



L.V. POWER & CONTROL CABLES



OMAN CABLES



OMAN CABLES INDUSTRY (S.A.O.G.)

600V BSS5467 OMAN CABLES 4X
600/1000V BSS5467 OMAN CABLES 4X
mm²



Content

Introduction - Oman Cables Industry (SAOG).....	5
Specifications.....	6
XLPE Insulated Power Cables	7
Cable Construction & Manufacturing Process	8
XLPE Power Cable Manufacturing Process at OCI	9
Screening Methods For Control Cables.....	10
Notes On FRLS and FR Sheathed Cables	11
TUV Certificate	13
Single Core Cable - 600/1000-V.....	14
CU/XLPE/AWA/PVC – B.S. : 5467 – 1997 with Amendment 1	14
CU/XLPE/PVC – B.S. : 7889 - 1997 with Amendment 1	15
2 Core Cables – 600/1000 V	16
CU/XLPE/SWA/PVC B.S 5467:1997 with Amendment 1	16
CU/XLPE/PVC - IEC 60502 Part 1.....	17
3 Core Cables – 600/1000 V	18
CU/XLPE/SWA/PVC – B.S. 5467:1997 with Amendment 1	18
CU/XLPE/PVC – IEC 60502 Part 1.....	19
4 Core Cables – 600/1000 V	20
CU/XLPE/SWA/PVC – B.S. 5467:1997 with Amendment 1	20
CU/XLPE/PVC – IEC 60502 Part 1.....	21
3 1/2 Core (4 Core With Reduced Neutral) Cables – 600/1000 V	22
CU/XLPE/SWA/PVC – B.S. 5467:1997^.....	22
CU/XLPE/PVC – IEC 60502 Part 1.....	23
Five Core Cables – 600/1000 V	24
CU/XLPE/SWA/PVC – B.S. 5467:1997 with Amendment 1	24
CU/XLPE/PVC - IEC: 60502-1	24
Single Core Cable – 1900/3300 V	25
CU/XLPE/AWA/PVC – B.S. 5467:1997 with Amendment 1	25
3 Core Cables – 1900/3300 V	26
CU/XLPE/SWA/PVC - B.S. 5467: 1997 with Amendment 1	26
Single Core Cable – 600/1000 V	27
AL/XLPE/AWA/PVC – B.S. 5467 to the extent applicable	27
AL/XLPE/PVC – B.S. 7889 to the extent applicable	28
2 Core Cables – 600/1000 V	29
AL/XLPE/SWA/PVC – B.S. 5467 to the extent applicable	29
2 Core Cables – 600/1000 V	30
AL/XLPE/PVC To IEC 60502 Part 1	30
3 Core Cables – 600/1000V	31
AL/XLPE/SWA/PVC – B.S. 5467 to the extent applicable	31
AL/XLPE/PVC To IEC 60502 Part 1	32
4 Core Cables - 600/1000V	33
AL / XLPE / SWA / PVC – B.S. 5467 to the extent applicable	33
AL/XLPE /PVC To IEC 60502 Part 1	34
3 1/2 Core (4 Core With Reduced Neutral) Cables - 600/1000V.....	35
AL/XLPE/SWA/PVC – B.S. 5467 to the extent applicable	35
AL/XLPE/PVC To IEC 60502 Part 1	36



L.V. Power and Control Cables

5 Core Cables - 600/1000V	37
AL/XLPE/SWA/PVC – B.S. 5467:1997	37
AL/XLPE/PVC - IEC: 60502 - 1.....	37
PVC Insulated Power Cables	38
PVC Power Cable Manufacturing Process At OCI.....	39
Single Core Cable – 600/1000V	40
CU/PVC/AWA/PVC B.S. 6346: 1997 with Amendment 1	40
CU/PVC/PVC To IEC 60502 Part 1	41
2 Core Cables – 600/1000V	42
CU/PVC/SWA/PVC To B.S. 6346: 1997 with Amendment 1	42
CU/PVC/PVC To IEC 60502 Part 1	43
3 Core Cables – 600/1000 V	44
CU/PVC/SWA/PVC B.S. 6346: 1997 with Amendment 1	44
CU/PVC/PVC To IEC 60502 Part 1	45
4 Core Cables – 600/1000 V	46
CU/PVC/SWA/PVC B.S. 6346: 1997 with Amendment 1	46
CU/PVC/PVC To IEC 60502 Part 1	47
3 ¹ / ₂ Core (4 Core With Reduced Neutral) Cables – 600/1000V	48
CU/PVC/SWA/PVC B.S. 6346: 1997 with Amendment 1 ^	48
CU/PVC/PVC To IEC 60502 Part 1	49
Five Core Cables – 600/1000V	50
CU/PVC/SWA/PVC – B.S. 6346:1997 with Amendment	50
CU/PVC/PVC – IEC:60502	50
Single Core Cable – 1900/3300 V	51
CU/PVC/AWA/PVC B.S. 6346: 1997 with Amendment 1	51
3 Core Cable – 1900/3300 V	52
CU/PVC/SWA/PVC B.S. 6346: 1997 with Amendment 1	52
Single Core Cable – 600/1000 V	53
AL/PVC/AWA/PVC To B.S. 6346 to the extent applicable.....	53
AL/PVC/PVC To IEC 60502 Part 1	54
2 Core Cables – 600/1000 V	55
AL/PVC/AWA/PVC B.S. 6346 to the extent applicable.....	55
AL/PVC/PVC To IEC 60502 Part 1	56
3 Core Cables – 600/1000 V	57
AL/PVC/SWA/PVC To B.S. 6346 to the extent applicable.....	57
AL/PVC/PVC to IEC 60502 Part 1	58
4 Core Cables – 600/1000 V	59
AL/PVC/SWA/PVC To B.S. 6346 to the extent applicable.....	59
AL/PVC/PVC to IEC 60502 Part 1	60
3 ¹ / ₂ Core (4 Core with Reduced Neutral) Cables – 600/1000V	61
AL/PVC/SWA/PVC To B.S. 6346 to the extent applicable.....	61
AL/PVC/PVC to IEC 60502 Part 1	62
5 Core Cables – 600/1000V	63
AL/PVC/SWA/PVC – B.S. 6346:1997 to the extent applicable.....	63
AL/PVC/PVC - IEC: 60502.....	63
PVC Insulated Control Cables.....	64
Control/Auxiliary Cables – 600/1000V	65
CU/PVC/SWA/PVC To BS 6346: 1997 with Amendment 1	65
CU/PVC/SWA/PVC To BS 6346 TO THE EXTENT APPLICABLE.....	65



L.V. Power and Control Cables

CU/PVC/PVC To IEC 60502 Part 1	66
CU/PVC/SWA/PVC To B.S. 6346: 1997 with Amendment 1	67
CU/PVC/SWA/PVC To B.S. 6346 TO THE EXTENT APPLICABLE.....	67
CU/PVC/PVC to IEC 60502 Part 1.....	68
Current Ratings & Voltage Drop of the Cables – 600/1000 V	69
Current Ratings of Cables.....	69
Single Core Copper, XLPE Insulated Armoured/Unarmoured Cables	69
Two Core Copper, XLPE Insulated Armoured/Unarmoured Cables	70
Single Core Aluminium, XLPE Insulated Armoured/Unarmoured Cables	71
Two Core Aluminium, XLPE Insulated Armoured/Unarmoured Cables	72
3 and 4 Core, Copper, XLPE insulated Armoured/Unarmoured Cables	73
3 and 4 Core, Aluminium, XLPE insulated Armoured/Unarmoured Cables	74
Single Core Copper, PVC Insulated, Armoured/Unarmoured Cables.....	75
Two Core Copper, PVC Insulated, Armoured/Unarmoured Cables.....	76
Single Core Aluminium, PVC Insulated, Armoured/Unarmoured Cables.....	77
Two Core Aluminium, PVC Insulated, Armoured/Unarmoured Cables	78
3 & 4 Core, Copper, PVC Insulated, Armoured/Unarmoured Cables	79
3 or 4 Core, Aluminium, PVC Insulated Armoured/Unarmoured Cables.....	80
Current Rating Factors	81
Group Rating Factors for More than one Multicore Armoured or Unarmoured Cables	81
Group Rating Factors for more than Three Single Core cables	81
Rating Factors for variation in Ambient Temperature for Cables	81
Rating Factors for variation in Ground Temperature for Cables	81
Rating Factors for Depths of Laying for Cables	82
Group Rating Factors for more than One Twin or Multicore Armoured or Unarmoured Cables in Horizontal Formation.....	82
Rating Factors for Variation in Thermal Resistivity of Soil for Two or Three Single-Core Cables.....	83
Rating Factors for Variation in Thermal Resistivity of Soil for Twin or Multi-core Cables	83
Rating Factors for Variation in Thermal Resistivity of Soil for Two or Single-Core Cables in Ducts.....	84
Rating Factors For Variation In Thermal Resistivity of Soil For Three Single-Core Cables in Ducts.....	84
Rating Factors for Variation in Thermal Resistivity of Soil for Twin or Multi-Core Cables	85
Armour Fault Current Capacity.....	86
Maximum Resistance of Conductor and Armour with PVC Insulated Cables.....	87
Maximum Resistance of Conductor and Armour with XLPE Insulated Cables.....	88
A.C. Resistance and Reactance Values.....	89
Major Dimensions of Drums	90
Cable Care	91
Inquiry/Ordering	92
Short Circuit Curves	93
Short Circuit Current Curves for Copper Conductor XLPE Insulated Cables.....	93
Short Circuit Current Curves for Copper Conductor PVC Insulated Cables	94
Short Circuit Current Curves for Aluminium Conductor XLPE Insulated Cables.....	95
Short Circuit Current Curves for Aluminium Conductor PVC Insulated Cables.....	96



Introduction - Oman Cables Industry (SAOG)

Oman Cables Industry (SAOG) was established in 1984 and started commercial production of building Wires in 1987. Setting a 10 year target period to manufacture L.V. Power Cables, Control Cables, Low Smoke Flame Retarding (LSF/FRLS) Cables, Over Head Line Conductors and Flexible Cables for both domestic and export markets, OCI was able to fulfill the mission in merely 8 years. Today, OCI is the largest cable manufacturer in Sultanate of Oman. Beside local sales, OCI exports to all the GCC countries, the Middle East, the Far East, Vietnam, Yemen, U.K., Pakistan, etc.

The company's reputation, manufacturing capabilities, quality and reliability bagged it large orders from world renowned EPC contractors like Snamprogetti – Italy, Snamprogetti – France, Chiyoda-Foster – Japan/U.K. OCI, in a short span of time, has successfully made its mark in 4 continents of the world against tough international competition. OCI products are also approved and registered with Department of Electrical Services, Ministry of Development, Negara, Brunei Darussalam.

Located in Rusayl, the Sultanate's largest industrial complex, the company is equipped with ultra-modern Plant & Machinery. OCI gives you a choice in wires, cables and conductors as per British standards, IEC specification, MEW-UAE, WED-Abudhabi, DEWA-Dubai, MEW Bahrain, Ministry of Defence and to other national and international standards. In 1994 the company was accredited with the ISO 9002 certification in remarkably short period of 6 months in line with OCI's proven capability to meet it's challenges. Added to it, OCI is now accredited with the ISO 9001- design capabilities certification, which further bears testimony to OCI's consistency in Quality Management. The company is also a proud recipient of His Majesty's trophy for the Best Industry Award in the year 1991, 1992, 1996 and 1997 – a unique award for it's achievements. Certificate of Honour for excellence in the year 1993, 1994, 1995, 1998, 1999 to 2000 were further awarded to OCI's success. The company continues to enjoy the position of the top ten best performing companies in the Sultanate since and has shown a steep rise in growth. This demonstrates the confidence the customer has reposed in OCI. The company draws strength from its highly experienced staff, design & project management resources and stringent Quality Assurance procedures to deliver total commitment to quality, reliability, safety and customer satisfaction.

OCI's performance has attracted world renowned 'DRAKA HOLDINGS NV' – The Netherlands, one of the largest 'Special Cables' manufacturing group in the world to participate in it's equity. With technical know-how and support of Draka Holdings, OCI is capable of displaying better growth and fostering customer satisfaction. As an affiliate of Draka Holding Organisation with operations in Europe, United States and the Far East, OCI is ideally positioned to service customers on both the national and global front. OCI offers combine unrivalled experience and a vast product range developed with the support, strength and resources of one of the world's most significant cable companies.

In the year 1999, OCI has successfully launched and started delivering solutions to the Instrumentation cables. Keeping in line with this success, the company has ventured into other hi-tech products, viz., special cables, Oil & Gas cables, etc., to its existing line of products. OCI is humbly proud of its efforts and success and believes success is not a destination but a journey. It will strive further to achieve even higher pinnacles of success and continue to offer better service and satisfaction to its distributors and end users.

OCI prides on its ability to offer products to each customer specific needs quickly, efficiently and with an assurance of product quality.



L.V. Power and Control Cables

Specifications

All cable designs covered in this publication generally conform to BS. 5467 or IEC 60502 Part-1 for XLPE and BS 6346 or IEC 60502 Part-1 for PVC insulated cables for working voltages upto 3300 volts.

Wherever required, OCI can offer cables conforming to other national or international standards or special requirements.

PRODUCT RANGE

1. XLPE Power cables (Armoured/Unarmoured)

Conductor	:	Copper or Aluminium
Applicable Standards	:	B.S. 5467, IEC 60502 Part-1, B.S. 7889
Voltage Grade	:	600/1000V or 1900/3300 V
Range	:	1C x 50 sq. mm to 1C x 1000 sq. mm 2C x 1.5 sq. mm to 2C x 400 sq. mm 3C x 1.5 sq. mm to 3C x 400 sq. mm 4C x 1.5 sq. mm to 4C x 400 sq. mm 3.5 x 10 sq. mm to 3.5C x 400 sq. mm

2. PVC Power Cables (Armoured/Unarmoured)

Conductor	:	Copper or Aluminium
Applicable Standard	:	B.S. 6346, IEC 60502 Part-1
Voltage Grade	:	600/1000V or 1900/3300V
Range	:	1C x 50 sq. mm to 1C x 1000 sq. mm 2C x 1.5 sq. mm to 2C x 400 sq. mm 3C x 1.5 sq. mm to 3C x 400 sq. mm 4C x 1.5 sq. mm to 4C x 400 sq. mm 3.5 x 10 sq. mm to 3.5 x 400 sq. mm

3. Control or Auxiliary Cables (Armoured/Unarmoured)

Conductor	:	Copper
Insulation	:	PVC
Applicable standard	:	B.S. 5467, B.S. 6346, IEC 60502 Part-1
Voltage Grade	:	600/1000V
Range	:	5C x 1.5 sq. mm to 61C x 1.5 sq. mm 5C x 2.5 sq. mm to 61C x 2.5 sq. mm

4. Special Cables (FR, FRLS)

OCI also manufactures and supplies Cables as per other National or International Standards, and as per Customer Specifications.

TECHNICAL ADVISORY SERVICES

OCI's staff includes specialist Engineers with wide knowledge and decades long experience in the field of cables and their applications. This time tested technical expertise and experience is available to all the clients in the selection of appropriate cable design/specifications.



L.V. Power and Control Cables

XLPE Insulated Power Cables

CONFORMING TO IEC-502 AND BSS 5467
600/1000 VOLTS
1900/3300 VOLTS





L.V. Power and Control Cables

Cable Construction & Manufacturing Process

Conductor : Copper or Aluminium used for the Conductors obtained in the form of rods. The 8.0 mm Copper or 9.5 mm aluminium rods. After testing, rods are drawn into wires of required sizes. These wires are formed into final Conductor in the stranding machines under strict Quality Assurance Program.

Insulation : Cross linked polyethylene compound or PVC is insulated over Conductor by Extrusion process.

XLPE insulated cores are cured by steam curing in vulcanizing chamber to provide thorough cross-linking.

The raw materials & thickness of Insulation are maintained under strict Quality Control and conform to B.S. 5467 / IEC 60502 Part-1 or B.S. 6346 / IEC 60502 Part-1 Standards for XLPE & PVC cables respectively.

The Cores of cables are identified either by colour or by numbers as follows:

No. of cores	Identification	
	Old Colour coding	New Colour coding*
1	Red or Black	Brown or Blue
2	Red & Black	Brown, Blue
3	Red, Yellow, Blue	Brown, Black, Grey
4	Red, Yellow, Blue & Black	Blue, Brown, Black, Grey
5	Red, Yellow, Blue, Black, Y/G	Blue, Brown, Black, Grey & Y/G
6- 61	By numbers	By numbers

***New colour coding is mandatory from 1st April 2006.**

Laying up : The insulated cores are laid up with a right hand, or alternating left & right hand, direction of lay in the sequence of the core numbers or colours. Where ever necessary non-hygroscopic PP / PVC Fillers & binder tape are used to form a compact and reasonably circular cable.

Bedding : All armoured cables have extruded PVC bedding. The PVC used for bedding is compatible with the temperature of Insulation material.

Armour : When armouring is required, the armour consists of single layer of Galvanised steel wire. The armour is applied helical, with a lefthand direction.

We also provide other armours such as steel strip, tape or tinned copper.

Single core cables are armoured with Aluminium or copper wires.

Outersheath : The standard cables are manufactured with Extruded black PVC Type-9 of B.S. 7655 or ST-2 of IEC 60502. Outersheath is embossed or printed with the information required by the related standards.

Special **FR**, **FRLS** compounds are used for outersheathing of cables, to suit customer's specification requirements.



XLPE Power Cable Manufacturing Process at OCI

Copper/Aluminium Rod

*Cross linkable
Polyethylene+Catalyst+master batch
Compound*

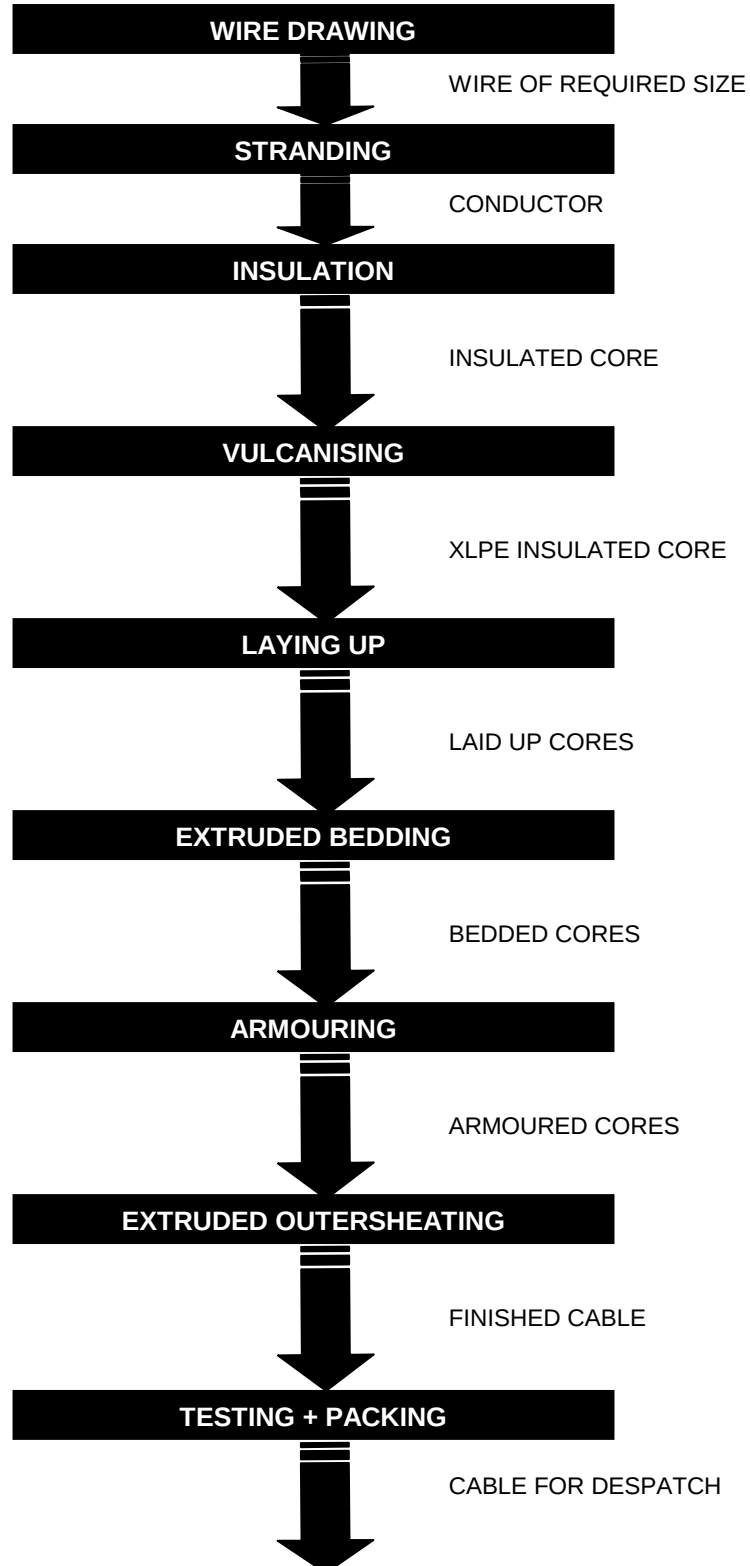
Fillers/Binding Tape

PVC (Compatible to insulation)

*Armour Wire
(Galvanised Steel/Aluminium)*

PVC Type 9

Wooden Drums





L.V. Power and Control Cables

Screening Methods For Control Cables

Screening for cables depends on the type of application of the cable. Control cables if laid along with the Power cables or MV cables or other cables having its magnetic field or which can cause problem in transmitting the signal.

OCI can provide screening for such cables for smooth operation of the cable. Copper tape screening over laid up assembly can reduce the interference. Cable construction is as per IEC 60502 Part 1.

Details of Construction:

Conductor	Stranded Copper Class – 2
Insulation	XLPE or PVC
Bedding	Extruded PVC
Screening material	Copper tape
Separation sheath	Extruded PVC type ST 2
Type of armour	Galvanized steel round wire
Outer sheath	Extruded PVC type ST 2

In addition to this construction, unarmoured construction can also be offered.

Type of screening material can be changed as per the application. Aluminium backed Mylar tape can also be used for screening purpose.



Notes On FRLS and FR Sheathed Cables

OXYGEN INDEX (ASTM D-2863)

The criterion for burning is presence of percentage of oxygen in air. By mixing oxygen and nitrogen at various percentages this test finds what percentage of oxygen the standard specimen starts burning. Higher the oxygen index higher the resistance to get ignited. Min. oxygen index shall be 30%.

TEMPERATURE INDEX (ASTM D- 2863)

Temperature index is the temperature at which the oxygen index of the material becomes 21. This set is carried out usually by extrapolation after the oxygen index is measured at the room temperature. Minimum temperature shall be 250 °C.

SMOKE DENSITY (ASTM D-2843)

This parameter relates to measuring and observing relative amounts of smoke produced by the burning or decomposition of materials. This test is carried out in accordance with ASTM D-2843. The measurements are made in terms of loss of light transmission through a collected volume of smoke produced under control standardized conditions. Generally requirement by customer is smoke density rating less than 60.

ACID GAS EMISSION (IEC-754-1)

During burning of cable materials acid gases are evolved especially hydrogen chloride. The gas emission is evaluated according to test method IEC 754-1, where approximately 1 gm. of the material is pyrolysed at 800 °C in a combustion tube and resultant gases analysed.

FLAME RETARDANCE (IEC 332 PART I)

A single cable sample is clamped vertically. The Bunsen or other similar burner is arranged at 45 Degree to the axis of the cable sample, applying flame at 475mm below to top clamp. The flame is applied for a period of time depending upon the weight of the cable.

The test requirement is that after all burning has ceased the charred or affected portion shall not have reached within 50mm from the top clamp.

FLAME RETARDANCE TEST (IEC 332 -3)

This test is carried out to check flame retardant properties of bunched cables. Three categories of tests namely class "A", "B" and "C" have been defined according to quantity of combustible material available over unit length. Cable pieces are tied on vertical ladder and a flame is applied from a horizontal ladder for some time, after which burner is removed. All parameters are pre defined according to specification. Then charred portion is measured and compared with predefined value to decide on its acceptability.

GENERAL REQUIREMENTS OF PROPERTIES OF FR CABLES

Requirements

Oxygen index	-	Minimum 29
IEC 60332-1	-	Passes the test
IEC 60332-3	-	Passes the test

GENERAL REQUIREMENTS OF PROPERTIES OF FRLS CABLES

Requirements

Oxygen index	-	Minimum 29
Smoke density rating	-	Maximum 60%
Acid gas	-	Maximum 20% by weight



L.V. Power and Control Cables

IEC 60332-1	-	Passes the test
IEC 60332-3	-	Passes the test

QUALITY CONTROL

OCI maintains very high standards of product quality through a strict and efficient control system. OCI's Quality Assurance Department is fully equipped with modern testing equipment and instruments, duly calibrated and are of international standards. Quality assurance methods have been standardized and fool-proof procedures are established to ensure that every length of cable leaving OCI factory measures up to the most stringent specifications.

These quality control objectives are achieved through three principal control functions.

RAW MATERIAL CONTROL

All raw materials are procured only from suppliers of international quality repute and each lot carries the suppliers test report and warranty.

All raw materials undergo rigorous testing for their suitability before the manufacturing process on their arrival. OCI has laid down its own stringent specifications for each of these raw materials. A highly qualified and experienced staff ensures that all raw materials used in processing meet these stringent OCI specifications.

PROCESS CONTROL

A team of trained Quality Control Engineers is engaged in checking process variables at every stage of manufacture. Any deviation from standard process specifications is immediately brought to the notice of shop floor Supervisors/Engineers and corrective action is taken immediately.

PRODUCT CONTROL

Finished cable is put to rigorous Routine, Acceptance and Type tests, as per the international standards and quality assurance program. Our experienced Engineers ensure that OCI cables conform to the standards, fully in all aspects set by the technical group, which are well above the parameters stipulated in relevant international specifications.

ADVANTAGES OF XLPE CABLE AS COMPARED TO PVC CABLES

- Higher Power Rating
- Higher emergency overload rating
- Higher short-circuit rating
- Higher insulation resistance
- Higher resistance to moisture
- Lower installation cost
- Quick method of jointing & terminating
- Longer cable life
- Lesser cable weight
- Lesser cable dimensions



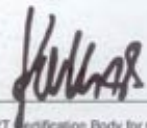
L.V. Power and Control Cables

TUV Certificate


CERTIFICATE
The TÜV CERT Certification Body
for QM Systems of RWTÜV Systems GmbH
hereby certifies in accordance with TÜV CERT
procedure that
OMAN CABLES INDUSTRY (SAOG)
P.O. Box 25, Rusayl,
Postal Code – 124, Muscat
Sultanate of Oman
has established and applies a quality system for
Design and Manufacture of Low Voltage and Medium Voltage Electrical Power
Cables, Control Cables, Overhead Line Conductors, Instrumentation Cables, Pilot
Cables, Aerial Bunched Cables, Other Wires and Cables for Electrical Power and
Control Applications.
An audit was performed, Report No. 2.5-992/2000
Proof has been furnished that the requirements according to
ISO 9001 : 2000 / EN ISO 9001 : 2000 / ANSI ASQC Q 9001 : 2000
are fulfilled. The certificate is valid until **29 June 2006**
Certificate Registration No. **04100 1994 0351**


TGA-ZM-30-95-00

Essen, 25. 03.2004



The TÜV CERT Certification Body for QM Systems
of RWTÜV Systems GmbH



L.V. Power and Control Cables

Single Core Cable - 600/1000-V

DIMENSIONS & WEIGHTS

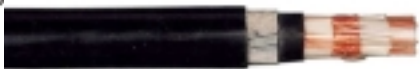


CU/XLPE/AWA/PVC – B.S. : 5467 – 1997 with Amendment 1
COPPER CONDUCTOR, XLPE INSULATED, AL-WIRE ARMOURED, PVC SHEATHED

TABLE-1

Nominal Area of Conductor	Thickness of Insulation	Thickness of Extruded Bedding	Diameter of Armour Wire	Thickness of Outer Sheath	Approx. Overall Diameter	Approx. Cable Weight	Packing Length	Drum* No
mm ²	mm	mm	mm	mm	mm	kg/km	mtrs	
50	1.0	0.8	0.9	1.5	17.5	695	1000	1206
70	1.1	0.8	1.25	1.5	20.2	960	1000	1206
95	1.1	0.8	1.25	1.6	22.3	1240	1000	1206
120	1.2	0.8	1.25	1.6	24.2	1495	1000	1206
150	1.4	1.0	1.6	1.7	27.4	1908	1000	1407
185	1.6	1.0	1.6	1.8	30.0	2320	1000	1508
240	1.7	1.0	1.6	1.8	32.8	2910	1000	1608
300	1.8	1.0	1.6	1.9	35.6	3550	1000	1810
400	2.0	1.2	2.0	2.0	40.5	4580	500	1508
500	2.2	1.2	2.0	2.1	44.2	5600	500	1608
630	2.4	1.2	2.0	2.2	48.8	7070	400	1508
800	2.6	1.4	2.5	2.4	55.4	10660	400	1608
1000	2.8	1.4	2.5	2.5	60.6	13140	300	1608

* For Drum details Refer Table - 79



L.V. Power and Control Cables

Single Core Cable - 600/1000-V DIMENSIONS & WEIGHTS



CU/XLPE/PVC – B.S. : 7889 - 1997 with Amendment 1
SINGLE CORE, COPPER CONDUCTOR, XLPE INSULATED, PVC SHEATHED (UNARMoured)

TABLE-2

Nominal Area of Conductor mm ²	Thickness of Insulation mm	Thickness of Outer Sheath Mm	Approx. Overall Diameter mm	Approx. Cable Weight kg/km	Packing Length mtrs	Drum* No.
50	1.0	1.4	14.2	540	1000	1005
70	1.1	1.4	16.2	750	1000	1005
95	1.1	1.5	18.3	1010	1000	1206
120	1.2	1.5	20.2	1250	1000	1206
150	1.4	1.6	22.4	1540	1000	1206
185	1.6	1.6	24.7	1905	1000	1206
240	1.7	1.7	27.7	2480	1000	1407
300	1.8	1.8	30.6	3080	1000	1608
400	2.0	1.9	34.2	3910	1000	1810
500	2.2	2.0	38.0	4900	500	1407
630	2.4	2.2	42.9	6270	500	1508
800	2.6	2.3	47.8	9570	500	1608
1000	2.8	2.4	53.0	11950	500	2012

*For drum details refer Table – 79



2 Core Cables – 600/1000 V

DIMENSIONS & WEIGHTS



CU/XLPE/SWA/PVC B.S 5467:1997 with Amendment 1

COPPER CONDUCTOR, XLPE INSULATED, STEEL WIRE ARMoured, PVC SHEATHED

TABLE –3

Nominal Area of Conductor mm ²	Thickness of Insulation mm	Thickness of Extruded Bedding mm	Diameter of Armour Wire mm	Thickness of Outer Sheath mm	Approx. Overall Diameter mm	Approx. Cable Weight kg/km	Packing Length mtrs	Drum No
1.5 #	0.6	0.8	0.9	1.3	12.1	315	1000	0905
2.5 #	0.7	0.8	0.9	1.4	13.6	380	1000	1005
4 #	0.7	0.8	0.9	1.4	14.7	460	1000	1005
6 #	0.7	0.8	0.9	1.4	15.9	550	1000	1004
10 #	0.7	0.8	0.9	1.5	18.0	795	1000	1206
16 #	0.7	0.8	1.25	1.5	20.4	860	1000	1206
25	0.9	0.8	1.25	1.6	20.4	1000	1000	1206
35	0.9	1.0	1.6	1.7	23.3	1420	1000	1206
50	1.0	1.0	1.6	1.8	25.8	1760	1000	1407
70	1.1	1.0	1.6	1.9	29.0	2270	1000	1508
95	1.1	1.2	2.0	2.0	33.1	3120	1000	1810
120	1.2	1.2	2.0	2.1	36.1	3730	1000	1810
150	1.4	1.2	2.0	2.2	39.3	4430	500	1508
185	1.6	1.4	2.5	2.4	44.7	5700	500	1608
240	1.7	1.4	2.5	2.5	49.0	7060	500	1810
300	1.8	1.6	2.5	2.6	53.5	8490	300	1810
400	2.0	1.6	2.5	2.8	59.0	10470	300	1810

Circular conductor

* For Drum Details refer Table – 79.



L.V. Power and Control Cables

2 Core Cables – 600/1000 V DIMENSIONS & WEIGHTS



CU/XLPE/PVC - IEC 60502 Part 1

COPPER CONDUCTOR, XLPE INSULATED, PVC SHEATHED (UNARMoured)

Table – 4

Nominal Area of Conductor	Thickness of Insulation	Thickness of Outer Sheath	Approx. Overall Diameter	Approx. Cable Weight	Packing Length	Drum* No.
mm ²	mm	mm	mm	kg/km	mtrs	
1.5 #	0.7	1.8	10.9	110	1000	0804
2.5 #	0.7	1.8	11.1	140	1000	0804
4 #	0.7	1.8	12.2	190	1000	0904
6 #	0.7	1.8	14.1	245	1000	1005
10 #	0.7	1.8	15.1	355	1000	1004
16 #	0.7	1.8	16.9	490	1000	1004
25	0.9	1.8	16.1	600	1000	1004
35	0.9	1.8	18.2	800	1000	1206
50	1.0	1.8	20.8	1050	1000	1206
70	1.1	1.8	23.9	1470	1000	1206
95	1.1	2.0	25.7	1980	1000	1407
120	1.2	2.1	28.9	2490	1000	1407
150	1.4	2.2	31.8	3070	1000	1608
185	1.6	2.3	35.1	3820	1000	1810
240	1.7	2.5	42.2	4960	500	1508
300	1.8	2.7	44.1	6150	500	1608
400	2.0	2.9	49.9	7850	300	1608

*For drum details refer Table – 79

Circular conductor.



3 Core Cables – 600/1000 V

DIMENSIONS & WEIGHTS



CU/XLPE/SWA/PVC – B.S. 5467:1997 with Amendment 1

COPPER CONDUCTOR, XLPE INSULATED, STEEL WIRE ARMoured, PVC SHEATHED

TABLE –5

Nominal Area of Conductor mm ²	Thickness of Insulation mm	Thickness of Extruded Bedding mm	Diameter of Armour Wire mm	Thickness of Outer Sheath mm	Approx. Overall Diameter mm	Approx. Cable Weight kg/km	Packing Length Mtrs	Drum No
1.5 #	0.6	0.8	0.9	1.3	12.6	330	1000	0905
2.5 #	0.7	0.8	0.9	1.4	14.1	415	1000	1005
4 #	0.7	0.8	0.9	1.4	15.3	505	1000	1004
6 #	0.7	0.8	0.9	1.4	16.6	615	1000	1004
10 #	0.7	0.8	1.25	1.5	19.5	870	1000	1206
16 #	0.7	0.8	1.25	1.6	21.6	1055	1000	1206
25	0.9	1.0	1.6	1.7	23.6	1485	1000	1206
35	0.9	1.0	1.6	1.8	25.7	1855	1000	1407
50	1.0	1.0	1.6	1.8	28.5	2305	1000	1508
70	1.1	1.0	1.6	1.9	32.2	3050	1000	1608
95	1.1	1.2	2.0	2.1	37.0	4190	1000	2012
120	1.2	1.2	2.0	2.2	40.4	5050	500	1608
150	1.4	1.4	2.5	2.3	45.5	6450	400	1407
185	1.6	1.4	2.5	2.4	49.8	7790	300	1508
240	1.7	1.4	2.5	2.6	55.1	9680	300	1810
300	1.8	1.6	2.5	2.7	60.2	11780	300	1810
400	2.0	1.6	2.5	2.9	66.6	14600	300	1810

Circular conductors.

* For Drum Details refer Table – 79.



L.V. Power and Control Cables

3 Core Cables – 600/1000 V DIMENSIONS & WEIGHTS



CU/XLPE/PVC – IEC 60502 Part 1

COPPER CONDUCTOR, XLPE INSULATED, PVC SHEATHED (UNARMoured)

Table – 6

Nominal Area of Conductor mm ²	Thickness of Insulation mm	Thickness of Outer Sheath mm	Approx. Overall Diameter mm	Approx. Cable Weight kg/km	Packing Length mtrs	Drum* No.
1.5 #	0.7	1.8	10.9	130	1000	0805
2.5 #	0.7	1.8	11.8	170	1000	0905
4 #	0.7	1.8	13.0	230	1000	0905
6 #	0.7	1.8	13.6	305	1000	1005
10 #	0.7	1.8	17.7	450	1000	1206
16 #	0.7	1.8	18.2	615	1000	1206
25	0.9	1.8	19.1	870	1000	1206
35	0.9	1.8	21.1	1155	1000	1206
50	1.0	1.8	23.8	1530	1000	1206
70	1.1	1.9	27.2	2160	1000	1407
95	1.1	2.0	30.2	2920	1000	1508
120	1.2	2.1	33.4	3660	1000	1608
150	1.4	2.3	37.3	4475	1000	2012
185	1.6	2.4	41.4	5620	500	1508
240	1.7	2.6	45.9	7320	500	1608
300	1.8	2.8	50.7	9100	300	1608
400	2.0	3.1	57.8	11610	300	1810

*For drum details refer Table – 79

Circular conductors.



L.V. Power and Control Cables

4 Core Cables – 600/1000 V

DIMENSIONS & WEIGHTS



CU/XLPE/SWA/PVC – B.S. 5467:1997 with Amendment 1

COPPER CONDUCTOR, XLPE INSULATED, STEEL WIRE ARMoured, PVC SHEATHED

TABLE –7

Nominal Area of Conductor mm ²	Thickness of Insulation mm	Thickness of Extruded Bedding mm	Diameter of Armour Wire mm	Thickness of Outer Sheath mm	Approx. Overall Diameter mm	Approx. Cable Weight kg/km	Packing Length mtrs	Drum* No
1.5 #	0.6	0.8	0.9	1.3	13.3	345	1000	1005
2.5 #	0.7	0.8	0.9	1.4	15	440	1000	1005
4 #	0.7	0.8	0.9	1.4	16.4	540	1000	1004
6 #	0.7	0.8	1.25	1.5	18.7	780	1000	1206
10 #	0.7	0.8	1.25	1.5	21.1	1125	1000	1206
16	0.7	0.8	1.25	1.6	23.4	1300	1000	1206
25	0.9	1.0	1.6	1.7	26.1	1860	1000	1407
35	0.9	1.0	1.6	1.8	28.6	2335	1000	1508
50	1.0	1.0	1.6	1.9	32.0	2960	1000	1608
70	1.1	1.2	2.0	2.1	37.7	4200	1000	2012
95	1.1	1.2	2.0	2.2	41.7	5400	500	1508
120	1.2	1.4	2.5	2.3	47.1	6990	500	1810
150	1.4	1.4	2.5	2.4	51.4	8300	500	1608
185	1.6	1.4	2.5	2.6	56.6	10076	300	1810
240	1.7	1.6	2.5	2.7	63.0	12660	300	1810
300	1.8	1.6	2.5	2.9	68.8	15350	300	2012
400	2.0	1.8	3.15	3.2	78.1	19880	250	2213

* For Drum details refer Table – 79.

Circular conductor



L.V. Power and Control Cables

4 Core Cables – 600/1000 V DIMENSIONS & WEIGHTS



CU/XLPE/PVC – IEC 60502 Part 1

COPPER CONDUCTOR, XLPE INSULATED, PVC SHEATHED (UNARMoured)

TABLE – 8

Nominal Area of Conductor mm ²	Thickness of Insulation mm	Thickness Of Outer Sheath mm	Approx. Overall Diameter mm	Approx. Cable Weight kg/km	Packing Length mtrs	Drum* No.
1.5 #	0.7	1.8	12.1	150	1000	0905
2.5 #	0.7	1.8	13.2	200	1000	0905
4 #	0.7	1.8	14.9	275	1000	1005
6 #	0.7	1.8	16.0	370	1000	1004
# 10	0.7	1.8	18.6	560	1000	1206
16	0.7	1.8	20.2	795	1000	1206
25	0.9	1.8	21.8	1130	1000	1206
35	0.9	1.8	24.1	1515	1000	1407
50	1.0	1.9	27.5	2010	1000	1407
70	1.1	2.0	31.7	2860	1000	1608
95	1.1	2.1	35.4	3870	1000	1810
120	1.2	2.3	39.2	4850	500	1508
150	1.4	2.4	43.8	5980	500	1608
185	1.6	2.6	48.7	7480	300	1608
240	1.7	2.8	54.4	9735	300	1810
300	1.8	3.0	59.9	12120	250	1810
400	2.0	3.3	68.1	15420	250	1810

*For drum details refer table – 79

Circular conductor



L.V. Power and Control Cables

3 1/2 Core (4 Core With Reduced Neutral) Cables – 600/1000 V

DIMENSIONS & WEIGHTS



CU/XLPE/SWA/PVC – B.S. 5467:1997[^]

COPPER CONDUCTOR, XLPE INSULATED, STEEL WIRE ARMoured, PVC SHEATHED

TABLE –9

Nominal Area of Conductor		Thickness of Insulation		Thickness of Extruded Bedding	Diameter of Armour Wire	Thickness of Outer Sheath	Approx. Overall Diameter	Approx. Cable Weight	Packing Length	Drum No
Phase	Neutral	Phase	Neutral							
mm ²		mm		mm	mm	mm	mm	kg/km	mtrs	
10 #	6	0.7	0.7	1.0	1.25	1.7	21.8	1000	1000	1206
16 #	10	0.7	0.7	1.0	1.25	1.7	23.0	1180	500	1104
25	16	0.9	0.7	1.0	1.6	1.7	26.1	1750	500	1104
35	16	0.9	0.7	1.0	1.6	1.8	27.9	2100	500	1206
50	25	1.0	0.9	1.0	1.6	1.9	31.2	2750	500	1407
70	35	1.1	0.9	1.2	2.0	2.0	36.6	3450	500	1508
95	50	1.1	1.0	1.2	2.0	2.1	41.0	4900	500	1608
120	70	1.2	1.1	1.2	2.0	2.2	45.3	6040	500	1608
150	70	1.4	1.1	1.4	2.5	2.4	50.0	7590	250	1407
185	95	1.6	1.1	1.4	2.5	2.5	55.3	9130	250	1608
240	120	1.7	1.2	1.6	2.5	2.6	61.1	11600	250	1608
300	150	1.8	1.4	1.6	2.5	2.8	66.7	13960	250	1608
300	185	1.8	1.6	1.6	2.5	2.8	68.6	14300	250	1810
400	185	2.0	1.6	1.6	2.5	3.0	73.8	18230	250	2214

* For Drum Details refer Table – 79.

Cables to B.S. 5467 to the extent applicable with circular conductors

[^] 3 1/2 Core cable Construction is not covered in the amendment BS 5467. Construction is valid up to March 2006 as per old BS 5467.



L.V. Power and Control Cables

3 1/2 Core (4 Core With Reduced Neutral) – 600/1000 V DIMENSIONS & WEIGHTS



CU/XLPE/PVC – IEC 60502 Part 1

COPPER CONDUCTOR, XLPE INSULATED, PVC SHEATHED (UNARMoured)

Table – 10

Nominal Area of Conductor		Thickness of Insulation		Thickness of Outer Sheath	Approx. Overall Diameter	Approx. Cable Weight	Packing Length	Drum No
Phase	Neutral	Phase	Neutral					
mm ²		mm		mm	mm	kg/km	mtrs	
# 10	6	0.7	0.7	1.8	18.1	500	1000	1206
# 16	10	0.7	0.7	1.8	19.2	705	1000	1206
25	16	0.9	0.7	1.8	20.5	1060	1000	1206
35	16	0.9	0.7	1.8	22.6	1350	1000	1206
50	25	1.0	0.9	1.8	25.7	1910	1000	1407
70	35	1.1	0.9	1.9	29.4	2600	1000	1508
95	50	1.1	1.0	2.1	32.8	3500	1000	1608
120	70	1.2	1.1	2.2	36.3	4530	500	1407
150	70	1.4	1.1	2.3	40.6	5420	500	1508
185	95	1.6	1.1	2.5	45.1	6750	500	1608
240	120	1.7	1.2	2.7	50.2	8900	300	1608
300	150	1.8	1.4	2.9	54.3	11000	300	1810
300	185	1.8	1.6	2.9	58.2	14280	300	1810
400	185	2.0	1.6	3.1	63.2	18230	250	2012

*For drum details refer Table – 79

Circular conductors



Five Core Cables – 600/1000 V

DIMENSIONS & WEIGHTS



CU/XLPE/SWA/PVC – B.S. 5467:1997 with Amendment 1

COPPER CONDUCTOR, XLPE INSULATED, STEEL WIRE ARMoured, PVC SHEATHED

TABLE – 11

Nominal Area of the Conductor	Thickness of Insulation	Thickness of Extruded Bedding	Diameter of armour wire	Thickness of Outer sheath	Approx. Overall Dia.	Approx. Cable weight	Packing Length	Drum* No.
mm ²	mm	mm	mm	mm	mm	kg/km	mtrs	
1.5	0.6	0.8	0.9	1.4	14.3	430	1000	1005
2.5	0.7	0.8	0.9	1.4	16.1	545	1000	1004
4	0.7	0.8	0.9	1.5	17.8	680	1000	1206
6	0.7	0.8	1.25	1.5	20.0	840	1000	1206
10	0.7	0.8	1.25	1.6	22.9	1105	1000	1206
16	0.7	1.0	1.6	1.7	26.6	1450	1000	1407
25	0.9	1.0	1.6	1.8	31.5	2245	1000	1508
35	0.9	1.0	1.6	1.9	34.8	2840	1000	1810
50	1.0	1.2	2.0	2.0	40.4	3895	500	1508
70	1.1	1.2	2.0	2.2	46.3	5145	500	1608

* For Drum details refer Table – 79.

CU/XLPE/PVC - IEC: 60502-1

COPPER CONDUCTOR, XLPE INSULATED, PVC SHEATHED (UNARMoured)

TABLE – 12

Nominal Area of the Conductor	Thickness of Insulation	Thickness of Outer sheath	Approx. Overall Dia.	Approx. Cable weight	Packing Length	Drum* No.
mm ²	mm	mm	mm	mm	kg/km	mtrs
1.5	0.7	1.8	13.0	180	1000	0905
2.5	0.7	1.8	13.9	235	1000	1005
4	0.7	1.8	14.7	325	1000	1005
6	0.7	1.8	16.9	440	1000	1004
10	0.7	1.8	20.4	665	1000	1206
16	0.7	1.8	23.4	950	1000	1206
25	0.9	1.8	28.3	1430	1000	1407
35	0.9	1.8	31.6	1910	1000	1608
50	1.0	2.0	36.4	2540	500	1407
70	1.1	2.1	42.3	3550	500	1508

* For Drum details refer Table – 79.



L.V. Power and Control Cables

Single Core Cable – 1900/3300 V

DIMENSIONS & WEIGHTS



CU/XLPE/AWA/PVC – B.S. 5467:1997 with Amendment 1

COPPER CONDUCTOR, XLPE INSULATED, ALUMINIUM WIRE ARMoured, PVC SHEATHED

TABLE –13

Nominal Area of Conductor	Thickness of Insulation	Thickness of Extruded Bedding	Nominal Armour Wire Diameter	Thickness of Oversheath	Approx. Overall Diameter.	Approx. Cable Weight	Packing Length	Drum* No.
mm ²	mm	mm	mm	mm	mm	Kg/Km	Mtrs	mm
50	2.0	0.8	1.25	1.6	20.6	780	1000	1206
70	2.0	0.8	1.25	1.6	22.4	1000	1000	1206
95	2.0	0.8	1.25	1.6	24.3	1270	1000	1407
120	2.0	1.0	1.6	1.7	27.2	1620	1000	1407
150	2.0	1.0	1.6	1.7	28.8	1895	1000	1407
185	2.0	1.0	1.6	1.8	30.8	2275	1000	1508
240	2.0	1.0	1.6	1.8	33.5	2840	1000	1608
300	2.0	1.0	1.6	1.9	36.1	3450	1000	1810
400	2.0	1.2	2.0	2.0	40.5	4410	1000	2213
500	2.2	1.2	2.0	2.1	44.2	5510	500	1508
630	2.4	1.2	2.0	2.2	48.8	7145	500	1608
800	2.6	1.4	2.5	2.4	55.4	8990	500	2012
1000	2.8	1.4	2.5	2.5	60.6	11180	500	2012

* For Drum details refer Table – 79.



L.V. Power and Control Cables

3 Core Cables – 1900/3300 V

DIMENSIONS & WEIGHTS



CU/XLPE/SWA/PVC - B.S. 5467: 1997 with Amendment 1

COPPER CONDUCTOR, XLPE INSULATED, STEEL WIRE ARMoured, PVC SHEATHED

TABLE -14

Nominal Area of Conductor mm ²	Thickness of Insulation mm	Thickness of Extruded Bedding mm	Nominal Armour Wire Diameter mm	Thickness of Oversheath mm	Approx. Overall Diameter. mm	Approx. Cable Weight Kg/Km	Packing Length Mtrs	Drum* No. mm
16 #	2.0	1.0	1.6	1.8	29.3	1480	1000	1508
25 #	2.0	1.0	1.6	1.8	32.2	1840	1000	1608
35	2.0	1.0	1.6	1.9	31.1	2135	1000	1608
50	2.0	1.2	2.0	2.0	34.7	2840	1000	1810
70	2.0	1.2	2.0	2.1	38.0	3570	1000	2012
95	2.0	1.2	2.0	2.2	41.4	4465	1000	2213
120	2.0	1.4	2.5	2.3	45.7	5780	500	1608
150	2.0	1.4	2.5	2.4	48.5	6730	500	1810
185	2.0	1.4	2.5	2.5	51.9	7840	500	2012
240	2.0	1.6	2.5	2.6	56.9	9815	300	1810
300	2.0	1.6	2.5	2.7	61.2	11820	300	1810
400	2.0	1.6	2.5	2.9	66.6	14285	300	2012

* For Drum details refer Table – 79.

Circular conductors



Single Core Cable – 600/1000 V

DIMENSIONS & WEIGHTS



AL/XLPE/AWA/PVC – B.S. 5467 to the extent applicable
ALUMINIUM CONDUCTOR, XLPE INSULATED, AL-WIRE ARMoured, PVC SHEATHED

TABLE –15

Nominal Area of Conductor mm ²	Thickness of Insulation mm	Thickness of Extruded Bedding mm	Diameter of Armour Wire mm	Thickness of Outer Sheath mm	Approx. Overall Diameter mm	Approx. Cable Weight kg/km	Packing Length mtrs	Drum * No
50	1.0	0.8	0.9	1.5	17.5	405	1000	1206
70	1.1	0.8	1.25	1.5	20.2	540	1000	1206
95	1.1	0.8	1.25	1.6	22.3	655	1000	1206
120	1.2	0.8	1.25	1.6	24.2	760	1000	1206
150	1.4	1.0	1.6	1.7	27.4	1000	1000	1407
185	1.6	1.0	1.6	1.8	30.0	1185	1000	1508
240	1.7	1.0	1.6	1.8	32.8	1420	1000	1608
300	1.8	1.0	1.6	1.9	35.6	1680	1000	1810
400	2.0	1.2	2.0	2.0	40.5	2185	1000	2213
500	2.2	1.2	2.0	2.1	44.2	2580	1000	2213
630	2.4	1.2	2.0	2.2	48.8	3170	1000	2213
800	2.6	1.4	2.5	2.4	55.4	4400	500	2213
1000	2.8	1.4	2.5	2.5	60.6	6690	500	2213

* For Drum details refer Table – 79.



L.V. Power and Control Cables

Single Core Cable – 600/1000 V DIMENSIONS & WEIGHTS



AL/XLPE/PVC – B.S. 7889 to the extent applicable
ALUMINIUM CONDUCTOR, XLPE INSULATED, PVC SHEATHED (UNARMoured)

Table – 16

Nominal Area of Conductor	Thickness of Insulation	Thickness of Outer Sheath	Approx. Overall Diameter	Approx. Cable Weight	Packing Length	Drum* No.
mm ²	mm	mm	Mm	kg/km	mtrs	
50	1.0	1.4	14.2	250	1000	1005
70	1.1	1.4	16.2	330	1000	1005
95	1.1	1.5	18.3	425	1000	1206
120	1.2	1.5	20.2	510	1000	1206
150	1.4	1.6	22.4	635	1000	1206
185	1.6	1.6	24.7	770	1000	1206
240	1.7	1.7	27.7	990	1000	1407
300	1.8	1.8	30.6	1205	1000	1608
400	2.0	1.9	34.2	1515	1000	1810
500	2.2	2.0	38.0	1880	1000	2012
630	2.4	2.2	42.9	2370	1000	2213
800	2.6	2.3	47.8	4450	1000	2213
1000	2.8	2.4	53.0	5500	500	2012

*For drum details refer Table - 79



L.V. Power and Control Cables

2 Core Cables – 600/1000 V

DIMENSIONS & WEIGHTS



AL/XLPE/SWA/PVC – B.S. 5467 to the extent applicable

ALUMINIUM CONDUCTOR, XLPE INSULATED, STEEL WIRE ARMoured, PVC SHEATHED

TABLE –17

Nominal Area of Conductor	Thickness of Insulation	Thickness of Extruded Bedding	Diameter of Armour Wire	Thickness of Outer Sheath	Approx. Overall Diameter	Approx. Cable Weight	Packing Length	Drum [*] No
mm ²	mm	mm	mm	mm	mm	kg/km	mtrs	
16#	0.7	0.8	1.25	1.5	20.4	660	1000	1206
25	0.9	0.8	1.25	1.6	20.4	690	1000	1206
35	0.9	1.0	1.6	1.7	23.3	990	1000	1206
50	1.0	1.0	1.6	1.8	25.8	1140	1000	1407
70	1.1	1.0	1.6	1.9	29.0	1400	1000	1508
95	1.1	1.2	2.0	2.0	33.1	1940	1000	1608
120	1.2	1.2	2.0	2.1	36.1	2240	1000	1810
150	1.4	1.2	2.0	2.2	39.3	2570	1000	2213
185	1.6	1.4	2.5	2.4	44.7	3400	1000	2213
240	1.7	1.4	2.5	2.5	49.0	4080	1000	2213
300	1.8	1.6	2.5	2.6	53.5	4770	300	1810
400	2.0	1.6	2.5	2.8	59.0	5510	300	1810

* For Drum details refer Table – 79.

Circular conductor.



L.V. Power and Control Cables

2 Core Cables – 600/1000 V

DIMENSIONS & WEIGHTS



AL/XLPE/PVC To IEC 60502 Part 1

ALUMINIUM CONDUCTOR, XLPE INSULATED, PVC SHEATHED (UNARMoured)

Table – 18

Nominal Area of Conductor mm ²	Thickness of Insulation mm	Thickness of Outer Sheath mm	Approx. Overall Diameter mm	Approx. Cable Weight kg/km	Packing Length mtrs	Drum* No.
16#	0.7	1.8	17.2	240	1000	1004
25	0.9	1.8	17.1	300	1000	1004
35	0.9	1.8	18.7	370	1000	1206
50	1.0	1.8	21.1	430	1000	1206
70	1.1	1.8	23.7	600	1000	1206
95	1.1	2.0	26.3	800	1000	1407
120	1.2	2.1	29.0	1000	1000	1508
150	1.4	2.2	32.6	1210	1000	1608
185	1.6	2.3	35.9	1530	1000	1810
240	1.7	2.5	40.0	1980	1000	2213
300	1.8	2.7	43.9	2410	1000	2213
400	2.0	2.9	49.9	3070	1000	2213

* For Drum details refer Table – 79

Circular conductor



L.V. Power and Control Cables

3 Core Cables – 600/1000V

DIMENSIONS & WEIGHTS



AL/XLPE/SWA/PVC – B.S. 5467 to the extent applicable

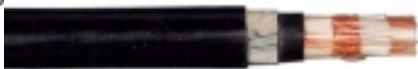
ALUMINIUM CONDUCTOR , XLPE XLPE INSULATED, STEEL WIRE ARMoured,PVC SHEATED

TABLE -19

Nominal Area of Conductor mm ²	Thickness of Insulation mm	Thickness of Extruded Bedding mm	Diameter of Armour Wire mm	Thickness of Outer Sheath mm	Approx. Overall Diameter mm	Approx. Cable Weight kg/km	Packing Length mtrs	Drum* No.
16 #	0.7	0.8	1.25	1.6	21.6	760	1000	1206
25	0.9	1.0	1.6	1.7	23.6	1020	1000	1206
35	0.9	1.0	1.6	1.8	25.7	1200	1000	1407
50	1.0	1.0	1.6	1.8	28.5	1380	1000	1508
70	1.1	1.0	1.6	1.9	32.2	1750	1000	1608
95	1.1	1.2	2.0	2.1	37.0	2420	1000	2012
120	1.2	1.2	2.0	2.2	40.4	2820	1000	2213
150	1.4	1.4	2.5	2.3	45.5	3660	1000	2213
185	1.6	1.4	2.5	2.4	49.8	4350	1000	2213
240	1.7	1.4	2.5	2.6	55.1	5220	300	1810
300	1.8	1.6	2.5	2.7	60.2	6200	300	1810
400	2.0	1.6	2.5	2.9	66.6	7160	300	1810

* For Drum details refer Table – 79.

Circular conductor



L.V. Power and Control Cables

3 Core Cables – 600/1000V

DIMENSIONS & WEIGHTS



AL/XLPE/PVC To IEC 60502 Part 1

ALUMINIUM CONDUCTOR, XLPE INSUALTED, PVC SHEATHED (UNARMoured)

TABLE – 20

Nominal Area of Conductor	Thickness of Insulation	Thickness of Outer Sheath	Approx. Overall Diameter	Approx. Cable Weight	Packing Length	Drum* No.
mm ²	mm	mm	mm	kg/km	mtrs	
16	0.7	1.8	18.2	320	1000	1206
25	0.9	1.8	19.1	400	1000	1206
35	0.9	1.8	21.1	500	1000	1206
50	1.0	1.8	23.8	600	1000	1206
70	1.1	1.9	27.1	860	1000	1407
95	1.1	2.0	30.2	1150	1000	1508
120	1.2	2.1	33.4	1430	1000	1810
150	1.4	2.3	37.3	1700	1000	2012
185	1.6	2.4	41.4	2180	1000	2213
240	1.7	2.6	45.9	2860	1000	2213
300	1.8	2.8	50.7	3520	1000	2213
400	2.0	3.1	57.8	4170	500	2213

* For drum details refer table – 79



4 Core Cables - 600/1000V

DIMENSIONS & WEIGHTS



AL / XLPE / SWA / PVC – B.S. 5467 to the extent applicable

ALUMINIUM CONDUCTOR, XLPE INSUALTED, STEEL WIRE ARMoured, PVC SHEATHED

TABLE – 21

Nominal Area of Conductor	Thickness of insulation	Thickness of Extruded Bedding	Diameter of Armour Wire	Thickness of outer Sheath	Approx. Overall Diameter	Approx. Cable Weight	Packing Length	Drum* No.
mm ²	mm	mm	mm	mm	mm	kg/km	mtrs	
25	0.9	1.0	1.6	1.7	26.1	1240	1000	1407
35	0.9	1.0	1.6	1.8	28.6	1470	1000	1508
50	1.0	1.0	1.6	1.9	32.0	1720	1000	1608
70	1.1	1.2	2.0	2.1	37.7	2520	1000	2012
95	1.1	1.2	2.0	2.2	41.7	3040	1000	2213
120	1.2	1.4	2.5	2.3	47.1	4010	1000	2213
150	1.4	1.4	2.5	2.4	51.4	4580	300	1608
185	1.6	1.4	2.5	2.6	56.6	5490	300	1810
240	1.7	1.6	2.5	2.7	63.0	6710	250	1810
300	1.8	1.6	2.5	2.9	68.8	7910	250	2012
400	2.0	1.8	3.15	3.2	78.1	9960	250	2213

* For Drum details refer Table – 79.



L.V. Power and Control Cables

4 Core Cables - 600/1000V

DIMENSIONS & WEIGHTS



AL/XLPE /PVC To IEC 60502 Part 1

ALUMINIUM CONDUCTOR, XLPE INSULATED, PVC SHEATHED (UNARMoured)

TABLE – 22

Nominal Area of Conductor mm ²	Thickness Of Insulation mm	Thickness Of Outer Sheath mm	Approx. Overall Diameter mm	Approx. Cable Weight kg/km	Packing Length mtrs	Drum* No.
25	0.9	1.8	21.8	510	1000	1206
35	0.9	1.8	24.1	650	1000	1206
50	1.0	1.9	27.5	770	1000	1407
70	1.1	2.0	31.7	1120	1000	1608
95	1.1	2.1	35.4	1510	1000	1810
120	1.2	2.3	39.2	1870	1000	2213
150	1.4	2.4	43.8	2260	1000	2213
185	1.6	2.6	48.7	2890	1000	2213
240	1.7	2.8	54.4	3780	300	1810
300	1.8	3.0	59.9	4680	300	1810
400	2.0	3.3	68.1	5500	300	2012

*For Drum details refer Table – 79



L.V. Power and Control Cables

3 ½ Core (4 Core With Reduced Neutral) Cables - 600/1000V

DIMENSIONS & WEIGHTS



AL/XLPE/SWA/PVC – B.S. 5467 to the extent applicable

ALUMINIUM CONDUCTOR, XLPE INSULATED, STEEL WIRE ARMoured, PVC SHEATHED

TABLE –23

Nominal Area of Conductor		Thickness of Insulation		Thickness of Extruded Bedding	Diameter of Armour Wire	Thickness of Outer Sheath	Approx. Overall Diameter	Approx. Cable Weight	Packing Length	Drum* No.
Phase	Neutral	Phase	Neutral							
mm ²		mm		mm	mm	mm	mm	kg/km	mtrs	
35	16	0.9	0.7	1.0	1.6	1.8	27.9	1520	1000	1407
50	25	1.0	0.9	1.0	1.6	1.9	31.2	1830	1000	1508
70	35	1.1	0.9	1.2	2.0	2.0	36.6	2420	1000	1810
95	50	1.1	1.0	1.2	2.0	2.1	41.0	2860	1000	2213
120	70	1.2	1.1	1.2	2.0	2.2	45.3	3470	1000	2213
150	70	1.4	1.1	1.4	2.5	2.4	50.0	4480	1000	2213
185	95	1.6	1.1	1.4	2.5	2.5	55.3	5310	300	1810
240	120	1.7	1.2	1.6	2.5	2.6	61.1	6510	300	1810
300	150	1.8	1.4	1.6	2.5	2.8	66.7	7090	300	2012
300	185	1.8	1.6	1.6	2.5	2.8	68.6	7230	300	2012
400	185	2.0	1.6	1.6	2.5	3.0	73.8	9920	300	2213

* For Drum details refer Table – 79.



L.V. Power and Control Cables

3 ½ Core (4 Core With Reduced Neutral) Cables - 600/1000V

DIMENSIONS & WEIGHTS



AL/XLPE/PVC To IEC 60502 Part 1

ALUMINIUM CONDUCTOR, XLPE INSULATED, PVC SHEATHED (UNARMoured)

TABLE -24

Nominal Area of Conductor		Thickness of Insulation		Thickness of Outer Sheath	Approx. Overall Diameter	Approx. Cable Weight	Packing length	Drum* No.
Phase	Neutral	Phase	Neutral					
mm ²		mm		mm	mm	kg/km	mtrs	
35	16	0.9	0.7	1.8	22.6	650	1000	1206
50	25	1.0	0.9	1.8	25.7	750	1000	1407
70	35	1.1	0.9	1.9	29.4	1050	1000	1407
95	50	1.1	1.0	2.1	32.8	1450	1000	1608
120	70	1.2	1.1	2.2	36.3	1850	1000	1810
150	70	1.4	1.1	2.3	40.6	2200	1000	2213
185	95	1.6	1.1	2.5	45.1	2800	1000	2213
240	120	1.7	1.2	2.7	50.2	3550	1000	2213
300	150	1.8	1.4	2.9	54.3	4500	300	1810
300	185	1.8	1.6	2.9	58.2	4550	300	1810
400	185	2.0	1.6	3.1	63.2	5450	250	1810

* For Drum details refer Table – 79.



L.V. Power and Control Cables

5 Core Cables - 600/1000V

DIMENSIONS & WEIGHTS

AL/XLPE/SWA/PVC – B.S. 5467:1997

ALUMINIUM CONDUCTOR, XLPE INSULATED, STEEL WIRE ARMoured, PVC SHEATHED

TABLE –25

Nominal Area of Conductor	Thickness Of Insulation	Thickness Of Extruded Bedding	Diameter of Armour wire	Thickness of Outer sheath	Approx. Overall Diameter	Approx. Cable Weight	Packing Length	Drum* No.
mm ²	mm	mm	mm	mm	mm	kg/km	mtrs	
10	0.7	0.8	1.25	1.6	22.9	1150	1000	1206
16	0.7	1.0	1.6	1.7	26.6	1395	1000	1407
25	0.9	1.0	1.6	1.8	31.5	1350	1000	1608
35	0.9	1.0	1.6	1.9	34.8	1580	1000	1810
50	1.0	1.2	2.0	2.0	40.4	1860	500	1508
70	1.1	1.2	2.0	2.2	46.3	2870	500	1810

* For Drum details refer Table – 79.

AL/XLPE/PVC - IEC: 60502 - 1

ALUMINIUM CONDUCTOR, XLPE INSULATED, PVC SHEATHED

TABLE –26

Nominal Area of Conductor	Thickness Of Insulation	Thickness of Outer sheath	Approx. Overall Diameter	Approx. Cable Weight	Packing Length	Drum* No.
mm ²	mm	mm	mm	kg/km	mtrs	
10	0.7	1.8	20.4	470	1000	1206
16	0.7	1.8	23.4	515	1000	1206
25	0.9	1.8	28.3	600	1000	1407
35	0.9	1.8	31.6	755	1000	1608
50	1.0	2.0	36.4	920	500	1407
70	1.1	2.1	42.3	1330	500	1608

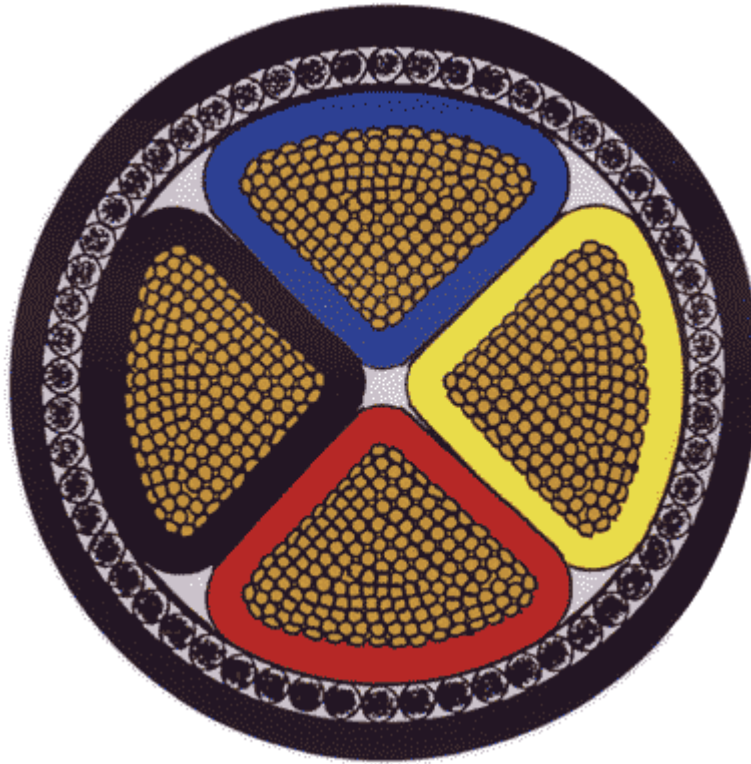
* For Drum details refer Table – 79.



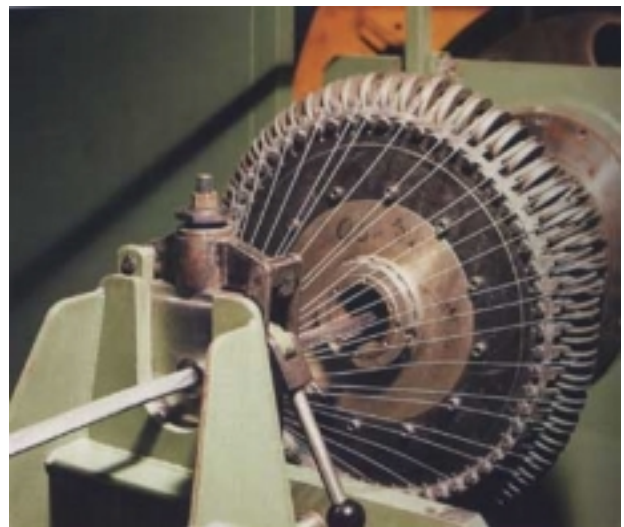
L.V. Power and Control Cables

PVC Insulated Power Cables CONFORMING TO IEC-502 AND BS: 6346

600/1000 Volts
1900/3300 Volts



High Voltage Test Area/Yard



Armoring Operation



L.V. Power and Control Cables

PVC Power Cable Manufacturing Process At OCI

Copper/Aluminium Rod

PVC Compound - Master batch

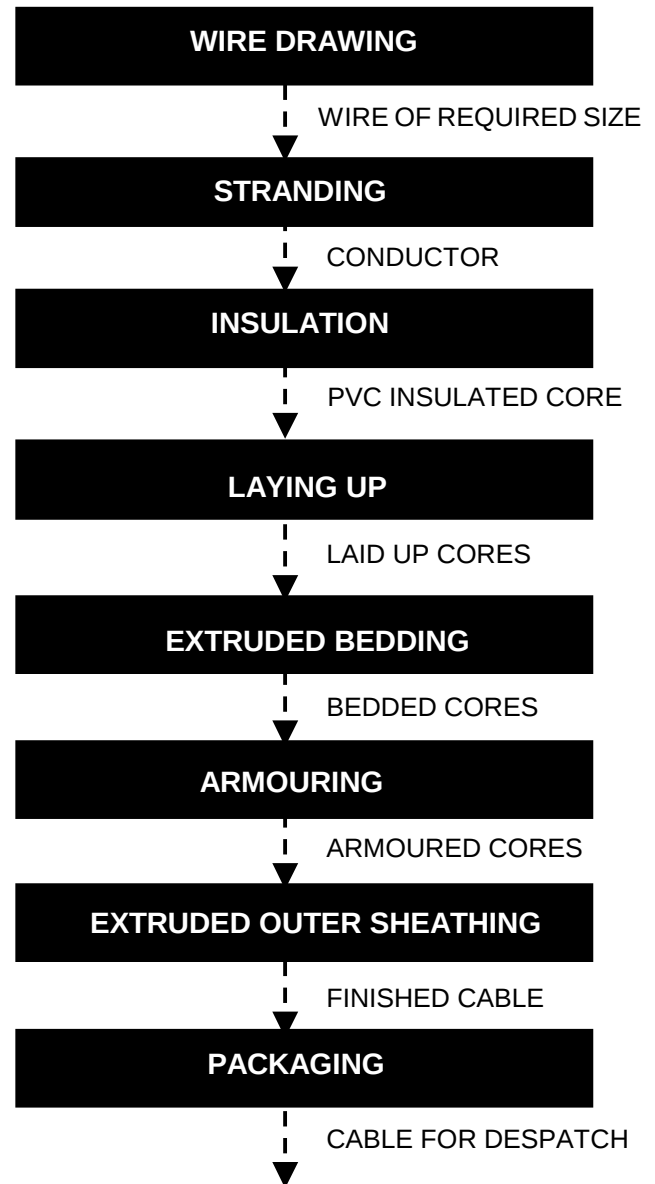
Fillers/Binding Tape

PVC (Compatible to insulation)

*Armour Wire
(Galvanised Steel / Aluminium)*

PVC Type 9

Wooden Drums





L.V. Power and Control Cables

Single Core Cable – 600/1000V

DIMENSIONS & WEIGHTS



CU/PVC/AWA/PVC B.S. 6346: 1997 with Amendment 1

COPPER CONDUCTOR, PVC INSULATED, AL-WIRE ARMoured, PVC SHEATHED

TABLE – 27

Nominal Area of Conductor mm ²	Thickness of Insulation mm	Thickness of Extruded Bedding mm	Diameter of Armour wire mm	Thickness of Outer Sheath mm	Approx. Overall Dia. mm	Approx. Cable Weight kg/km	Packing Length mtrs	Drum* No.
50	1.4	0.8	1.25	1.5	19.1	820	1000	1206
70	1.4	0.8	1.25	1.6	21.1	1070	1000	1206
95	1.6	0.8	1.25	1.6	23.4	1390	500	1104
120	1.6	1.0	1.6	1.7	26.3	1600	500	1104
150	1.8	1.0	1.6	1.7	28.3	1900	500	1104
185	2.0	1.0	1.6	1.8	30.8	2450	500	1407
240	2.2	1.0	1.6	1.9	34.1	3100	500	1407
300	2.4	1.0	1.6	1.9	37.0	3760	500	1608
400	2.6	1.2	2.0	2.1	42.0	4850	500	1608
500	2.8	1.2	2.0	2.1	45.6	5930	500	1608
630	2.8	1.2	2.0	2.2	48.7	7390	250	1407
800	2.8	1.4	2.5	2.4	55.8	9400	250	1608
1000	3.0	1.4	2.5	2.5	61.0	11430	250	1608



L.V. Power and Control Cables

Single Core Cable – 600/1000V DIMENSIONS & WEIGHTS



CU/PVC/PVC To IEC 60502 Part 1

COPPER CONDUCTOR, PVC INSUALTED, PVC SHEATHED (UNARMoured)

TABLE –28

Nominal Area of Conductor	Thickness Of Insulation	Thickness Of Outer Sheath	Approx. Overall Diameter	Approx. Cable Weight	Packing Length	Drum* No.
mm ²	mm	mm	mm	kg/km	mtrs	
50	1.4	1.4	15.1	580	1000	1005
70	1.4	1.4	16.9	790	1000	1004
95	1.6	1.5	19.4	1090	1000	1206
120	1.6	1.5	21.0	1340	1000	1206
150	1.8	1.6	23.2	1630	1000	1206
185	2.0	1.7	25.8	2080	1000	1407
240	2.2	1.8	29.0	2650	1000	1508
300	2.4	1.9	32.1	3250	1000	1608
400	2.6	2.0	35.8	4180	1000	1810
500	2.8	2.1	39.6	5210	500	1608
630	2.8	2.2	43.8	6480	500	1608
800	2.8	2.3	48.3	8250	250	1407
1000	3.0	2.5	53.7	10300	250	1508

*For drum details refer Table – 79



L.V. Power and Control Cables

2 Core Cables – 600/1000V

DIMENSIONS & WEIGHTS



CU/PVC/SWA/PVC To B.S. 6346: 1997 with Amendment 1

COPPER CONDUCTOR, PVC INSULATED, STEEL-WIRE ARMoured, PVC SHEATHED

TABLE – 29

Nominal Area of Conductor mm ²	Thickness of Insulation mm	Thickness of Extruded Bedding mm	Diameter of Armour Wire mm	Thickness of Outer Sheath mm	Approx. Overall Diameter. mm	Approx. Cable Weight kg/km	Packing Length mtrs	Drum* No.
1.5 #	0.6	0.8	0.9	1.4	12.3	270	1000	0905
2.5 #	0.7	0.8	0.9	1.4	13.6	350	1000	0905
4 #	0.8	0.8	0.9	1.4	15.1	470	1000	1005
6 #	0.8	0.8	0.9	1.5	16.5	580	1000	1004
10 #	1.0	0.8	1.25	1.6	20.1	840	1000	1206
16 #	1.0	0.8	1.25	1.6	21.9	990	1000	1206
25	1.2	1.0	1.6	1.7	23.0	1480	1000	1206
35	1.2	1.0	1.6	1.8	24.8	1770	1000	1407
50	1.4	1.0	1.6	1.9	27.8	1900	1000	1407
70	1.4	1.0	1.6	1.9	30.4	2430	1000	1508
95	1.6	1.2	2.0	2.1	35.5	2970	1000	1810
120	1.6	1.2	2.0	2.2	38.0	3970	1000	2213
150	1.8	1.2	2.0	2.3	41.3	4700	500	1508
185	2.0	1.4	2.5	2.4	46.4	5990	500	1810
240	2.2	1.4	2.5	2.5	51.2	7420	500	1810
300	2.4	1.6	2.5	2.7	56.4	8950	300	1810
400	2.6	1.6	2.5	2.9	61.9	11030	250	1810

* For Drum details refer Table - 79

Circular conductors



L.V. Power and Control Cables

2 Core Cables – 600/1000V DIMENSIONS & WEIGHTS



CU/PVC/PVC To IEC 60502 Part 1

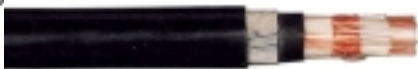
COPPER CONDUCTOR, PVC INSULATED, PVC SHEATHED (UNARMoured)

TABLE – 30

Nominal Area of Conductor mm ²	Thickness of Insulation mm	Thickness of Outer Sheath mm	Approx. Overall Diameter mm	Approx. Cable Weight kg/km	Packing Length mtrs	Drum* No.
1.5 #	0.8	1.8	9.5	130	1000	0805
2.5 #	0.8	1.8	9.8	190	1000	0805
4 #	1.0	1.8	11.5	240	1000	0905
6 #	1.0	1.8	12.8	310	1000	0905
10 #	1.0	1.8	15.7	450	1000	1005
16 #	1.0	1.8	17.2	600	1000	1004
25	1.2	1.8	17.4	820	1000	1004
35	1.2	1.8	18.9	1040	1000	1206
50	1.4	1.8	21.8	1250	1000	1206
70	1.4	1.9	24.2	1670	1000	1407
95	1.6	2.0	27.6	2150	1000	1407
120	1.6	2.1	29.9	2650	1000	1508
150	1.8	2.2	33.3	3500	1000	1810
185	2.0	2.4	36.8	4040	1000	1810
240	2.2	2.6	41.1	5230	500	1508
300	2.4	2.7	45.6	6520	500	1608
400	2.6	3.0	51.4	8270	300	1810

*For drum details refer table - 79

Circular conductors



3 Core Cables – 600/1000 V

DIMENSIONS & WEIGHTS



CU/PVC/SWA/PVC B.S. 6346: 1997 with Amendment 1

COPPER CONDUCTOR, PVC INSULATED, STEEL-WIRE ARMoured, PVC SHEATHED

TABLE – 31

Nominal Area of Conductor mm ²	Thickness of Insulation mm	Thickness of Extruded Bedding mm	Diameter of Armour Wire mm	Thickness of Outer Sheath mm	Approx. Overall Diameter mm	Approx. Cable Weight kg/km	Packing Length mtrs	Drum No
1.5 #	0.6	0.8	0.9	1.4	12.8	307	1000	0905
2.5 #	0.7	0.8	0.9	1.4	14.1	387	1000	1005
4 #	0.8	0.8	0.9	1.4	15.8	493	1000	1004
6 #	0.8	0.8	1.25	1.5	18.0	701	1000	1206
10 #	1.0	0.8	1.25	1.6	21.2	967	1000	1206
16 #	1.0	0.8	1.25	1.6	23.1	1219	1000	1206
25	1.2	1.0	1.6	1.7	25.0	1612	1000	1407
35	1.2	1.0	1.6	1.8	27.1	1992	1000	1407
50	1.4	1.0	1.6	1.9	30.5	2534	1000	1508
70	1.4	1.2	2.0	2.0	35.0	3518	1000	1810
95	1.6	1.2	2.0	2.1	39.3	4510	500	1407
120	1.6	1.2	2.0	2.2	42.2	5375	500	1508
150	1.8	1.4	2.5	2.4	47.5	6810	500	1810
185	2.0	1.4	2.5	2.5	51.9	8190	500	1810
240	2.2	1.6	2.5	2.6	57.8	10280	300	1810
300	2.4	1.6	2.5	2.8	63.2	12430	300	2012
400	2.6	1.6	2.5	3.0	69.6	15400	250	2012

* For Drum details refer Table – 79.

Circular conductors



L.V. Power and Control Cables

3 Core Cable – 600/1000 V DIMENSIONS & WEIGHTS



CU/PVC/PVC To IEC 60502 Part 1

COPPER CONDUCTOR, PVC INSULATED, PVC SHEATHED (UNARMoured)

Table – 32

Nominal Area of Conductor*	Thickness of Insulation	Thickness of Outer Sheath	Approx. Overall Diameter	Approx. Cable Weight	Packing Length	Drum* No.
mm ²	mm	mm	mm	kg/km	mtrs	
1.5 #	0.8	1.8	10.0	110	1000	0805
2.5 #	0.8	1.8	11.4	160	1000	0905
4 #	1.0	1.8	13.2	225	1000	0905
6 #	1.0	1.8	14.6	300	1000	1005
10 #	1.0	1.8	17.7	470	1000	1206
16 #	1.0	1.8	19.3	655	1000	1206
25	1.2	1.8	20.4	955	1000	1206
35	1.2	1.8	22.3	1250	1000	1206
50	1.4	1.8	25.6	1665	1000	1407
70	1.4	2.0	28.6	2295	1000	1508
95	1.6	2.1	32.7	3145	1000	1608
120	1.6	2.2	35.4	3890	1000	1810
150	1.8	2.3	39.3	4760	500	1407
185	2.0	2.5	43.7	5950	500	1608
240	2.2	2.7	48.1	7710	300	1608
300	2.4	2.9	53.6	9615	300	1810
400	2.6	3.1	60.6	12240	300	1810

* For Drum details refer Table – 79.

Circular conductors



4 Core Cables – 600/1000 V

DIMENSIONS & WEIGHTS



CU/PVC/SWA/PVC B.S. 6346: 1997 with Amendment 1

COPPER CONDUCTOR, PVC INSULATED, STEEL-WIRE ARMoured, PVC SHEATHED

TABLE – 33

Nominal Area of Conductor mm ²	Thickness of Insulation mm	Thickness of Extruded Bedding mm	Diameter of Armour Wire mm	Thickness of Outer Sheath mm	Approx. Overall Diameter mm	Approx. Cable Weight kg/km	Packing Length mtrs	Drum No
1.5 #	0.6	0.8	0.9	1.4	13.5	330	1000	0905
2.5 #	0.7	0.8	0.9	1.4	15.0	430	1000	1005
4 #	0.8	0.8	1.25	1.5	17.8	640	1000	1206
6 #	0.8	0.8	1.25	1.5	19.2	770	1000	1206
10 #	1.0	0.8	1.25	1.6	22.8	1070	1000	1206
16	1.0	1.0	1.6	1.7	26.3	1550	1000	1407
25	1.2	1.0	1.6	1.8	27.8	2005	1000	1407
35	1.2	1.0	1.6	1.9	30.3	2490	1000	1508
50	1.4	1.2	2.0	2.0	35.4	3475	1000	1810
70	1.4	1.2	2.0	2.1	39.2	4480	1000	2213
95	1.6	1.2	2.0	2.2	43.3	5710	500	1508
120	1.6	1.4	2.5	2.4	49.3	7350	500	1810
150	1.8	1.4	2.5	2.5	53.6	8720	500	2012
185	2.0	1.6	2.5	2.6	59.0	10540	300	1810
240	2.2	1.6	2.5	2.8	65.7	13290	300	2012
300	2.4	1.6	2.5	3.0	72.0	16050	250	2012
400	2.6	1.8	3.15	3.3	81.3	20950	250	2213

* For Drum details refer Table – 79.

Circular conductors



L.V. Power and Control Cables

4 Core Cables – 600/1000 V DIMENSIONS & WEIGHTS



CU/PVC/PVC To IEC 60502 Part 1

COPPER CONDUCTOR, PVC INSULATED, PVC SHEATHED (UNARMoured)

Table – 34

Nominal Area of Conductor	Thickness of Insulation	Thickness of Outer Sheath	Approx. Overall Diameter	Approx. Cable Weight	Packing Length	Drum* No.
mm ²	mm	mm	mm	kg/km	mtrs	
1.5 #	0.8	1.8	10.8	135	1000	0805
2.5 #	0.8	1.8	12.3	195	1000	0905
4 #	1.0	1.8	14.2	280	1000	1005
6 #	1.0	1.8	15.8	380	1000	1004
10 #	1.0	1.8	19.2	595	1000	1206
16	1.0	1.8	21.0	840	1000	1206
25	1.2	1.8	23.2	1240	1000	1206
35	1.2	1.8	25.5	1640	1000	1407
50	1.4	1.9	29.6	2200	1000	1508
70	1.4	2.1	33.2	3050	1000	1810
95	1.6	2.2	38.1	4170	1000	2213
120	1.6	2.4	41.3	5160	500	1508
150	1.8	2.5	46.0	6340	500	1608
185	2.0	2.7	51.2	7890	500	2012
240	2.2	2.9	56.8	10250	300	1810
300	2.4	3.1	63.0	12820	300	2012
400	2.6	3.4	71.2	16280	250	2012

*For Drum details refer Table – 79

Circular conductors



3¹/₂ Core (4 Core With Reduced Neutral) Cables – 600/1000V

DIMENSIONS & WEIGHTS



CU/PVC/SWA/PVC B.S. 6346: 1997 with Amendment 1 ^
COPPER CONDUCTOR, PVC INSULATED, STEEL-WIRE ARMOURED, PVC SHEATHED

TABLE – 35

Nominal Area of Conductor		Thickness of Insulation		Thickness of Extruded Bedding	Diameter of Armour Wire	Thickness of Outer Sheath	Approx. Overall Diameter	Approx. Cable Weight	Packing Length	Drum No
Phase	Neutral	Phase	Neutral							
mm ²		mm		mm	Mm	mm	mm	kg/km	mtrs	
10 #	6	1.0	0.8	1.0	1.25	1.8	23.4	1370	1000	1206
16 #	10	1.0	1.0	1.0	1.25	1.8	25.0	1620	1000	1407
25	16	1.2	1.0	1.0	1.6	1.8	27.8	1900	1000	1407
35	16	1.2	1.0	1.0	1.6	1.8	29.5	2300	1000	1508
50	25	1.4	1.2	1.0	1.6	1.9	33.1	3050	1000	1810
70	35	1.4	1.2	1.2	2.0	2.0	38.0	4130	1000	2213
95	50	1.6	1.4	1.2	2.0	2.2	43.7	5370	500	1608
120	70	1.6	1.4	1.4	2.5	2.3	49.0	6840	500	1810
150	70	1.8	1.4	1.4	2.5	2.4	52.0	8040	500	2012
185	95	2.0	1.6	1.4	2.5	2.5	57.2	9760	300	1810
240	120	2.2	1.6	1.6	2.5	2.7	63.7	12210	300	2012
300	150	2.4	1.8	1.6	2.5	2.9	69.8	14840	250	2012
300	185	2.4	2.0	1.6	2.5	2.9	71.8	17730	250	2012
400	185	2.6	2.0	1.8	3.15	3.1	78.6	19090	250	2213

* For Drum details refer Table – 79.

Circular conductors

^ 3¹/₂ core cable construction is not covered in Amended BS 6346. Construction is valid up to March 2006 as per old BS 6346.



L.V. Power and Control Cables

3¹/₂ Core (4 Core With Reduced Neutral) Cables – 600/1000V DIMENSIONS & WEIGHTS



CU/PVC/PVC To IEC 60502 Part 1

COPPER CONDUCTOR, PVC INSULATED, PVC SHEATHED (UNARMoured)

Table – 36

Nominal Area of Conductor		Thickness of Insulation		Thickness Of Outer Sheath	Approx. Overall Diameter	Approx. Cable Weight	Packing Length	Drum* No
Phase	Neutral	Phase	Neutral					
mm ²		mm	mm	mm	mm	kg/km	mtrs	
10 #	6	1.0	0.8	1.8	19.7	540	1000	1206
16 #	10	1.0	1.0	1.8	21.4	780	1000	1206
25	16	1.2	1.0	1.8	23.2	1270	1000	1206
35	16	1.2	1.0	1.8	25.8	1620	1000	1407
50	25	1.4	1.2	1.9	29.2	2140	1000	1508
70	35	1.4	1.2	2.0	33.0	2900	1000	1810
95	50	1.6	1.4	2.2	38.3	3940	1000	1810
120	70	1.6	1.4	2.3	41.8	4900	500	1608
150	70	1.8	1.4	2.4	45.2	5900	500	1608
185	95	2.0	1.6	2.6	49.7	7420	500	2012
240	120	2.2	1.6	2.8	57.1	9570	300	1810
300	150	2.4	1.8	3.0	63.3	11920	250	1810
300	185	2.4	2.0	3.0	67.2	13500	250	1810
400	185	2.6	2.0	3.2	70.2	15090	250	2012

Circular conductors

*For Drum details refer table – 79



Five Core Cables – 600/1000V

DIMENSIONS & WEIGHTS



CU/PVC/SWA/PVC – B.S. 6346:1997 with Amendment
COPPER CONDUCTOR, PVC INSULATED, STEEL WIRE ARMoured, PVC SHEATHED

Table – 37

Nominal Area of the Conductor	Thickness of Insulation	Thickness of Extruded Bedding	Diameter of armour wire	Thickness of Outer sheath	Approx. Overall Dia.	Approx. Cable weight	Packing Length	Drum* No.
mm ²	mm	mm	mm	mm	mm	kg/km	mtrs	
10	1.0	1.0	1.6	1.7	25.8	1150	1000	1407
16	1.0	1.0	1.6	1.7	28.4	1670	1000	1407
25	1.2	1.0	1.6	1.9	33.5	2250	1000	1810
35	1.2	1.0	1.6	1.9	36.6	2670	1000	1810
50	1.4	1.2	2.0	2.1	43.0	3590	500	1608
70	1.4	1.2	2.0	2.2	48.1	4610	500	1810

* For Drum details refer Table – 79.



CU/PVC/PVC – IEC:60502
COPPER CONDUCTOR, PVC INSULATED, PVC SHEATHED (UNARMoured)

Table – 38

Nominal Area of the Conductor	Thickness of Insulation	Thickness of Outer sheath	Approx. Overall Diameter	Approx. Cable weight	Packing Length	Drum* No.
mm ²	mm	mm	mm	mm	kg/km	mtrs
10	1.0	1.8	22.6	685	1000	1206
16	1.0	1.8	25.2	1000	1000	1407
25	1.0	1.8	30.3	1490	1000	1508
35	1.0	1.9	33.4	1990	1000	1810
50	1.2	2.1	39.0	2700	500	1508
70	1.2	2.2	44.1	3750	500	1608

* For Drum details refer Table – 79.



L.V. Power and Control Cables

Single Core Cable – 1900/3300 V

DIMENSIONS & WEIGHTS



CU/PVC/AWA/PVC B.S. 6346: 1997 with Amendment 1

COPPER CONDUCTOR, PVC INSULATED, AL WIRE ARMoured, PVC SHEATHED

TABLE – 39

Nominal Area of Conductor mm ²	Thickness of Insulation mm	Thickness of Extruded Bedding mm	Nominal Armour Wire Diameter mm	Thickness of Oversheath mm	Approx. Overall Diameter. mm	Approx. Cable Weight kg/km	Packing Length m	Drum* No.
50	2.2	0.8	1.25	1.6	21.0	840	1000	1206
70	2.2	0.8	1.25	1.6	22.8	1070	1000	1206
95	2.2	1.0	1.6	1.7	26.0	1445	1000	1407
120	2.2	1.0	1.6	1.7	27.7	1715	1000	1407
150	2.2	1.0	1.6	1.8	29.4	2010	1000	1508
185	2.2	1.0	1.6	1.8	31.3	2380	1000	1608
240	2.2	1.0	1.6	1.9	34.1	2975	1000	1810
300	2.4	1.0	1.6	1.9	37.0	3615	1000	2012
400	2.6	1.2	2.0	2.1	42.0	4655	500	1508
500	2.8	1.2	2.0	2.1	45.6	5725	500	1608
630	2.8	1.2	2.0	2.2	49.7	7150	500	2012
800	2.8	1.4	2.5	2.4	55.8	9160	300	1810
1000	3.0	1.4	2.5	2.5	61.0	11400	300	1810

* For Drum details refer Table – 79.



L.V. Power and Control Cables

3 Core Cable – 1900/3300 V

DIMENSIONS & WEIGHTS



CU/PVC/SWA/PVC B.S. 6346: 1997 with Amendment 1

COPPER CONDUCTOR, PVC INSULATED, STEEL WIRE ARMoured, PVC SHEATHED

TABLE – 40

Nominal Area of Conductor mm ²	Thickness of Insulation mm	Thickness of Extruded Bedding mm	Nominal Armour Wire Diameter mm	Thickness of Oversheath mm	Approx. Overall Diameter mm	Approx. Cable Weight kg/km	Packing Length m	Drum* No.
16 #	2.2	1.0	1.6	1.8	30.3	1700	1000	1508
25 #	2.2	1.0	1.6	1.8	33.1	2085	1000	1810
35	2.2	1.0	1.6	1.9	32.1	2405	1000	1608
50	2.2	1.2	2.0	2.0	35.6	3160	1000	1810
70	2.2	1.2	2.0	2.1	38.9	3925	1000	2213
95	2.2	1.2	2.0	2.2	42.3	4860	500	1508
120	2.2	1.4	2.5	2.3	46.6	6205	500	1608
150	2.2	1.4	2.5	2.4	49.4	7175	500	1810
185	2.2	1.4	2.5	2.5	52.8	8320	300	1810
240	2.2	1.6	2.5	2.6	57.8	10395	300	1810
300	2.4	1.6	2.5	2.8	63.2	12575	250	2012
400	2.6	1.6	2.5	3.0	69.6	15325	250	2012

* For Drum details refer Table - 79

circular conductors



L.V. Power and Control Cables

Single Core Cable – 600/1000 V

DIMENSIONS & WEIGHTS



AL/PVC/AWA/PVC To B.S. 6346 to the extent applicable
ALUMINIUM CONDUCTOR, PVC INSULATED, AL-WIRE ARMoured, PVC SHEATHED

TABLE – 41

Nominal Area of Conductor mm ²	Thickness of Insulation mm	Thickness of Extruded Bedding mm	Diameter of Armour Wire mm	Thickness of Outer Sheath mm	Approx. Overall Diameter mm	Approx. Cable Weight kg/km	Packing Length mtrs	Drum* No
50	1.4	0.8	1.25	1.5	19.1	530	1000	1206
70	1.4	0.8	1.25	1.6	21.1	650	1000	1206
95	1.6	0.8	1.25	1.6	23.4	810	1000	1206
120	1.6	1.0	1.6	1.7	26.3	960	1000	1407
150	1.8	1.0	1.6	1.7	28.3	1115	1000	1407
185	2.0	1.0	1.6	1.8	30.8	1315	1000	1508
240	2.2	1.0	1.6	1.9	34.1	1610	1000	1810
300	2.4	1.0	1.6	1.9	37.0	1890	1000	1810
400	2.6	1.2	2.0	2.1	42.0	2455	1000	2213
500	2.8	1.2	2.0	2.1	45.6	2945	1000	2213
630	2.8	1.2	2.0	2.2	49.7	3495	1000	2213
800	2.8	1.4	2.5	2.4	55.8	4210	1000	2213
1000	3.0	1.4	2.5	2.5	61.0	4870	300	1810

* For Drum details refer Table – 79.



L.V. Power and Control Cables

Single Core Cable – 600/1000 V DIMENSIONS & WEIGHTS



AL/PVC/PVC To IEC 60502 Part 1

ALUMINIUM CONDUCTOR, PVC INSULATED, PVC SHEATHED (UNARMoured)

Table – 42

Nominal Area of Conductor mm ²	Thickness of Insulation mm	Thickness of Outer Sheath mm	Approx. Overall Diameter mm	Approx. Cable Weight kg/km	Packing Length mtrs	Drum* No.
50	1.4	1.4	15.1	290	1000	1005
70	1.4	1.4	16.9	370	1000	1004
95	1.6	1.5	19.4	510	1000	1206
120	1.6	1.5	21.0	605	1000	1206
150	1.8	1.6	23.2	725	1000	1206
185	2.0	1.7	25.8	895	1000	1407
240	2.2	1.8	29.0	1160	1000	1508
300	2.4	1.9	32.1	1380	1000	1608
400	2.6	2.0	35.8	1790	1000	1810
500	2.8	2.1	39.6	2225	1000	2213
630	2.8	2.2	42.0	2585	1000	2213
800	2.8	2.3	46.0	3060	1000	2213
1000	3.0	2.5	57.6	3740	1000	2213

*For drum details refer Table – 79.



L.V. Power and Control Cables

2 Core Cables – 600/1000 V

DIMENSIONS & WEIGHTS



AL/PVC/AWA/PVC B.S. 6346 to the extent applicable

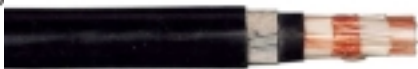
ALUMINIUM CONDUCTOR, PVC INSULATED, AL-WIRE ARMoured, PVC SHEATHED

TABLE – 43

Nominal Area of Conductor mm ²	Thickness of Insulation mm	Thickness of Extruded Bedding mm	Diameter of Armour Wire mm	Thickness of Outer Sheath mm	Approx. Overall Diameter mm	Approx. Cable Weight kg/km	Packing Length mtrs	Drum No
16 #	1.0	0.8	1.25	1.6	21.9	795	1000	1206
25	1.2	1.0	1.6	1.7	23.0	1170	1000	1206
35	1.2	1.0	1.6	1.8	24.8	1340	1000	1407
50	1.4	1.0	1.6	1.9	27.8	1450	1000	1407
70	1.4	1.0	1.6	1.9	30.4	1560	1000	1508
95	1.6	1.2	2.0	2.1	35.5	2200	1000	1810
120	1.6	1.2	2.0	2.2	38.0	2480	1000	2213
150	1.8	1.2	2.0	2.3	41.3	2840	1000	2213
185	2.0	1.4	2.5	2.4	46.4	3700	1000	2213
240	2.2	1.4	2.5	2.5	51.2	4450	1000	2213
300	2.4	1.6	2.5	2.7	56.4	5230	500	2213
400	2.6	1.6	2.5	2.9	61.9	6070	500	2213

* For Drum Details refer Table – 79.

Circular conductors



L.V. Power and Control Cables

2 Core Cable – 600/1000 V DIMENSIONS & WEIGHTS



AL/PVC/PVC To IEC 60502 Part 1

ALUMINIUM CONDUCTOR, PVC INSULATED, PVC SHEATHED (UNARMoured)

Table – 44

Nominal Area of Conductor mm ²	Thickness of Insulation mm	Thickness of Outer Sheath mm	Approx. Overall Diameter mm	Approx. Cable Weight kg/km	Packing Length mtrs	Drum* No.
16 #	1.0	1.8	17.2	400	1000	1004
25	1.2	1.8	17.4	510	1000	1004
35	1.2	1.8	18.9	610	1000	1206
50	1.4	1.8	21.8	730	1000	1206
70	1.4	1.9	24.2	805	1000	1206
95	1.6	2.0	27.6	970	1000	1407
120	1.6	2.1	29.9	1165	1000	1508
150	1.8	2.2	33.3	1320	1000	1810
185	2.0	2.4	36.8	1750	1000	1810
240	2.2	2.5	41.1	2250	1000	2213
300	2.4	2.7	45.6	2800	1000	2213
400	2.6	2.9	51.4	3310	1000	2213

* For Drum details refer Table – 79

Circular Conductors



L.V. Power and Control Cables

3 Core Cables – 600/1000 V

DIMENSIONS & WEIGHTS



AL/PVC/SWA/PVC To B.S. 6346 to the extent applicable

ALUMINIUM CONDUCTOR, PVC INSULATED, STEEL WIRE ARMoured, PVC SHEATHED

TABLE – 45

Nominal Area of Conductor mm ²	Thickness of Insulation mm	Thickness of Extruded Bedding mm	Diameter of Armour Wire mm	Thickness of Outer Sheath mm	Approx. Overall Diameter mm	Approx. Cable Weight kg/km	Packing Length mtrs	Drum* No
16 #	1.0	0.8	1.25	1.6	23.1	925	1000	1206
25	1.2	1.0	1.6	1.7	25.0	1150	1000	1407
35	1.2	1.0	1.6	1.8	27.1	1345	1000	1407
50	1.4	1.0	1.6	1.9	30.5	1610	1000	1508
70	1.4	1.2	2.0	2.0	35.0	2220	1000	1810
95	1.6	1.2	2.0	2.1	39.3	2745	1000	2213
120	1.6	1.2	2.0	2.2	42.2	3145	1000	2213
150	1.8	1.4	2.5	2.4	47.5	4020	1000	2213
185	2.0	1.4	2.5	2.5	51.9	4730	500	1810
240	2.2	1.6	2.5	2.6	57.8	5820	300	1810
300	2.4	1.6	2.5	2.8	63.2	6850	250	1810
400	2.6	1.6	2.5	3.0	69.6	7960	250	2012

* For Drum details refer Table – 79.

Circular conductors



L.V. Power and Control Cables

3 Core Cables – 600/1000 V DIMENSIONS & WEIGHTS



AL/PVC/PVC to IEC 60502 Part 1

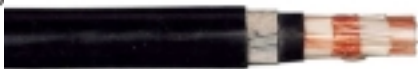
ALUMINIUM CONDUCTOR, PVC INSULATED, PVC SHEATHED (UNARMoured)

Table – 46

Nominal Area of Conductor	Thickness of Insulation	Thickness of Outer Sheath	Approx. Overall Diameter	Approx. Cable Weight	Packing Length	Drum* No.
mm ²	mm	mm	mm	kg/km	mtrs	
16 #	1.0	1.8	19.3	360	1000	1206
25	1.2	1.8	20.4	490	1000	1206
35	1.2	1.8	22.3	600	1000	1206
50	1.4	1.8	25.6	740	1000	1407
70	1.4	1.9	28.6	995	1000	1508
95	1.6	2.1	32.7	1380	1000	1608
120	1.6	2.2	35.4	1660	1000	1810
150	1.8	2.3	39.3	1970	1000	2213
185	2.0	2.5	43.7	2510	1000	2213
240	2.2	2.7	48.1	3250	1000	2213
300	2.4	2.8	53.6	4040	500	2213
400	2.6	3.1	60.6	4800	500	2213

* For Drum details refer Table – 79

Circular Conductors



4 Core Cables – 600/1000 V

DIMENSIONS & WEIGHTS



AL/PVC/SWA/PVC To B.S. 6346 to the extent applicable

ALUMINIUM CONDUCTOR, PVC INSULATED, STEEL-WIRE ARMoured, PVC SHEATHED

TABLE – 47

Nominal Area of Conductor mm ²	Thickness of Insulation mm	Thickness of Extruded Bedding mm	Diameter of Armour Wire mm	Thickness of Outer Sheath mm	Approx. Overall Diameter mm	Approx. Cable Weight kg/km	Packing Length mtrs	Drum No
25	1.2	1.0	1.6	1.8	27.8	1390	1000	1407
35	1.2	1.0	1.6	1.9	30.3	1625	1000	1508
50	1.4	1.2	2.0	2.0	35.4	2240	1000	1810
70	1.4	1.2	2.0	2.1	39.2	2750	1000	2213
95	1.6	1.2	2.0	2.2	44.3	3360	1000	2213
120	1.6	1.4	2.5	2.4	49.3	4380	1000	2213
150	1.8	1.4	2.5	2.5	53.6	5000	500	2012
185	2.0	1.6	2.5	2.6	59.0	5960	500	2213
240	2.2	1.6	2.5	2.8	65.7	7340	500	2213
300	2.4	1.6	2.5	3.0	72.0	8610	250	2012
400	2.6	1.8	3.15	3.3	81.3	11030	250	2213

* For Drum details refer Table – 79.



L.V. Power and Control Cables

4 Core Cables – 600/1000 V

DIMENSIONS & WEIGHTS



AL/PVC/PVC to IEC 60502 Part 1

ALUMINIUM CONDUCTOR, PVC INSULATED, PVC SHEATHED (UNARMoured)

TABLE – 48

Nominal Area of Conductor mm ²	Thickness of Insulation mm	Thickness of Outer Sheath mm	Approx. Overall Diameter mm	Approx. Cable Weight kg/km	Packing Length mtrs	Drum* No.
25	1.2	1.8	23.2	620	1000	1206
35	1.2	1.8	25.5	775	1000	1407
50	1.4	1.9	29.6	960	1000	1508
70	1.4	2.0	33.2	1320	1000	1810
95	1.6	2.2	38.1	1820	1000	2213
120	1.6	2.3	41.3	2190	1000	2213
150	1.8	2.5	46.0	2620	1000	2213
185	2.0	2.6	51.2	3310	1000	2213
240	2.2	2.9	56.8	4300	500	2213
300	2.4	3.1	63.0	5380	500	2213
400	2.6	3.4	71.2	6360	500	2213

*For Drum details refer Table – 79.



L.V. Power and Control Cables

3¹/₂ Core (4 Core with Reduced Neutral) Cables – 600/1000V

DIMENSIONS & WEIGHTS



AL/PVC/SWA/PVC To B.S. 6346 to the extent applicable

ALUMINIUM CONDUCTOR, PVC INSULATED, STEEL WIRE ARMoured, PVC SHEATHED

TABLE – 49

Nominal Area of Conductor		Thickness of Insulation		Thickness of Extruded Bedding	Dia. of Armour Wire	Thickness of Outer Sheath	Approx. Overall Diameter	Approx. Cable Weight	Packing Length	Drum No
Phase	Neutral	Phase	Neutral							
mm ²		mm		mm	mm	mm	mm	kg/km	mtrs	
35	16	1.2	1.0	1.0	1.6	1.8	29.5	1590	1000	1508
50	25	1.4	1.2	1.0	1.6	1.9	33.1	1950	1000	1810
70	35	1.4	1.2	1.2	2.0	2.0	38.0	2655	1000	2213
95	50	1.6	1.4	1.2	2.0	2.2	43.7	3105	1000	2213
120	70	1.6	1.4	1.4	2.5	2.3	49.0	4195	1000	2213
150	70	1.8	1.4	1.4	2.5	2.4	52.0	4815	500	1810
185	95	2.0	1.6	1.4	2.5	2.5	57.2	5705	500	2213
240	120	2.2	1.6	1.6	2.5	2.7	63.7	7020	300	2012
300	150	2.4	1.8	1.6	2.5	2.9	69.8	8205	250	2012
300	185	2.4	2.0	1.6	2.5	2.9	71.8	8750	250	2012
400	185	2.6	2.0	1.8	3.15	3.1	78.6	10530	250	2213

* For Drum details refer Table – 79.



L.V. Power and Control Cables

3¹/₂ Core (4 Core with Reduced Neutral) Cables – 600/1000V DIMENSIONS & WEIGHTS



AL/PVC/PVC to IEC 60502 Part 1

ALUMINIUM CONDUCTOR, PVC INSULATED, PVC SHEATHED (UNARMoured)

Table – 50

Nominal Area of Conductor		Thickness of Insulation		Thickness of Outer Sheath	Approx. Overall Diameter	Approx. Cable Weight	Packing Length	Drum No
Phase	Neutral	Phase	Neutral					
mm ²		mm	mm	mm	mm	kg/km	mtrs	
35	16	1.2	1.0	1.8	25.8	645	1000	1407
50	25	1.4	1.2	1.9	29.2	810	1000	1508
70	35	1.4	1.2	2.0	33.0	1090	1000	1810
95	50	1.6	1.4	2.2	38.3	1515	1000	2213
120	70	1.6	1.4	2.3	41.8	1850	1000	2213
150	70	1.8	1.4	2.4	45.2	2230	1000	2213
185	95	2.0	1.6	2.6	49.7	2770	1000	2213
240	120	2.2	1.6	2.8	57.1	3900	500	2213
300	150	2.4	1.8	3.0	63.3	4450	500	2213
300	185	2.4	2.0	3.0	67.2	4540	250	2012
400	185	2.6	2.0	3.2	70.2	5300	250	2012

*For drum details refer table – 79



L.V. Power and Control Cables

5 Core Cables – 600/1000V

DIMENSIONS & WEIGHTS



AL/PVC/SWA/PVC – B.S. 6346:1997 to the extent applicable

ALUMINIUM CONDUCTOR, PVC INSULATED, STEEL WIRE ARMoured, PVC SHEATHED

Table – 51

Nominal Area of the Conductor	Thickness of Insulation	Thickness of Extruded Bedding	Diameter of armour wire	Thickness of Outer sheath	Approx. Overall Diameter	Approx. Cable weight	Packing Length	Drum* No.
mm ²	mm	mm	mm	mm	mm	kg/km	mtrs	
10	1.0	1.0	1.6	1.7	25.8	1150	1000	1407
16	1.0	1.0	1.6	1.7	28.4	1395	1000	1407
25	1.2	1.0	1.6	1.9	33.5	1350	1000	1810
35	1.2	1.0	1.6	1.9	36.6	1580	1000	1810
50	1.4	1.2	2.0	2.1	43.0	1860	500	1608
70	1.4	1.2	2.0	2.2	48.1	2870	500	1810

* For Drum details refer Table – 79.



AL/PVC/PVC - IEC: 60502

ALUMINIUM CONDUCTOR, PVC INSULATED, PVC SHEATHED

Table – 52

Nominal Area of the Conductor	Thickness of Insulation	Thickness of Outer sheath	Approx. Overall Diameter	Approx. Cable weight	Packing Length	Drum* No.
mm ²	mm	mm	mm	mm	kg/km	mtrs
10	1.0	1.8	22.6	565	1000	1206
16	1.0	1.8	25.2	610	1000	1407
25	1.0	1.8	30.3	695	1000	1508
35	1.0	1.9	33.4	880	1000	1810
50	1.2	2.1	39.0	1110	500	1407
70	1.2	2.2	44.1	1530	500	1608

* For Drum details refer Table – 79.

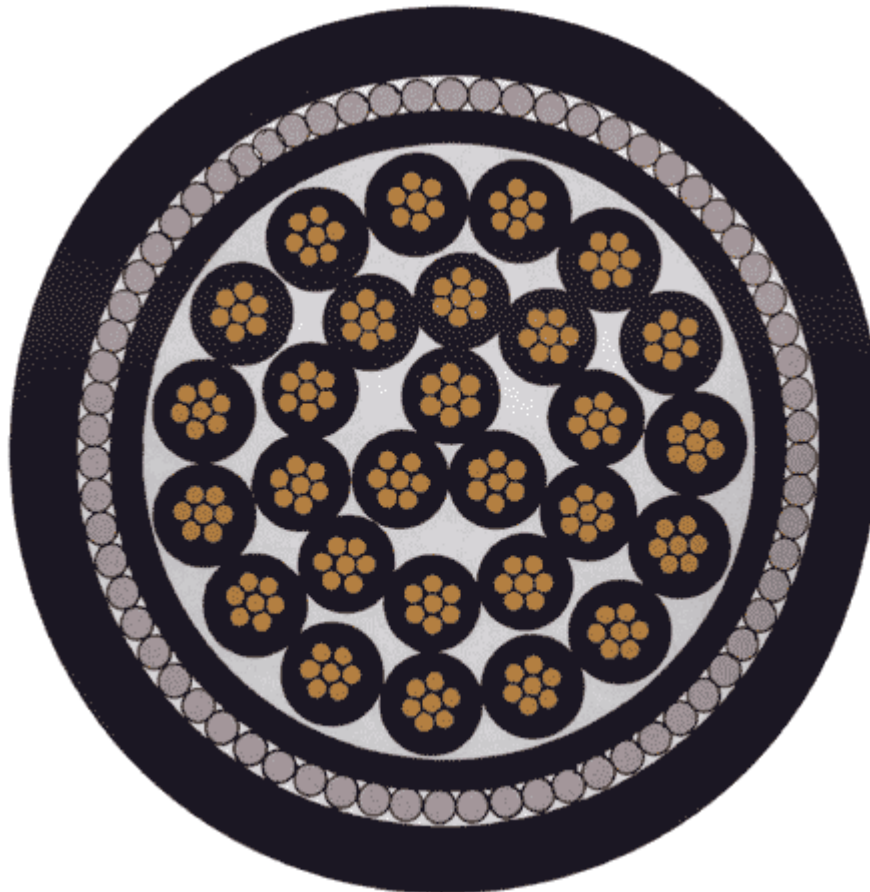


L.V. Power and Control Cables

PVC Insulated Control Cables

ARMOURED OR UN-ARMOURED
CONFORMING TO BSS-6346 AND IEC-502

600/1000VOLTS





L.V. Power and Control Cables

Control/Auxiliary Cables – 600/1000V

DIMENSIONS & WEIGHTS - Size 1.5 mm²



CU/PVC/SWA/PVC To BS 6346: 1997 with Amendment 1
COPPER CONDUCTOR, PVC INSULATED, STEEL WIRE ARMoured, PVC SHEATHED

TABLE – 53

No. of Cores	Thickness of Insulation	Thickness of Extruded Bedding	Diameter of Armour Wire	Thickness of Outer Sheath	Approx. Overall Diameter	Approx. Cable Weight	Packing Length	Drum No
Nos.	mm	mm	mm	mm	mm	kg/km	mtrs	
5	0.6	0.8	0.9	1.4	14.3	410	1000	1005
6	0.6	0.8	0.9	1.4	15.0	450	1000	1005
7	0.6	0.8	0.9	1.4	15.2	460	1000	1005
9	0.6	0.8	0.9	1.5	18.0	700	1000	1206
12	0.6	0.8	1.25	1.5	19.4	800	1000	1206
19	0.6	0.8	1.25	1.6	22.2	1080	1000	1206
27	0.6	1.0	1.6	1.7	26.7	1605	1000	1407
37	0.6	1.0	1.6	1.8	29.2	1880	1000	1508
48	0.6	1.0	1.6	1.9	32.9	2280	1000	1608
61 **	0.6	1.2	2.0	2.1	36.0	3000	500	1407

** To BS 6346 to the extent Applicable.

CU/PVC/SWA/PVC To BS 6346 TO THE EXTENT APPLICABLE
SOLID COPPER CONDUCTOR, PVC INSULATED, STEEL WIRE ARMoured, PVC SHEATHED

TABLE – 54

Number of Cores	Thickness of Insulation	Thickness of Extruded Bedding	Diameter of Armour Wire	Thickness of Outer Sheath	Approx. Overall Diameter	Approx. Cable Weight	Packing Length	Drum No
Nos.	mm	mm	mm	mm	mm	kg/km	mtrs	
2	0.6	0.8	0.9	1.3	12.0	260	1000	0905
3	0.6	0.8	0.9	1.3	12.5	280	1000	0905
4	0.6	0.8	0.9	1.3	13.1	310	1000	0905
5	0.6	0.8	0.9	1.4	14.1	400	1000	1005
7	0.6	0.8	0.9	1.4	15.0	445	1000	1005
12	0.6	0.8	1.25	1.5	19.2	865	1000	1206
19	0.6	0.8	1.25	1.6	22.0	1050	1000	1206
27	0.6	1.0	1.6	1.7	26.5	1560	1000	1407
37	0.6	1.0	1.6	1.8	29.0	1800	1000	1407
48	0.6	1.0	1.6	1.9	32.7	2180	500	1206

* For Drum details refer Table – 79.

Note: We can also offer screened control cables, dimensions of which can be requested from the factory.



L.V. Power and Control Cables

Control/Auxiliary Cables – 600/1000V

DIMENSIONS & WEIGHTS - Size 1.5 mm²



CU/PVC/PVC To IEC 60502 Part 1

COPPER CONDUCTOR, PVC INSULATED, PVC SHEATHED (UNARMoured)

Table – 55

No. of Cores	Thickness of Insulation	Thickness of Outer Sheath	Approx. Overall Diameter	Approx. Cable Weight	Packing Length	Drum* No.
Nos.	mm	mm	mm	Kg/Km	mtrs	
5	0.8	1.8	12.3	200	1000	0905
6	0.8	1.8	12.8	220	1000	0905
7	0.8	1.8	12.8	250	1000	0905
9	0.8	1.8	15.0	300	1000	1005
12	0.8	1.8	16.0	400	1000	1004
19	0.8	1.8	18.5	600	1000	1206
27	0.8	1.8	22.0	800	1000	1206
37	0.8	1.8	24.5	1050	1000	1407
48	0.8	1.8	28.0	1350	1000	1407
61	0.8	1.9	31.0	1680	500	1206

* For Drum details refer Table – 79

Note: We can also offer screened control cables, dimensions of which can be requested from the factory.



L.V. Power and Control Cables

Control/Auxiliary Cables – 600/1000V

DIMENSIONS & WEIGHTS - Size 2.5 mm²



CU/PVC/SWA/PVC To B.S. 6346: 1997 with Amendment 1

COPPER CONDUCTOR, PVC INSULATED, STEEL WIRE ARMoured, PVC SHEATHED

TABLE -56

No. of Cores	Thickness of Insulation	Thickness of Extruded Bedding	Diameter of Armour Wire	Thickness of Outer Sheath	Approx. Overall Diameter	Approx. Cable Weight	Packing Length	Drum No
Nos.	mm	mm	mm	mm	mm	kg/km	mtrs	
5	0.7	0.8	0.9	1.4	16.0	530	1000	1004
6	0.7	0.8	1.25	1.5	18.0	700	1000	1206
7	0.7	0.8	1.25	1.5	18.0	720	1000	1206
9	0.7	0.8	1.25	1.6	20.0	900	1000	1206
12	0.7	0.8	1.25	1.6	22.4	1050	1000	1206
19	0.7	1.0	1.6	1.7	26.6	1600	1000	1407
27	0.7	1.0	1.6	1.8	30.7	2050	1000	1508
37	0.7	1.0	1.6	1.9	34.0	2600	1000	1508
48	0.7	1.2	2.0	2.1	39.5	3450	1000	2213
** 61	0.7	1.2	2.0	2.2	42.0	4050	500	1508

** To B.S. 6346 to the extent applicable.

CU/PVC/SWA/PVC To B.S. 6346 TO THE EXTENT APPLICABLE

SOLID COPPER CONDUCTOR, PVC INSULATED, STEEL WIRE ARMoured, PVC SHEATHED

TABLE -57

No. of Cores	Thickness of Insulation	Thickness of Extruded Bedding	Diameter of Armour Wire	Thickness of Outer Sheath	Approx. Overall Diameter	Approx. Cable Weight	Packing Length	Drum No
Nos.	mm	mm	mm	mm	mm	kg/km	mtrs	
2	0.7	0.8	0.9	1.4	13.3	340	1000	0905
3	0.7	0.8	0.9	1.4	13.8	375	1000	1005
4	0.7	0.8	0.9	1.4	14.7	419	1000	1005
5	0.7	0.8	0.9	1.4	16.0	510	1000	1004
7	0.7	0.8	1.25	1.5	17.7	700	1000	1206
12	0.7	0.8	1.25	1.6	22.0	1020	1000	1206
19	0.7	0.8	1.6	1.7	26.2	1570	1000	1407
27	0.7	1.0	1.6	1.8	30.3	2020	1000	1508
37	0.7	1.0	1.6	1.9	33.6	2570	1000	1810
48	0.7	1.0	2.0	2.1	39.0	3420	1000	2213

* For Drum details refer Table – 79

Note: We can also offer screened control cables, dimensions of which can be requested from the factory.



L.V. Power and Control Cables

Control/Auxiliary Cables – 600/1000V

DIMENSIONS & WEIGHTS Size 2.5 mm²



CU/PVC/PVC to IEC 60502 Part 1

COPPER CONDUCTOR, PVC INSULATED, PVC SHEATHED (UNARMoured)

Table – 58

No. of Cores	Thickness of Insulation	Thickness of Outer Sheath	Approx. Overall Diameter	Approx. Cable Weight	Packing Length	Drum* No.
Nos.	mm	mm	mm	kg/km	mtrs	
5	0.8	1.8	13.5	250	1000	1005
6	0.8	1.8	14.5	330	1000	1005
7	0.8	1.8	14.5	370	1000	1005
9	0.8	1.8	16.5	500	1000	1004
12	0.8	1.8	18.5	590	1000	1206
19	0.8	1.8	22.0	850	1000	1206
27	0.8	1.8	25.0	1140	1000	1407
37	0.8	1.8	28.0	1550	1000	1407
48	0.8	1.9	31.0	1820	1000	1508
61	0.8	2.0	35.0	2300	500	1407

* For Drum details refer Table – 79



L.V. Power and Control Cables

Current Ratings & Voltage Drop of the Cables – 600/1000 V

Current Ratings of Cables

Current rating of Cables given below are based on the ERA (Electrical Research Association) report. ERA's report is accepted world wide and hence this report of current carrying capacity is referred by BS 5467 & BS 6346 standards. ERA publication 69-30, Part V can be referred for sustained current ratings of XLPE insulated cables. ERA publication 69-30, Part III can be referred for sustained current ratings of PVC insulated cables.

Single Core Copper, XLPE Insulated Armoured/Unarmoured Cables

TABLE – 59

Area	In Air		In Ground	In Duct	Voltage drop of 3 Single core cables
	Single Core in Trefoil		Single Core in Trefoil	Single Core in Trefoil	
	Unarmoured	Armoured	Armoured	Armoured	
mm ²	A	A	A	A	V/A/km
1.5	22	22	28	26	26.7
2.5	30	30	38	35	16.4
4	39	39	49	46	10.2
6	49	49	62	59	6.8
10	67	67	82	78	4.0
16	92	92	108	101	2.5
25	123	123	139	134	1.62
35	146	146	165	154	1.17
50	174	180	199	199	0.88
70	222	230	244	239	0.62
95	275	282	292	281	0.46
120	321	328	332	315	0.38
150	371	377	371	341	0.32
185	430	433	417	376	0.28
240	513	510	480	421	0.23
300	594	581	536	459	0.21
400	692	664	594	488	0.20
500	801	751	658	529	0.18
630	925	846	723	571	0.17
800	1051	919	764	595	0.16
1000	1172	997	810	632	0.15

Operating conditions

1. Ambient air temperature..... 50°C
2. Ground temp. 35°C
3. Depth of laying. 0.50m
4. Thermal resistivity of Soil..... 1.2 Km/W



L.V. Power and Control Cables

Current Ratings & Voltage Drop of the Cables – 600/1000 V

Two Core Copper, XLPE Insulated Armoured/Unarmoured Cables

TABLE – 59A

Area mm ²	In Air (A) Two Core		In Ground (A) Two Core	In Duct (A) Two Core	Voltage Drop V/A/km
	Unarmoured	Armoured	Armoured	Armoured	
1.5	22	24	33	27	30.9
2.5	30	32	42	35	18.9
4	39	43	56	46	11.8
6	50	55	70	58	7.9
10	67	74	94	77	4.7
16	97	98	121	99	2.9
25	122	128	157	127	1.9
35	151	158	188	153	1.35
50	183	190	223	181	1
70	232	239	273	224	0.7
95	287	295	328	269	0.52
120	335	341	372	307	0.42
150	383	289	417	345	0.35
185	444	449	470	391	0.9
240	529	530	544	453	0.24
300	611	605	609	509	0.21
400	711	696	687	575	0.2

Operating conditions

1. Ambient air temperature..... 50°C
2. Ground temp. 35°C
3. Depth of laying. 0.50m
4. Thermal resistivity of Soil..... 1.2 Km/W



L.V. Power and Control Cables

Current Ratings & Voltage Drop of the Cables – 600/1000 V

Single Core Aluminium, XLPE Insulated Armoured/Unarmoured Cables

TABLE – 60

Area	In Air		In Ground	In Duct	Voltage drop of 3 Single core cables
	Single Core in Trefoil	Single Core in Trefoil	Single Core in Trefoil	Single Core in Trefoil	
	Unarmoured	Armoured	Armoured	Armoured	Trefoil
mm ²	A	A	A	A	V/A/km
4	30	30	39	37	16.5
6	39	39	49	45	10.24
10	53	53	65	62	6.84
16	72	72	84	79	4.2
25	94	94	109	103	2.7
35	118	118	127	123	1.93
50	129	135	152	153	1.44
70	165	172	187	186	1.0
95	204	211	224	219	0.73
120	237	245	255	248	0.59
150	274	282	285	271	0.49
185	319	325	322	301	0.40
240	381	385	372	341	0.32
300	442	441	418	377	0.27
400	487	487	473	426	0.25
500	538	538	536	483	0.21
630	610	610	609	549	0.19
800	690	690	689	622	0.18
1000	775	775	772	697	0.17

Operating conditions

1. Ambient air temperature..... 50°C
2. Ground temp 35°C
3. Depth of laying. 0.50m
4. Thermal resistivity of Soil..... 1.2 Km/W



L.V. Power and Control Cables

Current Ratings & Voltage Drop of the Cables – 600/1000 V

Two Core Aluminium, XLPE Insulated Armoured/Unarmoured Cables

TABLE – 60A

Area mm ²	In Air (A) Two Core		In Ground (A) Two Core	In Duct (A) Two Core	Voltage Drop V/A/km
	Unarmoured	Armoured	Armoured	Armoured	
1.5	18	18	22	19	-
2.5	24	24	31	25	-
4	30	30	39	32	19.0
6	39	39	49	41	11.8
10	53	53	67	54	7.9
16	73	74	93	76	4.8
25	90	95	119	96	3.1
35	111	116	142	116	2.23
50	134	140	169	138	1.65
70	171	177	207	169	1.15
95	211	218	248	204	0.84
120	235	235	266	232	0.72
150	269	269	304	256	0.61
185	308	308	349	293	0.52
240	364	364	406	336	0.42
300	409	409	450	372	0.39
400	470	470	492	425	0.36

Operating conditions

1. Ambient air temperature..... 50°C
2. Ground temp. 35°C
3. Depth of laying. 0.50m
4. Thermal resistivity of Soil..... 1.2 Km/W



L.V. Power and Control Cables

Current Ratings & Voltage Drops of the Cables – 600/1000 V

3 and 4 Core, Copper, XLPE insulated Armoured/Unarmoured Cables

TABLE – 61

Area mm ²	In Air		In Ground	In Duct	Voltage Drop V/A/km
	Unarmoured	Armoured	Armoured	Armoured	
1.5	19	20	28	22	26.7
2.5	27	27	36	29	16.4
4	34	37	47	39	10.2
6	44	46	59	48	6.8
10	58	64	79	65	4.0
16	83	83	102	83	2.5
25	105	109	131	107	1.65
35	129	134	157	128	1.15
50	157	163	187	152	0.87
70	200	205	229	187	0.60
95	246	253	274	226	0.45
120	288	293	312	258	0.37
150	330	335	349	291	0.30
185	381	386	394	329	0.26
240	454	456	455	380	0.21
300	524	519	509	427	0.19
400	608	597	574	490	0.17

Operating conditions

1. Ambient air temperature..... 50°C
2. Ground temp. 35°C
3. Depth of laying. 0.50m
4. Thermal resistivity of Soil..... 1.2 Km/W



L.V. Power and Control Cables

Current Ratings & Voltage Drops of the Cables – 600/1000 V

3 and 4 Core, Aluminium, XLPE insulated Armoured/Unarmoured Cables

TABLE – 61A

Area mm ²	In Air		In Ground	In Duct	Voltage Drop V/A/km
	Unarmoured	Armoured	Armoured	Armoured	
1.5	15	15	20	17	-
2.5	20	20	26	22	-
4	26	26	34	28	16.5
6	34	34	43	36	10.24
10	45	45	57	47	6.84
16	63	63	78	64	4.2
25	79	83	100	82	2.7
35	97	101	120	97	2.7
50	118	122	142	116	1.45
70	150	154	175	144	0.97
95	185	190	210	173	0.72
120	216	221	239	198	0.58
150	247	253	267	223	0.47
185	287	293	304	253	0.39
240	342	346	352	294	0.32
300	395	396	396	332	0.26
400	467	461	442	365	0.21

Operating conditions

1. Ambient air temperature..... 50°C
2. Ground temp. 35°C
3. Depth of laying. 0.50m
4. Thermal resistivity of Soil..... 1.2 Km/W



L.V. Power and Control Cables

Current Ratings & Voltage Drop of the Cables – 600/1000 V

Single Core Copper, PVC Insulated, Armoured/Unarmoured Cables

TABLE – 62

Area	In Air		In Ground	In Duct	Voltage drop of 3 Single core cables
	Single Core in Trefoil	Single Core in Trefoil	Single Core in Trefoil	Single Core in Trefoil	
	Unarmoured	Armoured	Armoured	Armoured	Trefoil
mm ²	A	A	A	A	V/A/km
1.5	16	16	23	21	26.3
2.5	22	22	31	29	16.1
4	29	29	41	38	10.0
6	36	36	51	48	6.7
10	49	49	68	64	4.0
16	67	67	89	84	2.4
25	90	90	115	111	1.52
35	107	107	136	127	1.10
50	123	129	162	159	0.83
70	156	163	198	193	0.59
95	194	200	238	226	0.44
120	226	232	270	249	0.37
150	260	265	301	274	0.31
185	302	303	338	300	0.27
240	360	356	388	335	0.23
300	415	407	434	367	0.21
400	484	462	480	391	0.19
500	557	520	528	418	0.18
630	641	582	577	450	0.16
800	726	628	605	470	0.16
1000	808	677	638	497	0.15

Operating conditions

1. Ambient air temperature..... 50°C
2. Ground temp 35°C
3. Depth of laying. 0.50m
4. Thermal resistivity of Soil..... 1.2 Km/W



L.V. Power and Control Cables

Current Ratings & Voltage Drop of the Cables – 600/1000 V

Two Core Copper, PVC Insulated, Armoured/Unarmoured Cables

TABLE – 62A

Area mm ²	In Air (A) Two Core		In Ground (A) Two Core	In Duct (A) Two Core	Voltage Drop V/A/km
	Unarmoured	Armoured	Armoured	Armoured	
1.5	16	16	26	21	30.4
2.5	22	22	33	27	18.6
4	29	29	44	36	11.6
6	37	38	55	46	7.7
10	48	52	74	61	4.6
16	65	68	95	78	2.77
25	87	91	126	103	1.75
35	107	111	152	123	1.26
50	130	135	180	146	0.94
70	163	169	222	180	0.66
95	202	209	266	217	0.49
120	235	241	302	247	0.40
150	269	274	338	277	0.34
185	311	317	382	314	0.28
240	370	374	441	364	0.24
300	426	426	493	408	0.21
400	495	488	554	459	0.19

Operating conditions

1. Ambient air temperature..... 50°C
2. Ground temp. 35°C
3. Depth of laying. 0.50m
4. Thermal resistivity of Soil..... 1.2 Km/W



L.V. Power and Control Cables

Current Ratings & Voltage Drop of the Cables – 600/1000 V

Single Core Aluminium, PVC Insulated, Armoured/Unarmoured Cables

TABLE – 63

Area	In Air		In Ground	In Duct	Voltage drop of 3 Single core cables
	Single Core in Trefoil	Single Core in Trefoil	Single Core in Trefoil	Single Core in Trefoil	
	Unarmoured	Armoured	Armoured	Armoured	Trefoil
mm ²	A	A	A	A	V/A/km
16	52	52	69	65	3.97
25	69	69	90	85	2.50
35	86	86	105	102	1.81
50	92	94	123	123	1.35
70	117	119	150	150	0.94
95	144	146	181	178	0.69
120	168	170	206	202	0.56
150	193	194	230	224	0.46
185	224	226	261	245	0.38
240	268	267	302	278	0.31
300	311	307	339	307	0.27
400	357	357	340	347	0.23
500	394	394	361	393	0.20
630	447	447	410	447	0.18
800	505	505	463	506	0.17
1000	568	568	520	567	0.16

Operating conditions

1. Ambient air temperature..... 50°C
2. Ground temp 35°C
3. Depth of laying. 0.50m
4. Thermal resistivity of Soil..... 1.2 Km/W



L.V. Power and Control Cables

Current Ratings & Voltage Drop of the Cables – 600/1000 V

Two Core Aluminium, PVC Insulated, Armoured/Unarmoured Cables

TABLE – 63A

Area mm ²	In Air (A) Two Core		In Ground (A) Two Core	In Duct (A) Two Core	Voltage Drop V/A/km
	Unarmoured	Armoured	Armoured	Armoured	
16	50	52	73	60	4.6
25	64	66	94	77	2.89
35	78	80	114	92	2.09
50	96	97	134	110	1.55
70	121	124	167	136	1.08
95	149	152	200	163	0.79
120	172	172	219	191	0.63
150	197	197	251	211	0.52
185	226	226	287	242	0.42
240	267	267	334	277	0.34
300	299	299	371	307	0.28
400	344	344	402	351	0.24

Operating conditions

1. Ambient air temperature..... 50°C
2. Ground temp. 35°C
3. Depth of laying. 0.50m
4. Thermal resistivity of Soil..... 1.2 Km/W



Extruding Operation



L.V. Power and Control Cables

Current Ratings & Voltage Drop of the Cables – 600/1000 V

3 & 4 Core, Copper, PVC Insulated, Armoured/Unarmoured Cables

TABLE – 64

Area	In Air		In Ground	In Duct	Voltage drop of 3 Single core cables
	Unarmoured	Armoured	Armoured	Armoured	Trefoil
mm ²	A	A	A	A	V/A/km
1.5	14	14	22	18	26.3
2.5	20	19	28	23	16.1
4	25	25	38	30	10.0
6	32	32	47	38	6.7
10	42	44	62	51	4.0
16	56	58	81	66	2.39
25	74	78	106	86	1.51
35	91	95	127	103	1.10
50	111	115	150	122	0.82
70	141	146	186	152	0.57
95	174	180	223	182	0.42
120	202	208	254	208	0.34
150	231	238	284	234	0.29
185	267	273	321	265	0.25
240	318	322	370	306	0.21
300	365	366	414	342	0.18
400	423	420	464	392	0.16

Operating conditions

1. Ambient air temperature..... 50°C
2. Ground temp 35°C
3. Depth of laying. 0.50m
4. Thermal resistivity of Soil..... 1.2 Km/W



L.V. Power and Control Cables

Current Ratings & Voltage Drop of the Cables – 600/1000 V

3 or 4 Core, Aluminium, PVC Insulated Armoured/Unarmoured Cables

TABLE – 64A

Area mm ²	In Air		In Ground	In Duct	Voltage Drop V/A/km
	Unarmoured	Armoured	Armoured	Armoured	
	A	A	A	A	
1.5	11	11	16	14	-
2.5	15	15	21	18	-
4	19	19	28	23	15.4
6	25	25	35	30	9.6
10	33	33	47	39	6.4
16	42	44	62	50	3.97
25	56	57	80	65	2.50
35	68	70	96	78	1.81
50	83	86	114	93	1.34
70	106	108	141	115	0.93
95	131	134	170	139	0.68
120	151	155	194	159	0.54
150	174	177	218	178	0.45
185	200	205	247	203	0.37
240	239	245	288	238	0.29
300	276	282	326	270	0.25
400	308	308	353	286	0.21

Operating conditions

1. Ambient air temperature..... 50°C
2. Ground temp. 35°C
3. Depth of laying. 0.50m
4. Thermal resistivity of Soil..... 1.2 Km/W



L.V. Power and Control Cables

Current Rating Factors

Group Rating Factors for More than one Multicore Armoured or Unarmoured Cables

Laid on Trays, Clipped to the surface, run in Trench etc.

Common For Installation In Air, Ground, Duct, Trench Etc.

TABLE – 65

No. of load conductors	2	3	4	5	6	8	10	12	14	16	18	20
Correction factor	0.8	0.7	0.65	0.6	0.57	0.52	0.48	0.45	0.43	0.41	0.39	0.38

Where spacing between adjacent cables is more than twice their overall diameters, no correction factor need to be applied

Group Rating Factors for more than Three Single Core cables

Laid in Conduits buried in Concrete, on surface of Wall, in Trunking, Racks, etc.

Common For Installation In Air, Ground, Duct, Trench Etc.

TABLE – 66

No. of load conductors	4	6	8	10	12	16	20	24	28	32	36	40
Correction factor	0.8	0.69	0.62	0.59	0.55	0.51	0.48	0.43	0.41	0.39	0.38	0.36

Rating Factors for variation in Ambient Temperature for Cables

Laid in Air

For Installation in Air Only

TABLE – 67

Ambient temperature ° C	25	30	35	40	45	50	55
PVC insulated cables	1.49	1.40	1.31	1.22	1.11	1.0	0.86
XLPE insulated cables	1.27	1.22	1.17	1.12	1.06	1.0	0.94

Rating Factors for variation in Ground Temperature for Cables

Laid Direct in Ground or in Ducts

For Installation in Ground and Duct Only

TABLE – 68

Ground temperature ° C	15	20	25	30	35	40	45
PVC insulated cables	1.25	1.19	1.12	1.06	1.0	0.92	0.85
XLPE insulated cables	1.16	1.13	1.08	1.03	1.0	0.95	0.90

Common for Ground and Duct



Current Rating Factors

Rating Factors for Depths of Laying for Cables

Laid Direct in Ground or in Ducts

For Installation in Ground and Duct Only

TABLE – 69

Depth of Laying metre	Cables Laid Direct in Ground			Cables Laid in Ducts	
	Upto 50 mm ²	70 mm ² to 300 mm ²	Above 300 mm ²	Single Core	Multicore
0.5	1.000	1.000	1.000	1.000	1.000
0.6	0.990	0.985	0.971	0.980	0.990
0.75	0.976	0.965	0.952	0.958	0.987
0.8	0.971	0.960	0.945	0.950	0.979
1.0	0.951	0.930	0.924	0.930	0.960
1.25	0.941	0.920	0.894	0.900	0.950
1.5	0.931	0.901	0.874	0.891	0.940
1.75	0.921	0.890	0.864	0.880	0.940
2.0	0.910	0.880	0.854	0.871	0.930
2.5	0.900	0.871	0.844	0.860	0.930
3.0 or more	0.891	0.849	0.824	0.851	0.920

Group Rating Factors for more than One Twin or Multicore Armoured or Unarmoured Cables in Horizontal Formation

Laid in Direct Ground

For Installation In Ground Only

TABLE – 70

No. of cables	2	3	4	5	6	7	8	9	10	11	12
Cables laid touching	0.81	0.7	0.63	0.59	0.55	0.52	0.50	0.48	0.47	0.45	0.44
Cables laid 15 cm apart	0.87	0.78	0.74	0.70	0.68	0.66	0.64	0.63	0.62	0.61	0.60
Cables laid 30 cm apart	0.91	0.84	0.81	0.78	0.77	0.75	0.75	0.74	0.73	0.73	0.72
Cables laid 45 cm apart	0.93	0.88	0.86	0.84	0.83	0.82	0.81	0.81	0.80	0.80	0.80
Cables laid 60 cm apart	0.95	0.90	0.89	0.87	0.87	0.86	0.86	0.85	0.85	0.85	0.84

Rating factors for laying in ground only



Tensile Testing – Quality Control Laboratory



Quality Control Laboratory



L.V. Power and Control Cables

Current Rating Factors

Rating Factors for Variation in Thermal Resistivity of Soil for Two or Three Single-Core Cables
Laid Direct in the Ground
For Installation in Ground Only

TABLE – 71

Nominal Area of Conductor mm ²	Thermal Resistivity of Soil in Km/W										
	0.7	0.8	0.9	1.0	1.2	1.5	2.0	2.5	3.0	3.5	4.0
50	1.21	1.16	1.11	1.07	1.0	0.91	0.81	0.73	0.68	0.63	0.59
70	1.22	1.16	1.12	1.07	1.0	0.91	0.81	0.73	0.68	0.63	0.59
95	1.22	1.16	1.12	1.07	1.0	0.91	0.81	0.73	0.68	0.63	0.59
120	1.22	1.16	1.12	1.07	1.0	0.91	0.81	0.73	0.68	0.63	0.59
150	1.22	1.16	1.12	1.07	1.0	0.91	0.81	0.73	0.68	0.63	0.59
185	1.22	1.17	1.12	1.07	1.0	0.91	0.81	0.73	0.68	0.62	0.59
240	1.23	1.17	1.12	1.07	1.0	0.91	0.80	0.73	0.68	0.62	0.59
300	1.23	1.17	1.12	1.07	1.0	0.91	0.80	0.73	0.68	0.62	0.59
400	1.23	1.17	1.12	1.07	1.0	0.91	0.80	0.73	0.67	0.62	0.58
500	1.23	1.17	1.12	1.07	1.0	0.91	0.80	0.73	0.67	0.62	0.58
630	1.23	1.17	1.12	1.07	1.0	0.91	0.80	0.73	0.67	0.61	0.58
800	1.23	1.17	1.12	1.07	1.0	0.91	0.80	0.72	0.66	0.61	0.58
1000	1.25	1.18	1.12	1.07	1.0	0.91	0.80	0.72	0.66	0.61	0.58

Rating Factors for Variation in Thermal Resistivity of Soil for Twin or Multi-core Cables
Laid Direct in the Ground
For Installation in Ground Only

TABLE – 72

Nominal Area of Conductor mm ²	Thermal Resistivity of Soil in Km/W										
	0.7	0.8	0.9	1.0	1.2	1.5	2.0	2.5	3.0	3.5	4.0
1.5/2.5	1.12	1.09	1.07	1.04	1.0	0.94	0.86	0.80	0.75	0.70	0.66
4	1.13	1.10	1.07	1.05	1.0	0.94	0.85	0.79	0.74	0.69	0.65
6	1.14	1.10	1.07	1.05	1.0	0.93	0.85	0.79	0.74	0.68	0.64
10	1.15	1.11	1.08	1.05	1.0	0.93	0.85	0.78	0.73	0.67	0.63
16	1.16	1.12	1.08	1.05	1.0	0.93	0.84	0.77	0.72	0.66	0.62
25	1.17	1.13	1.09	1.05	1.0	0.93	0.83	0.77	0.71	0.65	0.61
35	1.17	1.13	1.09	1.06	1.0	0.92	0.83	0.76	0.71	0.65	0.61
50	1.17	1.13	1.09	1.06	1.0	0.92	0.83	0.76	0.71	0.65	0.61
70	1.18	1.14	1.09	1.06	1.0	0.92	0.83	0.75	0.70	0.64	0.60
95	1.18	1.14	1.09	1.06	1.0	0.92	0.83	0.75	0.70	0.64	0.60
120	1.19	1.14	1.10	1.06	1.0	0.92	0.82	0.75	0.69	0.63	0.59
150	1.19	1.14	1.10	1.06	1.0	0.92	0.82	0.75	0.69	0.63	0.59
185	1.19	1.14	1.10	1.06	1.0	0.92	0.82	0.74	0.69	0.63	0.59
240	1.20	1.15	1.10	1.07	1.0	0.92	0.81	0.74	0.69	0.63	0.59
300	1.20	1.15	1.10	1.07	1.0	0.92	0.81	0.74	0.69	0.63	0.59
400	1.20	1.15	1.10	1.07	1.0	0.92	0.81	0.74	0.69	0.63	0.59



L.V. Power and Control Cables

Current Rating Factors

Rating Factors for Variation in Thermal Resistivity of Soil for Two or Single-Core Cables in Ducts
For Installation in Ducts only

TABLE – 73

Nominal Area of Conductor mm ²	Thermal Resistivity of Soil in Km/W										
	0.7	0.8	0.9	1.0	1.2	1.5	2.0	2.5	3.0	3.5	4.0
50	1.08	1.06	1.04	1.03	1.0	0.96	0.90	0.85	0.81	0.77	0.74
70	1.08	1.06	1.05	1.03	1.0	0.96	0.90	0.84	0.80	0.76	0.73
95	1.08	1.07	1.05	1.03	1.0	0.95	0.89	0.84	0.80	0.75	0.72
120	1.09	1.07	1.05	1.03	1.0	0.95	0.89	0.83	0.79	0.75	0.71
150	1.09	1.07	1.05	1.03	1.0	0.95	0.88	0.83	0.79	0.74	0.71
185	1.09	1.07	1.05	1.03	1.0	0.95	0.88	0.83	0.78	0.74	0.70
240	1.10	1.08	1.05	1.04	1.0	0.95	0.88	0.82	0.78	0.73	0.70
300	1.10	1.08	1.06	1.04	1.0	0.95	0.87	0.82	0.77	0.72	0.69
400	1.11	1.08	1.06	1.04	1.0	0.94	0.87	0.82	0.77	0.72	0.68
500	1.12	1.08	1.06	1.04	1.0	0.94	0.87	0.81	0.76	0.71	0.68
630	1.12	1.09	1.06	1.04	1.0	0.94	0.87	0.81	0.76	0.71	0.67
800	1.13	1.10	1.07	1.04	1.0	0.94	0.86	0.80	0.75	0.71	0.67
1000	1.13	1.10	1.07	1.04	1.0	0.94	0.86	0.80	0.75	0.70	0.66

Rating Factors For Variation In Thermal Resistivity of Soil For Three Single-Core Cables in Ducts
For Installation in Ducts Only

TABLE – 74

Nominal Area of Conductor mm ²	Thermal Resistivity of Soil in Km/W										
	0.7	0.8	0.9	1.0	1.2	1.5	2.0	2.5	3.0	3.5	4.0
50	1.11	1.08	1.06	1.04	1.0	0.94	0.87	0.82	0.77	0.73	0.69
70	1.12	1.09	1.06	1.04	1.0	0.94	0.87	0.81	0.76	0.72	0.68
95	1.12	1.09	1.06	1.04	1.0	0.94	0.87	0.81	0.76	0.72	0.68
120	1.13	1.10	1.07	1.04	1.0	0.94	0.86	0.80	0.75	0.72	0.67
150	1.13	1.10	1.07	1.04	1.0	0.94	0.86	0.80	0.75	0.71	0.67
185	1.13	1.10	1.07	1.04	1.0	0.93	0.86	0.79	0.75	0.70	0.67
240	1.14	1.11	1.07	1.04	1.0	0.93	0.86	0.79	0.74	0.70	0.66
300	1.14	1.11	1.08	1.05	1.0	0.93	0.85	0.79	0.74	0.69	0.65
400	1.14	1.11	1.08	1.05	1.0	0.93	0.85	0.78	0.73	0.68	0.65
500	1.15	1.11	1.08	1.05	1.0	0.93	0.85	0.78	0.73	0.68	0.64
630	1.15	1.12	1.09	1.05	1.0	0.93	0.84	0.78	0.72	0.68	0.64
800	1.16	1.12	1.09	1.05	1.0	0.93	0.84	0.77	0.72	0.67	0.64
1000	1.16	1.13	1.09	1.05	1.0	0.92	0.84	0.77	0.71	0.67	0.63



L.V. Power and Control Cables

Current Rating Factors

Rating Factors for Variation in Thermal Resistivity of Soil for Twin or Multi-Core Cables
Laid in Single Way Ducts
For Installation in Duct only

TABLE – 75

Nominal Area of Conductor mm ²	Thermal Resistivity of Soil in Km/W										
	0.7	0.8	0.9	1.0	1.2	1.5	2.0	2.5	3.0	3.5	4.0
1.5/2.5	1.04	1.03	1.02	1.02	1.00	0.98	0.94	0.91	0.88	0.86	0.83
4	1.04	1.04	1.03	1.02	1.00	0.97	0.94	0.90	0.87	0.85	0.82
6	1.05	1.04	1.03	1.02	1.00	0.97	0.93	0.90	0.86	0.84	0.81
10	1.05	1.04	1.03	1.02	1.00	0.97	0.93	0.89	0.86	0.83	0.80
16	1.06	1.04	1.03	1.02	1.00	0.97	0.92	0.88	0.85	0.82	0.79
25	1.06	1.05	1.03	1.02	1.00	0.96	0.92	0.88	0.84	0.82	0.78
35	1.06	1.05	1.03	1.02	1.00	0.96	0.92	0.87	0.83	0.81	0.77
50	1.07	1.05	1.03	1.02	1.00	0.96	0.91	0.87	0.83	0.80	0.77
70	1.07	1.05	1.04	1.02	1.00	0.96	0.91	0.86	0.82	0.79	0.76
95	1.07	1.05	1.04	1.02	1.00	0.96	0.91	0.86	0.82	0.79	0.76
120	1.08	1.06	1.04	1.03	1.00	0.95	0.90	0.85	0.81	0.78	0.74
150	1.09	1.06	1.04	1.03	1.00	0.95	0.90	0.85	0.80	0.77	0.73
185	1.09	1.07	1.05	1.03	1.00	0.95	0.89	0.84	0.80	0.76	0.72
240	1.09	1.07	1.05	1.03	1.00	0.95	0.88	0.83	0.79	0.85	0.71
300	1.10	1.07	1.05	1.03	1.00	0.95	0.88	0.83	0.78	0.75	0.71
400	1.10	1.07	1.05	1.03	1.00	0.95	0.88	0.83	0.78	0.75	0.71



Armour Fault Current Capacity

Armour fault currents to earth (kA) for a fault duration of 1 second for standard cables to BS 5467 & BS 6346

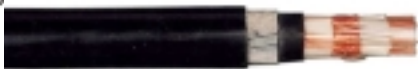
TABLE – 76

Nominal Area of conductor	Aluminium wire armour				Galvanized steel round wire armour									
	0.6/1.0 kV		1.9/3.3 kV		0.6/1.0 kV								1.9/3.3 kV	
	Single core		Single core		Two core		Three core		Four core		Five core		Three core	
mm ²	PVC	XLPE	PVC	XLPE	PVC	XLPE	PVC	XLPE	PVC	XLPE	PVC	XLPE	PVC	XLPE
1.5	--	--	--	--	0.8	0.7	0.8	0.7	0.9	0.8	1.0	0.9	--	--
2.5	--	--	--	--	0.9	0.8	1.0	0.9	1.0	0.9	1.1	1.0	--	--
4	--	--	--	--	1.0	0.9	1.1	0.9	1.7	1.0	1.9	1.2	--	--
6	--	--	--	--	1.1	1.0	1.7	1.1	1.9	1.7	2.1	1.9	--	--
10	--	--	--	--	2.0	1.2	2.1	1.8	2.3	1.9	3.5	2.1	--	--
16	--	--	--	--	2.3	1.9	2.6	2.1	3.7	2.3	4.0	3.3	4.2	3.6
25	--	--	--	--	3.1	1.9	3.4	2.9	3.9	3.2	4.8	4.1	4.6	4.0
35	--	--	--	--	3.4	2.8	3.8	3.2	4.3	3.6	5.4	4.6	4.6	4.0
50	3.6	2.2	5.1*	4.4*	3.8	3.2	4.3	3.6	6.2	4.2	7.8	6.7	6.4	5.5
70	4.1	3.6	5.4*	5.0*	4.3	3.7	6.1	4.2	7.0	6.1	8.9	7.7	7.0	6.1
95	4.7	4.0	6.2	5.5*	6.2	5.2	7.0	5.9	8.2	6.8	--	--	7.7	6.7
120	6.7	4.4	6.7	6.0	6.7	5.8	7.7	6.5	11.2	9.6	--	--	10.8	9.6
150	7.5	6.5	7.1	6.3	7.3	6.4	10.8	9.3	12.2	10.7	--	--	11.5	10.2
185	8.2	7.1	7.7	6.8	10.3	8.9	11.7	10.2	13.5	11.8	--	--	12.0	10.7
240	9.1	8.0	8.4	7.7	11.5	10.0	13.3	11.6	15.2	13.4	--	--	13.8	12.1
300	10.1	8.8	9.4	8.4	12.8	10.9	14.7	12.5	17.0	14.8	--	--	15.3	13.4
400	14.3	12.5	13.2	11.7	14.2	12.3	16.3	14.1	23.8	21.0	--	--	16.5	14.1
500	15.8	13.9	14.6	13.1	--	--	--	--	--	--	--	--	--	--
630	17.2	15.5	16.1	14.4	--	--	--	--	--	--	--	--	--	--
800	24.2	22.1	22.9	20.9	--	--	--	--	--	--	--	--	--	--
1000	26.9	24.1	25.2	22.9	--	--	--	--	--	--	--	--	--	--

* Short circuit capacity of armour with higher size of armour wire than specified by the standard BS 6346 & BS 5467 for PVC & XLPE insulated cables respectively.

Note: Short circuit capacity of the armour can be increased by,

- 1) Using higher size of wire for armouring.
- 2) Using tinned copper wires in between steel wires.



Maximum Resistance of Conductor and Armour with PVC Insulated Cables

TABLE-77

Maximum resistance per km of cable at 20 °C

Nominal Cross-sectional area of conductor	Copper conductor	Aluminium conductor	Aluminium wire armour		Galvanized Steel Wire armour				
			0.6/1.0 kV	1.9/3.3 kV	0.6/1.0 kV	0.6/1.0 kV	1.9/3.3 kV	0.6/1.0 kV	0.6/1.0 kV
			Single core	Single core	Two core	Three core		Four core	Five core
mm ²	ohm	ohm	ohm	ohm	ohm	ohm	ohm	ohm	ohm
1.5	12.1	--	--	--	10.2	9.5	--	8.8	8.2
2.5	7.41	--	--	--	8.8	8.2	--	7.7	6.8
4	4.61	7.41	--	--	7.5	7	--	4.6	4.1
6	3.08	4.61	--	--	6.8	4.6	--	4.1	3.8
10	1.83	3.08	--	--	3.9	3.7	--	3.4	2.3
16	1.15	1.91	--	--	3.4	3.1	1.9	2.2	2
25	0.727	1.2	--	--	2.6	2.4	1.7	2.1	1.7
35	0.524	0.868	--	--	2.4	2.1	1.7	1.9	1.5
50	0.387	0.641	0.82	0.73	2.1	1.9	1.3	1.3	1.1
70	0.268	0.443	0.73	0.65	1.9	1.4	1.2	1.2	0.89
95	0.193	0.32	0.64	0.45	1.3	1.2	1.1	0.98	--
120	0.153	0.253	0.45	0.42	1.2	1.1	0.74	0.71	--
150	0.124	0.206	0.4	0.39	1.1	0.74	0.69	0.65	--
185	0.0991	0.164	0.37	0.36	0.78	0.68	0.64	0.59	--
240	0.0754	0.125	0.33	0.33	0.69	0.6	0.58	0.52	--
300	0.0601	0.1	0.3	0.3	0.63	0.54	0.53	0.47	--
400	0.047	0.0778	0.21	0.21	0.56	0.49	0.48	0.34	--
500	0.0366	0.0605	0.19	0.19	--	--	--	--	--
630	0.0283	0.0469	0.18	0.18	--	--	--	--	--
800	0.0221	0.0367	0.13	0.13	--	--	--	--	--
1000	0.0176	0.0291	0.12	0.12	--	--	--	--	--



Packed Drums



L.V. Power and Control Cables

Maximum Resistance of Conductor and Armour with XLPE Insulated Cables

TABLE-77A

Maximum resistance per km of cable at 20 °C

Nominal Cross-sectional area of conductor	Copper conductor	Aluminium conductor	Aluminium wire armour		Galvanized Steel Wire armour				
			0.6/1.0 kV	1.9/3.3 kV	0.6/1.0 kV	0.6/1.0 kV	1.9/3.3 kV	0.6/1.0 kV	0.6/1.0 kV
			Single core	Single core	Two core	Three core		Four core	Five core
mm ²	ohm	ohm	ohm	ohm	ohm	ohm	ohm	ohm	ohm
1.5	12.1	--	--	--	10.2	9.5	--	8.8	8.2
2.5	7.41	--	--	--	8.8	8.2	--	7.7	6.8
4	4.61	7.41	--	--	7.9	7.5	--	6.8	6.2
6	3.08	4.61	--	--	7	6.7	--	4.3	3.9
10	1.83	3.08	--	--	6	4	--	3.7	3.4
16	1.15	1.91	--	--	3.7	3.5	1.9	3.1	2.2
25	0.727	1.2	--	--	3.7	2.5	1.7	2.3	1.8
35	0.524	0.868	--	--	2.6	2.3	1.8	2	1.6
50	0.387	0.641	1.3	0.75	2.3	2	1.3	1.8	1.1
70	0.268	0.443	0.75	0.67	2	1.8	1.2	1.2	0.94
95	0.193	0.32	0.67	0.61	1.4	1.3	1.1	1.1	--
120	0.153	0.253	0.61	0.42	1.3	1.2	0.76	0.76	--
150	0.124	0.206	0.42	0.39	1.2	0.78	0.71	0.68	--
185	0.0991	0.164	0.38	0.37	0.82	0.71	0.65	0.61	--
240	0.0754	0.125	0.34	0.34	0.73	0.63	0.59	0.54	--
300	0.0601	0.1	0.31	0.31	0.67	0.58	0.55	0.49	--
400	0.047	0.0778	0.22	0.22	0.59	0.52	0.5	0.35	--
500	0.0366	0.0605	0.2	0.2	--	--	--	--	--
630	0.0283	0.0469	0.18	0.18	--	--	--	--	--
800	0.0221	0.0367	0.13	0.13	--	--	--	--	--
1000	0.0176	0.0291	0.12	0.12	--	--	--	--	--



L.V. Power and Control Cables

A.C. Resistance and Reactance Values

TABLE – 78

Nominal Area of Conductor	Maximum D.C. resistance of conductor at 20 °C		PVC Insulated Cables								XLPE Insulated Cables							
			A.C Resistance at 70 °C				Reactance at 50 Hz				A.C Resistance at 90 °C				Reactance at 50 Hz			
			Single Core Cables		Multicore Cables		Single Core Cables		Multicore Cables		Single Core Cables		Multicore Cables		Single Core Cables		Multi-Core Cables	
			Copper	Almn	Copper	Almn	Copper	Almn	Trefoil	Flat	Copper	Almn	Copper	Almn	Trefoil	Flat		
mm²	ohm/km		Ohm/km		Ohm/km		Ohm/km		Ohm/km		Ohm/km		Ohm/km		Ohm/km		Ohm/km	
1.5	12.1	-	15.19	-	15.19	-	-	-	0.115		15.43	-	15.43	-	-	-	0.115	
2.5	7.41	-	9.30	-	9.30	-	-	-	0.111		9.45	-	9.45	-	-	-	0.100	
4	4.61	7.41	5.79	-	5.79	-	-	-	0.096		5.88	-	5.88	-	-	-	0.093	
6	3.08	4.61	3.87	-	3.87	-	-	-	0.092		3.93	-	3.93	-	-	-	0.089	
10	1.83	3.08	2.30	-	2.30	-	-	-	0.091		2.33	-	2.33	-	-	-	0.084	
16	1.15	1.91	1.38	2.29	1.38	2.29	0.121	0.210	0.086		1.47	2.42	1.47	2.42	0.114	0.172	0.081	
25	0.727	1.2	0.870	1.44	0.87	1.44	0.116	0.202	0.085		0.927	1.54	0.927	1.54	0.113	0.172	0.081	
35	0.524	0.868	0.627	1.04	0.627	1.04	0.115	0.201	0.083		0.668	1.11	0.668	1.11	0.110	0.167	0.079	
50	0.387	0.641	0.464	0.771	0.464	0.77	0.112	0.195	0.080		0.494	0.822	0.494	0.822	0.106	0.161	0.075	
70	0.268	0.443	0.321	0.533	0.321	0.533	0.107	0.188	0.077		0.342	0.568	0.342	0.568	0.103	0.160	0.074	
95	0.193	0.32	0.232	0.385	0.232	0.385	0.103	0.186	0.077		0.247	0.411	0.247	0.411	0.098	0.155	0.073	
120	0.153	0.253	0.135	0.305	0.184	0.305	0.103	0.185	0.075		0.197	0.325	0.197	0.325	0.097	0.153	0.072	
150	0.124	0.206	0.150	0.248	0.150	0.248	0.101	0.185	0.075		0.160	0.265	0.160	0.265	0.097	0.153	0.072	
185	0.0991	0.164	0.120	0.198	0.121	0.198	0.099	0.184	0.074		0.128	0.211	0.128	0.211	0.096	0.153	0.072	
240	0.0754	0.125	0.0926	0.152	0.0929	0.152	0.096	0.181	0.074		0.0986	0.162	0.0989	0.162	0.092	0.147	0.071	
300	0.0601	0.1	0.0750	0.122	0.0752	0.122	0.094	0.180	0.073		0.0800	0.130	0.0802	0.130	0.090	0.147	0.070	
400	0.047	0.0778	0.0600	0.096	0.0604	0.096	0.091	0.178	0.073		0.0640	0.102	0.0645	0.102	0.090	0.146	0.070	
500	0.0366	0.0605	0.0484	0.0757	0.0491	0.0757	0.089	0.176	0.072		0.0525	0.0810	0.0530	0.081	0.089	0.146	0.070	
630	0.0283	0.0469	0.0398	0.0605	-	-	0.086	0.173	-		0.0428	0.0658	-	-	0.086	0.144	-	
800	0.0221	0.0367	0.0334	0.0500	-	-	0.086	0.171	-		0.0380	0.0541	-	-	0.084	0.143	-	
1000	0.0176	0.0291	0.0290	0.0415	-	-	0.084	0.168	-		0.0334	0.0457	-	-	0.081	0.140	-	



L.V. Power and Control Cables

Major Dimensions of Drums

TABLE – 79

Drum No.	Flange Diameter (F) mm	Traverse (T) mm	Barrel Diameter (B) mm	Centre Hole Diameter (S) mm	Overall Width	
					(A) mm	(A) mm
402	400	220	200	25	323	-----
503	500	310	260	25	415	-----
603	600	400	300	25	515	-----
704	700	400	350	25	515	-----
804	800	550	400	80	665	-----
806	800	550	550	80	665	-----
905	900	550	450	80	690	-----
1004	1000	716	400	80	855	-----
1005	1000	574	500	80	715	-----
1006	1000	574	600	80	715	-----
1007	1000	716	700	80	855	-----
1104	1100	574	400	80	715	-----
1105	1100	574	500	80	715	-----
1206	1200	716	600	80	855	-----
1407	1400	716	700	80	910	-----
1408	1400	716	800	80	855	-----
1507	1500	716	700	80	910	-----
1508	1500	900	750	80	1060	-----
1608	1600	940	800	130	1130	-----
1610	1600	940	1000	130	1130	-----
1810	1800	940	1000	130	1180	1140
1812	1800	1170	1300	130	1180	1140
1813	1800	1170	1300	130	1410	1370
2012	2000	940	1200	130	1180	1140
2214	2200	1300	1400	130	1550	1500
2216	2200	1170	1600	130	1420	1370
2315	2300	1300	1500	130	1550	1500
2415	2400	1170	1500	130	1420	1370
2418	2400	1170	1800	130	1420	1370
2616	2600	1170	1600	130	1420	1370
2620	2600	1170	2000	130	1430	1370
2818	2800	1400	1800	130	1690	1630
2820	2800	1400	2000	130	1690	1630



Cable Care

PRESERVATIONS/STORING & HANDLING OF CABLE DRUMS

1. STORAGE

- The site chosen for storage of cable drums should be well-drained and should preferably have a concrete surface, which will not cause the drums to sink and so lead to flange rot and cause extreme difficulty in moving the drums.
- The drums should be stored in such a manner as to leave sufficient space between them for air circulation. It is desirable for the drums to stand on battens placed directly under the flanges.
- In no case shall the drums be stored "on the flat side" i.e. with flanges horizontal.
- For drums, overhead shade is not essential except in areas where the rainfall is heavy. The cables should however be protected from direct rays of Sun by leaving the battens on or by providing some form of sunshielding.

2. HANDLING

- The drums should be rolled only in the direction of the arrow, indicated on them.
- No cable drums shall be slung except by a bar through the center bore. Also the cable drums shall be stored away from Boilers or Furnaces.
- When unloading the drums from lorry, a crane should be used if available and the drums carefully lifted and deposited on the ground. If crane is not available then the drums should be carefully rolled down a suitably arranged ramp or rails. Under no circumstances should the drums be dropped to the ground, as the shock may cause serious damage to the inner layers of the cables.
- Transportation over long distance, from storage site to work spots – The drums should be mounted on cable drum wheels strong enough to carry the weight of the drums, which are pulled by means of rope, or alternatively they may be mounted on trailer or vehicle with low loading platform for transportation to the destination.

INSTALLATION

OCI cables are suitable for installation in the ground, duct or air as recommended by all standards and specifications. OCI cables are easier to handle and install.

Wherever possible, installation radii should be large than those given below:

Type of cable	Overall diameter (D) mm	Min. internal Bending radius mm
Circular Copper conductor, unarmoured	Upto 25 mm Above 25 mm	4D 6D
Circular Copper conductor armoured	All	6D 8D
Shaped Copper/Aluminium conductor, armoured or unarmoured	All	



L.V. Power and Control Cables

Inquiry/Ordering

INFORMATION REQUIRED WITH INQUIRY OR ORDER

For quick response, give following details of your cable requirement :

1. Type of cable	:	Armoured or Unarmoured
2. Relevant standard	:	BSS, IEC, VDE or any national or international standards
3. Voltage grade	:	600/1000 V or 1900/3300 V
4. Conductor	:	Copper or Aluminium
5. Insulation	:	XLPE or PVC
6. Armouring	:	Steel wire armouring, aluminium wire armouring or copper wire armouring
7. Number of cores	:	Indicate No. of corefxs
8. Size of conductor	:	sq. mm
9. Quantity	:	kms
10. Drum length	:	mtrs.
11. Other special requirements	:	

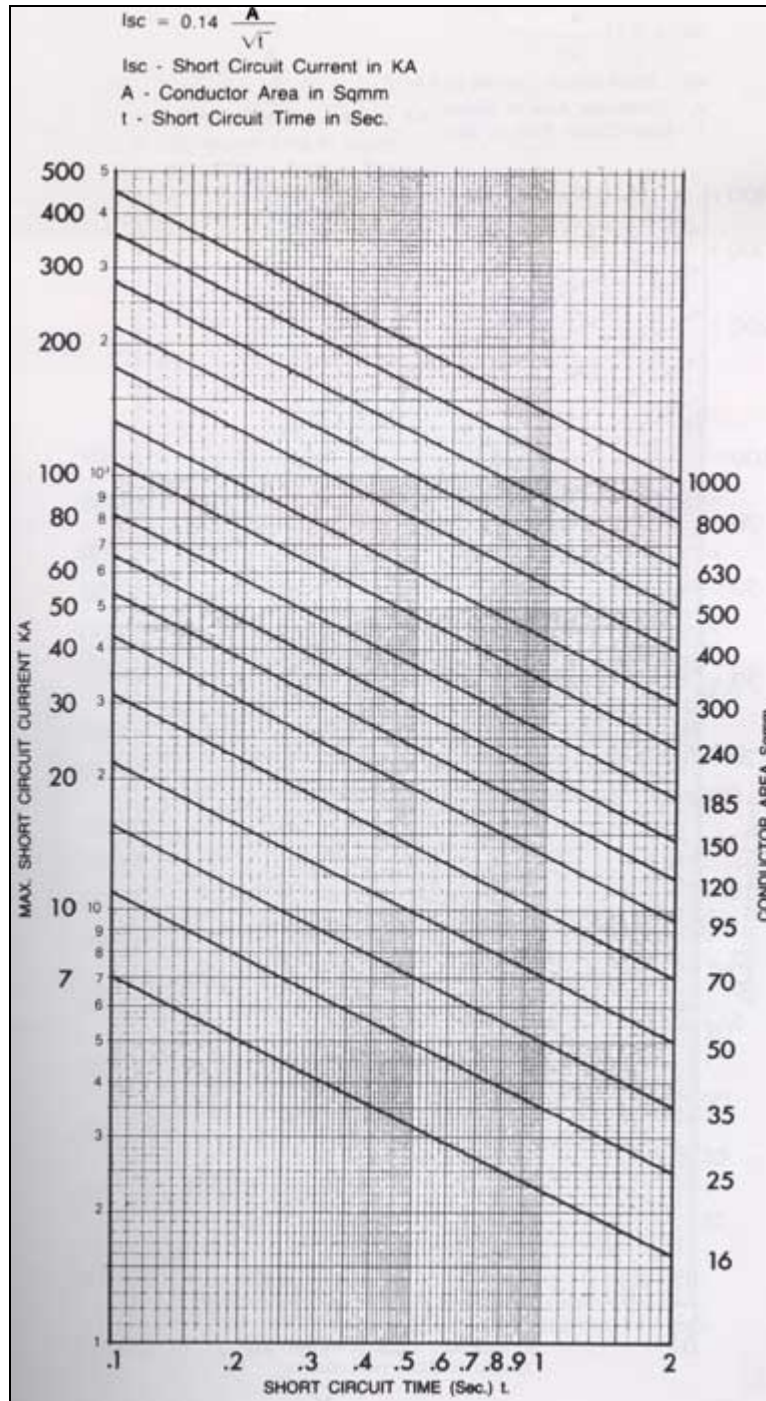
Note: Improvement being a continuous process at OCI, contents of this catalogues may be changed without any notice.

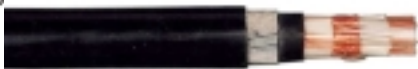


L.V. Power and Control Cables

Short Circuit Curves

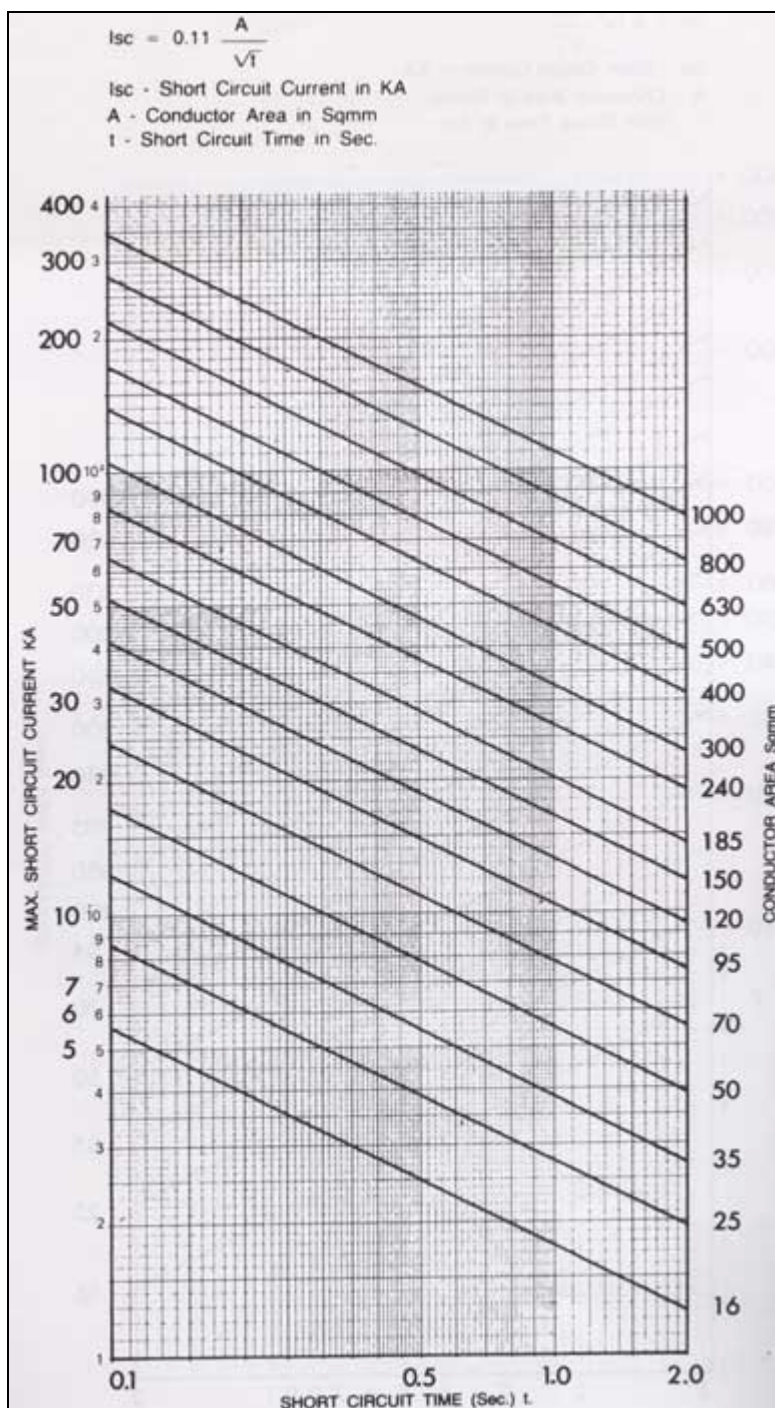
Short Circuit Current Curves for Copper Conductor XLPE Insulated Cables

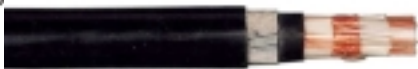




L.V. Power and Control Cables

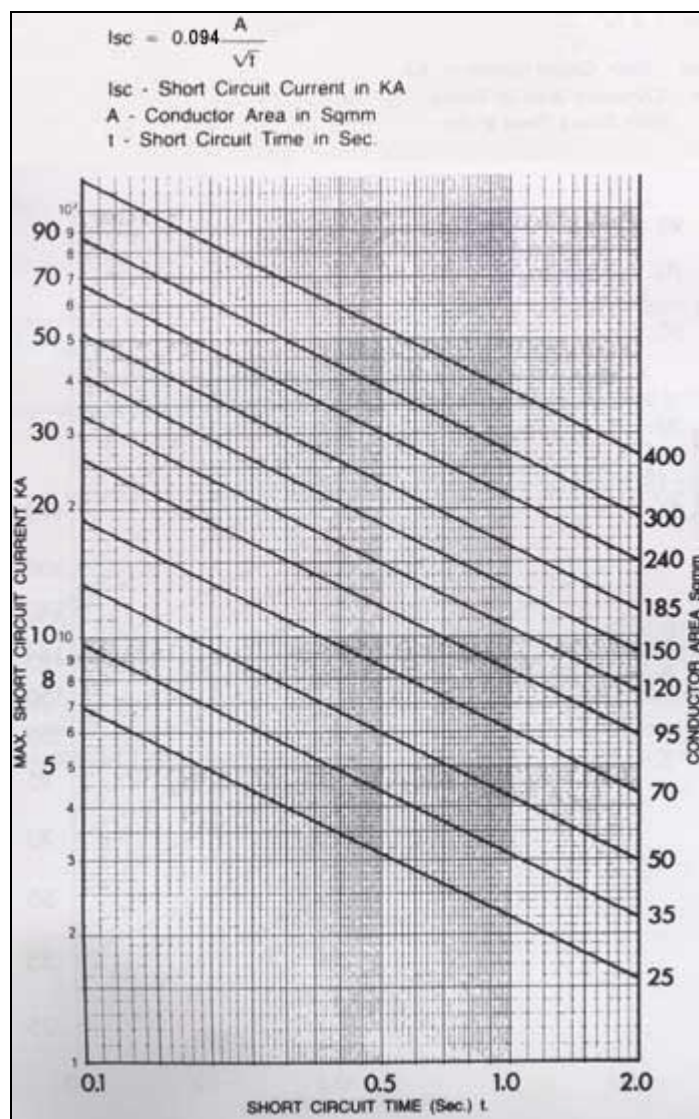
Short Circuit Current Curves for Copper Conductor PVC Insulated Cables

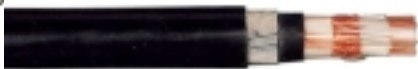




L.V. Power and Control Cables

Short Circuit Current Curves for Aluminium Conductor XLPE Insulated Cables





L.V. Power and Control Cables

Short Circuit Current Curves for Aluminium Conductor PVC Insulated Cables

