



MAINFRAME COMMUNICATIONS OVERVIEW

Contact Mark Jannece – Sales Director on 07765 036373 should you need any help

Founded: in 1988



FM39702





INTEGRATION SERVICES

We offer all levels of integration according to your requirements:

- **Supply Only** – We'll help you select the right cabinet and ship it to you
- **Configure** – We install your selected options; PDU, fans etc
- **Custom Build** – We'll fully build and populate using factored or free-issued parts
- **Integration** – As above, but wired/cabled, labelled, tested and ready to go
- **Assisted Design** – We'll design the internals and create wiring lists, layouts, management etc
- **Custom** – We'll develop a solution from scratch to exactly align with your requirements
- **Staging** – Facilities to enable equipment testing and configuration prior to delivery to site.



INTEGRATION & CUSTOMISATION

Add off-the-shelf components, or custom-designed product:

- Environmental:
 - Cooling fans & filters
 - Air Conditioning
 - Thermostatic or hydrostatic controlled heaters
- Power
 - Isolators
 - Distribution
 - Power supplies & UPS
- Fibre-optic splice, patch and management
- Passive & active network components
- PLC
- Free-issued equipment



SPECIALIST PRODUCTS

- Bespoke Design and Build
 - Roadside & Trackside Cabinets for Mixed Fibre / Copper
 - Specialist Optical Splicing / Termination Enclosures
 - Trackside Splice Joints and Demountable Cables
 - UPS – Uninterruptible Power Supplies





ENCLOSURE TYPES

Range of standard types with custom options, or custom-designed

- Protection:
 - From: IP54 - Sheltered outdoor locations
 - To: IP68 – Fully Immersible
- Data racks & Cabinets
- Rail location cabinets
- Street Cabinets
- Harsh Environment
- Custom-designed



BUILD FACILITY WITH 18,000 SQUARE FEET OF SPACE FOR ANY SIZE BUILD

1. Relay Racks
2. Communications Racks
3. Data Racks
4. External cabinets
5. PLC Racks
6. Server Racks
7. CTF Racks, etc



Istanbul Metro Relay Rack



LUL PLC Rack





BUILD FACILITY (Cont)

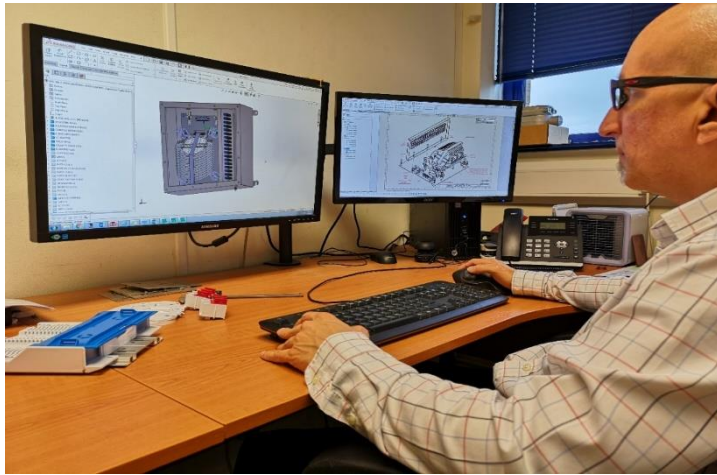
Server racks built to Customer requirement
fully cabled and factory tested

ITP – Inspection Test Plans agreed
QCP – Quality Control Plans in place





SOLIDWORKS DESIGN FACILITY WITH 3D PRINTING FOR PROTOTYPES



Professional design team



3D printed part and finished item in stainless steel



CASE STUDIES

Optical Distribution / Active Equipment Cabinet

Designed to basic functional description and environmental specification given by customer.

- Develop 3D model of initial concept
- Collaborative development of each design iteration
- Create fully detailed 3D model of agreed design
- 3D-printing in-house for evaluation of special parts





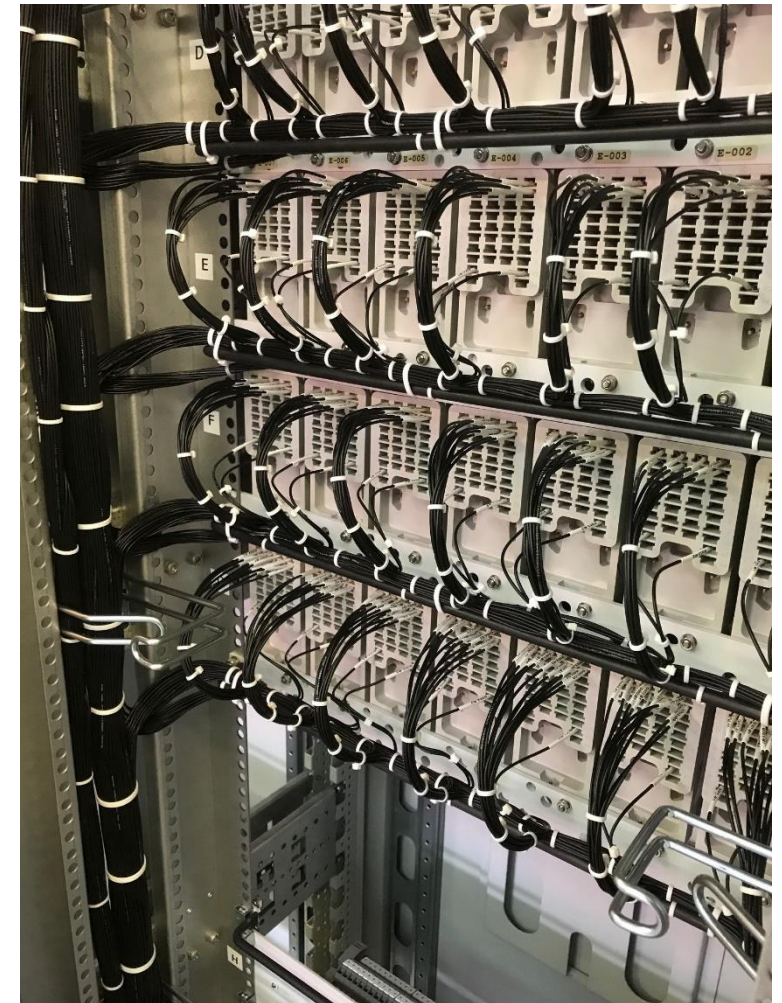
CASE STUDIES

Railway System Relay Racks

Solution based on a standard Schroff cabinet
Approximately 90 site-specific designs
Safety-Critical

Integration:

- Verification of customer book wiring diagrams
- Creation of wiring lists from book wiring diagrams
- Design of internal cabling and management
- All internal cabling and labelling
- Custom designed and built mounting plates
- Terminal numbering and in house marker printing
- Transportation encasement





CASE STUDIES

Railway System Relay Racks Double and single units

- Comprehensive Factory Acceptance Tests
 - Point-to-Point testing
 - Wire Count check
 - Formal QA procedure
 - Insulation Resistance
 - Hi-Pot testing
 - Relay Strap Tests
 - Powered Function Tests
 - Full Test records and documentation
 - Configuration documentation





CASE STUDIES

Server Cabinet

Solution based on a standard 600 x 1000mm data cabinet
Suite of 16 specific designs

Integration:

- Power cabling – ready-to-install solution
- Built to drawing
- All internal power and network cabling
- 100% Factory Acceptance tested
 - Server Configuration and operation
 - Point-to-Point





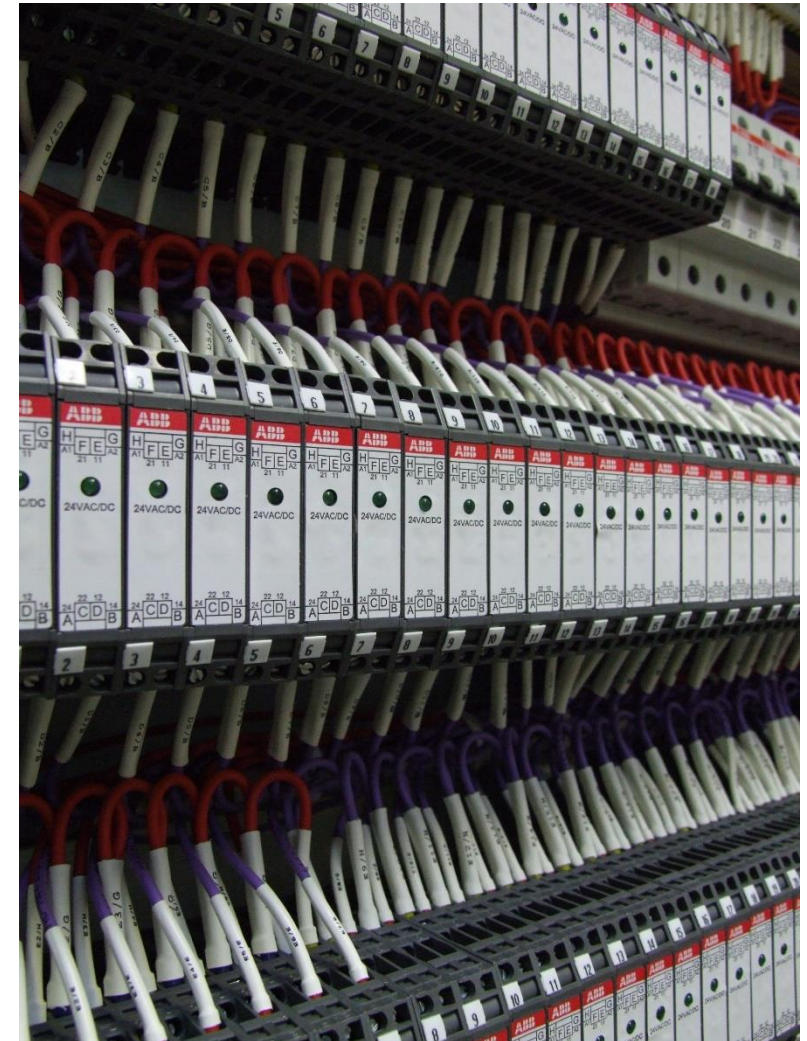
CASE STUDIES

PLC Cabinet

Solution based on a bespoke customer EMC cabinet design
Large order of multiple site-specific designs

Integration:

- Design of cabling and containment
- Power cabling – ready-to-install solution
- Internal wiring – PLC controller, AC and DC I/O
- Mainframe fibre containment and presentation
- 100% Factory Acceptance tested
 - Insulation Resistance
 - Point-to-Point
 - Ground Bond Test
 - Withstanding Voltage





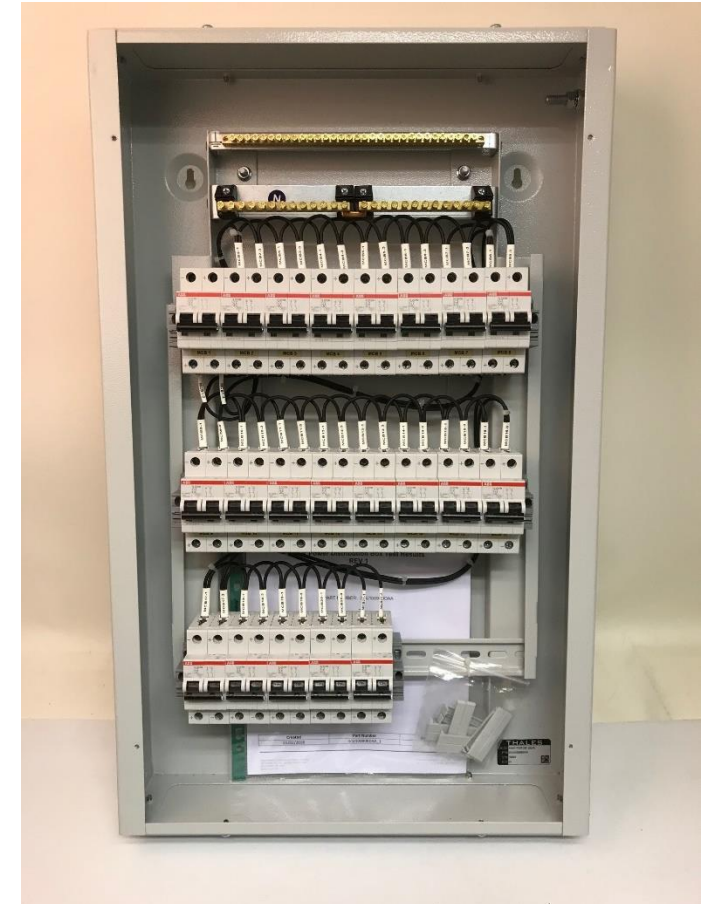
CASE STUDIES

Power Distribution Cabinet

Off-the-shelf ABB Distribution Board specified by the customer

Simple Integration:

- Populated and fully wired to customer drawings
- Comprehensively tested





CASE STUDIES

Rail Location Cabinet

Solution based on an off-the-shelf Rittal IP65 Cabinet specified by the customer

Customisation & Integration:

- Piercings to accommodate the customer's fibre interfaces
- Design of backplane-mounted shelf to maximise use of the fibre management area
- Design of optical fibre splicing and management solution
- Installation of all internals
- Comprehensive testing





PRODUCT SUPPLY

- Customised Solutions for specialist uses, including cabinet and enclosure design, Specialist Power, fibre and copper cable assemblies.
- Optical Fibre - Including Fibre patch leads, Assemblies, Fibre Optic Cables, Management, Connectors and Adaptors, Splicers, Tools and Cleaning Equipment
- Copper Networking, Brand rex, Pre-terms, Management etc
- Cabinets Racks and Frames, - Data Cabinets and Servers racks, Open Frames, Outdoor cabinets, IP 65 Outdoor Cabinets, FTTX Outdoor Fibre Cabinets, Underground Dome Closures
- Cabinet Accessories – PDU's, IPDU's, Door Access control, Contact sensors, Fuse Panels, DCIM software with remote monitoring capability.
- UPS / Power – J Schneider, Riello, MCL designed UPS's, Merawex UPS's
- Railway / LUL – Specialist Cable, and enclosures for railway working

Integration Capabilities

Supported by flexible assembly lines, professional design and engineering teams and over 30 years of in-house expertise.

Some of our integration capabilities includes:-

Functional testing

Full factory acceptance testing

Mechanical build and electrical assembly lines

Power management solutions

AC/DC PDU's, IPDU's and AC Boxes

Thermal power management

Installation of battery packs and power shelves including rectifiers

Heat exchanger

Lighting units

Specialised electrical component integration

AC / DC distribution

Wiring looms

Air-conditioning units

Fans, filters and thermostats

Subrack assembly

UPS's