

August 2016

Mitsubishi Electric Lossnay Technology provides comfort and efficiency

## FRESH AIR IS ESSENTIAL FOR HEALTH

*It is essential to refresh the ambient air regularly for a healthy and high quality life... Although opening windows seems to be the most practical solution for refreshing the ambient air, it comes with various disadvantages on the contrary to the general belief. Opening windows may cause a number of problems including disturbance arising from air and noise pollution, headache, dizziness, eyesore, sore throat, lack of concentration and productivity problems with employees-students due to lack of quality air. The leading innovative brand of HVAC industry, Mitsubishi Electric Air-Conditioning Systems division shall resolve those problems with Lossnay technology. Meeting the fresh air requirement of spaces healthily, Mitsubishi Electric also helps to eliminate energy loss by preventing the conditioned air from getting mixed with the atmospheric air.*

Fresh air offers various advantages such as making the time spent at home more peaceful, increasing concentration at business and school and promoting productivity. In that respect, it is necessary to minimize the losses by using the energy in the most efficient manner while refreshing the ambient temperature and heating and cooling the indoor space to promote health and life quality.

Responding to the air-conditioning requirements of residences, schools, office buildings, hospitals and shopping malls thanks to its more than 90 years' experience, **Mitsubishi Electric** introduces **Lossnay Tehcnology** to promote the comfort of central or individual living space. Lossnay Ventilation Equipment refresh the air while minimizing the heat loss with the energy efficiency advantages they provide.

### **Opening windows for fresh air has a number of disadvantages...**

Since modern buildings are constructed with higher insulation so as to minimize the noise and heat transfer, they need better ventilation. If the ambient temperature is not refreshed, it leads to a number of problems arising from sick building syndrome such as headache, dizziness, eyesore, sore throat, lack of concentration and productivity problems with employees and students.

Most of us think that opening windows is the most practical way of meeting the fresh air requirement of living spaces. Nevertheless, this method comes with various disadvantages on the contrary to the general belief. Energy loss that occurs as the conditioned air gets mixed with the atmospheric air, failure to filter the air intake on opening windows, direct noise pollution arising from the noise outside are but a few disadvantages related to opening windows. **Mitsubishi Electric Lossnay Ventilation Equipment** shall put an end to all those problems by providing fresh and healthy air to indoor spaces.

### **Cost effective fresh cool**

Mitsubishi Electric Lossnay Ventilation Equipment shall make it possible to cool down the indoor spaces based on the atmospheric air temperature. In summer, buildings are cooled down with the atmospheric air that is cooler at night and in the morning. The process which is known as "free cooling" contributes to energy saving significantly as it reduces the workload of air-conditioners. This feature is widely preferred as a cost effective cooling option by those who do not want to operate air-conditioners in their bedroom at night.

Lossnay Ventilation Equipment also ensures emission of contaminants such as carbon dioxide or tobacco smoke from the indoor space to refresh the air with the help of the independent control of the two fans available in the equipment. This feature can be operated based on a schedule or automatically via sensors. It creates high pressurized spaces to prevent dust and contaminants from entering into the space.

### **Lossnay provides high efficiency**

Mitsubishi Electric Lossnay Technology provides various alternatives to meet different requirements from individual requirements of 100 m<sup>3</sup> per hour to those of industrial spaces thanks to the high capacity that is achieved with units providing 2,500 m<sup>3</sup> in a single trunk and their combinations.

Lossnay technology offers high efficiency exceeding 80 per cent with the cross-flow energy exchange constructed of a specially treated cellulose fibre membrane providing heat and humidity transfer. This special heat exchange technology prevents the inbound air and exhaust air from intermingling which in turn prevents the exhaust air from getting into the space again. The exchanger with the cellulose fibre membrane also performs humidity transfer, a feature that does not exist in ordinary exchange systems. Thus, it is able to provide 100 per cent fresh air to the indoor spaces by minimizing heat loss and providing balance of humidity.

Mitsubishi Electric Lossnay Ventilation Equipment is distinguished as a high technology that offers a number of advantages including easy installation for urban constructions which are lately increasing, ease of use, energy efficiency, compatibility with smart building automation and compliance with green building certifications. The technology is increasingly preferred by construction companies creating difference with the value added projects and individual consumers who are in search of comfort.

### ***About Mitsubishi Electric Corporation***

*With over 90 years of experience in providing reliable, high-quality products, Mitsubishi Electric Corporation is a recognized world leader in the manufacture, marketing and sales of electrical and electronic equipment used in information processing and communications, space development and satellite communications, consumer electronics, industrial technology, energy, transportation and building equipment. Embracing the spirit of its corporate statement, Changes for the Better, and its environmental statement, Eco Changes, Mitsubishi Electric endeavours to be a global, leading green company, enriching society with technology. The company recorded consolidated group sales of 4,394.3 billion yen (US\$ 38.8 billion\*) in the fiscal year ended March 31, 2016. For more information visit: [www.MitsubishiElectric.com](http://www.MitsubishiElectric.com)*

*\* At an exchange rate of 113 yen to the US dollar, the rate given by the Tokyo Foreign Exchange Market on March 31, 2016.*

### **About Mitsubishi Electric Turkey Operations**

*Mitsubishi Electric concentrates on sales and after-sales services for HVAC systems, factory automation systems, CNC-Mechatronics systems and advanced robot technologies in Turkey. In addition, the company provides support for satellite, elevator, visual data systems, power sources and transportation-based infrastructure projects. Mitsubishi Electric, the acknowledged manufacturer of Turksat 4A and 4B satellites contributing to communication and broadcasting infrastructure of Turkey and neighbouring countries, is also recognized for the automation technology used for Marmaray project. Having incorporated a company for development and manufacturing of room air-conditioners in Turkey in April 2016, Mitsubishi Electric intends to start manufacturing operations in Manisa plant by January 2018. For more information visit:*

[www.mitsubishielectric.com.tr](http://www.mitsubishielectric.com.tr)

### **About Mitsubishi Electric Turkey Air-Conditioning Systems**

*Mitsubishi Electric Turkey Air-Conditioning Systems offers sales and after-sales services for room-office air-conditioners, commercial air-conditioners, City Multi VRF central system air-conditioners, heat pump systems, ventilation systems, control systems and hand drying systems as well as heating, cooling, ventilation and hot water supply. It is distinguished with its heating and cooling products of A, A+, A++ and A+++ energy classification according to Seasonal Efficiency Criteria, "MELCloud", a cloud-based solution enabling online control of air-conditioners and "Keşfetteam" which is a technological survey service used for determining the most suitable air-conditioner and installation location.*