



Caledonian

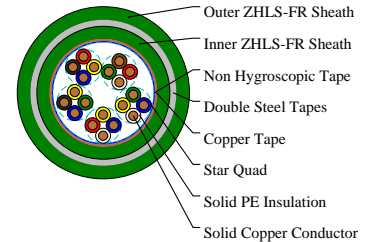
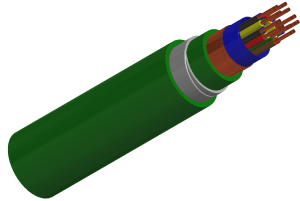
Railway Cables

www.caledonian-cables.com

marketing@caledonian-cables.com

CCTSST-FR0.3 nx4x1.4

RS/CCTSST-FR0.3-2Y(K)HBH-5Q1.4



APPLICATIONS

The cables are used as railway cables and can be installed directly into the ground or in ducts.

STANDARDS

RENFE E.T. 03.365.051.6

VOLTAGE RATING

300/500V

CABLE CONSTRUCTION

Conductors: Soft annealed solid copper

Insulation: PE Insulation.

Cabling Element: Four insulated conductors are twisted together to form a quad.

Stranding: Quads are helically stranded in concentric layers.

Core Wrapping: Two or more layers of plastic tape(s) with overlapping.

Screen: Copper tapes with overlap (protection against interference).

Inner Sheath: LSZH-FR-PE sheath, coloured green.

Armour: Two layers steel tape (0.8mm thick).

Outer Sheath: LSZH-FR-PE sheath, coloured green. (LSZH-FR= Low smoke, zero halogen, fire retardant).

PHYSICAL AND THERMAL PROPERTIES

Minimum Bending Radius: 10xOD

Temperature Range: -40°C to +60°C (during operation); -10°C to +60°C (during installation)

Electrical Properties

Electrical Characteristics at 20°C:

Nominal Conductor Diameter: 1.4 mm

Maximum Conductor Resistance: 11.7Ω/km

Minimum Insulation Resistance @500 V DC: 35000 MΩ.km

Mutual Capacitance @800Hz: 45 nF/km

Capacitance Unbalance@800Hz:

K1 maximum individual value: 250 pF/460m



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K9-12 maximum individual value:250 pF/460m

ea1/2 maximum individual value:1200 pF/460m

Test Voltage @50Hz 1min:

Core to core:2100 Veff

Core to screen:2500 Veff

Reduction Factor @50Hz:0.3

DIMENSION AND PARAMETERS

No. of Quads	Conductor Diameter	Nominal Diameter over Insulation	Nominal Inner Sheath Thickness	Nominal Outer Sheath Thickness	Nom. Overall Diameter	Approx. Weight
	mm	mm	mm	mm	mm	kg/km
5	1.4	2.6	1.5	1.6	31	1826



Anti Induction



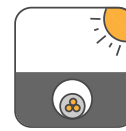
Buried in Ground



Fire Retardant
NF C32-070-2.2(C1)
IEC60332-3-24/EN50266-2.4



Flame Retardant
NF C32-070-2.1(C2)
IEC60332-1-2/EN50265-2.1



Laid In Ducts



Low Corrosivity
IEC60754-2/EN50267-2.2/3
NF C32-074/NF C20-453



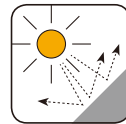
Low Smoke Emission
IEC 61034-2 / EN 50268-2
NF C32-073/NF C 20-902



Low Toxicity



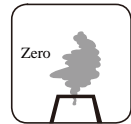
Rated voltage



UV Resistant



Water Resistant



Zero Halogen
IEC 60754-1/EN 50267-2-1
NF C20-454