

MENERGA PASSIVE HOUSE

One concept: various solutions



menerga
a systemair company

THE PASSIVE HOUSE

The passive house is the most energy-efficient form of construction. Certification of passive houses assures that the strict quality requirements set by a Passive House Standard are satisfied. Not only the buildings must conform to these standards, but also all installed components that are required to construct such a building.

A passive house is characterized by very low energy requirements – without loss of living comfort. This is achieved by a mix of top-quality construction techniques and effective technical systems.

Air flow: 100,000 m³/h



The One in Brussels, Belgium

Air flow: 14,300 m³/h



Etrium in Cologne, Germany

Air flow: 5,000 m³/h



UN Eco House in Podgorica, Montenegro

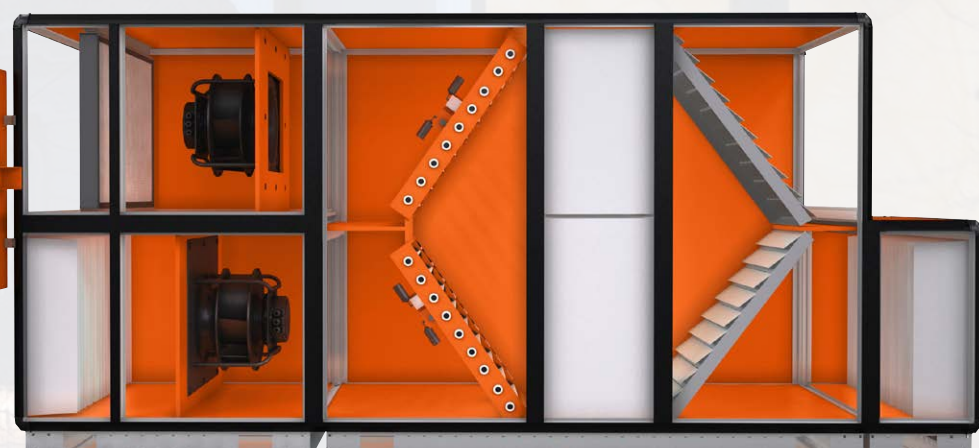
Air flow: 51,300 m³/h



Lippe Swimming Pool Center in Lünen, Germany

MENERGA SOLUTIONS

An essential factor in the Passive House Concept is air treatment with high-efficiency heat recovery. Since our solutions with Adconair and Resolair heat recovery systems have been certified in all model sizes, they can be installed optimally in passive houses and all other low-energy buildings.



Resolair

Technical data / Results for the certified model range

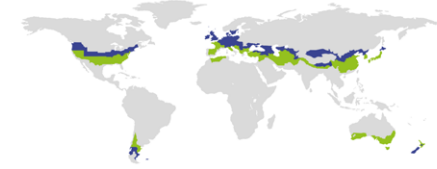
Unit type Resolair	Application range from ... to (m ³ /h)	Maximum available external pressure (Pa)*	Heat recovery efficiency (%)	Power consumption (Wh/m ³)	Length (mm)	Width (mm)	Height (mm)
64 05 01	1,000 - 3,000	254	86	0.44	4,650	1,110	1,700
64 07 01	1,500 - 4,500	281	86	0.45	4,970	1,110	2,340
64 10 01	2,000 - 6,000	299	86	0.44	5,130	1,430	2,340
64 12 01	3,000 - 7,000	310	86	0.44	5,130	1,750	2,340
64 15 01	3,200 - 8,800	325	87	0.43	5,290	2,070	2,340
64 21 01	5,000 - 11,000	340	88	0.45	5,930	2,070	2,980
64 26 01	7,000 - 13,000	352	87	0.45	6,250	2,070	3,620
64 32 01	9,000 - 15,000	362	87	0.44	6,250	2,390	3,620

* External pressure less the assumed filter pressure drop.

CERTIFICATE

Certified Passive House Component
Valid until 31st December 2019

Passive House Institute
Dr. Wolfgang Feist
64283 Darmstadt
Germany



Category: Air handling unit with heat recovery
Manufacturer: Menerga GmbH
Germany
Product name: Ventilation unit series
Resolair 64 05 01 - 64 32 01
Specification: Airflow rate > 600 m³/h
Heat exchanger: Regenerative

This certificate was awarded based on the product meeting the following main criteria
Heat recovery rate $\eta_{th} \geq 75\%$
Specific electric power $P_{spec} \leq 0.45 \text{ Wh/m}^3$
Leakage $< 3\%$
Performance number ≥ 10
Comfort Supply air temperature $\geq 16.5^\circ\text{C}$ at outdoor air temperature of -10°C

Airflow range
1000-15000 m³/h
at an external pressure of
265-300 Pa¹⁾
Requirements non-residential
buildings (Therefore also applicable
for residential buildings)
Heat recovery rate
 $\eta_{th} \geq 86\%$
Specific electric power
 $P_{spec} \leq 0.45 \text{ Wh/m}^3$
Performance number
 ≥ 10

¹⁾ The pressure drop of filters is covered in the listed external pressure. Additional components (e.g. heating coil) decrease the available external pressure accordingly.
²⁾ It must be taken into account that in this regenerative heat recovery system an exhaust air transfer of more than 3% of exhaust airflow volume occurs. The use of exhaust air from rooms with a high degree of contamination must therefore be examined project-specific.



www.passivehouse.com



Adconair

Technical data / Results for the certified model range

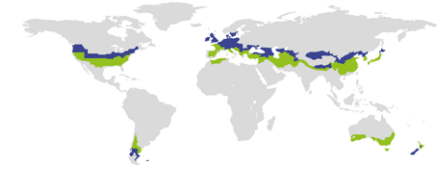
Unit type Adconair	Application range from ... to (m ³ /h)	Maximum available external pressure (Pa)*	Heat recovery efficiency (%)	Power consumption (Wh/m ³)	Length (mm)	Width (mm)	Height (mm)
76 03 01	1,000 - 2,000	228	88	0.45	5,130	790	1,700
76 05 01	1,200 - 2,800	250	89	0.44	5,290	1,110	1,700
76 06 01	1,000 - 3,000	255	91	0.45	5,930	790	2,340
76 10 01	1,500 - 4,500	281	93	0.42	5,930	1,110	2,340
76 13 01	2,000 - 6,000	299	91	0.43	6,090	1,430	2,340
76 16 01	3,000 - 7,000	312	91	0.43	6,090	1,750	2,340
76 19 01	3,200 - 8,800	326	94	0.43	6,090	2,070	2,340
76 25 01	6,000 - 10,000	337	94	0.44	6,570	2,070	2,980
76 29 01	8,500 - 11,500	349	94	0.45	6,570	2,390	2,980
76 37 01	8,000 - 15,000	363	94	0.45	6,570	3,030	2,980

* External pressure less the assumed filter pressure drop.

CERTIFICATE

Certified Passive House Component
Valid until 31st December 2019

Passive House Institute
Dr. Wolfgang Feist
64283 Darmstadt
Germany



Category: Air handling unit with heat recovery
Manufacturer: Menerga GmbH
Germany
Product name: Ventilation unit series
Adconair 76 03 01 - 76 37 01
Specification: Airflow rate > 600 m³/h
Heat exchanger: Recuperative

This certificate was awarded based on the product meeting the following main criteria
Heat recovery rate $\eta_{th} \geq 75\%$
Specific electric power $P_{spec} \leq 0.45 \text{ Wh/m}^3$
Leakage $< 3\%$
Performance number ≥ 10
Comfort Supply air temperature $\geq 16.5^\circ\text{C}$ at outdoor air temperature of -10°C

Airflow range
1000-15000 m³/h
at an external pressure of
265-300 Pa¹⁾
Requirements non-residential
buildings (Therefore also applicable
for residential buildings)
Heat recovery rate
 $\eta_{th} \geq 88\%$
Specific electric power
 $P_{spec} \leq 0.45 \text{ Wh/m}^3$
Performance number
 > 10

¹⁾ The pressure drop of filters is covered in the listed external pressure. Additional components (e.g. heating coil) decrease the available external pressure accordingly.



www.passivehouse.com

Menerga GmbH
Alexanderstraße 69
45472 Mülheim an der Ruhr
Germany

Tel. +49 208 9981-0
Fax: +49 208 9981-110

info@menerga.com
www.menerga.com

OUR FIELDS OF APPLICATION

