

ELAND[®]
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power networks cables

2nd Edition

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Technical specifications:
medium voltage cables for power
networks and contestable connections



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COMPLETE CABLE SOLUTIONS

We supply a comprehensive range of approved power network cables for Distribution Network Operators (DNOs) and local power distribution systems.



END-TO-END SUPPORT

Eland Cables is a trusted British cable supplier with over 40 years' experience delivering complete cable solutions to projects worldwide. The services we offer, from specification through to delivery and beyond, support our customers in achieving their project objectives. Our commitment to compliant products, technical excellence, and first-class customer service means we are the partner of choice for quality-conscious organisations.



EXTENSIVE STOCKHOLDING

Our operations are geared around same-day despatch from our extensive stockholding of cables, manufactured to British and international standards and by G81-approved suppliers where applicable. For larger project requirements, we offer some of the shortest lead-times in the industry, working with approved manufacturers to meet your installation timelines.



CABLE SPECIFICATION

Specifying the correct cable and accompanying cable accessories is essential to achieving the performance an electrical installation requires. Our technical team can advise on the most appropriate cable, taking into account end use, industry regulations, installation environments, and potential future regulatory requirements. With documented recommendations and full technical specifications, our cable experts can liaise with specifiers and contractors to ensure compliance is achieved and due diligence has been observed.



TRUSTED LOGISTICS SERVICES

Our state-of-the-art distribution centre works around the clock, cutting cables to bespoke lengths and despatching deliveries, including on a just-in-time basis. With additional services of inventory management, batch traceability, and drum collection, this is the hub of our business.



✓ **ISO 9001**
BS EN Management System
Certification

✓ **ISO 14001**
BS EN Environmental
Certification

✓ **ISO 17025**
UKAS Accredited Cable
Testing Laboratory

✓ **OHSAS 18001**
Occupational Health & Safety
Certification



TECHNICAL EXPERTISE

Quality and compliance is at the forefront of our operations, with expert technical engineers to support our clients' projects.



ISO 17025 UKAS ACCREDITATION

The Cable Lab®, our in-house cable testing laboratory, is a recognised centre of technical excellence, holding ISO 17025 UKAS¹ accreditation which certifies the competence, impartiality and performance capability of our cable testing facility and its evaluations. We are the only cable supplier with a laboratory accredited by UKAS. No other British cable supplier can deliver that level of certified expertise.



THE ELAND QUALITY MARK

Our experienced technicians employ some of the industry's most advanced equipment to perform a full range of tests as part of our routine QA procedures. Our ISO 9001 quality systems also include the periodic audit of our supply chain to ensure the quality of the materials at source.



BSI ROHS TRUSTED KITEMARK™

Eland Cables holds the BSI RoHS Trusted Kitemark™, a distinction only available to organisations that can demonstrate their ability to comply with the RoHS Directive. It underlines our commitment to ensuring only compliant cables reach the wider supply chain.



THIRD-PARTY ASSESSMENT AND FAULT INVESTIGATION

For objective advice on the quality and regulatory compliance of cables, The Cable Lab® offers third-party testing and cable fault diagnostic services. Testing to a wide range of national and industry specific standards, our capabilities, amongst others, include:

- Conductor Resistance Testing
- Tensile & Elongation Testing
- Hot Set Testing
- Cable Construction & Dimensional Testing
- Rohs X-Ray Fluorescence Spectrometry Screening
- Insulation Resistance Testing
- Shrinkage Tests for Insulations
- Pressure Tests at High Temperatures for Insulations & Sheaths
- Heat Shock Testing

¹The United Kingdom Accreditation Service is the sole national accreditation body recognised by Government to assess, against internationally agreed standards, organisations that provide certification, testing, inspection and calibration services.



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UKPN 6.35/11 (12)kV Single Core (Triplex) Unarmoured Aluminium Conductors



APPLICATION

Medium voltage DNO aluminium power cable approved to UK Power Networks (UKPN) specification and manufactured by G81 suppliers for connections from existing grid to new sub-main developments.

CONSTRUCTION

Conductor

Stranded or Solid Aluminium Conductor

Insulation

XLPE (Cross-Linked Polyethylene)

Screen

Aluminium Wires

Separator

Binding Tape

Sheath

MDPE (Medium Density Polyethylene)

CABLE STANDARDS

BS7870-4.10, BS EN 60228



The electrical and dimensional properties of this product are measured by the Technical and Quality Assurance department at the Eland Cables laboratory. Cable performance in respect of conductor resistance, construction quality (workmanship), dimensional consistency, and other parameters are verified to published standards and approved product drawings. Conformance to RoHS (Restriction of the use of Hazardous Substances) is determined and confirmed.

CHARACTERISTICS

Voltage Rating (U_o/U)(U_m)

6.35/11 (12)kV

Temperature Rating

0°C to +90°C

Sheath Colour

● Red

DIMENSIONS

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm ²	NOMINAL AREA OF METALLIC SCREEN mm ²	NOMINAL OVERALL DIAMETER OF CABLE (OR TRIPLEX GROUP IF APPLICABLE) mm ²	NOMINAL WEIGHT OF CABLE (OR TRIPLEX GROUP IF APPLICABLE) kg	MINIMUM BENDING RADIUS mm	MAXIMUM PULLING TENSION kg
D106013RD000	3x1 (Triplex)	95	58	59.0-65.5	2400	460	8550
D106016RD000	3x1 (Triplex)	185	115	70.8-75.0	4050	555	16650
D106018RD000	3x1 (Triplex)	300	115	81.5-84.6	5300	640	27000

ELECTRICAL CHARACTERISTICS

NOMINAL CROSS SECTIONAL AREA mm ²	MAXIMUM DC RESISTANCE OF CONDUCTOR AT 20°C ohms/km	MAXIMUM AC RESISTANCE OF CONDUCTOR AT 20°C ohms/km	REACTANCE AT 50HZ ohms/km	CAPACITANCE (µf/km)	1 SECOND SHORT CIRCUIT RATING OF CONDUCTOR kA	1 SECOND SHORT CIRCUIT RATING OF METALLIC SCREEN kA
95	0.320	0.411	0.056	0.381	9.2	7.1
185	0.164	0.211	0.054	0.488	17.9	12.9
300	0.100	0.130	0.053	0.594	28.8	12.9

CURRENT CARRYING CAPACITY

NOMINAL CROSS SECTIONAL AREA mm ²	DIRECT BURIED Amps	IN DUCTS Amps	IN AIR Amps
95	250	230	280
185	331	360	425
300	437	475	580

UKPN 19/33 (36)kV Single Core Unarmoured Aluminium Conductors



APPLICATION

Medium voltage DNO aluminium power cable approved to UK Power Networks (UKPN) specification and manufactured by G81 suppliers for connections from existing grid to new sub-main developments.

CONSTRUCTION

Conductor

Stranded or Solid Aluminium Conductor

Insulation

XLPE (Cross-Linked Polyethylene)

Screen

Aluminium Wires

Separator

Water Swellable Tape in Open Helix

Sheath

MDPE (Medium Density Polyethylene)

CABLE STANDARDS

BS7870-4.10, ES 02-0940, BS EN 60228



The electrical and dimensional properties of this product are measured by the Technical and Quality Assurance department at the Eland Cables laboratory. Cable performance in respect of conductor resistance, construction quality (workmanship), dimensional consistency, and other parameters are verified to published standards and approved product drawings. Conformance to RoHS (Restriction of the use of Hazardous Substances) is determined and confirmed.

CHARACTERISTICS

Voltage Rating (U_o/U)(U_m)

19/33 (36)kV

Temperature Rating

0°C to +90°C

Sheath Colour

● Black

DIMENSIONS

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm ²	NOMINAL AREA OF METALLIC SCREEN mm ²	NOMINAL OVERALL DIAMETER OF CABLE (OR TRIPLEX GROUP IF APPLICABLE) mm ²	NOMINAL WEIGHT OF CABLE (OR TRIPLEX GROUP IF APPLICABLE) kg	MINIMUM BENDING RADIUS mm	MAXIMUM PULLING TENSION kg
D120118BK000	1	300	82	46.5	2060	940	9000
D120120BK000	1	500	82	53.5	2820	1100	15000
D120121BK000	1	630	82	57.5	3610	1120	18900

ELECTRICAL CHARACTERISTICS

NOMINAL CROSS SECTIONAL AREA mm ²	MAXIMUM DC RESISTANCE OF CONDUCTOR AT 20°C ohms/km	MAXIMUM AC RESISTANCE OF CONDUCTOR AT 20°C ohms/km	REACTANCE AT 50HZ ohms/km	CAPACITANCE (µf/km)	1 SECOND SHORT CIRCUIT RATING OF CONDUCTOR kA	1 SECOND SHORT CIRCUIT RATING OF METALLIC SCREEN kA
300	0.1000	0.129	0.114	0.25	28.3	8.3
500	0.0605	0.0796	0.106	0.33	47.2	8.3
630	0.0469	0.0628	0.102	0.34	59.5	8.3

CURRENT CARRYING CAPACITY

NOMINAL CROSS SECTIONAL AREA mm ²	DIRECT BURIED Amps	IN DUCTS Amps	IN AIR Amps
300	475	380	580
500	610	488	790
630	690	552	920

SSE 6.35/11 (12)kV Single Core Unarmoured Aluminium Conductors



APPLICATION

Medium voltage DNO aluminium power cable approved to Scottish & Southern Electricity (SSE) specification and manufactured by G81 suppliers for connections from existing grid to new sub-main developments.

CONSTRUCTION

Conductor

Stranded or Solid Aluminium Conductor

Insulation

XLPE (Cross-Linked Polyethylene)

Screen

Copper Wires and Equalising Copper Tape

Separator

Binding Tape

Sheath

MDPE (Medium Density Polyethylene)

CABLE STANDARDS

BS 7870-4.10, ES 02-0940, BS EN 60228



The electrical and dimensional properties of this product are measured by the Technical and Quality Assurance department at the Eland Cables laboratory. Cable performance in respect of conductor resistance, construction quality (workmanship), dimensional consistency, and other parameters are verified to published standards and approved product drawings. Conformance to RoHS (Restriction of the use of Hazardous Substances) is determined and confirmed.

CHARACTERISTICS

Voltage Rating (U_o/U)(U_m)

6.35/11 (12)kV

Temperature Rating

0°C to +90°C

Sheath Colour

● Red

DIMENSIONS

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm ²	NOMINAL AREA OF METALLIC SCREEN mm ²	NOMINAL OVERALL DIAMETER OF CABLE (OR TRIPLEX GROUP IF APPLICABLE) mm ²	NOMINAL WEIGHT OF CABLE (OR TRIPLEX GROUP IF APPLICABLE) kg	MINIMUM BENDING RADIUS mm	MAXIMUM PULLING TENSION kg
D220115RD000	1	150	35	31	1160	620	13.5
D220120RD000	1	500	35	44	2390	880	45.0
D220121RD000	1	630	35	48	2900	960	56.7
D220130RD000	1	800	35	51	3340	1020	72.0

ELECTRICAL CHARACTERISTICS

NOMINAL CROSS SECTIONAL AREA mm ²	MAXIMUM DC RESISTANCE OF CONDUCTOR AT 20°C ohms/km	MAXIMUM AC RESISTANCE OF CONDUCTOR AT 20°C ohms/km	REACTANCE AT 50HZ ohms/km	CAPACITANCE (µf/km)	1 SECOND SHORT CIRCUIT RATING OF CONDUCTOR kA	1 SECOND SHORT CIRCUIT RATING OF METALLIC SCREEN kA
150	0.206	0.265	0.106	0.39	13.8	4.8
500	0.0605	0.0804	0.09	0.66	46	4.8
630	0.0469	0.0639	0.087	0.74	57.9	4.8
800	0.0367	0.0523	0.085	0.86	73.6	4.8

CURRENT CARRYING CAPACITY

NOMINAL CROSS SECTIONAL AREA mm ²	DIRECT BURIED Amps	IN DUCTS Amps	IN AIR Amps
150	353	315	380
500	679	570	810
630	756	640	930
800	857	710	1070

SSE 6.35/11 (12)kV Three Core Unarmoured Aluminium Conductors



APPLICATION

Medium voltage DNO aluminium power cable approved to Scottish & Southern Electricity (SSE) specification and manufactured by G81 suppliers for connections from existing grid to new sub-main developments.

CABLE STANDARDS

BS 7870-4.20, HD 383, BS EN 60228 (previously BS 6360) IEC 60287, SP-PS-076



The electrical and dimensional properties of this product are measured by the Technical and Quality Assurance department at the Eland Cables laboratory. Cable performance in respect of conductor resistance, construction quality (workmanship), dimensional consistency, and other parameters are verified to published standards and approved product drawings. Conformance to RoHS (Restriction of the use of Hazardous Substances) is determined and confirmed.

CONSTRUCTION

Conductor

Class 2 Stranded Aluminium Conductor

Insulation

XLPE (Cross-Linked Polyethylene)

Screen

Copper Wires and Equalising Copper Tape

Separator

Binding Tape

Sheath

MDPE (Medium Density Polyethylene)

CHARACTERISTICS

Voltage Rating (U_o/U)(U_m)

6.35/11 (12)kV

Temperature Rating

0°C to +90°C

Sheath Colour

● Red

DIMENSIONS

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm ²	NOMINAL AREA OF METALLIC SCREEN mm ²	NOMINAL OVERALL DIAMETER OF CABLE (OR TRIPLEX GROUP IF APPLICABLE) mm ²	NOMINAL WEIGHT OF CABLE (OR TRIPLEX GROUP IF APPLICABLE) kg	MINIMUM BENDING RADIUS mm	MAXIMUM PULLING TENSION kg
D200315RD000	3	150	60	61	3280	490	13500
D200317RD000	3	240	60	70	4380	560	21600
D200318RD000	3	300	60	75	4990	600	27000

ELECTRICAL CHARACTERISTICS

NOMINAL CROSS SECTIONAL AREA mm ²	MAXIMUM DC RESISTANCE OF CONDUCTOR AT 20°C ohms/km	MAXIMUM AC RESISTANCE OF CONDUCTOR AT 20°C ohms/km	REACTANCE AT 50HZ ohms/km	CAPACITANCE (µf/km)	1 SECOND SHORT CIRCUIT RATING OF CONDUCTOR kA	1 SECOND SHORT CIRCUIT RATING OF METALLIC SCREEN kA
150	0.206	0.265	0.091	0.33	14.2	9.3
240	0.125	0.161	0.085	0.41	22.7	9.3
300	0.100	0.130	0.084	0.44	28.3	9.3

CURRENT CARRYING CAPACITY

NOMINAL CROSS SECTIONAL AREA mm ²	DIRECT BURIED Amps	IN DUCTS Amps	IN AIR Amps
150	295	255	335
240	390	340	450
300	435	380	510

SSE 19/33 (36)kV Single Core Unarmoured Aluminium Conductors



APPLICATION

Medium voltage DNO aluminium power cable approved to Scottish & Southern Electricity (SSE) specification and manufactured by G81 suppliers for connections from existing grid to new sub-main developments.

CONSTRUCTION

Conductor

Class 2 Stranded Aluminium Conductor

Insulation

XLPE (Cross-Linked Polyethylene)

Screen

Copper Wires and Equalising Copper Tape

Separator

Binding tape

Sheath

MDPE (Medium-Density Polyethylene)

CABLE STANDARDS

BS 7870-4.10, IEC 60502



The electrical and dimensional properties of this product are measured by the Technical and Quality Assurance department at the Eland Cables laboratory. Cable performance in respect of conductor resistance, construction quality (workmanship), dimensional consistency, and other parameters are verified to published standards and approved product drawings. Conformance to RoHS (Restriction of the use of Hazardous Substances) is determined and confirmed.

CHARACTERISTICS

Voltage Rating (U_o/U)(U_m)

19/33 (36)kV

Temperature Rating

0°C to +90°C

Sheath Colour

● Black

DIMENSIONS

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm ²	NOMINAL AREA OF METALLIC SCREEN mm ²	NOMINAL OVERALL DIAMETER OF CABLE (OR TRIPLEX GROUP IF APPLICABLE) mm ²	NOMINAL WEIGHT OF CABLE (OR TRIPLEX GROUP IF APPLICABLE) kg	MINIMUM BENDING RADIUS mm	MAXIMUM PULLING TENSION kg
D210118BK000	1	300	35	47	2250	940	27
D210119BK000	1	400	35	50	2259	1000	36
D210120BK000	1	500	35	53	3010	1060	45
D210121BK000	1	630	35	57	3570	1140	56
D210130BK000	1	800	35	61	4060	1220	72

ELECTRICAL CHARACTERISTICS

NOMINAL CROSS SECTIONAL AREA mm ²	MAXIMUM DC RESISTANCE OF CONDUCTOR AT 20°C ohms/km	MAXIMUM AC RESISTANCE OF CONDUCTOR AT 20°C ohms/km	REACTANCE AT 50HZ ohms/km	CAPACITANCE (µf/km)	1 SECOND SHORT CIRCUIT RATING OF CONDUCTOR kA	1 SECOND SHORT CIRCUIT RATING OF METALLIC SCREEN kA
300	0.1000	0.129	0.113	0.26	27.6	4.8
400	0.0778	0.101	0.109	0.29	36.8	4.8
500	0.0605	0.0797	0.104	0.32	46	4.8
630	0.0459	0.063	0.100	0.350	57.9	4.8
800	0.0367	0.0509	0.095	0.400	73.6	4.8

CURRENT CARRYING CAPACITY

NOMINAL CROSS SECTIONAL AREA mm ²	DIRECT BURIED Amps	IN DUCTS Amps	IN AIR Amps
300	532	460	600
400	606	520	700
500	679	570	820
630	768	650	940
800	857	770	1070

WPD 6.35/11 (12)kV Single Core (Triplex) Unarmoured Aluminium Conductors



APPLICATION

Medium voltage DNO aluminium power cable approved to Western Power Distribution (WPD) specification and manufactured by G81 suppliers for connections from existing grid to new sub-main developments.

CONSTRUCTION

Conductor

Class 1 Solid Aluminium Conductor

Insulation

EPR (Ethylene Propylene Rubber)

Screen

Copper Wires and Equalising Tape

Separator

Binding Tape

Sheath

MDPE (Medium-Density Polyethylene)

CABLE STANDARDS

BS7870-4.10, ES 02-0940



The electrical and dimensional properties of this product are measured by the Technical and Quality Assurance department at the Eland Cables laboratory. Cable performance in respect of conductor resistance, construction quality (workmanship), dimensional consistency, and other parameters are verified to published standards and approved product drawings. Conformance to RoHS (Restriction of the use of Hazardous Substances) is determined and confirmed.

CHARACTERISTICS

Voltage Rating (U_o/U)(U_m)

6.35/11 (12)kV

Temperature Rating

0°C to +90°C

Sheath Colour

● Red

DIMENSIONS

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm ²	NOMINAL AREA OF METALLIC SCREEN mm ²	NOMINAL OVERALL DIAMETER OF CABLE (OR TRIPLEX GROUP IF APPLICABLE) mm	NOMINAL WEIGHT OF CABLE (OR TRIPLEX GROUP IF APPLICABLE) kg	MINIMUM BENDING RADIUS mm	MAXIMUM PULLING TENSION kg
D026013RD000	3x1 (Triplex)	95	35	59.0	3505	550	285
D026016RD000	3x1 (Triplex)	185	35	68.5	4460	650	555
D026018RD000	3x1 (Triplex)	300	35	79.0	5800	750	900

ELECTRICAL CHARACTERISTICS

NOMINAL CROSS SECTIONAL AREA mm ²	MAXIMUM DC RESISTANCE OF CONDUCTOR AT 20°C ohms/km	MAXIMUM AC RESISTANCE OF CONDUCTOR AT 20°C ohms/km	REACTANCE AT 50HZ ohms/km	CAPACITANCE (µf/km)	1 SECOND SHORT CIRCUIT RATING OF CONDUCTOR kA	1 SECOND SHORT CIRCUIT RATING OF METALLIC SCREEN kA
95	0.320	0.411	0.117	0.318	9	4.9
185	0.164	0.211	0.107	0.438	17.5	4.9
300	0.100	0.130	0.100	0.537	28.3	4.9

CURRENT CARRYING CAPACITY

NOMINAL CROSS SECTIONAL AREA mm ²	DIRECT BURIED Amps	IN DUCTS Amps	IN AIR Amps
95	340	230	275
185	345	325	415
300	455	415	565

WPD 19/33 (36)kV Single Core Unarmoured Copper Conductor



APPLICATION

Medium voltage DNO copper power cable approved to Western Power Distribution (WPD) specification and manufactured by G81 suppliers for connections from existing grid to new sub-main developments.

CONSTRUCTION

Conductor

Class 2 Stranded Copper Conductor

Insulation

EPR (Ethylene Propylene Rubber)

Screen

Copper Wires and Equalising Copper Tape

Separator

Binding tape

Sheath

MDPE (Medium-Density Polyethylene)

CABLE STANDARDS

BS7870-4.10, ES 02-0940



The electrical and dimensional properties of this product are measured by the Technical and Quality Assurance department at the Eland Cables laboratory. Cable performance in respect of conductor resistance, construction quality (workmanship), dimensional consistency, and other parameters are verified to published standards and approved product drawings. Conformance to RoHS (Restriction of the use of Hazardous Substances) is determined and confirmed.

CHARACTERISTICS

Voltage Rating (U_o/U)(U_m)

19/33 (36)kV

Temperature Rating

0°C to +90°C

Sheath Colour

● Black

DIMENSIONS

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm ²	NOMINAL AREA OF METALLIC SCREEN mm ²	NOMINAL OVERALL DIAMETER OF CABLE (OR TRIPLEX GROUP IF APPLICABLE) mm ²	NOMINAL WEIGHT OF CABLE (OR TRIPLEX GROUP IF APPLICABLE) kg	MINIMUM BENDING RADIUS mm	MAXIMUM PULLING TENSION kg
D040116BK000	1	185	35	42.5	3000	850	925
D040118BK000	1	300	35	57.5	4200	950	1500
D040119BK000	1	400	35	51.0	6200	1100	2000
D040121BK000	1	630	35	60.0	7600	1200	2000

ELECTRICAL CHARACTERISTICS

NOMINAL CROSS SECTIONAL AREA mm ²	MAXIMUM DC RESISTANCE OF CONDUCTOR AT 20°C ohms/km	MAXIMUM AC RESISTANCE OF CONDUCTOR AT 20°C ohms/km	REACTANCE AT 50HZ ohms/km	CAPACITANCE (µf/km)	1 SECOND SHORT CIRCUIT RATING OF CONDUCTOR kA	1 SECOND SHORT CIRCUIT RATING OF METALLIC SCREEN kA
185	0.099	0.127	0.121	0.259	26.5	4.9
300	0.060	0.079	0.112	0.306	42.9	4.9
400	0.047	0.062	0.108	0.34	57.2	4.9
630	0.028	0.040	0.101	0.432	90.1	4.9

CURRENT CARRYING CAPACITY

NOMINAL CROSS SECTIONAL AREA mm ²	DIRECT BURIED Amps	IN DUCTS Amps	IN AIR Amps
185	440	405	530
300	570	515	715
400	650	580	830
630	825	725	1105

NPG 6.35/11 (12)kV Single Core (Triplex) Unarmoured Aluminium Conductors



APPLICATION

Medium voltage DNO aluminium power cable approved to Northern Powergrid (NPG) specification and manufactured by G81 suppliers for connections from existing grid to new sub-main developments.

CONSTRUCTION

Conductor

Class 1 Solid Aluminium Conductor

Insulation

XLPE (Cross-Linked Polyethylene)

Screen

Copper Wires and Equalising Tape

Separator

Binding tape

Sheath

MDPE (Medium-Density Polyethylene)

CABLE STANDARDS

BS7870-4.10, BS EN 60228



The electrical and dimensional properties of this product are measured by the Technical and Quality Assurance department at the Eland Cables laboratory. Cable performance in respect of conductor resistance, construction quality (workmanship), dimensional consistency, and other parameters are verified to published standards and approved product drawings. Conformance to RoHS (Restriction of the use of Hazardous Substances) is determined and confirmed.

CHARACTERISTICS

Voltage Rating (U_o/U)(U_m)
6.35/11 (12)kV

Temperature Rating
0°C to +90°C

Sheath Colour
● Red

DIMENSIONS

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm ²	NOMINAL AREA OF METALLIC SCREEN mm ²	NOMINAL OVERALL DIAMETER OF CABLE (OR TRIPLEX GROUP IF APPLICABLE) mm ²	NOMINAL WEIGHT OF CABLE (OR TRIPLEX GROUP IF APPLICABLE) kg	MINIMUM BENDING RADIUS mm	MAXIMUM PULLING TENSION kg
D306013RD000	3x1 (Triplex)	95	35	62	2960	750	2850
D306016RD000	3x1 (Triplex)	185	35	71	4020	855	5550
D306018RD000	3x1 (Triplex)	300	35	81	5310	975	7300

ELECTRICAL CHARACTERISTICS

NOMINAL CROSS SECTIONAL AREA mm ²	MAXIMUM DC RESISTANCE OF CONDUCTOR AT 20°C ohms/km	MAXIMUM AC RESISTANCE OF CONDUCTOR AT 20°C ohms/km	REACTANCE AT 50HZ ohms/km	CAPACITANCE (µf/km)	1 SECOND SHORT CIRCUIT RATING OF CONDUCTOR kA	1 SECOND SHORT CIRCUIT RATING OF METALLIC SCREEN kA
95	0.320	0.411	0.131	0.310	8.9	5.0
185	0.164	0.211	0.118	0.400	17.4	5.0
300	0.100	0.130	0.111	0.490	28.3	5.0

CURRENT CARRYING CAPACITY

NOMINAL CROSS SECTIONAL AREA mm ²	DIRECT BURIED Amps	IN DUCTS Amps	IN AIR Amps
95	231	208	290
185	331	300	437
300	339	309	468

NPG 19/33 (36)kV Single Core Unarmoured Copper Conductors



APPLICATION

Medium voltage DNO copper power cable approved to Northern Powergrid (NPG) specification and manufactured by G81 suppliers for connections from existing grid to new sub-main developments.

CONSTRUCTION

Conductor

Class 2 Stranded Copper Conductor

Insulation

XLPE (Cross-Linked Polyethylene)

Screen

Copper Wires and Equalising Tape

Separator

Binding tape

Sheath

MDPE (Medium-Density Polyethylene)

CABLE STANDARDS

BS7870-4.10, ES 02-0940, BS EN 60228



The electrical and dimensional properties of this product are measured by the Technical and Quality Assurance department at the Eland Cables laboratory. Cable performance in respect of conductor resistance, construction quality (workmanship), dimensional consistency, and other parameters are verified to published standards and approved product drawings. Conformance to RoHS (Restriction of the use of Hazardous Substances) is determined and confirmed.

CHARACTERISTICS

Voltage Rating (U_o/U)(U_m)

19/33 (36)kV

Temperature Rating

0°C to +90°C

Sheath Colour

● Black

DIMENSIONS

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm ²	NOMINAL AREA OF METALLIC SCREEN mm ²	NOMINAL OVERALL DIAMETER OF CABLE (OR TRIPLEX GROUP IF APPLICABLE) mm ²	NOMINAL WEIGHT OF CABLE (OR TRIPLEX GROUP IF APPLICABLE) kg	MINIMUM BENDING RADIUS mm	MAXIMUM PULLING TENSION kg
D310120BK000	1	500	35	58	3230	700	1500
D310121BK000	1	630	35	59	3670	700	1890
D310130BK000	1	800	35	65	4460	780	2400

ELECTRICAL CHARACTERISTICS

NOMINAL CROSS SECTIONAL AREA mm ²	MAXIMUM DC RESISTANCE OF CONDUCTOR AT 20°C ohms/km	MAXIMUM AC RESISTANCE OF CONDUCTOR AT 20°C ohms/km	REACTANCE AT 50HZ ohms/km	CAPACITANCE (µf/km)	1 SECOND SHORT CIRCUIT RATING OF CONDUCTOR kA	1 SECOND SHORT CIRCUIT RATING OF METALLIC SCREEN kA
500	0.0605	0.08	0.105	0.32	47.2	5
630	0.0469	0.063	0.103	0.33	59.5	5
800	0.0367	0.051	0.098	0.37	75.5	5

CURRENT CARRYING CAPACITY

NOMINAL CROSS SECTIONAL AREA mm ²	DIRECT BURIED Amps	IN DUCTS Amps	IN AIR Amps
500	543	498	831
630	610	560	945
800	684	629	1093

ENW 6.35/11 (12)kV Single Core (Triplex) Unarmoured Aluminium Conductors



APPLICATION

Medium voltage DNO aluminium power cable approved to Electricity North West (ENW) specification and manufactured by G81 suppliers for connections from existing grid to new sub-main developments.

CONSTRUCTION

Conductor

Class 1 Solid Aluminium Conductor

Insulation

XLPE (Cross-Linked Polyethylene)

Screen

Copper Wires and Equalising Tape

Separator

Binding tape

Sheath

MDPE (Medium-Density Polyethylene)

CABLE STANDARDS

BS7870-4.10, BS EN 60228



The electrical and dimensional properties of this product are measured by the Technical and Quality Assurance department at the Eland Cables laboratory. Cable performance in respect of conductor resistance, construction quality (workmanship), dimensional consistency, and other parameters are verified to published standards and approved product drawings. Conformance to RoHS (Restriction of the use of Hazardous Substances) is determined and confirmed.

CHARACTERISTICS

Voltage Rating (U_o/U)(U_m)

6.35/11 (12)kV

Temperature Rating

0°C to +90°C

Sheath Colour

● Red

DIMENSIONS

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm ²	NOMINAL AREA OF METALLIC SCREEN mm ²	NOMINAL OVERALL DIAMETER OF CABLE (OR TRIPLEX GROUP IF APPLICABLE) mm ²	NOMINAL WEIGHT OF CABLE (OR TRIPLEX GROUP IF APPLICABLE) kg	MINIMUM BENDING RADIUS mm	MAXIMUM PULLING TENSION kg
D406013RD000	3x1 (Triplex)	95	35	62	2960	750	2850
D406016RD000	3x1 (Triplex)	185	35	71	4020	855	5550
D406018RD000	3x1 (Triplex)	300	35	81	5310	975	9000

ELECTRICAL CHARACTERISTICS

NOMINAL CROSS SECTIONAL AREA mm ²	MAXIMUM DC RESISTANCE OF CONDUCTOR AT 20°C ohms/km	MAXIMUM AC RESISTANCE OF CONDUCTOR AT 20°C ohms/km	REACTANCE AT 50HZ ohms/km	CAPACITANCE (µf/km)	1 SECOND SHORT CIRCUIT RATING OF CONDUCTOR kA	1 SECOND SHORT CIRCUIT RATING OF METALLIC SCREEN kA
95	0.320	0.411	0.131	0.310	8.9	5.0
185	0.164	0.211	0.118	0.400	17.4	5.0
300	0.100	0.130	0.111	0.490	28.3	5.0

CURRENT CARRYING CAPACITY

NOMINAL CROSS SECTIONAL AREA mm ²	DIRECT BURIED Amps	IN DUCTS Amps	IN AIR Amps
95	231	208	290
185	331	300	437
300	339	309	468

ENW 19/33 (36)kV Single Core Unarmoured Aluminium Conductors



APPLICATION

Medium voltage DNO aluminium power cable approved to Electricity North West (ENW) specification and manufactured by G81 suppliers for connections from existing grid to new sub-main developments.

CONSTRUCTION

Conductor

Class 2 Stranded Aluminium Conductor

Insulation

XLPE (Cross-Linked Polyethylene)

Screen

Copper Wires and Equalising Tape

Separator

Binding tape

Sheath

MDPE (Medium-Density Polyethylene)

CABLE STANDARDS

BS7870-4.10, ES 02-0940, BS EN 60228



The electrical and dimensional properties of this product are measured by the Technical and Quality Assurance department at the Eland Cables laboratory. Cable performance in respect of conductor resistance, construction quality (workmanship), dimensional consistency, and other parameters are verified to published standards and approved product drawings. Conformance to RoHS (Restriction of the use of Hazardous Substances) is determined and confirmed.

CHARACTERISTICS

Voltage Rating (U_o/U)(U_m)

19/33 (36)kV

Temperature Rating

0°C to +90°C

Sheath Colour

● Black

DIMENSIONS

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm ²	NOMINAL AREA OF METALLIC SCREEN mm ²	NOMINAL OVERALL DIAMETER OF CABLE (OR TRIPLEX GROUP IF APPLICABLE) mm ²	NOMINAL WEIGHT OF CABLE (OR TRIPLEX GROUP IF APPLICABLE) kg	MINIMUM BENDING RADIUS mm	MAXIMUM PULLING TENSION kg
D410120BK000	1	500	35	58	3230	700	1500
D410121BK000	1	630	35	59	3670	700	1890
D410130BK000	1	800	35	65	4460	780	2400

ELECTRICAL CHARACTERISTICS

NOMINAL CROSS SECTIONAL AREA mm ²	MAXIMUM DC RESISTANCE OF CONDUCTOR AT 20°C ohms/km	MAXIMUM AC RESISTANCE OF CONDUCTOR AT 20°C ohms/km	REACTANCE AT 50HZ ohms/km	CAPACITANCE (µf/km)	1 SECOND SHORT CIRCUIT RATING OF CONDUCTOR kA	1 SECOND SHORT CIRCUIT RATING OF METALLIC SCREEN kA
500	0.0605	0.08	0.105	0.32	47.2	5
630	0.0469	0.063	0.103	0.33	59.5	5
800	0.0367	0.051	0.098	0.37	75.5	5

CURRENT CARRYING CAPACITY

NOMINAL CROSS SECTIONAL AREA mm ²	DIRECT BURIED Amps	IN DUCTS Amps	IN AIR Amps
500	543	498	831
630	610	560	945
800	684	629	1093

SPEN 6.35/11 (12)kV Single Core Unarmoured Aluminium Conductors



APPLICATION

Medium voltage DNO aluminium power cable approved to Scottish Power Energy Networks (SPEN) specification and manufactured by G81 suppliers for connections from existing grid to new sub-main developments.

CONSTRUCTION

Conductor

Class 1 Solid Aluminium Conductor

Insulation

XLPE (Cross-Linked Polyethylene)

Screen

Copper Wires and Equalising Copper Tape

Separator

Binding tape

Sheath

MDPE (Medium-Density Polyethylene)

CABLE STANDARDS

BS 7870-4.20, HD 383, BS EN 60228 (previously BS 6360)
IEC 60287, SP-PS-076



The electrical and dimensional properties of this product are measured by the Technical and Quality Assurance department at the Eland Cables laboratory. Cable performance in respect of conductor resistance, construction quality (workmanship), dimensional consistency, and other parameters are verified to published standards and approved product drawings. Conformance to RoHS (Restriction of the use of Hazardous Substances) is determined and confirmed.

CHARACTERISTICS

Voltage Rating (U_o/U)(U_m)

6.35/11 (12)kV

Temperature Rating

0°C to +90°C

Sheath Colour

● Red

DIMENSIONS

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm ²	NOMINAL AREA OF METALLIC SCREEN mm ²	NOMINAL OVERALL DIAMETER OF CABLE (OR TRIPLEX GROUP IF APPLICABLE) mm ²	NOMINAL WEIGHT OF CABLE (OR TRIPLEX GROUP IF APPLICABLE) kg	MINIMUM BENDING RADIUS mm	MAXIMUM PULLING TENSION kg
D510113RD000	1	95	35	27	980	405	2850
D510116RD000	1	185	35	32	1320	480	5550
D510118RD000	1	300	35	37	1750	555	9000

ELECTRICAL CHARACTERISTICS

NOMINAL CROSS SECTIONAL AREA mm ²	MAXIMUM DC RESISTANCE OF CONDUCTOR AT 20°C ohms/km	MAXIMUM AC RESISTANCE OF CONDUCTOR AT 20°C ohms/km	REACTANCE AT 50HZ ohms/km	CAPACITANCE (µf/km)	1 SECOND SHORT CIRCUIT RATING OF CONDUCTOR kA	1 SECOND SHORT CIRCUIT RATING OF METALLIC SCREEN kA
95	0.320	0.411	0.119	0.31	8.9	5.0
185	0.164	0.211	0.107	0.40	17.5	5.0
300	0.100	0.130	0.100	0.49	28.3	5.0

CURRENT CARRYING CAPACITY

NOMINAL CROSS SECTIONAL AREA mm ²	DIRECT BURIED Amps	IN DUCTS Amps	IN AIR Amps
95	255	226	296
185	368	326	446
300	481	425	605

SPEN 6.35/11 (12)kV Three Core Unarmoured Aluminium Conductors



APPLICATION

Medium voltage DNO aluminium power cable approved to Scottish Power Energy Networks (SPEN) specification and manufactured by G81 suppliers for connections from existing grid to new sub-main developments.

CONSTRUCTION

Conductor

Class 1 Solid Aluminium Conductor

Insulation

XLPE (Cross-Linked Polyethylene)

Screen

Copper Wires and Equalising Copper Tape

Separator

Binding tape

Sheath

MDPE (Medium-Density Polyethylene)

CABLE STANDARDS

BS 7870-4.20, HD 383, BS EN 60228 (previously BS 6360)
IEC 60287, SP-PS-076



The electrical and dimensional properties of this product are measured by the Technical and Quality Assurance department at the Eland Cables laboratory. Cable performance in respect of conductor resistance, construction quality (workmanship), dimensional consistency, and other parameters are verified to published standards and approved product drawings. Conformance to RoHS (Restriction of the use of Hazardous Substances) is determined and confirmed.

CHARACTERISTICS

Voltage Rating (U₀/U)(U_m)

6.35/11 (12)kV

Temperature Rating

0°C to +90°C

Sheath Colour

● Red

DIMENSIONS

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm ²	NOMINAL AREA OF METALLIC SCREEN mm ²	NOMINAL OVERALL DIAMETER OF CABLE (OR TRIPLEX GROUP IF APPLICABLE) mm ²	NOMINAL WEIGHT OF CABLE (OR TRIPLEX GROUP IF APPLICABLE) kg	MINIMUM BENDING RADIUS mm	MAXIMUM PULLING TENSION kg
D500313RD000	3	95	70	55	3250	1100	2850
D500316RD000	3	185	95	65	4880	1300	5550
D500318RD000	3	300	95	75	6580	1500	9000

ELECTRICAL CHARACTERISTICS

NOMINAL CROSS SECTIONAL AREA mm ²	MAXIMUM DC RESISTANCE OF CONDUCTOR AT 20°C ohms/km	MAXIMUM AC RESISTANCE OF CONDUCTOR AT 20°C ohms/km	REACTANCE AT 50HZ ohms/km	CAPACITANCE (µf/km)	1 SECOND SHORT CIRCUIT RATING OF CONDUCTOR kA	1 SECOND SHORT CIRCUIT RATING OF METALLIC SCREEN kA
95	0.320	0.411	0.112	0.31	8.9	9.3
185	0.164	0.211	0.103	0.40	17.5	12.8
300	0.100	0.129	0.0949	0.49	28.3	12.8

CURRENT CARRYING CAPACITY

NOMINAL CROSS SECTIONAL AREA mm ²	DIRECT BURIED Amps	IN DUCTS Amps	IN AIR Amps
95	228	197	245
185	330	289	369
300	431	381	494

SPEN 19/33 (36)kV Single Core Unarmoured Aluminium Conductors



APPLICATION

Medium voltage DNO aluminium power cable approved to Scottish Power Energy Networks (SPEN) specification and manufactured by G81 suppliers for connections from existing grid to new sub-main developments.

CONSTRUCTION

Conductor

Class 2 Stranded Aluminium Conductor

Insulation

XLPE (Cross-Linked Polyethylene)

Screen

Copper Wires and Equalising Copper Tape

Separator

Binding tape

Sheath

MDPE (Medium-Density Polyethylene)

CABLE STANDARDS

BS7870-4.10, ES 02-0940, BS EN 60228



The electrical and dimensional properties of this product are measured by the Technical and Quality Assurance department at the Eland Cables laboratory. Cable performance in respect of conductor resistance, construction quality (workmanship), dimensional consistency, and other parameters are verified to published standards and approved product drawings. Conformance to RoHS (Restriction of the use of Hazardous Substances) is determined and confirmed.

CHARACTERISTICS

Voltage Rating (U_o/U)(U_m)

19/33 (36)kV

Temperature Rating

0°C to +90°C

Sheath Colour

● Black

DIMENSIONS

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm ²	NOMINAL AREA OF METALLIC SCREEN mm ²	NOMINAL OVERALL DIAMETER OF CABLE (OR TRIPLEX GROUP IF APPLICABLE) mm ²	NOMINAL WEIGHT OF CABLE (OR TRIPLEX GROUP IF APPLICABLE) kg	MINIMUM BENDING RADIUS mm	MAXIMUM PULLING TENSION kg
D520115BK000	1	150	50	43	1900	645	4500
D520117BK000	1	240	50	46	2290	690	7200
D520119BK000	1	400	50	52	2900	780	12000

ELECTRICAL CHARACTERISTICS

NOMINAL CROSS SECTIONAL AREA mm ²	MAXIMUM DC RESISTANCE OF CONDUCTOR AT 20°C ohms/km	MAXIMUM AC RESISTANCE OF CONDUCTOR AT 20°C ohms/km	REACTANCE AT 50HZ ohms/km	CAPACITANCE (µf/km)	1 SECOND SHORT CIRCUIT RATING OF CONDUCTOR kA	1 SECOND SHORT CIRCUIT RATING OF METALLIC SCREEN kA
150	0.206	0.265	0.129	0.20	14.2	8.2
240	0.125	0.161	0.118	0.24	22.7	8.2
400	0.0778	0.101	0.108	0.29	37.8	8.2

CURRENT CARRYING CAPACITY

NOMINAL CROSS SECTIONAL AREA mm ²	DIRECT BURIED Amps	IN DUCTS Amps	IN AIR Amps
150	318	320	400
240	416	415	530
400	532	520	700

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ELAND®
CABLES



6.35/11 (12)kV Single Core Armoured Copper Conductors



CONSTRUCTION

Conductor

Class 2 Stranded Copper Conductor

Insulation

XLPE (Cross-Linked Polyethylene)

Metallic Screen

Copper Tape

Separator

Binding Tape

Bedding

PVC (Polyvinyl Chloride)

Armour

AWA (Aluminium Wire Armoured)

Sheath

PVC (Polyvinyl Chloride)

NOTE:

Low Smoke Zero Halogen (LSZH) options available to BS 7835

CABLE STANDARDS

BS 6622 (PVC)



The electrical and dimensional properties of this product are measured by the Technical and Quality Assurance department at the Eland Cables laboratory. Cable performance in respect of conductor resistance, construction quality (workmanship), dimensional consistency, and other parameters are verified to published standards and approved product drawings. Conformance to RoHS (Restriction of the use of Hazardous Substances) is determined and confirmed.

CHARACTERISTICS

Voltage Rating

6.35/11 (12)kV

Temperature Rating

0°C to +90°C

DIMENSIONS

NOMINAL CROSS SECTIONAL AREA mm ²	DIAMETER OVER CONDUCTOR mm	NOMINAL DIAMETER OVER INSULATION mm	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT OF CABLE kg/km	MINIMUM BENDING RADIUS (STATIC) mm	MAXIMUM PULLING TENSION ON CABLE kg
70	9.8	17.8	32	1650	650	350
95	11.5	19.4	34	1950	700	475
120	12.8	20.9	36	2250	750	600
150	14.3	22.2	38	2700	800	750
185	15.9	24.2	40	3100	800	925
240	18.4	26.0	43	3750	850	1200
300	20.5	28.9	45	4450	900	1500
400	23.2	32.1	48	5400	1000	2000
500	26.2	35.0	53	6700	1050	2500
630	30.3	39.1	56	8200	1150	3150
800	34.7	43.7	63	10200	1250	4000
1000	38.0	52.3	68	12450	1400	5000

ELECTRICAL CHARACTERISTICS

NOMINAL CROSS SECTIONAL AREA mm ²	MAXIMUM DC RESISTANCE AT 20°C ohms/km	MAXIMUM AC RESISTANCE AT 90°C ohms/km	INDUCTANCE mh/kg	REACTANCE AT 50HZ ohms/km	IMPEDANCE AT 50 HZ AT 90°C ohms/km	MAXIMUM CAPACITANCE µF/km	MAXIMUM CHARGING CURRENT A/km
70	0.268	0.342	0.442	0.133	0.367	0.289	0.58
95	0.193	0.247	0.401	0.126	0.277	0.324	0.65
120	0.153	0.196	0.385	0.121	0.23	0.353	0.71
150	0.124	0.159	0.377	0.119	0.198	0.382	0.76
185	0.0991	0.128	0.368	0.115	0.172	0.407	0.81
240	0.0754	0.0977	0.351	0.11	0.147	0.455	0.91
300	0.0601	0.0787	0.338	0.106	0.132	0.51	1.02
400	0.047	0.0627	0.25	0.102	0.12	0.565	1.13
500	0.0366	0.0502	0.32	0.10	0.112	0.623	1.24
630	0.0283	0.0407	0.31	0.097	0.106	0.693	1.38
800	0.0221	0.034	0.95	0.093	0.099	0.815	1.63
1000	0.0176	0.0293	0.287	0.09	0.0904	0.904	1.80

SHORT CIRCUIT RATINGS

NOMINAL CROSS SECTIONAL AREA mm ²	1 SECOND SHORT CIRCUIT-RATING OF CONDUCTOR (90 TO 250°C) kA	1 SECOND SHORT CIRCUIT-RATING OF METALLIC SCREEN (80 TO 200°C) kA
70	9.7	7.6
95	13.5	8.2
120	17.1	8.7
150	21	10.9
185	26.3	11.4
240	34.6	12.2
300	43.4	13.3
400	55.6	14.4
500	>60	19.6
630	>60	21.2
800	>60	24.2
1000	>60	26.2

CONTINUOUS CURRENT CARRYING CAPACITY

NOMINAL CROSS SECTIONAL AREA mm ²	DIRECT BURIED Amps	SINGLE WAY DUCTS Amps	IN AIR Amps
70	270	360	310
95	320	305	375
120	360	340	430
150	410	375	490
185	455	410	550
240	520	460	650
300	580	500	740
400	650	530	840
500	710	570	930
630	760	620	1040
800	810	670	1160
1000	860	700	1250

6.35/11 (12)kV Single Core Armoured Aluminium Conductors



CONSTRUCTION

Conductor

Class 2 Stranded Aluminium Conductor

Insulation

XLPE (Cross-Linked Polyethylene)

Metallic Screen

Copper Tape

Separator

Binding Tape

Bedding

PVC (Polyvinyl Chloride)

Armour

AWA (Aluminium Wire Armoured)

Sheath

PVC (Polyvinyl Chloride)

NOTE:

Low Smoke Zero Halogen (LSZH) options available to BS 7835

CABLE STANDARDS

BS 6622 (PVC)



The electrical and dimensional properties of this product are measured by the Technical and Quality Assurance department at the Eland Cables laboratory. Cable performance in respect of conductor resistance, construction quality (workmanship), dimensional consistency, and other parameters are verified to published standards and approved product drawings. Conformance to RoHS (Restriction of the use of Hazardous Substances) is determined and confirmed.

CHARACTERISTICS

Voltage Rating

6.35/11 (12)kV

Temperature Rating

0°C to +90°C

DIMENSIONS

NOMINAL CROSS SECTIONAL AREA mm ²	DIAMETER OVER CONDUCTOR mm	NOMINAL DIAMETER OVER INSULATION mm	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT OF CABLE kg/km	MINIMUM BENDING RADIUS (STATIC) mm	MAXIMUM PULLING TENSION ON CABLE kg
70	9.8	17.8	32	1200	650	210
95	11.5	19.4	34	1350	700	285
120	12.8	20.9	36	1500	750	360
150	14.3	22.2	38	1750	800	450
185	15.9	24.2	40	1950	800	555
240	18.4	26.0	43	2250	850	720
300	20.5	28.9	45	2550	900	900
400	23.2	32.1	48	2950	1000	1200
500	26.2	35.0	53	3600	1050	1500
630	30.3	39.1	56	4200	1150	1890
800	34.7	43.7	63	5100	1250	2400
1000	38.0	41.7	68	6000	1400	3000

ELECTRICAL CHARACTERISTICS

NOMINAL CROSS SECTIONAL AREA mm ²	MAXIMUM DC RESISTANCE AT 20°C ohms/km	MAXIMUM AC RESISTANCE AT 90°C ohms/km	INDUCTANCE mh/kg	REACTANCE AT 50HZ ohms/km	IMPEDANCE AT 50 HZ AT 90°C ohms/km	MAXIMUM CAPACITANCE µF/km	MAXIMUM CHARGING CURRENT A/km
70	0.443	0.568	0.442	0.133	0.583	0.289	0.58
95	0.320	0.0411	0.401	0.126	0.429	0.324	0.65
120	0.253	0.325	0.385	0.121	0.347	0.353	0.71
150	0.206	0.265	0.377	0.119	0.29	0.382	0.76
185	0.164	0.211	0.364	0.114	0.24	0.417	0.83
240	0.125	0.161	0.348	0.109	0.195	0.465	0.93
300	0.10	0.130	0.336	0.106	0.167	0.51	1.02
400	0.078	0.102	0.325	0.102	0.144	0.565	1.13
500	0.061	0.080	0.320	0.10	0.128	0.623	1.24
630	0.047	0.063	0.310	0.097	0.116	0.693	1.38
800	0.037	0.051	0.295	0.093	0.106	0.815	1.63
1000	0.029	0.042	0.287	0.09	0.10	0.904	1.80

SHORT CIRCUIT RATINGS

NOMINAL CROSS SECTIONAL AREA mm ²	1 SECOND SHORT CIRCUIT-RATING OF CONDUCTOR (90 TO 250°C) kA	1 SECOND SHORT CIRCUIT-RATING OF METALLIC SCREEN (80 TO 200°C) kA
70	6.4	6.4
95	8.9	8.2
120	11.3	8.7
150	13.9	10.9
185	17.4	11.7
240	22.9	12.5
300	28.7	13.3
400	36.8	14.4
500	46.4	19.6
630	59.9	21.2
800	>60	24.2
1000	>60	26.2

CONTINUOUS CURRENT CARRYING CAPACITY

NOMINAL CROSS SECTIONAL AREA mm ²	DIRECT BURIED Amps	SINGLE WAY DUCTS Amps	IN AIR Amps
70	210	210	240
95	250	245	295
120	280	275	335
150	315	300	380
185	355	335	435
240	405	380	510
300	455	420	580
400	510	455	670
500	570	500	770
630	640	550	880
800	700	600	1000
1000	760	640	1100

6.35/11 (12)kV Single Core (Triplex) Unarmoured Copper Conductors



CONSTRUCTION

Conductor

Class 2 Stranded Copper Conductor

Insulation

XLPE (Cross-Linked Polyethylene)

Metallic Screen

Copper Wires with Equalising Copper Tape

Separator

Binding Tape

Sheath

MDPE (Medium Density Polyethylene)

CABLE STANDARDS

BS 7870-4.10, IEC 60502



The electrical and dimensional properties of this product are measured by the Technical and Quality Assurance department at the Eland Cables laboratory. Cable performance in respect of conductor resistance, construction quality (workmanship), dimensional consistency, and other parameters are verified to published standards and approved product drawings. Conformance to RoHS (Restriction of the use of Hazardous Substances) is determined and confirmed.

CHARACTERISTICS

Voltage Rating

6.35/11 (12)kV

Temperature Rating

0°C to +90°C

DIMENSIONS

NOMINAL CROSS SECTIONAL AREA mm ²	DIAMETER OVER CONDUCTOR mm	NOMINAL DIAMETER OVER INSULATION mm	NOMINAL OVERALL DIAMETER mm	NOMINAL OVERALL DIAMETER OF TRIPLEX GROUP mm	NOMINAL WEIGHT OF CABLE kg/km	NOMINAL WEIGHT OF TRIPLEX GROUP kg/km	MINIMUM BENDING RADIUS (STATIC) mm	MAXIMUM PULLING TENSION ON CABLE kg
70	9.8	17.8	26	51	1200	4680	340	350
95	11.5	19.4	28	58	1500	5640	360	475
120	12.8	20.9	29	60	1800	6480	380	600
150	14.3	22.2	31	65	2100	7440	390	750
185	15.9	24.2	32	70	2500	8580	420	925
240	18.4	26.0	35	75	3100	10590	440	1200
300	20.5	28.9	38	88	3750	12660	470	1500
400	23.2	32.1	41	94	4650	15450	500	2000
500	26.2	35.0	44	-	5700	-	540	2500
630	30.3	39.1	48	-	7150	-	580	3150
800	34.7	43.7	54	-	8950	-	660	4000
1000	38.0	47.1	59	-	11050	-	710	5000

ELECTRICAL CHARACTERISTICS

NOMINAL CROSS SECTIONAL AREA mm ²	MAXIMUM DC RESISTANCE AT 20°C ohms/km	MAXIMUM AC RESISTANCE AT 90°C ohms/km	INDUCTANCE mh/kg	REACTANCE AT 50HZ ohms/km	IMPEDANCE AT 50 HZ AT 90°C ohms/km	MAXIMUM CAPACITANCE µF/km	MAXIMUM CHARGING CURRENT A/km
70	0.268	0.342	0.396	0.124	0.364	0.289	0.58
95	0.193	0.247	0.378	0.119	0.274	0.324	0.65
120	0.153	0.196	0.361	0.114	0.226	0.353	0.71
150	0.124	0.159	0.351	0.11	0.194	0.382	0.76
185	0.0991	0.128	0.343	0.108	0.167	0.407	0.81
240	0.0754	0.098	0.328	0.103	0.142	0.455	0.91
300	0.0601	0.079	0.316	0.099	0.127	0.51	1.02
400	0.047	0.063	0.305	0.096	0.115	0.565	1.30
500	0.0366	0.051	0.297	0.093	0.106	0.623	1.24
630	0.0283	0.042	0.288	0.09	0.099	0.693	1.38
800	0.0221	0.035	0.275	0.086	0.093	0.815	1.63
1000	0.0176	0.03	0.268	0.084	0.089	0.904	1.80

SHORT CIRCUIT RATINGS

NOMINAL CROSS SECTIONAL AREA mm ²	1 SECOND SHORT CIRCUIT-RATING OF CONDUCTOR (90 TO 250°C) kA	1 SECOND SHORT CIRCUIT-RATING OF A 35 MM ² COPPER WIRE SCREEN (80 TO 250°C) kA	1 SECOND SHORT CIRCUIT-RATING OF A 50 MM ² COPPER WIRE SCREEN (80 TO 250°C) kA
70	9.7	4.8	8.2
95	13.5	4.8	8.2
120	17.1	4.8	8.2
150	21	4.8	8.2
185	26.3	4.8	8.2
240	34.6	4.8	8.2
300	43.4	4.8	8.2
400	57.7	4.8	8.2
500	72.1	4.8	8.2
630	90.7	4.8	8.2
800	115.1	4.8	8.2
1000	143.8	4.8	8.2

CONTINUOUS CURRENT CARRYING CAPACITY

NOMINAL CROSS SECTIONAL AREA mm ²	DIRECT BURIED Amps	SINGLE WAY DUCTS Amps	IN AIR Amps
70	270	270	320
95	320	320	390
120	360	360	445
150	410	405	510
185	460	445	580
240	530	520	680
300	600	570	770
400	690	630	890
500	760	700	1020
630	850	780	1160
800	930	860	1290
1000	1010	920	1430

6.35/11 (12)kV Single Core (Triplex) Unarmoured Aluminium Conductors



CONSTRUCTION

Conductor

Class 2 Stranded Aluminium Conductor

Insulation

XLPE (Cross-Linked Polyethylene)

Metallic Screen

Copper Wires with Equalising Copper Tape

Separator

Binding Tape

Sheath

MDPE (Medium Density Polyethylene)

CABLE STANDARDS

BS 7870-4.10, IEC 60502



The electrical and dimensional properties of this product are measured by the Technical and Quality Assurance department at the Eland Cables laboratory. Cable performance in respect of conductor resistance, construction quality (workmanship), dimensional consistency, and other parameters are verified to published standards and approved product drawings. Conformance to RoHS (Restriction of the use of Hazardous Substances) is determined and confirmed.

CHARACTERISTICS

Voltage Rating

6.35/11 (12)kV

Temperature Rating

0°C to +90°C

DIMENSIONS

NOMINAL CROSS SECTIONAL AREA mm ²	DIAMETER OVER CONDUCTOR mm	NOMINAL DIAMETER OVER INSULATION mm	NOMINAL OVERALL DIAMETER mm	NOMINAL OVERALL DIAMETER OF TRIPLEX GROUP mm	NOMINAL WEIGHT OF CABLE kg/km	NOMINAL WEIGHT OF TRIPLEX GROUP kg/km	MINIMUM BENDING RADIUS (STATIC) mm	MAXIMUM PULLING TENSION ON CABLE kg
70	9.8	17.8	26	51	1050	3150	340	210
95	11.5	19.4	28	58	1150	3450	360	475
120	12.8	20.9	29	60	1300	3900	380	600
150	14.3	22.2	31	65	1400	4200	390	750
185	15.9	24.2	32	70	1550	4650	420	925
240	18.4	26.0	35	75	1800	5400	440	1200
300	20.5	28.9	38	88	2050	6150	470	1500
400	23.2	32.1	41	94	2400	7200	500	2000
500	26.2	35.0	44	-	2800	-	540	2500
630	30.3	39.1	48	-	3300	-	580	3150
800	34.7	43.7	54	-	4050	-	660	4000
1000	38.0	47.1	59	-	4800	-	710	5000

ELECTRICAL CHARACTERISTICS

NOMINAL CROSS SECTIONAL AREA mm ²	MAXIMUM DC RESISTANCE AT 20°C ohms/km	MAXIMUM AC RESISTANCE AT 90°C ohms/km	INDUCTANCE mh/kg	REACTANCE AT 50HZ ohms/km	IMPEDANCE AT 50 HZ AT 90°C ohms/km	MAXIMUM CAPACITANCE μF/km	MAXIMUM CHARGING CURRENT A/km
70	0.443	0.568	0.422	0.133	0.583	0.289	0.58
95	0.32	0.411	0.401	0.126	0.429	0.324	0.65
120	0.253	0.325	0.385	0.121	0.347	0.353	0.71
150	0.206	0.265	0.377	0.119	0.29	0.382	0.76
185	0.164	0.211	0.364	0.114	0.24	0.417	0.83
240	0.125	0.161	0.348	0.109	0.195	0.465	0.93
300	0.10	0.13	0.336	0.106	0.167	0.51	1.02
400	0.078	0.102	0.325	0.102	0.144	0.565	1.13
500	0.061	0.08	0.32	0.10	0.128	0.623	1.24
630	0.047	0.063	0.31	0.097	0.116	0.693	1.38
800	0.037	0.051	0.295	0.093	0.106	0.815	1.63
1000	0.029	0.042	0.287	0.09	0.10	0.904	1.80

SHORT CIRCUIT RATINGS

NOMINAL CROSS SECTIONAL AREA mm ²	1 SECOND SHORT CIRCUIT-RATING OF CONDUCTOR (90 TO 250°C) kA	1 SECOND SHORT CIRCUIT-RATING OF A 35 MM ² COPPER WIRE SCREEN (80 TO 250°C) kA	1 SECOND SHORT CIRCUIT-RATING OF A 50 MM ² COPPER WIRE SCREEN (80 TO 250°C) kA
70	6.4	4.8	8.2
95	8.9	4.8	8.2
120	11.3	4.8	8.2
150	13.9	4.8	8.2
185	17.4	4.8	8.2
240	22.9	4.8	8.2
300	28.7	4.8	8.2
400	36.8	4.8	8.2
500	46.4	4.8	8.2
630	59.5	4.8	8.2
800	>60	4.8	8.2
1000	>60	4.8	8.2

CONTINUOUS CURRENT CARRYING CAPACITY

NOMINAL CROSS SECTIONAL AREA mm ²	DIRECT BURIED Amps	SINGLE WAY DUCTS Amps	IN AIR Amps
70	210	215	240
95	250	255	300
120	280	285	335
150	320	315	380
185	360	350	435
240	415	405	510
300	475	455	600
400	540	510	700
500	610	570	810
630	680	640	930
800	770	710	1070
1000	850	790	1210

6.35/11 (12)kV Three Core Armoured Copper Conductors



CONSTRUCTION

Conductor

Class 2 Stranded Copper Conductor

Insulation

XLPE (Cross-Linked Polyethylene)

Metallic Screen

Concentric Screen of Wires and Equalising Copper Tape

Separator

Binding Tape

Bedding

PVC (Polyvinyl Chloride)

Armour

SWA (Steel Wire Armoured)

Sheath

PVC (Polyvinyl Chloride)

NOTE:

Low Smoke Zero Halogen (LSZH) options available to BS 7835

CABLE STANDARDS

BS 6622 (PVC)



The electrical and dimensional properties of this product are measured by the Technical and Quality Assurance department at the Eland Cables laboratory. Cable performance in respect of conductor resistance, construction quality (workmanship), dimensional consistency, and other parameters are verified to published standards and approved product drawings. Conformance to RoHS (Restriction of the use of Hazardous Substances) is determined and confirmed.

CHARACTERISTICS

Voltage Rating

6.35/11 (12)kV

Temperature Rating

0°C to +90°C

DIMENSIONS

NOMINAL CROSS SECTIONAL AREA mm ²	DIAMETER OVER CONDUCTOR mm	NOMINAL DIAMETER OVER INSULATION mm	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT OF CABLE kg/km	MINIMUM BENDING RADIUS (STATIC) mm	MAXIMUM PULLING TENSION ON CABLE kg
70	9.8	17.8	60	6750	750	1050
95	11.5	19.5	65	8000	800	1425
120	12.8	20.8	68	9100	850	1800
150	14.3	22.3	72	10250	900	2250
185	15.9	23.9	75	11650	900	2775
240	18.4	26.4	82	14900	1000	3600
300	20.5	28.9	89	17450	1100	4500
400	23.2	32.0	95	20850	1150	5000

ELECTRICAL CHARACTERISTICS

NOMINAL CROSS SECTIONAL AREA mm ²	MAXIMUM DC RESISTANCE AT 20°C ohms/km	MAXIMUM AC RESISTANCE AT 90°C ohms/km	INDUCTANCE mh/kg	REACTANCE AT 50HZ ohms/km	IMPEDANCE AT 50 HZ AT 90°C ohms/km	MAXIMUM CAPACITANCE µF/km	MAXIMUM CHARGING CURRENT A/km
70	0.268	0.42	0.35	0.11	0.359	0.289	0.58
95	0.193	0.247	0.333	0.105	0.268	0.324	0.65
120	0.153	0.196	0.32	0.10	0.22	0.353	0.71
150	0.124	0.16	0.31	0.097	0.187	0.382	0.76
185	0.0991	0.128	0.303	0.095	0.16	0.407	0.81
240	0.0754	0.986	0.290	0.091	0.134	0.455	0.91
300	0.0601	0.0798	0.28	0.088	0.119	0.51	1.02
400	0.047	0.064	0.271	0.085	0.107	0.565	1.30

SHORT CIRCUIT RATINGS

NOMINAL CROSS SECTIONAL AREA mm ²	1 SECOND SHORT CIRCUIT-RATING OF CONDUCTOR (90 TO 250°C) kA	1 SECOND SHORT CIRCUIT-RATING OF METALLIC SCREEN (80 TO 200°C) kA
70	9.7	9.7
95	13.5	13.5
120	17.1	14.6
150	21	15.3
185	26.3	16
240	34.6	22.1
300	43.4	23.9
400	55.6	26.1

CONTINUOUS CURRENT CARRYING CAPACITY

NOMINAL CROSS SECTIONAL AREA mm ²	DIRECT BURIED Amps	SINGLE WAY DUCTS Amps	IN AIR Amps
70	255	215	270
95	300	255	330
120	340	290	375
150	380	330	430
185	430	370	490
240	490	425	570
300	540	470	650
400	590	520	700

6.35/11 (12)kV Three Core Armoured Aluminium Conductors



CONSTRUCTION

Conductor

Class 2 Stranded Aluminium Conductor

Insulation

XLPE (Cross-Linked Polyethylene)

Metallic Screen

Concentric Screen of Wires and Equalising Copper Tape

Separator

Binding Tape

Bedding

PVC (Polyvinyl Chloride)

Armour

SWA (Steel Wire Armoured)

Sheath

PVC (Polyvinyl Chloride)

NOTE:

Low Smoke Zero Halogen (LSZH) options available to BS 7835

CABLE STANDARDS

BS 6622 (PVC)



The electrical and dimensional properties of this product are measured by the Technical and Quality Assurance department at the Eland Cables laboratory. Cable performance in respect of conductor resistance, construction quality (workmanship), dimensional consistency, and other parameters are verified to published standards and approved product drawings. Conformance to RoHS (Restriction of the use of Hazardous Substances) is determined and confirmed.

CHARACTERISTICS

Voltage Rating

6.35/11 (12)kV

Temperature Rating

0°C to +90°C

DIMENSIONS

NOMINAL CROSS SECTIONAL AREA mm ²	DIAMETER OVER CONDUCTOR mm	NOMINAL DIAMETER OVER INSULATION mm	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT OF CABLE kg/km	MINIMUM BENDING RADIUS (STATIC) mm	MAXIMUM PULLING TENSION ON CABLE kg
70	9.8	17.8	60	5400	750	630
95	11.5	19.5	65	6150	800	855
120	12.8	20.8	68	6800	850	1080
150	14.3	22.3	72	7400	900	1350
185	15.9	23.9	75	8250	900	1665
240	18.4	26.4	82	10400	1000	2160
300	20.5	28.9	89	11650	1100	2700
400	23.2	32.0	95	13400	1150	3600

ELECTRICAL CHARACTERISTICS

NOMINAL CROSS SECTIONAL AREA mm ²	MAXIMUM DC RESISTANCE AT 20°C ohms/km	MAXIMUM AC RESISTANCE AT 90°C ohms/km	INDUCTANCE mh/kg	REACTANCE AT 50HZ ohms/km	IMPEDANCE AT 50 HZ AT 90°C ohms/km	MAXIMUM CAPACITANCE µF/km	MAXIMUM CHARGING CURRENT A/km
70	0.443	0.568	0.35	0.11	0.579	0.289	0.58
95	0.32	0.411	0.333	0.105	0.424	0.324	0.65
120	0.253	0.325	0.32	0.10	0.34	0.353	0.71
150	0.206	0.265	0.31	0.097	0.282	0.382	0.76
185	0.164	0.211	0.301	0.094	0.231	0.417	0.83
240	0.125	0.162	0.289	0.091	0.185	0.465	0.93
300	0.10	0.13	0.28	0.088	0.157	0.510	1.02
400	0.078	0.102	0.271	0.085	0.133	0.565	1.13

SHORT CIRCUIT RATINGS

NOMINAL CROSS SECTIONAL AREA mm ²	1 SECOND SHORT CIRCUIT-RATING OF CONDUCTOR (90 TO 250°C) kA	1 SECOND SHORT CIRCUIT-RATING OF METALLIC SCREEN (80 TO 200°C) kA
70	6.4	6.4
95	8.9	8.9
120	11.3	11.3
150	13.9	13.9
185	17.4	16.2
240	22.9	22.5
300	28.7	23.9
400	36.9	26.1

CONTINUOUS CURRENT CARRYING CAPACITY

NOMINAL CROSS SECTIONAL AREA mm ²	DIRECT BURIED Amps	SINGLE WAY DUCTS Amps	IN AIR Amps
70	195	165	210
95	230	200	250
120	265	225	295
150	300	255	330
185	335	290	385
240	380	335	450
300	435	375	510
400	490	425	590

6.35/11 (12)kV Three Core Unarmoured Copper Conductors



CONSTRUCTION

Conductor

Class 2 Stranded Copper Conductor

Insulation

XLPE (Cross-Linked Polyethylene)

Metallic Screen

Concentric Screen of Wires and Equalising Copper Tape

Separator

Binding Tape

Sheath

MDPE (Medium Density Polyethylene)

CABLE STANDARDS

BS 7870-4.20, IEC 60502



The electrical and dimensional properties of this product are measured by the Technical and Quality Assurance department at the Eland Cables laboratory. Cable performance in respect of conductor resistance, construction quality (workmanship), dimensional consistency, and other parameters are verified to published standards and approved product drawings. Conformance to RoHS (Restriction of the use of Hazardous Substances) is determined and confirmed.

CHARACTERISTICS

Voltage Rating

6.35/11 (12)kV

Temperature Rating

0°C to +90°C

DIMENSIONS

NOMINAL CROSS SECTIONAL AREA mm ²	DIAMETER OVER CONDUCTOR mm	NOMINAL DIAMETER OVER INSULATION mm	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT OF CABLE kg/km	MINIMUM BENDING RADIUS (STATIC) mm	MAXIMUM PULLING TENSION ON CABLE kg
70	9.8	17.8	55	4300	850	1050
95	11.5	19.4	60	5300	900	1425
120	12.8	20.9	63	6250	950	1800
150	14.3	22.2	67	7250	1000	2250
185	15.9	24.2	69	8500	1050	2775
240	18.4	26.0	75	10500	1150	3600
300	20.5	28.9	81	12700	1250	4500
400	23.2	32.1	88	15550	1350	5000

ELECTRICAL CHARACTERISTICS

NOMINAL CROSS SECTIONAL AREA mm ²	MAXIMUM DC RESISTANCE AT 20°C ohms/km	MAXIMUM AC RESISTANCE AT 90°C ohms/km	INDUCTANCE mh/kg	REACTANCE AT 50HZ ohms/km	IMPEDANCE AT 50 HZ AT 90°C ohms/km	MAXIMUM CAPACITANCE µF/km	MAXIMUM CHARGING CURRENT A/km
70	0.268	0.342	0.396	0.124	0.364	0.289	0.58
95	0.193	0.247	0.378	0.119	0.274	0.324	0.65
120	0.153	0.196	0.361	0.114	0.226	0.353	0.71
150	0.124	0.159	0.351	0.11	0.194	0.382	0.76
185	0.0991	0.128	0.343	0.108	0.167	0.407	0.81
240	0.0754	0.098	0.328	0.103	0.142	0.455	0.91
300	0.0601	0.079	0.316	0.099	0.127	0.51	1.02
400	0.047	0.063	0.305	0.096	0.115	0.565	1.13

SHORT CIRCUIT RATINGS

NOMINAL CROSS SECTIONAL AREA mm ²	1 SECOND SHORT CIRCUIT-RATING OF CONDUCTOR (90 TO 250°C) kA	1 SECOND SHORT CIRCUIT-RATING OF A 35 MM ² COPPER WIRE SCREEN (80 TO 250°C) kA
70	9.7	4.8
95	13.5	4.8
120	17.1	4.8
150	21.0	4.8
185	26.3	4.8
240	34.6	4.8
300	43.4	4.8
400	57.7	4.8

CONTINUOUS CURRENT CARRYING CAPACITY

NOMINAL CROSS SECTIONAL AREA mm ²	DIRECT BURIED Amps	SINGLE WAY DUCTS Amps	IN AIR Amps
70	255	220	285
95	300	255	330
120	340	295	385
150	380	325	435
185	430	370	500
240	500	430	580
300	560	485	660
400	610	530	710

6.35/11 (12)kV Three Core Unarmoured Aluminium Conductors



CONSTRUCTION

Conductor

Class 2 Stranded Aluminium Conductor

Insulation

XLPE (Cross-Linked Polyethylene)

Metallic Screen

Concentric Screen of Wires and Equalising Copper Tape

Separator

Binding Tape

Sheath

MDPE (Medium Density Polyethylene)

CABLE STANDARDS

BS 7870-4.20, IEC 60502



The electrical and dimensional properties of this product are measured by the Technical and Quality Assurance department at the Eland Cables laboratory. Cable performance in respect of conductor resistance, construction quality (workmanship), dimensional consistency, and other parameters are verified to published standards and approved product drawings. Conformance to RoHS (Restriction of the use of Hazardous Substances) is determined and confirmed.

CHARACTERISTICS

Voltage Rating

6.35/11 (12)kV

Temperature Rating

0°C to +90°C

DIMENSIONS

NOMINAL CROSS SECTIONAL AREA mm ²	DIAMETER OVER CONDUCTOR mm	NOMINAL DIAMETER OVER INSULATION mm	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT OF CABLE kg/km	MINIMUM BENDING RADIUS (STATIC) mm	MAXIMUM PULLING TENSION ON CABLE kg
70	9.8	17.8	55	3000	850	630
95	11.5	19.4	60	3500	900	855
120	12.8	20.9	63	3950	950	1080
150	14.3	22.2	67	4400	1000	1350
185	15.9	24.2	69	5000	1050	1665
240	18.4	26	75	5950	1150	2160
300	20.5	28.9	81	6900	1250	2700
400	23.2	32.1	88	8100	1350	3600

ELECTRICAL CHARACTERISTICS

NOMINAL CROSS SECTIONAL AREA mm ²	MAXIMUM DC RESISTANCE AT 20°C ohms/km	MAXIMUM AC RESISTANCE AT 90°C ohms/km	INDUCTANCE mh/kg	REACTANCE AT 50HZ ohms/km	IMPEDANCE AT 50 HZ AT 90°C ohms/km	MAXIMUM CAPACITANCE µF/km	MAXIMUM CHARGING CURRENT A/km
70	0.443	0.568	0.422	0.133	0.583	0.289	0.58
95	0.32	0.411	0.401	0.126	0.429	0.324	0.65
120	0.253	0.325	0.385	0.121	0.347	0.353	0.71
150	0.206	0.265	0.377	0.119	0.29	0.382	0.76
185	0.164	0.211	0.364	0.114	0.24	0.417	0.83
240	0.125	0.161	0.348	0.109	0.195	0.465	0.93
300	0.10	0.13	0.336	0.106	0.1967	0.51	1.02
400	0.0778	0.102	0.325	0.102	0.144	0.565	1.13

SHORT CIRCUIT RATINGS

NOMINAL CROSS SECTIONAL AREA mm ²	1 SECOND SHORT CIRCUIT-RATING OF CONDUCTOR (90 TO 250°C) kA	1 SECOND SHORT CIRCUIT-RATING OF A 35 MM ² COPPER WIRE SCREEN (80 TO 250°C) kA
70	6.4	4.8
95	8.9	4.8
120	11.3	4.8
150	13.9	4.8
185	17.4	4.8
240	22.9	4.8
300	28.7	4.8
400	36.8	4.8

CONTINUOUS CURRENT CARRYING CAPACITY

NOMINAL CROSS SECTIONAL AREA mm ²	DIRECT BURIED Amps	SINGLE WAY DUCTS Amps	IN AIR Amps
70	200	170	220
95	235	200	255
120	265	230	295
150	295	255	335
185	335	290	385
240	390	340	450
300	435	380	510
400	500	435	595

19/33 (36)kV Single Core Unarmoured Copper Conductors



CONSTRUCTION

Conductor

Class 2 Stranded Copper Conductor

Insulation

XLPE (Cross-Linked Polyethylene)

Metallic Screen

Concentric Screen of Wires and Equalising Copper Tape

Separator

Binding Tape

Sheath

MDPE (Medium Density Polyethylene)

CABLE STANDARDS

BS 7870-4.10, IEC 60502



The electrical and dimensional properties of this product are measured by the Technical and Quality Assurance department at the Eland Cables laboratory. Cable performance in respect of conductor resistance, construction quality (workmanship), dimensional consistency, and other parameters are verified to published standards and approved product drawings. Conformance to RoHS (Restriction of the use of Hazardous Substances) is determined and confirmed.

CHARACTERISTICS

Voltage Rating

19/33 (36)kV

Temperature Rating

0°C to +90°C

DIMENSIONS

NOMINAL CROSS SECTIONAL AREA mm ²	DIAMETER OVER CONDUCTOR mm	NOMINAL DIAMETER OVER INSULATION mm	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT OF CABLE kg/km	MINIMUM BENDING RADIUS (STATIC) mm	MAXIMUM PULLING TENSION ON CABLE kg
70	9.8	27.0	34.1	1560	340	350
95	11.5	28.7	36.1	1880	360	475
120	12.8	30.0	37.5	2160	380	600
150	14.3	31.5	39.3	2480	390	750
185	15.9	33.1	41.0	2860	420	925
240	18.4	35.6	43.8	3530	440	1200
300	20.5	38.1	46.6	4220	470	1500
400	23.2	41.2	50.2	5150	500	2000
500	26.2	44.2	53.4	6250	540	2500
630	30.3	48.3	58.0	7740	580	3150
800	34.7	52.7	66.0	9630	660	4000
1000	38.0	57.3	71.0	12200	710	5000

ELECTRICAL CHARACTERISTICS

NOMINAL CROSS SECTIONAL AREA mm ²	MAXIMUM DC RESISTANCE AT 20°C ohms/km	MAXIMUM AC RESISTANCE AT 90°C ohms/km	INDUCTANCE mh/kg	REACTANCE AT 50HZ ohms/km	IMPEDANCE AT 50 HZ AT 90°C ohms/km	MAXIMUM CAPACITANCE µF/km	MAXIMUM CHARGING CURRENT A/km
70	0.268	0.342	0.46	0.144	0.371	0.155	0.93
95	0.193	0.247	0.437	0.137	0.282	0.16	1.02
120	0.153	0.196	0.40	0.131	0.236	0.17	1.10
150	0.124	0.159	0.38	0.127	0.204	0.18	1.17
185	0.0991	0.128	0.37	0.124	0.178	0.2	1.24
240	0.0754	0.098	0.36	0.118	0.153	0.22	1.36
300	0.0601	0.079	0.36	0.114	0.138	0.25	1.51
400	0.047	0.063	0.33	0.109	0.126	0.26	1.65
500	0.0366	0.051	0.32	0.106	0.117	0.29	1.80
630	0.0283	0.042	0.31	0.102	0.11	0.32	1.98
800	0.0221	0.035	0.30	0.097	0.102	0.35	2.29
1000	0.0176	0.03	0.29	0.094	0.098	0.38	2.52

SHORT CIRCUIT RATINGS

NOMINAL CROSS SECTIONAL AREA mm ²	1 SECOND SHORT CIRCUIT-RATING OF CONDUCTOR (90 TO 250°C) kA	1 SECOND SHORT CIRCUIT-RATING OF A 35 MM ² COPPER WIRE SCREEN (80 TO 200°C) kA
70	9.7	4.8
95	13.5	4.8
120	17.1	4.8
150	21.0	4.8
185	26.3	4.8
240	34.6	4.8
300	43.4	4.8
400	57.7	4.8
500	72.1	4.8
630	90.7	4.8
800	115.1	4.8
1000	143.8	4.8

CONTINUOUS CURRENT CARRYING CAPACITY

NOMINAL CROSS SECTIONAL AREA mm ²	DIRECT BURIED Amps	SINGLE WAY DUCTS Amps	IN AIR Amps
70	270	270	320
95	320	320	390
120	360	360	445
150	410	405	510
185	460	445	580
240	530	520	680
300	600	570	770
400	690	630	890
500	760	700	1020
630	850	780	1160
800	930	860	1290
1000	1010	920	1430

19/33 (36)kV Single Core Unarmoured Aluminium Conductors



CONSTRUCTION

Conductor

Class 2 Stranded Aluminium Conductor

Insulation

XLPE (Cross-Linked Polyethylene)

Metallic Screen

Concentric Screen of Wires and Equalising Copper Tape

Separator

Binding Tape

Sheath

MDPE (Medium Density Polyethylene)

CABLE STANDARDS

BS 7870-4.10, IEC 60502



The electrical and dimensional properties of this product are measured by the Technical and Quality Assurance department at the Eland Cables laboratory. Cable performance in respect of conductor resistance, construction quality (workmanship), dimensional consistency, and other parameters are verified to published standards and approved product drawings. Conformance to RoHS (Restriction of the use of Hazardous Substances) is determined and confirmed.

CHARACTERISTICS

Voltage Rating

19/33 (36)kV

Temperature Rating

0°C to +90°C

DIMENSIONS

NOMINAL CROSS SECTIONAL AREA mm ²	DIAMETER OVER CONDUCTOR mm	NOMINAL DIAMETER OVER INSULATION mm	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT OF CABLE kg/km	MINIMUM BENDING RADIUS (STATIC) mm	MAXIMUM PULLING TENSION ON CABLE kg
70	9.8	27.0	34.1	1550	800	210
95	11.5	28.7	36.1	1750	850	285
120	12.8	30.0	37.5	1850	850	360
150	14.3	31.5	39.3	2000	900	450
185	15.9	33.1	41.0	2200	950	555
240	18.4	35.6	43.8	2500	1000	720
300	20.5	38.1	46.6	2800	1050	900
400	23.2	41.2	50.2	3200	1100	1200
500	26.2	44.2	53.4	3600	1150	1500
630	30.3	48.3	58.0	4200	1250	1890
800	34.7	52.7	66.0	5050	1350	2400
1000	38.0	57.3	71.0	6000	1450	3000

ELECTRICAL CHARACTERISTICS

NOMINAL CROSS SECTIONAL AREA mm ²	MAXIMUM DC RESISTANCE AT 20°C ohms/km	MAXIMUM AC RESISTANCE AT 90°C ohms/km	INDUCTANCE mh/kg	REACTANCE AT 50HZ ohms/km	IMPEDANCE AT 50 HZ AT 90°C ohms/km	MAXIMUM CAPACITANCE µF/km	MAXIMUM CHARGING CURRENT A/km
70	0.443	0.568	0.46	0.144	0.586	0.155	0.93
95	0.32	0.411	0.437	0.137	0.433	0.17	1.02
120	0.253	0.325	0.419	0.131	0.35	0.183	1.10
150	0.206	0.265	0.406	0.127	0.294	0.196	1.17
185	0.164	0.211	0.391	0.123	0.244	0.211	1.26
240	0.125	0.161	0.374	0.117	0.199	0.232	1.39
300	0.10	0.129	0.361	0.114	0.172	0.252	1.51
400	0.0778	0.101	0.348	0.109	0.149	0.275	1.65
500	0.0605	0.0778	0.337	0.106	0.132	0.30	1.80
630	0.0469	0.0629	0.325	0.102	0.12	0.33	1.98
800	0.0367	0.0367	0.308	0.097	0.109	0.383	2.29
1000	0.0291	0.0291	0.299	0.094	0.103	0.421	2.52

SHORT CIRCUIT RATINGS

NOMINAL CROSS SECTIONAL AREA mm ²	1 SECOND SHORT CIRCUIT-RATING OF CONDUCTOR (90 TO 250°C) kA	1 SECOND SHORT CIRCUIT-RATING OF A 35 MM ² COPPER WIRE SCREEN (80 TO 200°C) kA
70	6.4	4.8
95	8.9	4.8
120	11.3	4.8
150	13.9	4.8
185	17.4	4.8
240	22.9	4.8
300	28.7	4.8
400	36.8	4.8
500	46.4	4.8
630	59.9	4.8
800	>60	4.8
1000	>60	4.8

CONTINUOUS CURRENT CARRYING CAPACITY

NOMINAL CROSS SECTIONAL AREA mm ²	DIRECT BURIED Amps	SINGLE WAY DUCTS Amps	IN AIR Amps
70	210	210	250
95	250	250	305
120	280	280	345
150	320	320	400
185	360	350	450
240	415	415	530
300	475	460	600
400	550	520	700
500	610	570	820
630	690	650	940
800	780	770	1070
1000	860	800	1210

19/33 (36)kV Single Core Armoured Copper Conductors



CONSTRUCTION

Conductor

Class 2 Stranded Copper Conductor

Insulation

XLPE (Cross-Linked Polyethylene)

Metallic Screen

Concentric Screen of Wires and Equalising Copper Tape

Separator

Binding Tape

Bedding

PVC (Polyvinyl Chloride)

Armour

AWA (Aluminium Wire Armoured)

Sheath

PVC (Polyvinyl Chloride)

NOTE:

Low Smoke Zero Halogen (LSZH) options available to BS 7835

CABLE STANDARDS

BS 6622 (PVC)



The electrical and dimensional properties of this product are measured by the Technical and Quality Assurance department at the Eland Cables laboratory. Cable performance in respect of conductor resistance, construction quality (workmanship), dimensional consistency, and other parameters are verified to published standards and approved product drawings. Conformance to RoHS (Restriction of the use of Hazardous Substances) is determined and confirmed.

CHARACTERISTICS

Voltage Rating

19/33 (36)kV

Temperature Rating

0°C to +90°C

DIMENSIONS

NOMINAL CROSS SECTIONAL AREA mm ²	DIAMETER OVER CONDUCTOR mm	NOMINAL DIAMETER OVER INSULATION mm	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT OF CABLE kg/km	MINIMUM BENDING RADIUS (STATIC) mm	MAXIMUM PULLING TENSION ON CABLE kg
70	9.8	27.0	43	2450	900	350
95	11.5	28.7	45	2800	900	475
120	12.8	30.0	47	3150	950	600
150	14.3	31.5	50	3650	1000	750
185	15.9	33.1	51	4150	1050	925
240	18.4	35.6	54	4800	1100	1200
300	20.5	38.1	57	5600	1150	1500
400	23.2	41.2	60	6000	1200	2000
500	26.2	44.2	63	7800	1300	2500
630	30.3	48.3	67	9400	1350	3150
800	34.7	52.7	74	11550	1500	4000
1000	38.0	57.3	79	13850	1600	5000

ELECTRICAL CHARACTERISTICS

NOMINAL CROSS SECTIONAL AREA mm ²	MAXIMUM DC RESISTANCE AT 20°C ohms/km	MAXIMUM AC RESISTANCE AT 90°C ohms/km	INDUCTANCE mh/kg	REACTANCE AT 50HZ ohms/km	IMPEDANCE AT 50 HZ AT 90°C ohms/km	MAXIMUM CAPACITANCE µF/km	MAXIMUM CHARGING CURRENT A/km
70	0.268	0.342	0.482	0.152	0.374	0.155	0.93
95	0.193	0.247	0.458	0.144	0.286	0.17	1.02
120	0.153	0.196	0.439	0.138	0.239	0.183	1.10
150	0.124	0.159	0.431	0.135	0.209	0.196	1.17
185	0.0991	0.127	0.420	0.132	0.183	0.207	1.24
240	0.0754	0.0974	0.40	0.126	0.159	0.228	1.36
300	0.0601	0.0783	0.383	0.12	0.144	0.252	1.51
400	0.047	0.0622	0.369	0.116	0.132	0.275	1.65
500	0.0366	0.0496	0.357	0.112	0.123	0.30	1.80
630	0.0283	0.0399	0.344	0.108	0.115	0.33	1.98
800	0.0211	0.0331	0.327	0.103	0.108	0.383	2.29
1000	0.0176	0.0284	0.317	0.099	0.103	0.421	2.52

SHORT CIRCUIT RATINGS

NOMINAL CROSS SECTIONAL AREA mm ²	1 SECOND SHORT CIRCUIT-RATING OF CONDUCTOR (90 TO 250°C) kA	1 SECOND SHORT CIRCUIT-RATING OF A METALLIC SCREEN (80 TO 200°C) kA
70	9.7	9.7
95	13.5	13.3
120	17.1	13.8
150	21.0	18.3
185	26.3	19.1
240	34.6	20.0
300	43.4	21.2
400	55.6	22.5
500	>60	24.2
630	>60	25.8
800	>60	28.7
1000	>60	30.8

CONTINUOUS CURRENT CARRYING CAPACITY

NOMINAL CROSS SECTIONAL AREA mm ²	DIRECT BURIED Amps	SINGLE WAY DUCTS Amps	IN AIR Amps
70	270	260	320
95	320	300	380
120	360	340	440
150	410	370	490
185	455	400	560
240	520	450	650
300	580	490	730
400	650	530	830
500	710	570	940
630	760	610	1050
800	810	670	1160
1000	860	700	1260

6/10 (12)kV, 12/20 (24)kV & 18/30 (36)kV NA2XS(F)2Y Aluminium Conductors



APPLICATION

To be laid directly in ground, outdoors, indoors and in cable ducts. The swellable tape provides additional waterblocking properties, making the cable longitudinally water tight and preventing water propagation along the cable.

CONSTRUCTION

Conductor

Class 2 Stranded Aluminium Conductor

Inner Semi-Conductive Layer

Semi-conductive material

Insulation

XLPE (Cross-Linked Polyethylene)

Outer Semi-Conductive Layer

Semi-Conductive Material

Screen

Copper Wires and Copper Tape

Water-blocking

Swellable Tape

Sheath

PE (Polyethylene)

CABLE STANDARDS

DIN VDE 0276-620



The electrical and dimensional properties of this product are measured by the Technical and Quality Assurance department at the Eland Cables laboratory. Cable performance in respect of conductor resistance, construction quality (workmanship), dimensional consistency, and other parameters are verified to published standards and approved product drawings. Conformance to RoHS (Restriction of the use of Hazardous Substances) is determined and confirmed.

CHARACTERISTICS

Voltage Rating (U₀/U)(U_m)

6/10 (12)kV
12/20 (24)kV
18/30 (36)kV

Test Voltage

21kV
42kV
64kV

Temperature Rating

-20°C to +70°C

Short Circuit Temperature

+250°C

Minimum Bending Radius

15 x overall diameter

Sheath Colour

● Black ● Red

DIMENSIONS & ELECTRICAL CHARACTERISTICS 6/10 (12)KV

NO. OF CORES	NOMINAL CROSS SECTIONAL AREA		MAXIMUM OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km	CURRENT CARRYING CAPACITY	
	Conductor mm ²	Copper Wire Screen mm ²			In Trefoil	
					In Ground Amps	In Air Amps
1	35	RM/16	28	600	145	153
1	50	RM/16	29	670	171	183
1	70	RM/16	31	770	208	228
1	95	RM/16	32	880	248	278
1	120	RM/16	34	950	283	321
1	150	RM/25	35	1150	315	364
1	185	RM/25	37	1250	357	418
1	240	RM/25	39	1500	413	494
1	300	RM/25	41	1700	466	568
1	400	RM/35	45	2100	529	660
1	500	RM/35	48	2850	602	767
1	630	RM/35	54	2696	675	890

DIMENSIONS & ELECTRICAL CHARACTERISTICS 12/20 (24)KV

NO. OF CORES	NOMINAL CROSS SECTIONAL AREA		MAXIMUM OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km	CURRENT CARRYING CAPACITY	
	Conductor mm ²	Copper Wire Screen mm ²			In Trefoil	
					In Ground Amps	In Air Amps
1	50	RM/16	33	820	172	185
1	70	RM/16	35	930	210	321
1	95	RM/16	36	1050	251	380
1	120	RM/16	38	1150	285	323
1	150	RM/25	39	1350	319	366
1	185	RM/25	41	1500	361	420
1	240	RM/25	44	1750	417	496
1	300	RM/25	46	2000	471	569
1	400	RM/35	49	2350	535	660

DIMENSIONS & ELECTRICAL CHARACTERISTICS 18/30 (36)KV

NO. OF CORES	NOMINAL CROSS SECTIONAL AREA		MAXIMUM OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km	CURRENT CARRYING CAPACITY	
	Conductor mm ²	Copper Wire Screen mm ²			In Trefoil	
					In Ground Amps	In Air Amps
1	50	RM/16	38	1100	174	187
1	70	RM/16	40	1200	213	232
1	95	RM/16	41	1350	254	282
1	120	RM/16	43	1450	289	325
1	150	RM/25	44	1700	322	367
1	185	RM/25	46	1850	364	421
1	240	RM/25	48	2050	422	496
1	300	RM/25	51	2350	476	568
1	400	RM/35	54	2800	541	650

6/10 (12)kV, 12/20 (24)kV & 18/30 (36)kV NA2XS(FL)2Y Aluminium Conductors



APPLICATION

For installation in ground, in outdoors, indoors and cable ducts for power stations, industry, and distribution networks. The high mechanical durability of the laminated PE-sheath permits strong mechanical stress during installation or during operation. The swellable tape and foil tape offer water blocking properties inside the cable.

CONSTRUCTION

Conductor

Class 2 Stranded Aluminium Conductor

Inner Semi-Conductive Layer

Semi-conductive material

Insulation

XLPE (Cross-Linked Polyethylene)

Outer Semi-Conductive Layer

Semi-Conductive Material

Screen

Copper Wires and Copper Tape

Water-blocking 1

Swellable Tape

Water-blocking 2

Aluminium Foil Tape Tightly Bonded to Sheath

Sheath

PE (Polyethylene)

CABLE STANDARDS

DIN VDE 0276-620



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CHARACTERISTICS

Voltage Rating (U_o/U)(U_m)

6/10 (12)kV
12/20 (24)kV
18/30 (36)kV

Test Voltage

21kV
42kV
64kV

Temperature Rating

-20°C to +70°C

Short Circuit Temperature

+250°C

Minimum Bending Radius

15 x overall diameter

Sheath Colour

● Black ● Red

DIMENSIONS & ELECTRICAL CHARACTERISTICS 6/10 (12)KV

NO. OF CORES	NOMINAL CROSS SECTIONAL AREA		MAXIMUM OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km	CURRENT CARRYING CAPACITY	
	Conductor mm ²	Copper Wire Screen mm ²			In Trefoil	
					In Ground Amps	In Air Amps
1	35	RM/16	26	650	141	148
1	50	RM/16	27	720	166	178
1	70	RM/16	28	810	202	221
1	95	RM/16	30	930	241	270
1	120	RM/16	32	1040	275	311
1	150	RM/25	33	1240	306	353
1	185	RM/25	35	1380	346	406
1	240	RM/25	38	1600	401	479
1	300	RM/25	40	1830	451	547
1	400	RM/35	43	2230	513	640
1	500	RM/35	47	2600	584	744

DIMENSIONS & ELECTRICAL CHARACTERISTICS 12/20 (24)KV

NO. OF CORES	NOMINAL CROSS SECTIONAL AREA		MAXIMUM OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km	CURRENT CARRYING CAPACITY	
	Conductor mm ²	Copper Wire Screen mm ²			In Trefoil	
					In Ground Amps	In Air Amps
1	50	RM/16	32	965	167	180
1	70	RM/16	33	1060	204	224
1	95	RM/16	35	1170	244	272
1	120	RM/16	35	1270	277	313
1	150	RM/25	36	1475	309	355
1	185	RM/25	37	1630	350	407
1	240	RM/25	39	1880	405	481
1	300	RM/25	42	2185	455	548
1	400	RM/35	45	2585	519	640
1	500	RM/35	48	2990	591	743

DIMENSIONS & ELECTRICAL CHARACTERISTICS 18/30 (36)KV

NO. OF CORES	NOMINAL CROSS SECTIONAL AREA		MAXIMUM OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km	CURRENT CARRYING CAPACITY	
	Conductor mm ²	Copper Wire Screen mm ²			In Trefoil	
					In Ground Amps	In Air Amps
1	50	RM/16	34	1200	169	181
1	70	RM/16	36	1360	207	225
1	95	RM/16	37	1465	246	274
1	120	RM/16	39	1570	280	315
1	150	RM/25	41	1820	312	356
1	185	RM/25	42	1980	353	408
1	240	RM/25	45	2280	409	481
1	300	RM/25	47	2485	461	548
1	400	RM/35	50	2985	525	548
1	500	RM/35	54	3490	598	741



Disclaimer

The information contained within these datasheets are for guidance only and are 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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ELAND[®]
CABLES

www.elandcables.com

UK Sales
tel: 020 7241 8787
sales@elandcables.com


International Sales
tel: +44 (0)20 7241 8740
international@elandcables.com

Technical Support
tel: +44 (0)20 7241 8500
technical@elandcables.com

Eland Cables Ltd, 120 Highgate Studios, 53-79 Highgate Rd, London NW5 1TL, United Kingdom

 **ISO 9001**
BS EN Management System
Certification

 **ISO 14001**
BS EN Environmental
Certification

 **ISO 17025**
UKAS Accredited Cable
Testing Laboratory

 **OHSAS 18001**
Occupational Health & Safety
Certification



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