

CASE STUDY

# 3200A Cast Resin Busbar Installation

Premier League Stadium | High-Level LV Infrastructure

# JHCS

Specialist Electrical Contractors

## Project Overview

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JHCS were appointed to install a 3200A cast resin busbar system, linking a high-voltage transformer to the main LV panel at high level within a Premier League football stadium. The scope demanded specialist heavy-lifting capability, precision electrical knowledge, and a rigorous approach to safety planning — all within a live stadium environment.

## Project at a Glance

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Project Type	3200A Cast Resin Busbar Installation
Client Sector	Premier League Football Stadium
Busbar Rating	3200 Amps
Max Section Weight	450 kg per section
Installation Height	Up to 5 metres
System	Transformer to Main LV Panel

## The Challenge

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This was not routine containment work. The installation required the controlled mechanical lifting of busbar sections weighing up to 450kg to heights of 5 metres, in a complex, occupied environment with strict access controls and zero tolerance for error.

The primary challenges included:

- ▶ Safe mechanical lifting of heavy sections in a constrained high-level environment
- ▶ Precise bracket pre-engineering to receive sections at height
- ▶ Maintaining exclusion zones and protecting the surrounding structure
- ▶ Achieving laser-level alignment across the full run of busbar
- ▶ Ensuring electrical integrity before final resin encapsulation of couplers

## Our Approach

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JHCS approached this project with a structured methodology, placing safety and precision at the forefront of every phase of the operation.

### Lifting & Installation Planning

- ▶ Detailed method statements and lifting plans developed prior to mobilisation
- ▶ Pre-engineered bracket installation to ensure structural readiness
- ▶ Controlled mechanical lift sequences with dedicated supervision
- ▶ Coordinated exclusion zones maintained throughout all lift operations

### Alignment & Testing

- ▶ Busbar sections laser-levelled upon installation at high level
- ▶ All torque connections made to manufacturer specification
- ▶ Full electrical testing completed prior to coupler encapsulation
- ▶ Couplers cast in resin only once integrity was confirmed — no shortcuts

## Outcome

The 3200A busbar system was installed safely, on programme and to specification. Every lift was executed without incident, the installation passed testing first time, and the final resin encapsulation was carried out only once full electrical integrity had been verified. The client received a robust, high-capacity LV infrastructure connection capable of supporting the demands of a Premier League venue.

## Capabilities Demonstrated

### Heavy Lifting Capability

Mechanical lifting of sections up to 450kg at height, safely planned and executed.

### Safe Systems of Work

Method statements, exclusion zones and supervised lifts in a complex live environment.

### HV/LV Infrastructure Expertise

End-to-end delivery of complex power distribution systems from transformer to LV panel.

### Specialist Client Support

Providing bespoke handling and installation solutions where standard contractors cannot deliver.

## JHCS | Specialist Electrical Contractors

Heavy Lifting • HV/LV Infrastructure • Safe Systems of Work • Specialist Installations