

Meridian House lines up prime heating and cooling solution

Air Conditioning



Meridian House, a modern four storey open plan office development in the heart of Slough, has recently undergone a full refurbishment in order to meet energy efficiency standards in commercially let properties and qualify for Enhanced Capital Allowance (ECA) - a government scheme designed to provide tax incentives to businesses that invest in energy-saving technologies.

A key part of this extensive refit was the introduction of a City Multi VRF (Variable Refrigerant Flow) heating and cooling system

Engineered to provide superior comfort and control in modern buildings, the intuitive City Multi VRF system is ideal in office environments such as Meridian House as it provides complete flexibility in both performance and design.

The Meridian House refurbishment incorporated a total of three City Multi heat recovery systems. The heat recovery variation offers simultaneous heating and cooling with the added benefit of heat recovery, while the heat pump system utilises an outdoor unit to deliver heating or cooling to multiple indoor units at any given time. A total of 32 unobtrusive ducted indoor units were concealed within the ceiling space, providing adjustable air flow patterns and low noise levels throughout the building.

The flexibility of the City Multi control system made it an attractive proposition for both the landlord and tenants at Meridian House. With a ducted system serving open plan floors, grills can be relocated to suit future partitions or the splitting of floors to accommodate several tenants.

Improvements in energy efficiency are leading to increasingly airtight buildings, impacting on air quality and increasing the risk of damp, rot and mould - which in turn can have a detrimental effect on the health of the building occupants.

With this in mind, **10 Lossnay Mechanical Ventilation Heat Recovery (MVHR) units** were also installed at Meridian House, supplying fresh air whilst simultaneously extracting stale air. Importantly, the Lossnay units also recover valuable heat energy during this process, maximising the overall efficiency of the system.



Case Study

With the refurbishment complete and the new heating and ventilation system fully operational, Meridian House can boast full ECA compliance, allowing the building operators to benefit from tax breaks for the first year.

Meridian House

Tasked with controlling this highly efficient new heating and cooling system, an AE-200E centralised controller allowed for complete control and monitoring from one location within the commercial office building.

Representing the next generation of advanced controls, this touch screen unit offers instant regulation of City Multi and Lossnay systems, along with at-a-glance energy monitoring. This is of particular importance in multi-tenant buildings as the system can deliver a full breakdown of individual usage and costs.

Building Services Design Consultants, Lamorbey Associates, was responsible for specifying equipment that would meet the necessary energy performance levels - both now and in the future.

James McGowan from Lamorbey comments: "Meridian House required a heating and cooling solution that would meet demanding legislation, reduce carbon emissions and deliver superior comfort and control. The chosen products are perfectly suited to the mixed-use office environment and spare capacity on these systems has ensured that the building is as future-proof as it can be."

With ECA compliance achieved and energy efficiency targets met, Meridian House has been refreshed and reinvigorated, broadening its appeal and catching the eye of prospective tenants.

Its new heating and cooling system offers stable internal air temperatures, a continuous supply of fresh air and flexible controls, transforming the commercial offices into modern, comfortable places of work



Installation Summary



Equipment:

- 3 x City Multi systems (R2 Heat Recovery)
- 32 x PEFY-P-VMA indoor units
- 10 x Lossnay Units
- 1 x HP1500 heat pump air curtain

Controls:

- AE-200E central controller with energy monitoring



City Multi Outdoor Unit



PEFY-P-VMA



Lossnay LGH-RVX-E



HP1500 heat pump air curtain



AE-200E

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Note: The fuse rating is for guidance only. Please refer to the relevant databook for detailed specification. It is the responsibility of a qualified electrician/electrical engineer to select the correct cable size and fuse rating based on current regulation and site specific conditions. Mitsubishi Electric's air-conditioning equipment and heat pump systems contain a fluorinated greenhouse gas, R410A(GWP:2088), R32(GWP:675), R407C (GWP:1774) or R134a (GWP:1430). *These GWP values are based on Regulation (EU) No 517/2014 from IPCC 4th edition. In case of Regulation (EU) No 626/2011 from IPCC 3rd edition, these are as follows. R410A(GWP:1975), R32(GWP: 550), R407C (GWP:1650) or R134a (GWP:1300).



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