

# Luxury Apartment Building

Power Protection UPS for Smoke Extract



**A smoke ventilation company contacted UPS Systems plc to provide a power protection solution for the life saving smoke ventilation system being installed in the apartment building near Hyde park.**

The six floor apartment building comprises luxury high end apartments with a smoke extract system for life safety. Smoke ventilation systems are designed to evacuate smoke from the building to facilitate the safe escape of occupants in the event of a fire and enable the fire to be fought in its early stages.

The smoke ventilation system requires a power protection solution to ensure that the system remains operation should the building experience a power outage during an emergency situation.

Keeping these life safety systems operational is not only critical to save the lives of the occupants, but also ensure the safety of fire fighters. It is now a legal requirement to have all life safety systems on a backup power supply. These rules are clearly defined in BS 9999, which focuses on the code of practice for fire safety in the design, management and use of buildings.

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*"Life safety systems are essential for protecting the lives of the occupants, so it is critical to install suitable UPS backup."*

**Jack Ogden, Commercial Director | UPS Systems plc**

UPS Systems proposed a 15kVA UPS system (15kW) complete with a single string of 40 x 90Ah batteries to enable the smoke ventilation system to continue running should an outage arise. The 15kVA system provides full support to cover the high start up current on the fan motors as well as the normal running current. UPS Systems plc worked with the building contractors to overcome the limited space and weight requirements on site. This was achieved by designing a solution that split the battery string over 2 battery racks located either side of the plant room with the UPS on flexible cable in the middle. This allows the UPS to be moved on its castors as required for maintenance access.

An internal volt free contact card was supplied with the UPS for connection to the building management system and alert the maintenance staff of any faults that may arise with the UPS. UPS Systems plc OEM Trained engineers carried out the installation and commissioning of the UPS within the OEM and electrical safety requirements. A 3 year maintenance contract was also added to ensure the UPS remains in optimum condition for the duration of its service life.

The UPS was supplied with an external maintenance bypass switch (EMBS) which is an essential part of switchgear. This EMBS allows the UPS to be completely isolated with no interruption to the load.

This, in turn, allows comprehensive maintenance visits to be carried out. It also means the UPS can be removed and replaced with no interruption, ensuring the system is easy to maintain and update in the future.

Due to taking the time to understand the customers requirement, UPS Systems plc have achieved another successful UPS implementation.



UPS Systems plc specialise in the specification, supply and maintenance of uninterruptible power supplies (UPS and generators to create best fit bespoke standby power solutions for our clients and customers.

In addition UPS Systems have access to the widest selection of products on the market today and a completely 'independent' vendor-neutral ethos, allowing us to create truly best fit, bespoke uninterruptible power systems.