ISO 9001:2008

ISO 14001:2004

OHSAS 18001:2007

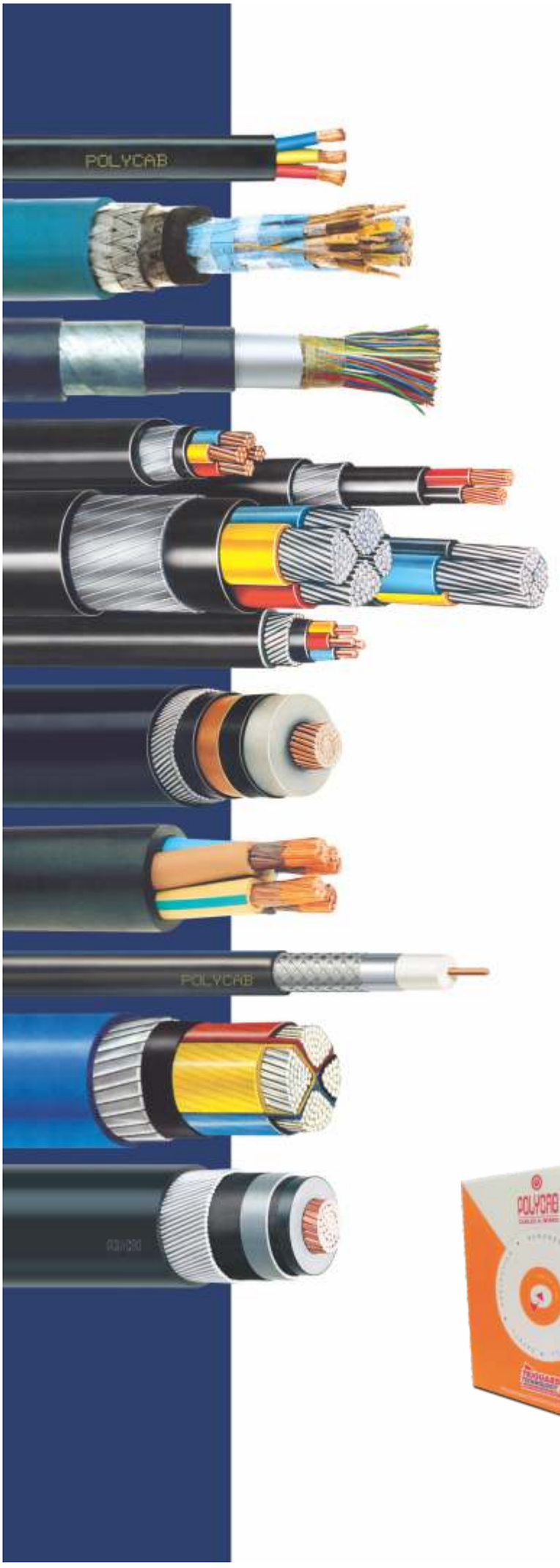
IS 7098 (Part I)

Details make the Difference

POLYCAB

Connection Zindagi Ka

XLPE INSULATED HEAVY DUTY CABLES 650/1100V.



PRODUCT RANGE

- L.V. PVC & XLPE POWER CABLES WITH COPPER AND ALUMINIUM CONDUCTOR
- L.V. PVC & XLPE CONTROL CABLES WITH COPPER CONDUCTOR
- M.V. POWER CABLES UPTO 33 kV
- EHV CABLES FROM 66kV TO 220kV
- M.V. / L.V. AERIAL BUNCHED CABLES (ABC)
- ZERO HALOGEN CABLES
- FIRE SURVIVAL CABLES (FS)
- INSTRUMENTATION CABLES SCREENED / UNSCREENED
- INDUSTRIAL BRAIDED CABLES
- THERMO COUPLE / COMPENSATING CABLES
- LEAD SHEATHED CABLES
- RUBBER CABLES
- RAILWAY SIGNALLING CABLES
- TELEPHONE CABLES DRY & JELLY FILLED
- BUILDING WIRES FR / FRLS / FRZH / FRLF / FRFS
- SINGLE CORE INDUSTRIAL FLEXIBLES PVC / FR / FRLS / FRZH / HRFR / HR / HR-FRLS / FRLF / FRFS
- MULTI CORE INDUSTRIAL FLEXIBLE CABLES
- SUBMERSIBLE FLAT AND ROUND CABLES
- COAXIAL CABLES
- LAN CAT-5E / CAT 6 CABLES
- WELDING CABLES
- SOLAR AC / DC CABLES
- STEEL BRAIDED CABLES
- SPECIALITY CABLES SUITED FOR MARINE / OIL & GAS / EXTREME FIRE CONDITIONS / HIGHLY CORROSIVE ENVIRONMENT / TRAFFIC / AIRCRAFT / SPACE STATION / AUTOMOBILES
- OPTIC FIBRE CABLES

Contents

POLYCAB
Connection Zindagi Ka

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COMPANY PROFILE

Polycab an ISO 9001:2008, ISO 14001: 2004, OHSAS 18001:2007 company, is India's No. 1 Cables & Wires Company, with a glorious track record of over 4 decades. We have the reputation of being the fastest growing company in the Indian Cable industry. We believe that our competitive edge lies in product innovation as well as superior quality and ready availability. Our Daman and Halol manufacturing facilities were created to address these specific needs. Our manufacturing set-up is state-of-the art, from world renowned suppliers of machinery and technology.

At Polycab, we constantly strive to bring greater happiness to our customers through best in class products and services. We at Polycab understand the importance of both aesthetics and performance. Polycab has crossed Rs. 5300 Crore turnover and is set to achieve Rs. 10,000 crore turnover in the coming decade. In an on-going process to improve Customer satisfaction, Polycab offers a variety of services :

- Commercially competitive prices
- Reliable & consistent quality
- Reliable & just intime delivery
- Product development for a changing market
- A targeted stocking policy
- Technical support for applications / projects

Polycab derives its strengths from its customers. The growth of the latter is a prerequisite to the growth of the company and hence customer satisfaction is its prime objective. Over the years sincere service and dedication of its customers has earned the company distinguished clientele & consultants which includes leaders in sectors like Utilities, Power Generation, Transmission & Distribution, Petroleum & Oil Refineries, OEM's, EPC contractors, Steel & Metal, Cement, Chemical, Atomic Energy & Nuclear Power, etc. Polycab has highly experienced, qualified and dedicated professionals with strong adherence to the quality management system. Polycab has offices all over the country and also has a wide network of authorised distributors and dealers to cater to all the customer segments in India and abroad.

BASEC PCR
QUALITY CERTIFICATIONS

POLYCAB
Connection Zindagi Ka

BASEC
BRITISH APPROVALS SERVICE FOR CABLES

CERTIFICATE OF CONFORMITY

This is to certify that the

Quality Management System

of

Polycab Wires Pvt. Ltd.

conforms to the requirements of

BASEC Product Certification Requirements
Including Clause 2.6.(Formerly BA 2250:1996 Parts 1 & 2)
'Enhanced Quality Management Systems For Product Related Functions'

in respect of the sites specified in the attached schedule(s).

Schedule nos:-

PCR-216/001
PCR-216/002

Certificate No: **PCR-216**

Date of Issue: 8th September 2015

Date of original certification: 9th September 2009

Expiry Date: 8th September 2018

This certificate is issued subject to and in accordance with BASEC Regulations and continued compliance.

Includes requirements for Environmental issues directly relating to the Product and Manufacturing processes as well as limited Health & Safety issues directly relating to the Product and Manufacturing processes

Signed for and on behalf of the British Approvals Service for Cables

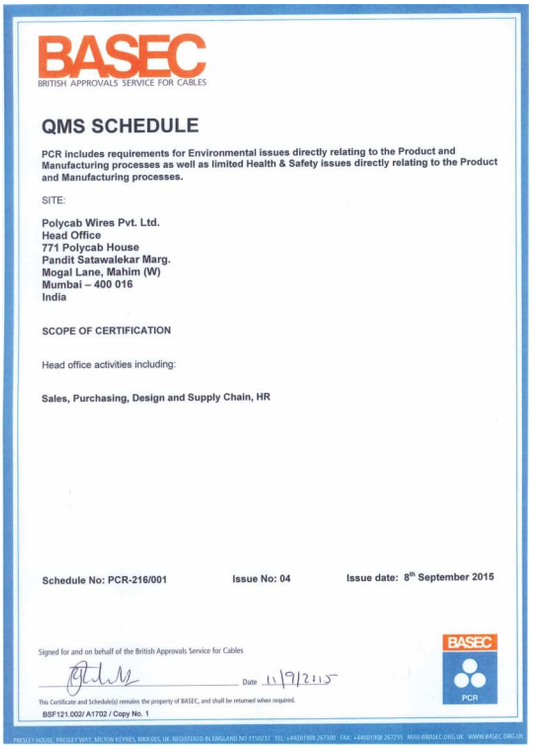
Date 11/9/2015

This Certificate and Schedule(s) remains the property of BASEC, and shall be returned when required.

BSF121.002/ A1662 & A1702 / Copy No: 1

BASEC PCR

PRESLEY HOUSE, PRESLEY WAY, MILTON KEYNES, MK8 0ES, UK. REGISTERED IN ENGLAND NO 3150237 TEL: +44(0)1908 267300 FAX: +44(0)1908 267255 MAIL@BASEC.ORG.UK WWW.BASEC.ORG.UK



BASEC
BRITISH APPROVALS SERVICE FOR CABLES

QMS SCHEDULE

PCR includes requirements for Environmental issues directly relating to the Product and Manufacturing processes as well as limited Health & Safety issues directly relating to the Product and Manufacturing processes.

SITE:

Polycab Wires Pvt. Ltd.
Head Office
771 Polycab House
Pandit Satawalekar Marg.
Mogal Lane, Mahim (W)
Mumbai – 400 016
India

SCOPE OF CERTIFICATION

Head office activities including:

Sales, Purchasing, Design and Supply Chain, HR

Schedule No: PCR-216/001 **Issue No: 04** **Issue date: 8th September 2015**

Signed for and on behalf of the British Approvals Service for Cables

Date 11/9/2015

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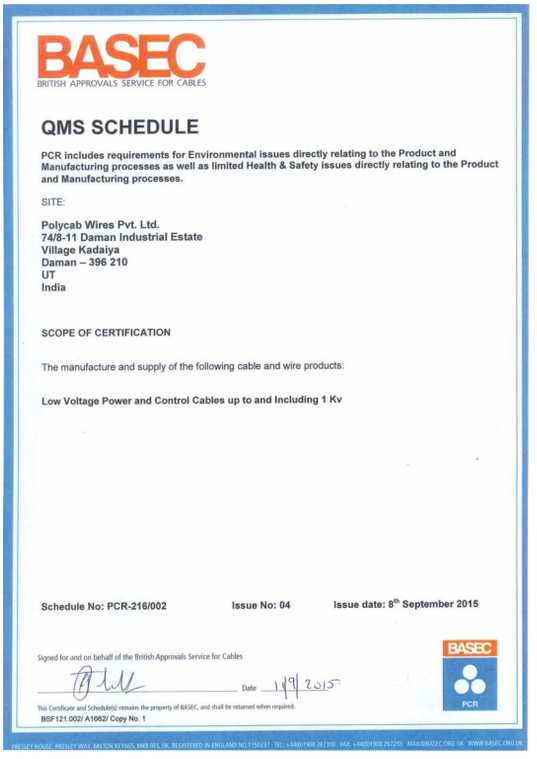
QUALITY CERTIFICATIONS



BASEC
BRITISH APPROVALS SERVICE FOR CABLES

QMS SCHEDULE

PCR includes requirements for Environmental issues directly relating to the Product and Manufacturing processes as well as limited Health & Safety issues directly relating to the Product and Manufacturing processes.

SITE:

Polycab Wires Pvt. Ltd.
74/8-11 Daman Industrial Estate
Village Kadaiya
Daman – 396 210
UT
India

SCOPE OF CERTIFICATION

The manufacture and supply of the following cable and wire products:

Low Voltage Power and Control Cables up to and Including 1 Kv

Schedule No: PCR-216/002 **Issue No: 04** **Issue date: 8th September 2015**

Signed for and on behalf of the British Approvals Service for Cables

Date 11/9/2015

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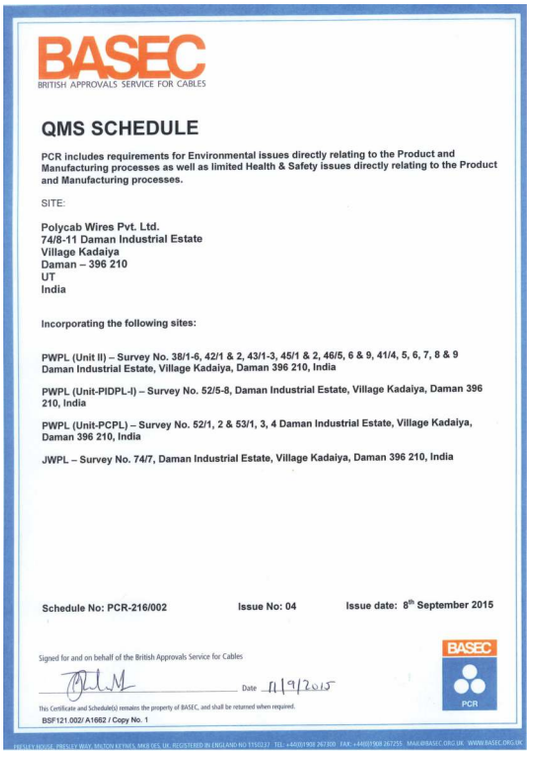

BASEC
BRITISH APPROVALS SERVICE FOR CABLES

QMS SCHEDULE

PCR includes requirements for Environmental issues directly relating to the Product and Manufacturing processes as well as limited Health & Safety issues directly relating to the Product and Manufacturing processes.

SITE:

Polycab Wires Pvt. Ltd.
74/8-11 Daman Industrial Estate
Village Kadaiya
Daman – 396 210
UT
India

Incorporating the following sites:

PWPL (Unit II) – Survey No. 38/1-6, 42/1 & 2, 43/1-3, 45/1 & 2, 46/5, 6 & 9, 41/4, 5, 6, 7, 8 & 9 Daman Industrial Estate, Village Kadaiya, Daman 396 210, India

PWPL (Unit-PIDPL-I) – Survey No. 52/5-8, Daman Industrial Estate, Village Kadaiya, Daman 396 210, India

PWPL (Unit-PCPL) – Survey No. 52/1, 2 & 53/1, 3, 4 Daman Industrial Estate, Village Kadaiya, Daman 396 210, India

JWPL – Survey No. 74/7, Daman Industrial Estate, Village Kadaiya, Daman 396 210, India

Schedule No: PCR-216/002 **Issue No: 04** **Issue date: 8th September 2015**

Signed for and on behalf of the British Approvals Service for Cables

Date 11/9/2015

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BASEC PCR
QUALITY CERTIFICATIONS

POLYCAB
Connection Zindagi Ka

BASEC
BRITISH APPROVALS SERVICE FOR CABLES

Product Certification Schedule

Schedule No:	176/001/013
Licensee:	POLYCAB WIRES PVT. LTD., 74/8-9 DAMAN INDUSTRIAL ESTATE, VILLAGE KADAIYA, DAMAN-396210, UT, INDIA
Factory:	POLYCAB WIRES PVT. LTD., 74/8-9 DAMAN INDUSTRIAL ESTATE, VILLAGE KADAIYA, DAMAN-396210, UT, INDIA
Specification:	BS 5467:1997 & A3:2008 - Electric cables - Thermosetting insulated, armoured cables for voltages of 600/1000V and 1900/3300V
Type of Cable:	Table 4 - Single-core 600/1000V cables with circular stranded copper conductor
HAR Document:	Not applicable
HAR Specification:	Not applicable
Range of Approval:	50sqmm to 1000sqmm nominal cross-sectional area of conductors inclusive. Single-core. Sheath - Type 9. Insulation - GP8.
Origin Thread:	Not applicable
Origin Mark:	POLYCAB

PERMISSIBLE MARKS

BASEC

YELLOW ACETATE THREAD

Please refer to the BASEC Product Certification Requirements

Expiry Date: 08/09/2018

Signed for and on behalf of the British Approvals Service for Cables

Date 01/09/2015

This Certificate and Schedule(s) remains the property of BASEC, and shall be returned when required.

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BASEC
BRITISH APPROVALS SERVICE FOR CABLES

Product Certification Schedule

Schedule No:	176/001/014
Licensee:	POLYCAB WIRES PVT. LTD., 74/8-9 DAMAN INDUSTRIAL ESTATE, VILLAGE KADAIYA, DAMAN-396210, UT, INDIA
Factory:	POLYCAB WIRES PVT. LTD., 74/8-9 DAMAN INDUSTRIAL ESTATE, VILLAGE KADAIYA, DAMAN-396210, UT, INDIA
Specification:	BS 5467:1997 & A3:2008 - Electric cables - Thermosetting insulated, armoured cables for voltages of 600/1000V and 1900/3300V
Type of Cable:	Tables 6, 8, 10 and 13 - Two-core, three-core, four-core and five-core 600/1000V cables with stranded copper conductors
HAR Document:	Not applicable
HAR Specification:	Not applicable
Range of Approval:	1.5sqmm to 400sqmm nominal cross-sectional area of conductors inclusive. Two-core to four-core inclusive. 1.5sqmm to 70sqmm nominal cross-sectional area of conductor. Five-core. Sheath - Type 9. Insulation - GP8
Origin Thread:	Not applicable
Origin Mark:	POLYCAB

PERMISSIBLE MARKS

BASEC

YELLOW ACETATE THREAD

Please refer to the BASEC Product Certification Requirements

Expiry Date: 08/09/2018

Signed for and on behalf of the British Approvals Service for Cables

Date 01/09/2015

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BASEC
BRITISH APPROVALS SERVICE FOR CABLES

Product Certification Schedule

Schedule No:	176/001/015
Licensee:	POLYCAB WIRES PVT. LTD., 74/8-9 DAMAN INDUSTRIAL ESTATE, VILLAGE KADAIYA, DAMAN-396210, UT, INDIA
Factory:	POLYCAB WIRES PVT. LTD., 74/8-9 DAMAN INDUSTRIAL ESTATE, VILLAGE KADAIYA, DAMAN-396210, UT, INDIA
Specification:	BS 5467:1997 & A3:2008 - Electric cables - Thermosetting insulated, armoured cables for voltages of 600/1000V and 1900/3300V
Type of Cable:	Table 18 - 600/1000V armoured auxiliary cables with stranded copper conductors
HAR Document:	Not applicable
HAR Specification:	Not applicable
Range of Approval:	1.5sqmm to 4sqmm nominal cross-sectional area of conductors inclusive. 7-core to 48-core inclusive. Sheath - Type 9. Insulation - GP8.
Origin Thread:	Not applicable
Origin Mark:	POLYCAB

PERMISSIBLE MARKS

BASEC

YELLOW ACETATE THREAD

Please refer to the BASEC Product Certification Requirements

Expiry Date: 08/09/2018

Signed for and on behalf of the British Approvals Service for Cables

Date 01/09/2015

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BASEC
BRITISH APPROVALS SERVICE FOR CABLES

Product Certification Schedule

Schedule No:	176/001/016
Licensee:	POLYCAB WIRES PVT. LTD., 74/8-9 DAMAN INDUSTRIAL ESTATE, VILLAGE KADAIYA, DAMAN-396210, UT, INDIA
Factory:	POLYCAB WIRES PVT. LTD., 74/8-9 DAMAN INDUSTRIAL ESTATE, VILLAGE KADAIYA, DAMAN-396210, UT, INDIA
Specification:	BS 6724:1997 & A3:2008 - Electric cables - Thermosetting insulated, armoured cables for voltages of 600/1000V and 1900/3300V having low emission of smoke and corrosive gases when affected by fire
Type of Cable:	Table 4 - Single-core 600/1000V cables with circular stranded copper conductor
HAR Document:	Not applicable
HAR Specification:	Not applicable
Range of Approval:	50sqmm to 1000sqmm nominal cross-sectional area of conductors inclusive. Single-core. Sheath - LTS1. Insulation - GP8.
Origin Thread:	Not applicable
Origin Mark:	POLYCAB

PERMISSIBLE MARKS

BASEC

YELLOW ACETATE THREAD

Please refer to the BASEC Product Certification Requirements

Expiry Date: 08/09/2018

Signed for and on behalf of the British Approvals Service for Cables

Date 01/09/2015

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BASEC PCR
QUALITY CERTIFICATIONS

BASEC
BRITISH APPROVALS SERVICE FOR CABLES

Product Certification Schedule

Schedule No:	176/001/017
Licensee:	POLYCAB WIRES PVT. LTD., 74/8-9 DAMAN INDUSTRIAL ESTATE, VILLAGE KADAIYA, DAMAN-396210, UT, INDIA,
Factory:	POLYCAB WIRES PVT. LTD., 74/8-9 DAMAN INDUSTRIAL ESTATE, VILLAGE KADAIYA, DAMAN-396210, UT, INDIA
Specification:	BS 6724:1997 & A3:2008 - Electric cables - Thermosetting insulated, armoured cables for voltages of 600/1000V and 1900/3300V having low emission of smoke and corrosive gases when affected by fire
Type of Cable:	Tables 6, 8, 10 and 13 - Two-core, three-core, four-core and five-core 600/1000V cables with stranded copper conductors
HAR Document:	Not applicable
HAR Specification:	Not applicable
Range of Approval:	1.5sqmm to 400sqmm nominal cross-sectional area of conductors inclusive. Two-core to four-core inclusive. 1.5sqmm to 70sqmm nominal cross-sectional area of conductors inclusive. Five-core. Sheath - LTS1. Insulation - GP8.
Origin Thread:	Not applicable
Origin Mark:	POLYCAB

PERMISSIBLE MARKS

BASEC

YELLOW ACETATE THREAD

Please refer to the BASEC Product Certification Requirements

Expiry Date: 08/09/2018

Signed for and on behalf of the British Approvals Service for Cables

Date 01/09/2015

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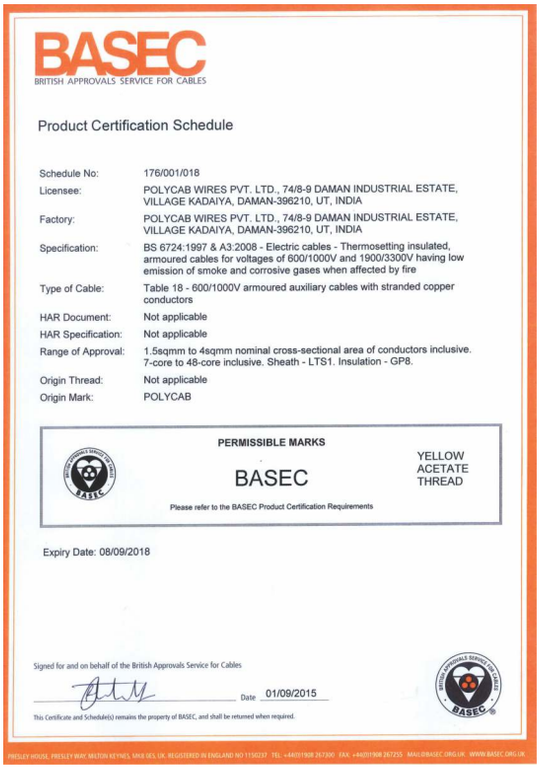

BASEC
BRITISH APPROVALS SERVICE FOR CABLES

Product Certification Schedule

Schedule No:	176/001/018
Licensee:	POLYCAB WIRES PVT. LTD., 74/8-9 DAMAN INDUSTRIAL ESTATE, VILLAGE KADAIYA, DAMAN-396210, UT, INDIA
Factory:	POLYCAB WIRES PVT. LTD., 74/8-9 DAMAN INDUSTRIAL ESTATE, VILLAGE KADAIYA, DAMAN-396210, UT, INDIA
Specification:	BS 6724:1997 & A3:2008 - Electric cables - Thermosetting insulated, armoured cables for voltages of 600/1000V and 1900/3300V having low emission of smoke and corrosive gases when affected by fire
Type of Cable:	Table 18 - 600/1000V armoured auxiliary cables with stranded copper conductors
HAR Document:	Not applicable
HAR Specification:	Not applicable
Range of Approval:	1.5sqmm to 4sqmm nominal cross-sectional area of conductors inclusive. 7-core to 48-core inclusive. Sheath - LTS1. Insulation - GP8.
Origin Thread:	Not applicable
Origin Mark:	POLYCAB

PERMISSIBLE MARKS

BASEC

YELLOW ACETATE THREAD

Please refer to the BASEC Product Certification Requirements

Expiry Date: 08/09/2018

Signed for and on behalf of the British Approvals Service for Cables

Date 01/09/2015

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BASEC
BRITISH APPROVALS SERVICE FOR CABLES

Product Certification Licence

This is to certify that:

Polycab Wires Pvt. Ltd.
74/8-9 Daman Industrial Estate
Village Kadaiya
Daman-396210
UT
India

Is licensed to use the BASEC Marks as defined in the BASEC Product Certification Requirements, in respect of products identified in the Product Certification Schedules listed in the Tables, shown below, which form an integral part of this Certificate:

Licence Number: 176

Issue Date: 1ST September 2015

Expiry Date: 8th September 2018

Table Numbers: 176/001/T

This Certificate is issued subject to and in accordance with BASEC Regulations and continued compliance

Signed for and on behalf of the British Approvals Service for Cables

Date 17/9/2015

This Certificate and Schedule(s) remains the property of BASEC, and shall be returned when required.

BSF079.001

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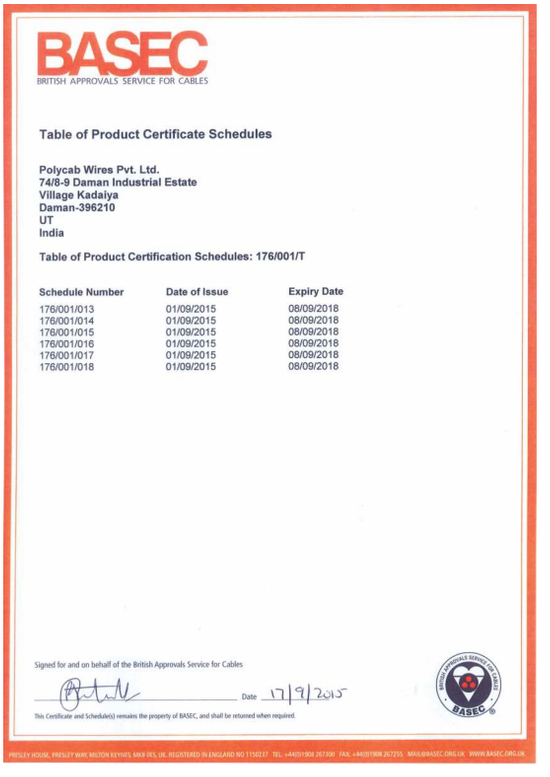

BASEC
BRITISH APPROVALS SERVICE FOR CABLES

Table of Product Certificate Schedules

Polycab Wires Pvt. Ltd.
74/8-9 Daman Industrial Estate
Village Kadaiya
Daman-396210
UT
India

Table of Product Certification Schedules: 176/001/T

Schedule Number	Date of Issue	Expiry Date
176/001/013	01/09/2015	08/09/2018
176/001/014	01/09/2015	08/09/2018
176/001/015	01/09/2015	08/09/2018
176/001/016	01/09/2015	08/09/2018
176/001/017	01/09/2015	08/09/2018
176/001/018	01/09/2015	08/09/2018

Signed for and on behalf of the British Approvals Service for Cables

Date 17/9/2015

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XLPE insulated heavy duty cables were introduced worldwide in mid sixties. These cables have overcome the limitations of PVC Insulated Cables such as thermal degradation, poor moisture resistance and thermoplastic nature.

The advantages of XLPE Insulated cables in comparison to PVC insulated cables are as under:

A. Technical Advantages:

1. Higher current rating, higher short circuit rating approx. 1.2 times that of PVC.
2. Thermosetting in nature.
3. Higher insulation resistance 1000 times more than PVC cables.
4. Higher resistance to moisture.
5. Better resistance to surge currents.
6. Low dielectric losses.
7. Better resistance to chemicals.
8. Longer service life.
9. Comparatively higher cable operation temperature 90^{o}C and short circuit temperature 250^{o}C

B. Commercial Advantages:

1. Lower laying cost because of comparatively smaller diameter of cable and higher weight*.
2. Lower installation charges as the diameter of cable is comparatively lesser with smaller bending radius, requiring less space requirement for laying cables.
3. **One size lower cable can be used as compared to PVC insulated cable.

**Density of XLPE is lower than PVC*

*** For longer cable length voltage drop shall be considered*

Polycab Cables of 33KV E 3 X 400 Sq. mm have been successfully type tested at KEMA - Netherland (an internationally acclaimed Testing Laboratory).

Advantages of Polycab XLPE Cables

HIGHER ELECTRICAL STRENGTH RETENTION

HIGHER SHORT CIRCUIT RATING

BETTER ELECTRICAL, MECHANICAL & THERMAL PROPERTIES

EASY JOINTING & TERMINATION

Selection of Cables

Power Cables are generally selected considering the application. However following factors are important for selection of suitable cable construction required to transport electrical energy form one end to the other.

1) Maximum operating voltage.
2) Fault level.
3) Load to be carried.
4) Possible overloading during & magnitude.
5) Route length and voltage drop.
6) Mode of installation considering installation environment such as ambient & ground temperature as well as chemical & physical properties of soil.
7) Flame retardant properties.

All sizes of POLYCAB XLPE cables are designed for standard operating conditions in India and abroad.
The standards adopted are after duly considering the geographical / climatical conditions and general applications of power for utilities, distribution and generation purposes.

The cables are manufactured conforming to Indian & International cables specification for XLPE Insulated cables. Customer specific requirements can also be met.

Comparative Current Rating and Short Circuits Rating for XLPE Cable Vis-à-Vis PVC Cables

POLYCAB
Connection Zindagi Ka

COMPARATIVE CURRENT RATINGS OF 650/1100 VOLTS MULTICORE HEAVY DUTY PVC INSULATED CABLES & XLPE INSULATED CABLES.

(3, 3.5 & 4 Core Unarmoured / Armoured PVC Sheathed Cables with Aluminium Conductor.)

Nominal Size of Cable	3, 3.5 & 4 Core PVC Insulated & Sheathed Cables as per IS - 1554 (Part-1) 1988			3, 3.5 & 4 Core XLPE Insulated & Sheathed Cables as per IS - 7098 (Part-1) 1988		
	In Ground	In Air	Approx Voltage Drop	In Ground	In Air	Approx Voltage Drop
Sq. mm	Amp	Amp	Mv / amp / mtr	Amp	Amp	Mv / amp / mtr
16	61	52	4	74	69	4.20
25	78	70	2.50	95	93	2.70
35	94	85	1.80	114	114	1.90
50	111	104	1.30	134	138	1.40
70	136	131	0.93	164	175	0.99
95	163	162	0.68	197	216	0.72
120	185	186	0.54	223	249	0.58
150	206	212	0.46	249	284	0.48
185	234	245	0.38	282	329	0.39
240	271	291	0.28	327	392	0.31
300	305	335	0.25	369	452	0.26
400	348	390	0.20	420	526	0.21

COMPARISON OF SHORT CIRCUIT RATING FOR 1 SECOND DURATION FOR

*** PVC & XLPE Insulated Cables ** with Copper and Aluminium Conductors.** (Current in kAmps)

Nominal Size	PVC Insulated		XLPE Insulated	
Sq. mm	Copper	Aluminium	Copper	Aluminium
1.5	0.173	-	0.21	-
2.5	0.283	-	0.36	-
4	0.46	0.303	0.57	0.38
6	0.69	0.455	0.86	0.57
10	1.15	0.758	1.40	0.94
16	1.84	1.21	2.30	1.50
25	2.88	1.90	3.60	2.40
35	4.03	2.65	5	3.30
50	5.75	3.79	7.10	4.70
70	8.05	5.31	10	6.60
95	10.90	7.20	13.60	9
120	13.80	9.10	17.10	11.30
150	17.30	11.40	21.40	14.20
185	21.30	14.02	26.40	17.50
240	27.60	18.20	34.30	22.60
300	34.50	22.80	42.90	28.30
400	46	30.40	57.10	37.70
500	57.50	38	71.40	47.20
630	72.50	47.25	90	59.40
800	92	60	114.30	75.50
1000	115	75	142.90	94.30

* PVC Type A Insulation as per IS-5831 84.
** PVC Cables as per IS-1554 (Part-1)-1988
** XLPE Cables as per IS-7098 (Part-1)-1988

1) Max. Conductor Temperature during Operation — PVC 70˚C — XLPE 90˚C

2) Max. Conductor Temperature During Short circuit. — 160˚ C — 250˚C

Formula relating Short Circuit Rating with duration

$$It = \frac{I\,sh}{P\,t}$$

Where
It = Short Circuit Rating for t Seconds.
t = Duration in seconds
Ish = Short Circuit rating for 1 second.

APPROXIMATE CAPACITANCE (Microfarads/ Km) 1.1 KV XLPE CABLES.

Nominal Area of Conductor	Single Core		Two Core	Three, Three & Half and Four Core
	Unarmoured	Armoured		
1.5	0.19	-	0.051	0.15
2.5	0.24	-	0.058	0.18
4	0.29	-	0.065	0.22
6	0.34	-	0.071	0.25
10	0.43	0.32	0.081	0.31
16	0.51	0.38	0.088	0.36
25	0.49	0.38	0.089	0.41
35	0.57	0.44	0.096	0.47
50	0.58	0.46	0.098	0.50
70	0.63	0.51	0.100	0.53
95	0.73	0.59	0.110	0.61
120	0.74	0.61	0.110	0.63
150	0.73	0.61	0.110	0.64
185	0.69	0.59	0.110	0.65
240	0.74	0.64	0.110	0.66
300	0.80	0.69	0.120	0.67
400	0.83	0.70	0.120	0.67
500	0.83	0.71	0.120	0.69
630	0.87	0.75	0.110	0.73
800	0.92	0.78	-	-
1000	0.94	0.81	-	-

APPROXIMATE REACTANCE AT 50 HZ (Ohm/Km) 1.1 KV XLPE CABLES.

Nominal Area of Conductor	Single Core		Multi Core
	Unarmoured	Armoured	
1.5	0.155	-	0.107
2.5	0.142	-	0.0985
4	0.132	-	0.0927
6	0.123	-	0.0884
10	0.114	0.134	0.0837
16	0.108	0.125	0.0808
25	0.103	0.120	0.0805
35	0.0986	0.114	0.0783
50	0.0937	0.108	0.075
70	0.090	0.102	0.074
95	0.0865	0.100	0.0724
120	0.0841	0.0968	0.0712
150	0.0839	0.0941	0.0716
185	0.0836	0.0932	0.0718
240	0.0813	0.090	0.071
300	0.0795	0.0881	0.0705
400	0.0787	0.0873	0.0704
500	0.0779	0.0859	0.0702
630	0.0785	0.0843	0.0698
800	0.0755	0.0826	-
1000	0.0752	0.0825	-

POLYCAB
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CONDUCTOR TECHNICAL INFORMATION FOR SINGLE CORE AND MULTICORE CABLES CONFORMING TO IS-8130/1984 (STRANDED - CLASS-2) COPPER & ALUMINIUM CONDUCTORS.

Nominal Size of Conductor	Minimum no. of wires				Max D.C. Resistance at 20°C		A. C. Resistance at 90°C	
	Non Compacted		Compacted Round / Shaped		Plain Copper	Aluminium	Plain Copper	Aluminium
Sq.mm	CU.	ALU.	CU.	ALU.	Ohm/Km	Ohm/Km	Ohm/Km	Ohm/Km
1.5*	3	3	-	-	12.10	18.1	15.50	23.17
2.5*	3	3	-	-	7.41	12.1	9.48	15.50
4*	7	3	-	-	4.61	7.41	5.90	9.48
6*	7	3	-	-	3.08	4.61	3.94	5.90
10*	7	7	6	-	1.83	3.08	2.34	3.94
16	7	7	6	6	1.15	1.91	1.47	2.44
25	7	7	6	6	0.727	1.20	0.93	1.54
35	7	7	6	6	0.524	0.868	0.671	1.11
50	19	19	6	6	0.387	0.641	0.495	0.82
70	19	19	12	12	0.268	0.443	0.343	0.567
95	19	19	15	15	0.193	0.32	0.247	0.410
120	37	37	18	15	0.153	0.253	0.196	0.324
150	37	37	18	15	0.124	0.206	0.159	0.264
185	37	37	30	30	0.0991	0.164	0.127	0.210
240	61	37	34	30	0.0754	0.125	0.0965	0.160
300	61	61	34	30	0.0601	0.100	0.0769	0.128
400	61	61	53	53	0.047	0.0778	0.0602	0.100
500	61	61	53	53	0.0366	0.0605	0.0468	0.0774
630	91	91	53	53	0.0283	0.0469	0.0362	0.0600
800	91	91	53	53	0.0221	0.0367	0.0283	0.0470
1000	91	91	53	53	0.0176	0.0291	0.0225	0.0372

** These sizes can be manufactured with solid conductor having single strand*

POLYCAB PRECONDITIONS FOR CURRENT RATING

1. The values given in the table are valid for on circuit in a three phase system under conditions specified. For grouping cables rating factory must be used.
2. The current carrying capacities mentioned in POLYCAB technical date are intended as a guide, to assist operating engineers in selecting cables for safety and reliability.

3. Basic assumption and condition of installation:
   * Ambient ground Temperature: 30°C
   * Ambient air Temperature: 40°C
   * Depth of Cable Burial: 750 mm
   * Thermal Resistivity of soil: 1.5 k.m/w

4. Single Core Cables are installed as indicated in the table; spacing between cables in flat formation is as indicated.

5. For 3 and 4 core cables, it is usual to assume the same current carrying capacity for 4 core cable as for 3 core cables. Our calculated values are based actually on 3 core cables. These values are suitable with enough accuracy also for 4 cables in most cases. Only for large 4 core cables in air the values are too conservative, due to the large cable surface and consequent high heat dissipation factor.

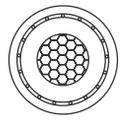
6. To obtain the maximum current carrying capacity of a cable operating at different conditions from the standard, various rating factors are to be multiplied as follows:

$I_a = K I_s$ (in Amperes)

Where
I_a = Current Rating at actual Operating Conditions (amperes)
I_s = Current Rating at Standard Operating Conditions (amperes)
K = Rating factor as applicable

TABLE-1 "POLYCAB" SINGLE CORE ALUMINIUM CONDUCTOR, XLPE INSULATED,

UNARMOURED & ARMOURED CABLE CONFORMING TO IS 7098 PART-1/1988



650/1100 VOLTS

WEIGHT & DIMENSIONS

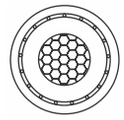
Nominal Size of Conductor	Form of Conductor Circular ○	Nominal Thickness of XLPE Insulation For U/A	Minimum Thickness of PVC Inner Sheath	Unarmoured Cable			Nominal Thickness of XLPE Insulation for Armoured Cable	Formed Wire / Strip Armoured Cable				Round Wire Armoured Cable				Current Rating.*		*Normal Delivery Length
				Nominal Thickness of PVC Outer Sheath	Approx. Overall Diameter of Cable	Approx. Weight of Cable		Nominal Dimension of Aluminium Flat Strip	Minimum Thickness of PVC Outer Sheath	Approx. Overall Diameter of Cable.	Approx. Weight of Cable	Nominal Dimension of Aluminium Round Wire	Minimum Thickness of PVC Outer Sheath	Approx. Overall Diameter of Cable	Approx. Weight of Cable	In Ground	In Air	
Sq.mm	mm	mm	mm	mm	mm	Kgs./Km	mm	mm	mm	mm	Kgs./Km	mm	mm	mm	Kgs./Km	Amps.	Amps.	Mtrs.
4	Solid	0.70	-NA-	1.80	7.50	60	-	-	-	-	-	-	-	-	-	43	38	1000
4	Stranded	0.70	-NA-	1.80	8	65	-	-	-	-	-	-	-	-	-	43	38	1000
6	Solid	0.70	-NA-	1.80	8	70	-	-	-	-	-	-	-	-	-	55	50	1000
6	Stranded	0.70	-NA-	1.80	8.50	75	-	-	-	-	-	-	-	-	-	55	50	1000
10	Solid	0.70	-NA-	1.80	9	80	1	-	-	-	-	-	-	-	-	69	64	1000
10	Stranded	0.70	-NA-	1.80	9.50	90	1	-	-	-	-	-	-	-	-	69	64	1000
16	Stranded	0.70	-NA-	1.80	10	115	1	-	-	-	-	1.40	1.24	13	193.30	89	84	1000
25	Stranded	0.90	-NA-	1.80	12	155	1.20	-	-	-	-	1.40	1.24	14	250	115	112	1000
35	Stranded	0.90	-NA-	1.80	13	180	1.20	-	-	-	-	1.40	1.24	15	293.40	137	137	1000
50	Stranded	1	-NA-	1.80	14	240	1.30	-	-	-	-	1.40	1.24	17	353.50	161	165	1000
70	Stranded	1.10	-NA-	1.80	16	310	1.40	-	-	-	-	1.40	1.24	19	443	198	209	1000
95	Stranded	1.10	-NA-	1.80	17.50	385	1.40	4 x 0.80	1.40	18.60	498.81	1.60	1.40	20.20	572.30	243	264	1000
120	Stranded	1.20	-NA-	1.80	19	470	1.50	4 x 0.80	1.40	20.40	606.34	1.60	1.40	23.50	678.74	276	308	1000
150	Stranded	1.40	-NA-	2	21.50	600	1.70	4 x 0.80	1.40	23	716.08	1.60	1.40	24.50	795.36	308	350	1000
185	Stranded	1.60	-NA-	2	23.50	710	1.90	4 x 0.80	1.40	25	866.86	1.60	1.40	26.50	947.06	349	406	1000
240	Stranded	1.70	-NA-	2	26	900	2	4 x 0.80	1.40	26.60	1055.79	1.60	1.40	29	1147.15	404	480	1000
300	Stranded	1.80	-NA-	2	28.50	1158	2.10	4 x 0.80	1.56	29.60	1294.16	1.60	1.56	31.50	1389.30	454	551	1000
400	Stranded	2	-NA-	2.20	33	1385	2.40	4 x 0.80	1.56	33.20	1624.42	2	1.56	36.50	1813.29	518	647	500
500	Stranded	2.20	-NA-	2.20	36	1650	2.60	4 x 0.80	1.56	36.70	1997.06	2	1.56	39.50	2213.57	588	751	500
630	Stranded	2.40	-NA-	2.20	40	2100	2.80	4 x 0.80	1.72	40.50	2469.72	2	1.72	43	2698.20	663	868	500
800	Stranded	2.60	-NA-	2.40	43.70	2730	3.10	4 x 0.80	1.72	46.50	2986.96	2	1.88	47.90	3279.82	740	992	500
1000	Stranded	2.80	-NA-	2.60	49.20	3350	3.30	4 x 0.80	1.88	50.60	3742.01	2.50	2.04	54.37	4220.31	812	1117	500

The above data is approximate and subject to manufacturing tolerance.

* Delivery Length tolerance is ±5%. Length more than normal as per customer request.

TABLE-2 "POLYCAB" SINGLE CORE COPPER CONDUCTOR, XLPE INSULATED,

UNARMOURED & ARMOURED CABLE CONFORMING TO IS 7098 PART-1/1988



650/1100 VOLTS

WEIGHT & DIMENSIONS

Nominal Size of Conductor	Form of Conductor Circular ○	Nominal Thickness of XLPE Insulation For U/A	Minimum Thickness of PVC Inner Sheath	Unarmoured Cable			Nominal Thickness of XLPE Insulation for Armoured Cable	Formed Wire / Strip Armoured Cable				Round Wire Armoured Cable				Current Rating.*		*Normal Delivery Length
				Nominal Thickness of PVC Outer Sheath	Approx. Overall Diameter of Cable	Approx. Weight of Cable		Nominal Dimension of Aluminium Flat Strip	Minimum Thickness of PVC Outer Sheath	Approx. Overall Diameter of Cable	Approx. Weight of Cable	Nominal Dimension of Aluminium Round Wire	Minimum Thickness of PVC Outer Sheath	Approx. Overall Diameter of Cable	Approx. Weight of Cable	In Ground	In Air	
Sq.mm	mm	mm	mm	mm	mm	Kgs./Km	mm	mm	mm	mm	Kgs./Km	mm	mm	mm	Kgs./Km	Amps.	Amps.	Mtrs.
4	Solid	0.70	-NA-	1.80	7.50	91	-	-	-	-	-	-	-	-	-	54	48	1000
4	Stranded	0.70	-NA-	1.80	8	95	-	-	-	-	-	-	-	-	-	54	48	1000
6	Solid	0.70	-NA-	1.80	8	115	-	-	-	-	-	-	-	-	-	67	61	1000
6	Stranded	0.70	-NA-	1.80	8.50	125	-	-	-	-	-	-	-	-	-	67	61	1000
10	Stranded	0.70	-NA-	1.80	9.50	170	1	-	-	-	-	1.40	1.24	12	245	90	83	1000
16	Stranded	0.70	-NA-	1.80	10	219.90	1	-	-	-	-	1.40	1.24	13	287.50	115	108	1000
25	Stranded	0.90	-NA-	1.80	12	317.60	1.20	-	-	-	-	1.40	1.24	14	394.98	148	144	1000
35	Stranded	0.90	-NA-	1.80	13	414.50	1.20	-	-	-	-	1.40	1.24	16	498.49	177	176	1000
50	Stranded	1	-NA-	1.80	14	545.30	1.30	-	-	-	-	1.40	1.24	17	639.54	208	212	1000
70	Stranded	1.10	-NA-	1.80	16	748.20	1.40	-	-	-	-	1.40	1.24	19	851.95	255	269	1000
95	Stranded	1.10	-NA-	1.80	17.50	984.60	1.40	4 x 0.80	1.40	18.60	1053.41	1.60	1.40	22	1132.28	312	340	1000
120	Stranded	1.20	-NA-	1.80	19	1220.70	1.50	4 x 0.80	1.40	20.40	1303.62	1.60	1.40	23.50	1382.74	355	396	1000
150	Stranded	1.40	-NA-	2	21.50	1527.60	1.70	4 x 0.80	1.40	22.20	1596.21	1.60	1.40	24.50	1683.36	396	450	1000
185	Stranded	1.60	-NA-	2	23.50	1864.40	1.90	4 x 0.80	1.40	24.40	1944.67	1.60	1.40	26.50	2032.06	447	519	1000
240	Stranded	1.70	-NA-	2	26	2362.40	2	4 x 0.80	1.40	26.60	2446.45	1.60	1.40	29	2547.15	515	613	1000
300	Stranded	1.80	-NA-	2	28.50	2913.80	2.10	4 x 0.80	1.56	29.60	3037.51	1.60	1.56	31.50	3145.30	576	700	500
400	Stranded	2	-NA-	2.20	33	3805.20	2.40	4 x 0.80	1.56	33.20	3920.45	2	1.56	36.50	4124.29	651	813	500
500	Stranded	2.20	-NA-	2.20	36	4765.40	2.60	4 x 0.80	1.56	36.70	4898.63	2	1.56	39.50	5120.57	727	930	500
630	Stranded	2.40	-NA-	2.20	40	5955.20	2.80	4 x 0.80	1.72	41.20	6145.82	2	1.72	43	6388.22	806	1056	500
800	Stranded	2.60	-NA-	2.40	43.70	7524.80	3.10	4 x 0.80	1.72	45.10	7707.59	2	1.88	49.50	8014.82	877	1179	500
1000	Stranded	2.80	-NA-	2.60	49.20	9385.90	3.30	4 x 0.80	1.88	50.60	9587.17	2.50	2.04	54	10080.31	935	1288	500

The above data is approximate and subject to manufacturing tolerance.
* Delivery Length tolerance is ±5%. Length more than normal as per customer request.

TABLE-3 "POLYCAB" TWO CORE ALUMINIUM CONDUCTOR, XLPE INSULATED,

UNARMOURED & ARMOURED CABLE CONFORMING TO IS 7098 PART-1/1988

650/1100 VOLTS

WEIGHT & DIMENSIONS

Nominal Size of Conductor	Form of Conductor Circular Shaped ○/⌓	Nominal Thickness of XLPE Insulation For U/A	Minimum Thickness of PVC Inner Sheath	Unarmoured Cable			Formed Wire / Strip Armoured Cable				Round Wire Armoured Cable				Current Rating.*		*Normal Delivery Length
				Nominal Thickness of PVC Outer Sheath	Approx. Overall Diameter of Cable	Approx. Weight of Cable	Nominal Dimension of Aluminium Flat Strip	Minimum Thickness of PVC Outer Sheath	Approx. Overall Diameter of Cable	Approx. Weight of Cable	Nominal Dimension of Aluminium Round Wire	Minimum Thickness of PVC Outer Sheath	Approx. Overall Diameter of Cable	Approx. Weight of Cable	In Ground	In Air	
Sq.mm	mm	mm	mm	mm	mm	Kgs./Km	mm	mm	mm	Kgs./Km	mm	mm	mm	Kgs./Km	Amps.	Amps.	Mtrs.
4	Solid ○	0.70	0.30	1.80	12.50	140	-NA-	-NA-	-NA-	-NA-	1.40	1.24	14.50	400	42	38	1000
4	Stranded ○	0.70	0.30	1.80	13	150	-NA-	-NA-	-NA-	-NA-	1.40	1.24	15.50	430	42	38	1000
6	Solid ○	0.70	0.30	1.80	13.50	170	-NA-	-NA-	-NA-	-NA-	1.40	1.24	15.50	470	55	50	1000
6	Stranded ○	0.70	0.30	1.80	14	180	-NA-	-NA-	-NA-	-NA-	1.40	1.24	16.50	485	55	50	1000
10	Solid ○	0.70	0.30	1.80	15	205	-NA-	-NA-	-NA-	-NA-	1.40	1.24	17	545	68	64	1000
10	Stranded ○	0.70	0.30	1.80	16	225	-NA-	-NA-	-NA-	-NA-	1.40	1.24	18	565	68	64	1000
16	Stranded ⌓	0.70	0.30	1.80	14	225	-NA-	-NA-	-NA-	-NA-	1.40	1.40	17	480.16	89	83	1000
25	Stranded ⌓	0.90	0.30	2	17	330	4 x 0.80	1.40	18.50	509.13	1.60	1.40	20	671.84	114	109	1000
35	Stranded ⌓	0.90	0.30	2	19	410	4 x 0.80	1.40	20	605.51	1.60	1.40	22	775.55	136	133	1000
50	Stranded ⌓	1	0.30	2	21	510	4 x 0.80	1.40	22.50	753.28	1.60	1.40	24	937.97	161	162	1000
70	Stranded ⌓	1.10	0.30	2	23	675	4 x 0.80	1.56	22.50	971	1.60	1.56	27	1186.85	197	204	1000
95	Stranded ⌓	1.10	0.40	2.20	26.50	900	4 x 0.80	1.56	28	1204.30	2	1.56	28.68	1572.78	235	251	1000
120	Stranded ⌓	1.20	0.40	2.20	28.50	1050	4 x 0.80	1.56	30.50	1408.20	2	1.56	33	1849.49	266	287	500
150	Stranded ⌓	1.40	0.40	2.20	32	1215	4 x 0.80	1.72	31.79	1690.20	2	1.72	36	2182.96	296	328	500
185	Stranded ⌓	1.60	0.50	2.40	35.50	1510	4 x 0.80	1.72	34.95	2025.90	2	1.88	37.70	2597.60	335	379	500
240	Stranded ⌓	1.70	0.50	2.60	39.50	1900	4 x 0.80	1.88	38.69	2500.60	2.50	2.04	45	3418.52	385	448	500
300	Stranded ⌓	1.80	0.60	2.80	43.50	2360	4 x 0.80	2.04	42.53	2992.20	2.50	2.20	46.22	4019.07	432	513	500
400	Stranded ⌓	2	0.60	3	49	3100	4 x 0.80	2.36	48.24	3790.21	2.50	2.36	51.61	4880.51	487	593	500
500	Stranded ⌓	2.20	0.70	3.40	55.50	4000	4 x 0.80	2.52	56.50	5000	3.15	2.68	61.50	7000	548	683	500
630	Stranded ⌓	2.40	0.70	3.60	61.50	5000	4 x 0.80	2.68	62.50	6050	3.15	2.84	67.50	8560	612	784	500

The above data is approximate and subject to manufacturing tolerance.

* Delivery Length tolerance is ±5%. Length more than normal as per customer request.

TABLE-4 "POLYCAB" TWO CORE COPPER CONDUCTOR, XLPE INSULATED,

UNARMOURED & ARMOURED CABLE CONFORMING TO IS 7098 PART-1/1988

650/1100 VOLTS

WEIGHT & DIMENSIONS

Nominal Size of Conductor	Form of Conductor Circular Shaped ○/⌓	Nominal Thickness of XLPE Insulation	Minimum Thickness of PVC Inner Sheath	Unarmoured Cable			Formed Wire / Strip Armoured Cable				Round Wire Armoured Cable				Current Rating.*		*Normal Delivery Length
				Nominal Thickness of PVC Outer Sheath	Approx. Overall Diameter of Cable	Approx. Weight of Cable	Nominal Dimension of GI Flat Strip	Minimum Thickness of PVC Outer Sheath	Approx. Overall Diameter of Cable	Approx. Weight of Cable	Nominal Dimension of GI Flat Strip	Minimum Thickness of PVC Outer Sheath	Approx. Overall Diameter of Cable	Approx. Weight of Cable	In Ground	In Air	
Sq.mm	mm	mm	mm	mm	mm	Kgs./Km	mm	mm	mm	Kgs./Km	mm	mm	mm	Kgs./Km	Amps.	Amps.	Mtrs.
4	Solid ○	0.70	0.30	1.80	12.50	165	-NA-	-NA-	-NA-	-NA-	1.40	1.24	14.50	480	54	48	1000
4	Stranded ○	0.70	0.30	1.80	13	175	-NA-	-NA-	-NA-	-NA-	1.40	1.24	15.50	525	54	48	1000
6	Solid ○	0.70	0.30	1.80	13.50	210	-NA-	-NA-	-NA-	-NA-	1.40	1.24	15.50	564	67	61	1000
6	Stranded ○	0.70	0.30	1.80	14	225	-NA-	-NA-	-NA-	-NA-	1.40	1.24	16.50	610	67	61	1000
10	Stranded ○	0.70	0.30	1.80	16	300	-NA-	-NA-	-NA-	-NA-	1.40	1.24	18	740	89	83	1000
16	Stranded ⌓	0.70	0.30	1.80	14	425	-NA-	-NA-	-NA-	-NA-	1.40	1.40	17	696.50	115	108	1000
25	Stranded ⌓	0.90	0.30	2	17	640	4 x 0.80	1.40	18.50	804.40	1.60	1.40	20	1001.70	147	140	1000
35	Stranded ⌓	0.90	0.30	2	19	838.50	4 x 0.80	1.40	20	1019.70	1.60	1.40	22	1224.20	176	172	1000
50	Stranded ⌓	1	0.30	2	21	1108.20	4 x 0.80	1.40	22.50	1330.70	1.60	1.40	24	1549.90	208	208	1000
70	Stranded ⌓	1.10	0.30	2	23	1511.80	4 x 0.80	1.56	25.50	1793.80	1.60	1.56	27	2046.10	253	262	1000
95	Stranded ⌓	1.10	0.40	2.20	26.50	2027.50	4 x 0.80	1.56	28	2327.40	2	1.56	30.50	2749.90	302	322	500
120	Stranded ⌓	1.20	0.40	2.20	28.50	2501.10	4 x 0.80	1.56	30.50	2818.60	2	1.56	33	3317.80	340	368	500
150	Stranded ⌓	1.40	0.40	2.20	32	3070	4 x 0.80	1.72	31.80	3468	2	1.72	36	4018.70	379	419	500
185	Stranded ⌓	1.60	0.50	2.40	35.50	3800	4 x 0.80	1.72	37	4199.90	2	1.88	40	4829.60	425	482	500
240	Stranded ⌓	1.70	0.50	2.60	39.50	4859.30	4 x 0.80	1.88	38.70	5302.20	2.50	2.04	42.40	6304.90	486	566	500
300	Stranded ⌓	1.80	0.60	2.80	43.50	6028.30	4 x 0.80	2.04	42.50	6499.80	2.50	2.20	46.20	7611.40	541	644	500
400	Stranded ⌓	2	0.60	3	49	7828.40	4 x 0.80	2.36	48.20	8405.90	2.50	2.36	51.60	9590.90	602	734	500

The above data is approximate and subject to manufacturing tolerance.

* Delivery Length tolerance is ±5%. Length more than normal as per customer request.

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TABLE-5 "POLYCAB" THREE CORE ALUMINIUM CONDUCTOR, XLPE INSULATED,

UNARMOURED & ARMOURED CABLE CONFORMING TO IS 7098 PART-1/1988

650/1100 VOLTS

WEIGHT & DIMENSIONS

Nominal Size of Conductor	Form of Conductor Circular Shaped ○/△	Nominal Thickness of XLPE Insulation	Minimum Thickness of PVC Inner Sheath	Unarmoured Cable			Formed Wire / Strip Armoured Cable				Round Wire Armoured Cable				Current Rating.*		*Normal Delivery Length
				Nominal Thickness of PVC Outer Sheath	Approx. Overall Diameter of Cable	Approx. Weight of Cable	Nominal Dimension of GI Flat Strip	Minimum Thickness of PVC Outer Sheath	Approx. Overall Diameter of Cable	Approx. Weight of Cable	Nominal Dimension of GI Flat Strip	Minimum Thickness of PVC Outer Sheath	Approx. Overall Diameter of Cable	Approx. Weight of Cable	In Ground	In Air	
Sq.mm	mm	mm	mm	mm	mm	Kgs./Km	mm	mm	mm	Kgs./Km	mm	mm	mm	Kgs./Km	Amps.	Amps.	Mtrs.
4	Solid ○	0.70	0.30	1.80	14	140	-NA-	-NA-	-NA-	-NA-	1.40	1.24	15	460	35	32	1000
4	Stranded ○	0.70	0.30	1.80	15.50	160	-NA-	-NA-	-NA-	-NA-	1.40	1.24	16	510	35	32	1000
6	Solid ○	0.70	0.30	1.80	15.50	170	-NA-	-NA-	-NA-	-NA-	1.40	1.24	16	530	46	42	1000
6	Stranded ○	0.70	0.30	1.80	16	190	-NA-	-NA-	-NA-	-NA-	1.40	1.24	17	580	46	42	1000
10	Solid ○	0.70	0.30	1.80	17	220	-NA-	-NA-	-NA-	-NA-	1.40	1.24	18	640	57	54	1000
10	Stranded ○	0.70	0.30	1.80	18	230	-NA-	-NA-	-NA-	-NA-	1.40	1.24	18.50	680	57	54	1000
16	Stranded △	0.70	0.30	1.80	16.20	310	4 x 0.80	1.24	16.80	487.60	1.60	1.40	19	648.40	74	69	1000
25	Stranded △	0.90	0.30	2	19.50	460	4 x 0.80	1.40	20.10	670.70	1.60	1.40	21.70	863.30	95	93	1000
35	Stranded △	0.90	0.30	2	21.50	573.80	4 x 0.80	1.40	22	800.60	1.60	1.40	23.60	1015.80	114	114	1000
50	Stranded △	1	0.30	2	24.50	700	4 x 0.80	1.40	24.80	993.7	1.60	1.56	26.80	1259.60	134	138	1000
70	Stranded △	1.10	0.40	2.20	28	990	4 x 0.80	1.56	28.50	1299.60	2	1.56	30.90	1740.10	164	175	500
95	Stranded △	1.10	0.40	2.20	30.80	1250	4 x 0.80	1.56	31.30	1603	2	1.56	33.70	2117	197	216	500
120	Stranded △	1.20	0.40	2.20	33.80	1525	4 x 0.80	1.56	34.30	1914.10	2	1.72	37	2506.50	223	249	500
150	Stranded △	1.40	0.50	2.40	37.90	1895.90	4 x 0.80	1.72	38.30	2100	2	1.88	41.10	2988.80	249	284	500
185	Stranded △	1.60	0.50	2.60	42	2349.30	4 x 0.80	1.88	42.30	2500	2.50	2.04	46	3867.40	282	329	500
240	Stranded △	1.70	0.60	2.80	46.90	2981.40	4 x 0.80	2.04	47.20	3459.80	2.50	2.20	50.90	4677.30	327	392	500
300	Stranded △	1.80	0.60	3	51.50	3615.80	4 x 0.80	2.20	51.80	4150.20	2.50	2.36	55.45	5491.40	369	452	500
400	Stranded △	2	0.70	3.20	58.60	4650.10	4 x 0.80	2.52	58.50	5250.60	3.15	2.68	64	7401.40	420	526	500
500	Stranded △	2.20	0.70	3.60	66	6000	4 x 0.80	2.68	67	6900	3.15	2.84	73	9550	478	612	250
630	Stranded △	2.40	0.70	3.80	72	7550	4 x 0.80	2.84	73	8700	4	3	78	12500	542	712	250

The above data is approximate and subject to manufacturing tolerance.

* Delivery Length tolerance is ±5%. Length more than normal as per customer request.

TABLE-6 "POLYCAB" THREE CORE COPPER CONDUCTOR, XLPE INSULATED,

UNARMOURED & ARMOURED CABLE CONFORMING TO IS 7098 PART-1/1988

650/1100 VOLTS

WEIGHT & DIMENSIONS

Nominal Size of Conductor	Form of Conductor Circular Shaped ○/△	Nominal Thickness of XLPE Insulation	Minimum Thickness of PVC Inner Sheath	Unarmoured Cable			Formed Wire / Strip Armoured Cable				Round Wire Armoured Cable				Current Rating.*		*Normal Delivery Length
				Nominal Thickness of PVC Outer Sheath	Approx. Overall Diameter of Cable	Approx. Weight of Cable	Nominal Dimension of GI Flat Strip	Minimum Thickness of PVC Outer Sheath	Approx. Overall Diameter of Cable	Approx. Weight of Cable	Nominal Dimension of GI Flat Strip	Minimum Thickness of PVC Outer Sheath	Approx. Overall Diameter of Cable	Approx. Weight of Cable	In Ground	In Air	
Sq.mm	mm	mm	mm	mm	mm	Kgs./Km	mm	mm	mm	Kgs./Km	mm	mm	mm	Kgs./Km	Amps.	Amps.	Mtrs.
4	Solid ○	0.70	0.30	1.80	14	210	-NA-	-NA-	-NA-	-NA-	1.40	1.24	15	530	45	41	1000
4	Stranded ○	0.70	0.30	1.80	15.50	235	-NA-	-NA-	-NA-	-NA-	1.40	1.24	16	580	45	41	1000
6	Solid ○	0.70	0.30	1.80	15.50	280	-NA-	-NA-	-NA-	-NA-	1.40	1.24	16	640	56	52	1000
6	Stranded ○	0.70	0.30	1.80	16	300	-NA-	-NA-	-NA-	-NA-	1.40	1.24	17	680	56	52	1000
10	Stranded ○	0.70	0.30	1.80	18	415	-NA-	-NA-	-NA-	-NA-	1.40	1.24	19	865	74	70	1000
16	Stranded △	0.70	0.30	1.80	16.20	425	4 x 0.80	1.24	16.80	772.30	1.60	1.40	18.80	933.10	95	89	1000
25	Stranded △	0.90	0.30	2	19.50	910.10	4 x 0.80	1.40	20.10	1111.60	1.60	1.40	21.70	1304.20	122	119	1000
35	Stranded △	0.90	0.30	2	21.50	1199	4 x 0.80	1.40	22	1419.50	1.60	1.40	23.60	1634.70	146	147	1000
50	Stranded △	1	0.30	2	24.50	1596.60	4 x 0.80	1.40	24.80	1857.20	1.60	1.56	26.80	2123.10	173	179	1000
70	Stranded △	1.10	0.40	2.20	28	2235.30	4 x 0.80	1.56	28.50	2529.90	2	1.56	30.90	2970.40	212	226	500
95	Stranded △	1.10	0.40	2.20	30.80	2950.60	4 x 0.80	1.56	31.30	3284.70	2	1.56	33.70	3798.80	254	279	500
120	Stranded △	1.20	0.40	2.20	33.80	3652.90	4 x 0.80	1.56	34.30	4026.30	2	1.72	37	4618.80	287	320	500
150	Stranded △	1.40	0.50	2.40	37.90	4575.50	4 x 0.80	1.72	38.30	4979.30	2.50	1.88	41.10	5650.40	321	365	500
185	Stranded △	1.60	0.50	2.60	42	5621.70	4 x 0.80	1.88	42.30	6031.20	2.50	2.04	46	7124.80	362	422	500
240	Stranded △	1.70	0.60	2.80	46.90	7198.90	4 x 0.80	2.04	47.20	7656.30	2.50	2.20	50.90	8873.80	418	500	500
300	Stranded △	1.80	0.60	3	51.50	8903	4 x 0.80	2.20	51.80	9407.50	2.50	2.36	55.50	10748.60	469	574	500
400	Stranded △	2	0.70	3.20	58.60	11602.60	4 x 0.80	2.52	58.50	12167.10	3.15	2.68	64	14317.90	528	662	250

The above data is approximate and subject to manufacturing tolerance.

* Delivery Length tolerance is ±5%. Length more than normal as per customer request.

TABLE-7 "POLYCAB" THREE AND HALF CORE ALUMINIUM CONDUCTOR, XLPE INSULATED

UNARMOURED & ARMOURED CABLE CONFORMING TO IS 7098 PART-1/1988

650/1100 VOLTS

WEIGHT & DIMENSIONS

Nominal Size of Conductor	Form of Conductor Circular Shaped ○/△	Nominal Thickness of XLPE Insulation Main / Neutral		Minimum Thickness of PVC Inner Sheath	Unarmoured Cable			Formed Wire / Strip Armoured Cable				Round Wire Armoured Cable				Current Rating.*		*Normal Delivery Length
					Nominal Thickness of PVC Outer Sheath	Approx. Overall Diameter of Cable	Approx. Weight of Cable	Nominal Dimension of GI Flat Strip	Minimum Thickness of PVC Outer Sheath	Approx. Overall Diameter of Cable	Approx. Weight of Cable	Nominal Dimension of GI Flat Strip	Minimum Thickness of PVC Outer Sheath	Approx. Overall Diameter of Cable	Approx. Weight of Cable	In Ground	In Air	
Sq.mm		mm	mm	mm	mm	mm	Kgs./Km	mm	mm	mm	Kgs./Km	mm	mm	mm	Kgs./Km	Amps.	Amps.	Mtrs.
25/16	Stranded △	0.90	0.70	0.30	2	21.30	525	4 x 0.80	1.40	21.90	733	1.60	1.40	23.60	971	95	93	1000
35/16	Stranded △	0.90	0.70	0.30	2	23.60	625	4 x 0.80	1.40	24.20	886	1.60	1.40	25.80	1139	114	114	1000
50/25	Stranded △	1	0.90	0.30	2	26.80	800	4 x 0.80	1.40	27.40	1113	1.60	1.56	29.50	1419	134	138	1000
70/35	Stranded △	1.10	0.90	0.40	2.20	31	1100	4 x 0.80	1.56	31.50	1451	2	1.56	34	1989	164	175	500
95/50	Stranded △	1.10	1	0.40	2.20	34.30	1400	4 x 0.80	1.56	34.80	1796	2	1.56	37.20	2382	197	216	500
120/70	Stranded △	1.20	1.10	0.40	2.20	37.50	1650	4 x 0.80	1.72	38.50	2199	2	1.72	41	2800	223	249	500
150/70	Stranded △	1.40	1.10	0.50	2.40	41	2000	4 x 0.80	1.72	42	2579	2	1.88	45	3350	249	284	500
185/95	Stranded △	1.60	1.10	0.50	2.60	46.50	2550	4 x 0.80	1.88	47.20	3166	2.50	2.04	50	4381	282	329	500
240/120	Stranded △	1.70	1.20	0.60	2.80	52.50	3200	4 x 0.80	2.04	52.70	3913	2.50	2.20	56	5313	327	392	500
300/150	Stranded △	1.80	1.40	0.60	3	56	4000	4 x 0.80	2.20	57	4716	2.50	2.36	61	6254	369	452	500
400/185	Stranded △	2	1.60	0.70	3.40	64	5250	4 x 0.80	2.52	65	6000	3.15	2.68	70	8300	420	526	500
500/240	Stranded △	2.20	1.70	0.70	3.60	72.50	6500	4 x 0.80	2.68	73.50	7400	3.15	2.84	77	9880	478	612	250

The above data is approximate and subject to manufacturing tolerance.

* Delivery Length tolerance is±5%. Length more than normal as per customer request.

TABLE-8 "POLYCAB" THREE AND HALF CORE COPPER CONDUCTOR, XLPE INSULATED

UNARMOURED & ARMOURED CABLE CONFORMING TO IS 7098 PART-1/1988

650/1100 VOLTS

WEIGHT & DIMENSIONS

Nominal Size of Conductor	Form of Conductor Circular Shaped ○/△	Nominal Thickness of XLPE Insulation Main / Neutral		Minimum Thickness of PVC Inner Sheath	Unarmoured Cable			Formed Wire / Strip Armoured Cable				Round Wire Armoured Cable				Current Rating.*		*Normal Delivery Length
					Nominal Thickness of PVC Outer Sheath	Approx. Overall Diameter of Cable	Approx. Weight of Cable	Nominal Dimension of GI Flat Strip	Minimum Thickness of PVC Outer Sheath	Approx. Overall Diameter of Cable	Approx. Weight of Cable	Nominal Dimension of GI Flat Strip	Minimum Thickness of PVC Outer Sheath	Approx. Overall Diameter of Cable	Approx. Weight of Cable	In Ground	In Air	
Sq.mm		mm	mm	mm	mm	mm	Kgs./Km	mm	mm	mm	Kgs./Km	mm	mm	mm	Kgs./Km	Amps.	Amps.	Mtrs.
25/16	Stranded △	0.90	0.70	0.30	2	21.30	1075	4 x 0.80	1.40	21.90	1272	1.60	1.40	23.60	1511	122	119	1000
35/16	Stranded △	0.90	0.70	0.30	2	23.60	1368	4 x 0.80	1.40	24.20	1607	1.60	1.40	25.80	1860	146	147	1000
50/25	Stranded △	1	0.90	0.30	2	26.80	1851	4 x 0.80	1.40	27.40	2129	1.60	1.56	29	2435	173	179	1000
70/35	Stranded △	1.10	0.90	0.40	2.20	31	2587	4 x 0.80	1.56	31.50	2897	2	1.56	33.90	3434	212	226	500
95/50	Stranded △	1.10	1	0.40	2.20	34.30	3428	4 x 0.80	1.56	34.80	3777	2	1.56	37.20	4364	254	279	500
120/70	Stranded △	1.20	1.10	0.40	2.20	37.60	4315	4 x 0.80	1.72	38.50	4738	2	1.72	41	5400	287	320	500
150/70	Stranded △	1.40	1.10	0.50	2.40	42.30	5220	4 x 0.80	1.72	42.70	5670	2	1.88	45	6465	321	365	500
185/95	Stranded △	1.60	1.10	0.50	2.60	46.80	6535	4 x 0.80	1.88	47.20	7000	2.50	2.04	50	8215	362	422	500
240/120	Stranded △	1.70	1.20	0.60	2.80	52.40	8349	4 x 0.80	2.04	52.70	8837	2.50	2.20	56	10237	418	500	500
300/150	Stranded △	1.80	1.40	0.60	3	57	10340	4 x 0.80	2.20	57.90	10894	2.50	2.36	61	12400	469	574	500
400/185	Stranded △	2	1.60	0.70	3.40	65	13443	4 x 0.80	2.52	66.10	14040	3.15	2.68	70	16438	528	662	250

The above data is approximate and subject to manufacturing tolerance.

* Delivery Length tolerance is±5%. Length more than normal as per customer request.

TABLE-9 "POLYCAB" FOUR CORE ALUMINIUM CONDUCTOR, XLPE INSULATED,

UNARMOURED & ARMOURED CABLE CONFORMING TO IS 7098 PART-1/1988

650/1100 VOLTS

WEIGHT & DIMENSIONS

Nominal Size of Conductor	Form of Conductor Circular Shaped ○/△	Nominal Thickness of XLPE Insulation	Minimum Thickness of PVC Inner Sheath	Unarmoured Cable			Formed Wire / Strip Armoured Cable				Round Wire Armoured Cable				Current Rating.*		*Normal Delivery Length
				Nominal Thickness of PVC Outer Sheath	Approx. Overall Diameter of Cable	Approx. Weight of Cable	Nominal Dimension of GI Flat Strip	Minimum Thickness of PVC Outer Sheath	Approx. Overall Diameter of Cable	Approx. Weight of Cable	Nominal Dimension of GI Flat Strip	Minimum Thickness of PVC Outer Sheath	Approx. Overall Diameter of Cable	Approx. Weight of Cable	In Ground	In Air	
Sq.mm		mm	mm	mm	mm	Kgs./Km	mm	mm	mm	Kgs./Km	mm	mm	mm	Kgs./Km	Amps.	Amps.	Mtrs.
4	Solid ○	0.70	0.30	1.80	13.50	160	-NA-	-NA-	-NA-	-NA-	1.40	1.24	15.30	413	35	32	1000
4	Stranded ○	0.70	0.30	1.80	14.20	180	-NA-	-NA-	-NA-	-NA-	1.40	1.24	16	435	35	32	1000
6	Solid ○	0.70	0.30	1.80	14.70	200	-NA-	-NA-	-NA-	-NA-	1.40	1.24	16.50	473	46	42	1000
6	Stranded ○	0.70	0.30	1.80	15.50	215	-NA-	-NA-	-NA-	-NA-	1.40	1.24	17.30	506	46	42	1000
10	Solid ○	0.70	0.30	1.80	16.60	250	-NA-	-NA-	-NA-	-NA-	1.40	1.40	18.60	592	57	54	1000
10	Stranded ○	0.70	0.30	1.80	17.50	260	-NA-	-NA-	-NA-	-NA-	1.40	1.40	19.80	633	57	54	1000
16	Stranded △	0.70	0.30	1.80	17.80	350	4 x 0.80	1.40	20	624.50	1.60	1.40	21	795	74	69	1000
25	Stranded △	0.90	0.30	2	21	550	4 x 0.80	1.40	23	828.50	1.60	1.40	25	1062	95	93	500
35	Stranded △	0.90	0.30	2	23.50	680	4 x 0.80	1.40	25	1015.10	1.60	1.40	26.50	1259	114	114	500
50	Stranded △	1	0.30	2	26	875	4 x 0.80	1.56	28	1275	1.60	1.56	29.50	1581	134	138	500
70	Stranded △	1.10	0.40	2.20	30.50	1200	4 x 0.80	1.56	32	1656.40	2	1.56	34	2175	164	175	500
95	Stranded △	1.10	0.40	2.20	33.50	1530	4 x 0.80	1.56	35	2041.90	2	1.72	38	2695	197	216	500
120	Stranded △	1.20	0.50	2.40	37.50	1850	4 x 0.80	1.72	39	2442.50	2	1.88	42	3241	223	249	500
150	Stranded △	1.40	0.50	2.60	42	2280	4 x 0.80	1.88	43	2929.90	2.50	2.04	47	4167	249	284	500
185	Stranded △	1.60	0.50	2.80	46.50	2800	4 x 0.80	2.04	48	3563.10	2.50	2.20	52	4928	282	329	500
240	Stranded △	1.70	0.60	3	52.50	3700	4 x 0.80	2.20	54	4464.30	2.50	2.36	57.50	5998	327	392	500
300	Stranded △	1.80	0.70	3.20	58	4600	4 x 0.80	2.36	59.50	5359.50	3.15	2.52	64.50	7722	369	452	500
400	Stranded △	2	0.70	3.60	65.50	6000	4 x 0.80	2.68	66.50	6749.30	3.15	2.84	71.50	9487	420	526	500

The above data is approximate and subject to manufacturing tolerance.

* Delivery Length tolerance is ±5%. Length more than normal as per customer request.

TABLE-10 "POLYCAB" FOUR CORE COPPER CONDUCTOR, XLPE INSULATED,

UNARMOURED & ARMOURED CABLE CONFORMING TO IS 7098 PART-1/1988

650/1100 VOLTS

WEIGHT & DIMENSIONS

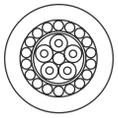
Nominal Size of Conductor	Form of Conductor Circular Shaped ○/△	Nominal Thickness of XLPE Insulation	Minimum Thickness of PVC Inner Sheath	Unarmoured Cable			Formed Wire / Strip Armoured Cable				Round Wire Armoured Cable				Current Rating.*		*Normal Delivery Length
				Nominal Thickness of PVC Outer Sheath	Approx. Overall Diameter of Cable	Approx. Weight of Cable	Nominal Dimension of GI Flat Strip	Minimum Thickness of PVC Outer Sheath	Approx. Overall Diameter of Cable	Approx. Weight of Cable	Nominal Dimension of GI Flat Strip	Minimum Thickness of PVC Outer Sheath	Approx. Overall Diameter of Cable	Approx. Weight of Cable	In Ground	In Air	
Sq.mm	mm	mm	mm	mm	mm	Kgs./Km	mm	mm	mm	Kgs./Km	mm	mm	mm	Kgs./Km	Amps.	Amps.	Mtrs.
4	Solid ○	0.70	0.30	1.80	13.50	260	-NA-	-NA-	-NA-	-NA-	1.40	1.24	15.30	509	45	41	1000
4	Stranded ○	0.70	0.30	1.80	14.20	280	-NA-	-NA-	-NA-	-NA-	1.40	1.24	16	533	45	41	1000
6	Solid ○	0.70	0.30	1.80	14.70	350	-NA-	-NA-	-NA-	-NA-	1.40	1.24	16.50	618	56	52	1000
6	Stranded ○	0.70	0.30	1.80	15.50	365	-NA-	-NA-	-NA-	-NA-	1.40	1.24	17.30	652	56	52	1000
10	Stranded ○	0.70	0.30	1.80	17.80	510	-NA-	-NA-	-NA-	-NA-	1.40	1.40	19.80	877	74	70	1000
16	Stranded △	0.70	0.30	1.80	17.50	750	4 x 0.80	1.40	20	1007	1.60	1.40	21	1185	95	89	1000
25	Stranded △	0.90	0.30	2	21	1170	4 x 0.80	1.40	23	1423	1.60	1.40	25	1661	122	119	500
35	Stranded △	0.90	0.30	2	23.50	1550	4 x 0.80	1.40	25	1847	1.60	1.40	26.50	2100	146	147	500
50	Stranded △	1	0.30	2	26	2091	4 x 0.80	1.56	28	2433	1.60	1.56	29.50	2747	173	179	500
70	Stranded △	1.10	0.40	2.20	30.50	2925	4 x 0.80	1.56	32	3308	2	1.56	34	3871	212	226	500
95	Stranded △	1.10	0.40	2.20	33.50	3880	4 x 0.80	1.56	35	4295	2	1.72	38	4964	254	279	500
120	Stranded △	1.20	0.50	2.40	37.50	4825	4 x 0.80	1.72	39	5276	2	1.88	42	6094	287	320	500
150	Stranded △	1.40	0.50	2.60	42	6000	4 x 0.80	1.88	43.50	6497	2.50	2.04	47	7759	321	365	500
185	Stranded △	1.60	0.50	2.80	46.50	7380	4 x 0.80	2.04	48	7925	2.50	2.20	52	9310	362	422	500
240	Stranded △	1.70	0.60	3	52.50	9548	4 x 0.80	2.20	54	10078	2.50	2.36	57.50	11640	418	500	500
300	Stranded △	1.80	0.70	3.20	58	11839	4 x 0.80	2.36	59.50	12385	3.15	2.52	64.50	14787	469	574	500

The above data is approximate and subject to manufacturing tolerance.

* Delivery Length tolerance is ±5%. Length more than normal as per customer request.

TABLE-11 "POLYCAB" 650/1100 VOLTS MULTICORE CONTROL CABLE WITH SOLID COPPER CONDUCTOR OF SIZE 1.5 SQ.MM XLPE INSULATED

UNARMOURED & ARMOURED CABLE CONFORMING TO IS 7098 PART-1/1988



SOLID & STRANDED $

WEIGHT & DIMENSIONS

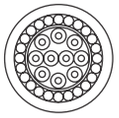
Number of Cores	Nominal Thickness of XLPE Insulation ○/△	Minimum Thickness of PVC Inner Sheath	Unarmoured Cable			Formed Wire / Strip Armoured Cable				Round Wire Armoured Cable				Current Rating.*		*Normal Delivery Length
			Nominal Thickness of PVC Outer Sheath	Approx. Overall Diameter of Cable	Approx. Weight of Cable	Nominal Dimension of GI Flat Strip	Minimum Thickness of PVC Outer Sheath	Approx. Overall Diameter of Cable	Approx. Weight of Cable	Nominal Dimension of GI Round Wire	Minimum Thickness of PVC Outer Sheath	Approx. Overall Diameter of Cable	Approx. Weight of Cable	In Ground	In Air	
Sq.mm	mm	mm	mm	mm	Kgs./Km	mm	mm	mm	Kgs./Km	mm	mm	mm	Kgs./Km	Amps.	Amps.	Mtrs.
2	0.70 ○	0.30	1.80	10	140	-NA-	-NA-	-NA-	-NA-	1.40	1.24	11.90	288	31	27	1000
3	0.70 ○	0.30	1.80	10.50	160	-NA-	-NA-	-NA-	-NA-	1.40	1.24	12.40	302	26	23	1000
4	0.70 ○	0.30	1.80	11.50	187	-NA-	-NA-	-NA-	-NA-	1.40	1.24	13.10	349	26	23	1000
5	0.70 ○	0.30	1.80	12.10	195	-NA-	-NA-	-NA-	-NA-	1.40	1.24	13.90	385	26	23	1000
6	0.70 ○	0.30	1.80	12.90	222	-NA-	-NA-	-NA-	-NA-	1.40	1.24	14.70	432	23	20	1000
7	0.70 ○	0.30	1.80	12.90	239	-NA-	-NA-	-NA-	-NA-	1.40	1.24	14.70	450	20	18	1000
8	0.70 ○	0.30	1.80	14	280	-NA-	-NA-	-NA-	-NA-	1.40	1.24	16.50	494	17	15	1000
9	0.70 ○	0.30	1.80	15	315	-NA-	-NA-	-NA-	-NA-	1.40	1.24	17.50	542	17	15	1000
10	0.70 ○	0.30	1.80	15.70	331	-NA-	-NA-	-NA-	-NA-	1.40	1.24	17.50	594	17	15	1000
12	0.70 △	0.30	1.80	16.10	373	-NA-	-NA-	-NA-	-NA-	1.40	1.24	18	646	16	14	1000
14	0.70 △	0.30	1.80	16.80	417	-NA-	-NA-	-NA-	-NA-	1.40	1.40	18.90	709	16	14	1000
16	0.70 △	0.30	1.80	17.70	463	4 x 0.80	1.40	18.50	651	1.60	1.40	20.10	807	14	12	1000
19	0.70 △	0.30	1.80	18.50	527	4 x 0.80	1.40	19.30	736	1.60	1.40	20.90	900	14	12	1000
21	0.70 △	0.30	2	19.80	593	4 x 0.80	1.40	20.20	804	1.60	1.40	21.80	960	12	11	500
24	0.70 △	0.30	2	21.70	665	4 x 0.80	1.40	22.10	900	1.60	1.40	23.70	1094	12	11	500
27	0.70 △	0.30	2	22.10	730	4 x 0.80	1.40	22.50	958	1.60	1.40	24.10	1152	11	9	500
30	0.70 △	0.30	2	22.80	794	4 x 0.80	1.40	23.20	1043	1.60	1.40	24.90	1229	11	9	500
33	0.70 △	0.30	2	23.70	858	4 x 0.80	1.40	24.10	1106	1.60	1.40	25.70	1322	11	9	500
37	0.70 △	0.30	2	24.50	942	4 x 0.80	1.40	24.90	1210	1.60	1.40	26.50	1419	11	9	500
44	0.70 △	0.30	2	27.30	1103	4 x 0.80	1.40	27.70	1410	1.60	1.56	29.70	1678	9	8	500
52	0.70 △	0.30	2	28.40	1264	4 x 0.80	1.56	29.20	1618	1.60	1.56	30.90	1867	9	8	500
61	0.70 △	0.40	2.20	30.70	1493	4 x 0.80	1.56	31.10	1837	2	1.56	33.50	2283	9	8	500

The above data is approximate and subject to manufacturing tolerance.

* Delivery Length tolerance is ±5%. Length more than normal as per customer request.

TABLE-12 "POLYCAB" 650/1100 VOLTS MULTICORE CONTROL CABLE WITH SOLID COPPER CONDUCTOR OF SIZE 2.5 SQ.MMXLPE INSULATED

UNARMOURED & ARMOURED CABLE CONFORMING TO IS 7098 PART-1/1988



SOLID & STRANDED $

WEIGHT & DIMENSIONS

Number of Cores	Nominal Thickness of XLPE Insulation ○/△	Minimum Thickness of PVC Inner Sheath	Unarmoured Cable			Formed Wire / Strip Armoured Cable				Round Wire Armoured Cable				Current Rating.*		*Normal Delivery Length
			Nominal Thickness of PVC Outer Sheath	Approx. Overall Diameter of Cable	Approx. Weight of Cable	Nominal Dimen-sion of GI Flat Strip	Minimum Thickness of PVC Outer Sheath	Approx. Overall Diameter of Cable	Approx. Weight of Cable	Nominal Dimen-sion of GI Round Wire	Minimum Thickness of PVC Outer Sheath	Approx. Overall Diameter of Cable	Approx. Weight of Cable	In Ground	In Air	
Sq.mm	mm	mm	mm	mm	Kgs./Km	mm	mm	mm	Kgs./Km	mm	mm	mm	Kgs./Km	Amps.	Amps.	Mtrs.
2	0.70 ○	0.30	1.80	10.90	173	-NA-	-NA-	-NA-	-NA-	1.40	1.24	12.70	342	41	36	1000
3	0.70 ○	0.30	1.80	11.40	202	-NA-	-NA-	-NA-	-NA-	1.40	1.24	13.20	360	34	30	1000
4	0.70 ○	0.30	1.80	12.20	240	-NA-	-NA-	-NA-	-NA-	1.40	1.24	14	406	34	30	1000
5	0.70 ○	0.30	1.80	13.10	254	-NA-	-NA-	-NA-	-NA-	1.40	1.24	14.90	464	34	30	1000
6	0.70 ○	0.30	1.80	14	291	-NA-	-NA-	-NA-	-NA-	1.40	1.24	15.90	522	31	27	1000
7	0.70 ○	0.30	1.80	14	318	-NA-	-NA-	-NA-	-NA-	1.40	1.24	15.90	549	27	23	1000
8	0.70 ○	0.30	1.80	16	342	-NA-	-NA-	-NA-	-NA-	1.40	1.24	17	608	23	20	1000
9	0.70 ○	0.30	1.80	16.50	385	-NA-	-NA-	-NA-	-NA-	1.40	1.40	18.50	684	23	20	1000
10	0.70 ○	0.30	1.80	17.20	444	4 x 0.80	1.24	17.80	624	1.60	1.40	19.60	789	23	20	1000
12	0.70 △	0.30	1.80	17.70	506	4 x 0.80	1.40	18.50	694	1.60	1.40	20.10	865	20	18	1000
14	0.70 △	0.30	1.80	18.50	571	4 x 0.80	1.40	19.30	780	1.60	1.40	20.90	944	20	18	1000
16	0.70 △	0.30	2	19.80	656	4 x 0.80	1.40	20.20	867	1.60	1.40	21.90	1023	18	16	1000
19	0.70 △	0.30	2	20.80	751	4 x 0.80	1.40	21.20	960	1.60	1.40	22.80	1147	18	16	1000
21	0.70 △	0.30	2	21.80	820	4 x 0.80	1.40	22.20	1049	1.60	1.40	23.90	1243	16	14	500
24	0.70 △	0.30	2	24	929	4 x 0.80	1.40	24.40	1198	1.60	1.40	26	1392	16	14	500
27	0.70 △	0.30	2	24.50	1019	4 x 0.80	1.40	24.90	1287	1.60	1.40	26.50	1496	14	13	500
30	0.70 △	0.30	2	25.30	1113	4 x 0.80	1.40	25.70	1378	1.60	1.40	27.30	1618	14	13	500
33	0.70 △	0.30	2	26.20	1207	4 x 0.80	1.40	26.60	1494	1.60	1.56	28.60	1753	14	13	500
37	0.70 △	0.30	2	27.20	1331	4 x 0.80	1.40	27.60	1637	1.60	1.56	29.60	1905	14	13	500
44	0.70 △	0.40	2.20	30.90	1610	4 x 0.80	1.56	31.30	1953	2	1.56	33.70	2399	12	11	500
52	0.70 △	0.40	2.20	32.20	1851	4 x 0.80	1.56	32.60	2214	2	1.56	35	2685	12	11	500
61	0.70 △	0.40	2.20	34.10	2128	4 x 0.80	1.56	34.50	2509	2	1.56	36.90	3029	12	11	500

The above data is approximate and subject to manufacturing tolerance.
* Delivery Length tolerance is ±5%. Length more than normal as per customer request.

Table 1 Rating factors for variation in ambient air temperature for cables in free air

Maximum conductor temperature	Ambient air temperature °C							
^{0}C	25	30	35	40	45	50	55	60
90	1.14	1.10	1.05	1	0.95	0.89	0.84	0.77

Table 2 Rating factors for variation in ground temperature for direct buried cables

Maximum conductor temperature	Ground temperature °C							
^{0}C	15	20	25	30	35	40	45	50
90	1.12	1.08	1.04	1	0.96	0.91	0.87	0.82

Table 3 Rating factors for variation in ground temperature for cables in ducts

Maximum conductor temperature	Ground temperature °C							
^{0}C	15	20	25	30	35	40	45	50
90	1.12	1.08	1.04	1	0.96	0.91	0.87	0.82

Table 4 Rating factors for depths of laying for direct buried cables

Depth of laying mm	Up to 25 mm²		Above 25 mm² Up to 300 mm²		Above 300 mm²	
	Single-core	Multi-core	Single-core	Multi-core	Single-core	Multi-core
750	1	1	1	1	1	1
900	0.98	0.98	0.98	0.98	0.98	0.98
1050	0.97	0.98	0.96	0.97	0.96	0.96
1200	0.96	0.97	0.95	0.95	0.94	0.95
1500	0.94	0.95	0.93	0.93	0.92	0.93
1800	0.93	0.93	0.91	0.92	0.9	0.91
2000	0.92	0.93	0.90	0.91	0.89	0.90
2500	0.90	0.92	0.89	0.89	0.87	0.88
3000	0.90	0.90	0.87	0.88	0.86	0.87

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Table 5 Rating factors for depths of laying for cables in ducts

Depth of laying mm	Up to 25 mm²		Above 25 mm² Up to 300 mm²		Above 300 mm²	
	Single-core	Multi-core	Single-core	Multi-core	Single-core	Multi-core
750	1	1	1	1	1	1
900	0.98	0.98	0.98	0.99	0.98	0.98
1050	0.97	0.98	0.96	0.97	0.96	0.97
1200	0.96	0.97	0.95	0.97	0.94	0.96
1500	0.94	0.96	0.93	0.95	0.92	0.94
1800	0.93	0.95	0.91	0.94	0.90	0.93
2000	0.92	0.94	0.90	0.93	0.89	0.92
2500	0.90	0.93	0.88	0.92	0.87	0.91
3000	0.89	0.92	0.87	0.91	0.86	0.90

Table 6 Rating factors for variations in soil thermal resistivities for two single-core cables laid direct in ground

Nominal area of conductor mm²	Values of soil thermal resistivity K.m/W					
	1	1.2	1.5	2	2.5	3
1.50	1.16	1.09	1	0.91	0.81	0.75
2.50	1.16	1.09	1	0.89	0.81	0.75
4	1.17	1.09	1	0.89	0.81	0.75
6	1.17	1.09	1	0.89	0.81	0.75
10	1.17	1.09	1	0.89	0.80	0.74
16	1.17	1.09	1	0.89	0.80	0.74
25	1.18	1.09	1	0.89	0.80	0.74
35	1.18	1.10	1	0.88	0.80	0.73
50	1.19	1.10	1	0.88	0.80	0.73
70	1.19	1.10	1	0.88	0.80	0.73
95	1.19	1.10	1	0.88	0.79	0.73
120	1.19	1.10	1	0.88	0.79	0.73
150	1.19	1.10	1	0.88	0.79	0.73
185	1.19	1.10	1	0.88	0.79	0.72
240	1.20	1.10	1	0.88	0.79	0.72
300	1.20	1.10	1	0.88	0.79	0.72
400	1.20	1.10	1	0.88	0.79	0.72
500	1.20	1.11	1	0.87	0.79	0.72
630	1.20	1.11	1	0.87	0.79	0.72
800	1.20	1.11	1	0.87	0.79	0.72
1000	1.20	1.11	1	0.87	0.79	0.72

Table 7 Rating factors for variations in soil thermal resistivities for two single-core cables laid in buried duct

Nominal area of conductor mm²	Values of soil thermal resistivity K.m/W					
	1	1.2	1.5	2	2.5	3
1.50	1.07	1.04	1	0.96	0.93	0.89
2.50	1.07	1.04	1	0.94	0.89	0.86
4	1.07	1.04	1	0.94	0.89	0.85
6	1.07	1.04	1	0.94	0.89	0.85
10	1.07	1.04	1	0.94	0.88	0.84
16	1.07	1.04	1	0.94	0.88	0.84
25	1.08	1.05	1	0.94	0.88	0.84
35	1.08	1.05	1	0.93	0.88	0.83
50	1.09	1.05	1	0.93	0.88	0.83
70	1.09	1.05	1	0.93	0.87	0.83
95	1.09	1.05	1	0.93	0.87	0.82
120	1.10	1.05	1	0.92	0.86	0.81
150	1.10	1.06	1	0.92	0.86	0.81
185	1.10	1.06	1	0.92	0.86	0.81
240	1.10	1.06	1	0.92	0.86	0.80
300	1.11	1.06	1	0.92	0.86	0.80
400	1.11	1.06	1	0.92	0.85	0.80
500	1.11	1.06	1	0.92	0.85	0.80
630	1.12	1.07	1	0.91	0.85	0.79
800	1.12	1.07	1	0.91	0.84	0.79
1000	1.12	1.07	1	0.91	0.84	0.78

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Table 8 Rating factors for variations in soil thermal resistivities for three single-core cables laid direct in ground

Nominal area of conductor mm²	Values of soil thermal resistivity K.m/W					
	1	1.2	1.5	2	2.5	3
1.50	1.14	1.07	1	0.89	0.80	0.75
2.50	1.17	1.08	1	0.89	0.80	0.75
4	1.17	1.09	1	0.88	0.79	0.73
6	1.17	1.09	1	0.88	0.79	0.73
10	1.18	1.09	1	0.88	0.79	0.73
16	1.18	1.10	1	0.88	0.79	0.72
25	1.19	1.10	1	0.88	0.79	0.72
35	1.19	1.10	1	0.88	0.79	0.72
50	1.19	1.10	1	0.88	0.79	0.72
70	1.20	1.11	1	0.88	0.79	0.72
95	1.20	1.11	1	0.87	0.79	0.72
120	1.20	1.11	1	0.87	0.79	0.72
150	1.20	1.11	1	0.87	0.79	0.72
185	1.20	1.11	1	0.87	0.78	0.72
240	1.20	1.11	1	0.87	0.78	0.72
300	1.20	1.11	1	0.87	0.78	0.72
400	1.20	1.11	1	0.87	0.78	0.72
500	1.21	1.11	1	0.87	0.78	0.72
630	1.21	1.11	1	0.87	0.78	0.72
800	1.21	1.11	1	0.87	0.78	0.72
1000	1.21	1.11	1	0.87	0.78	0.72

Table 9 Rating factors for variations in soil thermal resistivities for three single-core cables laid in buried duct

Nominal area of conductor mm²	Values of soil thermal resistivity K.m/W					
	1	1.2	1.5	2	2.5	3
1.50	1.08	1.04	1	0.92	0.88	0.84
2.50	1.08	1.05	1	0.93	0.88	0.84
4	1.08	1.05	1	0.93	0.87	0.83
6	1.09	1.06	1	0.93	0.87	0.83
10	1.10	1.06	1	0.93	0.87	0.82
16	1.10	1.06	1	0.93	0.87	0.82
25	1.10	1.06	1	0.93	0.87	0.82
35	1.10	1.06	1	0.93	0.86	0.81
50	1.11	1.06	1	0.92	0.86	0.81
70	1.11	1.06	1	0.92	0.86	0.80
95	1.12	1.06	1	0.92	0.85	0.80
120	1.12	1.06	1	0.91	0.85	0.79
150	1.12	1.07	1	0.91	0.85	0.79
185	1.12	1.07	1	0.91	0.84	0.79
240	1.12	1.07	1	0.91	0.84	0.78
300	1.13	1.07	1	0.91	0.84	0.78
400	1.13	1.07	1	0.91	0.84	0.78
500	1.13	1.07	1	0.90	0.83	0.78
630	1.13	1.07	1	0.90	0.83	0.77
800	1.14	1.08	1	0.90	0.83	0.77
1000	1.14	1.08	1	0.90	0.82	0.77

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Table 10 Rating factors for variations in soil thermal resistivities for multi-core cables laid direct in ground

Nominal area of conductor mm²	Values of soil thermal resistivity K.m/W					
	1	1.2	1.5	2	2.5	3
1.50	1.14	1.08	1	0.90	0.83	0.77
2.50	1.15	1.08	1	0.90	0.82	0.76
4	1.15	1.08	1	0.89	0.82	0.76
6	1.16	1.09	1	0.89	0.81	0.75
10	1.16	1.09	1	0.89	0.81	0.75
16	1.17	1.09	1	0.89	0.80	0.74
25	1.17	1.09	1	0.89	0.80	0.74
35	1.18	1.10	1	0.88	0.80	0.74
50	1.18	1.10	1	0.88	0.80	0.74
70	1.18	1.10	1	0.88	0.80	0.74
95	1.18	1.10	1	0.88	0.80	0.73
120	1.18	1.10	1	0.88	0.80	0.73
150	1.18	1.10	1	0.88	0.80	0.73
185	1.18	1.10	1	0.88	0.80	0.73
240	1.19	1.10	1	0.88	0.80	0.73
300	1.19	1.10	1	0.88	0.80	0.73
400	1.19	1.10	1	0.88	0.80	0.73
500	1.19	1.10	1	0.88	0.80	0.73
630	1.19	1.10	1	0.88	0.80	0.73

Table 11 Rating factors for variations in soil thermal resistivities for multi-core cables laid in buried duct

Nominal area of conductor mm²	Values of soil thermal resistivity K.m/W					
	1	1.2	1.5	2	2.5	3
1.50	1.05	1.03	1	0.96	0.92	0.88
2.50	1.05	1.03	1	0.95	0.91	0.88
4	1.06	1.03	1	0.95	0.91	0.87
6	1.06	1.03	1	0.95	0.91	0.87
10	1.06	1.04	1	0.95	0.90	0.86
16	1.06	1.04	1	0.95	0.90	0.86
25	1.07	1.04	1	0.95	0.90	0.86
35	1.07	1.04	1	0.94	0.90	0.85
50	1.07	1.04	1	0.94	0.89	0.85
70	1.07	1.04	1	0.94	0.89	0.84
95	1.08	1.04	1	0.94	0.88	0.84
120	1.08	1.05	1	0.94	0.88	0.84
150	1.08	1.05	1	0.93	0.88	0.83
185	1.08	1.05	1	0.93	0.88	0.83
240	1.09	1.05	1	0.93	0.87	0.83
300	1.09	1.05	1	0.93	0.87	0.82
400	1.09	1.05	1	0.93	0.87	0.82
500	1.09	1.05	1	0.93	0.87	0.82
630	1.10	1.06	1	0.92	0.86	0.81

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Table 1 Group rating factors for circuits of two single-core cables laid direct in the ground, horizontal formation

Number of circuits	Spacing between group centres mm				
	Touching	150	300	450	600
2	0.80	0.85	0.90	0.92	0.95
3	0.70	0.78	0.85	0.88	0.91
4	0.64	0.73	0.81	0.86	0.89
5	0.59	0.70	0.79	0.84	0.88
6	0.55	0.67	0.77	0.83	0.87
7	0.53	0.65	0.76	0.82	0.86
8	0.51	0.64	0.75	0.82	0.86
9	0.49	0.63	0.74	0.81	0.85
10	0.48	0.63	0.74	0.81	0.85
11	0.47	0.62	0.73	0.80	0.84
12	0.46	0.61	0.73	0.80	0.84

Table 2 Group rating factors for circuits of three single-core cables laid direct in the ground, horizontal formation

Number of circuits	Spacing between group centres mm				
	Touching	150	300	450	600
2	0.77	0.81	0.86	0.88	0.89
3	0.67	0.71	0.78	0.81	0.83
4	0.61	0.64	0.72	0.76	0.80
5	0.57	0.60	0.69	0.74	0.77
6	0.53	0.57	0.66	0.72	0.75
7	0.51	0.55	0.64	0.70	0.74
8	0.49	0.53	0.63	0.69	0.73
9	0.47	0.52	0.62	0.68	0.73
10	0.45	0.51	0.61	0.67	0.72
11	0.44	0.50	0.60	0.66	0.72
12	0.43	0.49	0.59	0.65	0.71

Table 3 Group rating factors for circuits of three single-core cables in single-way ducts

Number of circuits	Spacing between duct group centres mm				
	Touching	150	300	450	600
2	0.78	0.83	0.87	0.90	0.91
3	0.66	0.73	0.78	0.82	0.85
4	0.59	0.67	0.74	0.78	0.82
5	0.55	0.63	0.70	0.76	0.80
6	0.51	0.61	0.68	0.74	0.78
7	0.48	0.58	0.66	0.73	0.77
8	0.46	0.57	0.65	0.72	0.76
9	0.44	0.55	0.64	0.71	0.76
10	0.43	0.54	0.63	0.70	-
11	0.42	0.53	0.62	0.69	-
12	0.40	0.51	0.61	0.69	-

Table 4 Group rating factors for multi-core cables laid direct in the ground, in tier formation

Number of cables	Number of tiers	Spacing between cable centres mm				
		Touching	150	300	450	600
2	1	0.80	0.84	0.87	0.90	0.91
3	1	0.68	0.74	0.79	0.83	0.86
4	2	0.60	0.66	0.73	0.77	0.79
5	2	0.55	0.61	0.68	0.71	0.73
6	2	0.51	0.57	0.63	0.67	0.69
7	3	0.48	0.54	0.59	0.63	0.64
8	3	0.46	0.51	0.56	0.60	0.61
9	3	0.44	0.48	0.53	0.57	0.58
10	4	0.42	0.47	0.52	0.55	0.56
11	4	0.41	0.46	0.50	0.54	0.55
12	4	0.40	0.45	0.49	0.53	0.54

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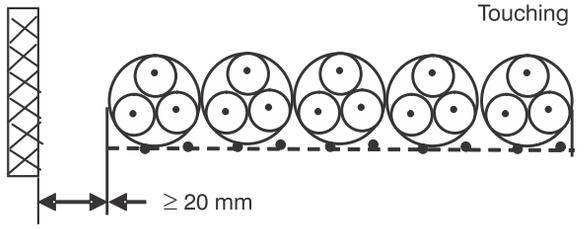
Table 5 Group rating factors for multi-core cables laid direct in the ground, in horizontal formation

Number of cables	Spacing between cable centres mm				
	Touching	150	300	450	600
2	0.80	0.84	0.87	0.90	0.91
3	0.68	0.74	0.79	0.83	0.86
4	0.62	0.69	0.75	0.80	0.83
5	0.58	0.65	0.72	0.77	0.80
6	0.55	0.62	0.69	0.75	0.78
7	0.52	0.59	0.67	0.73	0.77
8	0.50	0.57	0.66	0.72	0.75
9	0.48	0.55	0.65	0.71	0.75
10	0.46	0.54	0.64	0.70	0.74
11	0.45	0.53	0.63	0.70	0.74
12	0.44	0.52	0.62	0.69	0.73

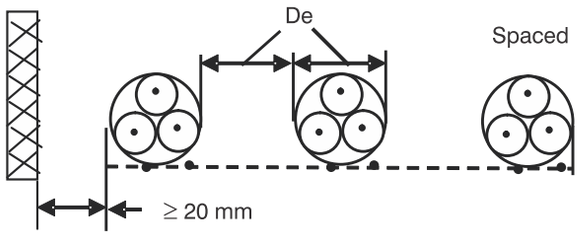
Table 6 Group rating factors for three-core cables in single way ducts in horizontal formation

Number of cables	Spacing between duct group centres mm				
	Touching	150	300	450	600
2	0.85	0.87	0.90	0.92	0.94
3	0.75	0.79	0.83	0.86	0.88
4	0.69	0.74	0.79	0.83	0.86
5	0.65	0.70	0.76	0.80	0.84
6	0.62	0.67	0.73	0.79	0.83
7	0.59	0.65	0.72	0.78	0.82
8	0.57	0.63	0.70	0.77	0.81
9	0.55	0.62	0.69	0.76	0.80
10	0.54	0.61	0.68	0.75	-
11	0.52	0.60	0.68	0.75	-
12	0.51	0.59	0.67	0.74	-

Table 7 Group rating factors for multi-core cables in air on perforated trays



Number of trays	Number of Cables					
	1	2	3	4	6	9
1	1	0.88	0.82	0.79	0.76	0.73
2	1	0.87	0.80	0.77	0.73	0.68
3	1	0.86	0.79	0.76	0.71	0.66

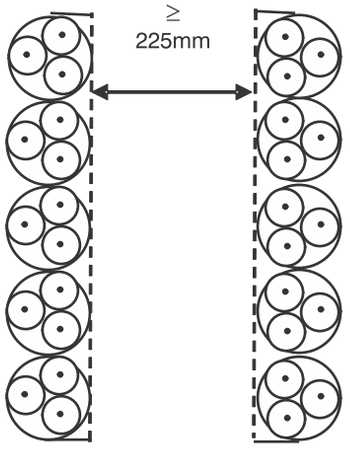


Number of trays	Number of Cables					
	1	2	3	4	6	9
1	1	1	0.98	0.95	0.91	-
2	1	0.99	0.96	0.92	0.87	-
3	1	0.98	0.95	0.91	0.85	-

NOTE: 1 Factors apply to single layer groups of cables as shown above. Factors for cables installed in more than one layer touching each other will be significantly lower and must be determined by an appropriate method.

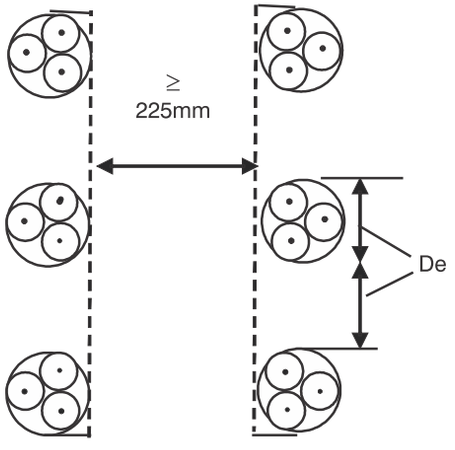
NOTE: 2 Factors are given for vertical spacing between trays of 300 mm and at least 20 mm between trays and wall. For closer spacing, the factors should be reduced.

Table 8 Group rating factors for multi-core cables in air on vertical perforated trays



Touching

Number of trays	Number of Cables					
	1	2	3	4	6	9
1	1	0.88	0.82	0.78	0.73	0.72
2	1	0.88	0.81	0.76	0.71	0.70

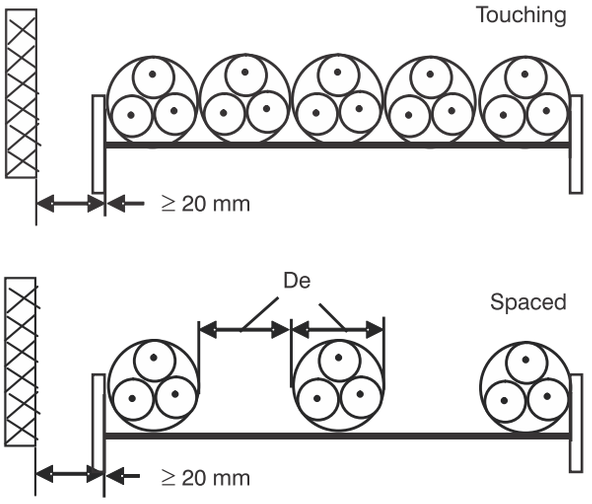


Spaced

Number of trays	Number of Cables					
	1	2	3	4	6	9
1	1	0.91	0.89	0.88	0.87	-
2	1	0.91	0.88	0.87	0.85	-

NOTE: 1 Factors are given for horizontal spacing between trays of 225 mm with trays mounted back to back. For closer spacing, the factors should be reduced.

Table 9 Group rating factors for multi-core cables in air on ladder supports, cleats, etc

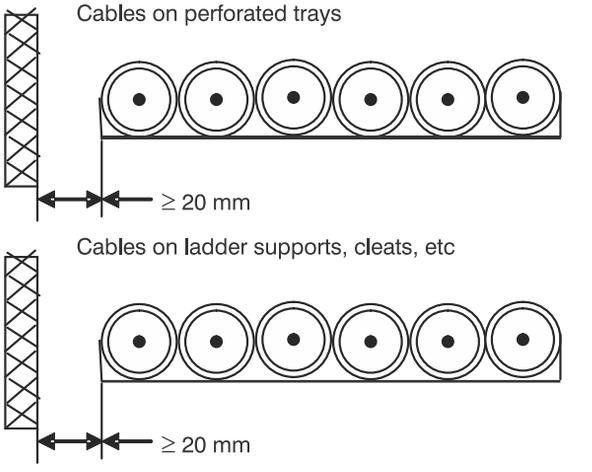


Number of trays	Number of Cables					
	1	2	3	4	6	9
1	1	0.87	0.82	0.80	0.79	0.78
2	1	0.86	0.80	0.78	0.76	0.73
3	1	0.85	0.79	0.76	0.73	0.70
1	1	1	1	1	1	-
2	1	0.99	0.98	0.97	0.96	-
3	1	0.98	0.97	0.96	0.93	-

NOTE: 1 Factors apply to single layer groups of cables as shown above. Factors for cables installed in more than one layer touching each other will be significantly lower and must be determined by an appropriate method.

NOTE: 2 Factors are given for vertical spacing between trays of 300 mm and at least 20 mm between trays and wall. For closer spacing, the factors should be reduced.

Table 10 Group rating factors to be applied for circuits of three single core cables in air flat touching



Number of trays	Number of three-phase circuits		
	1	2	3
1	0.98	0.91	0.87
2	0.96	0.87	0.81
3	0.95	0.85	0.78
1	1	0.97	0.96
2	0.98	0.93	0.89
3	0.97	0.90	0.86

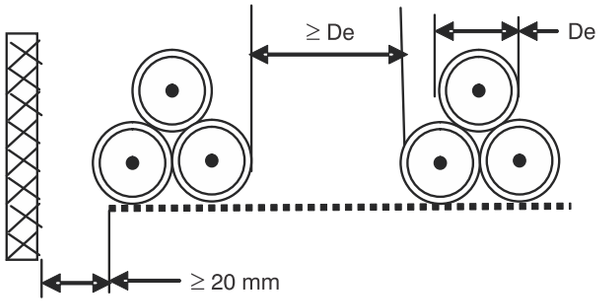
NOTE: 1 Factors are given for single layers of cables as shown above. Factors for cables installed in more than one layer touching each other will be significantly lower and must be determined by an appropriate method.

NOTE: 2 Factors are given for vertical spacing between trays of 300 mm and at least 20 mm between trays and wall. For closer spacing, the factors should be reduced.

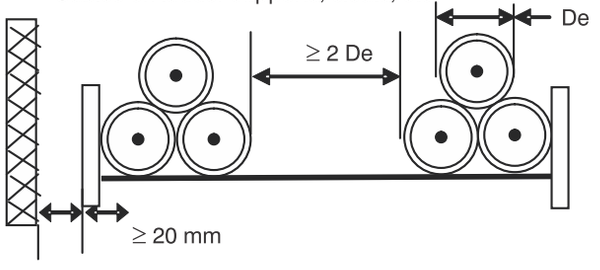
NOTE: 3 For circuits having more than one cable in parallel per phase, each three phase set of conductors should be considered as a circuit for the purpose of this table.

Table 11 Group rating factors to be applied for circuits of three single core cables in air on perforated trays and ladder supports in trefoil formation

Cables on perforated trays



Cables on ladder supports, cleats, etc



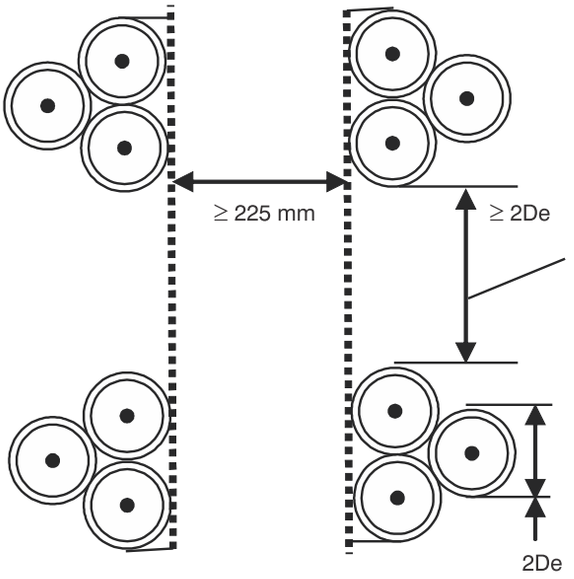
Number of trays	Number of three-phase circuits		
	1	2	3
1	1	0.98	0.96
2	0.97	0.93	0.89
3	0.96	0.92	0.86
1	1	1	1
2	0.97	0.95	0.93
3	0.96	0.94	0.90

NOTE: 1 Factors are given for single layers of trefoil groups as shown above. Factors for trefoil groups installed in more than one layer touching each other will be significantly lower and must be determined by an appropriate method.

NOTE: 2 Factors are given for vertical spacing between trays of 300 mm and at least 20 mm between trays and wall. For closer spacing, the factors should be reduced.

NOTE: 3 For circuits having more than one cable in parallel per phase, each three phase set of conductors should be considered as a circuit for the purpose of this table.

Table 12 Group rating factors to be applied for circuits of three single core cables in air on vertical perforated trays in trefoil formation



Number of trays	Number of three-phase circuits		
	1	2	3
1	1	0.91	0.89
2	1	0.90	0.86

NOTE: 1 Factors are given for single layers of trefoil groups as shown above. Factors for trefoil groups installed in more than one layer touching each other will be significantly lower and must be determined by an appropriate method.

NOTE: 2 Factors are given for horizontal spacing between vertical trays of 225 mm with trays mounted back to back. For closer spacing, the factors should be reduced.

NOTE: 3 For circuits having more than one cable in parallel per phase, each three phase set of conductors should be considered as a circuit for the purpose of this table.

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A. CABLE INSPECTION

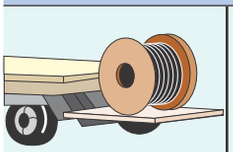
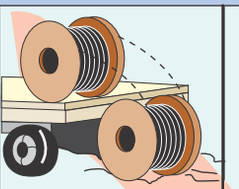
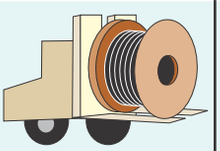
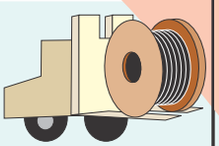
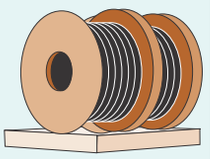
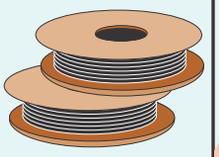
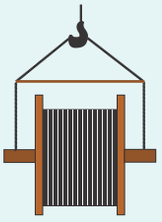
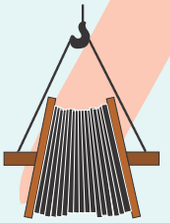
Inspect every cable reel for damage before accepting the shipment. Be particularly alert for cable damage if:

1. A reel lying flat on its side
2. Several reels are stacked
3. Other freight is stacked on a reel
4. Nails have been driven into reel flanges to secure shipping blocks
5. A reel flange is damaged
6. A cable covering is removed, stained or damaged
7. A cable end seal is removed or damaged. A reel has been dropped (hidden damage likely)

B. CABLE HANDLING & STORAGE

Damage to cables can occur due to the incorrect handling to which the drum sand cables may be subjected; causing breakdown of the drum flanges and in exceptional cases, movement of the drum barrel takes place. Once this breakdown of the drum occurs, the cable is immediately exposed to damage. Cables damaged during handling & storage can cause service failures when the subject cable is put to use.

Thus the following is a list of Dos and Don'ts that should be followed while .handling and storing the cables before it is put to use.

Dos		Donts	
	When off loading reels from a truck, lower reels carefully using a hydraulic gate, hoist or fork lift truck.		Never drop reels. If reels must be rolled, roll in opposite direction of the cable wraps to keep cable from loosening on the reel.
	If a fork lift is used, approach the reel from the flange side. Position the forks such that the reel is lifted by both reel flanges. Also consideration should be given to, traffic patterns during off-loading & damage during the time in storage.		Do not allow the lift forks to contact the cable. Care must be taken by the fork lift operator not to make sudden turns or stops.
	Cable reels should be stored on hard surface resting on the flanges edge(flanges vertical). Align reel flange to flange and, if possible, arrange so that first in is first out.		Multiple reels stacked on top of each other (Pancake Storage) is not recommended for cable drums.The weight of the stack cab total thousands of kgs. can create an enormous load on the bottom reel. Also, damage to three land/ or cable will likely occur when the reel is flipped for transit. A concentration of stress on the reel flange may cause it to break and subsequently damage the cable.
	When using a hoist, install a mandrel through the reel arbor holes and attach asling. Use a spreader bar approximately 6 inches longer than the overall reel width placed between the sling ends just above the reel flanges.		This may lead to the bending of the reel flanges and mashing the cable

C. PRE –INSTALLATION

To ensure safety during cable installation, following shall be checked prior to installation.

1. The cable selected is proper for designed application.

2. The cable has not been damaged in transit orstorage.

Review all applicable state and national codes to verify that the cable chosen is appropriate for the job. Also consult your local electricity authority. Next, you must identify any existing cable damage and prevent any further damaged from occurring. This is done through proper cable inspection, handling and storage.

D. INSTALLATION & LAYING

Mechanical stresses during installation are generally more severe than those encountered while in service. Thus care should be taken as regards to the following while installation and laying of cables.

1. Polycab recommend the laying and installation of cables as per IS:1255/84.

2. Care shall be taken during laying to avoid sharp bending, and twisting.

3. Cable shall be un wound from the drum by lifting the drum on the center

4. Shaft supported both ends with suitable jacks / stands.

5. Under no circumstances the cable winding shall be lifted off a coil or drum lying flat at the flanges. This would cause serious twist and damages.

6. Suitable protection shall be provided to the cables against mechanical damages, it includes covers, pipes etc.

E. RECOMMENDED MINIMUM BENDING RADIUS FOR HEAVY DUTY CABLES

Single Core : 20 x D

Multicore : 15 x D

F. RECOMMENDED SAFE PULLING FORCE WITH STOCKINGS:

a) For Unarmored Cable : P = 5 D2

b) For Armoured Cable : P = 9 D2

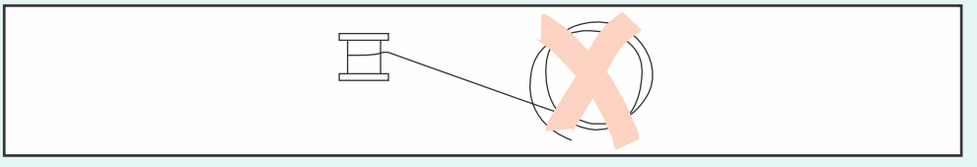
Where P = Pulling Force
Where D = Diameter of cable in mm

G. recommended safe pulling force when pulled with pulling eye:

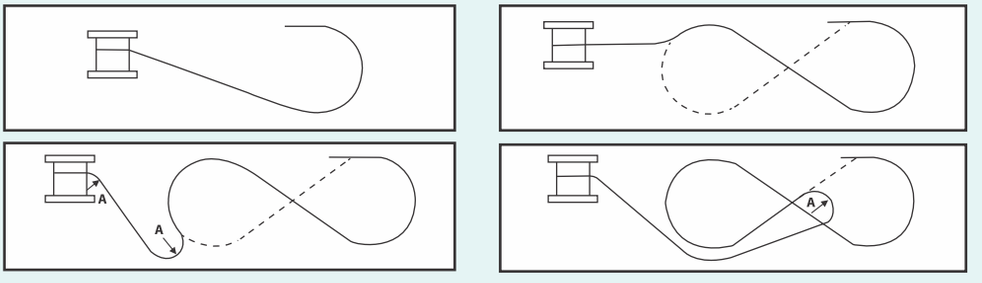
a) For Aluminum Conductor: 30N/mm2

b) For Copper Conductor: 50N / mm

DO NOT ATTEMPT COILING OF CABLE ON THE GROUND



ON THE GROUND CABLE CAN BE FLACKED IN A FIGURE OF EIGHT FORMATION



Note : R Minimum Permissible bending radius of cable.

POLYCAB

Connection Zindagi Ka

Production Facilities at Daman Factory












POLYCAB REGIONAL OFFICES

NORTH

CHANDIGARH
SCO-10-11-12, SEC 17 B, Chandigarh - 160017.

LUCKNOW
Shalimar Square, Office No-09, 126/31, B N Road, Lalbagh, Hazratganj, Lucknow - 226001.

NOIDA
Ground Floor, C-106, Sector 2, Noida - 201301.

UTTARAKHAND
109, Tagore Villa, Near P.N.B., Dehradun - 248001.

JAIPUR
B-44 & B-45, Industrial Area, Sudarshanpura Extn., Bais Godam, Jaipur - 302019.

EAST

GUWAHATI
3rd Floor, Purbi Complex, Near Panbazar Flyover, A. T. Road, Guwahati - 781001.

KOLKATA
18, Rabindra Sarani, Poddar Court, Gate No. 3, 5th Floor,Kolkata - 700001.

ORISSA
A/2, RCC Building, Ground Floor, Saheed Nagar, Bhubaneswar, Orissa - 751007.

PATNA
D-302, Dumraon Palace, 3rd Floor, Fraser Road, Near Dakbangla Crossing, Patna - 800001.

RANCHI
Room No. 4A, 4th Floor, Poornima Tower, Lake Road, Vishnu Talkies Lane, Ranchi - 834001.

WEST

AHMEDABAD
102-1st Floor, Hrishikesh, Opp. Gulbai Tekra Water Tank, Nr. IDBI Bank Cross Road, Ahmedabad - 380006.

INDORE
B-12, New Siyaganj, Patthar Godam Road, Indore - 452003.

PUNE
Off No. 36, Sangam Project Phase 2, Near RTO Pune, Near Sangam Bridge, Pune.

RAIPUR
506, 5th Floor, Wallfort OZONE, Near Fafadih Chowk, Raipur (C.G.) 492001.

SOUTH

BENGALURU
B-78, No.18, 4th Main Road, KSSIDC Industrial Estate, 6th Block, Rajajinagar, Bangalore - 560010.

CHENNAI
New No. 8/6, Old No. 5, Josmans Building, 4th Floor, MC Nichols Road, Chetpet, Chennai - 600 031.

KOCHI
34/138 C, NH By- Pass Road, Edappally, Kochi - 682024.

SECUNDERABAD
208-209, 2nd Floor, Bhuvana Towers, S.D. Road, Secunderabad - 500 003.

VIJAYAWADA
Ground Floor, House No.40-5/7-6, Municipal Employees Colony, Vijayawada - 520010

POLYCAB

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1st October 2015