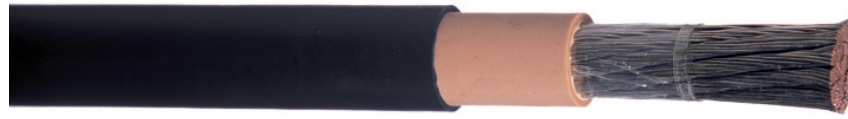


RIA21 Cable

Eland Product Group A6K

Application

Cables are designed for use in protected or exposed installation on traction & rolling stock within vehicles. May also find application in the connection of coil winding and flexible power leads.



Standards

RIA21
(Railway Industry Association)

Conductor

Class 5 flexible tinned copper to BS EN 60228:2005 (previously BS6360)

Separator

PETP (Polyethelene Terephthalate) tape

Insulation

Composite rubber, type FR1 & type FR2 (1900/3300 voltage grade only)

Sheath

Composite rubber

Sheath Colour

Black

Voltage Rating

300/500V
600/1000V
1900/3300V

Temperature Rating

-30°C to 90°C

Minimum Bending Radius

Up to 25mm²:
6 x overall diameter

Above 25mm²:
8 x overall diameter



Dimensions

Rail Catalogue Number	No. of Cores x Nominal Cross Sectional Area # x mm ²	Nominal Thickness of Insulation mm	Nominal Overall Diameter mm	Nominal Weight kg/Km
-----------------------	---	------------------------------------	-----------------------------	----------------------

300/500V Cables for protected installations

006/101365	1 x 1.00	0.8	3.7	22.5
006/101600	1 x 1.50	0.8	4.0	28.4
006/101900	1 x 2.50	0.9	4.6	41.5
006/102200	1 x 4.00	1.0	5.4	61.0
006/102400	1 x 6.00	1.0	6.5	88.0

600/1000V Cables for protected installations

006/104800	1 x 1.50	1.4	5.2	36.0
006/105192	1 x 2.50	1.4	5.6	47.0
006/105600	1 x 4.00	1.4	6.3	65.0
006/105950	1 x 6.00	1.5	7.5	93.0
006/106870	1 x 10.00	1.5	8.5	136.0
006/108155	1 x 16.00	1.5	9.6	206.0
006/108500	1 x 25.00	1.6	11.4	300.0
006/108790	1 x 35.00	1.6	12.8	406.0
006/109028	1 x 50.00	1.7	14.8	573.0
006/109330	1 x 70.00	1.8	17.2	793.0
006/109580	1 x 95.00	2.0	19.7	1028.0
006/109680	1 x 120.00	2.2	21.9	1285.0
006/109900	1 x 150.00	2.3	24.1	1562.0
006/110200	1 x 185.00	2.4	26.3	1914.0

1900/3300V Cables for protected installations

006/121350	1 x 2.50	2.8	8.5	100.0
006/121400	1 x 10.00	2.8	11.3	216.0
006/121680	1 x 16.00	2.8	12.4	288.0
006/108504	1 x 25.00	2.8	13.8	392.0
006/108790	1 x 35.00	2.8	15.2	509.0
006/109040	1 x 50.00	2.8	17.1	682.0
006/109346	1 x 70.00	2.8	19.2	894.0
006/109585	1 x 95.00	3.0	22.0	1168.0
006/109685	1 x 120.00	3.0	23.5	1433.0
006/109990	1 x 150.00	3.0	25.5	1734.0
006/110205	1 x 185.00	3.0	27.5	2073.0

1900/3300V Cables for exposed installations

006/122505	1 x 70.00	5.0	24.2	1053.0
006/122810	1 x 95.00	5.0	26.3	1304.0
006/123105	1 x 120.00	5.0	27.8	1634.0
006/132295	1 x 150.00	5.0	29.8	1894.0
006/123455	1 x 185.00	5.0	32.1	2242.0

Conductors**Class 5 flexible Copper Conductors for Single Core and Multi-Core cables**

1	2	4
Nominal Cross Sectional Area mm ²	Maximum Diameter of Wires in Conductor mm	Maximum Resistance of Conductor at 20°C Metal-Coated Wires ohms/Km
1.00	0.21	20.0000
1.50	0.26	13.7000
2.50	0.26	8.2100
4.00	0.31	5.0900
6.00	0.31	3.3900
10.00	0.41	1.9500
16.00	0.41	1.2400
25.00	0.41	0.7950
35.00	0.41	0.5650
50.00	0.41	0.3930
70.00	0.51	0.2770
95.00	0.51	0.2100
120.00	0.51	0.1640
150.00	0.51	0.1320
185.00	0.51	0.1080

Table in accordance with BS EN 60228:2005 (previously BS6360)

The current-carrying capacities in this appendix are based upon the following reference ambient temperatures:

For non-sheathed and sheathed cables in air, irrespective of the Installation Method: 30°C

For buried cables, either directly in the soil or in ducts in the ground: 20°C

The current ratings stated are based on conservative assumptions, and therefore, in some instances, may be adjusted according to the ambient installation and operating conditions

Electrical Characteristics

Nominal Cross Sectional Area mm ²	Maximum Continuous Current Rating		
	Single Cable Amps	2 Cables Bunched Amps	3 Cables Bunched mV/A/M
1.00	24.0	19.5	15.5
1.50	30.0	24.0	19.5
2.50	40.0	34.0	27.0
4.00	54.0	46.0	38.0
6.00	72.0	61.0	51.0
10.00	100.0	87.0	72.0
16.00	135.0	118.0	99.0
25.00	179.0	158.0	133.0
35.00	225.0	198.0	168.0
50.00	283.0	250.0	214.0
70.00	354.0	314.0	271.0
95.00	425.0	378.0	328.0
120.00	501.0	446.0	388.0
150.00	578.0	515.0	449.0
185.00	659.0	587.0	514.0