

RV-K - BS EN 60502-1 XLPE PVC Cable



Eland Product Group: A9R

APPLICATION

The RV-K cable is for power distribution and can be used for all types of low voltage industrial-type connections, building installations, in urban grids, etc. This cable is particularly suitable for use in challenging layouts because of its high flexibility, also making the installation process substantially easier. It can be buried or installed in a tube as well as outdoors without requiring additional protection. The RV-K cable withstands damp conditions.

CHARACTERISTICS

Voltage Rating (U₀/U)
0.6/1kV

Temperature Rating
-15°C to +90°C

Minimum Bending Radius
Fixed: 5 x overall diameter

CONSTRUCTION

Conductor
Class 5 flexible copper conductor

Insulation
XLPE (Cross-Linked Polyethylene)

Sheath
PVC (Polyvinyl Chloride)

Core Identification
3 core: ● Green/Yellow ● Blue ● Brown
4 core: ● Green/Yellow ● Brown ● Black ● Grey
5 core: ● Green/Yellow ● Blue ● Brown ● Black ● Grey
7 core and above: ● Black with ○ White numbers

Sheath Colour
● Black

STANDARDS

IEC 60502-1, UNE 21123-2

Flame retardant according to BS EN/IEC 60332-1-2



ISO/IEC 17025 LABORATORY TESTED

This product is subject to the Quality Assurance protocols of The Cable Lab®, an ISO/IEC 17025 accredited cable testing laboratory. Testing includes vertical flame, conductor resistance, tensile & elongation, and dimensional consistency, verified to published standards and approved product drawings.



REGULATORY COMPLIANCE

This cable meets the requirements of the Low Voltage Directive 2014/35/EU and the RoHS Directive 2011/65/EU. RoHS compliance has been tested and confirmed by The Cable Lab® as meeting the requirements of the BSI RoHS Trusted Kitemark™.



DIMENSIONS

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm ²	NOMINAL THICKNESS OF INSULATION mm	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km
RV-K Cable - 1 Core					
A9R01025	1	2.5	0.7	6.3	56
A9R01040	1	4	0.7	7	72
A9R01060	1	6	0.7	7.5	91
A9R0110	1	10	0.7	8.2	133
A9R0116	1	16	0.7	9.6	189
A9R0125	1	25	0.9	11.5	277
A9R0135	1	35	0.9	12.5	371
A9R0150	1	50	1	14.5	505
A9R0170	1	70	1.1	16.6	716
A9R0195	1	95	1.1	18.5	910
A9R01120	1	120	1.2	20.6	1151
A9R01150	1	150	1.4	22.7	1424
A9R01185	1	185	1.6	25.2	1715
A9R01240	1	240	1.7	28.1	2258
RV-K Cable - 2 Core					
A9R02015	2	1.5	0.7	8.6	93
A9R02025	2	2.5	0.7	9.6	122
A9R02040	2	4	0.7	11.2	160
A9R02060	2	6	0.7	12.1	210
A9R0210	2	10	0.7	13.4	314
A9R0216	2	16	0.7	16.3	450
RV-K Cable - 3 Core Including Earth					
A9R03015	3	1.5	0.7	9.1	108
A9R03025	3	2.5	0.7	10.1	123
A9R03040	3	4	0.7	11.6	196
A9R03060	3	6	0.7	12.8	261
A9R0310	3	10	0.7	14.3	398
RV-K Cable - 3 Core					
A9R0316	3	16	0.7	17.3	584
A9R0325	3	25	0.9	19.8	881
A9R0335	3	35	0.9	22.5	1245
A9R0350	3	50	1	26.6	1682
A9R0370	3	70	1.1	30.8	2463
RV-K Cable - 4 Core Including Earth					
A9R04015	4	1.5	0.7	9.8	129
A9R04025	4	2.5	0.7	11	177
A9R04040	4	4	0.7	12.6	240
A9R04060	4	6	0.7	14.2	323
A9R0410	4	10	0.7	15.7	499
RV-K Cable - 4 Core					
A9R0416	4	16	0.7	19.1	731
A9R0425	4	25	0.9	21.9	1114
A9R0435	4	35	0.9	25.1	1517
A9R0450	4	50	1	29.5	2135
A9R0470	4	70	1.1	36.1	3204
A9R0495	4	95	1.1	40.2	4126

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm ²	NOMINAL THICKNESS OF INSULATION mm	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km
A9R04120	4	120	1.2	44.6	5245
A9R04150	4	150	1.4	49.8	6573
A9R04185	4	185	1.6	56.1	8050
A9R04240	4	240	1.7	64.5	10695
RV-K Cable - 5 Core Including Earth					
A9R05015	5	1.5	0.7	10.6	153
A9R05025	5	2.5	0.7	12.6	209
A9R05040	5	4	0.7	13.8	287
A9R05060	5	6	0.7	15.6	388
A9R0510	5	10	0.7	17.2	603
A9R0516	5	16	0.7	21.1	887
A9R0525	5	25	0.9	24.4	1355
A9R0535	5	35	0.9	28.2	1849
A9R0550	5	50	1	32.8	2603

CONDUCTORS

NOMINAL CROSS SECTIONAL AREA mm ²	MAXIMUM DIAMETER OF WIRES IN CONDUCTOR mm	MAXIMUM RESISTANCE OF CONDUCTOR AT 20°C ohms/km
		Plain Wires
2.5	0.26	7.98
4	0.31	4.95
6	0.31	3.3
10	0.41	1.91
16	0.41	1.21
25	0.41	0.78
35	0.41	0.554
50	0.41	0.386
70	0.51	0.272
95	0.51	0.206
120	0.51	0.161
150	0.51	0.129
185	0.51	0.106
240	0.51	0.0801

The above table is in accordance with BS EN 60228 (previously BS 6360)

ELECTRICAL CHARACTERISTICS

NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm ²	CURRENT CARRYING CAPACITY VOLTAGE Amps		VOLTAGE DROP mV/A/m
		In Air at 40°C	In Earth at 20°C	
RV-K Cable - 1 Core				
1	2.5	29	36	17.624
1	4	38	46	10.932
1	6	49	58	7.288
1	10	68	77	4.218
1	16	91	100	2.672
1	25	116	128	1.723
1	35	144	154	1.224
1	50	175	183	0.852
1	70	224	224	0.601
1	95	271	265	0.455
1	120	314	302	0.356
1	150	363	342	0.285
1	185	415	383	0.234
1	240	490	442	0.177
RV-K Cable - 2 Core				
2	1.5	24	27	29.374
2	2.5	33	36	17.624
2	4	45	46	10.932
2	6	57	58	7.288
2	10	79	77	4.218
2	16	105	100	2.672
RV-K Cable - 3 Core Including Earth				
3	1.5	24	27	29.374
3	2.5	33	36	17.624
3	4	45	46	10.932
3	6	57	58	7.288
3	10	79	77	4.218
RV-K Cable - 3 Core				
3	16	87	82	2.672
3	25	110	106	1.723
3	35	137	129	1.224
3	50	167	152	0.852
3	70	246	178	0.603
RV-K Cable - 4 Core Including Earth				
4	1.5	20	23	29.374
4	2.5	26	30	17.624
4	4	36	38	10.932
4	6	46	48	7.288
4	10	65	64	4.218
RV-K Cable - 4 Core				
4	16	87	82	2.672
4	25	110	106	1.723
4	35	137	129	1.224
4	50	167	152	0.852
4	70	246	178	0.603
4	95	298	211	0.457

NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm ²	CURRENT CARRYING CAPACITY VOLTAGE Amps		VOLTAGE DROP mV/A/m
		In Air at 40°C	In Earth at 20°C	
4	120	346	240	0.357
4	150	399	271	0.286
4	185	456	304	0.235
4	240	538	351	0.178
RV-K Cable - 5 Core Including Earth				
5	1.5	20	23	29.324
5	2.5	26	30	17.624
5	4	36	38	10.932
5	6	46	48	7.288
5	10	65	64	4.218
5	16	87	82	2.672
5	25	110	106	1.723
5	35	137	129	1.224
5	50	167	152	0.852

SHORT CIRCUIT CURRENT CARRYING CAPACITIES

The maximum short circuit current that a cable can withstand depends on the time of reaction of the protection elements installed in the line. The maximum current carrying capacity in a short circuit accident, for a specific type of cable, is the result of multiplying the cross section of the cable for the values shown in the table below.

TIME S	0.1	0.2	0.3	0.5	1.0	1.5	2.0	2.5	3.0
AMPS/MM ²	452	320	261	202	143	117	101	90	83

These values are taken from IEC 949.

DE-RATING FACTORS

For air temperature other than 30°C

AIR TEMPERATURE	20°C	25°C	30°C	35°C	40°C	45°C	50°C	55°C	60°C
DE-RATING FACTOR	1.08	1.04	1.00	0.96	0.91	0.87	0.82	0.76	0.71

For ground temperature other than 20°C

AIR TEMPERATURE	10°C	15°C	20°C	25°C	30°C	35°C	40°C	45°C	50°C
DE-RATING FACTOR	1.07	1.04	1.00	0.96	0.93	0.89	0.85	0.80	0.76

For soil thermal resistivity, which depends on damp other than 2.5°K.m/W

MOISTURE DEGREE OF SOIL	Very Damp	Slightly Damp	Slightly Dry	Dry	Very Dry
THERMAL RESISTIVITY (°K.m/W)	1.0	1.5	2.0	2.5	3.0
CABLES IN DUCTS	1.18	1.10	1.05	1.00	0.96

The information contained within this datasheet is for guidance only and is subject to change without notice or liability. All the information is provided in good faith and is believed to be correct at the time of publication. When selecting cable accessories, please note that actual cable dimensions may vary due to manufacturing tolerances.