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INTRODUCTION

This brochure contains technical information on all SCC medium voltage XLPE cables including armoured and unarmoured designs, single and multicore constructions and the range of sheathing and screening options. Cables are divided by voltage ratings and each section contains the appropriate technical details, constructional data and current carrying capacities. Other electrical data applicable to medium voltage cables, plus cable handling instructions appear at the end of this brochure.

All cable designs outlined in this brochure use constructions covered by IEC 502 and BS 6622. Please note, however that SCC can also supply a range of alternative designs to meet more specialised customer needs including enhanced fire performance and added environmental protection. Cables can also be supplied with alternative sheathing materials and colours, or can be made to individual customer specifications or other recognised standards. In particular, cables can be manufactured to meet specific requirements for the elimination of smoke and toxic gases using low smoke and non-halogen emitting materials. In all cases, please contact our technical department to discuss your specific needs.

CABLE SELECTION

It is essential that the type of cable ordered is suitable for its intended use. Cable choice will be based on a whole range of factors including installation specifications, relevant local regulations and the performance characteristics of appropriate cable types. It is therefore, impossible to provide a conclusive guide to cable selection and we would advise you to contact us for our specialist advice on suitable designs to meet your specific cable needs.



CABLE SPECIFICATIONS

XLPE INSULATION

SCC medium voltage cables are manufactured using monosil process. Manufacturing XLPE cables for use at voltages up to 33 kV demands highly-specialised plant, state-of-the-art research facilities and meticulous quality control procedures throughout the production process. Materials cleanliness is crucial in ensuring the absolute homogeneity of the finished insulation and all materials must be kept in controlled conditions throughout the production process. Similarly, advanced process controls are needed to maintain consistent production conditions throughout all stages of manufacture to ensure an absolute uniform bond, free of irregularities and voids, between the insulation and the semi-conductive layers of conductor screen and insulation screen.

CONDUCTORS

SCC standard cable designs use plain circular compacted copper conductors conforming to IEC 228 Class 2. Approximate diameters of conductors are provided in this brochure, however as finished diameters can sometimes vary, please contact our technical department for actual dimensions of finished products.

SEMI-CONDUCTING SCREENS

In order to obtain a homogenous and radial electrical field within the insulation, semi-conductive layers of screen are extruded directly on to the conductor and insulation in a single high precision operation. This process, known as triple extrusion, eliminates the possibility of any contamination between the layers which could create irregularities in the electrical field. By careful materials selection and attention to process parameters, it is also possible to produce the insulation screen layers with the required degree of stripping

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as standardised by the national or international specification.

ARMOURING

All single core cables are armoured using aluminium wires applied helically over an extruded PVC bedding. Multicore cables are armoured using either galvanised steel wires or steel tapes.

OVERSHEATHS

SCC medium voltage cables are normally supplied with PVC oversheaths complying with IEC 502, and are coloured red. Other colours may be provided to suit a range of installation considerations such as the effect of UV radiations and differing soil compositions. Anti-termite formulations can also be supplied as well as graphite-coated oversheaths where on-site testing of the sheath is required. Please contact our technical department for full details.

Polyethylene oversheaths can also be specified on medium voltage cables. Polyethylene offers the advantage of much greater impermeability to moisture compared to PVC and can also offer much greater abrasion resistance. These can be important factors when selecting cables for use in hostile environments.

FIRE PERFORMANCE OF CABLE SHEATHS

Cables can be supplied with special flame retardant PVC oversheaths to comply with the IEC:332 standard. We can also supply cables with Low Smoke Halogen Free (LSHF) sheaths according to BS:7211 and BS:6724 standards or other equivalent international standards.



QUALITY ASSURED

Effective quality assurance procedures are essential to ensure the consistency and long term reliability and performance of all products. SCC has always recognised the importance of quality assurance and this commitment is reflected in the company's achievement of ISO 9002 certification. At SCC, quality assurance is an integrated part of the production process and maintained from order entry and manufacture through to testing, packaging and shipping. All quality assurance procedures are regularly audited by international standards organisations and all routine voltage testing is carried out to more stringent levels than that required by standard specifications.

CABLE DIMENSIONS AND WEIGHTS

Approximate cable diameters are provided in this brochure in order to assist in the selection of installation accessories. However, as finished diameters can sometimes vary, please contact our technical department for actual dimensions of all finished products. Similarly, cable weights can vary and the data supplied should be considered as approximate.

As it is company policy to continually improve our products, we reserve the right to alter specifications and data shown in this brochure without prior notice.

CABLE SERVICES



SCC TECHNICAL SUPPORT AND INSTALLATION SERVICES

Please note that SCC offers technical support for all cable installation projects and can also offer comprehensive cable installation services if required. Please contact our Customer Service department for details.

ACCESSORIES

A full range of cable accessories, including jointing materials, terminations and connectors are available from SCC Mass Centres. Mass Centres are located throughout Saudi Arabia and most items can be despatched from stock.

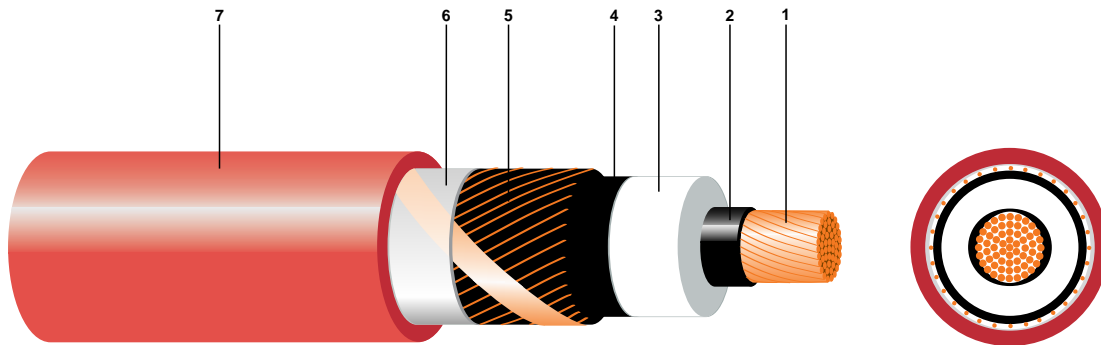
AVAILABILITY

SCC maintains an extensive network of warehousing facilities and most of the cables outlined in this brochure in standard specifications and lengths are available from stock. For full despatch details, shipping procedures and delivery schedules for non-standard cables, please contact our Customer Service department.

3.6/6 KV XLPE INSULATED SINGLE CORE UN-ARMOURED CABLE WITH COPPER CONDUCTOR

MEDIUM VOLTAGE

- | | | |
|---------------------|--|------------------------------------|
| 1. Conductor | 4. Insulation Screen (non-metallic part) | 6. Non-hygroscopic separation tape |
| 2. Conductor Screen | | 7. Outer Sheath |
| 3. Insulation | 5. Insulation Screen (metallic part) | |



DESCRIPTION

Circular stranded compacted copper conductor, XLPE insulated, with copper wire or copper tape screen and PVC outer sheath. Complies with IEC 502.

CONSTRUCTION

Conductor

Plain circular compacted copper conductor to IEC 228 class 2. Aluminium conductor available on request.

Conductor Screen

Extruded semiconductive compound.

Insulation

XLPE (cross-linked polyethylene) rated 90°C.

Insulation Screen (non-metallic part)

Graphite layer covered with semiconductive tape(s) or extruded layer of semiconductive compound firmly bonded to insulation. Semiconductive compound easy strippable from insulation available on request.

Insulation Screen (metallic part)

Copper wires screen or copper tape screen.

Outer Sheath

PVC type ST2 to IEC 502 colour red (black on request). Special PVC formulations with flame retardant and/or anti-termite properties available on request. Low smoke halogen free sheaths available on request.

APPLICATION

For installation on trays, in ducts or by direct burial.

TO ORDER

Order by catalogue number and quantity required.

Example

EQ3AA-27R 5km (10 x 500m) on wooden or steel reels.

Note: In the interests of product improvement, SCC reserves the right to alter cable specifications.

3.6/6 KV SINGLE CORE CABLE WITH COPPER CONDUCTOR AND COPPER WIRE SCREEN

DIMENSIONS AND WEIGHTS

Lapped semiconductive insulation screen

Catalogue number	Conductor		Insulation	Outer sheath		Packaging	
	Cross sect. area of conductor/screen	Diameter of conductor	Thickness of XLPE	Thickness of PVC	Overall diameter	Standard delivery length	Net weight
	Nominal mm ² /mm ²	Nominal mm	Nominal mm	Nominal mm	Approx mm	m+/-5%	Approx kg/km
EQ3AA-09	16/16	4.8	2.5	1.5	18	1000	530
EQ3AA-10	25/16	5.9	2.5	1.5	19	1000	640
EQ3AA-11	35/16	7.0	2.5	1.6	20	1000	760
EQ3AA-14	50/16	8.3	2.5	1.6	21	1000	880
EQ3AA-16	70/16	9.9	2.5	1.6	23	1000	1170
EQ3AA-17	95/16	11.8	2.5	1.7	25	1000	1390
EQ3AA-19	120/16	13.3	2.5	1.8	26	1000	1650
EQ3AA-21	150/25	14.7	2.5	1.8	28	1000	2020
EQ3AA-22	185/25	16.4	2.5	1.9	30	1000	2400
EQ3AA-24	240/25	18.5	2.6	1.9	32	1000	2960
EQ3AA-26	300/25	20.8	2.8	2.0	35	500	3590
EQ3AA-27	400/35	23.5	3.0	2.2	40	500	4560
EQ3AA-28	500/35	26.6	3.2	2.3	43	500	5650
EQ3AA-30	630/35	30.5	3.2	2.4	48	500	7100

3.6/6 KV SINGLE CORE CABLE WITH COPPER CONDUCTOR AND COPPER TAPE SCREEN

Lapped semiconductive insulation screen

Catalogue number	Conductor		Insulation	Outer sheath		Packaging	
	Cross sectional area	Diameter	Thickness of XLPE	Thickness of PVC	Overall diameter	Standard delivery length	Net weight
	Nominal mm ²	Nominal mm	Nominal mm	Nominal mm	Approx mm	m±5%	Approx kg/km
EQ4AA-09	16	4.8	2.5	1.5	16	1000	400
EQ4AA-10	25	5.9	2.5	1.5	17	1000	510
EQ4AA-11	35	7.0	2.5	1.5	18	1000	620
EQ4AA-14	50	8.3	2.5	1.6	20	1000	760
EQ4AA-16	70	9.9	2.5	1.6	21	1000	980
EQ4AA-17	95	11.8	2.5	1.7	23	1000	1270
EQ4AA-19	120	13.3	2.5	1.7	25	1000	1530
EQ4AA-21	150	14.7	2.5	1.8	26	1000	1820
EQ4AA-22	185	16.4	2.5	1.8	28	1000	2190
EQ4AA-24	240	18.5	2.6	1.9	31	1000	2780
EQ4AA-26	300	20.8	2.8	2.0	34	500	3420
EQ4AA-27	400	23.5	3.0	2.1	37	500	4280
EQ4AA-28	500	26.6	3.2	2.2	41	500	5390
EQ4AA-30	630	30.5	3.2	2.3	46	500	6850

3.6/6 KV SINGLE CORE CABLE WITH COPPER CONDUCTOR AND COPPER WIRE SCREEN

DIMENSIONS AND WEIGHTS

Extruded semiconductive insulation screen firmly bonded to insulation

Catalogue number	Conductor		Insulation	Outer sheath		Packaging	
	Cross sect. area of conductor/screen	Diameter of conductor	Thickness	Thickness	Overall diameter	Standard delivery length	Net weight
	Nominal mm ² /mm ²	Nominal mm	Nominal mm	Nominal mm	Approx mm	m±5%	Approx kg/km
EQ7AA-11	35/16	7.0	2.5	1.6	21	1000	810
EQ7AA-14	50/16	8.3	2.5	1.6	22	1000	940
EQ7AA-16	70/16	9.9	2.5	1.6	24	1000	1160
EQ7AA-17	95/16	11.8	2.5	1.7	26	1000	1450
EQ7AA-19	120/16	13.3	2.5	1.8	28	1000	1710
EQ7AA-21	150/25	14.7	2.5	1.8	29	1000	2080
EQ7AA-22	185/25	16.4	2.5	1.9	31	1000	2470
EQ7AA-24	240/25	18.5	2.6	1.9	33	1000	3040
EQ7AA-26	300/25	20.8	2.8	2.0	37	500	3710
EQ7AA-27	400/35	23.5	3.0	2.2	41	500	4680
EQ7AA-28	500/35	26.6	3.2	2.3	44	500	5800
EQ7AA-30	630/35	30.5	3.2	2.4	49	500	7260

3.6/6 KV SINGLE CORE CABLE WITH COPPER CONDUCTOR AND COPPER TAPE SCREEN

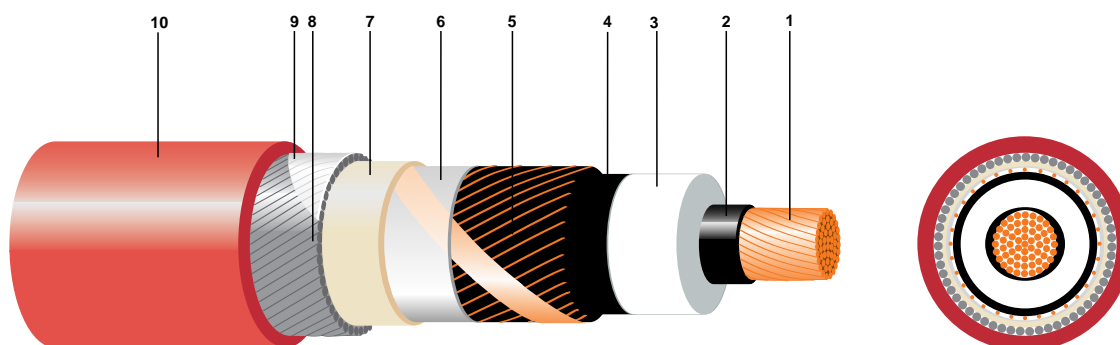
Extruded semiconductive insulation screen firmly bonded to insulation

Catalogue number	Conductor		Insulation	Outer sheath		Packaging	
	Cross sectional area	Diameter	Thickness of XPLE	Thickness	Overall diameter	Standard delivery length	Net weight
	Nominal mm ²	Nominal mm	Nominal mm	Nominal mm	Approx mm	m±5%	Approx kg/km
EQ8AA-11	35	7.0	2.5	1.5	19	1000	670
EQ8AA-14	50	8.3	2.5	1.6	21	1000	810
EQ8AA-16	70	9.9	2.5	1.6	22	1000	1040
EQ8AA-17	95	11.8	2.5	1.7	24	1000	1330
EQ8AA-19	120	13.3	2.5	1.7	26	1000	1590
EQ8AA-21	150	14.7	2.5	1.8	27	1000	1890
EQ8AA-22	185	16.4	2.5	1.8	29	1000	2270
EQ8AA-24	240	18.5	2.6	1.9	32	1000	2860
EQ8AA-26	300	20.8	2.8	2.0	35	500	3540
EQ8AA-27	400	23.5	3.0	2.1	39	500	4410
EQ8AA-28	500	26.6	3.2	2.2	42	500	5530
EQ8AA-30	630	30.5	3.2	2.3	48	500	7010

3.6/6 KV XLPE INSULATED SINGLE CORE ARMoured CABLE WITH COPPER CONDUCTOR (ALUMINIUM WIRE ARMoured)

MEDIUM VOLTAGE

- | | | |
|---------------------|--|------------------------------------|
| 1. Conductor | 4. Insulation Screen (non-metallic part) | 7. Bedding |
| 2. Conductor Screen | 5. Insulation Screen (metallic part) | 8. Armour (AW) |
| 3. Insulation | 6. Non-hygroscopic separation tape | 9. Non-hygroscopic separation tape |
| | | 10. Outer Sheath |



DESCRIPTION

Circular stranded compacted copper conductor, XLPE insulated, with copper wire or copper tape screen, aluminium wire armoured (AWA) and PVC outer sheath. Complies with IEC 502.

CONSTRUCTION

Conductor

Plain circular compacted copper conductor to IEC 228 class 2. Aluminium conductor available on request..

Conductor Screen

Extruded semiconductive compound.

Insulation

XLPE (cross-linked polyethylene) rated 90°C.

Insulation Screen (non-metallic part)

Graphite layer covered with semiconductive tape(s) or extruded layer of semiconductive compound firmly bonded to insulation. Semiconductive compound easy strippable from insulation available on request.

Insulation Screen (metallic part)

Copper wires screen or copper tape screen.

Bedding

An extruded PVC layer.

Armour

Round aluminium wires.

Outer Sheath

PVC type ST2 to IEC 502 colour red (black on request). Special PVC formulations with flame retardant and/or anti-termite properties available on request. Low smoke halogen free sheaths available on request

APPLICATION

For installation on trays, in ducts or by direct burial.

TO ORDER

Order by catalogue number and quantity required.

Example

EQ3BA-27R 5km (10 x 500m) on wooden or steel reels.

Note: In the interests of product improvement, SCC reserves the right to alter cable specifications.

3.6/6 KV SINGLE CORE CABLE WITH COPPER CONDUCTOR, COPPER WIRE SCREEN AND ARMoured (AWA)

DIMENSIONS AND WEIGHTS

Lapped semiconductive insulation screen

Catalogue number	Conductor		Insulation	Armouring	Outer sheath		Packaging	
	Cross sect. area of conductor/screen	Diameter of conductor	Thickness of XPLE	Diameter of alu.wire	Thickness of PVC	Overall diameter	Standard delivery length	Net weight
	Nominal mm ² /mm ²	Nominal mm	Nominal mm	Nominal mm	Nominal mm	Approx mm	m+/-5%	Approx kg/km
EQ3BA-09	16/16	4.8	2.5	1.6	1.8	24.4	1000	940
EQ3BA-10	25/16	5.9	2.5	1.6	1.8	25.3	1000	1060
EQ3BA-11	35/16	7.0	2.5	1.6	1.8	26.3	1000	1180
EQ3BA-14	50/16	8.3	2.5	1.6	1.8	28.2	1000	1375
EQ3BA-16	70/16	9.9	2.5	1.6	1.8	30.0	1000	1640
EQ3BA-17	95/16	11.8	2.5	1.6	1.9	31.6	1000	1920
EQ3BA-19	120/16	13.3	2.5	1.6	1.9	33.1	1000	2195
EQ3BA-21	150/25	14.7	2.5	2.0	2.0	35.5	1000	2685
EQ3BA-22	185/25	16.4	2.5	2.0	2.1	37.2	1000	3105
EQ3BA-24	240/25	18.5	2.6	2.0	2.2	40.3	500	3810
EQ3BA-26	300/25	20.8	2.8	2.0	2.2	43.2	500	4460
EQ3BA-27	400/35	23.5	3.0	2.5	2.4	47.8	500	5710
EQ3BA-28	500/35	26.7	3.2	2.5	2.5	51.6	500	6910
EQ3BA-30	630/35	30.5	3.2	2.5	2.6	56.1	500	8350

3.6/6 KV SINGLE CORE CABLE WITH COPPER CONDUCTOR, COPPER TAPE SCREEN AND ARMoured (AWA)

Lapped semiconductive insulation screen

Catalogue number	Conductor		Insulation	Armouring	Outer sheath		Packaging	
	Cross sect. area	Diameter	Thickness of XLPE	Diameter of alu. wire	Thickness of PVC	Overall diameter	Standard delivery length	Net weight
	Nominal mm ²	Nominal mm	Nominal mm	Nominal mm	Nominal mm	Approx mm	m±5%	Approx kg/km
EQ4BA-09	16	4.8	2.5	1.6	1.8	23.9	1000	850
EQ4BA-10	25	5.9	2.5	1.6	1.8	24.8	1000	980
EQ4BA-11	35	7.0	2.5	1.6	1.8	25.8	1000	1030
EQ4BA-14	50	8.3	2.5	1.6	1.8	26.3	1000	1200
EQ4BA-16	70	9.9	2.5	1.6	1.8	27.9	1000	1450
EQ4BA-17	95	11.8	2.5	1.6	1.9	30.0	1000	1780
EQ4BA-19	120	13.3	2.5	1.6	1.9	31.5	1000	2060
EQ4BA-21	150	14.7	2.5	1.6	2.0	33.1	1000	2380
EQ4BA-22	185	16.4	2.5	2.0	2.1	35.6	1000	2885
EQ4BA-24	240	18.5	2.6	2.0	2.1	38.1	1000	3540
EQ4BA-26	300	20.8	2.8	2.0	2.2	41.0	500	4250
EQ4BA-27	400	23.5	3.0	2.0	2.3	44.3	500	5190
EQ4BA-28	500	26.7	3.2	2.5	2.5	49.6	500	6500
EQ4BA-30	630	30.5	3.2	2.5	2.6	54.6	500	8080

3.6/6 KV SINGLE CORE CABLE WITH COPPER CONDUCTOR, COPPER WIRE SCREEN AND ARMoured (AWA)

DIMENSIONS AND WEIGHTS

Extruded semiconductive insulation screen firmly bonded to insulation

Catalogue number	Conductor		Insulation	Armouring	Outer sheath		Packaging	
	Cross sect. area of conductor/screen	Diameter of conductor	Thickness of XLPE	Diameter of alu.wire	Thickness of PVC	Overall diameter	Standard delivery length	Net weight
	Nominal mm ² /mm ²	Nominal mm	Nominal mm	Nominal mm	Nominal mm	Approx mm	m+/-5%	Approx kg/km
EQ7BA-11	35/16	7.0	2.5	1.6	1.8	27.4	1000	1300
EQ7BA-14	50/16	8.3	2.5	1.6	1.8	28.9	1000	1420
EQ7BA-16	70/16	9.9	2.5	1.6	1.8	30.5	1000	1670
EQ7BA-17	95/16	11.8	2.5	1.6	1.9	32.6	1000	1995
EQ7BA-19	120/16	13.3	2.5	1.6	1.9	34.1	1000	2275
EQ7BA-21	150/25	14.7	2.5	2.0	2.0	36.5	1000	2770
EQ7BA-22	185/25	16.4	2.5	2.0	2.1	38.2	1000	3200
EQ7BA-24	240/25	18.5	2.6	2.0	2.2	40.9	500	3870
EQ7BA-26	300/25	20.8	2.8	2.0	2.2	43.6	500	4560
EQ7BA-27	400/35	23.5	3.0	2.5	2.4	48.7	500	5820
EQ7BA-28	500/35	26.7	3.2	2.5	2.5	52.2	500	6910
EQ7BA-30	630/35	30.5	3.2	2.5	2.6	57.1	500	8480

3.6/6 KV SINGLE CORE CABLE WITH COPPER CONDUCTOR, COPPER TAPE SCREEN AND ARMoured (AWA)

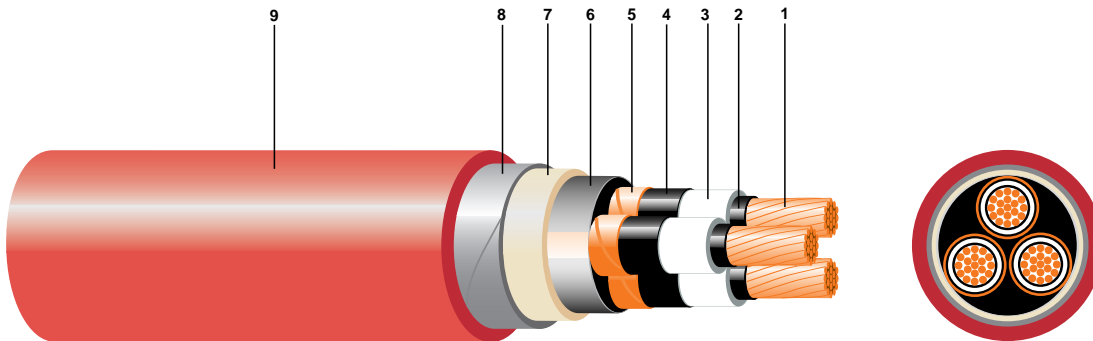
Extruded semiconductive insulation screen firmly bonded to insulation

Catalogue number	Conductor		Insulation	Armouring	Outer sheath		Packaging	
	Cross sect. area	Diameter	Thickness of XLPE	Diameter of alu. wire	Thickness PVC	Overall diameter	Standard delivery length	Net weight
	Nominal mm ²	Nominal mm	Nominal mm	Nominal mm	Nominal mm	Approx mm	m±5%	Approx kg/km
EQ8BA-11	35	7.0	2.5	1.6	1.8	25.8	1000	1095
EQ8BA-14	50	8.3	2.5	1.6	1.8	27.3	1000	1270
EQ8BA-16	70	9.9	2.5	1.6	1.8	28.9	1000	1520
EQ8BA-17	95	11.8	2.5	1.6	1.9	31.0	1000	1850
EQ8BA-19	120	13.3	2.5	1.6	1.9	32.5	1000	2135
EQ8BA-21	150	14.7	2.5	1.6	2.0	34.1	1000	2460
EQ8BA-22	185	16.4	2.5	2.0	2.1	36.6	1000	2975
EQ8BA-24	240	18.5	2.6	2.0	2.1	39.1	500	3640
EQ8BA-26	300	20.8	2.8	2.0	2.2	42.0	500	4350
EQ8BA-27	400	23.5	3.0	2.0	2.3	45.3	500	5300
EQ8BA-28	500	26.7	3.2	2.5	2.5	51.3	500	6745
EQ8BA-30	630	30.5	3.2	2.5	2.6	55.5	500	8310

3.6/6 KV XLPE INSULATED THREE CORE CABLE WITH COPPER CONDUCTOR

MEDIUM VOLTAGE

- | | | |
|---------------------|---|-----------------|
| 1. Conductor | 4. Insulation Screen (non-metallic part) | 7. Bedding |
| 2. Conductor Screen | 5. Insulation Screen (metallic part) | 8. Armour |
| 3. Insulation | 6. Non-hygroscopic fillers and separator tape | 9. Outer Sheath |



DESCRIPTION

Circular stranded compacted copper Conductors, XLPE insulated, copper tape screened, three cores assembled together with non-hygroscopic polypropylene fillers, covered with extruded or taped bedding, armoured or unarmoured and PVC sheathed. Cables comply with IEC 502.

CONSTRUCTION

Conductor

Plain circular compacted copper conductor to IEC 228 class 2. Aluminium conductor available on request.

Conductor Screen

Extruded semiconductive compound.

Insulation

XLPE (cross-linked polyethylene) rated 90°C.

Insulation Screen (non-metallic part)

Graphite layer covered with semiconductive tape(s) or extruded layer of semiconductive compound firmly bonded to insulation. Semiconductive compound easy strippable from insulation available on request.

Insulation Screen (metallic part)

Copper tapes 0.10 mm thickness. Copper wires screen available on request.

Bedding for armoured cable

An extruded PVC layer.

Armour

Galvanized steel tapes or galvanised steel wires, applied over the PVC bedding.

Outer Sheath

PVC type ST2 to IEC 502 colour red (black on request). Special PVC formulations with flame retardant and/or anti-termite properties available on request. Low smoke halogen free sheaths available on request.

Colours for core identification

Red, yellow and blue narrow tapes applied between non-metallic and metallic parts of insulation screen.

APPLICATION

These cables are generally suitable for direct burial or for installation on trays or in ducts. Where there is a risk of mechanical damage, armoured cables should be used.

TO ORDER

Order by catalogue number and quantity required.

Example

EQ4HA-24R 10km (20 x 500m) on wooden or steel reels.

Note: In the interests of product improvement, SCC reserves the right to alter cable specifications.

3.6/6 KV THREE CORE CABLE WITH COPPER CONDUCTOR, COPPER TAPE SCREEN, UNARMoured AND PVC SHEATH

DIMENSIONS AND WEIGHTS

Lapped semiconductive insulation screen

Catalogue number	Conductor		Insulation		Screening		Outer sheath		Packaging	
	Cross sect. area	Diameter	Thickness of XLPE	Dia. over insulation	Thickness of SC layer	Thickness of Cu tape	Thickness of PVC	Overall diameter	Standard delivery length	Weight of cable
	Nominal mm ²	Nominal mm	Nominal mm	Nominal mm	Approx mm	Approx mm	Nominal mm	Approx mm	Approx m±5%	Approx kg/km
EQ4EA-09	16	4.8	2.5	11.5	0.4	0.1	2.1	34	500	1300
EQ4EA-10	25	5.9	2.5	12.3	0.4	0.1	2.1	36	500	1610
EQ4EA-11	35	7.0	2.5	13.4	0.4	0.1	2.2	38	500	1990
EQ4EA-14	50	8.3	2.5	14.5	0.4	0.1	2.3	41	500	2420
EQ4EA-16	70	9.9	2.5	16.1	0.4	0.1	2.4	45	500	3150
EQ4EA-17	95	11.8	2.5	17.8	0.4	0.1	2.5	49	500	4040
EQ4EA-19	120	13.3	2.5	19.3	0.4	0.1	2.6	53	500	4850
EQ4EA-21	150	14.7	2.5	20.8	0.4	0.1	2.7	56	500	5770
EQ4EA-22	185	16.4	2.5	22.5	0.4	0.1	2.8	60	500	6960
EQ4EA-24	240	18.5	2.6	24.9	0.4	0.1	3.0	65	500	8830
EQ4EA-26	300	20.8	2.8	28.0	0.4	0.1	3.2	72	500	10910
EQ4EA-27	400	23.5	3.0	31.1	0.4	0.1	3.5	79	500	13680
EQ4EA-28	500	26.6	3.2	34.6	0.4	0.1	3.7	87	400	17190

3.6/6 KV THREE CORE CABLE WITH COPPER CONDUCTOR, COPPER TAPE SCREEN, DST AND PVC SHEATH

Lapped semiconductive insulation screen

Catalogue number	Conductor		Insulation		Screening		Armouring	Outer sheath		Packaging	
	Cross sect. area	Diameter	Thickness of XLPE	Diameter	Thickness of SC layer	Thickness of Cu tape	Thickness of steel tape	Thickness of PVC	Overall diameter	Standard delivery length	Weight of cable
	Nominal mm ²	Nominal mm	Nominal mm	Nominal mm	Approx mm	Approx mm	Nominal mm	Nominal mm	Approx mm	Approx m±5%	Approx kg/km
EQ4GA-09	16	4.8	2.5	11.5	0.4	0.1	0.5	2.1	35	500	2200
EQ4GA-10	25	5.9	2.5	12.3	0.4	0.1	0.5	2.2	40	500	2580
EQ4GA-11	35	7.0	2.5	13.4	0.4	0.1	0.5	2.3	43	500	3150
EQ4GA-14	50	8.3	2.5	14.5	0.4	0.1	0.5	2.4	46	500	3540
EQ4GA-16	70	9.9	2.5	16.1	0.4	0.1	0.5	2.5	50	500	4410
EQ4GA-17	95	11.8	2.5	17.8	0.4	0.1	0.5	2.6	54	500	5390
EQ4GA-19	120	13.3	2.5	19.3	0.4	0.1	0.5	2.8	58	500	6380
EQ4GA-21	150	14.7	2.5	20.8	0.4	0.1	0.5	2.9	61	500	7430
EQ4GA-22	185	16.4	2.5	22.5	0.4	0.1	0.5	3.0	65	500	8730
EQ4GA-24	240	18.5	2.6	24.9	0.4	0.1	0.5	3.2	71	500	10860
EQ4GA-26	300	20.8	2.8	28.0	0.4	0.1	0.5	3.4	78	500	13160
EQ4GA-27	400	23.5	3.0	31.1	0.4	0.1	0.8	3.7	87	400	17120
EQ4GA-28	500	26.6	3.2	34.6	0.4	0.1	0.8	3.9	95	350	21040

3.6/6 KV THREE CORE CABLE WITH COPPER CONDUCTOR, COPPER TAPE SCREEN, SWA AND PVC SHEATH

DIMENSIONS AND WEIGHTS

Lapped semiconductive insulation screen

Catalogue number	Conductor		Insulation		Screening		Armouring	Outer sheath		Packaging	
	Cross sect. area	Diameter	Thickness of XLPE	Diameter	Thickness of SC layer	Thickness of Cu tape	Diameter of steel wire	Thickness of PVC	Overall diameter	Standard delivery length	Weight of cable
	Nominal mm ²	Nominal mm	Nominal mm	Nominal mm	Approx mm	Approx mm	Nominal mm	Nominal mm	Approx mm	Approx m±5%	Approx kg/km
EQ4HA-09	16	4.8	2.5	11.5	0.4	0.1	2.0	2.2	41	500	2990
EQ4HA-10	25	5.9	2.5	12.3	0.4	0.1	2.0	2.3	43	500	3430
EQ4HA-11	35	7.0	2.5	13.4	0.4	0.1	2.5	2.4	46	500	4350
EQ4HA-14	50	8.3	2.5	14.5	0.4	0.1	2.5	2.5	49	500	4900
EQ4HA-16	70	9.9	2.5	16.1	0.4	0.1	2.5	2.6	53	500	5900
EQ4HA-17	95	11.8	2.5	17.8	0.4	0.1	2.5	2.7	58	500	7000
EQ4HA-19	120	13.3	2.5	19.3	0.4	0.1	2.5	2.9	61	500	8080
EQ4HA-21	150	14.7	2.5	20.8	0.4	0.1	2.5	3.0	65	500	9240
EQ4HA-22	185	16.4	2.5	22.5	0.4	0.1	2.5	3.1	69	500	10700
EQ4HA-24	240	18.5	2.6	24.9	0.4	0.1	2.5	3.3	74	500	12940
EQ4HA-26	300	20.8	2.8	28.0	0.4	0.1	3.15	3.5	83	500	16400
EQ4HA-27	400	23.5	3.0	31.1	0.4	0.1	3.15	3.8	90	400	19800
EQ4HA-28	500	26.2	3.2	34.6	0.4	0.1	3.15	4.0	99	350	23960

3.6/6 KV THREE CORE CABLE WITH COPPER CONDUCTOR, COPPER TAPE SCREEN, UNARMoured AND PVC SHEATH

Extruded semiconductive insulation screen firmly bonded to insulation

Catalogue number	Conductor		Insulation		Screening		Outer sheath		Packaging	
	Cross sect. area	Diameter	Thickness of XLPE	Dia. over insulation	Thickness of SC layer	Thickness of Cu tape	Thickness of PVC	Overall diameter	Standard delivery length	Weight of cable
	Nominal mm ²	Nominal mm	Nominal mm	Nominal mm	Approx mm	Approx mm	Nominal mm	Approx mm	Approx m±5%	Approx kg/km
EQ8EA-11	35	7.0	2.5	13.4	0.8	0.1	2.2	40	500	2160
EQ8EA-14	50	8.3	2.5	14.5	0.8	0.1	2.3	43	500	2620
EQ8EA-16	70	9.9	2.5	16.1	0.8	0.1	2.4	46	500	3350
EQ8EA-17	95	11.8	2.5	17.8	0.8	0.1	2.5	50	500	4250
EQ8EA-19	120	13.3	2.5	19.3	0.8	0.1	2.6	54	500	5090
EQ8EA-21	150	14.7	2.5	20.8	0.8	0.1	2.7	57	500	6040
EQ8EA-22	185	16.4	2.5	22.5	0.8	0.1	2.8	61	500	7220
EQ8EA-24	240	18.5	2.6	24.9	0.8	0.1	3.0	66	500	9130
EQ8EA-26	300	20.8	2.8	28.0	1.0	0.1	3.2	75	500	11360
EQ8EA-27	400	23.5	3.0	31.1	1.0	0.1	3.5	82	400	14160
EQ8EA-28	500	26.6	3.2	34.6	1.0	0.1	3.7	90	400	17700

3.6/6 KV THREE CORE CABLE WITH COPPER CONDUCTOR, COPPER TAPE SCREEN, DST AND PVC SHEATH

DIMENSIONS AND WEIGHTS

Extruded semiconductive insulation screen firmly bonded to insulation

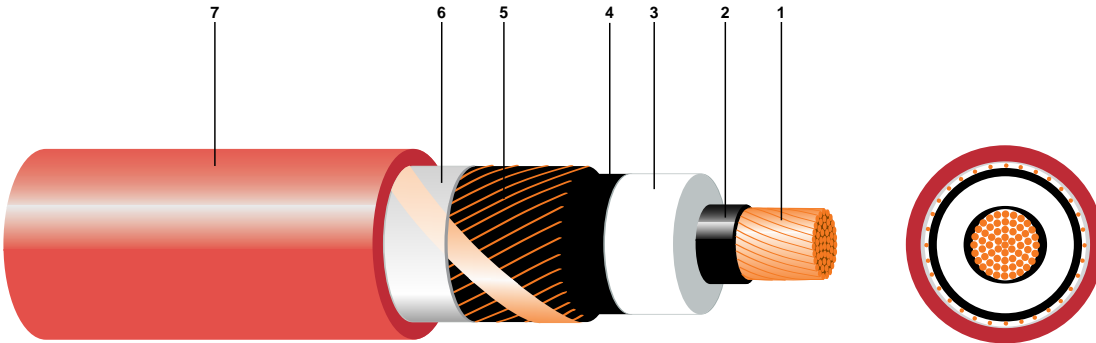
Catalogue number	Conductor		Insulation		Screening		Armouring	Outer sheath		Packaging	
	Cross sect. area	Diameter	Thickness of XLPE	Dia. over insulation	Thickness of SC layer	Thickness of Cu tape	Thickness of steel tape	Thickness of PVC	Overall dia.	Standard delivery length	Weight of cable
	Nominal mm ²	Nominal mm	Nominal mm	Nominal mm	Approx mm	Approx mm	Nominal mm	Nominal mm	Approx mm	Approx m±5%	Approx kg/km
EQ8GA-11	35	7.0	2.5	13.4	0.8	0.1	0.5	2.3	45	500	3290
EQ8GA-14	50	8.3	2.5	14.5	0.8	0.1	0.5	2.4	47	500	3890
EQ8GA-16	70	9.9	2.5	16.1	0.8	0.1	0.5	2.5	51	500	4680
EQ8GA-17	95	11.8	2.5	17.8	0.8	0.1	0.5	2.6	56	500	5680
EQ8GA-19	120	13.3	2.5	19.3	0.8	0.1	0.5	2.8	60	500	6690
EQ8GA-21	150	14.7	2.5	20.8	0.8	0.1	0.5	2.9	62	500	7770
EQ8GA-22	185	16.4	2.5	22.5	0.8	0.1	0.5	3.0	66	500	9070
EQ8GA-24	240	18.5	2.6	24.9	0.8	0.1	0.5	3.2	72	500	11230
EQ8GA-26	300	20.8	2.8	28.0	1.0	0.1	0.5	3.4	80	500	13710
EQ8GA-27	400	23.5	3.0	31.1	1.0	0.1	0.8	3.7	89	350	17760
EQ8GA-28	500	26.6	3.2	34.6	1.0	0.1	0.8	3.9	98	350	21700

3.6/6 KV THREE CORE CABLE WITH COPPER CONDUCTOR, COPPER TAPE SCREEN, SWA AND PVC SHEATH

Extruded semiconductive insulation screen firmly bonded to insulation

Catalogue number	Conductor		Insulation		Screening		Armouring	Outer sheath		Packaging	
	Cross sect. area	Diameter	Thickness of XLPE	Diameter	Thickness of SC layer	Thickness of Cu tape	Dia. of steel wire	Thickness of PVC	Overall dia.	Standard delivery length	Weight of cable
	Nominal mm ²	Nominal mm	Nominal mm	Nominal mm	Approx mm	Approx mm	Nominal mm	Nominal mm	Approx mm	Approx m±5%	Approx kg/km
EQ8HA-11	35	7.0	2.5	13.4	0.8	0.1	2.5	2.4	48	500	4670
EQ8HA-14	50	8.3	2.5	14.5	0.8	0.1	2.5	2.5	51	500	5250
EQ8HA-16	70	9.9	2.5	16.1	0.8	0.1	2.5	2.6	55	500	6240
EQ8HA-17	95	11.8	2.5	17.8	0.8	0.1	2.5	2.7	59	500	7360
EQ8HA-19	120	13.3	2.5	19.3	0.8	0.1	2.5	2.9	63	500	8480
EQ8HA-21	150	14.7	2.5	20.8	0.8	0.1	2.5	3.0	66	500	9660
EQ8HA-22	185	16.4	2.5	22.5	0.8	0.1	2.5	3.1	70	500	11110
EQ8HA-24	240	18.5	2.6	24.9	0.8	0.1	2.5	3.3	76	500	13400
EQ8HA-26	300	20.8	2.8	28.0	1.0	0.1	3.15	3.5	85	400	17100
EQ8HA-27	400	23.5	3.0	31.1	1.0	0.1	3.15	3.8	93	400	20550
EQ8HA-28	500	26.6	3.2	34.6	1.0	0.1	3.15	4.0	101	250	24740

- | | | |
|---------------------|--|------------------------------------|
| 1. Conductor | 4. Insulation Screen (non-metallic part) | 6. Non-hygroscopic separation tape |
| 2. Conductor Screen | 5. Insulation Screen (metallic part) | 7. Outer Sheath |
| 3. Insulation | | |



DESCRIPTION

Circular stranded compacted copper conductor, XLPE insulated, with copper wire or copper tape screen and PVC outer sheath. Complies with IEC 502.

CONSTRUCTION

Conductor

Plain circular compacted copper conductor to IEC 228 class 2. Aluminium conductor available on request.

Conductor Screen

Extruded semiconductive compound.

Insulation

XLPE (cross-linked polyethylene process) rated 90°C.

Insulation Screen (non-metallic part)

Graphite layer covered with semiconductive tape(s) or extruded layer of semiconductive compound firmly bonded to insulation. Semiconductive compound easy strippable from insulation available on request.

Insulation Screen (metallic part)

Copper wires screen or copper tape screen.

Outer Sheath

PVC type ST2 to IEC 502 colour red (black on request). Special PVC formulations with flame retardant and/or anti-termite properties available on request. Low smoke halogen free sheaths available on request.

APPLICATION

For installation on trays, in ducts or by direct burial.

TO ORDER

Order by catalogue number and quantity required.

Example

ER3AA-27R 5km (10 x 500m) on wooden or steel reels.

Note: In the interests of product improvement, SCC reserves the right to alter cable specifications.

**6 / 10 KV SINGLE CORE CABLE WITH COPPER CONDUCTOR AND
COPPER WIRE SCREEN**

DIMENSIONS AND WEIGHTS

Lapped semiconductive insulation screen

Catalogue number	Conductor		Insulation	Outer sheath		Packaging	
	Cross sect. area of conductor/screen	Diameter of conductor	Thickness of XLPE	Thickness of PVC	Overall diameter	Standard delivery length	Net weight
	Nominal mm ² /mm ²	Nominal mm	Nominal mm	Nominal mm	Approx mm	m±5%	Approx kg/km
ER3AA-09	16/16	4.8	3.4	1.5	20	1000	590
ER3AA-10	25/16	5.9	3.4	1.6	21	1000	700
ER3AA-11	35/16	7.0	3.4	1.6	22	1000	820
ER3AA-14	50/16	8.3	3.4	1.7	24	1000	950
ER3AA-16	70/16	9.9	3.4	1.7	25	1000	1180
ER3AA-17	95/16	11.8	3.4	1.8	27	1000	1470
ER3AA-19	120/16	13.3	3.4	1.8	29	1000	1720
ER3AA-21	150/25	14.7	3.4	1.9	31	1000	2110
ER3AA-22	185/25	16.4	3.4	1.9	32	1000	2480
ER3AA-24	240/25	18.5	3.4	2.0	35	1000	3060
ER3AA-26	300/25	20.8	3.4	2.1	37	500	3670
ER3AA-27	400/35	23.5	3.4	2.2	40	500	4610
ER3AA-28	500/35	26.6	3.4	2.3	44	500	5680
ER3AA-30	630/35	30.5	3.4	2.4	49	500	7130

**6 / 10 KV SINGLE CORE CABLE WITH COPPER CONDUCTOR AND
COPPER TAPE SCREEN**

Lapped semiconductive insulation screen

Catalogue number	Conductor		Insulation	Outer sheath		Packaging	
	Cross sectional area	Diameter	Thickness of XLPE	Thickness of PVC	Overall diameter	Standard delivery length	Net weight
	Nominal mm ²	Nominal mm	Nominal mm	Nominal mm	Approx mm	m±5%	Approx kg/km
ER4AA-09	16	4.8	3.4	1.5	18	1000	460
ER4AA-10	25	5.9	3.4	1.6	19	1000	570
ER4AA-11	35	7.0	3.4	1.6	20	1000	690
ER4AA-14	50	8.3	3.4	1.6	21	1000	830
ER4AA-16	70	9.9	3.4	1.7	23	1000	1060
ER4AA-17	95	11.8	3.4	1.7	25	1000	1350
ER4AA-19	120	13.3	3.4	1.8	27	1000	1620
ER4AA-21	150	14.7	3.4	1.8	28	1000	1900
ER4AA-22	185	16.4	3.4	1.9	30	1000	2290
ER4AA-24	240	18.5	3.4	2.0	32	1000	2880
ER4AA-26	300	20.8	3.4	2.0	35	500	3490
ER4AA-27	400	23.5	3.4	2.2	38	500	4350
ER4AA-28	500	26.6	3.4	2.2	41	500	5420
ER4AA-30	630	30.5	3.4	2.4	47	500	6910

**6 / 10 KV SINGLE CORE CABLE WITH COPPER CONDUCTOR AND
COPPER WIRE SCREEN**

DIMENSIONS AND WEIGHTS

Extruded semiconductive insulation screen firmly bonded to insulation

Catalogue number	Conductor		Insulation	Outer sheath		Packaging	
	Cross sect. area of conductor/screen	Diameter of conductor	Thickness of XLPE	Thickness of PVC	Overall diameter	Standard delivery length	Net weight
	Nominal mm ² /mm ²	Nominal mm	Nominal mm	Nominal mm	Approx mm	m±5%	Approx kg/km
ER7AA-11	35/16	7.0	3.4	1.6	23	1000	870
ER7AA-14	50/16	8.3	3.4	1.7	25	1000	1010
ER7AA-16	70/16	9.9	3.4	1.7	26	1000	1240
ER7AA-17	95/16	11.8	3.4	1.8	28	1000	1530
ER7AA-19	120/16	13.3	3.4	1.8	30	1000	1790
ER7AA-21	150/25	14.7	3.4	1.9	32	1000	2180
ER7AA-22	185/25	16.4	3.4	1.9	33	1000	2260
ER7AA-24	240/25	18.5	3.4	2.0	36	1000	3180
ER7AA-26	300/25	20.8	3.4	2.1	38	500	3800
ER7AA-27	400/35	23.5	3.4	2.2	41	500	4740
ER7AA-28	500/35	26.6	3.4	2.3	45	500	5830
ER7AA-30	630/35	30.5	3.4	2.4	50	500	7320

**6 / 10 KV SINGLE CORE CABLE WITH COPPER CONDUCTOR AND
COPPER TAPE SCREEN**

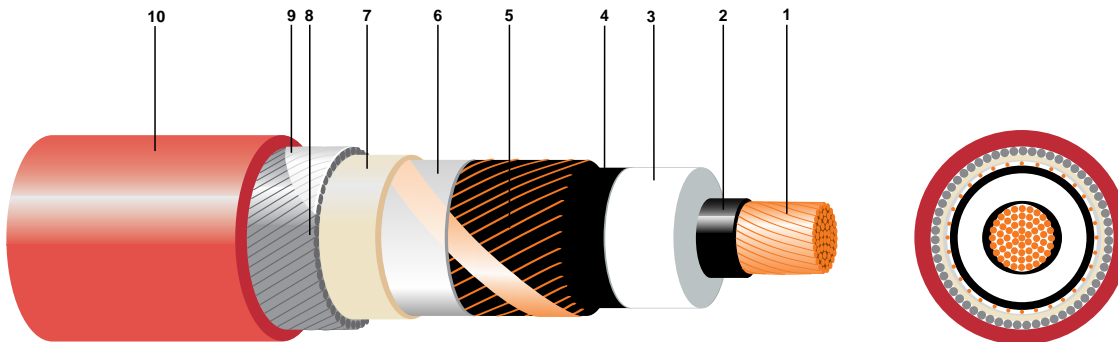
Extruded semiconductive insulation screen firmly bonded to insulation

Catalogue number	Conductor		Insulation	Outer sheath		Packaging	
	Cross sectional area	Diameter	Thickness of XLPE	Thickness of PVC	Overall diameter	Standard delivery length	Net weight
	Nominal mm ²	Nominal mm	Nominal mm	Nominal mm	Approx mm	m±5%	Approx kg/km
ER8AA-11	35	7.0	3.4	1.6	21	1000	750
ER8AA-14	50	8.3	3.4	1.6	23	1000	890
ER8AA-16	70	9.9	3.4	1.7	24	1000	1130
ER8AA-17	95	11.8	3.4	1.7	26	1000	1420
ER8AA-19	120	13.3	3.4	1.8	28	1000	1690
ER8AA-21	150	14.7	3.4	1.8	29	1000	2150
ER8AA-22	185	16.4	3.4	1.9	31	1000	2380
ER8AA-24	240	18.5	3.4	2.0	34	1000	3000
ER8AA-26	300	20.8	3.4	2.0	37	500	3620
ER8AA-27	400	23.5	3.4	2.2	40	500	4490
ER8AA-28	500	26.6	3.4	2.2	43	500	5560
ER8AA-30	630	30.5	3.4	2.4	48	500	7070

6/10 KV XLPE INSULATED SINGLE CORE CABLE WITH COPPER CONDUCTOR (ALUMINIUM WIRE ARMoured)

MEDIUM VOLTAGE

- | | | |
|---------------------|--|------------------------------------|
| 1. Conductor | 4. Insulation Screen (non-metallic part) | 7. Bedding |
| 2. Conductor Screen | 5. Insulation Screen (metallic part) | 8. Armour |
| 3. Insulation | 6. Non-hygroscopic separation tape | 9. Non-hygroscopic separation tape |
| | | 10. Outer Sheath |



DESCRIPTION

Circular stranded compacted copper conductor, XLPE insulated, with copper wire or copper tape screen, aluminium wire armoured (AWA) and PVC outer sheath. Complies with IEC 502.

CONSTRUCTION

Conductor

Plain circular compacted copper conductor to IEC 228 class 2. Aluminium conductor available on request.

Conductor Screen

Extruded semiconductive compound.

Insulation

XLPE (cross-linked polyethylene) rated 90°C.

Insulation Screen (non-metallic part)

Graphite layer covered with semiconductive tape(s) or extruded layer of semiconductive compound firmly bonded to insulation. Semiconductive compound easy strippable from insulation available on request.

Insulation Screen (metallic part)

Copper wires screen or copper tape screen.

Bedding

An extruded PVC layer.

Armour

Round aluminium wires.

Outer Sheath

PVC type ST2 to IEC 502 colour red (black on request). Special PVC formulations with flame retardant and/or anti-termite properties available on request. Low smoke halogen free sheaths available on request.

APPLICATION

For installation on trays, in ducts or by direct burial.

TO ORDER

Order by catalogue number and quantity required.

Example

ER3BA-27R 5km (10 x 500m) on wooden or steel reels.

Note: In the interests of product improvement, SCC reserves the right to alter cable specifications.

**6 / 10 KV SINGLE CORE CABLE WITH COPPER CONDUCTOR AND
COPPER WIRE SCREEN AND ARMoured (AWA)**

DIMENSIONS AND WEIGHTS

Lapped semiconductive insulation screen

Catalogue number	Conductor		Insulation	Armouring	Outer sheath		Packaging	
	Cross sect. area of conductor/screen	Diameter of conductor	Thickness of XLPE	Diameter of alu.wire	Thickness of PVC	Overall diameter	Standard delivery length	Net weight
	Nominal mm ² /mm ²	Nominal mm	Nominal mm	Nominal mm	Nominal mm	Approx mm	m+/-5%	Approx kg/km
ER3BA-09	16/16	4.8	3.4	1.6	1.8	26.2	1000	1030
ER3BA-10	25/16	5.9	3.4	1.6	1.8	27.3	1000	1160
ER3BA-11	35/16	7.0	3.4	1.6	1.8	28.4	1000	1295
ER3BA-14	50/16	8.3	3.4	1.6	1.9	29.9	1000	1460
ER3BA-16	70/16	9.9	3.4	1.6	1.9	31.5	1000	1710
ER3BA-17	95/16	11.8	3.4	2.0	2.0	33.9	1000	2095
ER3BA-19	120/16	13.3	3.4	2.0	2.0	35.9	1000	2415
ER3BA-21	150/25	14.7	3.4	2.0	2.1	37.5	500	2820
ER3BA-22	185/25	16.4	3.4	2.0	2.1	39.0	500	3230
ER3BA-24	240/25	18.5	3.4	2.0	2.2	41.9	500	3930
ER3BA-26	300/25	20.8	3.4	2.0	2.3	44.6	500	4580
ER3BA-27	400/35	23.5	3.4	2.5	2.4	48.6	500	5780
ER3BA-28	500/35	26.7	3.4	2.5	2.5	51.6	500	6820
ER3BA-30	630/35	30.5	3.4	2.5	2.7	56.4	500	8525

**6 / 10 KV SINGLE CORE CABLE WITH COPPER CONDUCTOR AND
COPPER TAPE SCREEN AND ARMoured (AWA)**

Lapped semiconductive insulation screen

Catalogue number	Conductor		Insulation	Armouring	Outer sheath		Packaging	
	Cross sect. area	Diameter	Thickness of XLPE	Diameter of alu. wire	Thickness of PVC	Overall diameter	Standard delivery length	Net weight
	Nominal mm ²	Nominal mm	Nominal mm	Nominal mm	Nominal mm	Approx mm	m±5%	Approx kg/km
ER4BA-09	16	4.8	3.4	1.6	1.8	24.6	1000	870
ER4BA-10	25	5.9	3.4	1.6	1.8	25.7	1000	1005
ER4BA-11	35	7.0	3.4	1.6	1.8	26.8	1000	1140
ER4BA-14	50	8.3	3.4	1.6	1.8	28.1	1000	1300
ER4BA-16	70	9.9	3.4	1.6	1.9	29.9	1000	1570
ER4BA-17	95	11.8	3.4	1.6	1.9	32.2	1000	1940
ER4BA-19	120	13.3	3.4	2.0	2.0	34.3	1000	2280
ER4BA-21	150	14.7	3.4	2.0	2.1	35.9	1000	2605
ER4BA-22	185	16.4	3.4	2.0	2.1	38.1	1000	3070
ER4BA-24	240	18.5	3.4	2.0	2.2	40.3	500	3710
ER4BA-26	300	20.8	3.4	2.0	2.3	43.0	500	4360
ER4BA-27	400	23.5	3.4	2.5	2.4	46.5	500	5450
ER4BA-28	500	26.7	3.4	2.5	2.5	50.0	500	6540
ER4BA-30	630	30.5	3.4	2.5	2.6	55.0	500	8120

**6 / 10 KV SINGLE CORE CABLE WITH COPPER CONDUCTOR AND
COPPER WIRE SCREEN AND ARMoured (AWA)**

DIMENSIONS AND WEIGHTS

Extruded semiconductive insulation screen

Catalogue number	Conductor		Insulation	Armouring	Outer sheath		Packaging	
	Cross sect. area of conductor/screen	Diameter of conductor	Thickness of XLPE	Diameter of alu.wire	Thickness of PVC	Overall diameter	Standard delivery length	Net weight
	Nominal mm ² /mm ²	Nominal mm	Nominal mm	Nominal mm	Nominal mm	Approx mm	m+/-5%	Approx kg/km
ER7BA-11	35/16	7.0	3.4	1.6	1.8	29.4	1000	1360
ER7BA-14	50/16	8.3	3.4	1.6	1.9	30.9	1000	1535
ER7BA-16	70/16	9.9	3.4	1.6	1.9	32.5	1000	1785
ER7BA-17	95/16	11.8	3.4	1.6	2	34.6	1000	2120
ER7BA-19	120/16	13.3	3.4	2.0	2	36.9	1000	2500
ER7BA-21	150/25	14.7	3.4	2.0	2.1	38.5	1000	2915
ER7BA-22	185/25	16.4	3.4	2.0	2.1	40.0	500	3320
ER7BA-24	240/25	18.5	3.4	2.0	2.2	42.8	500	4025
ER7BA-26	300/25	20.8	3.4	2.0	2.3	45.5	500	4680
ER7BA-27	400/35	23.5	3.4	2.5	2.4	49.5	500	5890
ER7BA-28	500/35	26.7	3.4	2.5	2.6	52.6	500	6950
ER7BA-30	630/35	30.5	3.4	2.5	2.7	57.7	500	8550

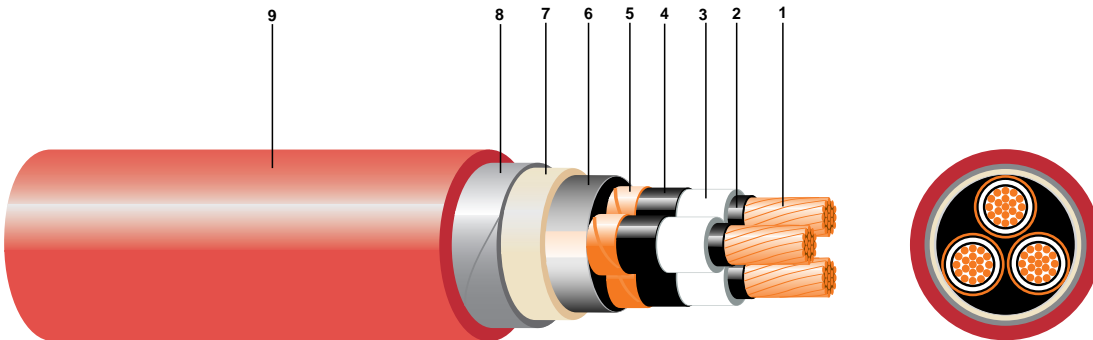
**6 / 10 KV SINGLE CORE CABLE WITH COPPER CONDUCTOR AND
COPPER TAPE SCREEN AND ARMoured (AWA)**

Extruded semiconductive insulation screen

Catalogue number	Conductor		Insulation	Armouring	Outer sheath		Packaging	
	Cross sect. area	Diameter	Thickness of XLPE	Diameter of alu. wire	Thickness of PVC	Overall diameter	Standard delivery length	Net weight
	Nominal mm ²	Nominal mm	Nominal mm	Nominal mm	Nominal mm	Approx mm	m±5%	Approx kg/km
ER8BA-11	35	7.0	3.4	1.6	1.8	27.7	1000	1220
ER8BA-14	50	8.3	3.4	1.6	1.8	29.1	1000	1370
ER8BA-16	70	9.9	3.4	1.6	1.9	30.9	1000	1650
ER8BA-17	95	11.8	3.4	1.6	1.9	32.8	1000	1970
ER8BA-19	120	13.3	3.4	2.0	2.0	35.3	1000	2365
ER8BA-21	150	14.7	3.4	2.0	2.1	36.9	1000	2695
ER8BA-22	185	16.4	3.4	2.0	2.1	38.5	1000	3140
ER8BA-24	240	18.5	3.4	2.0	2.2	41.6	500	3825
ER8BA-26	300	20.8	3.4	2.0	2.3	43.4	500	4470
ER8BA-27	400	23.5	3.4	2.5	2.4	48.3	500	5605
ER8BA-28	500	26.7	3.4	2.5	2.5	51.0	500	6665
ER8BA-30	630	30.5	3.4	2.5	2.6	56.0	500	8255

SECTION 2

- | | | |
|---------------------|---|-----------------|
| 1. Conductor | 4. Insulation Screen (non-metallic part) | 7. Bedding |
| 2. Conductor Screen | 5. Insulation Screen (metallic part) | 8. Armour |
| 3. Insulation | 6. Non-hygroscopic filters and separator tape | 9. Outer Sheath |



DESCRIPTION

Stranded circular compacted copper conductors, XLPE insulated, copper tape screened, three cores assembled together with non-hygroscopic polypropylene fillers, covered with extruded or taped bedding, armoured or unarmoured and PVC sheathed. Cables comply with IEC 502.

CONSTRUCTION

Conductor

Plain circular compacted copper conductor to IEC 228 class 2. Aluminium conductor available on request.

Conductor Screen

Extruded semiconductive compound.

Insulation

XLPE (cross-linked polyethylene) extruded and cross-linked by silane curing process, rated 90°C.

Insulation Screen (non-metallic part)

Graphite layer covered with semiconductive tape(s) or extruded layer of semiconductive compound firmly bonded to insulation. Semiconductive compound easy strippable from insulation available on request.

Insulation Screen (metallic part)

Copper tapes 0.10 mm thickness. Copper wires screen available on request.

Bedding for armoured cables

An extruded PVC layer.

Armour

Galvanized steel tapes or galvanised steel wires, applied over the PVC bedding.

Outer Sheath

PVC type ST2 to IEC 502 colour red (black on request). Special PVC formulations with flame retardant and/or anti-termite properties available on request. Low smoke halogen free sheaths available on request.

Colours for core identification

Red, yellow and blue narrow tapes applied between non-metallic and metallic parts of insulation screen.

APPLICATION

These cables are generally suitable for direct burial or for installation on trays or in ducts. Where there is a risk of mechanical damage, armoured cables should be used.

TO ORDER

Order by catalogue number and quantity required.

Example

ER4HA-24R 10km (20 x 500m) on wooden or steel reels.

Note: In the interests of product improvement, SCC reserves the right to alter cable specifications.

6/10 KV THREE CORE CABLE WITH COPPER CONDUCTOR, COPPER TAPE SCREEN, UNARMOURED AND PVC SHEATH

DIMENSIONS AND WEIGHTS

Lapped semiconductive insulation screen

Catalogue number	Conductor		Insulation		Screening		Outer sheath		Packaging	
	Cross sect. area	Diameter	Thickness of XLPE	Dia. over insulation	Thickness of SC layer	Thickness of Cu tape	Thickness of PVC	Overall diameter	Standard delivery length	Weight of cable
	Nominal mm ²	Nominal mm	Nominal mm	Nominal mm	Approx mm	Approx mm	Nominal mm	Approx mm	Approx m±5%	Approx kg/km
ER4EA-09	16	4.9	3.4	13.3	0.4	0.1	2.1	38	500	1490
ER4EA-10	25	6.1	3.4	14.1	0.4	0.1	2.2	40	500	1840
ER4EA-11	35	7.00	3.4	15.2	0.4	0.1	2.3	42	500	2240
ER4EA-14	50	8.3	3.4	16.3	0.4	0.1	2.4	45	500	2680
ER4EA-16	70	9.9	3.4	17.9	0.4	0.1	2.5	49	500	3410
ER4EA-17	95	11.8	3.4	19.6	0.4	0.1	2.7	54	500	4350
ER4EA-19	120	13.3	3.4	21.1	0.4	0.1	2.8	57	500	5200
ER4EA-21	150	14.7	3.4	22.6	0.4	0.1	2.9	60	500	6140
ER4EA-22	185	16.4	3.4	24.3	0.4	0.1	3.0	64	500	7360
ER4EA-24	240	18.5	3.4	26.5	0.4	0.1	3.1	69	500	9210
ER4EA-26	300	20.8	3.4	29.2	0.4	0.1	3.3	75	500	11220
ER4EA-27	400	23.5	3.4	31.9	0.4	0.1	3.5	81	400	13880
ER4EA-28	500	26.7	3.4	35.0	0.4	0.1	3.7	88	400	17300

6/10 KV THREE CORE CABLE WITH COPPER CONDUCTOR, COPPER TAPE SCREEN, DST AND PVC SHEATH

Lapped semiconductive insulation screen

Catalogue number	Conductor		Insulation		Screening		Armouring	Outer sheath		Packaging	
	Cross sect. area	Diameter	Thickness of XLPE	Diameter	Thickness of SC layer	Thickness of Cu tape	Thickness of steel tape	Thickness of PVC	Overall diameter	Standard delivery length	Weight of cable
	Nominal mm ²	Nominal mm	Nominal mm	Nominal mm	Approx mm	Approx mm	Nominal mm	Nominal mm	Approx mm	Approx m±5%	Approx kg/km
ER4GA-09	16	4.9	3.4	13.3	0.4	0.1	0.5	2.3	42	1000	2520
ER4GA-10	25	6.1	3.4	14.1	0.4	0.1	0.5	2.4	45	500	2950
ER4GA-11	35	7.00	3.4	15.2	0.4	0.1	0.5	2.4	47	500	3400
ER4GA-14	50	8.3	3.4	16.3	0.4	0.1	0.5	2.6	50	500	3960
ER4GA-16	70	9.9	3.4	17.9	0.4	0.1	0.5	2.7	54	500	4830
ER4GA-17	95	11.8	3.4	19.6	0.4	0.1	0.5	2.8	59	500	5850
ER4GA-19	120	13.3	3.4	21.1	0.4	0.1	0.5	2.9	62	500	6850
ER4GA-21	150	14.7	3.4	22.6	0.4	0.1	0.5	3	65	500	7880
ER4GA-22	185	16.4	3.4	24.3	0.4	0.1	0.5	3.1	70	500	9300
ER4GA-24	240	18.5	3.4	26.5	0.4	0.1	0.5	3.3	75	500	11390
ER4GA-26	300	20.8	3.4	29.2	0.4	0.1	0.5	3.5	81	500	13600
ER4GA-27	400	23.5	3.4	31.9	0.4	0.1	0.8	3.7	88	350	17390
ER4GA-28	500	26.7	3.4	35	0.4	0.1	0.8	4	96	250	21210

6/10 KV THREE CORE CABLE WITH COPPER CONDUCTOR, COPPER TAPE SCREEN, SWA AND PVC SHEATH

DIMENSIONS AND WEIGHTS

Lapped semiconductive insulation screen

Catalogue number	Conductor		Insulation		Screening		Armouring	Outer sheath		Packaging	
	Cross sect. area	Diameter	Thickness of XLPE	Diameter	Thickness of SC layer	Thickness of Cu tape	Diameter of steel wire	Thickness of PVC	Overall diameter	Standard delivery length	Weight of cable
	Nominal mm ²	Nominal mm	Nominal mm	Nominal mm	Approx mm	Approx mm	Nominal mm	Nominal mm	Approx mm	Approx m±5%	Approx kg/km
ER4HA-09	16	4.9	3.4	13.3	0.4	0.1	2	2.3	45	500	3400
ER4HA-10	25	6.1	3.4	14.1	0.4	0.1	2.5	2.5	48	500	4300
ER4HA-11	35	7.00	3.4	15.2	0.4	0.1	2.5	2.6	51	500	4850
ER4HA-14	50	8.3	3.4	16.3	0.4	0.1	2.5	2.7	54	500	5460
ER4HA-16	70	9.9	3.4	17.9	0.4	0.1	2.5	2.8	58	500	6450
ER4HA-17	95	11.8	3.4	19.6	0.4	0.1	2.5	2.9	62	500	7580
ER4HA-19	120	13.1	3.4	21.1	0.4	0.1	2.5	3	66	500	8690
ER4HA-21	150	14.7	3.4	22.6	0.4	0.1	2.5	3.1	69	500	9850
ER4HA-22	185	16.7	3.4	24.3	0.4	0.1	2.5	3.2	73	500	11350
ER4HA-24	240	18.5	3.4	26.5	0.4	0.1	3.15	3.4	80	500	14500
ER4HA-26	300	20.8	3.4	29.2	0.4	0.1	3.15	3.6	86	400	16960
ER4HA-27	400	23.5	3.4	31.9	0.4	0.1	3.15	3.8	92	350	20120
ER4HA-28	500	26.7	3.4	35	0.4	0.1	3.15	4.1	100	250	24170

6/10 KV THREE CORE CABLE WITH COPPER CONDUCTOR, COPPER TAPE SCREEN, DST AND PVC SHEATH

Lapped semiconductive insulation screen

Catalogue number	Conductor		Insulation		Screening		Outer sheath		Packaging	
	Cross sect. area	Diameter	Thickness of XLPE	Dia. over insulation	Thickness of SC layer	Thickness of Cu tape	Thickness of PVC	Overall diameter	Standard delivery length	Weight of cable
	Nominal mm ²	Nominal mm	Nominal mm	Nominal mm	Approx mm	Approx mm	Nominal mm	Approx mm	Approx m±5%	Approx kg/km
ER8EA-11	35	7.00	3.4	15.2	0.8	0.1	2.3	44	500	2420
ER8EA-14	50	8.3	3.4	16.3	0.8	0.1	2.4	47	500	2880
ER8EA-16	70	9.9	3.4	17.9	0.8	0.1	2.5	50	500	3640
ER8EA-17	95	11.8	3.4	19.6	0.8	0.1	2.7	55	500	4590
ER8EA-19	120	13.3	3.4	21.1	0.8	0.1	2.8	58	500	5440
ER8EA-21	150	14.7	3.4	22.6	0.8	0.1	2.9	62	500	6400
ER8EA-22	185	16.4	3.4	24.3	0.8	0.1	3.0	65	500	7630
ER8EA-24	240	18.5	3.4	26.5	1.0	0.1	3.1	72	500	9600
ER8EA-26	300	20.8	3.4	29.2	1.0	0.1	3.3	78	500	11640
ER8EA-27	400	23.5	3.4	31.9	1.0	0.1	3.5	84	400	14360
ER8EA-28	500	26.7	3.4	35.0	1.0	0.1	3.7	91	350	17790

6 / 10 KV THREE CORE CABLE WITH COPPER CONDUCTOR, COPPER TAPE SCREEN, SWA AND PVC SHEATH

DIMENSIONS AND WEIGHTS

Extruded semiconductive insulation screen

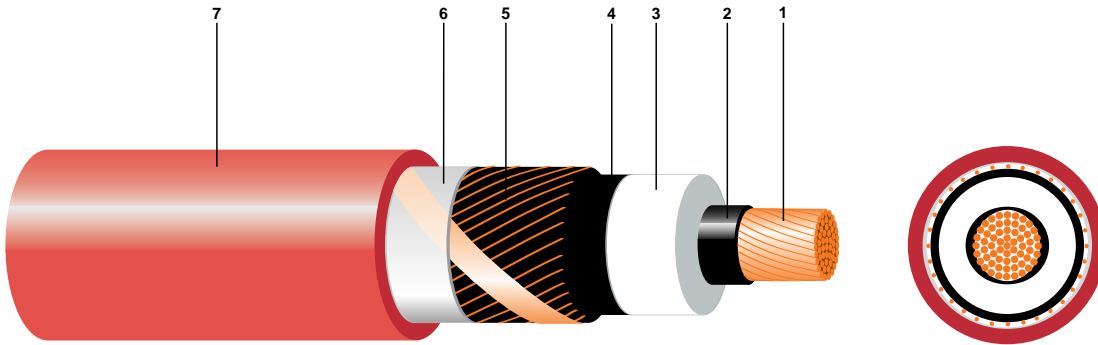
Catalogue number	Conductor		Insulation		Screening		Armouring	Outer sheath		Packaging	
	Cross sect. area	Diameter	Thickness of XLPE	Diameter	Thickness of SC layer	Thickness of Cu tape	Thickness of steel tape	Thickness of PVC	Overall diameter	Standard delivery length	Weight of cable
	Nominal mm ²	Nominal mm	Nominal mm	Nominal mm	Approx mm	Approx mm	Nominal mm	Nominal mm	Approx mm	Approx m±5%	Approx kg/km
ER8GA-11	35	7.00	3.4	15.2	0.8	0.1	-	2.4	49	500	3650
ER8GA-14	50	8.3	3.4	16.3	0.8	0.1	-	2.6	52	500	4240
ER8GA-16	70	9.9	3.4	17.9	0.8	0.1	-	2.7	56	500	5140
ER8GA-17	95	11.8	3.4	19.6	0.8	0.1	-	2.8	60	500	6170
ER8GA-19	120	13.3	3.4	21.1	0.8	0.1	-	2.9	63	500	7170
ER8GA-21	150	14.7	3.4	22.6	0.8	0.1	-	3.0	67	500	8230
ER8GA-22	185	16.4	3.4	24.3	0.8	0.1	-	3.1	71	500	9650
ER8GA-24	240	18.5	3.4	26.5	1.0	0.1	-	3.3	77	500	11840
ER8GA-26	300	20.8	3.4	29.2	1.0	0.1	-	3.5	84	400	14130
ER8GA-27	400	23.5	3.4	31.9	1.0	0.1	-	3.7	91	350	18030
ER8GA-28	500	26.7	3.4	35.0	1.0	0.1	-	4.0	98	350	21880

6 / 10 KV THREE CORE CABLE WITH COPPER CONDUCTOR, COPPER TAPE SCREEN, SWA AND PVC SHEATH

Extruded semiconductive insulation screen

Catalogue number	Conductor		Insulation		Screening		Armouring	Outer sheath		Packaging	
	Cross sect. area	Diameter	Thickness of XLPE	Diameter	Thickness of SC layer	Thickness of Cu tape	Diameter of steel wire	Thickness of PVC	Overall diameter	Standard delivery length	Weight of cable
	Nominal mm ²	Nominal mm	Nominal mm	Nominal mm	Approx mm	Approx mm	Nominal mm	Nominal mm	Approx mm	Approx m±5%	Approx kg/km
ER8HA-11	35	7.00	3.4	15.2	0.8	0.1	2.5	2.6	52	500	5150
ER8HA-14	50	8.3	3.4	16.3	0.8	0.1	2.5	2.7	55	500	5820
ER8HA-16	70	9.9	3.4	17.9	0.8	0.1	2.5	2.8	59	500	6840
ER8HA-17	95	11.8	3.4	19.6	0.8	0.1	2.5	2.9	63	500	7880
ER8HA-19	120	13.3	3.4	21.1	0.8	0.1	2.5	3.0	67	500	9080
ER8HA-21	150	14.7	3.4	22.6	0.8	0.1	2.5	3.1	70	500	10280
ER8HA-22	185	16.4	3.4	24.3	0.8	0.1	2.5	3.2	74	500	11780
ER8HA-24	240	18.5	3.4	26.5	1.0	0.1	3.15	3.4	82	500	15100
ER8HA-26	300	20.8	3.4	29.2	1.0	0.1	3.15	3.6	88	350	17670
ER8HA-27	400	23.5	3.4	31.9	1.0	0.1	3.15	3.9	95	350	20920
ER8HA-28	500	26.7	3.4	35.0	1.0	0.1	3.15	4.1	102	250	25010

- | | | |
|---------------------|--|------------------------------------|
| 1. Conductor | 4. Insulation Screen (non-metallic part) | 6. Non-hygroscopic separation tape |
| 2. Conductor Screen | 5. Insulation Screen (metallic part) | 7. Outer Sheath |
| 3. Insulation | | |



DESCRIPTION

Circular stranded compacted copper conductor, XLPE insulated, with copper wire or copper tape screen and PVC outer sheath. Complies with IEC 502.

CONSTRUCTION

Conductor

Plain circular compacted copper conductor to IEC 228 class 2. Aluminium conductor available on request.

Conductor Screen

Extruded semiconductive compound.

Insulation

XLPE (cross-linked polyethylene) rated 90°C.

Insulation Screen (non-metallic part)

Graphite layer covered with semiconductive tape(s) or extruded layer of semiconductive compound firmly bonded to insulation. Semiconductive compound easy strippable from insulation available on request.

Insulation Screen (metallic part)

Copper wires screen or copper tape screen.

Outer Sheath

PVC type ST2 to IEC 502 colour red (black on request). Special PVC formulations with flame retardant and/or anti-termite properties available on request. Low smoke halogen free sheaths available on request.

APPLICATION

For installation on trays, in ducts or by direct burial.

TO ORDER

Order by catalogue number and quantity required.

Example

ES3AA-27R 5km (10 x 500m) on wooden or steel reels.

Note: In the interests of product improvement, SCC reserves the right to alter cable specifications.

**8.7/15 KV SINGLE CORE CABLE WITH COPPER CONDUCTOR AND
COPPER WIRE SCREEN**

DIMENSIONS AND WEIGHTS

Lapped semiconductive insulation screen

Catalogue number	Conductor		Insulation	Outer sheath		Packaging	
	Cross sect. area of conductor/screen	Diameter of conductor	Thickness of XLPE	Thickness of PVC	Overall diameter	Standard delivery length	Net weight
	Nominal mm ² /mm ²	Nominal mm	Nominal mm	Nominal mm	Approx mm	m+/-5%	Approx kg/km
ES3AA-11	35/16	7.0	4.5	1.7	25	1000	900
ES3AA-14	50/16	8.3	4.5	1.7	26	1000	1040
ES3AA-16	70/16	9.9	4.5	1.8	28	1000	1280
ES3AA-17	95/16	11.8	4.5	1.8	30	1000	1560
ES3AA-19	120/16	13.3	4.5	1.9	31	1000	1840
ES3AA-21	150/20	14.7	4.5	1.9	33	1000	2220
ES3AA-22	185/25	16.4	4.5	2.0	35	1000	2610
ES3AA-24	240/25	18.5	4.5	2.1	37	1000	3200
ES3AA-26	300/25	20.8	4.5	2.1	40	500	3800
ES3AA-27	400/35	23.5	4.5	2.3	43	500	4760
ES3AA-28	500/35	26.7	4.5	2.4	46	500	5850
ES3AA-30	630/35	30.5	4.5	2.5	51	500	7340

**8.7/15 KV SINGLE CORE CABLE WITH COPPER CONDUCTOR AND
COPPER TAPE SCREEN**

Lapped semiconductive insulation screen

Catalogue number	Conductor		Insulation	Outer sheath		Packaging	
	Cross sectional area	Diameter	Thickness of XLPE	Thickness of PVC	Overall diameter	Standard delivery length	Net weight
	Nominal mm ²	Nominal mm	Nominal mm	Nominal mm	Approx mm	m±5%	Approx kg/km
ES4AA-11	35	7.0	4.5	1.7	23	1000	780
ES4AA-14	50	8.3	4.5	1.7	23	1000	920
ES4AA-16	70	9.9	4.5	1.8	26	1000	1170
ES4AA-17	95	11.8	4.5	1.8	28	1000	1460
ES4AA-19	120	13.3	4.5	1.9	30	1000	1730
ES4AA-21	150	14.7	4.5	1.9	31	1000	2030
ES4AA-22	185	16.4	4.5	2.0	33	1000	2420
ES4AA-24	240	18.5	4.5	2.1	35	1000	3020
ES4AA-26	300	2.8	4.5	2.1	38	500	3640
ES4AA-27	400	23.5	4.5	2.2	41	500	4500
ES4AA-28	500	26.7	4.5	2.3	44	500	5600
ES4AA-30	630	30.5	4.5	2.4	49	500	7100

SECTION 3

**8.7/15 KV SINGLE CORE CABLE WITH COPPER CONDUCTOR AND
COPPER WIRE SCREEN**

DIMENSIONS AND WEIGHTS

Extruded semiconductive insulation screen firmly bonded to insulation

Catalogue number	Conductor		Insulation	Outer sheath		Packaging	
	Cross sect. area of conductor/screen	Diameter of conductor	Thickness of XLPE	Thickness of PVC	Overall diameter	Standard delivery length	Net weight
	Nominal mm ² /mm ²	Nominal mm	Nominal mm	Nominal mm	Approx mm	m+/-5%	Approx kg/km
ES7AA-11	35/16	7.00	4.5	1.7	26	1000	960
ES7AA-14	50/16	8.3	4.5	1.7	27	1000	1100
ES7AA-16	70/16	9.9	4.5	1.8	29	1000	1350
ES7AA-17	95/16	11.8	4.5	1.8	31	1000	1630
ES7AA-19	120/16	13.3	4.5	1.9	32	1000	1900
ES7AA-21	150/25	14.7	4.5	1.9	34	1000	2290
ES7AA-22	185/25	16.4	4.5	2.0	36	1000	2710
ES7AA-24	240/25	18.5	4.5	2.1	38	1000	3310
ES7AA-26	300/25	20.8	4.5	2.1	41	500	3930
ES7AA-27	400/35	23.5	4.5	2.3	44	500	4900
ES7AA-28	500/35	26.7	4.5	2.4	47	500	6000
ES7AA-30	630/35	30.5	4.5	2.5	53	500	7570

**8.7/15 KV SINGLE CORE CABLE WITH COPPER CONDUCTOR AND
COPPER TAPE SCREEN**

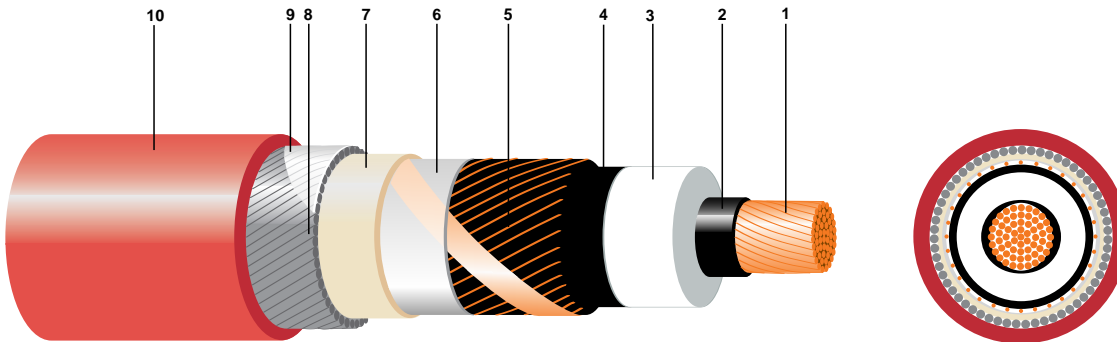
Extruded semiconductive insulation screen firmly bonded to insulation

Catalogue number	Conductor		Insulation	Outer sheath		Packaging	
	Cross sectional area	Diameter	Thickness of XLPE	Thickness of PVC	Overall diameter	Standard delivery length	Net weight
	Nominal mm ²	Nominal mm	Nominal mm	Nominal mm	Approx mm	m±5%	Approx kg/km
ES8AA-11	35	7.0	4.5	1.7	24	1000	850
ES8AA-14	50	8.3	4.5	1.7	25	1000	990
ES8AA-16	70	9.9	4.5	1.8	27	1000	1240
ES8AA-17	95	11.8	4.5	1.8	28	1000	1530
ES8AA-19	120	13.3	4.5	1.9	30	1000	1820
ES8AA-21	150	14.7	4.5	1.9	32	1000	2110
ES8AA-22	185	16.4	4.5	2	34	1000	2540
ES8AA-24	240	18.5	4.5	2.1	37	1000	3150
ES8AA-26	300	20.8	4.5	2.1	39	500	3780
ES8AA-27	400	23.5	4.5	2.2	42	500	4640
ES8AA-28	500	26.7	4.5	2.3	45	500	5750
ES8AA-30	630	30.5	4.5	2.4	51	500	7310

8.7/15 KV XLPE INSULATED SINGLE CORE CABLE WITH COPPER CONDUCTOR (ALUMINIUM WIRE ARMoured)

MEDIUM VOLTAGE

- | | | |
|---------------------|--|------------------------------------|
| 1. Conductor | 4. Insulation Screen (non-metallic part) | 7. Bedding |
| 2. Conductor Screen | 5. Insulation Screen (metallic part) | 8. Armour |
| 3. Insulation | 6. Non-hygroscopic separation tape | 9. Non-hygroscopic separation tape |
| | 10. Outer Sheath | |



DESCRIPTION

Circular stranded compacted copper conductor, XLPE insulated, with copper wire or copper tape screen, aluminium wire armoured (AWA) and PVC outer sheath. Complies with IEC 502.

CONSTRUCTION

Conductor

Plain circular compacted copper conductor to IEC 228 class 2. Aluminium conductor available on request.

Conductor Screen

Extruded semiconductive compound.

Insulation

XLPE (cross-linked polyethylene) rated 90°C.

Insulation Screen (non-metallic part)

Graphite layer covered with semiconductive tape(s) or extruded layer of semiconductive compound firmly bonded to insulation. Semiconductive compound easy strippable from insulation available on request.

Insulation Screen (metallic part)

Copper wires screen or copper tape screen.

Bedding

A extruded PVC layer.

Armour

Round aluminium wires.

Outer Sheath

PVC type ST2 to IEC 502 colour red (black on request). Special PVC formulations with flame retardant and/or anti-termite properties available on request. Low smoke halogen free sheaths available on request.

APPLICATION

For installation on trays, in ducts or by direct burial.

TO ORDER

Order by catalogue number and quantity required.

Example

ES3BA-27R 5km (10 x 500m) on wooden or steel reels.

Note: In the interests of product improvement, SCC reserves the right to alter cable specifications.

8.7/15 KV SINGLE CORE CABLE WITH COPPER CONDUCTOR, COPPER WIRE SCREEN AND ARMoured (AWA)

DIMENSIONS AND WEIGHTS

Lapped semiconductive insulation screen

Catalogue number	Conductor		Insulation	Armouring	Outer sheath		Packaging	
	Cross sect. area of conductor/screen	Diameter of conductor	Thickness of XLPE	Diameter of alu.wire	Thickness of PVC	Overall diameter	Standard delivery length	Net weight
	Nominal mm ² /mm ²	Nominal mm	Nominal mm	Nominal mm	Nominal mm	Approx mm	m+/-5%	Approx kg/km
ES3BA-10	25/16	5.9	4.9	1.6	1.9	29.7	1000	1290
ES3BA-11	35/16	7.0	4.5	1.6	1.9	30.8	1000	1435
ES3BA-14	50/16	8.3	4.5	1.6	1.9	32.6	1000	1640
ES3BA-16	70/16	9.9	4.5	1.6	2.0	33.8	1000	1870
ES3BA-17	95/16	11.8	4.5	2.0	2.1	36.7	1000	2305
ES3BA-19	120/16	13.3	4.5	2.0	2.1	38.2	1000	2600
ES3BA-21	150/25	14.7	4.5	2.0	2.2	39.9	1000	2995
ES3BA-22	185/25	16.4	4.5	2.0	2.3	41.9	560	3480
ES3BA-24	240/25	18.5	4.5	2.5	2.4	44.3	500	4125
ES3BA-26	300/25	20.8	4.5	2.5	2.5	47.8	500	4915
ES3BA-27	400/35	23.5	4.5	2.5	2.6	51.2	500	6000
ES3BA-28	500/35	26.7	4.5	2.5	2.7	54.6	500	7220
ES3BA-30	630/35	30.5	4.5	2.5	2.7	58.6	500	8750

8.7/15 KV SINGLE CORE CABLE WITH COPPER CONDUCTOR AND COPPER TAPE SCREEN AND ARMoured (AWA)

Lapped semiconductive insulation screen

Catalogue number	Conductor		Insulation	Armouring	Outer sheath		Packaging	
	Cross sect. area	Diameter	Thickness of XLPE	Diameter of alu. wire	Thickness of PVC	Overall diameter	Standard delivery length	Net weight
	Nominal mm ²	Nominal mm	Nominal mm	Nominal mm	Nominal mm	Approx mm	m±5%	Approx kg/km
ES4BA-10	25	5.9	4.5	1.6	1.8	27.9	1000	1125
ES4BA-11	35	7.0	4.5	1.6	1.9	29.5	1000	1310
ES4BA-14	50	8.3	4.5	1.6	1.9	30.5	1000	1445
ES4BA-16	70	9.9	4.5	1.6	2.0	32.3	1000	1720
ES4BA-17	95	11.8	4.5	2.0	2.0	35.5	1000	2170
ES4BA-19	120	13.3	4.5	2.0	2.1	36.7	1000	2445
ES4BA-21	150	14.7	4.5	2.0	2.1	38.1	1000	2765
ES4BA-22	185	16.4	4.5	2.0	2.2	40.1	500	3240
ES4BA-24	240	18.5	4.5	2.0	2.3	42.3	500	3875
ES4BA-26	300	20.8	4.5	2.0	2.3	44.6	500	4550
ES4BA-27	400	23.5	4.5	2.5	2.5	48.9	500	5680
ES4BA-28	500	26.7	4.5	2.5	2.6	52.6	500	6810
ES4BA-30	630	30.5	4.5	2.5	2.7	57.0	500	8450

**8.7/15 KV SINGLE CORE CABLE WITH COPPER CONDUCTOR,
COPPER WIRE SCREEN AND ARMoured (AWA)**

DIMENSIONS AND WEIGHTS

Extruded semiconductive insulation screen firmly bonded to insulation

Catalogue number	Conductor		Insulation	Armouring	Outer sheath		Packaging	
	Cross sect. area of conductor/screen	Diameter of conductor	Thickness of XLPE	Diameter of alu.wire	Thickness of PVC	Overall diameter	Standard delivery length	Net weight
	Nominal mm ² /mm ²	Nominal mm	Nominal mm	Nominal mm	Nominal mm	Approx mm	m+/-5%	Approx kg/km
ES7BA-11	35/16	7.0	4.5	1.6	1.9	31.8	1000	1500
ES7BA-14	50/16	8.3	4.5	1.6	1.9	33.6	1000	1795
ES7BA-16	70/16	9.9	4.5	1.6	2.0	35.1	1000	1985
ES7BA-17	95/16	11.8	4.5	2.0	2.1	38.0	1000	2430
ES7BA-19	120/16	13.3	4.5	2.0	2.1	39.5	1000	2750
ES7BA-21	150/25	14.7	4.5	2.0	2.2	41.1	500	3155
ES7BA-22	185/25	16.4	4.5	2.0	2.2	42.8	500	3575
ES7BA-24	240/25	18.5	4.5	2.0	2.3	45.2	500	4225
ES7BA-26	300/25	20.8	4.5	2.5	2.4	49.1	500	5075
ES7BA-27	400/35	23.5	4.5	2.5	2.5	51.9	500	6120
ES7BA-28	500/35	26.7	4.5	2.5	2.6	55.5	500	7335
ES7BA-30	630/35	30.5	4.5	2.5	2.7	59.5	500	8885

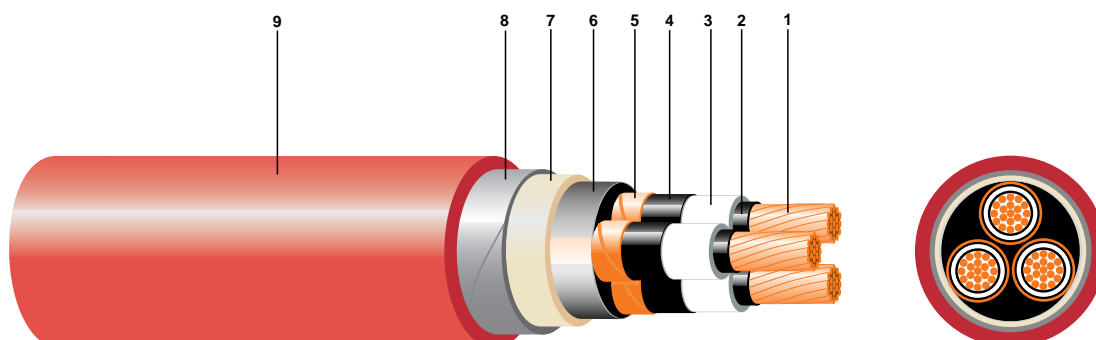
**8.7/15 KV SINGLE CORE CABLE WITH COPPER CONDUCTOR,
COPPER TAPE SCREEN AND ARMoured (AWA)**

Extruded semiconductive insulation screen firmly bonded to insulation

Catalogue number	Conductor		Insulation	Armouring	Outer sheath		Packaging	
	Cross sect. area	Diameter	Thickness of XLPE	Diameter of alu. wire	Thickness of PVC	Overall diameter	Standard delivery length	Net weight
	Nominal mm ²	Nominal mm	Nominal mm	Nominal mm	Nominal mm	Approx mm	m±5%	Approx kg/km
ES8BA-11	35	7.0	4.5	1.6	1.9	30.2	1000	1370
ES8BA-14	50	8.3	4.5	1.6	1.9	31.5	1000	1545
ES8BA-16	70	9.9	4.5	1.6	2.0	33.2	1000	1825
ES8BA-17	95	11.8	4.5	2.0	2.0	35.9	1000	2250
ES8BA-19	120	13.3	4.5	2.0	2.1	37.6	1000	2570
ES8BA-21	150	14.7	4.5	2.0	2.1	39.0	1000	2890
ES8BA-22	185	16.4	4.5	2.0	2.2	41.6	500	3375
ES8BA-24	240	18.5	4.5	2.0	2.3	44.0	500	4030
ES8BA-26	300	20.8	4.5	2.0	2.3	46.5	500	4680
ES8BA-27	400	23.5	4.5	2.5	2.5	50.7	500	5840
ES8BA-28	500	26.7	4.5	2.5	2.6	54.5	500	7060
ES8BA-30	630	30.5	4.5	2.5	2.7	58.3	500	8615

SECTION 3

- | | | |
|---------------------|---|-----------------|
| 1. Conductor | 4. Insulation Screen (non-metallic part) | 7. Bedding |
| 2. Conductor Screen | 5. Insulation Screen (metallic part) | 8. Armour |
| 3. Insulation | 6. Non-hygroscopic fillers and separator tape | 9. Outer Sheath |



DESCRIPTION

Circular stranded compacted copper conductors, XLPE insulated, copper tape screened, assembled together with non-hygroscopic polypropylene fillers, covered with extruded or taped bedding, armoured or unarmoured and PVC sheathed. Cables comply with IEC 502.

CONSTRUCTION

Conductor

Plain circular compacted copper conductor to IEC 228 class 2. Aluminium conductor available on request.

Conductor Screen

Extruded semiconductive compound.

Insulation

XLPE (cross-linked polyethylene) rated 90°C.

Insulation Screen (non-metallic part)

Graphite layer covered with semiconductive tape(s) or extruded layer of semiconductive compound firmly bonded to insulation. Semiconductive compound easy strippable from insulation available on request.

Insulation Screen (metallic part)

Copper tapes 0.10 mm thickness. Copper wires screen available on request.

Bedding for armoured cables

An extruded PVC layer.

Armour

Galvanized steel tapes or galvanised steel wires, applied over the PVC bedding.

Outer Sheath

PVC type ST2 to IEC 502 colour red (black on request).

Colours for core identification

Red, yellow and blue narrow tapes applied between non-metallic and metallic parts of insulation screen.

APPLICATION

These cables are generally suitable for direct burial or for installation on trays or in ducts. Where there is a risk of mechanical damage, armoured cables should be used.

TO ORDER

Order by catalogue number and quantity required.

Example

ES4HA-24R 10km (25 x 400m) on wooden or steel reels.

Note: In the interests of product improvement, SCC reserves the right to alter cable specifications.

8.7/15 KV THREE CORE CABLE WITH COPPER CONDUCTOR, COPPER TAPE SCREEN, UNARMoured AND PVC SHEATH

DIMENSIONS AND WEIGHTS

Lapped semiconductive insulation screen

Catalogue number	Conductor		Insulation		Screening		Outer sheath		Packaging	
	Cross sect. area	Diameter	Thickness of XLPE	Dia. over insulation	Thickness of SC layer	Thickness of Cu tape	Thickness of PVC	Overall diameter	Standard delivery length	Weight of cable
	Nominal mm ²	Nominal mm	Nominal mm	Nominal mm	Approx mm	Approx mm	Nominal mm	Approx mm	Approx m±5%	Approx kg/km
ES4EA-11	35	7.0	4.5	17.4	0.4	0.1	2.5	48	500	2570
ES4EA-14	50	8.3	4.5	18.5	0.4	0.1	2.6	51	500	3040
ES4EA-16	70	9.9	4.5	20.1	0.4	0.1	2.7	54	500	3800
ES4EA-17	95	11.8	4.5	21.8	0.4	0.1	2.8	59	500	4750
ES4EA-19	120	13.3	4.5	23.3	0.4	0.1	2.9	62	500	5600
ES4EA-21	150	14.7	4.5	24.8	0.4	0.1	3.0	65	500	6570
ES4EA-22	185	16.4	4.5	26.5	0.4	0.1	3.1	69	500	7800
ES4EA-24	240	18.5	4.5	28.7	0.4	0.1	3.3	74	500	9730
ES4EA-26	300	20.8	4.5	31.4	0.4	0.1	3.5	80	500	11750
ES4EA-27	400	23.5	4.5	34.1	0.4	0.1	3.7	86	400	14500
ES4EA-28	500	26.7	4.5	37.2	0.4	0.1	3.9	93	350	17980

8.7/15 KV THREE CORE CABLE WITH COPPER CONDUCTOR, COPPER TAPE SCREEN, DST AND PVC SHEATH

Lapped semiconductive insulation screen

Catalogue number	Conductor		Insulation		Screening		Armouring	Outer sheath		Packaging	
	Cross sect. area	Diameter	Thickness of XLPE	Diameter	Thickness of SC layer	Thickness of Cu tape	Thickness of steel tape	Thickness of PVC	Overall diameter	Standard delivery length	Weight of cable
	Nominal mm ²	Nominal mm	Nominal mm	Nominal mm	Approx mm	Approx mm	Nominal mm	Nominal mm	Approx mm	Approx m±5%	Approx kg/km
ES4GA-11	35	7.0	4.5	17.4	0.4	0.1	0.5	2.6	52	500	3910
ES4GA-14	50	8.3	4.5	18.5	0.4	0.1	0.5	2.7	56	500	4490
ES4GA-16	70	9.9	4.5	20.1	0.4	0.1	0.5	2.8	59	500	5360
ES4GA-17	95	11.8	4.5	21.8	0.4	0.1	0.5	3.0	64	500	6480
ES4GA-19	120	13.3	4.5	23.3	0.4	0.1	0.5	3.1	68	500	7520
ES4GA-21	150	14.7	4.5	24.8	0.4	0.1	0.5	3.2	71	500	8580
ES4GA-22	185	16.4	4.5	26.5	0.4	0.1	0.5	3.3	75	500	9990
ES4GA-24	240	18.5	4.5	28.7	0.4	0.1	0.5	3.5	80	500	12100
ES4GA-26	300	20.8	4.5	31.4	0.4	0.1	0.8	3.7	87	400	15250
ES4GA-27	400	23.5	4.5	34.1	0.4	0.1	0.8	3.9	94	350	18300
ES4GA-28	500	26.7	4.5	37.2	0.4	0.1	0.8	4.1	105	250	22150

8.7/15 KV THREE CORE CABLE WITH COPPER CONDUCTOR, COPPER TAPE SCREEN, SWA AND PVC SHEATH

DIMENSIONS AND WEIGHTS

Lapped semiconductive insulation screen

Catalogue number	Conductor		Insulation		Screening		Armouring	Outer sheath		Packaging	
	Cross sect. area	Diameter	Thickness of XLPE	Diameter	Thickness of SC layer	Thickness of Cu tape	Diameter of steel wire	Thickness of PVC	Overall diameter	Standard delivery length	Weight of cable
	Nominal mm ²	Nominal mm	Nominal mm	Nominal mm	Approx mm	Approx mm	Nominal mm	Nominal mm	Approx mm	Approx m±5%	Approx kg/km
ES4HA-11	35	7.0	4.5	17.4	0.4	0.1	2.5	2.7	56	500	5480
ES4HA-14	50	8.3	4.5	18.5	0.4	0.1	2.5	2.8	59	500	6140
ES4HA-16	70	9.9	4.5	20.1	0.4	0.1	2.5	2.9	63	500	7100
ES4HA-17	95	11.8	4.5	21.8	0.4	0.1	2.5	3.1	68	500	8390
ES4HA-19	120	13.3	4.5	23.3	0.4	0.1	2.5	3.2	71	500	9500
ES4HA-21	150	14.7	4.5	24.8	0.4	0.1	3.15	3.3	76	500	11500
ES4HA-22	185	16.4	4.5	26.5	0.4	0.1	3.15	3.5	80	500	13080
ES4HA-24	240	18.5	4.5	28.7	0.4	0.1	3.15	3.6	85	400	15390
ES4HA-26	300	20.8	4.5	31.4	0.4	0.1	3.15	3.8	91	400	17950
ES4HA-27	400	23.5	4.5	34.1	0.4	0.1	3.15	4.0	97	350	21170
ES4HA-28	500	26.7	4.5	37.2	0.4	0.1	3.15	4.2	105	250	25250

8.7/15 KV THREE CORE CABLE WITH COPPER CONDUCTOR, COPPER TAPE SCREEN, UNARMOURED AND PVC SHEATH

Extruded semiconductive insulation screen

Catalogue number	Conductor		Insulation		Screening		Outer sheath		Packaging	
	Cross sect. area	Diameter	Thickness of XLPE	Dia. over insulation	Thickness of SC layer	Thickness of Cu tape	Thickness of PVC	Overall diameter	Standard delivery length	Weight of cable
	Nominal mm ²	Nominal mm	Nominal mm	Nominal mm	Approx mm	Approx mm	Nominal mm	Approx mm	Approx m±5%	Approx kg/km
ES8EA-11	35	7.0	4.5	17.4	0.8	0.1	2.5	49	500	2790
ES8EA-14	50	8.3	4.5	18.5	0.8	0.1	2.6	52	500	3260
ES8EA-16	70	9.9	4.5	20.1	0.8	0.1	2.7	56	500	4050
ES8EA-17	95	11.8	4.5	21.8	0.8	0.1	2.8	60	500	5000
ES8EA-19	120	13.3	4.5	23.3	0.8	0.1	2.9	63	500	5880
ES8EA-21	150	14.7	4.5	24.8	0.8	0.1	3.0	66	500	6850
ES8EA-22	185	16.4	4.5	26.5	1.0	0.1	3.1	72	500	8230
ES8EA-24	240	18.5	4.5	28.7	1.0	0.1	3.3	77	500	10160
ES8EA-26	300	20.8	4.5	31.4	1.0	0.1	3.5	83	500	12240
ES8EA-27	400	23.5	4.5	34.1	1.0	0.1	3.7	89	400	15005
ES8EA-28	500	26.7	4.5	37.2	1.0	0.1	3.9	96	350	18530

8.7/15 KV THREE CORE CABLE WITH COPPER CONDUCTOR, COPPER TAPE SCREEN, DST AND PVC SHEATH

DIMENSIONS AND WEIGHTS

Extruded semiconductive insulation screen

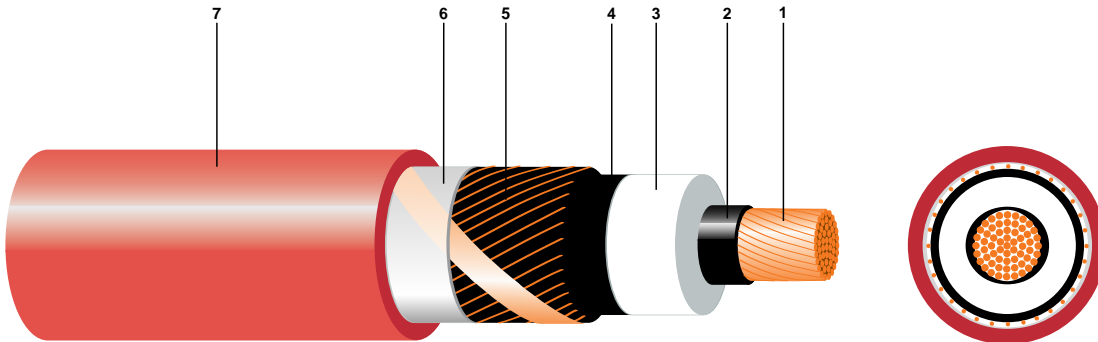
Catalogue number	Conductor		Insulation		Screening		Armouring	Outer sheath		Packaging	
	Cross sect. area	Diameter	Thickness of XLPE	Diameter	Thickness of SC layer	Thickness of Cu tape	Thickness of steel tape	Thickness of PVC	Overall diameter	Standard delivery length	Weight of cable
	Nominal mm ²	Nominal mm	Nominal mm	Nominal mm	Approx mm	Approx mm	Nominal mm	Nominal mm	Approx mm	Approx m±5%	Approx kg/km
ES8GA-11	35	7.0	4.5	17.4	0.8	0.1	0.5	2.6	54	500	4200
ES8GA-14	50	8.3	4.5	18.5	0.8	0.1	0.5	2.7	57	500	4760
ES8GA-16	70	9.9	4.5	20.1	0.8	0.1	0.5	2.8	60	500	5680
ES8GA-17	95	11.8	4.5	21.8	0.8	0.1	0.5	3.0	65	500	6820
ES8GA-19	120	13.3	4.5	23.3	0.8	0.1	0.5	3.1	69	500	7870
ES8GA-21	150	14.7	4.5	24.8	0.8	0.1	0.5	3.2	72	500	8940
ES8GA-22	185	16.4	4.5	26.5	1.0	0.1	0.5	3.3	78	500	10490
ES8GA-24	240	18.5	4.5	28.7	1.0	0.1	0.5	3.5	83	500	12610
ES8GA-26	300	20.8	4.5	31.4	1.0	0.1	0.8	3.7	90	350	15870
ES8GA-27	400	23.5	4.5	34.1	1.0	0.1	0.8	3.9	96	350	18900
ES8GA-28	500	26.7	4.5	37.2	1.0	0.1	0.8	4.1	104	250	22840

8.7/15 KV THREE CORE CABLE WITH COPPER CONDUCTOR, COPPER TAPE SCREEN, SWA AND PVC SHEATH

Extruded semiconductive insulation screen

Catalogue number	Conductor		Insulation		Screening		Armouring	Outer sheath		Packaging	
	Cross sect. area	Diameter	Thickness of XLPE	Diameter	Thickness of SC layer	Thickness of Cu tape	Diameter of steel wire	Thickness of PVC	Overall diameter	Standard delivery length	Weight of cable
	Nominal mm ²	Nominal mm	Nominal mm	Nominal mm	Approx mm	Approx mm	Nominal mm	Nominal mm	Approx mm	Approx m±5%	Approx kg/km
ES8HA-11	35	7.0	4.5	17.4	0.8	0.1	2.5	2.7	58	500	5850
ES8HA-14	50	8.3	4.5	18.5	0.8	0.1	2.5	2.8	60	500	6500
ES8HA-16	70	9.9	4.5	20.1	0.8	0.1	2.5	2.9	64	500	7520
ES8HA-17	95	11.8	4.5	21.8	0.8	0.1	2.5	3.1	69	500	8810
ES8HA-19	120	13.3	4.5	23.3	0.8	0.1	2.5	3.2	72	500	9930
ES8HA-21	150	14.7	4.5	24.8	0.8	0.1	3.15	3.3	77	500	11990
ES8HA-22	185	16.4	4.5	26.5	1.0	0.1	3.15	3.5	83	500	13740
ES8HA-24	240	18.5	4.5	28.7	1.0	0.1	3.15	3.6	88	400	16080
ES8HA-26	300	20.8	4.5	31.4	1.0	0.1	3.15	3.8	94	350	18680
ES8HA-27	400	23.5	4.5	34.1	1.0	0.1	3.15	4.0	100	350	21900
ES8HA-28	500	26.7	4.5	37.2	1.0	0.1	3.15	4.2	108	250	26070

- | | | |
|---------------------|--|------------------------------------|
| 1. Conductor | 4. Insulation Screen (non-metallic part) | 6. Non-hygroscopic separation tape |
| 2. Conductor Screen | 5. Insulation Screen (metallic part) | 7. Outer Sheath |
| 3. Insulation | | |



DESCRIPTION

Circular stranded compacted copper conductors, XLPE insulated, copper wire or copper tape screen and PVC outer sheath. Complies with IEC 502.

CONSTRUCTION

Conductor

Plain circular compacted copper conductor to IEC 228 class 2. Aluminium conductor available on request.

Conductor Screen

Extruded semiconductive compound.

Insulation

XLPE (cross-linked polyethylene) rated 90°C.

Insulation Screen (non-metallic part)

Graphite layer covered with semiconductive tape(s) or extruded layer of semiconductive compound firmly bonded to insulation. Semiconductive compound easy strippable from insulation available on request.

Insulation Screen (metallic part)

Copper wires screen or copper tape screen.

Outer Sheath

PVC type ST2 to IEC 502 colour red (black on request). Special PVC formulations with flame retardant and/or anti-termite properties available on request. Low smoke halogen free sheaths available on request.

APPLICATION

For installation on trays, in ducts or by direct burial.

TO ORDER

Order by catalogue number and quantity required.

Example

ET3AA-27R 5km (10 x 500m) on wooden or steel reels.

Note: In the interests of product improvement, SCC reserves the right to alter cable specifications.

**12/20 KV SINGLE CORE CABLE WITH COPPER CONDUCTOR AND
COPPER WIRE SCREEN**

DIMENSIONS AND WEIGHTS

Lapped semiconductive insulation screen

Catalogue number	Conductor		Insulation	Outer sheath		Packaging	
	Cross sect. area of conductor/screen	Diameter of conductor	Thickness of XLPE	Thickness of PVC	Overall diameter	Standard delivery length	Net weight
	Nominal mm ² /mm ²	Nominal mm	Nominal mm	Nominal mm	Approx mm	m+/-5%	Approx kg/km
ET3AA-14	50/16	8.3	5.5	1.8	28	1000	1140
ET3AA-16	70/16	9.9	5.5	1.9	30	1000	1380
ET3AA-17	95/16	11.8	5.5	1.9	32	1000	1670
ET3AA-19	120/16	13.3	5.5	2.0	34	1000	1950
ET3AA-21	150/25	14.7	5.5	2.0	35	1000	2330
ET3AA-22	185/25	16.4	5.5	2.1	37	1000	2740
ET3AA-24	240/25	18.5	5.5	2.1	39	1000	3300
ET3AA-26	300/25	20.8	5.5	2.2	42	500	3950
ET3AA-27	400/35	23.5	5.5	2.3	45	500	4900
ET3AA-28	500/35	26.7	5.5	2.4	48	500	6000
ET3AA-30	630/35	30.5	5.5	2.5	53	500	7480

**12/20 KV SINGLE CORE CABLE WITH COPPER CONDUCTOR AND
COPPER TAPE SCREEN**

Lapped semiconductive insulation screen

Catalogue number	Conductor		Insulation	Outer sheath		Packaging	
	Cross sectional area	Diameter	Thickness of XLPE	Thickness of PVC	Overall diameter	Standard delivery length	Net weight
	Nominal mm ²	Nominal mm	Nominal mm	Nominal mm	Approx mm	m±5%	Approx kg/km
ET4AA-14	50	8.3	5.5	1.8	27	1000	1020
ET4AA-16	70	9.9	5.5	1.8	28	1000	1260
ET4AA-17	95	11.8	5.5	1.9	29	1000	1570
ET4AA-19	120	13.3	5.5	1.9	31	1000	1830
ET4AA-21	150	14.7	5.5	2.0	33	1000	2150
ET4AA-22	185	16.7	5.5	2.0	34	1000	2540
ET4AA-24	240	18.5	5.5	2.1	37	1000	3140
ET4AA-26	300	20.8	5.5	2.2	40	500	3790
ET4AA-27	400	23.5	5.5	2.3	43	500	4650
ET4AA-28	500	26.7	5.5	2.4	46	500	5760
ET4AA-30	630	30.5	5.5	2.5	51	500	7270

**12/20 KV SINGLE CORE CABLE WITH COPPER CONDUCTOR AND
COPPER WIRE SCREEN**

DIMENSIONS AND WEIGHTS

Extruded semiconductive insulation screen

Catalogue number	Conductor		Insulation	Outer sheath		Packaging	
	Cross sect. area of conductor/screen	Diameter of conductor	Thickness of XLPE	Thickness of PVC	Overall diameter	Standard delivery length	Net weight
	Nominal mm ² /mm ²	Nominal mm	Nominal mm	Nominal mm	Approx mm	m+/-5%	Approx kg/km
ET7AA-14	50/16	8.3	5.5	1.8	29	1000	1180
ET7AA-16	70/16	9.9	5.5	1.9	31	1000	1450
ET7AA-17	95/16	11.8	5.5	1.9	33	1000	1750
ET7AA-19	120/16	13.3	5.5	2.0	35	1000	2030
ET7AA-21	150/25	14.7	5.5	2.0	36	1000	2440
ET7AA-22	185/25	16.4	5.5	2.1	38	1000	2845
ET7AA-24	240/25	18.5	5.5	2.1	40	1000	3430
ET7AA-26	300/25	20.8	5.5	2.2	43	500	4080
ET7AA-27	400/35	23.5	5.5	2.3	46	500	5040
ET7AA-28	500/35	26.7	5.5	2.4	49	500	6150
ET7AA-30	630/35	30.5	5.5	2.5	55	500	7720

**12/20 KV SINGLE CORE CABLE WITH COPPER CONDUCTOR AND
COPPER TAPE SCREEN**

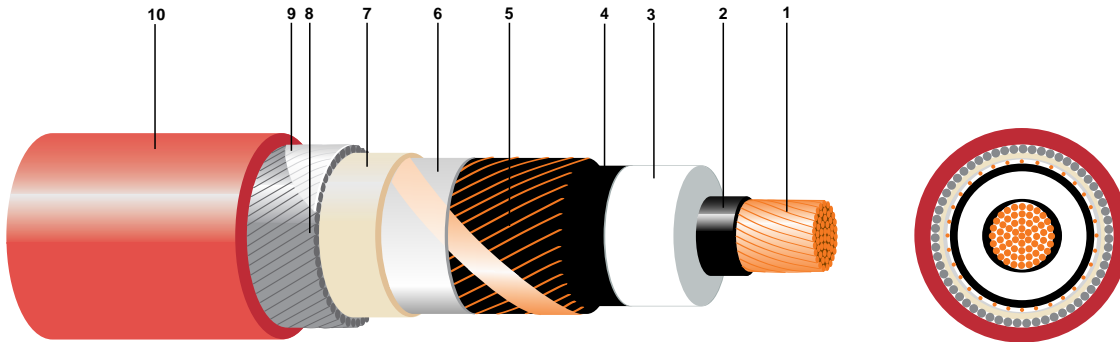
Extruded semiconductive insulation screen

Catalogue number	Conductor		Insulation	Outer sheath		Packaging	
	Cross sectional area	Diameter	Thickness of XLPE	Thickness of PVC	Overall diameter	Standard delivery length	Net weight
	Nominal mm ²	Nominal mm	Nominal mm	Nominal mm	Approx mm	m±5%	Approx kg/km
ET8AA-14	50	8.3	5.5	1.8	27	1000	1090
ET8AA-16	70	9.9	5.5	1.8	29	1000	1340
ET8AA-17	95	11.8	5.5	1.9	31	1000	1650
ET8AA-19	120	13.3	5.5	1.9	32	1000	1920
ET8AA-21	150	14.7	5.5	2.0	34	1000	2270
ET8AA-22	185	16.4	5.5	2.0	36	1000	2660
ET8AA-24	240	18.5	5.5	2.1	38	1000	3270
ET8AA-26	300	20.8	5.5	2.2	41	500	3940
ET8AA-27	400	23.5	5.5	2.3	44	500	4800
ET8AA-28	500	26.7	5.5	2.4	48	500	5920
ET8AA-30	630	30.5	5.5	2.5	53	500	7540

12/20 KV XLPE INSULATED SINGLE CORE CABLE WITH COPPER CONDUCTOR (ALUMINIUM WIRE ARMoured)

MEDIUM VOLTAGE

- | | | |
|---------------------|--|------------------------------------|
| 1. Conductor | 4. Insulation Screen (non-metallic part) | 7. Bedding |
| 2. Conductor Screen | 5. Insulation Screen (metallic part) | 8. Armour |
| 3. Insulation | 6. Non-hygroscopic separation tape | 9. Non-hygroscopic separation tape |
| | | 10. Outer Sheath |



DESCRIPTION

Circular stranded compacted copper conductors, XLPE insulated, copper wire or copper tape screen aluminium wire armoured (AWA) and PVC outer sheath. Complies with IEC 502.

CONSTRUCTION

Conductor

Plain circular compacted copper conductor to IEC 228 class 2. Aluminium conductor available on request.

Conductor Screen

Extruded semiconductive compound.

Insulation

XLPE (cross-linked polyethylene) rated 90°C.

Insulation Screen (non-metallic part)

Graphite layer covered with a lapping tapes or extruded layer of semiconductive material.

Insulation Screen (metallic part)

Copper wires screen or copper tape screen.

Bedding

A extruded PVC layer .

Armour

Round aluminium wires.

Outer Sheath

PVC type ST2 to IEC 502 colour red (black on request). Special PVC formulations with flame retardant and/or anti-termite properties available on request. Low smoke halogen free sheaths available on request..

APPLICATION

For installation on trays, in ducts or by direct burial.

TO ORDER

Order by catalogue number and quantity required.

Example

ET3BA-27R 5km (10 x 500m) on wooden or steel reels.

Note: In the interests of product improvement, SCC reserves the right to alter cable specifications.

**12/20 KV SINGLE CORE CABLE WITH COPPER CONDUCTOR,
COPPER WIRE SCREEN AND ARMoured (AWA)**

DIMENSIONS AND WEIGHTS

Lapped semiconductive insulation screen

Catalogue number	Conductor		Insulation	Armouring	Outer sheath		Packaging	
	Cross sect. area of conductor/screen	Diameter of conductor	Thickness of XLPE	Diameter of alu.wire	Thickness of PVC	Overall diameter	Standard delivery length	Net weight
	Nominal mm ² /mm ²	Nominal mm	Nominal mm	Nominal mm	Nominal mm	Approx mm	m+/-5%	Approx kg/km
ET3BA-11	35/16	7.0	5.5	1.6	2.0	33.0	1000	1560
ET3BA-14	50/16	8.3	5.5	2.0	2.0	35.0	1000	1860
ET3BA-16	70/16	9.9	5.5	2.0	2.1	37.2	1000	2150
ET3BA-17	95/16	11.8	5.5	2.0	2.1	39.1	1000	2490
ET3BA-19	120/16	13.3	5.5	2.0	2.2	40.5	500	2740
ET3BA-21	150/25	14.7	5.5	2.0	2.2	41.9	500	3140
ET3BA-22	185/25	16.4	5.5	2.0	2.3	43.6	500	3580
ET3BA-24	240/25	18.5	5.5	2.5	2.4	47.3	500	4435
ET3BA-26	300/25	20.8	5.5	2.5	2.5	50.6	500	5170
ET3BA-27	400/35	23.5	5.5	2.5	2.6	52.9	500	6200
ET3BA-28	500/35	26.7	5.5	2.5	2.7	56.3	500	7300
ET3BA-30	630/35	30.5	5.5	2.5	2.8	61.3	500	8910

**12/20 KV SINGLE CORE CABLE WITH COPPER CONDUCTOR,
COPPER TAPE SCREEN AND ARMoured (AWA)**

Lapped semiconductive insulation screen

Catalogue number	Conductor		Insulation	Armouring	Outer sheath		Packaging	
	Cross sect. area	Diameter	Thickness of XLPE	Diameter of alu. wire	Thickness of PVC	Overall diameter	Standard delivery length	Net weight
	Nominal mm ²	Nominal mm	Nominal mm	Nominal mm	Nominal mm	Approx mm	m±5%	Approx kg/km
ET4BA-11	35	7.0	5.5	1.6	1.9	31.2	1000	1400
ET4BA-14	50	8.3	5.5	1.6	2.0	32.7	1000	1585
ET4BA-16	70	9.9	5.5	2.0	2.1	35.3	1000	1960
ET4BA-17	95	11.8	5.5	2.0	2.1	37.2	1000	2295
ET4BA-19	120	13.3	5.5	2.0	2.2	38.9	1000	2615
ET4BA-21	150	14.7	5.5	2.0	2.2	40.3	500	2935
ET4BA-22	185	16.4	5.5	2.0	2.3	42.0	500	3375
ET4BA-24	240	18.5	5.5	2.0	2.3	44.3	500	4040
ET4BA-26	300	20.8	5.5	2.5	2.5	48.2	500	4945
ET4BA-27	400	23.5	5.5	2.5	2.6	51.1	500	5890
ET4BA-28	500	26.7	5.5	2.5	2.7	54.8	500	7035
ET4BA-30	630	30.5	5.5	2.5	2.8	59.8	500	8655

**12/20 KV SINGLE CORE CABLE WITH COPPER CONDUCTOR,
COPPER WIRE SCREEN AND ARMoured (AWA)**

DIMENSIONS AND WEIGHTS

Extruded semiconductive insulation screen

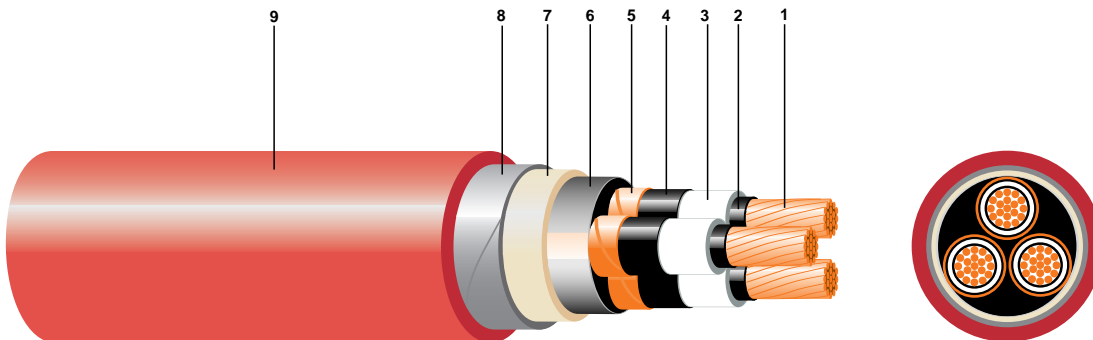
Catalogue number	Conductor		Insulation	Armouring	Outer sheath		Packaging	
	Cross sect. area of conductor/screen	Diameter of conductor	Thickness of XLPE	Diameter of alu.wire	Thickness of PVC	Overall diameter	Standard delivery length	Net weight
	Nominal mm ² /mm ²	Nominal mm	Nominal mm	Nominal mm	Nominal mm	Approx mm	m+/-5%	Approx kg/km
ET7BA-14	50/16	8.3	5.5	2.0	2.0	36.1	1000	1895
ET7BA-16	70/16	9.9	5.5	2.0	2.1	37.9	1000	2180
ET7BA-17	95/16	11.8	5.5	2.0	2.1	39.8	1000	2520
ET7BA-19	120/16	13.3	5.5	2.0	2.2	41.5	500	2840
ET7BA-21	150/25	14.7	5.5	2.0	2.2	42.9	500	3240
ET7BA-22	185/25	16.4	5.5	2.0	2.3	44.6	500	3680
ET7BA-24	240/25	18.5	5.5	2.5	2.4	48.3	500	4550
ET7BA-26	300/25	20.8	5.5	2.5	2.5	51.5	500	5280
ET7BA-27	400/35	23.5	5.5	2.5	2.6	53.9	500	6330
ET7BA-28	500/35	26.7	5.5	2.5	2.7	57.3	500	7440
ET7BA-30	630/35	30.5	5.5	2.5	2.8	62.3	500	9060

**12/20 KV SINGLE CORE CABLE WITH COPPER CONDUCTOR,
COPPER TAPE SCREEN AND ARMoured (AWA)**

Extruded semiconductive insulation screen

Catalogue number	Conductor		Insulation	Armouring	Outer sheath		Packaging	
	Cross sect. area	Diameter	Thickness of XLPE	Diameter of alu. wire	Thickness of PVC	Overall diameter	Standard delivery length	Net weight
	Nominal mm ²	Nominal mm	Nominal mm	Nominal mm	Nominal mm	Approx mm	m±5%	Approx kg/km
ET8BA-14	50	8.3	5.5	1.6	2.0	33.7	1000	1670
ET8BA-16	70	9.9	5.5	2.0	2.1	36.3	1000	2045
ET8BA-17	95	11.8	5.5	2.0	2.1	38.2	1000	2390
ET8BA-19	120	13.3	5.5	2.0	2.2	39.9	1000	2710
ET8BA-21	150	14.7	5.5	2.0	2.2	41.3	500	3035
ET8BA-22	185	16.4	5.5	2.0	2.3	43.0	500	3480
ET8BA-24	240	18.5	5.5	2.0	2.3	45.3	500	4150
ET8BA-26	300	20.8	5.5	2.5	2.5	49.2	500	5065
ET8BA-27	400	23.5	5.5	2.5	2.6	52.9	500	6060
ET8BA-28	500	26.7	5.5	2.5	2.7	55.8	500	7170
ET8BA-30	630	30.5	5.5	2.5	2.8	60.8	500	8800

- | | | |
|---------------------|---|-----------------|
| 1. Conductor | 4. Insulation Screen (non-metallic part) | 7. Bedding |
| 2. Conductor Screen | 5. Insulation Screen (metallic part) | 8. Armour |
| 3. Insulation | 6. Non-hygroscopic filters and separator tape | 9. Outer Sheath |



DESCRIPTION

Circular stranded compacted copper conductors, XLPE insulated, copper tape screened, three cores assembled together with non-hygroscopic polypropylene fillers, covered with extruded or taped bedding, armoured or unarmoured and PVC sheathed. Cables comply with IEC 502.

CONSTRUCTION

Conductor

Plain circular compacted copper conductor to IEC 228 class 2. Aluminium conductor available on request.

Conductor Screen

Extruded semiconductive compound.

Insulation

XLPE (cross-linked polyethylene) rated 90°C.

Insulation Screen (non-metallic part)

Graphite layer covered with semiconductive tape(s) or extruded layer of semiconductive material compound firmly bonded to insulation. Semiconductive compound easy strippable from insulation available on request.

Insulation Screen (metallic part)

Copper tapes 0.10 mm thickness. Copper wires screen available on request.

Bedding for armoured cables

An extruded PVC layer.

Armour

Galvanized steel tapes or galvanised steel wires, applied over the PVC bedding.

Outer Sheath

PVC type ST2 to IEC 502 colour red (black on request). Special PVC formulations with flame retardant and/or anti-termite properties available on request. Low smoke halogen free sheaths available on request.

Colours for core identification

Red, Yellow and blue narrow tapes applied between non-metallic and metallic parts of insulation.

APPLICATION

These cables are generally suitable for direct burial or for installation on trays or in ducts. Where there is a risk of mechanical damage, armoured cables should be used.

TO ORDER

Order by catalogue number and quantity required.

Example

ET4HA-24R 10km (25 x 400m) on wooden or steel reels.

Note: In the interests of product improvement, SCC reserves the right to alter cable specifications.

12/20 KV THREE CORE CABLE WITH COPPER CONDUCTOR, COPPER TAPE SCREEN, UNARMoured AND PVC SHEATH

DIMENSIONS AND WEIGHTS

Lapped semiconductive insulation screen

Catalogue number	Conductor		Insulation		Screening		Outer sheath		Packaging	
	Cross sect. area	Diameter	Thickness of XLPE	Dia. over insulation	Thickness of SC layer	Thickness of Cu tape	Thickness of PVC	Overall diameter	Standard delivery length	Weight of cable
	Nominal mm ²	Nominal mm	Nominal mm	Nominal mm	Approx mm	Approx mm	Nominal mm	Approx mm	Approx m±5%	Approx kg/km
ET4EA-14	50	8.3	5.5	20.5	0.4	0.1	2.7	55	500	3370
ET4EA-16	70	9.9	5.5	22.1	0.4	0.1	2.8	59	500	4170
ET4EA-17	95	11.8	5.5	23.8	0.4	0.1	3.0	63	500	5170
ET4EA-19	120	13.3	5.5	25.3	0.4	0.1	3.1	67	500	6070
ET4EA-21	150	14.7	5.5	26.8	0.4	0.1	3.2	70	500	7040
ET4EA-22	185	16.4	5.5	28.5	0.4	0.1	3.3	74	500	8320
ET4EA-24	240	18.5	5.5	30.7	0.4	0.1	3.5	79	500	10230
ET4EA-26	300	20.8	5.5	33.4	0.4	0.1	3.6	84	400	12290
ET4EA-27	400	23.5	5.5	36.1	0.4	0.1	3.8	91	350	15080
ET4EA-28	500	26.6	5.5	39.2	0.4	0.1	4.0	97	350	18610

12/20 KV THREE CORE CABLE WITH COPPER CONDUCTOR, COPPER TAPE SCREEN, DST AND PVC SHEATH

Lapped semiconductive insulation screen

Catalogue number	Conductor		Insulation		Screening		Armouring	Outer sheath		Packaging	
	Cross sect. area	Diameter	Thickness of XLPE	Diameter	Thickness of SC layer	Thickness of Cu tape	Thickness of steel tape	Thickness of PVC	Overall diameter	Standard delivery length	Weight of cable
	Nominal mm ²	Nominal mm	Nominal mm	Nominal mm	Approx mm	Approx mm	Nominal mm	Nominal mm	Approx mm	Approx m±5%	Approx kg/km
ET4GA-14	50	8.3	5.5	20.5	0.4	0.1	0.5	2.9	60	500	5000
ET4GA-16	70	9.9	5.5	22.1	0.4	0.1	0.5	3.0	64	500	5910
ET4GA-17	95	11.8	5.5	23.8	0.4	0.1	0.5	3.1	69	500	7080
ET4GA-19	120	13.3	5.5	25.3	0.4	0.1	0.5	3.2	72	500	8090
ET4GA-21	150	14.7	5.5	26.8	0.4	0.1	0.5	3.3	76	500	9170
ET4GA-22	185	16.7	5.5	28.5	0.4	0.1	0.5	3.5	80	500	10650
ET4GA-24	240	18.5	5.5	30.7	0.4	0.1	0.8	3.7	86	400	13640
ET4GA-26	300	20.8	5.5	33.4	0.4	0.1	0.8	3.8	92	350	15920
ET4GA-27	400	23.5	5.5	36.1	0.4	0.1	0.8	4.1	99	350	19150
ET4GA-28	500	26.7	5.5	39.1	0.4	0.1	0.8	4.3	107	250	23050

12/20 KV THREE CORE CABLE WITH COPPER CONDUCTOR, COPPER TAPE SCREEN, SWA AND PVC SHEATH

DIMENSIONS AND WEIGHTS

Lapped semiconductive insulation screen

Catalogue number	Conductor		Insulation		Screening		Armouring	Outer sheath		Packaging	
	Cross sect. area	Diameter	Thickness of XLPE	Diameter	Thickness of SC layer	Thickness of Cu tape	Diameter of steel wire	Thickness of PVC	Overall diameter	Standard delivery length	Weight of cable
	Nominal mm ²	Nominal mm	Nominal mm	Nominal mm	Approx mm	Approx mm	Nominal mm	Nominal mm	Approx mm	Approx m±5%	Approx kg/km
ET4HA-14	50	8.3	5.5	20.5	0.4	0.1	2.5	3.0	64	500	6800
ET4HA-16	70	9.9	5.5	22.1	0.4	0.1	2.5	3.1	68	500	7850
ET4HA-17	95	11.8	5.5	23.8	0.4	0.1	2.5	3.2	72	500	9100
ET4HA-19	120	13.3	5.5	25.3	0.4	0.1	3.15	3.4	77	500	11120
ET4HA-21	150	14.7	5.5	26.8	0.4	0.1	3.15	3.5	81	500	12330
ET4HA-22	185	16.4	5.5	28.5	0.4	0.1	3.15	3.6	85	400	13950
ET4HA-24	240	18.5	5.5	30.7	0.4	0.1	3.15	3.8	90	400	16290
ET4HA-26	300	20.8	5.5	33.4	0.4	0.1	3.15	3.9	96	350	18870
ET4HA-27	400	23.5	5.5	36.1	0.4	0.1	3.15	4.2	102	250	21190

12/20 KV THREE CORE CABLE WITH COPPER CONDUCTOR, COPPER TAPE SCREEN, UNARMoured AND PVC SHEATH

Extruded semiconductive insulation screen

Catalogue number	Conductor		Insulation		Screening		Outer sheath		Packaging	
	Cross sect. area	Diameter	Thickness of XLPE	Dia. over insulation	Thickness of SC layer	Thickness of Cu tape	Thickness of PVC	Overall diameter	Standard delivery length	Weight of cable
	Nominal mm ²	Nominal mm	Nominal mm	Nominal mm	Approx mm	Approx mm	Nominal mm	Approx mm	Approx m±5%	Approx kg/km
ET8EA-14	50	8.3	5.5	20.5	0.8	0.1	2.7	56	500	3640
ET8EA-16	70	9.9	5.5	22.1	0.8	0.1	2.8	60	500	4420
ET8EA-17	95	11.6	5.5	23.8	0.8	0.1	3.0	65	500	5430
ET8EA-19	120	13.1	5.5	25.3	0.8	0.1	3.1	68	500	6370
ET8EA-21	150	14.6	5.5	26.8	1.0	0.1	3.2	73	500	7470
ET8EA-22	185	16.3	5.5	28.5	1.0	0.1	3.3	77	500	8740
ET8EA-24	240	18.5	5.5	30.7	1.0	0.1	3.5	82	500	10700
ET8EA-26	300	20.8	5.5	33.4	1.0	0.1	3.6	87	400	12760
ET8EA-27	400	23.5	5.5	36.1	1.0	0.1	3.8	94	350	15600
ET8EA-28	500	26.6	5.5	39.2	1.0	0.1	4.1	101	250	19180

12/20 KV THREE CORE CABLE WITH COPPER CONDUCTOR, COPPER TAPE SCREEN, DST AND PVC SHEATH

DIMENSIONS AND WEIGHTS

Extruded semiconductive insulation screen

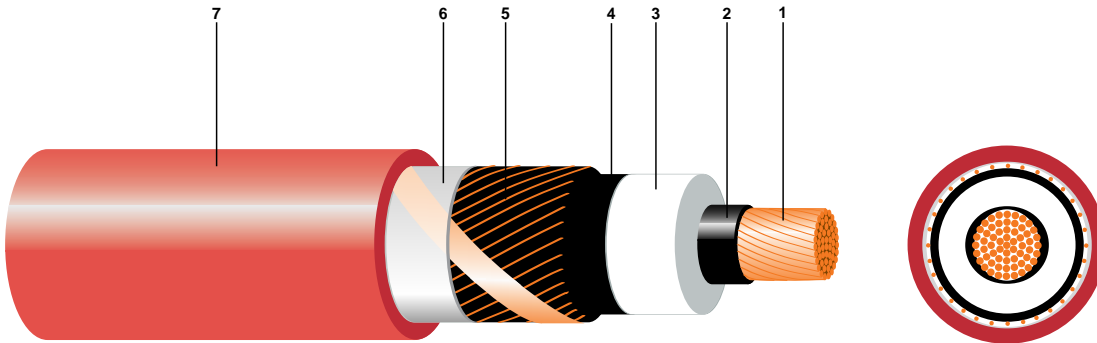
Catalogue number	Conductor		Insulation		Screening		Armouring	Outer sheath		Packaging	
	Cross sect. area	Diameter	Thickness of XLPE	Diameter	Thickness of SC layer	Thickness of Cu tape	Thickness of steel tape	Thickness of PVC	Overall diameter	Standard delivery length	Weight of cable
	Nominal mm ²	Nominal mm	Nominal mm	Nominal mm	Approx mm	Approx mm	Nominal mm	Nominal mm	Approx mm	Approx m±5%	Approx kg/km
ET8GA-14	50	8.3	5.5	20.5	0.8	0.1	0.5	2.9	62	500	5380
ET8GA-16	70	9.9	5.5	22.1	0.8	0.1	0.5	3.0	65	500	6250
ET8GA-17	95	11.8	5.5	23.8	0.8	0.1	0.5	3.1	70	500	7470
ET8GA-19	120	13.3	5.5	25.3	0.8	0.1	0.5	3.2	74	500	8470
ET8GA-22	150	14.7	5.5	26.8	1.0	0.1	0.5	3.3	78	500	9710
ET8GA-24	185	16.9	5.5	28.5	1.0	0.1	0.5	3.5	83	500	11190
ET8GA-26	240	18.5	5.5	30.7	1.0	0.1	0.8	3.7	89	400	14260
ET8GA-27	300	20.8	5.5	33.4	1.0	0.1	0.8	3.8	95	350	16650
ET8GA-28	400	23.5	5.5	36.1	1.0	0.1	0.8	4.1	101	250	19830

12/20 KV THREE CORE CABLE WITH COPPER CONDUCTOR, COPPER TAPE SCREEN, SWA AND PVC SHEATH

Extruded semiconductive insulation screen

Catalogue number	Conductor		Insulation		Screening		Armouring	Outer sheath		Packaging	
	Cross sect. area	Diameter	Thickness of XLPE	Diameter	Thickness of SC layer	Thickness of Cu tape	Diameter of steel wire	Thickness of PVC	Overall diameter	Standard delivery length	Weight of cable
	Nominal mm ²	Nominal mm	Nominal mm	Nominal mm	Approx mm	Approx mm	Nominal mm	Nominal mm	Approx mm	Approx m±5%	Approx kg/km
ET8HA-14	50	8.3	5.5	20.5	0.8	0.1	2.5	3.0	65	500	7200
ET8HA-16	70	9.9	5.5	22.1	0.8	0.1	2.5	3.1	69	500	8180
ET8HA-17	95	11.8	5.5	23.8	0.8	0.1	2.5	3.2	74	500	9510
ET8HA-19	120	13.3	5.5	25.3	0.8	0.1	3.15	3.4	79	500	11600
ET8HA-21	150	14.7	5.5	26.8	1.0	0.1	3.15	3.5	83	500	13030
ET8HA-22	185	16.7	5.5	28.5	1.0	0.1	3.15	3.6	87	400	14640
ET8HA-24	240	18.5	5.5	30.7	1.0	0.1	3.15	3.8	93	350	17030
ET8HA-26	300	20.8	5.5	33.4	1.0	0.1	3.15	3.9	98	350	19600
ET8HA-27	400	23.5	5.5	36.1	1.0	0.1	3.15	4.2	105	250	22980

- | | | |
|---------------------|--|------------------------------------|
| 1. Conductor | 4. Insulation Screen (non-metallic part) | 6. Non-hygroscopic separation tape |
| 2. Conductor Screen | 5. Insulation Screen (metallic part) | 7. Outer Sheath |
| 3. Insulation | | |



DESCRIPTION

Circular stranded compacted copper conductor, XLPE insulated, with copper wire or copper tape screen and PVC outer sheath. Complies with IEC 502.

CONSTRUCTION

Conductor

Plain circular compacted copper conductor to IEC 228 class 2. Aluminium conductor available on request.

Conductor Screen

Extruded semiconductive compound.

Insulation

XLPE (cross-linked polyethylene) rated 90°C.

Insulation Screen (non-metallic part)

Graphite layer covered with semiconductive tape(s) or extruded layer of semiconductive compound firmly bonded to insulation. Semiconductive compound easy strippable from insulation available on request.

Insulation Screen (metallic part)

Copper wires screen or copper tape screen.

Outer Sheath

PVC type ST2 to IEC 502 colour red (black on request). Special PVC formulations with flame retardant and/or anti-termite properties available on request. Low smoke halogen free sheaths available on request.

APPLICATION

For installation on trays, in ducts or by direct burial.

TO ORDER

Order by catalogue number and quantity required.

Example

EU3AA-27R 5km (10 x 500m) on wooden or steel reels.

Note: In the interests of product improvement, SCC reserves the right to alter cable specifications.

**18/30 KV SINGLE CORE CABLE WITH COPPER CONDUCTOR AND
COPPER WIRE SCREEN**

DIMENSIONS AND WEIGHTS

Lapped semiconductive insulation screen

Catalogue number	Conductor		Insulation	Outer sheath		Packaging	
	Cross sect. area of conductor/screen	Diameter of conductor	Thickness of XLPE	Thickness of PVC	Overall diameter	Standard delivery length	Net weight
	Nominal mm ² /mm ²	Nominal mm	Nominal mm	Nominal mm	Approx mm	m+/-5%	Approx kg/km
EU3AA-16	70/16	9.9	8.0	2.0	35	1000	1630
EU3AA-17	95/16	11.8	8.0	2.1	37	1000	1950
EU3AA-19	120/16	13.3	8.0	2.1	38	1000	2230
EU3AA-21	150/25	14.7	8.0	2.2	40	1000	2650
EU3AA-22	185/25	16.4	8.0	2.2	42	500	3050
EU3AA-24	240/25	18.5	8.0	2.3	44	500	3670
EU3AA-26	300/25	20.8	8.0	2.4	47	500	4320
EU3AA-27	400/35	23.5	8.0	2.5	50	500	5310
EU3AA-28	500/35	26.7	8.0	2.6	53	500	6440
EU3AA-30	630/35	31.7	8.0	2.7	58	500	7990

**18/30 KV SINGLE CORE CABLE WITH COPPER CONDUCTOR AND
COPPER TAPE SCREEN**

Lapped semiconductive insulation screen

Catalogue number	Conductor		Insulation	Outer sheath		Packaging	
	Cross sectional area	Diameter	Thickness of XLPE	Thickness of PVC	Overall diameter	Standard delivery length	Net weight
	Nominal mm ²	Nominal mm	Nominal mm	Nominal mm	Approx mm	m±5%	Approx kg/km
EU4AA-16	70	9.9	8.0	2.0	33	1000	1550
EU4AA-17	95	11.8	8.0	2.1	35	1000	1870
EU4AA-19	120	13.3	8.0	2.1	36	1000	2150
EU4AA-21	150	14.7	8.0	2.2	38	1000	2480
EU4AA-22	185	16.4	8.0	2.2	40	500	2880
EU4AA-24	240	18.5	8.0	2.3	42	500	3500
EU4AA-26	300	20.8	8.0	2.4	45	500	4210
EU4AA-27	400	23.5	8.0	2.5	48	500	5070
EU4AA-28	500	26.7	8.0	2.6	51	500	6200
EU4AA-30	630	30.5	8.0	2.7	57	500	7770

**18/30 KV SINGLE CORE CABLE WITH COPPER CONDUCTOR AND
COPPER WIRE SCREEN**

DIMENSIONS AND WEIGHTS

Extruded semiconductive insulation screen firmly bonded to insulation

Catalogue number	Conductor		Insulation	Outer sheath		Packaging	
	Cross sect. area of conductor/screen	Diameter of conductor	Thickness of XLPE	Thickness of PVC	Overall diameter	Standard delivery length	Net weight
	Nominal mm ² /mm ²	Nominal mm	Nominal mm	Nominal mm	Approx mm	m+/-5%	Approx kg/km
EU7AA-16	70/16	9.9	8.0	2.0	36	1000	1740
EU7AA-17	95/16	11.8	8.0	2.1	38	1000	2070
EU7AA-19	120/16	13.3	8.0	2.1	39	1000	2350
EU7AA-21	150/25	14.7	8.0	2.2	41	1000	2770
EU7AA-22	185/25	16.7	8.0	2.2	43	500	3180
EU7AA-24	240/25	18.5	8.0	2.3	45	500	3800
EU7AA-26	300/25	20.8	8.0	2.4	48	500	4480
EU7AA-27	400/35	23.5	8.0	2.5	52	500	5520
EU7AA-28	500/35	26.7	8.0	2.6	55	500	6660
EU7AA-30	630/35	30.5	8.0	2.7	60	500	8220

**18/30 KV SINGLE CORE CABLE WITH COPPER CONDUCTOR AND
COPPER TAPE SCREEN**

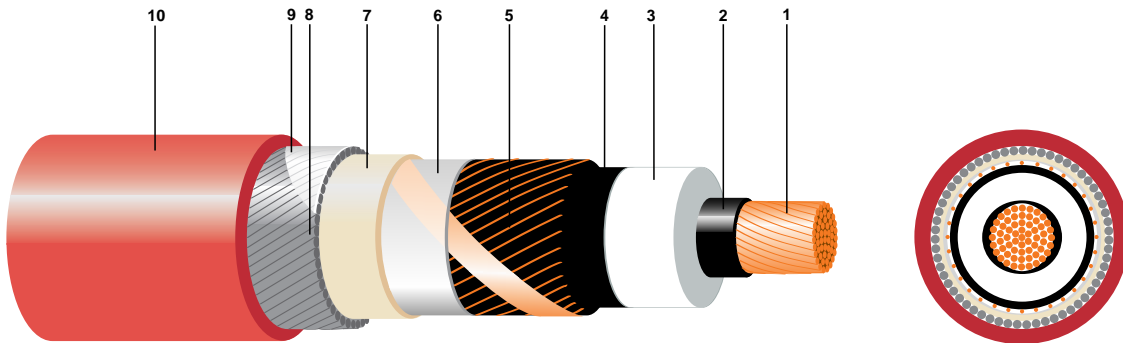
Extruded semiconductive insulation screen firmly bonded to insulation

Catalogue number	Conductor		Insulation	Outer sheath		Packaging	
	Cross sectional area	Diameter	Thickness of XLPE	Thickness of PVC	Overall diameter	Standard delivery length	Net weight
	Nominal mm ²	Nominal mm	Nominal mm	Nominal mm	Approx mm	m±5%	Approx kg/km
EU8AA-16	70	9.9	8.0	2.0	35	1000	1660
EU8AA-17	95	11.8	8.0	2.1	36	1000	1990
EU8AA-19	120	13.3	8.0	2.1	38	1000	2280
EU8AA-21	150	14.7	8.0	2.2	40	1000	2620
EU8AA-22	185	16.4	8.0	2.2	41	500	3030
EU8AA-24	240	18.5	8.0	2.3	44	500	3660
EU8AA-26	300	20.8	8.0	2.4	47	500	4520
EU8AA-27	400	23.5	8.0	2.5	50	500	5290
EU8AA-28	500	26.7	8.0	2.6	53	500	6450
EU8AA-30	630	30.5	8.0	2.7	59	500	8020

18/30 KV XLPE INSULATED SINGLE CORE CABLE WITH COPPER CONDUCTOR (ALUMINIUM WIRE ARMoured)

MEDIUM VOLTAGE

- | | | |
|---------------------|--|------------------------------------|
| 1. Conductor | 4. Insulation Screen (non-metallic part) | 7. Bedding |
| 2. Conductor Screen | 5. Insulation Screen (metallic part) | 8. Armour |
| 3. Insulation | 6. Non-hygroscopic separation tape | 9. Non-hygroscopic separation tape |
| | | 10. Outer Sheath |



DESCRIPTION

Circular stranded compacted copper conductors, XLPE insulated, copper wire or copper tape screen, aluminium wire armoured (AWA) and PVC outer sheath. Complies with IEC 502.

CONSTRUCTION

Conductor

Plain circular compacted copper conductor to IEC 228 class 2. Aluminium conductor available on request.

Conductor Screen

Extruded semiconductive compound.

Insulation

XLPE (cross-linked polyethylene) rated 90°C.

Insulation Screen (non-metallic part)

Graphite layer covered with semiconductive tape(s) or extruded layer of semiconductive material compound firmly bonded to insulation. Semiconductive compound easy strippable from insulation available on request.

Insulation Screen (metallic part)

Copper wires screen or copper tape screen.

Bedding

An extruded PVC layer.

Armour

Round aluminium wires.

Outer Sheath

PVC type ST2 to IEC 502 colour red (black on request). Special PVC formulations with flame retardant and/or anti-termite properties available on request. Low smoke halogen free sheaths available on request.

APPLICATION

For installation on trays, in ducts or by direct burial.

TO ORDER

Order by catalogue number and quantity required.

Example

EU3BA-27R 5km (10 x 500m) on wooden or steel reels.

Note: In the interests of product improvement, SCC reserves the right to alter cable specifications.

**18/30 KV SINGLE CORE CABLE WITH COPPER CONDUCTOR,
COPPER WIRE SCREEN AND ARMoured (AWA)**

DIMENSIONS AND WEIGHTS

Lapped semiconductive insulation screen

Catalogue number	Conductor		Insulation	Armouring	Outer sheath		Packaging	
	Cross sect. area of conductor/screen	Diameter of conductor	Thickness of XLPE	Diameter of alu.wire	Thickness of PVC	Overall diameter	Standard delivery length	Net weight
	Nominal mm ² /mm ²	Nominal mm	Nominal mm	Nominal mm	Nominal mm	Approx mm	m+/-5%	Approx kg/km
EU3BA-14	50/16	8.3	8.0	2.0	2.2	40.5	500	2190
EU3BA-16	70/16	9.9	8.0	2.0	2.3	42.3	500	2490
EU3BA-17	95/16	11.8	8.0	2.0	2.3	44.5	500	2910
EU3BA-19	120/16	13.7	8.0	2.5	2.4	47.4	500	3420
EU3BA-21	150/25	14.7	8.0	2.5	2.5	48.7	500	3785
EU3BA-22	185/25	16.4	8.0	2.5	2.5	50.2	500	4220
EU3BA-24	240/25	18.5	8.0	2.5	2.6	52.9	500	4960
EU3BA-26	300/25	20.8	8.0	2.5	2.7	56.0	500	5735
EU3BA-27	400/35	23.5	8.0	2.5	2.8	58.4	500	6780
EU3BA-28	500/35	26.7	8.0	2.5	2.9	61.9	500	7915
EU3BA-30	630/35	30.5	8.0	2.5	3.0	66.8	500	9720

**18/30 KV SINGLE CORE CABLE WITH COPPER CONDUCTOR,
COPPER TAPE SCREEN AND ARMoured (AWA)**

Lapped semiconductive insulation screen

Catalogue number	Conductor		Insulation	Armouring	Outer sheath		Packaging	
	Cross sect. area	Diameter	Thickness of XLPE	Diameter of alu. wire	Thickness of PVC	Overall diameter	Standard delivery length	Net weight
	Nominal mm ²	Nominal mm	Nominal mm	Nominal mm	Nominal mm	Approx mm	m±5%	Approx kg/km
EU4BA-14	50	8.3	8.0	2.0	2.2	38.9	1000	2070
EU4BA-16	70	9.9	8.0	2.0	2.2	40.5	500	2350
EU4BA-17	95	11.8	8.0	2.0	2.3	42.5	500	2720
EU4BA-19	120	13.7	8.0	2.0	2.3	44.4	500	3090
EU4BA-21	150	14.7	8.0	2.5	2.4	46.9	500	3565
EU4BA-22	185	16.4	8.0	2.5	2.5	48.6	500	4030
EU4BA-24	240	18.5	8.0	2.5	2.6	51.5	500	4780
EU4BA-26	300	20.8	8.0	2.5	2.6	54.4	500	5495
EU4BA-27	400	23.5	8.0	2.5	2.8	56.7	500	6480
EU4BA-28	500	26.7	8.0	2.5	2.8	60.2	500	7630
EU4BA-30	630	30.5	8.0	2.5	3.0	65.6	500	9365

**18/30 KV SINGLE CORE CABLE WITH COPPER CONDUCTOR,
COPPER TAPE SCREEN AND ARMoured (AWA)**

DIMENSIONS AND WEIGHTS

Extruded semiconductive insulation screen firmly bonded to insulation

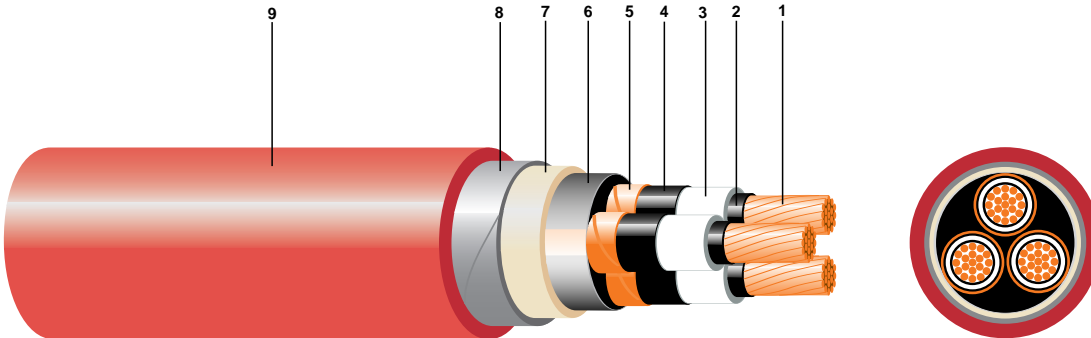
Catalogue number	Conductor		Insulation	Armouring	Outer sheath		Packaging	
	Cross sect. area of conductor/screen	Diameter of conductor	Thickness of XLPE	Diameter of alu.wire	Thickness of PVC	Overall diameter	Standard delivery length	Net weight
	Nominal mm ² /mm ²	Nominal mm	Nominal mm	Nominal mm	Nominal mm	Approx mm	m+/-5%	Approx kg/km
EU7BA-16	70/16	9.9	8.0	2.0	2.3	43.3	500	2590
EU7BA-17	95/16	11.8	8.0	2.0	2.3	45.2	500	2650
EU7BA-19	120/16	13.4	8.0	2.5	2.4	48.1	500	3460
EU7BA-21	150/25	14.7	8.0	2.5	2.5	49.7	500	3910
EU7BA-22	185/25	16.4	8.0	2.5	2.5	51.2	500	4340
EU7BA-24	240/25	18.5	8.0	2.5	2.6	53.9	500	5090
EU7BA-26	300/25	20.8	8.0	2.5	2.7	56.3	500	5820
EU7BA-27	400/35	23.5	8.0	2.5	2.8	59.4	500	6925
EU7BA-28	500/35	26.7	8.0	2.5	2.9	62.9	500	8065
EU7BA-30	630/35	30.5	8.0	2.5	3.0	68.1	500	9770

**18/30 KV SINGLE CORE CABLE WITH COPPER CONDUCTOR,
COPPER TAPE SCREEN AND ARMoured (AWA)**

Extruded semiconductive insulation screen firmly bonded to insulation

Catalogue number	Conductor		Insulation	Armouring	Outer sheath		Packaging	
	Cross sect. area	Diameter	Thickness of XLPE	Diameter of alu. wire	Thickness of PVC	Overall diameter	Standard delivery length	Net weight
	Nominal mm ²	Nominal mm	Nominal mm	Nominal mm	Nominal mm	Approx mm	m±5%	Approx kg/km
EU8BA-16	70	9.9	8.0	2.0	2.2	41.5	500	2450
EU8BA-17	95	11.8	8.0	2.0	2.3	43.6	500	2830
EU8BA-19	120	13.4	8.0	2.0	2.3	45.9	500	3245
EU8BA-21	150	14.7	8.0	2.5	2.4	47.9	500	3685
EU8BA-22	185	16.4	8.0	2.5	2.5	49.7	500	4195
EU8BA-24	240	18.5	8.0	2.5	2.6	52.8	500	4935
EU8BA-26	300	20.8	8.0	2.5	2.6	55.5	500	5655
EU8BA-27	400	23.5	8.0	2.5	2.8	59.9	500	7140
EU8BA-28	500	26.7	8.0	2.5	2.8	62.1	500	7920
EU8BA-30	630	30.5	8.0	2.5	3.0	66.5	500	9585

- | | | |
|---------------------|---|-----------------|
| 1. Conductor | 4. Insulation Screen (non-metallic part) | 7. Bedding |
| 2. Conductor Screen | 5. Insulation Screen (metallic part) | 8. Armour |
| 3. Insulation | 6. Non-hygroscopic fillers and separator tape | 9. Outer Sheath |



DESCRIPTION

Circular stranded compacted copper conductors, XLPE insulated, copper tape screened, three cores assembled together with non-hygroscopic polypropylene fillers, covered with extruded or taped bedding, armoured or unarmoured and PVC sheathed. Cables comply with IEC 502.

CONSTRUCTION

Conductor

Plain circular compacted copper conductor to IEC 228 class 2. Aluminium conductor available on request.

Conductor Screen

Extruded semiconductive compound.

Insulation

XLPE (cross-linked polyethylene) rated 90°C.

Insulation Screen (non-metallic part)

Graphite layer covered with semiconductive tape(s) or extruded layer of semiconductive material compound firmly bonded to insulation. Semiconductive compound easy strippable from insulation available on request.

Insulation Screen (metallic part)

Copper tapes 0.10 mm thickness. Copper wires screen available on request.

Bedding for armoured cables

An extruded PVC layer.

Armour

Galvanized steel tapes or galvanised steel wires, applied over the PVC bedding.

Outer Sheath

PVC type ST2 to IEC 502 colour red (black on request). Special PVC formulations with flame retardant and/or anti-termite properties available on request. Low smoke halogen free sheaths available on request

Colours for core identification

Red, yellow and blue narrow tapes applied between non-metallic and metallic parts of insulation screen.

APPLICATION

These cables are generally suitable for direct burial or for installation on trays or in ducts. Where there is a risk of mechanical damage, armoured cables should be used.

TO ORDER

Order by catalogue number and quantity required.

Example

EU4HA-27R 10km (20 x 250m) on wooden or steel reels.

Note: In the interests of product improvement, SCC reserves the right to alter cable specifications.

18/30 KV THREE CORE CABLE WITH COPPER CONDUCTOR, COPPER TAPE SCREEN, UNARMoured AND PVC SHEATH

DIMENSIONS AND WEIGHTS

Lapped semiconductive insulation screen

Catalogue number	Conductor		Insulation		Screening		Outer sheath		Packaging	
	Cross sect. area	Diameter	Thickness of XLPE	Dia. over insulation	Thickness of SC layer	Thickness of Cu tape	Thickness of PVC	Overall diameter	Standard delivery length	Weight of cable
	Nominal mm ²	Nominal mm	Nominal mm	Nominal mm	Approx mm	Approx mm	Nominal mm	Approx mm	Approx m±5%	Approx kg/km
EU4EA-16	70	9.9	8.0	27.1	0.4	0.1	3.2	71	500	5250
EU4EA-17	95	11.8	8.0	28.8	0.4	0.1	3.3	75	500	6270
EU4EA-19	120	13.3	8.0	30.3	0.4	0.1	3.5	78	500	7250
EU4EA-21	150	14.7	8.0	31.8	0.4	0.1	3.6	82	500	8280
EU4EA-22	185	16.7	8.0	33.5	0.4	0.1	3.7	86	500	9600
EU4EA-24	240	18.5	8.0	35.7	0.4	0.1	3.8	90	400	11590
EU4EA-26	300	20.8	8.0	38.4	0.4	0.1	4.0	96	400	13740
EU4EA-27	400	23.8	8.0	41.1	0.4	0.1	4.2	101	250	16590

18/30 KV THREE CORE CABLE WITH COPPER CONDUCTOR, COPPER TAPE SCREEN, DST AND PVC SHEATH

Lapped semiconductive insulation screen

Catalogue number	Conductor		Insulation		Screening		Armouring	Outer sheath		Packaging	
	Cross sect. area	Diameter	Thickness of XLPE	Diameter	Thickness of SC layer	Thickness of Cu tape	Thickness of steel tape	Thickness of PVC	Overall diameter	Standard delivery length	Weight of cable
	Nominal mm ²	Nominal mm	Nominal mm	Nominal mm	Approx mm	Approx mm	Nominal mm	Nominal mm	Approx mm	Approx m±5%	Approx kg/km
EU4GA-16	70	9.9	8.0	27.1	0.4	0.1	0.5	3.4	76	500	7450
EU4GA-17	95	11.8	8.0	28.8	0.4	0.1	0.5	3.5	81	500	8680
EU4GA-19	120	13.3	8.0	30.3	0.4	0.1	0.8	3.7	86	400	10130
EU4GA-21	150	14.7	8.0	31.8	0.4	0.1	0.8	3.8	89	400	11800
EU4GA-22	185	16.4	8.0	33.5	0.4	0.1	0.8	3.9	93	350	13380
EU4GA-24	240	18.5	8.0	35.7	0.4	0.1	0.8	4.1	98	350	15720
EU4GA-26	300	20.8	8.0	38.4	0.4	0.1	0.8	4.2	104	250	18100

18/30 KV THREE CORE CABLE WITH COPPER CONDUCTOR, COPPER TAPE SCREEN, SWA AND PVC SHEATH

DIMENSIONS AND WEIGHTS

Lapped semiconductive insulation screen

Catalogue number	Conductor		Insulation		Screening		Armouring	Outer sheath		Packaging	
	Cross sect. area	Diameter	Thickness of XLPE	Diameter	Thickness of SC layer	Thickness of Cu tape	Diameter of steel wire	Thickness of PVC	Overall diameter	Standard delivery length	Weight of cable
	Nominal mm ²	Nominal mm	Nominal mm	Nominal mm	Approx mm	Approx mm	Nominal mm	Nominal mm	Approx mm	Approx m±5%	Approx kg/km
EU4HA-16	70	9.9	8.0	27.1	0.4	0.1	3.15	3.5	81	500	10620
EU4HA-17	95	11.8	8.0	28.8	0.4	0.1	3.15	3.7	86	400	12000
EU4HA-19	120	13.3	8.0	30.3	0.4	0.1	3.15	3.8	89	400	13260
EU4HA-21	150	14.7	8.0	31.8	0.4	0.1	3.15	3.9	93	350	14550
EU4HA-22	185	16.4	8.0	33.5	0.4	0.1	3.15	4	97	350	16210
EU4HA-24	240	18.5	8.0	35.7	0.4	0.1	3.15	4.2	102	250	18670
EU4HA-26	300	20.8	8.0	38.4	0.4	0.1	3.15	4.3	108	250	21310

18/30 KV THREE CORE CABLE WITH COPPER CONDUCTOR, COPPER TAPE SCREEN, UNARMoured AND PVC SHEATH

Extruded semiconductive insulation screen

Catalogue number	Conductor		Insulation		Screening		Outer sheath		Packaging	
	Cross sect. area	Diameter	Thickness of XLPE	Dia. over insulation	Thickness of SC layer	Thickness of Cu tape	Thickness of PVC	Overall diameter	Standard delivery length	Weight of cable
	Nominal mm ²	Nominal mm	Nominal mm	Nominal mm	Approx mm	Approx mm	Nominal mm	Approx mm	Approx m±5%	Approx kg/km
EU8EA-16	70	9.9	8.0	27.1	1.0	0.1	3.2	73	500	5650
EU8EA-17	95	11.8	8.0	28.8	1.0	0.1	3.3	78	500	6720
EU8EA-19	120	13.3	8.0	30.3	1.0	0.1	3.5	81	500	7700
EU8EA-21	150	14.7	8.0	31.8	1.0	0.1	3.6	84	500	8780
EU8EA-22	185	16.4	8.0	33.5	1.0	0.1	3.7	88	400	10080
EU8EA-24	240	18.5	8.0	35.7	1.0	0.1	3.8	93	400	12110
EU8EA-26	300	20.8	8.0	38.4	1.0	0.1	4.0	99	350	14300

18/30 KV THREE CORE CABLE WITH COPPER CONDUCTOR, COPPER TAPE SCREEN, DST AND PVC SHEATH

DIMENSIONS AND WEIGHTS

Extruded semiconductive insulation screen

Catalogue number	Conductor		Insulation		Screening		Armouring	Outer sheath		Packaging	
	Cross sect. area	Diameter	Thickness of XLPE	Diameter	Thickness of SC layer	Thickness of Cu tape	Thickness of steel tape	Thickness of PVC	Overall diameter	Standard delivery length	Weight of cable
	Nominal mm ²	Nominal mm	Nominal mm	Nominal mm	Approx mm	Approx mm	Nominal mm	Nominal mm	Approx mm	Approx m±5%	Approx kg/km
EU8GA-16	70	9.9	8.0	27.1	1.0	0.1	0.5	3.4	79	500	7960
EU8GA-17	95	11.8	8.0	28.8	1.0	0.1	0.5	3.5	84	400	9180
EU8GA-19	120	13.3	8.0	30.3	1.0	0.1	0.8	3.7	89	400	11140
EU8GA-21	150	14.7	8.0	31.8	1.0	0.1	0.8	3.8	92	350	12440
EU8GA-22	185	16.4	8.0	33.5	1.0	0.1	0.8	3.9	96	350	13980
EU8GA-24	240	18.5	8.0	35.7	1.0	0.1	0.8	4.1	101	250	16340
EU8GA-26	300	20.8	8.0	38.4	1.0	0.1	0.8	4.2	107	250	18820

18/30 KV THREE CORE CABLE WITH COPPER CONDUCTOR, COPPER TAPE SCREEN, SWA AND PVC SHEATH

Extruded semiconductive insulation screen

Catalogue number	Conductor		Insulation		Screening		Armouring	Outer sheath		Packaging	
	Cross sect. area	Diameter	Thickness of XLPE	Diameter	Thickness of SC layer	Thickness of Cu tape	Diameter of steel wire	Thickness of PVC	Overall diameter	Standard delivery length	Weight of cable
	Nominal mm ²	Nominal mm	Nominal mm	Nominal mm	Approx mm	Approx mm	Nominal mm	Nominal mm	Approx mm	Approx m±5%	Approx kg/km
EU8HA-16	70	9.9	8.0	27.1	1.0	0.1	3.15	3.5	83	400	11260
EU8HA-17	95	11.8	8.0	28.8	1.0	0.1	3.15	3.7	89	350	12700
EU8HA-19	120	13.3	8.0	30.3	1.0	0.1	3.15	3.8	92	350	13960
EU8HA-21	150	14.7	8.0	31.8	1.0	0.1	3.15	3.9	95	350	15280
EU8HA-22	185	16.7	8.0	33.5	1.0	0.1	3.15	4.0	99	350	16950
EU8HA-24	240	18.5	8.0	35.7	1.0	0.1	3.15	4.2	105	250	19470

MEDIUM VOLTAGE CABLES ELECTRICAL CHARACTERISTICS

**MAXIMUM CONDUCTOR RESISTANCE FOR SINGLE CORE
XLPE INSULATED CABLES**





Area mm ²	Conductor DC resistance at 20°C ohm/Km	Conductor AC resistance at 90°C (trefoil) (Ohm/km)				
		Rated voltage of the cable (KV)				
		3.6/6	6/10	8.7/15	12/20	18/30
16	1.15	1.47	1.47	-	-	-
25	0.727	0.927	0.927	0.927	-	-
35	0.524	0.668	0.668	0.668	0.668	-
50	0.387	0.494	0.494	0.494	0.494	0.494
70	0.268	0.342	0.342	0.342	0.342	0.342
95	0.193	0.247	0.247	0.247	0.247	0.247
120	0.153	0.196	0.196	0.196	0.196	0.196
150	0.124	0.160	0.160	0.160	0.159	0.159
185	0.0991	0.129	0.128	0.128	0.128	0.128
240	0.0754	0.099	0.0989	0.0987	0.0986	0.0983
300	0.0601	0.0804	0.0802	0.0800	0.0798	0.0794
400	0.0470	0.0647	0.0646	0.0643	0.0641	0.0636
500	0.0366	0.0527	0.0527	0.0523	0.0520	0.0514
630	0.0283	0.0434	0.0438	0.0434	0.0430	0.0423
800	0.0221	-	-	-	0.0367	-
1000	0.0176	-	-	-	0.0321	-
1200	0.0151	-	-	-	0.0296	-

**MAXIMUM CONDUCTOR RESISTANCE FOR THREE CORE
XLPE INSULATED CABLES**





Area mm ²	Conductor DC resistance at 20°C ohm Km	Conductor AC resistance at 90°C ohms/Km				
		Rated voltage of the cable (KV)				
		3.6/6	6/10	8.7/15	12/20	18/30
16	1.15	1.47	1.47	-	-	-
25	0.727	0.927	0.927	0.927	-	-
35	0.524	0.669	0.669	0.668	0.668	-
50	0.387	0.494	0.494	0.494	0.494	0.494
70	0.268	0.343	0.343	0.342	0.342	0.342
95	0.193	0.247	0.247	0.247	0.247	0.247
120	0.153	0.197	0.197	0.196	0.196	0.196
150	0.124	0.160	0.160	0.160	0.160	0.160
185	0.0991	0.129	0.129	0.129	0.129	0.128
240	0.0754	0.0999	0.0996	0.0993	0.0991	0.0986
300	0.0601	0.0814	0.0812	0.0808	0.0805	0.0799
400	0.0470	0.0660	0.0658	0.0653	0.0649	0.0642
500	0.0366	0.0543	0.0541	0.0536	0.0531	-

CURRENT CARRYING CAPACITY FOR 3.6/6 KV SINGLE CORE CABLE

ARMOURED (AWA)

Cross sectional area of conductor/ screen Nominal mm ²	Current carrying capacity in ground		Current carrying capacity in free air against wall	
	Flat  Approx amps	Trefoil  Approx amps	Flat  Approx amps	Trefoil  Approx amps
16/16	110	105	120	105
25/16	140	135	155	140
35/16	170	160	190	170
50/16	206	198	265	219
70/16	250	241	324	271
95/16	300	286	430	327
120/16	340	322	465	377
150/25	385	367	526	430
185/25	439	407	605	482
240/25	501	465	719	570
300/25	572	519	829	649
400/35	653	581	965	737
500/35	742	635	1123	816
630/35	841	680	1298	912

UNARMOURED

Cross sectional area of conductor/ screen Nominal mm ²	Current carrying capacity in ground		Current carrying capacity in free air against wall	
	Flat  Approx amps	Trefoil  Approx amps	Flat  Approx amps	Trefoil  Approx amps
16/16	115	110	125	110
25/16	145	140	160	145
35/16	175	165	195	175
50/16	205	195	235	210
70/16	250	240	290	260
95/16	295	285	355	320
120/16	335	324	410	365
150/25	365	360	460	415
185/25	405	405	520	475
240/25	460	465	610	560
300/25	510	525	690	640
400/35	545	580	760	730
500/35	595	645	860	835
630/35	665	720	980	960

All values are calculated in accordance with IEC 287 based on:

Continuous load conductor temperature	90°C
Ground temperature	30°C
Depth of burial	0.8m
Thermal resistivity of soil	1.2K.m/W
Air ambient temperature	40°C

CURRENT CARRYING CAPACITY FOR 3.6/6 KV THREE CORE CABLE

ARMOURED

Cross sectional area of conductor Nominal mm ²	Armoured (SWA)		Armoured (DST)	
	Current capacity in ground	Current capacity in air	Current capacity in ground	Current capacity in air
	Approx amps	Approx amps	Approx amps	Approx amps
16	100	100	100	100
25	130	130	130	130
35	155	160	155	155
50	180	190	180	185
70	220	235	220	235
95	265	285	265	280
120	300	320	300	320
150	330	360	335	360
185	375	410	380	415
240	425	475	435	480
300	470	535	490	550
400	515	605	550	625
500	565	670	610	705

UNARMOURED





Cross sectional area of conductor Nominal mm ²	Current capacity in ground Approx amps	Current capacity in air Approx amps
16	100	100
25	130	125
35	155	155
50	180	185
70	225	230
95	265	275
120	300	315
150	335	360
185	380	410
240	435	480
300	490	545
400	550	625
500	615	705

All values are calculated in accordance with IEC 287 based on:





Continuous load conductor temperature	90°C
Ground temperature	30°C
Depth of burial	0.8m
Thermal resistivity of soil	1.2K.m/W
Air ambient temperature	40°C

CURRENT CARRYING CAPACITY FOR 6/10 KV SINGLE CORE CABLE

ARMOURED (AWA)

Cross sectional area of conductor/ screen Nominal mm ²	Current carrying capacity in ground		Current carrying capacity in free air against wall	
	Flat  Approx amps	Trefoil  Approx amps	Flat  Approx amps	Trefoil  Approx amps
16/16	110	105	120	110
25/16	140	135	160	140
35/16	170	160	190	170
50/16	206	198	263	219
70/16	250	241	324	272
95/16	300	286	403	329
120/16	340	322	465	377
150/25	385	367	526	430
185/25	433	407	605	482
240/25	501	485	714	570
300/25	572	519	824	649
400/35	653	581	965	737
500/35	742	635	1123	816
630/35	841	680	1298	912

UNARMOURED

Cross sectional area of conductor/ screen Nominal mm ²	Current carrying capacity in ground		Current carrying capacity in free air against wall	
	Flat  Approx amps	Trefoil  Approx amps	Flat  Approx amps	Trefoil  Approx amps
16/16	115	110	125	115
25/16	145	140	165	145
35/16	175	165	195	175
50/16	205	195	235	210
70/16	250	240	295	265
95/16	295	285	360	320
120/16	335	325	410	370
150/25	365	360	460	420
185/25	410	405	524	480
240/25	465	465	610	565
300/25	515	525	690	645
400/35	550	580	760	730
500/35	605	645	860	835
630/35	665	720	980	960

All values are calculated in accordance with IEC 287 based on:

Continuous load conductor temperature	90°C
Ground temperature	30°C
Depth of burial	0.8m
Thermal resistivity of soil	1.2K.m/W
Air ambient temperature	40°C

CURRENT CARRYING CAPACITY FOR 6/10 KV THREE CORE CABLE

ARMOURED

Cross sectional area of conductor Nominal mm ²	Armoured (SWA)		Armoured (DST)	
	Current capacity in ground	Current capacity in air	Current capacity in ground	Current capacity in air
	Approx amps	Approx amps	Approx amps	Approx amps
16	100	105	100	100
25	130	135	130	130
35	155	160	155	160
50	180	190	180	185
70	220	235	220	230
95	265	280	265	280
120	295	320	300	320
150	330	360	335	360
185	370	410	375	410
240	420	475	435	480
300	465	530	485	545
400	515	505	545	615
500	565	665	605	700

UNARMOURED





Cross sectional area of conductor Nominal mm ²	Current capacity in ground Approx amps	Current capacity in air Approx amps
16	105	100
25	130	130
35	155	155
50	185	185
70	225	230
95	265	275
120	300	320
150	335	360
185	380	410
240	440	485
300	490	545
400	550	620
500	615	710

All values are calculated in accordance with IEC 287 based on:





Continuous load conductor temperature	90°C
Ground temperature	30°C
Depth of burial	0.8m
Thermal resistivity of soil	1.2K.m/W
Air ambient temperature	40°C

CURRENT CARRYING CAPACITY FOR 8.7/15 KV SINGLE CORE CABLE

ARMoured (AWA)

Cross sectional area of conductor/ screen Nominal mm ²	Current carrying capacity in ground		Current carrying capacity in free air against wall	
	Flat  Approx amps	Trefoil  Approx amps	Flat  Approx amps	Trefoil  Approx amps
35/16	170	160	195	175
50/16	206	198	663	219
70/16	250	242	325	272
95/16	300	286	403	329
120/16	340	322	465	377
150/25	385	367	526	430
185/25	439	407	605	482
240/25	501	465	719	570
300/25	572	519	829	649
400/35	653	581	965	737
500/35	742	635	1123	818
630/35	841	680	1298	912

UNARMoured

Cross sectional area of conductor/ screen Nominal mm ²	Current carrying capacity in ground		Current carrying capacity in free air against wall	
	Flat  Approx amps	Trefoil  Approx amps	Flat  Approx amps	Trefoil  Approx amps
35/16	175	165	200	180
50/16	205	200	240	215
70/16	250	240	295	265
95/16	295	285	360	325
120/16	335	325	415	375
150/25	365	360	460	425
185/25	410	405	525	485
240/25	465	470	610	565
300/25	515	525	695	650
400/35	550	580	765	735
500/35	605	650	860	840
630/35	665	720	980	965

All values are calculated in accordance with IEC 287 based on:

Continuous load conductor temperature	90°C
Ground temperature	30°C
Depth of burial	0.8m
Thermal resistivity of soil	1.2K.m/W
Air ambient temperature	40°C

CURRENT CARRYING CAPACITY FOR 8.7/15 KV THREE CORE CABLE

ARMoured

Cross sectional area of conductor Nominal mm ²	Armoured (SWA)		Armoured (DST)	
	Current capacity in ground	Current capacity in air	Current capacity in ground	Current capacity in air
	Approx amps	Approx amps	Approx amps	Approx amps
35	155	160	155	160
50	180	190	180	190
70	220	235	220	235
95	265	280	265	280
120	295	325	300	325
150	330	365	335	370
185	370	410	380	420
240	420	475	435	485
300	465	530	485	550
400	515	595	550	625
500	570	670	615	710

UNARMoured





Cross sectional area of conductor Nominal mm ²	Current capacity in ground Approx amps	Current capacity in air Approx amps
35	155	160
50	180	190
70	220	230
95	265	280
120	300	325
150	340	365
185	380	415
240	435	485
300	490	550
400	550	625
500	620	710

All values are calculated in accordance with IEC 287 based on:





Continuous load conductor temperature	90°C
Ground temperature	30°C
Depth of burial	0.8m
Thermal resistivity of soil	1.2K.m/W
Air ambient temperature	40°C

CURRENT CARRYING CAPACITY FOR 12/20 KV SINGLE CORE CABLES

ARMOURED (AWA)

Cross sectional area of conductor/ screen Nominal mm ²	Current carrying capacity in ground		Current carrying capacity in free air against wall	
	Flat  Approx amps	Trefoil  Approx amps	Flat  Approx amps	Trefoil  Approx amps
50/16	206	198	263	228
70/16	250	241	325	281
95/16	300	286	395	333
120/16	340	322	456	386
150/25	385	367	517	430
185/25	434	402	588	491
240/25	501	456	702	570
300/25	572	510	798	640
400/35	653	572	930	728
500/35	742	626	1079	824
630/35	841	680	1254	921

UNARMOURED

Cross sectional area of conductor/ screen Nominal mm ²	Current carrying capacity in ground		Current carrying capacity in free air against wall	
	Flat  Approx amps	Trefoil  Approx amps	Flat  Approx amps	Trefoil  Approx amps
50/16	205	195	240	215
70/16	250	240	295	270
95/16	295	285	360	325
120/16	335	325	415	375
150/25	365	360	465	425
185/25	410	405	525	485
240/25	465	470	615	570
300/25	515	525	695	650
400/35	555	585	765	740
500/35	610	650	865	845
630/35	665	725	985	970
800/35	728	788	1069	1115
1000/35	777	848	1160	1254
1200/35	812	894	1226	1364

All values are calculated in accordance with IEC 287 based on:

Continuous load conductor temperature	90°C
Ground temperature	30°C
Depth of burial	0.8m
Thermal resistivity of soil	1.2K.m/W
Air ambient temperature	40°C

CURRENT CARRYING CAPACITY FOR 12/20 KV THREE CORE CABLES

ARMoured

Cross sectional area of conductor Nominal mm ²	Armoured (SWA)		Armoured (DST)	
	Current capacity in ground	Current capacity in air	Current capacity in ground	Current capacity in air
	Approx amps	Approx amps	Approx amps	Approx amps
50	185	195	180	190
70	220	240	220	235
95	265	285	265	285
120	295	325	300	325
150	330	365	335	365
185	370	410	375	415
240	420	475	435	485
300	460	530	485	545
400	510	595	545	620
500	560	665	610	705

UNARMoured





Cross sectional area of conductor Nominal mm ²	Current capacity in ground Approx amps	Current capacity in air Approx amps
50	185	190
70	225	235
95	265	285
120	300	325
150	335	365
185	380	415
240	440	490
300	490	550
400	550	625
500	620	715

All values are calculated in accordance with IEC 287 based on:





Continuous load conductor temperature	90°C
Ground temperature	30°C
Depth of burial	0.8m
Thermal resistivity of soil	1.2K.m/W
Air ambient temperature	40°C

CURRENT CARRYING CAPACITY FOR 18/30 KV SINGLE CORE CABLES

ARMOURED (AWA)

Cross sectional area of conductor/ screen Nominal mm ²	Current carrying capacity in ground		Current carrying capacity in free air against wall	
	Flat  Approx amps	Trefoil  Approx amps	Flat  Approx amps	Trefoil  Approx amps
70/16	250	241	325	281
95/16	300	286	395	333
120/16	340	321	456	386
150/25	385	367	517	430
185/25	434	402	589	491
240/25	501	456	702	570
300/25	572	510	798	640
400/35	653	572	930	728
500/35	742	626	1079	824
630/35	841	680	1271	921

UNARMOURED

Cross sectional area of conductor/ screen Nominal mm ²	Current carrying capacity in ground		Current carrying capacity in free air against wall	
	Flat  Approx amps	Trefoil  Approx amps	Flat  Approx amps	Trefoil  Approx amps
70/16	250	240	295	270
95/16	295	285	360	330
120/16	335	325	415	380
150/25	365	360	465	425
185/25	410	405	525	490
240/25	465	470	615	570
300/25	520	525	695	650
400/35	555	585	770	745
500/35	610	655	870	850
630/35	670	730	990	975

All values are calculated in accordance with IEC 287 based on:

Continuous load conductor temperature	90°C
Ground temperature	30°C
Depth of burial	0.8m
Thermal resistivity of soil	1.2K.m/W
Air ambient temperature	40°C

CURRENT CARRYING CAPACITY FOR 18/30 KV THREE CORE CABLES

ARMoured

Cross sectional area of conductor Nominal mm ²	Armoured (SWA)		Armoured (DST)	
	Current capacity in ground	Current capacity in air	Current capacity in ground	Current capacity in air
	Approx amps	Approx amps	Approx amps	Approx amps
70	220	240	220	240
95	260	290	265	290
120	295	325	300	330
150	330	370	335	370
185	365	415	375	420
240	415	475	435	485
300	460	535	485	550

UNARMoured

Cross sectional area of conductor Nominal mm ²	Current capacity in ground Approx amps	Current capacity in air Approx amps
70	225	240
95	265	290
120	300	330
150	340	370
185	380	420
240	440	490
300	490	555
400	555	640

All values are calculated in accordance with IEC 287 based on:

Continuous load conductor temperature	90°C
Ground temperature	30°C
Depth of burial	0.8m
Thermal resistivity of soil	1.2K.m/W
Air ambient temperature	40°C

**STAR REACTANCE AT 60HZ FOR SINGLE CORE XLPE INSULATED CABLES
LAID IN TREFOIL**

Area mm ²	Star reactance (Ohm/km)				
	Rated voltage of the cable (KV)				
	3.6/6	6/10	8.7/15	12/20	18/30
16	0.17	0.18	-	-	-
25	0.16	0.16	0.17	-	-
35	0.15	0.15	0.16	0.18	-
50	0.14	0.15	0.16	0.16	0.17
70	0.13	0.14	0.15	0.15	0.16
95	0.13	0.13	0.14	0.15	0.16
120	0.12	0.13	0.13	0.14	0.15
150	0.12	0.12	0.13	0.14	0.15
185	0.12	0.12	0.13	0.13	0.14
240	0.11	0.12	0.12	0.13	0.14
300	0.11	0.11	0.11	0.12	0.13
400	0.11	0.11	0.11	0.12	0.13
500	0.11	0.11	0.11	0.11	0.12
630	0.10	0.10	0.11	0.11	0.11
800	-	-	-	0.11	-
1000	-	-	-	0.10	-
1200	-	-	-	0.10	-

STAR REACTANCE AT 60 HZ FOR THREE CORE XLPE INSULATED CABLES

Area mm ²	Star reactance (Ohm/km)				
	Rated voltage of the cable (KV)				
	3.6/6	6/10	8.7/15	12/20	18/30
16	0.14	0.15	-	-	-
25	0.13	0.14	0.15	-	-
35	0.13	0.13	0.14	0.15	-
50	0.12	0.13	0.14	0.14	0.16
70	0.11	0.12	0.13	0.14	0.15
95	0.11	0.12	0.12	0.13	0.14
120	0.11	0.11	0.12	0.12	0.14
150	0.10	0.11	0.12	0.12	0.13
185	0.10	0.11	0.11	0.12	0.13
240	0.10	0.10	0.11	0.11	0.12
300	0.096	0.10	0.10	0.11	0.12
400	0.095	0.10	0.10	0.11	0.12
500	0.093	0.09	0.10	0.10	-

**OPERATING CAPACITANCE FOR SINGLE CORE XLPE INSULATED CABLES
LAID IN TREFOIL**

Area mm ²	Operating capacitance (μF/km)				
	Rated voltage of the cable (kV)				
	3.6/6	6/10	8.7/15	12/20	18/30
16	0.23	0.19	-	-	-
25	0.25	0.20	0.17	-	-
35	0.28	0.22	0.18	0.16	-
50	0.31	0.25	0.20	0.18	0.14
70	0.35	0.28	0.23	0.20	0.15
95	0.39	0.31	0.25	0.22	0.17
120	0.43	0.34	0.27	0.24	0.18
150	0.47	0.37	0.30	0.26	0.20
185	0.52	0.40	0.32	0.28	0.21
240	0.56	0.45	0.36	0.30	0.23
300	0.58	0.49	0.39	0.33	0.25
400	0.60	0.54	0.43	0.37	0.27
500	0.63	0.60	0.48	0.40	0.30
630	0.75	0.70	0.57	0.47	0.34
800	-	-	-	0.51	-
1000	-	-	-	0.56	-
1200	-	-	-	0.59	-

OPERATING CAPACITANCE FOR 3 CORE XLPE INSULATED CABLES

Area mm ²	Operating capacitance (μF/km)				
	Rated voltage of the cable (kV)				
	3.6/6	6/10	8.7/15	12/20	18/30
16	0.22	0.19	-	-	-
25	0.25	0.2	0.17	-	-
35	0.28	0.22	0.18	0.16	-
50	0.31	0.25	0.2	0.18	0.14
70	0.35	0.28	0.23	0.2	0.15
95	0.39	0.31	0.25	0.22	0.17
120	0.43	0.34	0.27	0.24	0.18
150	0.47	0.37	0.3	0.26	0.2
185	0.52	0.4	0.32	0.28	0.21
240	0.56	0.45	0.36	0.3	0.23
300	0.58	49	0.39	0.33	0.25
400	0.60	0.54	0.43	0.37	0.27
500	0.63	0.6	0.48	0.4	-

Variations in air ambient temperature

Insulation	Air ambient temperature (°C)						
	25	30	35	40	45	50	55
XLPE	1.14	1.10	1.05	1.00	0.95	0.89	0.84

Variations in ground temperature

Insulation	Ground temperature (°C)						
	20	25	30	35	40	45	50
XLPE	1.09	1.04	1.00	0.95	0.90	0.85	0.80

Variations in depth of burial
(to centre of cable or trefoil group of cables)

Depth of laying (m)	Up to 300 mm ²	Above 300 mm ²
0.80	1.00	1.00
1.00	0.98	0.97
1.25	0.96	0.95
1.50	0.95	0.93
1.75	0.94	0.91
2.00	0.92	0.89
2.50	0.91	0.88
3.00 or more	0.90	0.87

Variations in depth of burial
(to centre of duct or trefoil group of ducts)

Depth of laying (m)	Single core	Multi core
0.80	1.00	1.00
1.00	0.98	0.99
1.25	0.95	0.97
1.50	0.93	0.96
1.75	0.92	0.95
2.00	0.90	0.95
2.50	0.89	0.94
3.00 or more	0.88	0.93

Variations in thermal resistivity of soil for cables in duct banks (average value)

Conductor mm ²	Soil thermal resistivity (K.m/W)						
	0.8	0.9	1.0	1.2	1.5	2.0	2.5
Single core cables							
upto 150	1.10	1.07	1.04	1.00	0.95	0.87	0.81
from 185-400	1.11	1.08	1.05	1.00	0.94	0.86	0.79
from 500-630	1.13	1.09	1.06	1.00	0.93	0.84	0.77
from 800-1200	1.14	1.10	1.07	1.00	0.92	0.83	0.75
Multicore cables							
upto 25	1.05	1.04	1.03	1.00	0.97	0.93	0.87
from 16-150	1.07	1.05	1.03	1.00	0.96	0.90	0.85
from 185-400	1.09	1.06	1.04	1.00	0.95	0.87	0.82

Variations in thermal resistivity of soil (average value).

Conductor mm ²	Soil thermal resistivity (K.m/W)						
	0.8	0.9	1.0	1.2	1.5	2.0	2.5
Single core cables							
upto 150	1.16	1.11	1.07	1.00	0.91	0.81	0.73
from 185-400	1.17	1.12	1.07	1.00	0.90	0.80	0.72
from 500-630	1.18	1.13	1.08	1.00	0.90	0.79	0.71
from 800-1200	1.19	1.14	1.08	1.00	0.89	0.78	0.70
Multicore cables							
upto 25-150	1.14	1.10	1.07	1.00	0.93	0.84	0.76
from 185-400	1.16	1.11	1.07	1.00	0.92	0.82	0.74

Grouping variations for three single core cables in trefoil, and flat touching and horizontal (direct buried)

Number of circuits	Spacing (between centres of groups)				
	Trefoil	Flat			
		Touching	0.15m	0.30m	0.45m
2	0.78	0.80	0.81	0.85	0.88
3	0.66	0.70	0.71	0.76	0.80
4	0.61	0.65	0.65	0.72	0.76
5	0.56	0.59	0.61	0.68	0.73
6	0.53	0.56	0.58	0.66	0.72

Grouping variations for multicore cables in flat formation (direct buried)

Number of cables in group	Spacing (between cable centres)				
	Touching	0.15m	0.30m	0.45m	0.60m
2	0.80	0.84	0.88	0.90	0.92
3	0.70	0.74	0.79	0.83	0.86
4	0.64	0.69	0.75	0.79	0.83
5	0.58	0.65	0.72	0.77	0.80
6	0.56	0.62	0.70	0.75	0.79

Grouping variations for three single core cables in trefoil, and flat touching and horizontal (in single way duct banks)

Number of circuits	Spacing (between duct centres)		
	Touching	0.45m	0.60m
2	0.85	0.88	0.90
3	0.76	0.80	0.83
4	0.71	0.76	0.80
5	0.67	0.73	0.77
6	0.65	0.71	0.76

Variations for multicore cables in single way duct banks in horizontal formation

Number of ducts in group	Spacing (between duct centres)			
	Touching	0.30m	0.45m	0.60m
2	0.88	0.90	0.93	0.94
3	0.79	0.83	0.86	0.88
4	0.74	0.80	0.83	0.86
5	0.70	0.76	0.81	0.84
6	0.68	0.74	0.79	0.83

THERMAL SHORT-CIRCUIT CURRENT RATINGS

The following formulae have been derived from IEC 724:

Figure 1. Copper conductor

$$I_c = \frac{0.143 \times q}{\sqrt{t}}$$

$$I_s = \frac{0.148 \times q}{\sqrt{t}}$$

Figure 2. Aluminium conductor

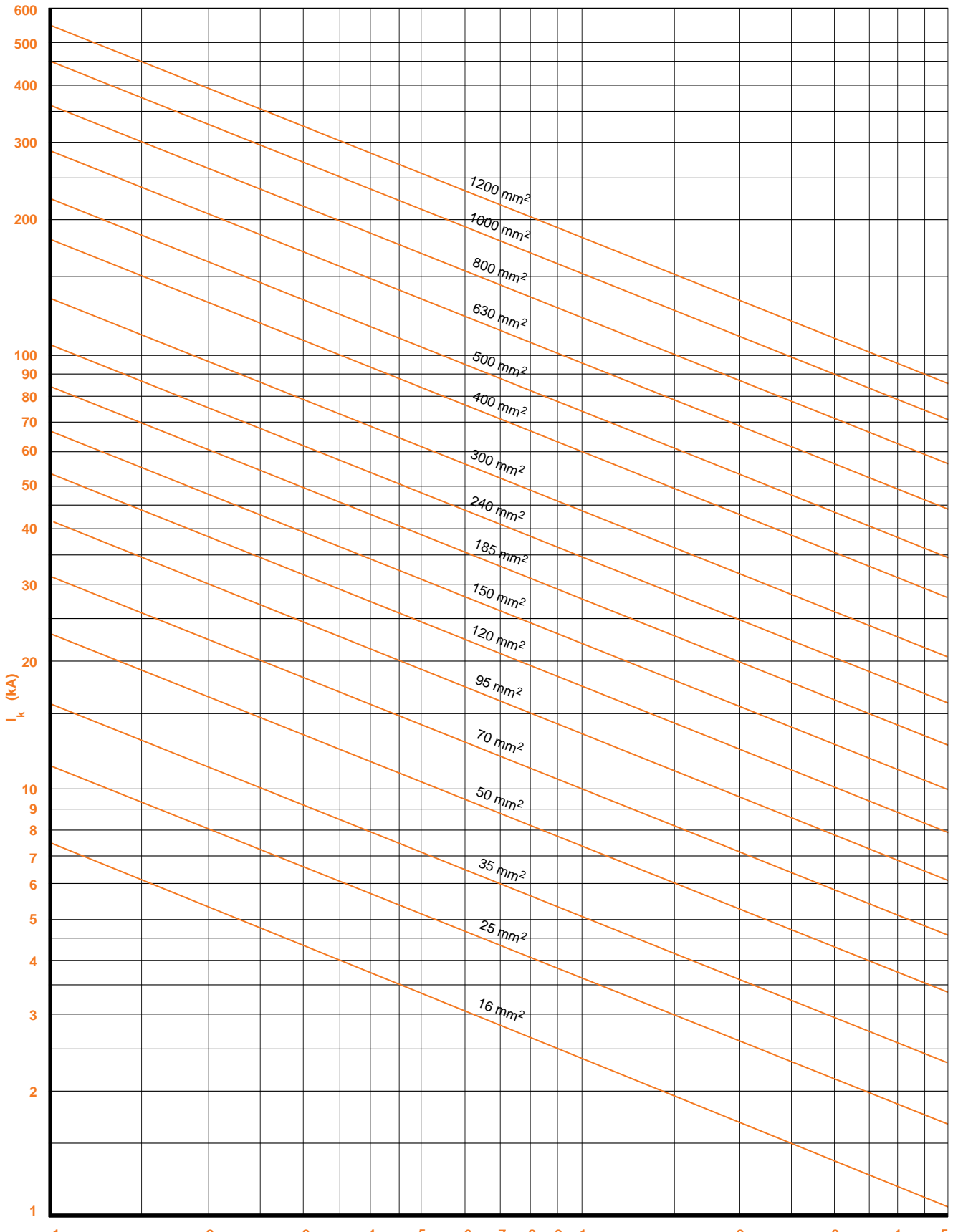
$$I_c = \frac{0.0937 \times q}{\sqrt{t}}$$

$$I_s = \frac{0.148 \times q}{\sqrt{t}}$$

- Where
- I_c = Permissible short-circuit current for conductor (KA)
 - I_s = Permissible short-circuit current for screen (KA)
 - t = Short circuit time in seconds
 - q = Nominal conductor area in mm² or nominal screen area in mm²

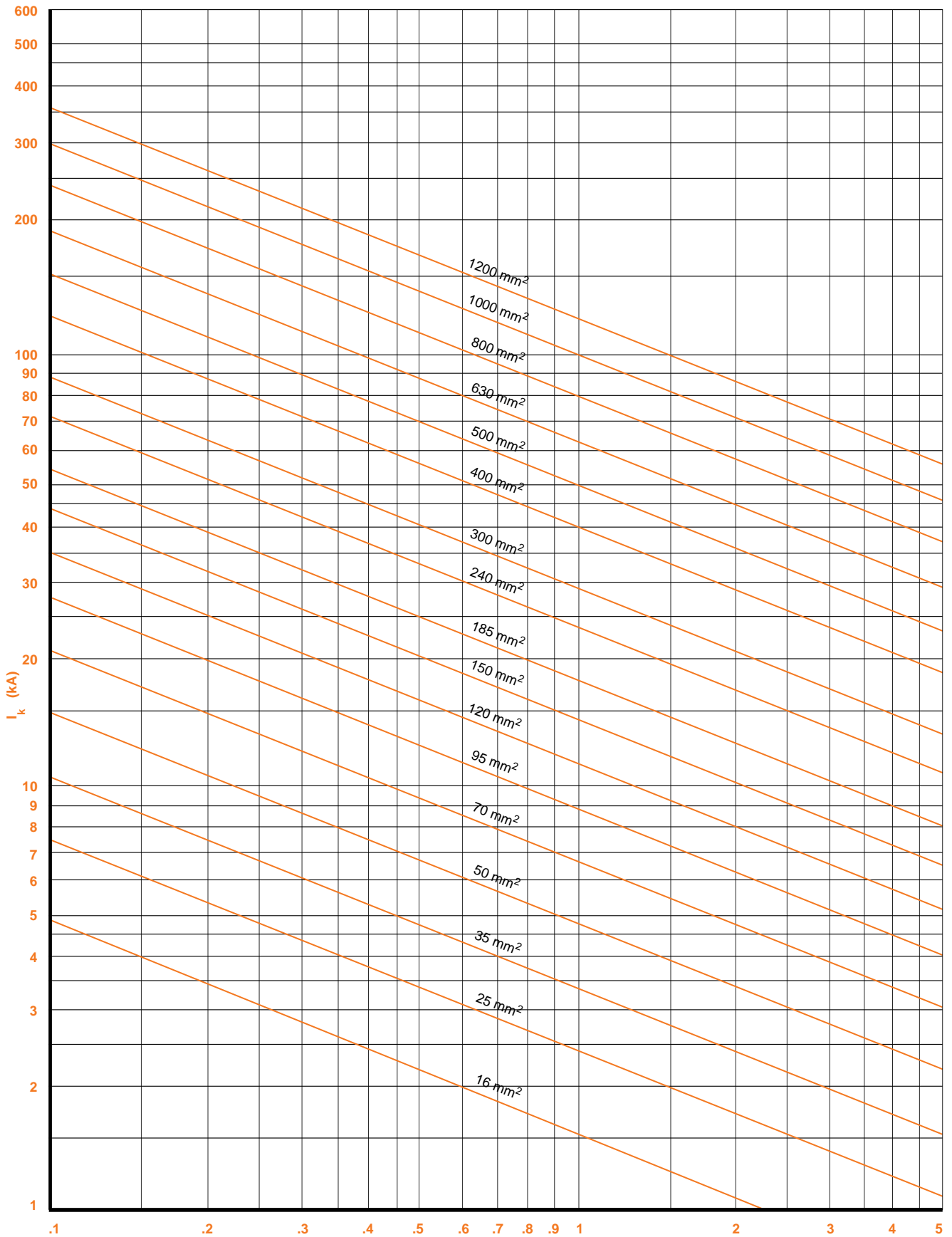
Conductor temp. before short circuit	90°C
Conductor temp. after short circuit	250°C
Screen temp. before short circuit	80°C
Screen temp. after short circuit	250°C

COPPER CONDUCTOR XLPE INSULATION



SECTION 6

ALUMINIUM CONDUCTOR XLPE INSULATION



MEDIUM VOLTAGE CABLES CABLE HANDLING AND LAYING PARAMETERS

MINIMUM RECOMMENDED BENDING RADII

Bending of power cables at short radii may permanently damage the insulation, shielding or jacket and ultimately result in a cable failure. It is therefore, very important that no sharp bends or twists are made.

Bending radii

Cable type	Radius (mm)
Single core cables Armoured or Unarmoured	15 D
Multicore cables Armoured	15 D
Multicore cables Unarmoured	12 D

Where D = Overall diameter of the cable

PULLING TENSIONS AND SIDE WALL PRESSURES

The maximum allowable pulling force is dependent on the cable design, the mechanical limitations, the conductor material and the method of laying and pulling the cables. Each factor has finite limitations and should under no circumstances be exceeded.

The maximum pulling tension should not exceed as follows:

A) Cable equipped with a pulling eye attached to the conductor

1. The maximum tension in kgs is 5 times the conductor cross sectional area in mm² for copper and 3 times the cross-sectional area for aluminium.
2. For multicore cables, the maximum tension can be increased by number of cores in the cable, provided pulling eye is attached to each conductor.

B) Cable equipped with a cable stocking over the sheath

1. For unarmoured cables, the maximum tension in kg is 0.5 times the square of the overall cable diameter (i.e. 0.5D²).
2. For armoured cables, the maximum tension in kg is 1.2 times the square of the overall diameter (i.e. 1.2D²).
3. For laid up cables, when all conductors have the same cross-sectional area, the equivalent overall diameter of the assembly is given by:

$$D_e = k.D \text{ mm} \quad \text{Where:} \quad \begin{aligned} D_e &= \text{assembly diameter in mm} \\ k &= 2 \quad \text{for 2 cables} \\ k &= 2.16 \quad \text{for 3 cables} \\ k &= 2.42 \quad \text{for 4 cables} \\ D &= \text{overall cable diameter} \end{aligned}$$

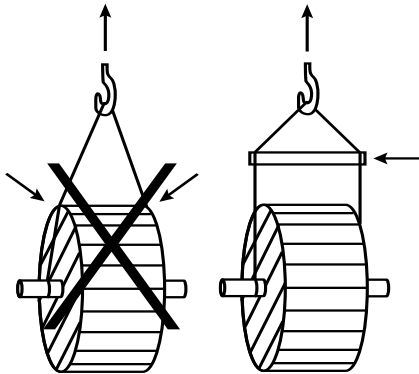
Maximum side wall pressure is given by the following formula:

$$\text{Max. side wall pressure} = \frac{\text{Max. Pulling tension}}{\text{Min. Bending radius}}$$

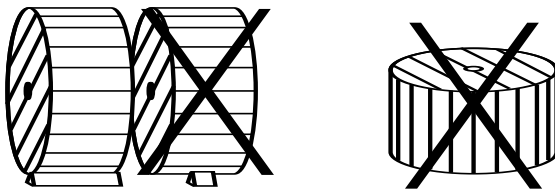
The maximum side wall pressure shall not exceed 500 kg/m, i.e., the tension in the cable in kgs as it leaves the bend shall not exceed 500 times the radius of the bend in meters.

It is acceptable to pull the cable in either direction. As a matter of fact it is an intelligent design to select pulling direction resulting in minimum stress on both the cable and the pulling equipment. This, however, is controlled by the limitations of working space at the ends in consideration.

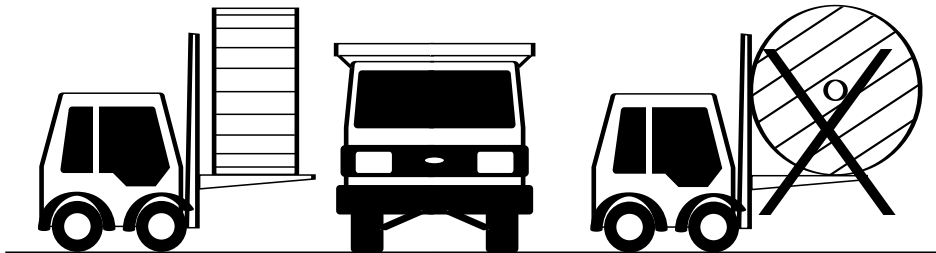
HANDLING AND INSTALLATION INSTRUCTIONS



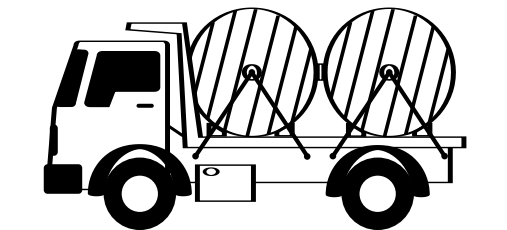
Lifting cable drums using crane.



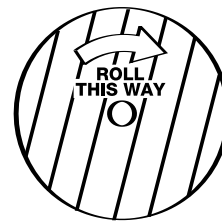
Do not lay drums flat on their sides, use proper stops to prevent drums rolling.



Lift drums on fork trucks correctly.



Secure drums adequately before transportation.



Roll in the direction shown by the arrow.

SCC medium voltage cables should be installed by trained personnel in accordance with good engineering practices, recognised codes of practice, statutory local requirements, IEE wiring regulations and where relevant, in accordance with any specific instructions issued by the company. Cables are often supplied in heavy cable reels and handling these reels can constitute a safety hazard. In particular, dangers may arise during the removal of steel binding straps and during the removal of retaining battens and timbers which may expose projecting nails. For detail information refer to our handling and installation catalogue.