



# Caledonian

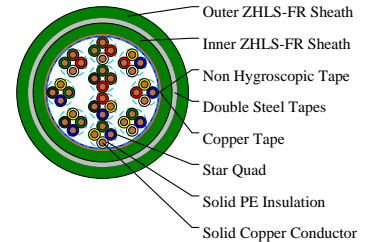
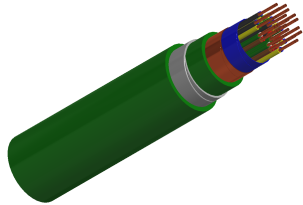
## Railway Cables

www.caledonian-cables.com

marketing@caledonian-cables.com

CCTSST-FR0.3 nx4x1.4

RS/CCTSST-FR0.3-2Y(K)HBH-10Q1.4



### 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



**Caledonian**

Railway Cables

www.caledonian-cables.com

marketing@caledonian-cables.com

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 Quad	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
10	1.4	2.6	1.7	1.8	38.4	2640



Anti Induction



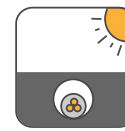
Buried in Ground



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



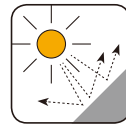
Low Smoke Emission  
IEC 61034-2 / EN 50268-2  
NF C32-073/NF C 20-902



Low Toxicity



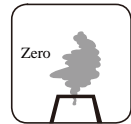
Rated voltage



UV Resistant



Water Resistant



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