

Shandong Renhui Cable Co.ltd

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PRODUCT CATALOG

2022.10.1

Company Introduction

Shandong Renhui Cable Co., Ltd. is founded in 2010, located in Jinan city, Shandong Province, China. The company covers an area of 50 thousand square meters, registered fund of RMB 5 million, has 100 staff and workers. We are a professional cable manufacturer in China.



Our products mainly cover low and medium voltage cable, PVC insulated cable, XLPE insulated cable, control cable, communication cable, rubber cable, mine cable, welding cable, ship cable, aerial bundled cable and other related customized cables. These cables are used in Power metallurgy, Oil&Chemical Industry, Power Station, Mine, Port and Architectural Engineering, and other fields.



From established, we insist Technical and Concept innovation, Strengthen inner management, Keep pace with time. All products conform to GBT, IEC, BS and VDE standards. Besides, we have the ability to design and produce various wires and cables, and customize them for you according to the special requirements of customers (providing OEM services).

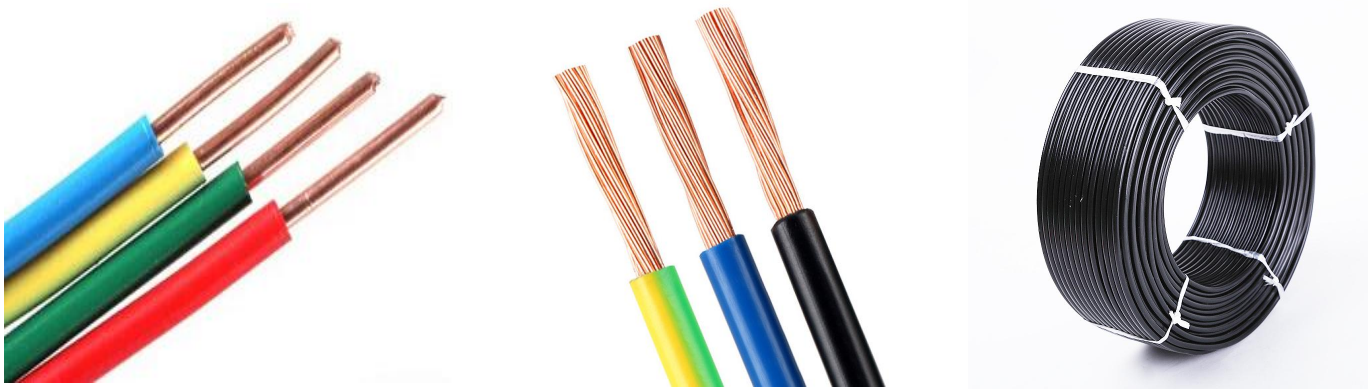


The products have been sold to many countries and regions in the world, such as Russia, Algeria, Bahrain, Bangladesh, Brazil, Chile, Cyprus, Indonesia, Iran, Malaysia, Oman, Dubai, Pakistan, Philippines, Singapore, Sri Lanka, Tanzania, Yemen, Kenya, Vietnam, Mongolia.



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PVC Insulated Non sheathed Single Core Cables



Standard: BS6004, IEC60227, HD21, GB/T5023 (H07V-U/H07V-R/H07V-K)

Rated Voltage: 450/750V

Application:

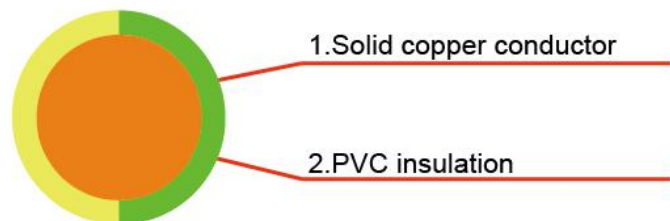
Industrial cable.

These cables are designed for use as fixed wiring in domestic, Industrial power and lighting applications such as light fittings, appliances, switch gear and control gear, they can be used in conduit or trunking or surface mounted when used as an earth.

Construction:

-Solid or stranded plain copper conductor

-PVC insulated (XLPE insulated or LSZH insulated)



1.Solid copper conductor

2.PVC insulation

Insulation colour: Green, Yellow, Blue, Red, Green/Yellow, Black, White is also available.

Technical Characteristics

- Test voltage: 2500V
- Minimum bending radius:
Up to 10mm²: 3xoverall diameter;
10mm² to 25mm²: 4xoverall diameter;
Above 25mm²: 5xoverall diameter
- Operating temperature: -0°C to +70°C/105 °C
- Short circuit temperature: +160°C
- Flame retardant: IEC 60332.1
- Insulation resistance: 10 MΩ x km

Cable Parameter

Harmonized code designations:

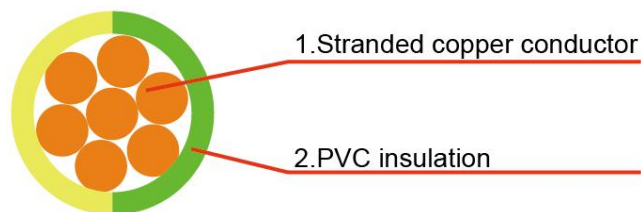
Solid conductor: H07V-U

Stranded conductor: H07V-R

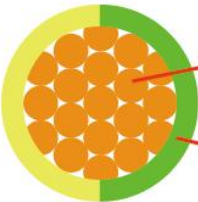
Construction:

Conductor - class1copper, solid, or class2 copper, stranded, as indicated below.

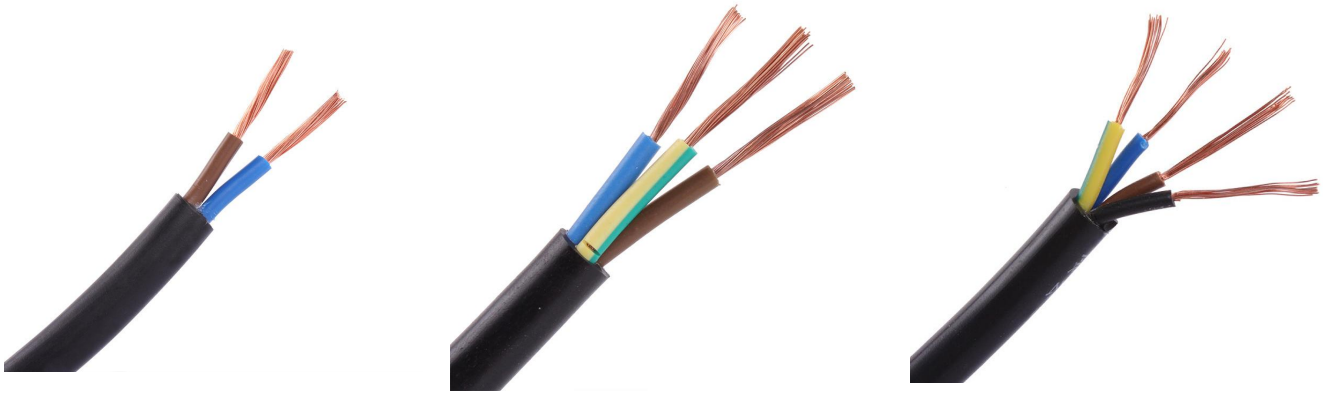
Insulation - PVC type TI4. Colors for core



Nominal cross-sectional area of conductor (mm ²)	Class of conductor	Radial thickness of insulation (mm)	Overall diameter		Minimum insulation resistance at 70°C (MΩ.km)
			Lower limit (mm)	Upper limit (mm)	
1.5	1	0.7	2.6	3.2	0.011
1.5	2	0.7	2.7	3.3	0.010
2.5	1	0.8	3.2	3.9	0.010
2.5	2	0.8	3.3	4.0	0.0099
4	1	0.8	3.6	4.4	0.0087
4	2	0.8	3.8	4.6	0.0082
6	1	0.8	4.1	5.0	0.0074
6	2	0.8	4.3	5.2	0.0070
10	1	1.0	5.3	6.4	0.0072
10	2	1.0	5.6	6.7	0.0067
16	2	1.0	6.4	7.8	0.0056
25	2	1.2	8.1	9.7	0.0053
35	2	1.2	9.0	10.9	0.0046
50	2	1.4	10.6	12.8	0.0046
70	2	1.4	12.1	14.6	0.0040
95	2	1.6	14.1	17.1	0.0039
120	2	1.6	15.6	18.8	0.0035
150	2	1.8	17.3	20.9	0.0035
185	2	2.0	19.3	23.3	0.0035
240	2	2.2	22.0	26.6	0.0034
300	2	2.4	24.5	29.6	0.0033
400	2	2.6	27.5	33.2	0.0031
500	2	2.8	30.5	36.9	0.0030
630	2	2.8	34.0	41.1	0.0027

Harmonized code designations: H07V-K Construction: Conductor - class5 copper,flexible Insulation - PVC type T11.					
Nominal cross-sectional area of conductor (mm ²)	Class of conductor	Radial thickness of insulation (mm)	Overall diameter		Minimum insulation resistance at 70°C (MΩ.km)
			Lower limit (mm)	Upper limit (mm)	
1.5	5	0.7	2.8	3.4	0.010
2.5	5	0.8	3.4	4.1	0.0095
4	5	0.8	3.9	4.8	0.0078
6	5	0.8	4.4	5.3	0.0068
10	5	1.0	5.7	6.8	0.0065
16	5	1.0	6.7	8.1	0.0053
25	5	1.2	8.4	10.2	0.0050
35	5	1.2	9.7	11.7	0.0043
50	5	1.4	11.5	13.9	0.0042
70	5	1.4	13.2	16.0	0.0036
95	5	1.6	15.1	18.2	0.0036
120	5	1.6	16.7	20.2	0.0032
150	5	1.8	18.6	22.5	0.0032
185	5	2.0	20.6	24.9	0.0032
240	5	2.2	23.5	28.4	0.0031

H03VV-F PVC Insulated and PVC sheathed Flexible Cables



Standard: GB/T 5023-2008, IEC60227, BS6004, DIN VDE 0281

Rated Voltage: 300/300V

Application: Flexible cable

-for dry areas, used for purposes requiring special flexibility in conditions free of any mechanical stresses.

Permitted frequent bending and twisting.

-Specially suitable for application in small devices with low mechanical loads and for connection of light household devices, such as kitchen appliances, desk lamps, ceiling lamps, vacuum cleaners, office machines, radios etc., as long as H03VV-F is adapted to essential specifications of the device.

Construction:

-Conductor:

Bare copper conductor, fine wired stranded, class 5 acc. to IEC 60228 / HD 383 / DIN VDE 0295

(nominal diameter 0,20 mm)

-Insulation:

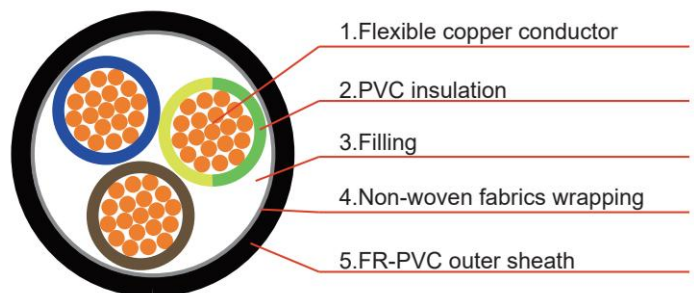
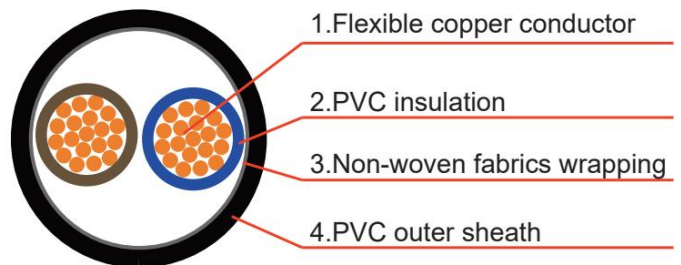
PVC compound TI2 acc. to DIN VDE 0207 4. part / HD 21.1 S4,

concentrically stranded cores color marked acc. to HRN HD 308 S2 / DIN VDE 0293-308,

with or without yellow-green protective conductor

-Sheath:

PVC compound TM2 for flexible insulated conductors acc. to DIN VDE 0207 part 5 / HD 21.1 S4



Core colour:

Insulation color:

single core: Brown or Blue

Two core: Brown and Blue

Three core: Brown, Blue and Green/Yellow

Four core: Green/Yellow, Black, Brown and Blue

Five core: Green/Yellow, Black, Brown, Blue and Black

Sheath colour: Black, Grey, White

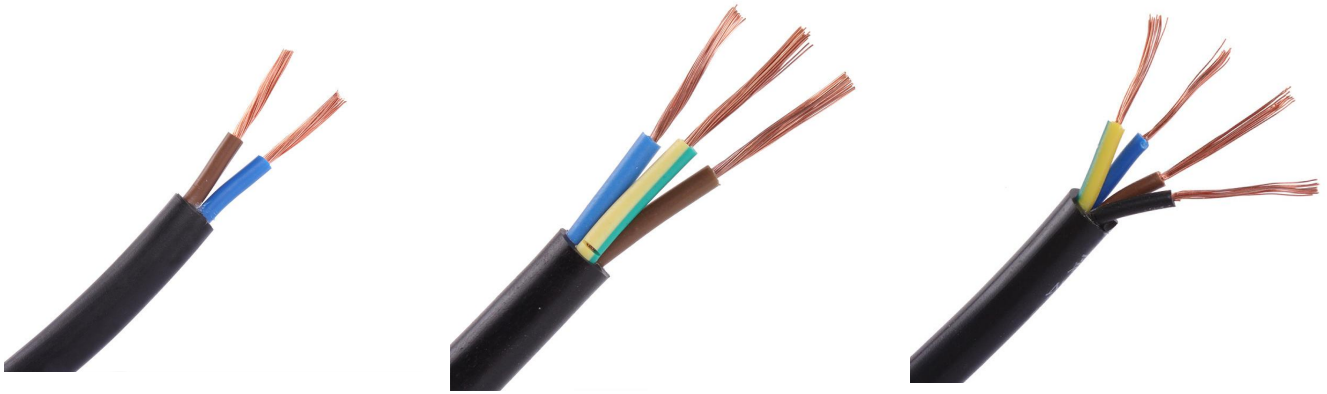
Technical Characteristics

Test voltage	2000 volts
Flexing bending radius	7.5 x O
Static bending radius	4 x O
Flexing temperature	-5°C to +70°C
Static temperature	-40°C to +70°C
Short circuit temperature	+160°C
Flame retardant	IEC 60332.1
Insulation resistance	20 MΩ x km

Cable Parameter

Cores x Cross section area	Construction of individual conductor	External diameter	Insulation thickness	Sheath thickness	Conductor resistance at 20 °C	resistance of insulation at 70 °C	Cable weight	Packing
	nominal	min-max.	nominal	nominal	max.	min.	approx.	
mm ²	n x mm	mm	mm	mm	Ω/km	MΩkm	kg/km	
2 x 0,5	16 x 0,20	4,6 - 5,9	0,5	0,6	39,0	0,012	41	c.100
2 x 0,75	24 x 0,20	4,9 - 6,3	0,5	0,6	26,0	0,010	48	c.100
3 G 0,5	16 x 0,20	4,9 - 6,3	0,5	0,6	39,0	0,012	48	c.100
3 G 0,75	24 x 0,20	5,2 - 6,7	0,5	0,6	26,0	0,010	57	c.100
4 G 0,5	16 x 0,20	5,4 - 6,9	0,5	0,6	39,0	0,012	58	c.100
4 G 0,75	24 x 0,20	5,7 - 7,3	0,5	0,6	26,0	0,010	70	c.100
5 G 0,75	24 x 0,20	7,1	0,5	0,6	26,0	0,010	87	c.10

H05VV-F PVC Insulated and PVC sheathed Flexible Cables



Standard: GB/T 5023-2008, IEC60227, BS6004, DIN VDE 0281

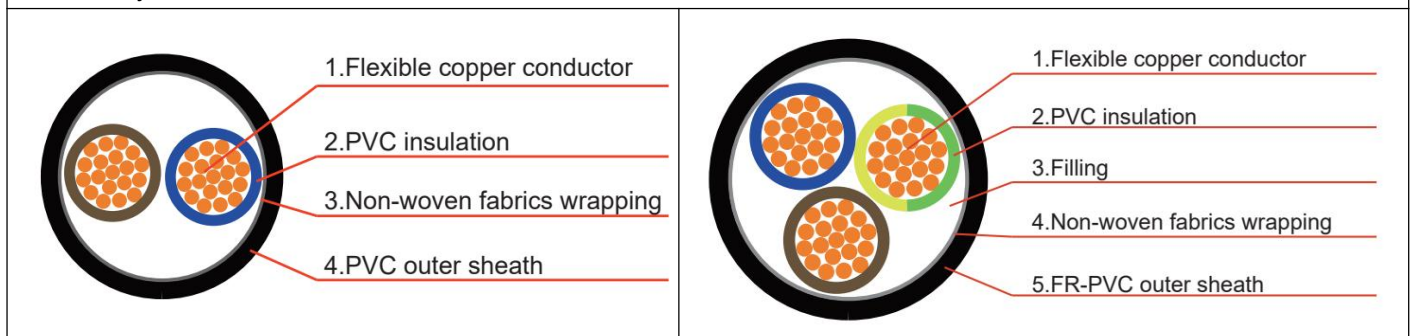
Rated Voltage: 300/500V

Application: Flexible cable

- These cables are suited for medium mechanical stress in damp and wet environments such as refrigerators, washing machines, spin dryers and other appliances, as long as it meets applicable equipment specifications.
- These cables are also suited for cooking and heating apparatus, provided that the cable does not come into direct contact with the hot parts of the apparatus or with any other heat source.
- Further applications of this cable include: Fixed installation in furniture, partition walls, decorative covering, and in the hollow spaces of prefabricated building parts. They are not suitable for outdoor use, industrial (except clothing manufacture) or farming applications.

Construction:

Bare copper fine wire conductor
Stranded to DIN VDE 0295 cl. 5, BS 6360 cl. 5, IEC 60228 cl. 5 and HD 383
PVC core insulation TI2 to VDE-0281 Part 1
Color coded to VDE-0293-308
Green-yellow grounding (3 conductors and above)
PVC outer jacket TM2



Core colour:

Insulation color:

single core: Brown or Blue

Two core: Brown and Blue

Three core: Brown, Blue and Green/Yellow

Four core: Green/Yellow, Black, Brown and Blue

Five core: Green/Yellow, Black, Brown, Blue and Black

Sheath colour: Black, Grey, White

Technical Characteristics

Test voltage	2000 volts
Flexing bending radius	7.5 x O
Static bending radius	4 x O
Flexing temperature	-50°C to +70°C
Static temperature	-40°C to +70°C
Short circuit temperature	+160°C
Flame retardant	IEC 60332.1
Insulation resistance	20 MΩ x km

Cable Parameter

Cores x Cross section area	Insulation thickness	Sheath thickness	External diameter	Conductor resistance at 20 °C	resistance of insulation at 70 °C
	nominal	nominal	min-max.	max.	min.
mm ²	mm	mm	mm	Ω/km	MΩkm
2X0.75	0.6	0.8	5.7-7.2 (3.7X6.0-4.5 X7.2)	26	0.011
2X1	0.6	0.8	5.9-7.5 (3.9X6.2-4.7 X7.5)	19.5	0.010
2X1.5	0.7	0.8	6.8-8.6	13.3	0.010
2X2.5	0.8	1.0	8.4-10.6	1.98	0.009
2X4	0.8	1.1	9.7-12.1	4.95	0.007
3X0.75	0.6	0.8	6.0-7.6	26	0.011
3X1	0.6	0.8	6.3-8.0	19.5	0.010
3X1.5	0.7	0.9	7.4-9.4	13.3	0.010
3X2.5	0.8	1.1	9.2-11.4	1.98	0.009
3X4	0.8	1.2	10.5-13.1	4.95	0.007
4X0.75	0.6	0.8	6.6-8.3	26	0.011
4X1	0.6	0.8	7.1-9.0	19.5	0.010
4X1.5	0.7	1.0	8.4-10.5	13.3	0.010
4X2.5	0.8	1.1	10.1-12.5	1.98	0.009

4X4	0.8	1.2	11.5-14.3	4.95	0.007
5X0.75	0.6	0.9	7.4-9.3	26	0.011
5X1	0.6	0.9	7.8-9.8	19.5	0.010
5X1.5	0.7	1.1	9.3-11.6	13.3	0.010
5X2.5	0.8	1.2	11.2-13.9	1.98	0.009
5X4	0.8	1.4	13.0-16.1	4.95	0.007
7X1	0.6	1.0	9.3-12.0	19.5	0.010
7X1.5	0.7	1.2	11.0-14.0	13.3	0.010
7X2.5	0.8	1.2	13.0-17.0	1.98	0.009

H07RN-F Rubber Insulated and Rubber sheathed flexible cables

Application

These cables are designed to provide high flexibility and have the capacity to withstand weather, oils/greases, mechanical and thermal stresses.

Applications include handling equipment, mobile power supplies, worksites, stage and audio visual equipment, port areas and dams. Also for use in drainage and water treatment, cold environments and severe industrial environments.



Standards

IEC60245, GB/T 5013, JB/T8735.

Customized Other Standard such as VDE, ASTM, DIN according to the customer's request .

Technical Data

Conductor

Class 5 flexible plain copper

Insulation

EPR (Ethylene Propylene Rubber)

Sheath

PCP (Polychloroprene)

Sheath Colour

Black

Voltage Rating

450/750V

Temperature Rating

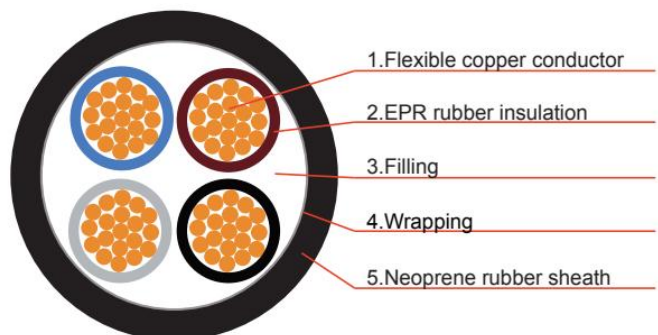
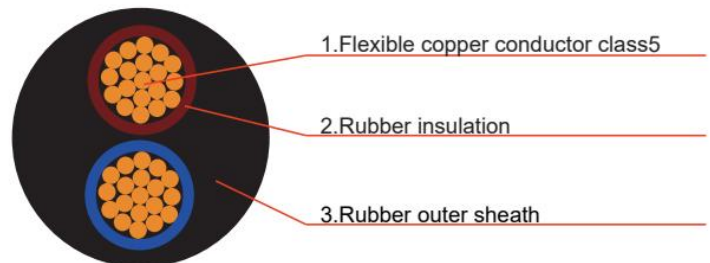
Conductor operating temperature

-30°C to +60°C (85°C max)

Minimum Bending Radius

Up to 25mm²: 6 x overall diameter

Above 25mm²: 8 x overall diameter



Core Identification

2 Cores: Blue, Brown

3 Cores: Green/Yellow, Blue, Brown

4 Cores: Green/Yellow, Brown, Black, Grey

5 Cores: Green/Yellow, Blue, Brown, Black, Grey

6 Cores and above: Black with White numerals, Green/Yellow

Specification details:**H07RN-F Single Core Type 450/750V EPR/PCP Trailing Rubber Cable**

Core and Size	Stranding	Nominal Overall Diameter	Nominal Overall Diameter	Approx. Weight
mm ²	(Number of Strand/Strand Diameter)	mm	mm	kg/km
1x1.5	30x0.25	0.8	6	49
1x 2.5	50x0.25	0.9	6.6	63
1x4	56x0.30	1	7.6	92
1x6	84x0.30	1	8.3	115
1x10	80x0.40	1.2	10.7	189
1x16	126x0.40	1.2	12	260
1x25	196x0.40	1.4	14.1	369
1x35	276x0.40	1.4	15.8	500
1x50	396x0.40	1.6	18.3	689
1x70	360x0.50	1.6	20.7	918
1x95	475x0.50	1.8	23.4	1202
1x120	608x0.50	1.8	25.6	1489
1x150	756x0.50	2	28.3	1824
1x185	925x0.50	2.2	31	2202
1x240	1221x0.50	2.4	34.5	2847
1x300	1525x0.50	2.6	37.7	3495
1x400	2013x0.50	2.8	37.7	3495
1x500	1769x0.60	3	37.7	3495
1x630	2257x0.60	3	37.7	349

H07RN-F 2 Core Type 450/750V EPR/PCP Trailing Rubber Cable

Core and Size	Stranding	Nominal Overall Diameter	Nominal Overall Diameter	Approx. Weight
mm ²	(Number of Strand/Strand Diameter)	mm	mm	kg/km
2 X 1.0	32/0.20	0.8	8.4	98
2 X 1.5	30/0.50	0.8	9.4	116
2 X 2.5	50/0.25	0.9	11	164
2 X 4.0	56/0.30	1	12.8	232
2 X 6.0	84/0.30	1	14.2	297
2 X 10.0	80/0.40	1.2	20.4	573
2 X 16.0	126/0.40	1.2	23	774
2 X 25.0	196/0.40	1.4	27.4	1110
2 X 35.0	276/0.40	1.4	30.8	1474

H07RN-F 3 Core Type 450/750V EPR/PCP Trailing Rubber Cable

Core and Size	Stranding	Nominal Overall Diameter	Nominal Overall Diameter	Approx. Weight
mm ²	(Number of Strand/Strand Diameter)	mm	mm	kg/km
3 X 1.0	32/0.20	0.8	9	108
3 X 1.5	30/0.50	0.8	10.3	141
3 X 2.5	50/0.25	0.9	11.8	200
3 X 4.0	56/0.30	1	13.7	285
3 X 6.0	84/0.30	1	15.2	371
3 X 10.0	80/0.40	1.2	21.9	712
3 X 16.0	126/0.40	1.2	24.7	971
3 X 25.0	196/0.40	1.4	29.4	1394

H07RN-F 4 Core Type 450/750V EPR/PCP Trailing Rubber Cable

Core and Size	Stranding	Nominal Overall Diameter	Nominal Overall Diameter	Approx. Weight
mm ²	(Number of Strand/Strand Diameter)	mm	mm	kg/km
4 X 1.0	32/0.20	0.8	10	134
4 X 1.5	30/0.25	0.8	11.2	174
4 X 2.5	50/0.25	0.9	12.6	249
4 X 4.0	56/0.30	1	15.1	361
4 X 6.0	84/0.30	1	16.9	480
4 X 10.0	80/0.40	1.2	24	890
4 X 16.0	126/0.40	1.2	27	1225
4 X 25.0	196/0.40	1.4	32.6	1792
4 X 35.0	276/0.4	1.4	36.5	2380
4 X 50.0	396/0.4	1.6	42	3635
4 X 70.0	360/0.5	1.6	49	4830
4 X 95.0	475/0.5	1.8	55	6320

N2XY N2XRY 0.6/1KV XLPE Insulated Cables



Applications

These cables are used for electricity supply in low voltage installation system, They are suitable for installation in indoors and outdoors, in cable ducts, under ground, in power and switching stations, local energy distributions, industrial plants, where there is no risk of mechanical damage.

Construction

Conductors

The conductors shall be either of Class 1 or Class 2 of plain or metal-coated annealed copper or of plain aluminium or aluminium alloy, or of Class 5 of plain or metal-coated copper in accordance with IEC 60228.

Insulation

XLPE material and thickness shall be as per IEC 60502 or BS 5467 rated for 90C continuous operation.

Colour Code

Colour Code (1)		Colour Code (2)	
1 Core	Red or Black	1 Core	Brown or Blue
2 Cores	Red, Black	2 Cores	Brown, Blue
3 Cores	Red, Yellow, Blue	3 Cores	Brown, Black, Grey
4 Cores	Red, Yellow, Blue, Black	4 Cores	Blue, Brown, Black, Grey
5 Cores	Red, Yellow, Blue, Black, Green	5 Cores	Green/Yellow, Blue, Brown, Black, Grey
Above 5 Cores	Black Cores with White numerals	Above 5 Cores	Black Cores with White numerals

Other colors can be manufactured upon request.

Assembly / Inner Covering

The inner coverings may be extruded or lapped. For cables with circular cores, except cables with more than five cores, a lapped inner covering shall be permitted only if the interstices between the cores are substantially filled. A suitable binder is permitted before application of an extruded inner covering. The material is compatible with the insulating material, The materials used for inner coverings and fillers shall be suitable for the operating temperature of the cable and compatible with the insulating material. For halogen free cables, the inner covering and fillers shall also be halogen free compound.

Armour

Aluminum/galvanized steel/steel wires applied helically over the Inner Covering as per IEC 60502-1, or double aluminum/steel tapes and copper/tinned copper wire can also be manufactured upon request.

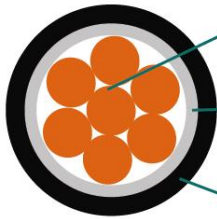
Outer Sheath

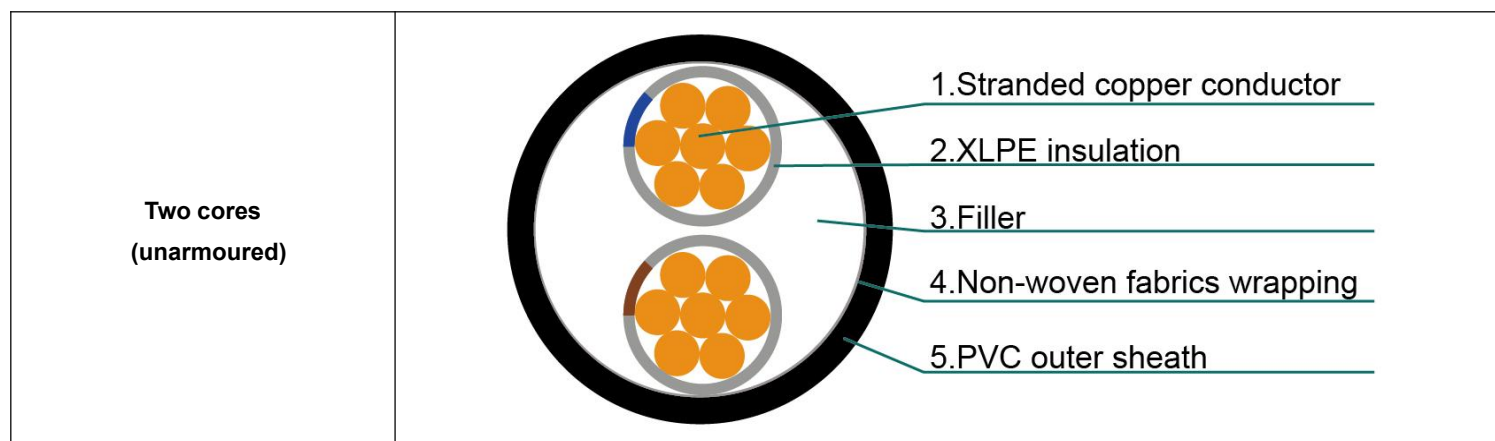
Outer sheath shall be of extruded PVC Type ST1/ST2 as per IEC 60502-1, Polyethylene type ST3/ST7, Halogen free compound ST8, Polychloroprene, chlorosulfonated polyethylene or similar polymers, type SE1 are also available on request.

Fire Performance of Cable Sheaths

Cables can be supplied with special flame retardant PVC outer sheath to comply with the flame test requirements of IEC 60332-3-22, IEC 60332-3-23 and IEC 60332-3-24, Halogen Free material comply to IEC60754-1/2 and IEC 60684-2.

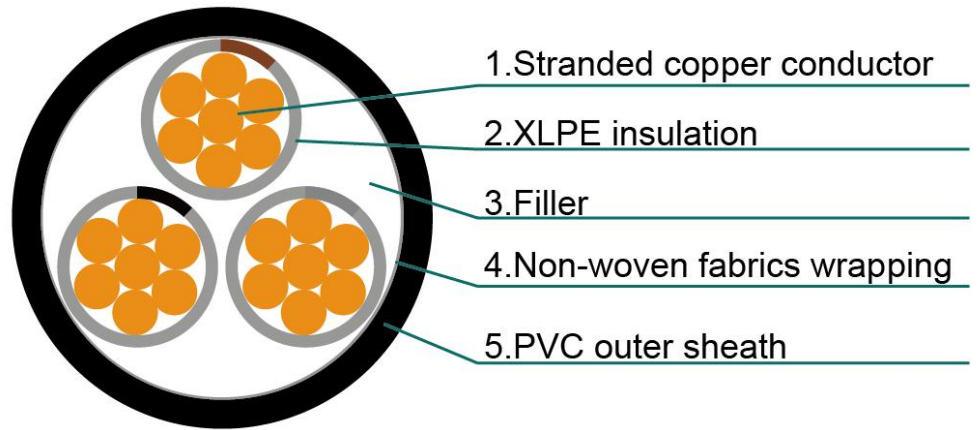
Cable Parameters

Single core (unarmoured)				
Nominal Cross Section	Diameter of Conductor (Approx.)	Nominal Insulation Thickness	Nominal Sheath Thickness	Overall Diameter (Approx.)
mm ²	mm	mm	mm	mm
1x1.5	1.4	0.7	1.4	5.6
1x2.5	1.8	0.7	1.4	6.0
1x4	2.3	0.7	1.4	6.5
1x6	2.8	0.7	1.4	7.0
1x10	3.6	0.7	1.4	7.8
1x16	4.5	0.7	1.4	8.7
1x25	5.6	0.9	1.4	10.2
1x35	6.7	0.9	1.4	11.3
1x50	8.0	1	1.4	12.8
1x70	9.4	1.1	1.4	14.4
1x95	11.0	1.1	1.5	16.1
1x120	12.4	1.2	1.5	17.8
1x150	13.8	1.4	1.6	19.8
1x185	15.3	1.6	1.6	21.8
1x240	17.5	1.7	1.7	24.4
1x300	19.5	1.8	1.8	26.7
1x400	22.6	2	1.9	30.5
1x500	25.2	2.2	2.0	33.7
1x630	28.3	2.4	2.2	37.4



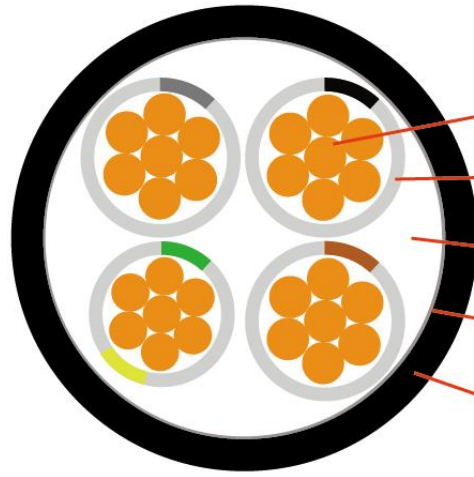
Nominal Cross Section	Diameter of Conductor (Approx.)	Nominal Insulation Thickness	Nominal Sheath Thickness	Overall Diameter (Approx.)
mm ²	mm	mm	mm	mm
2x1.5	1.4	0.7	1.8	9.2
2x2.5	1.8	0.7	1.8	10.0
2x4	2.3	0.7	1.8	11.0
2x6	2.8	0.7	1.8	12.0
2x10	3.6	0.7	1.8	13.6
2x16	4.5	0.7	1.8	15.4
2x25	5.6	0.9	1.8	18.4
2x35	6.7	0.9	1.8	20.6
2x50	8.0	1	1.8	23.6
2x70	9.4	1.1	1.8	26.8
2x95	11.0	1.1	1.9	30.2
2x120	12.4	1.2	2.0	33.7
2x150	13.8	1.4	2.2	37.5
2x185	15.3	1.6	2.3	41.6
2x240	17.5	1.7	2.5	46.7
2x300	19.5	1.8	2.6	51.4
2x400	22.6	2	2.9	58.9

Three cores
(unarmoured)



Nominal Cross Section	Diameter of Conductor (Approx.)	Nominal Insulation Thickness	Nominal Sheath Thickness	Overall Diameter (Approx.)
mm ²	mm	mm	mm	mm
3x1.5	1.4	0.7	1.8	9.6
3x2.5	1.8	0.7	1.8	10.5
3x4	2.3	0.7	1.8	11.6
3x6	2.8	0.7	1.8	12.6
3x10	3.6	0.7	1.8	14.4
3x16	4.5	0.7	1.8	16.3
3x25	5.6	0.9	1.8	19.5
3x35	6.7	0.9	1.8	21.9
3x50	8.0	1	1.8	25.1
3x70	9.4	1.1	1.9	28.7
3x95	11.0	1.1	2.0	32.4
3x120	12.4	1.2	2.1	36.1
3x150	13.8	1.4	2.3	40.3
3x185	15.3	1.6	2.4	44.6
3x240	17.5	1.7	2.6	50.2
3x300	19.5	1.8	2.7	55.2
3x400	22.6	2	3.0	63.3

Three cores+1
(unarmoured)



1.Stranded copper conductor

2.XLPE insulation

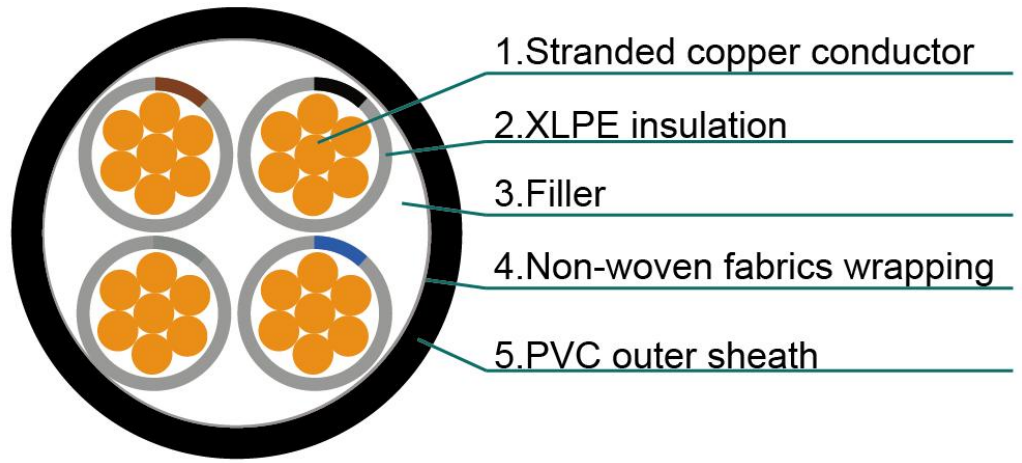
3.Filler

4.Non-woven fabrics wrapping

5.PVC outer sheath

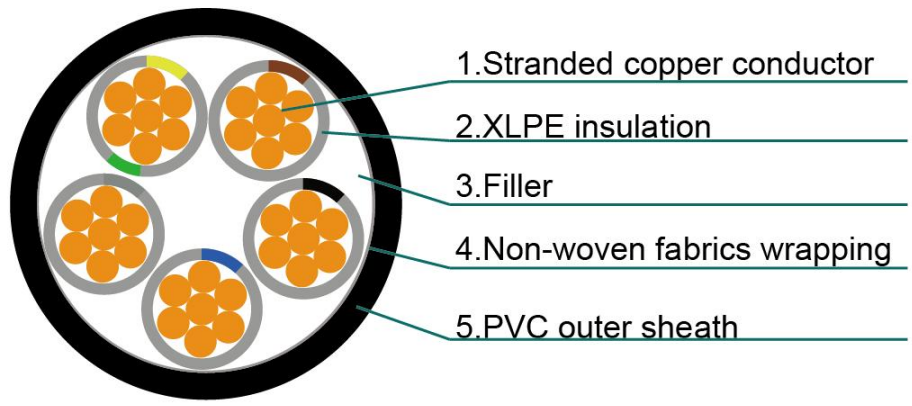
Nominal Cross Section	Diameter of Conductor (Approx.)		Nominal Insulation Thickness		Nominal Sheath Thickness	Overall Diameter (Approx.)
mm ²	(3)mm	(1)mm	(3)mm	(1)mm	mm	mm
3x 16/10	4.5	3.6	0.7	0.7	1.8	17.5
3x 25/16	5.6	4.5	0.9	0.7	1.8	21.2
3x 35/16	6.7	4.5	0.9	0.7	1.8	23.8
3x 50/25	8	5.6	1	0.9	1.8	27.5
3x 70/35	9.4	6.7	1.1	0.9	2.0	31.7
3x 95/50	11	8	1.1	1	2.1	35.8
3x120/70	12.4	9.4	1.2	1.1	2.3	39.9
3x150/70	13.8	9.4	1.4	1.1	2.4	44.6
3x185/95	15.3	11	1.6	1.1	2.6	49.5
3x240/120	17.5	12.4	1.7	1.2	2.8	55.7
3x300/150	19.5	13.8	1.8	1.4	3.0	61.4
3x400/185	22.6	15.3	2	1.6	3.2	70.4

Four cores
(unarmoured)

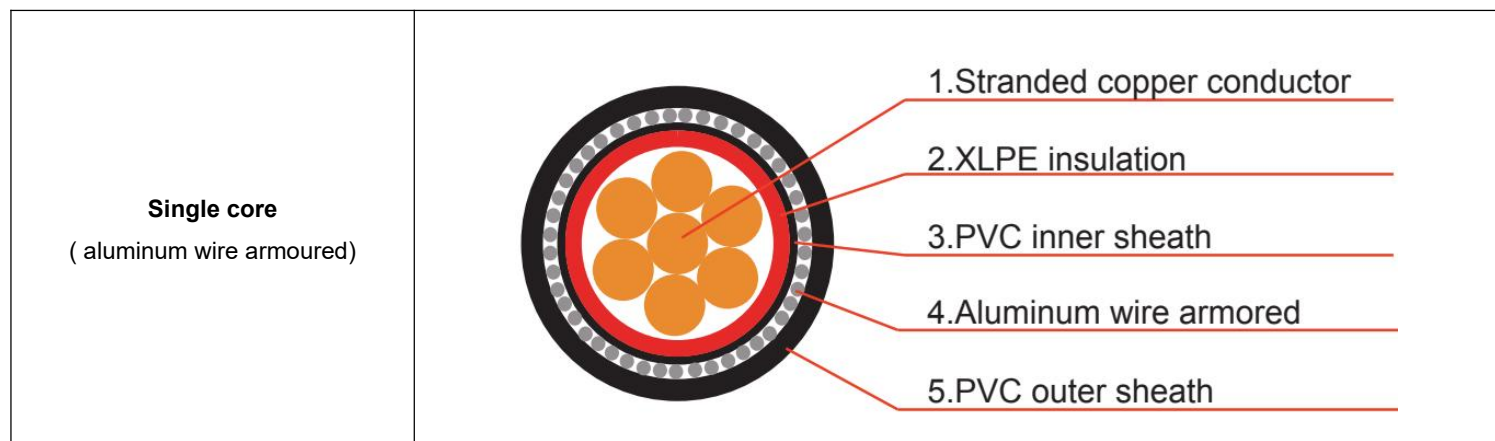


Nominal Cross Section	Diameter of Conductor (Approx.)	Nominal Insulation Thickness	Nominal Sheath Thickness	Overall Diameter (Approx.)
mm ²	mm	mm	mm	mm
4x1.5	1.4	0.7	1.8	10.4
4x2.5	1.8	0.7	1.8	11.3
4x4	2.3	0.7	1.8	12.5
4x6	2.8	0.7	1.8	13.7
4x10	3.6	0.7	1.8	15.7
4x16	4.5	0.7	1.8	17.8
4x25	5.6	0.9	1.8	21.5
4x35	6.7	0.9	1.8	24.1
4x50	8.0	1	1.8	27.8
4x70	9.4	1.1	2.0	32.0
4x95	11.0	1.1	2.1	36.1
4x120	12.4	1.2	2.3	40.2
4x150	13.8	1.4	2.4	44.9
4x185	15.3	1.6	2.6	49.8
4x240	17.5	1.7	2.8	56.0
4x300	19.5	1.8	3.0	61.7
4x400	22.6	2	3.2	70.7

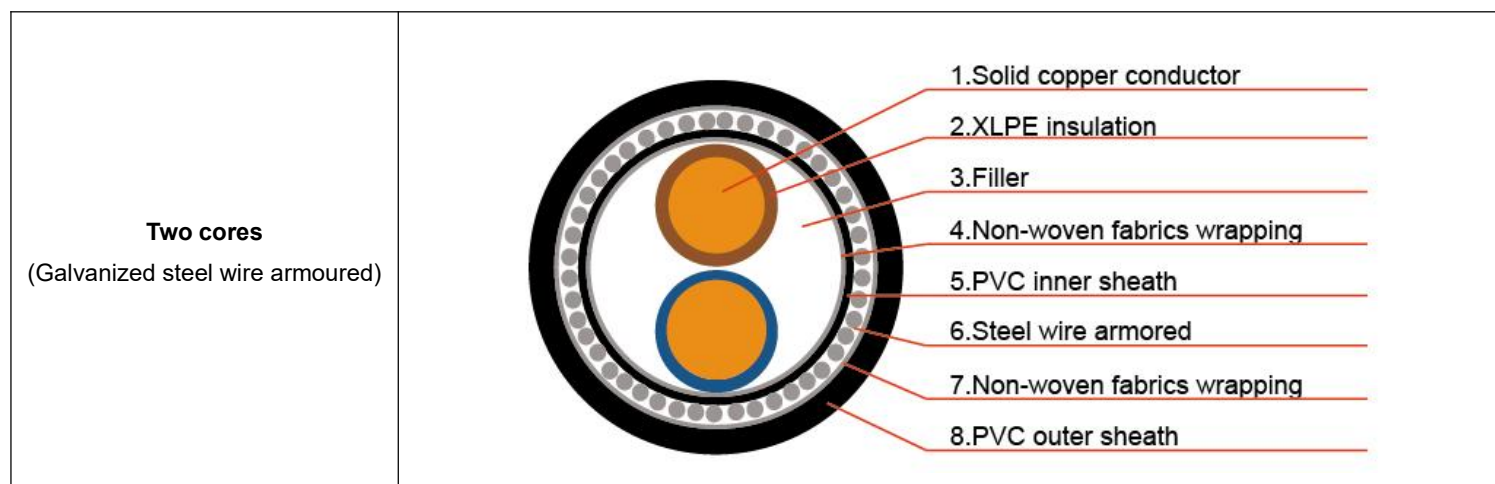
Multi cores



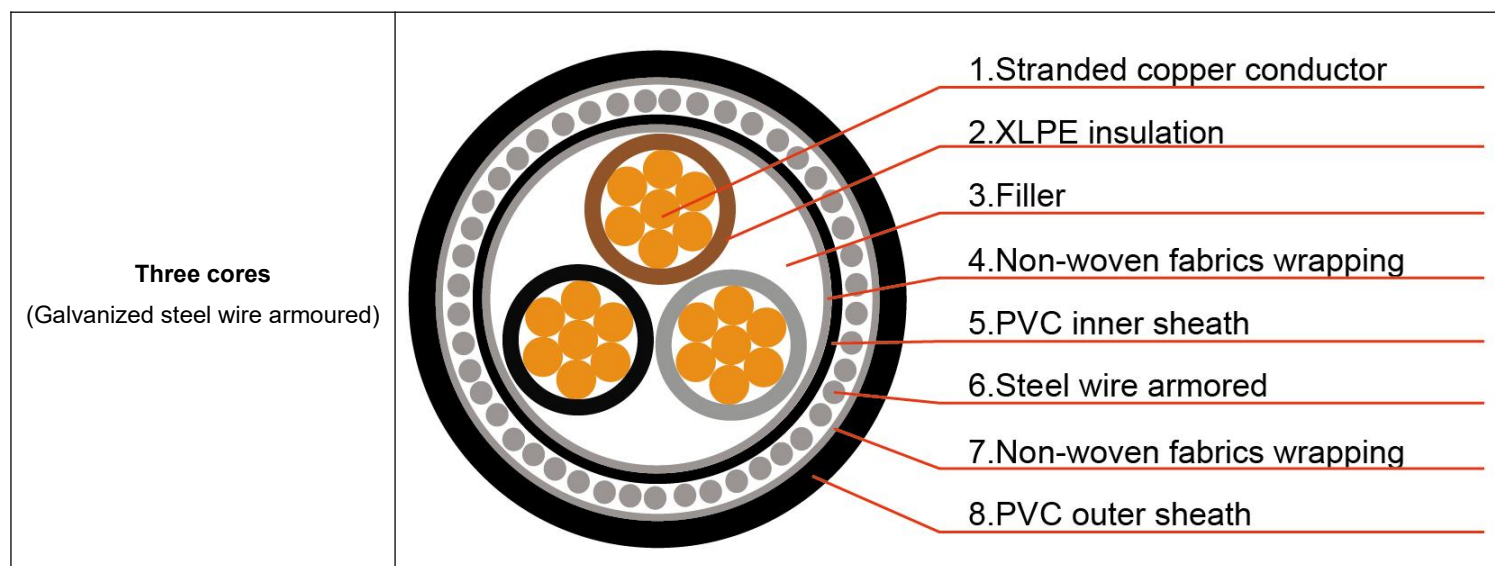
Nominal Cross Section	Diameter of Conductor (Approx.)	Nominal Insulation Thickness	Nominal Sheath Thickness	Overall Diameter (Approx.)
mm ²	mm	mm	mm	mm
5x1.5	1.4	0.7	1.8	11.2
7x1.5	1.4	0.7	1.8	12.0
10x1.5	1.4	0.7	1.8	14.8
12x1.5	1.4	0.7	1.8	15.2
14x1.5	1.4	0.7	1.8	16.0
19x1.5	1.4	0.7	1.8	17.6
21x1.5	1.4	0.7	1.8	18.4
24x1.5	1.4	0.7	1.8	20.4
30x1.5	1.4	0.7	1.8	21.6
40x1.5	1.4	0.7	1.8	26.0
48x1.5	1.4	0.7	1.8	26.4
61x1.5	1.4	0.7	1.9	29.0
5x2.5	1.8	0.7	1.8	12.2
7x2.5	1.8	0.7	1.8	13.2
10x2.5	1.8	0.7	1.8	16.4
12x2.5	1.8	0.7	1.8	16.9
14x2.5	1.8	0.7	1.8	17.7
19x2.5	1.8	0.7	1.8	19.6
21x2.5	1.8	0.7	1.8	20.6
24x2.5	1.8	0.7	1.8	22.8
30x2.5	1.8	0.7	1.8	24.1
40x2.5	1.8	0.7	1.9	29.4
48x2.5	1.8	0.7	1.9	29.9
61x2.5	1.8	0.7	2.0	32.8



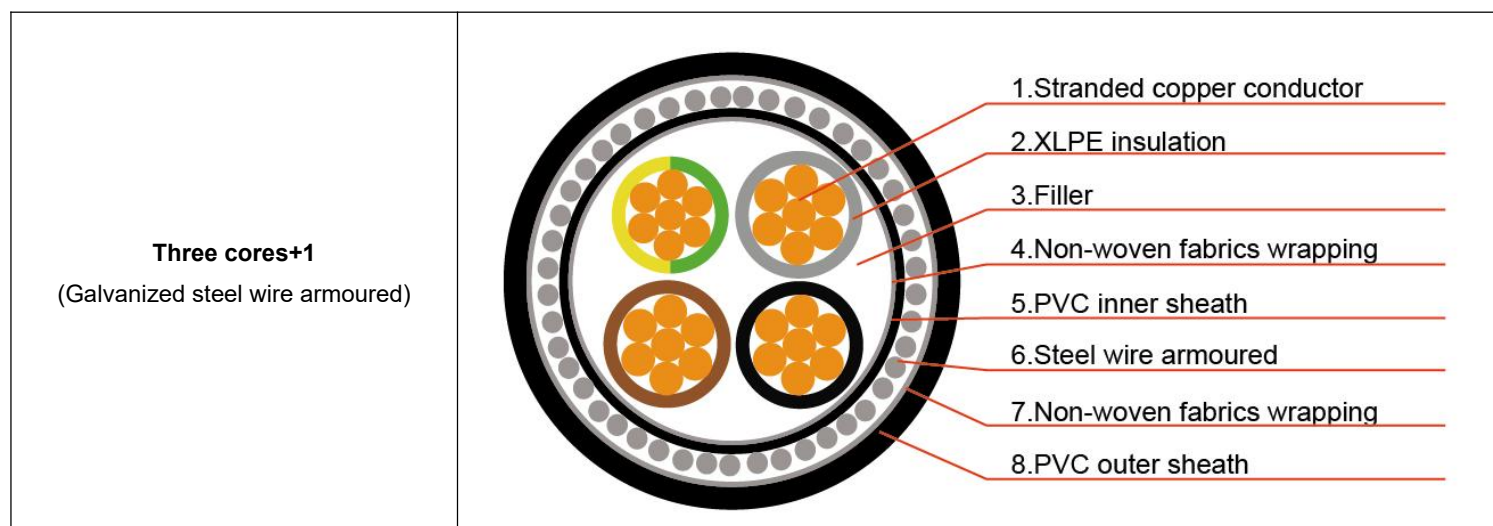
Nominal Cross Section	Diameter of Conductor (Approx.)	Nominal Insulation thickness	Nominal Inner Covering thickness	Nominal Alum Wire dia.	Nominal Sheath thickness	Overall Diameter (Approx.)
mm ²	mm	mm	mm	mm	mm	mm
1x4	2.3	0.7	1.0	0.8	1.8	10.9
1x6	2.8	0.7	1.0	0.8	1.8	11.4
1x10	3.6	0.7	1.0	0.8	1.8	12.2
1x16	4.5	0.7	1.0	0.8	1.8	13.1
1x25	5.6	0.9	1.0	0.8	1.8	14.6
1x35	6.7	0.9	1.0	1.25	1.8	16.6
1x50	8.0	1	1.0	1.25	1.8	18.1
1x70	9.4	1.1	1.0	1.25	1.8	19.7
1x95	11.0	1.1	1.0	1.6	1.8	22.0
1x120	12.4	1.2	1.0	1.6	1.8	23.6
1x150	13.8	1.4	1.0	1.6	1.8	25.4
1x185	15.3	1.6	1.0	1.6	1.8	27.4
1x240	17.5	1.7	1.0	1.6	1.9	29.9
1x300	19.5	1.8	1.0	2.0	2.0	33.1
1x400	22.6	2	1.2	2.0	2.2	37.3
1x500	25.2	2.2	1.2	2.0	2.3	40.5



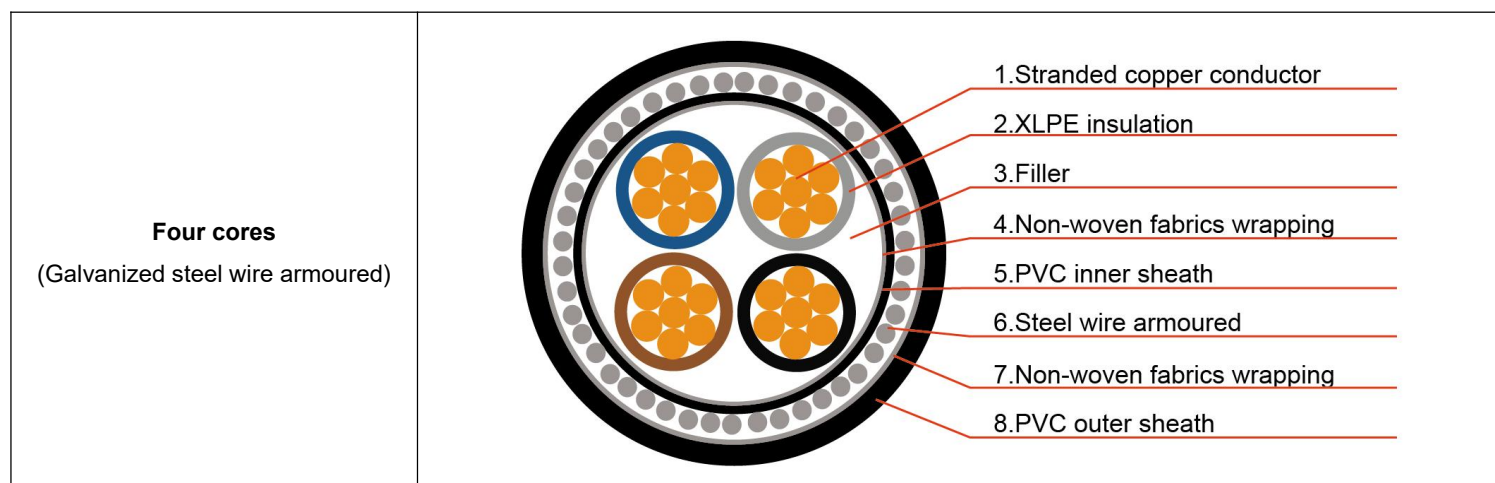
Nominal Cross Section	Diameter of Conductor (Approx.)	Nominal Insulation thickness	Nominal Inner Covering thickness	Nominal Steel Wire dia.	Nominal Sheath thickness	Overall Diameter (Approx.)
mm ²	mm	mm	mm	mm	mm	mm
2x1.5	1.4	0.7	1.0	0.8	1.8	12.8
2x2.5	1.8	0.7	1.0	0.8	1.8	13.6
2x4	2.3	0.7	1.0	0.8	1.8	14.6
2x6	2.8	0.7	1.0	1.25	1.8	16.5
2x10	3.6	0.7	1.0	1.25	1.8	18.1
2x16	4.5	0.7	1.0	1.25	1.8	19.9
2x25	5.6	0.9	1.0	1.6	1.8	23.6
2x35	6.7	0.9	1.0	1.6	1.8	25.8
2x50	8.0	1	1.0	1.6	1.9	29.0
2x70	9.4	1.1	1.0	2.0	2.0	33.2
2x95	11.0	1.1	1.2	2.0	2.1	37.1
2x120	12.4	1.2	1.2	2.0	2.3	40.5
2x150	13.8	1.4	1.2	2.5	2.4	45.4
2x185	15.3	1.6	1.4	2.5	2.6	49.9
2x240	17.5	1.7	1.4	2.5	2.7	55.1
2x300	19.5	1.8	1.6	2.5	2.9	60.2
2x400	22.6	2	1.6	2.5	3.1	67.7



Nominal Cross Section	Diameter of Conductor (Approx.)	Nominal Insulation thickness	Nominal Inner Covering thickness	Nominal Steel Wire dia.	Nominal Sheath thickness	Overall Diameter (Approx.)
mm ²	mm	mm	mm	mm	mm	mm
3x1.5	1.4	0.7	1.0	0.8	1.8	13.2
3x2.5	1.8	0.7	1.0	0.8	1.8	14.1
3x4	2.3	0.7	1.0	0.8	1.8	15.2
3x6	2.8	0.7	1.0	1.25	1.8	17.1
3x10	3.6	0.7	1.0	1.25	1.8	18.9
3x16	4.5	0.7	1.0	1.25	1.8	20.8
3x25	5.6	0.9	1.0	1.6	1.8	24.7
3x35	6.7	0.9	1.0	1.6	1.8	27.2
3x50	8.0	1	1.0	1.6	1.9	30.6
3x70	9.4	1.1	1.0	2.0	2.1	35.2
3x95	11.0	1.1	1.2	2.0	2.2	39.3
3x120	12.4	1.2	1.2	2.0	2.3	43.0
3x150	13.8	1.4	1.4	2.5	2.5	48.6
3x185	15.3	1.6	1.4	2.5	2.7	53.0
3x240	17.5	1.7	1.4	2.5	2.8	58.5
3x300	19.5	1.8	1.6	2.5	3.0	64.0
3x400	22.6	2	1.6	3.15	3.3	73.5

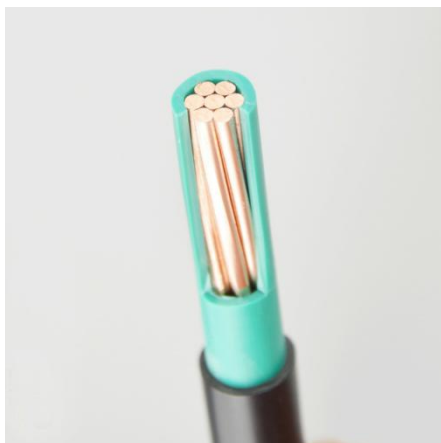
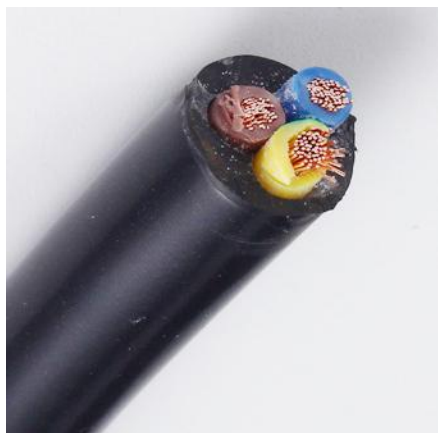


Nominal Cross Section	Diameter of Conductor (Approx.)		Nominal Insulation thickness		Nominal Inner Covering thickness	Nominal Steel Wire dia.	Nominal Sheath thickness	Overall Diameter (Approx.)
mm ²	(3) mm	(1) mm	(3) mm	(1) mm	mm	mm	mm	mm
3x 16/10	4.5	3.6	0.7	0.7	1	1.6	1.8	22.7
3x 25/16	5.6	4.5	0.9	0.7	1	1.6	1.8	26.5
3x 35/16	6.7	4.5	0.9	0.7	1	1.6	1.9	29
3x 50/25	8.0	5.6	1	0.9	1	1.6	2.1	33
3x 70/35	9.4	6.7	1.1	0.9	1.2	2	2.2	38
3x 95/50	11.0	8.0	1.1	1	1.2	2	2.3	42.4
3x120/70	12.4	9.4	1.2	1.1	1.2	2	2.5	48.0
3x150/70	13.8	9.4	1.4	1.1	1.4	2.5	2.7	52
3x185/95	15.3	11.0	1.6	1.1	1.4	2.5	2.8	57.2
3x240/120	17.5	12.4	1.7	1.2	1.6	2.5	3.1	64
3x300/150	19.5	13.8	1.8	1.4	1.6	2.5	3.2	69.8
3x400/185	22.6	15.3	2	1.6	1.6	3.15	3.6	78.6



Nominal Cross Section	Diameter of Conductor (Approx.)	Nominal Insulation thickness	Nominal Inner Covering thickness	Nominal Steel Wire dia.	Nominal Sheath thickness	Overall Diameter (Approx.)
mm ²	mm	mm	mm	mm	mm	mm
4x1.5	1.4	0.7	1.0	0.8	1.8	14.0
4x2.5	1.8	0.7	1.0	0.8	1.8	14.9
4x4	2.3	0.7	1.0	1.25	1.8	17.0
4x6	2.8	0.7	1.0	1.25	1.8	18.2
4x10	3.6	0.7	1.0	1.25	1.8	20.2
4x16	4.5	0.7	1.0	1.6	1.8	23.0
4x25	5.6	0.9	1.0	1.6	1.8	26.7
4x35	6.7	0.9	1.0	1.6	1.9	29.5
4x50	8.0	1	1.0	2.0	2.1	34.2
4x70	9.4	1.1	1.2	2.0	2.2	38.8
4x95	11.0	1.1	1.2	2.0	2.3	42.9
4x120	12.4	1.2	1.4	2.5	2.5	48.6
4x150	13.8	1.4	1.4	2.5	2.7	53.2
4x185	15.3	1.6	1.4	2.5	2.8	58.1
4x240	17.5	1.7	1.6	2.5	3.1	64.8
4x300	19.5	1.8	1.6	2.5	3.2	70.4
4x400	22.6	2	1.8	3.15	3.6	81.3

NYY NYRY 0.6/1KV PVC Insulated Cables



Applications

These cables are used for electricity supply in low voltage installation system, They are suitable for installation in indoors and outdoors, in cable ducts, under ground, in power and switching stations, local energy distributions, industrial plants, where there is no risk of mechanical damage.

Construction

-Conductors

The conductors shall be either of Class 1 or Class 2 of plain or metal-coated annealed copper or of plain aluminium or aluminium alloy, or of Class 5 of plain or metal-coated copper in accordance with IEC 60228.

-Insulation

PVC Insulation material and thickness shall be as per IEC 60502-1, PVC material shall be Type A as per IEC 60502-1.

-Colour Code

Colour Code (1)

1 Core	Red or Black
2 Cores	Red, Black
3 Cores	Red, Yellow, Blue
4 Cores	Red, Yellow, Blue, Black
5 Cores	Red, Yellow, Blue, Black, Green
Above 5 Cores	Black Cores with White numerals

Colour Code (2)

1 Core	Brown or Blue
2 Cores	Brown, Blue
3 Cores	Brown, Black, Grey
4 Cores	Blue, Brown, Black, Grey
5 Cores	Green/Yellow, Blue, Brown, Black, Grey
Above 5 Cores	Black Cores with White numerals

Other colours can be manufactured upon request.

-Assembly / Inner Covering

The inner coverings may be extruded or lapped. For cables with circular cores, except cables with more than five cores, a lapped inner covering shall be permitted only if the interstices between the cores are substantially filled. A suitable binder is permitted before application of an extruded inner covering. The materials used for inner coverings and fillers shall be suitable for the operating temperature of the cable and compatible with the insulating material. For halogen free cables, the inner covering and fillers shall also be halogen free compound.

-Armour

Aluminum/galvanized steel/steel wires applied helically over the Inner Covering as per IEC 60502-1, or double aluminum/steel tapes and copper/tinned copper wire can also be manufactured upon request.

-Outer Sheath

Outer sheath shall be of extruded PVC Type ST1/ST2 as per IEC 60502-1, Polyethylene type ST3/ST7, Halogen free compound ST8, Polychloroprene, chlorosulfonated polyethylene or similar polymers, type SE1 are also available on request.

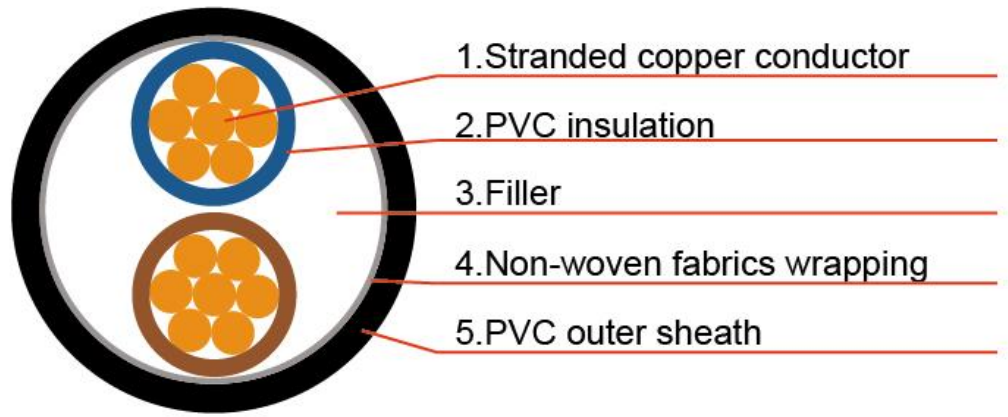
-Fire Performance of Cable Sheaths

Cables can be supplied with special flame retardant PVC outer sheath to comply with the flame test requirements of IEC 60332-3-22, IEC 60332-3-23 and IEC 60332-3-24, Halogen Free material comply to IEC60754-1/2 and IEC 60684-2.

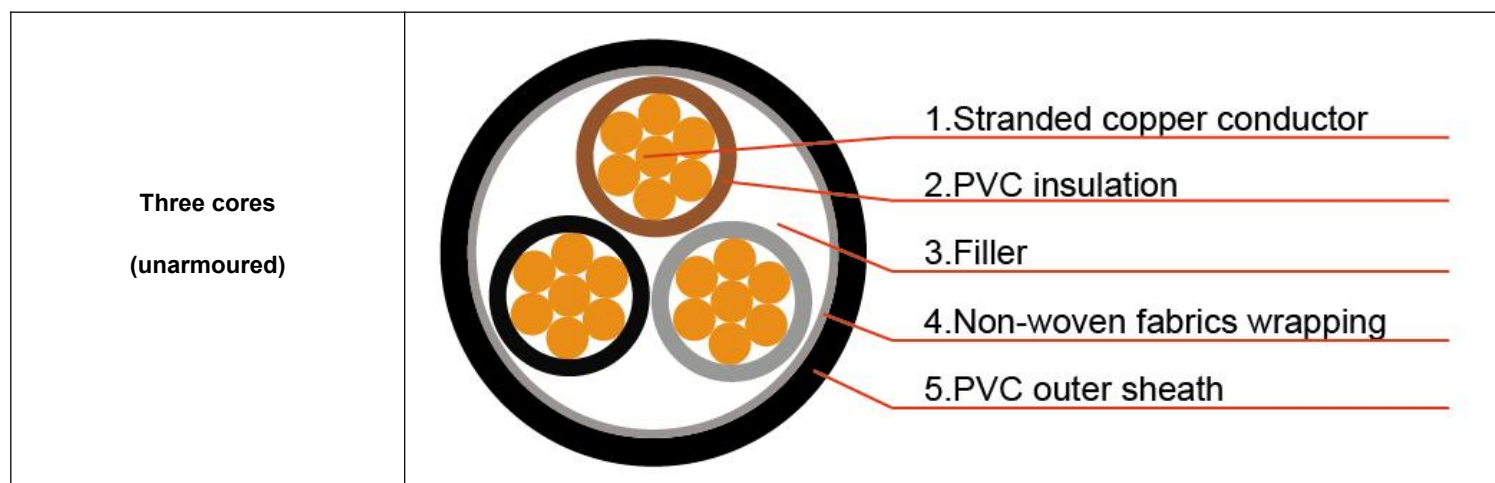
Parameters

Single core (unarmoured)				
Nominal Cross Section	Diameter of Conductor (Approx.)	Nominal Insulation Thickness	Nominal Sheath Thickness	Overall Diameter (Approx.)
mm ²	mm	mm	mm	mm
1x4	2.3	1	1.4	7.1
1x6	2.8	1	1.4	7.6
1x10	3.6	1	1.4	8.4
1x16	4.5	1	1.4	9.3
1x25	5.6	1.2	1.4	10.8
1x35	6.7	1.2	1.4	11.9
1x50	8	1.4	1.4	13.6
1x70	9.4	1.4	1.4	15.1
1x95	11	1.6	1.5	17.2
1x120	12.4	1.6	1.5	18.7
1x150	13.8	1.8	1.6	20.6
1x185	15.3	2	1.7	22.7
1x240	17.5	2.2	1.8	25.4
1x300	19.5	2.4	1.9	28.0
1x400	22.6	2.6	2.0	31.7
1x500	25.2	2.8	2.1	35.0
1x630	28.3	2.8	2.2	38.3

**Two cores
(unarmoured)**

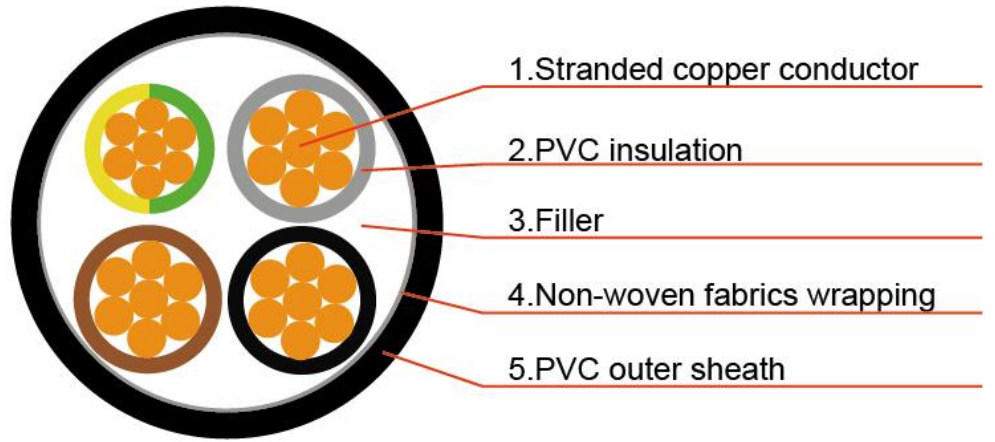


Nominal Cross Section	Diameter of Conductor (Approx.)	Nominal Insulation Thickness	Nominal Sheath Thickness	Overall Diameter (Approx.)
mm ²	mm	mm	mm	mm
2x1.5	1.4	0.8	1.8	9.6
2x2.5	1.8	0.8	1.8	10.4
2x4	2.3	1	1.8	12.2
2x6	2.8	1	1.8	13.2
2x10	3.6	1	1.8	14.8
2x16	4.5	1	1.8	16.6
2x25	5.6	1.2	1.8	19.6
2x35	6.7	1.2	1.8	21.8
2x50	8	1.4	1.8	25.2
2x70	9.4	1.4	1.9	28.1
2x95	11	1.6	2.0	32.4
2x120	12.4	1.6	2.1	35.4
2x150	13.8	1.8	2.2	39.2
2x185	15.3	2	2.4	43.3
2x240	17.5	2.2	2.5	48.9
2x300	19.5	2.4	2.7	54.0
2x400	22.6	2.6	2.9	61.5



Nominal Cross Section	Diameter of Conductor (Approx.)	Nominal Insulation Thickness	Nominal Sheath Thickness	Overall Diameter (Approx.)
mm ²	mm	mm	mm	mm
3x1.5	1.4	0.8	1.8	10.1
3x2.5	1.8	0.8	1.8	10.9
3x4	2.3	1	1.8	12.9
3x6	2.8	1	1.8	13.9
3x10	3.6	1	1.8	15.7
3x16	4.5	1	1.8	17.6
3x25	5.6	1.2	1.8	20.8
3x35	6.7	1.2	1.8	23.2
3x50	8	1.4	1.8	26.9
3x70	9.4	1.4	1.9	30.1
3x95	11	1.6	2.1	34.7
3x120	12.4	1.6	2.2	38.0
3x150	13.8	1.8	2.3	42.1
3x185	15.3	2	2.5	46.5
3x240	17.5	2.2	2.7	52.5
3x300	19.5	2.4	2.8	58.0
3x400	22.6	2.6	3.1	66.1

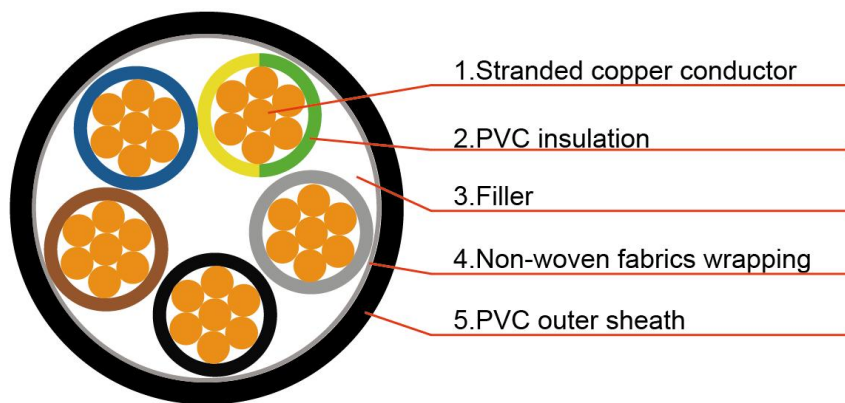
**Three cores+1
(unarmoured)**



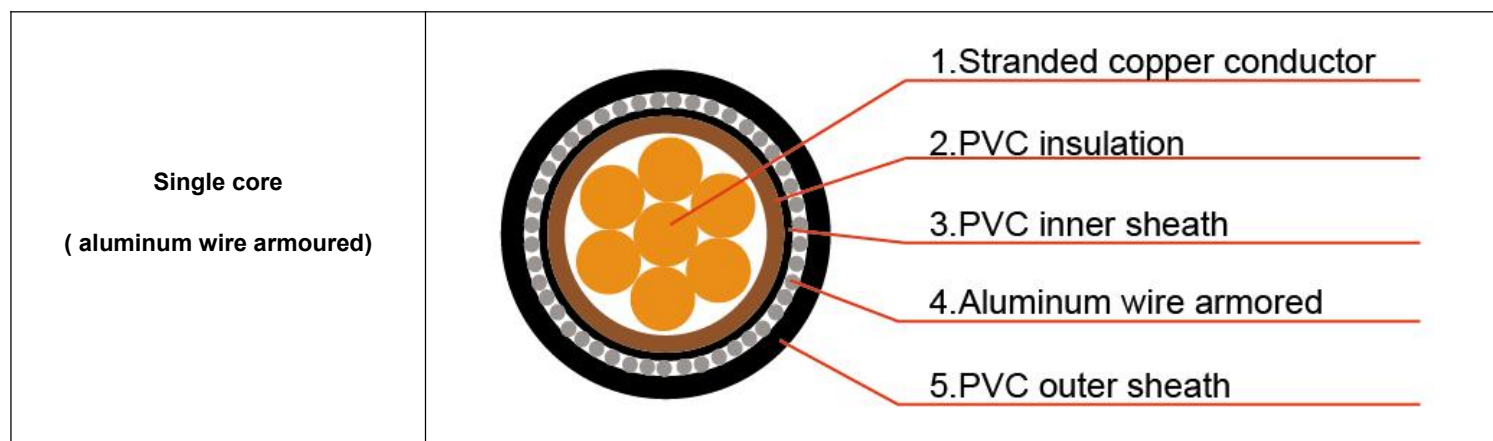
Nominal Cross Section	Diameter of Conductor (Approx.)		Nominal Insulation Thickness		Nominal Sheath Thickness	Overall Diameter (Approx.)
mm ²	(3)mm	(1)mm	(3)mm	(1)mm	mm	mm
3x 16/10	4.5	3.6	1	1	1.8	19.0
3x 25/16	5.6	4.5	1.2	1	1.8	22.6
3x 35/16	6.7	4.5	1.2	1	1.8	25.3
3x 50/25	8.0	5.6	1.4	1.2	1.9	29.6
3x 70/35	9.4	6.7	1.4	1.2	2.0	33.2
3x 95/50	11.0	8.0	1.6	1.4	2.2	38.4
3x120/70	12.4	9.4	1.6	1.4	2.3	42.0
3x150/70	13.8	9.4	1.8	1.4	2.5	46.6
3x185/95	15.3	11.0	2	1.6	2.6	51.6
3x240/120	17.5	12.4	2.2	1.6	2.9	58.3
3x300/150	19.5	13.8	2.4	1.8	3.1	64.5
3x400/185	22.6	15.3	2.6	2	3.3	73.5

Four cores (unarmored)				
Nominal Cross Section	Diameter of Conductor (Approx.)	Nominal Insulation Thickness	Nominal Sheath Thickness	Overall Diameter (Approx.)
mm ²	mm	mm	mm	mm
4x1.5	1.4	0.8	1.8	10.8
4x2.5	1.8	0.8	1.8	11.8
4x4	2.3	1	1.8	14.0
4x6	2.8	1	1.8	15.2
4x10	3.6	1	1.8	17.1
4x16	4.5	1	1.8	19.3
4x25	5.6	1.2	1.8	22.9
4x35	6.7	1.2	1.8	25.6
4x50	8	1.4	1.9	29.9
4x70	9.4	1.4	2.0	33.5
4x95	11	1.6	2.2	38.7
4x120	12.4	1.6	2.3	42.3
4x150	13.8	1.8	2.5	46.9
4x185	15.3	2	2.6	51.9
4x240	17.5	2.2	2.9	58.6
4x300	19.5	2.4	3.1	64.8
4x400	22.6	2.6	3.3	73.8

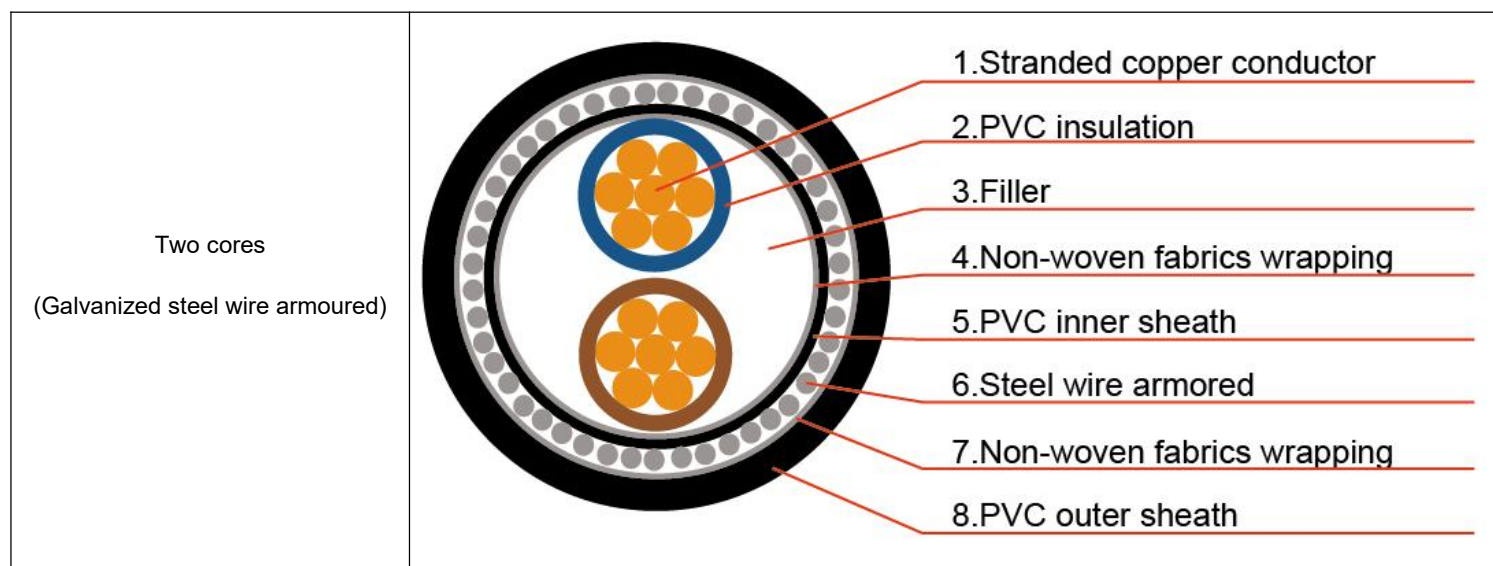
**Multi-cores
(unarmoured)**



Nominal Cross Section	Diameter of Conductor (Approx.)	Nominal Insulation Thickness	Nominal Sheath Thickness	Overall Diameter (Approx.)
mm ²	mm	mm	mm	mm
5x1.5	1.4	0.8	1.8	11.7
7x1.5	1.4	0.8	1.8	12.6
10x1.5	1.4	0.8	1.8	15.6
12x1.5	1.4	0.8	1.8	16.1
14x1.5	1.4	0.8	1.8	16.8
19x1.5	1.4	0.8	1.8	18.6
21x1.5	1.4	0.8	1.8	19.5
24x1.5	1.4	0.8	1.8	21.6
30x1.5	1.4	0.8	1.8	22.8
40x1.5	1.4	0.8	1.8	27.7
48x1.5	1.4	0.8	1.9	28.2
61x1.5	1.4	0.8	1.9	30.9
5x2.5	1.8	0.8	1.8	12.8
7x2.5	1.8	0.8	1.8	13.8
10x2.5	1.8	0.8	1.8	17.2
12x2.5	1.8	0.8	1.8	17.7
14x2.5	1.8	0.8	1.8	18.6
19x2.5	1.8	0.8	1.8	20.6
21x2.5	1.8	0.8	1.8	21.6
24x2.5	1.8	0.8	1.8	24.0
30x2.5	1.8	0.8	1.8	25.4
40x2.5	1.8	0.8	2.0	31.1

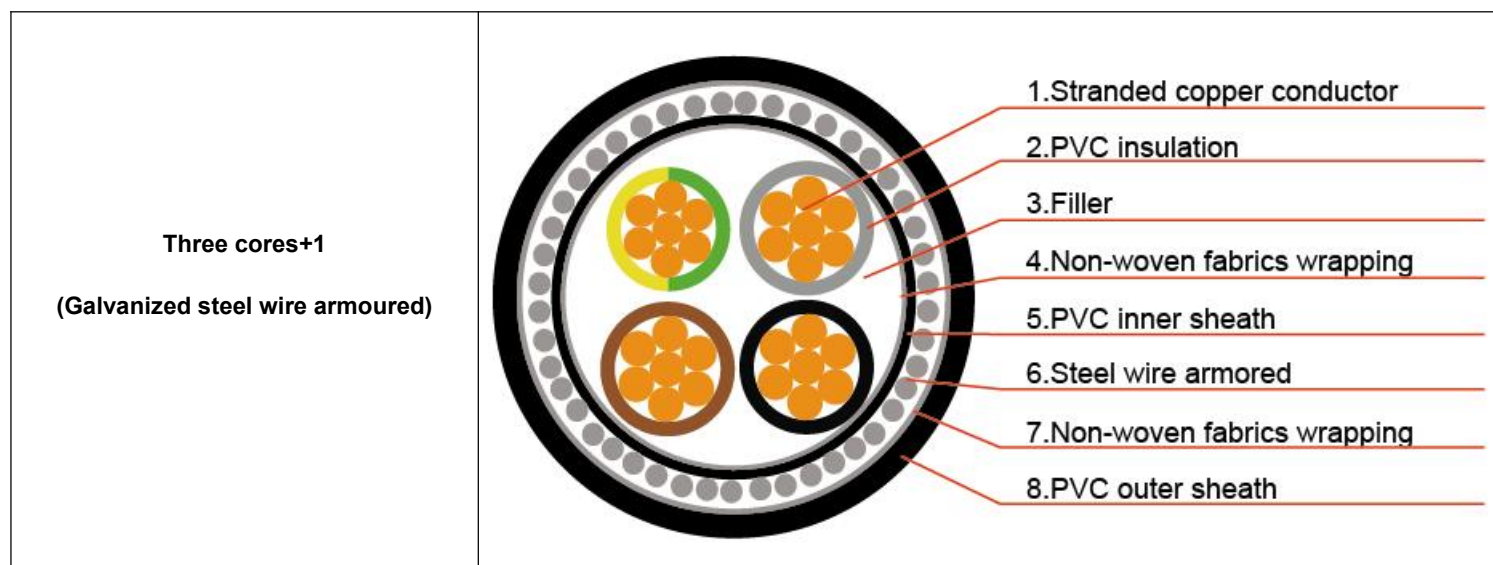


Nominal Cross Section	Diameter of Conductor (Approx.)	Nominal Insulation thickness	Nominal Inner Covering thickness	Nominal Steel Wire dia.	Nominal Sheath thickness	Overall Diameter (Approx.)
mm ²	mm	mm	mm	mm	mm	mm
1x4	2.3	1	1.0	0.8	1.8	11.5
1x6	2.8	1	1.0	0.8	1.8	12.0
1x10	3.6	1	1.0	0.8	1.8	12.8
1x16	4.5	1	1.0	0.8	1.8	13.7
1x25	5.6	1.2	1.0	0.8	1.8	15.2
1x35	6.7	1.2	1.0	1.25	1.8	17.2
1x50	8.0	1.4	1.0	1.25	1.8	18.9
1x70	9.4	1.4	1.0	1.25	1.8	20.3
1x95	11.0	1.6	1.0	1.6	1.8	23.0
1x120	12.4	1.6	1.0	1.6	1.8	24.4
1x150	13.8	1.8	1.0	1.6	1.8	26.2
1x185	15.3	2	1.0	1.6	1.9	28.2
1x240	17.5	2.2	1.0	1.6	1.9	31.0
1x300	19.5	2.4	1.0	2.0	2.1	34.4
1x400	22.6	2.6	1.2	2.0	2.2	38.6
1x500	25.2	2.8	1.2	2.0	2.3	41.8
1x630	28.3	2.8	1.2	2.5	2.4	46.2

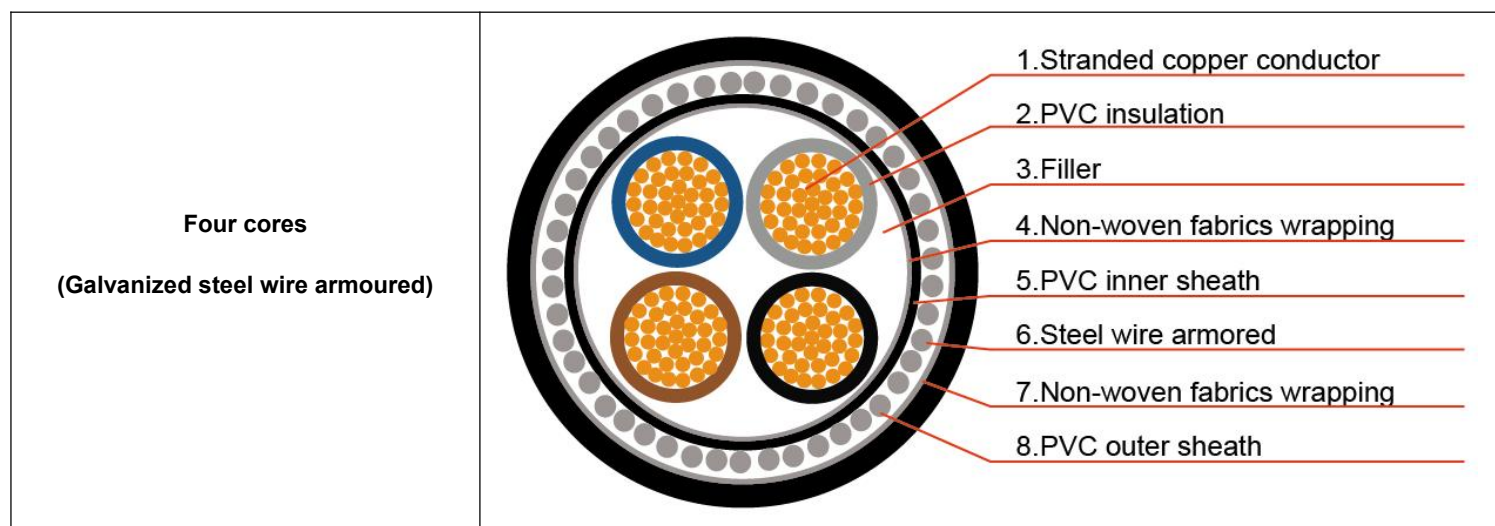


Nominal Cross Section	Diameter of Conductor (Approx.)	Nominal Insulation thickness	Nominal Inner Covering thickness	Nominal Steel Wire dia.	Nominal Sheath thickness	Overall Diameter (Approx.)
mm ²	mm	mm	mm	mm	mm	mm
2x2.5	1.8	0.8	1.0	0.8	1.8	14.0
2x4	2.3	1	1.0	1.25	1.8	16.7
2x6	2.8	1	1.0	1.25	1.8	17.7
2x10	3.6	1	1.0	1.25	1.8	19.3
2x16	4.5	1	1.0	1.25	1.8	21.1
2x25	5.6	1.2	1.0	1.6	1.8	24.8
2x35	6.7	1.2	1.0	1.6	1.8	27.0
2x50	8	1.4	1.0	1.6	1.9	30.7
2x70	9.4	1.4	1.0	2.0	2.1	34.5
2x95	11	1.6	1.2	2.0	2.2	39.2
2x120	12.4	1.6	1.2	2.0	2.3	42.2
2x150	13.8	1.8	1.2	2.5	2.5	47.2
2x185	15.3	2	1.4	2.5	2.6	51.6
2x240	17.5	2.2	1.4	2.5	2.8	57.2
2x300	19.5	2.4	1.6	2.5	3.0	62.8
2x400	22.6	2.6	1.6	2.5	3.2	70.3

Three cores (Galvanized steel wire armoured)						
Nominal Cross Section	Diameter of Conductor (Approx.)	Nominal Insulation thickness	Nominal Inner Covering thickness	Nominal Steel Wire dia.	Nominal Sheath thickness	Overall Diameter (Approx.)
mm ²	mm	mm	mm	mm	mm	mm
3x2.5	1.8	0.8	1.0	0.8	1.8	14.5
3x4	2.3	1	1.0	1.25	1.8	17.4
3x6	2.8	1	1.0	1.25	1.8	18.4
3x10	3.6	1	1.0	1.25	1.8	20.2
3x16	4.5	1	1.0	1.6	1.8	22.8
3x25	5.6	1.2	1.0	1.6	1.8	26.0
3x35	6.7	1.2	1.0	1.6	1.9	28.5
3x50	8.0	1.4	1.0	2	2.0	33.3
3x70	9.4	1.4	1.2	2	2.1	37.0
3x95	11.0	1.6	1.2	2	2.3	41.6
3x120	12.4	1.6	1.2	2.5	2.4	45.9
3x150	13.8	1.8	1.4	2.5	2.6	50.4
3x185	15.3	2	1.4	2.5	2.7	54.8
3x240	17.5	2.2	1.5	2.5	2.9	61.2
3x300	19.5	2.4	1.6	2.5	3.1	66.8
3x400	22.6	2.8	1.6	3.15	3.4	76.7
3x500	25.2	2.8	1.8	3.15	3.7	83.6



Nominal Cross Section	Diameter of Conductor (Approx.)		Nominal Insulation thickness		Nominal Inner Covering thickness	Nominal Steel Wire dia.	Nominal Sheath thickness	Overall Diameter (Approx.)
mm ²	mm	mm	mm	mm	mm	mm	mm	mm
3x10/6	3.6	2.8	1	1	1	1.25	1.8	21.9
3x16/10	4.5	3.6	1	1	1	1.6	1.8	24.2
3x25/16	5.6	4.5	1.2	1	1	1.6	1.8	27.9
3x35/16	6.7	4.5	1.2	1	1	1.6	1.9	30.8
3x50/25	8.0	5.6	1.4	1.2	1	2.0	2.0	36.4
3x70/35	9.4	6.7	1.4	1.2	1.2	2.0	2.1	40.1
3x95/50	11.0	8.0	1.6	1.4	1.2	2.5	2.3	46.3
3x120/70	12.4	9.4	1.6	1.4	1.4	2.5	2.4	50.3
3x150/70	13.8	9.4	1.8	1.4	1.4	2.5	2.6	55.0
3x185/95	15.3	11.0	2	1.6	1.4	2.5	2.7	60.3
3x240/120	17.5	12.4	2.2	1.6	1.6	2.5	2.9	67.0
3x300/150	19.5	13.8	2.4	1.8	1.6	3.15	3.1	74.6
3x400/185	22.6	15.3	2.6	2	1.8	3.15	3.4	84.1
3x500/240	25.2	17.5	2.8	2.2	2	3.15	3.7	91.8



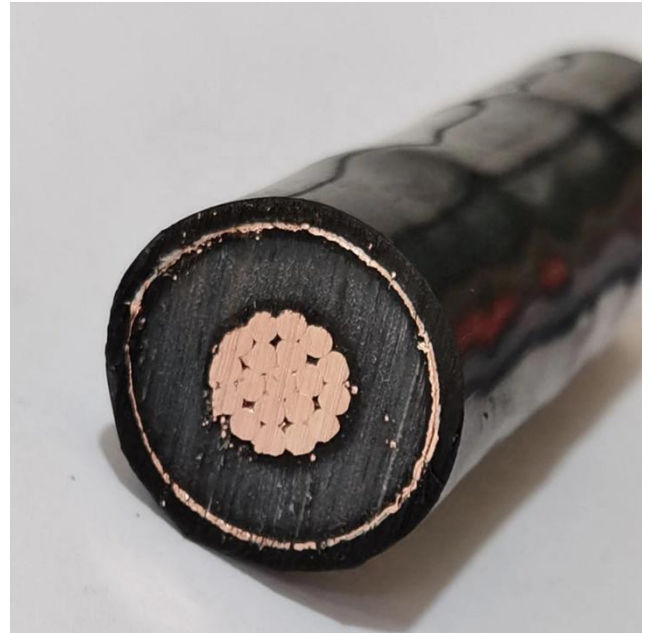
Nominal Cross Section	Diameter of Conductor (Approx.)	Nominal Insulation thickness	Nominal Inner Covering thickness	Nominal Steel Wire dia.	Nominal Sheath thickness	Overall Diameter (Approx.)
mm ²	mm	mm	mm	mm	mm	mm
4x4	2.3	1	1	1.25	1.8	18.5
4x6	2.8	1	1	1.25	1.8	19.7
4x10	3.6	1	1	1.25	1.8	22.3
4x16	4.5	1	1	1.6	1.8	24.5
4x25	5.6	1.2	1	1.6	1.9	28.2
4x35	6.7	1.2	1	1.6	2.0	31.1
4x50	8.0	1.4	1	2.0	2.1	36.7
4x70	9.4	1.4	1.2	2.0	2.3	40.4
4x95	11.0	1.6	1.2	2.5	2.5	46.6
4x120	12.4	1.6	1.4	2.5	2.6	50.6
4x150	13.8	1.8	1.4	2.5	2.7	55.3
4x185	15.3	2	1.4	2.5	2.9	60.6
4x240	17.5	2.2	1.6	2.5	3.1	67.3
4x300	19.5	2.4	1.6	3.15	3.4	74.9
4x400	22.6	2.6	1.8	3.15	3.7	84.4
4x500	25.2	2.8	2	3.15	3.9	92.1

N2XSY N2XSR Single Core Medium Voltage Cables to IEC 60502

APPLICATIONS

The single core cables are designed for distribution of electrical power with nominal voltage U_0/U ranging from 1.8/3KV to 26/35KV and frequency 50Hz.

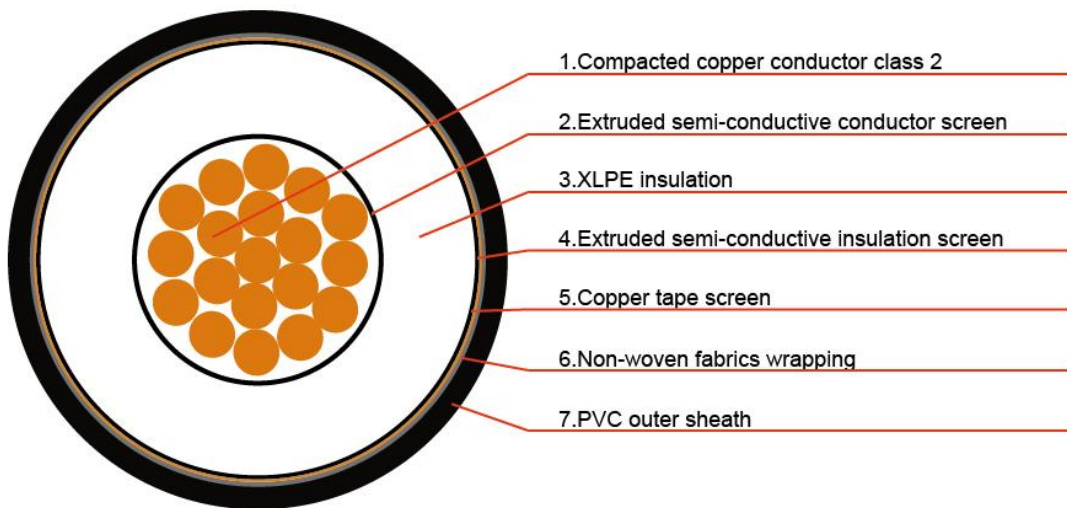
They are suitable for installation mostly in power supply stations, indoors and in cable ducts, outdoors, underground and in water as well as for installation on cable trays for industries, switchboards and power stations.



STANDARD

IEC 60502 Part 1(1.8/3KV); IEC 60502 Part 2(3.6/6KV to 18/30KV)

CONSTRUCTION



Conductor	Plain annealed copper or aluminium complying with IEC 60228 class 1 or 2.
Conductor Screen	The conductor screen consists of an extruded layer of non metallic, semi-conducting compound firmly bonded to the insulation to exclude all air voids. The conductor screen is not necessary for both PVC and EPR/HEPR insulated 1.8/3KV and 3.6/6KV cables.
Insulation	Insulation is of polyvinyl chloride (PVC) intended for 1.8/3KV and 3.6/6KV cables, cross-linked polyethylene compound (XLPE) or ethylene propylene rubber (EPR/HEPR).

Table 1. Insulation Thickness of XLPE or EPR/HEPR Insulation

Nom. Cross Section Area	Insulation Thickness at Nominal Voltage								
	1.8/3KV (Um=3.6KV)	3.6/6KV (Um=7.2KV)		6/10KV (Um=12KV)	8.7/15KV (Um=17.5KV)	12/20KV (Um=24KV)	18/30KV (Um=36KV)	21/35KV (Um=42KV)	26/35KV (Um=42KV)
mm ²	mm	mm		mm	mm	mm	mm	mm	mm
	XLPE/EPR	XLPE	EPR		XLPE/EPR	XLPE/EPR	XLPE/EPR	XLPE/EPR	XLPE/EPR
			Unscreened	Screened					
10	2.0	2.5	3.0	2.5	-	-	-	-	-
16	2.0	2.5	3.0	2.5	3.4	-	-	-	-
25	2.0	2.5	3.0	2.5	3.4	4.5	-	-	-
35	2.0	2.5	3.0	2.5	3.4	4.5	5.5	-	-
50 –	2.0	2.5	3.0	2.5	3.4	4.5	5.5	8.0	9.3
240	2.0	2.6	3.0	2.6	3.4	4.5	5.5	8.0	9.3
300	2.0	2.8	3.0	2.8	3.4	4.5	5.5	8.0	9.3
400	2.0	3.0	3.0	3.0	3.4	4.5	5.5	8.0	9.3
500 -	2.2-2.8	3.2	3.2	3.2	3.4	4.5	5.5	8.0	9.3

*Insulation Thickness of PVC is 3.4mm (1- 1600mm sq) for 3.6/6KV cables.

Insulation Screen	The insulation screen consists of an extruded layer of non metallic, semiconducting compound extruded over the insulation. The extruded semi-conducting layer shall consist of bonded or cold strippable semi-conducting compound capable of removal for jointing or terminating. As an option, a semi-conducting tape may be applied over the extruded semi-conducting layer as a bedding for the metallic layer. The minimum thickness is 0.3 mm and the maximum resistivity is 500 Ohm-m at 90°C. The screen is tightly fitted to the insulation to exclude all air voids and can be easily hand stripped on site. The insulation screen is not necessary for both PVC and EPR/HEPR insulated 1.8/3KV and 3.6/6KV cables. The screen may be covered by semi-conductive water blocking swellable tape to ensure longitudinal watertightness.
Metallic Layer	The metallic layer may be applied over the individual cores or the core assembly collectively.

The following types of metallic layers are provided:

- 1) Metallic Screen
- 2) Concentric Conductor
- 3) Metallic Sheath
- 4) Metallic armour

The metallic screen shall consist of either copper tapes or a concentric layer of copper wires or a combination of tapes and wires to provide an earth fault current path. The concentric conductor is applied directly either over the insulation, or over the insulation screen or over an inner covering. The metallic sheath consists of lead or lead alloy applied as a tightly fitting seamless tube. The metallic armour consists of either flat wire armour, round wire armour, and double tape armour.

Table 2. Minimum Total Cross Section of Metallic Screen

Nom. Cross-Section Area of Cable	Min. Cross-Section of Metallic Screen	DC Resistance of the Copper Wire Screen
mm ²	mm ²	mm
up to 120	16	1.06

150-300	25	0.72
400-630	35	0.51
800-1000	50	0.35

Separation Sheath (for armoured cable)	The separation sheath comprises a layer of extruded PVC, PE or LSZH, applied under the armour. The nominal thickness is calculated by $0.02D_u + 0.6\text{mm}$ where D_u is the fictitious diameter under the sheath in mm. For cables without a lead sheath, the nominal separation sheath thickness shall not be less than 1.2mm. For cables where the separation sheath is applied over the lead sheath, the nominal separation sheath thickness shall not be less than 1.0mm.
Lapped Bedding (for armoured lead sheathed cable)	The lapped bedding consists of either impregnated/synthetic compounded paper tapes or a combination of two layers of these paper tapes followed by a few layers of compounded fabulous materials. The thickness is around 1.5mm.
Armour (for armoured cable)	The armour consists of round aluminium wire armour applied helically over an extruded separation sheath.

Table 3. Round Armour Wire Diameter

Fictitious Diameter under the Armour		Armour Wire Diameter
mm		mm
>	<	
-	10	0.8
10	15	1.25
15	25	1.6
25	35	2.0
35	60	2.5
60	-	3.15

Over Sheath	Overall sheath comprises a layer of extruded thermoplastic compound (PVC, PE or LSZH can be offered as an option.) or elastomeric compound (polychlorprene CSP or chlorosulfonated PE). The nominal over sheath thickness is calculated by $0.035D+1$ where D is the fictitious diameter immediately under the over sheath in mm. For unarmoured cables and cables with the over sheath not applied over the armour, metallic screen or concentric conductor, the nominal over sheath thickness shall not be less than 1.4mm. And for cables with over sheath applied over the armour, metallic screen or concentric conductor, the nominal over sheath thickness shall not be less than 1.8mm.
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PHYSICAL PROPERTIES

Operating Temperature	up to 70°C (PVC insulation); up to 90°C (XLPE or EPR insulation)
Temperature Range	-5°C (PVC or LSZH sheath); -20°C (PE sheath)
Short Circuit Temperature(5 seconds maximum duration)	140-160°C (PVC insulation) ; 250°C (XLPE or EPR insulation)
Bending Radius	12 x OD

Table 4. Nominal /Operating /Testing Voltages

Rated Voltage U ₀ /U	Operating Voltage (U _m)	Testing Voltage (rms)
1.8/3KV	3.6KV	6.5KV
3.6/6KV	7.2KV	12.5KV
6/10KV	12KV	21KV
8.7/15KV	17.5KV	30.5KV
12/20KV	24KV	42KV
18/30KV	36KV	63KV
21/35KV	42KV	73.5(53)*KV
26/35KV	42KV	91(65)*KV

**21/35KV and 26/35KV power frequency voltage test can be made under the following conditions: 2.5U₀ x 30mins or 3.0U₀ x 15mins.*

Numbers in brackets refer to the test values for 3.0U₀ x 1.5mins.

Single Core 1.8/3KV (U_m=3.6KV)

Dimensional Data

Nom. Cross-Section Area				Unarmoured Cables				Steel Wire Armoured Cables					
	Nom. Insulation Thickness	Copper Tape Thickness	Copper Wire Screen Area*	Nom. Sheath Thickness	Approx. Overall Diameter	Approx. Weight		Nom. Bedding Thickness	Armour Wire Size	Nom. Sheath Thickness	Approx. Overall Diameter	Approx. Weight	
						CU	AL					CU	AL
mm ²	mm	mm	mm ²	mm	mm	kg/km		mm	mm	mm	mm	kg/km	
10	2.0	0.1	16	1.8	13	240	180	1.2	1.6	1.8	18	460	400
16	2.0	0.1	16	1.8	13	300	200	1.2	1.6	1.8	19	530	430
25	2.0	0.1	16	1.8	15	410	250	1.2	1.6	1.8	20	650	500
35	2.0	0.1	16	1.8	16	510	300	1.2	1.6	1.8	21	780	560
50	2.0	0.1	16	1.8	17	640	350	1.2	1.6	1.8	22	930	640
70	2.0	0.1	16	1.8	19	850	440	1.2	1.6	1.8	24	1170	750
95	2.0	0.1	16	1.8	20	1130	540	1.2	1.6	1.8	26	1460	870
120	2.0	0.1	16	1.8	22	1370	630	1.2	1.6	1.8	27	1730	990
150	2.0	0.1	25	1.8	23	1650	730	1.2	1.6	1.8	29	2030	1110
185	2.0	0.1	25	1.8	25	2010	860	1.2	1.6	1.9	30	2430	1280
240	2.0	0.1	25	1.8	27	2570	1050	1.2	1.6	2.0	33	3040	1530
300	2.0	0.1	25	1.8	29	3160	1250	1.2	2.0	2.1	36	3760	1860
400	2.0	0.1	35	1.9	33	3980	1560	1.2	2.0	2.2	39	4660	2230
500	2.2	0.1	35	2.1	35.5	4910	1905	1.3	2.5	2.5	43	5930	2930
630	2.4	0.1	35	2.2	39.7	6340	2420	1.4	2.5	2.6	49	7370	3430

**Optional wire screen can be provided in combination of copper tapes. Nominal screen area, as stated in the table, can be supplied as standard.*

Electrical Data

Nom. Cross-Section Area	D C Resistance CU / AL	A C Resistance CU / AL	Short Circuit Rating of Conductor CU / AL1 sec	Capacitance	Charging Current	Short Circuit Rating of Copper Wire Screen 1 sec	Short Circuit Rating of Copper Tape Screen 1 sec	Reactance		Inductance		Impedance			
								Trefoil	Flat Spaced	Trefoil	Flat Spaced	Trefoil		Flat Spaced	
												CU	AL	CU	AL
mm^2	μΩ/m	μΩm	kA	pF/m	mA/m	kA	kA	μΩ/m		nH/m		μΩ/ m		μΩ/ m	
10	1830/3080	2330/3920	1.4/0.9	182	0.27	2.6	0.2	151	201	384	558	2332	3846	2332	3840
16	1150/1910	1460/2420	2.2/1.4	201	0.29	2.6	0.3	140	193	362	546	1462	2411	1478	2420
25	727/1200	927/1538	3.6/2.3	222	0.32	2.6	0.3	131	185	345	535	936	1544	952	1554
35	524/868	668/1113	5.0/3.2	251	0.35	2.6	0.4	122	178	327	524	679	1121	695	1131
50	387/641	494/822	6.8/4.4	281	0.39	2.6	0.4	116	172	313	514	511	834	527	844
70	268/443	343/568	9.8/6.3	341	0.45	2.6	0.5	110	165	300	495	364	583	386	597
95	193/320	248/410	13.3/8.5	397	0.50	2.6	0.5	104	160	287	485	272	427	300	446
120	153/253	196/325	17.2/11.0	430	0.55	2.6	0.6	104	159	283	480	225	345	257	367
150	124/206	159/266	21.2/13.5	464	0.59	4.3	0.6	100	156	280	475	193	287	229	313
185	99.1/164	128/211	26.6/17.0	513	0.65	4.3	0.7	98	154	274	465	165	237	206	267
240	75.4/125	98/161	34.9/22.3	573	0.70	4.3	0.9	94	150	267	459	140	191	185	226
300	60.1/100	80/130	43.8/28.0	652	0.72	4.3	1.0	91	147	260	455	128	163	174	203
400	47.0/77.8	64/102	57.3/36.6	727	0.75	5.8	1.1	90	147	253	445	113	141	164	184
500	36.6/60.5	51/81	72.3/46.2	754	0.79	5.8	1.2	89	145	248	435	105	124	158	171
630	28.3/46.9	42/64	91.2/58.3	786	0.87	5.8	1.3	86	143	245	425	97	110	151	160
800	22.1/36.7	35/55	114.4/75.0	846	0.91	8.2	1.4	85	142	243	415	92	101	147	153
1000	17.6/29.1	30/46	143.0/94.0	916	0.99	8.2	1.5	83	141	239	405	88	95	144	148

Single Core 3.6/6KV (Um=7.2KV)

Dimensional Data

Nom. Cross-Section Area				Unarmoured Cables				Steel Wire Armoured Cables					
	Nom. Insulation Thickness	Copper Tape Thickness	Copper Wire Screen Area*	Nom. Sheath Thickness	Approx. Overall Diameter	Approx. Weight		Nom. Bedding Thickness	Armour Wire Size	Nom. Sheath Thickness	Approx. Overall Diameter	Approx. Weight	
						CU	AL					CU	AL
mm^2	mm	mm	mm^2	mm	mm	kg/km		mm	mm	mm	mm	kg/km	
10	2.5	0.1	16	1.8	16	320	260	1.2	1.6	1.8	22	610	550
16	2.5	0.1	16	1.8	16	390	290	1.2	1.6	1.8	22	680	580
25	2.5	0.1	16	1.8	18	500	340	1.2	1.6	1.8	23	810	660
35	2.5	0.1	16	1.8	19	610	400	1.2	1.6	1.8	24	940	730
50	2.5	0.1	16	1.8	20	750	450	1.2	1.6	1.8	26	1100	810
70	2.5	0.1	16	1.8	22	970	550	1.2	1.6	1.8	27	1350	930
95	2.5	0.1	16	1.8	23	1250	660	1.2	1.6	1.9	29	1670	1080
120	2.5	0.1	16	1.8	25	1500	760	1.2	1.6	1.9	31	1950	1200
150	2.5	0.1	25	1.8	26	1790	860	1.2	1.6	2.0	32	2270	1350
185	2.5	0.1	25	1.8	28	2150	1000	1.2	2.0	2.1	35	2770	1620
240	2.6	0.1	25	1.9	31	2770	1250	1.2	2.0	2.2	38	3440	1930
300	2.8	0.1	25	2.0	34	3400	1500	1.2	2.0	2.2	41	4120	2210
400	3.0	0.1	35	2.1	38	4280	1850	1.3	2.5	2.4	46	5250	2820
500	3.2	0.1	35	2.1	41.5	5325	2240	1.4	2.5	2.6	50	6520	3520
630	3.2	0.1	35	2.2	45.3	6745	2750	1.5	2.5	2.7	56	7960	4020
800	3.2	0.1	50	2.4	49.9	8290	3310	1.5	2.5	2.8	59	9660	4820
1000	3.2	0.1	50	2.5	54.2	10255	3990	1.6	2.5	3.0	63	11690	5540

*Optional wire screen can be provided in combination of copper tapes. Nominal screen area, as stated in the table, can be supplied as standard.

Electrical Data

Nom. Cross-Section Area	D C Resistance e CU / AL	A C Resistance e CU / AL	Short Circuit Rating of Conductor CU / AL1 sec	Capaci-tance	Chargin g Current	Short Circuit Rating of Copper Wire Screen 1	Short Circuit Rating of Copper Tape Screen 1 sec	Reactance		Inductance		Impedance			
								Trefoil	Flat Space d	Trefoil	Flat Space d	Trefoil		Flat Spaced	
												CU	AL	CU	AL
mm^2	μΩ/m	μΩm	kA	pF/m	mA/m	kA	kA	μΩ/m		nH/m		μΩ/ m		μΩ/ m	
10	1830/3080	2330/3920	1.4/0.9	202	0.26	2.6	0.4	160	214	420	610	2332	3846	2345	3840
16	1150/1910	1460/2420	2.2/1.4	232	0.29	2.6	0.4	152	205	410	600	1462	2411	1478	2421
25	727/1200	927/1538	3.6/2.3	262	0.32	2.6	0.4	142	196	400	590	936	1544	952	1554
35	524/868	668/1113	5.0/3.2	291	0.35	2.6	0.5	133	187	390	580	679	1121	695	1131
50	387/641	494/822	6.8/4.4	321	0.39	2.6	0.5	121	179	380	570	511	834	527	844
70	268/443	343/568	9.8/6.3	371	0.45	2.6	0.6	115	173	370	550	364	583	386	597
95	193/320	248/410	13.3/8.5	417	0.50	2.6	0.6	110	168	350	540	272	427	300	446
120	153/253	196/325	17.2/11.0	459	0.55	2.6	0.7	107	165	340	520	225	345	257	367
150	124/206	159/265	21.2/13.5	494	0.59	4.3	0.7	103	161	330	510	193	287	229	313
185	99.1/164	128/211	26.6/17.0	543	0.65	4.3	0.8	100	158	320	500	165	237	206	267
240	75.4/125	98/161	34.9/22.3	583	0.70	4.3	0.9	97	155	310	490	140	191	185	226
300	60.1/100	80/130	43.8/28.0	602	0.72	4.3	1.0	95	153	300	490	126	163	174	203
400	47.0/77.8	64/102	57.3/36.6	627	0.75	5.8	1.1	92	150	290	480	113	141	164	184
500	36.6/60.5	51/81	72.3/46.2	654	0.79	5.8	1.2	90	147	290	470	105	124	158	171
630	28.3/46.9	42/64	91.2/58.3	726	0.87	5.8	1.3	87	145	280	460	97	110	151	160
800	22.1/36.7	35/55	114.4/75.0	786	0.91	8.2	1.4	85	143	270	460	92	101	147	153
1000	17.6/29.1	30/46	143.0/94.0	856	0.99	8.2	1.5	83	141	260	450	88	95	144	148

* For capacitance & charging current values, multiply values shown by 1.2 for EPR insulated cables.

Single Core 6/10KV (Um=12KV)

Dimensional Data

Nom. Cross-Section Area				Unarmoured Cables				Steel Wire Armoured Cables					
	Nom. Insulation Thickness	Copper Tape Thickness	Copper Wire Screen Area*	Nom. Sheath Thickness	Approx. Overall Diameter	Approx. Weight		Nom. Bedding Thickness	Armour Wire Size	Nom. Sheath Thickness	Approx. Overall Diameter	Approx. Weight	
						CU	AL					CU	AL
mm ²	mm	mm	mm ²	mm	mm	kg/km		mm	mm	mm	mm	kg/km	
16	3.4	0.1	16	1.8	18	450	350	1.2	1.6	1.8	24	770	670
25	3.4	0.1	16	1.8	20	560	400	1.2	1.6	1.8	25	910	750
35	3.4	0.1	16	1.8	21	680	460	1.2	1.6	1.8	26	1040	820
50	3.4	0.1	16	1.8	22	810	520	1.2	1.6	1.8	28	1190	900
70	3.4	0.1	16	1.8	24	1050	620	1.2	1.6	1.9	29	1470	1040
95	3.4	0.1	16	1.8	25	1320	730	1.2	1.6	2.0	31	1780	1190
120	3.4	0.1	16	1.8	27	1580	840	1.2	2.0	2.0	34	2150	1410
150	3.4	0.1	25	1.9	28	1880	960	1.2	2.0	2.1	35	2480	1560
185	3.4	0.1	25	1.9	30	2250	1100	1.2	2.0	2.1	37	2890	1730
240	3.4	0.1	25	2.0	33	2870	1350	1.2	2.0	2.2	40	3570	2050
300	3.4	0.1	25	2.1	35	3490	1580	1.2	2.0	2.3	42	4230	2330
400	3.4	0.1	35	2.2	39	4350	1920	1.3	2.5	2.4	47	5320	2890
500	3.4	0.1	35	2.2	39.9	5235	2240	1.4	2.5	2.5	51	6510	3530
630	3.4	0.1	35	2.3	43.7	6675	2765	1.5	2.5	2.6	56	7960	4050
800	3.4	0.1	50	2.5	48.6	8225	3330	1.5	2.5	2.7	59	9670	4850
1000	3.4	0.1	50	2.6	52.9	10210	4030	1.6	2.5	2.9	63	11710	5570

**Optional wire screen can be provided in combination of copper tapes. Nominal screen area, as stated in the table, can be supplied as standard.*

Electrical Data

Nom. Cross-Section Area	D C Resistance CU / AL	A C Resistance CU / AL	Short Circuit Rating of Conductor CU / AL1 sec	Capacitance	Charging Current	Short Circuit Rating of Copper Wire Screen 1 sec	Short Circuit Rating of Copper Tape Screen 1 sec	Reactance		Inductance		Impedance			
								Trefoil	Flat Spaced	Trefoil	Flat Spaced	Trefoil		Flat Spaced	
												CU	AL	CU	AL
mm^2	μΩ/m	μΩm	kA	pF/m	mA/m	kA	kA	μΩ/m		nH/m		μΩ/ m		μΩ/ m	
16	1150/1910	1460/2420	2.2/1.4	187	0.39	2.6	0.5	152	216	480	680	1462	2411	1478	2421
25	727/1200	927/1538	3.6/2.3	208	0.42	2.6	0.5	144	210	460	660	936	1544	952	1554
35	524/868	668/1113	5.0/3.2	229	0.46	2.6	0.6	136	200	440	640	679	1121	695	1131
50	387/641	494/822	6.8/4.4	252	0.50	2.6	0.6	131	195	420	620	511	834	527	844
70	268/443	343/568	9.8/6.3	288	0.58	2.6	0.7	122	188	390	600	364	583	386	597
95	193/320	248/410	13.3/8.5	323	0.65	2.6	0.7	122	182	390	580	272	427	300	446
120	153/253	196/325	17.2/11.0	353	0.71	2.6	0.8	116	172	370	550	225	345	257	367
150	124/206	159/265	21.2/13.5	380	0.76	4.3	0.8	110	166	350	530	193	287	229	313
185	99.1/164	128/211	26.6/17.0	416	0.83	4.3	0.9	107	166	340	530	165	237	206	267
240	75.4/125	98/161	34.9/22.3	460	0.92	4.3	0.9	104	163	330	520	140	191	185	226
300	60.1/100	80/130	43.8/28.0	506	1.01	4.3	1.0	100	157	320	500	126	163	174	203
400	47.0/77.8	64/102	57.3/36.6	561	1.12	5.8	1.1	94	154	300	490	113	141	164	184
500	36.6/60.5	51/81.0	72.3/46.2	619	1.24	5.8	1.2	91	151	290	480	105	124	158	171
630	28.3/46.9	42/64.0	91.2/58.3	698	1.37	5.8	1.3	91	148	290	470	97	110	151	160
800	22.1/36.7	35/55	114.4/75.0	780	1.39	8.2	1.4	88	144	280	470	92	101	147	153
1000	17.6/29.1	30/46	143.0/94.0	860	1.54	8.2	1.5	85	143	270	460	88	95	144	148

* For capacitance & charging current values, multiply values shown by 1.2 for EPR insulated cables.

Single Core 8.7/15KV (Um=17.5KV)

Dimensional Data

Nom. Cross-Section Area				Unarmoured Cables				Steel Wire Armoured Cables					
	Nom. Insulation Thickness	Copper Tape Thickness	Copper Wire Screen Area*	Nom. Sheath Thickness	Approx. Overall Diameter	Approx. Weight		Nom. Bedding Thickness	Armour Wire Size	Nom. Sheath Thickness	Approx. Overall Diameter	Approx. Weight	
						CU	AL					CU	AL
mm ²	mm	mm	mm ²	mm	mm	kg/km		mm	mm	mm	mm	kg/km	
25	4.5	0.1	16	1.8	22	640	480	1.2	1.6	1.8	28	1020	860
35	4.5	0.1	16	1.8	23	760	540	1.2	1.6	1.9	29	1170	950
50	4.5	0.1	16	1.8	24	900	610	1.2	1.6	1.9	30	1340	1040
70	4.5	0.1	16	1.8	26	1140	710	1.2	1.6	2.0	32	1610	1190
95	4.5	0.1	16	1.8	27	1420	830	1.2	2.0	2.1	35	2020	1430
120	4.5	0.1	16	1.9	29	1700	950	1.2	2.0	2.1	36	2310	1570
150	4.5	0.1	25	1.9	31	1990	1070	1.2	2.0	2.2	38	2660	1740
185	4.5	0.1	25	2.0	32	2380	1230	1.2	2.0	2.2	39	3070	1920
240	4.5	0.1	25	2.1	35	3010	1490	1.2	2.0	2.3	42	3750	2240
300	4.5	0.1	25	2.1	37	3620	1720	1.3	2.5	2.4	46	4590	2690
400	4.5	0.1	35	2.2	41	4490	2070	1.3	2.5	2.5	49	5550	3120
500	4.5	0.1	35	2.3	43	5460	2460	1.3	2.5	2.6	52	6590	3600
630	4.5	0.1	35	2.4	48	6790	2590	1.4	2.5	2.7	57	8060	4110
800	4.5	0.1	50	2.6	52	8420	3570	1.5	2.5	2.8	61	9800	4970
1000	4.5	0.1	50	2.7	55	10330	4180	1.6	2.5	3.0	65	10850	5710

**Optional wire screen can be provided in combination of copper tapes. Nominal screen area, as stated in the table, can be supplied as standard.*

Electrical Data

Nom. Cross-Section Area	D C Resistance CU / AL	A C Resistance CU / AL	Short Circuit Rating of Conductor CU / AL 1 sec	Capacitance	Charging Current	Short Circuit Rating of Copper Wire Screen 1 sec	Short Circuit Rating of Copper Tape Screen 1 sec	Reactance		Inductance		Impedance			
								Trefoil	Flat Spaced	Trefoil	Flat Spaced	Trefoil		Flat Spaced	
												CU	AL	CU	AL
mm^2	μΩ/m	μΩm	kA	pF/m	mA/m	kA	kA	μΩ/m		nH/m		μΩ/ m		μΩ/ m	
25	727/1200	927/1538	3.6/2.3	171	0.47	2.6	0.6	150	210	480	680	936	1544	952	1554
35	524/868	668/1113	5.0/3.2	187	0.51	2.6	0.6	141	207	460	660	679	1121	695	1131
50	387/641	494/822	6.8/4.4	204	0.57	2.6	0.7	138	195	440	640	511	834	527	844
70	268/443	343/568	9.8/6.3	232	0.63	2.6	0.7	132	188	420	600	364	583	386	597
95	193/320	248/410	13.3/8.5	258	0.71	2.6	0.8	126	182	400	580	272	427	300	446
120	153/253	196/325	17.2/11.0	281	0.74	2.6	0.8	119	179	380	570	225	345	257	367
150	124/206	159/265	21.2/13.5	301	0.79	4.3	0.9	113	176	360	560	193	287	229	313
185	99.1/164	128/211	26.6/17.0	329	0.87	4.3	0.9	110	170	350	540	165	237	206	267
240	75.4/125	98/161	34.9/22.3	363	0.96	4.3	1.0	107	166	340	530	140	191	185	226
300	60.1/100	80/130	43.8/28.0	398	1.03	4.3	1.1	104	160	330	510	126	163	174	203
400	47.0/77.8	64/102	57.3/36.6	439	1.17	5.8	1.2	97	157	310	500	113	141	164	184
500	36.6/60.5	51/81	72.3/46.2	483	1.28	5.8	1.3	94	154	300	490	105	124	158	171
630	28.3/46.9	42/64	91.2/58.3	534	1.42	5.8	1.4	91	151	290	480	97	110	151	160
800	22.1/36.7	35/55	114.4/75.0	590	1.61	8.2	1.4	91	147	290	470	92	101	147	153
1000	17.6/29.1	30/46	143.0/94.0	640	1.75	8.2	1.5	88	144	280	460	88	95	144	148

* For capacitance & charging current values, multiply values shown by 1.2 for EPR insulated cables.

Single Core 12/20KV (Um=24KV)

Dimensional Data

Nom. Cross-Section Area				Unarmoured Cables				Steel Wire Armoured Cables					
	Nom. Insulation Thickness	Copper Tape Thickness	Copper Wire Screen Area*	Nom. Sheath Thickness	Approx. Overall Diameter	Approx. Weight		Nom. Bedding Thickness	Armour Wire Size	Nom. Sheath Thickness	Approx. Overall Diameter	Approx. Weight	
						CU	AL					CU	AL
mm ²	mm	mm	mm ²	mm	mm	kg/km		mm	mm	mm	mm	kg/km	
25	5.5	0.1	16	1.8	24	720	560	1.2	1.6	1.8	29	1200	980
35	5.5	0.1	16	1.8	25	840	620	1.2	1.6	1.9	30	1350	1070
50	5.5	0.1	16	1.8	26	990	690	1.2	2.0	2.0	33	1550	1250
70	5.5	0.1	16	1.8	28	1230	800	1.2	2.0	2.1	35	1840	1420
95	5.5	0.1	16	1.9	30	1530	940	1.2	2.0	2.1	37	2160	1570
120	5.5	0.1	16	2.0	31	1810	1050	1.2	2.0	2.2	38	2470	1730
150	5.5	0.1	25	2.0	33	2110	1190	1.2	2.0	2.2	40	2810	1890
185	5.5	0.1	25	2.1	35	2510	1360	1.2	2.0	2.3	42	3240	2090
240	5.5	0.1	25	2.1	38	3130	1610	1.3	2.5	2.4	45	4150	2580
300	5.5	0.1	25	2.2	40	3760	1860	1.3	2.5	2.5	48	4800	2890
400	5.5	0.1	35	2.3	43	4650	2220	1.4	2.5	2.6	52	5780	3350
500	5.5	0.1	35	2.4	46	5530	2545	1.5	2.5	2.7	55	6850	3850
630	5.5	0.1	35	2.5	50	6700	3100	1.5	2.5	2.9	60	8380	4400
800	5.5	0.1	50	2.6	55	8580	3690	1.6	2.5	3.0	64	10130	5270
1000	5.5	0.1	50	2.7	59	10620	4445	1.7	2.5	3.1	68	12180	6000

**Optional wire screen can be provided in combination of copper tapes. Nominal screen area, as stated in the table, can be supplied as standard.*

Electrical Data

Nom. Cross-Section Area	D C Resistance CU / AL	A C Resistance CU / AL	Short Circuit Rating of Conductor CU / AL 1 sec	Capacitance	Charging Current	Short Circuit Rating of Copper Wire Screen 1 sec	Short Circuit Rating of Copper Tape Screen 1 sec	Reactance		Inductance		Impedance			
								Trefoil	Flat Spaced	Trefoil	Flat Spaced	Trefoil		Flat Spaced	
												CU	AL	CU	AL
mm^2	μΩ/m	μΩm	kA	pF/m	mA/m	kA	kA	μΩ/m		nH/m		μΩ/ m		μΩ/ m	
25	727/1200	927/1538	3.6/2.3	142	0.62	2.6	0.6	162	214	490	680	936	1544	952	1554
35	524/868	668/1113	5.0/3.2	162	0.65	2.6	0.7	150	207	470	660	679	1121	695	1131
50	387/641	494/822	6.8/4.4	177	0.71	2.6	0.8	141	201	450	640	511	834	527	844
70	268/443	343/568	9.8/6.3	200	0.80	2.6	0.8	135	195	430	620	364	583	386	597
95	193/320	248/410	13.3/8.5	222	0.89	2.6	0.9	129	188	410	600	272	427	300	446
120	153/253	196/325	17.2/11.0	241	0.96	2.6	0.9	122	182	390	580	225	345	257	367
150	124/206	159/265	21.2/13.5	257	1.03	4.3	1.0	116	176	370	560	193	287	229	313
185	99.1/164	128/211	26.6/17.0	280	1.12	4.3	1.0	116	173	370	550	165	237	206	267
240	75.4/125	98/161	34.9/22.3	307	1.23	4.3	1.1	110	170	350	540	140	191	185	226
300	60.1/100	80/130	43.8/28.0	336	1.34	4.3	1.2	107	166	340	530	126	163	174	203
400	47.0/77.8	64/102	57.3/36.6	370	1.48	5.8	1.3	100	160	320	510	113	141	164	184
500	36.6/60.5	51/81	72.3/46.2	406	1.62	5.8	1.4	97	154	310	490	105	124	158	171
630	28.3/46.9	42/64	91.2/58.3	449	1.80	5.8	1.5	94	151	300	480	97	110	151	160
800	22.1/36.7	35/55	114.4/75.0	490	1.85	8.2	1.6	91	151	290	480	92	101	147	153
1000	17.6/29.1	30/46	143.0/94.0	540	2.03	8.2	1.7	87	148	280	470	88	95	144	148

* For capacitance & charging current values, multiply values shown by 1.2 for EPR insulated cables.

Single Core 18/30KV (Um=36KV)

Dimensional Data

Nom. Cross-Section Area				Unarmoured Cables				Steel Wire Armoured Cables					
	Nom. Insulation Thickness	Copper Tape Thickness	Copper Wire Screen Area*	Nom. Sheath Thickness	Approx. Overall Diameter	Approx. Weight		Nom. Bedding Thickness	Armour Wire Size	Nom. Sheath Thickness	Approx. Overall Diameter	Approx. Weight	
						CU	AL					CU	AL
mm ²	mm	mm	mm ²	mm	mm	kg/km		mm	mm	mm	mm	kg/km	
50	8.0	0.1	16	2.0	31	1250	960	1.2	2.0	2.2	38	1910	1640
70	8.0	0.1	16	2.0	34	1510	1090	1.2	2.0	2.3	41	2240	1820
95	8.0	0.1	16	2.1	35	1830	1240	1.2	2.0	2.3	42	2570	1980
120	8.0	0.1	16	2.1	37	2110	1360	1.3	2.5	2.4	45	3060	2310
150	8.0	0.1	25	2.2	38	2420	1510	1.3	2.5	2.5	47	3430	2510
185	8.0	0.1	25	2.2	40	2830	1680	1.3	2.5	2.5	50	3890	2720
240	8.0	0.1	25	2.3	43	3500	1980	1.4	2.5	2.6	52	4630	3120
300	8.0	0.1	25	2.4	45	4150	2250	1.4	2.5	2.7	54	5330	3430
400	8.0	0.1	35	2.5	49	5070	2640	1.5	2.5	2.8	58	6360	3930
500	8.0	0.1	35	2.6	52	5945	2965	1.6	2.5	2.9	61	7670	4490
630	8.0	0.1	35	2.7	56	7445	3555	1.7	2.5	3.0	65	8870	5020
800	8.0	0.1	50	2.8	61	9060	4180	1.9	2.5	3.2	69	10790	5980
1000	8.0	0.1	50	2.9	65	11140	4980	2.0	2.5	3.3	73	12860	6730

**Optional wire screen can be provided in combination of copper tapes. Nominal screen area, as stated in the table, can be supplied as standard.*

Electrical Data

Nom. Cross-Section Area	D C Resistance CU / AL	A C Resistance CU / AL	Short Circuit Rating of Conductor CU / AL1 sec	Capacitance	Charging Current	Short Circuit Rating of Copper Wire Screen 1	Short Circuit Rating of Copper Tape Screen 1 sec	Reactance		Inductance		Impedance			
								Trefoil	Flat Spaced	Trefoil	Flat Spaced	Trefoil		Flat Spaced	
												CU	AL	CU	AL
mm^2	μΩ/m	μΩm	kA	pF/m	mA/m	kA	kA	μΩ/m		nH/m		μΩ/ m		μΩ/ m	
50	387/641	494/822	6.8/4.4	138	0.83	2.6	1.0	151	214	480	680	511	834	527	844
70	268/443	343/568	9.8/6.3	154	0.92	2.6	1.0	144	201	460	640	364	583	386	597
95	193/320	248/410	13.3/8.5	169	1.01	2.6	1.1	138	195	440	620	272	427	300	446
120	153/253	196/325	17.2/11.0	183	1.10	2.6	1.1	132	188	420	600	225	345	257	367
150	124/206	159/265	21.2/13.5	194	1.16	4.3	1.2	126	182	400	580	193	287	229	313
185	99.1/164	128/211	26.6/17.0	210	1.26	4.3	1.2	122	182	390	580	165	237	206	267
240	75.4/125	98/161	34.9/22.3	229	1.37	4.3	1.3	119	176	380	560	140	191	185	226
300	60.1/100	80/130	43.8/28.0	249	1.49	4.3	1.4	113	173	360	550	126	163	174	203
400	47.0/77.8	64/102	57.3/36.6	273	1.64	5.8	1.5	107	163	340	520	113	141	164	184
500	36.6/60.5	51/81	72.3/46.2	298	1.79	5.8	1.6	104	163	330	520	105	124	158	171
630	28.3/46.9	42/64	91.2/58.3	327	1.96	5.8	1.7	100	160	320	510	97	110	151	160
800	22.1/36.7	35/55	114.4/75.0	350	1.98	8.2	1.8	97	154	310	490	92	101	147	153
1000	17.6/29.1	30/46	143.0/94.0	380	2.15	8.2	1.9	94	149	300	490	88	95	144	148

* For capacitance & charging current values, multiply values shown by 1.2 for EPR insulated cables.

Single Core 21/35KV (Um=42KV)nsional Data

Nom. Cross-Section Area				Unarmoured Cables				Steel Wire Armoured Cables					
	Nom. Insulation Thickness	Copper Tape Thickness	Copper Wire Screen Area*	Nom. Sheath Thickness	Approx. Overall Diameter	Approx. Weight		Nom. Bedding Thickness	Armour Wire Size	Nom. Sheath Thickness	Approx. Overall Diameter	Approx. Weight	
						CU	AL					CU	AL
mm ²	mm	mm	mm ²	mm	mm	kg/km		mm	mm	mm	mm	kg/km	
50	9.3	0.1	16	2.0	35.7	1526	1239	1.2	2.0	2.3	43.5	2331	2116
70	9.3	0.1	16	2.1	37.6	1809	1393	1.2	2.5	2.4	46.6	2680	2325
95	9.3	0.1	16	2.2	39.4	2123	1555	1.2	2.5	2.5	48.4	2981	2482
120	9.3	0.1	16	2.2	40.8	2405	1688	1.4	2.5	2.5	49.8	3487	2867
150	9.3	0.1	25	2.2	42.3	2733	1838	1.4	2.5	2.6	51.5	3870	3055
185	9.3	0.1	25	2.3	44.7	3216	2082	1.4	2.5	2.6	53.5	4420	3370
240	9.3	0.1	25	2.4	46.9	3766	2333	1.4	2.5	2.7	55.8	4981	3676
300	9.3	0.1	25	2.4	49.3	4408	2605	1.4	2.5	2.8	58.5	5661	3971
400	9.3	0.1	35	2.5	52.3	5473	3057	1.6	2.5	2.9	61.7	6865	4550

*Optional wire screen can be provided in combination of copper tapes. Nominal screen area, as stated in the table, can be supplied as standard.

Electrical Data

Nom. Cross-Section Area	D C Resistance e CU / AL	A C Resistance e CU / AL	Short Circuit Rating of Conductor CU / AL1 sec	Capaci-tan ce	Chargin g Current	Short Circuit Rating of Copper Wire Screen 1 sec	Short Circuit Rating of Copper Tape Screen 1 sec	Reactance		Inductance		Impedance			
								Trefoil	Flat Spaced	Trefoil	Flat Spaced	Trefoil		Flat Spaced	
												CU	AL	CU	AL
mm^2	μΩ/m	μΩm	kA	pF/m	mA/m	kA	kA	μΩ/m		nH/m		μΩ/ m		μΩ/ m	
50	387/641	494/822	6.8/4.4	130	0.89	2.6	1.1	156	220	495	700	511	834	527	844
70	268/443	343/568	9.8/6.3	144	0.98	2.6	1.1	150	204	475	650	364	583	386	597
95	193/320	248/410	13.3/8.5	159	1.06	2.6	1.2	142	198	455	630	272	427	300	446
120	153/253	196/325	17.2/11.0	171	1.18	2.6	1.2	137	191	435	610	225	345	257	367
150	124/206	159/265	21.2/13.5	180	1.26	4.3	1.3	131	185	415	590	193	287	229	313
185	99.1/164	128/211	26.6/17.0	193	1.34	4.3	1.3	125	185	400	590	165	237	206	267
240	75.4/125	98/161	34.9/22.3	210	1.45	4.3	1.4	123	179	390	570	140	191	185	226
300	60.1/100	80/130	43.8/28.0	228	1.57	4.3	1.5	116	176	370	560	126	163	174	203
400	47.0/77.8	64/102	57.3/36.6	249	1.74	5.8	1.6	110	166	350	530	113	141	164	184

* For capacitance & charging current values, multiply values shown by 1.2 for EPR insulated cables.

Single Core 26/35KV (Um=42KV)

Dimensional Data

Nom. Cross-Section Area				Unarmoured Cables				Steel Wire Armoured Cables					
	Nom. Insulation Thickness	Copper Tape Thickness	Copper Wire Screen Area*	Nom. Sheath Thickness	Approx. Overall Diameter	Approx. Weight		Nom. Bedding Thickness	Armour Wire Size	Nom. Sheath Thickness	Approx. Overall Diameter	Approx. Weight	
						CU	AL					CU	AL
mm^2	mm	mm	mm^2	mm	mm	kg/km		mm	mm	mm	mm	kg/km	
50	10.5	0.1	16	2.1	38.3	1689	1402	1.2	2.5	2.5	46.8	2580	2395
70	10.5	0.1	16	2.2	40.2	1980	1564	1.2	2.5	2.5	48.8	2937	2611
95	10.5	0.1	16	2.2	41.8	2283	1714	1.2	2.5	2.6	50.9	3206	2737
120	10.5	0.1	16	2.3	43.4	2588	1871	1.4	2.5	2.6	51.5	3753	3177
150	10.5	0.1	25	2.3	44.9	2923	2028	1.4	2.5	2.7	53.8	4143	3371
185	10.5	0.1	25	2.4	47.3	3415	2281	1.4	2.5	2.7	55.6	4694	3693
240	10.5	0.1	25	2.5	49.5	3975	2542	1.4	2.5	2.8	57.6	5258	4005
300	10.5	0.1	25	2.5	51.9	4625	2822	1.4	2.5	2.9	60.8	5940	4301
400	10.5	0.1	35	2.6	54.9	5704	3288	1.6	2.5	3.0	63.6	7155	4894

*Optional wire screen can be provided in combination of copper tapes. Nominal screen area, as stated in the table, can be supplied as standard.

Electrical Data

Nom. Cross-Section Area	D C Resistance e CU / AL	A C Resistance e CU / AL	Short Circuit Rating of Conductor CU / AL 1 sec	Capaci-tan ce	Chargin g Current	Short Circuit Rating of Copper Wire Screen 1 sec	Short Circuit Rating of Copper Tape Screen 1 sec	Reactance		Inductance		Impedance			
								Trefoil	Flat Spaced	Trefoil	Flat Spaced	Trefoil		Flat Spaced	
												CU	AL	CU	AL
mm^2	μΩ/m	μΩm	kA	pF/m	mA/m	kA	kA	μΩ/m		nH/m		μΩ/ m		μΩ/ m	
50	387/641	494/822	6.8/4.4	126	0.95	2.6	1.2	161	227	510	720	511	834	527	844
70	268/443	343/568	9.8/6.3	138	1.04	2.6	1.2	154	207	490	660	364	583	386	597
95	193/320	248/410	13.3/8.5	151	1.13	2.6	1.3	147	202	470	640	272	427	300	446
120	153/253	196/325	17.2/11.0	161	1.24	2.6	1.3	142	194	450	620	225	345	257	367
150	124/206	159/265	21.2/13.5	169	1.36	4.3	1.4	136	188	430	600	193	287	229	313
185	99.1/164	128/211	26.6/17.0	176	1.40	4.3	1.4	128	188	410	600	165	237	206	267
240	75.4/125	98/161	34.9/22.3	192	1.51	4.3	1.5	128	183	400	580	140	191	185	226
300	60.1/100	80/130	43.8/28.0	209	1.64	4.3	1.6	119	180	380	570	126	163	174	203
400	47.0/77.8	64/102	57.3/36.6	227	1.80	5.8	1.7	114	170	360	540	113	141 ₅₂	164	184

* For capacitance & charging current values, multiply values shown by 1.2 for EPR insulated cables.

Current Rating for Single Core 1.8/3KV(Um=3.6KV) to 26/35KV(Um=42KV) XLPE Insulation

Nom. Cross-Section Area	Buried direct in Ground				Laid in Single Way Duct				Laid in Air					
	Trefoil		Flat spaced		Trefoil		Flat Touching		Trefoil		Flat Touching		Flat spaced	
	CU	AL	CU	AL	CU	AL	CU	AL	CU	AL	CU	AL	CU	AL
mm ²	A		A		A		A		A		A		A	
10	84	59	87	62	78	55	98	56	103	75	106	77	122	88
16	109	84	113	88	103	80	104	81	125	97	128	99	150	116
25	140	108	144	112	132	102	133	103	163	127	167	130	196	153
35	166	129	172	134	157	122	159	123	198	154	203	157	238	185
50	196	152	203	157	186	144	188	146	238	184	243	189	286	222
70	239	186	246	192	227	176	229	178	296	230	303	236	356	278
95	285	221	293	229	271	210	274	213	361	280	369	287	434	338
120	323	252	332	260	308	240	311	242	417	324	426	332	500	391
150	361	281	366	288	343	267	347	271	473	368	481	376	559	440
185	406	317	410	324	387	303	391	307	543	424	550	432	637	504
240	469	367	470	373	447	351	453	356	641	502	647	511	745	593
300	526	414	524	419	504	397	510	402	735	577	739	586	846	677
400	590	470	572	466	564	451	571	457	845	673	837	676	938	769
500	650	530	672	546	604	504	661	537	935	773	938	776	1118	919
630	700	600	882	646	654	554	771	617	1045	883	1048	886	1318	1089
800	750	660	1002	756	694	594	871	717	1145	983	1148	986	1528	1279
1000	800	720	1112	856	724	644	971	807	1235	1083	1238	1086	1738	1469

Current Rating for Single Core 1.8/3KV(Um=3.6KV) to 26/35KV(Um=42KV) EPR Insulation

Nom. Cross-Section Area	Buried direct in Ground				Laid in Single Way Duct				Laid in Air					
	Trefoil		Flat spaced		Trefoil		Flat Touching		Trefoil		Flat Touching		Flat spaced	
	CU	AL	CU	AL	CU	AL	CU	AL	CU	AL	CU	AL	CU	AL
mm ²	A		A		A		A		A		A		A	
10	81	57	83	58	74	52	94	53	94	68	97	70	110	79
16	106	82	109	84	99	77	100	78	116	90	119	92	138	107
25	136	105	140	109	128	99	129	100	153	119	156	121	181	141
35	162	126	167	130	153	118	154	120	186	144	190	147	221	171
50	192	149	198	153	181	140	183	142	224	174	229	178	266	207
70	234	182	242	188	222	172	224	174	280	218	287	223	334	259
95	280	217	289	224	266	206	269	208	343	266	352	273	409	317
120	319	247	329	256	303	235	306	238	398	309	407	317	474	368
150	357	277	369	287	341	264	344	267	454	352	465	361	540	419
185	403	314	417	325	386	300	390	303	522	406	534	417	621	484
240	467	364	484	377	449	350	454	354	619	483	634	495	736	575
300	526	411	545	426	509	397	515	401	712	556	728	570	843	659
400	597	471	618	487	580	456	588	462	825	651	843	667	977	770
500	657	531	718	567	620	509	678	542	915	751	849	767	1157	920
630	707	601	928	667	670	559	788	622	1025	862	1054	876	1357	1090
800	757	661	1048	777	710	599	888	722	1125	961	1154	977	1567	1280
1000	807	721	1158	877	740	649	988	812	1215	1061	1244	1077	1777	1470

Current Rating Conditions

Ground Temperature	20°C
Ambient Temperature (air)	30°C
Depth of Soil	0.8m
Thermal Resistance of Soil	1.5K _{om} /W

N2XSEY N2XSERY Three Core Medium Voltage Cables to IEC 60502

APPLICATIONS:

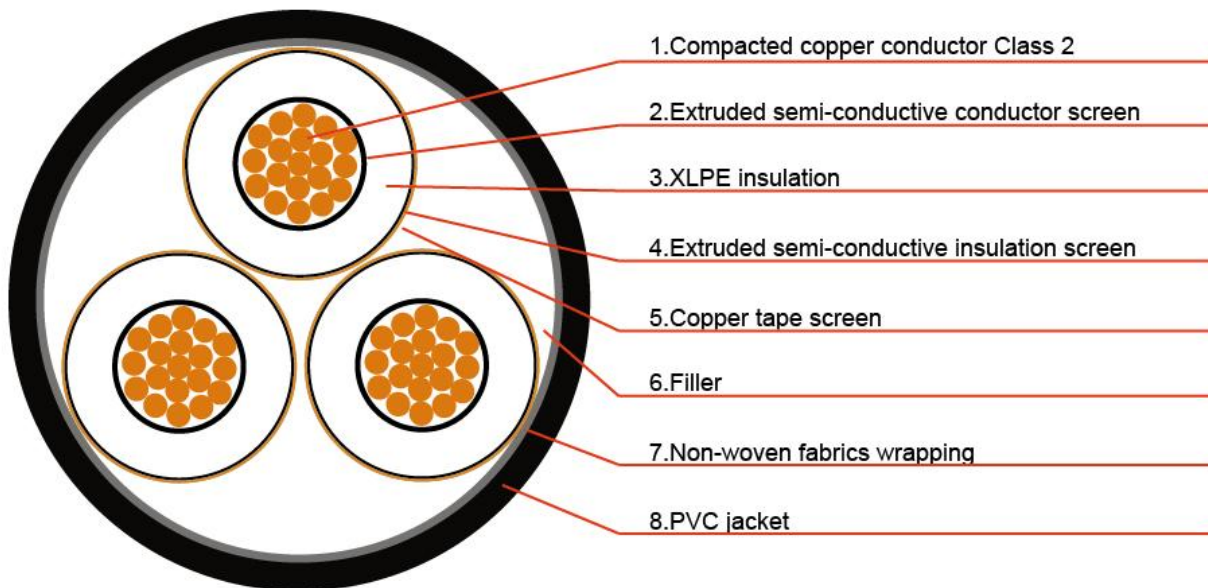
The three core cables are designed for distribution of electrical power with nominal voltage U_0/U ranging from 1.8/3KV to 26/35KV and frequency 50Hz. They are suitable for installation mostly in power supply stations, indoors and in cable ducts, outdoors, underground and in water as well as for installation on cable trays for industries, switchboards and power stations.



STANDARD:

IEC 60502 Part 1(1.8/3KV); IEC 60502 Part 2(3.6/6KV to 18/30KV)

CONSTRUCTION:



Conductor: Plain annealed copper or aluminium complying with IEC 60228 class 1 or 2.

Conductor Screen: The conductor screen consists of an extruded layer of non metallic, semi- conducting compound applied on top of a semi conducting tape. The conductor screen is applied under triple extrusion process over the conductor along with the insulation and the insulation screen. The extruded semi-conducting compound is firmly bonded to the insulation to exclude all air voids and can be easily hand stripped on site. The conductor screen is not necessary for both PVC and EPR/HEPR insulated 1.8/3.6KV and 3.6/6KV cables.

Insulation: Insulation is of polyvinyl chloride (PVC) intended for 1.8/3.6KV and 3.6/6KV cables, cross-linked polyethylene

compound (XLPE) or ethylene propylene rubber (EPR/HEPR).

Table 1. Insulation Thickness of XLPE or EPR/HEPR insulation

Nom. Cross Section Area		Insulation Thickness at Nom. Voltage								
	1.8/3KV (Um=3.6)K V	3.6/6KV (Um=7.2)KV			6/10KV (Um=12K V)	8.7/15KV (Um=17K V)	12/20KV (Um=24K V)	18/30KV (Um=36K V)	21/35KV (Um=42K V)	26/35KV (Um=42K V)
mm ²	mm	mm			mm	mm	mm	mm	mm	mm
	XLPE/EPR	XLP E	EPR		XLPE/EPR	XLPE/EPR	XLPE/EPR	XLPE/EPR	XLPE/EPR	XLPE/EPR
			Un-screened	Screened						
10	2.0	2.5	3.0	2.5	-	-	-	-	-	-
16	2.0	2.5	3.0	2.5	3.4	-	-	-	-	-
25	2.0	2.5	3.0	2.5	3.4	4.5	-	-	-	-
35	2.0	2.5	3.0	2.5	3.4	4.5	5.5	-	-	-
50 – 185	2.0	2.5	3.0	2.5	3.4	4.5	5.5	8.0	9.3	10.5
240	2.0	2.6	3.0	2.6	3.4	4.5	5.5	8.0	9.3	10.5
300	2.0	2.8	3.0	2.8	3.4	4.5	5.5	8.0	9.3	10.5
400	2.0	3.0	3.0	3.0	3.4	4.5	5.5	8.0	9.3	10.5
500 - 1600	2.2-2.8	3.2	3.2	3.2	3.4	4.5	5.5	8.0	9.3	10.5

Insulation Screen: The insulation screen consists of an extruded layer of non metallic, semi- conducting compound extruded over the insulation of each core. The extruded semi-conducting layer shall consist of bonded or cold strippable semi conducting compound capable of removal for jointing or terminating. As an option, a semi-conducting tape may be applied over the individual cores or core assembly as a bedding for the metallic layer. The minimum thickness is 0.3 mm and the maximum resistivity is 500 Ohm-m at 90°C. The screen is tightly fitted to the insulation to exclude all air voids and can be easily hand stripped on site. The insulation screen is not necessary for both PVC and EPR/HEPR insulated 1.8/3.6KV and 3.6/6KV cables. The screen may be covered by semi conductive water blocking swellable tape to ensure longitudinal watertightness.

Inner Covering & Fillers: For cables with a collective metallic layer or cables with a metallic layer over each individual cores with additional collective metallic layers, semi conducting inner covering and fillers shall be applied over the laid up cores. The inner covering and fillers are made of non hygroscopic material like polypropylene, except if the cable is to be made longitudinally watertight. The inner covering is extruded in general but may be lapped if the interstices between the cores are filled.

The approximate thickness of extruded inner coverings is given in Table 2:

Table 2. Approximate thickness of extruded inner coverings

Fictitious Diameter Over Laid Up Cores		Approx. Thickness of Extruded Inner Covering
mm		mm
>	<	
-	25	1.0
25	35	1.2
35	45	1.4
45	60	1.6
60	80	1.8
80	-	2.0

*The approximate thickness of lapped inner coverings shall be 0.4mm for fictitious diameters over the laid up cores up to and including 40mm and 0.6mm for larger diameter.

Metallic Layer: The metallic layer may be applied over the individual cores or the core assembly collectively. The following types of metallic layers are provided:

Metallic Screen
Concentric Conductor
Metallic Sheath
Metallic armour

The metallic screen shall consist of either copper tapes or a concentric layer of copper wires or a combination of tapes and wires. The concentric conductor is applied directly over the inner covering. The metallic sheath consists of lead or lead alloy applied as a tightly fitting seamless tube. The metallic armour consists of either flat wire armour, round wire armour, and double tape armour.

Table 3. Minimum Total Cross Section of Metallic Screen

Nom. Cross-Section Area of Cable	Min. Cross-Section of Metallic Screen	DC Resistance of the Copper Wire Screen
mm ²	mm ²	mm
up to 120	16	1.06
150-300	25	0.72
400-630	35	0.51
800-1000	50	0.35

Separation Sheath (for armoured cable): The separation sheath comprises a layer of extruded PVC, PE or LSZH applied over the laid up cores under the armour. PVC is normally of grade ST2 and PE of grade ST7. The nominal thickness is calculated by $0.02D_u + 0.6\text{mm}$ where D_u is the fictitious diameter under the sheath in mm. For cables without a lead sheath, the nominal separation sheath thickness shall not be less than 1.2mm. For cables where the separation sheath is applied over the lead sheath, the nominal separation sheath thickness shall not be less than 1.0mm.

Table 4. Separation Thickness

Cores Diameter		Approx. Thickness of Inner Sheath
mm		mm
>	<	
35	45	1.4
45	60	1.6
60	80	1.8
80	-	2.0

Lapped Bedding (for armoured lead sheathed cable): The lapped bedding applied to the lead sheath consists of either impregnated/synthetic compounded paper tapes or a combination of two layers of these paper tapes followed by a few layers of compounded fibrous materials. The thickness is around 1.5mm.

Armour (for armoured cable): The armour is applied over the inner covering helically. It consists of either flat galvanized steel wire armour (strip), round galvanized steel wire armour, and double steel tape armour.

Table 5. Round Armour Wire Diameter

Fictitious Diameter Under the Armour		Armour Wire Diameter
mm		mm
>	<	
-	10	1.25
10	15	1.25
15	25	1.6
25	35	2.0
35	60	2.5
60	-	3.15

Table 6. Armour Tape Thickness

Fictitious Diameter Under the Armour		Galvanized Steel / Steel	Aluminum / Aluminium Alloy
mm		mm	mm
>	<		
-	30	0.2	0.5
30	70	0.5	0.5
70	-	0.8	0.8

For flat wire armour and fictitious diameter under the armour greater than 15mm, the nominal thickness of the flat steel wire diameter shall be 0.8mm, Cables with fictitious diameter under the armour up to and including 15mm, flat wire armour will not be used. The tape armour is applied helically in two layers so that the outer tape is approximately central over the gap of the inner tape. If tape armour is used, the inner covering shall be reinforced by taped bedding.

Over Sheath: Overall sheath comprises a layer of extruded either thermoplastic compound (PVC ST3 type or PE ST7 type) or elastomeric compound (polychlorprene CSP or chlorosulfonated PE). The nominal oversheath thickness is calculated by $0.035D+1$ where D is the fictitious diameter immediately under the oversheath in mm. For unarmoured cables and cables with the oversheath not applied over the armour, metallic screen or concentric conductor, the nominal oversheath thickness shall not be less than 1.4mm. And for cables with oversheath applied over the armour, metallic screen or concentric conductor, the nominal oversheath thickness shall not be less than 1.8mm.

PHYSICAL PROPERTIES:

Operating Temperature: up to 70°C (PVC insulation); up to 90°C (XLPE or EPR insulation)

Temperature Range: -5°C (PVC sheath); -20°C (PE sheath)

Short Circuit Temperature(5 seconds maximum duration): 140-160 °C (PVC insulation); 250°C (XLPE or EPR insulation)

Bending Radius: 15 x OD

Table 7. Nominal /Operating /Testing Voltages:

Rated Voltage U _o /U	Operating Voltage (U _m)	Testing Voltage (rms)
1.8/3KV	3.6KV	6.5KV
3.6/6KV	7.2KV	12.5KV
6/10KV	12KV	21KV
8.7/15KV	17.5KV	30.5KV
12/20KV	24KV	42KV
18/30KV	36KV	63KV
21/35KV	42KV	73.5(53)*KV
26/35KV	42KV	91(65)*KV

*21/35KV and 26/35kV power frequency voltage test can be made under the following conditions: 2.5U_o x 30mins or 3.0U_o x 15mins. Numbers in brackets refer to the test values for 3.0U_o x 1.5mins.

Three Core 1.8/3KV (Um=3.6KV)
Dimensional Data

				Unarmored Cables				Steel Round-Wire Armored Cables					
Nom. Cross-Section Area	Nom. Insulation Thickness	Copper Tape Thickness	Copper Wire Screen Area	Nom. Sheath Thickness	Approx. Overall Diameter	Approx. Weight		Nom. Bedding Thickness	Armour Wire Size	Nom. Sheath Thickness	Approx. Overall Diameter	Approx. Weight	
						CU	AL					CU	AL
mm ²	mm	mm	mm ²	mm	mm	kg/km		mm	mm	mm	mm	kg/km	
10	2.0	0.1	16	1.8	23	650	460	1.2	1.6	1.8	28	1480	1290
16	2.0	0.1	16	1.8	24	840	540	1.2	1.6	1.9	29	1720	1410
25	2.0	0.1	16	1.8	26	1160	680	1.2	1.6	1.9	32	2130	1650
35	2.0	0.1	16	1.8	29	1490	820	1.2	2.0	2.1	36	2810	2140
50	2.0	0.1	16	1.9	32	1900	1000	1.2	2.0	2.2	39	3340	2450
70	2.0	0.1	16	2.0	36	2580	1290	1.2	2.0	2.3	42	4200	2910
95	2.0	0.1	16	2.2	40	3440	1640	1.3	2.5	2.4	47	5620	3820
120	2.0	0.1	16	2.3	43	4220	1950	1.3	2.5	2.5	51	6580	4310
150	2.0	0.1	25	2.4	46	5090	2290	1.4	2.5	2.7	54	7680	4870
185	2.0	0.1	25	2.5	50	6240	2730	1.5	2.5	2.8	58	9060	5560
240	2.0	0.1	25	2.7	56	8030	3430	1.6	2.5	3.0	64	11200	6600
300	2.0	0.1	25	2.8	60	9890	4100	1.6	2.5	3.1	69	13590	7500
400	2.0	0.1	35	3.1	68	12530	5150	1.8	3.15	3.4	78	17260	9880
500	2.2	0.1	35	3.3	75.7	16680	7510	1.8	3.15	3.5	84.3	21780	13025
630	2.4	0.1	35	3.5	84.9	21770	10040	1.8	3.15	3.8	94.6	27400	16050

*Optional wire screen can be provided in combination of copper tapes. Nominal screen area, as stated in the table, can be supplied as standard.

	Steel Flat Wire Armoured Cables						Double Steel Tape Armoured Cables					
Nom. Cross-Section Area	Nom. Bedding Thickness	Armour Wire Size	Nom. Sheath Thickness	AppRox. Overall Diameter	Approx. Weight		Nom. Bedding Thickness	No of Steel Tapes x Nom Tape Thickness	Nom. Sheath Thickness	Approx. Overall Diameter	Approx. Weight	
					CU	AL					CU	AL
mm ²	mm	mm	mm	mm	kg/km		mm	mm	mm	mm	kg/km	
10	1.2	0.8	1.8	24.5	1245	1065	1.2	2 x 0.2	1.8	23.6	925	750
16	1.2	0.8	1.8	27.1	1565	1280	1.2	2 x 0.2	1.8	26.2	1205	925
25	1.2	0.8	1.8	29.7	1975	1525	1.2	2 x 0.2	1.9	29.0	1590	1145
35	1.2	0.8	1.9	32.5	2420	1805	1.2	2 x 0.2	1.9	31.6	1985	1370
50	1.2	0.8	2.0	35	2860	2080	1.2	2 x 0.2	2.0	34.1	2400	1605
70	1.2	0.8	2.1	38.7	3685	2525	1.2	2 x 0.5	2.2	39.5	3570	2410
95	1.3	0.8	2.2	42.9	4695	3080	1.3	2 x 0.5	2.3	43.7	4570	2950
120	1.3	0.8	2.3	46.4	5650	3585	1.3	2 x 0.5	2.4	46.1	5510	3440
150	1.4	0.8	2.4	49.6	6630	4085	1.4	2 x 0.5	2.6	50.6	6500	3955
185	1.5	0.8	2.6	54.1	7990	4820	1.5	2 x 0.5	2.7	54.9	7825	4650
240	1.6	0.8	2.7	59.2	10060	5790	1.6	2 x 0.5	2.8	60.0	9825	5600
300	1.6	0.8	2.9	64.6	12230	6865	1.6	2 x 0.5	3.0	65.4	12030	6660
400	1.8	0.8	3.1	71.0	15200	8280	1.8	2 x 0.5	3.2	71.8	14970	8055
500	1.8	0.8	3.3	79.5	19090	10255	1.8	2 x 0.8	3.5	80.5	18880	10035
630	1.8	0.8	3.6	89.8	24400	12920	1.8	2 x 0.8	3.8	92.3	25070	13620

Electrical Data

Nom. Cross- Section Area	D C Resistance CU / AL	A C Resistance CU / AL	Short Circuit Rating of Conductor CU / AL 1 sec	Capaci- tance	Charging Current	Short Circuit Rating of Copper Wire Screen Per Core 1 sec	Short Circuit Rating of Copper Tape Screen Per Core 1 sec	Reactance	Inductance
mm ²	μΩ/m	μΩ/m	kA	pF/m	mA/m	kA	kA	μΩ/m	nH/m
10	1830/3080	2330/3920	1.4/0.9	160	0.25	2.6	0.4	101	390
16	1150/1910	1460/2420	2.2/1.4	180	0.27	2.6	0.4	98	370
25	727/1200	929/1538	3.6/2.3	220	0.29	2.6	0.4	95	350
35	524/868	668/1113	5.0/3.2	250	0.31	2.6	0.5	92	330
50	387/641	494/822	6.8/4.4	270	0.33	2.6	0.5	88	310
70	268/443	343/568	9.8/6.3	310	0.35	2.6	0.6	84	290
95	193/320	248/410	13.3/8.5	350	0.38	2.6	0.6	81	270
120	153/253	196/325	17.2/11.0	380	0.46	2.6	0.7	79	250
150	124/206	159/265	21.2/13.5	420	0.50	2.6	0.7	77	260
185	99.1/164	128/211	26.6/17.0	460	0.56	2.6	0.8	76	250
240	75.4/125	98/161	34.9/22.3	510	0.61	4.3	0.9	74	240
300	60.1/100	80/130	43.8/28.0	570	0.68	4.3	1.0	73	250
400	47.0/77.8	64/102	57.3/36.6	590	0.70	5.8	1.1	71	240
500	36.6/60.5	57/81	72.3/46.2	610	0.72	5.8	1.2	69	230
630	28.3/46.9	42/64	91.2/58.3	630	0.74	5.8	1.3	67	220

Three Core 3.8/6.6KV (Um=7.2KV)

Dimensional Data

				Unarmoured Cables				Steel Round-Wire Armoured Cables					
Nom. Cross-Section Area	Nom. Insulation Thickness	Copper Tape Thickness	Copper Wire Screen Area*	Nom. Sheath Thickness	Approx. Overall Diameter	Approx. Weight		Nom. Bedding Thickness	Armour Wire Size	Nom. Sheath Thickness	Approx. Overall Diameter	Approx. Weight	
						CU	AL					CU	AL
mm ²	mm	mm	mm ²	mm	mm	kg/km		mm	mm	mm	mm	kg/km	
10	2.5	0.1	16	2.0	30	980	790	1.2	2.0	2.1	36	2310	2120
16	2.5	0.1	16	2.0	31	1190	890	1.2	2.0	2.2	38	2600	2290
25	2.5	0.1	16	2.1	34	1560	1080	1.2	2.0	2.3	41	3080	2600
35	2.5	0.1	16	2.2	37	1930	1270	1.3	2.5	2.4	45	3950	3280
50	2.5	0.1	16	2.3	40	2370	1480	1.3	2.5	2.5	47	4530	3630
70	2.5	0.1	16	2.4	43	3110	1820	1.4	2.5	2.6	51	5510	4210
95	2.5	0.1	16	2.5	47	4000	2200	1.5	2.5	2.8	55	6660	4860
120	2.5	0.1	16	2.6	50	4820	2550	1.5	2.5	2.9	59	7630	5360
150	2.5	0.1	25	2.8	54	5770	2970	1.6	2.5	3.0	62	8800	6000
185	2.5	0.1	25	2.9	58	6960	3460	1.6	2.5	3.1	66	10180	6670
240	2.6	0.1	25	3.1	65	8940	4340	1.8	3.15	3.4	75	13480	8870
300	2.8	0.1	25	3.3	70	10980	5190	1.9	3.15	3.6	81	15920	10130
400	3.0	0.1	35	3.5	79	13820	6440	2.0	3.5	3.9	90	19980	12590
500	3.2	0.1	35	3.7	87	19100	10755	2.1	3.5	4.1	98	24160	14820
630	3.2	0.1	35	4.0	95	30470	13150	2.2	3.5	4.4	107	29650	17710

*Optional wire screen can be provided in combination of copper tapes. Nominal screen area, as stated in the table, can be supplied as standard.

	Steel Flat Wire Armoured Cables						Double Steel Tape Armoured Cables					
Nom. Cross-Section Area	Nom. Bedding Thickness	Armour Wire Size	Nom. Sheath Thickness	Approx. Overall Diameter	Approx. Weight		Nom. Bedding Thickness	No of Steel Tapes x Nom Tape Thickness	Nom. Sheath Thickness	Approx. Overall Diameter	Approx. Weight	
					CU	AL					CU	AL
mm ²	mm	mm	mm	mm	kg/km		mm	mm	mm	mm	kg/km	
10	1.2	0.8	1.8	26.9	1415	1235	1.2	2X0.2	1.8	26	1060	885
16	1.2	0.8	1.8	29.2	1725	1445	1.2	2X0.2	1.8	28.3	1340	1055
25	1.2	0.8	1.9	32.2	2165	1735	1.2	2X0.2	1.9	31.3	1735	1305
35	1.3	0.8	2.0	35.0	2645	2025	1.3	2X0.2	2.0	34.1	2170	1555
50	1.3	0.8	2.1	37.4	3075	2295	1.3	2X0.5	2.1	38.0	2950	2170
70	1.4	0.8	2.2	41.0	3915	2755	1.4	2X0.5	2.3	41.8	3795	2635
95	1.5	0.8	2.3	45.3	4840	3335	1.5	2X0.5	2.4	46.1	4810	3200
120	1.5	0.8	2.4	48.7	5915	3855	1.5	2X0.5	2.5	49.5	5770	3705
150	1.6	0.8	2.5	52.1	6930	4395	1.6	2X0.5	2.6	52.9	6775	4235
185	1.6	0.8	2.6	56.2	8265	5100	1.6	2X0.5	2.8	57.2	8120	4950
240	1.8	0.8	2.8	62.2	10440	6220	1.8	2X0.5	2.9	63.0	10250	6025
300	1.9	0.8	3.0	68.2	12780	7420	1.9	2X0.5	3.1	69.0	12570	7200
400	2.0	0.8	3.3	75.9	15970	9110	2.0	2X0.5	3.4	76.7	15740	8870
500	2.1	0.8	3.5	84.2	19940	11130	2.1	2X0.8	3.6	86.5	20550	11750
630	2.2	0.8	3.7	93.5	25120	13670	2.2	2X0.8	3.9	96.0	25830	14400

Electrical Data

Nom. Cross-Section Area	D C Resistance CU / AL	A C Resistance CU / AL	Short Circuit Rating of Conductor CU / AL 1 sec	Capacitance	Charging Current	Short Circuit Rating of Copper Wire Screen Per Core 1 sec	Short Circuit Rating of Copper Tape Screen Per Core 1 sec	Reactance	Inductance
mm ²	μΩ/m	μΩ/m	kA	pF/m	mA/m	kA	kA	μΩ/m	nH/m
10	1830/3080	2330/3920	1.4/0.9	212	0.27	2.6	0.4	132	410
16	1150/1910	1470/2420	2.2/1.4	242	0.30	2.6	0.4	124	390
25	727/1200	927/1538	3.6/2.3	272	0.33	2.6	0.4	116	370
35	524/868	668/1113	5.0/3.2	301	0.36	2.6	0.5	108	350
50	387/641	494/822	6.8/4.4	332	0.40	2.6	0.5	102	330
70	268/443	343/568	9.8/6.3	383	0.46	2.6	0.6	97	310
95	193/320	248/410	13.3/8.5	432	0.52	2.6	0.6	92	290
120	153/253	196/325	17.2/11.0	474	0.57	2.6	0.7	89	280
150	124/206	159/265	21.2/13.5	511	0.61	4.3	0.7	87	280
185	99.1/164	128/211	26.6/17.0	562	0.67	4.3	0.8	86	270
240	75.4/125	98/161	34.9/22.3	602	0.72	4.3	0.9	83	260
300	60.1/100	80/130	43.8/28.0	622	0.75	4.3	1.0	82	260
400	47.0/77.8	64/102	57.3/36.6	648	0.78	5.8	1.1	80	250
500	36.6/60.5	51/81	72.3/46.2	668	0.82	5.8	1.2	78	250
630	28.3/46.9	42/64	91.2/58.3	758	0.92	5.8	1.3	76	240

Three Core 6/10KV (Um=12KV)

Dimensional Data

Nom. Cross-Section Area	Nom. Insulation Thickness	Copper Tape Thickness	Copper Wire Screen Area*	Unarmoured Cables				Steel Round-Wire Armoured Cables					
				Nom. Sheath Thickness	Approx. Overall Diameter	Approx. Weight		Nom. Bedding Thickness	Armour Wire Size	Nom. Sheath Thickness	Approx. Overall Diameter	Approx. Weight	
						CU	AL					CU	AL
mm ²	mm	mm	mm ²	mm	mm	kg/km		mm	mm	mm	mm	kg/km	
16	3.4	0.1	16	2.2	36	1410	1110	1.2	2.0	2.4	42	3000	2700
25	3.4	0.1	16	2.3	39	1800	1320	1.3	2.5	2.5	46	3900	3430
35	3.4	0.1	16	2.3	41	2170	1500	1.3	2.5	2.6	49	4430	3770
50	3.4	0.1	16	2.4	44	2630	1730	1.4	2.5	2.7	52	5080	4190
70	3.4	0.1	16	2.6	48	3400	2110	1.5	2.5	2.8	56	6050	4750
95	3.4	0.1	16	2.7	52	4310	2510	1.5	2.5	2.9	60	7180	5380
120	3.4	0.1	16	2.8	55	5150	2890	1.6	2.5	3.0	63	8230	5960
150	3.4	0.1	25	2.9	58	6100	3300	1.7	2.5	3.1	67	9380	6580
185	3.4	0.1	25	3.0	62	7310	3810	1.7	3.15	3.3	72	1161	8110
240	3.4	0.1	25	3.2	69	9290	4680	1.8	3.15	3.5	79	1411	9510
300	3.4	0.1	25	3.3	73	1124	5450	1.9	3.15	3.7	84	1642	1063
400	3.4	0.1	35	3.6	81	1404	6660	2.0	3.5	3.9	92	2062	1288
500	3.4	0.1	35	3.7	88	1783	8450	2.1	3.5	4.0	99	2509	1653
630	3.4	0.1	35	3.9	96	20030	10895	2.2	3.5	4.1	109	30880	19670

*Optional wire screen can be provided in combination of copper tapes. Nominal screen area, as stated in the table, can be supplied as standard.

Nom. Cross-Section Area	Steel Flat Wire Armoured Cables						Double Steel Tape Armoured Cables					
	Nom. Bedding Thickness	Armour Wire Size	Nom. Sheath Thickness	Approx. Overall Diameter	Approx. Weight		Nom. Bedding Thickness	No of Steel Tapes x Nom Tape Thickness	Nom. Sheath Thickness	Approx. Overall Diameter	Approx. Weight	
					CU	AL					CU	AL
mm ²	mm	mm	mm	mm	kg/km		mm	mm	mm	mm	kg/km	
16	1.2	0.8	2.2	39.7	2795	2515	1.2	2x0.5	2.3	40.5	2680	2395
25	1.3	0.8	2.2	42.7	3305	2885	1.3	2x0.5	2.4	43.7	3195	2775
35	1.3	0.8	2.3	45.2	3835	3215	1.3	2x0.5	2.5	46.2	3720	3100
50	1.4	0.8	2.4	47.8	4325	3570	1.4	2x0.5	2.6	48.8	4200	3445
70	1.5	0.8	2.5	51.8	5320	4185	1.5	2x0.5	2.7	52.8	5185	4050
95	1.5	0.8	2.7	56.1	6450	4875	1.5	2x0.5	2.8	56.9	6280	4700
120	1.6	0.8	2.8	59.7	7545	5510	1.6	2x0.5	2.9	60.5	7360	5325
150	1.7	0.8	2.9	63.1	8610	6150	1.7	2x0.5	3.0	63.9	8420	5950
185	1.7	0.8	3.0	67.4	10120	6995	1.7	2x0.5	3.1	68.2	9910	6780
240	1.8	0.8	3.2	73.0	12430	8205	1.8	2x0.5	3.3	73.8	12200	7970
300	1.9	0.8	3.3	78.3	14775	9455	1.9	2x0.5	3.4	79.1	14530	9200
400	2.0	0.8	3.5	85.2	17950	11190	2.0	2x0.8	3.7	87.7	18600	11850
500	2.1	0.8	3.7	92.8	21970	13270	2.1	2x0.8	3.9	95.3	22680	13990
630	2.2	0.8	4.0	102.7	27480	16160	2.2	2x0.8	4.1	105.0	28200	16910

Electrical Data

Nom. Cross - Section Area	D C Resistance CU / AL	A C Resistance CU / AL	Short Circuit Rating of Conductor CU / AL 1 sec	Capacitance	Charging Current	Short Circuit Rating of Copper Wire Screen Per Core 1 sec	Short Circuit Rating of Copper Wire Screen Per Core 1 sec	Reactance	Inductance
mm ²	μΩ/m	μΩ/m	kA	pF/m	mA/m	kA	kA	μΩ/m	nH/m
16	1150/1910	1470/2420	2.2/1.4	186	0.40	2.6	0.5	131	410
25	727/1200	927/1538	3.6/2.3	216	0.43	2.6	0.5	123	390
35	524/868	668/1113	5.0/3.2	237	0.47	2.6	0.6	115	370
50	387/641	494/822	6.8/4.4	266	0.52	2.6	0.6	109	350
70	268/443	343/568	9.8/6.3	298	0.60	2.6	0.7	103	330
95	193/320	248/410	13.3/8.5	334	0.67	2.6	0.7	99	320
120	153/253	196/325	17.2/11.0	365	0.73	2.6	0.8	96	310
150	124/206	159/265	21.2/13.5	392	0.78	4.3	0.8	93	300
185	99.1/164	128/211	26.6/17.0	430	0.86	4.3	0.9	90	290
240	75.4/125	98/161	34.9/22.3	476	0.95	4.3	0.9	87	280
300	60.1/100	80/130	43.8/28.0	524	1.05	4.3	1.0	85	270
400	47.0/77.8	64/102	57.3/36.6	580	1.16	5.8	1.1	81	260
500	36.6/60.5	51/81	72.3/46.2	630	1.26	5.8	1.2	78	250
630	28.3/46.9	42/64	91.2/58.3	690	1.36	5.8	1.3	76	240

Three Core 8.7/15KV (Um=17.5KV)

Dimensional Data

				Unarmoured Cables				Steel Round-Wire Armoured Cables					
Nom. Cross-Section Area	Nom. Insulation Thickness	Copper Tape Thickness	Copper Wire Screen Area*	Nom. Sheath Thickness	Approx. Overall Diameter	Approx. Weight		Nom. Bedding Thickness	Armour Wire Size	Nom. Sheath Thickness	Approx. Overall Diameter	Approx. Weight	
						CU	AL					CU	AL
mm ²	mm	mm	mm ²	mm	mm	kg/km		mm	mm	mm	mm	kg/km	
25	4.5	0.1	16	2.4	44	2100	1620	1.4	2.5	2.7	52	4560	4080
35	4.5	0.1	16	2.5	46	2510	1840	1.4	2.5	2.7	54	5080	4410
50	4.5	0.1	16	2.6	49	2980	2080	1.5	2.5	2.9	57	5740	4840
70	4.5	0.1	16	2.7	53	3760	2470	1.6	2.5	3.0	62	6770	5480
95	4.5	0.1	16	2.8	57	4700	2900	1.6	2.5	3.1	65	7890	6100
120	4.5	0.1	16	3.0	60	5590	3320	1.7	2.5	3.2	69	8970	6700
150	4.5	0.1	25	3.1	64	6560	3760	1.8	3.15	3.4	74	11030	8220
185	4.5	0.1	25	3.2	67	7800	4300	1.8	3.15	3.5	78	12490	8980
240	4.5	0.1	25	3.4	74	9820	5220	1.9	3.15	3.7	84	15040	10440
300	4.5	0.1	25	3.5	79	11800	6010	2.0	3.5	3.8	90	17920	12130
400	4.5	0.1	35	3.7	86	14620	7240	2.1	3.5	4.1	98	21360	13970
500	4.5	0.1	35	3.8	93	18160	9355	2.2	3.5	4.3	106	26490	17830

*Optional wire screen can be provided in combination of copper tapes. Nominal screen area, as stated in the table, can be supplied as standard.

	Steel Flat Wire Armoured Cables						Double Steel Tape Armoured Cables					
No Cross-Section Area	Nom. Bedding Thickness	Armour Wire Size	Nom. Sheath Thickness	Approx. Overall Diameter	Approx. Weight		Nom. Bedding Thickness	No of Steel Tapes x Nom Tape Thickness	Nom. Sheath Thickness	Approx. Overall Diameter	Approx. Weight	
					CU	AL					CU	AL
mm ²	mm	mm	mm	mm	kg/km		mm	mm	mm	mm	kg/km	
25	1.4	0.8	2.4	48.0	3915	3495	1.4	2x0.5	2.5	48.8	3770	3345
35	1.4	0.8	2.5	50.8	4510	3890	1.4	2x0.5	2.6	51.6	4350	3735
50	1.5	0.8	2.6	53.3	5020	4270	1.5	2x0.5	2.7	54.1	4855	4105
70	1.6	0.8	2.7	57.0	5990	4870	1.6	2x0.5	2.8	57.8	5815	4690
95	1.6	0.8	2.8	61.2	7170	5600	1.6	2x0.5	3.0	62.2	7010	5435
120	1.7	0.8	2.9	65.1	8340	6320	1.7	2x0.5	3.1	66.1	8170	6145
150	1.8	0.8	3.0	68.3	9440	6955	1.8	2x0.5	3.2	69.3	9260	6770
185	1.8	0.8	3.2	72.8	10990	7880	1.8	2x0.5	3.3	73.6	10760	7650
240	1.9	0.8	3.3	78.3	13370	9155	1.9	2x0.5	3.4	79.1	13120	8900
300	2.0	0.8	3.5	83.7	15760	10460	2.0	2x0.8	3.6	86.0	16360	11070
400	2.1	0.8	3.7	90.5	19050	12260	2.1	2x0.8	3.9	93.0	19750	12960
500	2.2	0.8	3.9	98.2	23160	14430	2.2	2x0.8	4.1	100.7	23900	15190

Electrical Data

Nom. Cross-Section Area	D C Resistance CU / AL	A C Resistance CU / AL	Short Circuit Rating of Conductor CU / AL 1 sec	Capacitance	Charging Current	Short Circuit Rating of Copper Wire Screen Per Core 1 sec	Short Circuit Rating of Copper Tape Screen Per Core 1 sec	Reactance	Inductance
mm ²	μΩm	μΩ/m	kA	pF/m	mA/m	kA	kA	μΩm	nH/m
25	727/1200	927/1538	3.6/2.3	176	0.48	2.6	0.6	132	410
35	524/868	668/1113	5.0/3.2	193	0.53	2.6	0.6	123	390
50	387/641	494/822	6.8/4.4	211	0.58	2.6	0.7	116	370
70	268/443	343/568	9.8/6.3	240	0.65	2.6	0.7	110	350
95	193/320	248/410	13.3/8.5	267	0.73	2.6	0.8	105	330
120	153/253	196/325	17.2/11.0	291	0.79	2.6	0.8	102	320
150	124/206	159/265	21.2/13.5	312	0.85	4.3	0.9	98	310
185	99.1/164	128/211	26.6/17.0	340	0.93	4.3	0.9	95	300
240	75.4/125	98/161	34.9/22.3	375	1.02	4.3	1.0	91	290
300	60.1/100	80/130	43.8/28.0	411	1.12	4.3	1.1	89	280
400	47.0/77.8	64/102	57.3/36.6	454	1.24	5.8	1.2	84	270
500	36.6/60.5	51/81	72.3/46.2	504	1.34	5.8	1.3	78	250

Three Core 12/20KV (Um=24KV)

Dimensional Data

				Unarmoured Cables				Steel Round-Wire Armoured Cables					
Nom. Cross-Section Area	Nom. Insulation Thickness	Copper Tape Thickness	Copper Wire Screen Area*	Nom. Sheath Thickness	Approx. Overall Diameter	Approx. Weight		Nom. Bedding Thickness	Armour Wire Size	Nom. Sheath Thickness	Approx. Overall Diameter	Approx. Weight	
						CU	AL					CU	AL
mm ²	mm	mm	mm ²	mm	mm	kg/km		mm	mm	mm	mm	kg/km	
35	5.5	0.1	16	2.7	51	2850	2180	1.5	2.5	2.9	60	5700	5010
50	5.5	0.1	16	2.8	54	3340	2450	1.6	2.5	3.0	62	6370	5480
70	5.5	0.1	16	2.9	58	4150	2850	1.6	2.5	3.1	66	7370	6070
95	5.5	0.1	16	3.0	62	5110	3310	1.7	3.15	3.3	72	9400	7600
120	5.5	0.1	16	3.1	65	5990	3730	1.8	3.15	3.4	75	10530	8270
150	5.5	0.1	25	3.2	68	6980	4180	1.8	3.15	3.5	80	11800	8940
185	5.5	0.1	25	3.3	72	8240	4740	1.9	3.15	3.7	83	13350	9850
240	5.5	0.1	25	3.6	79	10310	5700	2.0	3.5	3.8	90	16430	11820
300	5.5	0.1	25	3.7	84	12360	6570	2.1	3.5	4.0	95	18870	13080
400	5.5	0.1	35	3.9	91	15220	7830	2.2	4.0	4.3	103	23260	15930
500	5.5	0.1	35	4.1	97	19105	10325	2.3	4.2	4.5	110	27800	19170

*Optional wire screen can be provided in combination of copper tapes. Nominal screen area, as stated in the table, can be supplied as standard.

	Steel Flat Wire Armoured Cables						Double Steel Tape Armoured Cables					
Nom. Cross-Section Area	Nom. Bedding Thickness	Armour Wire Size	Nom. Sheath Thickness	Approx. Overall Diameter	Approx. Weight		Nom. Bedding Thickness	No of Steel Tapes x Nom Tape Thickness	Nom. Sheath Thickness	Approx. Overall Diameter	Approx. Weight	
					CU	AL					CU	AL
mm2	mm	mm	mm	mm	kg/km		mm	mm	mm	mm	kg/km	
35	1.5	0.8	2.7	55.7	5150	4530	1.5	2x0.5	2.8	56.5	4975	4355
50	1.6	0.8	2.8	58.2	5675	4935	1.6	2x0.5	2.9	59.0	5495	4750
70	1.6	0.8	2.9	61.9	6685	5570	1.6	2x0.5	3.0	62.7	6490	5375
95	1.7	0.8	3.0	66.4	7945	6390	1.7	2x0.5	3.1	67.2	7735	6180
120	1.8	0.8	3.1	70.0	9110	7103	1.8	2x0.5	3.2	70.8	8890	6880
150	1.8	0.8	3.2	73.2	10240	7770	1.8	2x0.5	3.3	74.0	10010	7535
185	1.9	0.8	3.3	77.7	11840	8750	1.9	2x0.5	3.4	78.5	11600	8500
240	2.0	0.8	3.5	83.2	14270	10070	2.0	2x0.8	3.6	85.5	14870	10680
300	2.1	0.8	3.6	88.6	16730	11440	2.1	2x0.8	3.8	91.1	17400	12130
400	2.2	0.8	3.9	95.6	20130	13350	2.2	2x0.8	4.0	97.9	20820	14050
500	2.3	0.8	4.1	103.3	24310	15600	2.3	2x0.8	4.2	105.6	25050	16350

Electrical Data

Nom. Cross-Section Area	D C Resistance CU / AL	A C Resistance CU / AL	Short Circuit Rating of Conductor CU / AL 1 sec	Capacitance	Charging Current	Short Circuit Rating of Copper Wire Screen Per Core 1 sec	Short Circuit Rating of Copper Tape Screen Per Core 1 sec	Reactance	Inductance
mm ²	μΩ/m	μΩ/m	kA	pF/m	mA/m	kA	kA	μΩ/m	nH/m
35	524/868	668/1113	5.0/3.2	168	0.67	2.6	0.7	129	410
50	387/641	494/822	6.8/4.4	183	0.73	2.6	0.8	122	390
70	268/443	343/568	9.8/6.3	207	0.83	2.6	0.8	115	370
95	193/320	248/410	13.3/8.5	229	0.92	2.6	0.9	110	350
120	153/253	196/325	17.2/11.0	249	1.00	2.6	0.9	106	340
150	124/206	159/265	21.2/13.5	266	1.06	4.3	1.0	103	330
185	99.1/164	128/211	26.6/17.0	289	1.16	4.3	1.0	100	320
240	75.4/125	98/161	34.9/22.3	318	1.27	4.3	1.1	95	300
300	60.1/100	80/130	43.8/28.0	348	1.39	4.3	1.2	93	290
400	47.0/77.8	64/102	57.3/36.6	388	1.53	5.8	1.3	87	280
500	36.6/60.5	51/81	72.3/46.2	422	1.67	5.8	1.4	78	250

Three Core 18/30KV (Um=36KV)

Dimensional Data

Nom. Cross-Section Area	Nom. Insulation Thickness			Unarmoured Cables				Steel Round-Wire Armoured Cables					
				Nom. Sheath Thickness	Approx. Overall Diameter	Approx. Weight		Nom. Bedding Thickness	Armour Wire Size	Nom. Sheath Thickness	Approx. Overall Diameter	Approx. Weight	
						CU	AL					CU	AL
mm ²	mm	Copper Tape Thickness	Copper Wire Screen Area*	mm	mm	kg/km		mm	mm	mm	mm	kg/km	
50	8.0	0.1	16	3.2	65	4340	3460	1.8	3.15	3.5	75	8950	8080
70	8.0	0.1	16	3.3	70	5220	3930	1.9	3.15	3.6	80	10150	8860
95	8.0	0.1	16	3.4	74	6240	4440	1.9	3.15	3.7	84	11390	9590
120	8.0	0.1	16	3.5	77	7180	4910	2.0	3.5	3.8	89	13200	10860
150	8.0	0.1	25	3.6	80	8220	5420	2.1	3.5	4.0	92	14520	11720
185	8.0	0.1	25	3.7	84	9540	6040	2.1	4.0	4.1	97	17020	13510
240	8.0	0.1	25	3.9	91	11720	7110	2.2	4.0	4.3	104	19810	15200
300	8.0	0.1	25	4.0	95	13790	8000	2.3	4.5	4.5	108	23310	17470
400	8.0	0.1	35	4.3	103	16820	9430	2.4	4.5	4.7	117	27010	19620
500	8.0	0.1	35	4.5	110	21550	12880	2.5	4.5	4.9	124	31130	22610

*Optional wire screen can be provided in combination of copper tapes. Nominal screen area, as stated in the table, can be supplied as standard.

Steel Flat Wire Armoured Cables							Double Steel Tape Armoured Cables					
Nom. Cross-Section Area	Nom. Bedding Thickness	Armour Wire Size	Nom. Sheath Thickness	Approx. Overall Diameter	Approx. Weight		Nom. Bedding Thickness	No of Steel Tapes x Nom Tape Thickness	Nom. Sheath Thickness	Approx. Overall Diameter	Approx. Weight	
					CU	AL					CU	AL
mm ²	mm	mm	mm	mm	kg/km		mm	mm	mm	mm	kg/km	
50	1.8	0.8	3.1	70.2	7490	6775	1.8	2x0.5	3.3	71.2	7300	6585
70	1.9	0.8	3.2	74.0	8590	7540	1.9	2x0.5	3.4	75.0	8390	7335
95	1.9	0.8	3.4	78.5	9990	8460	1.9	2x0.5	3.5	79.3	9740	8210
120	2.0	0.8	3.5	82.2	11250	9270	2.0	2x0.8	3.6	84.5	11845	9875
150	2.1	0.8	3.6	85.6	12510	10070	2.1	2x0.8	3.7	87.9	13120	10700
185	2.1	0.8	3.7	89.8	14155	11100	2.1	2x0.8	3.9	92.3	14850	11800
240	2.2	0.8	3.8	95.4	16740	12575	2.2	2x0.8	4.0	97.9	17480	13320
300	2.3	0.8	4.0	100.9	19310	14120	2.3	2x0.8	4.2	103.4	20080	14900
400	2.4	0.8	4.2	107.8	22840	16170	2.4	2x0.8	4.4	110.3	23660	17000
500	2.5	0.8	4.4	115.5	27200	18610	2.5	2x0.8	4.6	118.0	28080	19510

Electrical Data

Nom. Cross-Section Area	D C Resistance CU / AL	A C Resistance CU / AL	Short Circuit Rating of Conductor CU / AL 1 sec	Capacitance	Charging Current	Short Circuit Rating of Copper Wire Screen Per Core 1 sec	Short Circuit Rating of Copper Tape Screen Per Core 1 sec	Reactance	Inductance
mm ²	μΩ/m	μΩ/m	kA	pF/m	mA/m	kA	kA	μΩ/m	nH/m
50	387/641	494/822	6.8/4.4	142	0.85	2.6	1.0	134	430
70	268/443	343/568	9.8/6.3	159	0.95	2.6	1.0	127	400
95	193/320	248/410	13.3/8.5	175	1.05	2.6	1.1	121	390
120	153/253	196/325	17.2/11.0	189	1.13	2.6	1.1	117	370
150	124/206	159/265	21.2/13.5	201	1.21	4.3	1.2	113	360
185	99.1/164	128/211	26.6/17.0	217	1.3	4.3	1.2	109	350
240	75.4/125	98/161	34.9/22.3	237	1.42	4.3	1.3	104	330
300	60.1/100	80/130	43.8/28.0	258	1.55	4.3	1.4	101	320
400	47.0/77.8	64/102	57.3/36.6	282	1.69	5.8	1.5	96	290
500	36.6/60.5	51/81	72.3/46.2	302	1.79	5.8	1.6	78	250

Three Core 21/35KV (Um=42KV)

Dimensional Data

				Unarmoured Cables				Steel Round-Wire Armoured Cables					
Nom. Cross - Section Area	Nom. Insulation Thickness	Copper Tape Thickness	Copper Wire Screen Area*	Nom. Sheath Thickness	Approx. Overall Diameter	Approx. Weight		Nom. Bedding Thickness	Armour Wire Size	Nom. Sheath Thickness	Approx. Overall Diameter	Approx. Weight	
						CU	AL					CU	AL
mm ²	mm	mm	mm ²	mm	mm	kg/km		mm	mm	mm	mm	kg/km	
50	9.3	0.1	16	3.2	73.9	5320	4446	1.9	3.15	3.8	87.1	10970	10090
70	9.3	0.1	16	3.3	78.0	6166	4880	2.0	3.5	3.9	91.3	12220	10750
95	9.3	0.1	16	3.5	81.9	7144	5430	2.1	3.5	4.0	94.5	13560	11780
120	9.3	0.1	16	3.6	85.1	8232	6049	2.1	4.0	4.1	97.5	14880	13650
150	9.3	0.1	25	3.7	88.6	9273	6549	2.1	4.0	4.2	100.5	16150	14060
185	9.3	0.1	25	3.8	93.5	10845	7392	2.2	4.0	4.3	105.5	17840	14390
240	9.3	0.1	25	4.0	98.2	12675	8310	2.3	4.5	4.5	111.5	20410	15870
300	9.3	0.1	25	4.1	103.6	14960	9362	2.4	4.5	4.6	116.5	24100	18460
400	9.3	0.1	35	4.3	110.0	18055	10698	2.5	4.5	4.8	124.3	28680	20560

*Optional wire screen can be provided in combination of copper tapes. Nominal screen area, as stated in the table, can be supplied as standard.

	Steel Flat Wire Armoured Cables						Double Steel Tape Armoured Cables					
Nom. Cross-Section Area	Nom. Bedding Thickness	Armour Wire Size	Nom. Sheath Thickness	Approx. Overall Diameter	Approx. Weight		\ Nom. Bedding Thickness	No of Steel Tapes x Nom Tape Thickness	Nom. Sheath Thickness	Approx. Overall Diameter	Approx. Weight	
					CU	AL					CU	AL
mm2	mm	mm	mm	mm	kg/km		mm	mm	mm	mm	kg/km	
50	1.9	0.8	3.3	80.5	9825	8986	1.9	2x0.5	3.5	82.5	9625	8786
70	2.0	0.8	3.6	85.5	11015	9769	2.0	2x0.8	3.8	87.6	10825	9569
95	2.1	0.8	3.8	88.5	12360	10580	2.1	2x0.8	3.9	90.5	12116	10327
120	2.1	0.8	3.9	91.5	13900	11715	2.1	2x0.8	4.0	94.5	13306	11110
150	2.1	0.8	4.0	94.8	15160	12440	2.1	2x0.8	4.1	97.5	14550	11830
185	2.2	0.8	4.1	99.5	17500	13450	2.2	2x0.8	4.2	101.7	16810	12765
240	2.3	0.8	4.2	104.1	19390	14890	2.3	2x0.8	4.4	107.5	18650	14150
300	2.4	0.8	4.4	109.5	21970	16280	2.4	2x0.8	4.6	112.8	21200	15500
400	2.5	0.8	4.6	116.3	25600	18430	2.5	2x0.8	4.8	118.8	24780	17600

Electrical Data

Nom. Cross-Section Area	D C Resistance CU / AL	A C Resistance CU / AL	Short Circuit Rating of Conductor CU / AL 1 sec	Capacitance	Charging Current	Short Circuit Rating of Copper Wire Screen Per Core 1 sec	Short Circuit Rating of Copper Tape Screen Per Core 1 sec	Reactance	Inductance
mm ²	μΩ/m	μΩ/m	kA	pF/m	mA/m	kA	kA	μΩ/m	nH/m
50	387/641	494/822	6.8/4.4	135	0.91	2.6	1.1	140	450
70	268/443	343/568	9.8/6.3	151	1.01	2.6	1.1	134	415
95	193/320	248/410	13.3/8.5	166	1.11	2.6	1.2	126	405
120	153/253	196/325	17.2/11.0	179	1.21	2.6	1.2	123	385
150	124/206	159/265	21.2/13.5	189	1.29	4.3	1.3	118	375
185	99.1/164	128/211	26.6/17.0	202	1.38	4.3	1.3	114	365
240	75.4/125	98/161	34.9/22.3	221	1.49	4.3	1.4	109	345
300	60.1/100	80/130	43.8/28.0	240	1.65	4.3	1.5	105	335
400	47.0/77.8	64/102	57.3/36.6	267	1.75	5.8	1.6	101	305

Three Core 26/35KV (Um=42KV) Dimensional Data

Nom. Cross-Section Area	Unarmoured Cables			Steel Round-Wire Armoured Cables									
				Nom. Sheath Thickness	Approx. Overall Diameter	Approx.		Nom. Bedding Thickness	Armour Wire Size	Nom. Sheath Thickness	Approx. Overall Diameter	Approx.	
						CU	AL					CU	AL
mm ²	mm	mm	mm ²	mm	mm	kg/km		mm	mm	mm	mm	kg/km	
50	10.5	0.1	16	3.4	79.7	5928	5053	1.9	3.5	4.0	93.5	12050	11150
70	10.5	0.1	16	3.5	83.6	6900	5634	2.0	4.0	4.1	97.5	13150	11850
95	10.5	0.1	16	3.6	87.2	7863	6131	2.1	4.0	4.2	101.5	14800	12950
120	10.5	0.1	16	3.8	90.7	8817	6634	2.2	4.0	4.4	105.5	16050	13800
150	10.5	0.1	25	3.9	94.1	10085	7361	2.3	4.5	4.5	108.5	17420	14640
185	10.5	0.1	25	4.0	99.1	11573	8120	2.3	4.5	4.6	112	19200	15700
240	10.5	0.1	25	4.1	103.6	13387	9023	2.4	4.5	4.7	117	21050	16800
300	10.5	0.1	25	4.3	109.2	15658	10060	2.5	4.5	4.8	122.5	24900	19100
400	10.5	0.1	35	4.5	115.6	19013	11657	2.6	4.5	5.1	129	29200	21560

*Optional wire screen can be provided in combination of copper tapes. Nominal screen area, as stated in the table, can be supplied as standard.

	Steel Flat Wire Armoured Cables						Double Steel Tape Armoured Cables					
Nom. Cross-Section Area	Nom. Bedding Thickness	Armour Wire Size	Nom. Sheath Thickness	Approx. Overall Diameter	Approx. Weight		Nom. Bedding Thickness	No of Steel Tapes x Nom Tape	Nom. Sheath Thickness	Approx. Overall Diameter	Approx.	
					CU	AL					CU	AL
mm ²	mm	mm	mm	mm	kg/km		mm	mm	mm	mm	kg/km	
50	1.9	0.8	3.5	86.5	10880	9990	1.9	2x0.8	3.7	87.5	10690	9800
70	2.0	0.8	3.6	90.5	12000	10795	2.0	2x0.8	3.8	91.4	10800	10590
95	2.1	0.8	3.8	94.0	13360	11570	2.1	2x0.8	3.9	95.2	13110	11327
120	2.2	0.8	3.9	96.4	13705	12710	2.2	2x0.8	4.0	98.7	14300	12110
150	2.3	0.8	4.0	99.5	16160	13440	2.3	2x0.8	4.1	102.1	15550	12800
185	2.3	0.8	4.1	105.1	18505	14465	2.3	2x0.8	4.2	107.3	17810	13765
240	2.4	0.8	4.2	109.8	20390	15890	2.4	2x0.8	4.4	112.2	19650	15150
300	2.5	0.8	4.4	115.5	22970	17280	2.5	2x0.8	4.6	118.0	22200	16500
400	2.6	0.8	4.6	122.1	26600	19430	2.6	2x0.8	4.8	124.6	25780	18600

Electrical Data

Nom. Cross-Section Area	D C Resistance CU / AL	A C Resistance CU / AL	Short Circuit Rating of Conductor CU / AL 1 sec	Capacitance	Charging Current	Short Circuit Rating of Copper Wire Screen Per Core 1 sec	Short Circuit Rating of Copper Tape Screen Per Core 1 sec	Reactance	Inductance
mm ²	μΩ/m	μΩ/m	kA	pF/m	mA/m	kA	kA	μΩ/m	nH/m
50	387/641	494/822	6.8/4.4	131	0.97	2.6	1.2	146	470
70	268/443	343/568	9.8/6.3	145	1.07	2.6	1.2	139	430
95	193/320	248/410	13.3/8.5	158	1.18	2.6	1.3	132	420
120	153/253	196/325	17.2/11.0	169	1.26	2.6	1.3	128	400
150	124/206	159/265	21.2/13.5	178	1.36	4.3	1.4	123	390
185	99.1/164	128/211	26.6/17.0	185	1.44	4.3	1.4	118	380
240	75.4/125	98/161	34.9/22.3	203	1.57	4.3	1.5	113	360
300	60.1/100	80/130	43.8/28.0	219	1.72	4.3	1.6	109	350
400	47.0/77.8	64/102	57.3/36.6	245	1.85	5.8	1.7	105	320

**Current Rating for Three Core 1.8/3KV(Um=7.2)KV
to 26/35KV(Um=42KV) XLPE Insulation**

	Unarmored						Armored					
Nom. Cross- Section Area	Buried Direct in Ground		Laid in Single Way Duct		Laid in Air		Buried Direct in Ground		Laid in Single Way Duct		Laid in Air	
	CU	AL	CU	AL	CU	AL	CU	AL	CU	AL	CU	AL
mm ²	A		A		A		A		A		A	
10	76	53	62	42	87	62	76	53	63	43	88	63
16	101	78	87	67	109	84	101	78	88	68	110	85
25	129	100	112	87	142	110	129	100	112	87	143	111
35	153	119	133	103	170	132	154	119	134	104	172	133
50	181	140	158	122	204	158	181	140	158	123	205	159
70	221	171	193	150	253	196	220	171	194	150	253	196
95	262	203	231	179	304	236	263	204	232	180	307	238
120	298	232	264	205	351	273	298	232	264	206	352	274
150	334	260	297	231	398	309	332	259	296	231	397	309
185	377	294	336	262	455	355	374	293	335	262	453	354
240	434	340	390	305	531	415	431	338	387	304	529	415
300	489	384	441	346	606	475	482	380	435	343	599	472
400	553	438	501	398	696	552	541	432	492	393	683	545
500	613	498	541	451	786	652	601	492	532	446	773	645
630	663	568	591	501	896	762	651	562	582	496	883	755

**Current Rating for Three Core 1.8/3KV(Um=7.2)KV
to 26/35KV(Um=42KV) EPR Insulation**

	Unarmored						Armored					
Nom. Cross- Section Area	Buried Direct in Ground		Laid in Single Way Duct		Laid in Air		Buried Direct in Ground		Laid in Single Way Duct		Laid in Air	
	CU	AL	CU	AL	CU	AL	CU	AL	CU	AL	CU	AL
mm ²	A		A		A		A		A		A	
10	73	51	59	40	82	58	73	51	60	41	82	59
16	98	76	84	65	104	80	98	76	85	66	104	81
25	125	97	109	84	135	105	125	97	109	85	136	105
35	150	116	130	101	164	127	150	116	131	101	164	127
50	176	137	154	119	195	151	177	137	155	120	197	153
70	216	167	189	147	243	189	216	168	190	147	244	190
95	258	200	227	176	296	229	257	200	227	176	296	230
120	292	227	258	201	339	263	292	227	259	201	339	264
150	328	255	291	226	385	299	327	254	291	226	385	300
185	371	289	330	257	441	343	368	288	328	257	439	343
240	429	335	384	300	519	406	424	332	381	299	513	402
300	482	378	434	340	590	462	475	374	429	338	583	459
400	545	432	494	392	678	538	534	426	485	387	666	530
500	605	492	534	445	768	638	594	486	525	440	756	630
630	655	562	584	495	878	749	644	556	575	490	862	741

Current Rating Conditions:
Ground Temperature: 20°C
Ambient Temperature (air): 30°C
Depth of Soil: 0.8 m
Thermal Resistance of Soil: 1.5K•m/W

CVV Plastic Insulated Control Cable



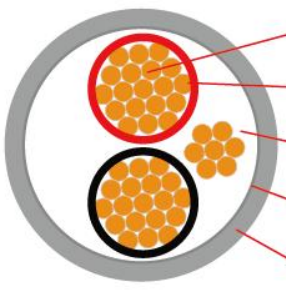
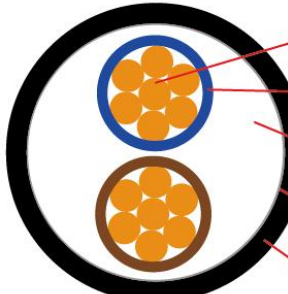
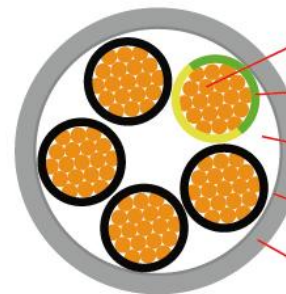
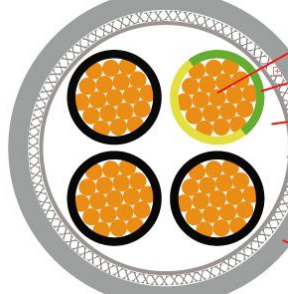
Product standard

This product is manufactured according to IEC, GB and enterprise standards.

Application

For system connection wire of control, signal, protection or measuring with rated voltage up to and including 450/750V.

Construction

 1.Tinned copper conductor 2.FR-PVC insulation 3.Tinned copper drain wire 4.Aluminum-plastic composite tape 5.FR-PVC outer sheath	 1.Flexible copper conductor 2.PVC insulation 3.Filler 4.Wrapping tape 5.PVC outer sheath
 1.Flexible copper conductor 2.PVC insulation 3.Filler 4.Wrapping tape 5.LSZH outer sheath	 1.Flexible copper conductor 2.PVC insulation 3.Filler 4.Wrapping tape 5.Tinned copper wire braided 6.LSZH outer sheath

Operating characteristics

Rated voltages U_0/U : 450/750V

Permissible Max. continuous operating temperature of conductor:

PVC insulated: 70°C; XLPE insulated: 90°C.

Upon short circuit (Max. Duration time 5s) the Max.temperature of conductor not higher than:

PVC insulated: 160°C; XLPE insulated 250°C.

Ambient temperature of installation not less than 0°C.

Preferred permissible bending radium:

For non-armored cable, not less than 6 times of cable diameter;

For armored or copper-tape-screened cable, not less than 12 times of cable diameter;

For screened flexible cable, not less than 6 times of cable diameter.

Type, designation and application

Type	Designation	Main applications
KVV/KYJV	Copper conductor PVC/XLPE insulated PVC sheathed control cable	For fixed-laying indoors, in cable duct or conduit
KVVP/KYJVP	Copper conductor XLPE/PVC insulated PVC sheathed braid screened control cable	For fixed-laying indoors, in cable duct or conduit upon screen requirement
KVVP2/KYJVP2	Copper conductor PVC/XLPE insulated PVC sheathed copper tape screened control cable	For fixed-laying indoors, in cable duct or conduit upon screen requirement
KVV22/KYJV22	Copper conductor PVC/XLPE insulated PVC sheathed steel tape armored control cable	For fixed-laying indoors, in cable duct direct-buried, able to bear larger mechanical forces
KVV32/KYJV32	Copper conductor PVC/XLPE insulated PVC sheathed fine steel wire armored control cable	For fixed-laying indoors, in cable duct, conduit or well, able to bear larger mechanical forces
KVVR/KYJVR	Copper conductor PVC/XLPE insulated PVC sheathed control flexible cable	For laying indoors upon moveable requirement
KVVRP/KYJVRP	Copper conductor PVC/XLPE insulated PVC sheathed braid screened control flexible cable	For laying indoors upon moveable and screen requirement

Type range

Type	Rated voltage V	Nominal cross-section of conductor（mm2）							
		0.5	0.75	1.0	1.5	2.5	4	6	10
		No. of cores							
KVV/KYJV KVVP/KYJVP	450/750		2~61			2~14		2~10	
KVVP2/KYJVP2			4~61			4~14		4~10	
KVV22/KYJV22			7~61		4~61	4~14		4~10	
KVV32/KYJV32			19~61		7~61		4~14		4~10
KVVR/KYJVR		4~61							
KVVRP/KYJVRP		4~61			4~48				

Note:

- 1) Preferred number of cores: 2、3、4、5、7、8、10、12、14、16、19、24、27、30、37、44、48、52、61.
- 2) The special types of fire-retardant, flame-resisting, low-fume and low-halogen, low-fume and non-halogen as well as acid-alkali-proof for these cables may be supplied upon requests.

Technical Data

1) Conductors have three species:

First (Solid conductor) (A), Second for fixed installation (B) (Stranded conductor), and Third for moveable requirement (R) (stranded flexible conductor).

2) The structure and D. C. resistance.

3) The screen layer of cables shall be braided with copper wire or applied helically with copper tape.

Nominal cross-section mm ²	Conductor structure		D.C. resistance of conductor at 20°C	
	Class	No./Nomi. Diameter of a single wire (mm)	Un-Tinned wire	Tinned wire
0.5	5	16/0.20	39.0	40.1
0.75	1	1/0.97	24.5	24.8
0.75	2	7/0.37	24.5	24.8
0.75	5	24/0.20	26.0	26.7
1.0	1	1/1.13	18.1	18.2
1.0	2	7/0.43	18.1	18.2
1.0	5	32/0.20	19.5	20.0
1.5	1	1/1.38	12.1	12.2
1.5	2	7/0.52	12.1	12.2
1.5	5	30/0.25	13.3	13.7
2.5	1	1/1.78	7.41	7.56
2.5	2	7/0.68	7.41	7.56
2.5	5	50/0.25	7.98	8.21
4	1	1/2.25	4.61	4.70
4	2	7/0.85	4.61	4.70
6	1	1/2.76	3.08	3.11
6	2	7/1.04	3.08	3.11
10	2	7/1.35	1.83	1.84

Calculated Data

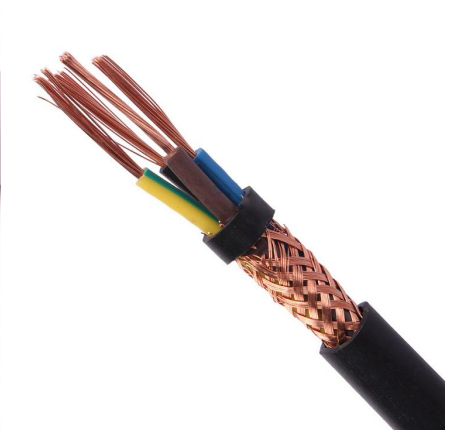
No.×Nom. cross-section mm ²	Largest diameter of cables							Calculated weight of cables (kg/km)						
	KVV	KVVP	KVVP2	KVV22	KVV32	KVVR	KVVRP	KVV	KVVP	KVVP2	KVV22	KVV32	KVVR	KVVRP
2×0.75	8.0	9.3	—	—	—	—	—	72	114	—	—	—	—	—
2×1.0	8.3	9.6	—	—	—	—	—	81	124	—	—	—	—	—
2×1.5	9.3	10.6	—	—	—	—	—	109	157	—	—	—	—	—
2×2.5	10.8	11.9	—	—	—	—	—	154	201	—	—	—	—	—
2×4	11.8	13.9	—	—	—	—	—	187	346	—	—	—	—	—
2×6	13.0	15.0	—	—	—	—	—	241	351	—	—	—	—	—
2×10	16.3	17.8	—	—	—	—	—	391	502	—	—	—	—	—
2×0.75	8.3	9.6	—	—	—	—	—	87	130	—	—	—	—	—
3×1.0	8.8	10.0	—	—	—	—	—	98	143	—	—	—	—	—
3×1.5	9.9	11.1	—	—	—	—	—	127	177	—	—	—	—	—
3×2.5	11.3	12.6	—	—	—	—	—	181	238	—	—	—	—	—
3×4	12.5	14.5	—	—	—	—	—	234	347	—	—	—	—	—

3×6	13.3	15.8	—	—	—	—	—	329	470	—	—	—	—	—
3×10	17.3	18.7	—	—	—	—	—	511	632	—	—	—	—	—
4×0.5	—	—	—	—	—	8.7	9.9		153	—	—	—	96	141
4×0.75	9.1	10.3	9.2	—	—	9.3	10.5	104	163	144	—	—	114	164
4×1.0	9.5	10.7	9.6	—	—	9.6	10.8	119	203	153	—	—	123	179
4×1.5	10.7	11.9	10.7	—	—	10.9	12.1	156	330	192	—	—	158	210
4×2.5	12.4	14.4	12.9	—	—	12.5	14.6	226	436	276	—	—	228	336
4×4	14.3	15.7	14.0	16.5	19.6	—	—	315	530	367	505	856	—	—
4×6	15.6	17.0	15.2	17.8	20.2	—	—	413	768	467	619	995	—	—
4×10	18.9	20.8	19.8	22.4	25.8	—	—	644	—	728	947	1584	—	—
5×0.5	—	—	—	—	—	9.3	10.5	—	162		—	—	108	164
5×0.75	9.8	11.0	9.9	—	—	10.0	11.2	119	193	152	—	—	122	174
5×1.0	10.2	11.4	10.3	—	—	10.4	11.6	142	248	174	—	—	148	208
5×1.5	11.6	12.8	12.23	—	—	11.9	13.1	190	390	226	—	—	200	267
5×2.5	14.1	15.5	13.91	—	—	14.3	15.7	290	501	325	—	—	296	399
5×3	15.5	16.9	15.18	17.6	20.8	—	—	383	626	427	586	962	—	—
5×6	17.0	18.4	16.55	19.5	22.2	—	—	505		567	737	1130	—	—
5×10	21.8	22.6	22.2	24.1	27.6	—	—	830	986	924	1125	1814	—	—
7×0.5	—	—	—	—	—	10.0	11.2	—	—	—	—	—	118	164
7×0.75	10.5	11.7	10.5	13.7	—	10.8	12.0	146	202	178	317	—	149	218
7×1.0	11.0	12.2	11.0	14.2	—	11.2	12.4	169	216	209	354	—	172	224
7×1.5	12.5	14.4	13.1	15.6	17.6	12.8	14.7	225	330	289	425	712	233	338
7×2.5	15.3	16.7	14.9	17.5	20.6	15.4	16.8	353	471	398	554	923	359	482
7×4	16.8	18.2	16.3	18.9	22.0	—	—	473	601	527	701	1108	—	—
7×6	18.5	19.9	17.9	20.9	24.3	—	—	652	789	717	900	1484	—	—
7×10	23.6	24.2	24.1	28.0	29.5	—	—	1082	1216	1145	1397	2140	—	—
8×0.5	—	—	—	—	—	10.5	11.7	—	—	—	—	—	126	174
8×0.75	11.0	12.2	11.7	14.3	—	11.3	12.5	166	217	206	344	—	174	229
8×1.0	11.6	13.5	12.2	14.8	—	11.8	13.6	193	243	230	378	—	196	254
8×1.5	13.9	15.3	13.7	16.3	19.4	14.2	15.6	277	387	312	467	811	285	393
8×2.5	16.1	17.5	15.7	18.3	21.4	16.3	17.7	405	524	486	614	1002	412	536
8×4	17.8	19.6	17.7	20.2	23.7	—	—	545	681	589	789	1354	—	—
8×6	20.1	21.5	19.3	21.9	25.4	—	—	748	898	792	989	160	—	—
8×10	25.1	26.1	25.5	27.5	30.9	—	—	1210	1386	1236	1542	2332	—	—
10×0.5	—	—	—	—	—	12.2	14.1	—	—	—	—	—	147 78	194

10×0.75	12.9	15.0	13.5	16.0	—	13.3	15.3	205	300	214	—	—	216	310
10×1.0	14.3	15.7	14.1	16.7	—	14.5	15.9	256	368	300	449	—	269	386
10×1.5	16.3	17.7	16.0	18.5	21.6	16.7	18.1	340	456	387	558	957	352	472
10×2.5	19.1	20.5	18.9	21.5	24.9	19.3	20.7	500	636	572	753	1362	516	647
10×4	22.1	22.9	21.4	23.3	26.8	—	—	721	863	787	956	1618	—	—
10×6	24.4	25.4	23.4	25.4	28.8	—	—	956	1108	992	1203	1931	—	—
10×10	29.9	30.9	30.3	33.0	37.9	—	—	1523	1648	1590	—	3160	—	—
12×0.5	—	—	—	—	—	12.6	14.4	—	—	—	—	—	176	224
12×0.75	13.9	15.3	13.8	16.4	—	14.3	15.7	240	345	301	—	—	252	356
12×1.0	14.7	16.1	14.5	17.0	—	14.9	16.3	289	396	312	485	—	295	403
12×1.5	16.7	18.1	16.4	19.0	22.1	17.2	18.6	386	498	423	609	1018	394	512
12×2.5	19.6	21.5	19.5	22.0	25.5	20.5	21.7	572	703	654	829	1455	581	712
12×4	22.8	23.6	22.0	24.0	27.4	—	—	825	970	887	1061	1744	—	—
12×6	25.2	26.2	24.1	26.1	29.5	—	—	1102	1276	1189	1356	2100	—	—
14×0.5	—	—	—	—	—	13.2	15.2	—	—	—	—	—	198	246
14×0.75	14.6	16.0	14.4	17.0	—	15.0	16.4	285	396	312	—	—	296	408
14×1.0	15.4	16.8	15.1	17.7	—	15.6	17.0	321	443	398	530	—	333	457
14×1.5	17.5	18.9	17.2	20.2	23.6	18.0	19.7	432	550	492	684	1248	445	564
14×2.5	21.2	22.5	20.4	22.9	26.0	21.5	22.7	670	800	721	913	1563	683	814
14×4	23.9	24.7	23.0	25.0	28.5	—	—	929	1078	973	1171	1888	—	—
14×6	26.4	27.4	25.3	27.2	30.7	—	—	1246	1300	1203	1508	2290	—	—
16×0.5	—	—	—	—	—	14.5	15.9	—	—	—	—	—	246	291
16×0.75	15.3	16.7	15.1	17.6	—	15.7	17.1	312	423	400	—	—	323	441
16×1.0	16.1	17.5	15.8	18.4	—	16.4	17.8	359	469	389	576	—	373	487
16×1.5	18.4	19.8	18.0	21.0	24.5	18.9	20.3	485	596	489	745	1337	496	614
16×2.5	22.8	23.6	22.0	23.9	27.4	23.0	23.8	775	880	789	1005	1687	787	892
19×0.5	—	—	—	—	—	15.2	16.6	—	—	—	—	—	287	346
19×0.75	16.0	17.4	15.8	18.3	21.4	16.5	17.9	347	456	386	—	637	359	473
19×1.0	16.9	18.3	16.6	19.5	22.2	17.2	18.6	408	517	413	645	1039	421	529
19×1.5	19.4	21.2	19.3	21.9	25.4	20.5	21.7	533	674	612	824	1442	564	696
19×2.5	23.9	24.7	23.0	25.0	28.5	24.2	25.0	1053	1053	986	1119	1834	898	1069
24×0.5	—	—	—	—	—	17.4	18.8	—	—	—	—	—	327	396
24×0.75	18.4	19.8	18.0	21.0	24.5	19.0	20.4	400	523	476	—	1021	414	536
24×1.0	19.5	21.4	19.4	22.0	25.5	19.8	21.7	510	634	580	776	1401	516	656
24×1.5	23.5	24.3	22.9	24.8	28.3	24.2	25.0	744	866	792	1001	1709	759 79	884

24×2.5	27.7	28.7	26.6	28.5	32.0	28.1	29.1	1110	1258	1179	1376	2199	1128	1279
27×0.5	—	—	—	—	—	17.8	19.2	—	—	—	—	—	359	489
27×0.75	18.8	20.2	18.8	21.4	24.8	19.4	20.8	476	600	503	—	1180	492	634
27×1.0	20.5	21.8	19.8	22.4	25.8	20.8	22.1	578	713	612	821	1458	596	737
27×1.5	24.0	24.8	23.3	25.3	28.7	24.6	25.4	807	957	886	1063	1788	824	983
27×2.5	28.3	29.3	27.1	29.1	32.5	28.6	29.6	1209	1359	1286	1480	2316	1225	1378
30×0.5	—	—	—	—	—	18.4	19.8	—	—	—	—	—	396	554
30×0.75	19.4	21.3	19.4	22.0	25.4	20.6	21.9	523	635	600	—	1240	539	658
30×1.0	21.6	22.4	20.5	23.0	26.5	22.0	22.8	651	786	725	883	1536	667	799
30×1.5	24.8	25.8	24.1	26.0	29.5	25.5	26.5	882	1093	891	1150	1893	897	1123
30×2.5	29.3	30.3	28.1	30.8	35.6	29.7	30.7	1327	1473	1384	1808	2851	1343	1496
37×0.5	—	—	—	—	—	19.7	21.5	—	—	—	—	—	470	594
37×0.75	21.9	22.7	21.4	23.3	26.8	22.5	23.3	600	704	588	—	1398	616	731
37×1.0	23.2	24.0	22.5	24.4	27.9	23.5	24.3	771	912	887	1013	1710	792	945
37×1.5	26.4	27.6	25.8	27.7	31.2	27.4	28.4	1050	1196	1105	1331	2127	1072	1224
37×2.5	31.5	33.2	30.8	33.5	37.6	31.9	33.6	1591	1741	1681	2139	3213	1612	1768
44×0.5	—	—	—	—	—	22.4	23.8	—	—	—	—	—	540	620
44×0.75	24.3	25.3	23.7	25.6	29.1	25.1	26.1	745	887	809	—	1576	764	908
44×1.0	25.8	27.0	24.9	26.9	30.4	26.2	27.2	915	1035	987	1184	1952	938	1076
44×1.5	29.7	30.7	28.7	32.1	36.2	30.6	31.6	1251	1394	1315	1817	2838	1274	1421
44×2.5	36.0	37.2	34.3	37.5	41.2	36.4	37.6	1950	2100	2018	2532	3699	1974	2128
48×0.5	—	—	—	—	—	23.3	24.1	—	—	—	—	—	598	686
48×0.75	24.7	25.7	24.0	26.0	29.4	25.4	26.4	832	927	887	—	1789	854	958
48×1.0	26.2	27.2	25.3	27.3	30.7	26.6	27.6	967	1097	1023	1236	2018	986	1118
48×1.5	30.2	31.2	29.2	32.6	36.7	31.1	32.1	1326	1487	1397	1890	2935	1352	1508
48×2.5	36.5	37.2	34.9	38.1	41.6	37.0	38.2	2070	2147	2097	2662	3843	2094	2178
52×0.5	—	—	—	—	—	23.9	24.7	—	—	—	—	—	634	763
52×0.75	25.3	26.3	24.6	26.6	30.0	26.1	27.1	898	1009	935		1920	912	1034
52×1.0	26.9	27.9	26.0	27.9	31.4	27.3	28.3	1035	1187	1113	1305	2109	1056	1214
52×1.5	31.0	32.6	30.6	33.3	36.3	31.9	—	1420	1578	1493	1997	3068	1449	—
52×2.5	37.5	39.2	35.8	39.0	41.5	38.0	—	222	2396	2298	2819	4032	2249	—
61×0.5	—	—	—	—	—	25.2	26.2	—	—	—	—	—	689	812
61×0.75	26.8	27.8	26.0	27.9	31.4	27.6	28.6	967	1087	1025	—	2084	991	1109
61×1.0	28.4	29.4	27.4	29.3	32.8	28.8	29.8	1186	1316	1256	1470	2314	1209	1348

LIYCY RE-2X(st)H Shielded Cable & Instrument Cable



Product standard

The main technique indexes are in accordance with TICW/06-2009, BS5308, IEC189, JIS528 standard.

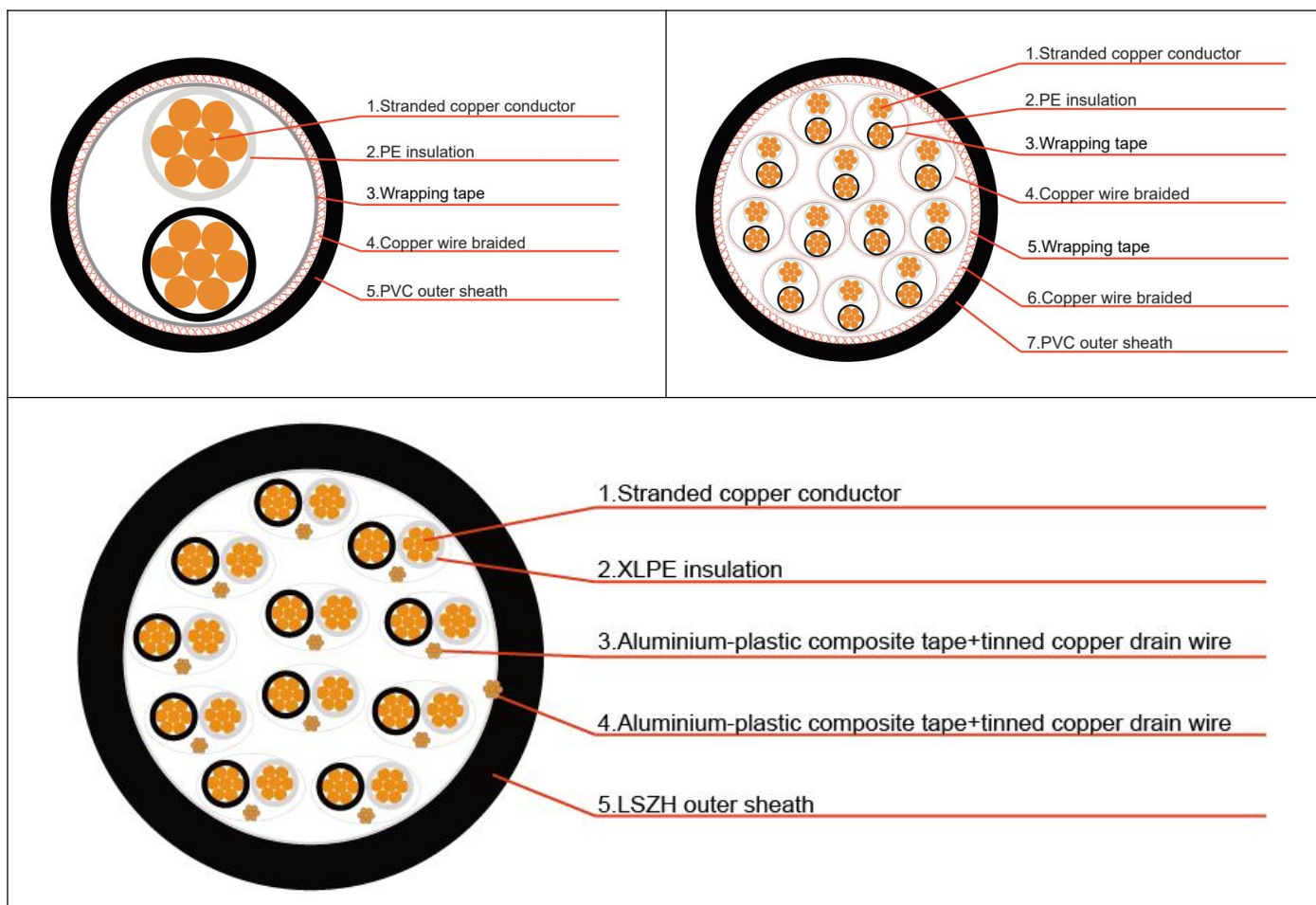
Application

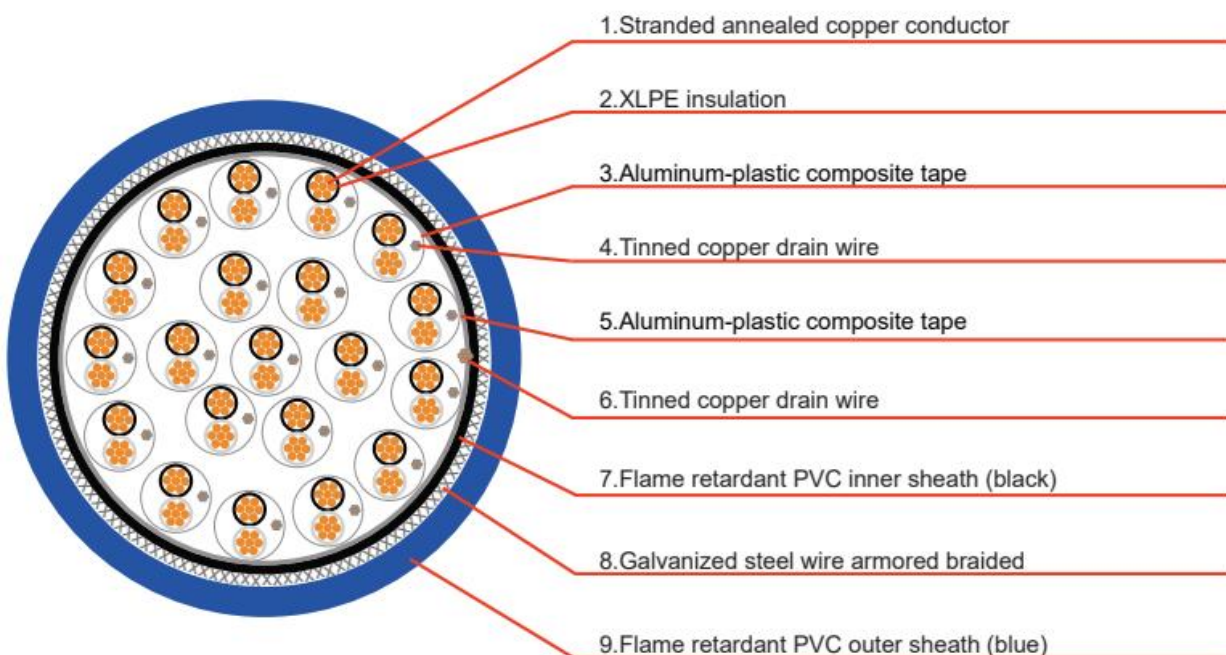
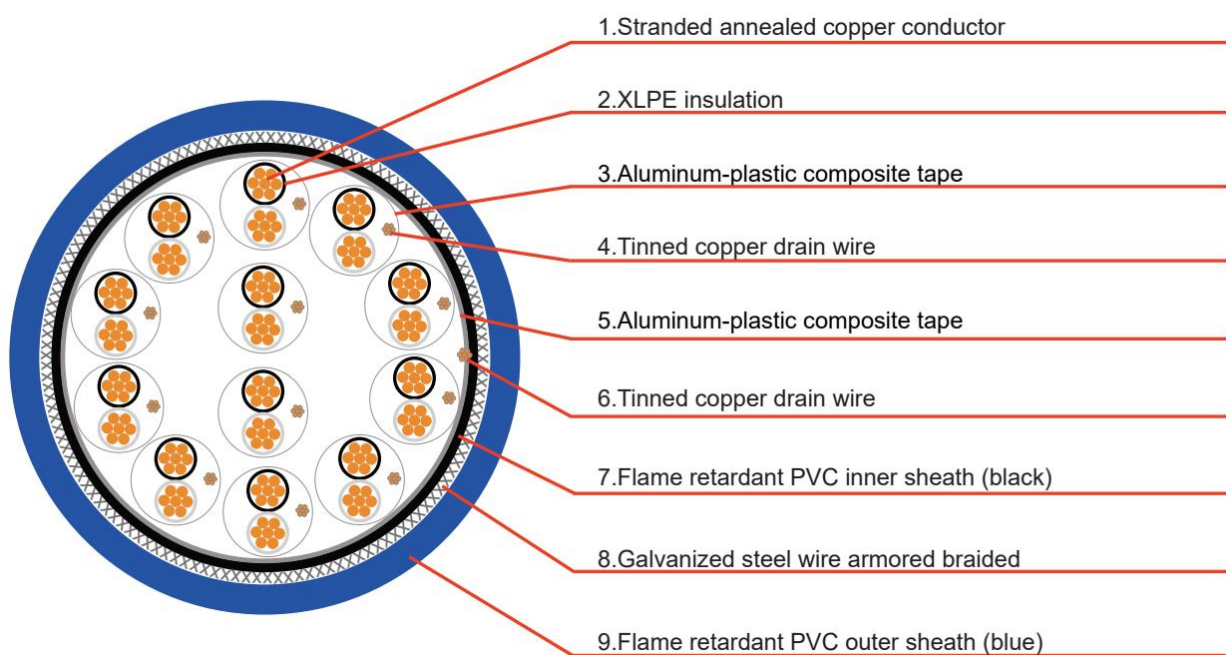
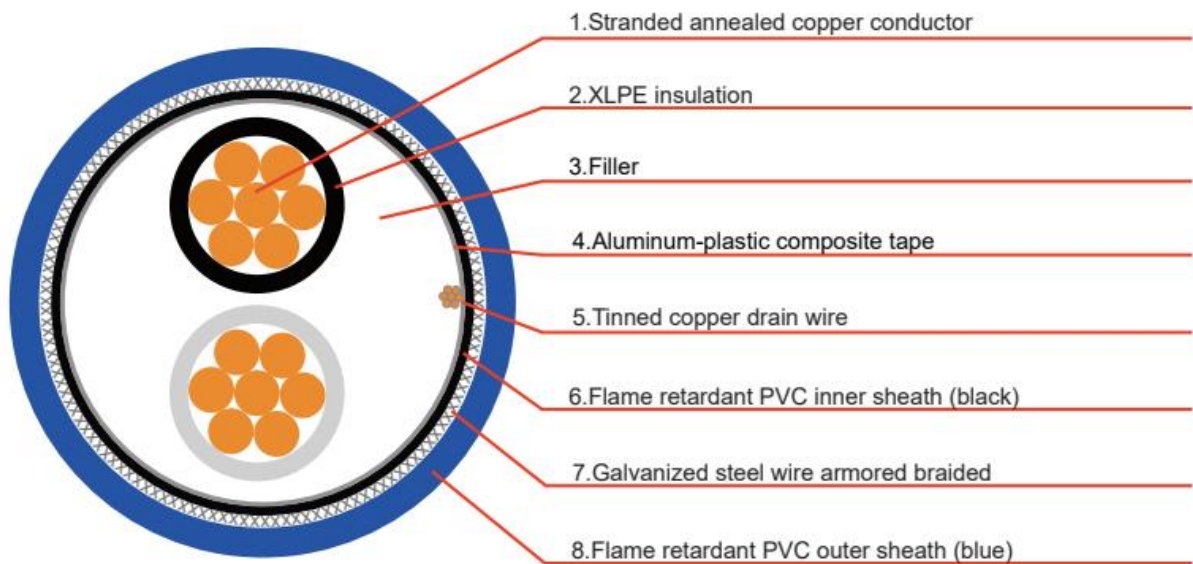
The product applies to the signal transmission of computer control system, distribution control system, auto-instrument and testing instrument which require AC voltage rating 300/500V and below and high interference resistance.

Construction

	BS5308-1	BS5308-2	PAS5308-1	PAS5308-2	BSEN 50288-7
Conductor	Plain annealed copper, solid or stranded (BS6360)	Plain annealed copper, stranded (BS6360)	Plain annealed copper, multi-stranded (BS EN 60228)	Plain annealed copper, multi-stranded (BS EN 60228)	Plain annealed or metal-coated, solid or stranded (IEC 60288)
Conductor size	0.5mm ² to 1.5mm ²	0.5mm ² to 1.5mm ²	0.5mm ² to 2.5mm ²	0.5mm ² to 2.5mm ²	0.5mm ² to 4.0mm ²
Voltage range	300/500V	300/500V	300/500V	300/500V	90V, 300V, 500V
Insulation	PE Type 03	Polyvinyl Chloride (PVC) Type TI1	Thermoplastic PE or Cross-linked Polyethylene (XLPE)	PVC Type TI51	PVC, PE, XLPE, Polypropylene or Halogen-free flame retardant compound
Formation	Core pair twisted quad	Core pair twisted quad	Core pair twisted quad	Core pair twisted quad	Twisted core pair, triple or quad
Individual and/or Screen	Aluminium foil laminate tape (PET)	Al/PET	Al/PET	Al/PET	Al/PET
Drain Wire	Solid or stranded tinned annealed copper	Solid or stranded tinned annealed copper	Solid or stranded tinned annealed copper	Solid or stranded tinned annealed copper	Solid tinned copper
Braid	Not defined	Not defined	Not defined	Not defined	Tinned copper wires
Covering	Not defined	Not defined	Not defined	Not defined	Lead sheath to EN 50307
Inner Sheath	Extruded PE compound Type 2C or Extruded Polyvinyl Chloride	Extruded PVC Type TM1	Extruded PE compound Type 2 or Extruded PVC Type TM51	Extruded PVC Type TM51	PVC, PE or Low Smoke Zero Halogen (LSZH) compound

	BS5308-1	BS5308-2	PAS5308-1	PAS5308-2	BSEN 50288-7
	(PVC) Type TM1				
Armour	Galvanised steel wire armour (GSA)	GSA	GSA	GSA	Steel wire armour (SWA)
Moisture barrier	Not defined	Not defined	Not defined	Not defined	Water-swellaable tape, water-swellaable non-toxic powder, filling compound, laminated sheath of a longitudinally overlapped metallic foil, or a combination of all
Outer sheath	Extruded Polyvinyl Chloride (PVC) Type TM1	Extruded PVC Type TM1 (type 1 & 2)	Extruded PVC Type TM51	Extruded PVC Type TM51	PVC, PE or Lo





Operating characteristics

1.The cable is characterized in small medium loss angle, good alterability to jamming and powerful ability of current capacity. It also can resist heat, resist radiation, protect corrosion, protect water. It has good pressure-tightness.

2.Low smoke low halogen cable is characterized in low smoke and hydrochloric gas release. It won' t extend flame. And it hasn' t pollution nuisance so that it has high security.

3.XLPE insulated cable has large capacity of current and light and protable structure. It can also be laid with no limitation of level difference along the route. The cable 's maximum overload temperature in short term is 130℃.When the cores short circuit, the maximum temperature is 250℃ and the longest time is 5 seconds.

4.Fluorine-plastic and silicon-rubber cable has good heat resistance. They can be used in heat circumstances for long time. Silicon-rubber cable also has good water proofness. It' s very soft and easy to be laid.

5.The minimum laying temperature of the cable is 0℃. The minimum bend radius hard structure is 10 times of the outer diameter and the minimum soft structure is 8 times of the outer diameter.

Type and Name

Type	Designation	Application
DJYPV	PE insulated pair twisted copper-wire-braided pair shielded PVC sheathed computer cable	Fixed-installation
DJYP2V	PE insulated pair twisted copper-tape pair shielded PVC sheathed computer cable	Fixed-installation
DJYP3V	PE insulated pair twisted aluminum-plastic compounded tape pair shielded PVC sheathed computer cable	Fixed-installation
DJYVP	PE insulated pair twisted copper-wire-braided common shielded PVC sheathed computer cable	Fixed-installation
DJYVP2	PE insulated pair twisted copper-tape common shielded PVC sheathed computer cable	Fixed-installation
DJYVP3	PE insulated pair twisted aluminum-plastic compounded tape common shielded PVC sheathed computer cable	Fixed-installation
DJYPVP	PE insulated pair twisted copper-wire-braided pair and common shielded PVC sheathed computer cable	Fixed-installation
DJYP2VP2	PE insulated pair twisted copper-tape pair and common shielded PVC sheathed computer cable	Fixed-installation
DJYP3VP3	PE insulated pair twisted aluminum-plastic compounded tape pair and common shielded PVC sheathed computer cable	Fixed-installation
DJYPVR	PE insulated pair twisted copper-wire-braided pair shielded PVC sheathed computer flexible cable	Moveable using
DJYP2VR	PE insulated pair twisted copper-tape pair shielded PVC sheathed computer flexible cable	Moveable using
DJYP3VR	PE insulated pair twisted aluminum-plastic compounded tape pair shielded PVC sheathed computer flexible cable	Moveable using
DJYPVPR	PE insulated pair twisted copper-wire-braided pair and common shielded PVC sheathed computer flexible cable	Moveable using
DJYP2VP2R	PE insulated pair twisted copper-tape pair and common shielded PVC sheathed computer flexible cable	Moveable using
DJYP2VP3R	PE insulated pair twisted aluminum-plastic compounded tape pair and common shielded PVC sheathed computer flexible cable	Moveable using
DJVPVP	PVC insulated pair twisted copper-wire-braided pair and common shielded PVC sheathed	Fixed-installation

	computer cable	
DJVP2VP2	PVC insulated pair twisted copper-tape pair and common shielded PVC sheathed computer cable	Fixed-installation
DJVP3VP3	PVC insulated pair twisted aluminum-plastic compounded tape pair and common shielded PVC sheathed computer cable	Fixed-installation
DJVPVPR	PVC insulated pair twisted copper-wire-braided pair and common shielded PVC sheathed computer flexible cable	Moveable using
DJVP2VP2R	PVC insulated pair twisted copper-tape pair and common shielded PVC sheathed computer flexible cable	Moveable using
DJVP3VP3R	PVC insulated pair twisted aluminum-plastic compounded tape pair and common shielded PVC sheathed computer flexible cable	Moveable using
DJVVP	PVC insulated pair twisted copper-wire-braided common shielded PVC sheathed computer cable	Moveable using
DJVVPR	PVC insulated pair twisted copper-wire-braided common shielded PVC sheathed computer flexible cable	Moveable using
DJVVP2R	PVC insulated pair twisted copper-tape common shielded PVC sheathed computer flexible cable	Moveable using
DJVVP3R	PVC insulated pair twisted aluminum-plastic compounded type common shielded PVC sheathed computer flexible cable	Moveable using
DJVV	PE insulated pair twisted PVC sheathed computer cable	Fixed-installation
DJVVP	PVC insulated pair twisted copper-wire-braided common shielded PVC sheathed computer cable	Fixed-installation
DJVVP2	PVC insulated pair twisted copper-tape common shielded PVC sheathed computer cable	Fixed-installation
DJVVP3	PVC insulated pair twisted aluminum-plastic compounded tape common shielded PVC sheathed computer cable	Fixed-installation
DJYPV22	PE insulated pair twisted copper-wire-braided pair shielded double steel tape armored PVC sheathed computer cable	Fixed-installation
DJYP2V22	PE insulated pair twisted copper-tape pair shielded double steel tape armored PVC sheathed computer cable	Fixed-installation
DJYP3V22	PE insulated pair twisted aluminum-plastic compounded tape pair shielded double steel tape armored PVC sheathed computer cable	Fixed-installation
DJYVP22	PE insulated pair twisted copper-wire-braided common shielded double steel tape armored PVC sheathed computer cable	Fixed-installation
DJYVP3-22	PE insulated pair twisted aluminum-plastic compounded tape common shielded double steel tape armored PVC sheathed computer cable	Fixed-installation
DJYPVP22	PE insulated pair twisted copper-wire-braided pair and common shielded double steel tape armored PVC sheathed computer cable	Fixed-installation
DJYP2VP2-22	PE insulated pair twisted copper-tape pair and common shielded double steel tape armored PVC sheathed computer cable	Fixed-installation
DJYP3VP3-22	PE insulated pair twisted aluminum-plastic compounded tape pair and common shielded double steel tape armored PVC sheathed computer cable	Fixed-installation
DJVPVP22	PVC insulated pair twisted copper-wire-braided pair and common shielded double steel tape armored PVC sheathed computer cable	Fixed-installation
DJVP2VP2-22	PVC insulated pair twisted copper-tape pair and common shielded double steel tape armored PVC sheathed computer cable	Fixed-installation
DJVP3VP3-22	PVC insulated pair twisted aluminum-plastic compounded tape pair and common shielded double steel tape armored PVC sheathed computer cable	Fixed-installation
DJVVP22	PVC insulated pair twisted copper-wire-braided common shielded double steel tape armored PVC sheathed computer cable	Fixed-installation

DJVVP2-22	PVC insulated pair twisted copper-tape common shielded double steel tape armored PVC sheathed computer cable	Fixed-installation
DJVVP3-22	PVC insulated pair twisted aluminum-plastic compounded tape common shielded double steel tape armored PVC sheathed computer cable	Fixed-installation

Production Range

Type	Nominal Cross Section mm2	Pair number of cores
DJVVR, DJVVR, DJVVP2R, DJVVP3R, DJVPVPR, DJVP2VP2R, DJVP3VP3R	0.5, 0.75, 1.0, 1.5	1~24
DJVV, DJVVP, DJVVP2, DJVVP3, DJYVP, DJYVP2, DJYVP3 DJVPVP, DJVP2VP2, DJVP3VP3 DJYPV, DJYP2V, DJYP3V DJYPVP, DJYP2VP2, DJYP3VP3 DJYPVR, DJYP2VR, DJYP3VR DJYPVPR, DJYP2VP2R, DJYP3VP3R	0.5, 0.75, 1.0, 1.5	1~24
DJVVP22, DJVVP2-22, DJVVP3-22 DJYVP22, DJYVP3-22 DJVPVP22, DJVP2VP2-22, DJVP3VP3-22 DJYPV22, DJYP2V22, DJYP3V22 DJYPVP22, DJYP2VP2-22, DJYP3VP3-22	0.5, 0.75, 1.0, 1.5	1~24

XLPE Insulated, LSZH Sheathed & Overall Screened Instrumentation Cables (Multicore)

Cable Code	RE-2X(St)H				
	No. of Core x1x Cross Section	Nominal Insulation Thickness	Nominal Sheath Thickness	Nominal Overall Diameter	Approx. Weight
	No.x1xmm2	mm	mm	mm	kg/km
0.5mm2, Multicore					
RE-2X(St)H 2C0.5	2x1x0.5	0.55	0.9	6.2	47
RE-2X(St)H 3C0.5	3x1x0.5	0.55	0.9	6.5	50
RE-2X(St)H 4C0.5	4x1x0.5	0.55	0.9	7.0	60
RE-2X(St)H 5C0.5	5x1x0.5	0.55	0.9	7.6	71
RE-2X(St)H 8C0.5	8x1x0.5	0.55	1.0	9.1	95
RE-2X(St)H 10C0.5	10x1x0.5	0.55	1.0	10.4	127
RE-2X(St)H 12C0.5	12x1x0.5	0.55	1.0	10.7	151
RE-2X(St)H 14C0.5	14x1x0.5	0.55	1.0	11.3	162
RE-2X(St)H 16C0.5	16x1x0.5	0.55	1.1	11.8	180
RE-2X(St)H 20C0.5	20x1x0.5	0.55	1.1	13.3	222
RE-2X(St)H 24C0.5	24x1x0.5	0.55	1.1	14.7	274
RE-2X(St)H 27C0.5	27x1x0.5	0.55	1.2	15.0	282
RE-2X(St)H 30C0.5	30x1x0.5	0.55	1.2	15.7	318
RE-2X(St)H 37C0.5	37x1x0.5	0.55	1.2	16.9	372
RE-2X(St)H 40C0.5	40x1x0.5	0.55	1.2	17.6	372

0.75mm2, Multicore					
RE-2X(St)H 2C0.75	2x1x0.75	0.55	0.9	6.5	51
RE-2X(St)H 3C0.75	3x1x0.75	0.55	0.9	6.9	62
RE-2X(St)H 4C0.75	4x1x0.75	0.55	0.9	7.4	74
RE-2X(St)H 5C0.75	5x1x0.75	0.55	0.9	8.1	96
RE-2X(St)H 8C0.75	8x1x0.75	0.55	1.0	9.7	126
RE-2X(St)H 10C0.75	10x1x0.75	0.55	1.0	11.1	156
RE-2X(St)H 12C0.75	12x1x0.75	0.55	1.0	11.5	183
RE-2X(St)H 14C0.75	14x1x0.75	0.55	1.1	12.2	200
RE-2X(St)H 16C0.75	16x1x0.75	0.55	1.1	12.9	224
RE-2X(St)H 20C0.75	20x1x0.75	0.55	1.1	14.3	284
RE-2X(St)H 24C0.75	24x1x0.75	0.55	1.2	16.0	324
RE-2X(St)H 27C0.75	27x1x0.75	0.55	1.2	16.3	363
RE-2X(St)H 30C0.75	30x1x0.75	0.55	1.2	16.9	396
RE-2X(St)H 37C0.75	37x1x0.75	0.55	1.2	18.2	472
RE-2X(St)H 40C0.75	40x1x0.75	0.55	1.3	19.1	514
1.0mm2, Multicore					
RE-2X(St)H 2C1.0	2x1x1.0	0.55	0.9	6.9	61
RE-2X(St)H 3C1.0	3x1x1.0	0.55	0.9	7.3	70
RE-2X(St)H 4C1.0	4x1x1.0	0.55	0.9	7.9	85
RE-2X(St)H 5C1.0	5x1x1.0	0.55	0.9	8.6	109
RE-2X(St)H 8C1.0	8x1x1.0	0.55	1.0	10.3	157
RE-2X(St)H 10C1.0	10x1x1.0	0.55	1.0	11.9	193
RE-2X(St)H 12C1.0	12x1x1.0	0.55	1.0	12.2	214
RE-2X(St)H 14C1.0	14x1x1.0	0.55	1.1	13.0	243
RE-2X(St)H 16C1.0	16x1x1.0	0.55	1.1	13.7	280
RE-2X(St)H 20C1.0	20x1x1.0	0.55	1.1	15.2	336
RE-2X(St)H 24C1.0	24x1x1.0	0.55	1.2	17.0	414
RE-2X(St)H 27C1.0	27x1x1.0	0.55	1.2	17.4	443
RE-2X(St)H 30C1.0	30x1x1.0	0.55	1.2	18.0	484
RE-2X(St)H 37C1.0	37x1x1.0	0.55	1.2	19.6	590
RE-2X(St)H 40C1.0	40x1x1.0	0.55	1.3	20.4	631
1.5mm2, Multicore					
RE-2X(St)H 2C1.5	2x1x1.5	0.6	0.9	7.7	78
RE-2X(St)H 3C1.5	3x1x1.5	0.6	0.9	8.1	98
RE-2X(St)H 4C1.5	4x1x1.5	0.6	0.9	8.8	120
RE-2X(St)H 5C1.5	5x1x1.5	0.6	1.0	9.8	153
RE-2X(St)H 8C1.5	8x1x1.5	0.6	1.0	11.6	218
RE-2X(St)H 10C1.5	10x1x1.5	0.6	1.1	13.7	268
RE-2X(St)H 12C1.5	12x1x1.5	0.6	1.1	14.1	315
RE-2X(St)H 14C1.5	14x1x1.5	0.6	1.1	14.8	341
RE-2X(St)H 16C1.5	16x1x1.5	0.6	1.1	15.6	392
RE-2X(St)H 20C1.5	20x1x1.5	0.6	1.2	17.6	8484

RE-2X(St)H 24C1.5	24x1x1.5	0.6	1.3	19.6	579
RE-2X(St)H 27C1.5	27x1x1.5	0.6	1.3	20.1	626
RE-2X(St)H 30C1.5	30x1x1.5	0.6	1.3	20.8	685
RE-2X(St)H 37C1.5	37x1x1.5	0.6	1.4	22.6	834
RE-2X(St)H 40C1.5	40x1x1.5	0.6	1.4	23.6	898
2.5mm ² , Multicore					
RE-2X(St)H 2C2.5	2x1x2.5	0.7	0.9	8.9	111
RE-2X(St)H 3C2.5	3x1x2.5	0.7	1.0	9.7	132
RE-2X(St)H 4C2.5	4x1x2.5	0.7	1.0	10.5	169
RE-2X(St)H 5C2.5	5x1x2.5	0.7	1.0	11.9	209
RE-2X(St)H 8C2.5	8x1x2.5	0.7	1.1	13.9	321
RE-2X(St)H 10C2.5	10x1x2.5	0.7	1.2	16.3	386
RE-2X(St)H 12C2.5	12x1x2.5	0.7	1.2	16.9	447
RE-2X(St)H 14C2.5	14x1x2.5	0.7	1.2	17.7	509
RE-2X(St)H 16C2.5	16x1x2.5	0.7	1.3	18.9	585
RE-2X(St)H 20C2.5	20x1x2.5	0.7	1.3	21.1	712
RE-2X(St)H 24C2.5	24x1x2.5	0.7	1.4	23.6	855
RE-2X(St)H 27C2.5	27x1x2.5	0.7	1.4	24.1	956
RE-2X(St)H 30C2.5	30x1x2.5	0.7	1.5	25.2	1049
RE-2X(St)H 37C2.5	37x1x2.5	0.7	1.5	27.2	1277
RE-2X(St)H 40C2.5	40x1x2.5	0.7	1.6	28.5	1370

XLPE Insulated, LSZH Sheathed, Overall Screened & Armoured Instrumentation Cables (Multicore)

Cable Code	RE-2X(St)HSAWAH							
	No. of Core x1xCross Section	Nominal Insulation Thickness	Nominal Inner Sheath Thickness	Nominal Overall Diameter Over Inner Sheath	Nominal Armour Wire Diameter	Nominal Outer Sheath Thickness	Nominal Overall Diameter	Approx. Weight
	No.x1xmm ²	mm	mm	mm	mm	mm	mm	kg/km
0.5mm ² , Multicore								
RE-2X(St)HSAWAH 2C0.5	2x1x0.5	0.55	0.9	6.2	0.9	1.3	10.6	210
RE-2X(St)HSAWAH 3C0.5	3x1x0.5	0.55	0.9	6.5	0.9	1.3	10.9	230
RE-2X(St)HSAWAH 4C0.5	4x1x0.5	0.55	0.9	7.0	0.9	1.3	11.4	253
RE-2X(St)HSAWAH 5C0.5	5x1x0.5	0.55	0.9	7.6	0.9	1.3	12.0	283
RE-2X(St)HSAWAH 8C0.5	8x1x0.5	0.55	1.0	9.1	0.9	1.4	13.7	344
RE-2X(St)HSAWAH 10C0.5	10x1x0.5	0.55	1.0	10.4	0.9	1.4	15.0	399
RE-2X(St)HSAWAH 12C0.5	12x1x0.5	0.55	1.0	10.7	0.9	1.4	15.3	442
RE-2X(St)HSAWAH 14C0.5	14x1x0.5	0.55	1.0	11.3	0.9	1.4	15.9	474
RE-2X(St)HSAWAH 16C0.5	16x1x0.5	0.55	1.1	11.8	0.9	1.4	16.4	505
RE-2X(St)HSAWAH 20C0.5	20x1x0.5	0.55	1.1	13.3	0.9	1.5	18.1	569

RE-2X(St)HSAWAH 24C0.5	24x1x0.5	0.55	1.1	14.7	0.9	1.5	19.5	642
RE-2X(St)HSAWAH 27C0.5	27x1x0.5	0.55	1.2	15.0	0.9	1.5	19.8	808
RE-2X(St)HSAWAH 30C0.5	30x1x0.5	0.55	1.2	15.7	0.9	1.5	20.5	848
RE-2X(St)HSAWAH 37C0.5	37x1x0.5	0.55	1.2	16.9	0.9	1.6	21.9	963
RE-2X(St)HSAWAH 40C0.5	40x1x0.5	0.55	1.2	17.6	1.25	1.6	23.3	1014
0.75mm2, Multicore								
RE-2X(St)HSAWAH 2C0.75	2x1x0.75	0.55	0.9	6.5	0.9	1.3	10.9	230
RE-2X(St)HSAWAH 3C0.75	3x1x0.75	0.55	0.9	6.9	0.9	1.3	11.3	247
RE-2X(St)HSAWAH 4C0.75	4x1x0.75	0.55	0.9	7.4	0.9	1.3	11.8	278
RE-2X(St)HSAWAH 5C0.75	5x1x0.75	0.55	0.9	8.1	0.9	1.4	12.7	322
RE-2X(St)HSAWAH 8C0.75	8x1x0.75	0.55	1.0	9.7	0.9	1.4	14.3	383
RE-2X(St)HSAWAH 10C0.75	10x1x0.75	0.55	1.0	11.1	0.9	1.4	15.7	461
RE-2X(St)HSAWAH 12C0.75	12x1x0.75	0.55	1.0	11.5	0.9	1.4	16.1	477
RE-2X(St)HSAWAH 14C0.75	14x1x0.75	0.55	1.1	12.2	0.9	1.5	17.0	527
RE-2X(St)HSAWAH 16C0.75	16x1x0.75	0.55	1.1	12.9	0.9	1.5	17.7	572
RE-2X(St)HSAWAH 20C0.75	20x1x0.75	0.55	1.1	14.3	0.9	1.5	19.1	669
RE-2X(St)HSAWAH 24C0.75	24x1x0.75	0.55	1.2	16.0	0.9	1.5	20.8	877
RE-2X(St)HSAWAH 27C0.75	27x1x0.75	0.55	1.2	16.3	0.9	1.6	21.3	929
RE-2X(St)HSAWAH 30C0.75	30x1x0.75	0.55	1.2	16.9	0.9	1.6	21.9	986
RE-2X(St)HSAWAH 37C0.75	37x1x0.75	0.55	1.2	18.2	1.25	1.6	23.9	1102
RE-2X(St)HSAWAH 40C0.75	40x1x0.75	0.55	1.3	19.1	1.25	1.6	24.8	1181
1.0mm2, Multicore								
RE-2X(St)HSAWAH 2C1.0	2x1x1.0	0.55	0.9	6.9	0.9	1.3	11.3	247
RE-2X(St)HSAWAH 3C1.0	3x1x1.0	0.55	0.9	7.3	0.9	1.3	11.7	270
RE-2X(St)HSAWAH 4C1.0	4x1x1.0	0.55	0.9	7.9	0.9	1.4	12.5	299
RE-2X(St)HSAWAH 5C1.0	5x1x1.0	0.55	0.9	8.6	0.9	1.4	13.2	342
RE-2X(St)HSAWAH 8C1.0	8x1x1.0	0.55	1.0	10.3	0.9	1.4	14.9	424
RE-2X(St)HSAWAH 10C1.0	10x1x1.0	0.55	1.0	11.9	0.9	1.4	16.5	514
RE-2X(St)HSAWAH 12C1.0	12x1x1.0	0.55	1.0	12.2	0.9	1.5	17.0	548
RE-2X(St)HSAWAH 14C1.0	14x1x1.0	0.55	1.1	13.0	0.9	1.5	17.8	590
RE-2X(St)HSAWAH 16C1.0	16x1x1.0	0.55	1.1	13.7	0.9	1.5	18.5	649
RE-2X(St)HSAWAH 20C1.0	20x1x1.0	0.55	1.1	15.2	0.9	1.5	20.0	864
RE-2X(St)HSAWAH 24C1.0	24x1x1.0	0.55	1.2	17.0	0.9	1.6	22.0	1005
RE-2X(St)HSAWAH 27C1.0	27x1x1.0	0.55	1.2	17.4	1.25	1.6	23.1	1058
RE-2X(St)HSAWAH 30C1.0	30x1x1.0	0.55	1.2	18.0	1.25	1.6	23.7	1113
RE-2X(St)HSAWAH 37C1.0	37x1x1.0	0.55	1.2	19.6	1.25	1.6	25.3	1271
RE-2X(St)HSAWAH 40C1.0	40x1x1.0	0.55	1.3	20.4	1.25	1.7	26.3	1351
1.5mm2, Multicore								
RE-2X(St)HSAWAH 2C1.5	2x1x1.5	0.6	0.9	7.7	0.9	1.3	12.1	279
RE-2X(St)HSAWAH 3C1.5	3x1x1.5	0.6	0.9	8.1	0.9	1.4	12.7	322
RE-2X(St)HSAWAH 4C1.5	4x1x1.5	0.6	0.9	8.8	0.9	1.4	13.4	347
RE-2X(St)HSAWAH 5C1.5	5x1x1.5	0.6	1.0	9.8	0.9	1.4	14.4	392
RE-2X(St)HSAWAH 8C1.5	8x1x1.5	0.6	1.0	11.6	0.9	1.4	16.2	518

RE-2X(St)HSAWAH 10C1.5	10x1x1.5	0.6	1.1	13.7	0.9	1.5	18.5	614
RE-2X(St)HSAWAH 12C1.5	12x1x1.5	0.6	1.1	14.1	0.9	1.5	18.9	670
RE-2X(St)HSAWAH 14C1.5	14x1x1.5	0.6	1.1	14.8	0.9	1.5	19.6	742
RE-2X(St)HSAWAH 16C1.5	16x1x1.5	0.6	1.1	15.6	0.9	1.5	20.4	925
RE-2X(St)HSAWAH 20C1.5	20x1x1.5	0.6	1.2	17.6	1.25	1.6	23.3	1062
RE-2X(St)HSAWAH 24C1.5	24x1x1.5	0.6	1.3	19.6	1.25	1.6	25.3	1218
RE-2X(St)HSAWAH 27C1.5	27x1x1.5	0.6	1.3	20.1	1.25	1.6	25.8	1289
RE-2X(St)HSAWAH 30C1.5	30x1x1.5	0.6	1.3	20.8	1.25	1.7	26.7	1418
RE-2X(St)HSAWAH 37C1.5	37x1x1.5	0.6	1.4	22.6	1.25	1.7	28.5	1586
RE-2X(St)HSAWAH 40C1.5	40x1x1.5	0.6	1.4	23.6	1.25	1.7	29.5	1687

2.5mm2, Multicore

RE-2X(St)HSAWAH 2C2.5	2x1x2.5	0.7	0.9	8.9	0.9	1.4	13.5	364
RE-2X(St)HSAWAH 3C2.5	3x1x2.5	0.7	1.0	9.7	0.9	1.4	14.3	389
RE-2X(St)HSAWAH 4C2.5	4x1x2.5	0.7	1.0	10.5	0.9	1.4	15.1	430
RE-2X(St)HSAWAH 5C2.5	5x1x2.5	0.7	1.0	11.9	0.9	1.4	16.5	547
RE-2X(St)HSAWAH 8C2.5	8x1x2.5	0.7	1.1	13.9	0.9	1.5	18.7	684
RE-2X(St)HSAWAH 10C2.5	10x1x2.5	0.7	1.2	16.3	0.9	1.6	21.3	952
RE-2X(St)HSAWAH 12C2.5	12x1x2.5	0.7	1.2	16.9	0.9	1.6	21.9	1012
RE-2X(St)HSAWAH 14C2.5	14x1x2.5	0.7	1.2	17.7	1.25	1.6	23.4	1126
RE-2X(St)HSAWAH 16C2.5	16x1x2.5	0.7	1.3	18.9	1.25	1.6	24.6	1252
RE-2X(St)HSAWAH 20C2.5	20x1x2.5	0.7	1.3	21.1	1.25	1.7	27.0	1456
RE-2X(St)HSAWAH 24C2.5	24x1x2.5	0.7	1.4	23.6	1.25	1.7	29.5	1644
RE-2X(St)HSAWAH 27C2.5	27x1x2.5	0.7	1.4	24.1	1.25	1.8	30.2	1811
RE-2X(St)HSAWAH 30C2.5	30x1x2.5	0.7	1.5	25.2	1.25	1.8	31.3	2154
RE-2X(St)HSAWAH 37C2.5	37x1x2.5	0.7	1.5	27.2	1.25	1.8	33.3	2477
RE-2X(St)HSAWAH 40C2.5	40x1x2.5	0.7	1.6	28.5	1.25	1.9	34.8	2614

XLPE Insulated, LSZH Sheathed, CWB Screened Instrumentation Cables (Multipair)

Cable Code	RE-2X(C)H		
	No. of Pairs x2xCross Section	Copper Weight	Approx. Weight
	No.x2xmm2	Kg/km	Kg/km

0.5mm2, Multipair

RE-2X(C)H 2P0.5	2x2x0.50	10.7	143
RE-2X(C)H 4P0.5	4x2x0.50	11.1	159
RE-2X(C)H 5P0.5	5x2x0.50	11.9	181
RE-2X(C)H 6P0.5	6x2x0.50	13.6	230
RE-2X(C)H 8P0.5	8x2x0.50	14.2	264
RE-2X(C)H 12P0.5	12x2x0.50	16.4	343
RE-2X(C)H 16P0.5	16x2x0.50	18.2	418
RE-2X(C)H 20P0.5	20x2x0.50	19.7	487
RE-2X(C)H 24P0.5	24x2x0.50	21.1	557

0.75mm², Multipair			
RE-2X(C)H 2P0.75	2x2x0.75	11.4	160
RE-2X(C)H 3P0.75	3x2x0.75	11.9	185
RE-2X(C)H 4P0.75	4x2x0.75	12.7	214
RE-2X(C)H 6P0.75	6x2x0.75	14.6	278
RE-2X(C)H 8P0.75	8x2x0.75	15.4	324
RE-2X(C)H 12P0.75	12x2x0.75	17.8	427
RE-2X(C)H 16P0.75	16x2x0.75	19.8	526
RE-2X(C)H 20P0.75	20.x2x0.75	21.5	623
RE-2X(C)H 24P0.75	24x2x0.75	23.1	714
1.0mm², Multipair			
RE-2X(C)H 2P1.0	2x2x1.0	12.3	184
RE-2X(C)H 3P1.0	3x2x1.0	12.8	214
RE-2X(C)H 4P1.0	4x2x1.0	13.7	251
RE-2X(C)H 6P1.0	6x2x1.0	15.6	326
RE-2X(C)H 8P1.0	8x2x1.0	16.4	382
RE-2X(C)H 12P1.0	12x2x1.0	19.0	511
RE-2X(C)H 16P1.0	16x2x1.0	21.2	636
RE-2X(C)H 20P1.0	20.x2x1.0	23.5	775
RE-2X(C)H 24P1.0	24x2x1.0	25.3	892

XLPE Insulated, LSZH Sheathed, Individual and Overall Screened Instrumentation Cables (Multipair)					
Cable Code	RE-2X(St)H PiMF				
	No. of Pairs x2x Cross Section	Nominal Insulation Thickness	Nominal Outer Sheath Thickness	Nominal Overall Diameter	Approx. Weight
	No.x2xmm2	mm	mm	mm	kg/km
0.5mm², Multipair					
RE-2X(St)H PiMF 2P0.5	2x2x0.5	0.35	0.9	8.7	85
RE-2X(St)H PiMF 4P0.5	4x2x0.5	0.35	1.0	10.2	120
RE-2X(St)H PiMF 5P0.5	5x2x0.5	0.35	1.0	11.2	145
RE-2X(St)H PiMF 6P0.5	6x2x0.5	0.35	1.0	12.1	170
RE-2X(St)H PiMF 8P0.5	8x2x0.5	0.35	1.1	13.1	214
RE-2X(St)H PiMF 10P0.5	10x2x0.5	0.35	1.2	15.1	265
RE-2X(St)H PiMF 12P0.5	12x2x0.5	0.35	1.2	15.7	286
RE-2X(St)H PiMF 16P0.5	16x2x0.5	0.35	1.2	17.8	380
RE-2X(St)H PiMF 20P0.5	20x2x0.5	0.35	1.3	19.7	475
RE-2X(St)H PiMF 24P0.5	24x2x0.5	0.35	1.4	21.5	561
0.75mm², Multipair					
RE-2X(St)H PiMF 2P0.75	2x2x0.75	0.38	1.0	9.7	101
RE-2X(St)H PiMF 4P0.75	3x2x0.75	0.38	1.0	11.2	159
RE-2X(St)H PiMF 5P0.75	4x2x0.75	0.38	1.1	12.5	183

RE-2X(St)H PiMF 6P0.75	5x2x0.75	0.38	1.1	13.6	215
RE-2X(St)H PiMF 8P0.75	8x2x0.75	0.38	1.1	14.4	272
RE-2X(St)H PiMF 10P0.75	10x2x0.75	0.38	1.2	16.6	333
RE-2X(St)H PiMF 12P0.75	12x2x0.75	0.38	1.2	17.4	383
RE-2X(St)H PiMF 16P0.75	16x2x0.75	0.38	1.3	19.8	492
RE-2X(St)H PiMF 20P0.75	20x2x0.75	0.38	1.4	22.0	603
RE-2X(St)H PiMF 24P0.75	24x2x0.75	0.38	1.5	24.0	704
1.0mm2, Multipair					
RE-2X(St)H PiMF 2P1.0	2x2x1.0	0.4	1.0	10.4	112
RE-2X(St)H PiMF 4P1.0	3x2x1.0	0.4	1.0	12.1	179
RE-2X(St)H PiMF 5P1.0	4x2x1.0	0.4	1.1	13.5	220
RE-2X(St)H PiMF 6P1.0	5x2x1.0	0.4	1.1	14.7	256
RE-2X(St)H PiMF 8P1.0	8x2x1.0	0.4	1.2	15.8	323
RE-2X(St)H PiMF 10P1.0	10x2x1.0	0.4	1.2	18.0	401
RE-2X(St)H PiMF 12P1.0	12x2x1.0	0.4	1.3	19.0	454
RE-2X(St)H PiMF 16P1.0	16x2x1.0	0.4	1.3	21.5	601
RE-2X(St)H PiMF 20P1.0	20x2x1.0	0.4	1.4	23.9	719
RE-2X(St)H PiMF 24P1.0	24x2x1.0	0.4	1.5	26.1	884
1.5mm2, Multipair					
RE-2X(St)H PiMF 2P1.5	2x2x1.5	0.45	1.0	11.8	164
RE-2X(St)H PiMF 4P1.5	3x2x1.5	0.45	1.1	13.9	235
RE-2X(St)H PiMF 5P1.5	4x2x1.5	0.45	1.2	15.5	289
RE-2X(St)H PiMF 6P1.5	5x2x1.5	0.45	1.2	16.9	366
RE-2X(St)H PiMF 8P1.5	8x2x1.5	0.45	1.3	18.2	446
RE-2X(St)H PiMF 10P1.5	10x2x1.5	0.45	1.4	21.0	565
RE-2X(St)H PiMF 12P1.5	12x2x1.5	0.45	1.4	21.9	637
RE-2X(St)H PiMF 16P1.5	16x2x1.5	0.45	1.5	25.1	828
RE-2X(St)H PiMF 20P1.5	20x2x1.5	0.45	1.6	27.8	1024
RE-2X(St)H PiMF 24P1.5	24x2x1.5	0.45	1.7	30.4	1219

Shipboard Cable (Power cable, Control cable, Instrument cable)

Application

-Power cable

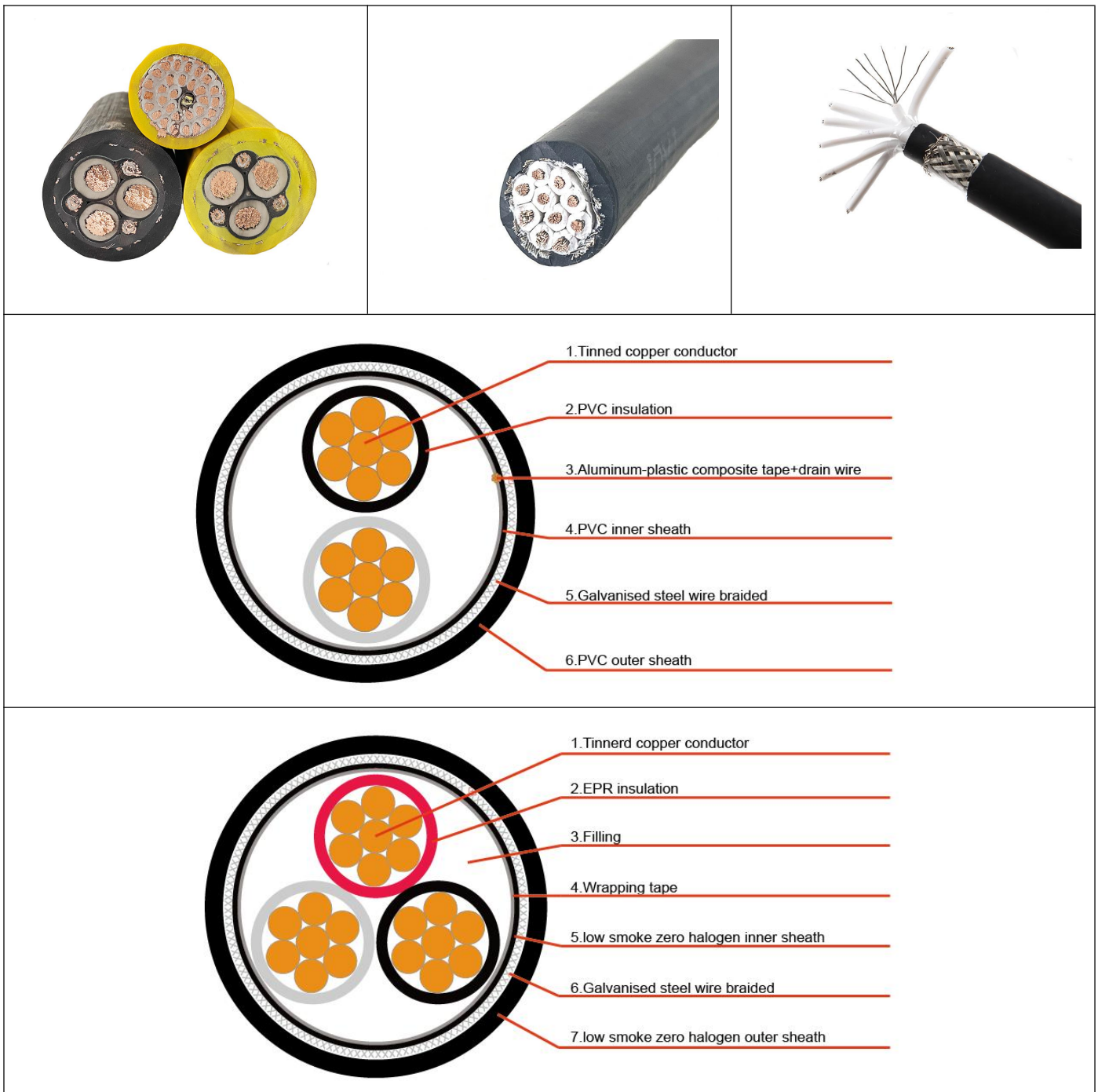
The cable is intended for power, light and control systems of ship, petrol platforms and offshore buildings , and it is also available to metallurgical industry, chemical works , power plant and mine etc..

-Control cable

The cable is intended for control systems of ships, petrol platforms and offshore buildings, and it is also available to metallurgical industry, chemical works, power plant and mine etc..

-Instrument cable

The cable is intended for telecommunication, instrumentation and information proceeding systems of ships, petrol platforms and offshore buildings, and it is also available to metallurgical industry, chemical works, power plant and mine etc...



Specifications and application environment for shipboard power, control and instrument cables

Type	Power cable			Control cable		Instrument control communication cable	
	EPR insulation	XLPE insulation	PVC insulation	EPR insulation	PVC insulation	EPR insulation	PVC insulation
Applicable standard	GB/ T9311	GB/ T9311	GB/ T9311	GB/ T9332	GB/ T9332	GB/ T9333	GB/ T9333
Operating temperature	85℃	85℃	60℃	85℃	60℃	85℃	60℃
Rated voltage	0.6/ 1kV			250V		60V	
Min. bending radius during installation	6Dfor armored cable 4Dfor non- armored cable When $D \leq 25\text{mm}$ 6Dfor non- armored cable When $D \leq 25\text{mm}$ (D is the overall diameter of cable)			6Dfor armored cable 4Dfor non- armored cable When $D \leq 25\text{mm}$ 6Dfor non- armored cable When $D \leq 25\text{mm}$ (D is the overall diameter of cable)		6D (D is the overall diameter of cable)	
Application fields	Used for power transmission in naval ships, offshore oil drilling platforms and over-water construction.			Used for connections of lighting and control systems in naval ships, offshore oil-drilling platforms and over-water construction.		Used for information transmission, connection of instruments and communication equipment in ships (including naval vessels), offshore oil drilling platforms and over-water construction	

Types and designation of shipboard power cable

Type	Name
CEF/ DA/ SA	Tinned Copper Conductor EPR insulated CR sheathed shipboard power cable
CEF80/ DA/ SA	Tinned Copper Conductor EPR insulated CR inner sheathed bare copper wire braided shipboard power cable
CEF90/ DA/ SA	Tinned Copper Conductor EPR insulated CR inner sheathed bare steel wire braided shipboard power cable
CEF82/ DA/ SA	Tinned Copper Conductor EPR insulated CR inner sheathed copper wire braided PVC outer sheathed shipboard power cable
CEF92/ DA/ SA	Tinned Copper Conductor EPR insulated CR inner sheathed steel wire braided PVC outer sheathed shipboard power cable
CEFR/ DA/ SA	Tinned Copper Conductor EPR insulated CR sheathed shipboard flexible power cable
CEH/ DA/ SA/ SB	Tinned Copper Conductor EPR insulated CSP sheathed shipboard power cable
CEH80/ DA/ SA/ SB	Tinned Copper Conductor EPR insulated CSP sheathed bare copper wire braided shipboard power cable
CEH82/ DA/ SA/ SB	Tinned Copper Conductor EPR insulated CSP inner sheathed copper wire braided PVC outer sheathed shipboard power cable
CEH90/ DA/ SA/ SB	Tinned Copper Conductor EPR insulated CSP inner sheathed copper wire braided CSP outer sheathed shipboard power cable

CEH92/ DA/ SA/ SB	Tinned Copper Conductor EPR insulated CSP inner sheathed steel wire braided PVC outer sheathed shipboard power cable
CEHR/ DA/ SA/ SB	Tinned Copper Conductor EPR insulated CSP sheathed shipboard flexible power cable
CEV/ DA/ SA/ SB	Tinned Copper Conductor EPR insulated PVC sheathed shipboard power cable
CEV80/ DA/ SA/ SB	Tinned Copper Conductor EPR insulated PVC inner sheathed bare copper wire braided shipboard power cable
CEV82/ DA/ SA/ SB	Tinned Copper Conductor EPR insulated PVC inner sheathed copper wire braided shipboard power cable
CEV90/ DA/ SA/ SB	Tinned Copper Conductor EPR insulated PVC inner sheathed bare steel wire braided shipboard power cable
CEV92/ DA/ SA/ SB	Tinned Copper Conductor EPR insulated PVC inner sheathed steel wire braided PVC outer sheathed shipboard power cable
CVV/ DA/ SA/ SB	Tinned Copper Conductor PVC insulated PVC sheathed shipboard power cable
CVV80/ DA/ SA/ SB	Tinned Copper Conductor PVC insulated PVC inner sheathed bare copper wire braided shipboard power cable
CVV82/ DA/ SA/ SB	Tinned Copper Conductor EPR insulated PVC inner sheathed copper wire braided PVC outer sheathed shipboard power cable
CVV90/ DA/ SA/ SB	Tinned Copper Conductor PVC insulated PVC inner sheathed bare steel wire braided shipboard power cable
CVV92/ DA/ SA/ SB	Tinned Copper Conductor PVC insulated PVC inner sheathed steel wire braided shipboard power cable
CYJV/ DA/ SA/ SB	Tinned Copper Conductor XLPE insulated PVC sheathed shipboard power cable
CYJV80/ DA/ SA/ SB	Tinned Copper Conductor XLPE insulated PVC inner sheathed bare copper wire braided shipboard power cable
CYJV82/ DA/ SA/ SB	Tinned Copper Conductor XLPE insulated PVC inner sheathed copper wire braided shipboard power cable
CYJV90/ DA/ SA/ SB	Tinned Copper Conductor XLPE insulated PVC inner sheathed bare steel wire braided shipboard power cable
CYJV92/ DA/ SA/ SB	Tinned Copper Conductor XLPE insulated PVC inner sheathed steel wire braided shipboard power cable

Types and designation of shipboard power cable

Type	Name
CKEF/ DA/ SA/ SB	Tinned Copper Conductor EPR insulated PCP sheathed shipboard control cable
CKEF80/ DA/ SA/ SB	Tinned Copper Conductor EPR insulated PCP inner sheathed bare copper wire braided shipboard control cable
CKEF82/ DA/ SA/ SB	Tinned Copper Conductor EPR insulated PCP inner sheathed copper wire braided PVC outer sheathed shipboard control cable
CKEF90/ DA/ SA/	Tinned Copper Conductor EPR insulated PCP inner sheathed bare steel wire braided shipboard control cable
CKEF92/ DA/ SA/	Tinned Copper Conductor EPR insulated PCP inner sheathed steel wire braided PVC outer sheathed shipboard control cable

CKEH/ DA/ SA/ SB	Tinned Copper Conductor EPR insulated CSP sheathed shipboard control cable
CKEH80/ DA/ SA/ SB	Tinned Copper Conductor EPR insulated CSP inner sheathed bare copper wire braided shipboard control cable
CKEH90/ DA/ SA/ SB	Tinned Copper Conductor EPR insulated CSP inner sheathed bare steel wire braided shipboard control cable
CKEH92/ DA/ SA/ SB	Tinned Copper Conductor EPR insulated CSP inner sheathed steel wire braided PVC outer sheathed shipboard control cable
CKEV/ DA/ SA/ SB	Tinned Copper Conductor EPR insulated PVC sheathed shipboard control cable
CKEV80/ DA/ SA/ SB	Tinned Copper Conductor EPR insulated PVC inner sheathed bare copper wire braided shipboard control cable
CHEV90/ DA/ SA/ SB	Tinned Copper Conductor EPR insulated PVC inner sheathed bare steel wire braided shipboard control cable
CHEV92/ DA/ SA/ SB	Tinned Copper Conductor EPR insulated PVC inner sheathed steel wire braided PVC outer sheathed shipboard control cable
CKVV/ DA/ SA/ SB	PVC insulated PVC sheathed shipboard control cable
CKVV80/ DA/ SA/ SB	PVC insulated PVC inner sheathed bare copper wire braided shipboard control cable
CKVV82/ DA/ SA/ SB	PVC insulated PVC inner sheathed copper wire braided PVC outer sheathed shipboard control cable
CKVV90/ DA/ SA/ SB	PVC insulated PVC inner sheathed bare steel wire braided shipboard control cable
CKVV92/ DA/ SA/ SB	PVC insulated PVC inner sheathed steel wire braided PVC outer sheathed shipboard control cable

Types and designation of shipboard cable for instruments, control and communication purposes

Type	Name
CHEV82/ DA/ SA/ SB	Tinned Copper Conductor EPR insulated PVC inner sheathed copper wire braided PVC outer sheathed shipboard instrument control and communication cable
CHEF82/ DA/ SA/ SB	Tinned Copper Conductor EPR insulated PVC inner sheathed copper wire braided PVC outer sheathed shipboard instrument control and communication cable
CHVV82/ DA/ SA/ SB	Tinned Copper Conductor PVC inner sheathed copper wire braided PVC outer sheathed shipboard instrument, control and communication cable

Main performance

Flame retardant properties of shipboard cable

Code of flame resistance	Flame resistance properties	Test method
DA	The cable must withstand a vertical burn test whereby a 600±25mm length of a single cable selected from the production line is subjected to a continuous flame test. After the burn, the range of carbonization shall not reach the spot where the distance from the lower edge of the top support is 50mm	GB/T18380.3 (idt IEC60502-1)

SA	Combined cable burn test: the total volume of the tested cables shall be decided according to the non-metal material per meter of cable. The total volume of the non-metal material for each type is: Type A:7litres type B:3.5 litres type C:1.5litres Flame duration : Type A:40miuntes; Type B:40miuntes ; Type C:20miuntes The height of the carbonized part shall not be more than 2.5m	GB/T18380.3 (idtIEC60332-3)
SC	Toxic gas emissions during the burn test: the PH value of the selected cable should be no more than 4.3 and conductivity less than 10μs/mm Smoke emission density during the burn test For one cables when D>40MM : light penetration ratio is more than 70% For two cables when 20<D$\leq$40mm : light penetration ratio is more than 60% For three cables when 10<D$\leq$40mm : light penetration ratio is more than 60% For fourteen cables when 5<D$\leq$10mm : light penetration ratio is more than 50%	GB/T17650.2 (idtIEC60754-2)
	Combined burn properties of the cable are equal to type SA	GB/T18380.3 (idtIEC60502-1)
SB	Toxic halogen gas emissions during the burning of the cable : for cables with PVC, the emissions must not exceed 100mg/g, for cables with CSP, emissions must not exceed 100mg/g	GB/T18380.3 (idtIEC60332-3)
	Combined burn properties of the cable are equal to type SA. Smoke emission: low smoke property with light penetration ratio when burning : more than 30%	GB/T18380.3 GB/T17651

Low halogen cables with toxic halogen gas emission values not exceeding 50mg/g can be supplied when the user requests

Conductor structure and electrical parameters of shipboard power cable

Nominal Cross section area mm2	Conductor DC Resistance at 20℃, Max Ω/km		Insulation resistance, Min .MΩ,KM						Number Of cores
	Non-tinne d	tinned	EPR		PVC		XLPE		
			20℃	90℃	20℃	70℃	20℃	90℃	
1	18.1	18.2	1382	1.382	13	0.013	1077	1.007	1~37
1.5	12.1	12.2	1230	1.230	11	0.011	949	0.949	
2.5	7.41	7.56	1031	1.031	9	0.009	785	0.785	
4	4.61	4.70	881	0.881	9	0.009	664	0.664	1,2,3
6	3.08	3.11	759	0.759	8	0.008	567	0.567	
10	1.83	1.84	620	0.620	6	0.006	458	0.458	
16	1.15	1.16	514	0.514	5	0.005	376	0.376	
25	0.727	0.734	496	0.496	5	0.005	385	0.385	

35	0.524	0.529	427	0.427	4	0.004	331	0.331	
50	0.387	0.391	429	0.429	4	0.004	318	0.318	
70	0.263	0.270	412	0.412	4	0.004	294	0.294	
95	0.193	0.195	357	0.357	4	0.004	254	0.254	
120	0.153	0.154	320	0.320	3	0.003	246	0.246	
150	0.124	0.126	325	0.325	3	0.003	258	0.258	1,3
185	0.0991	0.100	323	0.323	3	0.003	264	0.264	
240	0.0754	0.0762	311	0.311	3	0.003	246	0.246	1
300	0.0601	0.0607	304	0.304	3	0.003	233	0.233	
1	19.5	20.0	1350	0.1350	-	-	-	-	1~37
1.5	13.3	13.7	1210	1.210	-	-	-	-	
2.5	7.98	8.21	1031	1.031	-	-	-	-	
4	4.95	5.09	889	0.889	-	-	-	-	1,2,3
6	3.30	3.39	660	0.660	-	-	-	-	
10	1.91	1.95	523	0.523	-	-	-	-	
16	1.21	1.24	448	0.448	-	-	-	-	
25	0.780	0.795	425	0.425	-	-	-	-	
35	0.554	0.565	356	0.356	-	-	-	-	
50	0.386	0.393	353	0.353	-	-	-	-	
70	0.272	0.277	339	0.339	-	-	-	-	
95	0.206	0.210	305	0.305	-	-	-	-	
120	0.161	0.164	276	0.276	-	-	-	-	
150	0.129	0.132	265	0.265	-	-	-	-	1,3
185	0.106	0.108	276	0.276	-	-	-	-	
240	0.0801	0.0817	272	0.272	-	-	-	-	1
300	0.0641	0.0654	259	0.259	-	-	-	-	

Conductor construction and electrical parameters of shipboard control cable

Nominal Cross section area mm2	Conductor structure	Conductor DC Resistance at 20°C, Max Ω/km		Insulation resistance, Min .MΩ,KM				Number Of cores
				EPR		PVC		
		No. of Wires/ Diameter mm	Non-tinned	tinned	20°C	85°C	20°C	
0.75	7/0.37				24.5	24.7	1386	1.386
1.0	7/0.43	18.1	18.2	1171	1.171	11	0.011	
1.5	7/0.52	12.1	12.2	-	-	-	-	
2.5	7/0.68	7.41	7.56	-	-	-	-	

Electrical parameters of shipboard cable for instruments, controls and communication

Nominal Cross-section area mm2		0.3	0.5	0.75	1.0
Properties					
Conductor DC resistance at 20°C .not more than Ω/km	Non-tinned copper	57.6	40.4	26.0	19.2
	Tinned copper	-	41.6	26.3	19.3
Insulation resistance at 20°C not less than MΩ.KM	EPR insulated	-	1170	1145	1050
	PVC insulated	8	12	11	9.1

Voltage test (valid value)	AC	1.0	1.5	1.5	1.5
	DC	1.5	3.0	3.0	3.0
	Duration ,minute	1	5	5	5
Operating capacitance, 0.5~2KHZ, not More than nF /km	EPR insulated	150	150	150	150
	PVC insulated	-	120	120	120
	Silicone rubber insulated	-	120	120	120
Imbalanced capacitance between the insulated wire pairs, not more than pf/500m	When the cable length is less than 500 L is the length of the cable	1000	1000	1000	1000

Specifications of general instrument and communication cables

Type of core	Number of strands	Specification
Concentric type	Pair	1, 2, 4, 7, 10, 14, 19, 30, 37, 48
Unit type	30and below	5, 10, 15, 20, 25, 30
	40~60	40, 50, 60
	more than 60	80,100

LV Aerial Bundled Conductor (ABC) Cables

Application

Aerial Bundle Cable (ABC cable) is a very innovative concept for overhead power distribution as compared to the conventional bare conductor overhead distribution system. It provides higher level of safety and reliability, lower power losses and ultimate system economy by reducing installation, maintenance and operative cost.

Caledonian LV Aerial Bundle Cables are designed to supply 600/1000 volt aerial service for temporary service at construction sites, as a service drop (power pole to service entrance), as a secondary cable (pole to pole) or street lighting. This over-head cable provides reinforced insulation acc. IEC 61140 and fulfill therefore Class II acc. IEC 61140. It is not flame retardant. But this could be if requested change to a flame retardant cable.



Standards

Basic design to BS 7870 / TNB Specification(IEC 60502) / HD 626 S1 / NFC 33-209 / AS/NZS 3560-1 standards

Cable Construction

Conductor: Aluminium conductor, round stranded compressed (RM).

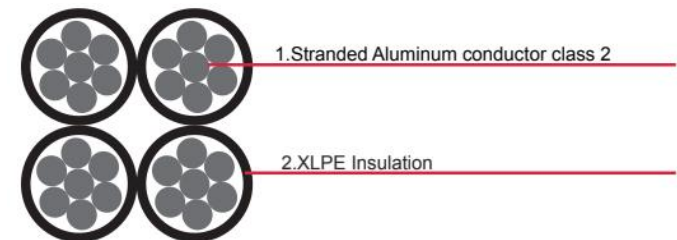
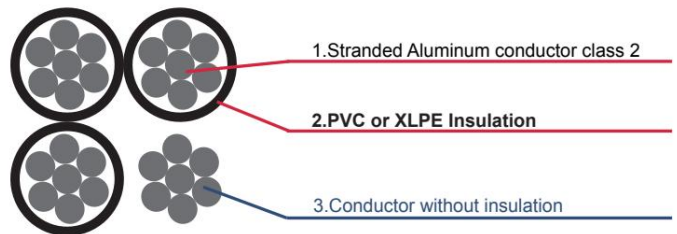
Insulation: XPLE compound, UV-resistant.

Core Identification:

1, 2 resp. 3 raised longitudinal ribs on the surface of the cores.

The surface of the neutral core should have at least 12 ribs for cross-sections up to 50 mm² and a minimum of 16 ribs for cores above 50mm².

In the case of five core bundles the surface of the protective core should be smooth.



Electrical Properties

Rated Voltage	0.6/1kV
Test Voltage	4 V _{eff} kV
Minimum Laying Temperature	-20°C
Operating Temperature	-40°C~ +90°C
Maximum Short-circuit Temperature	250°C
Maximum Conductor Temperature	80°C
Minimum Bending Radius	18×OD

Construction Parameters

BS 7870

Number of Cores x Nominal Cross Section	Overall Diameter	Weight	Maximum Conductor Resistance	Minimum Breaking Load	Current Rating
No. x mm ²	mm	Kg/Km	Ω/Km	KN	A
1x16 RM	8,0	74	1,910	2,5	72
1x25 RM	9,0	106	1,200	4,0	107
1x35 RM	10,5	138	0,868	5,5	132
1x50 RM	11,8	182	0,641	8,0	165
1x70 RM	13,0	252	0,443	10,7	205
1x95 RM	15,4	333	0,320	13,7	240
1x120 RM	17,0	408	0,253	18,6	290
1x150 RM	19,0	502	0,206	23,2	334
1x185 RM	21,0	611	0,164	28,7	389
1x240 RM	24,0	801	0,125	37,2	467
2x16 RM	15,6	147	1,910	2,5	72
2x25 RM	18,0	208	1,200	4,0	107
2x35 RM	20,0	277	0,868	5,5	132
2x50 RM	23,5	361	0,641	8,0	165
2x70 RM	25,4	505	0,443	10,7	205
2x95 RM	30,3	666	0,320	13,7	240
2x150 RM	38,0	1004	0,206	23,2	334
4x16 RM	18,8	286	1,910	2,5	72
4x25 RM	21,2	430	1,200	4,0	107
4x35 RM	24,1	553	0,868	5,5	132
4x50 RM	27,8	746	0,641	8,0	165
4x70 RM	31,8	1009	0,443	10,7	205
4x95 RM	37,8	1332	0,320	13,7	240
4x120 RM	54,4	1632	0,253	18,6	290
4x50 + 1x25 RM	31.9	814	0,641/1,200	8,0/4,0	165/107
4x50 + 1x35 RM	31.9	845	0,641/0,868	8,5/5,5	165/132
4x70 + 1x25 RM	36.0	1105	0,443/1,200	10,7/4,0	205/107
4x70 + 2x25 RM	40.0	1217	0,443/1,200	10,7/4,0	205/107
4x95 + 1x25 RM	41.8	1438	0,320/1,200	13,7/4,0	240/107
4x95 + 2x25 RM	42.0	1544	0,320/1,200	13,7/4,0	240/107
4x120 + 1x25 RM	59.0	2050	0,253/1,200	18,6/4,0	290/107

Other cross-sections can be offered upon request.

TNB Specification(IEC 60502)

Number of Cores xNominal Cross Section	Overall Diameter	Weight	Maximum Conductor Resistance	Minimum Breaking Load	Current Rating
No. xmm ²	mm	Kg/Km	Ω/Km	KN	A
1x16+1x25 RM	15.3	160	1,910	2,5	72
3x16+1x25 RM	19.0	290	1,200	4,0	107
3x25+1x25 RM	23.2	400	0,868	5,5	132
3x35+1x25 RM	25.6	500	0,641	8,0	165
3x50+1x35 RM	30.0	680	0,443	10,7	205
3x70+1x50 RM	34.9	920	0,320	13,7	240
3x95+1x70 RM	40.6	1270	0,253	18,6	290
3x120+1x70 RM	44.1	1510	0,206	23,2	334
3x150+1x95 RM	49.2	1870	0,164	28,7	389
3x185+1x120 RM	54.9	2340	0,125	37,2	467
3x25+1x25+1x16 RM	23.2	470	1,910	2,5	72
3x35+1x25+1x16 RM	25.6	560	1,200	4,0	107
3x50+1x35+1x16 RM	30.0	740	0,868	5,5	132
3x70+1x50+1x16 RM	34.9	980	0,641	8,0	165
3x95+1x70+1x16 RM	40.6	1330	0,443	10,7	205
3x120+1x70+1x16 RM	44.1	1580	0,320	13,7	240
3x150+1x95+1x16 RM	49.2	1940	0,206	23,2	334
3x185+1x120+1x16 RM	54.9	2410	1,910	2,5	72

Other cross-sections can be offered upon request.

HD 626 S1

Number of Cores xNominal Cross Section	Overall Diameter	Weight	Minimum Breaking Load	Current Rating
No. xmm ²	mm	Kg/Km	KN	A
2x16 RM	72	147	1,910	2,5
2x25 RM	107	208	1,200	4,0
2x35 RM	132	277	0,868	5,5
2x50 RM	165	361	0,641	8,0
4x16 RM	72	286	1,910	2,5
4x25 RM	107	430	1,200	4,0
4x35 RM	132	553	0,868	5,5 ₁₀₂

4x50 RM	165	746	0,641	8,0
4x70 RM	205	1009	0,443	10,7
4x95 RM	240	1332	0,320	13,7
4x120 RM	290	1632	0,253	18,6
4x35 + 1x35 RM	132/132	694	0,868/0,868	5,5/5,5
4x50 + 1x25 RM	165/107	814	0,641/1,200	8,0/4,0
4x50 + 1x35 RM	165/132	845	0,641/0,868	8,5/5,5
4x70 + 1x25 RM	205/107	1105	0,443/1,200	10,7/4,0
4x70 + 2x25 RM	205/107	1217	0,443/1,200	10,7/4,0
4x70 + 1x35 RM	205/132	1150	0,443/0,868	10,7/5,5
4x70 + 2x35 RM	205/132	1289	0,443/0,868	10,7/5,5
4x95 + 1x25 RM	240/107	1438	0,320/1,200	13,7/4,0
4x95 + 1x35 RM	240/132	1467	0,320/0,868	13,7/5,5
4x95 + 2x25 RM	240/107	1544	0,320/1,200	13,7/4,0

Other cross-sections can be offered upon request.

NFC 33-209

Number of Cores xNominal Cross Section	Overall Diameter	Weight	Maximum Conductor Resistance	Minimum Breaking Load	Current Rating
No.xmm ²	mm	Kg/Km	Ω/Km	KN	A
2x10 RM	12.8	93	3.080	1.5	38
4x10 RM	15.4	183	3.080	1.5	38
2x16 RM	14.8	129	1.910	2.3	72
2x16 RN + 2x1.5 RE	14.8	176	1.910/12.100	2.3	72
4x16 RM	17.8	257	1.910	2.3	72
4x16 RN + 2x1.5 RE	17.8	304	1.910/12.100	2.3	72
2x25 RM	18.0	202	1.200	3.8	107
2x25 RM + 2x1,5 RE	18.0	249	1.200/12.100	3.8	107
4x25 RM	21.7	404	1.200	3.8	107
4x25 RM + 2x1,5 RE	21.7	451	1.200/12.100	3.8	107
2x35 RM	20.8	269	0.868	5.2	132
2x35 RM + 2x1,5 RE	20.8	316	0.868/12.100	5.2	132
4x35 RM	25.1	539	0.868	5.2	132
4x35 RM + 2x1,5 RE	25.1	586	0.868/12.100	5.2	132
2x50 RM	23.4	352	0.641	7.6	165

2x50 RM + 2x1,5 RE	23.4	399	0.641/12.100	7.6	165
1x54.6 RM + 3x25 RM	21.7	507	0.630/1.200	3.8	107
1x54.6 RM + 3x25 RM + 1x16 RM	24.3	573	0.630/1.200/1.910	3.8/2.3	107/72
1x54.6 RM + 3x25 RM + 2x16 RM	29.7	639	0.630/1.200/1.910	3.8/2.3	107/72
1x54.6 RM + 3x25 RM + 3x16 RM	31.1	705	0.630/1.200/1.910	3.8/2.3	107/72
1x54.6 RM + 3x35 RM	25.1	615	0.630/0.868	5.2	132
1x54.6 RM + 3x35 RM + 1x16 RM	28.1	680	0.630/0.868/1.910	5.2/2.3	132/72
1x54.6 RM + 3x35 RM + 2x16 RM	34.3	748	0.630/0.868/1.910	5.2/2.3	132/72
1x54.6 RM + 3x35 RM + 3x16 RM	35.9	814	0.630/0.868/1.910	5.2/2.3	132/72
1x54.6 RM + 3x35 RM + 1x25 RM	28.1	714	0.630/0.868/1.200	5.2/3.8	132/107
1x54.6 RM + 3x50 RM	28.2	741	0.630/0.641	7.6	165
1x54.6 RM + 3x50 RM + 1x16 RM	31.6	806	0.630/0.641/1.910	7.6/2.3	165/72
1x54.6 RM + 3x50 RM + 2x16 RM	38.6	875	0.630/0.641/1.910	7.6/2.3	165/72
1x54.6 RM + 3x50 RM + 3x16 RM	40.4	940	0.630/0.641/1.910	7.6/2.3	165/72
1x54.6 RM + 3x50 RM + 1x25 RM	31.6	841	0.630/0.641/1.200	7.6/3.8	165/107
1x54.6 RM + 3x70 RM	33.0	950	0.630/0.443	10.2	205
1x54.6 RM + 3x70 RM + 1x16 RM	37.0	1014	0.630/0.443/1.910	10.2/2.3	205/72
1x54.6 RM + 3x70 RM + 2x16 RM	45.2	1083	0.630/0.443/1.910	10.2/2.3	205/72
1x54.6 RM + 3x70 RM + 3x16 RM	47.3	1148	0.630/0.443/1.910	10.2/2.3	205/72
1x54.6 RM + 3x70 RM + 1x25 RM	37.0	1048	0.630/0.443/1.200	10.2/3.8	205/107
1x54.6 RM + 3x70 RM + 2x25 RM	45.2	1150	0.630/0.443/1.200	10.2/3.8	205/107
1x54.6 RM + 3x70 RM + 3x25 RM	47.3	1250	0.630/0.443/1.200	10.2/3.8	205/107
1x54.6 RM + 3x95 RM	37.4	1176	0.630/0.320	13.5	240
1x54.6 RM + 3x95 RM + 1x16 RM	41.9	1243	0.630/0.320/1.910	13.5/2.3	240/72

Other cross-sections can be offered upon request.

AS/NZS 3560 Part 1

Number of Cores x Nominal Cross Section	Overall Diameter	Weight	Minimum Breaking Load	Current Rating
No. x mm ²	mm	Kg/Km	KN	A
2x16 RM	15.0	140	4.4	78
2x25 RM	17.6	210	7.0	105
2x35 RM	19.6	270	9.8	125
2x50 RM	22.8	370	11.4	150
2x95 RM	30.6	680	15.3	230

3x25 RM	19.0	310	8.8	97
3x35 RM	21.1	410	9.8	120
3x50 RM	24.6	550	11.4	140
4x16 RM	18.1	290	8.8	74
4x25 RM	21.2	410	14.0	97
4x35 RM	23.7	550	19.6	120
4x50 RM	27.5	740	28.0	140
4x70 RM	31.9	1000	39.2	175
4x95 RM	36.9	1370	53.2	215
4x120 RM	40.6	1690	67.2	250
4x150 RM	43.9	2020	84.0	280

Other cross-sections can be offered upon request.