



With Metalpic!

Available in
6 different units!



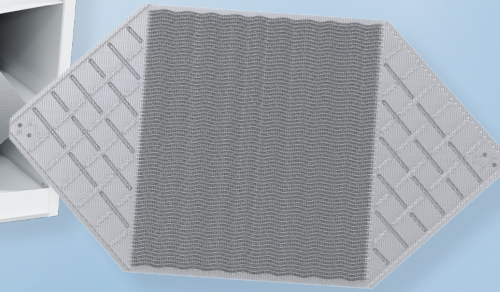
Airfi Enthalpy Air Handling Units

Efficient comfort with Metalpic
enthalpy exchanger

MORE THAN PURE AIR



AFPS ❄️
AIRFI FROST PRO SYSTEM



Airfi air handling units enable fresh and healthy indoor air. The Airfi range offers the right unit type for single-family homes, terraced houses, apartment buildings, public facilities and offices. The new Airfi Enthalpy recovers both heat and moisture, ensuring optimal indoor comfort, balanced humidity, and reduced energy costs – all in one intelligent solution.

Airfi Enthalpy features a Metalpic enthalpy exchanger, ensuring comfortable indoor air without the transfer of impurities. During the heating season, the Airfi Enthalpy with an enthalpy exchanger can transfer moisture back, helping to prevent dry indoor air. It should be noted that if the exhaust air humidity is low, the exchanger does not add moisture.

The design enables simultaneous recovery of thermal energy and moisture, improving overall efficiency and indoor comfort. Moisture is transferred as vapor through the membrane by diffusion, moving from the side with higher vapor pressure to the side with lower vapor pressure.

Enthalpy Exchanger and Filtration

Because the enthalpy exchanger transfers moisture, the exhaust air filtration level must be higher. If the exhaust air filtration level is too low, fine particles such as household dust (small, almost invisible particles) may accumulate in the exchanger's cell structure, which over time reduces the exchanger's ability to transfer moisture.

Therefore, with Airfi Enthalpy units, we supply an exhaust air filter with a higher filtration class. A dedicated filter set designed for enthalpy units is also available for ordering the required replacement filters.

Why choose Airfi Enthalpy Air Handling Unit



Highest quality of filtration

The filtration level is ISO ePM10 60% on the exhaust air side, and ISO Coarse 90% + ePM1 55% on the supply air side.



High living comfort

The energy-efficient and quiet air handling unit is easy and effortless to use.



Additional energy savings in summer

An enthalpy heat exchanger allows for significant energy savings when cooling a building in summer, due to drier indoor air.



Uniform temperature

Intelligent cascade-controlled bypass damper that takes temperature variations into account.



AFPS™ technology

The AFPS™ hoarfrost protection ensures continuous ventilation in your home.



Unit controls

The unit can be controlled with a control panel or the Airfi App.



Humidity recovery

An enthalpy exchanger recovers heat from moisture.



Building automation control systems

Connectivity to common home automation systems as standard.



Quick installation

Quick and easy installation on a ceiling bracket.



Improving indoor comfort

Simultaneous recovery of thermal energy and moisture

Operating Range of Airfi Enthalpy

For cold environments, units equipped with aluminum plate heat exchangers should be used.

Condensate Drain

In normal humidity levels a condensate drain is not required, but in higher humidity levels a condensate drain must be installed. The need for

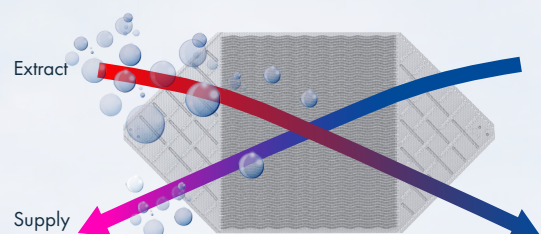
a condensate drain can be determined by the designer according to the project requirements.

Cleaning

Use water and mild detergent if needed. Avoid pressure washers, as high pressure can damage the exchanger.

Enthalpy exchanger's operation in winter conditions

Two air flows are directed through the heat exchanger going in opposite directions. They transfer the heat energy from one air flow to the other, without mixing the supply and exhaust air.





Enthalpy Exchanger and Airflow Filtration

In Airfi Enthalpy air handling units, the selected filtration level is **ISO ePM10 60%** on the exhaust air side, and **ISO Coarse 90% + ePM1 55%** on the supply air side.

By using sufficiently effective filtration, it is ensured that the enthalpy exchanger operates optimally over the long term. The filter should be changed at least two times a year.

Moisture transfer in the enthalpy exchanger is based on membrane diffusion, which is why in Airfi Enthalpy units the filtration level has been chosen carefully to guarantee reliable exchanger performance.

If only an ISO Coarse class filter is used, the enthalpy exchanger will not function optimally, as the cell structure may become clogged with fine dust particles that pass through such filters.

Enthalpy units should not be operated with only ISO Coarse class filtration.



Airfi Calculation Software and Airfi Enthalpy Units

With Airfi units, the calculation software allows you to model the operating point of the enthalpy exchanger based on the project's specific humidity and temperature values.

Unlike most manufacturers, who provide only a fixed value for the enthalpy exchanger and therefore do not allow for proper simulation, Airfi enables accurate performance modeling under different conditions (e.g. winter).

It should be noted that if there is no moisture in the exhaust air during the heating season, the exchanger cannot transfer moisture back into the indoor air. This fundamental physical principle applies to all enthalpy exchangers, regardless of the manufacturer or supplier.



Direct link to the calculation programme

You can also find the calculation programme on our website at airfi.eu.



Airfi air handling units with Enthalpy Exchanger

Model	Code	Information
Model 53miniENT (R) Electric	11 053 011	Enthalpy Exchanger
Model 53miniENT (L) Electric	11 053 021	Enthalpy Exchanger
Model 60ENT (R) Electric	11 060 011	Enthalpy Exchanger
Model 60ENT (L) Electric	11 060 021	Enthalpy Exchanger
Model 130ENT (R) Electric	11 130 011	Enthalpy Exchanger
Model 130ENT (L) Electric	11 130 021	Enthalpy Exchanger
Model 150ENT (R) Electric	11 150 011	Enthalpy Exchanger
Model 150ENT (L) Electric	11 150 021	Enthalpy Exchanger
Model 250ENT (R) Electric	11 250 011	Enthalpy Exchanger
Model 250ENT (L) Electric	11 250 021	Enthalpy Exchanger
Model 250ENT (R) Water	11 250 012	Enthalpy Exchanger
Model 250ENT (L) Water	11 250 022	Enthalpy Exchanger
Model 350ENT (R) Electric	11 350 011	Enthalpy Exchanger
Model 350ENT (L) Electric	11 350 021	Enthalpy Exchanger
Model 350ENT (R) Water	11 350 012	Enthalpy Exchanger
Model 350ENT (L) Water	11 350 022	Enthalpy Exchanger

Filter sets

Filter sets	Code	Information
Model 53 miniENT	40 000 204	Filter set 204 Enthalpy
Model 60-130ENT	40 000 201	Filter set 201 Enthalpy
Model 150 ENT	40 000 202	Filter set 202 Enthalpy
Model 250/350 ALU/ENT	40 000 003	Filter set 3 ALU/ENT



Airfi Air Handling Units with Ultimate Energy Efficiency

Our mission is to revolutionise the ventilation industry with the most energy-efficient devices on the market, leveraging adaptive artificial intelligence, with proven reliability in the extreme conditions of Nordic winters. We are a trusted partner for projects of all sizes.

Thanks to our patented AFPS™ defrosting system, Airfi air handling units stand out for their energy efficiency and reliability. The defrost function adapts to environmental changes and optimises device performance, providing enhanced user convenience and cost savings.

Our sales team



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