



**Product:** [RTB3C1](#) 

RailTuff™ Thin wall cable 300V 3 C 1.0 mm<sup>2</sup> TC, XLPO Ins, TCBS, XLPO Outer Jkt

## Product Description

RailTuff™ Thin wall cable 300V 3 Cores 1.0 mm<sup>2</sup> Tinned Copper, XLPO Insulation, Tinned Copper Braid Shield, XLPO Outer Jacket

## Technical Specifications

### Product Overview

Suitable Applications:	Applicable for fixed or moderate flexing wiring inside Railway Rolling Stock like High-Speed Trains (CRH, Shinkansen, ICE, TGV), Metro, locomotives, and trolley buses, etc
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### Physical Characteristics (Overall)

#### Conductor

AWG	Material	No. of Conductors
1 mm <sup>2</sup>	TC - Tinned Copper	3

#### Insulation

Material	Nominal Diameter
XLP, XLPO, XLPE	1.77 mm

#### Color Chart

Color
White#1
White#2
White#3

#### Outer Shield

Type	Material
Braid	Tinned Copper (TC)

#### Outer Jacket

Material	Nominal Diameter
XLP, XLPO, XLPE	5.10 mm

### Electrical Characteristics

#### Voltage

Voltage Rating [V]
300 /500 Vac
450 Vdc

#### Temperature Range

Operating Temperature Range:	-40°C to +90°C
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### Mechanical Characteristics

Ozone Resistance:	(0.025~0.03)%/25°C/24h/1.5kVac/1min
Aging:	Long-term thermal endurance testing and demonstrated a lifetime of 20,000 hours at 120°C

Bulk Cable Weight:	53.4 kg/km
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## Applicable Environmental and Other Programs

EU Directive 2011/65/EU (RoHS 2):	Compliant
MII Order #39 (China RoHS):	Yes

## Suitability

Suitability - Hazardous Locations:	Yes
Suitability - Indoor:	Yes
Suitability - Non-Halogenated:	Yes
Suitability - Outdoor:	Yes

## Flammability, LS0H, Toxicity Testing

IEC Flammability:	IEC 60332-1-2 and IEC 60332-2-25
Other Flammability:	EN 50305
Load Capacity:	Normal Fire Load : 277 kJ/m
IEC 60754-2 - Halogen Acid Gas Amount - Max. Conductivity:	10 $\mu$ S/mm
IEC 60754-2 - Halogen Acid Gas Amount - Min. pH:	4.3
Halogenfree:	HCl+HBr $\leq$ 0.5%
IEC 61034-2 - Smoke Density Min. Transmittance:	70%
IRM 903 Fuel Resistance Test:	IRM 903 oil at (70 $\pm$ 2) $^{\circ}$ C for 168h
IRM 902 Mineral Oil Resistance Test:	IRM 902 oil at (100 $\pm$ 2) $^{\circ}$ C for 24h
Acid Resistance:	N-Oxalic acid solution at (23 $\pm$ 2) $^{\circ}$ C for 168h
Alkali Resistance:	N-Sodium hydroxide solution at 23 $^{\circ}$ C for 168h
Toxicity of Insulation:	$\leq$ 6
Toxicity of Jacket:	$\leq$ 3
Fluorine Content Test IEC60684-2:	HF $\leq$ 0.1%

## History

Update and Revision:	Revision Number: 0.20 Revision Date: 04-08-2022
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