

# PowerU - DITA

Distribution Interface Transformer Assembly



Class II Modular assembly for:

- Copper elimination
- System segregation
- Voltage boosting
- Downstream circuit protection and monitoring



Class II Symbol

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# A Complete Power Solution

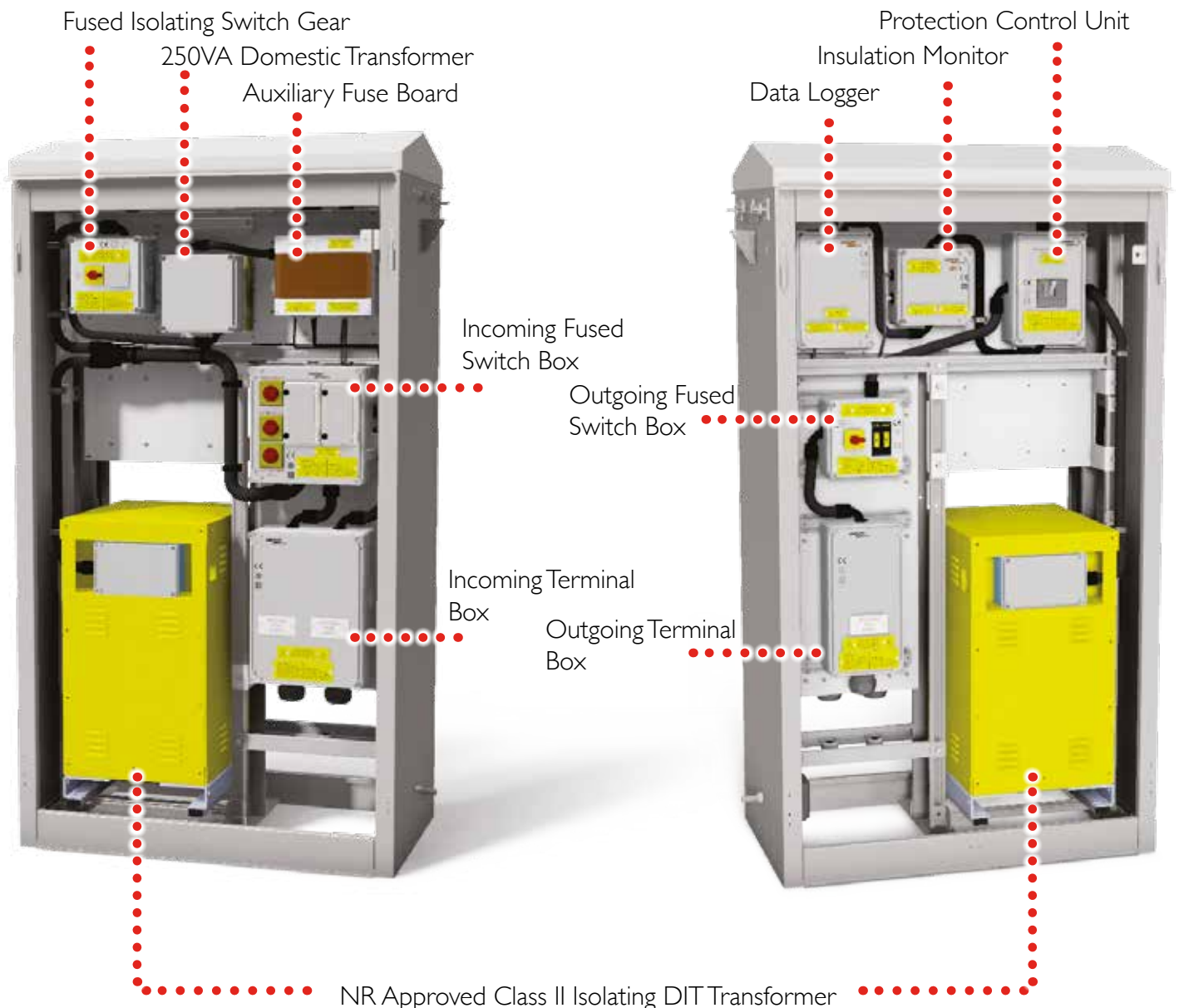
**Our latest innovation in power – the Unipart Rail DITA (Distribution Interface Transformer Assembly) is a multi faceted assembly consisting of an arrangement of interconnecting modules that can be used for multiple applications within signalling power distribution systems.**

Centring around the fully Class II transformer, the DITA has the ability to boost the line voltage up to 650V. The transformer can act as segregation between systems and is available in various powers (5KVA, 10KVA, 15KVA).

Within a location case the switch gear is combined with multiple modules that have the ability to monitor and protect the outgoing supply and down stream circuit. Should a fault be detected or an issue is raised the DITA will log and output an Alarm through a specified network.

## Incoming Side

## Outgoing Side



## Supplying power into the infrastructure is a complicated activity and it requires a strong understanding of the industry requirements to do it expertly.

That's just what we do at Unipart Rail. Our DITA incorporates a fully Class II transformer and Class II modules to solve your problems. It's standardised to the specifications, yet flexible in its application to meet your needs. DITAs are fully assembled and tested in house by our skilled team in York and complies with relevant British standards including: BS EN 61439-2, BS EN 50121-5 and BS EN 50121-3 class T1.

### Applications for DITA

**Systems:** The Unipart Rail DITA is suitable for use in a Class II Signalling Power Distribution System

**Step-Up:** A DITA can be used to step up the system voltage. Either as an interface between different electrical system supplies or to regulate voltage due to system length and volt drop. This aids copper elimination as the addition of a DITA offsets the increase in cable sizes required with aluminium cables.

**Segregation:** A DITA may be used to segregate between feeders, branches and spurs to divide a signalling power system into sections, which is useful for longer feeders or those with multiple spurs or branches. The DITA may also be used as segregation system installations to preserve the integrity of a Class II feeder.

**Isolation:** A DITA will divide the existing network into electrically smaller sections. A DITA is seen as a load to the system above and the source for the system below. This reduces the system capacitance and allows for First Fault Current Reduction. The DITA can also be used to isolate and provide circuit protection to the downstream circuit, these smaller sections makes fault finding a much simpler and quicker task and can help against existing issues of discrimination using the built in DMT protection. A DITA will also reduce stray traction where different earthing arrangements exist.



#### Unipart Rail DITA Configurations:

| Unipart Rail Part No. | Isolation Transformer Power | Enclosure Material       |
|-----------------------|-----------------------------|--------------------------|
| 0050/606330           | 5KVA                        | Powder Coated Mild Steel |
| 0050/606331           | 10KVA                       | Powder Coated Mild Steel |
| 0050/606332           | 15KVA                       | Powder Coated Mild Steel |
| 0050/606333           | 5KVA                        | Stainless Steel          |
| 0050/606334           | 10KVA                       | Stainless Steel          |
| 0050/606335           | 15KVA                       | Stainless Steel          |

All the above configurations are of single feed, single channel DITA design.



## Key Design Features:

**Full Class II Standards** - Unipart Rail DITA's functional circuit is full Class II and complies to the Class II and Network Rail standards NRELP27419 & 247410 Safety:assured.

**Termination & Installation** - The DITA is designed for obstacle-free routing for 2 core cable from 16mm<sup>2</sup> up to 120mm<sup>2</sup> copper or 185mm<sup>2</sup> aluminium enhanced unarmoured feeder cables. The DITA is supplied fully assembled and wired internally and simply needs the feeder supplies connecting into the terminal boxes for quick, simple installation.

**Safety** – Manufactured to be double insulated through out and engineered to eliminate touch potential issues.

**Labelling** – Clear Labelling is critical for a safe and user friendly product. Engraved and permanent labels through out the DITA show clear information, warnings and equipment traceability.

**Designed to Last** – The Unipart rail DITA is designed to meet Network Rails working life expectancy standards. The cabinet is fully rail approved and available in Mild Steel or Stainless Steel with document holders, internal lighting and ventilation systems as standard.

**Clutter Free Cabling** - The DITA utilises Network Rail approved conduit through out the assembly, which leads to hassle free cable management and reduces the time needed for track side maintenance should it be required.

**Modular Equipment Design** - All the internal equipment that comes together to create the DITA is of modular design, this allows for quick and easy line replacements should an issue arise. The modular design also reduces spare part requirements with units readily available should they be needed.



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