

General features

Halogen free electron beam cross linked cables with improved behaviour in case of fire, easy to strip, soldering iron resistant and flexible. They comply with the requirements of standard EN 50288-2-2 and substantive fire safety requirements.

Application

The cables are intended for fixed installation in rail vehicles or for applications in which a limited alternating bending stress occurs during service.



RADOX RAILCAT CAT5e 100 OHM 4 x 22 AWG XM S RW

Conductor	stranded, silver plated copper
Insulation	RADOX FOAM
Colours	white-blue, orange-yellow
Number of cores	4
Cross section	22 AWG
Construction	quad
EMC screen	aluminium tape, laminated (overall)
EMC screen	braid, tin plated copper (overall)
Sheath	RADOX EM 104, black
Cable diameter	6.6 ± 0.4 mm
Item no.	12584038



RADOX RAILCAT CAT5e 100 OHM 4 x 22 AWG XM S

Conductor	stranded, silver plated copper
Insulation	RADOX COM
Colours	white-blue, orange-yellow
Number of cores	4
Cross section	22 AWG
Construction	quad
EMC screen	aluminium tape, laminated (overall)
EMC screen	braid, tin plated copper (overall)
Sheath	RADOX EM 104, black
Cable diameter	7.25 ± 0.3 mm
Item no.	12568935

RADOX® RAILCAT CAT5e

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RADOX RAILCAT CAT5e 100 OHM 4 x 22 AWG XM S E

Conductor	stranded, tin plated copper
Insulation	RADOX COM
Colours	white-blue, orange-yellow
Number of cores	4
Cross section	22 AWG
Construction	quad
EMC screen	aluminium tape, laminated (overall)
EMC screen	braid, tin plated copper (overall)
Sheath	RADOX EM 104, blue
Cable diameter	7.25 ± 0.3 mm
Item no.	84142178



RADOX RAILCAT CAT5e 100 OHM 4 x 0.5 XM S

Conductor	stranded, tin plated copper
Insulation	RADOX COM
Colours	white-blue, orange-yellow
Number of cores	4
Cross section	0.5 mm ²
Construction	quad
EMC screen	aluminium tape, laminated (overall)
EMC screen	braid, tin plated copper
Sheath	RADOX EM 104, black
Cable diameter	8.3 ± 0.3 mm
Item no.	12585489

- X: material not according to EN 50264-1
M: material designation according to EN 50264-1
S: metallic screen braid
RW: reduced insulation wall thickness
E: ECO-version

Technical data

RADOX RAILCAT CAT5e		4 x 0.5	4 x 22 AWG	4 x 22 AWG E	4 x 22 AWG RW
Item no.		12585489	12568935	84142178	12584038
Conductor resistance at 20 °C	Ω/km	≤ 40.1	54.4	54.4	54.4
Resistance unbalanced at 20 °C	Ω/km	≤ 1.1	≤ 1.1	≤ 1.1	≤ 1.1
Voltage rating	V AC	300	300	300	300
Test voltage	V AC	2000	2000	2000	2000
Transfer impedance	f ≤ 30 MHz mΩ/m	200	200	200	200
Characteristic impedance	f = 100 MHz Ω	100 ± 5	100 ± 5	100 ± 5	100 ± 5
Signal propagation	%	66	66	66	75
Capacitance core/core	pF/m	≤ 65	≤ 65	65	≤ 65
core/screen	pF/m	≤ 100	≤ 100	100	≤ 100
Temperature range	°C	-40 to +90	-40 to +90	-40 to +90	-40 to +90
- fixed installation	°C	-25 to +90	-25 to +90	-25 to +90	-25 to +90
- sporadic movement					
Min. bending radius					
- fixed installation	cable Ø	6 x	6 x	6 x	6 x
- sporadic movement	cable Ø	-	10 x	10 x	-
Cable weight	approx. kg/100 m	10.2	8.1	8.1	7.0
Cable outer diameter	mm	8.30	7.25	7.25	6.60
Suitable connectors		M 12	M 12	M12	RJ 45 / M12

Standards

Standard	Fire protection on railway vehicles
DIN 5510-2	hazard level 1, 2, 3, 4
EN 45545-2	
GOST 31565 (equivalent to GOST R 53315)	
NF F 16-101	class, category C / F0, int. A1, A2, B / ext. A1, A2, B
NFPA 130	
UNI CEI 11170-3	

For further technical details please refer to our data sheet.