RV-K - IEC 60502-1 XLPE PVC Cable

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 ducts as well as outdoors without requiring additional protection. The RV-K cable is rated AD8 for water resistance, permitting permanent submersion to 5m depth.

CHARACTERISTICS

Voltage Rating (Uo/U)
Nominal voltage (AC) U0/U 0.6/1 kV
Max. operating voltage (DC) U0/U 0.9/1.8 kV

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
2 core: Blue Brown
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 IEC/EN 60332-1-2
Water resistant to AD8
Chemical & Oil resistance: Good
Impact resistance: AG2 (medium severity)
UV Resistant to UNE 211605
AENOR approved: Singles to 300mm^2 Multicore 1.5mm^2 to 95mm^2

THE CABLE LAB®

AN ISO/IEC 17025 AND IECEE CBTL ACCREDITED FACILITY

Our world-class testing facility assures the quality and compliance of this cable through a continuous and rigorous testing regime.

SUSTAINABILITY COMMITMENT

We are on a journey to Net Zero.

We've committed to near-term emissions reductions and a net-zero target with the Science Based Targets initiative and we're a signatory to the United Nations Global Compact Sustainable Development Goals.

Learn more about embodied carbon and our carbon emissions reduction actions, our comprehensive recycling services, and wider ESG activities for sustainable operations at: www.elandcables.com/company/about-us/esg-sustainability

REGULATORY COMPLIANCE

This cable is compliant with European Regulation EN 50575, the Construction Products Regulation.

This cable meets the requirements of the Low Voltage Directive 2014/35/EU, the RoHS Directive 2015/65/EU and Reach Directive EC 1907/2006. RoHS compliance has been tested and confirmed by The Cable Lab®.

ELAND CABLES

DIMENSIONS

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA	NUMBER WIRES IN CONDUCTOR mm^2	NOMINAL THICKNESS OF INSULATION mm	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km
A9R01015	1	1.5	24	0.7	5.7	45
A9R01025	1	2.5	40	0.7	6.2	57
A9R01040	1	4	48	0.7	6.7	74
A9R01060	1	6	72	0.7	7.3	95
A9R0110	1	10	68	0.7	8.3	141
A9R0116	1	16	116	0.7	9.2	197
A9R0125	1	25	182	0.9	11.0	293
A9R0135	1	35	224	0.9	12.0	386
A9R0150	1	50	324	1	13.6	535
A9R0170	1	70	304	1.1	15.3	703
A9R0195	1	95	416	1.1	17.0	925
A9R01120	1	120	544	1.2	19.2	1138
A9R01150	1	150	640	1.4	21.0	1428
A9R01185	1	185	800	1.6	22.9	1742
A9R01240	1	240	1088	1.7	25.9	2266
A9R01300	1	300	1344	1.8	28.8	2833
A9R01400	1	400	1760	2.0	34.4	3620
A9R01500	1	500	2376	2.2	37.4	4864
A9R02015	2	1.5	24	0.7	8.7	103
A9R02025	2	2.5	40	0.7	9.5	132
A9R02040	2	4	48	0.7	10.6	176
A9R02060	2	6	72	0.7	11.7	227
A9R0210	2	10	68	0.7	13.6	334
A9R0216	2	16	116	0.7	15.7	472
A9R0225	2	25	182	0.9	18.9	709
A9R0235	2	35	224	0.9	21.4	955
A9R0250	2	50	324	1.0	23.0	1162
A9R0270	2	70	304	1.1	24.9	1604
A9R0295	2	95	416	1.1	27.9	2085
A9R02120	2	120	544	1.2	31.5	2649
A9R02150	2	150	640	1.4	34.7	3269
A9R02185	2	185	800	1.6	43.6	3962
A9R02240	2	240	1088	1.7	16.3	5231
A9R03015	3	1.5	24	0.7	9.9	134
A9R03025	3	2.5	40	0.7	11.0	177
A9R03040	3	4	48	0.7	12.1	238
A9R03060	3	6	72	0.7	13.4	311
A9R0310	3	10	68	0.7	15.5	474
A9R0316	3	16	116	0.7	17.5	671
A9R0325	3	25	182	0.9	21.3	1017
A9R0335	3	35	224	0.9	23.5	1340
A9R0350	3	50	324	1.0	27.0	1867
A9R0370	3	70	304	1.1	30.8	2484
A9R0395	3	95	416	1.1	34.3	3246
A9R03120	3	120	544	1.2	39.2	4064
A9R03150	3	150	640	1.4	43.1	5092
A9R03185	3	185	800	1.6	47.3	6233
A9R03240	3	240	1088	1.7	53.8	8133

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ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA	NUMBER WIRES IN CONDUCTOR mm^2	NOMINAL THICKNESS OF INSULATION mm	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km
A9R04015	4	1.5	24	0.7	10.7	157
A9R04025	4	2.5	40	0.7	11.9	210
A9R04040	4	4	48	0.7	13.1	287
A9R04060	4	6	72	0.7	14.5	377
A9R0410	4	10	68	0.7	17.0	584
A9R0416	4	16	116	0.7	19.1	834
A9R0425	4	25	182	0.9	23.4	1269
A9R0435	4	35	224	0.9	25.9	1683
A9R0450	4	50	324	1	30.0	2372
A9R0470	4	70	304	1.1	34.3	3157
A9R0495	4	95	416	1.1	38.1	4134
A9R04120	4	120	544	1.2	43.9	5188
A9R04150	4	150	640	1.4	47.9	6479
A9R04185	4	185	800	1.6	52.8	7964
A9R04240	4	240	1088	1.7	60.1	10388
A9R05015	5	1.5	24	0.7	11.5	183
A9R05025	5	2.5	40	0.7	12.8	247
A9R05040	5	4	48	0.7	14.2	338
A9R05060	5	6	72	0.7	15.8	448
A9R0510	5	10	68	0.7	18.5	697
A9R0516	5	16	116	0.7	20.9	1003
A9R0525	5	25	182	0.9	25.7	1531
A9R0535	5	35	224	0.9	28.5	2037
A9R0550	5	50	324	1	33.2	2893
A9R0550	5	70	304	1.1	38.0	3851
A9R0550	5	95	416	1.1	42.5	5071
A9R0550	5	120	544	1.2	48.6	6325
A9R0550	5	150	640	1.4	53.3	7936

ELAND CABLES

ELECTRICAL CHARACTERISTICS - SINGLE CORE

NOMINAL CROSS SECTIONAL AREA mm²	MAXIMUM DC RESISTANCE CONDUCTOR 20oC ohms/km	CURRENT CARRYING CAPACITY - TREFOIL (Amps)			CURRENT CARRYING CAPACITY - 2 LOADED CORES (Amps)			VOLTAGE DROP SINGLE CORE
		In Air at 30°C	In Ducts in Earth at 20°C	Direct Buried at 20°C	In Air at 30°C	In Ducts in Earth at 20°C	Direct Buried at 20°C	mV/A/m
1.5	13.3	23	21	23	23	25	27	27.263
2.5	7.98	32	28	30	32	33	35	16.403
4	4.95	42	36	39	42	43	46	10.210
6	3.30	54	44	49	54	53	58	6.835
10	1.91	75	58	65	75	71	77	3.993
16	1.21	100	75	84	100	91	100	2.561
25	0.78	135	96	107	161	116	129	1.458
35	0.554	169	115	129	200	139	155	1.057
50	0.386	207	135	153	242	164	183	0.759
70	0.272	268	167	188	310	203	225	0.556
95	0.206	328	197	226	377	239	270	0.438
120	0.161	383	197	257	437	271	306	0.358
150	0.129	444	223	287	504	306	343	0.302
185	0.106	510	251	324	575	343	387	0.262
240	0,0801	607	324	375	679	395	448	0.215
300	0.0641	703	365	419	783	446	502	0.193
400	0.0486	823	-	-	940	-	-	0.164
500	0.0384	946	-	-	1083	-	-	0.146

- In Air current ratings in accordance with IEC 60364-5-52 table B.52.12 installation method F.
- In Ducts in Ground the maximum current rating is in accordance to IEC 60364-5-52, table B.52.5 / B52.3 installation method D1.
- In Ground the maximum current rating is in accordance to IEC 60364-5-52, table B.52.5 / B52.3 installation method D2.

ELECTRICAL CHARACTERISTICS - MULTI CORE

NOMINAL CROSS SECTIONAL AREA mm²	MAXIMUM CONDUCTOR DC RESISTANCE AT 20° C Ω/km	IN AIR A		IN DUCT, IN EARTH AT 20 °C A		IN EARTH AT 20 °C A	
		Two Loaded Conductors, Single Phase A.C Or D.c.	Three Loaded Conductors, Three Phase A.C.	Two Loaded Conductors, Single Phase A.C Or D.c.	Three Loaded Conductors, Three Phase A.C.	Two Loaded Conductors, Single Phase A.C Or D.c.	Three Loaded Conductors, Three Phase A.C.
1.5	13.3	26	23	25	21	27	23
2.5	7.98	36	32	33	28	35	30
4	4.95	49	42	43	36	46	39
6	3.3	63	54	53	44	58	49
10	1.91	86	75	71	58	77	65
16	1.21	115	100	91	75	100	84
25	0.78	149	127	116	96	129	107
35	0.554	185	158	136	115	255	129
50	0.386	225	192	164	135	183	153
70	0.272	289	246	203	167	225	188
95	0.206	352	298	239	197	270	226
120	0.161	410	346	271	223	306	257
150	0.129	473	399	306	251	343	287
185	0.106	542	456	343	281	387	324
240	0.0801	641	538	395	324	448	375

In Air current ratings in accordance with IEC 60364-5-52 table B.52.12 installation method E.
In Ducts in Ground the maximum current rating is in accordance to IEC 60364-5-52, table B.52.5/ B.52.3, installation method D1.
In Ground the maximum current rating is in accordance to IEC 60364-5-52, table B.52.5/ B.52.3, installation method D2.

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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

GROUND 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

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