

Manufacturer:
ATL Transformers LTD

Issue : 3
Valid From : 21/08/15

Copper Wound Class II Hybrid FSP Isolating Transformers

Product Description

A range of Copper Wound Class II Hybrid FSP Isolating Transformers for Signalling Power Supplies.

Product Image



Scope of Acceptance

Full Acceptance

The eco-rail Class II Hybrid Transformers meets the requirements of NR/L2/SIG/30007 - Product Specification for Power Transformers for Signalling Systems.

When utilised in Class II applications these transformers shall be used, installed and tested in accordance with NR/L2/ELP/27410 - Specification for Class II Based Signalling Power Distribution Systems.

Suitable for replacement of 924A transformers in accordance with NR/L2/SIGELP/27410 Issue 2 – Specification for Class II based Signalling Power Distribution Systems.

Refer to Manufacturers and Users conditions for further information and constraints.

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:

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Product Acceptance Specialist

Alex Buchinger
Head of Power Distribution HV/LV (Acting)

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Professional Head Signalling

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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 Hybrid Transformers production units shall be tested in accordance with Test Instructions and Inspection and Testing Checklists, Ref: Technical File 077: Eco-rail Class II Hybrid Signalling Transformers for Network Rail. Test records shall be maintained for tractability.

A batch sampling plan in accordance with BS6001 shall be prepared and updated. An appropriate number of samples shall be drawn from each batch to demonstrate compliance with NR/L2/SIG/30007.

All Class II Hybrid Transformer 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. Test records shall be maintained for tractability of Dielectric Tests.

- 2) Assemblies 091/049116 and 091/049117 shall be constructed in accordance with Manufacturing Manual for Class II Hybrid FSP Transformers for Network Rail, Doc Ref: 076, Issue 5.
- 3) Transformer assemblies 091/049116 and 091/049117 shall be tested in accordance with Factory Test Specification for Transformers, Doc Ref: 055, Issue 4. All test results to be recorded as per Appendix A of Doc Ref: 055.

User

- 1) The following application criteria and constraints shall be applied:

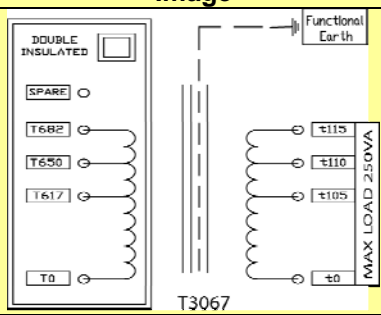
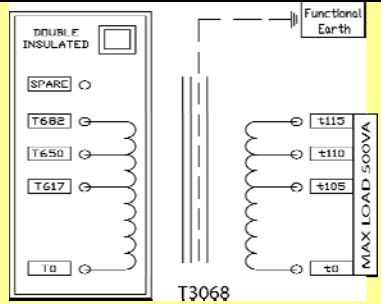
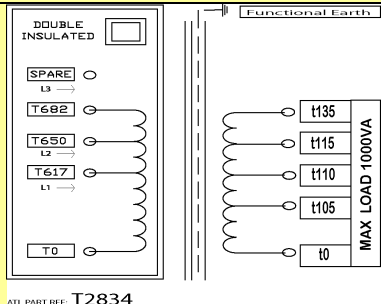
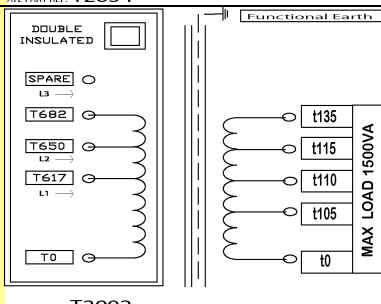
1. These Class II Hybrid Transformers are suitable for use in Class II Installations where compatibility for space, voltage and load is satisfied.
2. A Class II installation is satisfied if the Class II Hybrid Transformer is installed in conjunction with other system components in accordance with NR/L2/ELP/27410.
3. The Class II Hybrid Transformers enclosure is suitable for application in Coastal Areas.
4. Not to be used in subsurface environments in accordance with section 12 stations and locations.
5. Primary Protection of the Class II Hybrid Transformer shall be either BS88 Type gG or IEC 60269 10x38mm gG fuses. Miniature Circuit Breakers shall not be used.
6. Products detailed on this certificate are line replaceable items. No in service repairs or modifications to Class II Hybrid, isolating transformer assemblies are permitted. Defective units shall be returned to manufacturer for repair.
7. For installation instructions refer to manufacturers Operation & Maintenance manual/s.
8. Cable glands must be ordered separately to facilitate the connection of external wiring and conduits. Cable glands compliant to NR/L2/SIGELP/27422 shall be used.

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Product Configuration

System or Complete Assembly

Part No.	Description	Image	Catalogue No.
T3067	Copper Wound Class II Hybrid Isolating Transformer Assembly 650V to 0-105-110-115V Double insulated single primary winding to one secondary winding rated at 250VA 268x225x205mm (H x W x D) Total weight 12kg	 <p>T3067</p>	091/049116
T3068	Copper Wound Class II Hybrid Isolating Transformer Assembly 650V to 0-105-110-115V Double insulated single primary winding to one secondary winding rated at 500VA 268x225x205mm (H x W x D) Total weight 17kg	 <p>T3068</p>	091/049117
T2834	Copper Wound Class II Hybrid Isolating Transformer Assembly 650V to 0-105-110-115V Double insulated single primary winding to one secondary winding rated at 1000VA 299x289x245mm (H x W x D) Total weight 29kg	 <p>ATL PART REF: T2834</p>	054/214900
T2902	Copper Wound Class II Hybrid Isolating Transformer Assembly 650V to 0-105-110-115V Double insulated single primary winding to one secondary winding rated at 1500VA 299x289x277mm (H x W x D) Total weight 38kg	 <p>ATL PART REF: T2902</p>	054/214893

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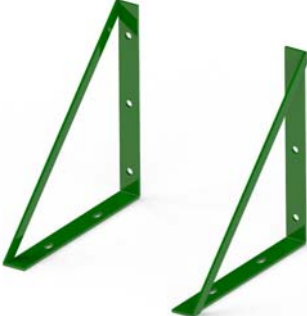
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Part No.	Description	Image	Catalogue No.
T2925	Copper Wound Class II Hybrid Isolating Transformer Assembly 650V to 0-105-110-115V Double insulated single primary winding to one secondary winding rated at 2000VA 299x289x320mm (H x W x D) Total weight 40kg	<p>ATL PART REF: T2925</p>	054/214894
T2903	Copper Wound Class II Hybrid Isolating Transformer Assembly 650V to 0-105-110-115V Double insulated single primary winding to one secondary winding rated at 3000VA 299x289x320mm (H x W x D) Total weight 54kg	<p>ATL PART REF: T2903</p>	054/214895
T2930	Copper Wound Class II Hybrid Isolating Transformer Assembly 650V to 0-105-110-115V Double insulated single primary winding to one secondary winding rated at 4000VA 299x289x320mm (H x W x D) Total weight 69kg	<p>ATL PART REF: T2930</p>	054/214896

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Hardware

Part No.	Description	Image	Catalogue No.
D1496-1	Backboard/Backplate Mounting Bracket (Pair) Suitable for 250VA to 500VA transformer assemblies.		054/214897
D1496-2	Backboard/Backplate Mounting Bracket (Pair) Suitable for 1000VA to 1500VA transformer assemblies.		054/214898
D1496-3	Backboard/Backplate Mounting Bracket (Pair) Suitable for 2000VA to 4000VA transformer assemblies.		054/214899

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Assessed Documentation

Reference	Title	Doc. Rev.	Date and Applies to Cert. issue No.	
-----	Acceptance Response Document PA05/05761	1	09-10-2013	1
-----	Acceptance Requirement Matrix PA05/05761	1	09-10-2013	1
-----	Compliance Commentary PA05/05761	1	09-10-2013	1
-----	Digital Documentation Pack PA05/05761		09-10-2013	1
-----	Operation & Maintenance Manual T2834	3	09-10-2013	1
-----	ERA Technical Report 2013-0390	1	09-10-2013	1
-----	Data Sheet	3	09-10-2013	1
055	Factory Test Specification For eco-rail 1KVA Transformer	1	09-10-2013	1
-----	Product Brochure	1	09-10-2013	1
-----	PA05_05761 Product Evidence .zip	1	09-10-2013	1
-----	Acceptance Requirement Response Matrix to accompany Technical File Doc Ref 077	1	24-03-2014	2
078	ATL Test Report Document	1	24-03-2014	2
077	PA05/05761 Compliance Commentary to accompany Technical File Doc Ref 077	1	24-03-2014	2
	Config. Management Application Form	1	24-03-2014	
	Cover Letter	2	24-03-2014	2
079	ERA Report	1	24-03-2014	2
068	Operation & Maintenance Manual	5	24-03-2014	2
077	Technical File Document	1	24-03-2014	2
Factory Test Specification Doc Ref 055	Factory Test Specification for Transformers.	4	28-04-2015	3

Manuals and Training Materials

Reference	Title	Doc. Rev.	Date and Applies to Cert. issue No.	
-----	Operation & Maintenance Manual	5	24-03-2014	2
Manufacturing Manual Doc Ref 076	Manufacturing Manual for Class II Hybrid FSP transformers for Network Rail	5	31-07-2015	3
OM Manual Doc Ref 124 iss. 3	Operation & Maintenance Manual	3	10/06/2015	3

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Certificate History

Issue	Date	Issue History
1	09/10/2013	First accepted for use.
2	13/05/2014	Incorporating 250VA, 500VA, 1KVA,1.5KVA, 2KVA,3KVA, 4KVA Transformers and mounting brackets.
3	31/07/2015	Obsolete Transformers T2900 and T2901 removed and replaced with T3067 and T3068 respectively (Originally on certificate PA05/06391 Issue 1).

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.

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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.

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.