation modes:
- Speed setup I II III
  - Operation mode setup
    - Ventilation
    - Regeneration
  - Timer setup
    - 4 hours at speed III
    - 8 hours at speed I



- Operation modes:
- ventilation with energy recovery
  - ventilation
  - speed switching and ventilator turning off

It is possible to control all the ventilators simultaneously by connecting them to a single network. In this case, all ventilators (Slaves) will respond to a signal from the Master ventilator only.



# ADVANTAGES



Trendy ventilator design.



High efficiency – 93 %.



Can be mounted inside a prepared hole (from Ø 160 mm) in a wall.



Humidity control with a humidity sensor.



Connection of the units into one control network.



Connection of an external CO<sub>2</sub> sensor or other external relay sensors.



Manual closing of the airtight damper after switching off the unit to ensure absence of drafts.



Noise at the level of human whisper (from 12 up to 20 dBA).



Ventilation of premises with the area of about 30 m<sup>2</sup> (the area is approximate and depends on the ventilation standards in your country).



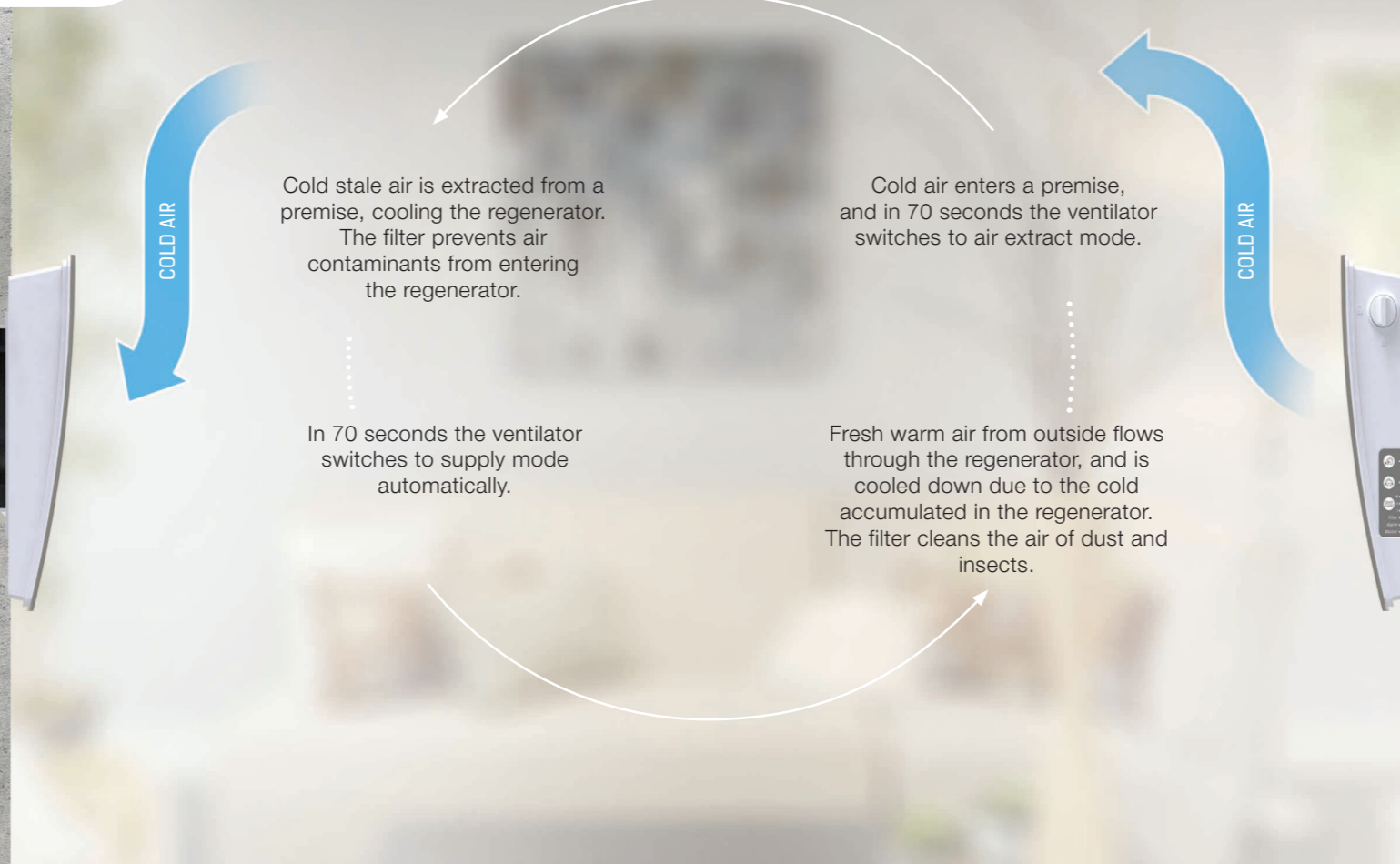
Simple mounting and maintenance



# SAVES ELECTRICAL ENERGY

To ensure energy savings, the units can operate both in energy recovery mode and in ventilation mode. Energy regeneration results from reversible operation of the ventilator, consisting of two cycles.

## WHEN IT IS HOT OUTSIDE



# RETAINS HEAT

To ensure comfort inside a premise, the units provide two operation modes: energy regeneration or air extract and supply. Energy is recovered due to reversing operation of the ventilator, which consists of two cycles:



## WHEN IT IS COLD OUTSIDE



Warm stale extract air is extracted from the room, simultaneously heating up and moisturing the regenerator. The filter prevents contaminants from entering the regenerator.

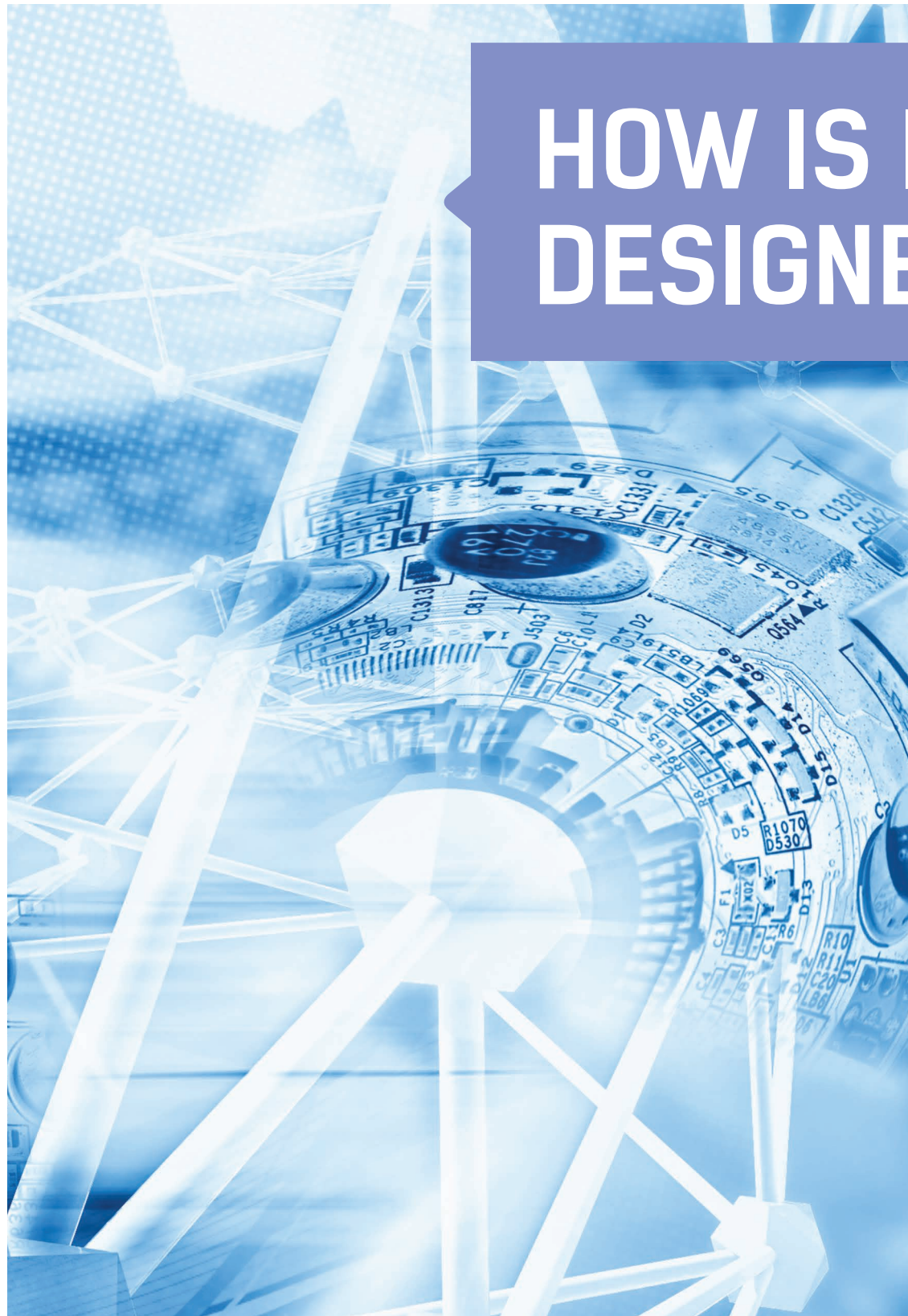
Warm moistened air enters a room and in 70 seconds the ventilator automatically switches to air extract mode.

In 70 seconds the ventilator switches to supply mode automatically.

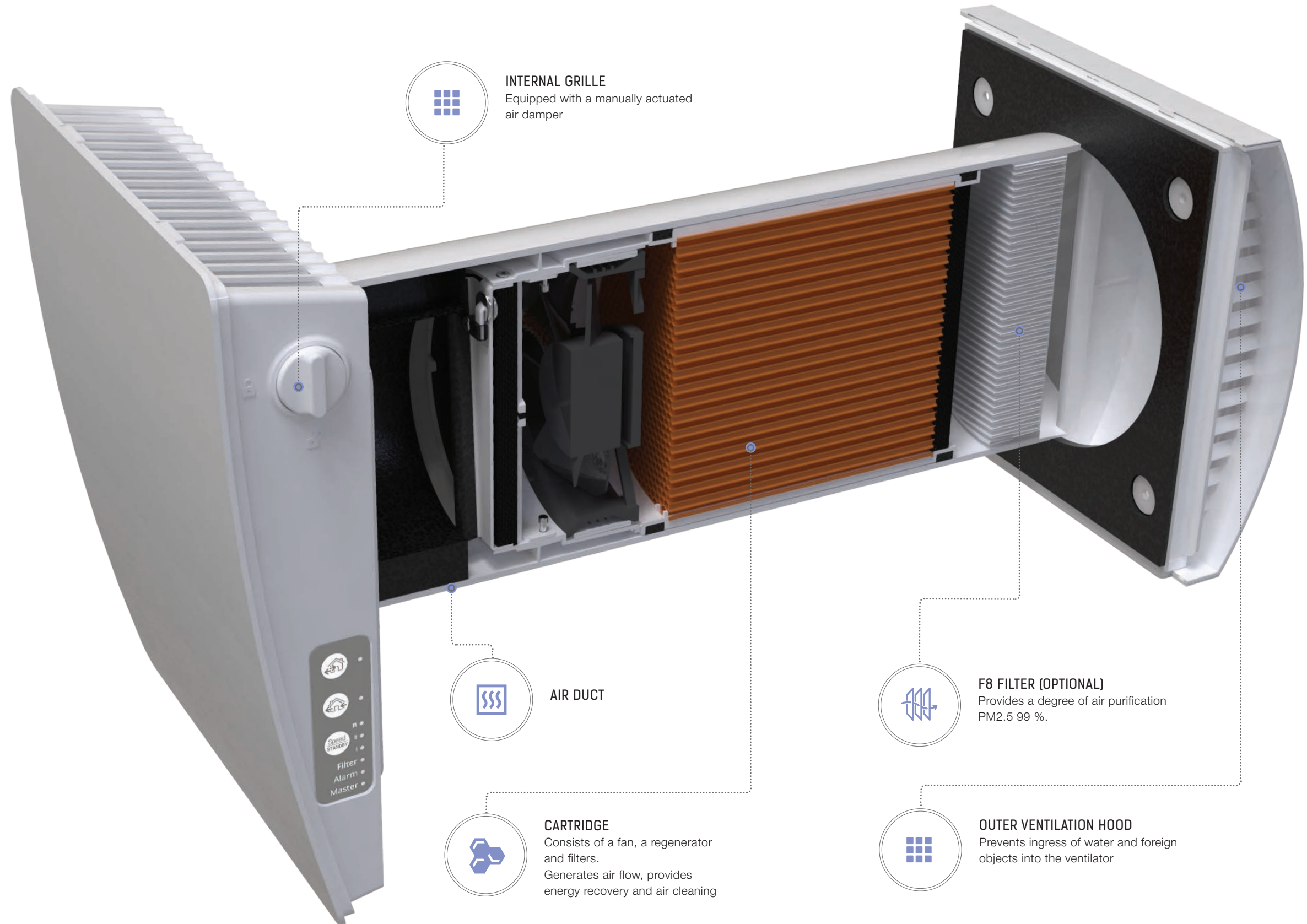
Fresh but cold and dry intake air from outside flows through the regenerator, absorbs accumulated moisture and is heated due to the accumulated heat. The filter cleans the air of dust and insects.

**CYCLE I**  
Stale air extraction

**CYCLE II**  
Clean air supply



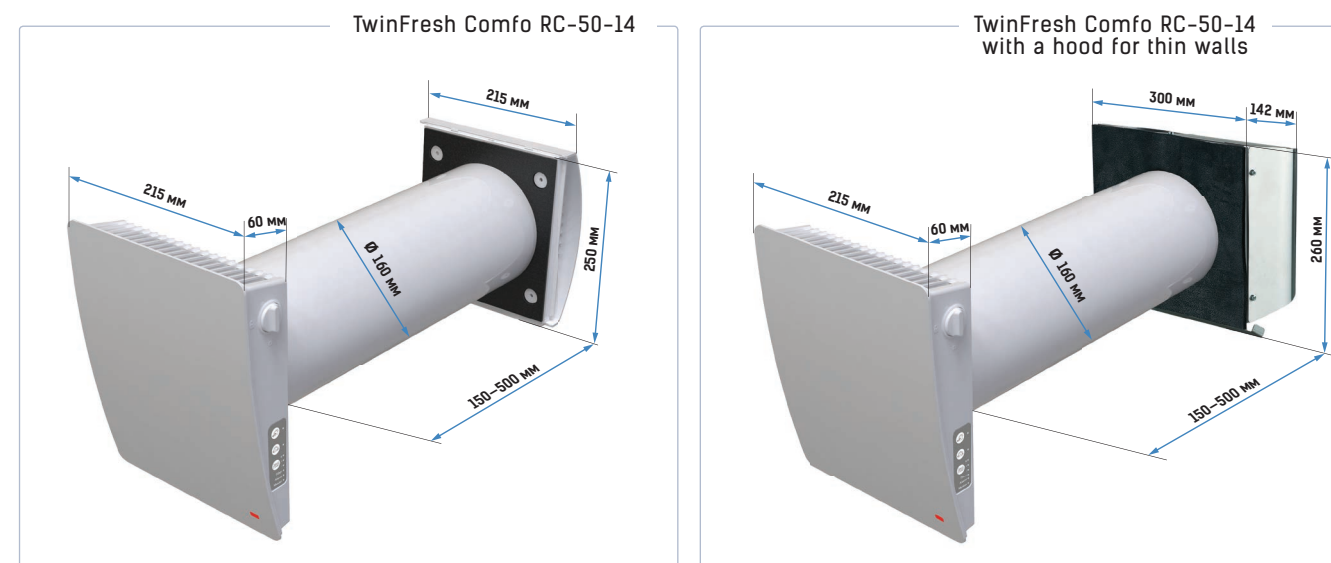
# HOW IS IT DESIGNED?



## TECHNICAL DATA

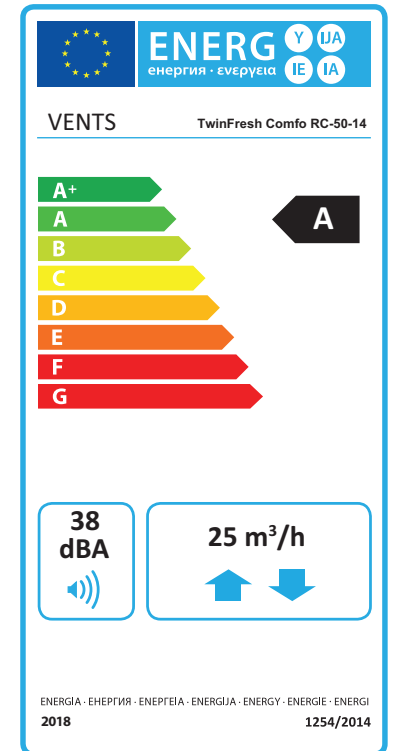
Speed	I	II	III
Unit voltage [V/50 (60) Hz]	100-240 / 50-60		
Power [W]	1.50	2.50	4.50
Current [A]	0.03	0.04	0.06
Air flow in ventilation mode [m <sup>3</sup> /h (l/s)]	15 (4)	30 (8)	50 (14)
Air flow in energy recovery mode [m <sup>3</sup> /h (l/s)]	8 (2)	15 (4)	25 (7)
SFP [W/l/s]	0.72	0.60	0.65
Transported air temperature [°C]	-20...+40		
Sound pressure level at 1 m distance [dBA]	21	27	29
Sound pressure level at 3 m distance [dBA]	12	18	20
Outdoor sound pressure attenuation in accordance with DIN EN 20140 [dBA]	41		
Heat recovery efficiency in accordance with DIBt LÜ-A 20 [%]	≤ 93		
Filter	G3 (F8 optional)		
F8 filter filtration rate PM2.5 [%]	99		
Air flow with F8 filter applied [m <sup>3</sup> /h]	40		

## OVERALL DIMENSIONS













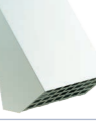






## ECODESIGN










Specific energy consumption (SEC) [kWh(m <sup>2</sup> .a)]	Cold		Average		Warm	
	-82.6	A+	-40.8	A	-16.8	E
Type of ventilation unit	Bidirectional					
Type of drive installed	Three-speed					
Type of heat recovery system	Regenerative					
Thermal efficiency of heat recovery [%]	77					
Maximum air flow [m <sup>3</sup> /h]	25					
Power [W]	4.5					
Sound power level [dBA]	38					
Reference flow rate [m <sup>3</sup> /s]	0.004					
Reference pressure difference [Pa]	0					
Specific power input (SPI) [W/(m <sup>3</sup> /h)]	0.167					
Control typology	Local automatic control					
Maximum internal leakage rates [%]	2.7					
Maximum external leakage rates [%]	0					
Mixing rate of bidirectional units [%]	1					
The classification of the airflow sensitivity to pressure variations, according to EN 13141-8 [%]	30.75					
The classification of the indoor/outdoor air tightness, according to EN 13141-8 [m <sup>3</sup> /h]	-					
Internet address	<a href="http://www.ventilation-system.com">http://www.ventilation-system.com</a>					
The annual electricity consumption (AEC) [kWh electricity/a]	Cold	Average	Warm			
	120	120	120			
The annual heating saved (AHS) [kWh primary energy/a]	Cold	Average	Warm			
	8562	4377	1979			





**ACCESSORIES**

Hoods	EH-14 white 160		Plastic hood. Colour options:						
				White	Black	Grey	Terracotta	Brown	Beige
	EH-14 chrome 160		Grey plastic outer hood with a brushed stainless steel cover						
	EH-2 grey 160		Grey painted stainless steel outer hood for thin walls						
	EH-2 chrome 160		Polished stainless steel hood for thin walls						
	EH-13 white 160		White painted aluminium outer hood for cold climate						
	EH-13 chrome 160		Stainless steel ventilation hood for cold climate						
MVVM 162 05		Hood for mounting from inside							
Grilles	MVMO 150 bV1s An		Round metal grille						
	MVM 152 bVsn		Round stainless steel hood						
Angular mounting	NP 60x204-0021		Kit for angular mounting with white colour grille						
	NP 60x204-0021		Kit for angular mounting with stainless steel outer grille						

Mounting elements	Duct 160 -500		Round air duct with a diameter of 160 mm and a length of 500 mm with a foam plug
	Duct 160 -700		Round air duct with a diameter of 160 mm and a length of 700 mm with a foam plug
	T TwinFresh Comfo RC-50		Cardboard template for indoor installation of the unit
For ventilator control	RK1 TwinFresh		Remote control
	KV TwinFresh Comfo R-50		Sensor control panel
	CO2-1		CO <sub>2</sub> sensor with LED indication and sensor buttons
	CO2-2		CO <sub>2</sub> sensor
Filters	SF TwinFresh Comfo R-50 G3		G3 filter kit (2 pcs.)
	SF TwinFresh Comfo R-50 F8		F8 filter kit (1 pc.)