

BELFAST INTERNATIONAL AIRPORT

Sentryum Passes Airport Test With Flying Colours



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AIRPORT**

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Replacing an end of life system with Riello UPS's third generation transformerless Sentryum range helps Belfast International Airport reach new heights.

Belfast International Airport (BIA) is Northern Ireland's biggest airport and the second busiest on the island of Ireland.

Located roughly 13 miles northwest of Belfast near the village of Aldergrove, the airport welcomed more than 6.2 million passengers during 2018, ranking it in the top 10 of all UK airports.

Several high-profile airlines operate from its facilities, including easyJet, Jet2.com and Ryanair. Virgin Atlantic also carries a seasonal flight to Orlando, Florida.

As well as providing daily routes to many UK mainland airports, including Manchester, Liverpool, London Gatwick and London Stansted, BIA also serves several hugely popular destinations including Alicante, Amsterdam, Faro, Malaga and Barcelona.

The airport was first established back in 1917 as a base for the Royal Air Force during the First

World War. In the decades that followed, it combined this role as the HQ for RAF Aldergrove with a growing civil aviation side.

Since reopening as a civil airport in October 1963, Belfast International Airport has catered for tens of millions of passengers, including royalty and other VIPs.

HRH Queen Elizabeth the Queen Mother carried out the official reopening in 1963. While October 2010 saw HRH The Queen mark the completion of a significant terminal upgrade. The iconic Air Force One graced

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the runway on 30 November 1995, transporting Bill and Hilary Clinton on the first-ever visit to Northern Ireland by a serving US President.

One of President Clinton's successors, Barack Obama, also used the airport to travel for the G8 summit of world leaders in June 2013.

Equipment Upgrade Required

As expected with such a mission-critical site, the airport features several uninterruptible power supplies providing backup to crucial IT and operational systems, plus other vital electrical infrastructure.

Any loss of power could result in huge disruption to airport services, causing damaging delays for passengers and financial losses to the airport.



Chris McGarry, IT Manager for Belfast International Airport, explains:

"One of our main IT UPS systems was coming to the end of its lifecycle and needed to be replaced. The UPS in question supports critical IT infrastructure at the airport."

"Whilst we have many redundant systems in place, it is very important all our UPS systems are fully-functional to avoid any power loss and possible disruption to the airport's IT systems."

Perfect Project Partners

There was only one company to land the job of replacing the ageing 10 kVA UPS in its main IT communications room. Belfast International Airport turned to long-standing partner Ashdale Engineering Ltd.

Established in 1977, the Belfast-based electrical engineering company is a certified Riello UPS reseller and service partner.

It has worked with Riello UPS on scores of projects over the years, including the £100 million Titanic Exhibition Centre in 2012 where Ashdale Engineering Ltd supplied and commissioned 12 UPSs providing 35 kW of protection.

Chris McGarry reveals: *"We have been working with Ashdale Engineering Ltd for more than 20 years. They have supplied and maintained UPS systems at the airport and have always provided us with a reliable and competitive service."*

"Their engineers are highly-trained with OEM certification and they carry the full accreditations we require for all our vendors."



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The Sentryum Solution

"Riello UPS's new transformerless range the Sentryum was the ideal replacement for the existing UPS system," explained Colin Simms, Operations Director for Ashdale Engineering Ltd.

"In this case, we supplied a 15 kVA single-phase input and output UPS with internal batteries providing a runtime of five minutes."

The choice of supplier provided reassurance to the airport. Chris McGarry explains: *"We already have several Riello UPS systems onsite and are satisfied with their reliability and features. We monitor them over IP and found the NetMan 204 communications card very easy to install and set up."*

"So we were delighted when Ashdale Engineering Ltd recommended Riello UPS's latest transformerless unit for this project."

The Sentryum is Riello UPS's third generation of transformerless online UPS systems.

It builds on the previous models and includes a whole host of improvements that enhance performance while making it easier and more cost-effective to maintain.

Available in 10, 15 and 20 kVA versions, it delivers unity power factor (kVA = kW) and is capable of exceptional efficiency of up to 96.5% in online double conversion mode, which minimises wasted energy.

One of the major benefits of the Sentryum range is its three different cabinet sizes. This offers end-users various solutions depending on their available floorspace and desired battery runtime.

In this case, the Compact (CPT) chassis measures 28 cm wide by 70 cm high by 84 cm deep, so it takes up a footprint of less than 0.25 m² in the airport's comms room.

Another advantage is its versatility. While Belfast International Airport required single-phase input and

output, the Sentryum series also offers the option of three-phase input, single-phase output or three-phase input and output.

The airport upgrade also saw an external bypass fitted with the Sentryum UPS wired to it. This meant the supply and load cables from the existing UPS setup could feed into this new bypass arrangement.

Chris McGarry concludes: *"We're very pleased with the project. Ashdale Engineering Ltd was able to manage the UPS changeover with the minimum of disruption."*

"As much work as possible was done during normal hours with final connections made out of hours at a time that suited the airport, resulting in the least downtime possible."



