

**Manufacturer:**  
Trans-Tronic Ltd

**Issue :** 1  
**Valid From :** 04-03-2015

## Non Critical Full Class II Isolating Transformer for Auxiliary Circuits

### Product Description

Non Critical Full Class II Isolating Transformer for Auxiliary Circuits for use within Class II Switchgear Assemblies to Supply Class II Anti Condensation Heaters and Lighting.

### Product Image



### Scope of Acceptance

Full acceptance as per the User and Manufacturer's conditions detailed below.

Network Rail Acceptance Panel (NRAP) hereby authorises the product above for use and trial use on railway infrastructure for which Network Rail is the Infrastructure Manager under the ROGS regulations.  
Authorised by:

Cosmas Okoye  
Process & Change Specialist

Richard Stainton  
Professional Head EP

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## Specific Conditions

The following Conditions are specific to the approved product/s contained within this Certificate. These conditions must be adhered to in addition to the Network Rail General Conditions contained within the "General Terms and Conditions" section.

Failure to adhere to these conditions may result in the withdrawal or suspension of Acceptance of some, or all of the items contained within the accepted configuration.

### Manufacturer

- 1) The Class II Isolating Transformer for Non-Critical Auxiliary Circuits production units shall be tested in accordance with Test Instructions for Class II Auxiliary transformers Inspection and Testing Checklist Issue 2 dated 10-09-14. Test records shall be maintained for tractability of Insulation and Dielectric Tests which will accompany each transformer jaw Test Instructions, Supplementary Notes.
- 2) All Class II Isolating Transformer for Non-Critical Auxiliary Circuits enclosure production units shall satisfy the dielectric test in accordance with BS EN 61439-1 clause 10.9.4 to a test voltage of 3.5kV. Dielectric Strength test has been carried out using values interpolated from EN61558 table 8A, and increased to 3.9Kv at NR request. Test records shall be maintained for tractability of Dielectric Tests.

### User

These Class II Isolating Transformer for Non-Critical Auxiliary Circuits shall be used, installed and tested in accordance with NR/L2/ELP/27410 - *Specification for Class II Based Signalling Power Distribution Systems*.

The following application criteria and constraints shall be applied:

- 1) These Class II Isolating Transformer for Non-Critical Auxiliary Circuits are suitable for use in Class II Installations where compatibility for space, voltage and load is satisfied.
- 2) The Class II Isolating Transformer for Non-Critical Auxiliary Circuits enclosure is suitable for application in Coastal Areas.
- 3) Not to be used in subsurface environments in accordance with section 12 stations and locations.
- 4) Primary Protection of the Class II Isolating Transformer for Non-Critical Auxiliary Circuits shall be either BS88 Type gG or IEC 60269 10x38mm gG fuses. Miniature Circuit Breakers shall not be used.
- 5) Full Class II insulation system for both Input (Primary) and Output (secondary).
- 6) No Functional screen fitted between Input (Primary) and Output (secondary) windings.
- 7) Not to be used for supplying signalling equipment, when a functional earth is required.
- 8) Not for use to supply signalling functional circuits.

## Product Configuration

### Non Critical Full Class II Isolating Transformer for Auxiliary Circuits

Part No.	Description	Catalogue No.
TB162	Class II Isolating Transformer for Non Critical Auxiliary Circuits 650/110V 50VA Primary Left Hand Side	054/212372
TB163	Class II Isolating Transformer for Non Critical Auxiliary Circuits 650/110V 100VA Primary Left Hand Side	054/212373
TB164	Class II Isolating Transformer for Non Critical Auxiliary Circuits 650/110V 150VA Primary Left Hand Side	054/212374
TB165	Class II Isolating Transformer for Non Critical Auxiliary Circuits 650/110V 250VA Primary Left Hand Side	054/212375

# Certificate of Acceptance

PA05/05983

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Part No.	Description	Catalogue No.
TB182	Class II Isolating Transformer for Non Critical Auxiliary Circuits 650/110V 50VA Primary Right Hand Side	054/212376
TB183	Class II Isolating Transformer for Non Critical Auxiliary Circuits 650/110V 100VA Primary Right Hand Side	054/212377
TB184	Class II Isolating Transformer for Non Critical Auxiliary Circuits 650/110V 150VA Primary Right Hand Side	054/212378
TB185	Class II Isolating Transformer for Non Critical Auxiliary Circuits 650/110V 250VA Primary Right Hand Side	054/212379

## Assessed Documentation

Reference	Title	Doc. Rev.	Date and Applies to Cert. issue No.	
---	PA05/05983 Product evidence zip file.	---	21-10-2014	1
---	PA05/05983 Product application form	---	10-09-2013	1
---	PA05/05983 Acceptance requirements doc	---	28-10-2013	1
---	PA05/05983 Compliance Commentary doc	---	21-09-2014	1
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## Manuals and Training Materials

Reference	Title	Doc. Rev.	Date and Applies to Cert. issue No.	
---	O&M manual – Class II Isolating Transformer for Non-Critical Auxiliary Circuits	1.4	21-10-2014	1

## Certificate History

Issue	Date	Issue History
1	04-12-2014	First accepted for use

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## Contact Details

### Manufacturer

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## General Terms & Conditions

### 1) General

- 1) This certificate can only be amended by Network Rail Technology Introduction Group. Any alterations made by a different person will invalidate the entire certificate.
- 2) Failure to abide by the requirements in this Certificate of Acceptance may invalidate the certificate, thereby restricting the right to operate the product and / or limiting the future supply and deployment of the product on the infrastructure.
- 3) Upon the review date this certificate and the product it relates to is invalid and not accepted for use. Manufacturers are to make an application for a review prior to the review date.

### 2) Manufacturer

The Manufacturer shall:

- 1) Ensure that all products supplied comply with the standards defined in the Acceptance Requirements or otherwise documented as part of the assessment, including meeting the reliability requirements included in the Acceptance Requirements and in any deed of warranty for the relevant certificate number.
- 2) Notify Network Rail Technology Introduction Group:
  - a. Within 48 hours, of any deficiencies affecting the quality, functionality or safety integrity of the product (including corrective action undertaken or proposed).
  - b. Of any intended change to the accepted product; changes include:
    - i. a change to the product configuration (to the actual product or its application);
    - ii. a variation to or addition of manufacturing locations or processes;
    - iii. a change in the name or ownership of the manufacturing company;
    - iv. any changes to the ability or intention to support with technical services, spares or repairs.
- 3) The Manufacturer shall provide Network Rail Technology Introduction Group at least 12 (twelve) months notice of its intention to discontinue supply or to provide such notice as is reasonable if such discontinuance is outside its control and will offer the opportunity of a Last Time Buy to Network Rail together with date for last order placement and supply of the parts affected. The introduction of proposed alternative products shall be communicated to the Network Rail Technology Introduction Group.
- 4) Provide further copies of operating and maintenance manuals to purchasers / users of the product as necessary (including certificates of conformance, calibration etc).
- 5) Provide further copies of training manuals and an appropriate level of training to purchasers or users of the product as necessary.
- 6) Where applicable, specialist technical support, repairs and servicing of the product shall be carried out by the Original Equipment Manufacturer (OEM) or authorised agent only.
- 7) Network Rail may request information from the manufacturer to prove product compliance with clauses 1 and 2 above and reserve the right to suspend and/or withdraw any application where information is not forthcoming within a reasonable timeframe.
- 8) In accordance with Network Rail's Quality Assurance Policy Statement 2011, where the specification and/or Product Acceptance Certificates specify quality assurance classifications (QA1 to QA5) for the products, the manufacturer shall comply with the specified level of quality assurance for each product and allow Network Rail access to carry out its quality assurance checks.
- 9) The manufacturer shall give Network Rail's representatives access at all reasonable times to its premises and allow them to inspect its quality systems and production methods and, if requested, to inspect, examine and test the products both during and after their manufacture and the materials being used in their manufacture.

### 3) Conditions of Use

Specifiers, installers, operators, maintainers, etc. using the product shall:

- 1) Comply with the certificate conditions. If a condition is not understood guidance must be sought from Network Rail Technology Introduction Group.
- 2) Check that the application of use complies with the relevant certificate's scope of acceptance.
- 3) Report any defect if it is a design or manufacturing fault likely to affect performance and/or the safe operation of the railway in writing to Network Rail Technology Introduction Group.
- 4) Inform Network Rail Technology Introduction Group in writing of a change to the product configuration (or to the actual product or its application).
- 5) Operate, maintain and service the product in accordance with Network Rail standards and Operation and Maintenance manuals as appropriate.
- 6) Be appropriately trained and authorised for the installation, maintenance and use of the product.
- 7) Only send products for repair or reconditioning to the Original Equipment Manufacturer (OEM) or authorised agent.
- 8) Users are to be aware that Product Acceptance is not a substitute for design approval.

### 4) Compliance

Railways and Other Guided Systems (ROGS) Regulations

- 1) Where the product is to be used in areas where Network Rail is not the Infrastructure Manager (e.g. leased stations), the sponsor shall additionally obtain formal consent from the Infrastructure Manager for the locality where the equipment is to be installed. This may include a requirement for additional safety verification. The decision of that Infrastructure Manager is binding, and cannot be overridden by Network Rail except by the escalation processes established in the ROGS regulations
- 2) As required in Railway Group Standard GE/RT8270, at each use of this product the project or group responsible for installation and commissioning shall be required to demonstrate compatibility with:

- a. All rail vehicle types that have access rights over the area affected by the change
- b. Infrastructure managed by others
- c. Neighbours.

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Railway Interoperability Regulations

- 3) For interoperable constituents of systems the project or group responsible for installation and commissioning shall be required to demonstrate compliance with the relevant Technical Specifications for Interoperability (TSI) where appropriate.
- 4) An authorisation from the national safety authority (i.e. the Railway Safety Directorate of the Office of Rail Regulation) is required before the equipment is to be used in revenue earning service.

**5) Supply Chain Arrangements**

- 1) Certificates of acceptance do not imply any particular quantity of supply nor any exclusivity of supply.
- 2) Products may be purchased by Network Rail or its agents, suppliers or contractors.
- 3) Manufacturers should note that it is not necessary to enter into any exclusive supply arrangements with resellers or other suppliers.