



WATERTIGHT TRUNK CUPPER CABLE EAP-R TYPE

Applications

Trunk cable for analogue and digital transmissions in railway networks

Family

Railway telecom cables

Design

1. Conductor

Solid copper wire

2. Insulation

Solid polyethylene

Colour code:

Layer	Quad	Conductor			
		1	2	3	4
Centre & even	First	Orange	Green	Red	White
	Even	Yellow	Green	Blue	White
	Odd	Yellow	Green	Red	White
	Last	Orange	Green	Blue	White
Odd	First	Orange	Green	Red	Black
	Even	Yellow	Green	Blue	Black
	Odd	Yellow	Green	Red	Black
	Last	Orange	Green	Blue	Black

3. Quadding

Four insulated conductors are twisted to form a quad

4. Stranding

Quads are helically stranded in concentric layers

5. Longitudinal watertightness

Cable interstices are filled with petroleum jelly

6. Core wrapping

Plastic tape(s) with overlapping

7. Moisture barrier

Aluminium-polymer laminate tape longitudinally applied

8. Sheath

Black coloured polyethylene



Electrical Characteristics @ 20°C

Parameter	Unit	Value	
Conductor diameter, nominal	mm	0,9	1,2
Conductor resistance, average / maximum	Ω/km	27,5 / 29,0	15,5 / 16,0
Resistance unbalance, maximum	%	2,5	
Insulation resistance, 1 min, 500 V _{DC} , minimum	MΩ.km	25000	
Mutual capacitance, 1000Hz, average / maximum	nF/km	38 / 45	
Dielectric strength, 3 sec, V _{DC} , cond-cond / cond-screen	V	3000 / 3500	
Capacitance unbalance, 1000Hz, average / maximum:			
between pairs in the same quad	pF/460m	35 / 250	
between pairs in different quads	pF/460m	35 / 250	
between any pair and earth	pF/460m	320 / 1200	
Attenuation @800Hz / @10kHz / @30kHz	dB/km	0,6 / 1,6 / 2,1	0,5 / 1,0 / 1,4



Standard dimensions

Cable type	Cable diameter (mm)	Cable weight (kg/km)	Standard delivery length (m)
EAP-R 4x4x0,9	17,0	300	1000
EAP-R 5x4x0,9	19,0	370	1000
EAP-R 7x4x0,9	21,0	460	1000
EAP-R 10x4x0,9	25,0	650	1000
EAP-R 4x4x1,2	22,5	520	1000
EAP-R 5x4x1,2	24,5	625	1000
EAP-R 7x4x1,2	27,5	815	1000
EAP-R 10x4x1,2	33,0	1165	1000