

Traction cable

RADOX 9 GKW-AX (EN 50264-3-1) 3600V MM S

Product description:

RADOX 9 GKW (EN 50264-3-1) 3600V MM S

Nominal voltage:

Hazard level:

Single core cables with reduced wall insulation dimensions, screened
3600 / 6000 V AC

MM (extra low temperature, extra oil and extra fuel resistant)

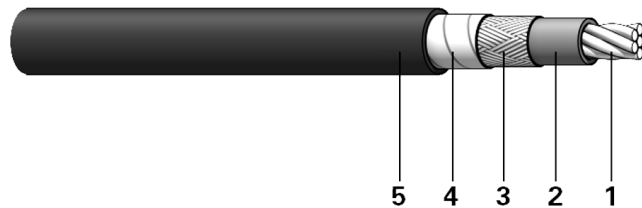
General features:

Halogen free electron-beam crosslinked cores with improved behaviour in case of fire, easy to strip, soldering iron resistant and flexible. The cables are in accordance with EN 50264-3-1, but significantly thinner.

Application:

The cables are intended for permanent installation in rail vehicles or for applications in which a limited alternating bending stress occur during service. Guidelines for selection and installation are described in the standards EN 50355 and EN 50343.

General composition of cable:



- | | |
|---------------------------|--|
| 1. Conductor | Stranded tin plated copper, acc. to EN 60228 cl. 5 |
| 2. Insulation inner layer | RADOX EI 110, colour: red |
| Insulation outer layer | RADOX EI 109, colour: black |
| 3. EMC-screen | Tin plated copper braid |
| 4. Separator | Tape |
| 5. Sheath | RADOX EM 104, colour: black |

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The product fulfils the test and specification requirements described in this document for the stated areas of application and operating conditions. HUBER+SUHNER AG does not expressly or implicitly guarantee performance under additional or changed conditions. Deviations are to be agreed upon in writing.

HUBER+SUHNER AG
Low Frequency Division
CH-8330 Pfäffikon



+41 (0)44 952 22 11
+41 (0)44 952 26 40

www.hubersuhner.com

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Marking:

[a] HUBER+SUHNER RADOX 9 GKW-AX (EN 50264-3-1) 3600V [b] MM S [c]-[d] [e] [f] [g]	
	example:
[a] Meter marking (in m)	= 001234 = m
[b] Construction	1X150
[c] Part number	12345678
[d] Batch number	1234567
[e] Production week and year	03-2017
[f] Production place (only if China)	CN
[g] CRCC certification (only if available)	CRCC10218P11529R1M-2

Technical Data:

Voltage rating cond.-earth	U ₀	3600	V AC
Voltage rating cond.-cond.	U	6000	V AC
maximum permissible Voltage rating AC cond.-earth		4300	V AC
maximum permissible Voltage rating AC cond.-cond.	U _m	7200	V AC
maximum permissible Voltage rating DC cond.-earth	V ₀	5400	V DC
maximum permissible Voltage rating DC cond.-cond.		9000	V DC
Test voltage.		11000	V AC
Temperature range		- 50 ... + 125	°C
Min. bending radius			
fixed installation	cable diameter ≤ 12 mm	3 x D	
	cable diameter > 12 mm	4 x D	
sporadic movement	cable diameter ≤ 12 mm	4 x D	
	cable diameter > 12 mm	5 x D	

NB:

The upper temperature limit is determined by long term ageing according to EN 50305 Par. 7 and extrapolation to 20,000 hours.

The lower temperature limit is determined by bending and elongation tests according to EN 60811-504/505, respectively low temperature behaviour tests for according to GOST 20.57.406-81, method 204-1 and GOST 17491-80.

The specified bending radii require a careful and proper handling using proven fastening technologies.

The cables are in conformity with:

Fire protection on railway vehicles, hazard level	HL1 - HL3	EN 45545-2
Vertical flame spread	50 < L ≤ 540 mm	EN 60332-1-2
Vertical flame spread, bunched, D ≤ 6 mm	L ≤ 1.5 m	EN 50305, 9.1.2
Vertical flame spread, bunched, 6 < D < 12 mm	L ≤ 2.5 m	EN 60332-3-25
Vertical flame spread, bunched, D ≥ 12 mm	L ≤ 2.5 m	EN 60332-3-24
Smoke density	T ≥ 70 %	EN 61034-2

Requirement of hazard level code M (according to EN 50264-1 or EN 50306-1)

Extra low temperature	- 40 °C
Extra oil resistance	IRM 902, 72h, 100 °C
Extra fuel resistance	IRM 903, 168h, 70 °C

Applicable documents:

- 586554 Current rating for single core cables

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Table 1A: Customized Types RADOX 9 GKW-AX (EN 50264-3-1) 3600V MM S

Cable ¹⁾ Type [n x mm ²]	Conductor ²⁾		Core ²⁾		Screen ³⁾		Cable		Fire	Combustible	Cable	H+S
	Ø nom. [mm]	R ₂₀ max. [Ω/km]	Ø nom. [mm]	Colours	Ø nom. [mm]	nom. [mm ²]	Ø [mm]	Colour	Load nom. [kJ/m]	Material nom. [kg/100m]	Weight nom. [kg/100m]	Part No.
1X1.5	1.52	13.7	4.50	BK	5.0	1.4	6.8±0.15	BK	461	4.9	7.5	12556520
1X2.5	1.94	8.21	5.10	BK	5.6	1.5	7.6±0.15	BK	991	6	9.6	12556521
1X4	2.40	5.09	5.70	BK	6.3	1.9	8.3±0.15	BK	1170	6.9	12.2	12556522
1X6	2.93	3.39	6.30	BK	6.9	2.4	9.1±0.2	BK	1392	8.2	15.6	12556523
1X10	3.89	1.95	7.50	BK	8.2	3.3	10.4±0.2	BK	1729	10	22.3	12556524
1X16	5.30	1.24	9.40	BK	10.3	5.6	12.9±0.25	BK	2790	16	35	12556525
1X25	6.60	0.795	11.0	BK	11.7	4.6	14.3±0.25	BK	3321	18.1	43.2	12556526
1X35	7.80	0.565	12.6	BK	13.3	4.9	15.7±0.3	BK	2900	21	56	12556527
1X50	9.30	0.393	14.6	BK	15.3	5.7	17.7±0.3	BK	3530	25	74	12556528
1X70	11.4	0.277	16.7	BK	17.6	8.9	20.2±0.3	BK	6147	31.4	102	12556529
1X95	12.9	0.210	18.7	BK	19.8	12.6	22.2±0.3	BK	6805	35.1	126	12556530
1X120	14.9	0.164	21.0	BK	22.1	11.9	25.3±0.4	BK	8200	46	160	12556531
1X150	16.8	0.132	23.2	BK	24.3	15.7	27.6±0.4	BK	10935	54	197	12556532
1X185	18.3	0.108	25.0	BK	26.1	15.7	29.6±0.4	BK	11781	60	230	12556533
1X240	21.1	0.0817	28.0	BK	29.4	22.6	32.7±0.4	BK	13395	68	292	12556534
1X300	23.7	0.0654	30.8	BK	32.6	35.2	36.3±0.4	BK	15313	79	370	12558472

¹⁾ X: one colour, numbered

G: one green-yellow core, others one colour, numbered

V: various colours

²⁾ Construction details of the core is according Technical Datasheet 543851

³⁾ Metallic screen coverage according EN 50264-1