

# **ECO-VENTILATION**

Single-room heat recovery unit with Wi-Fi control



## **TwinFresh Expert RW-30-14 V.2**

Air flow up to 30 m<sup>3</sup>/h Heat recovery efficiency up to 81 %







## Industrial and commercial ventilation (Catalogue no. 1)

Industrial and commercial ventilation components - fans for round and rectangular ducts, sound-insulated, axial and roof fans, air handling units with heat recovery, air heating units, accessories.



#### Energy saving ventilation Air handling units (Catalogue no. 2)

Energy saving supply and exhaust units and air handling units with heat recovery with air capacity up to 6500 m<sup>3</sup>/h.



Smoke extraction and ventilation (Catalogue no. 5)

Smoke protection systems of buildings and premises.



### Domestic ventilation (Catalogue no. 6)

Domestic ventilation: fans, mono-pipe exhaust kitchen and bathroom fans, air distribution units, air ducts and fittings, access doors, ventilation kits.



Air distribution units (Catalogue no. 9)

Plastic and metal air distribution products (grilles, disk valves, diffusers, etc.) for ventilation, air conditioning and heating.



Access doors (Catalogue no. 10)

Plastic and metal access doors for accessing concealed equipment and utility lines. Special offers for ceramic tiles.



Spirally wound ducts (Catalogue no. 13)

SPIROVENT spiral seam vent ducts and fittings of 100 to 1600 mm diameter.



Flexible ducts and fittings for ventilation, air conditioning and heating (Catalogue no. 14)

Flexible and semi-flexible air ducts made of polymeric materials, aluminium, galvanized or stainless steel, metal fittings for ventilation, air conditioning, heating, gas handling and abrasive particles aspiration.



Air handling units AirVENTS (Catalogue no. 3)

Energy saving air handling units with air capacity up to 40 000 m<sup>3</sup>/h, for use in large residential, industrial and commercial objects.



#### Energy saving ventilation Geothermal systems GEO VENTS (Catalogue no. 4)

Energy saving system GEO VENTS with use of the earth's surface layers heat. High ventilation system energy efficiency and low operating costs.



Domestic fans (Catalogue no. 7)

Domestic fans with air capacity up to 365 m<sup>3</sup>/h with extra functions: timer, humidity sensor, motion sensor, etc. Applied for premises up to 30 m<sup>2</sup>.



VENTS VN Mono-pipe exhaust ventilation (Catalogue no. 8)

Exhaust ventilation in houses with mono-pipe ventilation system based on VENTS VN fans.



Energy saving ventilation. Single-room energy recovery ventilators MICRA. (Catalogue no.11)

MICRA single-room ventilators with energy regeneration for efficient ventilation and lowest investments in ready-built and brand new premises.



VENTS presentation catalogue (Catalogue no.12)

VENTS mission is to bring fresh air to your house and surround you with the world of comfortable microclimate.



Round and flat PVC ducting (Catalogue no. 15)

Flat and round PVC ducts PLASTIVENT for ventilation of residential, office and commercial premises and connection of exhaust ventilation equipment (kitchen extractors, hoods, exhaust boxes, etc). Wide product range of fittings.



Energy saving ventilation. Single-room energy recovery ventilators TwinFresh. (Catalogue no.16)

Single-room reverse ventilators with energy regeneration TwinFresh for efficient ventilation and lowest investments in ready-built and brand new premises.





### TwinFresh Expert RW-30-14 V.2



#### **FEATURES**

- Efficient energy saving supply and exhaust ventilation in flats, houses, cottages, social and commercial spaces.
- Reducing heat losses caused by ventilation due to heat recovery.
- Humidity balance and regulated air exchange create individually controlled microclimate.
- Controlled by Android or iOS smartphone or tablet.
- Wi-Fi communication between several single-room ventilation units for coordinated operation.



Air flow up to 30 m<sup>3</sup>/h. TwinFresh Expert RW-30-14 V.2 is a single-room energy-efficient supply and exhaust unit intended for decentralized ventilation of residential and commercial spaces as well as apartments and houses.



#### Overall dimensions [mm]





TwinFresh Expert RW-30-14 V.2 (with a fitting frame for thin walls)

TwinFresh Expert RW-30-14 V.2

#### TwinFresh Expert RW-30-14 V.2 unit operation logic

The unit is designed both for reversible mode with energy regeneration and for supply or extract mode with no regeneration.

- CYCLE I. Warm stale air is extracted from the room, then it passes through the ceramic energy accumulator and while flowing through it, heats and moistens the ceramic accumulator by transferring thermal energy. After a while, as the ceramic heat exchanger gets heated, the ventilator switches to supply mode automatically.
- CYCLE II. Clean fresh air from outside passes through the ceramic energy accumulator, absorbs moisture and is heated up to the room temperature due to the accumulated heat. When the temperature of the accumulator drops down, the fan switches to extract mode and the cycle is renewed. The ventilator changes its operation mode between supply and extract ventilation every 70 seconds.



#### 🜔 Control

- Connection of units to a single network via Wi-Fi for synchronous operation.
- O Connection of units to the Smart Home system.
- O Remote unit control from anywhere in the world.



 The unit is controlled via control panel located on the casing of the ventilator or via a smartphone.

U •	On/Off
Speed •	Speed The speed selection sequence is follows: I-II-III.
*	Regeneration The ventilator operates in reversible mode with heat and humidity recovery.
	Ventilation mode The ventilator operates either in extract or supply mode at a set speed.



VENTS TwinFresh V.2 is available on the Google Play Market and the App Store



#### Mounting

The unit is designed for through-the-wall mounting into a hole provided in the outer wall. The best ventilation solution is pairwise installation of reverse phase synchronized units. Some units ensure supply of fresh air to the room and the other units extract air from the premise. This way the most efficient balanced ventilation is arranged.



#### 🜔 Technical data

Parameters	TwinFresh Expert RW-30-14 V.2			
Speed	I	Ш	Ш	
Unit voltage [V/50 (60) Hz]		100-240		
Power [W]	1.80	3.00	4.40	
Current [A]	0.027	0.037	0.051	
RPM [min <sup>-1</sup> ]	1600	2200	2500	
Air flow in ventilation mode [m <sup>3</sup> /h (l/s)]	10 (3)	20 (6)	30 (8)	
Air flow in energy recovery mode [m <sup>3</sup> /h (l/s)]	5 (1)	10 (3)	15 (4)	
SFP [W/l/s]	1.30	1.08	1.06	
Filter	G3			
Transported air temperature [°C]	-15 +40			
Sound pressure level at 1 m distance [dBA]	30	37	40	
Sound pressure level at 3 m distance [dBA]	21	28	31	
Outdoor sound pressure attenuation according to DIN EN 20140 [dBA]		42		
Heat recovery efficiency according to DIBt LÜ-A 20 [%]	≤ 81			
Ingress protection rating	IP24			



	TwinFresh Expert RW-30-14 V.2					
Specific energy consumption (SEC)	Cold		Average		Warm	
[kWh/(m².a)]	-81.6	A+	-40.4	А	-16.8	Е
Type of ventilation unit			Bidirec	tional		
Type of drive installed	With variable rotation frequency					
Type of heat recovery system	Regenerative					
Thermal efficiency of heat recovery [%]	74					
Maximum flow rate [m <sup>3</sup> /h]	30					
Electric power input [W]		7				
Sound power level [dBA]		48				
Reference flow rate [m <sup>3</sup> /s]	0.006					
Reference pressure difference [Pa]	N/A					
Specific power input (SPI) [W/m <sup>3</sup> /h]	0.183					
Control typology	Local demand control					
Maximum internal leakage rates [%]	2.7					
Maximum external leakage rates [%]	N/A					
Mixing rate of bidirectional units [%]	1					
Airflow sensitivity at +20 Pa and -20 Pa	0.4					
The indoor/outdoor air tightness [m³/h]	0.5					
Internet address	http://www.ventilation-system.com					
The annual electricity consumption	Co	bld	Aver	age	Wa	ırm
(AEC) [kWh electricity/a]	1(	07	10	)7	1(	07
The annual heating saved (AHS) [kWh	Co	old	Aver	age	Wa	ırm
primary energy/a]	84	28	43	08	19	48

#### Accessories

Name		Description		
SF TwinFresh Expert R-30 G3		G3 filters (2 pcs.)		
NP 100 white	ll <sub>e</sub>	Kit for angular mounting with white colour grille		
NB 100 chrome		Kit for angular mounting with stainless steel outer grille		
1805		Telescopic air duct Ø 100 mm and a length of 300-500 mm		
1810		Telescopic air duct Ø 100 mm and a length of 500-1000 mm		
T TwinFresh Expert R-30	. 75	Cardboard template for indoor installation of the unit		



Ventilation systems www.ventilation-system.com

Single-room heat recovery unit TwinFresh Expert RW-30-14 V.2

The catalogue information is for reference only.

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