

GRANTHAM HOUSE

UPS Protection for Passenger Lift



Installing a standby power solution to the passenger lift at Grantham House has provided the system with a reliable source of power. This will ensure that the lift is always able to return to the ground floor in the event of a fire or a mains failure.

Grantham House was the result of a project which involved the complete refurbishment and extension of a 1960's Local Authority-built sheltered housing scheme to form 27 apartments and two family houses. It was important to the developers that both the appearance and the energy efficiency of the building were improved as well as considerations made to the safety and impact on the environment.

When specifying a UPS system which is intended to support lifts or elevators, it is important to consider the effects of regenerative braking, which some lifts create.

The effect generates a potentially damaging reverse Electromotive Force (EMF) which can impose damaging current back onto the positive and negative DC Bus within the uninterruptible power supply.

However, UPS Systems can eliminate these potential problems by supplying and installing a UPS system which comes complete with all the necessary components to absorb the generated EMF energy and protect the UPS.

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In addition, an external wrap around bypass switch was installed. This allows full availability of the life system during the yearly service visits for the UPS system and allows for ease of replacement, when the UPS enters the end of its life in 12 to 15 years.

Combined, these two pieces of equipment ensure the passenger lift is protected from power failure at all times. With regular servicing which will be carried out by UPS Systems, the installed equipment will remain in peak condition.



“Lifts provide an essential means of escape when the stairs are not an option, due to a person being disabled for example. The UPS system installed at Grantham House ensures a means of escape is always available to people who can’t use the stairs.”

Holly Wellesley-Garnham | Senior Property Manager at Peerless Properties

As experts in their field, UPS Systems were contacted by Peerless Properties to provide a solution to the lack of appropriate standby power provision at Grantham House. After an initial site survey, UPS Systems were able to specify the correct solution to ensure the lifts would have continuous power, even in the event of a full mains power outage.

To provide the required power together with the necessary run time, a 30kVA (27kW) UPS system with internal batteries.

The UPS System was selected from the Multi Sentry range of products which are produced by Riello UPS. The Multi Sentry UPS systems are industry leading from the perspective of their reliability, efficiency and footprint.

The installed UPS will provide 6 minutes run time at full load of the UPS and 30 minutes at the design load of 9kW of the lift for the operating time to return to the ground floor.



With the new UPS system and maintenance bypass installed, the passenger lift at Grantham House is now secured against power cuts.

UPS Systems provides an annual service to the standby power system along side a 4 hour response to faults to ensure the power is always on.