

Railway Cables

High-Temperature Silicon Rubber insulated Power Cables having special Fire Performance for Railway Rolling Stock/Traction/Metro (EN 50382-1 and EN 50382-2)

These railway cables deliver superior performance in high-temperature environments, offering excellent flexibility and mechanical strength. Engineered for safe and efficient power transmission in traction systems, metro trains and rolling stock operating under extreme thermal and environmental conditions.

Application : Designed for railway rolling stock applications requiring superior fire performance and thermal endurance. Halogen-free with low smoke, toxicity and corrosivity. Ideal for power distribution in locomotives, metros, EMUs and MEMUs, they are well-suited for high-stress areas like traction converters, rooftop and under frame wiring and control systems.

Advantages : Engineered with advanced cross-linked silicone rubber compounds, superior mechanical durability-demonstrating high resistance to abrasion, tensile stress and cut-through damage. Outstanding chemical resistance ensures reliable performance in environments exposed to oils, fuels, acids and alkalis.

Designed for flexibility and ease of handling, these cables simplify installation and stripping processes, meeting the rigorous operational demands of modern railway systems

Construction: EN 50382-2

Component	1.8/3 KV (Unsheathed) F/FZ	1.8/3 KV (Sheathed) FF	3.6/6 KV (Unsheathed) F/FZ	3.6/6 KV (Unsheathed) FX/FXZ	3.6/6 KV (Sheathed) FF
Size (sq.mm)	1.5 sq.mm to 400 sq.mm	1.5 sq.mm to 400 sq.mm	2.5 sq.mm to 400 sq.mm	2.5 sq.mm to 400 sq.mm	2.5 sq.mm to 400 sq.mm
Flexible Bare copper (150° C) or Tinned copper conductor (120° C) (Class 5)	✓	✓	✓	✓	✓
Flexible Bare copper (150° C) or Tinned copper conductor (120° C) (Class 6)	✗	✗	✗	✓	✗
Conductor screening	✗	✗	(Optional)	✗	(Optional)
Separator Tape	(Optional)	(Optional)	✗	(Optional)	(Optional)
Insulation (Type EI 111)	✓	✓	✓	✓	✓
Insulation (Type EI 112)	✗	✓	✗	✗	✓
Textile braid on request for FZ, FXZ	✓	✗	✓	✓	✗
Sheath (EM 105/106/107)	✗	✓	✗	✗	✓
Test Voltage (R.M.S)	6.5 KV for 5 mins	6.5 KV for 5 mins	11 KV for 5 mins	11 KV for 5 mins	11 KV for 5 mins
Bending Radius:	4 x Outer diameter if OD ≤ 12 mm 6 x Outer diameter if OD > 12 mm				

✓ = Included | ✗ = Not Included | (Optional) = May be included as per specification or customer request
*Type FFXS jumper cable with EMC-protected metallic braided screen is available on request



Compliance & Fire Safety

EN 50382-1 - General construction and performance requirements
EN 50382-2 - Specifications for single-core silicone rubber insulated cables
IEC 60332-1-2 – Flame Retardant
IEC 60754-1/2 – Corrosivity of Combustion of gases
IEC 61034-2 – Low Smoke Emission
EN 45545-2 HL-2/HL-3– Fire behaviour of the Cable stems

Key Features

Safety-focused design for enclosed and public environments
Approved for flexible and fixed wiring in rolling stock, tunnels and depots
Low-toxicity materials preserve electronics and ensure occupant safety
Resistance to mineral oils, fuels, ozone and UV radiation



Fire retardant



Good Chemical Resistance



Good Resistance to UV, humidity and ozone



High Flexible



Halogen Free



Low Corrosivity of combustion gases



Low toxicity



Operating temp.