

Certificate of Acceptance

PA05/05422

Manufacturer:
IST Power

Issue : 3
Valid From : 19-03-2021

25kV Power Transformers for Auxiliary Supplies

Product Description

25kV Power Transformers for Auxiliary Supplies to Network Rail Specification NR/PS/ELP/27185

Product Image

Gantry (Structure) Mounted

Ground Mounted

Scope of Acceptance**Full Acceptance**

Gantry (Structure) Mounted and Ground Mounted transformers are full accepted for use on 25kV AC electrification systems

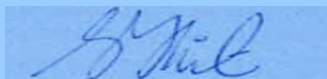
Full Acceptance

Nexans Tee Connector model QM909TB Interface F and bushing QM909AR

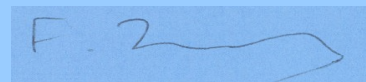
Network Rail Acceptance Panel (NRAP) hereby authorises the product above for use and trial use on railway infrastructure for which Network Rail is the Infrastructure Manager under the ROGS regulations.

Reviewed by:

Authorised by:



Sam Flint
Product Acceptance Coordinator



Felix Langley
Network Technical Head Power Distribution HV/LV

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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) To install Nexans 52kV QM909TB/G tee connector and QM900AR bushing on ground mounted
- 2) transformers only.
To include details of the tee connector and bushing in the O&M manual.

User

- 1) Tee Connectors are be used on ground mounted transformers only

Product Configuration

System or Complete Assembly ^{(1) (2)}

Part No.	Description	Catalogue No.
Manufacture Ref. #	GANTRY (STRUCTURE) MOUNTED ONAN TX	
GA50-400	50kVA Oil Filled Transformer 25kV/400V 1PH	054/214907
GA50-800	50kVA Oil Filled Transformer 25kV/800V 1PH	054/214901
GA75-400	75kVA Oil Filled Transformer 25kV/400V 1PH	054/214908
GA75-800	75kVA Oil Filled Transformer 25kV/800V 1PH	054/214902
GA100-400	100kVA Oil Filled Transformer 25kV/400V 1PH	054/213101
GA100-800	100kVA Oil Filled Transformer 25kV/800V 1PH	054/241903
GA150-400	150kVA Oil Filled Transformer 25kV/400V 1PH	054/213102
GA150-800	150kVA Oil Filled Transformer 25kV/800V 1PH	054/241904
GA200-400	200kVA Oil Filled Transformer 25kV/400V 1PH	054/213103
GA200-800	200kVA Oil Filled Transformer 25kV/800V 1PH	054/241905
Manufacture Ref. #	GROUND MOUNTED ONAN TX ⁽³⁾	
GR50-400	50kVA Oil Filled Transformer 25kV/400V 1PH	054/213104
GR50-800	50kVA Oil Filled Transformer 25kV/800V 1PH	054/213105
GR75-400	75kVA Oil Filled Transformer 25kV/400V 1PH	054/213106
GR75-800	75kVA Oil Filled Transformer 25kV/800V 1PH	054/213107
GR100-400	100kVA Oil Filled Transformer 25kV/400V 1PH	054/214909
GR100-800	100kVA Oil Filled Transformer 25kV/800V 1PH	054/213108
GR150-400	150kVA Oil Filled Transformer 25kV/400V 1PH	054/214910
GR150-800	150kVA Oil Filled Transformer 25kV/800V 1PH	054/213109
GR200-400	200kVA Oil Filled Transformer 25kV/400V 1PH	054/214911
GR200-800	200kVA Oil Filled Transformer 25kV/800V 1PH	054/213110
GR250-400	250kVA Oil Filled Transformer 25kV/400V 1PH	054/213111
GR250-800	250kVA Oil Filled Transformer 25kV/800V 1PH	054/213112
GR450-400	450kVA Oil Filled Transformer 25kV/400V 1PH	054/214912
GR450-800	450kVA Oil Filled Transformer 25kV/800V 1PH	054/214906

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Part No.	Description	Catalogue No.
<p><u>Note 1:</u> All Secondary Voltages are specified as 'No Load' Voltages</p> <p><u>Note 2:</u> Standard solution at secondary terminal arrangement is based on fuses. If the arrangement is required to be different than the standard solution, please contact the manufacture.</p> <p><u>Note 3:</u> For ground mounted transformer, Tee Connector will be required.</p>		

Accessories

Part No.	Description	Catalogue No.
7009193	Nexans - Euromold Tee-Connector, Model QM909TB Interface F ⁽⁴⁾	0086/099432
QM900AR-1/J	Nexans Euromold 52kV, 1250A bushing – interface F including 6 hole KBCDS-400 clamping kit and sealing gasket	0086/099430
8001470	Desiccant Breather	054/213113

Note 4: DPE, APPLICANT and / or Principal Contractor shall advise cable size and type.

Assessed Documentation

Reference	Title	Doc. Rev.	Date and Applies to Cert. issue No.	
PA05/05422	Application Form	---		1
WSK1A-EPT-SPE-NCB-000005	Crossrail specification	A01	05/04/2013	1
DS087	Stewarts transformers compliance document against NR/PS/ELP/27185	1	19/03/2013	1
---	Railway contracts from 2000-2012.xls		undated	1
Drawing No. 010584	IST Generic Drawing for Gantry (Structure) Mounted transformers	0	14/11/2018	2
Drawing No. 010583	IST Generic Drawing for Ground Mounted transformers	0	14/11/2018	2
DS097	IST Power compliance document against NR/PS/ELP/27185	2	18/12/18	2
CP FC3040-ENG-Q909TB_1.0.0_20181217131306	Q909TB Tee Connector Data Sheet	1	05/2018	2
ELAB-QFORM-010-01	Type Test Report Q909TB Tee Connector TR_R909TB_G-R909PB_G - 36_69 (72_5)kV - IEC60840 type test 0.0.0 2018110	13	21/02/2018-23/03/2018	2
	Trial Acceptance Report 25kV Power Transformers for Auxiliary Supplies	1.0	08/03/2021	3

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Manuals and Training Materials

Reference	Title	Doc. Rev.	Date and Applies to Cert. issue No.	
B9608	IST Installation and Maintenance Manual for Gantry (Structure) Mounted Transformer 150kVA TRANSFORMER 1PH 25kV/400V	2	08/03/07	2
C1509	IST Installation and Maintenance Manual for Ground Mounted Transformer 450 kVA AUXILIARY TRANSFORMERS 1 PH 25000V/800V	2	15/09/18	2
IS91441-ENG - 909TB/G-CW45/S	Q909TB Tee Connector Installation Manual	7	31/10/17	2
----	Specific Installation and Maintenance Manuals will be supplied with the equipment			

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Certificate History

Full Acceptance

Issue	Date	Issue History
1	27/01/2014	First accepted for use
2	19/12/2018	Additional Transformer variants added. Trial element added to include Tee connectors required for ground mounted transformers. Refer to section 1 for details.
3	19/03/2021	Trial element moved to Full Acceptance

Contact Details

Manufacturer

IST Power
Incorporating International Transformers
Stewart Transformers, and Transtech
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General Terms & Conditions

1) General

- 1) This certificate can only be amended by Network Rail Product Acceptance, the Professional Head or nominated delegate. Any alterations made by a other persons 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 Product Acceptance:
 - 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 Product Acceptance or National Supply Chain (NSC) 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 Network Rail Product Acceptance.
- 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 Product Acceptance.
- 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 Product Acceptance.
- 4) Inform Network Rail Product Acceptance 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.