



AUSTRALIAN RAIL TRACK CORPORATION LTD

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Discipline
Engineering Standard - NSW

Category
Signalling

Title
Centre-Tapped Electrolysis Bond Chokes (30ARail)

Reference Number
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Document Control

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Issue 1 Revision 2	May 05	Standards and Systems	Standards Engineer	GM Infrastructure Strategy & Performance	Safety Committee
		Refer to Reference Number	H Olsen	M Owens	Refer to minutes of meeting 12/08/04

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About This Standard

This Specification describes the general requirements for Centre-tapped Electrolysis Bond chokes to be manufactured and supplied to Australian Rail Track Corporation or contractors to Australian Rail Track Corporation.

Document History

Primary Source – RIC Standard SC 07 40 03 00 SP Version 2.0

List of Amendments –

ISSUE	DATE	CLAUSE	DESCRIPTION
1.1	14/03/2005	Disclaimer	Minor editorial change
1.2	06/05/2005	All	Document reformatted

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1. Introduction

This Specification describes the general requirements for Centre-tapped Electrolysis Bond chokes to be manufactured and supplied to Australian Rail Track Corporation or contractors to Australian Rail Track Corporation.

2. Electrical Requirements

- a) The choke must have a continuous rating of 30 amps D.C. per leg at an ambient temperature of 60 C.
- b) The choke shall be non-resonated and must be air-cooled.
- c) The impedance/resistance of one leg shall not vary by more than 1% from the impedance/resistance of the other leg.
- d) The A.C. impedance at 0.5 volts 50Hz shall not be less than 15 ohm per leg.
- e) The resistance shall not be greater than 20 million per leg.
- f) The A.C. impedance should not decrease by more than 10% with an out of balance current in one half of the winding exceeding that in the other half by the margin of 12% of the full continuous current.
- g) Full technical information of the choke's electrical characteristics should be supplied by the tenderer. This should include AC voltage v/s impedance out of balance and impedance v/s frequency (to 3kHz) curves.

3. Mechanical Requirements

- a) The unit should be mounted in a stainless steel enclosure, or equivalent in accordance with attached drawing D08486. Where the enclosure offered differs from the drawing then full details should be supplied by the tenderer.
- b) All terminals shall be accessible from the front after removal of the hinged lid.
- c) Three 20mm, grommetted holes are to be provided in the bottom of the enclosure to allow for cable entry to the choke.
- d) Terminals to be 1/4" Whitworth.
- e) The overall dimensions of the choke, including enclosure, are to be provided by the tenderer.
- f) The choke is to be mounted for easy removal from the enclosure.
- g) The choke is to be mounted to the enclosure at the rear of the unit.
- h) Traffolyte or similar Nameplate to show connection details.