

FR-N1 X1G1 Cable



Eland Product Group: B3B

APPLICATION

The FR-N1 X1G1 is a low voltage fire resistant cable suitable for hotels, hospitals, underground railways, airports etc. to protect people and technical building equipment in the event of a fire if circuit integrity is not required. Not suitable for installations underground or in water.

CHARACTERISTICS

Voltage Rating Uo/U
0.6/1kV

Temperature Rating

Minimum laying temperature: -15°C
Operating temperature: -20°C to +60°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

RE: Class 1 round solid copper
RM: Class 2 round stranded copper

Insulation

XLPE (Cross-Linked Polyethylene)

Inner Sheath

Halogen free tape or halogen free polymer compound

Outer Sheath

Halogen-free flame retardant

Core Identification

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

Outer Sheath Colour

● Green

STANDARDS

NF C 32-323, IEC 60228, HD 308 s2, IEC 60754-1, IEC 61034, IEC 60754-2

Flame retardant according to IEC 60332-1

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



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 OVERALL DIAMETER mm | NOMINAL WEIGHT kg/km |
|----------------|--------------|---|--------------------------------|-------------------------|
| B3B01025GN | 1 | 25 | 10.4 | 300 |
| B3B01035GN | 1 | 35 | 11.3 | 390 |
| B3B01050GN | 1 | 50 | 12.7 | 510 |
| B3B01070GN | 1 | 70 | 14.5 | 720 |
| B3B01095GN | 1 | 95 | 16.5 | 975 |
| B3B01120GN | 1 | 120 | 18.1 | 1210 |
| B3B01150GN | 1 | 150 | 20 | 1485 |
| B3B01185GN | 1 | 185 | 22.1 | 1845 |
| B3B01240GN | 1 | 240 | 24.7 | 2385 |
| B3B01300GN | 1 | 300 | 27.5 | 3005 |
| B3B020040GN | 2 | 4 | 11 | 205 |
| B3B020060GN | 2 | 6 | 12.4 | 270 |
| B3B02010GN | 2 | 10 | 14.1 | 385 |
| B3B02016GN | 2 | 16 | 16.2 | 545 |
| B3B02025GN | 2 | 25 | 19.1 | 805 |
| B3B02035GN | 2 | 35 | 21 | 1035 |
| B3B030040GN | 3 | 4 | 11.6 | 245 |
| B3B030060GN | 3 | 6 | 13.1 | 325 |
| B3B03010GN | 3 | 10 | 14.9 | 475 |
| B3B03016GN | 3 | 16 | 17.1 | 685 |
| B3B03025GN | 3 | 25 | 20.3 | 1020 |
| B3B03035GN | 3 | 35 | 22.4 | 1335 |
| B3B03050GN | 3 | 50 | 28 | 1905 |
| B3B0350/35GN | 3 | 50/35 | 29.7 | 2203 |
| B3B03070GN | 3 | 70 | 32.1 | 2650 |
| B3B0370/50GN | 3 | 70/50 | 34.2 | 3105 |
| B3B03095GN | 3 | 95 | 36.2 | 3545 |
| B3B03095/50GN | 3 | 95/50 | 37.7 | 3950 |
| B3B03120GN | 3 | 120 | 39.8 | 4380 |
| B3B03120/70GN | 3 | 120/70 | 41.9 | 4995 |
| B3B03150GN | 3 | 150 | 45.2 | 5905 |
| B3B03150/70GN | 3 | 150/70 | 45.2 | 5905 |
| B3B03185GN | 3 | 185 | 48.6 | 6660 |
| B3B03185/70GN | 3 | 185/70 | 49.4 | 7150 |
| B3B03240GN | 3 | 240 | 54.2 | 8555 |
| B3B03240/95GN | 3 | 240/95 | 55.2 | 9250 |
| B3B03300GN | 3 | 300 | 59.9 | 10700 |
| B3B040040GN | 4 | 4 | 12.6 | 290 |
| B3B040060GN | 4 | 6 | 14.2 | 390 |
| B3B04010GN | 4 | 10 | 16.3 | 585 |
| B3B04016GN | 4 | 16 | 18.5 | 845 |
| B3B04025GN | 4 | 25 | 22.3 | 1285 |
| B3B04035GN | 4 | 35 | 24.8 | 1700 |
| B3B04050GN | 4 | 50 | 30.8 | 2405 |
| B3B04070GN | 4 | 70 | 35.3 | 3365 |
| B3B04095GN | 4 | 95 | 39.9 | 4505 |

DIMENSIONS

| ELAND PART NO. | NO. OF CORES | NOMINAL CROSS SECTIONAL AREA mm ² | NOMINAL OVERALL DIAMETER mm | NOMINAL WEIGHT kg/km |
|----------------|--------------|---|--------------------------------|-------------------------|
| B3B04120GN | 4 | 120 | 44.1 | 5605 |
| B3B04150GN | 4 | 150 | 48.5 | 6845 |
| B3B04185GN | 4 | 185 | 53.9 | 8530 |
| B3B04240GN | 4 | 240 | 60.1 | 10970 |
| B3B04300GN | 4 | 300 | 66.7 | 13770 |
| B3B050040GN | 5 | 4 | 13.6 | 355 |
| B3B050060GN | 5 | 6 | 15.5 | 475 |
| B3B05010GN | 5 | 10 | 17.8 | 715 |
| B3B05016GN | 5 | 16 | 20.3 | 1035 |
| B3B05025GN | 5 | 25 | 24.5 | 1580 |

ELECTRICAL CHARACTERISTICS

| NO. OF CORES | NOMINAL CROSS SECTIONAL AREA mm ² | CURRENT CARRYING CAPACITY A | | MAXIMUM CONDUCTOR RESISTANCE AT 20°C Ω/km |
|--------------|---|--------------------------------|--------|--|
| | | IN GROUND | IN AIR | |
| 1 | 25 | 128 | 116 | 0.727 |
| 1 | 35 | 155 | 144 | 0.524 |
| 1 | 50 | 183 | 175 | 0.387 |
| 1 | 70 | 224 | 224 | 0.268 |
| 1 | 95 | 265 | 271 | 0.193 |
| 1 | 120 | 302 | 314 | 0.153 |
| 1 | 150 | 342 | 363 | 0.124 |
| 1 | 185 | 320 | 391 | 0.099 |
| 1 | 240 | 442 | 490 | 0.075 |
| 1 | 300 | 500 | 563 | 0.060 |
| 2 | 4 | 46 | 45 | 4.61 |
| 2 | 6 | 58 | 57 | 3.08 |
| 2 | 10 | 77 | 79 | 1.83 |
| 2 | 16 | 100 | 105 | 1.15 |
| 2 | 25 | 128 | 123 | 0.727 |
| 2 | 35 | 154 | 154 | 0.524 |
| 3 | 4 | 38 | 36 | 4.61 |
| 3 | 6 | 48 | 46 | 3.08 |
| 3 | 10 | 64 | 65 | 1.83 |
| 3 | 16 | 82 | 87 | 1.15 |
| 3 | 25 | 106 | 110 | 0.727 |
| 3 | 35 | 129 | 137 | 0.524 |
| 3 | 50 | 152 | 167 | 0.387 |
| 3 | 50/35 | 152 | 167 | 0.387 |
| 3 | 70 | 187 | 214 | 0.268 |
| 3 | 70/50 | 187 | 214 | 0.268 |
| 3 | 95 | 222 | 259 | 0.193 |
| 3 | 95/50 | 222 | 259 | 0.193 |
| 3 | 120 | 253 | 301 | 0.153 |
| 3 | 120/70 | 253 | 301 | 0.153 |



ELECTRICAL CHARACTERISTICS

| NO. OF CORES | NOMINAL CROSS SECTIONAL AREA mm ² | CURRENT CARRYING CAPACITY A | | MAXIMUM CONDUCTOR RESISTANCE AT 20°C Ω/km |
|--------------|---|--------------------------------|--------|--|
| | | IN GROUND | IN AIR | |
| 3 | 150 | 286 | 353 | 0.124 |
| 3 | 150/70 | 286 | 353 | 0.124 |
| 3 | 185 | 320 | 391 | 0.099 |
| 3 | 185/70 | 320 | 391 | 0.099 |
| 3 | 240 | 370 | 468 | 0.075 |
| 3 | 240/95 | 370 | 468 | 0.075 |
| 3 | 300 | 418 | 538 | 0.060 |
| 4 | 4 | 38 | 36 | 4.61 |
| 4 | 6 | 48 | 46 | 3.08 |
| 4 | 10 | 64 | 65 | 1.83 |
| 4 | 16 | 82 | 87 | 1.15 |
| 4 | 25 | 106 | 110 | 0.727 |
| 4 | 35 | 129 | 137 | 0.524 |
| 4 | 50 | 152 | 167 | 0.387 |
| 4 | 70 | 187 | 214 | 0.268 |
| 4 | 95 | 222 | 259 | 0.193 |
| 4 | 120 | 253 | 301 | 0.153 |
| 4 | 150 | 286 | 353 | 0.124 |
| 4 | 185 | 320 | 391 | 0.099 |
| 4 | 240 | 370 | 468 | 0.075 |
| 4 | 300 | 418 | 538 | 0.060 |
| 5 | 4 | 38 | 36 | 4.61 |
| 5 | 6 | 48 | 46 | 3.08 |
| 5 | 10 | 64 | 65 | 1.83 |
| 5 | 16 | 82 | 87 | 1.15 |
| 5 | 25 | 106 | 110 | 0.727 |

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.