



Windows & Doors

## Lammin® ECO-Air

- Our **Lammin ECO-Air** is an optimised ventilation-adjustment system that improves energy-efficiency and comfort in the flat.
- The **Lammin ECO-Air** system takes care of the ventilation needs of an individual flat by keeping the air pressure constant in the flat's ducts.
- The **Lammin ECO-Air** system monitors changes in the outside temperature and prevents the feeling of draught that is often felt as a result of ventilation when the outdoor temperature gets colder.
- The **Lammin ECO-Air** system also helps to create significant energy savings.



### Quality for the ventilation of buildings

Using a modern, frequency-converter-based ventilation control system, energy savings of nearly 20–30 per cent can be achieved in the heating costs of Finnish properties. The frequency-converter system is an affordable investment, and it can be used for intelligent control of the double-speed exhaust fans without requiring expensive cabling or automation investments. The system utilises all the existing fans of the property. If the existing fans are nearing the end of their operating life, it may be practical to replace them in connection with the installation of the new system.

### The ventilation-control system is highly suitable for housing companies.

For new construction and other buildings, frequency converters are already becoming commonplace. Lammin ECO-Air also helps older properties to upgrade their systems to the same level. This very reasonable investment aids in yielding at least the same benefits in terms of energy-efficiency and comfort of living. An example case of a frequency converter installed by a housing company:

'A four-storey, two-building project obtained 28 per cent savings in ventilation-energy consumption. The overall savings in the property's energy consumption came to 11 per cent annually.'

The frequency-converter system responds to the influences of the outdoor temperature, changing conditions, and duct pressure by means of constant and flexible variation of the rotation speed of the fans in the manner that best suits the conditions. All of this is handled by the internal functioning of the frequency converter, without any external systems being required for its operation. Even a small decrease in rotation speed brings significant savings, since the continuous regulation helps operations consume less energy than before and also reduces the load on the equipment.

### Savings and comfort

In traditional exhaust-fan systems, which are based on only standard fan rotation, the duct pressure often fluctuates in response to flat-specific adjustments and changes made by the residents. Thanks to Lammin ECO-Air, these changes no longer have any effect on the ventilation experienced by other residents. This smart frequency-converter system stabilises the room-specific controls, which makes the ventilation uniform and pleasant throughout each flat.

Lammin ECO-Air keeps the duct intake pressure constant, providing every flat with correctly dimensioned ventilation. This aids in better combating the feeling of draughtiness that is often experienced in cool and cold weather.

Other benefits offered by this system include clean replacement air and reduction in ventilation noise.

As a bonus, the system can provide cooling on hot summer days. This function can be regulated in accordance with the residents' wishes.

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