30th ANNIVERSARY

BICC CABLES

Cables Crafted With Trust

POWER CABLES

CATALOGUE 2025

SCAN FOR DIGITAL COPY

Index

BICC CABLES Background

Andrew Fitch
Technical Manager
Since 1996 - 2000

SCAN FOR COMPANY'S VIDEO

BICC CABLES is a prominent supplier of high-quality electrical cables, holding a substantial market presence in Egypt. Over the years, the company has consistently delivered durable and reliable solutions to meet the evolving needs of various sectors.
Our expertise covers all types of electrical cables, including Building Wires, Low Voltage Cables up to 3.3 kV and Medium Voltage Power Cables up to 66 kV (Copper & Aluminum), Control Cables, Instrument Cables, Fire Resistance & Fire Alarm Cables to Overhead Transmission Lines (AAC, AAAC, ABC, ACSR).

Originally under the ownership of BICC in the UK, the company was given the name "British Insulated Callender's Cables" and has been actively contributing to the global cable sector since 1890.

BICC CABLES, a renowned division of Sharkia Holding Group, is globally recognized for its exceptional manufacturing, customer service, and innovation capabilities. With the backing of a team of seasoned professionals, the company is committed to offering high-quality products that meet international regulations and standards.

The BICC factory is situated at Abu Rawash Industrial Zone, KM. 28 Cairo – Alexandria Desert Road, Giza, Egypt. Established in 1996 as a joint venture between BICC Cables of the UK and other investors, the site initially focused on the production of low-voltage power cables. Over the years, it has undergone significant expansion, both in production capacity and market share.

This growth has been achieved through strategic investments, including the installation of new machinery. These improvements are dedicated to meet the evolving needs of our clients and ensuring the consistent supply of high-quality cable products.

Our mission

Empower the world's connections through innovative, reliable, and sustainable wiring solutions. We are committed to delivering high-quality products that exceed industry standards, ensuring the safety and success of our customers' endeavors.

Our vision

We envision a world seamlessly connected, where our cutting-edge solutions empower industries, communities, and individuals alike.

BICC CABLES Background

Ordering Advice

The following details will ensure that your inquiries and orders are handled quickly and efficiently

1. Length of cables required and individual drum lengths.*
2. Voltage designation.
3. Relevant British or International standard.
4. Number of cores.
5. Color code & color sequence (Phase colors and neutral color).
6. Conductor size, where applicable and size of reduced neutral conductor.
7. Conductor material i.e. Copper, Aluminum.
8. Conductor type (solid class 1, stranded class 2 or Flexible strand class 5).
9. Type of insulation (PVC, XLPE and Special compounds)
10. Type of bedding
11. Fire Resistance Cables According to IEC 60331 and BS 6387.
12. Type of armour (STA, GSWA, AWA, ATA, SWA, ...)
13. Type of outer sheath (PVC, Reduced Flame Propagation PVC, LSF & LSOH or LSHF....)
14. Any other requirement, e.g. (circular conductors, special PVC sheath material, drum weight limitation, etc.)

*Cables are normally supplied in lengths of 1000 meters and its multiplies on non returnable wooden drums but varies based on cable size and construction where large sizes are supplied in shorter lengths. For wires, it can be supplied as coils of 100 Mt. for small cross sectional area (up to 25 mm^2) and other sizes are supplied on non returnable wooden drums.

BICC CABLES Background

- Quality Management System ISO 9001:2015
- Environmental Management System (EMS) ISO 14001:2015
- Occupational Health & Safety Management System (OHS) ISO 45001:2018

BICC CABLES Background

Technical Advisory Service

Specialist advice on all matters concerning electrical power cables is available from BICC Cables sales team or direct from:

Factory:
Industrial Zone, Abu Rawash Km 28 Cairo
Alexandria Desert Road Cairo, Egypt
Tel. :(202) 3539 0251,2,3,4
Fax :(202) 3539 0255,6
E-mail: info@bicccables.com

BICC Cables is committed to supplying its customers with the highest quality of product and service. BICC Cables have undergone rigorous type testing by ERA Technology Ltd and the British Standard institution (via BASEC of the UK) and fully conform to IEC 60502 for electricity supply up to including 1.8 /3.3 kV ratings.

BICC CABLES Certification

BICC CABLES Certification

Performance

BICC Cables can provide optimum cables performance, and has access to the latest development in conductor, insulation and protective materials technology. Our experienced technical staff can provide guidance on cable selection and installation.

Where necessary, special features can be incorporated into the cable enabling it to have:

- Improved fire performance
- Low smoke and fume (Halogen free).
- Termite resistance
- Resistance to attack from oils, solvents or corrosive chemicals.

Specifying the right cable for a particular application is the first step. However, the key to reliability is in the manufacturing process. The cable must be from high quality material and manufactured ensuring that no defects or weaknesses will be revealed in service.

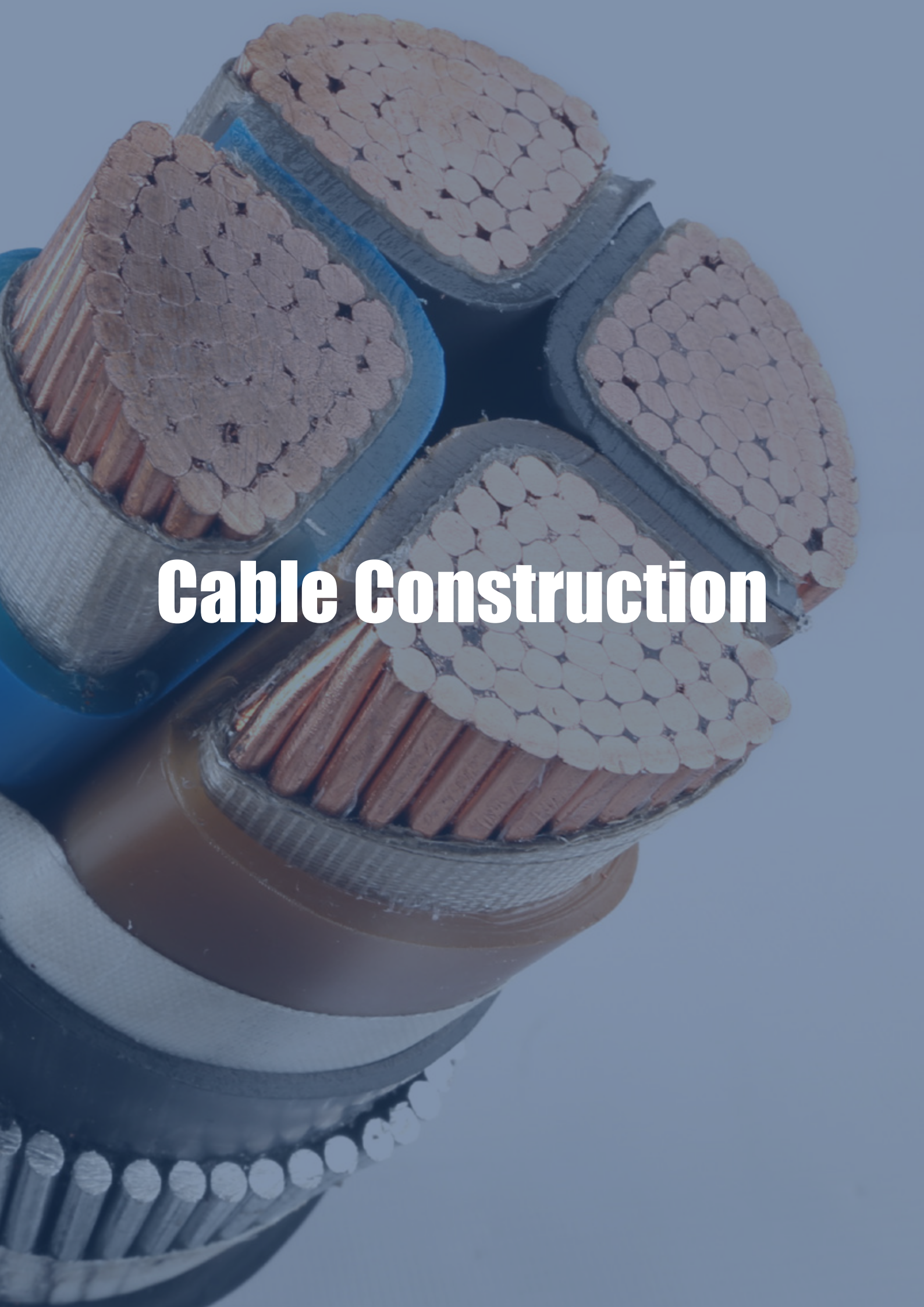
BICC Cables constantly monitors all manufacturing processes and operates the most stringent quality assurance procedures to give you excellent reliability. It is a factor which assumes vital significance when cables are to be installed in locations where future access would be difficult. That is when BICC cables and resources will give peace of mind.

BICC CABLES Certification

ISO

International Standards mean that our clients can have confidence that our products are safe, reliable and of good quality. A certification of this type guarantees that BICC CABLES can create safe products that maintain consistent characteristics.

BICC CABLES is ISO 9001, ISO 14001, and ISO 45001 certified.



Cable Construction

Cable Construction

The PVC & XLPE insulated power cables details in this publication are rated at 0.6/1 kV. Details of BICC Cables 1.8/3kV rated cables are available on request. Both steel tape and steel wire armoured and unarmoured designs are included. These conform specifically to IEC60502, Cables can also be supplied to the National Standards of other countries.

Conductors

It is the current carrying component of the cable.
The conductors in BICC Cables are of high conductivity copper or high purity aluminum and all meet the requirements of IEC60228 “Conductors in insulated cables and cords”.

The flexibility degree is described as:

- Conductor to class 1 (solid conductor, where only one wire).
- Conductor to class 2 (stranded wires like 7 wires, 19 wires, 37 wires, and 61 wires).
- Conductor to class 5 (more number of wires inside the conductor to make the conductor flexible).
- Conductor to class 6 (like class 5, but with more number of wires and more flexible to be used in cords).

Dependent upon the actual cable type, conductors may be stranded copper or aluminum. Smaller sizes are circular in profile; larger conductors are shaped or tightly compacted to reduce their physical size.

This compacting sometimes entails a change in the number and size of wires and therefore conductors are generally categorized by their nominal cross sectional area rather than by their stranding configuration.

Insulation

In accordance with this technical guide, cables are insulated with PVC (Polyvinyl Chloride) or XLPE (Cross Linked Polyethylene) or Low Smoke Halogen Free (LSHF).

Cable Construction

PVC Insulation

PVC as per IEC 60502 is a clean, easy to handle material with good electrical characteristics and resistance to water, oils and chemicals, together with inherent toughness and flexibility over a wide temperature range. PVC cables are easy to handle joints, terminates and have an outstanding record of trouble free service.

PVC is inherently flame retardant and is suitable for a maximum operating temperature of 70 °C.
All of the cables in this publication meet the requirements of IEC 60332, "Test on electrical cables under fire condition", part 1 "Method of test on a single vertical insulated wire or cables".

Under some unfavorable circumstances PVC can burn and fire may even propagate along the cables. However, types of over sheath incorporating special developed compounds to overcome fire hazards are available, as described later 'over sheath'.

XLPE Insulation

Cross linked polyethylene (XLPE) type GP 8 as per BS 7655 and IEC 60502 requirements.
XLPE matches many of the attributes of PVC, although it is not flame retardant, but goes a stage or two further. The good qualities of polyethylene are retained but at high temperatures the toughness and physical properties are improved. In particular, there is greatly enhanced resistance to deformation.

Having superior thermal and mechanical properties compared with PVC, the XLPE also has higher insulation resistance, enabling its thickness to be reduced, leading to corresponding reduction in the overall diameter and weight of a finished cable.

The main comparative consideration however, is that XLPE permits the operating temperature of cables to be raised substantially without suffering thermal deformation or degradation.
The continuous current rating of XLPE insulated cables are based upon a maximum conductor temperature of 90 °C as opposite to 70 °C for PVC insulated types.

Short circuit rating are also higher, XLPE accepted 250 °C as a final conductor temperature at the end of short circuit compared with 140/160 °C for PVC insulated cables. As a result, in situations where conductor size is governed by current rating rather than voltage drop, it may be possible to use a smaller conductor size.

Cable Construction

Core Identification

Black identifies the neutral conductor and the other colors identify the phase conductors in two, three, three& half, and four cores cables.

All core colors are available as per customer request

N ° . Cores	Core Colors
1	Black or Red
2	Red, Black
3	Red, Yellow, Blue
3.5	Red, Yellow, Blue, Black
4	Red, Yellow, Blue, Black

Bedding

A layer of extruded PVC is applied around the laid up cores separating the heart of the cable from the metallic armour and providing a secure bending.
Reduced propagation flame retardant (FR PVC) compound may be used for reduced propagation characteristic.

Halogen Free Flame-Retardant (HFFR) or LSOH ,LSZH and LSHF compounds may be used for installation where fire hazard exists. It is a low smoke, low toxic compound when fired.

Armour

Armour is necessary to protect the conductors from mechanical damage. Armour may be provided for using:
Steel tape (STA) Double steel tape of thickness 0.2 or 0.5 is applied helically over bedding.
Steel wire (SWA) one layer of round wires is applied helically over the bedding. Steel wire with hard drawn tinned copper wire to increase conductivity.
For single core cables used for AC purposes, it is not recommended to use magnetic armoured cables, since the eddy current will affect the cable, so if armouring is essential, Aluminum wire (AWA) can be used as a cable armour .

Note!
Under short circuit conditions, steel tape armour has high earth fault loop impedance, so the steel wire armour can carry more short circuit current.

Fillers

Non-hygroscopic polypropylene fillers are included between laid up cores as standard.
It is optional according to cable size and where necessary

Binding Tape

A separator tape of polypropylene (PP tape) or polyester mylar tape is applied over the laid up cores where necessary.

Cable Construction

Oversheath

PVC

The standard sheath of all cables is an extruded layer of black PVC, the external surface of which is embossed with voltage, rating and cable size. Normally the over sheath PVC grade meets the requirements of BS 7655. Other grades can be used dependent upon customer requirements e.g. PVC sheath with anti-termite properties can be provided when specified.

Ordinary PVC is intrinsically flame retardant and all cables described in this publication meet the requirements of IEC 60332 part 1 “Tests on electric cables under fire conditions on a single vertical insulated wire or cable”.

For enhanced fire performance, special PVC sheath compounds are available, e.g. Reduced Propagation (FR-PVC) and Reduced Propagation & low Hydrochloric acid gas emissions
(FRLHCL) PVC compounds can be offered as a sheathing material.

PVC and XLPE insulated armoured cables with FR, FRLHCL bedding and sheath will pass the test requirements under category C of IEC 60332 Part 3 specification for “test on electrical cables under fire condition on bunched wires or cables”. For IEC 60332 Part 3 categories A and B, meeting the specification depends primarily on the type, size and number of cables in the bunched cable installation that make up the total volume of non-metallic components.
Please seek advice from our Technical Department for specific installations.

Halogen Free Flame Retardant (HFFR), Low Smoke & Fume (LSF) and Low Smoke Zero Halogen (LSOH, LSZH or LSHF).

BICC Cables is manufacturing a dedicated cable called HFFR (or LSHF)), which is Low Smoke, Low toxic emission and low Fume.

This cable is specially installed where fire and its associated problems-the emission of smoke and toxic fumes- offer a serious potential threat. HFFR compound is free from halogen (fluorine, chlorine and bromine). BICC Cables can provide the customer with this type of cables that:

- Are manufactured to BS 6724.
- Have minimum limited oxygen index (LOI) is 32 % for bedding and over sheath (measured as per BS 2782 / ISO 4589 - A-IV).
- Have low HCL emission.
- Have acidic gas evolution of less than 0.5 % (to BS 2782).
- Comply to IEC 60332 -3 (Cable construction and design should be agreed by BICC Cables).

Further properties are available upon request such as anti-termite, resistant to chemicals, oil, UV, acids, alkaline, hydrocarbon.
Please refer to BICC Cables technical department for advice about the subject.

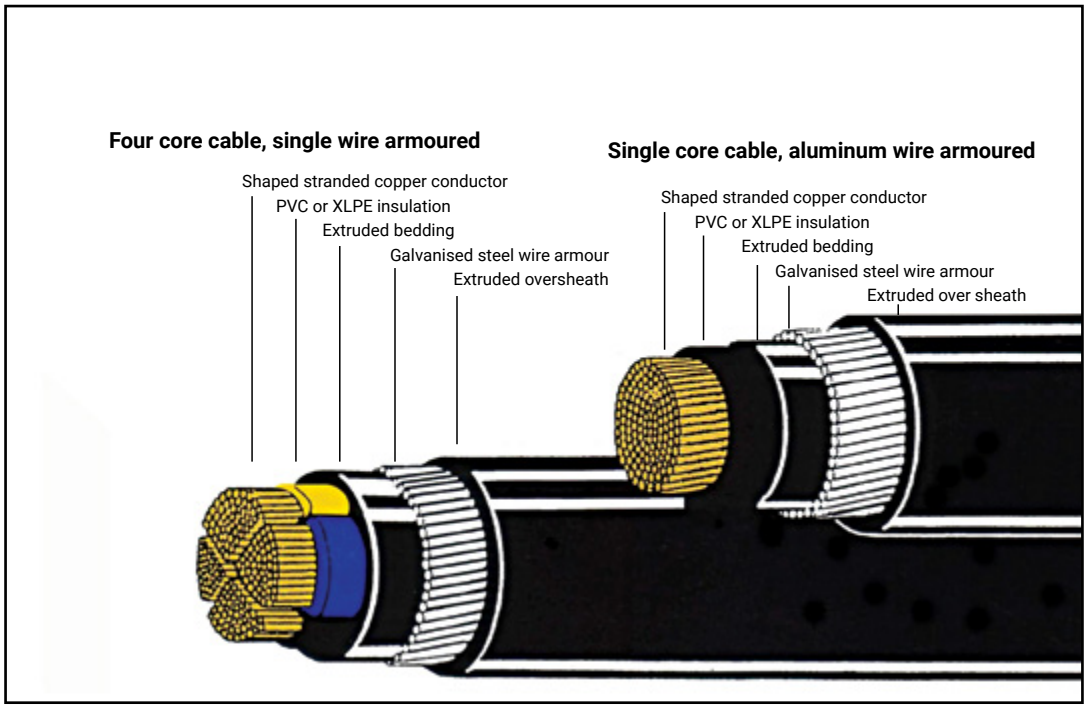
Cable Construction

Special types of over Sheath (Jacketing)

If your application requires special protection for the cable, other material for sheathing jacketing may be considered. BICC Cables technical department will be glad to provide you with the best cable selection that will fit the application.

TYPICAL EXAMPLES OF DESIGN & CONSTRUCTION

600/1000V CABLES TO IEC 60502-1



General Technical Information

Product Code

Number of Unit/s

Number of Cores /
Pairs / Triples ..etc
H : 1 Reduced Neutral
D : 2 Reduced Neutral

Unit Type

C: Core
P: Pair
R: Triplex
T: Triple
Q: Quad
F: Flat

Size

Conductor Cross
Sectional Area (mm²)

Conductor Material

C: Copper
T: Tinned Copper
A: Aluminium H12
J: Aluminium H14
L: Aluminium Alloy
Y: AACSR
G: ACSR

Conductor Design

S: Solid
T: Strand
F : Flexible

Fire Resistance

M: Mica Glass Tape

Insulation Type

P: PVC
X: XLPE
D: PVC 105°C
S: XLPE %2.5 C.B
A: LSHF Thermo Plastic
L: XL-LSHF
E: PE
N: PVC 90°C
F : PVC Flex

Chemical Protection

LD: Lead
PA: AL-HDPE-PA

Outer Sheath

P: PVC
E: PE
L: LSHF

Armouring

T: Steel Tape
G: Galvanized Steel Tape
W: Galvanized Steel Wire
K: Aluminum Tape
J: Aluminum Wire
A: Al Foil double side coated

Bedding

P: PVC
E: PE
L: LSHF

Screen & Sheilding

OS: Overall Shield
IS: INDV. Shield /or IS/OS
U: Copper Tape
C: Copper Tape Over Bedding
O: Copper Wire
S: Copper Braid
T: Tinned Copper Braid
F: Tinned Copper Braid over Al/PET
G: Tinned Copper Braid over PET
H: Tinned Copper Braid over Bedding
Q: Aluminum Tape Screen
R: Aluminuim Wire Screen

Rated Voltage

A: 500/300 V or 500 V
C: 1 / 0.6 kV
E: 1.5 kV_{dc}
G: 300/300 V or 300 V
I: 15/8.7 kV
K: 30/18 kV
P: 45/26 kV
B: 750/450 V
D: 3/1.8 kV
F: 6/3.6 kV
J: 10/6 kV
M: 20/12 kV
N: 36/20.8 kV

Installation

Installation

All the cables described in this publication can be used outdoors, but some reservations are necessary concerning cables without a metal sheath for direct burial e.g.

- Unarmoured cables are not recommended for laying direct in the ground.
- Cables for laying directly in the ground particularly in sustained wet conditions should have extruded bedding.
- For installation where there is water logging, or where it is likely to occur, advice should be obtained from our technical department.

Other important factors to be taken into account are:

Sheath Damage

Care should be taken to ensure that the over sheath is not damaged during installation. This is especially important where aluminum armour is used since ingress of moisture could lead to corrosion and loss of earth continuity.

Minimum Bending Radius

Cables should not be bent during installation to a radius smaller than that recommended below. Wherever possible larger radii as should be used.

Cable Type	Minimum Internal Radius of Bending
Power Cable (stranded Copper)	8D
Power Cable (flexible Copper)	6D
Fire resistance cables	15D

Where D is cable outer diameter.

Installation

Connectors

For PVC compression or soldered connectors may be used.

For XLPE insulated cables, it is recommended to use compression type connectors since the use of soldered connectors would limit the maximum short circuit temperature of the cable to 160°C, and consequently reduce the final short circuit current by approximately 30% .

Overhead Terminations

Ultra Violet resistant sleeving or taping should be provided on PVC insulated cores to avoid degradation due to exposure to sunlight.

Cable Support Spacing

The following table gives the recommended spacing of supports for cable covered by this publication. They are, where possible, in line with the 18th edition of the IEE Wiring Regulations (BS 7671) clause 522-08-04 and the dimensional range has been extended so as to cover a greater number of cable sizes.

Stranded Copper or Aluminum Conductor Cables

Overall cable Dia. (mm)	Support spacing (mm)	
	Horizontal	Vertical
up to 15	350	450
15 - 20	400	550
20 - 40	450	600
40 - 60	700	900
60 and above	1100	1300

Current Ratings

Current Ratings

Source of Data

The maximum sustained current rating (AC) for copper and aluminum conductor cables given for PVC insulated cables, in this publication are based, where applicable, on ERA report 69-30 part III (Sustained Current Ratings for PVC Insulated cables).

For XLPE insulated cables, the current rating in this publication are derived from the latest issue of ERA report no. 69-30 part 5, which is based upon IEC 287.

All other current ratings have to be calculated by agreed formula and methods in IEC 287 and/or the IEE wiring regulations 18th Edition (BS 7671).
Current rating of unarmoured cables are based on IEC Publication IEC 60364-5-52:2001 and IEE Wiring Regulations 18th Edition.

In the case of single core cables, ratings for various installation conditions have been given. Where the cables are armoured, these are based on the assumption that the non-magnetic armour will be solidly bonded at both ends of the cable run. It should be noted that Regulation 521-02 of the 18th Edition of the IEE Wiring Regulation prohibits the use of single core cables with steel wire on AC systems.
In addition to Electric Cables Hand book (BICC CABLES Limited) 3rd edition.

All the current ratings given in data tables are or single circuits, thermally independent of other circuits or any other heat source and on the basis of the standard conditions of installation given.

For other ambient or ground temperatures, depth of laying and soil factors given in data tables.

Installation Environment

There are three main installation conditions that affect the current rating of a cable and these are:

- Cables laid directly in the ground.
- Cables laid in ducts.
- Cables laid in free air.

Current ratings for PVC and XLPE insulated cables are listed in the relevant tables in data tables and refer to standard conditions of installation, for single circuits, as detailed in ERA report 96.30 part 3 and part 5, for ground and duct installation. For installation in air, values are relevant to IEE wiring regulations (18th Edition).

For other ambient or ground temperatures, change in depth of laying, soil thermal resistivity or number of grouping cables, the current rating must be multiplied by relevant rating factors Listed in data tables.

Current Rating Factors

Current Rating Factors

For the current ratings listed in the main text of this guide the values listed pertain to certain installation conditions. Should your particular installation environment differ from those defined in the current rating it necessary to utilize the following tables and employ the rating factors listed.

There are three main installation categories:

1. Cables laid directly in ground.
2. Cables laid in ducts.
3. Cables installed in air.

Within each of these categories there are a series of rating factors for installation that may need to be considered.

Tables in this catalogue indicate current ratings at conditions of ambient air temperature at 30°C (shaded) , Ground Temperature: 20°C , soil thermal resistivity 1.0 °C m/W, Burial Depth : 0.5m.

For other ambient conditions, current rating factors in below tables shall considered.

Cables laid directly in ground

For Cables laid directly in ground the following four Rating Factors may need to be considered:

- Rating Factors for Ground Temperature
- Rating Factors for Soil Thermal Resistivity
- Rating Factors for Depth
- Rating Factors for Cables Grouping

The current rating for cables installed directly in the ground are based on values of soil temperature and soil thermal resistivity which are generally representative of conditions in Egypt. Rating factors that take account of variation in ground temperatures are given in below table

Current Rating Factors

Rating factors for Ground Temperature

Insulation	Ground Temperature						
	15°C	20°C	25°C	30°C	35°C	40°C	45°C
PVC	1.05	1	0.95	0.89	0.84	0.77	0.71
XLPE	1.04	1	0.96	0.93	0.89	0.85	0.8

Where conditions of operation can be more accurately estimated and knowledge of the soil along the route is available, it is possible to determine the ratings more precisely by the use of soil thermal resistivity factors, factors for depth, and grouping factors as per below tables.

Rating factors for variation in thermal resistivity of soil

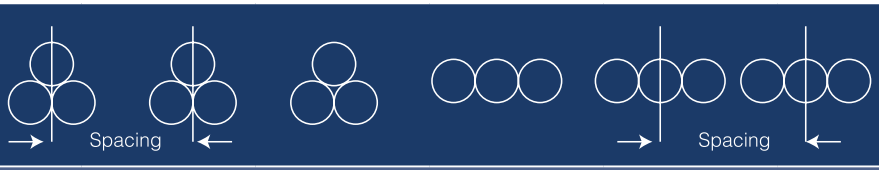
Size of Cable (mm^2)	Soil thermal resistivity in (°C m/W)							
Single core cables	**0.8**	**0.9**	**1.0**	**1.2**	**1.5**	**2.0**	**2.5**	**3.0**
Up to 150	1.08	1.05	1	0.93	0.85	0.76	0.68	0.62
From 185 to 300	1.09	1.05	1	0.93	0.85	0.75	0.68	0.62
From 400 to 630	1.09	1.05	1	0.93	0.85	0.75	0.68	0.62
Multicore Cables								
Up to 16	1.07	1.03	1	0.95	0.89	0.8	0.73	0.69
From 25 to 150	1.08	1.04	1	0.94	0.87	0.77	0.71	0.65
From 185 to 500	1.07	1.03	1	0.93	0.86	0.76	0.69	0.63

Rating factors for depth of laying (to center of cable or trefoil group of cables)

Depth of laying (m)	**0.6/1 KV rated cables conductor size**		
	Up to 50 mm^2	**70** mm^2 **to 300** mm^2	**Above 300** mm^2
0.50	1.00	1.00	1.00
0.60	0.99	0.98	0.97
0.80	0.97	0.96	0.94
1.00	0.95	0.93	0.92
1.25	0.94	0.92	0.89
1.50	0.93	0.90	0.87
1.75	0.92	0.89	0.86
2.00	0.91	0.88	0.85
2.50	0.90	0.87	0.84
3.00 or more	0.89	0.85	0.82

Current Rating Factors

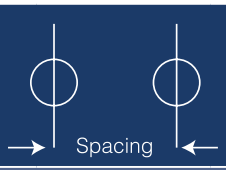
Group Rating factors for circuits of three single core cables in trefoil or laid flat touching, in horizontal formation.

Number of Circuits						
	Spacing of Circuits					
	Touching+		Not Touching			
Numbers (Nr)	Trefoil	Laid Flat	0.15 m *	0.30 m	0.45 m	0.60 m
2	0.78	0.81	0.83	0.88	0.91	0.93
3	0.66	0.70	0.73	0.79	0.84	0.87
4	0.61	0.64	0.68	0.73	0.81	0.85
5	0.56	0.60	0.64	0.73	0.79	0.85
6	0.53	0.57	0.61	0.71	0.78	0.82

This spacing will not be possible for some of the large diameter cables.
* For high current carrying cables (i.e. large size) it is advisable to allow spacing between circuits.

Alternatively, the most appropriate group-rating factor must be applied when determining the cable size and required number of cables in parallel.

Rating factors for multicore cables in horizontal Formation

Number of Circuits					
	Spacing				
Numbers (Nr)	Touching+	0.15 m	0.30 m	0.45 m	0.60 m
2	0.81	0.87	0.91	0.95	0.95
3	0.70	0.78	0.84	0.88	0.90
4	0.63	0.74	0.81	0.86	0.89
5	0.59	0.70	0.78	0.84	0.87
6	0.55	0.68	0.77	0.83	0.87

Current Rating Factors

Cables laid in ducts

The term ducts simply apply to single way earthenware, fiber or ferrous pipe. Recommended duct sizes are detailed in below table.

Cables Laid in duct

Overall Cable Diameter (mm)	**Duct**	
	Inside Diameter (mm)	**Outside Diameter**(mm)
Up to and including 65	100	130
Above 65 up to and including 90	125	160

For Cables laid in ducts the following four Rating Factors may need to be considered:

- Rating Factors for Ground Temperature
- Rating Factors for Soil Thermal Resistivity
- Rating Factors for Depth
- Rating Factors for Cables Grouping

The Current Rating for cables installed in single way ducts, underground, have been based on values of soil temperature and soil thermal resistivity which are generally representative of conditions in Egypt.

The rating factors for ground temperature are the same as those for cables laid direct in ground detailed in above table. Where conditions of operation can be more accurately estimated and knowledge of the soil along the route is available, it is possible to determine the ratings more precisely by the use of soil thermal resistivity factors, factors for depth, and grouping factors.

Notes! + For high current carrying cables (i.e. large size) it is advisable to allow spacing between circuits. Alternatively, the most

Rating factors for variation in thermal resistivity of soil (Average values)

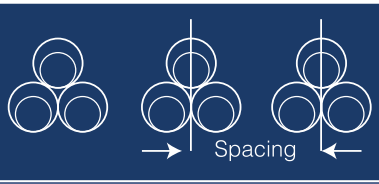
Size of Cable(mm^2)	**Soil Thermal Resistivity in(°C m/W)**							
Single core cables	**0.8**	**0.9**	**1.0**	**1.2**	**1.5**	**2.0**	**2.5**	**3.0**
Up to 150	1.06	1.03	1	0.96	0.9	0.83	0.77	0.73
From 185 to 300	1.06	1.03	1	0.95	0.89	0.81	0.75	0.71
From 400 to 630	1.07	1.03	1	0.95	0.89	0.8	0.74	0.7
Multicore Cables								
Up to 16	1.02	1.01	1	0.98	0.95	0.9	0.86	0.84
From 25 to 150	1.03	1.01	1	0.97	0.92	0.87	0.83	0.79
From 185 to 500	1.04	1.02	1	0.97	0.92	0.85	0.81	0.76

Current Rating Factors

Rating Factors for depth of laying (to center of duct of trefoil Group of ducts)

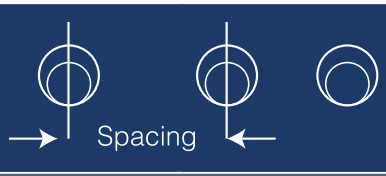
Depth of laying (m)	Duct	
	Single Core	Multicore
0.50	1.00	1.00
0.60	0.98	0.99
0.80	0.95	0.98
1.00	0.93	0.96
1.25	0.91	0.95
1.50	0.89	0.94
1.75	0.88	0.94
2.00	0.87	0.93
2.50	0.86	0.92
3 or more	0.85	0.91

Rating Factors for single core cables in trefoil single way ducts, Horizontal formation (average values)

Number of Circuits			
	Spacing		
Numbers (Nr)	Touching	0.45 m	0.60 m
2	0.87	0.91	0.93
3	0.78	0.84	0.87
4	0.74	0.81	0.85
5	0.70	0.79	0.83
6	0.69	0.78	0.82

Current Rating Factors

Rating Factors for Multicore Cables in Single Way Ducts, Horizontal Formation (Average Values)

Number of Circuits				
	Spacing			
Numbers (Nr)	Touching	0.30 m	0.45 m	0.60 m
2	0.90	0.93	0.95	0.96
3	0.83	0.88	0.91	0.93
4	0.79	0.85	0.89	0.92
5	0.75	0.83	0.88	0.91
6	0.73	0.82	0.87	0.90

Cables Laid in Air

it is anticipated that many of the 'in air' installation will be in building, and the ratings are therefore given in accordance with IEE Wiring Regulation for Electrical installation 18th Edition.

It should be noted that all ratings for cables run in free air have been on the assumption that they are shield from the direct rays of the sun without restriction of ventilation.

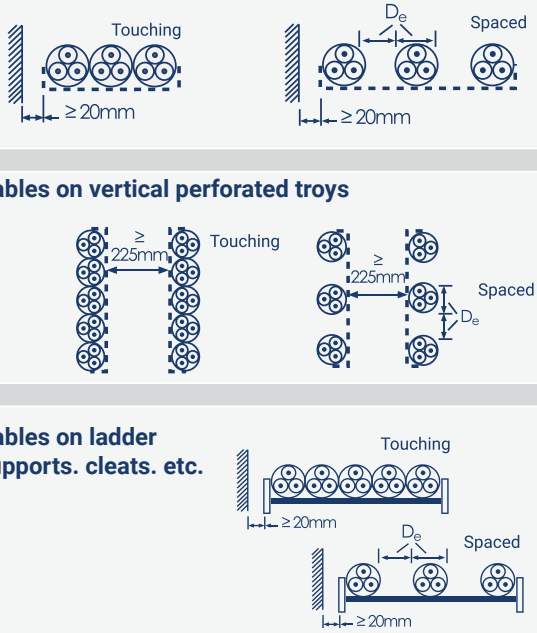
The current rating for cables subjected to direct sunlight should be reduced to take acount of this factor and further guidance on this subject is available on request.

Rating Factors for Single Core Cables in Air

Insulation	25°C	30°C	35°C	40°C	45°C	50°C	55°C
PVC	1.07	1	0.92	0.84	0.75	0.66	0.55
XLPE	1.05	1	0.95	0.90	0.84	0.78	0.72

Reduction factors for groups of more than one multi-core cable in air to be applied to the current-carrying capacity for one multi-core cable in free air

Number of trays	Number of cables						Method of installation
	1	2	3	4	6	9	
1	1.00	0.88	0.82	0.79	0.76	0.73	**Cables on perlototed troys**
2	1.00	0.87	0.80	0.77	0.73	0.68	
3	1.00	0.86	0.79	0.76	0.71	0.66	
1	1.00	1.00	0.98	0.95	0.91	-	
2	1.00	0.99	0.96,	0.92	0.87	-	
3	1.00	0.98	0.95	0.91	0.85	-	
1	1.00	0.88	0.82	0.78	0.73	0.72	**Cables on vertical perforated troys**
2	1.00	0.88	0.81	0.76	0.71	0.70	
1	1.00	0.91	0.89	0.88	0.87	-	
2	1.00	0.91	0.88	0.87	0.85	-	
1	1.00	0.87	0.82	0.80	0.79	0.78	**Cables on ladder supports. cleats. etc.**
2	1.00	0.86	0.80	0.78	0.76	0.73	
3	1.00	0.85	0.79	0.76	0.73	0.70	
1	1.00	1.00	1.00	1.00	1.00	-	
2	1.00	0.99	0.98	0.97	0.96	-	
3	1.00	0.98	0.97	0.96	0.93	-	



NOTE 1	Values given are averages for the cable types and range of conductor sizes considered. The spread of values is generally less than 5%
NOTE 2	Factors apply to single layer groups of cables as shown above and do not apply when cables are installed in more than one layer touching each other. Values for such installations may be significantly lower and must be determined by an appropriate method.
NOTE 3	Values are given for vertical spacing between trays of 300 mm and at least 20 mm between trays and wall. For closer spacing, the factors should be reduced.
NOTE 4	Values are given for horizontal spacing between trays of 225 mm with trays mounted back to back. For closer spacing the factors should be reduced.

Reduction factors for groups of more than one circuit of single-core cables (note 2} to be applied to the current carrying capacity for one circuit of single-core cable in free air

Number of trays	Number of cables			Use as a multiplier to rating for	Method of installation	
	1	2	3			
1	0.98	0.91	0.87	Three cables in horizontal formation	Preforated trays (Note 3)	Touching ≥ 20mm
2	0.96	0.87	0.81			
3	0.95	0.85	0.78			
1	1.00	0.97	0.96	Three cables in horizontal formation	Ladder supports. cleats. etc. (Note 3)	Touching ≥ 20mm
2	0.98	0.93	0.89			
3	0.97	0.90	0.86			
1	1.00	0.98	0.96	Three cables in trefoil formation	Perforated troys (Note 3)	≥ 2De De ≥ 20mm
2	0.97	0.93	0.98			
3	0.96	0.92	0.86			
1	1.00	0.91	0.89		Vertical perforated troys (Note 4)	Spaced ≥ 225mm ≥ 2De De
2	1.00	0.90	0.80			
1	1.00	1.00	1.00		Ladder supports. cleats. etc. (Note 3)	≥ 2De De ≥ 20mm
2	0.97	0.95	0.93			
3	0.96	0.94	0.90			

NOTE 1	Values given are averages for the cable types and range of conductor sizes considered. The spread of values is generally less than 5%
NOTE 2	Factors are given for single layers of cables (or trefoil groups) as shown in the table and do not apply when cables are installed in more than one layer touching each other. Values for such installations may be significantly lower and should be determined by an appropriate method.
NOTE 3	Values are given for vertical spacings between trays of 300 mm. For closer spacing, the factors should be reduced.
NOTE 4	Values are given for horizontal spacing between trays of 225 mm with trays mounted back to back. For closer spacing, the factors should be reduced.
NOTE 5	For circuits having more than one cable in parallel per phase, each three phase set of conductors should be considered as a circuit for the purpose of this table.

Voltage Drop

Voltage Drop

When current flows in a cable conductor there is a voltage drop between the ends of the conductor which is the product of the current and the impedance.

Voltage drop is normally only of importance for cables of voltage rating 0.6/1 KV or below.
As per IEE wiring regulations (BS 7671), used to require that the drop in voltage from the origin of installation to any point in the installation should not exceed 2.5% of the nominal voltage when the conductors are carrying the full load current. This regarding the starting conditions.
However, in normal service is being left to the designer to quantify this.

Other assumptions can be gained from the Technical Department of BICC Cables.

The following equations should be used to calculate the voltage drop:

1- For Single phase circuit

$V_d = 2 * I * \iota (R \cos\varphi + X \sin\varphi)$

2- For Three phase circuit

$V_d = \sqrt{3} * I * \iota (R \cos\varphi + X \sin\varphi)$

Where
Vd : Voltage drop V
I : Load current A
R : AC resistance Ω/km
ι : Length km
X : Reactance Ω/km
cosφ : Power factor

Relationship between cosφ and sinφ

cosφ	1.0	0.9	0.8	0.71	0.6	0.5
sinφ	0.0	0.44	0.6	0.71	0.8	0.87

Voltage Drop

The below tables indicate voltage drop for cables 600/1000 V values at power factor 0.8. For other assumptions , please refer to BICC CABLES technical office.

- L.V. cable systems advisable to be not to exceed voltage drop 3-5 % in normal operating condition.
- Voltage drop data for L.V. Cable (Single & Multi Core) are tabulated in tables.

Voltage Drop (mV/Amp./Meter) For Copper Conductor Copper Multi Core Cables

Conductor Size (mm^2)	Insulation : XLPE	Insulation :PVC
	Vd (mV/amp/m)	Vd (mV/amp/m)
1	32.096	30.130
1.5	21.490	20.176
2	16.396	15.396
2.5	13.196	12.393
3	10.879	10.218
4	8.242	7.750
6	5.535	5.208
10	3.322	3.130
16	2.117	1.998
25	1.370	1.296
35	1.010	0.957
50	0.764	0.727
70	0.553	0.527
95	0.419	0.403
120	0.348	0.335
150	0.298	0.287
185	0.255	0.247
240	0.213	0.208
300	0.187	0.183

Above values at power factor = 0.8, frequency = 50 Hz

Voltage Drop

Copper Single Core Cables

Conductor Size (mm^2)	Insulation : XLPE		Insulation :PVC	
	Trefoil Formation	Flat Formation	Trefoil Formation	Flat Formation
	Vd (mV/amp/m)	Vd (mV/amp/m)	Vd (mV/amp/m)	Vd (mV/amp/m)
1	32.138	32.153	30.169	30.185
1.5	21.529	21.544	20.214	20.229
2	16.434	16.449	15.432	15.447
2.5	13.233	13.248	12.428	12.443
3	10.913	10.928	10.251	10.266
4	8.274	8.289	7.778	7.793
6	5.563	5.578	5.233	5.248
10	3.347	3.362	3.152	3.167
16	2.139	2.154	2.018	2.033
25	1.387	1.402	1.311	1.326
35	1.025	1.040	0.972	0.987
50	0.778	0.793	0.740	0.755
70	0.564	0.579	0.537	0.552
95	0.430	0.444	0.412	0.427
120	0.357	0.371	0.344	0.358
150	0.306	0.321	0.295	0.310
185	0.262	0.277	0.254	0.268
240	0.220	0.234	0.214	0.228
300	0.193	0.207	0.190	0.203
400	0.170	0.184	0.167	0.181
500	0.152	0.165	0.151	0.164
630	0.138	0.151	0.136	0.149

Above values at power factor = 0.8, frequency = 50 Hz for non armoured cables , three phase circuit.

Voltage Drop

Voltage Drop (mV/Amp./Meter)For Aluminum Conductor

Aluminum Multi Core Cables

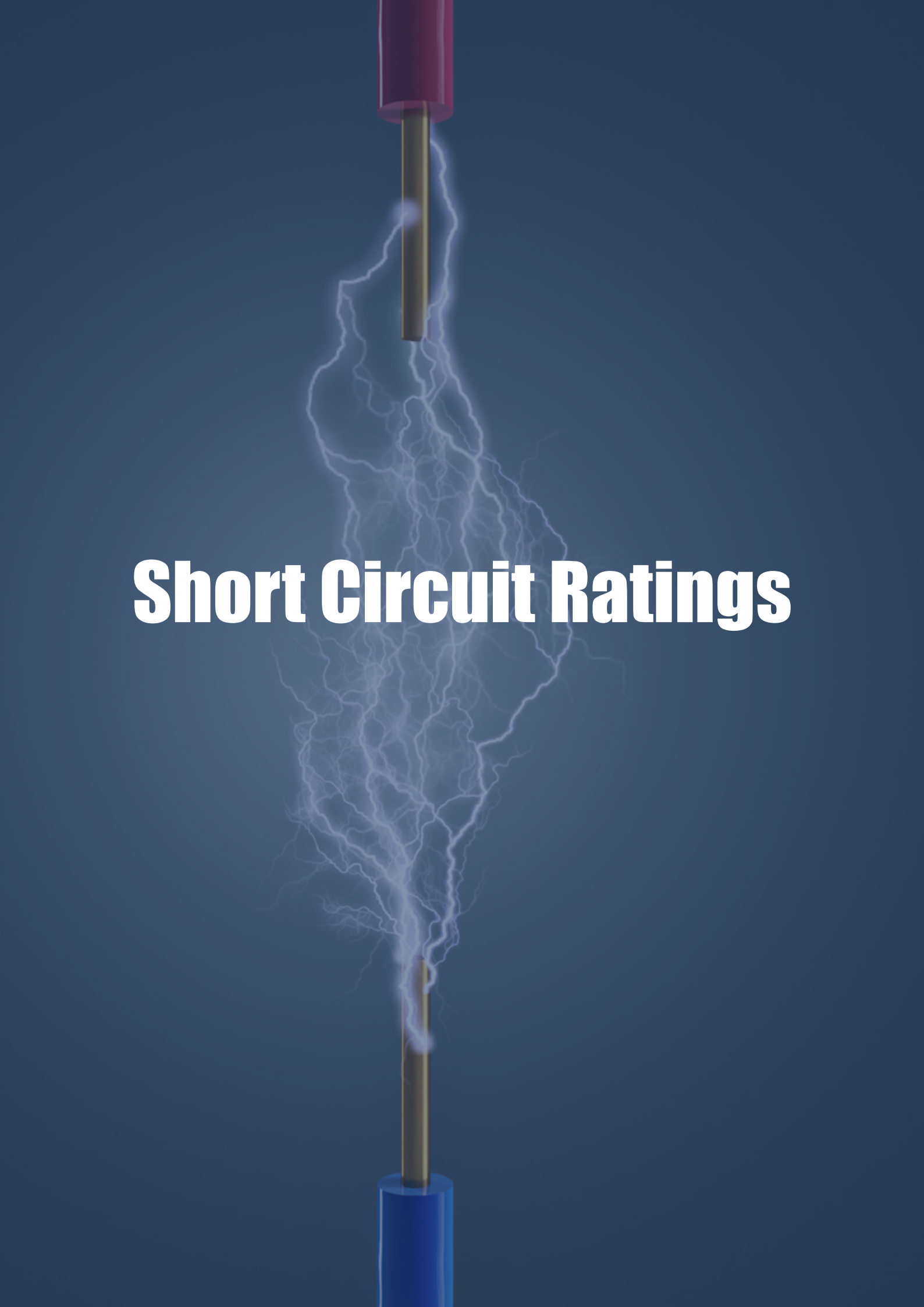
Conductor Size (mm^2)	Insulation: XLPE	Insulation: PVC
	Vd (mV/amp/m)	Vd (mV/amp/m)
16	3.478	3.271
25	2.217	2.088
35	1.625	1.532
50	1.218	1.152
70	0.865	0.819
95	0.646	0.615
120	0.526	0.501
150	0.443	0.423
185	0.369	0.354
240	0.300	0.289
300	0.256	0.248

Above values at power factor = 0.8, frequency = 50 Hz

Aluminum Single Core Cables

Conductor Size (mm^2)	Insulation: XLPE		Insulation: PVC	
	Trefoil Formation	Flat Formation	Trefoil Formation	Flat Formation
	Vd (mV/amp/m)	Vd (mV/amp/m)	Vd (mV/amp/m)	Vd (mV/amp/m)
16	3.501	3.516	3.292	3.308
25	2.236	2.251	2.106	2.121
35	1.642	1.657	1.548	1.564
50	1.233	1.248	1.166	1.181
70	0.878	0.893	0.831	0.846
95	0.658	0.673	0.626	0.641
120	0.537	0.552	0.512	0.527
150	0.454	0.469	0.433	0.448
185	0.379	0.394	0.363	0.378
240	0.309	0.324	0.298	0.312
300	0.264	0.279	0.256	0.271
400	0.224	0.238	0.218	0.232
500	0.194	0.208	0.189	0.203
630	0.170	0.183	0.166	0.179

Above values at power factor = 0.8, frequency = 50 Hz for non armoured cables , three phase circuit.


Short Circuit Ratings

Short Circuit Ratings

When cables are subjected to temperatures higher than those permissible for continuous operation they may suffer damage. Therefore, in installation, where there is a possibility of the cables being overloaded by mistake or accident, cables should be selected having regard to the characteristics of the device used or protection against excess current, so that the effects of overloading are limited to a degree tolerable or a relatively short period of operation. Design criteria and requirement for such conditions are detailed in the18th Edition of the IEE Wiring Regulation.

PVC Insulated Cables

The values of fault current given in the table below are based on the cable being fully loaded at the start of the short circuit (conductor temperature 70°C) and at a final temperature of 160°C for conductors up to 300 mm^2 and 140°C for sizes above 300 mm^2.

XLPE Insulated Cables

The values of fault current given in the table below are based on the cable being fully loaded at the start of the short circuit (conductor temperature 90°C) and at a final temperature of 250°C. It should be insured that the accessories associated with the cables are also capable of operation at these values of fault current and temperature.

Short Circuit Ratings for PVC Insulated Cables Copper Conductor

Conductor Area (mm^2)	Short Circuit Rating Current (KA)				
	Duration of Short circuit (Sec.)				
	0.2	0.5	1	2	3
1	0.3	0.2	0.1	0.1	0.1
1.5	0.4	0.2	0.2	0.1	0.1
2	0.5	0.3	0.2	0.2	0.1
2.5	0.6	0.4	0.3	0.2	0.2
3	0.8	0.5	0.3	0.2	0.2
4	1.0	0.7	0.5	0.3	0.3
6	1.5	1.0	0.7	0.5	0.4
10	2.6	1.6	1.2	0.8	0.7
16	4.1	2.6	1.8	1.3	1.1
25	6.4	4.1	2.9	2.0	1.7
35	9.0	5.7	4.0	2.8	2.3
50	12.9	8.1	5.8	4.1	3.3
70	18.0	11.4	8.1	5.7	4.6
95	24.4	15.5	10.9	7.7	6.3
120	30.9	19.5	13.8	9.8	8
150	38.6	24.4	17.3	12.2	10.0
185	47.6	30.1	21.3	15	12.3
240	61.7	39.0	27.6	19.5	15.9
300	77.1	48.8	34.5	24.4	19.9
400	92.1	58.3	41.2	29.1	23.8
500	115.2	72.8	51.5	36.4	29.7
630	145.1	91.8	64.9	45.9	37.5

Short Circuit Ratings

Short Circuit Ratings for XLPE Insulated Cables
Copper Conductor

Conductor Area (mm^2)	Short Circuit Rating Current (KA)				
	Duration Of Short Circuit (sec.)				
	0.2	0.5	1	2	3
1	0.3	0.2	0.1	0.1	0.1
1.5	0.5	0.3	0.2	0.2	0.1
2	0.6	0.4	0.3	0.2	0.2
2.5	0.8	0.5	0.4	0.3	0.2
3	1.0	0.6	0.4	0.3	0.2
4	1.3	0.8	0.6	0.4	0.3
6	1.9	1.2	0.9	0.6	0.5
10	3.2	2	1.4	1.0	0.8
16	5.1	3.2	2.3	1.6	1.3
25	8.0	5.1	3.6	2.5	2.1
35	11.2	7.1	5.0	3.5	2.9
50	16.0	10.1	7.2	5.1	4.1
70	22.4	14.2	10.0	7.1	5.8
95	30.4	19.2	13.6	9.6	7.8
120	38.4	24.3	17.2	12.1	9.9
150	48.0	30.3	21.5	15.2	12.4
185	59.2	37.4	26.5	18.7	15.3
240	76.7	48.5	34.3	24.3	19.8
300	96	60.7	42.9	30.3	24.8
400	128	80.9	57.2	40.4	33.0
500	160	101.1	71.5	50.6	41.3
630	201.4	127.4	90.1	63.7	52.0

Short Circuit Ratings

Short Circuit Ratings for PVC Insulated Cables Aluminum Conductor

Conductor Area (mm^2)	Short Circuit Rating Current (KA)				
	Duration of Short circuit (Sec.)				
	0.2	0.5	1	2	3
16	2.7	1.7	1.2	0.9	0.7
25	4.2	2.7	1.9	1.3	1.1
35	5.9	3.8	2.7	1.9	1.5
50	8.5	5.4	3.8	2.7	2.2
70	11.9	7.5	5.3	3.8	3.1
95	16.1	10.2	7.2	5.1	4.2
120	20.4	12.9	9.1	6.4	5.3
150	25.5	16.1	11.4	8.1	6.6
185	31.4	19.9	14.1	9.9	8.1
240	40.8	25.8	18.2	12.9	10.5
300	51	32.2	22.8	16.1	13.2
400	60	36	25	18	16
500	72	48	32	23	19
630	92	59	40	29	24

Short Circuit Ratings for XLPE Insulated Cables Aluminum Conductor

Conductor Area (mm^2)	Short Circuit Rating Current (KA)				
	Duration of Short circuit (Sec.)				
	0.2	0.5	1	2	3
16	3.4	2.1	1.5	1.1	0.9
25	5.2	3.3	2.3	1.7	1.4
35	7.3	4.6	3.3	2.3	1.9
50	10.5	6.6	4.7	3.3	2.7
70	14.7	9.3	6.6	4.6	3.8
95	19.9	12.6	8.9	6.3	5.1
120	25.1	15.9	11.2	8.0	6.5
150	31.4	19.9	14.1	9.9	8.1
185	38.8	24.5	17.3	12.3	10.0
240	50.3	31.8	22.5	15.9	13.0
300	62.9	39.8	28.1	19.9	16.2
400	83.8	53.0	37.5	26.5	21.6
500	105	66.3	46.9	33.1	27.0
630	132	84	59	41.7	34.1


Technical Data Tables
0
10
20
30
31,29
mm
ABS
MODE
SET
110
120

Technical Data Tables

STRANDED COPPER
Single Core
PVC Insulated 450/750 V

Applications:
For indoor fixed installations in dry locations, laid in conduits, as well as in steel support brackets

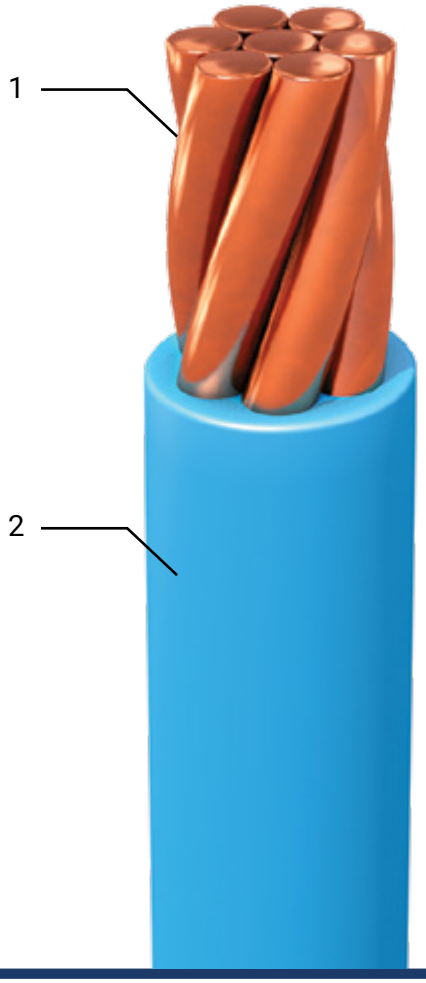
Maximum operating temperature: 70° C

Construction:
1. CONDUCTOR
Copper, Stranded class 2
*Note: Solid copper conductors class 1 are available upon request from 0.5 mm^2 up to 16 mm^2

2. INSULATION
Polyvinyl Chloride [PVC]

Standards:
IEC 60227
BSEN 50525-2-31
IEC 60228

Rated Voltage:
450/750 V
*Note: Other AWG sizes are avaliable upon request



Technical Data Tables

Stranded CU/PVC

Product Code	Conductor Size	Overall Diameter	Cable Weight	Max. Conductor Resistance		Current Rating	
						in free air 	in pipes 
	(mm²)	(mm)	(kg/km)	DC at 20 °C	AC at 70 °C		
				Ω/Km	Ω/Km	A	A
01C001CT0PB0000	1	2.5	15	18.1	21.66	15	12
01C01.5CT0PB0000	1.5	2.9	21	12.1	14.48	20	15
01C002CT0PB0000	2	3.4	27	9.15	10.9	22	17
01C02.5CT0PB0000	2.5	3.5	31	7.41	8.87	29	24
01C003CT0PB0000	3	3.7	37	6.1	7.30	31	25
01C004CT0PB0000	4	4.1	47	4.61	5.52	38	27
01C006CT0PB0000	6	4.6	65	3.08	3.69	46	33
01C010CT0PB0000	10	5.8	108	1.83	2.19	67	48
01C016CT0PB0000	16	6.7	162	1.15	1.38	89	62
01C025CT0PB0000	25	8.2	251	0.727	0.87	118	83
01C035CT0PB0000	35	9.3	343	0.524	0.63	147	100
01C050CT0PB0000	50	11	466	0.387	0.46	197	122
01C070CT0PB0000	70	12.6	655	0.268	0.32	230	151
01C095CT0PB0000	95	14.5	903	0.193	0.23	290	191
01C120CT0PB0000	120	15.9	1139	0.153	0.18	338	219
01C150CT0PB0000	150	17.7	1413	0.124	0.15	385	252
01C185CT0PB0000	185	19.8	1753	0.0991	0.12	449	288
01C240CT0PB0000	240	22.5	2271	0.0754	0.09	542	345
01C300CT0PB0000	300	25.1	2842	0.0601	0.08	621	391
01C400CT0PB0000	400	28.3	3646	0.047	0.06	748	488
01C500CT0PB0000	500	31.8	4713	0.0366	0.05	863	560
01C630CT0PB0000	630	35.7	5974	0.0283	0.04	1024	652

Installation Conditions for the above rating
In Air : 30°C
In Duct : 20°C
The above dimensions are approximate and subject to manufacturing tolerance.

Technical Data Tables

FLEXIBLE COPPER

Single Core
PVC Insulated 450/750 V

Applications:

For indoor fixed installations in dry locations, where particular flexibility is required. For electrical panels connection or for electrical apparatus. they can be laid in groups around steek sheet

Maximum operating temperature: 70˚C

Construction:

1. CONDUCTOR
Copper, flexible class 5

2. INSULATION
Polyvinyl Chloride [PVC]

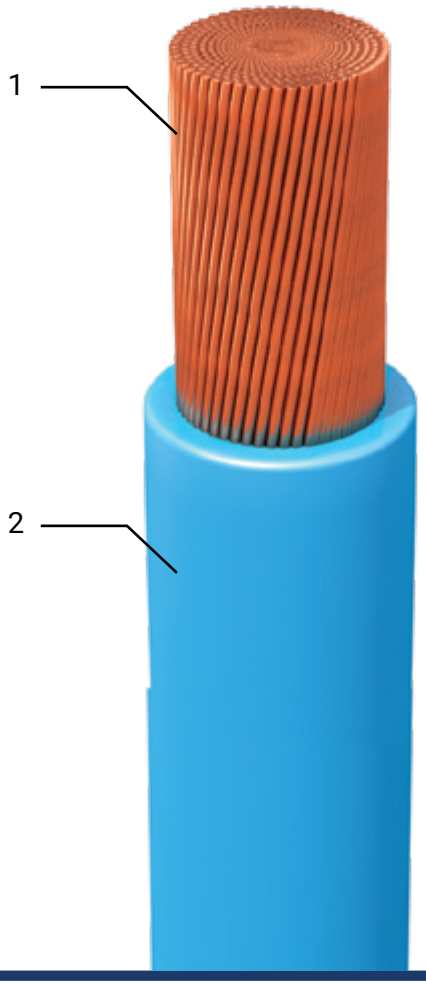
Standards:

IEC 60227
BSEN 50525-2-31
IEC 60228

Rated Voltage:

450/750 V

*Note: Other AWG sizes are avaliable upon request



Technical Data Tables

Flex. CU/PVC

Product Code	Conductor Size	Overall Diameter	Cable Weight	Max. Conductor Resistance		Current Rating	
						in free air 	in pipes 
	(mm^2)	(mm)	(kg/km)	DC at 20 °C	AC at 70 °C		
				Ω/Km	Ω/Km	A	A
01C001CF0PB0000	1	2.5	14	19.5	23.3	15	12
01C01.5CF0PB0000	1.5	3.0	20	13.3	15.9	20	15
01C002CF0PB0000	2	3.5	26	9.75	11.67	22	17
01C02.5CF0PB0000	2.5	3.6	31	7.98	9.548	29	24
01C003CF0PB0000	3	3.8	36	6.65	7.717	31	25
01C004CF0PB0000	4	4.2	45	4.95	5.922	38	27
01C006CF0PB0000	6	4.7	63	3.3	3.948	46	33
01C010CF0PB0000	10	6.1	107	1.91	2.29	67	48
01C016CF0PB0000	16	7.8	166	1.21	1.45	89	62
01C025CF0PB0000	25	9.3	252	0.78	0.94	118	83
01C035CF0PB0000	35	10.2	345	0.554	0.663	147	100
01C050CF0PB0000	50	12.6	490	0.386	0.462	197	122
01C070CF0PB0000	70	15.4	673	0.272	0.326	230	151
01C095CF0PB0000	95	16	885	0.206	0.247	290	191
01C120CF0PB0000	120	17.6	1117	0.161	0.193	338	219
01C150CF0PB0000	150	21.1	1412	0.129	0.155	385	252
01C185CF0PB0000	185	22.1	1715	0.106	0.127	449	288
01C240CF0PB0000	240	25.5	2268	0.0801	0.096	542	345
01C300CF0PB0000	300	28.2	2812	0.0641	0.0769	621	391
01C400CF0PB0000	400	32.3	3740	0.0486	0.0583	748	488
01C500CF0PB0000	500	35.8	4676	0.0384	0.0488	819	532
01C630CF0PB0000	630	41.8	6316	0.0287	0.0402	972	619

Installation Conditions for the above rating
In Air : 30°C
In Duct : 20°C

The above dimensions are approximate and subject to manufacturing tolerance.

Technical Data Tables

STRANDED ALUMINUM

Single Core
PVC Insulated 450/750 V

Applications:

For indoor fixed installations in dry locations, laid in conduits, as well as in steel support brackets.

Maximum operating temperature: 70°C

Construction:

1. CONDUCTOR
Aluminum, Stranded class 2

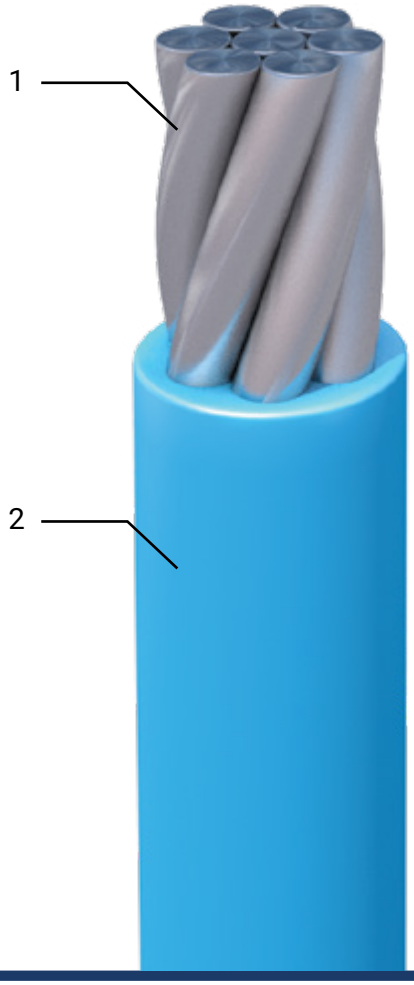
2. INSULATION
Polyvinyl Chloride [PVC]

Standards:

IEC 60227
IEC 60228

Rated Voltage:

450/750 V



Technical Data Tables

AL/PVC

Product Code	Conductor Size	Overall Diameter	Cable Weight	Max. Conductor Resistance		Current Rating	
						in free air	in pipes
	(mm^2)	(mm)	(kg/km)	DC at 20 °C	AC at 70 °C		
				Ω/Km	Ω/Km	A	A
01C016AT0PB0000	16	6.7	68	1.91	2.29	62	46
01C025AT0PB0000	25	8.2	105	1.2	1.44	83	58
01C035AT0PB0000	35	9.3	135	0.868	1.04	110	79
01C050AT0PB0000	50	11	189	0.641	0.77	133	95
01C070AT0PB0000	70	12.6	250	0.443	0.533	171	118
01C095AT0PB0000	95	14.5	341	0.32	0.385	217	151
01C120AT0PB0000	120	15.9	416	0.253	0.305	254	173
01C150AT0PB0000	150	17.6	514	0.206	0.248	289	198
01C185AT0PB0000	185	19.8	648	0.164	0.198	337	226
01C240AT0PB0000	240	22.5	825	0.125	0.152	291	273
01C300AT0PB0000	300	25	1025	0.1	0.123	465	307
01C400AT0PB0000	400	28.2	1320	0.0778	0.096	561	371
01C500AT0PB0000	500	31.8	1678	0.0605	0.076	647	426
01C630AT0PB0000	630	35.6	2110	0.0469	0.0625	768	495

Installation Conditions for the above rating
In Air : 30°C
In Duct : 20°C

The above dimensions are approximate and subject to manufacturing tolerance.

Technical Data Tables

STRANDED COPPER

Single Core
PVC Insulated 0.6/1 KV

Applications:

For outdoor and indoor installations in dump and wet locations, They are normally used for power distribution in urban networks. industrial plants. As well as in thermopower and Hydropower stations.
Maximum operating temperature: 70˚C

Construction:

1. CONDUCTOR
Copper, Stranded class 2

2. INSULATION
Polyvinyl Chloride [PVC]

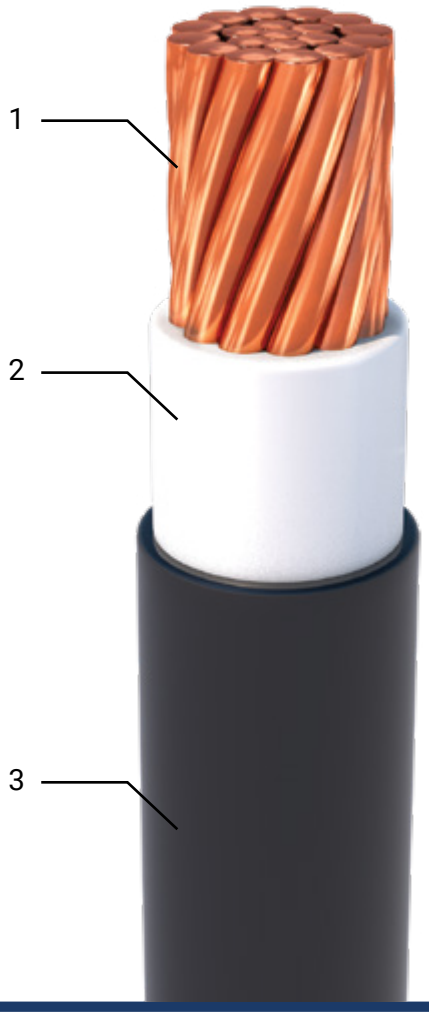
3. SHEATH
Polyvinyl Chloride [PVC]

Standards:

IEC 60502-1
IEC 60228

Rated Voltage:

0.6/1 kV



Technical Data Tables

CU/PVC/PVC 1 Core

Flat Formation

Product Code	Conductor Size	Overall Diameter	Cable Weight	Max. Conductor Resistance		Current Rating	
				DC at 20 °C	AC at 70 °C	in Ground	In Free Air
	(mm^2)	(mm)	(kg/km)	Ω/Km	Ω/Km	A	A
01C01.5CT0PC000P	1.5	5.3	44	12.1	14.5	21	15
01C02.5CT0PC000P	2.5	5.7	56	7.41	8.87	31	23
01C004CT0PC000P	4	6.7	81	4.61	5.5	53	37
01C006CT0PC000P	6	7.2	102	3.08	3.7	66	48
01C010CT0PC000P	10	8	144	1.83	2.2	88	67
01C016CT0PC000P	16	8.9	204	1.15	1.37	115	86
01C025CT0PC000P	25	10.4	300	0.727	0.86	143	112
01C035CT0PC000P	35	11.5	398	0.524	0.63	172	140
01C050CT0PC000P	50	13.2	530	0.387	0.46	204	170
01C070CT0PC000P	70	14.8	726	0.268	0.320	248	216
01C095CT0PC000P	95	16.9	993	0.193	0.230	296	267
01C120CT0PC000P	120	18.3	1237	0.153	0.190	337	312
01C150CT0PC000P	150	20.3	1531	0.124	0.150	378	357
01C185CT0PC000P	185	22.6	1895	0.0991	0.120	426	416
01C240CT0PC000P	240	25.5	2443	0.0754	0.0926	494	500
01C300CT0PC000P	300	28.3	3046	0.0601	0.075	557	575
01C400CT0PC000P	400	31.7	3890	0.047	0.0590	630	669
01C500CT0PC000P	500	36.6	5125	0.0366	0.0480	711	779
01C630CT0PC000P	630	42.8	6480	0.0283	0.0390	795	895

Trefoil Formation

Product Code	Conductor Size	Overall Diameter	Cable Weight	Max. Conductor Resistance		Current Rating		
				DC at 20 °C	AC at 70 °C	in Ground	in Duct	In Free Air
	(mm^2)	(mm)	(kg/km)	Ω/Km	Ω/Km	A	A	A
01C01.5CT0PC000P	1.5	5.3	44	12.1	14.5	-	-	-
01C02.5CT0PC000P	2.5	5.7	56	7.41	8.87	-	-	-
01C004CT0PC000P	4	6.7	81	4.61	5.5	53	38	35
01C006CT0PC000P	6	7.2	102	3.08	3.7	66	48	46
01C010CT0PC000P	10	8	144	1.83	2.2	89	62	62
01C016CT0PC000P	16	8.9	204	1.15	1.37	113	77	79
01C025CT0PC000P	25	10.4	300	0.727	0.86	144	101	109
01C035CT0PC000P	35	11.5	398	0.524	0.63	173	125	134
01C050CT0PC000P	50	13.2	530	0.387	0.46	205	149	165
01C070CT0PC000P	70	14.8	726	0.268	0.320	252	184	209
01C095CT0PC000P	95	16.9	993	0.193	0.230	301	224	259
01C120CT0PC000P	120	18.3	1237	0.153	0.190	342	255	301
01C150CT0PC000P	150	20.3	1531	0.124	0.150	383	292	347
01C185CT0PC000P	185	22.6	1895	0.0991	0.120	433	333	402
01C240CT0PC000P	240	25.5	2443	0.0754	0.0926	501	393	481
01C300CT0PC000P	300	28.3	3046	0.0601	0.075	565	450	558
01C400CT0PC000P	400	31.7	3890	0.047	0.0590	639	516	648
01C500CT0PC000P	500	36.6	5125	0.0366	0.0480	721	594	753
01C630CT0PC000P	630	42.8	6480	0.0283	0.0390	807	672	864

Installation Conditions for above ratings:
Ambient Air Temperature : 30°C
Ground Temperature : 20°C
Depth Of Laying: 0.50 Mt.
Soil Thermal Resistivity: 1.0 °C m/W
The above dimensions are approximate and subject to manufacturing tolerance.

Technical Data Tables

STRANDED ALUMINUM

Single Core
PVC Insulated 0.6/1 KV

Applications:

For indoor and outdoor installations in damp and wet locations.
They are normally used for power distribution in urban networks, industrial plants as well as in thermopower and hydropower stations.
Maximum operating temperature: 90˚C

Construction:

1. CONDUCTOR
Aluminum, Stranded class 2

2. INSULATION
Polyvinyl Chloride [PVC]

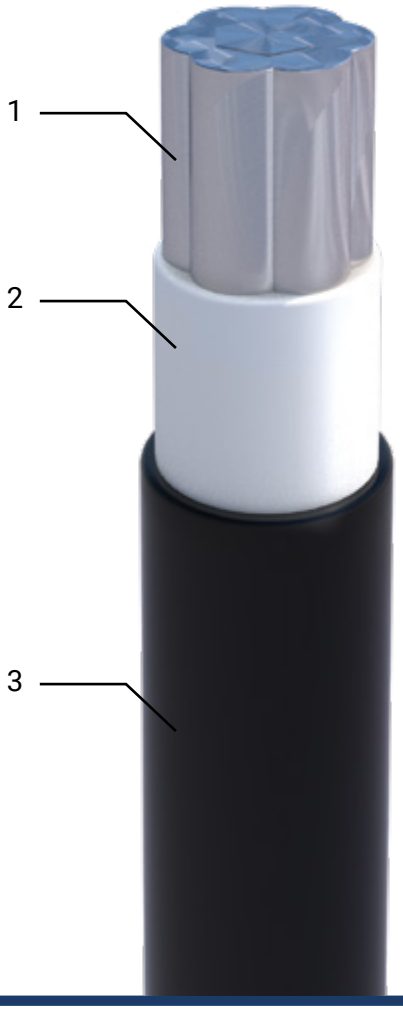
3. SHEATH
Polyvinyl Chloride [PVC]

Standards:

IEC 60502-1
IEC 60228

Rated Voltage:

0.6/1 kV



Technical Data Tables

AL/PVC/PVC 1 Core

Flat Formation

Product Code	Conductor Size	Overall Diameter	Cable Weight	Max. Conductor Resistance		Current Rating	
	(mm^2)	(mm)	(kg/km)	DC at 20 °C	AC at 70 °C	in Ground	In Free Air
				Ω/Km	Ω/Km	A	A
01C016AT0PC000P	16	8.9	109	1.91	2.29	86	65
01C025AT0PC000P	25	10.4	154	1.2	1.44	111	87
01C035AT0PC000P	35	11.5	191	0.868	1.04	133	107
01C050AT0PC000P	50	13.2	253	0.641	0.771	157	132
01C070AT0PC000P	70	14.8	322	0.443	0.533	193	167
01C095AT0PC000P	95	16.9	431	0.32	0.385	230	207
01C120AT0PC000P	120	18.3	514	0.253	0.305	262	241
01C150AT0PC000P	150	20.2	631	0.206	0.249	294	278
01C185AT0PC000P	185	22.6	790	0.164	0.199	333	324
01C240AT0PC000P	240	25.5	997	0.125	0.151	386	388
01C300AT0PC000P	300	28.2	1228	0.1	0.123	437	451
01C400AT0PC000P	400	31.6	1563	0.0778	0.0962	499	531
01C500AT0PC000P	500	35.2	1950	0.0605	0.0761	570	625
01C630AT0PC000P	630	39.2	2431	0.0469	0.0625	648	730

Trefoil Formation

Product Code	Conductor Size	Overall Diameter	Cable Weight	Max. Conductor Resistance		Current Rating		
	(mm^2)	(mm)	(kg/km)	DC at 20 °C	AC at 70 °C	in Ground	in Duct	In Free Air
				Ω/Km	Ω/Km	A	A	A
01C016AT0PC000P	16	8.9	109	1.91	2.29	87	60	63
01C025AT0PC000P	25	10.4	154	1.2	1.44	112	79	85
01C035AT0PC000P	35	11.5	191	0.868	1.04	134	95	104
01C050AT0PC000P	50	13.2	253	0.641	0.771	159	115	128
01C070AT0PC000P	70	14.8	322	0.443	0.533	195	142	162
01C095AT0PC000P	95	16.9	431	0.32	0.385	233	174	201
01C120AT0PC000P	120	18.3	514	0.253	0.305	266	198	234
01C150AT0PC000P	150	20.2	631	0.206	0.249	298	227	269
01C185AT0PC000P	185	22.6	790	0.164	0.199	338	260	314
01C240AT0PC000P	240	25.5	997	0.125	0.151	392	307	376
01C300AT0PC000P	300	28.2	1228	0.1	0.123	444	353	438
01C400AT0PC000P	400	31.6	1563	0.0778	0.0962	508	410	515
01C500AT0PC000P	500	35.2	1950	0.0605	0.0761	580	478	605
01C630AT0PC000P	630	39.2	2431	0.0469	0.0625	660	550	707

Installation Conditions for above ratings:
Ambient Air Temperature : 30°C
Ground Temperature : 20°C
Depth Of Laying : 0.50 Mt.
Soil Thermal Resistivity : 1.0 °C m/W
The above dimensions are approximate and subject to manufacturing tolerance.

Technical Data Tables

STRANDED COPPER

Multi Core
PVC Insulated 0.6/1 KV

Applications:

For outdoor and indoor installations in damp and wet locations
Maximum operating temperature: 70˚C

Construction:

1. CONDUCTOR
Copper, Stranded class 2

2. INSULATION
Polyvinyl Chloride [PVC]

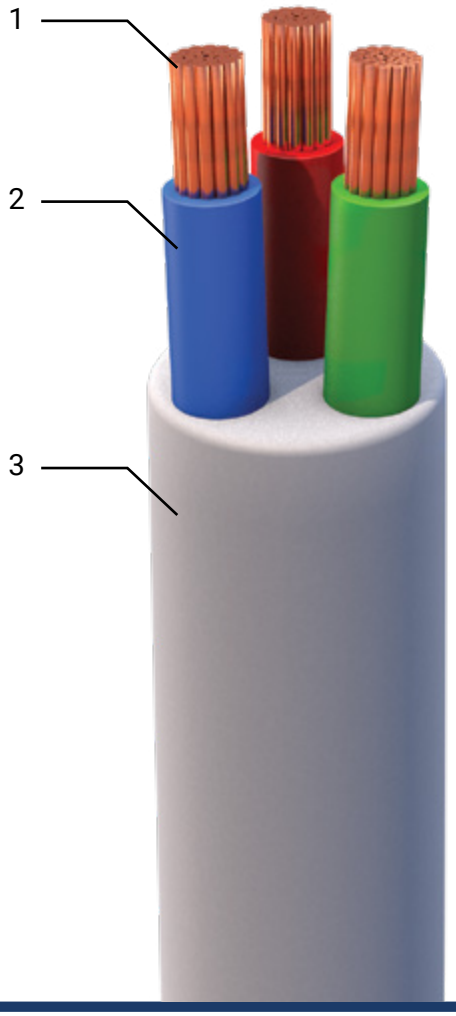
3. SHEATH
Polyvinyl Chloride [PVC]

Standards:

IEC 60502-1
IEC 60228

Rated Voltage:

0.6/1 kV



Technical Data Tables

2 Cores Cable, CU/PVC/PVC

Product Code	Conductor Size	Conductor Shape	Overall Diameter	Cable Weight	Max. Conductor Resistance		Current Ratings		
	(mm²)		(mm)	(kg/km)	DC at 20 °C	AC at 70 °C	in Ground	in Duct	In Free Air
					Ω/Km	Ω/Km	A	A	A
02C01.5CT0PC000P	1.5	RM	9.2	122	12.1	14.48	34	25	21
02C02.5CT0PC000P	2.5	RM	10	153	7.41	8.87	43	33	29
02C004CT0PC000P	4	RM	12	227	4.61	5.52	57	42	41
02C006CT0PC000P	6	RM	13	283	3.08	3.69	72	53	52
02C010CT0PC000P	10	RM	15.1	342	1.83	2.19	93	73	69
02C016CT0PC000P	16	RM	16.9	473	1.15	1.39	122	86	92
02C025CT0PC000P	25	RM	19.9	691	0.727	0.87	156	114	121
02C035CT0PC000P	35	RM	22.1	906	0.524	0.628	189	137	149
02C050CT0PC000P	50	RM	25.5	1205	0.387	0.464	236	165	186
02C070CT0PC000P	70	RM	28.9	1650	0.268	0.322	287	204	230
02C095CT0PC000P	95	RM	32.9	2235	0.193	0.232	346	249	287
02C120CT0PC000P	120	RM	35.7	2765	0.153	0.184	396	287	336
02C150CT0PC000P	150	RM	39.5	3409	0.124	0.1496	443	325	383
02C185CT0PC000P	185	RM	44.1	4236	0.0991	0.1201	503	373	446
02C240CT0PC000P	240	RM	49.9	5465	0.0754	0.0923	582	439	528
02C300CT0PC000P	300	RM	55.3	6788	0.0601	0.0745	653	497	601
02C400CT0PC000P	400	RM	62.3	8694	0.047	0.0595	741	570	699

3 Cores Cable, CU/PVC/PVC

Product Code	Conductor Size	Conductor Shape	Overall Diameter	Cable Weight	Max. Conductor Resistance		Current Ratings		
	(mm²)		(mm)	(kg/km)	DC at 20 °C	AC at 70 °C	in Ground	in Duct	In Free Air
					Ω/Km	Ω/Km	A	A	A
03C01.5CT0PC000P	1.5	RM	9.7	144	12.1	14.48	27	21	20
03C02.5CT0PC000P	2.5	RM	10.6	185	7.41	8.87	35	27	24
03C004CT0PC000P	4	RM	12.7	275	4.61	5.52	46	36	34
03C006CT0PC000P	6	RM	13.8	349	3.08	3.69	59	43	43
03C010CT0PC000P	10	RM	16	452	1.83	2.19	78	57	59
03C016CT0PC000P	16	RM	18	638	1.15	1.3900	98	71	80
03C025CT0PC000P	25	SM	18.6	910	0.727	0.8700	130	94	102
03C035CT0PC000P	35	SM	20.6	1202	0.524	0.6280	156	114	125
03C050CT0PC000P	50	SM	24	1592	0.387	0.4640	189	136	151
03C070CT0PC000P	70	SM	27.3	2242	0.268	0.3220	232	169	191
03C095CT0PC000P	95	SM	31.2	3067	0.193	0.2320	278	205	235
03C120CT0PC000P	120	SM	34.2	3775	0.153	0.1850	315	234	270
03C150CT0PC000P	150	SM	38.1	4649	0.124	0.1510	354	266	310
03C185CT0PC000P	185	SM	42.3	5790	0.0991	0.1210	399	303	357
03C240CT0PC000P	240	SM	46.8	7569	0.0754	0.0840	462	357	423
03C300CT0PC000P	300	SM	52.1	9483	0.0601	0.0770	521	406	486
03C400CT0PC000P	400	SM	59.1	12165	0.047	0.0595	593	468	567
03C500CT0PC000P	500	SM	65.8	15598	0.0366	0.0489	668	534	650

Installation Conditions for above ratings:
Ambient Air Temperature : 30°C
Ground Temperature : 20°C
Depth Of Laying : 0.50 Mt.
Soil Thermal Resistivity : 1.0 °C m/W

RM : Round , Stranded
SM : Sector , Stranded

SM/RM : Sector for Phase , Round for Neutral

The above dimensions are approximate and subject to manufacturing tolerance.

Technical Data Tables

4 Cores Cable, CU/PVC/PVC

Product Code	Conductor Size	Conductor Shape	Overall Diameter	Cable Weight	Max. Conductor Resistance		Current Ratings		
	(mm²)		(mm)	(kg/km)	DC at 20 °C	AC at 70 °C	in Ground	in Duct	In Free Air
					Ω/Km	Ω/Km	A	A	A
04C01.5CT0PC000P	1.5	RM	10.5	174	12.1	14.48	28	22	21
04C02.5CT0PC000P	2.5	RM	11.5	225	7.41	8.87	36	28	25
04C004CT0PC000P	4	RM	13.9	340	4.61	5.52	46	36	36
04C006CT0PC000P	6	RM	15.1	435	3.08	3.69	60	44	45
04C010CT0PC000P	10	RM	17.5	574	1.83	2.19	79	58	61
04C016CT0PC000P	16	RM	19.7	815	1.15	1.3900	99	73	83
04C025CT0PC000P	25	SM	21.5	1207	0.727	0.8700	131	96	105
04C035CT0PC000P	35	SM	23.9	1595	0.524	0.628	158	116	129
04C050CT0PC000P	50	SM	28.1	2105	0.387	0.4640	195	141	161
04C070CT0PC000P	70	SM	31.7	2976	0.268	0.3220	239	175	203
04C095CT0PC000P	95	SM	36.4	4069	0.193	0.2320	285	211	247
04C120CT0PC000P	120	SM	40	5058	0.153	0.1850	324	243	287
04C150CT0PC000P	150	SM	43.5	6190	0.124	0.1510	364	277	329
04C185CT0PC000P	185	SM	48.5	7735	0.0991	0.1210	411	316	379
04C240CT0PC000P	240	SM	54.8	10098	0.0754	0.0840	476	372	450
04C300CT0PC000P	300	SM	60.7	12586	0.0601	0.0770	537	425	516
04C400CT0PC000P	400	SM	69.9	16365	0.047	0.0595	610	490	601
04C500CT0PC000P	500	SM	77.4	20815	0.0366	0.0489	689	561	690

4 Cores Cable with Reduced Neutral, CU/PVC/PVC

Product Code	Conductor Size	Conductor Shape	Overall Diameter	Cable Weight	Max. Conductor Resistance		Current Ratings		
	(mm²)		(mm)	(kg/km)	DC at 20 °C	AC at 70 °C	in Ground	in Duct	In Free Air
					Ω/Km	Ω/Km	A	A	A
3HC025CT0PC000P	25/16	SM/RM	21.5	1119	0.727/1.1500	0.87/1.3900	130	95	103
3HC035CT0PC000P	35/16	SM/RM	23.9	1412	0.524/1.1500	0.628/13900	157	115	126
3HC050CT0PC000P	50/25	SM	26.9	1887	0.387/0.7270	0.646/0.8700	195	141	161
3HC070CT0PC000P	70/35	SM	30.2	2642	0.268/0.5240	0.322/0.6280	239	175	203
3HC095CT0PC000P	95/50	SM	34.9	3593	0.193/0.3870	0.232/0.4640	282	209	243
3HC120CT0PC000P	120/70	SM	38.3	4537	0.153/0.2680	0.185/0.3220	322	241	282
3HC150CT0PC000P	150/70	SM	42.1	5400	0.124/0.2680	0.151/0.3220	361	273	323
3HC185CT0PC000P	185/95	SM	46	6827	0.0991/0.1930	0.121/0.2320	407	311	372
3HC240CT0PC000P	240/120	SM	52	8845	0.0754/0.1530	0.084/0.1850	472	366	441
3HC300CT0PC000P	300/150	SM	57.8	11035	0.601/0.1240	0.077/0.1510	532	419	507
3HC400CT0PC000P	400/185	SM	65.9	14245	0.047 / 0.0991	0.0603 / 0.1206	605	482	590
3HC500CT0PC000P	500/240	SM	73.3	18190	0.0366 / 0.0754	0.0489 / 0.0928	682	550	676

Installation Conditions for above ratings:
Ambient Air Temperature : 30°C
Ground Temperature : 20°C
Depth Of Laying : 0.50 Mt.
Soil Thermal Resistivity : 1.0 °C m/W

RM : Round , Stranded
SM : Sector , Stranded
SM/RM : Sector for Phase , Round for Neutral

The above dimensions are approximate and subject to manufacturing tolerance.

Technical Data Tables

STRANDED ALUMINUM

Multi Core
PVC Insulated 0.6/1 KV

Applications:

For indoor and outdoor installations in damp and wet locations.
They are normally used for power distribution in urban networks, industrial plants as well as in thermopower and hydropower stations.
Maximum operating temperature: 70˚C

Construction:

1. CONDUCTOR
Aluminum, Stranded class 2

2. INSULATION
Polyvinyl Chloride [PVC]

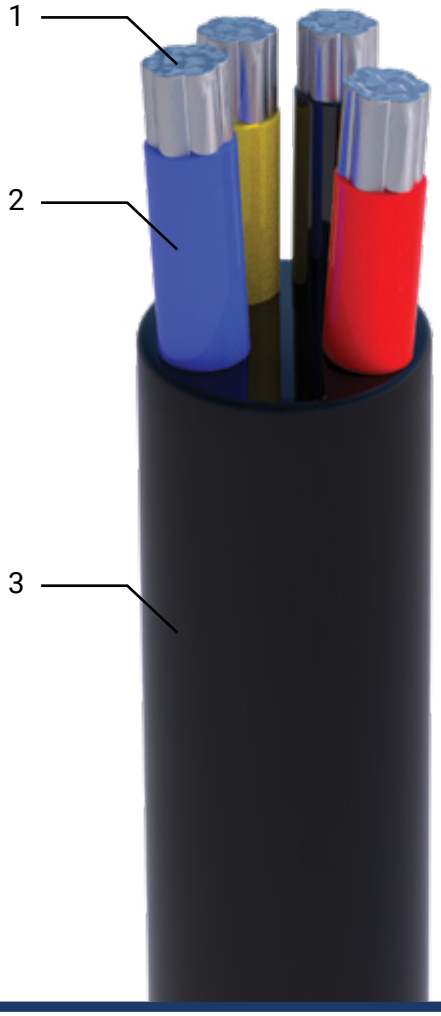
3. SHEATH
Polyvinyl Chloride [PVC]

Standards:

IEC 60502-1
IEC 60228

Rated Voltage:

0.6/1 kV



Technical Data Tables

AL/PVC/PVC 2 Cores

Product Code	Conductor Size	Conductor Shape	Overall Diameter	Cable Weight	Max. Conductor Resistance		Current Ratings		
	(mm^2)		(mm)	(kg/km)	DC at 20 °C	AC at 70 °C	in Ground	in Duct	In Free Air
					Ω/Km	Ω/Km	A	A	A
02C016AT0PC000P	16	RM	16.9	284	1.91	2.29	94	68	71
02C025AT0PC000P	25	RM	19.9	398	1.2	1.44	121	88	94
02C035AT0PC000P	35	RM	22.1	491	0.868	1.04	147	106	116
02C050AT0PC000P	50	RM	25.5	650	0.641	0.771	174	128	141
02C070AT0PC000P	70	RM	28.9	839	0.443	0.533	214	158	178
02C095AT0PC000P	95	RM	32.9	1109	0.32	0.385	256	191	218
02C120AT0PC000P	120	RM	36.1	1360	0.253	0.3048	292	221	253
02C150AT0PC000P	150	RM	39.9	1675	0.206	0.2485	327	249	288
02C185AT0PC000P	185	RM	44.5	2070	0.164	0.1982	370	287	333
02C240AT0PC000P	240	RM	50.3	2650	0.125	0.1518	429	338	394
02C300AT0PC000P	300	RM	56.1	3285	0.1	0.1221	486	386	455
02C400AT0PC000P	400	RM	62.9	4180	0.0778	0.096	556	447	529

AL/PVC/PVC 3 Cores

Product Code	Conductor Size	Conductor Shape	Overall Diameter	Cable Weight	Max. Conductor Resistance		Current Ratings		
	(mm^2)		(mm)	(kg/km)	DC at 20 °C	AC at 70 °C	in Ground	in Duct	In Free Air
					Ω/Km	Ω/Km	A	A	A
03C016AT0PC000P	16	RM	18	354	1.91	2.29	78	56	59
03C025AT0PC000P	25	SM	18.6	446	1.2	1.44	101	73	79
03C035AT0PC000P	35	SM	20.6	560	0.868	1.04	121	89	97
03C050AT0PC000P	50	SM	24	758	0.641	0.771	147	106	117
03C070AT0PC000P	70	SM	27.3	998	0.443	0.533	180	131	148
03C095AT0PC000P	95	SM	31.2	1329	0.32	0.385	216	159	182
03C120AT0PC000P	120	SM	34.2	1591	0.253	0.305	245	182	210
03C150AT0PC000P	150	SM	38.1	1974	0.206	0.249	275	206	241
03C185AT0PC000P	185	SM	42.3	2427	0.164	0.199	311	236	278
03C240AT0PC000P	240	SM	46.8	3146	0.125	0.151	362	279	331
03C300AT0PC000P	300	SM	52.1	3858	0.100	0.123	409	318	381
03C400AT0PC000P	400	SM	59.7	5170	0.0778	0.0961	470	371	449
03C500AT0PC000P	500	SM	66.4	6470	0.0605	0.076	536	428	521

Installation Conditions for above ratings:
Ambient Air Temperature : 30°C
Ground Temperature : 20°C
Depth Of Laying : 0.50 Mt.
Soil Thermal Resistivity : 1.0 °C m/W
The above dimensions are approximate and subject to manufacturing tolerance.

RM : Round , Stranded
SM : Sector , Stranded
SM/RM : Sector for Phase , Round for Neutral

Technical Data Tables

AL/PVC/PVC 4 Cores

Product Code	Conductor Size	Conductor Shape	Overall Diameter	Cable Weight	Max. Conductor Resistance		Current Ratings		
	(mm^2)		(mm)	(kg/km)	DC at 20 °C	AC at 70 °C	in Ground	in Duct	In Free Air
					Ω/Km	Ω/Km	A	A	A
04C016AT0PC000P	16	RM	19.7	437	1.91	2.29	79	57	61
04C025AT0PC000P	25	SM	21.5	592	1.20	1.44	102	75	81
04C035AT0PC000P	35	SM	23.9	740	0.868	1.04	123	90	100
04C050AT0PC000P	50	SM	28.1	1004	0.641	0.771	151	110	125
04C070AT0PC000P	70	SM	31.7	1312	0.443	0.533	185	136	157
04C095AT0PC000P	95	SM	36.4	1775	0.32	0.385	221	164	192
04C120AT0PC000P	120	SM	40	2142	0.253	0.305	252	189	223
04C150AT0PC000P	150	SM	43.5	2622	0.206	0.249	283	216	256
04C185AT0PC000P	185	SM	48.5	3235	0.164	0.199	321	247	296
04C240AT0PC000P	240	SM	54.8	4176	0.125	0.151	372	291	352
04C300AT0PC000P	300	SM	60.7	5117	0.100	0.123	421	333	405
04C400AT0PC000P	400	SM	69.9	6845	0.0778	0.0961	484	388	477
04C500AT0PC000P	500	SM	77.4	8485	0.0605	0.076	552	450	554

AL/PVC/PVC 4 Cores Cable with Reduced Neutral

Product Code	Conductor Size	Conductor Shape	Overall Diameter	Cable Weight	Max. Conductor Resistance		Current Ratings		
	(mm^2)		(mm)	(kg/km)	DC at 20 °C	AC at 70 °C	in Ground	in Duct	In Free Air
					Ω/Km	Ω/Km	A	A	A
3HC025AT0PC000P	25/16	SM/RM	21.5	563	1.200/1.1910	1.440/2.290	101	74	80
3HC035AT0PC000P	35/16	SM/RM	23.9	676	0.868/1.9100	1.0430/2.2900	122	89	98
3HC050AT0PC000P	50/25	SM	26.9	908	0.641/1.2000	0.7710/1.4400	151	110	125
3HC070AT0PC000P	70/35	SM	30.2	1180	0.443/0.8680	0.5330/1.0400	186	136	158
3HC095AT0PC000P	95/50	SM	34.9	1597	0.32/0.6410	0.3850/0.7710	219	162	188
3HC120AT0PC000P	120/70	SM	38.3	1934	0.253/0.4430	0.3050/0.5330	250	187	220
3HC150AT0PC000P	150/70	SM	42.1	2307	0.206/0.4430	0.2490/0.5330	280	212	251
3HC185AT0PC000P	185/95	SM	46	2879	0.164/0.3200	0.1990/0.3850	318	243	290
3HC240AT0PC000P	240/120	SM	52	3674	0.125/0.2530	0.1510/0.3050	369	287	345
3HC300AT0PC000P	300/150	SM	57.8	4542	0.1/0.2060	0.1230/0.2490	417	328	397
3HC400AT0PC000P	400/185	SM	65.9	5970	0.0778 / 0.164	0.0961 / 0.1983	479	382	467
3HC500AT0PC000P	500/240	SM	73.3	7485	0.0605 / 0.125	0.076 / 0.1518	547	441	543

Installation Conditions for above ratings:
Ambient Air Temperature : 30°C
Ground Temperature : 20°C
Depth Of Laying : 0.50 Mt.
Soil Thermal Resistivity : 1.0 °C m/W

RM : Round , Stranded
SM : Sector , Stranded
SM/RM : Sector for Phase , Round for Neutral

The above dimensions are approximate and subject to manufacturing tolerance.

Technical Data Tables

STRANDED COPPER

Multi Core
PVC Insulated 0.6/1 KV

Applications:

For indoor and outdoor installations in damp and wet locations.
Where mechanical damage is expected to occur.
Maximum operating temperature: 70˚C

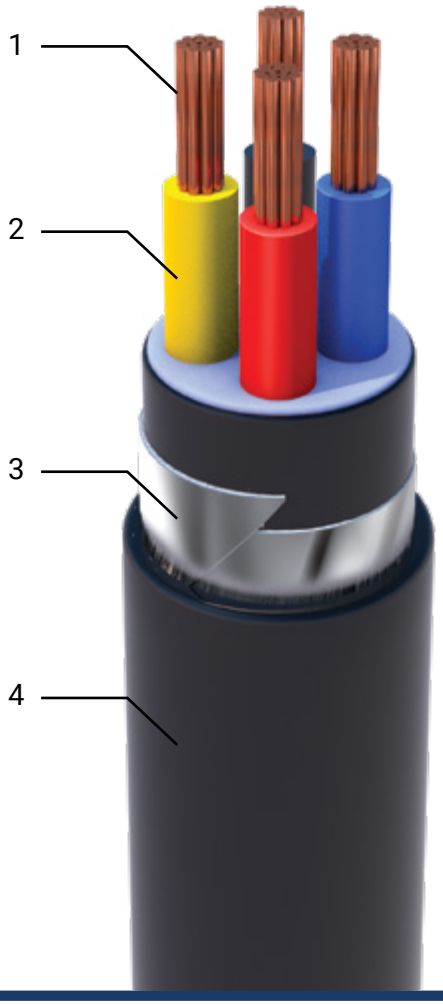
Construction:

1. CONDUCTOR
Copper, Stranded class 2

2. INSULATION
Polyvinyl Chloride [PVC]

3. ARMOUR
Double Steel Tape

4. SHEATH
Polyvinyl Chloride [PVC]



Standards:

IEC 60502-1
IEC 60228

Rated Voltage:

0.6/1 kV

Technical Data Tables

CU/PVC/STA/PVC 2 Cores

Product Code	Conductor Size	Conductor Shape	Overall Diameter	Cable Weight	Max. Conductor Resistance		Current Ratings		
	(mm^2)		(mm)	(kg/km)	DC at 20 °C	AC at 70 °C	in Ground	in Duct	In Free Air
					Ω/Km	Ω/Km	A	A	A
02C01.5CT0PC0PTP	1.5	RM	11.6	218.8	12.1	14.73	29	23	22
02C02.5CT0PC0PTP	2.5	RM	12.4	258.6	7.41	9.02	36	30	31
02C004CT0PC0PTP	4	RM	14.4	352.1	4.61	5.61	51	41	46
02C006CT0PC0PTP	6	RM	15.4	419	3.08	3.69	64	51	59
02C010CT0PC0PTP	10	RM	17.5	499	1.83	2.19	93	73	70
02C016CT0PC0PTP	16	RM	19.3	648	1.15	1.39	121	86	93
02C025CT0PC0PTP	25	RM	22.3	896	0.727	0.87	155	114	123
02C035CT0PC0PTP	35	RM	24.5	1135	0.524	0.628	187	138	151
02C050CT0PC0PTP	50	RM	27.9	1469	0.387	0.464	232	167	187
02C070CT0PC0PTP	70	RM	31.3	1946	0.268	0.322	283	203	231
02C095CT0PC0PTP	95	RM	35.7	2609	0.193	0.232	339	250	287
02C120CT0PC0PTP	120	RM	39.9	3536	0.153	0.184	391	290	339
02C150CT0PC0PTP	150	RM	43.7	4214	0.124	0.1496	438	328	385
02C185CT0PC0PTP	185	RM	48.3	5072	0.0991	0.1201	496	375	447
02C240CT0PC0PTP	240	RM	53.9	6504	0.0754	0.0923	573	440	527
02C300CT0PC0PTP	300	RM	59.9	8026	0.0601	0.0745	640	496	597
02C400CT0PC0PTP	400	RM	66.7	10043	0.047	0.0595	726	570	691

CU/PVC/STA/PVC 3 Cores

Product Code	Conductor Size	Conductor Shape	Overall Diameter	Cable Weight	Max. Conductor Resistance		Current Ratings		
	(mm^2)		(mm)	(kg/km)	DC at 20 °C	AC at 70 °C	in Ground	in Duct	In Free Air
					Ω/Km	Ω/Km	A	A	A
03C01.5CT0PC0PTP	1.5	RM	12.1	246.9	12.1	14.73	25	22	20
03C02.5CT0PC0PTP	2.5	RM	13	296.3	7.41	9.02	33	28	24
03C004CT0PC0PTP	4	RM	15.1	406.7	4.61	5.52	45	38	36
03C006CT0PC0PTP	6	RM	16.2	493.2	3.08	3.69	58	43	44
03C010CT0PC0PTP	10	RM	18.4	618	1.83	2.19	77	57	59
03C016CT0PC0PTP	16	RM	20.4	824	1.15	1.3900	96	72	81
03C025CT0PC0PTP	25	SM	21	1095	0.727	0.8700	128	95	103
03C035CT0PC0PTP	35	SM	23	1406	0.524	0.6280	154	114	126
03C050CT0PC0PTP	50	SM	26.6	1837	0.387	0.4640	198	140	161
03C070CT0PC0PTP	70	SM	30.1	2537	0.268	0.3220	242	176	203
03C095CT0PC0PTP	95	SM	35.4	3724	0.193	0.2320	293	215	255
03C120CT0PC0PTP	120	SM	38.4	4492	0.153	0.1850	333	245	293
03C150CT0PC0PTP	150	SM	42.5	5460	0.124	0.1510	373	278	336
03C185CT0PC0PTP	185	SM	46.5	6663	0.0991	0.1210	421	317	387
03C240CT0PC0PTP	240	SM	51.4	8586	0.0754	0.0840	488	373	460
03C300CT0PC0PTP	300	SM	56.5	10587	0.0601	0.0770	551	424	531
03C400CT0PC0PTP	400	SM	63.9	13545	0.047	0.0595	627	492	621
03C500CT0PC0PTP	500	SM	70.6	17060	0.0366	0.0489	706	560	714

Installation Conditions for above ratings:
Ambient Air Temperature : 30°C
Ground Temperature : 20°C
Depth Of Laying : 0.50 Mt.
Soil Thermal Resistivity : 1.0 °C m/W

RM : Round , Stranded
SM : Sector , Stranded
SM/RM : Sector for Phase , Round for Neutral

The above dimensions are approximate and subject to manufacturing tolerance.

Technical Data Tables

CU/PVC/STA/PVC 4 Cores

Product Code	Conductor Size	Conductor Shape	Overall Diameter	Cable Weight	Max. Conductor Resistance		Current Ratings		
	(mm²)		(mm)	(kg/km)	DC at 20 °C	AC at 70 °C	in Ground	in Duct	In Free Air
					Ω/Km	Ω/Km	A	A	A
04C01.5CT0PC0PTP	1.5	RM	12.9	285	12.1	14.73	25	22	20
04C02.5CT0PC0PTP	2.5	RM	13.9	346.8	7.41	9.02	33	28	24
04C004CT0PC0PTP	4	RM	16.3	486.2	4.61	5.52	45	38	36
04C006CT0PC0PTP	6	RM	17.5	593.6	3.08	3.69	60	45	46
04C010CT0PC0PTP	10	RM	19.9	755.9	1.83	2.19	80	59	63
04C016CT0PC0PTP	16	RM	22.1	1019.9	1.15	1.3900	100	74	85
04C025CT0PC0PTP	25	SM	23.9	1417.8	0.727	0.8700	130	96	105
04C035CT0PC0PTP	35	SM	26.3	1829	0.524	0.6280	156	117	130
04C050CT0PC0PTP	50	SM	31.1	2426.5	0.387	0.4640	204	148	172
04C070CT0PC0PTP	70	SM	35.7	3621.5	0.268	0.3220	252	184	220
04C095CT0PC0PTP	95	SM	40.6	4829.3	0.193	0.2320	301	222	269
04C120CT0PC0PTP	120	SM	44.2	5883.8	0.153	0.1850	343	257	312
04C150CT0PC0PTP	150	SM	47.7	7087	0.124	0.1510	386	291	359
04C185CT0PC0PTP	185	SM	52.9	8760.9	0.0991	0.1210	436	333	415
04C240CT0PC0PTP	240	SM	59.4	11257.3	0.0754	0.0840	506	391	494
04C300CT0PC0PTP	300	SM	65.3	13874.5	0.0601	0.0770	571	447	570
04C400CT0PC0PTP	400	SM	74.3	17860	0.047	0.0595	650	517	667
04C500CT0PC0PTP	500	SM	83	23230	0.0366	0.0489	736	592	774

CU/PVC/STA/PVC 4 Cores Cable with Reduced Neutral

Product Code	Conductor Size	Conductor Shape	Overall Diameter	Cable Weight	Max. Conductor Resistance		Current Ratings		
	(mm²)		(mm)	(kg/km)	DC at 20 °C	AC at 70 °C	in Ground	in Duct	In Free Air
					Ω/Km	Ω/Km	A	A	A
3HC025CT0PC0PTP	25/16	SM/RM	23.9	1341.5	0.727/1.1500	0.87/1.3900	129	96	104
3HC035CT0PC0PTP	35/16	SM/RM	26.3	1660.4	0.524/1.1500	0.628/13900	155	116	127
3HC050CT0PC0PTP	50/25	SM	29.3	2150.3	0.387/0.7270	0.646/0.8700	193	143	162
3HC070CT0PC0PTP	70/35	SM	33	2959.9	0.268/0.5240	0.322/0.6280	236	176	203
3HC095CT0PC0PTP	95/50	SM	38.9	4301.8	0.193/0.3870	0.232/0.4640	298	220	264
3HC120CT0PC0PTP	120/70	SM	42.5	5328.2	0.153/0.2680	0.185/0.3220	340	253	307
3HC150CT0PC0PTP	150/70	SM	46.5	6291.6	0.124/0.2680	0.151/0.3220	381	286	351
3HC185CT0PC0PTP	185/95	SM	50	7747.2	0.0991/0.1930	0.121/0.2320	432	329	407
3HC240CT0PC0PTP	240/120	SM	56.4	9928.7	0.0754/0.1530	0.084/0.1850	501	385	484
3HC300CT0PC0PTP	300/150	SM	62.2	12230.1	0.601/0.1240	0.077/0.1510	565	440	558
3HC400CT0PC0PTP	400/185	SM	70.3	15650	0.047 / 0.0991	0.0595 / 0.1206	642	509	651
3HC500CT0PC0PTP	500/240	SM	78.9	20475	0.0366 / 0.0754	0.0489 / 0.0928	726	582	754

Installation Conditions for above ratings:
Ambient Air Temperature : 30°C
Ground Temperature : 20°C
Depth Of Laying : 0.50 Mt.
Soil Thermal Resistivity : 1.0 °C m/W

RM : Round , Stranded
SM : Sector , Stranded
SM/RM : Sector for Phase, Round for Neutral

The above dimensions are approximate and subject to manufacturing tolerance.

Technical Data Tables

STRANDED ALUMINUM

Multi Core
PVC Insulated 0.6/1 KV

Applications:

For indoor and outdoor installations in damp and wet locations.
Where mechanical damage is expected to occur.
Maximum operating temperature: 70˚C

Construction:

1. CONDUCTOR
Copper, Stranded class 2

2. INSULATION
Polyvinyl Chloride [PVC]

3. ARMOUR
Double Steel Tape

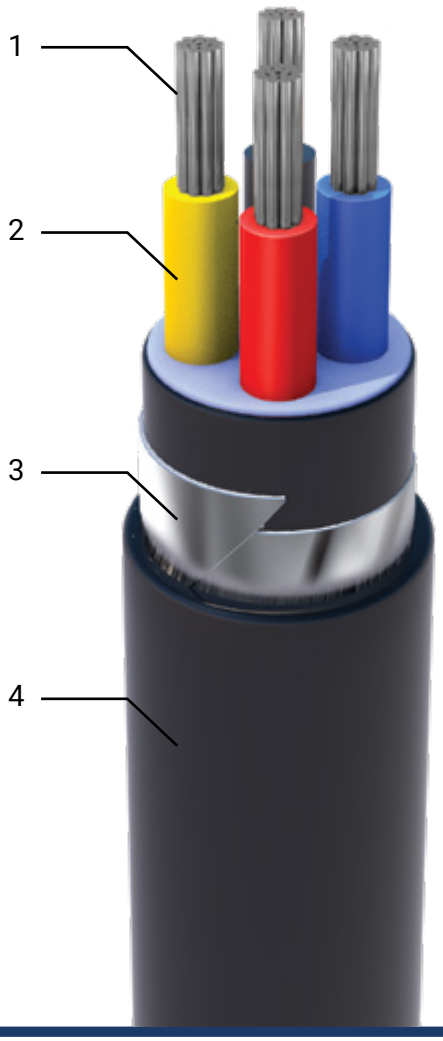
4. SHEATH
Polyvinyl Chloride [PVC]

Standards:

IEC 60502-1
IEC 60228

Rated Voltage:

0.6/1 kV



Technical Data Tables

AL/PVC/STA/PVC 2 Cores

Product Code	Conductor Size	Conductor Shape	Overall Diameter	Cable Weight	Max. Conductor Resistance		Current Ratings		
	(mm^2)		(mm)	(kg/km)	DC at 20 °C	AC at 70 °C	in Ground	in Duct	In Free Air
					Ω/Km	Ω/Km	A	A	A
02C016AT0PC0PTP	16	RM	19.3	459	1.91	2.29	93	68	72
02C025AT0PC0PTP	25	RM	22.3	603	1.2	1.44	120	89	95
02C035AT0PC0PTP	35	RM	24.5	720	0.868	1.04	145	107	117
02C050AT0PC0PTP	50	RM	27.9	913	0.641	0.771	172	129	142
02C070AT0PC0PTP	70	RM	31.3	1136	0.443	0.533	212	160	179
02C095AT0PC0PTP	95	RM	35.7	1483	0.32	0.385	252	192	217
02C120AT0PC0PTP	120	RM	40.1	2140	0.253	0.3048	289	224	255
02C150AT0PC0PTP	150	RM	43.7	2515	0.206	0.2485	324	253	290
02C185AT0PC0PTP	185	RM	48.5	3030	0.164	0.1982	366	289	333
02C240AT0PC0PTP	240	RM	54.3	3730	0.125	0.1518	425	339	394
02C300AT0PC0PTP	300	RM	60.3	4515	0.1	0.1221	481	388	453
02C400AT0PC0PTP	400	RM	67.1	5550	0.0778	0.096	549	449	526

AL/PVC/STA/PVC 3 Cores

Product Code	Conductor Size	Conductor Shape	Overall Diameter	Cable Weight	Max. Conductor Resistance		Current Ratings		
	(mm^2)		(mm)	(kg/km)	DC at 20 °C	AC at 70 °C	in Ground	in Duct	In Free Air
					Ω/Km	Ω/Km	A	A	A
03C016AT0PC0PTP	16	RM	20.4	541	1.91	2.29	77	57	60
03C025AT0PC0PTP	25	SM	21	631	1.2	1.44	99	74	80
03C035AT0PC0PTP	35	SM	23	764	0.868	1.04	120	89	98
03C050AT0PC0PTP	50	SM	26.6	1004	0.641	0.771	153	109	125
03C070AT0PC0PTP	70	SM	30.1	1293	0.443	0.533	188	137	158
03C095AT0PC0PTP	95	SM	35.4	1986	0.32	0.385	227	167	198
03C120AT0PC0PTP	120	SM	38.4	2308	0.253	0.305	259	191	228
03C150AT0PC0PTP	150	SM	42.5	2784	0.206	0.249	290	217	261
03C185AT0PC0PTP	185	SM	46.5	3300	0.164	0.199	329	248	302
03C240AT0PC0PTP	240	SM	51.4	4163	0.125	0.151	383	293	361
03C300AT0PC0PTP	300	SM	56.5	4961	0.1	0.123	434	334	418
03C400AT0PC0PTP	400	SM	63.9	6405	0.0778	0.0961	499	391	494
03C500AT0PC0PTP	500	SM	70.6	7835	0.0605	0.076	569	452	575

Installation Conditions for above ratings:
Ambient Air Temperature : 30°C
Ground Temperature : 20°C
Depth Of Laying : 0.50 Mt.
Soil Thermal Resistivity : 1.0 °C m/W

RM : Round , Stranded
SM : Sector , Stranded
SM/RM : Sector for Phase, Round for Neutral

The above dimensions are approximate and subject to manufacturing tolerance.

Technical Data Tables

AL/PVC/STA/PVC 4 Cores

Product Code	Conductor Size	Conductor Shape	Overall Diameter	Cable Weight	Max. Conductor Resistance		Current Ratings		
	(mm^2)		(mm)	(kg/km)	DC at 20 °C	AC at 70 °C	in Ground	in Duct	In Free Air
					Ω/Km	Ω/Km	A	A	A
04C016AT0PC0PTP	16	RM	22.1	642	1.91	2.29	78	57	62
04C025AT0PC0PTP	25	SM	23.9	802	1.2	1.44	101	75	82
04C035AT0PC0PTP	35	SM	26.3	973	0.868	1.04	121	91	100
04C050AT0PC0PTP	50	SM	31.1	1326	0.641	0.771	158	115	134
04C070AT0PC0PTP	70	SM	35.7	1957	0.443	0.533	196	143	171
04C095AT0PC0PTP	95	SM	40.6	2534	0.32	0.385	234	172	209
04C120AT0PC0PTP	120	SM	44.2	2967	0.253	0.305	267	200	243
04C150AT0PC0PTP	150	SM	47.7	3518	0.206	0.249	300	227	279
04C185AT0PC0PTP	185	SM	52.9	4260	0.164	0.199	341	260	324
04C240AT0PC0PTP	240	SM	59.4	5335	0.125	0.151	397	306	387
04C300AT0PC0PTP	300	SM	65.3	6405	0.1	0.123	449	351	448
04C400AT0PC0PTP	400	SM	74.3	8340	0.0778	0.0961	517	411	530
04C500AT0PC0PTP	500	SM	83	10900	0.0605	0.076	592	476	623

AL/PVC/STA/PVC 4 Cores Cable with Reduced Neutral

Product Code	Conductor Size	Conductor Shape	Overall Diameter	Cable Weight	Max. Conductor Resistance		Current Ratings		
	(mm^2)		(mm)	(kg/km)	DC at 20 °C	AC at 70 °C	in Ground	in Duct	In Free Air
					Ω/Km	Ω/Km	A	A	A
3HC025AT0PC0PTP	25/16	SM/RM	23.9	785	1.200/1.1910	1.440/2.290	100	74	81
3HC035AT0PC0PTP	35/16	SM/RM	26.3	923	0.868/1.9100	1.0430/2.2900	120	90	99
3HC050AT0PC0PTP	50/25	SM	29.3	1171	0.641/1.2000	0.7710/1.4400	149	111	125
3HC070AT0PC0PTP	70/35	SM	33	1497	0.443/0.8680	0.5330/1.0400	183	137	158
3HC095AT0PC0PTP	95/50	SM	38.9	2305	0.32/0.6410	0.3850/0.7710	232	171	205
3HC120AT0PC0PTP	120/70	SM	42.5	2725	0.253/0.4430	0.3050/0.5330	265	197	239
3HC150AT0PC0PTP	150/70	SM	46.5	3199	0.206/0.4430	0.2490/0.5330	297	223	273
3HC185AT0PC0PTP	185/95	SM	50	3799	0.164/0.3200	0.1990/0.3850	338	257	318
3HC240AT0PC0PTP	240/120	SM	56.4	4757	0.125/0.2530	0.1510/0.3050	393	302	379
3HC300AT0PC0PTP	300/150	SM	62.2	5737	0.1/0.2060	0.1230/0.2490	445	346	439
3HC400AT0PC0PTP	400/185	SM	70.3	7375	0.0778 / 0.164	0.0961 / 0.1983	511	404	517
3HC500AT0PC0PTP	500/240	SM	78.9	9775	0.0605 / 0.125	0.076 / 0.1518	585	468	607

Installation Conditions for above ratings:
Ambient Air Temperature : 30°C
Ground Temperature : 20°C
Depth Of Laying : 0.50 Mt.
Soil Thermal Resistivity : 1.0 °C m/W

RM : Round , Stranded
SM : Sector , Stranded
SM/RM : Sector for Phase, Round for Neutral

The above dimensions are approximate and subject to manufacturing tolerance.

Technical Data Tables

STRANDED COPPER

Multi Core
PVC Insulated 0.6/1 KV

Applications:

For indoor and outdoor installations in damp and wet locations.
Where mechanical damage is expected to occur.
Maximum operating temperature: 70˚C

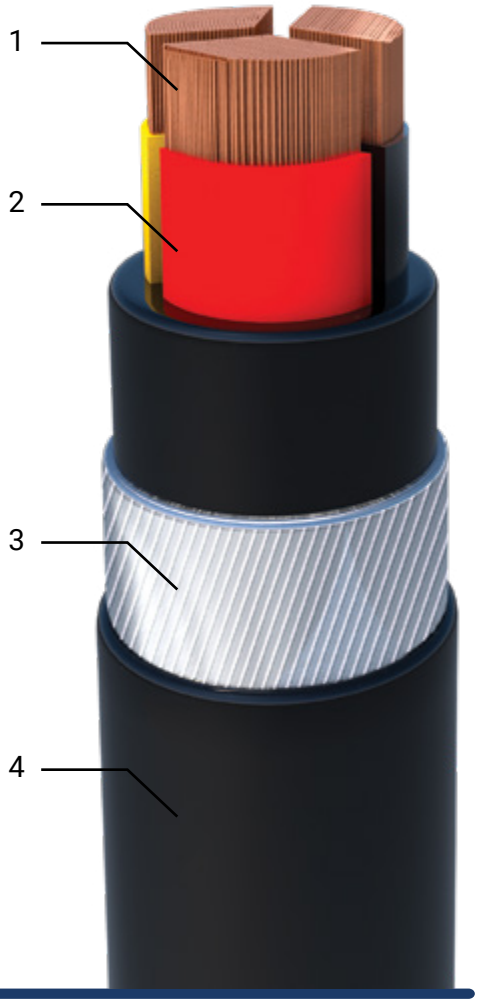
Construction:

1. CONDUCTOR
Copper, Stranded class 2

2. INSULATION
Polyvinyl Chloride [PVC]

3. ARMOUR
Galvanized Round Steel Wire

4. SHEATH
Polyvinyl Chloride [PVC]



Standards:

IEC 60502-1
IEC 60228

Rated Voltage:

0.6/1 kV

Technical Data Tables

CU/PVC/SWA/PVC 2 Cores

Product Code	Conductor Size	Conductor Shape	Overall Diameter	Cable Weight	Max. Conductor Resistance		Current Ratings		
	(mm^2)		(mm)	(kg/km)	DC at 20 °C	AC at 70 °C	in Ground	in Duct	In Free Air
					Ω/Km	Ω/Km	A	A	A
02C01.5CT0PC0PWP	1.5	RM	13.5	328.9	12.1	14.73	29	23	22
02C02.5CT0PC0PWP	2.5	RM	14.3	380.1	7.41	9.02	36	30	31
02C004CT0PC0PWP	4	RM	15.8	500	4.61	5.54	57	44	42
02C006CT0PC0PWP	6	RM	17.5	655	3.08	3.69	72	54	54
02C010CT0PC0PWP	10	RM	19.6	765	1.83	2.19	93	75	72
02C016CT0PC0PWP	16	RM	21.4	945	1.15	1.39	122	88	96
02C025CT0PC0PWP	25	RM	25.1	1395	0.727	0.87	156	117	127
02C035CT0PC0PWP	35	RM	27.3	1690	0.524	0.628	188	141	155
02C050CT0PC0PWP	50	RM	30.9	2105	0.387	0.464	234	171	193
02C070CT0PC0PWP	70	RM	35.1	2880	0.268	0.322	287	211	241
02C095CT0PC0PWP	95	RM	39.1	3645	0.193	0.232	343	255	296
02C120CT0PC0PWP	120	RM	42.6	4237	0.153	0.1841	392	293	296
02C150CT0PC0PWP	150	RM	47.4	5400	0.124	0.1496	439	332	345
02C185CT0PC0PWP	185	RM	52	6424	0.0991	0.1201	494	380	394
02C240CT0PC0PWP	240	RM	57.8	7929	0.0754	0.0923	569	440	531
02C300CT0PC0PWP	300	RM	63.6	9579	0.0601	0.0745	633	494	598
02C400CT0PC0PWP	400	RM	70.4	11786	0.047	0.0595	711	562	686

CU/PVC/SWA/PVC 3 Cores

Product Code	Conductor Size	Conductor Shape	Overall Diameter	Cable Weight	Max. Conductor Resistance		Current Ratings		
	(mm^2)		(mm)	(kg/km)	DC at 20 °C	AC at 70 °C	in Ground	in Duct	In Free Air
					Ω/Km	Ω/Km	A	A	A
03C01.5CT0PC0PWP	1.5	RM	14	364.2	12.1	14.73	25	22	20
03C02.5CT0PC0PWP	2.5	RM	14.9	419	7.41	9.02	33	28	24
03C004CT0PC0PWP	4	RM	17.2	635	4.61	5.54	45	36	36
03C006CT0PC0PWP	6	RM	18.3	745	3.08	3.69	58	43	45
03C010CT0PC0PWP	10	RM	20.5	900	1.83	2.19	78	57	61
03C016CT0PC0PWP	16	RM	22.5	1135	1.15	1.3900	97	71	83
03C025CT0PC0PWP	25	SM	23.8	1575	0.727	0.8700	129	97	106
03C035CT0PC0PWP	35	SM	25.8	1925	0.524	0.6280	156	117	130
03C050CT0PC0PWP	50	SM	29.6	2460	0.387	0.4640	199	145	167
03C070CT0PC0PWP	70	SM	33.3	3395	0.268	0.3220	246	180	212
03C095CT0PC0PWP	95	SM	37.4	4390	0.193	0.2320	295	218	260
03C120CT0PC0PWP	120	SM	40.4	5220	0.153	0.1850	335	247	299
03C150CT0PC0PWP	150	SM	45.7	6650	0.124	0.1510	375	282	344
03C185CT0PC0PWP	185	SM	49.7	7965	0.0991	0.1210	421	320	394
03C240CT0PC0PWP	240	SM	54.6	10025	0.0754	0.0840	486	375	465
03C300CT0PC0PWP	300	SM	59.7	12160	0.0601	0.0770	544	425	532
03C400CT0PC0PWP	400	SM	68.9	16155	0.047	0.0595	611	482	615
03C500CT0PC0PWP	500	SM	75.8	19925	0.0366	0.0489	677	540	696

Installation Conditions for above ratings:
Ambient Air Temperature : 30°C
Ground Temperature : 20°C
Depth Of Laying : 0.50 Mt.
Soil Thermal Resistivity : 1.0 °C m/W

RM : Round , Stranded
SM : Sector , Stranded
SM/RM : Sector for Phase, Round for Neutral

The above dimensions are approximate and subject to manufacturing tolerance.

Technical Data Tables

CU/PVC/SWA/PVC 4 Cores

Product Code	Conductor Size	Conductor Shape	Overall Diameter	Cable Weight	Max. Conductor Resistance		Current Ratings		
	(mm^2)		(mm)	(kg/km)	DC at 20 °C	AC at 70 °C	in Ground	in Duct	In Free Air
					Ω/Km	Ω/Km	A	A	A
04C01.5CT0PC0PWP	1.5	RM	14.8	407.7	12.1	14.73	25	22	20
04C02.5CT0PC0PWP	2.5	RM	15.8	479.9	7.41	9.02	33	28	24
04C004CT0PC0PWP	4	RM	18.4	735	4.61	5.54	49	36	36
04C006CT0PC0PWP	6	RM	19.6	860	3.08	3.69	62	43	45
04C010CT0PC0PWP	10	RM	22	1060	1.83	2.19	84	57	60
04C016CT0PC0PWP	16	RM	24.9	1520	1.15	1.39	105	73	82
04C025CT0PC0PWP	25	SM	26.7	1970	0.727	0.87	131	99	109
04C035CT0PC0PWP	35	SM	29.3	2450	0.524	0.6280	157	119	133
04C050CT0PC0PWP	50	SM	34.3	3305	0.387	0.4640	207	151	179
04C070CT0PC0PWP	70	SM	37.9	4325	0.268	0.3220	254	187	225
04C095CT0PC0PWP	95	SM	43.8	5960	0.193	0.2320	303	226	276
04C120CT0PC0PWP	120	SM	47.4	7130	0.153	0.1850	344	260	319
04C150CT0PC0PWP	150	SM	50.9	8415	0.124	0.1510	386	294	365
04C185CT0PC0PWP	185	SM	56.3	10285	0.0991	0.1210	434	336	420
04C240CT0PC0PWP	240	SM	62.4	12910	0.0754	0.0840	500	389	495
04C300CT0PC0PWP	300	SM	68.5	15720	0.0601	0.0770	560	441	567
04C400CT0PC0PWP	400	SM	79.3	20890	0.047	0.0595	625	500	651
04C500CT0PC0PWP	500	SM	86.8	25770	0.0366	0.0489	692	561	737

CU/PVC/SWA/PVC 4 Cores Cable with Reduced Neutral

Product Code	Conductor Size	Conductor Shape	Overall Diameter	Cable Weight	Max. Conductor Resistance		Current Ratings		
	(mm^2)		(mm)	(kg/km)	DC at 20 °C	AC at 70 °C	in Ground	in Duct	In Free Air
					Ω/Km	Ω/Km	A	A	A
3HC025CT0PC0PWP	25/16	SM/RM	26.7	1880	0.727/1.1500	0.87/1.3900	130	98	107
3HC035CT0PC0PWP	35/16	SM/RM	29.3	2270	0.524/1.1500	0.628/13900	156	118	131
3HC050CT0PC0PWP	50/25	SM	33.1	3055	0.387/0.7270	0.646/0.8700	195	146	167
3HC070CT0PC0PWP	70/35	SM	36.2	3915	0.268/0.5240	0.322/0.6280	238	180	209
3HC095CT0PC0PWP	95/50	SM	41.1	5070	0.193/0.3870	0.232/0.4640	300	223	269
3HC120CT0PC0PWP	120/70	SM	45.9	6540	0.153/0.2680	0.185/0.3220	341	256	314
3HC150CT0PC0PWP	150/70	SM	49.5	7570	0.124/0.2680	0.151/0.3220	382	289	358
3HC185CT0PC0PWP	185/95	SM	53.2	9165	0.0991/0.1930	0.121/0.2320	431	331	412
3HC240CT0PC0PWP	240/120	SM	59.6	11520	0.0754/0.1530	0.084/0.1850	497	386	486
3HC300CT0PC0PWP	300/150	SM	65.2	13965	0.601/0.1240	0.077/0.1510	556	435	556
3HC400CT0PC0PWP	400/185	SM	75.3	18480	0.047 / 0.0091	0.0603 / 0.1206	621	494	639
3HC500CT0PC0PWP	500/240	SM	82.7	22855	0.0366 / 0.0754	0.0489 / 0.0928	688	553	723

Installation Conditions for above ratings:
Ambient Air Temperature : 30°C
Ground Temperature : 20°C
Depth Of Laying : 0.50 Mt.
Soil Thermal Resistivity : 1.0 °C m/W

RM : Round , Stranded
SM : Sector , Stranded
SM/RM : Sector for Phase, Round for Neutral

The above dimensions are approximate and subject to manufacturing tolerance.

Technical Data Tables

STRANDED ALUMINUM

Multi Core
PVC Insulated 0.6/1 KV

Applications:

For indoor and outdoor installations in damp and wet locations.
Where mechanical damage is expected to occur.
Maximum operating temperature: 70˚C

Construction:

1. CONDUCTOR
Aluminum, Stranded class 2

2. INSULATION
Polyvinyl Chloride [PVC]

3. ARMOUR
Galvanized Round Steel Wire

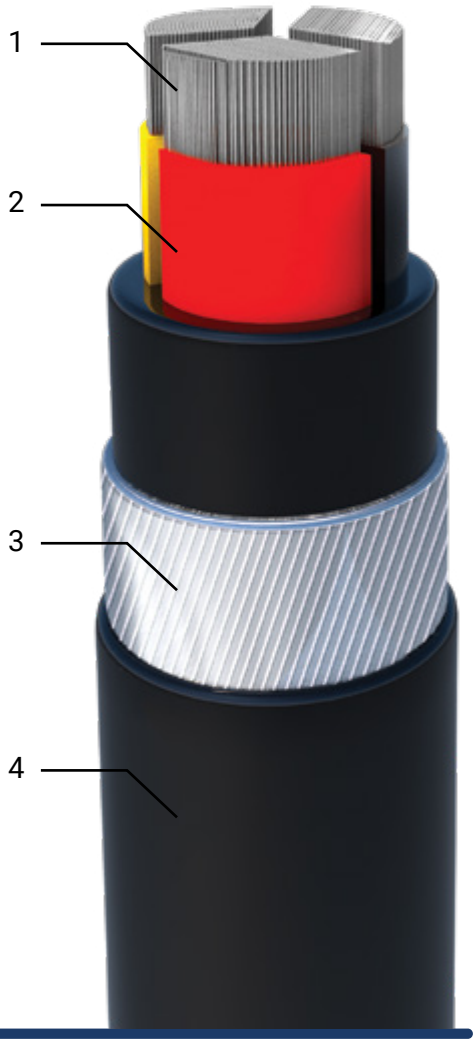
4. SHEATH
Polyvinyl Chloride [PVC]

Standards:

IEC 60502-1
IEC 60228

Rated Voltage:

0.6/1 kV



Technical Data Tables

AL/PVC/SWA/PVC 2 Cores

Product Code	Conductor Size	Conductor Shape	Overall Diameter	Cable Weight	Max. Conductor Resistance		Current Ratings		
	(mm^2)		(mm)	(kg/km)	DC at 20 °C	AC at 70 °C	in Ground	in Duct	In Free Air
					Ω/Km	Ω/Km	A	A	A
02C016AT0PC0PWP	16	RM	21.4	755	1.91	2.29	94	70	74
02C025AT0PC0PWP	25	RM	25.1	1100	1.2	1.44	121	91	99
02C035AT0PC0PWP	35	RM	27.3	1275	0.868	1.04	146	110	120
02C050AT0PC0PWP	50	RM	30.9	1550	0.641	0.771	173	131	146
02C070AT0PC0PWP	70	RM	35.1	2070	0.443	0.533	214	163	184
02C095AT0PC0PWP	95	RM	39.1	2520	0.32	0.385	254	196	223
02C120AT0PC0PWP	120	RM	42.6	2880	0.253	0.3048	290	225	258
02C150AT0PC0PWP	150	RM	47.4	3790	0.206	0.2485	325	256	295
02C185AT0PC0PWP	185	RM	52.4	4460	0.164	0.1982	366	291	337
02C240AT0PC0PWP	240	RM	58	5295	0.125	0.1518	423	34	396
02C300AT0PC0PWP	300	RM	64	6270	0.1	0.1221	477	387	453
02C400AT0PC0PWP	400	RM	70.8	7495	0.0778	0.096	541	444	523

AL/PVC/SWA/PVC 3 Cores

Product Code	Conductor Size	Conductor Shape	Overall Diameter	Cable Weight	Max. Conductor Resistance		Current Ratings		
	(mm^2)		(mm)	(kg/km)	DC at 20 °C	AC at 70 °C	in Ground	in Duct	In Free Air
					Ω/Km	Ω/Km	A	A	A
03C016AT0PC0PWP	16	RM	22.5	855	1.91	2.29	78	57	62
03C025AT0PC0PWP	25	SM	23.8	1110	1.2	1.44	100	76	82
03C035AT0PC0PWP	35	SM	25.8	1285	0.868	1.04	121	91	101
03C050AT0PC0PWP	50	SM	29.6	1630	0.641	0.771	155	113	130
03C070AT0PC0PWP	70	SM	33.3	2150	0.443	0.533	191	140	165
03C095AT0PC0PWP	95	SM	37.4	2650	0.32	0.385	229	170	202
03C120AT0PC0PWP	120	SM	40.4	3035	0.253	0.305	261	193	233
03C150AT0PC0PWP	150	SM	45.7	3975	0.206	0.249	292	220	268
03C185AT0PC0PWP	185	SM	49.7	4600	0.164	0.199	330	251	309
03C240AT0PC0PWP	240	SM	54.6	5605	0.125	0.151	383	295	366
03C300AT0PC0PWP	300	SM	59.7	6535	0.100	0.123	431	337	421
03C400AT0PC0PWP	400	SM	68.9	9015	0.0778	0.0961	492	389	495
03C500AT0PC0PWP	500	SM	75.8	10705	0.0605	0.076	555	443	570

Installation Conditions for above ratings:
Ambient Air Temperature : 30°C
Ground Temperature : 20°C
Depth Of Laying : 0.50 Mt.
Soil Thermal Resistivity : 1.0 °C m/W

RM : Round , Stranded
SM : Sector , Stranded
SM/RM : Sector for Phase, Round for Neutral

The above dimensions are approximate and subject to manufacturing tolerance.

Technical Data Tables

AL/PVC/SWA/PVC 4 Cores

Product Code	Conductor Size	Conductor Shape	Overall Diameter	Cable Weight	Max. Conductor Resistance		Current Ratings		
	(mm^2)		(mm)	(kg/km)	DC at 20 °C	AC at 70 °C	in Ground	in Duct	In Free Air
					Ω/Km	Ω/Km	A	A	A
04C016AT0PC0PWP	16	RM	24.9	1140	1.91	2.29	79	59	64
04C025AT0PC0PWP	25	SM	26.7	1355	1.2	1.44	102	77	84
04C035AT0PC0PWP	35	SM	29.3	1595	0.868	1.04	122	93	103
04C050AT0PC0PWP	50	SM	34.3	2205	0.641	0.771	160	118	139
04C070AT0PC0PWP	70	SM	37.9	2665	0.443	0.533	197	146	175
04C095AT0PC0PWP	95	SM	43.8	3665	0.32	0.385	236	176	215
04C120AT0PC0PWP	120	SM	47.4	4215	0.253	0.305	269	203	249
04C150AT0PC0PWP	150	SM	50.9	4845	0.206	0.249	301	230	285
04C185AT0PC0PWP	185	SM	56.3	5785	0.164	0.199	341	264	329
04C240AT0PC0PWP	240	SM	62.4	6990	0.125	0.151	395	307	391
04C300AT0PC0PWP	300	SM	68.5	8250	0.1	0.123	445	350	450
04C400AT0PC0PWP	400	SM	79.3	11370	0.0778	0.0961	505	404	526
04C500AT0PC0PWP	500	SM	86.8	13440	0.0605	0.076	570	463	606

AL/PVC/SWA/PVC 4 Cores Cable with Reduced Neutral

Product Code	Conductor Size	Conductor Shape	Overall Diameter	Cable Weight	Max. Conductor Resistance		Current Ratings		
	(mm^2)		(mm)	(kg/km)	DC at 20 °C	AC at 70 °C	in Ground	in Duct	In Free Air
					Ω/Km	Ω/Km	A	A	A
3HC025AT0PC0PWP	25/16	SM/RM	26.7	1325	1.200/1.1910	1.440/2.290	101	76	84
3HC035AT0PC0PWP	35/16	SM/RM	29.3	1530	0.868/1.9100	1.0430/2.2900	121	92	101
3HC050AT0PC0PWP	50/25	SM	33.1	2075	0.641/1.2000	0.7710/1.4400	151	113	130
3HC070AT0PC0PWP	70/35	SM	36.2	2455	0.443/0.8680	0.5330/1.0400	185	140	163
3HC095AT0PC0PWP	95/50	SM	41.1	3070	0.32/0.6410	0.3850/0.7710	233	174	209
3HC120AT0PC0PWP	120/70	SM	45.9	3935	0.253/0.4430	0.3050/0.5330	266	200	245
3HC150AT0PC0PWP	150/70	SM	49.5	4475	0.206/0.4430	0.2490/0.5330	298	226	279
3HC185AT0PC0PWP	185/95	SM	53.2	5215	0.164/0.3200	0.1990/0.3850	338	260	323
3HC240AT0PC0PWP	240/120	SM	59.6	6345	0.125/0.2530	0.1510/0.3050	392	305	383
3HC300AT0PC0PWP	300/150	SM	65.2	7470	0.1/0.2060	0.1230/0.2490	441	345	441
3HC400AT0PC0PWP	400/185	SM	75.3	10205	0.0778 / 0.164	0.0961 / 0.1983	501	399	516
3HC500AT0PC0PWP	500/240	SM	82.7	12155	0.0605 / 0.125	0.076 / 0.1518	565	455	594

Installation Conditions for above ratings:
Ambient Air Temperature : 30°C
Ground Temperature : 20°C
Depth Of Laying : 0.50 Mt.
Soil Thermal Resistivity : 1.0 °C m/W

RM : Round , Stranded
SM : Sector , Stranded
SM/RM : Sector for Phase, Round for Neutral

The above dimensions are approximate and subject to manufacturing tolerance.

Technical Data Tables

STRANDED COPPER

Single Core
XLPE Insulated 0.6/1 KV

Applications:

For outdoor and indoor installations in dump and wet locations, They are normally used for power distribution in urban networks. industrial plants. As well as in thermopower and Hydropower stations.
Maximum operating temperature: 90˚C

Construction:

1. CONDUCTOR
Copper, Stranded class 2

2. INSULATION
Cross-Linked polyethylene [XLPE]

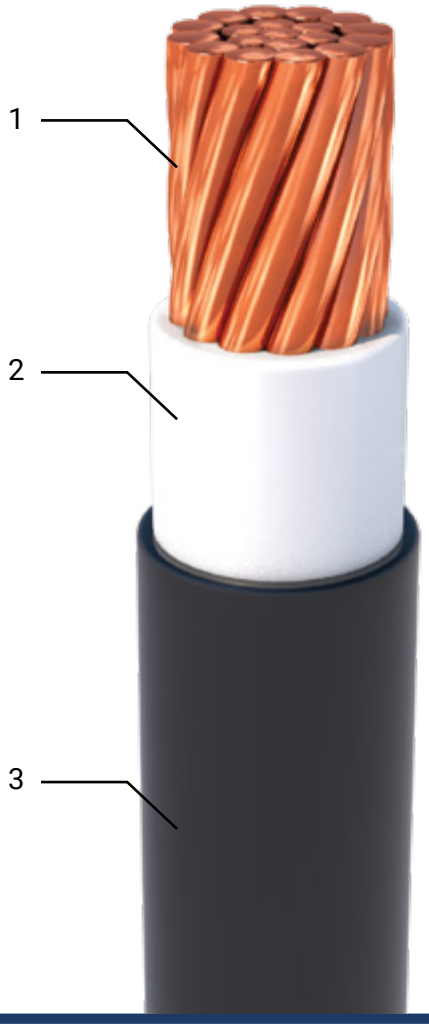
3. SHEATH
Polyvinyl Chloride [PVC]
Alternative: LSHF (Low Smoke Halogen Free) with same dimensions

Standards:

IEC 60502-1
IEC 60228

Rated Voltage:

0.6/1 kV



Technical Data Tables

CU/XLPE/PVC 1 Core — Flat Formation

Product Code	Conductor Size	Overall Diameter	Cable Weight	Max. Conductor Resistance		Current Ratings	
	(mm²)	(mm)	(kg/km)	DC at 20 °C	AC at 90 °C	in Ground	In Free Air
				Ω/Km	Ω/Km	A	A
01C004CT0XC000P	1.5	5.1	38.1	12.1	14.73	24	19
01C004CT0XC000P	2.5	5.5	49.4	7.41	9.02	36	28
01C004CT0XC000P	4	6.1	67	4.61	5.88	60	47
01C006CT0XC000P	6	6.6	88	3.08	3.93	76	59
01C010CT0XC000P	10	7.4	127	1.83	2.33	103	79
01C016CT0XC000P	16	8.3	184	1.15	1.47	129	110
01C025CT0XC000P	25	9.8	275	0.727	0.927	166	138
01C035CT0XC000P	35	10.9	368	0.524	0.669	199	171
01C050CT0XC000P	50	12.4	488	0.387	0.494	236	210
01C070CT0XC000P	70	14.2	684	0.268	0.343	288	268
01C095CT0XC000P	95	15.9	929	0.193	0.248	344	331
01C120CT0XC000P	120	17.5	1172	0.153	0.197	391	386
01C150CT0XC000P	150	19.5	1453	0.124	0.160	439	446
01C185CT0XC000P	185	21.6	1792	0.0991	0.1290	496	519
01C240CT0XC000P	240	24.3	2311	0.0754	0.990	574	622
01C300CT0XC000P	300	26.9	2883	0.0601	0.0810	647	722
01C400CT0XC000P	400	30.3	3696	0.047	0.0638	732	842
01C500CT0XC000P	500	34	4775	0.0366	0.0517	826	981
01C630CT0XC000P	630	38.5	6083	0.0283	0.0425	925	1132

CU/XLPE/PVC 1 Core — Trefoil Formation

Product Code	Conductor Size	Overall Diameter	Cable Weight	Max. Conductor Resistance		Current Ratings		
	(mm²)	(mm)	(kg/km)	DC at 20 °C	AC at 90 °C	in Ground	in Duct	In Free Air
				Ω/Km	Ω/Km	A	A	A
01C004CT0XC000P	1.5	5.1	38.1	12.1	14.73	-	-	-
01C004CT0XC000P	2.5	5.5	49.4	7.41	9.02	-	-	-
01C004CT0XC000P	4	6.1	67	4.61	5.88	60	42	44
01C006CT0XC000P	6	6.6	88	3.08	3.93	77	56	59
01C010CT0XC000P	10	7.4	127	1.83	2.33	105	72	75
01C016CT0XC000P	16	8.3	184	1.15	1.47	131	92	105
01C025CT0XC000P	25	9.8	275	0.727	0.927	168	118	134
01C035CT0XC000P	35	10.9	368	0.524	0.669	201	143	166
01C050CT0XC000P	50	12.4	488	0.387	0.494	239	172	204
01C070CT0XC000P	70	14.2	684	0.268	0.343	292	214	260
01C095CT0XC000P	95	15.9	929	0.193	0.248	349	259	321
01C120CT0XC000P	120	17.5	1172	0.153	0.197	397	298	375
01C150CT0XC000P	150	19.5	1453	0.124	0.160	445	339	433
01C185CT0XC000P	185	21.6	1792	0.0991	0.1290	503	390	503
01C240CT0XC000P	240	24.3	2311	0.0754	0.990	583	457	602
01C300CT0XC000P	300	26.9	2883	0.0601	0.0810	658	524	699
01C400CT0XC000P	400	30.3	3696	0.047	0.0638	744	603	815
01C500CT0XC000P	500	34	4775	0.0366	0.0517	840	695	950
01C630CT0XC000P	630	38.5	6083	0.0283	0.0425	942	794	1096

Installation Conditions for above ratings:
Ambient Air Temperature : 30°C
Ground Temperature : 20°C

Depth Of Laying : 0.50 Mt.
Soil Thermal Resistivity : 1.0 °C m/W

The above dimensions are approximate and subject to manufacturing tolerance.

Technical Data Tables

STRANDED ALUMINUM

Single Core
XLPE Insulated 0.6/1 KV

Applications:

For indoor and outdoor installations in damp and wet locations.
They are normally used for power distribution in urban networks, industrial plants as well as in thermopower and hydropower stations.
Maximum operating temperature: 90˚C

Construction:

1. CONDUCTOR
Aluminum, Stranded class 2

2. INSULATION
Cross-Linked polyethylene [XLPE]

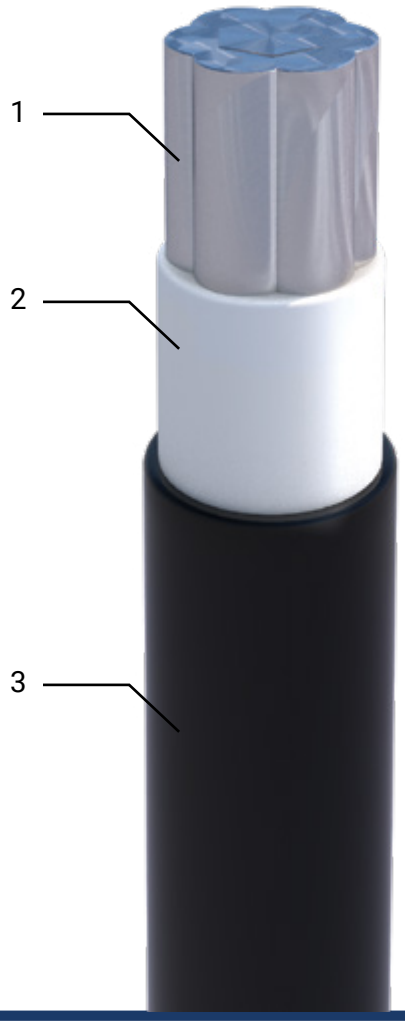
3. SHEATH
Polyvinyl Chloride [PVC]

Standards:

IEC 60502-1
IEC 60228

Rated Voltage:

0.6/1 kV



Technical Data Tables

AL/XLPE/PVC 1 Core — Flat Formation

Product Code	Conductor Size	Overall Diameter	Cable Weight	Max. Conductor Resistance		Current Ratings	
	(mm^2)	(mm)	(kg/km)	DC at 20 °C	AC at 90 °C	in Ground	In Free Air
				Ω/Km	Ω/Km	A	A
01C016AT0XC000P	16	8.3	90	1.91	2.45	108	92
01C025AT0XC000P	25	9.8	130	1.2	1.54	137	121
01C035AT0XC000P	35	10.9	161	0.868	1.113	166	151
01C050AT0XC000P	50	12.4	211	0.641	0.822	197	185
01C070AT0XC000P	70	14.2	280	0.443	0.569	242	237
01C095AT0XC000P	95	15.9	368	0.32	0.411	285	300
01C120AT0XC000P	120	17.5	449	0.253	0.325	336	347
01C150AT0XC000P	150	19.4	555	0.206	0.265	375	398
01C185AT0XC000P	185	21.6	687	0.164	0.212	426	462
01C240AT0XC000P	240	24.3	865	0.125	0.163	496	549
01C300AT0XC000P	300	26.8	1067	0.1	0.131	565	624
01C400AT0XC000P	400	30.2	1370	0.0778	0.1	654	745
01C500AT0XC000P	500	34	1740	0.0605	0.087	736	867
01C630AT0XC000P	630	38.4	2220	0.0469	0.062	844	1016

AL/XLPE/PVC 1 Core — Trefoil Formation

Product Code	Conductor Size	Overall Diameter	Cable Weight	Max. Conductor Resistance		Current Ratings		
	(mm^2)	(mm)	(kg/km)	DC at 20 °C	AC at 90 °C	in Ground	in Duct	In Free Air
				Ω/Km	Ω/Km	A	A	A
01C016AT0XC000P	16	8.3	90	1.91	2.45	105	75	69
01C025AT0XC000P	25	9.8	130	1.2	1.54	133	95	105
01C035AT0XC000P	35	10.9	161	0.868	1.113	158	119	133
01C050AT0XC000P	50	12.4	211	0.641	0.822	187	137	162
01C070AT0XC000P	70	14.2	280	0.443	0.569	229	172	197
01C095AT0XC000P	95	15.9	368	0.32	0.411	273	202	237
01C120AT0XC000P	120	17.5	449	0.253	0.325	318	243	266
01C150AT0XC000P	150	19.4	555	0.206	0.265	355	267	329
01C185AT0XC000P	185	21.6	687	0.164	0.212	406	302	370
01C240AT0XC000P	240	24.3	865	0.125	0.163	470	356	439
01C300AT0XC000P	300	26.8	1067	0.1	0.131	527	403	508
01C400AT0XC000P	400	30.2	1370	0.0778	0.1	609	463	595
01C500AT0XC000P	500	34	1740	0.0605	0.087	686	528	693
01C630AT0XC000P	630	38.4	2220	0.0469	0.062	781	606	821

Installation Conditions for above ratings:
Ambient Air Temperature : 30°C
Ground Temperature : 20°C
Depth Of Laying : 0.50 Mt.
Soil Thermal Resistivity : 1.0 °C m/W

The above dimensions are approximate and subject to manufacturing tolerance.

Technical Data Tables

STRANDED Copper
Multi Core
XLPE Insulated 0.6/1 KV

Applications:
Simi-rigid for use in low voltage power distribution in fixed indoor and outdoor installations.
Maximum operating temperature: 90˚C

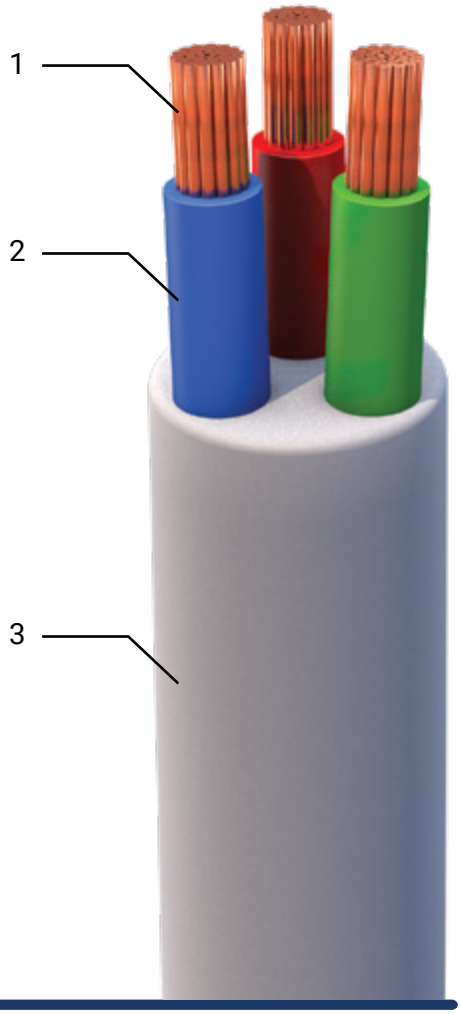
Construction:
1. CONDUCTOR
Copper, Stranded class 2

2. INSULATION
Cross-Linked polyethylene [XLPE]

3. SHEATH
Polyvinyl Chloride [PVC]
Alternative: LSHF (Low Smoke Halogen Free) with same dimensions

Standards:
IEC 60502-1
IEC 60228

Rated Voltage:
0.6/1 kV



Technical Data Tables

CU/XLPE/PVC 2 Cores

Product Code	Conductor Size	Conductor Shape	Overall Diameter	Cable Weight	Max. Conductor Resistance		Current Ratings		
	(mm²)		(mm)	(kg/km)	DC at 20 °C	AC at 90 °C	in Ground	in Duct	In Free Air
					Ω/Km	Ω/Km	A	A	A
02C01.5CT0XC000P	1.5	RM	8.8	107	12.1	15.43	41	31	28
02C02.5CT0XC000P	2.5	RM	9.6	137	7.41	9.45	50	39	38
02C004CT0XC000P	4	RM	10.8	186	4.61	5.88	68	49	52
02C006CT0XC000P	6	RM	11.8	238	3.08	3.93	86	64	67
02C010CT0XC000P	10	RM	13.9	302	1.83	2.33	112	85	89
02C016CT0XC000P	16	RM	15.7	428	1.15	1.47	144	102	118
02C025CT0XC000P	25	RM	18.7	631	0.727	0.927	188	133	154
02C035CT0XC000P	35	RM	20.9	840	0.524	0.669	227	162	189
02C050CT0XC000P	50	RM	23.9	1107	0.387	0.494	276	193	230
02C070CT0XC000P	70	RM	27.5	1539	0.268	0.343	337	236	286
02C095CT0XC000P	95	RM	30.9	2081	0.193	0.248	405	288	357
02C120CT0XC000P	120	RM	34.1	2614	0.153	0.1961	463	336	419
02C150CT0XC000P	150	RM	37.9	3231	0.124	0.1593	519	378	478
02C185CT0XC000P	185	RM	42.3	4003	0.0991	0.1279	590	438	560
02C240CT0XC000P	240	RM	47.7	5161	0.0754	0.0982	682	513	663
02C300CT0XC000P	300	RM	52.9	6436	0.0601	0.0792	767	582	757
02C400CT0XC000P	400	RM	59.7	8250	0.047	0.0632	872	673	884

CU/XLPE/PVC 3 Cores

Product Code	Conductor Size	Conductor Shape	Overall Diameter	Cable Weight	Max. Conductor Resistance		Current Ratings		
	(mm²)		(mm)	(kg/km)	DC at 20 °C	AC at 90 °C	in Ground	in Duct	In Free Air
					Ω/Km	Ω/Km	A	A	A
03C01.5CT0XC000P	1.5	RM	9.3	126	12.1	15.43	31	25	23
03C02.5CT0XC000P	2.5	RM	10.1	163	7.41	9.45	42	33	34
03C004CT0XC000P	4	RM	11.4	225	4.61	5.88	54	39	44
03C006CT0XC000P	6	RM	12.5	294	3.08	3.93	68	49	53
03C010CT0XC000P	10	RM	14.7	399	1.83	2.33	89	65	72
03C016CT0XC000P	16	RM	16.7	576	1.15	1.47	116	82	95
03C025CT0XC000P	25	SM	17.4	839	0.727	0.927	153	110	126
03C035CT0XC000P	35	SM	19.4	1115	0.524	0.669	184	132	156
03C050CT0XC000P	50	SM	22.4	1465	0.387	0.494	220	157	186
03C070CT0XC000P	70	SM	25.9	2094	0.268	0.343	270	195	236
03C095CT0XC000P	95	SM	29.2	2860	0.193	0.248	324	236	290
03C120CT0XC000P	120	SM	32.4	3549	0.153	0.197	368	272	337
03C150CT0XC000P	150	SM	36.5	4397	0.124	0.160	410	307	383
03C185CT0XC000P	185	SM	40.5	5471	0.0991	0.1290	464	351	441
03C240CT0XC000P	240	SM	44.6	7139	0.0754	0.990	537	414	524
03C300CT0XC000P	300	SM	49.5	8931	0.0601	0.0810	605	471	602
03C400CT0XC000P	400	SM	57.3	11675	0.047	0.0632	688	547	701
03C500CT0XC000P	500	SM	63.8	14945	0.0366	0.0518	776	625	806

Installation Conditions for above ratings:
Ambient Air Temperature : 30°C
Ground Temperature : 20°C
Depth Of Laying : 0.50 Mt.
Soil Thermal Resistivity : 1.0 °C m/W

RM : Round, Stranded
SM : Sector, Stranded
SM/RM : Sector for Phase, Round for Neutral

The above dimensions are approximate and subject to manufacturing tolerance.

Technical Data Tables

CU/XLPE/PVC 4 Cores

Product Code	Conductor Size	Conductor Shape	Overall Diameter	Cable Weight	Max. Conductor Resistance		Current Ratings		
	(mm^2)		(mm)	(kg/km)	DC at 20 °C	AC at 90 °C	in Ground	in Duct	In Free Air
					Ω/Km	Ω/Km	A	A	A
04C01.5CT0XC000P	1.5	RM	10	149	12.1	15.43	32	26	24
04C02.5CT0XC000P	2.5	RM	11	197	7.41	9.45	43	33	35
04C004CT0XC000P	4	RM	12.4	276	4.61	5.88	55	40	45
04C006CT0XC000P	6	RM	13.6	363	3.08	3.93	70	50	55
04C010CT0XC000P	10	RM	16.1	505	1.83	2.33	92	67	75
04C016CT0XC000P	16	RM	18.3	736	1.15	1.47	118	84	98
04C025CT0XC000P	25	SM	20	1102	0.727	0.927	155	112	131
04C035CT0XC000P	35	SM	22.4	1474	0.524	0.669	186	136	161
04C050CT0XC000P	50	SM	26.1	1933	0.387	0.494	225	162	197
04C070CT0XC000P	70	SM	30.2	2787	0.268	0.343	276	204	249
04C095CT0XC000P	95	SM	33.7	3774	0.193	0.248	330	243	303
04C120CT0XC000P	120	SM	37.8	4745	0.153	0.197	374	282	352
04C150CT0XC000P	150	SM	42.3	5831	0.124	0.160	421	321	405
04C185CT0XC000P	185	SM	46.3	7286	0.0991	0.1290	475	369	467
04C240CT0XC000P	240	SM	52.1	9521	0.0754	0.990	551	431	554
04C300CT0XC000P	300	SM	57.7	11887	0.0601	0.0810	621	493	636
04C400CT0XC000P	400	SM	66.7	15480	0.047	0.0632	706	571	741
04C500CT0XC000P	500	SM	74.2	19815	0.0366	0.0518	797	653	851

CU/XLPE/PVC 4 Cores Cable with Reduced Neutral

Product Code	Conductor Size	Conductor Shape	Overall Diameter	Cable Weight	Max. Conductor Resistance		Current Ratings		
	(mm^2)		(mm)	(kg/km)	DC at 20 °C	AC at 90 °C	in Ground	in Duct	In Free Air
					Ω/Km	Ω/Km	A	A	A
3HC025CT0XC000P	25/16	SM/RM	20	1022	0.727/1.1500	0.927/1.4700	154	111	129
3HC035CT0XC000P	35/16	SM/RM	22.4	1303	0.524/1.1500	0.669/1.4700	185	133	157
3HC050CT0XC000P	50/25	SM	24.7	1719	0.387/0.7270	0.494/0.9270	226	163	198
3HC070CT0XC000P	70/35	SM	28.5	2457	0.268/0.5240	0.343/0.6690	277	204	250
3HC095CT0XC000P	95/50	SM	32.2	3323	0.193/0.3870	0.248/0.4940	329	243	301
3HC120CT0XC000P	120/70	SM	36.1	4250	0.153/0.2680	0.197/0.3430	372	278	347
3HC150CT0XC000P	150/70	SM	39.9	5071	0.124/0.2680	0.16/0.3430	418	315	397
3HC185CT0XC000P	185/95	SM	43.8	6417	0.0991/0.1930	0.129/0.2480	472	363	458
3HC240CT0XC000P	240/120	SM	49.3	8332	0.0754/0.1530	0.099/0.1970	546	424	543
3HC300CT0XC000P	300/150	SM	54.6	10394	0.601/0.1240	0.081/0.1600	615	485	624
3HC400CT0XC000P	400/185	SM	62.7	13460	0.047 / 0.0991	0.0641 / 0.1284	700	560	727
3HC500CT0XC000P	500/240	SM	70.1	17300	0.0366 / 0.0754	0.0518 / 0.0988	789	643	834

Installation Conditions for above ratings:
Ambient Air Temperature : 30°C
Ground Temperature : 20°C
Depth Of Laying : 0.50 Mt.
Soil Thermal Resistivity : 1.0 °C m/W

RM : Round, Stranded
SM : Sector, Stranded
SM/RM : Sector for Phase, Round for Neutral

The above dimensions are approximate and subject to manufacturing tolerance.

Technical Data Tables

STRANDED ALUMINUM

Multi Core
XLPE Insulated 0.6/1 KV

Applications:

For indoor and outdoor installations in damp and wet locations.
Maximum operating temperature: 90˚C

Construction:

1. CONDUCTOR
Aluminum, Stranded class 2

2. INSULATION
Cross-Linked polyethylene [XLPE]

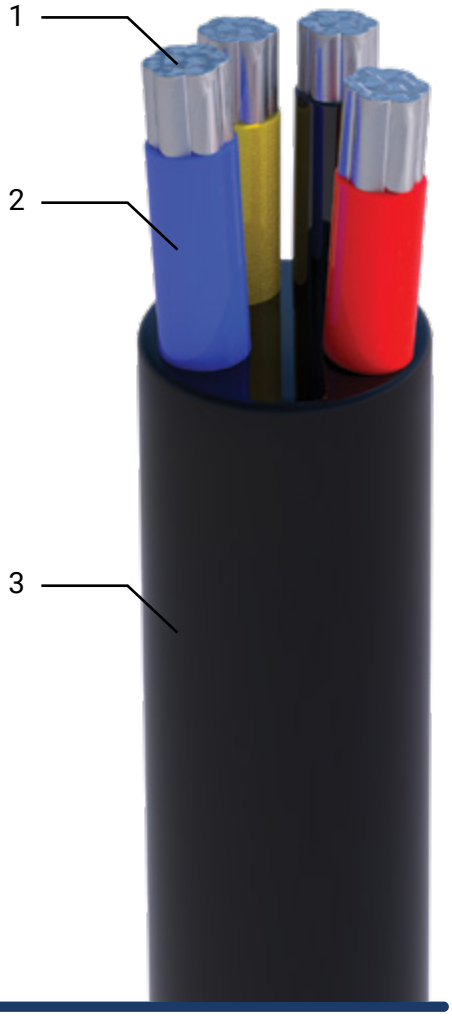
3. SHEATH
Polyvinyl Chloride [PVC]

Standards:

IEC 60502-1
IEC 60228

Rated Voltage:

0.6/1 kV



Technical Data Tables

AL/XLPE/PVC 2 Cores

Product Code	Conductor Size	Conductor Shape	Overall Diameter	Cable Weight	Max. Conductor Resistance		Current Ratings		
	(mm^2)		(mm)	(kg/km)	DC at 20 °C	AC at 90 °C	in Ground	in Duct	In Free Air
					Ω/Km	Ω/Km	A	A	A
02C016AT0XC000P	16	RM	15.7	238	1.91	2.45	113	79	89
02C025AT0XC000P	25	RM	18.7	338	1.2	1.54	146	103	119
02C035AT0XC000P	35	RM	20.9	424	0.868	1.113	176	126	147
02C050AT0XC000P	50	RM	23.9	551	0.641	0.822	209	151	179
02C070AT0XC000P	70	RM	27.5	727	0.443	0.569	257	188	227
02C095AT0XC000P	95	RM	30.9	954	0.32	0.411	307	227	278
02C120AT0XC000P	120	RM	34.5	1230	0.253	0.3251	350	262	324
02C150AT0XC000P	150	RM	38.3	1520	0.206	0.2651	392	297	370
02C185AT0XC000P	185	RM	42.7	1865	0.164	0.2114	444	340	428
02C240AT0XC000P	240	RM	48.1	2380	0.125	0.1618	516	402	509
02C300AT0XC000P	300	RM	53.7	2975	0.1	0.1302	585	462	589
02C400AT0XC000P	400	RM	60.3	3785	0.0778	0.1023	670	536	688

AL/XLPE/PVC 3 Cores

Product Code	Conductor Size	Conductor Shape	Overall Diameter	Cable Weight	Max. Conductor Resistance		Current Ratings		
	(mm^2)		(mm)	(kg/km)	DC at 20 °C	AC at 90 °C	in Ground	in Duct	In Free Air
					Ω/Km	Ω/Km	A	A	A
03C016AT0XC000P	16	RM	16.7	292	1.91	2.45	92	65	73
03C025AT0XC000P	25	SM	17.4	374	1.2	1.54	118	86	98
03C035AT0XC000P	35	SM	19.4	473	0.868	1.113	142	103	121
03C050AT0XC000P	50	SM	22.4	630	0.641	0.822	171	121	145
03C070AT0XC000P	70	SM	25.9	849	0.443	0.569	209	151	183
03C095AT0XC000P	95	SM	29.2	1123	0.32	0.411	251	183	225
03C120AT0XC000P	120	SM	32.4	1365	0.253	0.325	286	211	262
03C150AT0XC000P	150	SM	36.5	1722	0.206	0.265	319	239	297
03C185AT0XC000P	185	SM	40.5	2106	0.164	0.212	361	274	344
03C240AT0XC000P	240	SM	44.6	2713	0.125	0.163	420	323	409
03C300AT0XC000P	300	SM	49.5	3325	0.100	0.131	474	369	471
03C400AT0XC000P	400	SM	57.3	4535	0.0778	0.1023	544	433	555
03C500AT0XC000P	500	SM	63.8	5705	0.0605	0.0809	621	501	645

Installation Conditions for above ratings:
Ambient Air Temperature : 30°C
Ground Temperature : 20°C
Depth Of Laying : 0.50 Mt.
Soil Thermal Resistivity : 1.0 °C m/W

RM : Round, Stranded
SM : Sector, Stranded
SM/RM : Sector for Phase, Round for Neutral

The above dimensions are approximate and subject to manufacturing tolerance.

Technical Data Tables

AL/XLPE/PVC 4 Cores

Product Code	Conductor Size	Conductor Shape	Overall Diameter	Cable Weight	Max. Conductor Resistance		Current Ratings		
	(mm^2)		(mm)	(kg/km)	DC at 20 °C	AC at 90 °C	in Ground	in Duct	In Free Air
					Ω/Km	Ω/Km	A	A	A
04C016AT0XC000P	16	RM	18.3	357	1.91	2.45	93	66	76
04C025AT0XC000P	25	SM	20	487	1.2	1.54	120	87	101
04C035AT0XC000P	35	SM	22.4	618	0.868	1.113	144	105	125
04C050AT0XC000P	50	SM	26.1	826	0.641	0.822	175	126	153
04C070AT0XC000P	70	SM	30.2	1125	0.443	0.569	215	158	194
04C095AT0XC000P	95	SM	33.7	1470	0.32	0.411	256	189	235
04C120AT0XC000P	120	SM	37.8	1831	0.253	0.325	291	219	274
04C150AT0XC000P	150	SM	42.3	2263	0.206	0.265	327	249	314
04C185AT0XC000P	185	SM	46.3	2791	0.164	0.212	370	287	364
04C240AT0XC000P	240	SM	52.1	3609	0.125	0.163	430	337	432
04C300AT0XC000P	300	SM	57.7	4428	0.100	0.131	486	386	498
04C400AT0XC000P	400	SM	66.7	5960	0.0778	0.1023	558	452	586
04C500AT0XC000P	500	SM	74.2	7485	0.0605	0.0809	638	522	681

AL/XLPE/PVC 4 Cores Cable with Reduced Neutral

Product Code	Conductor Size	Conductor Shape	Overall Diameter	Cable Weight	Max. Conductor Resistance		Current Ratings		
	(mm^2)		(mm)	(kg/km)	DC at 20 °C	AC at 90 °C	in Ground	in Duct	In Free Air
					Ω/Km	Ω/Km	A	A	A
3HC025AT0XC000P	25/16	SM/RM	20	466	1.200/1.1910	1.5400/2.4500	119	86	100
3HC035AT0XC000P	35/16	SM/RM	22.4	566	0.868/1.9100	1.1130/2.4500	143	103	122
3HC050AT0XC000P	50/25	SM	24.7	735	0.641/1.2000	0.8220/1.5400	175	126	153
3HC070AT0XC000P	70/35	SM	28.5	996	0.443/0.8680	0.5690/1.1130	215	158	194
3HC095AT0XC000P	95/50	SM	32.2	1317	0.32/0.6410	0.4110/0.8220	255	188	233
3HC120AT0XC000P	120/70	SM	36.1	1649	0.253/0.4430	0.3250/0.5690	289	216	270
3HC150AT0XC000P	150/70	SM	39.9	1980	0.206/0.4430	0.2650/0.5690	324	245	308
3HC185AT0XC000P	185/95	SM	43.8	2470	0.164/0.3200	0.2120/0.4110	367	283	357
3HC240AT0XC000P	240/120	SM	49.3	3169	0.125/0.2530	0.1630/0.3250	427	332	424
3HC300AT0XC000P	300/150	SM	54.6	3908	0.1000/0.2060	0.1310/0.2650	482	380	489
3HC400AT0XC000P	400/185	SM	62.7	5185	0.0778 / 0.164	0.1023 / 0.2115	554	443	575
3HC500AT0XC000P	500/240	SM	70.1	6580	0.0605 / 0.125	0.0809 / 0.1619	632	515	668

Installation Conditions for above ratings:
Ambient Air Temperature : 30°C
Ground Temperature : 20°C
Depth Of Laying : 0.50 Mt.
Soil Thermal Resistivity : 1.0 °C m/W

RM : Round, Stranded
SM : Sector, Stranded
SM/RM : Sector for Phase, Round for Neutral

The above dimensions are approximate and subject to manufacturing tolerance.

Technical Data Tables

STRANDED COPPER
Multi Core
XLPE Insulated 0.6/1 KV

Applications:
For indoor and outdoor installations in damp and wet locations.
Where mechanical damage is expected to occur.
Maximum operating temperature: 90˚C

Construction:
1. CONDUCTOR
Copper, Stranded class 2

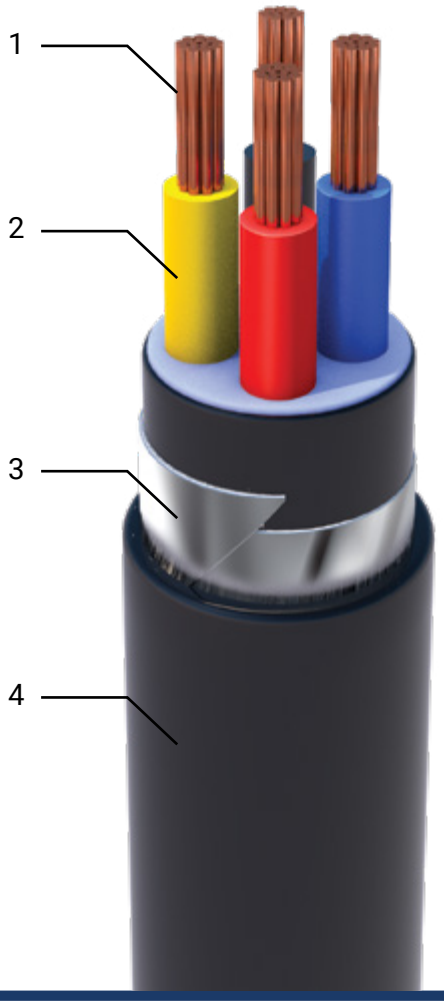
2. INSULATION
Cross-Linked polyethylene [XLPE]

3. ARMOUR
Double Steel Tape

4. SHEATH
Polyvinyl Chloride [PVC]

Standards:
IEC 60502-1
IEC 60228

Rated Voltage:
0.6/1 kV



Technical Data Tables

CU/XLPE/STA/PVC 2 Cores

Product Code	Conductor Size	Conductor Shape	Overall Diameter	Cable Weight	Max. Conductor Resistance		Current Ratings		
	(mm²)		(mm)	(kg/km)	DC at 20 °C	AC at 90 °C	in Ground	in Duct	In Free Air
					Ω/Km	Ω/Km	A	A	A
02C01.5CT0XC0PTP	1.5	RM	11.2	199.4	12.1	14.73	34	28	26
02C02.5CT0XC0PTP	2.5	RM	12	237	7.41	9.02	42	37	35
02C004CT0XC0PTP	4	RM	13.2	299.7	4.61	5.61	62	50	52
02C006CT0XC0PTP	6	RM	14.2	470	3.08	3.93	83	66	65
02C010CT0XC0PTP	10	RM	16.3	595	1.83	2.33	112	87	90
02C016CT0XC0PTP	16	RM	18.0	635	1.15	1.47	142	112	116
02C025CT0XC0PTP	25	RM	21.6	865	0.727	0.927	186	141	152
02C035CT0XC0PTP	35	RM	22.9	1075	0.524	0.669	222	171	188
02C050CT0XC0PTP	50	RM	22.0	1345	0.387	0.494	262	205	228
02C070CT0XC0PTP	70	RM	24.7	1840	0.268	0.343	325	253	292
02C095CT0XC0PTP	95	RM	27.3	2405	0.193	0.248	393	304	354
02C120CT0XC0PTP	120	RM	38.1	3333	0.153	0.1961	457	339	422
02C150CT0XC0PTP	150	RM	42.1	4048	0.124	0.1593	512	381	480
02C185CT0XC0PTP	185	RM	46.7	4934	0.0991	0.1279	580	440	559
02C240CT0XC0PTP	240	RM	51.9	6181	0.0754	0.0982	670	513	658
02C300CT0XC0PTP	300	RM	57.3	7593	0.0601	0.0792	751	580	749
02C400CT0XC0PTP	400	RM	64.3	9575	0.047	0.0632	853	669	871

CU/XLPE/STA/PVC 3 Cores

Product Code	Conductor Size	Conductor Shape	Overall Diameter	Cable Weight	Max. Conductor Resistance		Current Ratings		
	(mm²)		(mm)	(kg/km)	DC at 20 °C	AC at 90 °C	in Ground	in Duct	In Free Air
					Ω/Km	Ω/Km	A	A	A
03C01.5CT0XC0PTP	1.5	RM	11.7	223	12.1	14.73	30	26	23
03C02.5CT0XC0PTP	2.5	RM	12.5	267.3	7.41	9.02	40	33	33
03C004CT0XC0PTP	4	RM	13.8	343.8	4.61	5.61	56	45	46
03C006CT0XC0PTP	6	RM	14.9	525	3.08	3.93	70	54	56
03C010CT0XC0PTP	10	RM	17.1	685	1.83	2.33	94	73	78
03C016CT0XC0PTP	16	RM	19.0	810	1.15	1.47	117	92	99
03C025CT0XC0PTP	25	SM	20.8	1150	0.727	0.927	155	122	131
03C035CT0XC0PTP	35	SM	22.9	1455	0.524	0.669	186	146	162
03C050CT0XC0PTP	50	SM	25.9	1870	0.387	0.494	230	164	199
03C070CT0XC0PTP	70	SM	29.5	2600	0.268	0.343	281	209	251
03C095CT0XC0PTP	95	SM	33.2	3765	0.193	0.248	337	253	309
03C120CT0XC0PTP	120	SM	38.0	4590	0.153	0.197	387	292	366
03C150CT0XC0PTP	150	SM	41.9	5625	0.124	0.160	432	325	415
03C185CT0XC0PTP	185	SM	46.6	6790	0.0991	0.1290	488	371	480
03C240CT0XC0PTP	240	SM	51.5	8765	0.0754	0.990	566	434	570
03C300CT0XC0PTP	300	SM	56.8	10565	0.0601	0.0810	639	496	658
03C400CT0XC0PTP	400	SM	61.1	12810	0.047	0.0641	728	573	772
03C500CT0XC0PTP	500	SM	67.8	16245	0.0366	0.0518	820	654	889

Installation Conditions for above ratings:
Ambient Air Temperature : 30°C
Ground Temperature : 20°C
Depth Of Laying : 0.50 Mt.
Soil Thermal Resistivity : 1.0 °C m/W

RM : Round, Stranded
SM : Sector, Stranded
SM/RM : Sector for Phase, Round for Neutral

The above dimensions are approximate and subject to manufacturing tolerance.

Technical Data Tables

CU/XLPE/STA/PVC 4 Cores

Product Code	Conductor Size	Conductor Shape	Overall Diameter	Cable Weight	Max. Conductor Resistance		Current Ratings		
	(mm^2)		(mm)	(kg/km)	DC at 20 °C	AC at 90 °C	in Ground	in Duct	In Free Air
					Ω/Km	Ω/Km	A	A	A
04C01.5CT0XC0PTP	1.5	RM	12.4	254.4	12.1	14.73	30	26	23
04C02.5CT0XC0PTP	2.5	RM	13.4	312.6	7.41	9.02	40	33	33
04C004CT0XC0PTP	4	RM	14.8	404.8	4.61	5.61	56	45	46
04C006CT0XC0PTP	6	RM	16.1	615	3.08	3.93	70	54	56
04C010CT0XC0PTP	10	RM	18.4	825	1.83	2.33	94	73	78
04C016CT0XC0PTP	16	RM	20.6	1020	1.15	1.47	117	92	99
04C025CT0XC0PTP	25	SM	23.5	1440	0.727	0.927	155	122	131
04C035CT0XC0PTP	35	SM	25.9	1835	0.524	0.669	186	146	162
04C050CT0XC0PTP	50	SM	29.6	2440	0.387	0.494	237	171	211
04C070CT0XC0PTP	70	SM	34.3	3690	0.268	0.343	290	211	267
04C095CT0XC0PTP	95	SM	39.3	4850	0.193	0.248	347	258	329
04C120CT0XC0PTP	120	SM	43.8	5950	0.153	0.197	395	296	384
04C150CT0XC0PTP	150	SM	48.4	7230	0.124	0.160	445	337	443
04C185CT0XC0PTP	185	SM	53.3	8825	0.0991	0.1290	504	388	513
04C240CT0XC0PTP	240	SM	59.6	11315	0.0754	0.990	584	453	610
04C300CT0XC0PTP	300	SM	65.3	13760	0.0601	0.0810	659	518	704
04C400CT0XC0PTP	400	SM	70.9	16885	0.047	0.0641	750	601	825
04C500CT0XC0PTP	500	SM	79.8	22155	0.0366	0.0518	850	689	958

CU/XLPE/STA/PVC 4 Cores Cable with Reduced Neutral

Product Code	Conductor Size	Conductor Shape	Overall Diameter	Cable Weight	Max. Conductor Resistance		Current Ratings		
	(mm^2)		(mm)	(kg/km)	DC at 20 °C	AC at 90 °C	in Ground	in Duct	In Free Air
					Ω/Km	Ω/Km	A	A	A
3HC025CT0XC0PTP	25/16	SM/RM	22.9	1345	0.727/1.1500	0.927/1.4700	155	122	131
3HC035CT0XC0PTP	35/16	SM/RM	24.8	1655	0.524/1.1500	0.669/1.4700	186	146	162
3HC050CT0XC0PTP	50/25	SM	28.4	2215	0.387/0.7270	0.494/0.9270	222	171	197
3HC070CT0XC0PTP	70/35	SM	32.7	2970	0.268/0.5240	0.343/0.6690	273	209	251
3HC095CT0XC0PTP	95/50	SM	37.8	4280	0.193/0.3870	0.248/0.4940	347	255	328
3HC120CT0XC0PTP	120/70	SM	41.7	5395	0.153/0.2680	0.197/0.3430	394	292	378
3HC150CT0XC0PTP	150/70	SM	46.2	6425	0.124/0.2680	0.16/0.3430	441	331	433
3HC185CT0XC0PTP	185/95	SM	50.9	7800	0.0991/0.1930	0.129/0.2480	499	381	502
3HC240CT0XC0PTP	240/120	SM	56.8	10055	0.0754/0.1530	0.099/0.1970	578	449	597
3HC300CT0XC0PTP	300/150	SM	62.1	12115	0.601/0.1240	0.081/0.1600	653	510	689
3HC400CT0XC0PTP	400/185	SM	66.7	14745	0.047 / 0.0991	0.0641 / 0.1284	743	592	806
3HC500CT0XC0PTP	500/240	SM	74.1	18735	0.0366 / 0.0754	0.0518 / 0.098	838	675	930

Installation Conditions for above ratings:
Ambient Air Temperature : 30°C
Ground Temperature : 20°C
Depth Of Laying : 0.50 Mt.
Soil Thermal Resistivity : 1.0 °C m/W

RM : Round, Stranded
SM : Sector, Stranded
SM/RM : Sector for Phase, Round for Neutral

The above dimensions are approximate and subject to manufacturing tolerance.

Technical Data Tables

STRANDED ALUMINUM

Multi Core
XLPE Insulated 0.6/1 KV

Applications:

For indoor and outdoor installations in damp and wet locations.
Where mechanical damage is expected to occur.
Maximum operating temperature: 90˚C

Construction:

1. CONDUCTOR
Aluminum, Stranded class 2

2. INSULATION
Cross-linked polyethylene [XLPE]

3. ARMOUR
Double Steel Tape

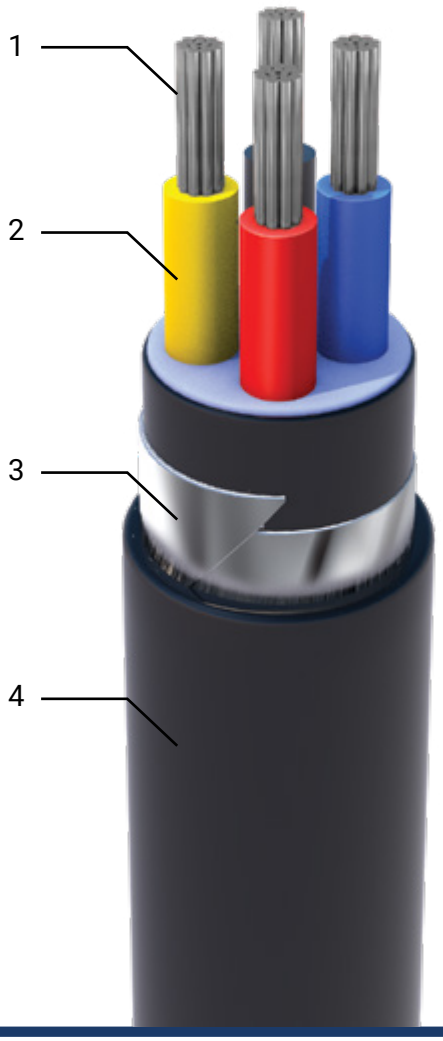
4. SHEATH
Polyvinyl Chloride [PVC]

Standards:

IEC 60502-1
IEC 60228

Rated Voltage:

0.6/1 kV



Technical Data Tables

AL/XLPE/STA/PVC 2 Cores

Product Code	Conductor Size	Conductor Shape	Overall Diameter	Cable Weight	Max. Conductor Resistance		Current Ratings		
	(mm^2)		(mm)	(kg/km)	DC at 20 °C	AC at 90 °C	in Ground	in Duct	In Free Air
					Ω/Km	Ω/Km	A	A	A
02C016AT0XC0PTP	16	RM	18.3	450	1.91	2.45	111	82	90
02C025AT0XC0PTP	25	RM	21.6	560	1.2	1.54	144	107	120
02C035AT0XC0PTP	35	RM	23.7	645	0.868	1.113	173	127	148
02C050AT0XC0PTP	50	RM	22.0	760	0.641	0.822	206	151	180
02C070AT0XC0PTP	70	RM	24.7	995	0.443	0.569	254	190	227
02C095AT0XC0PTP	95	RM	27.3	1240	0.32	0.411	303	231	278
02C120AT0XC0PTP	120	RM	38.3	1955	0.253	0.3251	347	265	326
02C150AT0XC0PTP	150	RM	42.1	2325	0.206	0.2651	388	299	371
02C185AT0XC0PTP	185	RM	46.9	2810	0.164	0.2114	439	344	428
02C240AT0XC0PTP	240	RM	52.3	3440	0.125	0.1618	510	403	507
02C300AT0XC0PTP	300	RM	57.9	4155	0.1	0.1302	577	462	585
02C400AT0XC0PTP	400	RM	64.5	5100	0.0778	0.1023	660	535	681

AL/XLPE/STA/PVC 3 Cores

Product Code	Conductor Size	Conductor Shape	Overall Diameter	Cable Weight	Max. Conductor Resistance		Current Ratings		
	(mm^2)		(mm)	(kg/km)	DC at 20 °C	AC at 90 °C	in Ground	in Duct	In Free Air
					Ω/Km	Ω/Km	A	A	A
03C016AT0XC0PTP	16	RM	19.3	525	1.91	2.45	91	70	74
03C025AT0XC0PTP	25	SM	20.8	690	1.2	1.54	119	92	98
03C035AT0XC0PTP	35	SM	22.9	810	0.868	1.113	139	107	120
03C050AT0XC0PTP	50	SM	25.9	995	0.641	0.822	178	131	153
03C070AT0XC0PTP	70	SM	29.5	1330	0.443	0.569	218	160	195
03C095AT0XC0PTP	95	SM	33.2	2015	0.32	0.411	262	194	240
03C120AT0XC0PTP	120	SM	38.0	2360	0.253	0.325	301	224	285
03C150AT0XC0PTP	150	SM	41.9	2850	0.206	0.265	335	251	323
03C185AT0XC0PTP	185	SM	46.6	3380	0.164	0.212	381	289	375
03C240AT0XC0PTP	240	SM	51.5	4225	0.125	0.163	443	340	447
03C300AT0XC0PTP	300	SM	56.8	4970	0.100	0.131	502	390	517
03C400AT0XC0PTP	400	SM	61.1	5670	0.0778	0.1023	578	455	613
03C500AT0XC0PTP	500	SM	67.8	7005	0.0605	0.0809	659	526	715

Installation Conditions for above ratings:
Ambient Air Temperature : 30°C
Ground Temperature : 20°C
Depth Of Laying : 0.50 Mt.
Soil Thermal Resistivity : 1.0 °C m/W

RM : Round, Stranded
SM : Sector, Stranded
SM/RM : Sector for Phase, Round for Neutral

The above dimensions are approximate and subject to manufacturing tolerance.

Technical Data Tables

AL/XLPE/STA/PVC 4 Cores

Product Code	Conductor Size	Conductor Shape	Overall Diameter	Cable Weight	Max. Conductor Resistance		Current Ratings		
	(mm^2)		(mm)	(kg/km)	DC at 20 °C	AC at 90 °C	in Ground	in Duct	In Free Air
					Ω/Km	Ω/Km	A	A	A
04C016AT0XC0PTP	16	RM	20.9	640	1.91	2.45	91	70	74
04C025AT0XC0PTP	25	SM	23.5	825	1.2	1.54	119	92	98
04C035AT0XC0PTP	35	SM	25.9	980	0.868	1.113	139	107	120
04C050AT0XC0PTP	50	SM	29.6	1270	0.641	0.822	184	132	164
04C070AT0XC0PTP	70	SM	34.3	2005	0.443	0.569	225	164	208
04C095AT0XC0PTP	95	SM	39.3	2510	0.32	0.411	269	200	255
04C120AT0XC0PTP	120	SM	43.8	2980	0.253	0.325	307	231	298
04C150AT0XC0PTP	150	SM	48.4	3525	0.206	0.265	346	262	344
04C185AT0XC0PTP	185	SM	53.3	4285	0.164	0.212	393	302	400
04C240AT0XC0PTP	240	SM	59.6	5260	0.125	0.163	457	355	478
04C300AT0XC0PTP	300	SM	65.3	6305	0.100	0.131	518	407	553
04C400AT0XC0PTP	400	SM	70.9	7365	0.0778	0.1023	596	477	654
04C500AT0XC0PTP	500	SM	79.8	9820	0.0605	0.0809	682	553	769

AL/XLPE/STA/PVC 4 Cores with Reduced Neutral

Product Code	Conductor Size	Conductor Shape	Overall Diameter	Cable Weight	Max. Conductor Resistance		Current Ratings		
	(mm^2)		(mm)	(kg/km)	DC at 20 °C	AC at 90 °C	in Ground	in Duct	In Free Air
					Ω/Km	Ω/Km	A	A	A
3HC025AT0XC0PTP	25/16	SM/RM	22.9	790	1.200/1.1910	1.5400/2.4500	119	92	98
3HC035AT0XC0PTP	35/16	SM/RM	24.8	920	0.868/1.9100	1.1130/2.4500	141	107	123
3HC050AT0XC0PTP	50/25	SM	28.4	1190	0.641/1.2000	0.8220/1.5400	170	127	154
3HC070AT0XC0PTP	70/35	SM	32.7	1490	0.443/0.8680	0.5690/1.1130	211	160	193
3HC095AT0XC0PTP	95/50	SM	37.8	2240	0.32/0.6410	0.4110/0.8220	269	198	254
3HC120AT0XC0PTP	120/70	SM	41.7	2740	0.253/0.4430	0.3250/0.5690	306	227	294
3HC150AT0XC0PTP	150/70	SM	46.2	3240	0.206/0.4430	0.2650/0.5690	342	257	336
3HC185AT0XC0PTP	185/95	SM	50.9	3810	0.164/0.3200	0.2120/0.4110	289	297	391
3HC240AT0XC0PTP	240/120	SM	56.8	4800	0.125/0.2530	0.1630/0.3250	453	351	467
3HC300AT0XC0PTP	300/150	SM	62.1	5640	0.1000/0.2060	0.1310/0.2650	513	401	541
3HC400AT0XC0PTP	400/185	SM	66.7	6470	0.0778 / 0.164	0.1023 / 0.2115	590	470	640
3HC500AT0XC0PTP	500/240	SM	74.1	8010	0.0605 / 0.125	0.0809 / 0.1619	673	543	747

Installation Conditions for above ratings:
Ambient Air Temperature : 30°C
Ground Temperature : 20°C
Depth Of Laying : 0.50 Mt.
Soil Thermal Resistivity : 1.0 °C m/W

RM : Round, Stranded
SM : Sector, Stranded
SM/RM : Sector for Phase, Round for Neutral

The above dimensions are approximate and subject to manufacturing tolerance.

Technical Data Tables

STRANDED COPPER
Multi Core
XLPE Insulated 0.6/1 KV

Applications:
For indoor and outdoor installations in damp and wet locations.
Where mechanical damage is expected to occur.
Maximum operating temperature: 90˚C

Construction:
1. CONDUCTOR
Copper, Stranded class 2

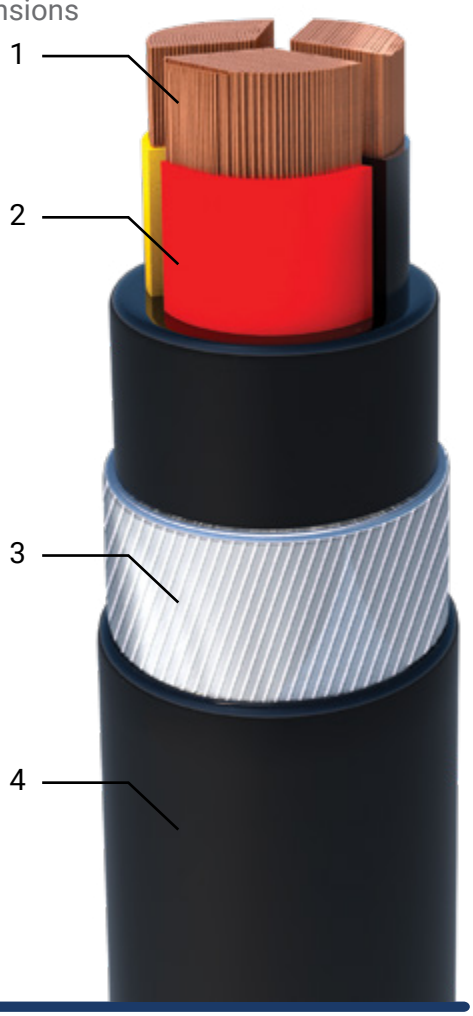
2. INSULATION
Cross-Linked polyethylene [XLPE]

3. ARMOUR
Galvanized Round Steel Wire

4. SHEATH
Polyvinyl Chloride [PVC]
Alternative: LSHF (Low Smoke Halogen Free) with same dimensions

Standards:
IEC 60502-1
IEC 60228

Rated Voltage:
0.6/1 kV



Technical Data Tables

CU/XLPE/SWA/PVC 2 Cores

Product Code	Conductor Size	Conductor Shape	Overall Diameter	Cable Weight	Max. Conductor Resistance		Current Ratings		
	(mm^2)		(mm)	(kg/km)	DC at 20 °C	AC at 90 °C	in Ground	in Duct	In Free Air
					Ω/Km	Ω/Km	A	A	A
02C01.5CT0XC0PWP	1.5	RM	13.1	307.4	12.1	14.73	34	28	26
02C02.5CT0XC0PWP	2.5	RM	13.9	351.3	7.41	9.02	42	37	35
02C004CT0XC0PWP	4	RM	15.1	590	4.6100	5.8782	66	52	52
02C006CT0XC0PWP	6	RM	16.8	670	3.0800	3.9273	83	66	66
02C010CT0XC0PWP	10	RM	18.9	825	1.8300	2.3335	112	87	90
02C016CT0XC0PWP	16	RM	20.6	870	1.1500	1.4700	142	112	116
02C025CT0XC0PWP	25	RM	24.9	1245	0.7270	0.9270	186	141	152
02C035CT0XC0PWP	35	RM	26.2	1490	0.5240	0.6690	222	171	188
02C050CT0XC0PWP	50	RM	25.3	1820	0.3870	0.4940	262	205	228
02C070CT0XC0PWP	70	RM	28.2	2570	0.2680	0.3430	325	253	292
02C095CT0XC0PWP	95	RM	31.0	3200	0.1930	0.2480	393	304	354
02C120CT0XC0PWP	120	RM	40.8	4007	0.153	0.1961	457	339	422
02C150CT0XC0PWP	150	RM	44.6	4773	0.124	0.1593	512	381	480
02C185CT0XC0PWP	185	RM	50.4	6161	0.0991	0.1279	580	440	559
02C240CT0XC0PWP	240	RM	55.6	7529	0.0754	0.0982	670	513	658
02C300CT0XC0PWP	300	RM	61	9102	0.0601	0.0792	751	580	749
02C400CT0XC0PWP	400	RM	67.8	11197	0.047	0.0632	853	669	871

CU/XLPE/SWA/PVC 3 Cores

Product Code	Conductor Size	Conductor Shape	Overall Diameter	Cable Weight	Max. Conductor Resistance		Current Ratings		
	(mm^2)		(mm)	(kg/km)	DC at 20 °C	AC at 90 °C	in Ground	in Duct	In Free Air
					Ω/Km	Ω/Km	A	A	A
03C01.5CT0XC0PWP	1.5	RM	13.6	333.2	12.1	14.73	30	26	23
03C02.5CT0XC0PWP	2.5	RM	14.4	387.8	7.41	9.02	40	33	33
03C004CT0XC0PWP	4	RM	16.4	635	4.6100	5.8782	56	44	44
03C006CT0XC0PWP	6	RM	17.5	730	3.0800	3.9273	70	54	56
03C010CT0XC0PWP	10	RM	19.7	930	1.8300	2.3335	94	73	78
03C016CT0XC0PWP	16	RM	22.3	1220	1.1500	1.4700	117	92	99
03C025CT0XC0PWP	25	SM	24.1	1575	0.7270	0.9270	155	122	131
03C035CT0XC0PWP	35	SM	26.2	1930	0.5240	0.6690	186	146	162
03C050CT0XC0PWP	50	SM	29.4	2425	0.3870	0.4940	232	168	206
03C070CT0XC0PWP	70	SM	34.0	3440	0.2680	0.3430	286	209	262
03C095CT0XC0PWP	95	SM	37.3	4350	0.1930	0.2480	342	253	322
03C120CT0XC0PWP	120	SM	40.7	5265	0.1530	0.1970	390	292	375
03C150CT0XC0PWP	150	SM	45.1	6735	0.1240	0.1600	343	330	426
03C185CT0XC0PWP	185	SM	49.8	8030	0.0991	0.1290	490	375	490
03C240CT0XC0PWP	240	SM	54.7	10150	0.0754	0.9900	565	436	579
03C300CT0XC0PWP	300	SM	60.0	12745	0.0601	0.0810	634	496	663
03C400CT0XC0PWP	400	SM	64.8	14570	0.047	0.0641	715	567	769
03C500CT0XC0PWP	500	SM	73	19020	0.0366	0.0518	791	635	872

Installation Conditions for above ratings:
Ambient Air Temperature : 30°C
Ground Temperature : 20°C
Depth Of Laying : 0.50 Mt.
Soil Thermal Resistivity : 1.0 °C m/W

RM : Round, Stranded
SM : Sector, Stranded
SM/RM : Sector for Phase, Round for Neutral

The above dimensions are approximate and subject to manufacturing tolerance.

Technical Data Tables

CU/XLPE/SWA/PVC 4 Cores

Product Code	Conductor Size	Conductor Shape	Overall Diameter	Cable Weight	Max. Conductor Resistance		Current Ratings		
	(mm^2)		(mm)	(kg/km)	DC at 20 °C	AC at 90 °C	in Ground	in Duct	In Free Air
					Ω/Km	Ω/Km	A	A	A
04C01.5CT0XC0PWP	1.5	RM	14.3	375.9	12.1	14.73	30	26	23
04C02.5CT0XC0PWP	2.5	RM	15.3	444.5	7.41	9.02	40	33	33
04C004CT0XC0PWP	4	RM	17.4	715	4.6100	5.8782	56	44	44
04C006CT0XC0PWP	6	RM	18.7	844	3.0800	3.9273	70	54	56
04C010CT0XC0PWP	10	RM	21.0	1193	1.8300	2.3335	94	73	78
04C016CT0XC0PWP	16	RM	23.9	1420	1.1500	1.4700	117	92	99
04C025CT0XC0PWP	25	SM	26.8	1915	0.7270	0.9270	155	122	131
04C035CT0XC0PWP	35	SM	29.4	2385	0.5240	0.6690	186	146	162
04C050CT0XC0PWP	50	SM	34.1	3260	0.3870	0.4940	238	174	218
04C070CT0XC0PWP	70	SM	38.2	4275	0.2680	0.3430	293	218	277
04C095CT0XC0PWP	95	SM	42.0	5555	0.1930	0.2480	350	260	337
04C120CT0XC0PWP	120	SM	47.0	7085	0.1530	0.1970	397	301	393
04C150CT0XC0PWP	150	SM	51.6	8495	0.1240	0.1600	446	341	451
04C185CT0XC0PWP	185	SM	56.5	10245	0.0991	0.1290	503	390	521
04C240CT0XC0PWP	240	SM	64.3	13565	0.0754	0.9900	579	456	614
04C300CT0XC0PWP	300	SM	69.8	15620	0.0601	0.0810	649	513	702
04C400CT0XC0PWP	400	SM	75.9	19775	0.047	0.0641	725	584	810
04C500CT0XC0PWP	500	SM	83.4	24540	0.0366	0.0518	806	659	920

CU/XLPE/SWA/PVC 4 Cores with Reduced Neutral

Product Code	Conductor Size	Conductor Shape	Overall Diameter	Cable Weight	Max. Conductor Resistance		Current Ratings		
	(mm^2)		(mm)	(kg/km)	DC at 20 °C	AC at 90 °C	in Ground	in Duct	In Free Air
					Ω/Km	Ω/Km	A	A	A
3HC025CT0XC0PWP	25/16	SM/RM	26.2	1820	0.727/1.1500	0.927/1.4700	155	122	131
3HC035CT0XC0PWP	35/16	SM/RM	28.3	2210	0.524/1.1500	0.669/1.4700	186	146	162
3HC050CT0XC0PWP	50/25	SM	31.9	3030	0.387/0.7270	0.494/0.9270	225	171	197
3HC070CT0XC0PWP	70/35	SM	36.8	3880	0.268/0.5240	0.343/0.6690	275	210	257
3HC095CT0XC0PWP	95/50	SM	40.5	4925	0.193/0.3870	0.248/0.4940	349	259	335
3HC120CT0XC0PWP	120/70	SM	44.9	6480	0.153/0.2680	0.197/0.3430	395	296	386
3HC150CT0XC0PWP	150/70	SM	49.4	7665	0.124/0.2680	0.16/0.3430	442	338	442
3HC185CT0XC0PWP	185/95	SM	54.1	9145	0.0991/0.1930	0.129/0.2480	498	384	510
3HC240CT0XC0PWP	240/120	SM	60.0	12285	0.0754/0.1530	0.099/0.1970	575	449	602
3HC300CT0XC0PWP	300/150	SM	66.6	14530	0.601/0.1240	0.081/0.1600	644	507	689
3HC400CT0XC0PWP	400/185	SM	71.5	17405	0.047 / 0.0991	0.0641 / 0.1284	723	578	798
3HC500CT0XC0PWP	500/240	SM	79.3	21805	0.0366 / 0.0754	0.0518 / 0.0988	800	648	902

Installation Conditions for above ratings:
Ambient Air Temperature : 30°C
Ground Temperature : 20°C
Depth Of Laying : 0.50 Mt.
Soil Thermal Resistivity : 1.0 °C m/W

RM : Round, Stranded
SM : Sector, Stranded
SM/RM : Sector for Phase, Round for Neutral

The above dimensions are approximate and subject to manufacturing tolerance.

Technical Data Tables

STRANDED ALUMINUM

Multi Core
XLPE Insulated 0.6/1 KV

Applications:

For indoor and outdoor installations in damp and wet locations.
Where mechanical damage is expected to occur.
Maximum operating temperature: 90˚C

Construction:

1. CONDUCTOR
Aluminum, Stranded class 2

2. INSULATION
Cross-linked polyethylene [XLPE]

3. ARMOUR
Galvanized Round Steel Wire

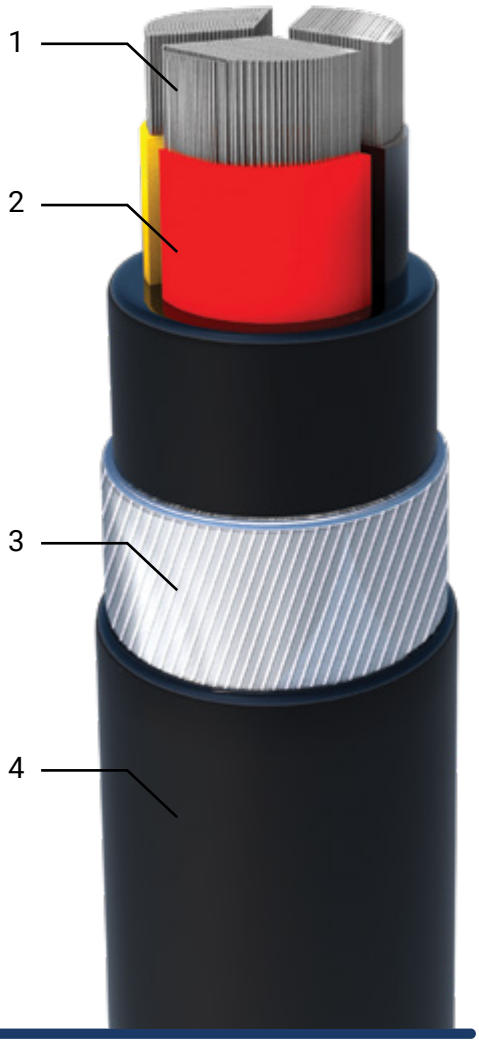
4. SHEATH
Polyvinyl Chloride [PVC]

Standards:

IEC 60502-1
IEC 60228

Rated Voltage:

0.6/1 kV



Technical Data Tables

AL/XLPE/SWA/PVC 2 Cores

Product Code	Conductor Size	Conductor Shape	Overall Diameter	Cable Weight	Max. Conductor Resistance		Current Ratings		
	(mm^2)		(mm)	(kg/km)	DC at 20 °C	AC at 90 °C	in Ground	in Duct	In Free Air
					Ω/Km	Ω/Km	A	A	A
02C016AT0XC0PWP	16	RM	20.9	680	1.91	2.45	113	82	94
02C025AT0XC0PWP	25	RM	24.9	940	1.2	1.54	146	108	125
02C035AT0XC0PWP	35	RM	27.0	1060	0.868	1.113	175	129	153
02C050AT0XC0PWP	50	RM	25.3	1240	0.641	0.822	208	155	186
02C070AT0XC0PWP	70	RM	28.2	1725	0.443	0.569	255	193	233
02C095AT0XC0PWP	95	RM	31.0	2035	0.32	0.411	306	233	286
02C120AT0XC0PWP	120	RM	41	2690	0.253	0.3251	348	268	331
02C150AT0XC0PWP	150	RM	44.6	3105	0.206	0.2651	389	302	376
02C185AT0XC0PWP	185	RM	50.6	4160	0.164	0.2114	439	347	434
02C240AT0XC0PWP	240	RM	56	4955	0.125	0.1618	509	405	512
02C300AT0XC0PWP	300	RM	61.4	5800	0.1	0.1302	574	462	588
02C400AT0XC0PWP	400	RM	68.2	6965	0.0778	0.1023	652	531	680

AL/XLPE/SWA/PVC 3 Cores

Product Code	Conductor Size	Conductor Shape	Overall Diameter	Cable Weight	Max. Conductor Resistance		Current Ratings		
	(mm^2)		(mm)	(kg/km)	DC at 20 °C	AC at 90 °C	in Ground	in Duct	In Free Air
					Ω/Km	Ω/Km	A	A	A
03C016AT0XC0PWP	16	RM	22.6	930	1.91	2.45	91	70	74
03C025AT0XC0PWP	25	SM	24.1	1110	1.2	1.54	119	92	98
03C035AT0XC0PWP	35	SM	26.2	1285	0.868	1.113	142	106	125
03C050AT0XC0PWP	50	SM	29.4	1550	0.641	0.822	180	130	160
03C070AT0XC0PWP	70	SM	34.0	2170	0.443	0.569	222	162	204
03C095AT0XC0PWP	95	SM	37.3	2600	0.32	0.411	266	196	250
03C120AT0XC0PWP	120	SM	40.7	3035	0.253	0.325	304	226	292
03C150AT0XC0PWP	150	SM	45.1	3960	0.206	0.265	338	257	332
03C185AT0XC0PWP	185	SM	49.8	4620	0.164	0.212	383	294	383
03C240AT0XC0PWP	240	SM	54.7	5610	0.125	0.163	445	343	455
03C300AT0XC0PWP	300	SM	60.0	7150	0.1	0.131	501	392	524
03C400AT0XC0PWP	400	SM	64.8	7430	0.0778	0.1023	573	454	616
03C500AT0XC0PWP	500	SM	73	9780	0.0605	0.0809	646	519	711

Installation Conditions for above ratings:
Ambient Air Temperature : 30°C
Ground Temperature : 20°C
Depth Of Laying : 0.50 Mt.
Soil Thermal Resistivity : 1.0 °C m/W

RM : Round, Stranded
SM : Sector, Stranded
SM/RM : Sector for Phase, Round for Neutral

The above dimensions are approximate and subject to manufacturing tolerance.

Technical Data Tables

AL/XLPE/SWA/PVC 4 Cores

Product Code	Conductor Size	Conductor Shape	Overall Diameter	Cable Weight	Max. Conductor Resistance		Current Ratings		
	(mm^2)		(mm)	(kg/km)	DC at 20 °C	AC at 90 °C	in Ground	in Duct	In Free Air
					Ω/Km	Ω/Km	A	A	A
04C016AT0XC0PWP	16	RM	24.2	1040	1.91	2.45	91	70	74
04C025AT0XC0PWP	25	SM	26.8	1300	1.2	1.54	120	90	105
04C035AT0XC0PWP	35	SM	29.4	1530	0.868	1.113	144	109	19
04C050AT0XC0PWP	50	SM	34.1	2090	0.641	0.822	185	135	169
04C070AT0XC0PWP	70	SM	38.2	2580	0.443	0.569	228	169	215
04C095AT0XC0PWP	95	SM	42.0	3220	0.32	0.411	272	202	262
04C120AT0XC0PWP	120	SM	47.0	4110	0.253	0.325	309	235	306
04C150AT0XC0PWP	150	SM	51.6	4790	0.206	0.265	348	266	352
04C185AT0XC0PWP	185	SM	56.5	5705	0.164	0.212	394	306	408
04C240AT0XC0PWP	240	SM	64.3	7510	0.125	0.163	456	359	483
04C300AT0XC0PWP	300	SM	69.8	8060	0.1	0.131	514	407	556
04C400AT0XC0PWP	400	SM	75.9	10255	0.0778	0.1023	585	471	653
04C500AT0XC0PWP	500	SM	83.4	12205	0.0605	0.0809	661	541	754

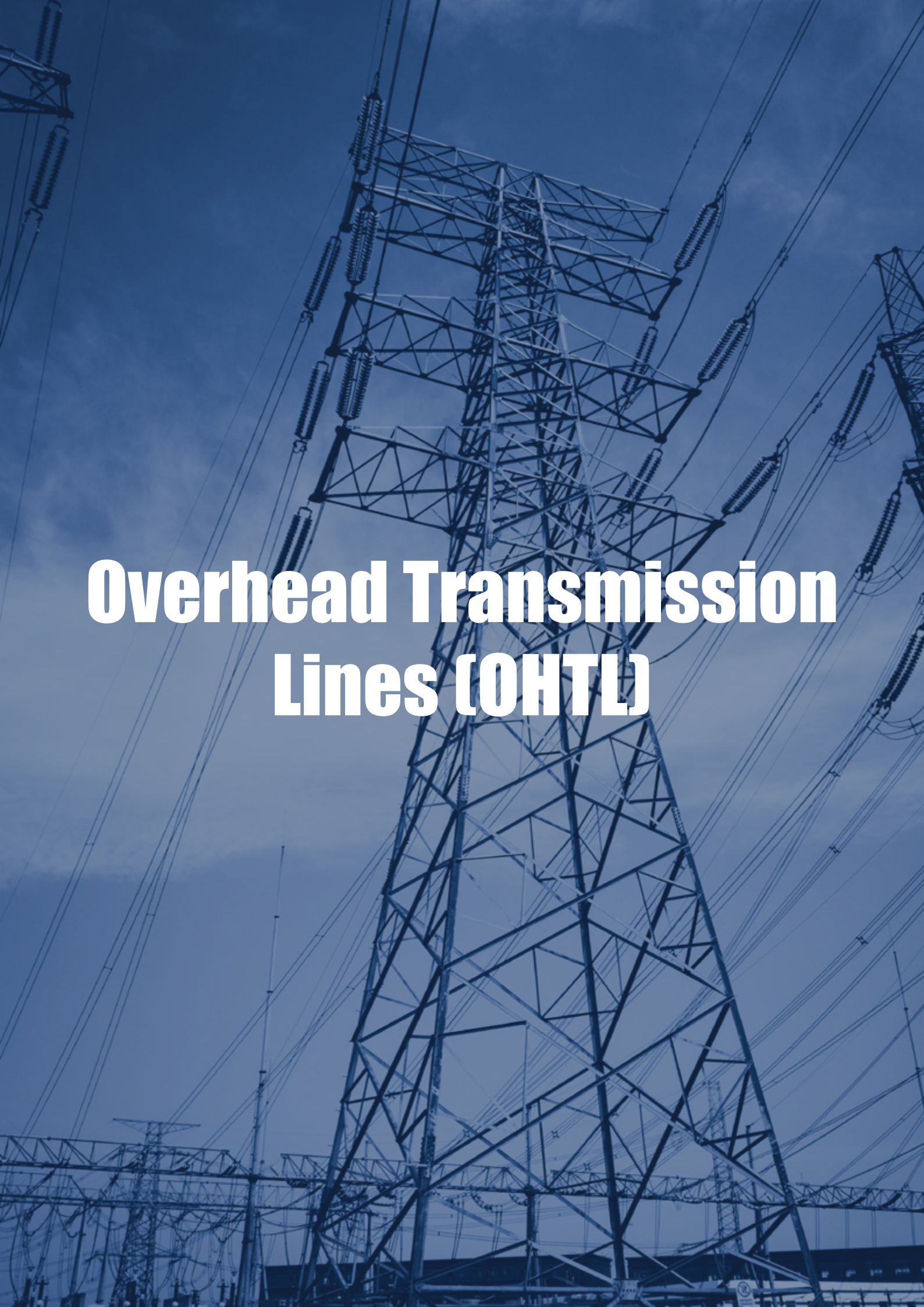
AL/XLPE/SWA/PVC 4 Cores with Reduced Neutral

Product Code	Conductor Size	Conductor Shape	Overall Diameter	Cable Weight	Max. Conductor Resistance		Current Ratings		
	(mm^2)		(mm)	(kg/km)	DC at 20 °C	AC at 90 °C	in Ground	in Duct	In Free Air
					Ω/Km	Ω/Km	A	A	A
3HC025AT0XC0PWP	25/16	SM/RM	26.2	1260	1.200/1.1910	1.5400/2.4500	119	92	98
3HC035AT0XC0PWP	35/16	SM/RM	28.3	1470	0.868/1.9100	1.1130/2.4500	143	107	127
3HC050AT0XC0PWP	50/25	SM	31.9	2005	0.641/1.2000	0.8220/1.5400	174	130	158
3HC070AT0XC0PWP	70/35	SM	36.8	2390	0.443/0.8680	0.5690/1.1130	214	163	200
3HC095AT0XC0PWP	95/50	SM	40.5	2880	0.32/0.6410	0.4110/0.8220	271	201	260
3HC120AT0XC0PWP	120/70	SM	44.9	3830	0.253/0.4430	0.3250/0.5690	308	231	300
3HC150AT0XC0PWP	150/70	SM	49.4	4480	0.206/0.4430	0.2650/0.5690	344	263	345
3HC185AT0XC0PWP	185/95	SM	54.1	5150	0.164/0.3200	0.2120/0.4110	390	301	399
3HC240AT0XC0PWP	240/120	SM	60.0	7020	0.125/0.2530	0.1630/0.3250	452	354	474
3HC300AT0XC0PWP	300/150	SM	66.6	7900	0.1000/0.2060	0.1310/0.2650	510	401	546
3HC400AT0XC0PWP	400/185	SM	71.5	9130	0.0778 / 0.164	0.1023 / 0.2115	582	466	642
3HC500AT0XC0PWP	500/240	SM	79.3	11080	0.0605 / 0.125	0.0809 / 0.1619	655	531	738

Installation Conditions for above ratings:
Ambient Air Temperature : 30°C
Ground Temperature : 20°C
Depth Of Laying : 0.50 Mt.
Soil Thermal Resistivity : 1.0 °C m/W

RM : Round, Stranded
SM : Sector, Stranded
SM/RM : Sector for Phase, Round for Neutral

The above dimensions are approximate and subject to manufacturing tolerance.



Overhead Transmission Lines (OHTL)

Overhead Transmission Lines (OHTL)

Description

OHTL are generally used for power transmission at long distances in open county and rural where it is considered the most economic method for transmission of large quantities of electric energy.

We can manufacture this category as per the applied reference standards either IEC , BS , ASTM ,DIN , NFC (for the ABC cables)

Our products

- Bare Soft Drawn Copper
- Bare Hard Drawn Copper
- All Aluminum Conductors (AAC)
- All Aluminum Alloy Conductors (AAAC)
- Aluminum Conductor Steel Reinforced (ACSR)
- Aerial Bundle Cables (ABC)

Overhead Transmission Lines (OHTL)

BARE COPPER CONDUCTORS

Bare Soft Drawn Stranded Copper Conductors

Application:

Soft drawn copper conductors are used for earthing electrical systems and equipment, where high conductivity, flexibility and easy handling during installation are required.

Construction

1. Conductor: Bare Copper

(Soft annealed copper wires stranded in successive layers, in opposite direction, to form the copper stranded conductor, it can be circular or circular compacted.

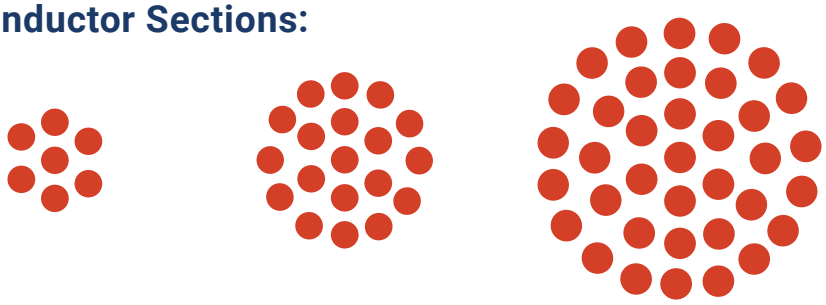
Applied Standard:

IEC 60228

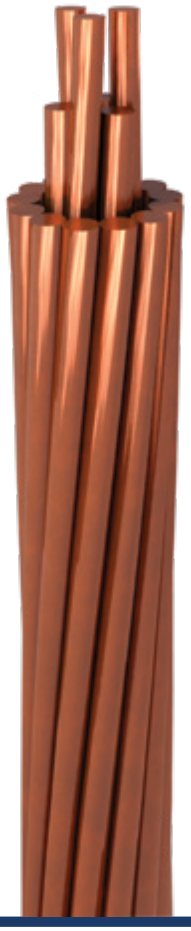
DC Resistance:

The DC resistance of soft annealed copper conductor are based on 100 % conductivity at 20°C with corresponding volume resistivity 1.7241 $x10^{-8}$ ohm.m. and temperature coefficient of resistance at 20°C equal 0.00393.

Conductor Sections:



7 STRANDS 19 STRANDS 37 STRANDS



Overhead Transmission Lines (OHTL)

Bare Soft Drawn Copper CU, Circular Compacted

Product Code	Conductor Size	Strands Number / Diameter	Approximate Overall Diameter	Max DC Resistance At 20°C	Approximate Conductor Weight
	mm^2	mm	mm	Ω/Km	Kg/Km
N01C001CT0000000	1	7x0.43	1.26	18.10	9
N01C01.5CT0000000	1.5	7x0.53	1.49	12.10	13
N01C002CT0000000	2	7x0.60	1.75	9.22	17
N01C02.5CT0000000	2.5	7x0.67	1.88	7.41	21
N01C003CT0000000	3	7x0.74	2.1	6.10	26
N01C004CT0000000	4	7x0.84	2.48	4.61	35
N01C006CT0000000	6	7x1.04	3.01	3.08	51
N01C010CT0000000	10	7x1.36	3.78	1.83	85
N01C016CT0000000	16	7x1.75	4.66	1.15	135
N01C025CT0000000	25	7x2.12	6.05	0.727	211
N01C035CT0000000	35	7x2.54	6.7	0.524	297
N01C050CT0000000	50	19x1.80	7.8	0.387	402
N01C070CT0000000	70	19x2.12	9.75	0.268	580
N01C095CT0000000	95	19x2.54	11.4	0.193	805
N01C120CT0000000	120	25x2.5	12.9	0.153	1035
N01C150CT0000000	150	30x2.54	14.3	0.124	1277
N01C185CT0000000	185	37x2.54	16	0.0991	1585
N01C240CT0000000	240	37x2.90	18.6	0.0754	2060
N01C300CT0000000	300	37x3.18	20.4	0.0601	2585
N01C400CT0000000	400	61x2.90	23.5	0.047	3330
N01C500CT0000000	500	61x3.18	26.95	0.0369	4330
N01C630CT0000000	630	91x2.90	32.8	0.0283	5540

Bare Soft Drawn Copper CU, Circular

Nominal Cross Section	Number & Nominal Wire diameter NRx	Approximate Overall Diameter	Approximate Conductor Weight	Max DC Resistance At 20 °C
mm^2	mm	mm	Kg/Km	Ω/Km
4	7x0.84	2.52	35	4.81
6	7x1.04	3.12	52	3.08
10	7x1.34	4.02	89	1.83
16	7x1.68	5.04	137	1.15
25	7x2.12	6.36	221	0.727
35	7x2.48	7.44	298	0.524
50	19x1.78	8.9	420	0.387
70	19x2.1	10.5	595	0.268
95	19x2.48	12.4	824	0.193
120	37x2.00	14	1050	0.153
150	37x2.22	15.54	1285	0.124
185	37x2.48	17.36	1610	0.0991
240	61x2.22	20	2144	0.0754
300	61x2.48	22.32	2680	0.0601
400	61x2.82	25.4	3565	0.047
500	61x3.17	28.8	4434	0.0366
630	91x3.00	31.95	5740	0.0283

The above data is approximate and subjected to manufacturing tolerance

Overhead Transmission Lines (OHTL)

Bare Hard Drawn Stranded Copper Conductors

Application:

Hard drawn copper conductors are used for overhead lines in transmission and distribution electrical networks.

Specifications:

Type: Bare Hard Copper

Standard:

DIN - 48201, Part 1

Conductor:

Hard drawn copper wires stranded in successive layer, in opposite direction, to form the copper stranded conductor.

DC Resistance:

The DC resistance of hard drawn copper conductors are based on 97% conductivity at 20°C with corresponding volume resistivity 1.777 $x10^{-8}$ ohm's and temperature coefficient of resistance at 20°C equal 0.00393

Bare Hard Drawn Copper CU, Circular

Nominal Cross Section	Number & Nominal Wire diameter	Approximate Overall Diameter	Approximate Conductor Weight	Max DC Resistance At 20°C	Calculated Breaking Load
mm^2	mm	mm	Kg/Km	Ω/Km	KN
10	7/1.35	4.05	89.82	1.829	3.752
14	7/1.60	4.80	126.2	1.303	5.267
16	3/2.65	5.70	148.3	1.106	6.194
16	7/1.70	5.10	142.4	1.154	5.946
25	7/2.10	6.30	217.3	0.7563	9.073
32	3/3.75	8.06	296.9	0.5520	12.400
32	7/2.46	7.38	298.2	0.5497	12.442
35	7/2.50	7.50	308.0	0.5337	12.860
50	7/3.00	9.00	443.5	0.3706	18.520
50	19/1.80	9.00	435.8	0.3819	17.700
70	7/3.55	10.65	621.1	0.2646	25.930
70	19/2.10	10.50	593.2	0.2806	24.090
95	19/2.50	12.50	840.7	0.1980	34.140
100	7/4.30	12.90	911.2	0.1810	36.540
120	19/2.80	14.00	1055	0.1578	42.830
125	19/2.90	14.50	1131	0.1471	45.940
150	19/3.20	16.00	1377	0.1208	55.940
150	37/2.25	15.75	1334	0.1264	53.880
185	19/3.55	17.75	1695	0.09815	68.860
185	37/2.50	17.50	1647	0.1024	66.490
240	61X2.25	20.3	2209	0.07528	97.230
300	61X2.5	22.5	2725	0.06097	120.040
400	61X2.89	26	3640	0.0456	160.42
500	61X2.23	29.1	4545	0.0365	200.380

The above data is approximate and subjected to manufacturing tolerance.

Overhead Transmission Lines (OHTL)

OVERHEAD CONDUCTORS
All Aluminum Conductors (AAC)

All aluminum conductor are the most favored type for use in the construction of relatively short span distribution schemes and are in common use on lines for voltage up to 60 kV.

Another frequent application for all Aluminum Conductors is in flexible busbar connections.

Although Aluminum to copper connections can be made, it is better to use aluminum conductors for service connections, as various forms of covered cable available for this purpose.

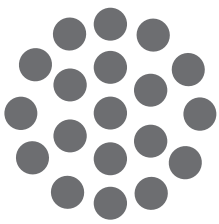
The data sheets show the most common sizes of conductor but other sizes, to any recognized standards or customer can also be supplied.

AAC insulated with XLPE or PVC can also be supplied as per customers requirements

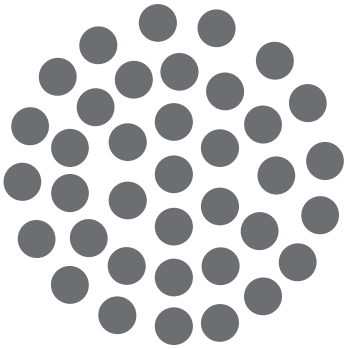
Conductor Sections:

3 STRANDS

7 STRANDS



19 STRANDS



37 STRANDS

Overhead Transmission Lines (OHTL)

AAC as per BS 50182 Germany AL1

Nominal Cross Sectional Area	Stranding & Wire Diameter	Conductor Diameter	DC Resistance At 20°C	Rated Strength	Mass Per Unit Length	Current carrying capacity
mm^2	mm	mm	Ω/Km	KN	Kg/Km	Amp
16	7X1.7	5.1	1.7986	3.02	43.4	110
25	7X2.1	6.3	1.1787	4.36	66.3	145
35	7X2.5	7.5	0.8317	6.01	93.9	180
50	7x3	9.0	0.5776	8.41	135.2	225
50	19X1.8	9.0	0.5944	8.94	132.9	225
70	19X2.1	10.5	0.4367	11.85	180.9	270
95	19X2.5	12.5	0.3081	16.32	256.3	340
120	19x2.8	14.0	0.2456	19.89	321.5	390
150	37X2.25	15.8	0.196	26.48	405.7	455
185	37X2.5	17.5	0.1588	31.78	500.9	520
240	61X2.25	20.3	0.1193	43.66	671.1	625
300	61X2.5	22.5	0.0966	52.4	828.5	710
400	61X2.89	26.0	0.0723	68.02	1107.1	855
500	61X3.23	29.1	0.0579	82.47	1382.9	990
625	91X2.96	32.6	0.0464	106.45	1739.7	1140
800	91x3.35	36.9	0.0362	132.34	2228.3	1340
1000	91X3.74	41.1	0.0291	159.95	2777.3	1540

Note!

Values of current rating are valid up to 60 Hz at a wind speed of 0.6 m/sec. and the effect of sun for ambient initial temperature of 35°C & an ultimate temperature of conductor 80°C

Direction of lay of external layer is right-hand and if requested can be left hand

Overhead Transmission Lines (OHTL)

AAC as per BS 50182 UK

Code Name	Nominal Cross Sectional Area	Stranding & Wire Diameter	Conductor Diameter	Mass Per unit Length	Rated Strength	DC Resistance At 20°C	Current carrying capacity
	mm^2	mm	mm	Kg/Km	KN	Ω/Km	Amp
MIDGE	23.3	7X2.06	6.18	63.8	4.2	1.2249	137
GNAT	26.9	7X2.21	6.63	73.4	4.83	1.0643	150
MOSQUITO	36.9	7X2.59	7.77	100.8	6.27	0.7749	183
LADYBIRD	42.8	7x2.79	8.37	117	7.28	0.6678	201
ANT	52.8	7x3.10	9.3	144.4	8.72	0.5409	230
FLY	63.6	7x3.40	10.2	173.7	10.49	0.4497	258
BLUEBOTTLE	73.6	7x3.66	11	201.3	11.78	0.388	284
EARWIG	78.6	7x3.78	11.3	214.7	12.57	0.3638	296
GRASSHOPPER	84.1	7x3.91	11.7	229.7	13.45	0.34	308
CLEGG	95.6	7x4.17	12.5	261.3	15.3	0.2989	335
WASP	106	7x4.39	13.2	289.6	16.95	0.2697	357
BEETLE	106.4	19x2.67	13.4	292.4	18.08	0.2701	358
BEE	132	7x4.90	14.7	360.8	21.12	0.2165	411
HORNET	157.6	19x3.25	16.3	433.2	26.01	0.1823	460
CATERPILLAR	185.9	19x3.53	17.7	511.1	29.75	0.1546	511
CHAFER	213.2	19x3.78	18.9	586	34.12	0.1348	558
SPIDER	237.6	19x3.99	20	652.9	38.01	0.121	597
COCKROACH	265.7	19x4.22	21.1	730	42.52	0.1081	641
BUTTERFLY	322.7	19x4.65	23.3	886.8	51.63	0.0891	725
MOTH	373.1	19x5.0	25	1025.3	59.69	0.077	795
DRONE	372.4	37x3.58	25.1	1027.1	59.59	0.0774	794
CENTIPEDE	415.2	37x3.78	26.5	1145.1	66.43	0.0695	850
MAYBUG	486.1	37x4.09	28.6	1340.6	77.78	0.0593	939
SCORPION	529.8	37x4.27	29.9	1461.2	84.77	0.0544	991
CICADA	628.3	37x4.65	32.6	1732.9	100.54	0.0459	1102

Values of current rating are valid up to 60 Hz at a wind speed of 0.6 m/sec. and the effect of sun for ambient initial temperature of 35°C & an ultimate temperature of conductor 80°C
Direction of lay of external layer is right-hand and if requested can be left hand

Overhead Transmission Lines (OHTL)

OVERHEAD CONDUCTORS
ALUMINUM-MAGNESIUM-SILICON ALLOY CONDUCTOR [AAAC]
All Aluminum Conductors (AAAC)

All Aluminum Alloy Conductors (AAAC) are widely used in overhead transmission and distribution lines due to their excellent combination of electrical conductivity, mechanical strength, and lightweight properties. These conductors are designed to provide a cost-effective and efficient solution for power transmission, offering enhanced performance compared to conventional aluminum conductors.

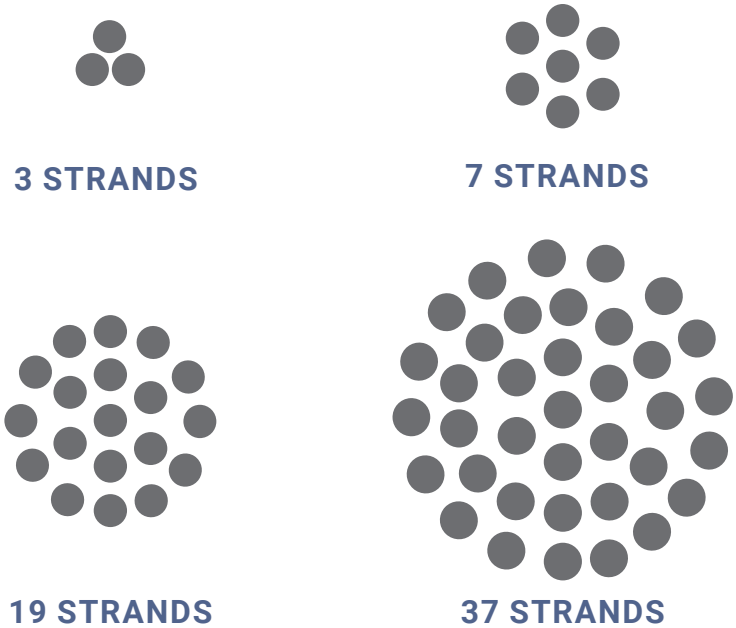
Material:

The wires shall be of heat-treated aluminum-magnesium-silicon alloy having a composition appropriate to the mechanical and electrical properties specified hereinafter for Type A and Type B respectively.

Key Features & Benefits:

- **High Conductivity:** Aluminum alloy conductors provide superior electrical performance with optimized resistance levels for efficient power transmission.
- **Lightweight:** Reduced weight compared to copper conductors allows for easier handling, installation, and reduced structural support requirements.
- **Corrosion Resistance:** Enhanced resistance to environmental factors ensures long-term reliability and durability, particularly in coastal and industrial areas.
- **Improved Mechanical Strength:** Higher tensile strength enhances resistance to mechanical stresses, ensuring better performance in extreme weather conditions.
- **Cost-Effective Solution:** A balance of performance and affordability makes aluminum alloy conductors a preferred choice for utility and industrial applications.

Conductor Sections:



Overhead Transmission Lines (OHTL)

Characteristics of aluminum alloy conductors used in Germany

Nominal Cross Sectional Area	Stranding & Wire Diameter	Conductor Diameter	DC Resistance At 20°C	Rated Strength	Mass Per Unit Length	Current carrying capacity
mm^2	mm	mm	Ω/Km	KN	Kg/Km	Amp
16	7X1.7	5.1	2.0701	4.69	43.4	105
25	7X2.1	6.3	1.3566	7.15	66.2	135
35	7X2.5	7.5	0.9572	10.14	93.8	170
50	7X3	9	0.6647	14.6	135.1	210
50	19X1.8	9	0.6841	14.26	132.7	210
70	19X2.1	10.5	0.5026	19.41	180.7	255
95	19X2.5	12.5	0.3546	27.51	256	320
120	19X2.8	14	0.2827	34.51	321.2	365
150	37X2.25	15.8	0.2256	43.4	405.3	425
185	37X2.5	17.5	0.1827	53.58	500.3	490
240	61X2.25	20.3	0.1373	71.55	670.3	585
300	61X2.5	22.5	0.1112	88.33	827.5	670
400	61X2.89	26	0.0832	118.04	1105.9	810
500	61X3.23	29.1	0.0666	147.45	1381.4	930
625	91X2.96	32.6	0.0534	184.73	1737.7	1 075
800	91X3.35	36.9	0.0417	236.62	2225.8	1 255
1000	91X3.74	41.1	0.0334	294.91	2774.3	1 450

Overhead Transmission Lines (OHTL)

Characteristics of aluminum alloy conductors used in the United Kingdom

Code	Nominal Cross Sectional Area	Stranding & Wire Diameter	Conductor Diameter	DC Resistance At 20°C	Rated Strength	Mass Per Unit Length	Current Carrying Capacity
	mm^2	mm	mm	Ω/Km	KN	Kg/Km	Amp
BOX	18.8	7X1.85	5.55	0 1.748	5.55	51.4	112
ACACIA	23.8	7X2.08	6.24	8 1.382	7.02	64.9	130
ALMOND	30.1	7X2.34	7.02	6 1.092	8.88	82.2	151
CEDAR	35.5	7X2.54	7.62	3 0.927	10.46	96.8	168
DEODAR	42.2	7X2.77	8.31	7 0.779	12.44	115.2	187
FIR	47.8	7X2.95	8.85	5 0.687	14.11	130.6	202
HAZEL	59.9	7X3.3	9.9	4 0.549	17.66	163.4	233
PINE	71.6	7X3.61	10.8	1 0.459	21.14	195.6	261
HOLLY	84.1	7X3.91	11.7	3 0.391	24.79	229.5	289
WILLOW	89.7	7X4.04	12.1	5 0.366	26.47	245	301
OAK	118.9	7X4.65	14	7 0.276	35.07	324.5	360
MULBERRY	150.9	19X3.18	15.9	2 0.219	44.52	414.3	420
ASH	180.7	19X3.48	17.4	0 0.183	53.31	496.1	471
ELM	211	19X3.76	18.8	8 0.156	62.24	579.2	51.9
POPLAR	239.4	37X2.87	20.1	7 0.138	70.61	659.4	562
SYCAMORE	303.2	37X3.23	22.6	5 0.109	89.4	835.2	654
UPAS	362.1	37X3.53	24.7	7 0.091	106.82	997.5	732
YEW	479	37X4.06	28.4	3 0.069	141.31	319.6 1	874
TOTARA	498.1	37X4.14	29	6 0.066	146.93	372.1 1	895
RUBUS	586.9	61X3.5	31.5	7 0.056	173.13	622.0 1	991
SORBUS	659.4	61X3.71	33.4	5 0.050	194.53	822.5 1	166
ARAUCARIA	821.1	61X4.14	37.3	6 0.040	242.24	269.4 2	1221
REDWOOD	996.2	61X4.56	41	4 0.033	293.88	753.2 2	1373

Overhead Transmission Lines (OHTL)

Aluminum Conductors Steel Reinforced (ACSR)

Construction

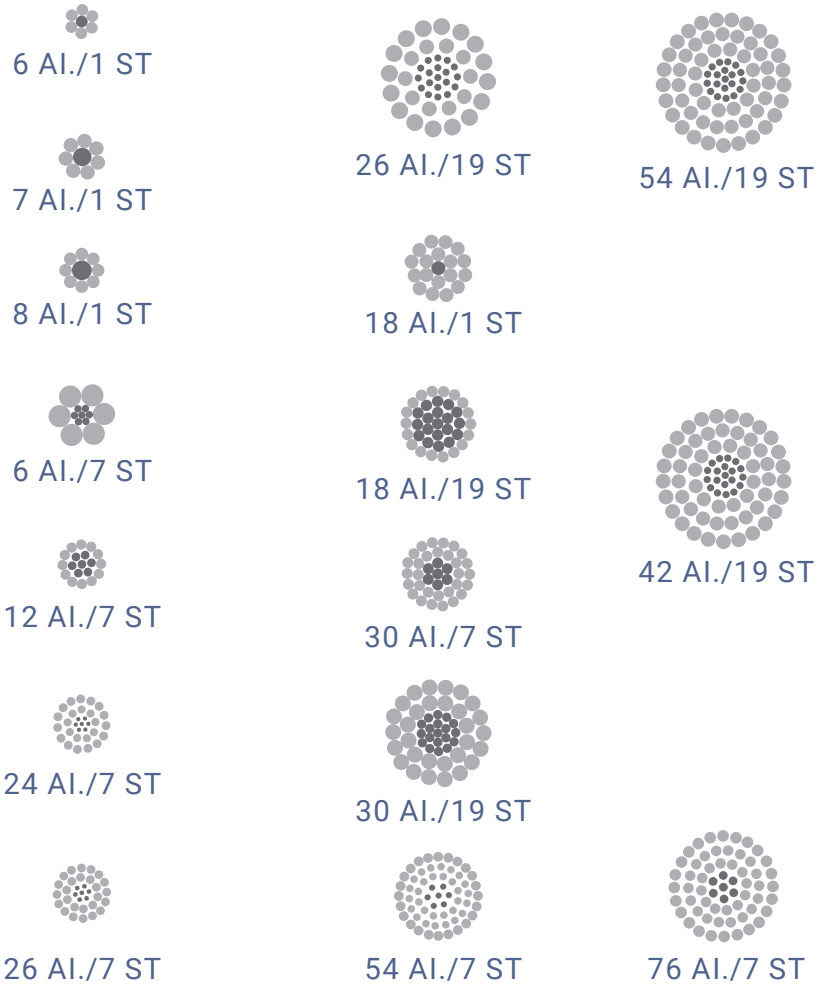
The mixed construction of ACSR makes it a very flexible medium from design point of view. By varying the relative proportion of aluminum (H14) And steel, the ideal conductor for any particular application can be produced generally, ACSR consists of a galvanized steel core of 1 wire, 7 wires or 19 wires surrounding by concentric layers of aluminum wire. When a conductor with a high current carrying capacity and comparatively Low strength required, special construction is available with a high aluminum content

Protection against corrosion

A coating of non- oxidizing grease is normally applied to steel cores of all conductors, in addition to the protection offered by the galvanizing of the steel wires. One or more layers of the aluminum wires can, if required, be supplied partially or fully greased.

BICC Cables ensures complete freedom from contamination by other metals during the entire manufacture of ACSR conductors

Conductor Sections:



Overhead Transmission Lines (OHTL)

ACSR as per BS 50182 GERMANY

Cross Sectional Area	Stranding & Wire Diameter		DC Resistance At 20°C	Rated Strength	Approximate Overall Diameter	Mass Per unit Length	Current Carrying Capacity
	AL	Steel					
mm^2	mm	mm	Ω/Km	KN	mm	Kg/km	Amp
16/2.5	6X1.8	1X1.8	1.876 9	5.8	5.4	61.6	105
25/4	6X2.25	1X2.25	1.201 2	8.95	6.75	96.3	140
35/6	6X2.7	1X2.7	0.834 2	12.37	8.1	138.7	170
44/32	14X2	7X2.4	0.657 4	44.24	11.2	369.3	-
50/8	6X3.2	1X3.2	0.593 9	16.81	9.6	194.8	210
50/30	12X2.33	7X2.33	0.564 4	42.98	11.7	374.7	-
70/12	26X1.85	7X1.44	0.413 2	26.27	11.7	282.2	290
95/15	26X2.15	7X1.67	0.306 0	34.93	13.6	380.6	350
95/55	12X3.2	7X3.2	0.299 2	77.85	16	706.8	-
105/75	14X3.1	19X2.25	0.274 2	105.82	17.5	885.3	-
120/20	26X2.44	7X1.9	0.237 6	44.5	15.5	491	410
120/70	12X3.6	7X3.6	0.236 4	97.92	18	894.5	-
125/30	30X2.33	7X2.33	0.226 0	56.41	16.3	587	425
150/25	26X2.7	7X2.1	0.194 0	53.67	17.1	600.8	470
170/40	30X2.7	7X2.7	0.168 3	74.89	18.9	788.2	520
185/30	26X3	7X2.33	0.157 1	65.27	19	741	535
210/35	26X3.2	7X2.49	0.138 1	73.36	20.3	844.1	590
210/50	30X3	7X3	0.136 3	92.46	21	973.1	610
230/30	24X3.5	7X2.33	0.125 0	72.13	21	870.9	630
240/40	26X3.45	7X2.68	0.118 8	85.12	21.8	980.1	645
265/35	24X3.74	7X2.49	0.109 5	81.04	22.4	994.4	680
300/50	26X3.86	7X3	0.094 9	105.09	24.4	1227.3	740
305/40	54X2.68	7X2.68	0.094 9	96.8	24.1	1151.2	740
340/30	48X3	7X2.33	0.085 2	91.71	25	1171.2	790
380/50	54X3	7X3	0.075 8	121.3	27	1442.5	840
385/35	48X3.2	7X2.49	0.074 9	102.56	26.7	1333.6	850
435/55	54X3.2	7X3.2	0.066 6	133.59	28.8	1641.3	900
450/40	48X3.45	7X2.68	0.064 4	119.05	28.7	1549.1	920
490/65	54X3.4	7X3.4	0.059 0	150.81	30.6	1852.9	960
495/35	45X3.74	7X2.49	0.058 4	117.96	29.9	1632.6	985
510/45	48X3.68	7X2.87	0.056 6	133.31	30.7	1765.3	995
550/70	54X3.6	7X3.6	0.052 6	166.32	32.4	2077.2	1020
560/50	48X3.86	7X3	0.051 5	146.28	32.2	1939.5	1040
570/40	45X4.02	7X2.68	0.050 6	136.4	32.2	1887.1	1050
650/45	45X4.3	7X2.87	0.044 2	156.18	34.4	2159.9	1120
680/85	54X4	19X2.4	0.042 6	206.56	36	2549.7	1150
1045/45	72X4.3	7X2.87	0.027 7	218.92	43	3248.2	1580

Overhead Transmission Lines (OHTL)

ACSR as per BS 50182 UK

Cross Sectional Area		Code Name	Stranding & Wire Diameter		Approximate Overall Diameter	DC Resistance At 20°C	Mass Per Unit length	Rated Strength	Current Carrying Capacity
Aluminum	Steel		AL	Steel					
mm^2			mm	mm	mm	Ω/Km	Kg/Km	KN	Amp
10.6	1.77	MOLE	6X1.5	1X1.5	4.5	2.7027	42.8	4.14	79
21.0	3.50	SQUIRREL	6X2.11	1X2.11	6.33	1.3659	84.7	7.87	122
26.2	4.37	GOPHER	6X2.36	1X2.36	7.08	1.0919	106	9.58	140
31.6	5.27	WEASEL	6X2.59	1X2.59	7.77	0.9065	127.6	11.38	158
36.7	6.11	FOX	6X2.79	1X2.79	8.37	0.7812	148.1	13.21	173
42.4	7.07	FERRET	6X3	1X3	9	0.6757	171.2	15.27	190
52.9	8.81	RABBIT	6X3.35	1X3.35	10.1	0.5419	213.5	18.42	219
63.1	10.5	MINK	6X3.66	1X3.66	11	0.454	254.9	21.67	245
63.2	36.9	SKUNK	12X2.59	7X2.59	13	0.4568	463	52.79	255
75.0	12.5	BEAVER	6X3.99	1X3.99	12	0.382	302.9	25.76	273
73.4	42.8	HORSE	12X2.79	7X2.79	14	0.3936	537.3	61.26	280
78.8	13.1	RACOON	6X4.09	1X4.09	12.3	0.3635	318.3	27.06	282
83.9	14.0	OTTER	6X4.22	1X4.22	12.7	0.3415	338.8	28.81	293
95.4	15.9	CAT	6X4.5	1X4.5	13.5	0.3003	385.3	32.76	318
105.0	17.5	HARE	6X4.72	1X4.72	14.2	0.273	423.8	36.04	338
105.0	13.6	DOG	6X4.72	7X1.57	14.2	0.2733	394	32.65	338
131.7	20.1	COYOTE	26X2.54	7X1.91	15.9	0.2192	520.7	45.86	417
131.5	7.31	COUGAR	18X3.05	1X3.05	15.3	0.2188	418.8	29.74	413
131.2	30.6	TIGER	30X2.36	7X2.36	16.5	0.2202	602.2	57.87	421
158.1	36.9	WOLF	30X2.59	7X2.59	18.1	0.1829	725.3	68.91	474
158.7	8.81	DINGO	18X3.35	1X3.35	16.8	0.1814	505.2	35.87	465
183.4	42.8	LYNX	30X2.79	7X2.79	19.5	0.1576	841.6	79.97	521
184.2	10.2	CARACAL	18X3.61	1X3.61	18.1	0.1562	586.7	40.74	512
212.1	49.5	PANTHER	30X3	7X3	21	0.1363	973.1	92.46	571
210.6	11.7	JAGUAR	18X3.86	1X3.86	19.3	0.1366	670.8	46.57	550
238.3	55.6	LION	30X3.18	7X3.18	22.3	0.1213	1 093.4	100.47	616
264.4	61.7	BEAR	30X3.35	7X3.35	23.5	0.1093	1 213.4	111.5	658
324.3	75.7	GOAT	30X3.71	7X3.71	26	0.0891	1 488.2	135.13	749
375.1	87.5	SHEEP	30X3.99	7X3.99	27.9	0.0771	1 721.3	156.3	822
374.1	48.5	ANTELOPE	54X2.97	7X2.97	26.7	0.0773	1 413.8	118.88	795
381.7	49.5	BISON	54X3	7X3	27	0.0758	1 442.5	121.3	806
429.6	100.2	DEER	30X4.27	7X4.27	29.9	0.0673	1 971.4	179	897
428.9	55.6	ZEBRA	54X3.18	7X3.18	28.6	0.0674	1 620.8	131.92	868
477.1	111.3	ELK	30X4.5	7X4.5	31.5	0.0606	2 189.5	198.8	959
476.0	61.7	CAMEL	54X3.35	7X3.35	30.2	0.0608	1 798.8	146.4	928
528.5	68.5	MOOSE	54X3.53	7X3.53	31.8	0.0547	1 997.3	159.92	992

Overhead Transmission Lines (OHTL)

Aerial Bundle Cables (ABC)

Aerial bundled cables (also aerial bundled conductors or simply ABC) are overhead power lines using several insulated phase conductors bundled tightly together where Aluminum conductor insulated by XLPE + 2.5% Carbon Black.

This category is manufactured from Aluminum Conductor (H14 insulated by XLPE insulation and assembled together to form two (Duplex), three (Triplex), four (Quadruplex) or more conductors

Aerial Bundle Cables

Conductor				Insulation (XLPE)	Assembly	
Cross Sectional Area	Stranding & Wire Diameter	Conductor Diameter	DC Resistance At 20°C	Insulation Thickness	Outer Diameter	Approximate Weight
mm^2	mm	mm	Ω/Km	mm	mm	Kg/Km
Two Conductors (Duplex)						
16	7/1.7	5.1	1.7986	0.7	13	117
25	7/2.1	6.3	1.1787	0.9	16.2	180
35	7/2.5	7.5	0.8317	0.9	18.6	243
50	7/3.0	9	0.5776	1	22	344
50	19/1.8	9	0.5944	1	22	339
70	19/2.1	10.5	0.4367	1.1	25.4	456
95	19/2.5	12.5	0.3081	1.1	29.4	623
120	19/2.8	14	0.2456	1.2	32.8	778
Three Conductors (Triplex)						
16	7/1.7	5.1	1.7986	0.7	14.0	175
25	7/2.1	6.3	1.1787	0.9	17.5	270
35	7/2.5	7.5	0.8317	0.9	20.1	365
50	7/3.0	9	0.5776	1	23.8	516
50	19/1.8	9	0.5944	1	23.8	509
70	19/2.1	10.5	0.4367	1.1	27.4	684
95	19/2.5	12.5	0.3081	1.1	31.8	935
120	19/2.8	14	0.2456	1.2	35.4	1167
Four Conductors (Quadruplex)						
16	7/1.7	5.1	1.7986	0.7	15.7	233
25	7/2.1	6.3	1.1787	0.9	19.6	360
35	7/2.5	7.5	0.8317	0.9	22.5	487
50	7/3.0	9	0.5776	1	26.6	688
50	19/1.8	9	0.5944	1	26.6	679
70	19/2.1	10.5	0.4367	1.1	30.7	912
95	19/2.5	12.5	0.3081	1.1	35.6	1246
120	19/2.8	14	0.2456	1.2	39.7	1556

Partners of Success

B-EN-PCC-FEB25

BICC CABLES

Cables Crafted With Trust

Egypt
Headquarter and Production Facilities
Abou Rawash Industrial Zone, Km 28 Cairo-Alexandria Desert Road, Giza, Egypt
(+20) 1200900952/3 ☎ (+202) 35390251 (2-3-4) - (+202) 35390255/6
info@bicccables.com bicccables.com

SCAN FOR WEBSITE & BRANCHES