



## 0.45/0.75KV Single Core Thin Wall Traction Cables

### Applications

Single core power and control cable designed for protected, fixed installation inside and outside railway vehicles for connecting fixed and moving parts.



### Standard

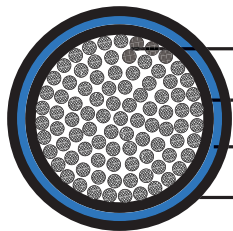
- BS 6853 -1a
- DIN 5510-1 1-4
- NFF 16-101 F0

### Construction

- Conductors: Circular Class 5 stranded plain or tinned copper to BS EN 60228: 2005 / BS 6360.

- Insulation: Electron beam crosslinkable thin wall LSZH compound.

- Screen(optional): Copper Wire Screen (for screened & sheathed cables).
- Outer Sheath(optional): Electron beam crosslinkable LSZH compound (for screened & sheathed cables).



Stranded Plain/Tinned Copper Conductor

Electron Beam Crosslinkable LSZH Insulation

Optional Copper Wire Screen

Optional Electron Beam Crosslinkable LSZH Sheath

### Optional

FRA-TW-0.75S (Sheathed)

FRA-TW-0.75SU-FR (Fire resistant & Unsheathed)

### Electrical Characteristics at 20°C

Nominal Conductor Cross Section	AWG	20	18	16	14	12	10
Maximum Conductor Resistance	Ω/km	28.3	17.9	14.1	8.3	6.8	3.6
Voltage Rating	KV	0.45/0.75					

### Mechanical and Thermal Properties

- Minimum Bending Radius: 3×OD (OD<12mm); 4×OD (OD>12mm)
- Temperature Range: -40°C to +120°C

➤ **Dimensions and Weight**

**FRA-TW-0.75SU (Unsheathed)**

Cable Code	No. of cores& Nominal Conductor Cross Sectional Area No. x AWG	Nominal Diameter of Strands No/mm	Nominal Insulation Thickness mm	Nominal Overall Diameter mm	Nominal Weight kg/km
FRA-TW-0.75SU-1C20A	1 x 20	19/0.2	0.18	1.5	7
FRA-TW-0.75SU-1C18A	1 x 18	19/0.25	0.18	1.75	10
FRA-TW-0.75SU-1C16A	1 x 16	19/0.3	0.18	2.0	14
FRA-TW-0.75SU-1C14A	1 x 14	37/0.25	0.22	2.35	19
FRA-TW-0.75SU-1C12A	1 x 12	37/0.3	0.28	2.77	28
FRA-TW-0.75SU-1C10A	1 x 10	37/0.4	0.34	3.45	47

**FRA-TW-0.75S-OS (Screened & Sheathed)**

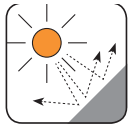
Cable Code	No. of cores& Nominal Conductor Cross Sectional Area No. x AWG	Nominal Diameter of Strands No/mm	Nominal Insulation Thickness mm	Nominal Overall Diameter mm	Nominal Weight kg/km
FRA-TW-0.75S-OS-1C20A	1 x 20	19/0.2	0.18	2.5	17
FRA-TW-0.75S-OS-1C18A	1 x 18	19/0.25	0.18	2.7	19.4
FRA-TW-0.75S-OS-1C16A	1 x 16	19/0.3	0.18	2.9	24.2



Impact Resistant



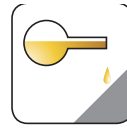
Highly Flexible



UV Resistant



Weather Resistant



Oil Resistant



Flame Retardant  
NF C32-070-2.1(C2)  
IEC 60332-1/EN 50265-2-1



Fire Retardant  
NF C32-070-2.2(C1)  
IEC 60332-3/EN50266



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



Low Smoke Emission  
IEC 61034/NFC20-902  
EN 50268/NF C32-073



Low Corrosivity  
EN 50267-2-2/NF C32-074  
IEC 60754-2/NF C20-453



Low Toxicity

