رسكاب
RESCAB
RED SEA CABLES CO. شركة كابلات البحر الأحمر

Low Voltage Cables

About **RESCAB**

Red Sea Cables Company (RESCAB) was established as a closed joint stock company in 2008 in the Kingdom of Saudi Arabia with a capital of 370 million SAR. **RESCAB** is a member of Al-Abdullatif group of companies. The largest two shareholders in **RESCAB** are Al-Abdullatif Group Holding Company and Al-Abdullatif Industrial Investment Company.

RESCAB manufactures and distributes power cables and wires of all types and sizes and caters to the growing demand of the local market, as well as exports to other markets especially in neighboring countries.

RESCAB plant is located in Yanbu city in the Industrial Area of the Royal Commission of Jubail and Yanbu. The 100,000-square-meter plant is built with state-of-the-art international technologies and is based on best European know-how in the field of wire and cable production conforming to the international standards to manufacture products of highest quality.

RESCAB offers its products to various sectors like power, oil & gas, infrastructure, utilities, industries and residential sectors. The company is technically well equipped to adapt to special requirements in line with the progress in the field of wire and cable manufacturing technologies.

RESCAB has ISO: 9001:2008 certification.

RESCAB vision is to supply safe and reliable products complying with best quality standards, continually enhance product quality through efficient quality management systems and provide efficient after-sales service.

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Technical Information and Cable Construction

VOLTAGE DESIGNATION:

3-Phase Alternating Current transmission system is mostly used all over the World. The Rated Voltage of the Cable for a given application shall be suitable for the operating conditions in the system in which the cable is used. The design or Rated Voltage of the Cables is expressed in the form Uo/U (formerly Eo/E).

The Rated Voltage Uo/U (Um) of the Cables considered in this Catalogue are 0.6 / 1 (1.2) kV and 1.8 /3 (3.6) kV .

Uo= the Rated Power frequency Voltage between conductor and earth or metallic screen for which the Cable is designed.
U= the Rated Power frequency Voltage between conductors for which the Cable is designed.
Um= the maximum Value of the “highest system voltage” for which the equipment may be used with reference to IEC 60038.
It should be noted that in a system where an earth fault is not automatically and promptly isolated, the extra stress on the insulation of cables during the earth fault reduces the life of cable to a certain degree.

CONDUCTORS:

A conductor is a metallic current carrying component of the Cable. The conductors are in accordance with BS EN 60228. Plain Annealed soft drawn Copper conductors with Conductivity 100% IACS standard are usually used.

Aluminium Conductors are also being used due to the everyday increasing prices of Copper. The conductivity of Aluminum is 61% IACS standard.

RESCAB is using Electrolytic Copper in accordance with ASTM B-49 and Aluminium as per ASTM B-233 and producing both metal Conductors in accordance with BS EN 60228 for the manufacturing of Electric Cables.
The Conductors are designated with their Nominal area, minimum number of wires and Maximum D.C Resistance in BSEN 60228. RESCAB Cables are produced with the following classes and shapes of conductors in accordance with BSEN 60228:

Class I - Round solid conductors

Class II- Round stranded or, round Compacted or Shaped Stranded conductors

Class V- Round Flexible conductors.

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INSULATION:

The Conductors are insulated by the extruded dielectric materials like Polyvinyl Chloride (PVC) and Cross Linked Polyethylene (XLPE). Following Grades of Insulation are being used in RESCAB in accordance with EN BS 50363-3, BS 6346, BS 5467, BS 7655 and IEC 60502-1.

TI 1 or PVC/A – it is suitable for a continuous permissible conductor temperature of 70 deg C

TI 3 – it is suitable for a continuous permissible conductor temperature of 90 deg C.

XLPE (GP8) - it is suitable for a continuous permissible conductor temperature of 90 deg C.

Special Insulation material for Hazardous area application is available with LSFOH and fire retardant thermosetting insulation. All RESCAB Insulations are subjected to online SPARK testing Application in accordance with BS EN 62230 and BS 5099.

Ultraviolet (UV) stabilized Colors for sunlight protection are used for the identification of Phase and Neutral conductors; usually the color codes Red, Yellow, Blue are used for Phase, Black for **Neutral** and Green/Yellow for **Earth** conductor. Core Identification will be provided as per customer requirements.

The color codes are given as below:

No of Cores	Color code as per IEC 60502 - 1	Color code as per BS 5467, 6346 Latest
1	Red or Black	Brown or Blue
2	Red and Black	Brown and Blue
3	Red, Yellow and Blue	Brown, Black and Grey
4	Red, Yellow, Blue and Black	Blue, Brown, Black and Grey
5	Red, Yellow, Blue, Black and Green/ Yellow	Green/ Yellow, Blue, Brown, Black and Grey

ASSEMBLY:

The individual multi cores of cables are subject to core assembly and lay up together to form a reasonable circular shape. The Interstices between the cores are filled with Non-hygroscopic Polypropylene Strings fillers wherever required. Polypropylene binder tapes are applied helically to keep the assembled cores intact and also served as a separator between the insulation and inner sheath or separation sheath as applicable.

INNER COVERING AND BEDDING:

The inner covering and bedding is an extruded layer of PVC material provided above the Multi-Core assembly. It is compatible with the insulation material. PVC bedding is applied under the Armour (Steel wire or Alum wire.etc) in accordance with IEC 60502-1, BS 5467 and BS 6346. The application of Inner covering may be omitted in the construction of un-armoured cables and cables without collective metallic layer provided the outer shape of the cable remains practically circular and no adhesion occurs between cores and sheath.

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ARMOUR:

The Armouring is used usually for direct burial underground Cables. It may be used for Earthing and provides protection against mechanical damage. It consist of Aluminium wire, Aluminium tape, Galvanized Steel wire or Double Steel Tape Armour applied helically over the bedding in accordance with IEC 60502-1, BS EN 10257, BS 5467, BS 6346. Armouring for single core Cables will be Non-Magnetic.

OUTER SHEATH:

It is also known as Outer jacket of Cable and consists of a Black Extruded layer of PVC Type ST2 or Type 9 in accordance with IEC 60502-1, BS 5467 and BS 6346 respectively.
RESCAB Cables are having PVC outer sheath Fire Retardant to IEC 60332 -1. It can resists moisture, acid and alkaline content present in normal soil.
Special properties for Hazardous area or potentially explosive gas atmosphere and Fire Retardant application with minimum Oxygen Index 30 or more are available upon requirements.
Anti-Termite, Anti-Rodent, LSFOH, HDPE, MDPE, etc are also available.

RECOMMENDATIONS FOR INSTALLATION:

There are various methods and measures recommended for the installation of Low Voltage Cables. Some of them are given below:

• Cables should be installed and used in association with other equipment in accordance with BS 7671, 17th Edition.
• Un-armoured Cables are not recommended for direct burial application. They are usually used on cable Trays and in ducts.
• Armoured Cables are usually recommended for underground and under Road crossings applications.
• Care should be exercised during installation to avoid any mechanical damage or damage of Cable Coverings or outer sheath before and during the installation, recommended maximum pulling tension and pulling tooling to be used. This is important in wet or other aggressive environments.
• If Cables are to be installed in ducts, the correct size of duct should be used. Reference should be made to ERA publication 69-30, Part III.
• The cables should not be bent during installation to a radius smaller than the Minimum bending radius given below. Minimum bending radius during installation must be maintained larger wherever possible to avoid the damage of the cable.

Cable Type Armoured/Un-armoured	Cable Min. Bending Radius
Circular Copper Conductor	6D
Shaped Copper/ Aluminium Conductor	8D

D: Outer diameter of cable.

•The Protective End caps should not be removed from the Cable ends until immediately prior to termination or jointing especially for Cables that do not have extruded bedding. When the end caps have been removed the unprotected ends of the cable should not be exposed to moisture.
•It is to be noted that owing the absence of a metal sheath, all earth fault currents will return through the armour unless there is a parallel bonding connection to relieve them of some of the Fault current. In either event it is necessary to ensure that there is no discontinuity in the return current via armour and the resistance added by bonds and clamps is kept to a minimum.

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•The Cable support system should be such as to avoid damage or danger under normal or fault conditions. Bonding Clamps in joints should be electrically connected with a conducting material having conductance at least equal to that of the length of the armour it replaces, and with adequate thermal capacity to avoid excessive overheating under short circuit conditions, where excessive amount of short circuit current will flow in initial seconds. The type of jointing and filling compounds employed should be chemically compatible with the cable materials.
•It is recommended that the Cables to be installed only when both the cable and ambient temperature are above 0 degree C and have been so for the previous 24 hours, or where special precautions have been taken to maintain the cable above this temperature.

1.0 GENERAL BASIS OF AMPACITY DETERMINATION:

The Electric cables suffers electrical losses during service. These losses are usually referred as Ohmic and Induced Losses and generate heat in the conductor, insulation and metallic components. The heat evolved must be transmitted to the ambient Earth or Air.

The Ampacity or Current Rating of Cable is dependent on the way this heat is transmitted to the Cable surface and then dissipated to the sourrounding. Temperature is clearly an important factor and is expressed as a conductor temperature to establish a datum for the Cable itself. A maximum conductor temperature is fixed which is commonly the limit for the insulation material, without undue ageing, for a resonable maximum life then, by choosing a base ambient temperature for the sourroundings, a permissible temperature rise is available from which a maximum cable Ampacity can be calculated for a particular environment.

Under steady state conditions the difference between the conductor temperature and the external ground or ambient temperature is related to the total heat losses and the Law of heat flow is very similar to Ohm>s Law. Heat flow corresponds to Current, Tempearture difference to voltage and the total thermal resistance in the cable and sourroundings to Electrical resistance. Using this analogy it is possible to construct a circuit diagram as illustrated in **Fig.1**. This shows how the heat generated at several positions has to flow through a number of layers of different thermal resistances. By measuring values for the materials, Ampacity or current Ratings calculation can then be made.

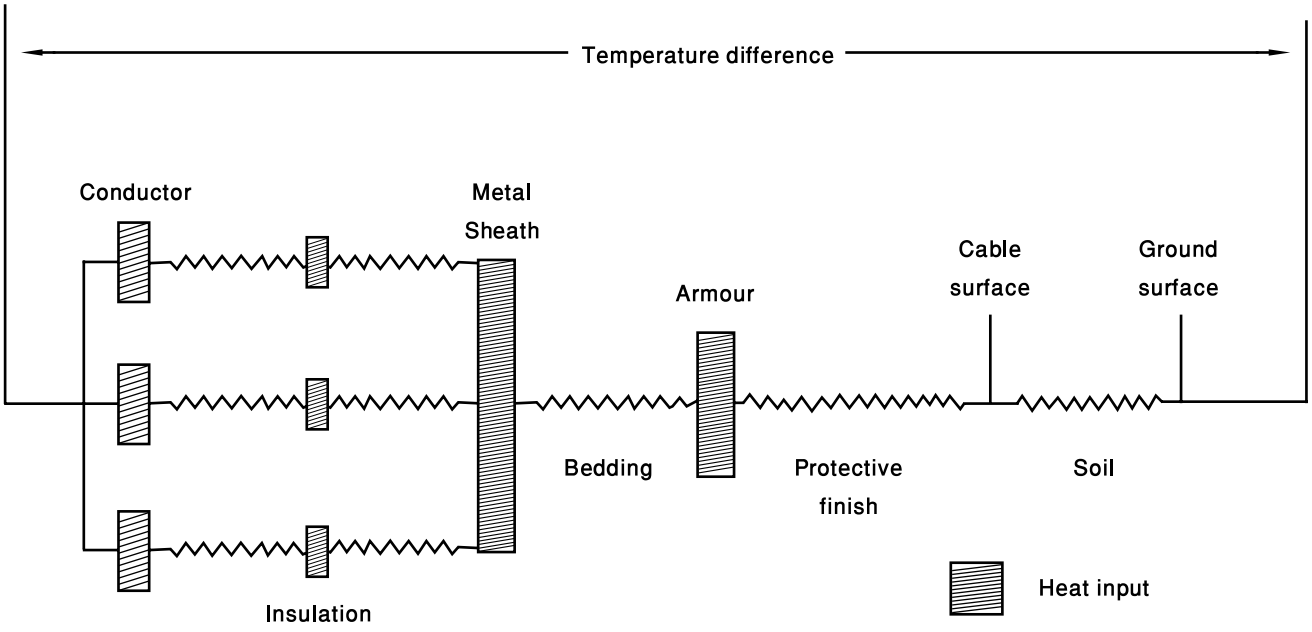

Fig. 1: Circuit Diagram to represnt heat generated in a 3-core Metal sheathed Cable.

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Thermal Resistivity is defined as the difference in temperature in Kelvin between opposite faces of a metre cube of material caused by the transference of 1 watt of heat hence the units K.m/W.

The flow within a cable is radial but externally it is not so and allowance must be made for the method of installation. **Fig2**, which shows the pattern of heat flow for three buried single-core cables, illustrates the importance of making allowance for the depth of burial and could be extended to show the effects of other cables in close proximity.

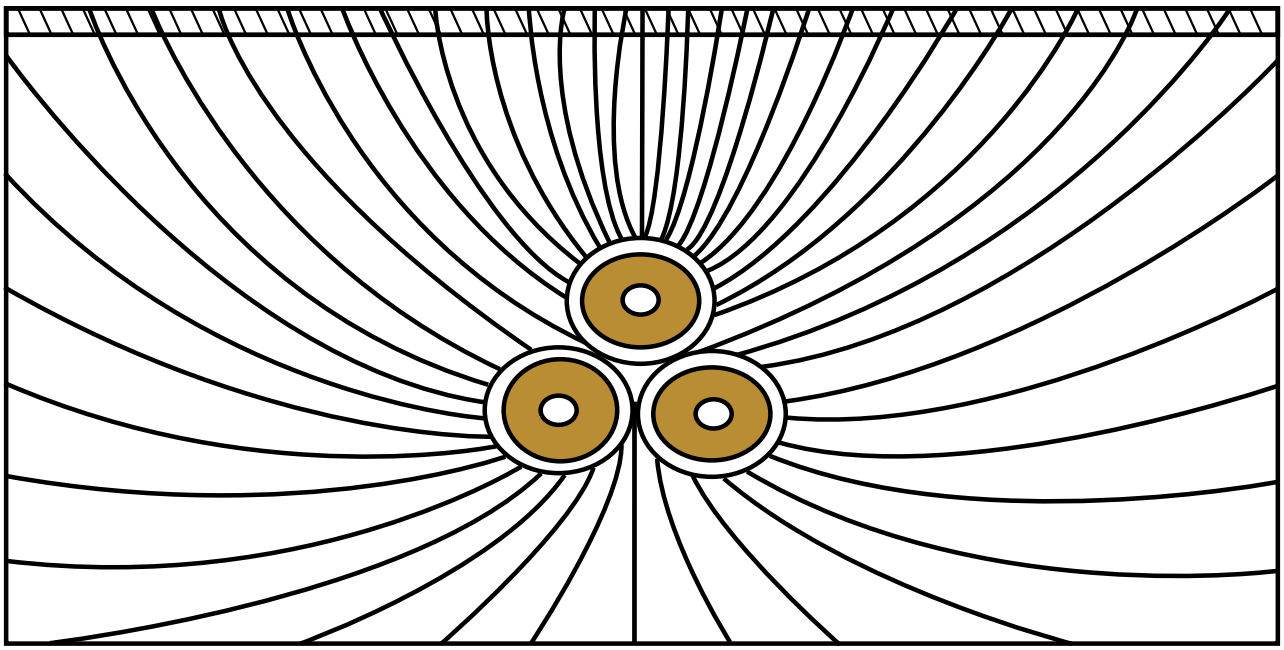

Fig. 2: Heat Flow from a circuit of single core Cables installed in trefoil.

Mathematical treatment is most conveniently expressed for steady state conditions, i.e. for continuous (sustained) ratings. A small cable in air will heat up very quickly to a steady state condition but a large buried power cable may take very many hours. Hence for most types of operation for supply distribution cables laid direct, the continuous ratings may be conservative and allowance can be made for cyclic operation.

(Fundamental formula for current computation):
The Heat generated by the temperature rise in the conductors (I2R), in the insulation (W) and in the metallic sheath and Armour (λI2R), with allowances being made by multiplying each of these by the thermal resistance of the layers through which the heat flows (T). IEC 60287 deals this in details. the general formula for a.c Cables can be given as follows:

$$\Delta\theta = \left(I^2R + \frac{1}{2}W_d\right)T_1 + \left[I^2R\left(1+\lambda_1\right)+W_d\right]nT_2 + \left[I^2R\left(1+\lambda_1+\lambda_2\right)+W_d\right]n\left(T_3+T_4\right)$$

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$\Delta\theta$ = Conductor temperature rise (K)
I = Current Flowing in one conductor (A)
R = Alternating resistance per unit length of the conductor at maximum operating temperature (Ω/m).
Wd = Dielectric loss per unit length for the insulation surrounding the conductor (W/m).
T1 = Thermal resistance per unit length between one conductor and metallic sheath (K.m/W).
T2 = Thermal resistance per unit length of the bedding between sheath and armor (K.m/W).
T3 = Thermal resistance per unit length of the external serving/ outer sheath of the cable (K.m/W).
T4 = Thermal resistance per unit length between the cable surface and the surrounding medium (K.m/W).
n = No. of load carrying conductors in the cable (conductors of equal size and carrying the same load).
$\lambda 1$ = Ratio of losses in the metal sheath to total losses in all conductors in that cable.
$\lambda 1$ = Ratio of losses in the armoring to total losses in all conductors in that cable.

The Formula may be written as follows to obtain the permissible current rating:

$$I = \left\{ \frac{\Delta\theta - W_d \left[\frac{1}{2} T_1 + n \left[T_2 + T_3 + T_4 \right] \right]}{RT_1 + nR(1+\lambda_1)\, T_2 + nR(1+\lambda_1+\lambda_2)(T_3 + T_4)} \right\}$$

Please note that the above formula only provides ratings for the prescribed representative conditions. it does not allow for heat generation from any other source, such as other cables in close proximity, or from exposure to direct solar radiation. We can refer to IEC 60287 for further details in this regard.

Conisdering a 4 core-600 / 1000 Volts Power Cable, '' n '' may be assumed to be 3 if the fourth conductor is neutral or is a protective conductor. this assumes that the neutral conductor is not carrying current, which is due to the presence of Harmonics. Where Triple harmonic currents, particularly the Third Harmonic, are present in a system they do not cancel in the neutral. This means that all four conductors will be loaded and measurements have shown that the current in the neutral conductor may be higher than 50Hz current in phase currents. Therefore, the use of Power cable with reduced neutral conductor usually known as $3^1/_2$ - core cable must be avoided.

Presently Electrical Engineers are using Neher - McGrath Calculating method, IEEE Stand Power Cable Ampacity Tables and IEC 60287 Group of Standard for computing the Ampacities of Electric Cables. Ampacity Tables are available in the catalogues of Cable Manufacturers are based on the same for many conductor sizes and various types of Cables. These Tables are designed to cover most common installation conditions.

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Cable design parameters and dimensions of cables are based on IEC 60502-1, which may have a slight variation in practical values applied in cable manufacturing to the best common Engineering practices.

Red Sea Cables Company (RESCAB) offers our standard products having PVC Insulation TypeTI-1 (70 Deg.C), Heat resistant PVC Type TI-3 (90 Deg.C)and Cross-linked Polyethylene XLPE (90 Deg.C).

The basis of the standard conditions is the climatic condition of the Kingdom of Saudi Arabia, having following details:

Ambient Air Temperature:	40 °C
Ambient Ground Temperature:	35 °C
Depth of laying in ground:	0.50 m
Soil Thermal Resistivity	1.2 K.m/W

For other Installation conditions or any value of different air/ground temperature, depth of laying, different soil thermal resistivity, the customer is advised to multiply the tabulated current rating by the de-rating factor values as in tables 1 to 5 for direct buried cables in ground and tables 7 to 10 for cables installed in ducts.

2.0 INSTALLATION CONDITIONS FOR DIRECT BURIAL CABLES

For a cable installed direct buried, the following tables will be used to calculate the current rates based on the actual soil thermal resistivity, Ground ambient temperature and the Depth of Laying.

Table 1: Rating Factors for Ground temperature variations

Ground Temperature	15°C	20°C	25°C	30°C	35°C	40°C	45°C	50°C	55°C
Cable Type									
PVC Insulated 70°C	1.25	1.20	1.13	1.07	1	0.93	0.85	0.76	0.65
PVC Insulated 90°C	1.17	1.13	1.09	1.04	1	0.95	0.90	0.85	0.80
XLPE Insulated	1.16	1.13	1.09	1.03	1	0.95	0.90	0.85	0.80

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Table 2: Rating Factors for depth of Laying (to center of cable or trefoil group of cables)

Depth of Laying (m)	upto 70 mm²	95 mm² to 240 mm²	300 mm² and bove
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	0.98
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

Table 3: Rating Factors for variations in thermal resistivity of soil (average values)

Size of Cables (mm)²	Soil Thermal Resistivity (°C m/W)						
	0.8	0.9	1.0	1.5	2.0	2.5	3.0
Single Core Cables							
Upto 150	1.16	1.12	1.07	0.91	0.81	0.73	0.66
From 185 to 300	1.17	1.12	1.07	0.91	0.80	0.73	0.66
From 400 to 1000	1.17	1.12	1.07	0.91	0.80	0.73	0.66
Multi Core Cables							
Upto 16	1.12	1.08	1.05	0.93	0.84	0.77	0.72
From 25 to 150	1.14	1.10	1.06	0.92	0.82	0.75	0.69
From 185 to 500	1.15	1.10	1.07	0.92	0.81	0.74	0.67

Table 4: Group rating factors for circuits of three single core cables in trefoil or laid flat touching, in horizontal formation

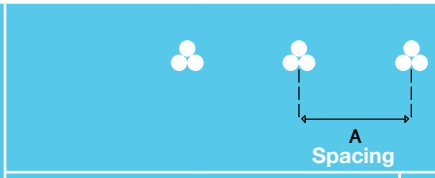
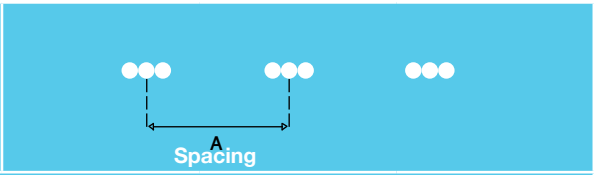
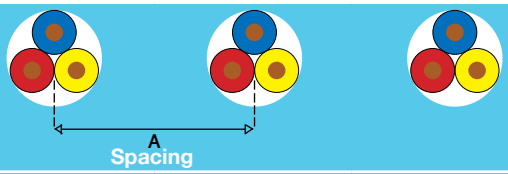
Number of circuits						
	Cables Touching		Cable to Cable Clearance A			
	Trefoil	Flat Laying	0.15 m	0.30 m	0.45 m	0.60 m
2	0.78	0.81	0.83	0.88	0.91	0.93
3	0.66	0.70	0.73	0.79	0.84	0.87
4	0.61	0.64	0.68	0.73	0.79	0.85
5	0.56	0.60	0.64	0.73	0.79	0.85
6	0.53	0.57	0.61	0.71	0.78	0.82

Table 5: Group rating Factors for multicore cables in Horizontal formation

Number of Cables in Group					
	Cable to Cable Clearance A				
	Touching	0.15 m	0.30 m	0.45 m	0.60 m
2	0.81	0.87	0.91	0.93	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

3.0 INSTALLATION CONDITIONS FOR CABLES IN DUCTS

A duct is an enclosure of metal or insulating material other than conduits or cable trunking, intended for the protection of cables which are drawn in after errection of the ducting. The recommended relation between the cable size and duct size is as in table 6.

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Table 6: Recommended duct dimensions and cable sizes:

Number of Cables in Group	DUCT	
	Inside Diameter (mm)	Outside Diameter (mm)
Upto and including 65	100	130
Above 65 upto 90	140	175

As the same principal of cables installed in direct burial methods above, the current carrying capacities of cables depends on the installed condition, the rating is calculated based on the values given on page 8.

The de-rating factors of other conditions should be considered to calculate the actual possible maximum current carrying capacity of the cables.

Tables 7 - 11 are for the factors to be multiplied by the tabulated current.

Table 7: Rating Factors for ground temperature variation

Ground Temperature	15°C	20°C	25°C	30°C	35°C	40°C	45°C	50°C	55°C
Cable Type									
PVC Insulated 70°C	1.25	1.20	1.13	1.07	1	0.93	0.85	0.76	0.65
PVC Insulated 90°C	1.17	1.13	1.09	1.04	1	0.95	0.90	0.85	0.80
XLPE Insulated	1.16	1.13	1.09	1.03	1	0.95	0.90	0.85	0.80

Table 8 : Rating Factors for variation in thermal resistivity of soil (average values)

Size of Cables (mm^2)	Soil Thermal Resistivity (°C m/W)						
	0.8	0.9	1.0	1.5	2.0	2.5	3.0
Single Core Cables							
Upto 150	1.10	1.07	1.04	0.94	0.86	0.80	0.76
From 185 to 300	1.11	1.08	1.05	0.93	0.85	0.79	0.75
From 400 to 1000	1.12	1.08	1.05	0.93	0.84	0.78	0.74
Multi Core Cables							
Upto 16	1.04	1.03	1.02	0.97	0.92	0.88	0.86
From 25 to 150	1.06	1.04	1.03	0.95	0.90	0.85	0.81
From 185 to 500	1.07	1.05	1.03	0.95	0.88	0.83	0.78

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Table 9 : Rating Factors of depth of Laying (to center of duct or trefoil group of ducts)

Depth of Laying of Cables (m)	Single Core Cables	Multi Core Cables
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
3.00 or more	0.85	0.91

Table10: Group rating factors for single core cables in trefoil single way ducts, horizontal formation (average values)

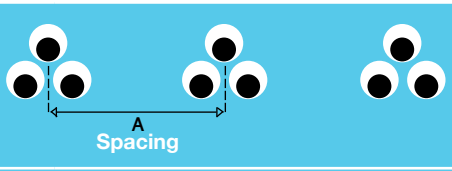
Number of Circuits			
	Cable to Cable Clearance A		
	Touching	0.45 m	0.60 m
2	0.87	0.91	0.93
3	0.78	0.84	0.87
4	0.74	0.81	0.85
5	0.70	0.79	0.83
6	0.69	0.78	0.82

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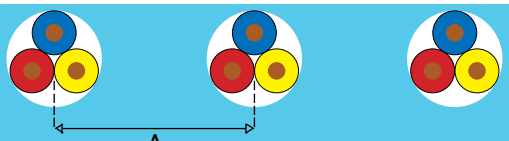
Table 11: Group rating factors for Multicore cables in single way ducts horizontal formation (average values)

Number of Cables in Group				
	Cable to Cable Clearance A			
	Cables 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
2	0.88	0.91	0.93	0.94
3	0.80	0.85	0.88	0.90
4	0.76	0.81	0.85	0.88
5	0.72	0.78	0.83	0.86
6	0.69	0.76	0.81	0.85

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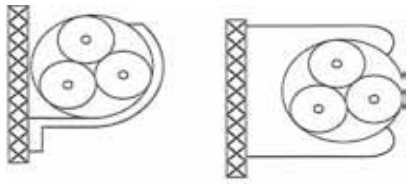
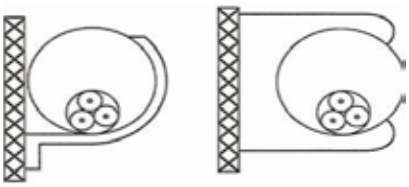
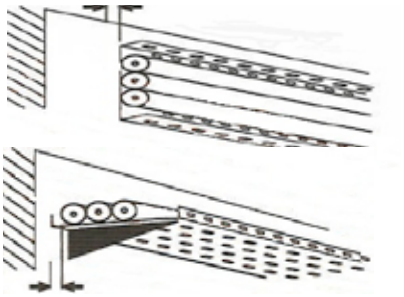
4.0 INSTALLATION CONDITIONS FOR CABLES IN AIR

Cables installed in air could have many forms of installation methods as described in BS 7671 IEE wiring regulation 17th edition. Some of these methods are like A or B (for cables on Trefoil format laying as in table 12) or like C or D (For cables Laid Flat vertically or horizontally as in table 12). It is assumed that the cables are not exposed to the direct sunlight and away from any external heat sources.

Table 12: Installation Method for Cables

Installation Method	Description	Current carrying Capacity Reference Method
	Single Core or multi core cables: Fixed on (Clipped direct) or space less than 0.3 times the cable diameter from a wall	**A**
	Multi Core cable in conduit, spaced less than 0.3 times conduit diameter	**B**
	Cables run horizontally or vertically flat on perforated tray For multi core cable De= Cable diameter, And for 3 single core cables De = 3 times cable diameter	**C OR D**

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Important note for Single core cables:

The conductors of an A.C. circuit installed in an Iron pipes or ferromagnetic enclosure shall be arranged so that all line conductors and the neutral conductor, if any, and the appropriate protective conductor are contained in the same enclosure.

When such conductors enter an Iron pipes or ferrous enclosure, they shall be arranged such that the conductors are only collectively surrounded by ferrous material.

Table 13: Rating factors for other ambient air temperatures

Air Temperature	25°C	30°C	35°C	40°C	45°C	50°C	55°C	60°C
Cable Type								
PVC Insulated 70°C	1.22	1.15	1.08	1.00	0.91	0.82	0.71	0.58
PVC Insulated 90°C	1.14	1.10	1.05	1.00	0.95	0.90	0.84	0.78
XLPE Insulated	1.14	1.10	1.05	1.00	0.95	0.90	0.84	0.78

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5.0 (AMPACITY OR CURRENT CARRYING CAPACITY)

Table 14: (Single Core cables with copper conductor, PVC 70°C insulated and PVC sheathed 0.6/ 1 K.V)

Conductor	Conductor Resistance			Current Carrying Capacity					
				In Ground			In Air		
Cross Sectional Area	DC at 20°C Maximum	AC at 70°C in Flat Formation	AC at 70°C in Trefoil Formation	Direct Laid (Flat)	Direct Laid (Trefoil)	In Duct	Free Flat	Free Trefoil	In Pipes
mm²	ohm/Km	ohm/Km	ohm/Km	amps	amps	amps	amps	amps	amps
1.5	12.1	14.5	14.5	25	24	18	20	18	15
2.5	7.41	8.87	8.87	33	31	24	27	23	19
4	4.61	5.52	5.52	42	41	31	36	31	25
6	3.08	3.69	3.69	53	51	39	46	40	32
10	1.83	2.19	2.19	70	68	52	62	54	43
16	1.15	1.38	1.38	91	87	67	83	71	56
25	0.727	0.87	0.87	116	112	87	109	94	73
35	0.524	0.627	0.627	140	134	104	135	116	89
50	0.387	0.463	0.464	166	158	125	164	141	107
70	0.268	0.321	0.322	204	194	154	208	179	134
95	0.193	0.232	0.232	245	233	186	259	222	163
120	0.153	0.184	0.185	279	264	212	301	258	188
150	0.124	0.150	0.151	313	296	238	345	296	213
185	0.0991	0.120	0.1215	354	334	270	399	343	243
240	0.0754	0.0922	0.0941	412	385	313	476	407	285
300	0.0601	0.0743	0.0767	466	433	353	551	469	324
400	0.0470	0.0593	0.0623	531	488	399	642	542	369
500	0.0366	0.0476	0.0513	603	546	449	747	624	417
630	0.0283	0.0386	0.0431	686	609	501	875	717	470

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Table 15: (Three and Four core cable with copper conductor, PVC 70°C insulated and PVC sheathed 0.6 / 1K.V)

Conductor	Conductor Resistance		In Ground			In Air		
			Unarmoured		Armoured	Unarmoured		Armoured
Cross Sectional Area	DC at 20°C Maximum	AC at 70°C	Direct Laid	Laid in Duct	Direct Laid	Free	In pipes Method A	Free
mm²	ohm/Km	ohm/Km	amps	amps	amps	amps	amps	amps
1.5	12.1	14.5	21	18	-	16	14	-
2.5	7.41	8.87	27	23	-	22	19	-
4	4.61	5.52	36	30	36	29	24	29
6	3.08	3.69	45	37	45	37	31	37
10	1.83	2.19	60	50	60	50	41	51
16	1.15	1.38	78	65	78	66	54	66
25	0.727	0.87	100	83	100	87	70	88
35	0.524	0.628	125	101	124	106	84	109
50	0.387	0.464	149	121	147	130	102	133
70	0.268	0.323	183	148	180	163	126	167
95	0.193	0.232	219	178	215	201	154	204
120	0.153	0.185	249	203	245	233	177	235
150	0.124	0.151	280	229	273	268	202	268
185	0.0991	0.121	315	259	306	308	230	305
240	0.0754	0.0939	364	301	349	364	269	355
300	0.0601	0.0764	409	339	387	417	306	401
400	0.0470	0.0619	465	386	428	485	352	454
500	0.0366	0.0507	520	441	468	554	406	506

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AMPACITY

Table 16: (Single Core cables with copper conductor, XLPE insulated and PVC sheathed, 0.6 / 1 K.V)

Conductor	Conductor Resistance			Current Carrying Capacity					
				In Ground			In Air		
Cross Sectional Area	DC at 20°C Maximum	AC at 90°C in Flat Formation	AC at 90°C in Trefoil Formation	Direct Laid (Flat)	Direct Laid (Trefoil)	In Duct	Free Flat	Free Trefoil	In Pipes
mm²	ohm/Km	ohm/Km	ohm/Km	amps	amps	amps	amps	amps	amps
1.5	12.1	15.2	15.2	31	30	22	27	22	19
2.5	7.41	9.45	9.45	40	39	29	36	29	24
4	4.61	5.88	5.88	52	50	38	47	38	32
6	3.08	3.93	3.93	65	63	47	60	49	40
10	1.83	2.33	2.33	87	83	63	82	66	54
16	1.15	1.47	1.47	112	107	82	109	88	70
25	0.727	0.927	0.927	144	137	105	145	116	92
35	0.524	0.668	0.669	172	165	127	178	143	112
50	0.387	0.494	0.494	204	195	151	218	175	134
70	0.268	0.342	0.343	251	238	187	277	222	168
95	0.193	0.247	0.248	301	286	225	344	274	205
120	0.153	0.196	0.197	345	327	258	409	326	237
150	0.124	0.159	0.160	385	363	290	461	367	269
185	0.0991	0.128	0.129	436	410	330	534	425	308
240	0.0754	0.098	0.100	507	447	382	638	505	361
300	0.0601	0.079	0.0815	573	532	431	740	583	411
400	0.0470	0.0629	0.0661	645	600	489	865	676	469
500	0.0366	0.0504	0.0543	744	673	550	1009	779	533
630	0.0283	0.0407	0.0453	847	752	615	1184	900	603

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Table 17: (Three and Four core cable with copper conductor, XLPE insulated and PVC sheathed, 0.6 / 1 KV)

Conductor	Conductor Resistance		In Ground			In Air		
			Unarmoured		Armoured	Unarmoured		Armoured
Cross Sectional Area	DC at 20°C Maximum	AC at 90°C	Direct Laid	Laid in Duct	Direct Laid	Free	In pipes	Free
mm²	ohm/Km	ohm/Km	amps	amps	amps	amps	amps	amps
1.5	12.1	15.4	27	22	-	22	18	-
2.5	7.41	9.45	35	29	-	29	24	-
4	4.61	5.88	45	37	46	38	31	39
6	3.08	3.93	56	46	57	48	39	50
10	1.83	2.33	76	62	76	67	52	67
16	1.15	1.47	98	80	98	88	68	89
25	0.727	0.927	128	104	128	118	90	120
35	0.524	0.669	157	125	158	142	107	149
50	0.387	0.494	187	149	188	175	129	182
70	0.268	0.343	229	183	229	220	161	229
95	0.193	0.248	276	220	274	272	196	280
120	0.153	0.197	313	251	310	316	226	322
150	0.124	0.160	350	283	346	363	258	368
185	0.0991	0.129	395	321	387	418	295	420
240	0.0754	0.0998	458	372	444	496	346	491
300	0.0601	0.0812	516	420	494	571	394	557
400	0.0470	0.0656	584	478	549	665	454	635
500	0.0366	0.0536	655	538	597	760	515	705

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AMPACITY

Table 18: (Single Core cables with Aluminium conductor, XLPE insulated and PVC sheathed, 0.6 / 1 K.V)

Conductor	Conductor Resistance			Current Carrying Capacity					
				In Ground			In Air		
Cross Sectional Area	DC at 20°C Maximum	AC at 90°C in Flat Formation	AC at 90°C in Trefoil Formation	Direct Laid (Flat)	Direct Laid (Trefoil)	In Duct	Free Flat	Free Trefoil	In Pipes
mm²	ohm/Km	ohm/Km	ohm/Km	amps	amps	amps	amps	amps	amps
16	1.91	2.45	2.45	87	83	63	85	68	54
25	1.2	1.54	1.54	111	107	82	112	90	71
35	0.868	1.113	1.113	133	128	98	138	111	87
50	0.641	0.822	0.822	158	151	117	169	135	104
70	0.443	0.568	0.569	194	185	145	215	172	131
95	0.32	0.411	0.411	233	222	175	266	213	159
120	0.253	0.325	0.325	266	252	201	312	249	184
150	0.206	0.265	0.265	298	282	226	357	285	209
185	0.164	0.211	0.212	339	320	257	416	332	241
240	0.125	0.161	0.163	395	371	300	497	396	283
300	0.100	0.130	0.131	448	419	340	578	459	324
400	0.0778	0.1016	0.1037	514	479	390	681	540	375
500	0.0605	0.0799	0.0826	590	546	446	801	631	432
630	0.0469	0.0632	0.0666	681	621	509	954	746	498

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AMPACITY

Table 19: (Three and Four core cable with Aluminium conductor, XLPE insulated and PVC sheathed, 0.6/ 1 KV)

Conductor	Conductor Resistance		In Ground			In Air		
			Unarmoured		Armoured	Unarmoured		Armoured
Cross Sectional Area	DC at 20°C Maximum	AC at 90°C	Direct Laid	Laid in Duct	Direct Laid	Free	In pipes	Free
mm²	ohm/Km	ohm/Km	amps	amps	amps	amps	amps	amps
16	1.91	2.45	76	62	76	68	53	69
25	1.20	1.54	99	81	99	92	70	93
35	0.868	1.113	121	96	122	110	83	115
50	0.641	0.822	145	116	146	136	100	141
70	0.443	0.569	178	142	178	171	125	178
95	0.320	0.411	214	171	213	211	152	218
120	0.253	0.325	243	195	242	246	176	252
150	0.206	0.265	272	220	270	282	200	288
185	0.164	0.212	309	250	305	326	230	331
240	0.125	0.163	359	282	352	388	271	390
300	0.100	0.131	406	331	395	449	310	445
400	0.0778	0.1034	466	381	447	530	362	516
500	0.0605	0.0822	529	434	497	614	416	586

Technical Information

6.0 Voltage Drop

Voltage drop is one the important factor to be considered for cable selection. According to BS 7671 IEE Wiring Regulation 17th edition under normal service conditions the voltage at the terminals of any fixed current-using equipment shall be greater than the lower limit corresponding to the product standard relevant to the equipment and where fixed current using equipment is not the subject of product standard the voltage at the terminals shall be such as not to impair the safe functioning of the equipment.

Table 20: (Approximate voltage drop at 60 Hz for single core stranded plain Copper/ Aluminium conductors, PVC insulated, PVC sheathed).

Nominal Area of Conductor	Copper Conductor mV/ amp/ m		Aluminium Conductor mV/ amp/ m	
	PVC Rated 70° C	PVC Rated 70° C	PVC Rated 70° C	PVC Rated 70° C
mm²	Flat	Trefoil	Flat	Trefoil
1.5	22.6	22.5	-	-
2.5	13.9	13.8	-	-
4	8.70	8.70	-	-
6	5.80	5.80	-	-
10	3.50	3.50	-	-
16	2.30	2.20	3.70	3.70
25	1.50	1.50	2.40	2.30
35	1.10	1.10	1.70	1.70
50	0.83	0.82	1.30	1.30
70	0.61	0.6	0.94	0.92
95	0.47	0.45	0.71	0.69
120	0.39	0.38	0.58	0.56
150	0.34	0.33	0.49	0.48
185	0.29	0.28	0.41	0.4
240	0.25	0.24	0.34	0.33
300	0.22	0.21	0.29	0.28
400	0.2	0.18	0.25	0.24
500	0.18	0.17	0.22	0.21
630	0.16	0.15	0.19	0.18

Technical Information
Voltage Drop

Table 21: (Approximate voltage drop at 60 Hz for Three and Four core stranded plain copper/ aluminium conductors, PVC insulated, PVC sheathed).

Nominal Area of Conductor	Copper Conductor	Aluminium Conductor
	mV/ amp/ m	mV/ amp/ m
mm²	PVC Rated 70 °C	PVC Rated 70 °C
1.5	22.6	-
2.5	13.8	-
4	8.60	-
6	5.80	-
10	3.50	-
16	2.20	3.60
25	1.40	2.30
35	1.10	1.70
50	0.80	1.30
70	0.58	0.91
95	0.44	0.68
120	0.37	0.55
150	0.32	0.47
185	0.27	0.39
240	0.23	0.32
300	0.20	0.27
400	0.18	0.23
500	0.15	0.2

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Voltage Drop

Table 22: (Approximate voltage drop at 60 Hz for single core stranded plain copper/ aluminium conductors, XLPE insulated, PVC sheathed).

Nominal Area of Conductor	Copper Conductor mV/ amp/ m		Aluminium Conductor mV/ amp/ m	
	XLPE Rated 90°C	XLPE Rated 90°C	XLPE Rated 90°C	XLPE Rated 90°C
mm²	Flat	Trefoil	Flat	Trefoil
1.5	22.9	22.8	-	-
2.5	14.1	14.1	-	-
4	8.80	8.70	-	-
6	5.90	5.90	-	-
10	3.60	3.60	-	-
16	2.30	2.30	3.70	3.70
25	1.50	1.50	2.40	2.40
35	1.10	1.10	1.80	1.70
50	0.84	0.83	1.30	1.30
70	0.61	0.6	0.95	0.93
95	0.47	0.46	0.71	0.7
120	0.39	0.38	0.58	0.57
150	0.34	0.33	0.5	0.48
185	0.29	0.28	0.42	0.4
240	0.25	0.24	0.34	0.33
300	0.22	0.21	0.29	0.28
400	0.19	0.18	0.25	0.24
500	0.17	0.16	0.22	0.21
630	0.16	0.15	0.19	0.18

Technical Information

Voltage Drop

Table 23: (Approximate voltage drop at 60 Hz for Three and Four core stranded plain copper/ aluminium conductors, XLPE insulated, PVC sheathed).

Nominal Area of Conductor	Copper Conductor	Aluminium Conductor
	mV/ amp/ m	mV/ amp/ m
mm²	XLPE Rated 90° C	XLPE Rated 90° C
1.5	22.8	-
2.5	14	-
4	8.70	-
6	5.90	-
10	3.50	-
16	2.20	3.70
25	1.50	2.40
35	1.10	1.70
50	0.81	1.30
70	0.58	0.92
95	0.44	0.68
120	0.37	0.56
150	0.31	0.47
185	0.27	0.39
240	0.23	0.32
300	0.2	0.27
400	0.18	0.23
500	0.15	0.2

Technical Information

7.0 (Short Circuit Rating - Conductors)

Short circuit rating is based on, IEC 60724. for an insulated conductor with operating temperature of 70 °C for PVC and 90 °C for XLPE, the maximum temperature during the fault is 140 °C or 160 °C for PVC insulated cables, small sizes and big sizes respectively, and up to 250 °C for XLPE cables.

Tables 24 and 25 represents the short circuit current rating at duration of fault time equal to 1 second. For any other values graph 1,2,3 and 4 may be used.

Table 24: (PVC Insulated 70 °C type TI-1 or 90 °C type TI-3) cables copper and Aluminium conductor).

Conductor Size	Short circuit ratings for 1 second in k amp	
	Copper Conductor	Aluminium Conductor
10	1.03	0.68
16	1.65	1.09
25	2.58	1.7
35	3.60	2.38
50	5.15	3.40
70	7.21	1.76
95	9.79	6.46
120	12.36	8.16
150	15.45	10.2
185	19.1	12.6
240	24.72	16.32
300	34.5	22.8
400	46.00	30.4
500	57.5	38.0
630	72.45	47.88
800	92.0	60.8
1000	115	76.00

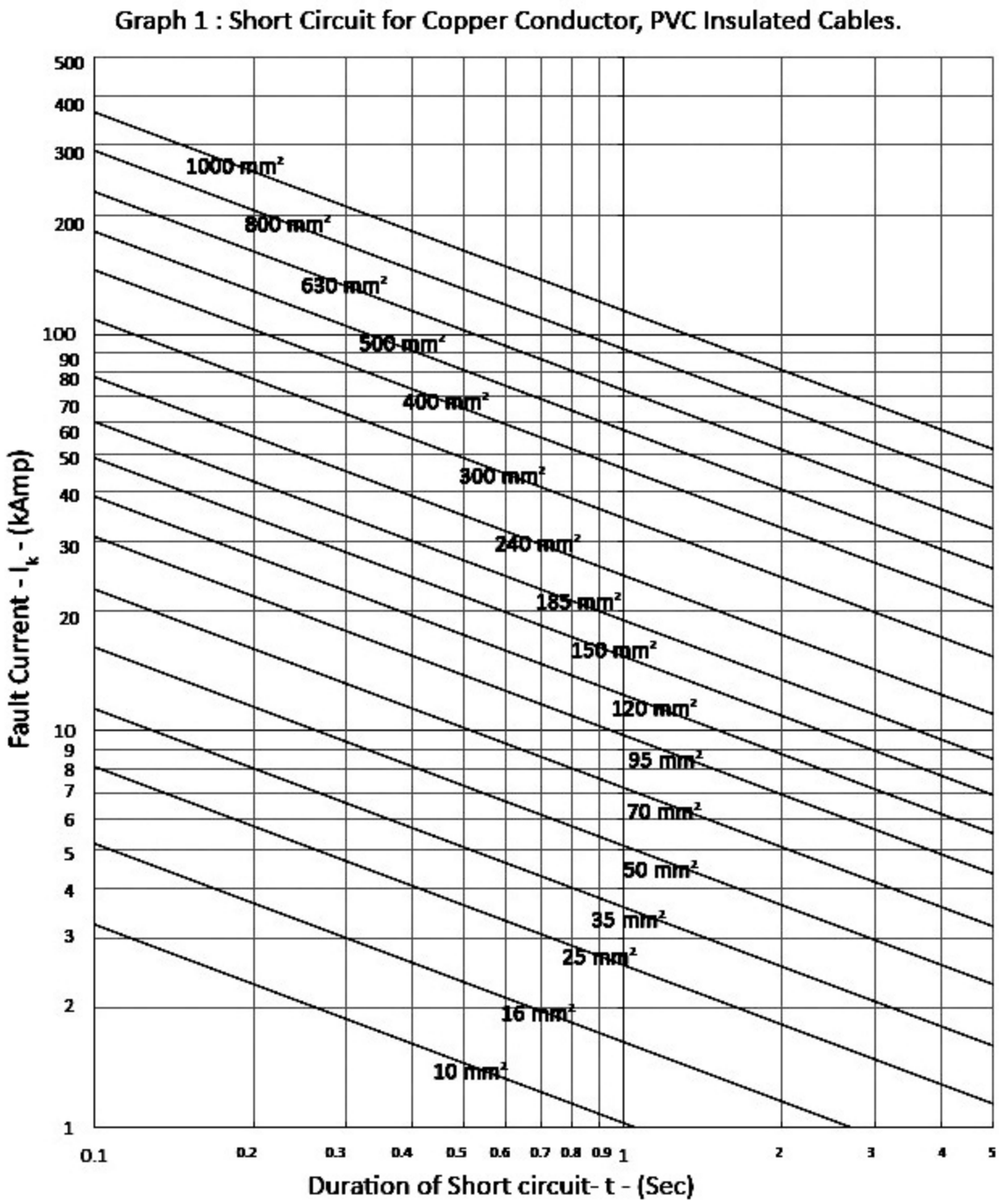
Technical Information
Short Circuit Rating - Conductors

Table 25: XLPE cables copper and Aluminium conductor.

Conductor Size	Short circuit ratings for 1 second in k amp	
	Copper Conductor	Aluminium Conductor
10	1.43	0.94
16	2.29	1.50
25	3.58	2.35
35	5.00	3.29
50	7.15	4.70
70	10.01	6.58
95	13.59	8.93
120	17.16	11.28
150	21.45	14.10
185	26.46	17.39
240	34.32	22.56
300	42.90	28.20
400	57.20	37.60
500	71.5	47
630	90.09	59.22
800	114.40	75.20
1000	143.00	94.00

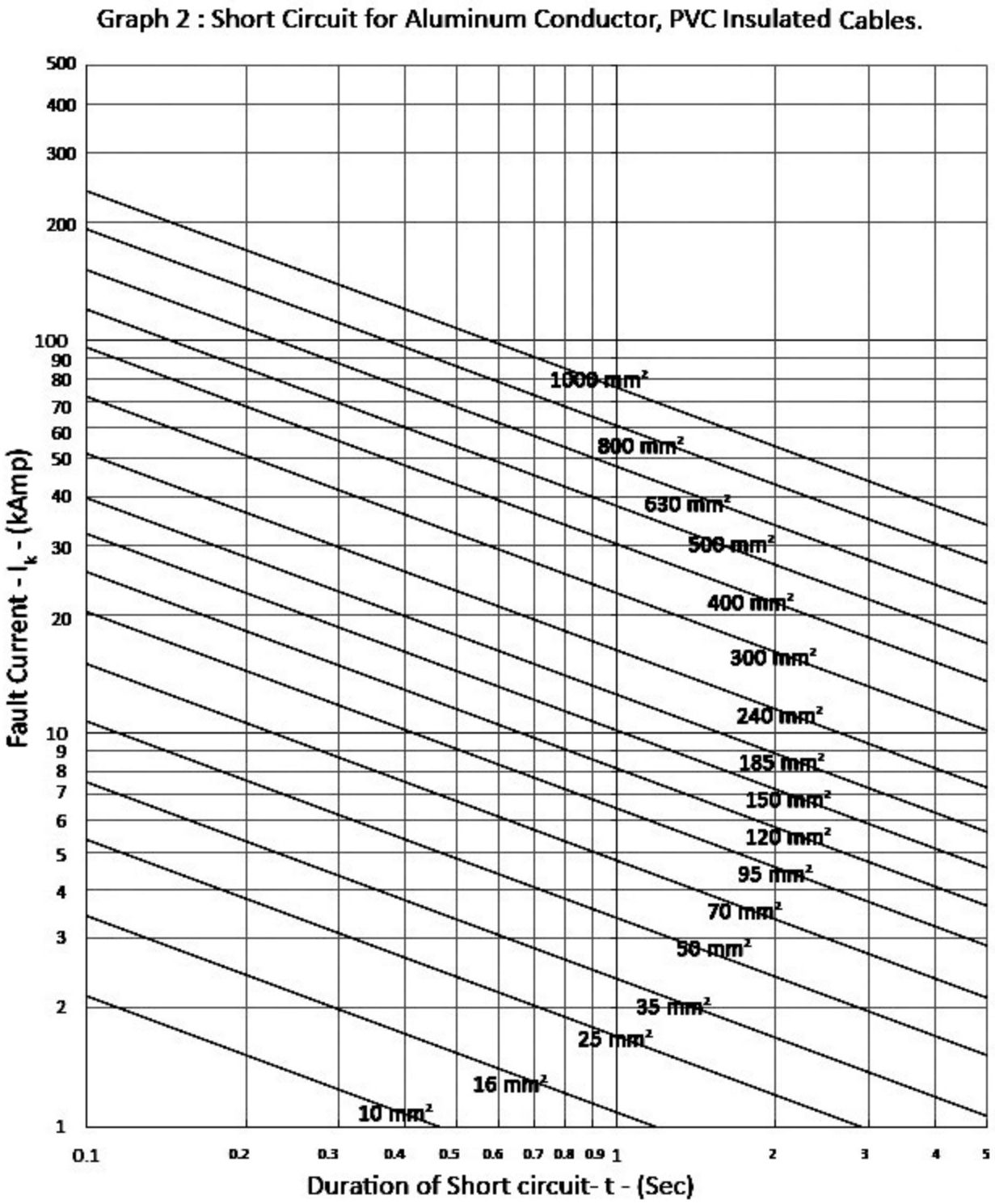
Technical Information
Short Circuit Rating - Conductors

Graph 1: PVC (70 °C type) insulated cables short circuit (Copper Conductor)



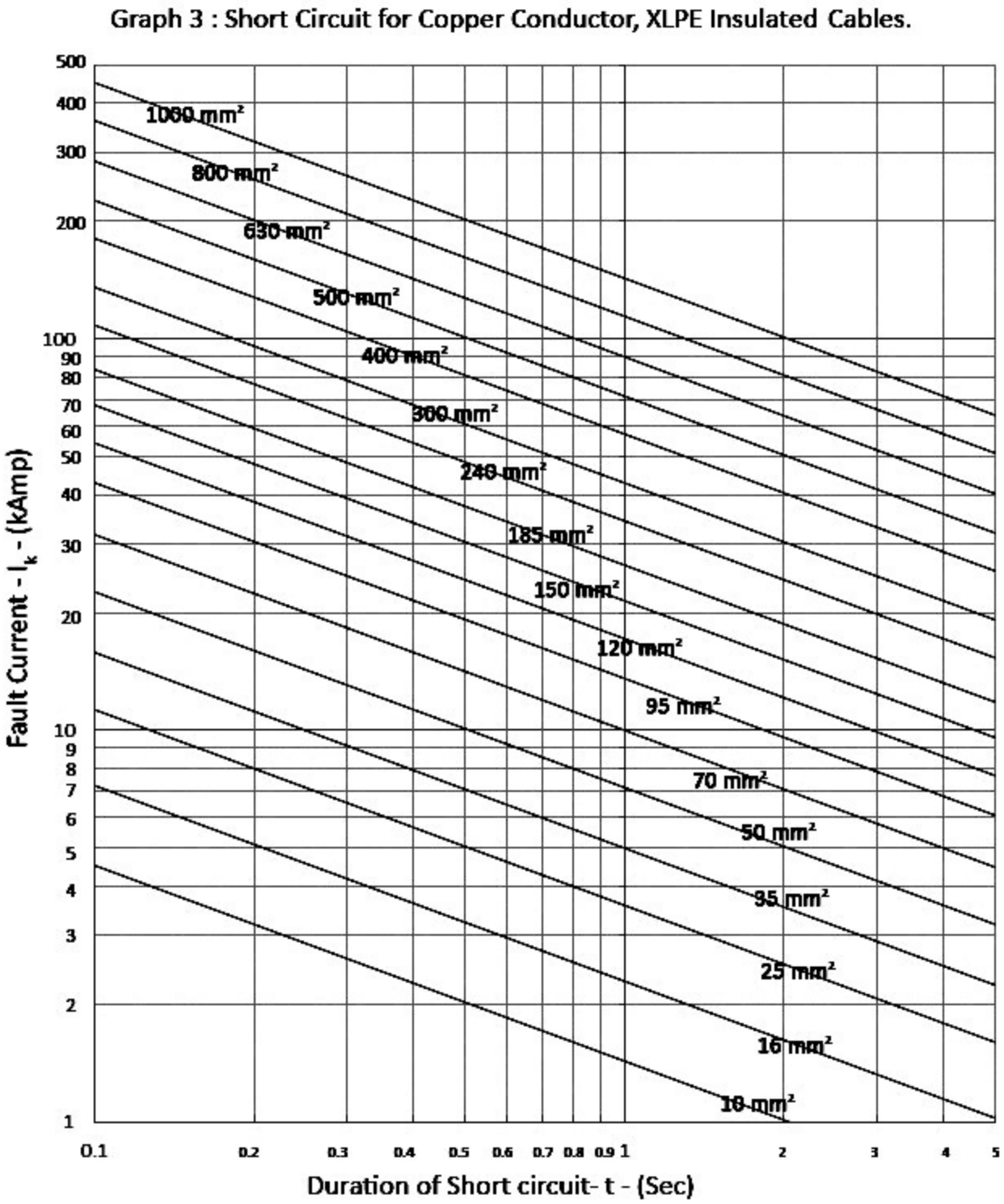
Technical Information
Short Circuit Rating - Conductors

Graph 2: PVC (70 °C type) insulated cables short circuit (Aluminium Conductor)



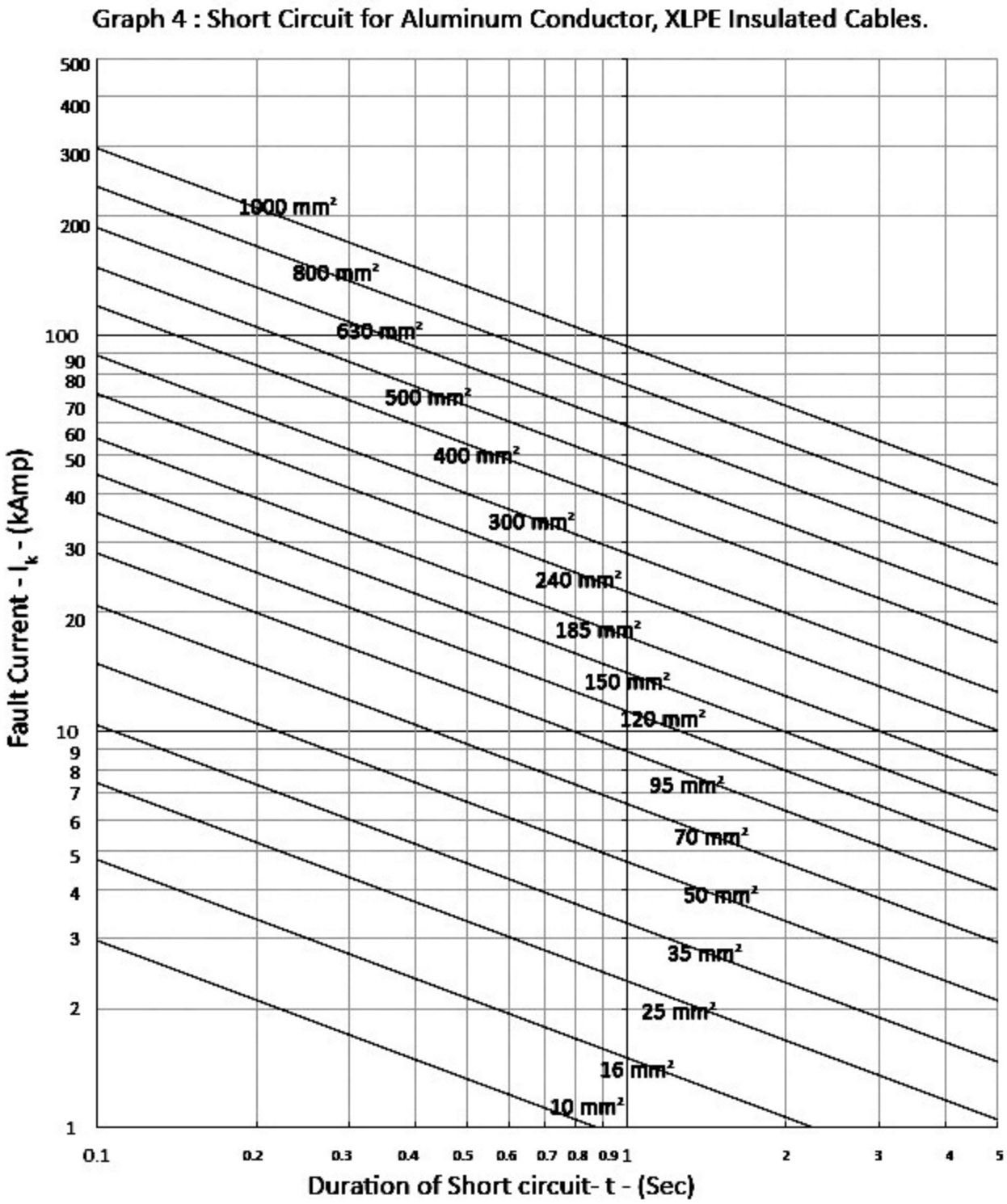
Technical Information
Short Circuit Rating - Conductors

Graph 3: XLPE insulated cables short circuit (Copper Conductor)



Technical Information
Short Circuit Rating - Conductors

Graph 4: XLPE insulated cables short circuit (Aluminium Conductor)



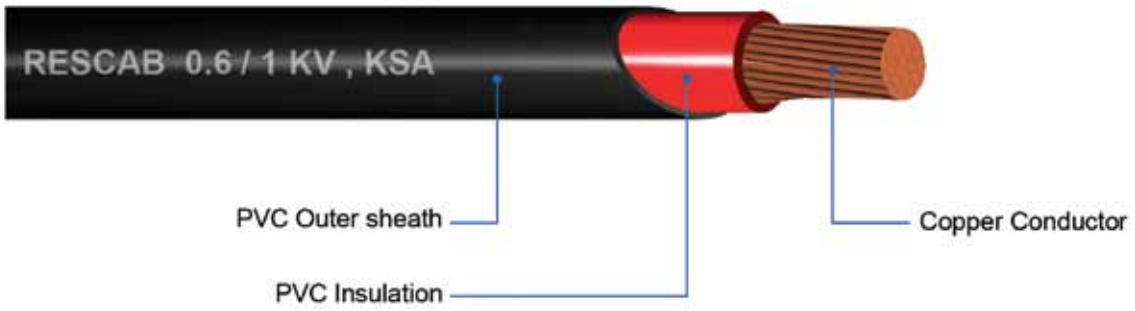
Part 2: Product Range

Soft Drawn Bare Stranded Conductor
Copper SDBC Conductor

IEC 60228

Nominal Cross Section Area of Conductor	No. & Nominal Diameter of Wires	Approximate Overall Daimeter	Maximum DC Resistance at 20° C	Net Approx. Weight	Standard Packing
mm²	No.x mm	mm	Ω/Km	Kg/Km	m
2.5	7 x 0.66	2.0	7.41	21	2000
4	7 x 0.84	2.5	4.61	34	2000
6	7 x 1.02	3.1	3.08	51	2000
10	7 x 1.33	4.0	1.83	86	2000
16	7 x 1.68	5.1	1.15	137	2000
25	7 x 2.11	6.4	0.727	217	2000
35	7 x 2.48	7.5	0.524	312	2000
50	19 x 1.75	8.8	0.387	408	1000
70	19 x 2.11	10.6	0.268	589	1000
95	19 x 2.48	12.4	0.193	818	1000
120	37 x 2.00	14.0	0.153	1032	1000
150	37 x 2.22	15.5	0.124	1273	1000
185	37 x 2.48	17.4	0.099	1593	1000
240	61 x 2.22	20.3	0.075	2094	1000
300	61 x 2.48	22.9	0.060	2650	1000
400	61 x 2.81	25.7	0.047	3400	500
500	61 x 3.18	28.8	0.037	4314	500

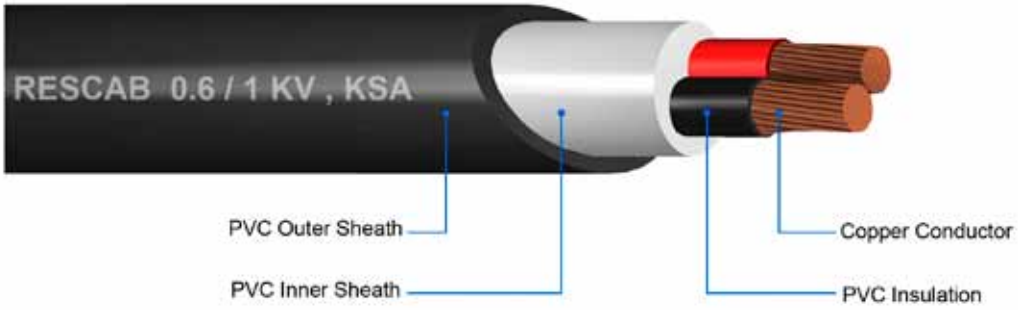
Single Core - PVC Insulated PVC Sheathed Cables — IEC 60502-1
Copper Conductor - Unarmoured — CU/PVC/PVC 0.6/1 kV



Nominal Cross Section Area of Conductor	No. Of Wires	Nominal Thickness of Insulation	Nominal Thickness of Sheath	Approximate Overall Diameter	Maximum DC Resistance at 20°C	Approx. Weight	Standard Packing
mm²	No.	mm	mm	mm	Ω/Km	Kg/Km	m
Class I Conductors							
1.5	1	0.8	1.4	6	12.1	55	2000
2.5	1	0.8	1.4	7	7.41	65	2000
4	1	1.0	1.4	7	4.61	90	2000
6	1	1.0	1.4	8	3.08	110	2000
10	1	1.0	1.4	9	1.83	155	2000
Class II Conductors							
1.5	7	0.8	1.4	6	12.1	59	2000
2.5	7	0.8	1.4	7	7.41	75	2000
4	7	1.0	1.4	8	4.61	102	2000
6	7	1.0	1.4	9	3.08	125	2000
10	7	1.0	1.4	10	1.83	175	2000
16	7	1.0	1.4	10	1.15	235	2000
25	7	1.2	1.4	12	0.727	340	1000
35	7	1.2	1.4	13	0.524	445	1000
50	19	1.4	1.4	15	0.387	590	1000
70	19	1.4	1.4	16	0.268	800	1000
95	19	1.6	1.5	18	0.193	1090	1000
120	37	1.6	1.5	20	0.153	1335	1000
150	37	1.8	1.6	22	0.124	1625	1000
185	37	2.0	1.7	25	0.0991	2025	1000
240	61	2.2	1.8	28	0.0754	2630	1000
300	61	2.4	1.9	31	0.0601	3280	1000
400	61	2.6	2.0	34	0.0470	4150	500
500	61	2.8	2.1	39	0.0366	5270	500
630	61	2.8	2.2	43	0.0283	6700	500

Note: 10 mm² and above conductors are Round Stranded-Compacted. All Conductors are in accordance with IEC 60228 and BS EN 60228.

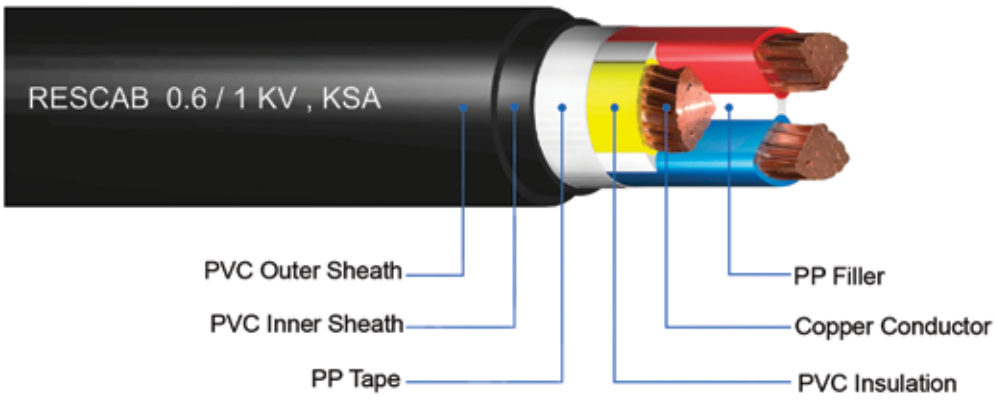
Two Cores - PVC Insulated PVC Sheathed Cables — IEC 60502-1
Copper Conductor - Unarmoured — CU/PVC/PVC 0.6/1 kV



No. of Cores x Nominal Cross Section Area	No. Of Wires	Nominal Thickness of Insulation	Nominal Thickness of Sheath	Approximate Overall Diameter	Maximum DC Resistance at 20°C	Approx. Weight	Standard Packing
mm²	No.	mm	mm	mm	Ω/Km	Kg/Km	m
Class I Conductors							
2x1.5	1	0.8	1.8	12	12.1	200	1000
2x2.5	1	0.8	1.8	13	7.41	225	1000
2x4	1	1.0	1.8	15	4.61	325	1000
2x6	1	1.0	1.8	16	3.08	375	1000
2x10	1	1.0	1.8	18	1.83	500	1000
Class II Conductors							
2x1.5	7	0.8	1.8	13	12.1	215	1000
2x2.5	7	0.8	1.8	14	7.41	260	1000
2x4	7	1.0	1.8	16	4.61	350	1000
2x6	7	1.0	1.8	17	3.08	425	1000
2x10	7	1.0	1.8	19	1.83	560	1000
2x16	7	1.0	1.8	21	1.15	730	1000
2x25	7	1.2	1.8	24	0.727	960	1000
2x35	7	1.2	1.8	26	0.524	1210	1000

Note: 10 mm² and above conductors are Round Stranded-Compacted. All Conductors are in accordance with IEC 60228 and BS EN 60228

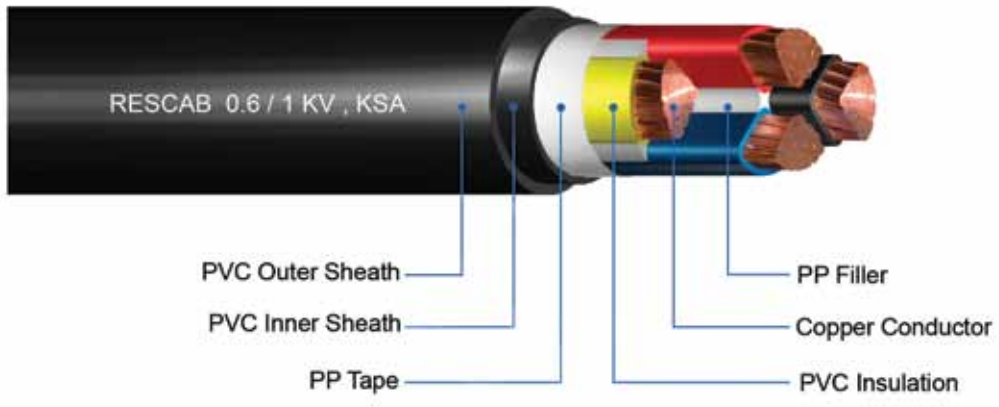
Three Cores - PVC Insulated PVC Sheathed Cables — IEC 60502-1
Copper Conductor - Unarmoured — CU/PVC/PVC 0.6/1 kV



No. of Cores x Nominal Cross Section Area	No. Of Wires	Nominal Thickness of Insulation	Nominal Thickness of Sheath	Approximate Overall Diameter	Maximum DC Resistance at 20°C	Approx. Weight	Standard Packing
mm²	No.	mm	mm	mm	Ω/Km	Kg/Km	m
Class I Conductors							
3x1.5	1	0.8	1.8	13	12.1	225	1000
3x2.5	1	0.8	1.8	14	7.41	275	1000
3x4	1	1.0	1.8	16	4.61	375	1000
3x6	1	1.0	1.8	17	3.08	450	1000
3x10	1	1.0	1.8	20	1.83	600	1000
Class II Conductors							
3x1.5	7	0.8	1.8	13	12.1	240	1000
3x2.5	7	0.8	1.8	14	7.41	295	1000
3x4	7	1.0	1.8	16	4.61	405	1000
3x6	7	1.0	1.8	18	3.08	500	1000
3x10	7	1.0	1.8	20	1.83	675	1000
3x16	7	1.0	1.8	22	1.15	880	1000
3x25	7	1.2	1.8	25	0.727	1280	1000
3x35	7	1.2	1.8	28	0.524	1640	1000
3x50	7	1.4	1.8	31	0.387	1980	500
3x70	19	1.4	1.9	35	0.268	2690	500
3x95	19	1.6	2.1	40	0.193	3630	500
3x120	37	1.6	2.2	43	0.153	4420	500
3x150	37	1.8	2.3	48	0.124	5470	500
3x185	37	2.0	2.5	52	0.0991	6750	250
3x240	61	2.2	2.7	59	0.0754	8770	250
3x300	61	2.4	2.9	65	0.0601	10840	250
3x400	61	2.6	3.1	73	0.0470	13770	250

Note: 10 mm² to 35 mm² conductors are Round Compacted , 50 mm² and above conductors are Sectoral-Shaped. All Conductors are in accordance with IEC 60228 and BS EN 60228.

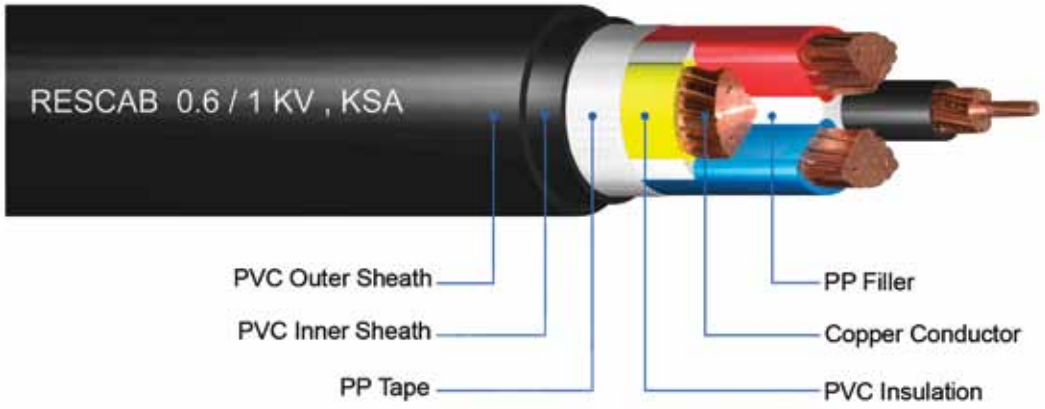
Four Cores - PVC Insulated PVC Sheathed Cables — IEC 60502-1
Copper Conductor - Unarmoured — CU/PVC/PVC 0.6/1 kV



No. of Cores x Nominal Cross Section Area	No. Of Wires	Nominal Thickness of Insulation	Nominal Thickness of Sheath	Approximate Overall Diameter	Maximum DC Resistance at 20°C	Approx. Weight	Standard Packing
mm²	No.	mm	mm	mm	Ω/Km	Kg/Km	m
Class I Conductors							
4x1.5	1	0.8	1.8	14	12.1	280	1000
4x2.5	1	0.8	1.8	15	7.41	345	1000
4x4	1	1.0	1.8	17	4.61	475	1000
4x6	1	1.0	1.8	18	3.08	595	1000
4x10	1	1.0	1.8	20	1.83	820	1000
Class II Conductors							
4x1.5	7	0.8	1.8	14	12.1	280	1000
4x2.5	7	0.8	1.8	15	7.41	350	1000
4x4	7	1.0	1.8	18	4.61	480	1000
4x6	7	1.0	1.8	19	3.08	600	1000
4x10	7	1.0	1.8	21	1.83	820	1000
4x16	7	1.0	1.8	23	1.15	1090	1000
4x25	7	1.2	1.8	28	0.727	1490	1000
4x35	7	1.2	1.8	30	0.524	1920	1000
4x50	7 / 19	1.4	1.9	33	0.387	2480	500
4x70	19	1.4	2.1	37	0.268	3400	500
4x95	19	1.6	2.2	42	0.193	4550	500
4x120	37	1.6	2.3	46	0.153	5600	500
4x150	37	1.8	2.5	50	0.124	6900	500
4x185	37	2.0	2.7	56	0.0991	8600	250
4x240	61	2.2	2.9	62	0.0754	11100	250
4x300	61	2.4	3.1	68	0.0601	13760	250
4x400	61	2.6	3.4	77	0.0470	17500	250

Note: 10 mm² to 35 mm² conductors are Round Compacted , 50 mm² and above conductors are Sectoral-Shaped. All Conductors are in accordance with IEC 60228 and BS EN 60228

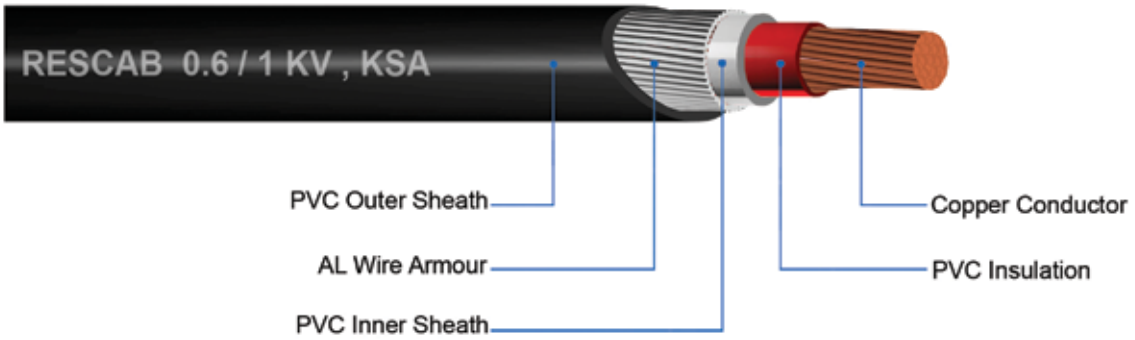
Three & Half Cores - PVC Insulated PVC Sheathed Cables — IEC 60502-1
Copper Conductor - Unarmoured — CU/PVC/PVC 0.6/1 kV



No of Cores x Nominal Cross Section Area	No. Of Wires		Nominal Thickness of Insulation		Nominal Thickness of Sheath	Approx. Overall Diameter	Maximum DC Resistance at 20°C		Approx. Weight	Standard Packing
	Ph	Ne	Ph	Ne			Ph	Ne		
mm²	No.	No.	mm	mm	mm	mm	Ω/Km	Ω/Km	Kg/Km	m
Class II Conductors										
3x10 + 6	7	7	1.0	1.0	1.8	21	1.83	3.08	770	1000
3x16 + 10	7	7	1.0	1.0	1.8	23	1.15	1.83	1030	1000
3x25 + 16	7	7	1.2	1.0	1.8	27	0.727	1.15	1375	1000
3x35 + 16	7	7	1.2	1.0	1.8	29	0.524	1.15	1690	1000
3x50 + 25	7	7	1.4	1.2	1.9	32	0.387	0.727	2200	500
3x70 + 35	19	7	1.4	1.2	2.0	36	0.268	0.524	3020	500
3x95 + 50	19	7	1.6	1.4	2.2	40	0.193	0.387	4060	500
3x120 + 70	37	19	1.6	1.4	2.3	44	0.153	0.268	5080	500
3x150 + 70	37	19	1.8	1.4	2.4	48	0.124	0.268	6050	500
3x185 + 95	37	19	2.0	1.6	2.6	53	0.0991	0.193	7580	250
3x240 + 120	61	37	2.2	1.6	2.8	59	0.0754	0.153	9780	250
3x300 + 150	61	37	2.4	1.8	3.0	65	0.0601	0.124	12090	250
3x400 + 185	61	37	2.6	2.0	3.2	74	0.0470	0.0991	15270	250

Note: Phase conductors 10 mm² to 35 mm² are Round Compacted, 50 mm² and above are Sectoral-Shaped. Neutral Conductors 10 mm² and above are Round Compacted. All Conductors are in accordance with IEC 60228 and BS EN 60228

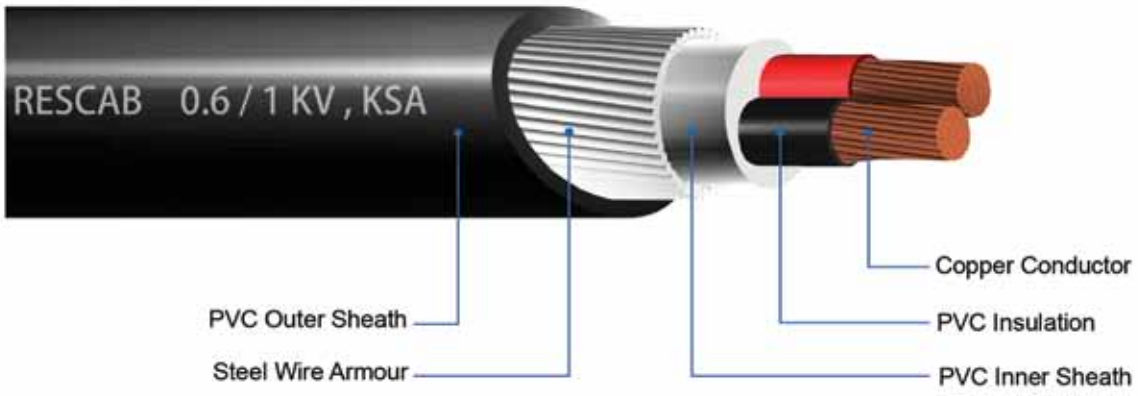
Single Core - PVC Insulated, AL Wire Armoured PVC Sheathed Cables IEC 60502-1
Copper Conductor CU/PVC/AWA/PVC 0.6/1 kV



Nominal Cross Section Area of Conductor	No. Of Wires	Nominal Thickness of Insulation	Nominal Aluminium Wire Dia.	Nominal Thickness of Sheath	Approx. Overall Diameter	Maximum DC Resistance at 20°C	Approx. Weight	Standard Packing
mm²	No.	mm	mm	mm	mm	Ω/Km	Kg/Km	m
Class II Conductors								
10	7	1.0	0.8	1.8	14	1.83	310	2000
16	7	1.0	0.8	1.8	15	1.15	380	2000
25	7	1.2	0.8	1.8	16	0.727	510	1000
35	7	1.2	0.8	1.8	18	0.524	640	1000
50	19	1.4	1.25	1.8	20	0.387	860	1000
70	19	1.4	1.25	1.8	22	0.268	1100	1000
95	19	1.6	1.6	1.8	24	0.193	1420	1000
120	37	1.6	1.8	1.8	26	0.153	1740	1000
150	37	1.8	1.8	1.8	28	0.124	2080	1000
185	37	2.0	1.8	1.8	32	0.0991	2510	1000
240	61	2.2	1.8	1.9	34	0.0754	3180	1000
300	61	2.4	2.0	2.0	37	0.0601	4000	500
400	61	2.6	2.0	2.1	41	0.0470	4990	500
500	61	2.8	2.0	2.2	45	0.03766	6200	500
630	61	2.8	2.0	2.4	51	0.0283	7800	500

Note: 10 mm² and above conductors are Round Stranded-Compacted. All Conductors are in accordance with IEC 60228 and BS EN 60228

Two Cores - PVC Insulated, Steel Wire Armoured PVC Sheathed Cables IEC 60502-1
Copper Conductor CU/PVC/SWA/PVC 0.6/1 kV

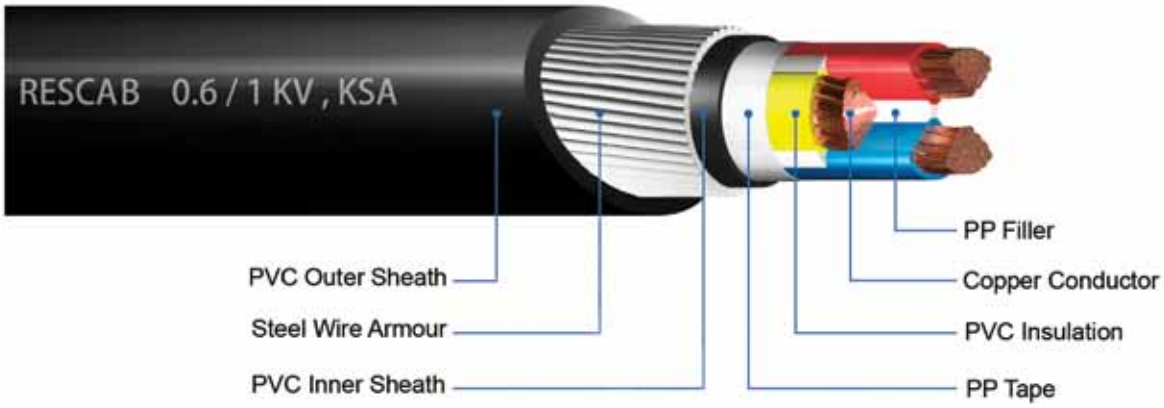


No. of Cores x Nominal Cross Section Area	No. Of Wires	Nominal Thickness of Insulation	Nominal Steel Wire Dia.	Nominal Thickness of Sheath	Approx. Overall Diameter	Maximum DC Resistance at 20°C	Approx. Weight	Standard Packing
mm²	No.	mm	mm	mm	mm	Ω/Km	Kg/Km	m
Class I Conductors								
2x4	1	1.0	0.8	1.8	17	4.61	540	1000
2x6	1	1.0	1.25	1.8	19	3.08	800	1000
2x10	1	1.0	1.25	1.8	21	1.83	980	1000
Class II Conductors								
2x2.5	7	0.8	0.8	1.8	15	7.41	440	1000
2x4	7	1.0	0.8	1.8	17	4.61	540	1000
2x6	7	1.0	1.25	1.8	19	3.08	800	1000
2x10	7	1.0	1.25	1.8	21	1.83	980	1000
2x16	7	1.0	1.25	1.8	23	1.15	1190	1000
2x25	7	1.2	1.6	1.8	27	0.727	1760	1000
2x35	7	1.2	1.6	1.8	29	0.524	2125	1000

Note: 10 mm² and above conductors are Round Stranded-Compacted. All Conductors are in accordance with IEC 60228 and BS EN 60228

Three Cores - PVC Insulated, Steel Wire Armoured, PVC Sheathed Cables IEC 60502-1

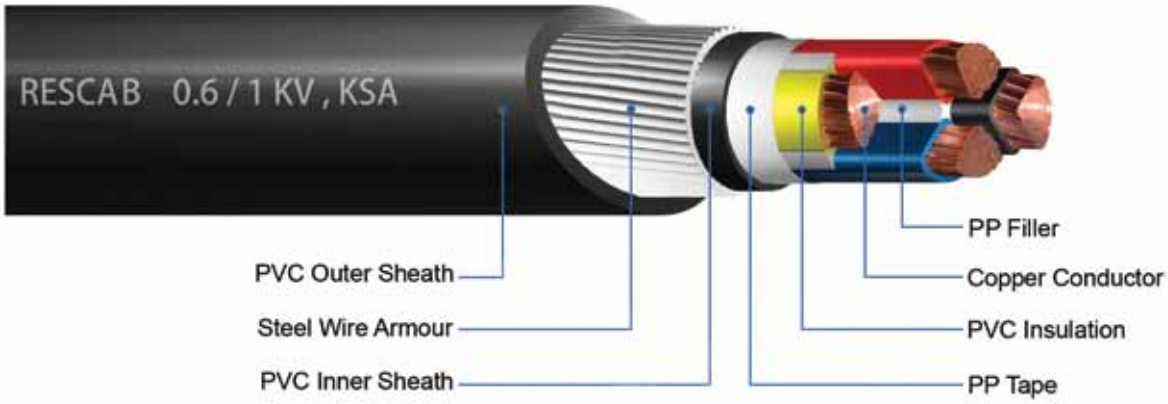
Copper Conductor CU/PVC/SWA/PVC 0.6/1 kV



No. of Cores x Nominal Cross Section Area	No. Of Wires	Nominal Thickness of Insulation	Nominal Steel Wire Dia.	Nominal Thickness of Sheath	Approx. Overall Diameter	Maximum DC Resistance at 20°C	Approx. Weight	Standard Packing
mm²	No.	mm	mm	mm	mm	Ω/Km	Kg/Km	m
Class I Conductors								
3x2.5	1	0.8	0.8	1.8	16	7.41	480	1000
3x4	1	1.0	1.25	1.8	18	4.61	740	1000
3x6	1	1.0	1.25	1.8	19	3.08	870	1000
3x10	1	1.0	1.25	1.8	22	1.83	1070	1000
Class II Conductors								
3x2.5	7	0.8	0.8	1.8	16	7.41	480	1000
3x4	7	1.0	1.25	1.8	19	4.61	740	1000
3x6	7	1.0	1.25	1.8	20	3.08	890	1000
3x10	7	1.0	1.25	1.8	23	1.83	1090	1000
3x16	7	1.0	1.25	1.8	24	1.15	1360	1000
3x25	7	1.2	1.6	1.8	29	0.727	1990	1000
3x35	7	1.2	1.6	1.8	31	0.524	2510	1000
3x50	7	1.4	1.6	2.0	35	0.387	2940	500
3x70	19	1.4	2.0	2.1	39	0.268	4050	500
3x95	19	1.6	2.0	2.2	45	0.193	5180	500
3x120	37	1.6	2.0	2.3	48	0.153	6070	500
3x150	37	1.8	2.5	2.5	55	0.124	7800	500
3x185	37	2.0	2.5	2.7	58	0.0991	9400	250
3x240	61	2.2	2.5	2.9	65	0.0754	11800	250
3x300	61	2.4	2.5	3.1	72	0.0601	14300	250
3x400	61	2.6	3.15	3.4	82	0.0470	18800	250

Note: 10 mm² to 35 mm² conductors are Round Compacted , 50 mm² and above conductors are Sectoral-Shaped. All Conductors are in accordance with IEC 60228 and BS EN 60228.

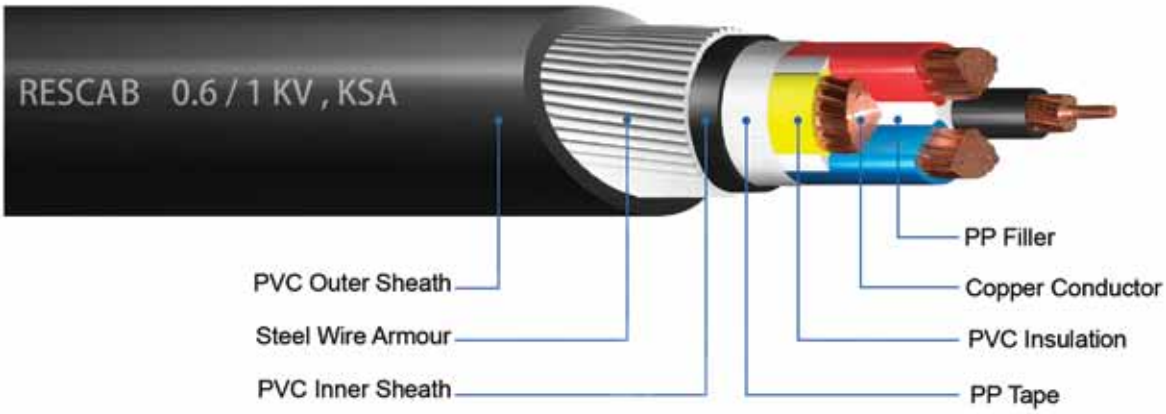
Four Core - PVC Insulated, Steel Wire Armoured, PVC Sheathed Cables IEC 60502-1
Copper Conductor CU/PVC/SWA/PVC 0.6/1 kV



No. of Cores x Nominal Cross Section Area	No. Of Wires	Nominal Thickness of Insulation	Nominal Steel Wire Dia.	Nominal Thickness of Sheath	Approx. Overall Diameter	Maximum DC Resistance at 20°C	Approx. Weight	Standard Packing
mm²	No.	mm	mm	mm	mm	Ω/Km	Kg/Km	m
Class I Conductors								
4x4	1	1.0	1.25	1.8	19	4.61	830	1000
4x6	1	1.0	1.25	1.8	21	3.08	1010	1000
4x10	1	1.0	1.25	1.8	23	1.83	1280	1000
Class II Conductors								
4x4	7	1.0	1.25	1.8	20	4.61	830	1000
4x6	7	1.0	1.25	1.8	21	3.08	1010	1000
4x10	7	1.0	1.25	1.8	24	1.83	1280	1000
4x16	7	1.0	1.6	1.8	26	1.15	1735	1000
4x25	7	1.2	1.6	1.8	31	0.727	2210	1000
4x35	7	1.2	1.6	1.9	33	0.524	2780	1000
4x50	7	1.4	2.0	2.1	38	0.387	3750	500
4x70	19	1.4	2.0	2.2	42	0.268	4750	500
4x95	19	1.6	2.5	2.5	48	0.193	6530	500
4x120	37	1.6	2.5	2.5	52	0.153	7700	500
4x150	37	1.8	2.5	2.7	57	0.124	9220	500
4x185	37	2.0	2.5	2.9	62	0.0991	10970	250
4x240	61	2.2	2.5	3.1	68	0.0754	14000	250
4x300	61	2.4	2.5	3.3	76	0.0601	17000	250
4x400	61	2.6	3.15	3.6	85	0.0470	22100	250

Note: 10 mm² to 35 mm² conductors are Round Compacted , 50 mm² and above conductors are Sectoral-Shaped. All Conductors are in accordance with IEC 60228 and BS EN 60228

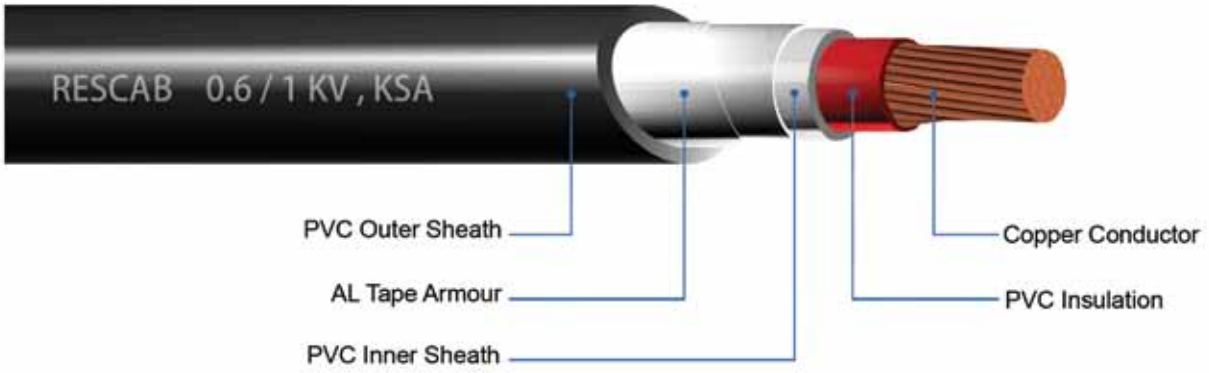
Three & Half Cores - PVC Insulated, Steel Wire Armoured, PVC Sheathed Cables IEC 60502-1
Copper Conductor CU/PVC/SWA/PVC 0.6/1 kV



No. of Cores x Nominal Cross Section Area	No. Of Wires		Nominal Thickness of Insulation		Nominal Steel Wire Dia.	Nominal Thickness of Sheath	Approx. Overall Diameter	Maximum DC Resistance at 20°C		Approx. Weight	Standard Packing
	Ph	Ne	Ph	Ne				Ph	Ne		
mm²	No.	No.	mm	mm	mm	mm	mm	Ω/Km	Ω/Km	Kg/Km	m
Class II Conductors											
3x10 + 6	7	7	1.0	1.0	1.25	1.8	23	1.83	3.08	1240	1000
3x16 + 10	7	7	1.0	1.0	1.6	1.8	26	1.15	1.83	1700	1000
3x25 + 16	7	7	1.2	1.0	1.6	1.8	30	0.727	1.15	2100	1000
3x35 + 16	7	7	1.2	1.0	1.6	1.9	32	0.524	1.15	2510	1000
3x50 + 25	7	7	1.4	1.2	2.0	2.0	36	0.387	0.727	3350	500
3x70 + 35	19	7	1.4	1.2	2.0	2.1	40	0.268	0.524	4300	500
3x95 + 50	19	7	1.6	1.4	2.0	2.3	45	0.193	0.387	5540	500
3x120 + 70	37	19	1.6	1.4	2.5	2.5	50	0.153	0.268	7095	500
3x150 + 70	37	19	1.8	1.4	2.5	2.6	53	0.124	0.268	8270	500
3x185 + 95	37	19	2.0	1.6	2.5	2.7	58	0.0991	0.193	9980	250
3x240 + 120	61	37	2.2	1.6	2.5	2.9	65	0.0754	0.153	12510	250
3x300 + 150	61	37	2.4	1.8	2.5	3.1	72	0.0601	0.124	15070	250
3x400 + 185	61	37	2.6	2.0	3.15	3.4	82	0.0470	0.0991	19600	250

Note: Phase conductors 10 mm² to 35 mm² are Round Compacted, 50 mm² and above are Sectoral-Shaped. Neutral Conductors 10 mm² and above are Round Compacted. All Conductors are in accordance with IEC 60228 and BS EN 60228

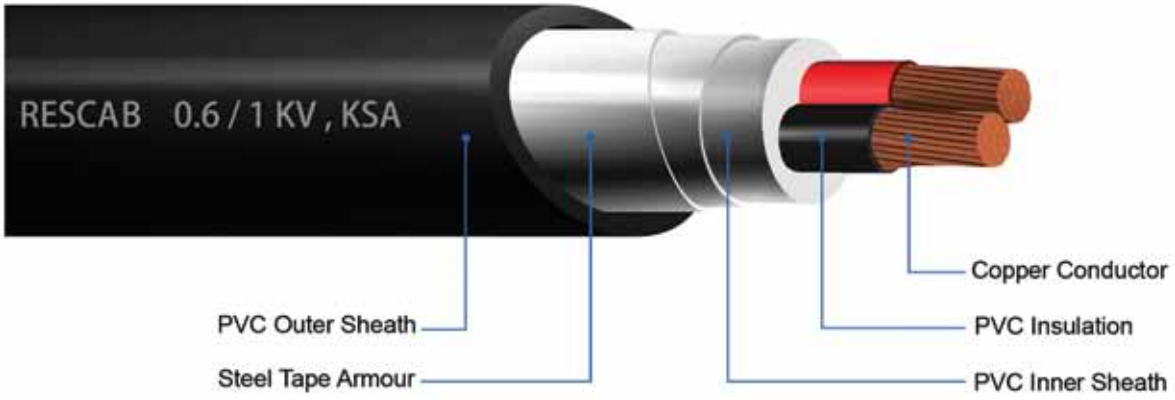
Single Core - PVC Insulated, AL Tape Armoured, PVC Sheathed Cables IEC 60502-1
Copper Conductor CU/PVC/ATA/PVC 0.6/1 kV



Nominal Cross Section Area of Conductor	No. Of Wires	Nominal Thickness of Insulation	Nominal Alumi. Tape Thickness	Nominal Thickness of Sheath	Approx. Overall Diameter	Maximum DC Resistance at 20°C	Approx. Weight	Standard Packing
mm²	No.	mm	mm	mm	mm	Ω/Km	Kg/Km	m
Class II Conductors								
10	7	1.0	0.5	1.8	14	1.83	310	2000
16	7	1.0	0.5	1.8	15	1.15	380	2000
25	7	1.2	0.5	1.8	17	0.727	510	1000
35	7	1.2	0.5	1.8	18	0.524	640	1000
50	19	1.4	0.5	1.8	21	0.387	800	1000
70	19	1.4	0.5	1.8	22	0.268	1050	1000
95	19	1.6	0.5	1.8	25	0.193	1360	1000
120	37	1.6	0.5	1.8	26	0.153	1590	1000
150	37	1.8	0.5	1.8	28	0.124	1925	1000
185	37	2.0	0.5	1.8	30	0.0991	2350	1000
240	61	2.2	0.5	1.9	34	0.0754	3000	1000
300	61	2.4	0.5	1.9	37	0.0601	3650	500
400	61	2.6	0.5	2.1	42	0.0470	4650	500
500	61	2.8	0.5	2.2	45	0.0366	5800	500
630	61	2.8	0.5	2.3	50	0.0283	7300	500

Note: 10 mm² and above conductors are Round Stranded-Compacted. All Conductors are in accordance with IEC 60228 and BS EN 60228

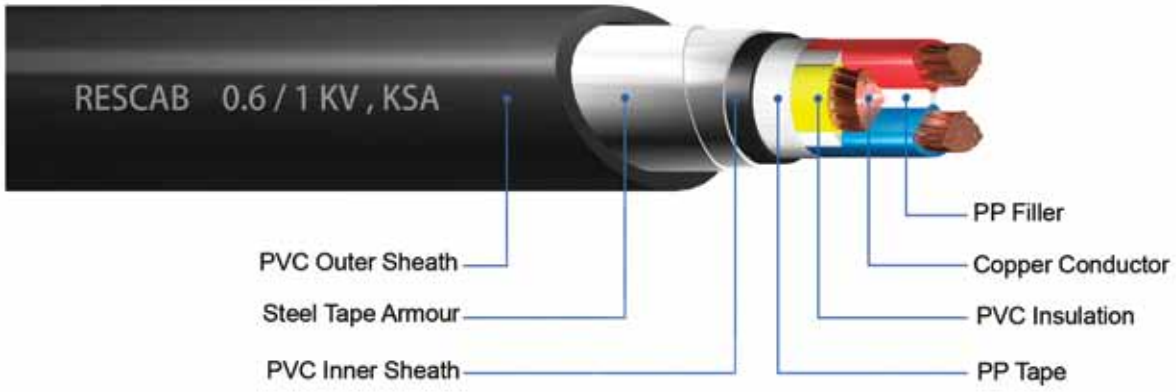
Two Cores - PVC Insulated, Steel Tape Armoured, PVC Sheathed Cables IEC 60502-1
Copper Conductor CU/PVC/STA/PVC 0.6/1 kV



No. of Cores x Nominal Cross Section Area	No. Of Wires	Nominal Thickness of Insulation	Nominal Steel Tape Thickness	Nominal Thickness of Sheath	Approx. Overall Diameter	Maximum DC Resistance at 20°C	Approx. Weight	Standard Packing
mm²	No.	mm	mm	mm	mm	Ω/Km	Kg/Km	m
Class I Conductors								
2x2.5	1	0.8	0.2	1.8	15	7.41	315	1000
2x4	1	1.0	0.2	1.8	16	4.61	430	1000
2x6	1	1.0	0.2	1.8	18	3.08	530	1000
2x10	1	1.0	0.2	1.8	19	1.83	670	1000
Class II Conductors								
2x2.5	7	0.8	0.2	1.8	15	7.41	315	1000
2x4	7	1.0	0.2	1.8	16	4.61	430	1000
2x6	7	1.0	0.2	1.8	18	3.08	530	1000
2x10	7	1.0	0.2	1.8	19	1.83	670	1000
2x16	7	1.0	0.2	1.8	21	1.15	850	1000
2x25	7	1.2	0.2	1.8	25	0.727	1100	1000
2x35	7	1.2	0.2	1.8	27	0.524	1380	1000

Note: 10 mm² and above conductors are Round Stranded-Compacted. All Conductors are in accordance with IEC 60228 and BS EN 60228

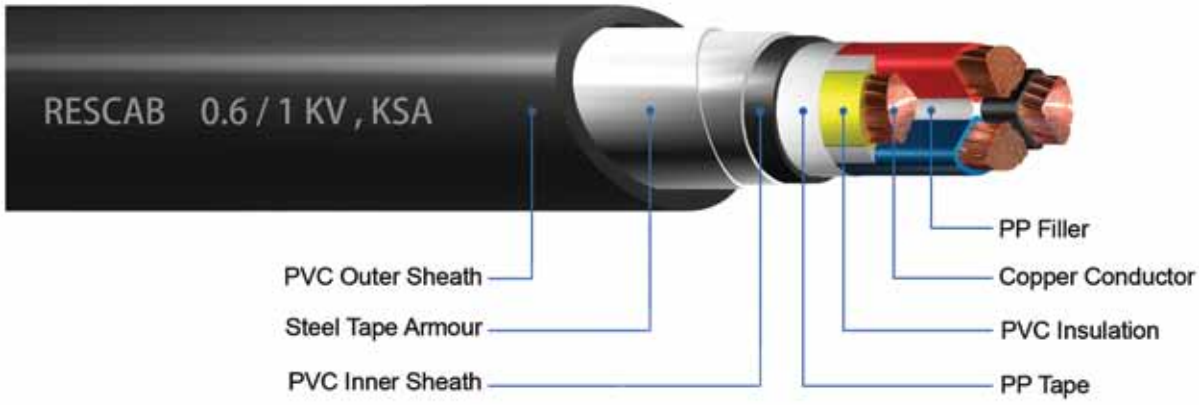
Three Cores - PVC Insulated, Steel Tape Armoured, PVC Sheathed Cables IEC 60502-1
Copper Conductor CU/PVC/STA/PVC 0.6/1 kV



No. of Cores x Nominal Cross Section Area	No. Of Wires	Nominal Thickness of Insulation	Nominal Steel Tape Thickness	Nominal Thickness of Sheath	Approx. Overall Diameter	Maximum DC Resistance at 20°C	Approx. Weight	Standard Packing
mm²	No.	mm	mm	mm	mm	Ω/Km	Kg/Km	m
Class I Conductors								
3x2.5	1	0.8	0.2	1.8	15	7.41	370	1000
3x4	1	1.0	0.2	1.8	17	4.61	490	1000
3x6	1	1.0	0.2	1.8	18	3.08	610	1000
3x10	1	1.0	0.2	1.8	21	1.83	780	1000
Class II Conductors								
3x2.5	7	0.8	0.2	1.8	15	7.41	370	1000
3x4	7	1.0	0.2	1.8	17	4.61	490	1000
3x6	7	1.0	0.2	1.8	18	3.08	610	1000
3x10	7	1.0	0.2	1.8	21	1.83	780	1000
3x16	7	1.0	0.2	1.8	23	1.15	1010	1000
3x25	7	1.2	0.2	1.8	26	0.727	1430	1000
3x35	7	1.2	0.2	1.8	29	0.524	1800	1000
3x50	7	1.4	0.2	1.9	32	0.387	2190	500
3x70	19	1.4	0.2	2.0	36	0.268	2900	500
3x95	19	1.6	0.5	2.2	42	0.193	4280	500
3x120	37	1.6	0.5	2.3	45	0.153	5150	500
3x150	37	1.8	0.5	2.5	52	0.124	6300	500
3x185	37	2.0	0.5	2.6	54	0.0991	7630	250
3x240	61	2.2	0.5	2.8	61	0.0754	9800	250
3x300	61	2.4	0.5	3.0	67	0.0601	12000	250
3x400	61	2.6	0.5	3.3	75	0.0470	15050	250

Note: 10 mm² to 35 mm² conductors are Round Compacted , 50 mm² and above conductors are Sectoral-Shaped. All Conductors are in accordance with IEC 60228 and BS EN 60228.

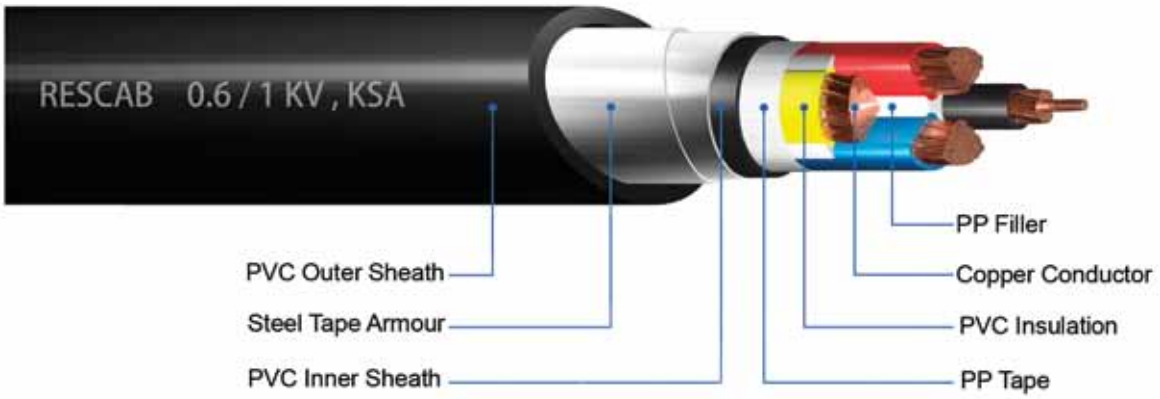
Four Cores - PVC Insulated, Steel Tape Armoured, PVC Sheathed Cables IEC 60502-1
Copper Conductor CU/PVC/STA/PVC 0.6/1 kV



No. of Cores x Nominal Cross Section Area	No. Of Wires	Nominal Thickness of Insulation	Nominal Steel Tape Thickness	Nominal Thickness of Sheath	Approx. Overall Diameter	Maximum DC Resistance at 20°C	Approx. Weight	Standard Packing
mm²	No.	mm	mm	mm	mm	Ω/Km	Kg/Km	m
Class I Conductors								
4x4	1	1.0	0.2	1.8	18	4.61	585	1000
4x6	1	1.0	0.2	1.8	20	3.08	700	1000
4x10	1	1.0	0.2	1.8	22	1.83	920	1000
Class II Conductors								
4x4	7	1.0	0.2	1.8	18	4.61	585	1000
4x6	7	1.0	0.2	1.8	20	3.08	700	1000
4x10	7	1.0	0.2	1.8	22	1.83	920	1000
4x16	7	1.0	0.2	1.8	24	1.15	1225	1000
4x25	7	1.2	0.2	1.8	28	0.727	1650	1000
4x35	7	1.2	0.2	1.9	31	0.524	2100	1000
4x50	7	1.4	0.2	2.0	34	0.387	2710	500
4x70	19	1.4	0.5	2.2	39	0.268	4000	500
4x95	19	1.6	0.5	2.4	45	0.193	5250	500
4x120	37	1.6	0.5	2.5	49	0.153	6300	500
4x150	37	1.8	0.5	2.6	54	0.124	7700	500
4x185	37	2.0	0.5	2.8	59	0.0991	9450	250
4x240	61	2.2	0.5	3.0	65	0.0754	12050	250
4x300	61	2.4	0.5	3.2	71	0.0601	14800	250
4x400	61	2.6	0.5	3.5	80	0.0470	18700	250

Note: 10 mm² to 35 mm² conductors are Round Compacted , 50 mm² and above conductors are Sectoral-Shaped. All Conductors are in accordance with IEC 60228 and BS EN 60228

Three & Half Cores - PVC Insulated, Steel Tape Armoured, PVC Sheathed Cables IEC 60502
Copper Conductor CU/PVC/STA/PVC 0.6/1 kV

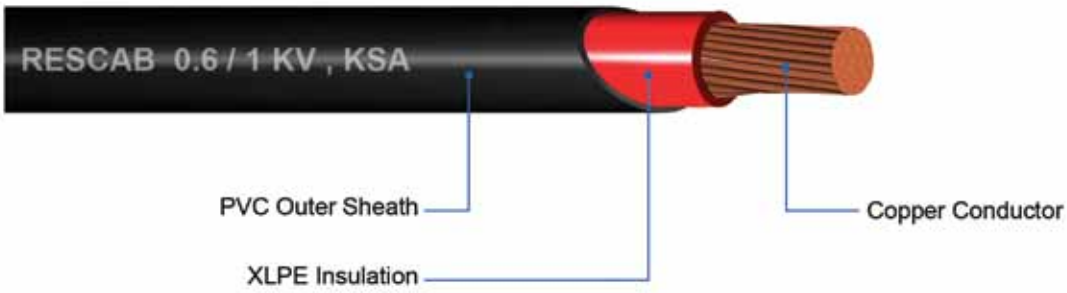


No of Cores x Nominal Cross Section Area	No. Of Wires		Nominal Thickness of Insulation		Nominal Steel Tape Thickness	Nominal Thickness of Sheath	Approx. Overall Diameter	Maximum DC Resistance at 20°C		Approx. Weight	Standard Packing
	Ph	Ne	Ph	Ne				Ph	Ne		
mm²	No.	No.	mm	mm	mm	mm	mm	Ω/Km	Ω/Km	Kg/Km	m
Class II Conductors											
3x10 + 6	7	7	1.0	1.0	0.2	1.8	21	1.83	3.08	895	1000
3x16 + 10	7	7	1.0	1.0	0.2	1.8	24	1.15	1.83	1190	1000
3x25 + 16	7	7	1.2	1.0	0.2	1.8	28	0.727	1.15	1550	1000
3x35 + 16	7	7	1.2	1.0	0.2	1.8	30	0.524	1.15	1850	1000
3x50 + 25	7	7	1.4	1.2	0.2	1.9	33	0.387	0.727	2400	500
3x70 + 35	19	7	1.4	1.2	0.2	2.1	37	0.268	0.524	3250	500
3x95 + 50	19	7	1.6	1.4	0.5	2.3	43	0.193	0.387	4700	500
3x120 + 70	37	19	1.6	1.4	0.5	2.4	47	0.153	0.268	5750	500
3x150 + 70	37	19	1.8	1.4	0.5	2.5	51	0.124	0.268	6810	500
3x185 + 95	37	19	2.0	1.6	0.5	2.7	56	0.0991	0.193	8400	250
3x240 + 120	61	37	2.2	1.6	0.5	2.9	62	0.0754	0.153	10700	250
3x300 + 150	61	37	2.4	1.8	0.5	3.1	68	0.0601	0.124	13100	250
3x400 + 185	61	37	2.6	2.0	0.5	3.3	77	0.0470	0.0991	16400	250

Note: Phase conductors 10 mm² to 35 mm² are Round Compacted, 50 mm² and above are Sectoral-Shaped. Neutral Conductors 10 mm² and above are Round Compacted. All Conductors are in accordance with IEC 60228 and BS EN 60228

Single Core - XLPE Insulated PVC Sheathed Cables
Copper Conductor - Unarmoured

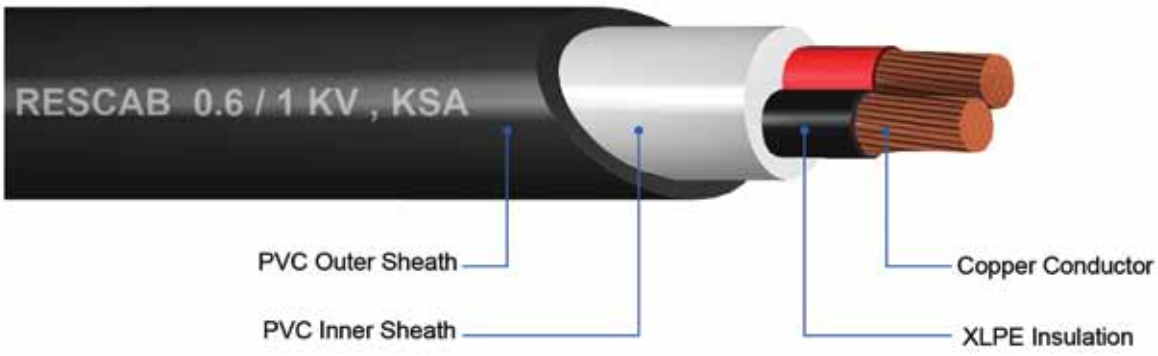
IEC 60502-1
CU/XLPE/PVC 0.6/1 kV



Nominal Cross Section Area of Conductor	No. Of Wires	Nominal Thickness of Insulation	Nominal Thickness of Sheath	Approximate Overall Diameter	Maximum DC Resistance at 20°C	Approx. Weight	Standard Packing
mm²	No.	mm	mm	mm	Ω/Km	Kg/Km	m
Class I Conductors							
1.5	1	0.7	1.4	6	12.1	55	2000
2.5	1	0.7	1.4	7	7.41	65	2000
4	1	0.7	1.4	7	4.61	85	2000
6	1	0.7	1.4	9	3.08	105	2000
Class II Conductors							
1.5	7	0.7	1.4	6	12.1	55	2000
2.5	7	0.7	1.4	7	7.41	65	2000
4	7	0.7	1.4	7	4.61	85	2000
6	7	0.7	1.4	9	3.08	105	2000
10	7	0.7	1.4	10	1.83	155	2000
16	7	0.7	1.4	10	1.15	205	2000
25	7	0.9	1.4	11	0.727	305	1000
35	7	0.9	1.4	13	0.524	405	1000
50	19	1.0	1.4	14	0.387	535	1000
70	19	1.1	1.4	16	0.268	740	1000
95	19	1.1	1.5	17	0.193	1015	1000
120	37	1.2	1.5	19	0.153	1235	1000
150	37	1.4	1.6	21	0.124	1525	1000
185	37	1.6	1.6	24	0.0991	1900	1000
240	61	1.7	1.7	27	0.0754	2480	1000
300	61	1.8	1.8	29	0.0601	3080	1000
400	61	2.0	1.9	32	0.0470	3900	500
500	61	2.2	2.0	37	0.0366	4995	500
630	61	2.4	2.2	42	0.0283	6430	500

Note: 10 mm² and above conductors are Round Stranded-Compacted. All Conductors are in accordance with IEC 60228 and BS EN 60228

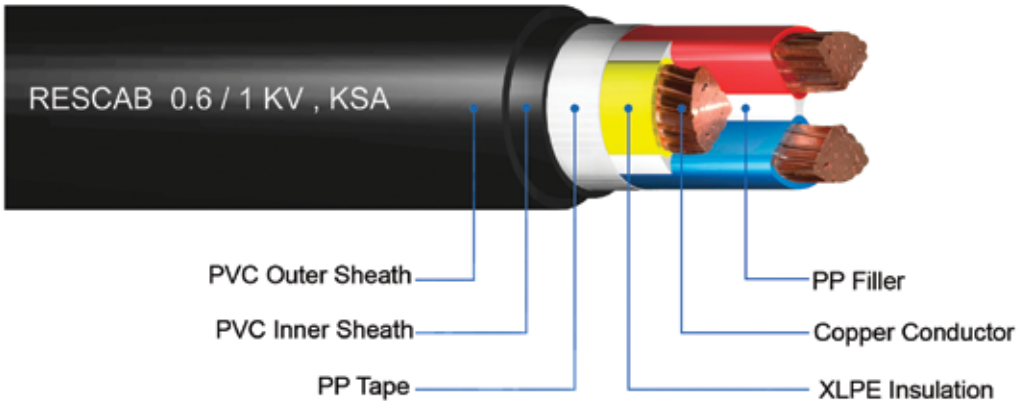
Two Cores - XLPE Insulated PVC Sheathed Cables — IEC 60502-1
Copper Conductor - Unarmoured — CU/XLPE/PVC 0.6/1 kV



No. of Cores x Nominal Cross Section Area	No. Of Wires	Nominal Thickness of Insulation	Nominal Thickness of Sheath	Approximate Overall Diameter	Maximum DC Resistance at 20°C	Approx. Weight	Standard Packing
mm²	No.	mm	mm	mm	Ω/Km	Kg/Km	m
Class I Conductors							
2x1.5	1	0.7	1.8	12	12.1	215	1000
2x2.5	1	0.7	1.8	13	7.41	218	1000
2x4	1	0.7	1.8	14	4.61	275	1000
2x6	1	0.7	1.8	15	3.08	370	1000
Class II Conductors							
2x1.5	7	0.7	1.8	13	12.1	215	1000
2x2.5	7	0.7	1.8	13	7.41	218	1000
2x4	7	0.7	1.8	14	4.61	275	1000
2x6	7	0.7	1.8	16	3.08	370	1000
2x10	7	0.7	1.8	17	1.83	485	1000
2x16	7	0.7	1.8	19	1.15	655	1000
2x25	7	0.9	1.8	23	0.727	870	1000
2x35	7	0.9	1.8	25	0.524	1130	1000

Note: 10 mm² and above conductors are Round Stranded-Compacted. All Conductors are in accordance with IEC 60228 and BS EN 60228

Three Cores - XLPE Insulated PVC Sheathed Cables — IEC 60502-1
Copper Conductor - Unarmoured — CU/XLPE/PVC 0.6/1 kV

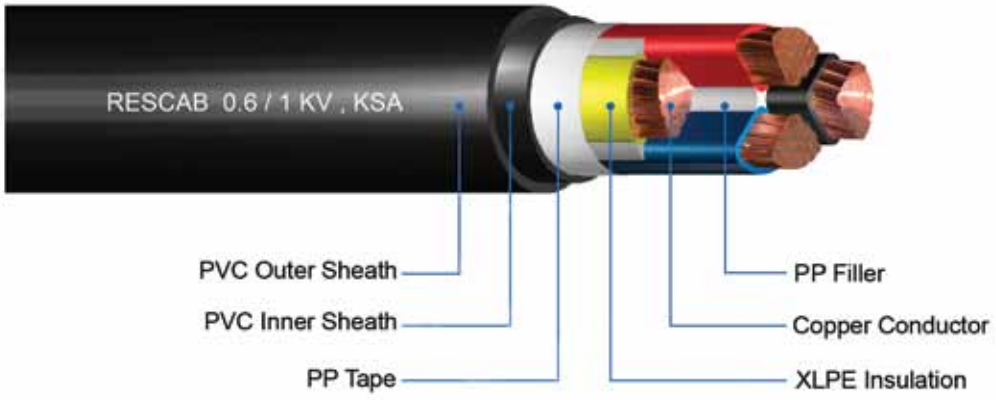


No. of Cores x Nominal Cross Section Area	No. Of Wires	Nominal Thickness of Insulation	Nominal Thickness of Sheath	Approximate Overall Diameter	Maximum DC Resistance at 20°C	Approx. Weight	Standard Packing
mm²	No.	mm	mm	mm	Ω/Km	Kg/Km	m
Class I Conductors							
3x1.5	1	0.7	1.8	13	12.1	220	1000
3x2.5	1	0.7	1.8	14	7.41	270	1000
3x4	1	0.7	1.8	15	4.61	340	1000
3x6	1	0.7	1.8	16	3.08	425	1000
Class II Conductors							
3x1.5	7	0.7	1.8	13	12.1	220	1000
3x2.5	7	0.7	1.8	14	7.41	270	1000
3x4	7	0.7	1.8	15	4.61	340	1000
3x6	7	0.7	1.8	16	3.08	425	1000
3x10	7	0.7	1.8	18	1.83	595	1000
3x16	7	0.7	1.8	20	1.15	800	1000
3x25	7	0.9	1.8	24	0.727	1190	1000
3x35	7	0.9	1.8	26	0.524	1550	1000
3x50	7	1.0	1.8	29	0.387	1820	500
3x70	19	1.1	1.9	33	0.268	2540	500
3x95	19	1.1	2.0	36	0.193	3320	500
3x120	37	1.2	2.1	41	0.153	4200	500
3x150	37	1.4	2.3	47	0.124	5200	500
3x185	37	1.6	2.4	50	0.0991	6450	250
3x240	61	1.7	2.6	56	0.0754	8350	250
3x300	61	1.8	2.8	63	0.0601	10430	250
3x400	61	2.0	3.1	70	0.0470	13200	250

Note: 10 mm² to 35 mm² conductors are Round Compacted , 50 mm² and above conductors are Sectoral-Shaped. All Conductors are in accordance with IEC 60228 and BS EN 60228.

Four Cores - XLPE Insulated PVC Sheathed Cables
Copper Conductor - Unarmoured

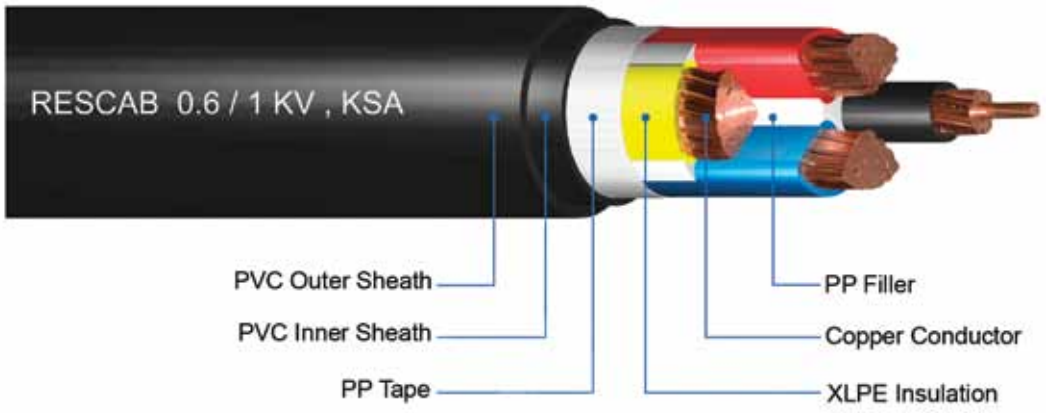
IEC 60502-1
CU/XLPE/PVC 0.6/1 kV



No. of Cores x Nominal Cross Section Area	No. Of Wires	Nominal Thickness of Insulation	Nominal Thickness of Sheath	Approximate Overall Diameter	Maximum DC Resistance at 20°C	Approx. Weight	Standard Packing
mm²	No.	mm	mm	mm	Ω/Km	Kg/Km	m
Class I Conductors							
4x1.5	1	0.7	1.8	14	12.1	250	1000
4x2.5	1	0.7	1.8	15	7.41	310	1000
4x4	1	0.7	1.8	16	4.61	405	1000
4x6	1	0.7	1.8	18	3.08	510	1000
Class II Conductors							
4x1.5	7	0.7	1.8	14	12.1	250	1000
4x2.5	7	0.7	1.8	15	7.41	310	1000
4x4	7	0.7	1.8	16	4.61	405	1000
4x6	7	0.7	1.8	18	3.08	510	1000
4x10	7	0.7	1.8	20	1.83	720	1000
4x16	7	0.7	1.8	22	1.15	985	1000
4x25	7	0.9	1.8	26	0.727	1460	1000
4x35	7	0.9	1.8	29	0.524	1830	1000
4x50	7	1.0	1.9	31	0.387	2250	500
4x70	19	1.1	2.0	36	0.268	3140	500
4x95	19	1.1	2.1	40	0.193	4200	500
4x120	37	1.2	2.3	44	0.153	5250	500
4x150	37	1.4	2.4	49	0.124	6460	500
4x185	37	1.6	2.6	53	0.0991	8010	250
4x240	61	1.7	2.8	59	0.0754	10320	250
4x300	61	1.8	3.0	65	0.0601	12780	250
4x400	61	2.0	3.3	74	0.0470	16330	250

Note: 10 mm² to 35 mm² conductors are Round Compacted , 50 mm² and above conductors are Sectoral-Shaped. All Conductors are in accordance with IEC 60228 and BS EN 60228

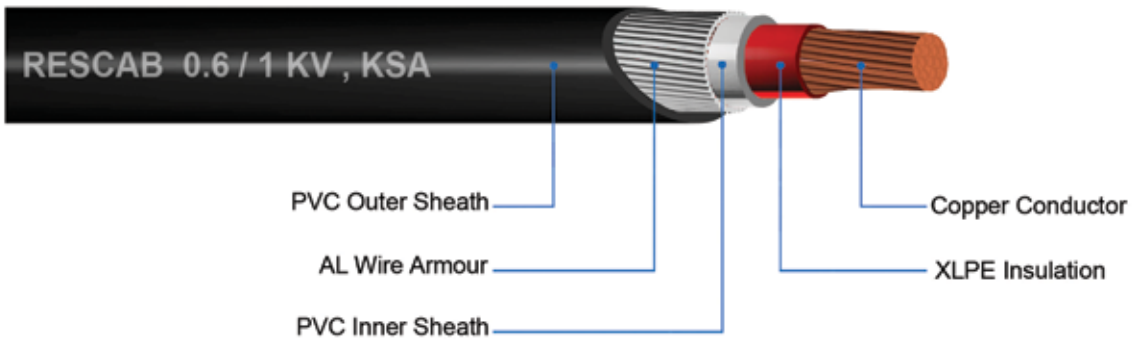
Three & Half Cores - XLPE Insulated PVC Sheathed Cables — IEC 60502-1
Copper Conductor - Unarmoured — CU/XLPE/PVC 0.6/1 kV



No of Cores x Nominal Cross Section Area	No. Of Wires		Nominal Thickness of Insulation		Nominal Thickness of Sheath	Approx. Overall Diameter	Maximum DC Resistance at 20°C		Approx. Weight	Standard Packing
	Ph	Ne	Ph	Ne			Ph	Ne		
mm²	No.	No.	mm	mm	mm	mm	Ω/Km	Ω/Km	Kg/Km	m
Class II Conductors										
3x10 + 6	7	7	0.7	0.7	1.8	20	1.83	3.08	670	1000
3x16 + 10	7	7	0.7	0.7	1.8	22	1.15	1.83	920	1000
3x25 + 16	7	7	0.9	0.7	1.8	26	0.727	1.15	1280	1000
3x35 + 16	7	7	0.9	0.7	1.8	27	0.524	1.15	1590	1000
3x50 + 25	7	7	1.0	0.9	1.8	30	0.387	0.727	2060	500
3x70 + 35	19	7	1.1	0.9	1.9	35	0.268	0.524	2890	500
3x95 + 50	19	7	1.1	1.0	2.1	39	0.193	0.387	3860	500
3x120 + 70	37	19	1.2	1.1	2.2	43	0.153	0.268	4770	500
3x150 + 70	37	19	1.4	1.1	2.3	47	0.124	0.268	5760	500
3x185 + 95	37	19	1.6	1.1	2.5	52	0.0991	0.193	7230	250
3x240 + 120	61	37	1.7	1.2	2.7	58	0.0754	0.153	9250	250
3x300 + 150	61	37	1.8	1.4	2.9	63	0.0601	0.124	11440	250
3x400 + 185	61	37	2.0	1.6	3.1	72	0.0470	0.0991	14480	250

Note: Phase conductors 10 mm² to 35 mm² are Round Compacted, 50 mm² and above are Sectoral-Shaped. Neutral Conductors 10 mm² and above are Round Compacted. All Conductors are in accordance with IEC 60228 and BS EN 60228

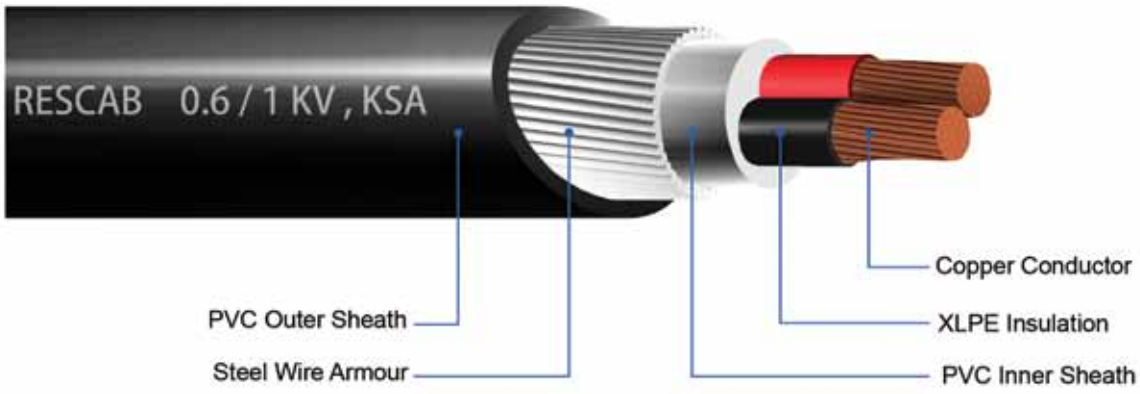
Single Core - XLPE Insulated, Aluminum wire Armoured, PVC Sheathed Cables IEC 60502-1
Copper Conductor CU/XLPE/AWA/PVC 0.6/1 kV



Nominal Cross Section Area of Conductor	No. Of Wires	Nominal Thickness of Insulation	Nominal Aluminium Wire Dia.	Nominal Thickness of Sheath	Approx. Overall Diameter	Maximum DC Resistance at 20°C	Approx. Weight	Standard Packing
mm²	No.	mm	mm	mm	mm	Ω/Km	Kg/Km	m
Class II Conductors								
25	7	0.9	0.8	1.8	16	0.727	490	1000
35	7	0.9	0.8	1.8	17	0.524	590	1000
50	19	1.0	1.25	1.8	19	0.387	800	1000
70	19	1.1	1.25	1.8	21	0.268	1030	1000
95	19	1.1	1.6	1.8	22	0.193	1340	1000
120	37	1.2	1.8	1.8	25	0.153	1650	1000
150	37	1.4	1.8	1.8	28	0.124	1985	1000
185	37	1.6	1.8	1.8	30	0.0991	2400	1000
240	61	1.7	1.8	1.9	33	0.0754	3035	1000
300	61	1.8	1.8	1.9	36	0.0601	3680	500
400	61	2.0	2.0	2.1	39	0.0470	4780	500
500	61	2.2	2.0	2.2	44	0.0366	5900	500
630	61	2.4	2.0	2.3	49	0.0283	7540	500

Note: 25 mm² and above conductors are Round Stranded-Compacted. All Conductors are in accordance with IEC 60228 and BS EN 60228

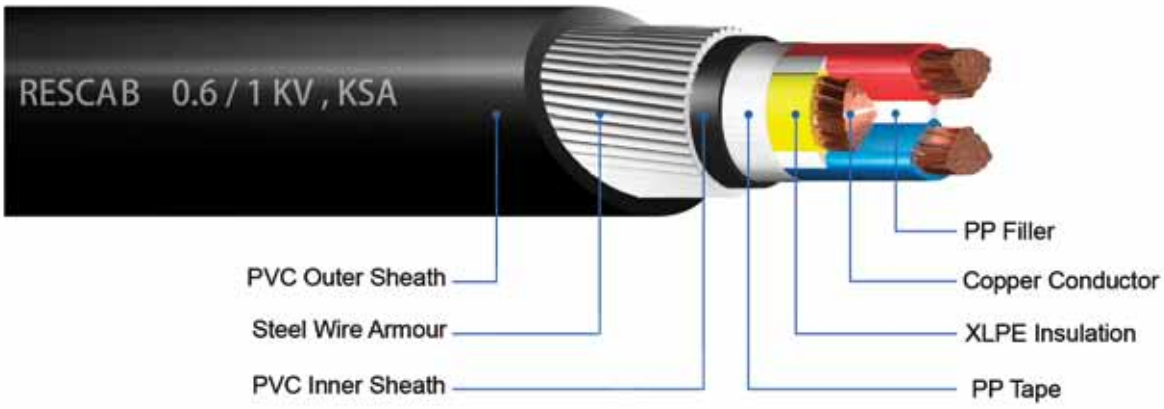
Two Cores - XLPE Insulated, Steel Wire Armoured, PVC Sheathed Cables IEC 60502-1
Copper Conductor CU/XLPE/SWA/PVC 0.6/1 kV



No. of Cores x Nominal Cross Section Area	No. Of Wires	Nominal Thickness of Insulation	Nominal Steel Wire Dia.	Nominal Thickness of Sheath	Approx. Overall Diameter	Maximum DC Resistance at 20°C	Approx. Weight	Standard Packing
mm²	No.	mm	mm	mm	mm	Ω/Km	Kg/Km	m
Class I Conductors								
2x4	1	0.7	0.8	1.8	16	4.61	475	1000
2x6	1	0.7	0.8	1.8	17	3.08	550	1000
Class II Conductors								
2x4	7	0.7	0.8	1.8	16	4.61	475	1000
2x6	7	0.7	0.8	1.8	17	3.08	550	1000
2x10	7	0.7	1.25	1.8	20	1.83	840	1000
2x16	7	0.7	1.25	1.8	22	1.15	1050	1000
2x25	7	0.9	1.6	1.8	26	0.727	1580	1000
2x35	7	0.9	1.6	1.8	28	0.524	1925	1000

Note: 10 mm² and above conductors are Round Stranded-Compacted. All Conductors are in accordance with IEC 60228 and BS EN 60228

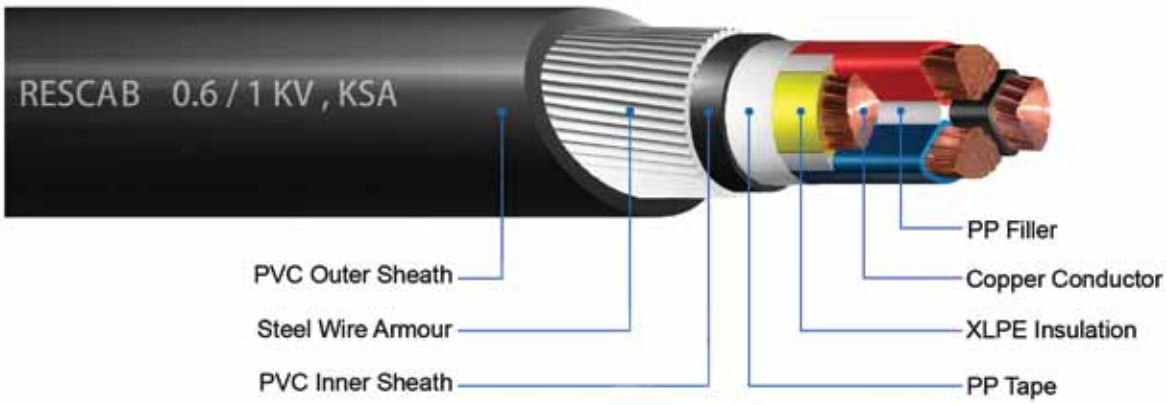
Three Cores - XLPE Insulated, Steel Wire Armoured, PVC Sheathed Cables IEC 60502-1
Copper Conductor CU/XLPE/SWA/PVC 0.6/1 kV



No. of Cores x Nominal Cross Section Area	No. Of Wires	Nominal Thickness of Insulation	Nominal Steel Wire Dia.	Nominal Thickness of Sheath	Approx. Overall Diameter	Maximum DC Resistance at 20°C	Approx. Weight	Standard Packing
mm²	No.	mm	mm	mm	mm	Ω/Km	Kg/Km	m
Class I Conductors								
3x4	1	0.7	0.8	1.8	17	4.61	550	1000
3x6	1	0.7	0.8	1.8	18	3.08	665	1000
Class II Conductors								
3x4	7	0.7	0.8	1.8	17	4.61	550	1000
3x6	7	0.7	1.25	1.8	18	3.08	665	1000
3x10	7	0.7	1.25	1.8	21	1.83	980	1000
3x16	7	0.7	1.25	1.8	23	1.15	1250	1000
3x25	7	0.9	1.6	1.8	27	0.727	1890	1000
3x35	7	0.9	1.6	1.8	29	0.524	2390	1000
3x50	7	1.0	1.6	1.9	32	0.387	2680	500
3x70	19	1.1	2.0	2.0	37	0.268	3835	500
3x95	19	1.1	2.0	2.2	40	0.193	4760	500
3x120	37	1.2	2.0	2.3	45	0.153	5825	500
3x150	37	1.4	2.5	2.5	53	0.124	7430	500
3x185	37	1.6	2.5	2.6	55	0.0991	8930	250
3x240	61	1.7	2.5	2.8	62	0.0754	11200	250
3x300	61	1.8	2.5	3.0	68	0.0601	13550	250
3x400	61	2.0	2.5	3.2	75	0.0470	16610	250

Note: 10 mm² to 35 mm² conductors are Round Compacted , 50 mm² and above conductors are Sectoral-Shaped. All Conductors are in accordance with IEC 60228 and BS EN 60228.

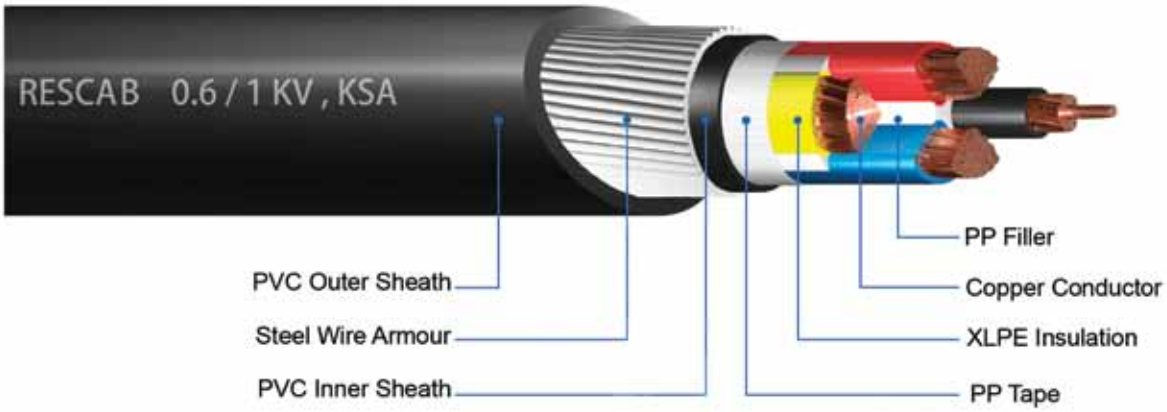
Four Cores - XLPE Insulated, Steel Wire Armoured, PVC Sheathed Cables — IEC 60502-1
Copper Conductor — CU/XLPE/SWA/PVC 0.6/1 kV



No. of Cores x Nominal Cross Section Area	No. Of Wires	Nominal Thickness of Insulation	Nominal Steel Wire Dia.	Nominal Thickness of Sheath	Approx. Overall Diameter	Maximum DC Resistance at 20°C	Approx. Weight	Standard Packing
mm²	No.	mm	mm	mm	mm	Ω/Km	Kg/Km	m
Class I Conductors								
4x4	1	0.7	0.8	1.8	18	4.61	600	1000
4x6	1	0.7	1.25	1.8	20	3.08	850	1000
Class II Conductors								
4x4	7	0.7	1.25	1.8	18	4.61	600	1000
4x6	7	0.7	1.25	1.8	20	3.08	850	1000
4x10	7	0.7	1.25	1.8	22	1.83	1150	1000
4x16	7	0.7	1.6	1.8	25	1.15	1590	1000
4x25	7	0.9	1.6	1.8	30	0.727	2125	1000
4x35	7	0.9	1.6	1.9	32	0.524	2635	1000
4x50	7	1.0	1.6	2.0	35	0.387	3100	500
4x70	19	1.1	2.0	2.2	40	0.268	4440	500
4x95	19	1.1	2.0	2.3	43	0.193	5630	500
4x120	37	1.2	2.5	2.5	49	0.153	7260	500
4x150	37	1.4	2.5	2.6	54	0.124	8680	500
4x185	37	1.6	2.5	2.8	59	0.0991	10455	250
4x240	61	1.7	2.5	3.0	65	0.0754	13170	250
4x300	61	1.8	2.50	3.2	70	0.0601	15920	250
4x400	61	2.0	3.15	3.5	80	0.0470	20830	250

Note: 10 mm² to 35 mm² conductors are Round Compacted , 50 mm² and above conductors are Sectoral-Shaped. All Conductors are in accordance with IEC 60228 and BS EN 60228

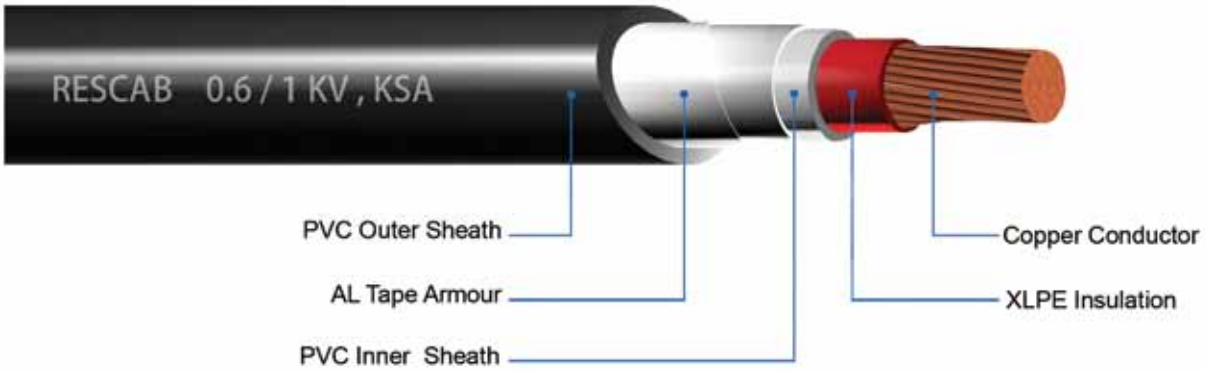
Three & Half Cores XLPE Insulated, Steel Wire Armoured, PVC Sheathed Cables IEC 60502-1
Copper Conductor CU/XLPE/SWA/PVC 0.6/1 kV



No. of Cores x Nominal Cross Section Area	No. Of Wires		Nominal Thickness of Insulation		Nominal Steel Wire Dia.	Nominal Thickness of Sheath	Approx. Overall Diameter	Maximum DC Resistance at 20°C		Approx. Weight	Standard Packing
	Ph	Ne	Ph	Ne				Ph	Ne		
mm²	No.	No.	mm	mm	mm	mm	mm	Ω/Km	Ω/Km	Kg/Km	m
Class II Conductors											
3x10 + 6	7	7	0.7	0.7	1.25	1.8	22	1.83	3.08	1080	1000
3x16 + 10	7	7	0.7	0.7	1.25	1.8	25	1.15	1.83	1390	1000
3x25 + 16	7	7	0.9	0.7	1.6	1.8	29	0.727	1.15	2060	1000
3x35 + 16	7	7	0.9	0.7	1.6	1.8	30	0.524	1.15	2240	1000
3x50 + 25	7	7	1.0	0.9	1.6	1.9	33	0.387	0.727	2860	500
3x70 + 35	19	7	1.1	0.9	2.0	2.1	38	0.268	0.524	4070	500
3x95 + 50	19	7	1.1	1.0	2.0	2.2	42	0.193	0.387	5100	500
3x120 + 70	37	19	1.2	1.1	2.0	2.4	46	0.153	0.268	6220	500
3x150 + 70	37	19	1.4	1.1	2.5	2.5	51	0.124	0.268	7800	500
3x185 + 95	37	19	1.6	1.1	2.5	2.7	56	0.0991	0.193	9460	250
3x240 + 120	61	37	1.7	1.2	2.5	2.9	62	0.0754	0.153	11800	250
3x300 + 150	61	37	1.8	1.4	2.50	3.0	67	0.0601	0.124	14180	250
3x400 + 185	61	37	2.0	1.6	3.15	3.4	77	0.0470	0.0991	18620	250

Note: Phase conductors 10 mm² to 35 mm² are Round Compacted, 50 mm² and above are Sectoral-Shaped. Neutral Conductors 10 mm² and above are Round Compacted. All Conductors are in accordance with IEC 60228 and BS EN 60228

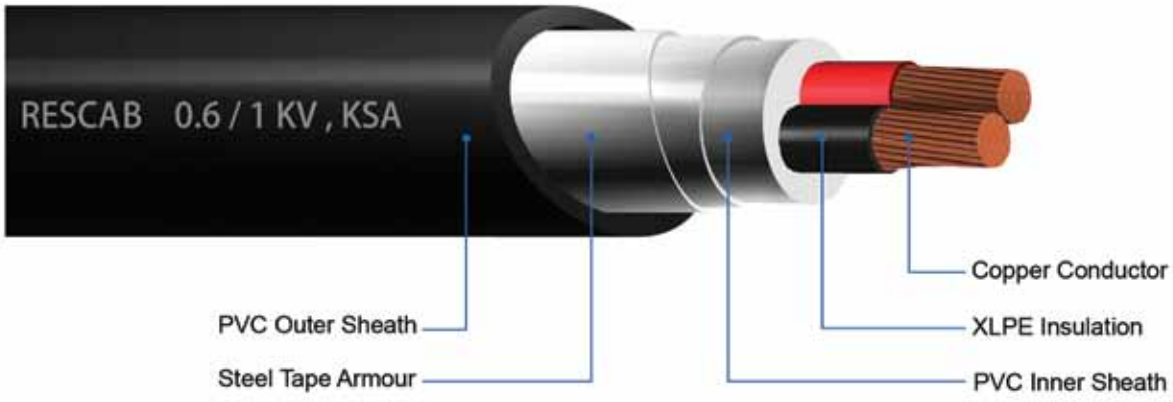
Single Core - XLPE Insulated, Aluminum Tape Armoured, PVC Sheathed Cables IEC 60502-1
Copper Conductor CU/XLPE/ATA/PVC 0.6/1 kV



Nominal Cross Section Area of Conductor	No. Of Wires	Nominal Thickness of Insulation	Nominal Aluminium Tape Thickness	Nominal Thickness of Sheath	Approx. Overall Diameter	Maximum DC Resistance at 20°C	Approx. Weight	Standard Packing
mm²	No.	mm	mm	mm	mm	Ω/Km	Kg/Km	m
Class II Conductors								
25	7	0.9	0.5	1.8	16	0.727	490	1000
35	7	0.9	0.5	1.8	17	0.524	590	1000
50	19	1.0	0.5	1.8	19	0.387	775	1000
70	19	1.1	0.5	1.8	21	0.268	1005	1000
95	19	1.1	0.5	1.8	22	0.193	1290	1000
120	37	1.2	0.5	1.8	24	0.153	1530	1000
150	37	1.4	0.5	1.8	27	0.124	1840	1000
185	37	1.6	0.5	1.8	29	0.0991	2220	1000
240	61	1.7	0.5	1.8	32	0.0754	2830	1000
300	61	1.8	0.5	1.9	35	0.0601	3500	500
400	61	2.0	0.5	2.0	37	0.0470	4415	500
500	61	2.2	0.5	2.1	42	0.0366	5560	500
630	61	2.4	0.5	2.3	47	0.0283	7090	500

Note: 25 mm² and above conductors are Round Stranded-Compacted. All Conductors are in accordance with IEC 60228 and BS EN 60228

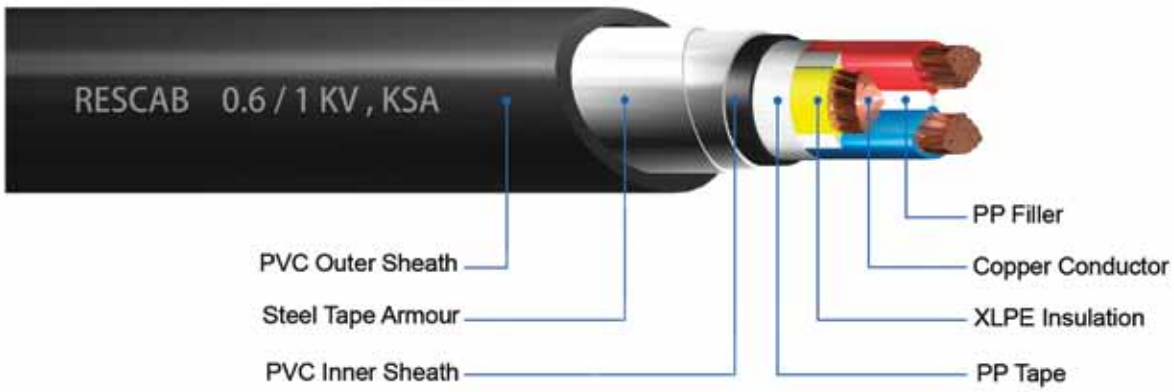
Two Cores - XLPE Insulated, Steel Tape Armoured, PVC Sheathed Cables IEC 60502-1
Copper Conductor CU/XLPE/STA/PVC 0.6/1 kV



No. of Cores x Nominal Cross Section Area	No. Of Wires	Nominal Thickness of Insulation	Nominal Steel Tape Thickness	Nominal Thickness of Sheath	Approx. Overall Diameter	Maximum DC Resistance at 20°C	Approx. Weight	Standard Packing
mm²	No.	mm	mm	mm	mm	Ω/Km	Kg/Km	m
Class I Conductors								
2x4	1	0.7	0.2	1.8	15	4.61	390	1000
2x6	1	0.7	0.2	1.8	16	3.08	470	1000
Class II Conductors								
2x4	7	0.7	0.2	1.8	15	4.61	390	1000
2x6	7	0.7	0.2	1.8	16	3.08	470	1000
2x10	7	0.7	0.2	1.8	18	1.83	600	1000
2x16	7	0.7	0.2	1.8	20	1.15	790	1000
2x25	7	0.9	0.2	1.8	24	0.727	1130	1000
2x35	7	0.9	0.2	1.8	26	0.524	1420	1000

Note: 10 mm² and above conductors are Round Stranded-Compacted. All Conductors are in accordance with IEC 60228 and BS EN 60228

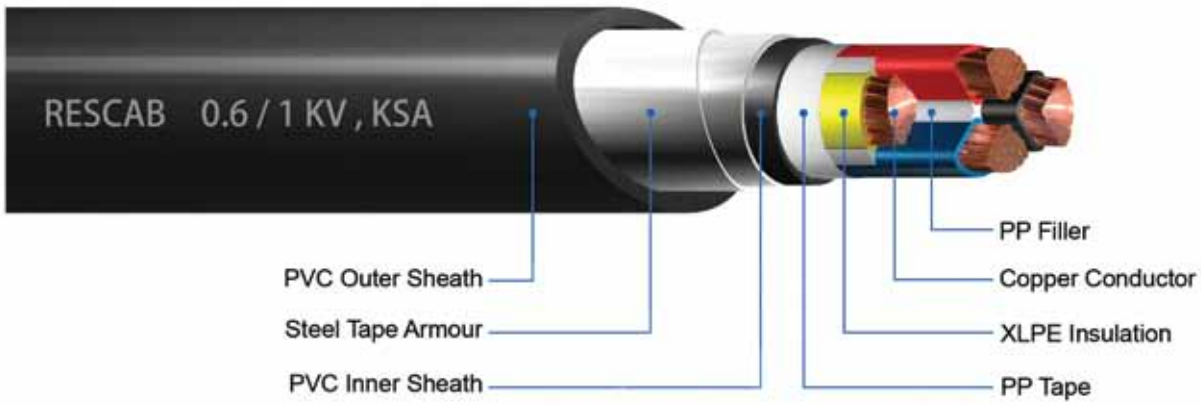
Three Cores - XLPE Insulated, Steel Tape Armoured, PVC Sheathed Cables IEC 60502-1
Copper Conductor CU/XLPE/STA/PVC 0.6/1 kV



No. of Cores x Nominal Cross Section Area	No. Of Wires	Nominal Thickness of Insulation	Nominal Steel Tape Thickness	Nominal Thickness of Sheath	Approx. Overall Diameter	Maximum DC Resistance at 20°C	Approx. Weight	Standard Packing
mm²	No.	mm	mm	mm	mm	Ω/Km	Kg/Km	m
Class I Conductors								
3x4	1	0.7	0.2	1.8	16	4.61	430	1000
3x6	1	0.7	0.2	1.8	16	3.08	475	1000
Class II Conductors								
3x4	7	0.7	0.2	1.8	16	4.61	430	1000
3x6	7	0.7	0.2	1.8	17	3.08	525	1000
3x10	7	0.7	0.2	1.8	19	1.83	710	1000
3x16	7	0.7	0.2	1.8	21	1.15	950	1000
3x25	7	0.9	0.2	1.8	25	0.727	1370	1000
3x35	7	0.9	0.2	1.8	27	0.524	1600	1000
3x50	7	1.0	0.2	1.8	31	0.387	2075	500
3x70	19	1.1	0.2	2.0	35	0.268	2860	500
3x95	19	1.1	0.5	2.1	39	0.193	3750	500
3x120	37	1.2	0.5	2.3	45	0.153	5070	500
3x150	37	1.4	0.5	2.4	50	0.124	6140	500
3x185	37	1.6	0.5	2.6	55	0.0991	7470	250
3x240	61	1.7	0.5	2.7	62	0.0754	9500	250
3x300	61	1.8	0.5	2.9	68	0.0601	11600	250
3x400	61	2.0	0.5	3.2	75	0.0470	14650	250

Note: 10 mm² to 35 mm² conductors are Round Compacted , 50 mm² and above conductors are Sectoral-Shaped. All Conductors are in accordance with IEC 60228 and BS EN 60228.

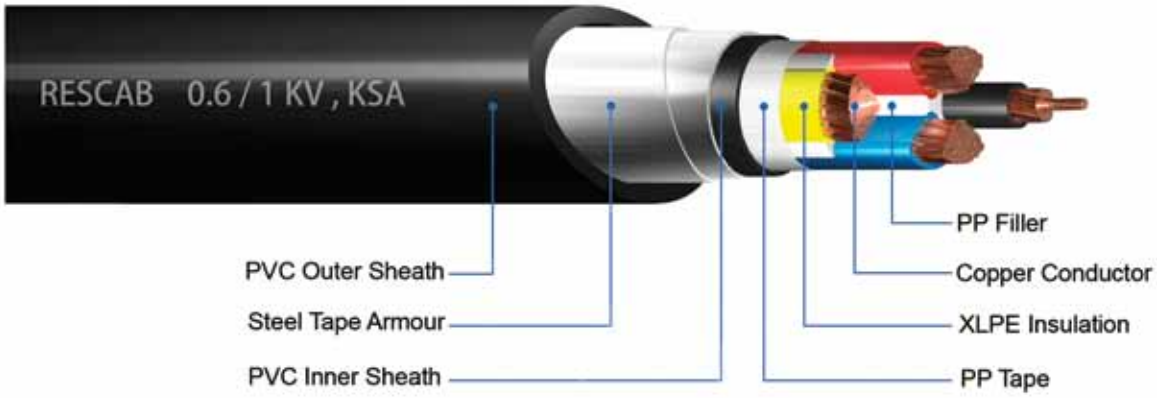
Four Cores - XLPE Insulated, Steel Tape Armoured, PVC Sheathed Cables IEC 60502-1
Copper Conductor CU/XLPE/STA/PVC 0.6/1 kV



No. of Cores x Nominal Cross Section Area	No. Of Wires	Nominal Thickness of Insulation	Nominal Steel Tape Thickness.	Nominal Thickness of Sheath	Approx. Overall Diameter	Maximum DC Resistance at 20°C	Approx. Weight	Standard Packing
mm²	No.	mm	mm	mm	mm	Ω/Km	Kg/Km	m
Class I Conductors								
4x4	1	0.7	0.2	1.8	17	4.61	500	1000
4x6	1	0.7	0.2	1.8	18	3.08	630	1000
Class II Conductors								
4x4	7	0.7	0.2	1.8	17	4.61	500	1000
4x6	7	0.7	0.2	1.8	18	3.08	630	1000
4x10	7	0.7	0.2	1.8	20	1.83	840	1000
4x16	7	0.7	0.2	1.8	23	1.15	1160	1000
4x25	7	0.9	0.2	1.8	27	0.727	1680	1000
4x35	7	0.9	0.2	1.8	28	0.524	1890	1000
4x50	7	1.0	0.2	1.9	32	0.387	2470	500
4x70	19	1.1	0.5	2.1	38	0.268	3400	500
4x95	19	1.1	0.5	2.3	42	0.193	4910	500
4x120	37	1.2	0.5	2.4	46	0.153	6030	500
4x150	37	1.4	0.5	2.6	51	0.124	7330	500
4x185	37	1.6	0.5	2.7	55	0.0991	8900	250
4x240	61	1.7	0.5	2.9	62	0.0754	11400	250
4x300	61	1.8	0.5	3.1	67	0.0601	14000	250
4x400	61	2.0	0.5	3.4	76	0.0470	17760	250

Note: 10 mm² to 35 mm² conductors are Round Compacted , 50 mm² and above conductors are Sectoral-Shaped. All Conductors are in accordance with IEC 60228 and BS EN 60228

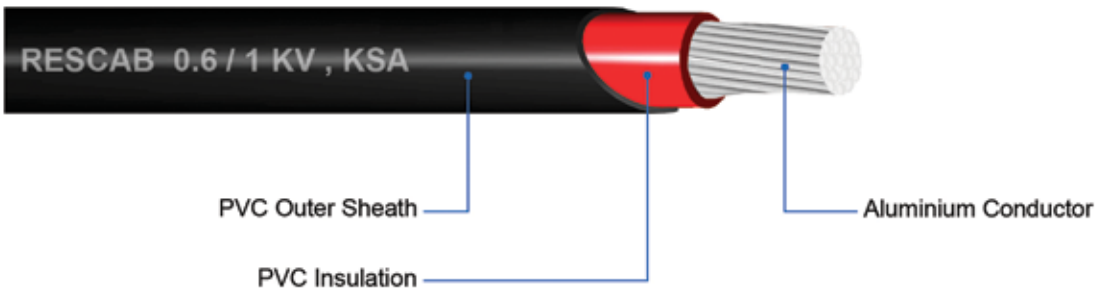
Three & Half Cores XLPE Insulated, Steel Tape Armoured, PVC Sheathed Cables IEC 60502-1
Copper Conductor CU/XLPE/STA/PVC 0.6/1 kV



No. of Cores x Nominal Cross Section Area	No. Of Wires		Nominal Thickness of Insulation		Nominal Steel Tape Thickness	Nominal Thickness of Sheath	Approx. Overall Diameter	Maximum DC Resistance at 20°C		Approx. Weight	Standard Packing
	Ph	Ne	Ph	Ne				Ph	Ne		
mm²	No.	No.	mm	mm	mm	mm	mm	Ω/Km	Ω/Km	Kg/Km	m
Class II Conductors											
3x10 + 6	7	7	0.7	0.7	0.2	1.8	20	1.83	3.08	780	1000
3x16 + 10	7	7	0.7	0.7	0.2	1.8	23	1.15	1.83	1060	1000
3x25 + 16	7	7	0.9	0.7	0.2	1.8	26	0.727	1.15	1535	1000
3x35 + 16	7	7	0.9	0.7	0.2	1.8	27	0.524	1.15	1690	1000
3x50 + 25	7	7	1.0	0.9	0.2	1.9	30	0.387	0.727	2235	500
3x70 + 35	19	7	1.1	0.9	0.2	2.0	34	0.268	0.524	3070	500
3x95 + 50	19	7	1.1	1.0	0.5	2.2	40	0.193	0.387	4330	500
3x120 + 70	37	19	1.2	1.1	0.5	2.3	44	0.153	0.268	5350	500
3x150 + 70	37	19	1.4	1.1	0.5	2.5	48	0.124	0.268	6400	500
3x185 + 95	37	19	1.6	1.1	0.5	2.6	53	0.0991	0.193	7900	250
3x240 + 120	61	37	1.7	1.2	0.5	2.8	59	0.0754	0.153	11000	250
3x300 + 150	61	37	1.8	1.4	0.5	3.0	64	0.0601	0.124	12370	250
3x400 + 185	61	37	2.0	1.6	0.5	3.3	72	0.0470	0.0991	15550	250

Note: Phase conductors 10 mm² to 35 mm² are Round Compacted, 50 mm² and above are Sectoral-Shaped. Neutral Conductors 10 mm² and above are Round Compacted. All Conductors are in accordance with IEC 60228 and BS EN 60228

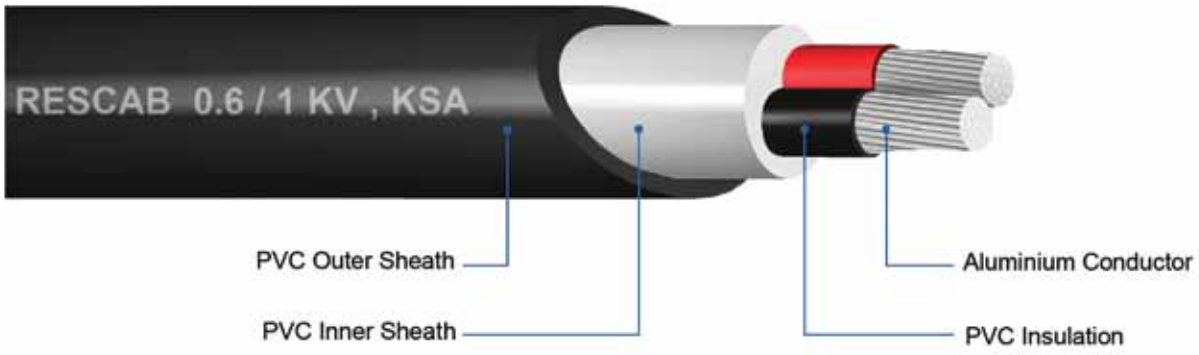
Single Core - PVC Insulated PVC Sheathed Cables — IEC 60502-1
Aluminium Conductor - Unarmoured — AL/PVC/PVC 0.6/1 kV



Nominal Cross Section Area of Conductor	No. Of Wires	Nominal Thickness of Insulation	Nominal Thickness of Sheath	Approximate Overall Diameter	Maximum DC Resistance at 20 C	Approx. Weight	Standard Packing
mm²	No.	mm	mm	mm	Ω/Km	Kg/Km	m
Class II Conductors							
16	7	1.0	1.4	10	1.91	138	2000
25	7	1.2	1.4	12	1.20	188	1000
35	7	1.2	1.4	13	0.868	227	1000
50	7	1.4	1.4	15	0.641	310	1000
70	19	1.4	1.4	16	0.443	380	1000
95	19	1.6	1.5	18	0.320	510	1000
120	19	1.6	1.5	20	0.253	605	1000
150	19	1.8	1.6	22	0.206	735	1000
185	37	2.0	1.7	25	0.164	910	1000
240	37	2.2	1.8	28	0.125	1160	1000
300	37	2.4	1.9	31	0.100	1410	1000
400	61	2.6	2.0	34	0.778	1750	500
500	61	2.8	2.1	39	0.0605	2210	500
630	61	2.8	2.2	43	0.0469	2725	500

Note: 16 mm² and above conductors are Round Stranded-Compacted. All Conductors are in accordance with IEC 60228 and BS EN 60228

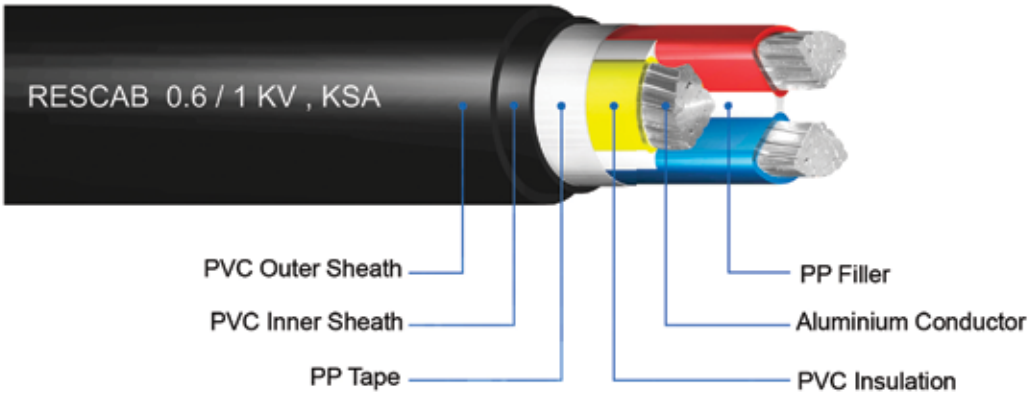
Two Cores - PVC Insulated PVC Sheathed Cables — IEC 60502-1
Aluminium Conductor - Unarmoured — AL/PVC/PVC 0.6/1 kV



No. of Cores x Nominal Cross Section Area	No. Of Wires	Nominal Thickness of Insulation	Nominal Thickness of Sheath	Approximate Overall Diameter	Maximum DC Resistance at 20°C	Approx. Weight	Standard Packing
mm²	No.	mm	mm	mm	Ω/Km	Kg/Km	m
Class II Conductors							
2x16	7	1.0	1.8	20	1.91	530	1000
2x25	7	1.2	1.8	24	1.20	730	1000
2x35	7	1.2	1.8	26	0.868	870	1000

Note: 16 mm² and above conductors are Round Stranded-Compacted. All Conductors are in accordance with IEC 60228 and BS EN 60228

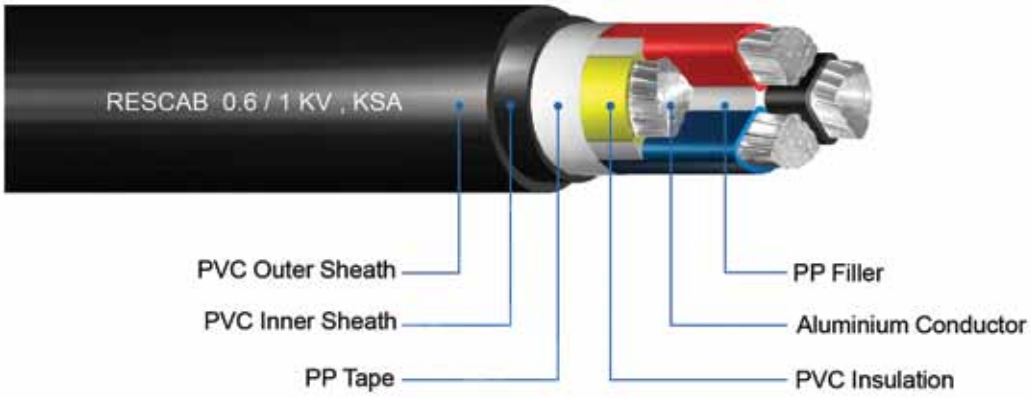
Three Cores - PVC Insulated PVC Sheathed Cables — IEC 60502-1
Aluminium Conductor - Unarmoured — AL/PVC/PVC 0.6/1 kV



No. of Cores x Nominal Cross Section Area	No. Of Wires	Nominal Thickness of Insulation	Nominal Thickness of Sheath	Approximate Overall Diameter	Maximum DC Resistance at 20°C	Approx. Weight	Standard Packing
mm²	No.	mm	mm	mm	Ω/Km	Kg/Km	m
Class II Conductors							
3x16	7	1.0	1.8	22	1.91	600	1000
3x25	7	1.2	1.8	25	1.20	830	1000
3x35	7	1.2	1.8	28	0.868	960	1000
3x50	7	1.4	1.8	31	0.641	1120	500
3x70	19	1.4	2.0	35	0.443	1470	500
3x95	19	1.6	2.1	40	0.320	1930	500
3x120	19	1.6	2.2	43	0.253	2275	500
3x150	19	1.8	2.3	48	0.206	2800	500
3x185	37	2.0	2.5	52	0.164	3425	250
3x240	37	2.2	2.7	59	0.125	4370	250
3x300	37	2.4	2.9	65	0.100	5285	250
3x400	61	2.6	3.1	73	0.0778	6640	250

Note: 16 mm² to 35 mm² conductors are Round Compacted , 50 mm² and above conductors are Sectoral-Shaped. All Conductors are in accordance with IEC 60228 and BS EN 60228

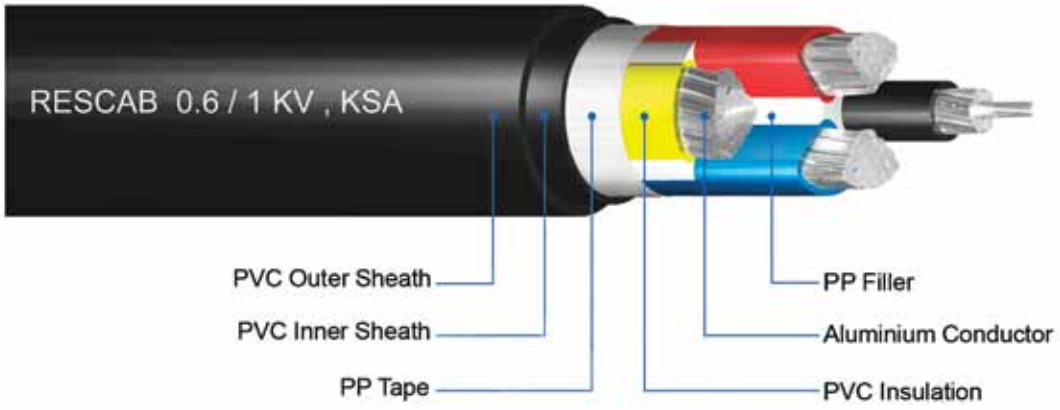
Four Cores - PVC Insulated PVC Sheathed Cables — IEC 60502-1
Aluminium Conductor - Unarmoured — AL/PVC/PVC 0.6/1 kV



No. of Cores x Nominal Cross Section Area	No. Of Wires	Nominal Thickness of Insulation	Nominal Thickness of Sheath	Approximate Overall Diameter	Maximum DC Resistance at 20°C	Approx. Weight	Standard Packing
mm²	No.	mm	mm	mm	Ω/Km	Kg/Km	m
Class II Conductors							
4x16	7	1.0	1.8	23	1.91	695	1000
4x25	7	1.2	1.8	28	1.20	940	1000
4x35	7	1.2	1.8	30	0.868	990	1000
4x50	7	1.4	1.9	33	0.641	1290	500
4x70	19	1.4	2.1	37	0.443	1660	500
4x95	19	1.6	2.2	42	0.320	2160	500
4x120	37	1.6	2.4	46	0.253	2610	500
4x150	37	1.8	2.5	50	0.206	3170	500
4x185	37	2.0	2.7	56	0.164	3910	250
4x240	37	2.2	2.9	62	0.125	4980	250
4x300	37	2.4	3.1	68	0.100	6055	250
4x400	61	2.6	3.4	77	0.0778	7695	250

Note 16 mm² to 35 mm² conductors are Round Compacted , 50 mm² and above conductors are Sectoral-Shaped. All Conductors are in accordance with IEC 60228 and BS EN 60228

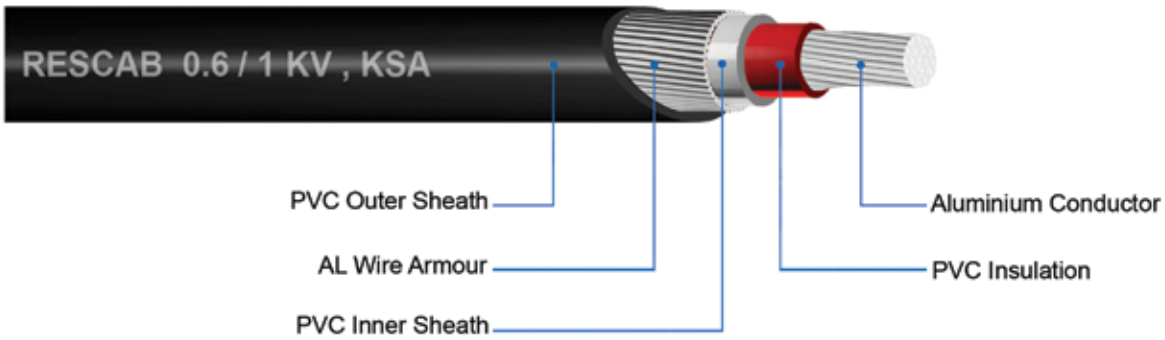
Three & Half Cores - PVC Insulated PVC Sheathed Cables — IEC 60502-1
Aluminium Conductor - Unarmoured — AL/PVC/PVC 0.6/1 kV



No of Cores x Nominal Cross Section Area	No. Of Wires		Nominal Thickness of Insulation		Nominal Thickness of Sheath	Approx. Overall Diameter	Maximum DC Resistance at 20°C		Approx. Weight	Standard Packing
	Ph	Ne	Ph	Ne			Ph	Ne		
mm²	No.	No.	mm	mm	mm	mm	Ω/Km	Ω/Km	Kg/Km	m
Class II Conductors										
3x25 + 16	7	7	1.2	1.0	1.8	27	1.20	1.91	860	1000
3x35 + 16	7	7	1.2	1.0	1.8	29	0.868	1.91	925	1000
3x50 + 25	7	7	1.4	1.2	1.9	32	0.641	1.20	1180	500
3x70 + 35	19	7	1.4	1.2	2.0	36	0.443	0.868	1510	500
3x95 + 50	19	7	1.6	1.4	2.2	40	0.320	0.641	1990	500
3x120 + 70	37	19	1.6	1.4	2.3	44	0.253	0.443	2425	500
3x150 + 70	37	19	1.8	1.4	2.4	48	0.206	0.443	2860	500
3x185 + 95	37	19	2.0	1.6	2.6	53	0.164	0.320	3525	250
3x240 + 120	37	37	2.2	1.6	2.8	59	0.125	0.253	4495	250
3x300 + 150	37	37	2.4	1.8	3.0	65	0.100	0.206	5484	250
3x400 + 185	61	37	2.6	2.0	3.2	74	0.0778	0.164	6885	250

Note: Phase conductors 25 mm² and 35 mm² are Round Compacted, 50 mm² and above are Sectoral-Shaped. Neutral Conductors 16 mm² and above are Round Compacted. All Conductors are in accordance with IEC 60228 and BS EN 60228

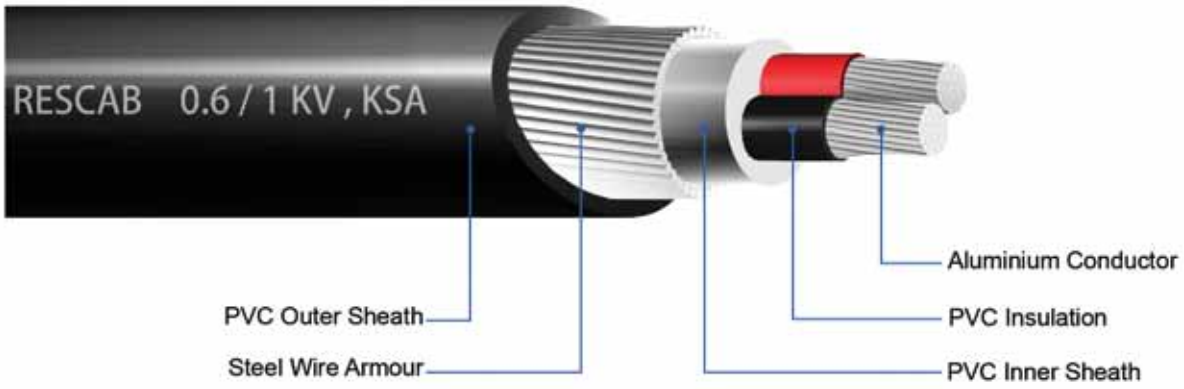
Single Core - PVC Insulated, AL Wire Armoured PVC Sheathed Cables — IEC 60502-1
Aluminium Conductor — AL/PVC/AWA/PVC 0.6/1 kV



Nominal Cross Section Area of Conductor	No. Of Wires	Nominal Thickness of Insulation	Nominal Aluminium Wire Dia.	Nominal Thickness of Sheath	Approx. Overall Diameter	Maximum DC Resistance at 20°C	Approx. Weight	Standard Packing
mm²	No.	mm	mm	mm	mm	Ω/Km	Kg/Km	m
Class II Conductors								
16	7	1.0	0.8	1.8	15	1.91	280	2000
25	7	1.2	0.8	1.8	16	1.20	360	1000
35	7	1.2	0.8	1.8	18	0.868	410	1000
50	7	1.4	1.25	1.8	20	0.641	570	1000
70	19	1.4	1.25	1.8	22	0.443	690	1000
95	19	1.6	1.6	1.8	24	0.320	845	1000
120	19	1.6	1.6	1.8	26	0.253	1025	1000
150	19	1.8	1.6	1.8	28	0.206	1185	1000
185	37	2.0	1.6	1.8	32	0.164	1385	1000
240	37	2.2	1.6	1.9	34	0.125	1670	1000
300	37	2.4	2.0	2.0	37	0.100	2100	500
400	61	2.6	2.0	2.1	41	0.0778	2560	500
500	61	2.8	2.0	2.2	45	0.0605	3130	500
630	61	2.8	2.0	2.4	51	0.0469	3735	500

Note: 16 mm² and above conductors are Round Stranded-Compacted. All Conductors are in accordance with IEC 60228 and BS EN 60228

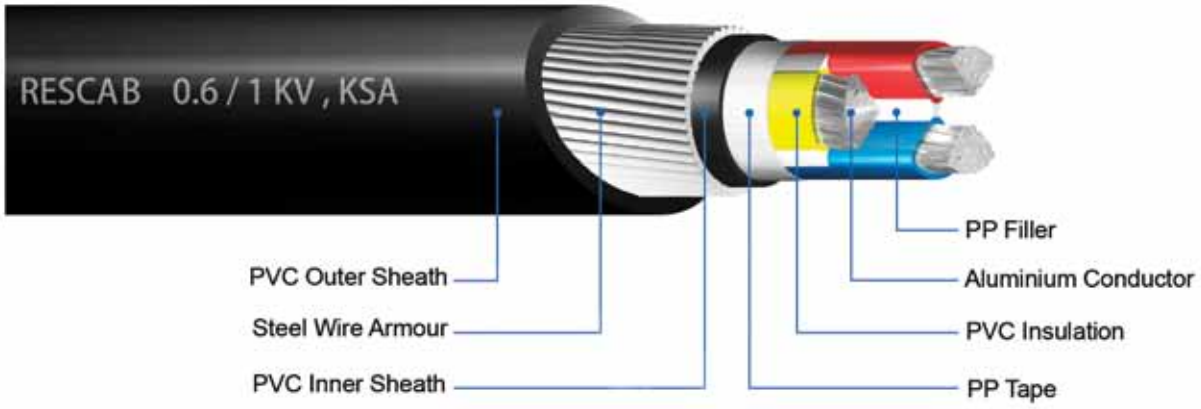
Two Cores - PVC Insulated, Steel Wire Armoured PVC Sheathed Cables — IEC 60502-1
Aluminium Conductor — AL/PVC/SWA/PVC — 0.6/1 kV



Nominal Cross Section Area of Conductor	No. Of Wires	Nominal Thickness of Insulation	Nominal Steel Wire Dia.	Nominal Thickness of Sheath	Approx. Overall Diameter	Maximum DC Resistance at 20°C	Approx. Weight	Standard Packing
mm²	No.	mm		mm	mm	Ω/Km	Kg/Km	m
Class II Conductors								
2x16	7	1.0	1.25	1.8	23	1.91	985	1000
2x25	7	1.2	1.6	1.8	27	1.20	1450	1000
2x35	7	1.2	1.6	1.8	29	0.868	1660	1000

Note: 16 mm² and above conductors are Round Stranded-Compacted. All Conductors are in accordance with IEC 60228 and BS EN 60228

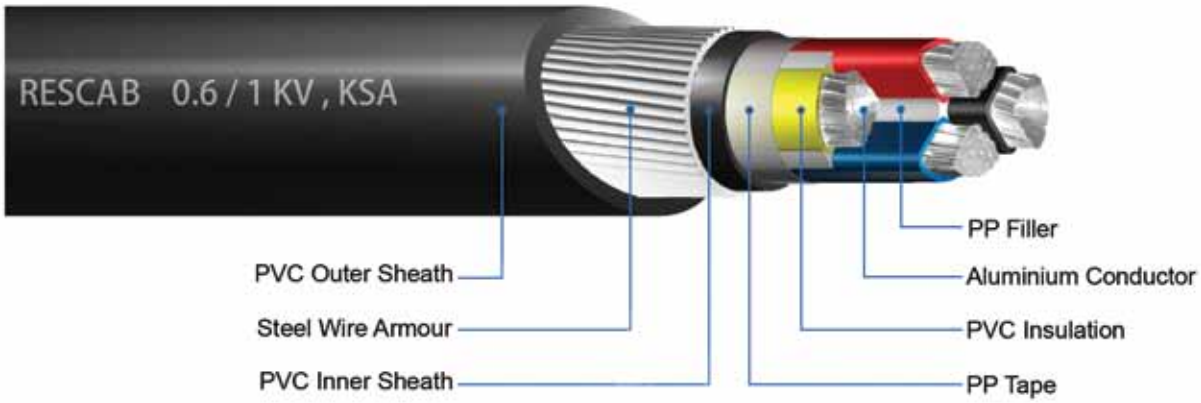
Three Cores - PVC Insulated, Steel Wire Armoured, PVC Sheathed Cables IEC 60502-1
Aluminium Conductor AL/PVC/SWA/PVC 0.6/1 kV



No of Cores x Nominal Cross Section Area	No. Of Wires	Nominal Thickness of Insulation	Nominal Steel Wire Dia.	Nominal Thickness of Sheath	Approx. Overall Diameter	Maximum DC Resistance at 20°C	Approx. Weight	Standard Packing
mm²	No.	mm	mm	mm	mm	Ω/Km	Kg/Km	m
Class II Conductors								
3x16	7	1.0	1.25	1.8	24	1.91	1060	1000
3x25	7	1.2	1.6	1.8	29	1.20	1540	1000
3x35	7	1.2	1.6	1.8	31	0.868	1800	1000
3x50	7	1.4	1.6	2.0	35	0.641	2050	500
3x70	19	1.4	2.0	2.1	39	0.443	2820	500
3x95	19	1.6	2.0	2.2	45	0.320	3470	500
3x120	19	1.6	2.0	2.3	48	0.253	3915	500
3x150	19	1.8	2.5	2.5	55	0.206	5125	500
3x185	37	2.0	2.5	2.7	58	0.164	6040	250
3x240	37	2.2	2.5	2.9	65	0.125	7290	250
3x300	37	2.4	2.5	3.1	72	0.100	8580	250
3x400	61	2.6	3.15	3.4	82	0.0778	11395	250

Note: 10 mm² to 35 mm² conductors are Round Compacted , 50 mm² and above conductors are Sectoral-Shaped. All Conductors are in accordance with IEC 60228 and BS EN 60228.

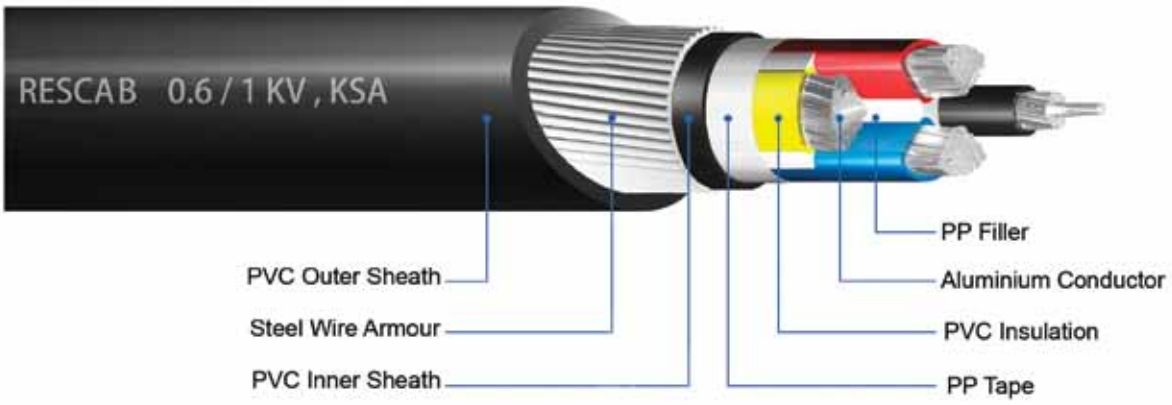
Four Core - PVC Insulated, Steel Wire Armoured, PVC Sheathed Cables IEC 60502-1
Aluminium Conductor AL/PVC/SWA/PVC 0.6/1 kV



No of Cores x Nominal Cross Section Area	No. Of Wires	Nominal Thickness of Insulation	Nominal Steel Wire Dia.	Nominal Thickness of Sheath	Approx. Overall Diameter	Maximum DC Resistance at 20°C	Approx. Weight	Standard Packing
mm²	No.	mm	mm	mm	mm	Ω/Km	Kg/Km	m
Class II Conductors								
4x16	7	1.0	1.6	1.8	26	1.91	1340	1000
4x25	7	1.2	1.6	1.8	31	1.20	1650	1000
4x35	7	1.2	1.6	1.9	33	0.868	1870	1000
4x50	7	1.4	2.0	2.1	38	0.641	2535	500
4x70	19	1.4	2.0	2.2	42	0.443	3010	500
4x95	19	1.6	2.5	2.4	48	0.320	4140	500
4x120	37	1.6	2.5	2.5	52	0.253	4710	500
4x150	37	1.8	2.5	2.7	57	0.206	5490	500
4x185	37	2.0	2.5	2.9	62	0.164	6490	250
4x240	37	2.2	2.5	3.1	68	0.125	7890	250
4x300	37	2.4	2.5	3.3	76	0.100	9340	250
4x400	61	2.6	3.15	3.6	85	0.0778	12180	250

Note: 16 mm² to 35 mm² conductors are Round Compacted , 50 mm² and above conductors are Sectoral-Shaped. All Conductors are in accordance with IEC 60228 and BS EN 60228

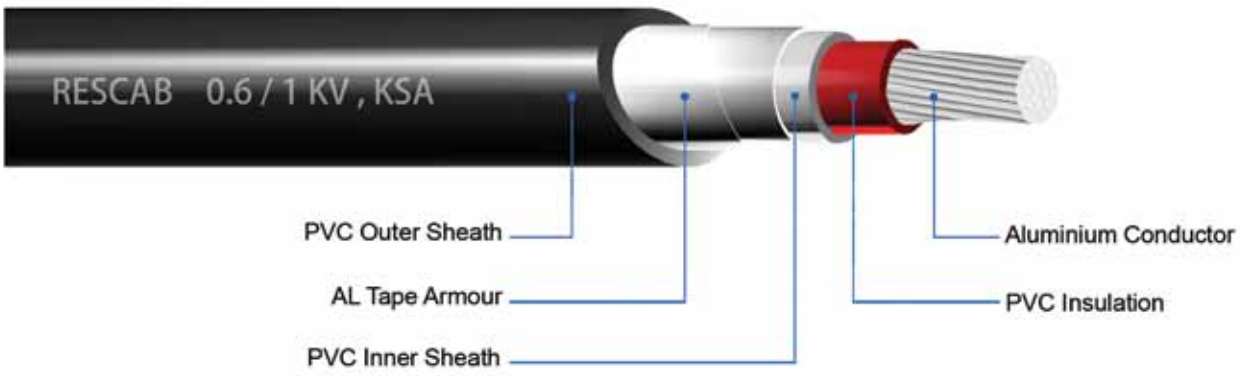
Three & Half Cores - PVC Insulated, Steel Wire Armoured, PVC Sheathed Cables IEC 60502-1
Aluminium Conductor AL/PVC/SWA/PVC 0.6/1 kV



No of Cores x Nominal Cross Section Area	No. Of Wires		Nominal Thickness of Insulation		Nominal Steel Wire Dia.	Nominal Thickness of Sheath	Approx. Overall Diameter	Maximum DC Resistance at 20°C		Approx. Weight	Standard Packing
	Ph	Ne	Ph	Ne				Ph	Ne		
mm²	No.	No.	mm	mm	mm	mm	mm	Ω/Km	Ω/Km	Kg/Km	m
Class II Conductors											
3x25 + 16	7	7	1.2	1.0	1.6	1.8	30	1.20	1.91	2100	1000
3x35 + 16	7	7	1.2	1.0	1.6	1.9	32	0.868	1.91	2510	1000
3x50 + 25	7	7	1.4	1.2	2.0	2.0	36	0.641	1.20	3350	500
3x70 + 35	19	7	1.4	1.2	2.0	2.1	40	0.443	0.868	4300	500
3x95 + 50	19	7	1.6	1.4	2.0	2.3	45	0.320	0.641	5540	500
3x120 + 70	37	19	1.6	1.4	2.5	2.5	50	0.253	0.443	7100	500
3x150 + 70	37	19	1.8	1.4	2.5	2.6	53	0.206	0.443	8270	500
3x185 + 95	37	19	2.0	1.6	2.5	2.7	58	0.164	0.320	9980	250
3x240 + 120	37	37	2.2	1.6	2.5	2.9	65	0.125	0.253	12510	250
3x300 + 150	37	37	2.4	1.8	2.5	3.1	72	0.100	0.206	15070	250
3x400 + 185	61	37	2.6	2.0	3.15	3.5	82	0.0778	0.164	19600	250

Note: Phase conductors 25 mm² and 35 mm² are Round Compacted, 50 mm² and above are Sectoral-Shaped. Neutral Conductors 16 mm² and above are Round Compacted. All Conductors are in accordance with IEC 60228 and BS EN 60228

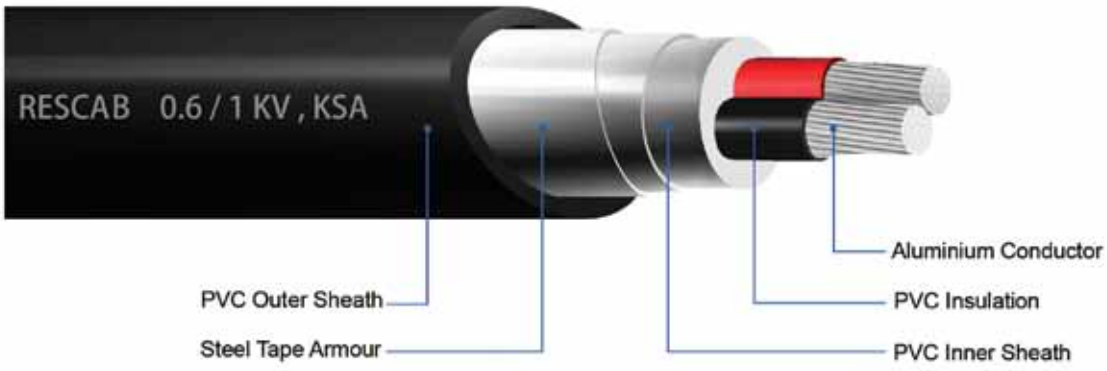
Single Core - PVC Insulated, AL Tape Armoured, PVC Sheathed Cables — IEC 60502-1
Aluminium Conductor — AL/PVC/ATA/PVC 0.6/1 kV



Nominal Cross Section Area of Conductor	No. Of Wires	Nominal Thickness of Insulation	Nominal Alumi. Tape Thickness	Nominal Thickness of Sheath	Approx. Overall Diameter	Maximum DC Resistance at 20°C	Approx. Weight	Standard Packing
mm²	No.	mm	mm	mm	mm	Ω/Km	Kg/Km	m
Class II Conductors								
25	7	1.2	0.5	1.8	17	1.20	385	1000
35	7	1.2	0.5	1.8	18	0.868	435	1000
50	7	1.4	0.5	1.8	21	0.641	515	1000
70	19	1.4	0.5	1.8	22	0.443	615	1000
95	19	1.6	0.5	1.8	25	0.320	770	1000
120	19	1.6	0.5	1.8	26	0.253	885	1000
150	19	1.8	0.5	1.8	28	0.206	1015	1000
185	37	2.0	0.5	1.8	30	0.164	1230	1000
240	37	2.2	0.5	1.9	34	0.125	1500	1000
300	37	2.4	0.5	1.9	37	0.100	1780	500
400	61	2.6	0.5	2.1	42	0.0778	2240	500
500	61	2.8	0.5	2.2	45	0.0605	2740	500
630	61	2.8	0.5	2.3	50	0.0469	3310	500

Note: 25 mm² and above conductors are Round Stranded-Compacted. All Conductors are in accordance with IEC 60228 and BS EN 60228

Two Cores - PVC Insulated, Steel Tape Armoured, PVC Sheathed Cables — IEC 60502-1
Aluminium Conductor — AL/PVC/STA/PVC 0.6/1 kV

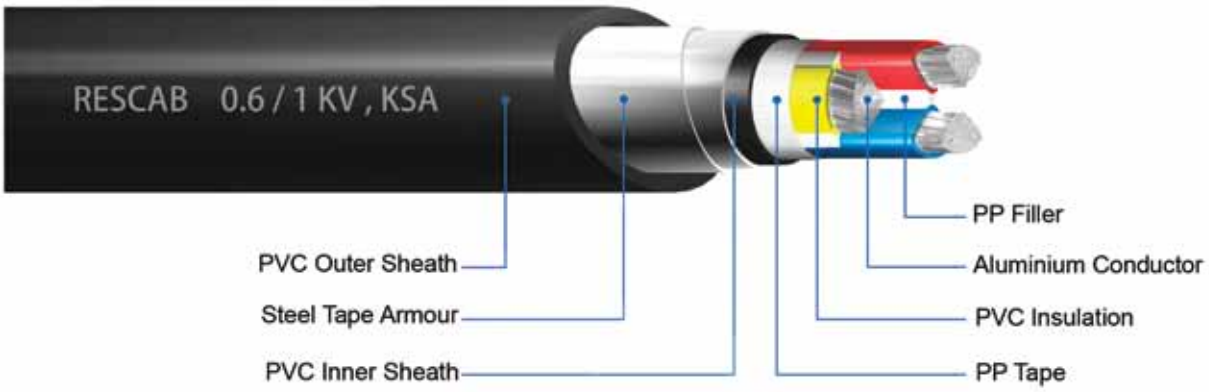


Nominal Cross Section Area of Conductor	No. Of Wires	Nominal Thickness of Insulation	Nominal Steel Tape Thickness	Nominal Thickness of Sheath	Approx. Overall Diameter	Maximum DC Resistance at 20° C	Approx. Weight	Standard Packing
mm²	No.	mm	mm	mm	mm	Ω/Km	Kg/Km	m
Class II Conductors								
2x16	7	1.0	0.2	1.8	21	1.91	670	1000
2x25	7	1.2	0.2	1.8	25	1.20	815	1000
2x35	7	1.2	0.2	1.8	27	0.868	980	1000

Note: 16 mm² and above conductors are Round Stranded-Compacted. All Conductors are in accordance with IEC 60228 and BS EN 60228

Three Cores - PVC Insulated, Steel Tape Armoured, PVC Sheathed Cables — IEC 60502-1

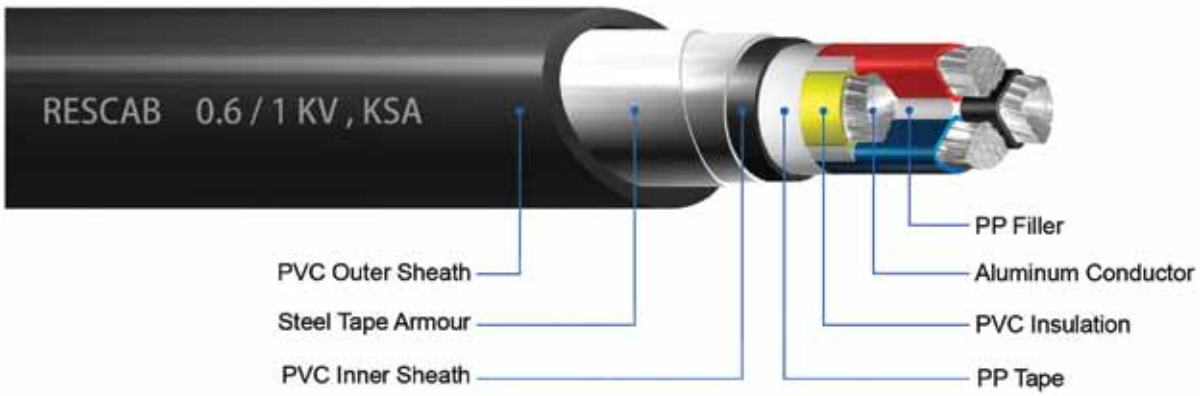
Aluminium Conductor — AL/PVC/STA/PVC 0.6/1 kV



No of Cores x Nominal Cross Section Area	No. Of Wires	Nominal Thickness of Insulation	Nominal Steel Tape Thickness	Nominal Thickness of Sheath	Approx. Overall Diameter	Maximum DC Resistance at 20°C	Approx. Weight	Standard Packing
mm²	No.	mm	mm	mm	mm	Ω/Km	Kg/Km	m
Class II Conductors								
3x16	7	1.0	0.2	1.8	23	1.91	710	1000
3x25	7	1.2	0.2	1.8	26	1.20	980	1000
3x35	7	1.2	0.2	1.8	29	0.868	1120	1000
3x50	7	1.4	0.2	1.9	32	0.641	1325	500
3x70	19	1.4	0.2	2.0	36	0.443	1700	500
3x95	19	1.6	0.5	2.2	42	0.320	2580	500
3x120	19	1.6	0.5	2.3	45	0.253	3000	500
3x150	19	1.8	0.5	2.5	52	0.206	3630	500
3x185	37	2.0	0.5	2.6	54	0.164	4300	250
3x240	37	2.2	0.5	2.8	61	0.125	5350	250
3x300	37	2.4	0.5	3.0	67	0.100	6375	250
3x400	61	2.6	0.5	3.3	75	0.0778	7910	250

Note: 16 mm² to 35 mm² conductors are Round Compacted , 50 mm² and above conductors are Sectoral-Shaped. All Conductors are in accordance with IEC 60228 and BS EN 60228

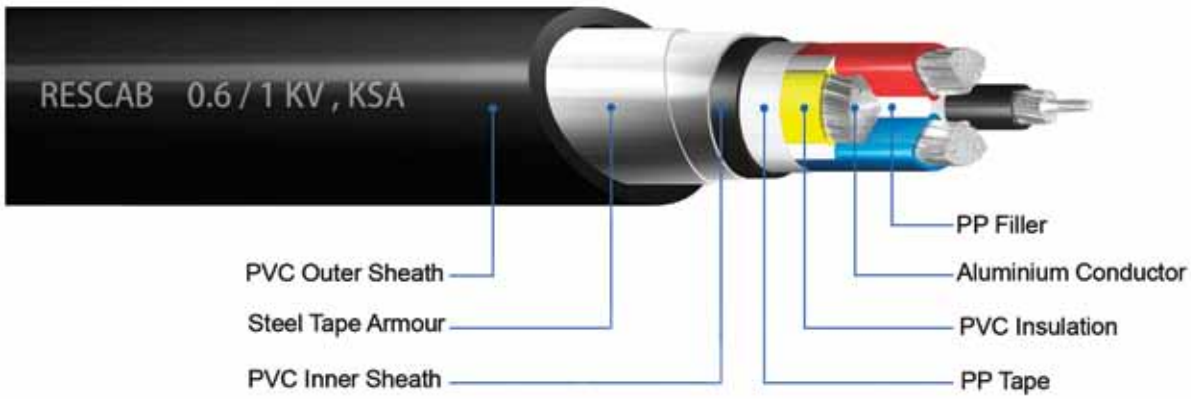
Four Cores - PVC Insulated, Steel Tape Armoured, PVC Sheathed Cables — IEC 60502-1
Aluminium Conductor — AL/PVC/STA/PVC 0.6/1 kV



No. of Cores x Nominal Cross Section Area	No. Of Wires	Nominal Thickness of Insulation	Nominal Steel Tape Thickness	Nominal Thickness of Sheath	Approx. Overall Diameter	Maximum DC Resistance at 20 C	Approx. Weight	Standard Packing
mm²	No.	mm	mm	mm	mm	Ω/Km	Kg/Km	m
Class II Conductors								
4x16	7	1.0	0.2	1.8	24	1.91	850	1000
4x25	7	1.2	0.2	1.8	28	1.20	1085	1000
4x35	7	1.2	0.2	1.9	31	0.868	1200	1000
4x50	7	1.4	0.2	2.0	34	0.641	1520	500
4x70	19	1.4	0.5	2.2	39	0.443	2260	500
4x95	19	1.6	0.5	2.4	45	0.320	2860	500
4x120	37	1.6	0.5	2.5	49	0.253	335	500
4x150	37	1.8	0.5	2.6	54	0.206	3965	500
4x185	37	2.0	0.5	2.8	59	0.164	4805	250
4x240	37	2.2	0.5	3.0	65	0.125	5960	250
4x300	37	2.4	0.5	3.2	71	0.100	7130	250
4x400	61	2.6	0.5	3.5	80	0.0778	8915	250

Note: 16 mm² to 35 mm² conductors are Round Compacted , 50 mm² and above conductors are Sectoral-Shaped. All Conductors are in accordance with IEC 60228 and BS EN 60228

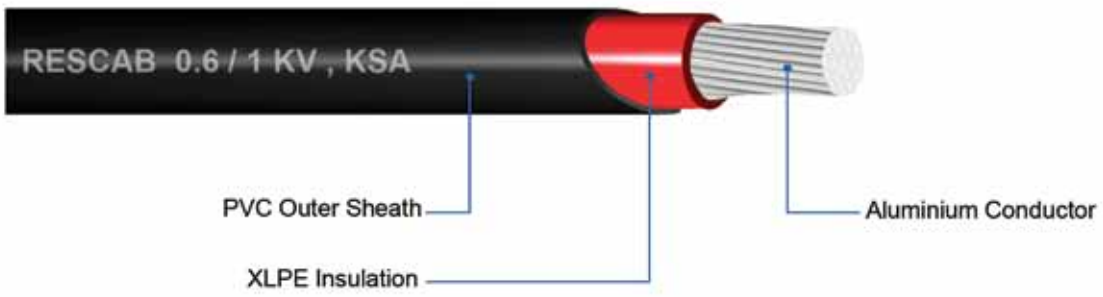
Three & Half Cores - PVC Insulated, Steel Tape Armoured, PVC Sheathed Cables IEC 60502-1
Aluminium Conductor AL/PVC/STA/PVC 0.6/1 kV



No. of Cores x Nominal Cross Section Area	No. Of Wires		Nominal Thickness of Insulation		Nominal Steel Tape Thickness	Nominal Thickness of Sheath	Approx. Overall Diameter	Maximum DC Resistance at 20°C		Approx. Weight	Standard Packing
	Ph	Ne	Ph	Ne				Ph	Ne		
mm²	No.	No.	mm	mm	mm	mm	mm	Ω/Km	Ω/Km	Kg/Km	m
Class II Conductors											
3x25 + 16	7	7	1.2	1.0	0.2	1.8	28	1.20	1.91	1045	1000
3x35 + 16	7	7	1.2	1.0	0.2	1.8	30	0.868	1.91	1085	1000
3x50 + 25	7	7	1.4	1.2	0.2	1.9	33	0.641	1.20	1355	500
3x70 + 35	19	7	1.4	1.2	0.2	2.1	37	0.443	0.868	1740	500
3x95 + 50	19	7	1.6	1.4	0.5	2.3	43	0.320	0.641	2630	500
3x120 + 70	37	19	1.6	1.4	0.5	2.4	47	0.253	0.443	3105	500
3x150 + 70	37	19	1.8	1.4	0.5	2.5	51	0.206	0.443	3620	500
3x185 + 95	37	19	2.0	1.6	0.5	2.7	56	0.164	0.320	4355	250
3x240 + 120	37	37	2.2	1.6	0.5	2.9	62	0.125	0.253	5430	250
3x300 + 150	37	37	2.4	1.8	0.5	3.1	68	0.100	0.206	6490	250
3x400 + 185	61	37	2.6	2.0	0.5	3.3	77	0.0778	0.164	8010	250

Note: Phase conductors 25 mm² and 35 mm² are Round Compacted, 50 mm² and above are Sectoral-Shaped. Neutral Conductors 16 mm² and above are Round Compacted. All Conductors are in accordance with IEC 60228 and BS EN 60228

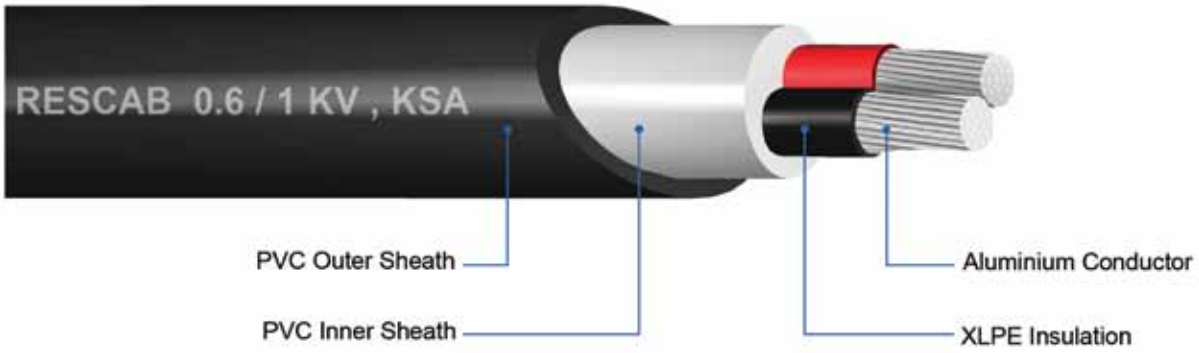
Single Core - XLPE Insulated PVC Sheathed Cables — IEC 60502-1
Aluminium Conductor - Unarmoured — AL/XLPE/PVC 0.6/1 kV



Nominal Cross Section Area of Conductor	No. Of Wires	Nominal Thickness of Insulation	Nominal Thickness of Sheath	Approximate Overall Diameter	Maximum DC Resistance at 20°C	Approx. Weight	Standard Packing
mm²	No.	mm	mm	mm	Ω/Km	Kg/Km	m
Class II Conductors							
16	7	0.7	1.4	10	1.91	115	2000
25	7	0.9	1.4	11	1.20	155	1000
35	7	0.9	1.4	13	0.868	205	1000
50	7	1.0	1.4	14	0.641	255	1000
70	19	1.1	1.4	16	0.443	335	1000
95	19	1.1	1.5	17	0.320	435	1000
120	19	1.2	1.5	19	0.253	530	1000
150	19	1.4	1.6	21	0.206	660	1000
185	37	1.6	1.6	24	0.164	785	1000
240	37	1.7	1.7	27	0.125	1015	1000
300	37	1.8	1.8	29	0.100	1215	1000
400	61	2.0	1.9	32	0.0778	1525	500
500	61	2.2	2.0	37	0.0605	1935	500
630	61	2.4	2.2	42	0.0469	2480	500

Note: 16 mm² and above conductors are Round Stranded-Compacted. All Conductors are in accordance with IEC 60228 and BS EN 60228

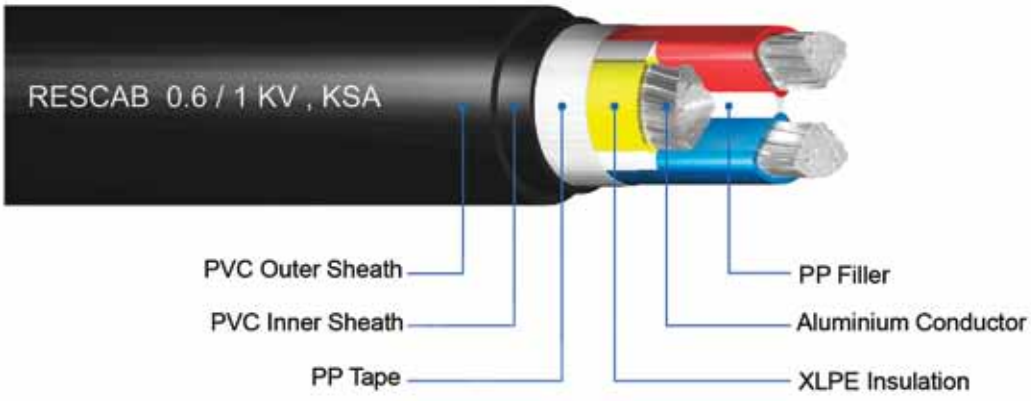
Two Cores - XLPE Insulated PVC Sheathed Cables — IEC 60502-1
Aluminium Conductor - Unarmoured — AL/XLPE/PVC 0.6/1 kV



No of Cores x Nominal Cross Section Area	No. Of Wires	Nominal Thickness of Insulation	Nominal Thickness of Sheath	Approximate Overall Diameter	Maximum DC Resistance at 20°C	Approx. Weight	Standard Packin g
mm²	No.	mm	mm	mm	Ω/Km	Kg/Km	m
Class II Conductors							
2x16	7	0.7	1.8	19	1.91	455	1000
2x25	7	0.9	1.8	23	1.20	590	1000
2x35	7	0.9	1.8	25	0.868	740	1000

Note: 16 mm² and above conductors are Round Stranded-Compacted. All Conductors are in accordance with IEC 60228 and BS EN 60228

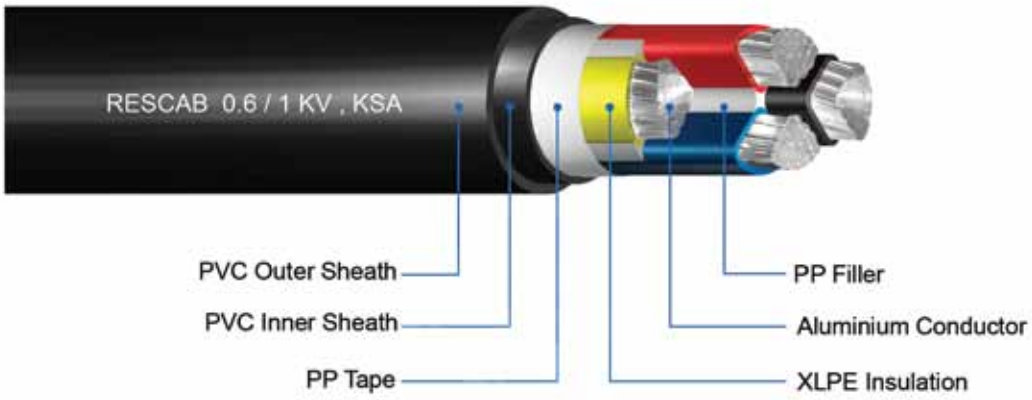
Three Cores - XLPE Insulated PVC Sheathed Cables — IEC 60502-1
Aluminium Conductor - Unarmoured — AL/XLPE/PVC 0.6/1 kV



No of Cores x Nominal Cross Section Area	No. Of Wires	Nominal Thickness of Insulation	Nominal Thickness of Sheath	Approximate Overall Diameter	Maximum DC Resistance at 20°C	Approx. Weight	Standard Packing
mm²	No.	mm	mm	mm	Ω/Km	Kg/Km	m
Class II Conductors							
3x16	7	0.7	1.8	20	1.91	500	1000
3x25	7	0.9	1.8	24	1.20	725	1000
3x35	7	0.9	1.8	26	0.868	845	1000
3x50	7	1.0	1.8	29	0.641	1805	500
3x70	19	1.1	1.9	33	0.443	2540	500
3x95	19	1.1	2.0	36	0.320	3310	500
3x120	19	1.2	2.1	41	0.253	4200	500
3x150	19	1.4	2.3	47	0.206	5200	500
3x185	37	1.6	2.4	50	0.164	6425	250
3x240	37	1.7	2.6	56	0.125	8355	250
3x300	37	1.8	2.8	63	0.100	10425	250
3x400	61	2.0	3.1	70	0.0778	13190	250

Note: 16 mm² to 35 mm² conductors are Round Compacted , 50 mm² and above conductors are Sectoral-Shaped. All Conductors are in accordance with IEC 60228 and BS EN 60228

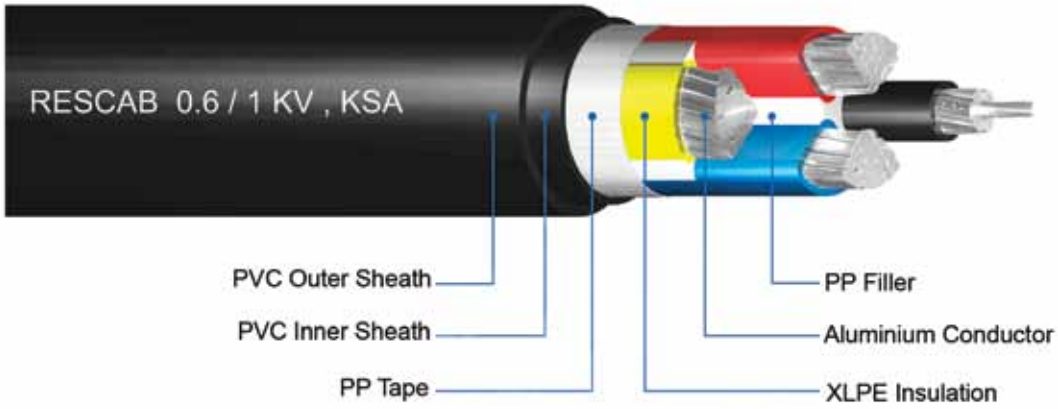
Four Cores - XLPE Insulated PVC Sheathed Cables — IEC 60502-1
Aluminium Conductor - Unarmoured — AL/XLPE/PVC 0.6/1 kV



No. of Cores x Nominal Cross Section Area	No. Of Wires	Nominal Thickness of Insulation	Nominal Thickness of Sheath	Approximate Overall Diameter	Maximum DC Resistance at 20°C	Approx. Weight	Standard Packing
mm²	No.	mm	mm	mm	Ω/Km	Kg/Km	m
Class II Conductors							
4x16	7	0.7	1.8	22	1.91	610	1000
4x25	7	0.9	1.8	26	1.20	860	1000
4x35	7	0.9	1.8	29	0.868	890	1000
4x50	7	1.0	1.9	31	0.641	1060	500
4x70	19	1.1	2.0	36	0.443	1415	500
4x95	19	1.1	2.1	40	0.320	1820	500
4x120	37	1.2	2.3	44	0.253	2255	500
4x150	37	1.4	2.5	49	0.206	2745	500
4x185	37	1.6	2.6	53	0.164	3355	250
4x240	37	1.7	2.8	59	0.125	4295	250
4x300	37	1.8	3.0	65	0.100	5185	250
4x400	61	2.0	3.3	74	0.0778	6655	250

Note: 16 mm² to 35 mm² conductors are Round Compacted , 50 mm² and above conductors are Sectoral-Shaped. All Conductors are in accordance with IEC 60228 and BS EN 60228

Three & Half Cores - XLPE Insulated PVC Sheathed Cables — IEC 60502-1
Aluminium Conductor - Unarmoured — AL/XLPE/PVC 0.6/1 KV

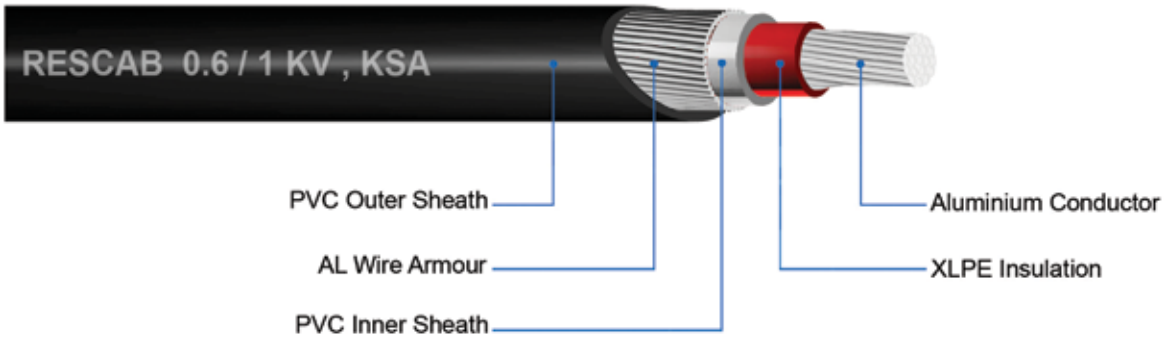


No. of Cores x Nominal Cross Section Area	No. Of Wires		Nominal Thickness of Insulation		Nominal Thickness of Sheath	Approx. Overall Diameter	Maximum DC Resistance at 20°C		Approx. Weight	Standard Packing
	Ph	Ne	Ph	Ne			Ph	Ne		
mm²	No.	No.	mm	mm	mm	mm	Ω/Km	Ω/Km	Kg/Km	m
Class II Conductors										
3x25 + 16	7	7	0.9	0.7	1.8	26	1.20	1.91	750	1000
3x35 + 16	7	7	0.9	0.7	1.8	27	0.868	1.91	810	1000
3x50 + 25	7	7	1.0	0.9	1.8	30	0.641	1.20	1005	500
3x70 + 35	19	7	1.1	0.9	1.9	35	0.443	0.868	1340	500
3x95 + 50	19	7	1.1	1.0	2.1	39	0.320	0.641	1730	500
3x120 + 70	37	19	1.2	1.1	2.2	43	0.253	0.443	2075	500
3x150 + 70	37	19	1.4	1.1	2.3	47	0.206	0.443	2529	500
3x185 + 95	37	19	1.6	1.1	2.5	52	0.164	0.320	3105	250
3x240 + 120	37	37	1.7	1.2	2.7	58	0.125	0.253	3840	250
3x300 + 150	37	37	1.8	1.4	2.9	63	0.100	0.206	4770	250
3x400 + 185	61	37	2.0	1.6	3.1	72	0.0778	0.164	4870	250

Note: Phase conductors 25 mm² and 35 mm² are Round Compacted, 50 mm² and above are Sectoral-Shaped. Neutral Conductors 16 mm² and above are Round Compacted. All Conductors are in accordance with IEC 60228 and BS EN 60228

Single Core - XLPE Insulated, Aluminium wire Armoured, PVC Sheathed Cables — IEC 60502-1

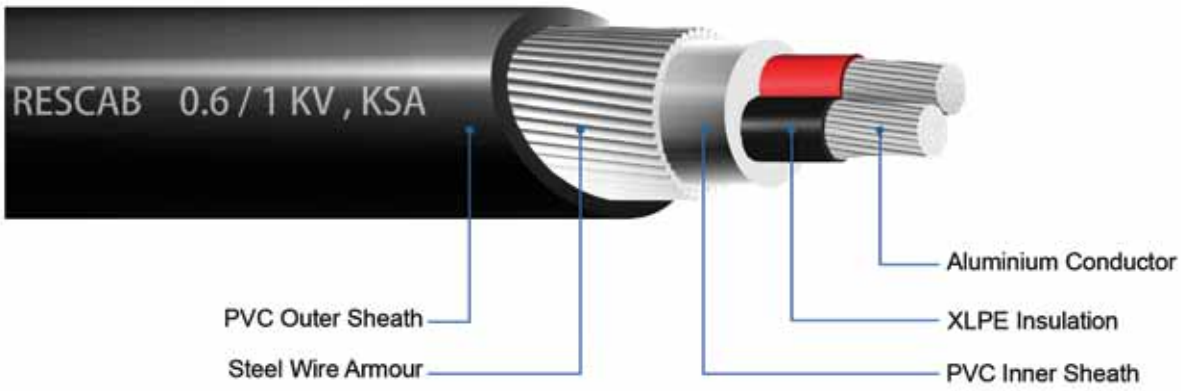
Aluminium Conductor — AL/XLPE/AWA/PVC 0.6/1 kV



Nominal Cross Section Area of Conductor	No. Of Wires	Nominal Thickness ofInsulation	Nominal Aluminium Wire Dia.	Nominal Thickness of Sheath	Approx. Overall Diameter	Maximum DC Resistance at 20°C	Approx. Weight	Standard Packing
mm²	No.	mm	mm	mm	mm	Ω/Km	Kg/Km	m
Class II Conductors								
50	7	1.0	1.25	1.8	19	0.641	515	1000
70	19	1.1	1.25	1.8	21	0.443	620	1000
95	19	1.1	1.6	1.8	22	0.320	750	1000
120	19	1.2	1.8	1.8	25	0.253	930	1000
150	19	1.4	1.8	1.8	28	0.206	1060	1000
185	37	1.6	1.8	1.8	30	0.164	1265	1000
240	37	1.7	1.8	1.9	33	0.125	1520	1000
300	37	1.8	2.0	1.9	36	0.100	1775	500
400	61	2.0	2.0	2.1	39	0.0778	2340	500
500	61	2.2	2.0	2.2	44	0.0605	2810	500
630	61	2.4	2.0	2.3	49	0.0469	3450	500

Note: 50 mm² and above conductors are Round Stranded-Compacted. All Conductors are in accordance with IEC 60228 and BS EN 60228

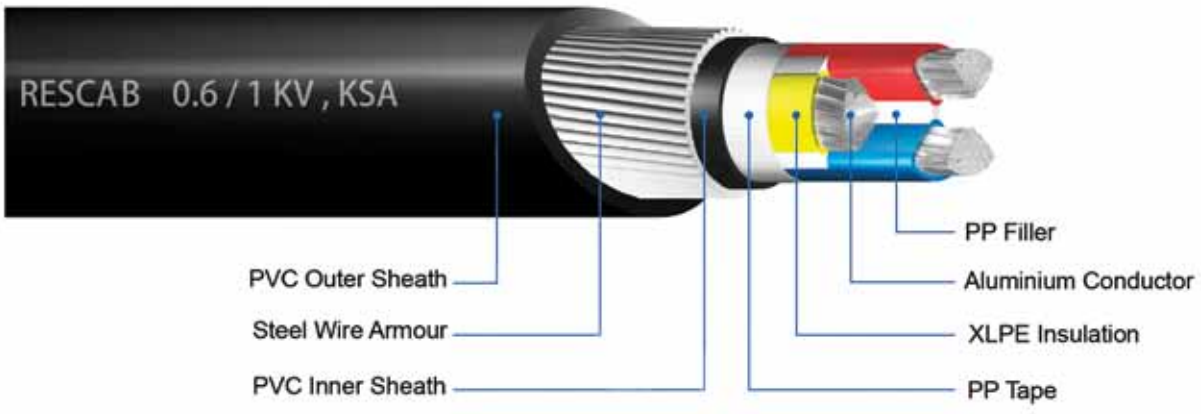
Two Cores - XLPE Insulated, Steel Wire Armoured, PVC Sheathed Cables IEC 60502-1
Aluminium Conductor AL/XLPE/SWA/PVC 0.6/1 kV



Nominal Cross Section Area of Conductor	No. Of Wires	Nominal Thickness of Insulation	Nominal Steel Wire Dia.	Nominal Thickness of Sheath	Approx. Overall Diameter	Maximum DC Resistance at 20°C	Approx. Weight	Standard Packing
mm²	No.	mm	mm	mm	mm	Ω/Km	Kg/Km	m
Class II Conductors								
2x16	7	0.7	1.25	1.8	22	1.91	850	1000
2x25	7	0.9	1.6	1.8	26	1.20	1265	1000
2x35	7	0.9	1.6	1.8	28	0.868	1495	1000

Note: 16 mm² and above conductors are Round Stranded-Compacted. All Conductors are in accordance with IEC 60228 and BS EN 60228

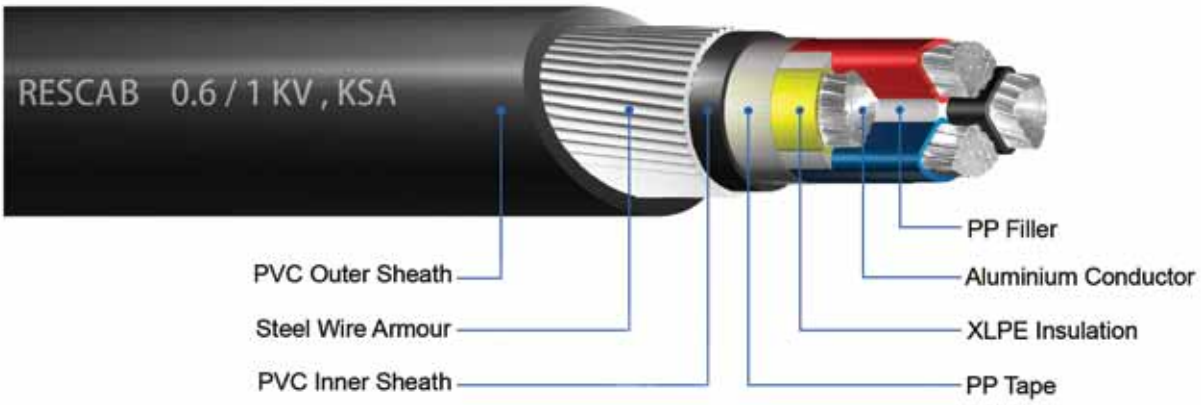
Three Cores - XLPE Insulated, Steel Wire Armoured, PVC Sheathed Cables IEC 60502-1
Aluminium Conductor AL/XLPE/SWA/PVC 0.6/1 kV



No of Cores x Nominal Cross Section Area	No. Of Wires	Nominal Thickness of Insulation	Nominal Steel Wire Dia.	Nominal Thickness of Sheath	Approx. Overall Diameter	Maximum DC Resistance at 20°C	Approx. Weight	Standard Packing
mm²	No.	mm	mm	mm	mm	Ω/Km	Kg/Km	m
Class II Conductors								
3x16	7	0.7	1.25	1.8	23	1.91	945	1000
3x25	7	0.9	1.6	1.8	27	1.20	1425	1000
3x35	7	0.9	1.6	1.8	29	0.868	1655	1000
3x50	7	1.0	1.6	1.9	32	0.641	2670	500
3x70	19	1.1	2.0	2.0	37	0.443	3830	500
3x95	19	1.1	2.0	2.2	40	0.320	4755	500
3x120	19	1.2	2.0	2.3	45	0.253	5815	500
3x150	19	1.4	2.5	2.5	53	0.206	7435	500
3x185	37	1.6	2.5	2.6	55	0.164	8925	250
3x240	37	1.7	2.5	2.8	62	0.125	11190	250
3x300	37	1.8	2.5	3.0	68	0.100	13540	250
3x400	61	2.0	2.5	3.2	75	0.0778	16600	250

Note: 16 mm² to 35 mm² conductors are Round Compacted , 50 mm² and above conductors are Sectoral-Shaped. All Conductors are in accordance with IEC 60228 and BS EN 60228

Four Cores - XLPE Insulated, Steel Wire Armoured, PVC Sheathed Cables IEC 60502-1
Aluminium Conductor AL/XLPE/SWA/PVC 0.6/1 kV

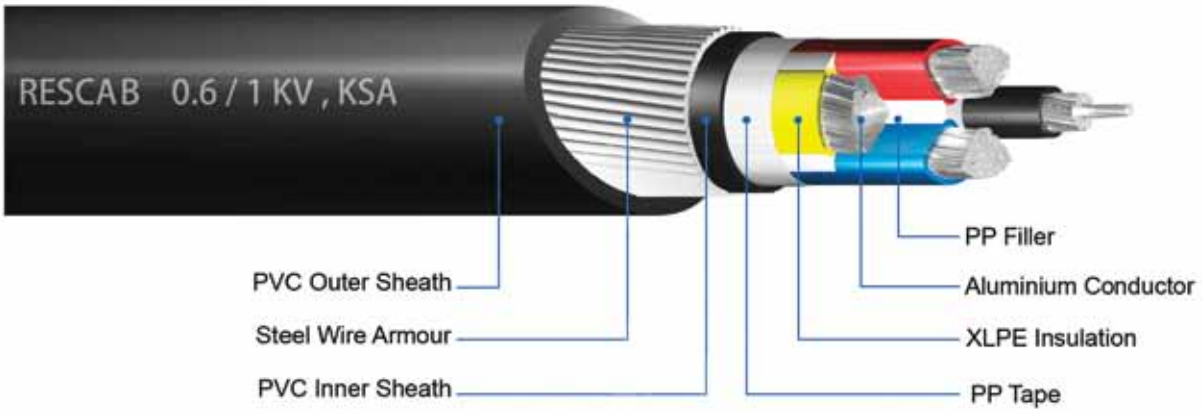


No of Cores x Nominal Cross Section Area	No. Of Wires	Nominal Thickness of Insulation	Nominal Steel Wire Dia.	Nominal Thickness of Sheath	Approximate Overall Diameter	Maximum DC Resistance at 20°C	Approx. Weight	Standard Packing
mm²	No.	mm	mm	mm	mm	Ω/Km	Kg/Km	m
Class II Conductors								
4x16	7	0.7	1.6	1.8	25	1.91	1195	1000
4x25	7	0.9	1.6	1.8	30	1.20	1545	1000
4x35	7	0.9	1.6	1.9	32	0.868	1700	1000
4x50	7	1.0	1.6	2.0	35	0.641	1920	500
4x70	19	1.1	2.0	2.2	40	0.443	2720	500
4x95	19	1.1	2.0	2.3	43	0.320	3250	500
4x120	37	1.2	2.5	2.5	49	0.253	4285	500
4x150	37	1.4	2.5	2.6	54	0.206	4995	500
4x185	37	1.6	2.5	2.8	59	0.164	5790	250
4x240	37	1.7	2.5	3.0	65	0.125	7070	250
4x300	37	1.8	2.5	3.2	70	0.100	8370	250
4x400	61	2.0	3.15	3.5	80	0.0778	11150	250

Note: 16 mm² to 35 mm² conductors are Round Compacted , 50 mm² and above conductors are Sectoral-Shaped. All Conductors are in accordance with IEC 60228 and BS EN 60228

Three & Half Cores XLPE Insulated, Steel Wire Armoured, PVC Sheathed Cables — IEC 60502-1

Aluminium Conductor — AL/XLPE/SWA/PVC 0.6/1 kV

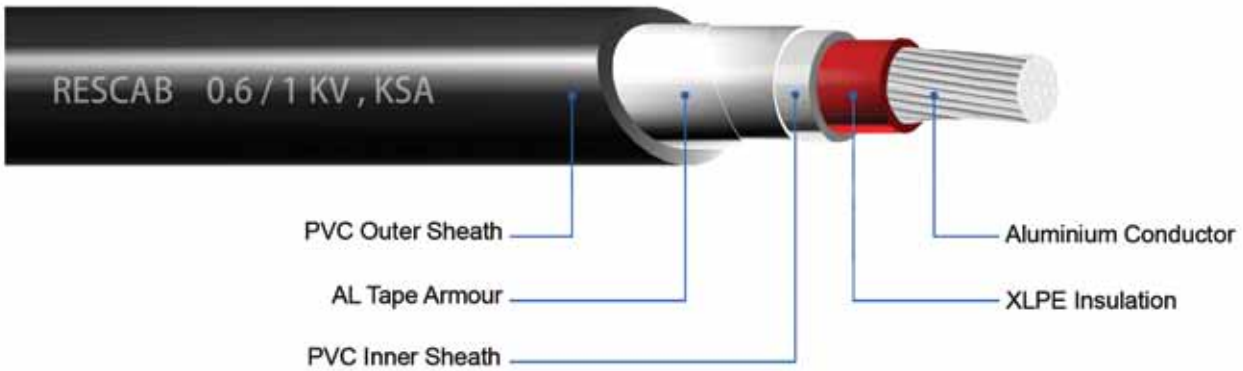


No of Cores x Nominal Cross Section Area	No. Of Wires		Nominal Thickness of Insulation		Nominal Steel Wire Dia.	Nominal Thickness of Sheath	Approx. Overall Diameter	Maximum DC Resistance at 20°C		Approx. Weight	Standard Packing
	Ph	Ne	Ph	Ne				Ph	Ne		
mm²	No.	No.	mm	mm	mm	mm	mm	Ω/Km	Ω/Km	Kg/Km	m
Class II Conductors											
3x25 + 16	7	7	0.9	0.7	1.6	1.8	29	1.20	1.91	1440	1000
3x35 + 16	7	7	0.9	0.7	1.6	1.8	30	0.868	1.91	1495	1000
3x50 + 25	7	7	1.0	0.9	1.6	1.9	33	0.641	1.20	1830	500
3x70 + 35	19	7	1.1	0.9	2.0	2.1	38	0.443	0.868	2550	500
3x95 + 50	19	7	1.1	1.0	2.0	2.2	42	0.320	0.641	3035	500
3x120 + 70	37	19	1.2	1.1	2.0	2.4	46	0.253	0.443	3570	500
3x150 + 70	37	19	1.4	1.1	2.5	2.5	51	0.206	0.443	4600	500
3x185 + 95	37	19	1.6	1.1	2.5	2.7	56	0.164	0.320	5405	250
3x240 + 120	37	37	1.7	1.2	2.5	2.9	62	0.125	0.253	6525	250
3x300 + 150	37	37	1.8	1.4	2.5	3.0	67	0.100	0.206	7550	250
3x400 + 185	61	37	2.0	1.6	3.15	3.4	77	0.0778	0.164	10070	250

Note: Phase conductors 25 mm² and 35 mm² are Round Compacted, 50 mm² and above are Sectoral-Shaped. Neutral Conductors 16 mm² and above are Round Compacted. All Conductors are in accordance with IEC 60228 and BS EN 60228

Single Core - XLPE Insulated, Aluminium Tape Armoured, PVC Sheathed Cables — IEC 60502-1

Aluminium Conductor — AL/XLPE/ATA/PVC 0.6/1 kV

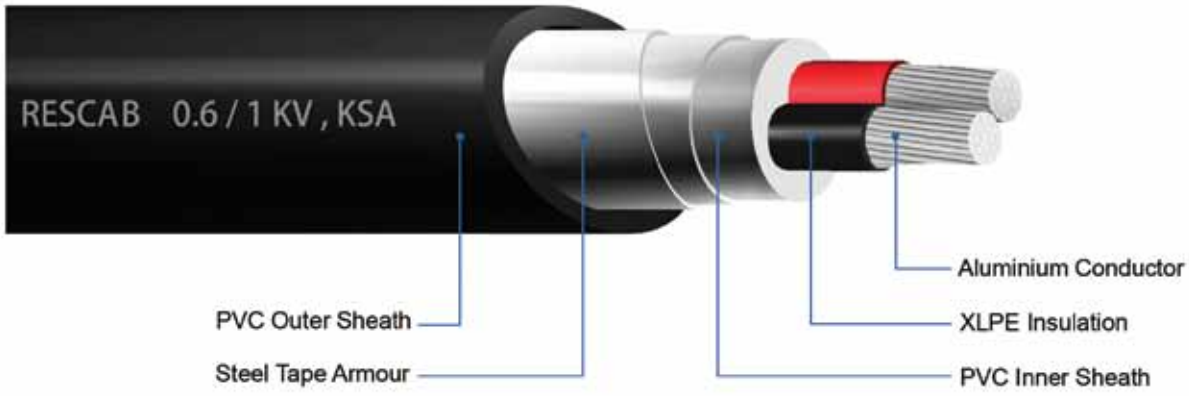


Nominal Cross Section Area of Conductor	No. Of Wires	Nominal Thickness of Insulation	Nominal Aluminium Tape Thickness	Nominal Thickness of Sheath	Approx. Overall Diameter	Maximum DC Resistance at 20°C	Approx. Weight	Standard Packing
mm²	No.	mm	mm	mm	mm	Ω/Km	Kg/Km	m
Class II Conductors								
50	7	1.0	0.5	1.8	19	0.641	480	1000
70	19	1.1	0.5	1.8	21	0.443	565	1000
95	19	1.1	0.5	1.8	22	0.320	695	1000
120	19	1.2	0.5	1.8	24	0.253	790	1000
150	19	1.4	0.5	1.8	27	0.206	920	1000
185	37	1.6	0.5	1.8	29	0.164	1100	1000
240	37	1.7	0.5	1.8	32	0.125	1325	1000
300	37	1.8	0.5	1.9	35	0.100	1595	500
400	61	2.0	0.5	2.0	37	0.0778	1990	500
500	61	2.2	0.5	2.1	42	0.0605	2450	500
630	61	2.4	0.5	2.3	47	0.0469	3060	500

Note: 50 mm² and above conductors are Round Stranded-Compacted. All Conductors are in accordance with IEC 60228 and BS EN 60228

Two Cores - XLPE Insulated, Steel Tape Armoured, PVC Sheathed Cables — IEC 60502-1

Aluminium Conductor — AL/XLPE/STA/PVC 0.6/1 kV

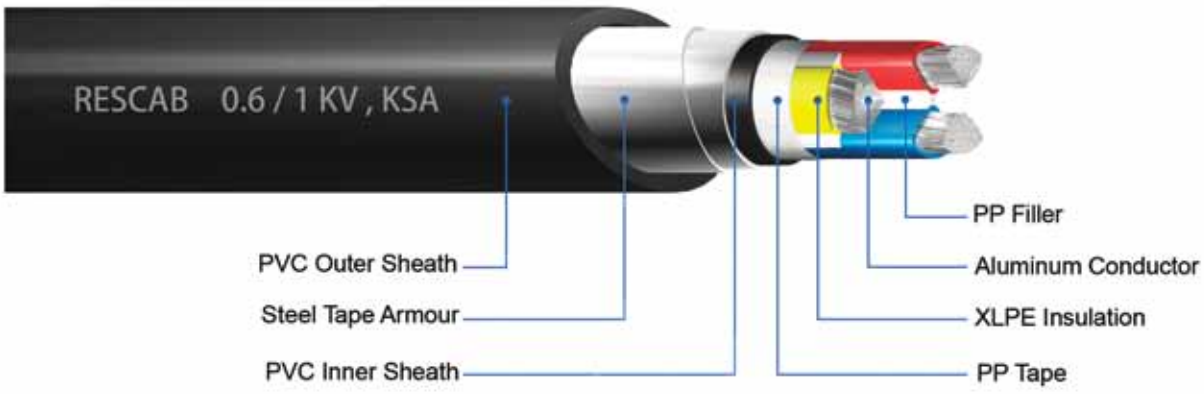


Nominal Cross Section Area of Conductor	No. Of Wires	Nominal Thickness of Insulation	Nominal Steel Tape Thickness	Nominal Thickness of Sheath	Approx. Overall Diameter	Maximum DC Resistance at 20°C	Approx. Weight	Standard Packing
mm²	No.	mm	mm	mm	mm	Ω/Km	Kg/Km	m
Class II Conductors								
2x16	7	0.7	0.2	1.8	20	1.91	580	1000
2x25	7	0.9	0.2	1.8	24	1.20	790	1000
2x35	7	0.9	0.2	1.8	26	0.868	975	1000

Note: 16 mm² and above conductors are Round Stranded-Compacted. All Conductors are in accordance with IEC 60228 and BS EN 60228

Three Cores - XLPE Insulated, Steel Tape Armoured, PVC Sheathed Cables — IEC 60502-1

Aluminium Conductor — AL/XLPE/STA/PVC 0.6/1 kV

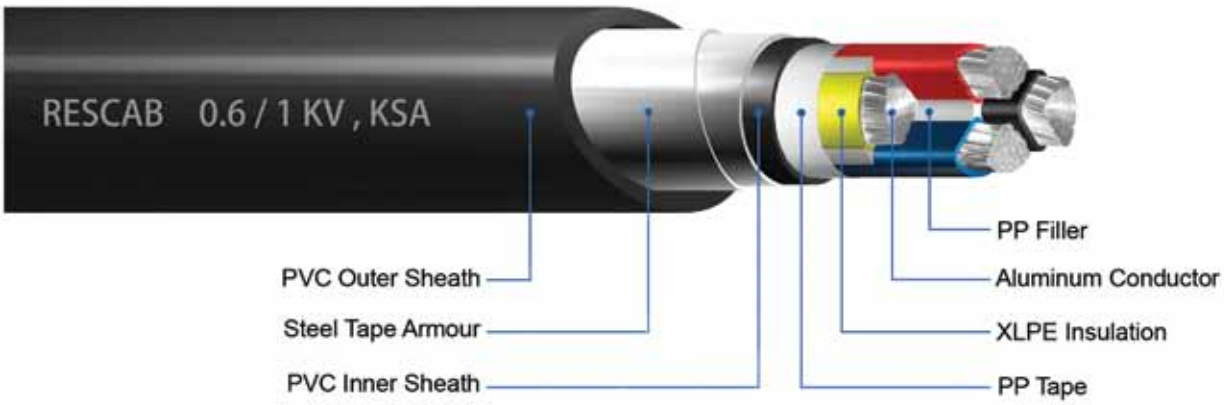


No of Cores x Nominal Cross Section Area	No. Of Wires	Nominal Thickness of Insulation	Nominal Steel Tape Thickness	Nominal Thickness of Sheath	Approx. Overall Diameter	Maximum DC Resistance at 20°C	Approx. Weight	Standard Packing
mm²	No.	mm	mm	mm	mm	Ω/Km	Kg/Km	m
Class II Conductors								
3x16	7	0.7	0.2	1.8	21	1.91	660	1000
3x25	7	0.9	0.2	1.8	25	1.20	895	1000
3x35	7	0.9	0.2	1.8	27	0.868	945	1000
3x50	7	1.0	0.2	1.8	31	0.641	2060	500
3x70	19	1.1	0.2	2.0	35	0.443	2840	500
3x95	19	1.1	0.2	2.1	39	0.320	3750	500
3x120	19	1.2	0.5	2.3	45	0.253	5055	500
3x150	19	1.4	0.5	2.4	50	0.206	6130	500
3x185	37	1.6	0.5	2.6	55	0.164	7450	250
3x240	37	1.7	0.5	2.7	62	0.125	9500	250
3x300	37	1.8	0.5	2.9	68	0.100	11580	250
3x400	61	2.0	0.5	3.2	75	0.0778	14655	250

Note: 16 mm² to 35 mm² conductors are Round Compacted , 50 mm² and above conductors are Sectoral-Shaped. All Conductors are in accordance with IEC 60228 and BS EN 60228

Four Cores - XLPE Insulated, Steel Tape Armoured, PVC Sheathed Cables — IEC 60502-1

Aluminium Conductor — AL/XLPE/STA/PVC 0.6/1 kV

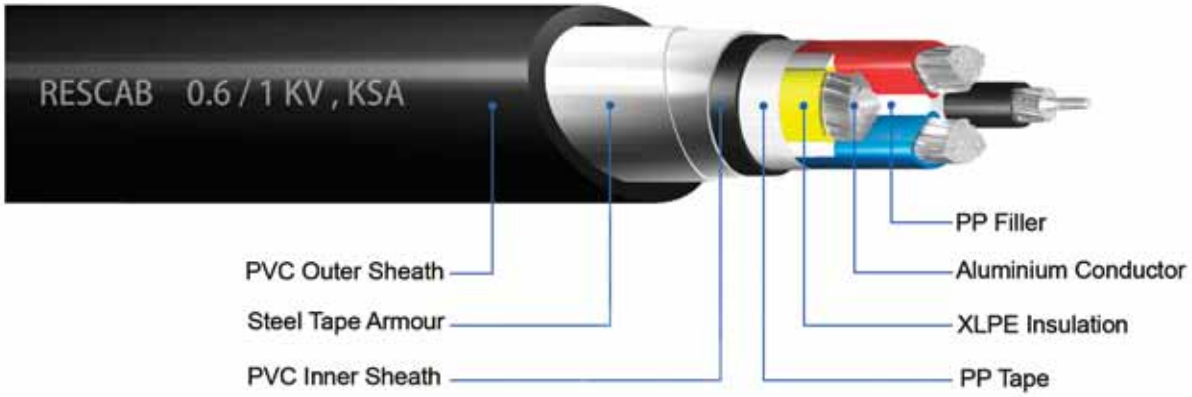


No of Cores x Nominal Cross Section Area	No. Of Wires	Nominal Thickness of Insulation	Nominal Steel Tape Thickness.	Nominal Thickness of Sheath	Approx. Overall Diameter	Maximum DC Resistance at 20°C	Approx. Weight	Standard Packing
mm²	No.	mm	mm	mm	mm	Ω/Km	Kg/Km	m
Class II Conductors								
4x16	7	0.7	0.2	1.8	23	1.91	765	1000
4x25	7	0.9	0.2	1.8	27	1.20	1050	1000
4x35	7	0.9	0.2	1.8	28	0.868	1000	1000
4x50	7	1.0	0.2	1.9	32	0.641	1260	500
4x70	19	1.1	0.2	2.1	38	0.443	1660	500
4x95	19	1.1	0.5	2.3	42	0.320	2495	500
4x120	37	1.2	0.5	2.4	46	0.253	2990	500
4x150	37	1.4	0.5	2.6	51	0.206	3585	500
4x185	37	1.6	0.5	2.7	55	0.164	4115	250
4x240	37	1.7	0.5	2.9	62	0.125	5300	250
4x300	37	1.8	0.5	3.1	67	0.100	6305	250
4x400	61	2.0	0.5	3.4	76	0.0778	7930	250

Note: 16 mm² to 35 mm² conductors are Round Compacted , 50 mm² and above conductors are Sectoral-Shaped. All Conductors are in accordance with IEC 60228 and BS EN 60228

Three & Half Cores XLPE Insulated, Steel Tape Armoured, PVC Sheathed Cables — IEC 60502-1

Aluminium Conductor — AL/XLPE/STA/PVC 0.6/1 kV



No of Cores x Nominal Cross Section Area	No. Of Wires		Nominal Thickness of Insulation		Nominal Steel Tape Thickness	Nominal Thickness of Sheath	Approx. Overall Diameter	Maximum DC Resistance at 20°C		Approx. Weight	Standard Packing
	Ph	Ne	Ph	Ne				Ph	Ne		
mm²	No.	No.	mm	mm	mm	mm	mm	Ω/Km	Ω/Km	Kg/Km	m
Class II Conductors											
3x25 + 16	7	7	0.9	0.7	0.2	1.8	26	1.20	1.91	905	1000
3x35 + 16	7	7	0.9	0.7	0.2	1.8	27	0.868	1.91	920	1000
3x50 + 25	7	7	1.0	0.9	0.2	1.9	30	0.641	1.20	1170	500
3x70 + 35	19	7	1.1	0.9	0.2	2.0	34	0.443	0.868	1540	500
3x95 + 50	19	7	1.1	1.0	0.5	2.2	40	0.320	0.641	2260	500
3x120 + 70	37	19	1.2	1.1	0.5	2.3	44	0.253	0.443	2700	500
3x150 + 70	37	19	1.4	1.1	0.5	2.5	48	0.206	0.443	3230	500
3x185 + 95	37	19	1.6	1.1	0.5	2.6	53	0.164	0.320	3860	250
3x240 + 120	37	37	1.7	1.2	0.5	2.8	59	0.125	0.253	5250	250
3x300 + 150	37	37	1.8	1.4	0.5	3.0	64	0.100	0.206	5740	250
3x400 + 185	61	37	2.0	1.6	0.5	3.3	72	0.0778	0.164	7130	250

Note: Phase conductors 25 mm² and 35 mm² are Round Compacted, 50 mm² and above are Sectoral-Shaped. Neutral Conductors 16 mm² and above are Round Compacted. All Conductors are in accordance with IEC 60228 and BS EN 60228

RESCAB vision is to supply safe and reliable products complying with best quality standards, continually enhance product quality through efficient quality management systems and provide efficient after-sales service.

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