QUEST ELECTRICAL

Data Centre Electrical Installations & Power Infrastructure

TECHNICAL DATA SHEET | Industrial, commercial & critical IT facilities

Service overview

Design, installation, modification, testing and maintenance of electrical power infrastructure serving data centres, server rooms and IT facilities. Work is planned around operational continuity and site-specific power requirements.

Electrical infrastructure and scope

Main LV switchgear	630A–6300A switchgear and switchboard installations; upgrades and modifications
Distribution equipment	125A–630A MCCB panels, section boards and distribution boards
IT and rack supplies	Dedicated single-phase and three-phase circuits for server racks and IT equipment
High-capacity distribution	Sub-main power cabling, cable ladder, tray, basket, trunking and conduit
Resilience infrastructure	Electrical connections to UPS systems, standby generators and associated distribution
Ancillary systems	Supplies for cooling and ventilation; surge protection; earthing and protective bonding
Monitoring and maintenance	Metering, power monitoring, EICRs, thermal imaging, fault finding and remedials

Design and installation considerations

Assess connected loads, capacity and future growth; verify circuit protection, discrimination/selectivity where required, cable ratings, fault levels, earthing arrangements and equipment interfaces. Confirm UPS/generator operating arrangements and any redundancy requirements with the client and equipment suppliers.

Testing, commissioning and handover

Inspection and testing of installed circuits and protective measures; verification of distribution connections and labelling; coordinated energisation, planned changeovers and handover documentation. Operational testing of third-party UPS or generator equipment is subject to agreed scope.

Relevant standards and duties

BS 7671; Electricity at Work Regulations 1989; BS EN IEC 61439 where applicable to LV assemblies. Additional data-centre-specific requirements and project specifications to be confirmed during design.

Technical note: Ratings shown are service capability ranges, not a fixed product specification. Final cable sizes, protective devices, supply configuration, resilience design and commissioning procedures depend on site survey and approved design.