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Category
Signalling

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Specification - 6 ohm Track Resistor

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About This Standard

This Specification details the requirements for AC track resistors with a capability of passing 20 amps through any leg of the resistor. The resistors will be used in railway signalling applications.

Document History

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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 details the requirements for AC track resistors with a capability of passing 20 amps through any leg of the resistor. The resistors will be used in railway signalling applications.

A high level of workmanship and quality is necessary to ensure reliability and a reference will be made for units with conservative ratings.

The resistors are to be wound on grooved ceramic formers to ensure linearity of winding.

The nominal value of the resistors is to be 6 ohm continuously adjustable down to 0.25 ohms. The use of two adjustable resistors is permitted.

The adjustment method must be simple and should not cause hot spots on the adjuster at full load because of small contact area. A standard resistor adjustment band is not considered suitable because of the frequency of use and reliability required. Contact pressure of the adjuster for the resistor should not be affected by vibration which will be prevalent during the service life of the unit. Adjustment of resistor in service should not cause injury to the user as a result of excessive heat. A terminating point should be made available in the adjuster for terminating a cable connection.

Terminations on the resistor should be well clear of all metal work and should not be positioned such that wiring could be entangled or suffer heat damage. Terminals for connecting to the resistor should be ¼ inch BSW thread nickel plated brass hardware with RSA nuts, which are to be firmly secured using locking nuts. A connection stud is to be made available on the adjustment leg.

All wiring is to be suitably rated as fire resistant and should be suitable terminated on non insulated lugs and laid between nickel plated brass washers. Soldered connections anywhere on the unit are not permitted. Indent crimping is not an approved method of terminating crimp lugs.

Mounting of the units should be on centres of 115mm vertical and 105mm horizontal with 7mm mounting holes.

The overall dimensions should not exceed 200mm long, 150mm wide and 120mm high.

All materials used in the construction of these units should be suitably treated against corrosion and shall not be affected by heat or water or promote fungal growths.

The manufacturer should have his identifying nameplate which is to be made of a non corrosive material not affected by heat firmly and permanently affixed to the unit.

The following information is required to appear on the nameplate:-

- Manufacturers name.
- Rating of the unit and its resistance.

- Serial number including month and year of manufacture of the unit.
- Packaging of the unit should be individual and the following information should be included on the outside of the case:-
- The order number.
- Description of the item eg. 6 ohm track resistor.