NYY-J PVC 0.6/1kV Power Cable



Eland Product Group: A9N

APPLICATION

Power and control cable for fixed installation. Can be used indoors, outdoors, underground, in concrete and in water.

CHARACTERISTICS

Voltage Rating Uo/U
0.6/1kV

Temperature Rating
Fixed: -15°C to +70°C
Flexed: -5°C to +50°C

Minimum Bending Radius
Fixed: 12 x overall diameter

CONSTRUCTION

Conductor
RE: Class 1 solid copper conductor
RM: Class 2 stranded copper conductor

Insulation
PVC (Polyvinyl Chloride)

Filler
PVC (Polyvinyl Chloride)

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 Brown Black Grey Blue
7 core and above: Green Yellow Black with White numbers

Sheath Colour
Black

Note
NYY-O (without Green/Yellow earth conductor) also available

STANDARDS

IEC 60502-1, VDE 0276-603, HD 603, IEC 60228

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

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®.

DIMENSIONS

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm²	CONDUCTOR TYPE	NOMINAL THICKNESS OF INSULATION mm	NOMINAL THICKNESS OF SHEATH mm	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km
A9N1025	1	2.5	RE	0.8	1.4	6.15	62
A9N1040	1	4	RE	1	1.4	7.5	85
A9N1060	1	6	RE	1	1.4	7.5	108
A9N110	1	10	RM	1	1.4	8.6	155
A9N116	1	16	RM	1	1.4	9.6	218
A9N125	1	25	RM	1.2	1.4	11.1	318
A9N135	1	35	RM	1.2	1.4	12.1	414
A9N150	1	50	RM	1.4	1.4	13.7	552
A9N170	1	70	RM	1.4	1.4	15.5	750
A9N195	1	95	RM	1.6	1.5	17.6	1020
A9N1120	1	120	RM	1.6	1.6	19.3	1259
A9N1150	1	150	RM	1.8	1.6	21	1546
A9N1185	1	185	RM	2	1.7	23.2	1913
A9N1240	1	240	RM	2.2	1.8	26.2	2471
A9N1300	1	300	RM	2.4	2	29.2	3097
A9N1400	1	400	RMv	2.6	2	33.8	4100
A9N1500	1	500	RMv	2.8	2.1	38	5200
A9N2015	2	1.5	RE	0.8	1.8	10	147
A9N2025	2	2.5	RE	0.8	1.8	10.7	179
A9N2040	2	4	RM	1	1.8	13	268
A9N2060	2	6	RM	1	1.8	14.2	337
A9N210	2	10	RM	1	1.8	16.2	472
A9N216	2	16	RM	1	1.8	18.2	644
A9N3015	3	1.5	RE	0.8	1.8	10.4	166
A9N3025	3	2.5	RE	0.8	1.8	11.3	212
A9N3040	3	4	RE	1	1.8	13.1	299
A9N3060	3	6	RE	1	1.8	15	402
A9N310	3	10	RM	1	1.8	17.1	570
A9N316	3	16	RM	1	1.8	19.2	789
A9N325	3	25	RM	1.2	1.8	22.1	1141
A9N335	3	35	RM	1.2	1.8	24.1	1462
A9N350	3	50	RM	1.4	1.8	27.6	1964
A9N370	3	70	RM	1.6	2.1	36.3	3635
A9N395	3	95	RM	1.6	2.2	40	4488
A9N4015	4	1.5	RE	0.8	1.8	11.6	198
A9N4025	4	2.5	RE	0.8	1.8	12.1	252
A9N4040	4	4	RM	1	1.8	15.1	391
A9N4060	4	6	RM	1	1.8	16.5	465
A9N410	4	10	RM	1	1.8	18.6	702
A9N416	4	16	RM	1	1.8	21.1	992
A9N425	4	25	RM	1.2	1.8	24.2	1431
A9N435	4	35	RM	1.2	1.8	26.6	1861
A9N450	4	50	RM	1.4	1.9	30.9	2535
A9N470	4	70	RM	1.4	2.1	35.1	3441
A9N495	4	95	RM	1.6	2.2	40.4	4691
A9N4120	4	120	RM	1.6	2.4	44.2	5757
A9N4150	4	150	RM	1.8	2.5	48.5	7095

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ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm²	CONDUCTOR TYPE	NOMINAL THICKNESS OF INSULATION mm	NOMINAL THICKNESS OF SHEATH mm	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km
A9N4185	4	185	RM	2	2.7	53.9	8810
A9N4240	4	240	RM	2.2	2.9	61.1	11400
A9N5015	5	1.5	RE	10.8	1.8	12	232
A9N5025	5	2.5	RE	0.8	1.8	13.1	302
A9N5040	5	4	RM	1	1.8	16.6	477
A9N5060	5	6	RM	1	1.8	18.2	618
A9N510	5	10	RM	1	1.8	20.3	853
A9N516	5	16	RM	1	1.8	23.1	1212
A9N525	5	25	RM	0.8	1.8	26.6	280
A9N7015	7	1.5	RE	1	1.8	16.6	477
A9N7025	7	2.5	RE	0.8	1.8	14.1	368
A9N1215	12	1.5	RE	0.8	1.8	16.6	475
A9N1225	12	2.5	RE	0.8	1.8	18.2	628
A9N1415	14	1.5	RE	0.8	1.8	17.1	515
A9N1915	19	1.5	RE	0.8	1.8	18.9	648
A9N1925	19	2.5	RE	0.8	1.8	20.3	843
A9N2715	27	1.5	RE	0.8	1.8	22.6	895

CONDUCTORS

Class 1 Solid Conductors for Single Core and Multi-Core Cables

NOMINAL CROSS SECTIONAL AREA mm²	MAXIMUM RESISTANCE OF CONDUCTOR AT 20°C ohms/km
	Circular, Annealed Copper Conductor
	Plain Wires
1.5	12.1
2.5	7.41
4	4.61
6	3.08
10	1.83
16	1.15
25	0.727
35	0.524
50	0.387
70	0.268
95	0.193
120	0.153
150	0.124
185	0.101
240	0.0775
300	0.062

Class 2 Stranded Conductors for Single Core and Multi-Core Cables

NOMINAL CROSS SECTIONAL AREA mm²	MINIMUM NO. OF WIRES IN CONDUCTOR						MAXIMUM RESISTANCE OF CONDUCTOR AT 20°C
	Circular		Circular Compacted		Shaped		Annealed Copper Conductor
	Cu	Al	Cu	Al	Cu	Al	Plain wires ohms/km
1.5	7	-	6	-	-	-	12.1
2.5	7	-	6	-	-	-	7.41
4	7	-	6	-	-	-	4.61
6	7	-	6	-	-	-	3.08
10	7	7	6	6	-	-	1.83
16	7	7	6	6	-	-	1.15
25	7	7	6	6	6	6	0.727
35	7	7	6	6	6	6	0.524
50	19	19	6	6	6	6	0.387
70	19	19	12	12	12	12	0.268
95	19	19	15	15	15	15	0.193
120	37	37	18	15	18	15	0.153
150	37	37	18	15	18	15	0.124
185	37	37	30	30	30	30	0.0991
240	37	37	34	30	34	30	0.0754
300	61	61	34	30	34	30	0.0601
400	-	-	-	-	-	-	0.047
500	-	-	-	-	-	-	0.0366

The above table is in accordance with EN 60228

ELECTRICAL CHARACTERISTICS

Current Carrying Capacity

NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm2	CONDUCTOR TYPE	CURRENT CARRYING CAPACITY Amps	
			In Duct	In Air
1	2.5	RE	-	26
1	4	RE	-	47
1	6	RE	-	57
1	10	RM	-	78
1	16	RM	127	103
1	25	RM	163	137
1	35	RM	195	169
1	50	RM	230	206
1	70	RM	282	261
1	95	RM	336	321
1	120	RM	382	374
1	150	RM	428	428
1	185	RM	483	414
1	240	RM	561	590
1	300	RM	632	678
1	400	RMv	-	646
1	500	RMv	-	747
2	1.5	RE	32	20
2	2.5	RE	42	27
2	4	RM	54	37
2	6	RM	68	48
2	10	RM	90	66

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ELECTRICAL CHARACTERISTICS

Current Carrying Capacity

NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm2	CONDUCTOR TYPE	CURRENT CARRYING CAPACITY Amps	
			In Duct	In Air
2	16	RM	116	89
3	1.5	RE	26	18
3	2.5	RE	34	25
3	4	RE	44	34
3	4	RM	44	34
3	6	RE	56	43
3	6	RM	56	43
3	10	RM	75	60
3	16	RM	98	80
3	25	RM	128	106
3	35	RM	157	131
3	50	RM	185	159
3	95	RM	275	244
3	120	RM	313	282
4	1.5	RE	26	18
4	2.5	RE	34	25
4	4	RE	44	34
4	4	RM	44	34
4	6	RE	56	43
4	6	RM	56	43
4	10	RM	75	60
4	16	RM	98	80
4	25	RM	128	106
4	35	RM	157	131
4	50	RM	185	159
4	70	RM	252	247
4	95	RM	303	305
4	120	RM	313	282
4	150	RM	390	407
4	185	RM	399	371
4	240	RM	464	436
5	1.5	RE	24	18
5	2.5	RE	34	25
5	4	RE	44	34
5	4	RM	44	34
5	6	RE	56	43
5	6	RM	56	43
5	10	RM	75	60
5	16	RM	98	80
5	25	RM	128	106
7	1.5	RE	15	12
7	2.5	RE	20	16
12	1.5	RE	12	9
12	2.5	RE	16	13
14	1.5	RE	12	9
19	1.5	RE	10	8
19	2.5	RE	13.6	11.3
27	1.5	RE	12	9

Ambient Temperature: 30°C
Depth of Laying: 0.5m
Ground Temperature: 15°C
Thermal Resistivity of Soil: 12km/w

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
DE-RATING FACTOR	1.12	1.07	1.00	0.94	0.87	0.79	0.71

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.

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