

Isolation Transformer Assemblies for Network Rail and LUL

Blakley Electrics manufactures single and three-phase, double wound transformers with a 1:1 voltage ratio, to provide isolation between DNO and traction / signalling systems used within the rail sector. The assemblies are floor standing and versions are available for trackside or switch room locations. Specific models rated from 5kVA to 90kVA are approved by Network Rail, Certificate of Acceptance PA05/04648 refers. LUL compliant assemblies are also available for certain Section 12 locations and for external installation.

Enclosure

Enclosures are floor standing and can be vented to IP23 or non-vented to IP55. Enclosures can be fabricated from a range of materials including 304 or 316L grade stainless steel or mild steel. They can be finished in a range of durable paint finishes (including Section 12 approved) and mild steel enclosures can be hot dip galvanized. However due to the risk of distortion during the galvanizing process, it is recommended that larger enclosures for outdoor applications are fabricated from stainless steel, with a painted finish.

Enclosures can incorporate external primary and secondary chambers to house any required switchgear or to accept large or oversized cables. Each chamber offers a side hinged, padlockable, gasketed door with quick release fasteners and bottom cable entry via a removable gland plate.

Transformer Windings

Single or three phase, double wound, constructed to BS EN 61558 or BS EN 60076 as applicable. Transformers for Network Rail comply to L2/NR/SIG/30007 and transformers for London Underground incorporate Class 'F' insulation materials.

Ratings

5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 70 and 90kVA, continuously rated.

Voltages

Primary Voltages: 230V single phase or 400V three phase

Secondary Voltages: 230V single phase or 400V three phase

Three-phase winding connection and earthing arrangement to be specified at time of enquiry.

Switchgear

A wide range of options can be incorporated, including:

Primary: Isolator (switch disconnecter), MCB, MCCB or Switch Fuse

Secondary: MCB, MCCB or Switch Fuse

Insulation Monitoring Devices can also be incorporated for IT system installations.

Transformer Tappings:

Multiple tapped primary or secondary windings can be provided to accommodate a variation in supply voltage. An external tap changing switch can be incorporated to facilitate off-load switching between tappings on the primary or secondary. Access to the tap changing switch can be restricted by a padlockable cover.

Inrush Current

Network Rail approved transformers to PA05/04648 have an inrush current of less than 5 times full load current. Other transformers in the range can have a low inrush if advised at time of enquiry.



Network Rail 40kVA, IP55, Isolation Transformer



Network Rail 55kVA, IP55, Isolation Transformer