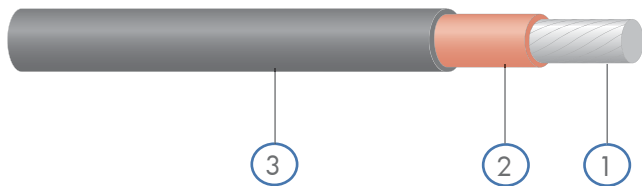


RADOX® 9 GKW-AX 3600V M

single core

Conductor	EN 60228, class 5	Voltage rating	3600/6000V AC
Number of conductors	1		5400/9000V DC
Cross section	1.5 – 300 mm ²	Temperature range	-40 °C to +120 °C



Composition of core

- | | |
|---------------|----------------------------|
| 1. Conductor | stranded tin plated copper |
| 2. Insulation | RADOXEI 110, colour: red |
| 3. Sheath | RADOXEI 109, colour: black |

Characteristics and specialities

- Fully meet the requirements of material level M according to EN 50264-1
 - extra low temperature
 - extra oil resistant
 - extra fuel resistance
- Resistance to ozone and weathering
- Large product range

Application

- For protected connections of fixed and sporadic moving parts inside and outside of rolling stock.
- Guidelines for selections and the installation are described in the standards EN 50355 and EN50343.

Standards

Standard	Fire protection on railway vehicles	
prEN 45545-2		
DIN 5510-2	protection level	1, 2, 3, 4
NF F 16-101	class, category	C / FO, int. A1, A2, B / ext. A1, A2, B
UNI CEI 11170-3		

For further technical details please refer to our data sheet.

RADOX® 9 GKW-AX 3600V M

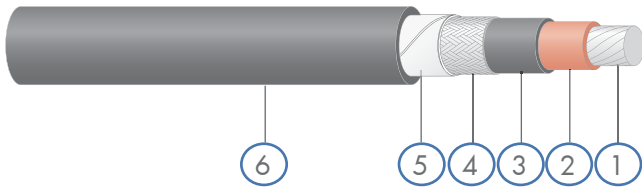
single core

Cross section mm ²	Conductor		Core d mm	Conductor resistance R ₂₀ max. Ω/km	Capacitance CH ₂₀ pF/m	Fire load nom. kJ/m	Weight		Item no.
	construction n x mm	d _{nom.} mm					copper kg/100m	cable kg/100m	
1.5	37 x 0.23	1.50	4.50 ± 0.10	13.7	215	317	1.4	3.6	12537829
2.5	61 x 0.23	1.95	5.10 ± 0.10	8.21	242	397	2.2	4.9	12537830
4	61 x 0.29	2.40	5.70 ± 0.10	5.09	280	474	3.5	6.7	12537831
6	84 x 0.30	2.95	6.30 ± 0.10	3.39	309	560	5.2	8.9	12537832
10	80 x 0.40	3.90	7.50 ± 0.15	1.95	363	742	9.1	14.1	12545520
16	119 x 0.40	5.30	9.40 ± 0.25	1.24	416	1138	13.5	21	12544525
25	182 x 0.40	6.60	11.0 ± 0.30	0.795	471	1444	21	30	12547257
35	266 x 0.40	7.80	12.6 ± 0.30	0.565	502	1868	30	42	12547260
50	378 x 0.40	9.30	14.6 ± 0.30	0.393	537	2355	43	58	12545521
70	348 x 0.50	11.40	16.7 ± 0.30	0.277	637	2720	61	80	12547262
95	444 x 0.50	12.90	18.7 ± 0.30	0.210	658	3404	78	101	12547264
120	570 x 0.50	14.90	21.0 ± 0.30	0.164	704	4441	100	128	12545522
150	722 x 0.50	16.80	23.2 ± 0.30	0.132	752	5208	127	160	12547268
185	874 x 0.50	18.30	25.0 ± 0.30	0.108	781	5539	153	189	12545523
240	1147 x 0.50	21.10	28.0 ± 0.30	0.0817	863	6462	201	243	12547678
300	1443 x 0.50	23.70	30.8 ± 0.30	0.0654	933	7379	253	301	12551573

Capacity in water, typical value.

RADOX® 9 GKW-AX 3600V MM S

Conductor	EN 60228, class 5	Voltage rating	3600/6000V AC
Number of conductors	1		5400/9000V DC
Cross section	1.5 – 300 mm ²	Temperature range	-40 °C to +120 °C



Composition of cable

1. Conductor	stranded tin plated copper
2. Insulation	RADOX EI 110, colour: red
3. Sheath	RADOX EI 109, colour: black
4. EMC screen	tin plated copper braid
5. Separator	tape
6. Sheath	RADOX EM 104 colour: black

Characteristics and specialities

- Fully meet the requirements of material level M according to EN 50264-1
 - extra low temperature
 - extra oil resistant
 - extra fuel resistance
- Resistance to ozone and weathering
- Large product range
- High screening effectiveness

Application

- For protected connections of fixed and sporadic moving parts inside and outside of rolling stock.
- Guidelines for selections and the installation are described in the standards EN 50355 and EN50343.

Standards

Standard	Fire protection on railway vehicles	
prEN 45545-2		
DIN 5510-2	protection level	1, 2, 3, 4
NFF 16-101	class, category	C / F0, int. A1, A2, B / ext. A1, A2, B
UNI CEI 11170-3		

For further technical details please refer to our data sheet.

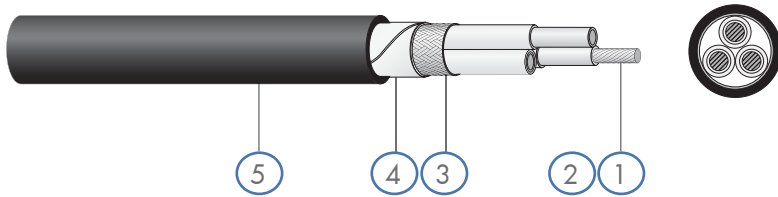
single core screened

Cross section mm ²	Conductor d _{nom.} mm	Core d _{nom.} mm	Screen		Cable d mm	Conductor resistance		I _k screen A	I screen A	Z _T max. mΩ/m	Capacitance C _{H20} pF/m	Fire load nom. kJ/m	Weight		Item no.
			d _{max.} mm	cross section mm ²		cond.* R ₂₀ max. Ω/km	screen R ₂₀ max. Ω/km						copper kg/100m	cable kg/100m	
1.5	1.50	4.50	5.0	1.1	6.60 ± 0.15	13.7	16.9	456	21	100	171	632	2.6	7.2	12556520
2.5	1.95	5.10	5.5	1.5	7.20 ± 0.15	8.21	12.6	606	26	100	205	733	3.7	8.9	12556521
4	2.40	5.70	6.4	1.9	8.20 ± 0.15	5.09	10.2	738	29	100	223	937	5.2	12	12556522
6	2.95	6.30	7.2	2.0	9.10 ± 0.20	3.39	9.52	795	30	100	243	1083	7.2	15	12556523
10	3.90	7.50	8.4	3.2	10.4 ± 0.20	1.95	6.03	1270	40	100	293	1266	12	22	12556524
16	5.30	9.40	10.4	5.3	12.4 ± 0.25	1.24	4.73	2077	47	100	337	1967	18	33	12556525
25	6.60	11.0	11.8	4.2	14.3 ± 0.25	0.795	4.7	1637	47	100	373	2671	25	39	12556526
35	7.80	12.60	13.5	4.9	15.7 ± 0.30	0.565	4.01	1907	52	100	408	3168	35	55	12556527
50	9.30	14.60	15.5	5.6	17.7 ± 0.30	0.393	3.85	2182	53	100	431	3833	49	74	12556528
70	11.40	16.70	17.7	9.2	20.0 ± 0.30	0.277	2.21	3564	75	100	518	4610	70	97	12556529
95	12.90	18.70	19.9	14.1	22.0 ± 0.30	0.210	1.48	5460	97	100	519	5124	92	124	12556530
120	14.90	21.00	22.2	13.7	24.7 ± 0.30	0.164	1.46	5305	97	100	538	6646	107	151	12556531
150	16.80	23.20	24.5	15.7	27.1 ± 0.30	0.132	1.31	6066	104	100	596	7372	142	190	12556532
185	18.30	25.00	26.2	15.7	29.1 ± 0.30	0.108	1.31	6066	104	100	609	8388	169	222	12556533
240	21.10	28.00	29.6	20.7	32.3 ± 0.30	0.0817	0.94	8024	128	100	673	9701	221	283	12556534
300	23.70	30.80	32.7	22.1	35.6 ± 0.50	0.0654	1.04	8560	120	100	730	11206	278	352	12558472

Short-circuit current rating of screen acc. to IEC 60949 (adiabatic), duration of short-circuit 0.1 s, initial temperature +90 °C, final temperature +200 °C.
 Permissible continuous current of screen under standard conditions of current rating acc. to table current rating 4/9 GKW single core cables 557 578.
 Capacity in water, typical value.

RADOX® 9 GKW-AX 3600V MM S

Conductor	EN 60228, class 5	Voltage rating	3600/6000V AC
Number of conductors	2 - ...		5400/9000V DC
Cross section	1.5 - 95 mm ²	Temperature range	-40 °C to +120 °C



Composition of cable

1. Cores of type	9 GKW-AX 3600V M, colour: black
2. Fillers (optional)	RADOX 125 REC
3. EMC screen	tin plated copper braid
4. Separator	tape
5. Sheath	RADOX EM 104, colour: black

Characteristics and specialities

- Fully meet the requirements of material level M according to EN 50264-1
 - extra low temperature
 - extra oil resistant
 - extra fuel resistance
- Resistance to ozone and weathering
- Large product range
- High screening effectiveness

Application

- For protected connections of fixed and sporadic moving parts inside and outside of rolling stock.
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NFF 16-101	class, category	C / F0, int. A1, A2, B / ext. A1, A2, B
UNI CEI 11170-3		

For further technical details please refer to our data sheet.

multi core screened

Construction mm ²	Conductor d _{nom.} mm	Core d _{nom.} mm	Screen		Cable d mm	Conductor resistance			Z _T mΩ/m	Capacitance		Fire load kJ/m	Weight		Item no.
			d _{max.} mm	cross section mm ²		cond. R ₂₀ max. Ω/km	screen R ₂₀ max. Ω/km	core/core C pF/m		core/screen C pF/m	copper kg/100m		cable kg/100m		
4 x 6	2.93	6.3	17	10.6	20.80 ± 0.5	3.39	1.94	70	130	220	6976	31.5	73.2	12582210	
2 x 10	3.89	7.5	16.1	9.72	19.70 ± 0.5	1.95	2.12	70	150	260	5914	28.1	65.3	12582211	
4 x 35	7.80	12.6	33.4	35.7	39.70 ± 0.7	0.57	0.584	30	190	320	18860	158	294	12584431	

Capacity in water, typical value.