

# Northern Line Extension VRF (Variable Refrigerant Flow) Installation

## Best Practice Case Study



### Project Data

**Client :** TFL

**Location :** Nine Elms and Battersea

**Main Contractor :** Laing O Rourke

**Completed :** 2021

### Project Overview

The Northern line extension to Battersea is the construction of an extension of the London Underground Northern line from Kennington to Battersea in South West London, terminating at the redeveloped Battersea Power Station.

The extension will form a continuation of the Charing Cross branch of the line and 2 new underground stations have been built at Nine Elms and a terminus at Battersea Power Station.

### Scope Of Work

The works were situated at the new underground stations located at Battersea and Nine Elms and required the power supplies to the VRF systems at both stations completing.

The scope of works consisted of the installation of Cable Management systems, cable installation, termination and testing & inspection.

3 phase supplies were installed to condenser units located within mechanical plant rooms and single phase supplies installed to remote VRF (Variable refrigerant flow) units located in key rooms around the stations where varying degrees of cooling is required i.e. Station Communication Rooms, Switch Rooms and Signalling Equipment Rooms.

All works were completed in accordance with BS 7671: 2008 Amendment 3:2015, LU Standards and British and European standards on time and within budget .

