



Energy recovery unit

FUTURA

Technical Sheet



An ideal solution for your new home

As the air-tightness of homes continues to improve the risk of excessive moisture levels and reduced indoor air quality rises. This excessive humidity, which is caused by insufficient ventilation, can have a negative impact on the thermal envelope of the building, resulting in moisture damage that jeopardizes the health and vitality of both the structure and its occupants. Controlled ventilation with heat recovery presents an optimum solution.

An energy recovery unit ensures efficient ventilation of your new home; a new building cannot meet comfort and energy goals with natural ventilation alone. Controlled ventilation with energy recovery is the continuous replacement of stale interior air with fresh and filtered air from the outside. In the winter, fresh supply air is warmed by the stale exhaust air as air streams pass through the Futura, resulting in thermally optimized air that has been filtered of dust, pollen and allergens thanks to the included F7 filter. Your home can be ventilated fully with the windows closed. Naturally you can open them whenever you wish to, but in seasons when it is desirable to keep thermal energy inside the house your family can still enjoy fresh air thanks to the continuous air exchange. The ventilation volume of the Futura energy recovery unit is automatically adapted to meet the requirements for optimum indoor air quality based on information from CO₂ sensors.

The analogy to lungs has not been chosen randomly; the heat recovery unit represents the lungs of your home and it works in the same way – it ensures air exchange in a natural and automatic manner. In today's market, there are many high-quality energy recovery units available along with the information to compare them fully. We do not make overstated claims or provide a magic box. We simply use the laws of physics to provide you with effortless control of your indoor air quality, and this is what makes our Futura energy recovery unit superior to other units in many areas.

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CoolBreeze

The primary function of the CoolBreeze enthalpy cooling module is to ensure the complete elimination of any airing-induced heat gains in the summer. The module is specifically designed and intended for passive-standard homes with their envelopes perfectly heat insulated and solar gains minimised on hot summer days.

Unrivaled lowest consumption even in frost periods

Futura excels in winter conditions, i.e. in the period when energy recovery is needed most, by minimizing the energy consumption. Thanks to its unique design, which perfectly utilizes the laws of physics, the unit works down to -19 °C without preheating and without imbalance of fans.

Real indoor comfort without excessive drying

Futura will automatically maintain optimum humidity in your house by means of a controlled enthalpy exchanger. Optimum humidity is important for respiratory health, but it will also be appreciated by your wooden furniture, floors and plants.

Zone ventilation

Ventilation is directed where and when it is truly needed. Thanks to the zone control Futura is able to provide required ventilation intensity with less nominal air volume. The energy recovery unit operates for a longer time at minimum air volume, therefore maintaining its parameters, such as efficiency, total power consumption and noise at optimized level for most of the working time.

Autonomous operation

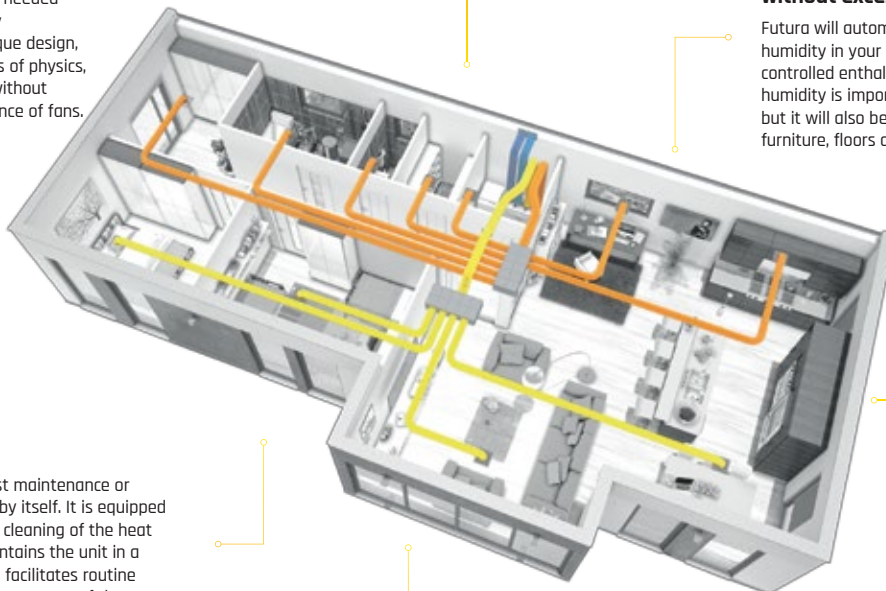
Futura is smart and will request maintenance or replacement of clogged filters by itself. It is equipped with the function of automatic cleaning of the heat recovery exchanger, which maintains the unit in a perfect technical condition and facilitates routine maintenance. And a CO₂ sensor as a part of the standard equipment smoothly adapts the ventilation power to your requirements for the indoor environment quality.

Easy control

The unit can be controlled by a simple dial on the supplied wall-mounted control or from anywhere with the convenient MyJABLOTRON mobile application, which informs you about the operation and consumption of your energy recovery unit.

Generous standard equipment

For the basic price, Futura offers above-standard equipment, including a five-year guarantee, 2x F7 pollen filter, CO₂ sensor in the wall-mounted controller, built-in heating element and complete management of the unit through the mobile application. The unit can be expanded with more functions - up to 3 wall-mounted controllers, 8 CO₂ sensors and supplementary cooling can be connected.



Functions and applications

The Jablotron Futura energy recovery unit is designed for controlled ventilation and treatment of the indoor environment of residential premises. It ensures recovery of heat and humidity, filters supplied air, helps maintain optimum humidity and provides after-cooling by means of an integrated fully automatic by-pass in summer (in the night mode). The unit is equipped with an enthalpy exchanger with the aim to also use the latent heat from humidity.

Unit setup	The energy recovery unit is installed in a vertical position on the wall in a room with a guaranteed min. temperature of +10 °C. In front of the unit, a sufficient handling space must be available for trouble-free access, maintenance and service, throughout its service life.
Unit body	The internal structure of the energy recovery unit is made of monolithic EPP (expanded polypropylene) without thermal bridges.
Heat exchanger	Enthalpy counter-current exchanger with humidity recovery control.
Filtration	In the energy recovery unit, 2 filters are installed, an F7 filter at the air supply and exhaust. The necessity to replace filters is indicated automatically and it depends on the air quality in the environment where the system is used (approx once every 2 - 6 months). You can supplement the filters with an optional carbon filter, which is directly inserted into the unit under the supplied air filter.
Connecting pipes	The unit is equipped with 4 EPP Ø 150 mm flanges. For the supply as well as exhaust from/into the outdoor environment EPP pipes must be used to prevent undesired condensation from occurring inside the supply and exhaust pipes.
Icing protection	The operating temperature range without the need of preheating is from -19 °C to +45 °C. Within this temperature range, no supplementary icing protection is required.
Electric connection	Power supply 230 V/50 Hz, 6 A. For the heat recovery unit a 3 x 2.5 mm ² double socket and cables for the peripheral devices (LAN, sensors, forced exhaust buttons) are necessary. The system is delivered with a mains connection cable.
Control	Integration in the MyJABLOTRON service, which supports easy control of all the user functions and settings, remote monitoring and administration and automatic alerting to filter replacement and error conditions. Supplied with a wall-mounted control with an integrated CO ₂ sensor (1 piece) as standard.
Summer function	Fully automatic 100% by-pass controlled by the temperature setpoint.
Summer function	CoolBreeze enthalpy cooling module, forced exhaust (Boost) buttons with operation indication; Rh, SQA, CO ₂ sensors; VAC material and distribution elements.

Technical parameters

The Jablotron Futura energy recovery unit is supplied in two power variants

	FUTURA M	FUTURA L
Air flow	50 - 250 m ³ /h	100 - 350 m ³ /h
Specific Energy Consumption (SEC) in kWh/(m².a) for each applicable climatic zone and each applicable SEC class	A+	A+
Declared typology	bidirectional	bidirectional
Drive type	variable speed drive	variable speed drive
Heat recovery system type	recuperative	recuperative
Heat recovery efficiency	91,4 %	90,8 %
Reference flow	175 m ³ /h	245 m ³ /h
Electric power input of the fan, incl. the motor control equipment at max. flow	230 W	320 W
Max. power input	610 W	700 W
Acoustic power level	48 dBA*	52 dBA
Reference pressure difference	50 Pa	50 Pa
SPI	0,34 W/(m ³ /h)	0,33 W/(m ³ /h)
Dimensions (h x w x d)	835 x 995 x 522 mm	835 x 995 x 522 mm
Weight	47 kg	47,5 kg
Condensate	Condensate drain with a HT 32 mm drain pipe, siphon	Condensate drain with a HT 32 mm drain pipe, siphon
Electric connection	230 V/50 Hz, 6 A; connection to the electric mains via a socket	230 V/50 Hz, 6 A; connection to the electric mains via a socket
Operating range without preheating	-19 °C to +45 °C	-19 °C to +45 °C
Fans	2x EBm Papst with an integrated electronic unit and constant air flow control	2x EBm Papst with an integrated electronic unit and constant air flow control
Heating / Cooling output*	up to 3 kW/2 kW**	up to 3 kW/2 kW**
Annual electricity consumption (AEC) (in kWh/m² of electric power/year) ("average", "hot", "cold") at reference flow	2,25 / 1,81 / 7,63	2,20 / 1,75 / 7,57
Annual heat savings (AHS) (in kWh/m² of primary energy/year) for individual climate types ("average", "hot", "cold") at reference flow	47 / 92 / 21	47 / 92 / 21

* Declared values will be specified after certification by an accredited testing center.

** For passive houses only. With the use of the CoolBreeze enthalpy cooling module.

Enthalpy Cooling Module CoolBreeze

The Jablotron Futura energy recovery unit can be supplemented with optional CoolBreeze cooling module within the optional accessories. Its primary function is to prevent heat gains from ventilation. It is designed especially for passive houses that have a perfectly insulated peripheral envelope and thus minimized solar gains on hot summer days. The CoolBreeze module is based on a heat pump with a heat exchanger located in the ventilation system.



In the summertime, CoolBreeze will bring you:

1. significant cooling and dehumidification of supplied fresh air and consequent zero heat gain through ventilation
2. low overall module consumption compared to cooling and dehumidification of fresh air supplied

The Jablotron Futura energy recovery unit and the CoolBreeze module form together one unit. The Jablotron Futura energy recovery unit offers a function in the winter that allows it to function without preheating and returns to the interior the moisture produced in it. Using the same functionality in the summer, Futura and CoolBreeze are able to reduce the cooling system performance by half.

Thanks to the use of a controlled enthalpy exchanger, the module provides very effective cooling and dehumidification of the fresh air supplied to the interior. The CoolBreeze can also operate in reverse mode in heat pump mode. It is also a very effective way of heating, especially before the start of the heating season, when only little energy is needed to maintain the maximum comfort of the indoor environment.

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