



# FR-N1 X1G1-AR Cable



Eland Product Group: B3BA

## APPLICATION

The FR-N1 X1G1-AR low voltage aluminium fire retardant power cable is recommended for use in public and industrial settings whenever reduced fumes, toxic and corrosive gases emissions are required in case of fire. May be used in industrial settings and in building risers. Can be used for static applications in the open air, in pipes, or in cable trays and trenches.

## CHARACTERISTICS

**Voltage Rating** U<sub>o</sub>/U  
0.6/1kV

### Temperature Rating

Minimum laying temperature: -20°C  
Operating temperature: -25°C to +65°C  
Maximum Conductor temperature: +90°C

**Short Circuit Temperature**  
250°C

### Minimum Bending Radius

Single core: 15 x overall diameter  
Multi-core: 12 x overall diameter

## CONSTRUCTION

### Conductor

RM: Class 2 round stranded aluminium

### Insulation

XLPE (Cross-Linked Polyethylene)

### Inner Sheath

Halogen free tape or halogen free polymer compound

### Outer Sheath

Halogen-free polymer compound

### Core Identification

2 core: ● Blue ● Brown  
3 core: ● Black ● Brown ● Grey  
4 core: ● Black ● Brown ● Grey ● Blue

### Outer Sheath Colour

● Green

## STANDARDS

NF C 32-323, IEC 60502-1, IEC 60754-1, IEC 61034, IEC 60754-2, HD 308 s2

Flame retardant according to NFC 32-070, IEC 60332-3-24

## THE CABLE LAB<sup>®</sup>

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](http://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 2015/863/EU and Reach Directive EC 1907/2006. RoHS compliance has been tested and confirmed by The Cable Lab<sup>®</sup>.





## DIMENSIONS

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	CONDUCTOR TYPE	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km
B3BA01016GN	1	16	RM	9.5	110
B3BA01025GN	1	25	RM	11	157
B3BA01035GN	1	35	RM	12	193
B3BA01050GN	1	50	RM	13	243
B3BA01070GN	1	70	RM	15	322
B3BA01095GN	1	95	RM	17	420
B3BA01120GN	1	120	RM	18.5	514
B3BA01150GN	1	150	RM	20.5	628
B3BA01185GN	1	185	RM	23	810
B3BA01240GN	1	240	RM	25.5	1023
B3BA01300GN	1	300	RM	29	1255
B3BA01400GN	1	400	RM	33	1615
B3BA01500GN	1	500	RM	36.5	1940
B3BA02016GN	2	16	RM	16	417
B3BA02025GN	2	25	RM	19.5	615
B3BA02035GN	2	35	RM	21.5	745
B3BA03016GN	3	16	RM	17	455
B3BA03025GN	3	25	RM	20.5	825
B3BA03035GN	3	35	RM	23	825
B3BA03050GN	3	50	RM	26	1045
B3BA0350/35GN	3	50+35	RM	27.5	1170
B3BA03070GN	3	70	RM	30.5	1410
B3BA03070/35GN	3	70+35	RM	31.3	1495
B3BA0370/50GN	3	70+50	RM	32.5	1580
B3BA03095GN	3	95	RM	34	1810
B3BA03095/50GN	3	95+50	RM	36	1965
B3BA03120GN	3	120	RM	37.5	2260
B3BA03120/70GN	3	120+70	RM	40	2480
B3BA03150GN	3	150	RM	42	2760
B3BA03150/70GN	3	150+70	RM	44	2940
B3BA03185GN	3	185	RM	46.5	3510
B3BA03185/70GN	3	185+70	RM	48	3680
B3BA03240GN	3	240	RM	55.5	4640
B3BA04016GN	4	16	RM	18.5	530
B3BA04025GN	4	25	RM	22.5	785
B3BA04035GN	4	35	RM	25	970
B3BA04050GN	4	50	RM	28.5	1250
B3BA04070GN	4	70	RM	33.5	1685
B3BA04095GN	4	95	SM	37.5	2170
B3BA04120GN	4	120	RM	42	2730
B3BA04150GN	4	150	RM	46.5	3310
B3BA04185GN	4	185	RM	54	4225
B3BA04240GN	4	240	RM	60.5	5315



## ELECTRICAL CHARACTERISTICS

NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	CONDUCTOR TYPE	CURRENT CARRYING CAPACITY A		MAXIMUM CONDUCTOR RESISTANCE AT 20°C Ω/km
			IN AIR	IN CONDUIT	
1	16	RM	84	87	1.91
1	25	RM	101	111	1.20
1	35	RM	134	196	0.868
1	50	RM	160	243	0.641
1	70	RM	198	297	0.443
1	95	RM	241	234	0.320
1	120	RM	280	266	0.253
1	150	RM	324	300	0.206
1	185	RM	371	337	0.164
1	240	RM	388	439	0.125
1	300	RM	508	440	0.100
1	400	RM	663	515	0.100
1	500	RM	738	741	0.100
2	16	RM	91	104	1.91
2	25	RM	108	133	1.20
2	35	RM	160	135	0.868
3	16	RM	87	77	1.91
3	25	RM	120	134	1.20
3	35	RM	120	134	0.868
3	50	RM	146	160	0.641
3	50+35	RM	146	160	0.641
3	70	RM	187	197	0.443
3	70+35	RM	187	197	0.443
3	70+50	RM	187	197	0.443
3	95	RM	227	234	0.320
3	95+50	RM	227	234	0.320
3	120	RM	87	77	1.91
3	120+70	RM	97	111	1.20
3	150	RM	120	134	0.206
3	150+70	RM	146	160	0.206
3	185	RM	347	337	0.443
3	185+70	RM	347	337	0.164
3	240	RM	409	388	0.125
4	16	RM	87	77	1.91
4	25	RM	475	444	1.20
4	35	RM	561	517	0.868
4	50	RM	80	96	0.641
4	70	RM	110	126	0.443
4	95	SM	146	162	0.320
4	120	RM	181	196	0.253
4	150	RM	304	300	0.206
4	185	RM	347	337	0.164
4	240	RM	409	388	0.125

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.