

MULTI POWER: THE PERFECT CHOICE FOR AMBITIOUS OFFICE DEVELOPMENT



The modular Multi Power's combination of reliability, flexibility, and efficiency in a compact footprint make it the ideal solution to protect a ground-breaking new office redevelopment.

Stradling the junction of Wellington Place and Upper Queen Street in Belfast, the £70 million Merchant Square renovation is one of Northern Ireland's most ambitious construction projects of recent years.

Combining the former Oyster House and Royston House buildings next to Belfast City Hall, the project has seen the creation of 240,000 square feet of mixed-use accommodation, including 225,000 square feet of state-of-the-art office space spread over nine floors.

In addition to the typical office, meeting room, and conferencing facilities, Merchant Square also incorporates restaurants, a nail bar, and space for an onsite GP and psychologists, as well as Pilates, yoga, and physiotherapy sessions.

The facility also incorporates six high-speed smart lifts and the eye-catching "Spanish Steps", an open staircase linking the fourth, fifth, and sixth floors.

Merchant Square is the first privately-built commercial building of its kind in Northern Ireland to be awarded "Excellent" status by BREEAM UK, which assesses new and refurbished buildings according to their environmental sustainability.

The evaluation took into account criteria such as the steps taken to minimise energy use, links to public transport, efficiency of heating and lighting, water and waste management, and pollution.

With the entire complex heavily reliant on critical IT infrastructure and sophisticated electrical equipment, any disruption to power supplies could have a hugely damaging knock-on effect.

That made the installation of a robust uninterruptible power supply system onsite providing essential battery backup a key component of the final fit-out.

PERFECT PROJECT PARTNERS

Michael Nugent Ltd, one of Northern Ireland's leading mechanical and electrical services providers, won the contract to carry out the electrical fit-out of the Merchant Square complex.

Established back in 1963, the company has a proven track record across the corporate, public, and private sectors in industries as diverse as health and education, leisure and retail centres, residential care, hotels, and commercial developments.

Knowing that the provision of UPS systems was an essential element of the job, Michael Nugent Ltd called upon Belfast-based Ashdale Engineering Ltd, an authorised Riello UPS reseller and service partner, to specify the optimum solution.

The two firms already had a strong working relationship dating back several years, having collaborated on several previous projects where Riello UPS solutions have played a role in ensuring power continuity.

These include Canterbury Christ Church University in Kent, the Hilton Hotel at Edinburgh and Stansted airports, and the Northern Ireland Hospice in Belfast.

MODULAR GAINS FROM MULTI POWER

Vernon Taylor, Technical Sales Engineer for Ashdale Engineering Ltd, explains: "The Merchant Square project specification developed by the clients called for a modular UPS solution with redundancy to guarantee N+1 resilience."

Riello UPS's award-winning modular Multi Power range proved the natural choice. Multi Power offers a flexible choice of both power modules (15-25-42 kW) and cabinet sizes, making it a popular solution across a wide range of data centres, server rooms, and similarly mission-critical applications.

The series delivers exceptional operating efficiency of up to 96.5% in online UPS mode. While its intuitive Energy Saving Mode also ensures high efficiency (>95%) at low loads, minimising energy waste across all load levels.

Offering unmatched power density in a compact space-saving footprint, Multi Power allows for simple "pay as you grow" scalability by adding in additional power modules or cabinets in parallel. Another advantage of the modular UPS is that each power module and battery unit is hot-swappable and easily accessible from the front of the unit.

This means engineers can service, maintain and even swap-out individual modules without having to power down the whole system, guaranteeing downtime-free maintenance.



THE SPECIFIC SOLUTION

Ashdale Engineering Ltd opted for the 25 kVA power modules and the series' compact MPX 130 cabinet. This has the capacity to hold a maximum of five modules and measures in at a space-saving 120 cm x 60 cm x 105 cm (H x W x D).

Colin Simms, Operations Director for Ashdale Engineering Ltd, said: "Having installed and commissioned Multi Power in several other key sites across Northern Ireland including hospitals, data centres, and broadcasting facilities, we were very assured of the product's reliability and suitability for this particular application.

"The compact cabinet with 25 kW modules allowed us to provide a perfect solution at a competitive price in a small footprint."

The UPS installed in the main comms room totalled 120 kVA plus 30 minutes battery autonomy. It was split into two separate systems to ensure appropriate redundancy in the event of a failure with one of the units.

The first UPS comprised three 25 kVA power modules to give 40 kVA plus spare module capacity, along with a separate battery cabinet housing 40 battery blocks.

The second UPS was fitted with the maximum five 25 kVA power modules to provide 80 kVA plus spare module capacity. It was partnered with a pair of battery cabinets each holding 40 blocks (80 in total).

Both UPSs were fitted with Riello UPS's NetMan 204 communications card to aid with monitoring and management, while the installation also incorporated wall-mounted four-pole wraparound bypasses.

As well as carrying out the install and commissioning, Ashdale Engineering Ltd will also provide ongoing UPS maintenance and support for the pair of Multi Powers.

PROJECT COMPLETED

Martin Keenan, Senior Contracts Manager (Electrical) for Michael Nugent Ltd, commented: "We always value Ashdale Engineering Ltd's expertise in UPS systems provision, support, and their reliability to do the job.

"Despite the challenges posed by both COVID-19 and Brexit, which impacted on supplies getting into Northern Ireland, the project continued apace.

"Thanks to constant communication with Ashdale Engineering Ltd, who kept providing us with regular updates on progress from delivery all the way to final commissioning, we were able to ensure a seamless handover within the agreed project timeframe."

Global professional services organisation PwC has agreed to become sole tenants of the new Merchant Square offices on a long-term lease until 2040. Its Belfast team is scheduled to move in during summer 2021 in what is believed to be city's biggest-ever private sector office letting deal.

