



Transmag (UK) Ltd

Cast Resin Current Transformers

Instrument Transformers Solution & Technology

Transmag C.T. (T.7400)



General

The unit consists of a toroidally wound ring type current transformer contained within an aluminium housing. Manufactured by Tyco/Transmag since 1993 the units are used in railway power cars. The units are extremely reliable and since their introduction there have been no instances of failure in service due to design or construction of which we are aware.

At the time of their introduction it is our understanding that the unit was assessed against all relevant standards by Tyco and that this included full vibration testing.

More recently ring current transformers of similar construction (housed in ABS rather aluminium housings) have been independently assessed by SIRA Test & Certification Ltd against the ATEX Directive 94/9/EC and met the requirements of European Directive 94/9/EC for Group 11C Category 2G.

Main Elements of Construction

High grade transformer steel (typically M1H or better) wound core.

Core is insulated before toroidally winding with round copper wire enamel covered with polyester grade 2 manufactured to EN 60317-13 & NEMA UL E103815.

Potting compound is a black polyurethane resin.

Aluminium housing is aluminium alloy 5083. The flange is welded to the body of the can using a TIG welder. Aluminium welding is a specialised activity and therefore only an operator assessed as competent in the technique is used. Each operator is assessed to BS EN ISO9606-2:2004 and BS EN 1321:1997.

Flammability

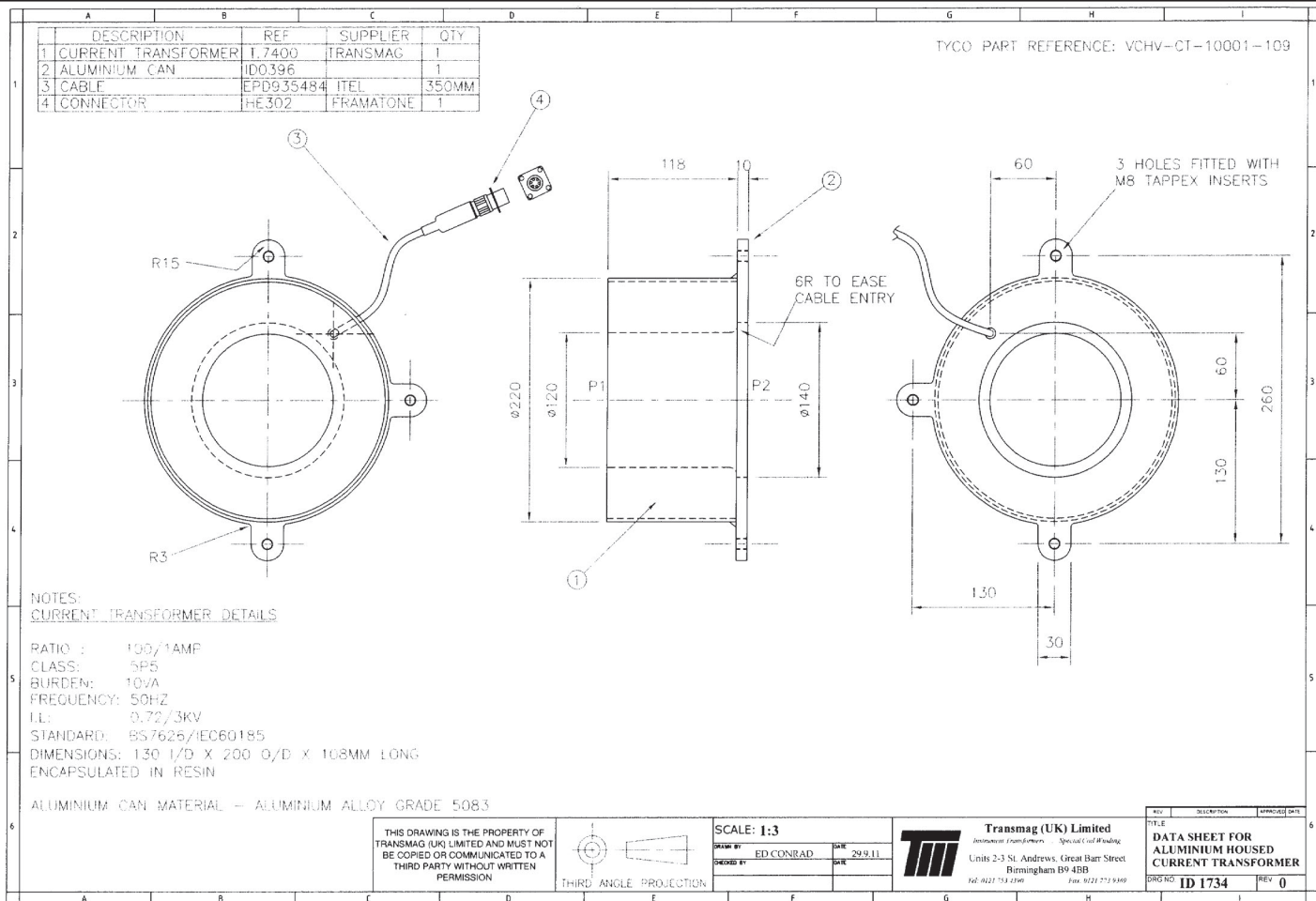
There is no flammable material used in the construction of this unit. In service we would not expect the operating temperature of the unit to exceed 50°C. Based on all the information available to us we would not expect thermal decomposition of any of the materials used in construction until the temperature exceeded 150°C.

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C.T. T.7400 Aluminium housed current transformer



Technical Details

Tyco specification/Reference VCHV-CT-10001-109

Details

Ratio: 100/1A
Class: 5P5
Burden: 10VA
Frequency: 50Hz
Standard: BS7626/IEC60185/BS EN 60044-1

Of the materials used in the construction of the units

Steel transformer core:	Non-flammable
Core insulation material:	Non-flammable and excluded from atmosphere by windings and resin
Insulated copper wire:	Non-flammable and excluded from atmosphere by resin. Thermal decomposition of the wire insulation may commence at temperatures above 200°C.
Itel leads:	As specified and approved by Tyco
ABS:	Non-flammable and conforms to UL94 HB rating
Aluminium housing:	Non-flammable
Black polyurethane resin:	Non-flammable. Thermal decomposition may commence at temperatures in excess of 150°C.
Epoxy glass tube:	Non-flammable

Non-flammable = no known flammability category of which we are aware.

All the information contained in this Data Sheet is supplied in good faith but without warranty.

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