Panasonic



Ireland's leading real estate organisation, Savills, recently acquired additional office space in Dublin's city centre, at a location where power supply was extremely challenging with a grid operating at capacity. Coupled with this, the property itself is a famous listed building, housing the company's 170 Dublin-based staff and provides state of the art hospitality and leisure facilities for the Savills employees.

Ethos Engineering was employed as the M&E consultant with L Lynch and Co working as the mechanical contractor, and Tech Refrigeration installing the solution. This team was tasked with providing a heating and cooling solution fit for such an iconic building that would cope with the demands that would inevitably be placed upon it, keep running costs low and provide a good payback period.

Challenges

The main challenge with this project was the lack of available power as the City Centre grid location was overloaded. When appraising the options available for Air Conditioning, Tech Refrigeration suggested Panasonic's revolutionary gas-powered GHP technology. Jim Weldon, Director at Tech Refrigeration explains, "There would be a huge cost involved in upgrading the electricity grid with other solutions so Panasonic's GHP VRF range was the ideal solution for this type of commercial application, especially due to the power restriction. The consultants were also looking for a system capable of providing controllable comfort to the client's employees, offering flexible and efficient temperature and air flow management."



A complete installation of a Panasonic GHP VRF system capable of coping with a 243 kW Load was carried out, utilising the ECO G 3-way units. These outdoor units require only a single phase supply and as such allow the building's electrical power to be used for other critical electricity demands which is vital in a large office space. The excess heat from the engine means that the gas heat pump air conditioner has no need for a defrost cycle, meaning lower running costs and a reduction in Carbon emissions. Heating outputs are also maintained even at ambient conditions as low as -20°C.

Ethos Engineering commented, "The deciding factor for choosing a Panasonic Solution was the ability of the GHP system to use off-coil temperature-control. This enabled us to ensure the air condition would never reach a temperature that would be too cold for the occupants and instead, would be controlled to remain at a neutral, comfortable temperature. Each indoor unit has a built-in air temperature sensor which adjusts temperature automatically, something which other systems on the market just could not provide."

Ethos Engineering, L Lynch and Co and Tech Refrigeration worked closely with excellent support from Panasonic in Ireland to commission this system in such a prestigious location. The capability of the ECO G 3 way system to optimally cool and heat simultaneously with individual operation of each indoor unit from only one outdoor unit offers a flexible system to meet the demands of a busy office environment. The reduction of power loadings, especially during peak periods saves money and means the system's payback period is noticeably shorter.

The project has been such a success that it has recently been awarded a Panasonic PRO Award for Best Contribution of efficient projects within Europe.

List of Products

- · Panasonic GHP system
- · Panasonic ECO G 3 way system

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