



# Electrical installations in Telecommunications Environments

Electrical installation in a UK Telecommunications site

## Electrical Installation Case Study

### About Airsys

Established in 1995, and with a focus on understanding the clients' needs, Airsys have become global experts in the design, build, and maintenance of energy efficient, sustainable critical infrastructure environments. Airsys are a market-leading solutions provider, with expertise covering cooling, full-service solutions, plumbing and electrical installations. Airsys' proficiency in electrical power installations has been utilised by multiple prominent Telecoms and Data Centre firms throughout the UK.

### About the Client

Our client is a British multi-national telecommunications holding company headquartered in London, England. It has operations in approximately 180 countries and is the largest provider of fixed-line, broadband and mobile services in the UK.

### Project background

Airsys were intimately involved in the design and delivery of a low TCO cooling solution, utilising free-cooling technology, for a Data Centre environment located in the southwest of England, which was undergoing extensive expansion to facilitate the client's operational needs. The forecasted growth in data required an increase in cooling demand, which resulted in insufficient local power to facilitate the cooling upgrade. The Data Centre which was located on the 2nd floor of the building, required a new 400A essential supply which was installed across multiple levels via a complex cable route, requiring heavy duty containment and trunking. In addition, a new 400A busbar chamber with 2 x 200A isolators and 2 x 100A (4 way) distribution board arrangement was also installed and this was supplied via the HV/Engine room LV panel, located 110m away. New 63A & 32A auxiliary circuits to all Airsys CRAC cooling units were also installed and commissioned.



**Our Solution**  
110m 400A 3 phase supply  
1 x 400A busbar chamber, 2 x 200A isolators, 2 x 100A fuse boards  
2 x 63A & 2 x 32A isolator for cooling

## Project execution

Airsys provided all the necessary supporting design documentation, calculations and drawings following best practice and IEE regulations (BS 7671) to facilitate the upgrade. The works associated with the new power upgrade required access to live environments, such as equipment rooms and office areas. It was essential that all works were conducted without disruption to our client, ensuring a safe working environment at all times. All necessary safety measures were put in place, with the delivery team ensuring the project was executed on time and within budget, which ensured the cooling upgrade was delivered to meet our client’s operational demands.

