ISO 9001:2008

ISO 14001:2004

OHSAS 18001:2007

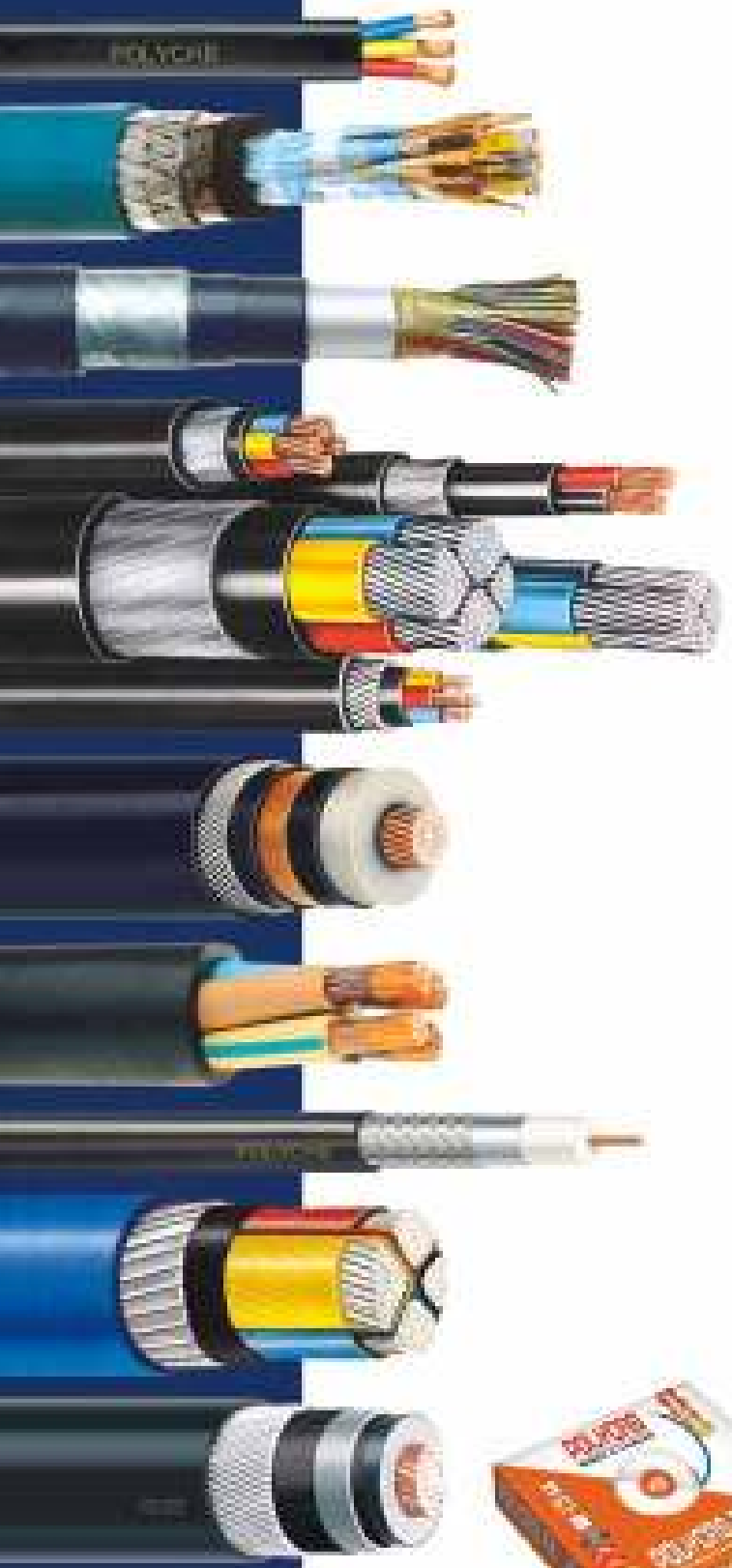
IS 7098 (Part I)

Details make the Difference

POLYCAB™

WIRES & CABLES

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
- SUBMERSIBLE WRAPPED WINDING WIRES
- 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

Contents

THE COMPANY

POLYCAB, an ISO 9001:2008, ISO 14001:2004, OHSAS 18001:2007 company is the largest Wire & Cable manufacturer in India with a proven track record of over three decades. The fastest growing company in the Indian Cable Industry with consistent growth. Polycab group has crossed Rs. 3600 crore turnover in the year 2010-11 and is set to achieve Rs. 4000 crore turnover in the year 2011–12.

From a modest beginning with Wires and Cables, over three decades ago Polycab set up State of Art manufacturing facilities at Daman in 1996.The last 3 decades have seen the core business develop along different product lines: - Low Voltage Cables, Medium Voltage Cables, Extra High Voltage Cables, Fire Survival & Fire Resistant Cables, Telecommunication Cables, Control & Instrumentation Cables and Aerial Bunched Cables. In the manufacture of cables, a competitive edge lies not so much in product innovation as in providing consistent quality, guaranteeing reliability and ready availability. Polycab's Daman factory was created to address these key market determinants. The manufacturing set up is sourced out from the world renowned Machinery and Technology suppliers with constant upgradation and expansions.

CUSTOMER SATISFACTION

In an ongoing process to improve Customer Satisfaction Polycab offers a variety of services:

- Commercially competitive prices.
- Reliable & consistent quality.
- Reliable & just in time delivery.
- Product development for a changing market.
- A targeted stocking policy.
- Technical Support for Applications/ Projects

CUSTOMER FOCUSED

POLYCAB derives its strength from its customers. The growth of the latter is a prerequisite to the growth of the company and hence customers' satisfaction is its prime objective. Over the years sincere service and dedication to its Customers has earned the Company distinguished Customers which includes demanding leaders in Sectors like Utilities, Power Generation, Transmission & Distribution, Petroleum & Oil Refineries, Oem's, EPC contractors, Steel & Metal, Cement, Chemical, Atomic Energy, Nuclear Power, Consultants & Specifiers 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 authorized distributors and dealers to cater to all the customer segments in India and abroad.

POLYCAB has earned the trust and reputation in India and abroad by winning the customers' confidence. Several thousands kilometers of LT XLPE Cables in the voltage range of 1.1KV have been manufactured and are in operation in India and abroad.

Polycab LT XLPE Cables are preferred choice in Power Plants, Distribution Systems, Heavy Industries, Various Utilities, The Titans of Indian Industry & Consultants / Specifiers.

DETAILS MAKE THE DIFFERENCE

More than 3 decades of experience have enabled POLYCAB to develop a specific know how for each individual productline. Attention to details allows the company to apply optimum technical solutions and material selections to each and every different project or application.

Other available Catalogues:

Flexible Cables

LT PVC Power & Control Cables.

HT Cables upto 45KV

EHV Cables upto 132Kv

Fire Survival Cables.

The 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 resistant and thermoplastic in 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°C and short circuit temperature 250°C.

B. Commercial Advantages:

1. Lower laying cost because of comparatively smaller diameter of cable and lighter weight*.
2. Lower installation charges as the diameter of cable is comparatively lesser with smaller bending radius, requiring less space requirement for laying of 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 Cable of 33KV E 3 x 400 Sq.mm have been successfully type tested at KEMA - Netherland (an internationally acclaimed Testing Laboratory).

"BASEC CERTIFICATION OF OUR BUSINESS DEMONSTRATES OUR COMMITMENT TO NOT ONLY THE QUALITY OF OUR PRODUCTS, BUT ALSO THE LEVEL OF OUR COMMITMENT FOR CONTINUOUS IMPROVEMENT"

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 from one end to the other.

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

All sizes of POLYCAB XLPE cables are designed to standard operating conditions in India and abroad. The standards adopted are 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 specifications for XLPE Insulated cables. Customer specific requirements can also be met.

Comparative current Rating and Short Circuit Rating for XLPE Cable Vis-à-vis PVC Cables

POLYCAB WIRES & CABLES

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	60	51	4.0	73	70	4.20
25	76	70	2.5	94	96	2.70
35	92	86	1.8	113	117	1.90
50	110	105	1.3	133	142	1.40
70	135	130	0.93	164	179	0.99
95	165	155	0.68	196	221	0.72
120	185	180	0.54	223	257	0.58
150	210	205	0.46	249	292	0.48
185	235	240	0.38	282	337	0.39
240	275	280	0.28	326	399	0.31
300	305	315	0.25	367	455	0.26
400	335	375	0.20	420	530	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	0.690	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	5.00	3.30
50	5.75	3.79	7.10	4.70
70	8.05	5.31	10.00	6.60
95	10.90	7.20	13.60	9.00
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	46.00	30.40	57.10	37.70
500	57.50	38.00	71.40	47.20
630	72.50	47.25	90.00	59.40
800	92.00	60.00	114.30	75.50
1000	115.00	75.00	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

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

Where

It = Short Circuit Rating for t Seconds.

t = Duration in seconds

Ish = Short Circuit rating for 1 second.

CAPACITANCE 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	-	-

REACTANCE 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	0.0750
70	0.0900	0.102	0.0740
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	0.0900	0.0710
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	-

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	-	-	12.1	18.10	15.50	23.17
2.5*	3	3	-	-	7.41	12.10	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	0.930	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	0.320	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	0.0469	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 RECOMDATIONS FOR CURRENT RATINGS

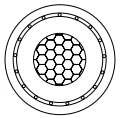
1. The values given in the table are valid for on circuit in a three phase system under conditions specified. For grouping cables rating factors must be used.
2. The current carrying capacities mentioned in POLYCAB technical data are intended as a guide, to assist operating engineers in selecting cables for safety and reliability.
3. Basic assumptions and condition of installation:
   - Ambient ground Temperature : 30° C
   - Ambient air Temperature: 40° C
   - Depth of Cable Burial : 1.0 m
   - Thermal resistivity of soil : 150° C. Cm/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 cables 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:

   Ia = K Is (in Amperes) Where

   Ia = Current Rating at actual Operating Conditions (amperes)
   Is = 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

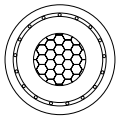
Nominal Size of Conductor	Form of Conductor Circular ○	Nominal Thickness of XLPE Insulation for U/A	Minimum Thickness of PVC Inner Sheath	Unarmoured Cable			Nominal Thickness of XLPE insulation for Armoured Cable	Formed Wire/ Strip Armoured Cable				Round Wire Armoured Cable				Current Rating.		*Normal 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	Kgs./Km	mm	mm	mm	mm	Kgs./Km	mm	mm	mm	Kgs./Km	Amps.	Amps.	Mtrs.
4	Solid	0.7	-NA-	1.8	7.5	60	-	-	-	-	-	-	-	-	-	36	31	1000
4	Stranded	0.7	-NA-	1.8	8.0	65	-	-	-	-	-	-	-	-	-	36	31	1000
6	Solid	0.7	-NA-	1.8	8.0	70	-	-	-	-	-	-	-	-	-	44	39	1000
6	Stranded	0.7	-NA-	1.8	8.5	75	-	-	-	-	-	-	-	-	-	44	39	1000
10	Solid	0.7	-NA-	1.8	9.0	80	1.0	-	-	-	-	-	-	-	-	59	53	1000
10	Stranded	0.7	-NA-	1.8	9.5	90	1.0	-	-	-	-	-	-	-	-	59	53	1000
16	Stranded	0.7	-NA-	1.8	10.0	115	1.0	-	-	-	-	1.4	1.24	13.0	220	76	73	1000
25	--do--	0.9	-NA-	1.8	12.0	155	1.2	-	-	-	-	1.4	1.24	14.0	260	96	98	1000
35	--do--	0.9	-NA-	1.8	13.0	180	1.2	-	-	-	-	1.4	1.24	15.0	310	114	121	1000
50	--do--	1.0	-NA-	1.8	14.0	240	1.3	-	-	-	-	1.4	1.24	17.0	380	135	150	1000
70	--do--	1.1	-NA-	1.8	16.0	310	1.4	-	-	-	-	1.4	1.24	19.0	480	166	187	1000
95	--do--	1.1	-NA-	1.8	17.5	385	1.4	4 x 0.80	1.40	21.0	560	1.6	1.40	22.0	640	198	230	1000
120	--do--	1.2	-NA-	1.8	19.0	470	1.5	4 x 0.80	1.40	22.0	660	1.6	1.40	23.5	745	225	268	1000
150	--do--	1.4	-NA-	2.0	21.5	600	1.7	4 x 0.80	1.40	23.0	750	1.6	1.40	24.5	850	253	309	1000
185	--do--	1.6	-NA-	2.0	23.5	710	1.9	4 x 0.80	1.40	25.0	900	1.6	1.40	26.5	1000	286	360	1000
240	--do--	1.7	-NA-	2.0	26.0	900	2.0	4 x 0.80	1.40	27.5	1100	1.6	1.40	29.0	1215	332	433	1000
300	--do--	1.8	-NA-	2.0	28.5	1075	2.1	4 x 0.80	1.56	30.0	1350	1.6	1.56	31.5	1475	376	501	1000
400	--do--	2.0	-NA-	2.2	33.0	1385	2.4	4 x 0.80	1.56	34.0	1725	2.0	1.56	36.5	1925	431	596	500
500	--do--	2.2	-NA-	2.2	36.0	1650	2.6	4 x 0.80	1.56	37.5	2090	2.0	1.56	39.5	2300	490	693	500
630	--do--	2.4	-NA-	2.2	40.0	2100	2.8	4 x 0.80	1.72	40.5	2525	2.0	1.72	43.0	2800	557	814	500
800	--do--	2.6	-NA-	2.4	46.0	2730	3.1	4 x 0.80	1.72	46.5	3150	2.0	1.88	49.5	3450	600	890	500
1000	--do--	2.8	-NA-	2.6	52.0	3350	3.3	4 x 0.80	1.88	54.0	3963	2.5	2.04	58.0	4475	650	1050	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	Kgs./Km	mm	mm	mm	mm	Kgs./Km	mm	mm	mm	Kgs./Km	Amps.	Amps.	Mtrs.
4	Solid	0.7	-NA-	1.8	7.5	91	-	-	-	-	-	-	-	-	-	47	42	1000
4	Stranded	0.7	-NA-	1.8	8.0	95	-	-	-	-	-	-	-	-	-	47	42	1000
6	Solid	0.7	-NA-	1.8	8.0	115	-	-	-	-	-	-	-	-	-	59	53	1000
6	Stranded	0.7	-NA-	1.8	8.5	125	-	-	-	-	-	-	-	-	-	59	53	1000
10	Stranded	0.7	-NA-	1.8	9.5	170	1.0	-	-	-	-	1.4	1.24	12.0	245	78	72	1000
16	Stranded	0.7	-NA-	1.8	10.0	220	1.0	-	-	-	-	1.4	1.24	13.0	315	102	98	1000
25	Stranded	0.9	-NA-	1.8	12.0	325	1.2	-	-	-	-	1.4	1.24	14.0	415	132	132	1000
35	Stranded	0.9	-NA-	1.8	13.0	420	1.2	-	-	-	-	1.4	1.24	16.0	525	156	156	1000
50	Stranded	1.0	-NA-	1.8	14.0	550	1.3	-	-	-	-	1.4	1.24	17.0	690	186	198	1000
70	Stranded	1.1	-NA-	1.8	16.0	750	1.4	-	-	-	-	1.4	1.24	19.0	910	228	246	1000
95	Stranded	1.1	-NA-	1.8	17.5	1010	1.4	4 x 0.80	1.40	21.0	1150	1.6	1.40	22.0	1325	264	294	1000
120	Stranded	1.2	-NA-	1.8	19.0	1250	1.5	4 x 0.80	1.40	22.0	1400	1.6	1.40	23.5	1485	300	336	1000
150	Stranded	1.4	-NA-	2.0	21.5	1550	1.7	4 x 0.80	1.40	23.0	1680	1.6	1.40	24.5	1780	336	384	1000
185	Stranded	1.6	-NA-	2.0	23.5	1900	1.9	4 x 0.80	1.40	25.0	2040	1.6	1.40	26.5	2140	366	444	1000
240	Stranded	1.7	-NA-	2.0	26.0	2450	2.0	4 x 0.80	1.40	27.5	2580	1.6	1.40	29.0	2700	414	510	1000
300	Stranded	1.8	-NA-	2.0	28.5	3050	2.1	4 x 0.80	1.56	30.0	3200	1.6	1.56	31.5	3325	450	570	500
400	Stranded	2.0	-NA-	2.2	33.0	4035	2.4	4 x 0.80	1.56	34.0	4200	2.0	1.56	36.5	4400	480	660	500
500	Stranded	2.2	-NA-	2.2	36.0	5020	2.6	4 x 0.80	1.56	37.5	5180	2.0	1.56	39.5	5400	564	708	500
630	Stranded	2.4	-NA-	2.2	40.0	6250	2.8	4 x 0.80	1.72	40.5	6425	2.0	1.72	43.0	6700	570	825	500
800	Stranded	2.6	-NA-	2.4	46.0	7900	3.1	4 x 0.80	1.72	46.5	8100	2.0	1.88	49.5	8400	660	945	500
1000	Stranded	2.8	-NA-	2.6	52.0	9850	3.3	4 x 0.80	1.88	54.0	10150	2.5	2.04	58.0	10660	723	1063	500

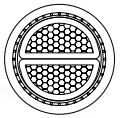
The above data is approximate and subject to manufacturing tolerance.

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

POLYCAB WIRES & CABLES

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

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



650/1100 VOLTS

WEIGHT AND 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 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 ○	0.7	0.3	1.8	12.5	140	-NA-	-NA-	-NA-	-NA-	1.40	1.24	14.5	400	40	34	1000
4	Stranded ○	0.7	0.3	1.8	13.0	150	-NA-	-NA-	-NA-	-NA-	1.40	1.24	15.5	430	40	34	1000
6	Solid ○	0.7	0.3	1.8	13.5	170	-NA-	-NA-	-NA-	-NA-	1.40	1.24	15.5	470	50	44	1000
6	Stranded ○	0.7	0.3	1.8	14.0	180	-NA-	-NA-	-NA-	-NA-	1.40	1.24	16.5	485	50	44	1000
10	Solid ○	0.7	0.3	1.8	15.0	205	-NA-	-NA-	-NA-	-NA-	1.40	1.24	17.0	545	69	59	1000
10	Stranded ○	0.7	0.3	1.8	16.0	225	-NA-	-NA-	-NA-	-NA-	1.40	1.24	18.0	565	69	59	1000
16	Stranded ⌓	0.7	0.3	1.8	14.0	225	-NA-	-NA-	-NA-	-NA-	1.40	1.40	17.0	570	88	74	1000
25	Stranded ⌓	0.9	0.3	2.0	17.0	330	4 x 0.8	1.40	18.5	600	1.60	1.40	20.0	790	112	98	1000
35	Stranded ⌓	0.9	0.3	2.0	19.0	410	-do-	1.40	20.0	690	1.60	1.40	22.0	910	138	124	1000
50	Stranded ⌓	1.0	0.3	2.0	21.0	510	-do-	1.40	22.5	820	1.60	1.40	24.0	1050	169	156	1000
70	Stranded ⌓	1.1	0.3	2.0	23.0	675	-do-	1.56	25.5	1050	1.60	1.56	27.0	1325	200	188	1000
95	Stranded ⌓	1.1	0.4	2.2	26.5	900	-do-	1.56	28.0	1300	2.00	1.56	30.5	1750	238	231	1000
120	Stranded ⌓	1.2	0.4	2.2	28.5	1050	-do-	1.56	30.5	1500	2.00	1.56	33.0	2000	262	262	500
150	Stranded ⌓	1.4	0.4	2.2	32.0	1215	-do-	1.72	34.0	1750	2.00	1.72	36.0	2250	300	300	500
185	Stranded ⌓	1.6	0.5	2.4	35.5	1510	-do-	1.72	37.0	2200	2.00	1.88	40.0	2750	344	344	500
240	Stranded ⌓	1.7	0.5	2.6	39.5	1900	-do-	1.88	41.0	2600	2.50	2.04	45.0	3700	400	406	500
300	Stranded ⌓	1.8	0.6	2.8	43.5	2360	-do-	2.04	45.5	3200	2.50	2.20	49.0	4400	444	456	500
400	Stranded ⌓	2.0	0.6	3.0	49.0	3100	-do-	2.36	51.0	4000	2.50	2.36	54.4	5300	481	525	500
500	Stranded ⌓	2.2	0.7	3.4	55.5	4000	-do-	2.52	56.5	5000	3.15	2.68	61.5	7000	523	678	500
630	Stranded ⌓	2.4	0.7	3.6	61.5	5000	-do-	2.68	62.5	6050	3.15	2.84	67.5	8560	592	786	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 AND 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 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 ○	0.7	0.3	1.8	12.5	165	-NA-	-NA-	-NA-	-NA-	1.4	1.24	14.5	480	51	44	1000
4	Stranded ○	0.7	0.3	1.8	13.0	175	-NA-	-NA-	-NA-	-NA-	1.4	1.24	15.5	525	51	44	1000
6	Solid ○	0.7	0.3	1.8	13.5	210	-NA-	-NA-	-NA-	-NA-	1.4	1.24	15.5	564	63	56	1000
6	Stranded ○	0.7	0.3	1.8	14.0	225	-NA-	-NA-	-NA-	-NA-	1.4	1.24	16.5	610	63	56	1000
10	Stranded ○	0.7	0.3	1.8	16.0	300	-NA-	-NA-	-NA-	-NA-	1.4	1.24	18.0	740	88	75	1000
16	Stranded ⌓	0.7	0.3	1.8	14.0	425	-NA-	-NA-	-NA-	-NA-	1.4	1.40	17.0	770	113	98	1000
25	Stranded ⌓	0.9	0.3	2.0	17.0	640	4 x 0.8	1.40	18.5	910	1.6	1.40	20.0	1100	144	131	1000
35	Stranded ⌓	0.9	0.3	2.0	19.0	840	-do-	1.40	20.0	1025	1.6	1.40	22.0	1350	175	150	1000
50	Stranded ⌓	1.0	0.3	2.0	21.0	1120	-do-	1.40	22.5	1435	1.6	1.40	24.0	1670	206	194	1000
70	Stranded ⌓	1.1	0.3	2.0	23.0	1540	-do-	1.56	25.5	1910	1.6	1.56	27.0	2200	256	244	1000
95	Stranded ⌓	1.1	0.4	2.2	26.5	2075	-do-	1.56	28.0	2475	2.0	1.56	30.5	2925	300	288	500
120	Stranded ⌓	1.2	0.4	2.2	28.5	2535	-do-	1.56	30.5	2985	2.0	1.56	33.0	3485	344	331	500
150	Stranded ⌓	1.4	0.4	2.2	32.0	3070	-do-	1.72	34.0	3600	2.0	1.72	36.0	4100	388	381	500
185	Stranded ⌓	1.6	0.5	2.4	35.5	3800	-do-	1.72	37.0	4490	2.0	1.88	40.0	5040	438	438	500
240	Stranded ⌓	1.7	0.5	2.6	39.5	4870	-do-	1.88	41.0	5575	2.5	2.04	45.0	7370	506	512	500
300	Stranded ⌓	1.8	0.6	2.8	43.5	6075	-do-	2.04	45.5	6910	2.5	2.20	49.0	9010	562	581	500
400	Stranded ⌓	2.0	0.6	3.0	49.0	8050	-do-	2.36	51.0	8950	2.5	2.36	54.4	10250	612	662	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-5 "POLYCAB" THREE CORE ALUMINIUM CONDUCTOR, XLPE INSULATED,

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

650/1100 VOLTS

WEIGHT AND 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 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 ○	0.7	0.3	1.8	14.0	140	-NA-	-NA-	-NA-	-NA-	1.40	1.24	15.0	460	34	31	1000
4	Stranded ○	0.7	0.3	1.8	15.5	160	-NA-	-NA-	-NA-	-NA-	1.40	1.24	16.0	510	34	31	1000
6	Solid ○	0.7	0.3	1.8	15.5	170	-NA-	-NA-	-NA-	-NA-	1.40	1.24	16.0	530	43	50	1000
6	Stranded ○	0.7	0.3	1.8	16.0	190	-NA-	-NA-	-NA-	-NA-	1.40	1.24	17.0	580	43	50	1000
10	Solid ○	0.7	0.3	1.8	17.0	220	-NA-	-NA-	-NA-	-NA-	1.40	1.24	18.0	640	57	67	1000
10	Stranded ○	0.7	0.3	1.8	18.0	230	-NA-	-NA-	-NA-	-NA-	1.40	1.24	19.0	680	57	67	1000
16	Stranded △	0.7	0.3	1.8	18.0	310	4 x 0.8	1.24	18.5	530	1.60	1.40	21.0	750	73	70	1000
25	Stranded △	0.9	0.3	2.0	20.0	460	-do-	1.40	20.5	770	1.60	1.40	23.0	990	94	96	1000
35	Stranded △	0.9	0.3	2.0	21.5	575	-do-	1.40	23.0	900	1.60	1.40	25.0	1150	113	117	1000
50	Stranded △	1.0	0.3	2.0	24.5	700	-do-	1.40	25.5	1100	1.60	1.56	27.5	1400	133	142	1000
70	Stranded △	1.1	0.4	2.2	29.0	990	-do-	1.56	30.0	1425	2.00	1.56	32.0	1950	164	179	500
95	Stranded △	1.1	0.4	2.2	32.5	1250	-do-	1.56	33.5	1735	2.00	1.56	37.5	2300	196	221	500
120	Stranded △	1.2	0.4	2.2	34.5	1525	-do-	1.56	35.5	2050	2.00	1.72	39.5	2700	223	257	500
150	Stranded △	1.4	0.5	2.4	38.5	1900	-do-	1.72	40.5	2100	2.00	1.88	43.5	3200	249	292	500
185	Stranded △	1.6	0.5	2.6	43.5	2380	-do-	1.88	44.5	2500	2.50	2.04	48.5	4200	282	337	500
240	Stranded △	1.7	0.6	2.8	48.5	3000	-do-	2.04	49.0	3700	2.50	2.20	53.0	5100	326	399	500
300	Stranded △	1.8	0.6	3.0	51.5	3750	-do-	2.20	53.0	4500	2.50	2.36	57.5	5900	367	455	500
400	Stranded △	2.0	0.7	3.2	59.5	4760	-do-	2.52	58.5	5700	3.15	2.68	65.0	7900	418	530	500
500	Stranded △	2.2	0.7	3.6	66.0	6000	-do-	2.68	67.0	6900	3.15	2.84	73.0	9550	470	612	250
630	Stranded △	2.4	0.7	3.8	72.0	7550	-do-	2.84	73.0	8700	4.00	3.00	78.0	12500	529	707	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 AND 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 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 ○	0.7	0.3	1.8	14.0	210	-NA-	-NA-	-NA-	-NA-	1.40	1.24	15.0	530	43	36	1000
4	Stranded ○	0.7	0.3	1.8	15.5	235	-NA-	-NA-	-NA-	-NA-	1.40	1.24	16.0	580	43	36	1000
6	Solid ○	0.7	0.3	1.8	15.5	280	-NA-	-NA-	-NA-	-NA-	1.40	1.24	16.0	640	54	47	1000
6	Stranded ○	0.7	0.3	1.8	16.0	300	-NA-	-NA-	-NA-	-NA-	1.40	1.24	17.0	680	54	47	1000
10	Stranded ○	0.7	0.3	1.8	18.0	415	-NA-	-NA-	-NA-	-NA-	1.40	1.24	19.0	865	72	62	1000
16	Stranded △	0.7	0.3	1.8	18.0	425	4 x 0.8	1.24	18.5	825	1.60	1.40	21.0	1040	92	79	1000
25	Stranded △	0.9	0.3	2.0	20.0	920	-do-	1.40	20.5	1235	1.60	1.40	23.0	1450	119	108	1000
35	Stranded △	0.9	0.3	2.0	21.5	1225	-do-	1.40	23.0	1550	1.60	1.40	25.0	1800	144	132	1000
50	Stranded △	1.0	0.3	2.0	24.5	1620	-do-	1.40	25.5	2020	1.60	1.56	27.5	2320	174	162	1000
70	Stranded △	1.1	0.4	2.2	29.0	2290	-do-	1.56	30.0	2720	2.00	1.56	32.0	3250	210	198	500
95	Stranded △	1.1	0.4	2.2	32.5	3010	-do-	1.56	33.5	3500	2.00	1.56	37.5	4060	252	240	500
120	Stranded △	1.2	0.4	2.2	34.5	3750	-do-	1.56	35.5	4320	2.00	1.72	39.5	4920	288	276	500
150	Stranded △	1.4	0.5	2.4	38.5	4760	-do-	1.72	40.5	5280	2.00	1.88	43.5	5980	324	318	500
185	Stranded △	1.6	0.5	2.6	43.5	5810	-do-	1.88	44.5	6385	2.50	2.04	48.5	7630	360	366	500
240	Stranded △	1.7	0.6	2.8	48.5	7450	-do-	2.04	49.0	8150	2.50	2.20	53.0	9550	414	426	500
300	Stranded △	1.8	0.6	3.0	51.5	9310	-do-	2.20	53.0	10060	2.50	2.36	57.5	11460	462	480	500
400	Stranded △	2.0	0.7	3.2	59.5	12200	-do-	2.52	58.5	13125	3.15	2.68	65.0	15320	510	546	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 AND DIMENSIONS

Nominal Size of Conductors	Form of Conductor 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 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	mm	Kgs./Km	mm	mm	mm	Kgs./Km	mm	mm	mm	Kgs./Km	Amps.	Amps.	Mtrs.
25/16	Stranded △	0.9	0.7	0.3	2.0	22.0	525	4 x 0.80	1.40	23.0	850	1.60	1.40	25.5	1050	94	96	1000
35/16	Stranded △	0.9	0.7	0.3	2.0	24.0	625	-do-	1.40	25.0	980	1.60	1.40	26.5	1200	113	117	1000
50/25	Stranded △	1.0	0.9	0.3	2.0	27.5	800	-do-	1.40	28.0	1240	1.60	1.56	29.5	1500	133	142	1000
70/35	Stranded △	1.1	0.9	0.4	2.2	31.0	1100	-do-	1.56	32.0	1600	2.00	1.56	34.0	2050	164	179	500
95/50	Stranded △	1.1	1.0	0.4	2.2	35.0	1400	-do-	1.56	36.0	1900	2.00	1.56	38.0	2450	196	221	500
120/70	Stranded △	1.2	1.1	0.4	2.2	37.5	1650	-do-	1.72	39.0	2300	2.00	1.72	41.0	2800	223	257	500
150/70	Stranded △	1.4	1.1	0.5	2.4	41.0	2000	-do-	1.72	42.0	2650	2.00	1.88	45.0	3350	249	292	500
185/95	Stranded △	1.6	1.1	0.5	2.6	46.5	2550	-do-	1.88	47.5	3250	2.50	2.04	50.0	4500	282	337	500
240/120	Stranded △	1.7	1.2	0.6	2.8	52.5	3200	-do-	2.04	53.5	4100	2.50	2.20	56.0	5450	326	399	500
300/150	Stranded △	1.8	1.4	0.6	3.0	56.0	4000	-do-	2.20	57.0	4950	2.50	2.36	61.0	6400	367	455	500
400/185	Stranded △	2.0	1.6	0.7	3.4	64.0	5250	-do-	2.52	65.0	6150	3.15	2.68	70.0	8300	418	530	500
500/240	Stranded △	2.2	1.7	0.7	3.6	72.5	6500	-do-	2.68	73.5	7600	3.15	2.84	77.0	10000	470	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 AND DIMENSIONS

Nominal Size of Conductors	Form of Conductor 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 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	mm	Kgs./Km	mm	mm	mm	Kgs./Km	mm	mm	mm	Kgs./Km	Amps.	Amps.	Mtrs.
25/16	Stranded △	0.9	0.7	0.3	2.0	22.0	1080	4 x 0.80	1.40	23.0	1410	1.60	1.40	24.0	1610	119	108	1000
35/16	Stranded △	0.9	0.7	0.3	2.0	24.0	1370	-do-	1.40	25.0	1725	1.60	1.40	26.0	1950	144	132	1000
50/25	Stranded △	1.0	0.9	0.3	2.0	27.5	1875	-do-	1.40	28.0	2325	1.60	1.56	29.0	2580	174	162	1000
70/35	Stranded △	1.1	0.9	0.4	2.2	31.0	2620	-do-	1.56	32.0	3110	2.00	1.56	34.0	3560	210	198	500
95/50	Stranded △	1.1	1.0	0.4	2.2	35.0	3475	-do-	1.56	36.0	8975	2.00	1.56	37.5	4525	252	240	500
120/70	Stranded △	1.2	1.1	0.4	2.2	39.0	4315	-do-	1.72	40.0	4960	2.00	1.72	41.0	5460	288	276	500
150/70	Stranded △	1.4	1.1	0.5	2.4	43.0	5220	-do-	1.72	44.0	5870	2.00	1.88	45.0	6570	324	318	500
185/95	Stranded △	1.6	1.1	0.5	2.6	48.0	6575	-do-	1.88	50.0	7275	2.50	2.04	50.0	8520	360	366	500
240/120	Stranded △	1.7	1.2	0.6	2.8	54.0	8400	-do-	2.04	55.0	9300	2.50	2.20	56.0	10650	414	426	500
300/150	Stranded △	1.8	1.4	0.6	3.0	57.0	10500	-do-	2.20	58.0	11500	2.50	2.36	61.0	12400	462	480	500
400/185	Stranded △	2.0	1.6	0.7	3.4	65.0	13820	-do-	2.52	66.0	14720	3.15	2.68	70.0	16875	510	546	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 AND 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 GIRound 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 ○	0.7	0.3	1.8	15.0	160	-NA-	-NA-	-NA-	-NA-	1.40	1.24	16.5	510	34	31	1000
4	Stranded ○	0.7	0.3	1.8	16.0	180	-NA-	-NA-	-NA-	-NA-	1.40	1.24	17.5	560	34	31	1000
6	Solid ○	0.7	0.3	1.8	16.5	200	-NA-	-NA-	-NA-	-NA-	1.40	1.24	17.5	580	43	50	1000
6	Stranded ○	0.7	0.3	1.8	17.5	215	-NA-	-NA-	-NA-	-NA-	1.40	1.24	18.5	625	43	50	1000
10	Solid ○	0.7	0.3	1.8	18.0	250	-NA-	-NA-	-NA-	-NA-	1.40	1.40	19.0	700	57	67	1000
10	Stranded ○	0.7	0.3	1.8	18.5	260	-NA-	-NA-	-NA-	-NA-	1.40	1.40	20.5	765	57	67	1000
16	Stranded △	0.7	0.3	1.8	17.5	350	4 x 0.8	1.40	20.0	715	1.60	1.40	21.0	895	73	70	1000
25	Stranded △	0.9	0.3	2.0	21.0	550	-do-	1.40	23.0	940	1.60	1.40	25.0	1150	94	96	500
35	Stranded △	0.9	0.3	2.0	23.5	680	-do-	1.40	25.0	1050	1.60	1.40	26.5	1325	113	117	500
50	Stranded △	1.0	0.3	2.0	26.0	875	-do-	1.56	28.0	1280	1.60	1.56	29.5	1640	133	142	500
70	Stranded △	1.1	0.4	2.2	30.5	1200	-do-	1.56	32.0	1700	2.00	1.56	34.0	2175	164	179	500
95	Stranded △	1.1	0.4	2.2	33.5	1530	-do-	1.56	35.0	2100	2.00	1.72	38.0	2775	196	221	500
120	Stranded △	1.2	0.5	2.4	37.5	1850	-do-	1.72	39.0	2600	2.00	1.88	42.0	3250	223	257	500
150	Stranded △	1.4	0.5	2.6	42.0	2280	-do-	1.88	43.5	3000	2.50	2.04	47.0	4175	249	292	500
185	Stranded △	1.6	0.5	2.8	46.5	2800	-do-	2.04	48.0	3650	2.50	2.20	52.0	5000	282	337	500
240	Stranded △	1.7	0.6	3.0	52.5	3700	-do-	2.20	54.0	4700	2.50	2.36	57.5	6050	326	399	500
300	Stranded △	1.8	0.7	3.2	58.0	4600	-do-	2.36	59.5	5600	3.15	2.52	64.5	7850	367	455	500
400	Stranded △	2.0	0.7	3.6	65.5	6000	-do-	2.68	66.5	7000	3.15	2.84	71.5	9500	418	530	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 AND DIMENSIONS

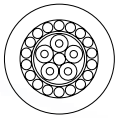
Nominal Size of Conductor	Form of Conductor Circular Shaped ○/⏢	Nominal Thickness of XLPE Insulation	Minimum Thickness of PVC Inner Sheath	Unarmoured Cable			Formed Wire/ Strip Armoured Cable				Round Wire Armoured Cable				Current Rating.		*Normal-Delivery Length.
				Nominal Thickness of PVC Outer 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 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 ○	0.7	0.3	1.8	15.0	260	-NA-	-NA-	-NA-	-NA-	1.40	1.24	16.5	610	43	36	1000
4	Stranded ○	0.7	0.3	1.8	16.0	280	-NA-	-NA-	-NA-	-NA-	1.40	1.24	17.5	660	43	36	1000
6	Solid ○	0.7	0.3	1.8	16.5	350	-NA-	-NA-	-NA-	-NA-	1.40	1.24	17.5	730	54	47	1000
6	Stranded ○	0.7	0.3	1.8	17.5	365	-NA-	-NA-	-NA-	-NA-	1.40	1.24	18.5	775	54	47	1000
10	Stranded ○	0.7	0.3	1.8	18.5	510	-NA-	-NA-	-NA-	-NA-	1.40	1.40	20.5	1010	72	62	1000
16	Stranded ⏢	0.7	0.3	1.8	17.5	750	4 x 0.8	1.40	20.0	1050	1.60	1.40	21.0	1275	92	79	1000
25	Stranded ⏢	0.9	0.3	2.0	21.0	1170	-do-	1.40	23.0	1520	1.60	1.40	25.0	1770	119	108	500
35	Stranded ⏢	0.9	0.3	2.0	23.5	1550	-do-	1.40	25.0	1915	1.60	1.40	26.5	2190	144	132	500
50	Stranded ⏢	1.0	0.3	2.0	26.0	2110	-do-	1.56	28.0	2510	1.60	1.56	29.5	2875	174	162	500
70	Stranded ⏢	1.1	0.4	2.2	30.5	2925	-do-	1.56	32.0	3430	2.00	1.56	34.0	3900	210	198	500
95	Stranded ⏢	1.1	0.4	2.2	33.5	3880	-do-	1.56	35.0	4450	2.00	1.72	38.0	5125	252	240	500
120	Stranded ⏢	1.2	0.5	2.4	37.5	4825	-do-	1.72	39.0	5575	2.00	1.88	42.0	6225	288	276	500
150	Stranded ⏢	1.4	0.5	2.6	42.0	6000	-do-	1.88	43.5	6710	2.50	2.04	47.0	7890	324	318	500
185	Stranded ⏢	1.6	0.5	2.8	46.5	7380	-do-	2.04	48.0	8225	2.50	2.20	52.0	9580	360	366	500
240	Stranded ⏢	1.7	0.6	3.0	52.5	9650	-do-	2.20	54.0	10340	2.50	2.36	57.5	12000	414	426	500
300	Stranded ⏢	1.8	0.7	3.2	58.0	12025	-do-	2.36	59.5	13025	3.15	2.52	64.5	15275	462	480	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-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 AND 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	
No. s	mm	mm	mm	mm	Kgs./Km	mm	mm	mm	Kgs./Km	mm	mm	mm	Kgs./Km	Amps.	Amps.	Mtrs.
2	0.7	0.3	1.8	10.0	140	-NA-	-NA-	-NA-	-NA-	1.4	1.24	12.5	370	33	29	1000
3	-do-	0.3	1.8	10.5	160	-NA-	-NA-	-NA-	-NA-	1.4	1.24	13.0	390	25	22	1000
4	-do-	0.3	1.8	11.5	200	-NA-	-NA-	-NA-	-NA-	1.4	1.24	13.5	415	25	22	1000
5	-do-	0.3	1.8	12.5	225	-NA-	-NA-	-NA-	-NA-	1.4	1.24	14.5	465	24	21	1000
6	-do-	0.3	1.8	13.5	250	-NA-	-NA-	-NA-	-NA-	1.4	1.24	15.5	500	22	19	1000
7	-do-	0.3	1.8	13.5	260	-NA-	-NA-	-NA-	-NA-	1.4	1.24	15.5	520	21	18	1000
8	-do-	0.3	1.8	14.5	280	-NA-	-NA-	-NA-	-NA-	1.4	1.24	16.5	580	20	18	1000
9	-do-	0.3	1.8	15.5	315	-NA-	-NA-	-NA-	-NA-	1.4	1.24	17.5	630	19	17	1000
10	-do-	0.3	1.8	17.0	340	-NA-	-NA-	-NA-	-NA-	1.4	1.24	18.5	655	18	16	1000
12	-do-	0.3	1.8	17.5	390	-NA-	-NA-	-NA-	-NA-	1.4	1.24	19.0	720	17	15	1000
14	-do-	0.3	1.8	18.0	430	-NA-	-NA-	-NA-	-NA-	1.4	1.40	20.0	825	16	14	1000
16	-do-	0.3	1.8	18.5	475	4 x 0.80	1.40	19.0	750	1.6	1.40	21.0	925	16	14	1000
19	-do-	0.3	1.8	19.5	540	-do-	-do-	20.0	815	1.6	1.40	22.0	1010	15	13	1000
21	-do-	0.3	2.0	20.5	600	-do-	-do-	21.0	900	1.6	1.40	23.0	1150	14	12	500
24	-do-	0.3	2.0	22.5	665	-do-	-do-	23.0	1000	1.6	1.40	25.0	1250	13	12	500
27	-do-	0.3	2.0	23.0	750	-do-	-do-	23.5	1050	1.6	1.40	25.5	1330	13	11	500
30	-do-	0.3	2.0	23.5	820	-do-	-do-	24.0	1125	1.6	1.40	26.0	1400	12	11	500
33	-do-	0.3	2.0	24.0	910	-do-	-do-	25.0	1225	1.6	1.40	27.0	1475	12	10	500
37	-do-	0.3	2.0	25.0	975	-do-	-do-	26.0	1325	1.6	1.40	28.0	1550	11	10	500
44	-do-	0.3	2.0	28.0	1150	-do-	-do-	28.5	1500	1.6	1.56	30.5	1850	11	9	500
52	-do-	0.3	2.0	29.0	1300	-do-	1.56	30.5	1700	1.6	1.56	32.0	2050	10	9	500
61	-do-	0.4	2.2	31.0	1500	-do-	1.56	32.0	1950	2.0	1.56	34.5	2550	9	8	500

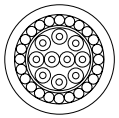
$ The Weight and Dimensions of Cables with Stranded conductor will be comparatively more than that of Solid conductor,whereas all other parameters are same..

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 AND 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	
No. s	mm	mm	mm	mm	Kgs./Km	mm	mm	mm	Kgs./Km	mm	mm	mm	Kgs./Km	Amps.	Amps.	Mtrs.
2	0.7	0.3	1.8	11.5	185	-NA-	-NA-	-NA-	-NA-	1.4	1.24	13.5	380	39	32	1000
3	-do-	0.3	1.8	12.0	220	-NA-	-NA-	-NA-	-NA-	1.4	1.24	14.0	425	34	30	1000
4	-do-	0.3	1.8	13.0	260	-NA-	-NA-	-NA-	-NA-	1.4	1.24	14.5	500	34	30	1000
5	-do-	0.3	1.8	14.0	300	-NA-	-NA-	-NA-	-NA-	1.4	1.24	15.5	525	31	28	1000
6	-do-	0.3	1.8	15.0	340	-NA-	-NA-	-NA-	-NA-	1.4	1.24	16.5	600	29	26	1000
7	-do-	0.3	1.8	15.0	360	-NA-	-NA-	-NA-	-NA-	1.4	1.24	16.5	625	27	25	1000
8	-do-	0.3	1.8	16.0	400	-NA-	-NA-	-NA-	-NA-	1.4	1.24	18.0	700	26	24	1000
9	-do-	0.3	1.8	16.5	450	-NA-	-NA-	-NA-	-NA-	1.4	1.40	19.5	800	25	22	1000
10	-do-	0.3	1.8	17.5	475	4 x 0.80	1.24	19.0	700	1.6	1.40	21.0	875	24	21	1000
12	-do-	0.3	1.8	18.0	550	4 x 0.80	1.40	19.5	760	1.6	1.40	21.5	975	22	20	1000
14	-do-	0.3	1.8	19.0	625	4 x 0.80	1.40	20.0	850	1.6	1.40	22.0	1050	21	19	1000
16	-do-	0.3	2.0	20.5	680	4 x 0.80	1.40	21.5	920	1.6	1.40	23.5	1160	20	18	1000
19	-do-	0.3	2.0	21.5	770	4 x 0.80	1.40	22.5	1025	1.6	1.40	24.5	1250	19	17	1000
21	-do-	0.3	2.0	22.5	860	4 x 0.80	1.40	23.5	1140	1.6	1.40	25.5	1350	18	16	500
24	-do-	0.3	2.0	24.5	950	4 x 0.80	1.40	25.5	1250	1.6	1.40	27.5	1500	17	16	500
27	-do-	0.3	2.0	25.5	1050	4 x 0.80	1.40	26.5	1350	1.6	1.40	28.5	1625	16	16	500
30	-do-	0.3	2.0	26.0	1150	4 x 0.80	1.40	27.5	1550	1.6	1.40	29.0	1760	16	14	500
33	-do-	0.3	2.0	27.0	1250	4 x 0.80	1.40	28.5	1630	1.6	1.56	30.5	1950	15	14	500
37	-do-	0.3	2.0	28.0	1350	4 x 0.80	1.40	29.5	1710	1.6	1.56	31.5	2080	15	13	500
44	-do-	0.4	2.2	32.0	1650	4 x 0.80	1.56	33.0	2100	2.0	1.56	35.5	2600	14	12	500
52	-do-	0.4	2.2	33.5	1950	4 x 0.80	1.56	34.5	2350	2.0	1.56	37.5	2900	13	12	500
61	-do-	0.4	2.2	35.0	2150	4 x 0.80	1.56	36.0	2625	2.0	1.56	39.0	3400	12	11	500

$ The Weight and Dimensions of Cables with Stranded conductor will be comparatively more than that of Solid conductor,whereas all other parameters are same..

The above data is approximate and subject to manufacturing tolerance.

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

1) FOR AIR AND GROUND TEMPERATURE

A. Rating factors for variation in ambient air temperature						
Ambient Temp (°C)	25	30	35	40	45	50
Rating Factors	1.14	1.10	1.04	1.00	0.95	0.90
B. Rating factors for variation in ground temperature						
Ground Temp (°C)	15	20	25	30	35	40
Rating Factors	1.12	1.08	1.03	1.00	0.96	0.91

2) FOR DEPTH OF LAYING (CABLES LAID DIRECT IN THE GROUND).

Depth of laying	Size		
Cm	Upto 25 mm^2	Above 25 mm^2 Upto 300 mm^2	Above 300 mm^2
75	1.0	1.00	1.00
90	0.99	0.98	0.97
105	0.98	0.97	0.96
120	0.97	0.96	0.95
150	0.96	0.94	0.92
180 or more	0.95	0.93	0.91

3) FOR VARIATION IN THERMAL RESISTIVITY OF SOIL (TWIN AND MULTICORE CABLES LAID DIRECT IN THE GROUND).

Nominal area of conductor mm^2	Two cables touching for values of Thermal Resistivity of soil in °C cm / W					
	100	120	150	200	250	300
1.5	1.10	1.05	1.00	0.92	0.86	0.81
2.5	1.10	1.05	1.00	0.92	0.86	0.81
4	1.10	1.05	1.00	0.92	0.86	0.81
6	1.10	1.05	1.00	0.92	0.86	0.81
10	1.10	1.06	1.00	0.92	0.85	0.80
16	1.12	1.06	1.00	0.91	0.84	0.79
25	1.14	1.08	1.00	0.91	0.84	0.78
35	1.15	1.08	1.00	0.91	0.84	0.77
50	1.15	1.08	1.00	0.91	0.84	0.77
70	1.15	1.08	1.00	0.90	0.83	0.76
95	1.15	1.08	1.00	0.90	0.83	0.76
120	1.17	1.09	1.00	0.90	0.82	0.76
150	1.17	1.09	1.00	0.90	0.82	0.75
185	1.18	1.09	1.00	0.89	0.81	0.75
240	1.18	1.09	1.00	0.89	0.81	0.75
300	1.18	1.09	1.00	0.89	0.81	0.75
400	1.19	1.10	1.00	0.89	0.81	0.75

FOR SINGLE CORE CABLES

A) Cables laid direct in the ground in horizontal formation.

No. of Trefoils in Group	Distance between Trefoils			
	Touching	15 cm	30 cm	45 cm
2	0.78	0.81	0.85	0.88
3	0.68	0.71	0.77	0.81
4	0.61	0.65	0.72	0.76
5	0.56	0.61	0.68	0.73

B) Cables laid in ducts in horizontal formation.

No. of Trefoils in Group	Distance between Trefoils		
	Touching	45 cm	60 cm
2	0.87	0.90	0.91
3	0.79	0.83	0.86
4	0.74	0.79	0.82
5	0.71	0.76	0.80

C) Cables laid on racks / Trays in covered trench with having restricted air circulation, Trefoils are separated by two cable diameter horizontally and the trays are in tiers having 30 cm distance.

No. racks / trays in tiers	No. of Trefoils in Horizontal Formation		
	1	2	3
1	0.95	0.90	0.88
2	0.90	0.85	0.83
3	0.88	0.83	0.81
6	0.86	0.81	0.79

D) as above C. but cables laid in open air.

No. racks / trays in tiers	No. of Trefoils in Horizontal Formation		
	1	2	3
1	1	0.98	0.96
2	1	0.95	0.93
3	1	0.94	0.92
6	1	0.93	0.90

FOR MULTI CORE CABLES

A) Cables laid on cable trays exposed to air, the cables spaced by one cable diameter and trays are in tiers spaced by 30 cm. The clearance between the wall and the cable is 25 mm.

No. of cables trays in tier	No. of Cables per Tray				
	1	2	3	6	9
1	1	0.98	0.96	0.93	0.92
2	1	0.95	0.93	0.90	0.89
3	1	0.94	0.92	0.89	0.88
6	1	0.93	0.90	0.87	0.86

B) Cables laid inside concrete trench with removable covers on cable trays having restricted circulation. The cables spaced by one cable diameter and trays are in tiers spaced by 30 cm. The clearance of the cable from the wall is 25 mm.

No. of cables trays in tier	No. of Cables per Tray				
	1	2	3	6	9
1	0.95	0.90	0.88	0.85	0.84
2	0.90	0.85	0.83	0.81	0.80
3	0.88	0.83	0.81	0.79	0.78
6	0.86	0.81	0.79	0.77	0.76

C) Cables laid on cable trays exposed to air, the cable touching and trays are in tiers spaced by 30 cm. The clearance between the wall and the cable is 25 mm.

No. of cables trays in tier	No. of Cables per Tray				
	1	2	3	6	9
1	1	0.84	0.80	0.75	0.73
2	1	0.80	0.76	0.71	0.69
3	1	0.78	0.74	0.70	0.68
6	1	0.76	0.72	0.68	0.66

D) Cables laid direct in ground in horizontal formation.

No. of cables in Group	Distance of Cables			
	Touching	15 cm	30 cm	45 cm
2	0.79	0.82	0.87	0.90
3	0.69	0.75	0.79	0.83
4	0.62	0.69	0.74	0.79
5	0.58	0.65	0.72	0.76
6	0.54	0.61	0.69	0.75

E) Cables laid in single way ducts / pipes in horizontal formation.

No. of cables in Group	Distance of Cables			
	Touching	30 cm	45 cm	60 cm
2	0.88	0.90	0.92	0.94
3	0.82	0.84	0.87	0.89
4	0.77	0.80	0.84	0.87
5	0.74	0.78	0.82	0.85
6	0.71	0.76	0.81	0.84

A. CABLE INSPECTION

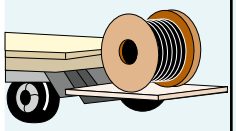
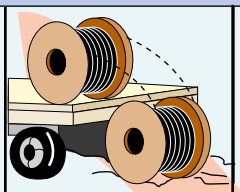
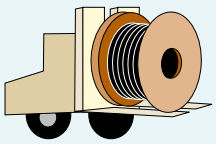
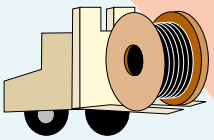
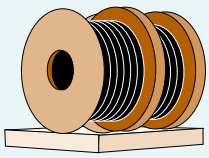
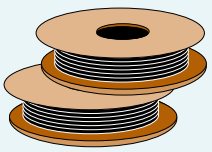
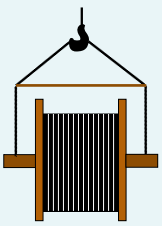
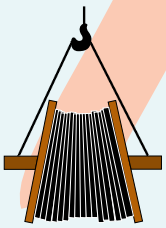
Inspect every cable reel for damage before accepting the shipment.Be particularly alert for cable damage if:

1. A reel is 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 drums and 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 Do's and Don'ts that should be followed while handling and storing the cables before it is put to use.

Do's		Don'ts	
	When off loading reels from a truck, lower reels carefully using a hydraulic gate, hoist or forklift 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 surfaces resting on the flanges edge (flanges vertical). Align reels 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 can total thousands of kgs. creating an enormous load on the bottom reel. Also, damage to the reel and/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 a sling. 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 or storage.

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 suitablejacks / 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

Where D = Diameter of cable in mm

F. RECOMMENDED SAFE PULLING FORCE WITH STOCKINGS:

a) For Unarmoured Cable : P = 5 D2

b) For Armoured Cable : P = 9 D2

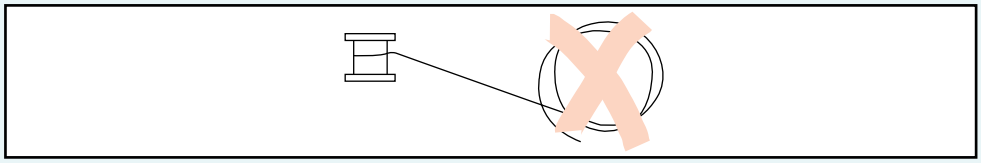
Where P = Pulling Force
Where D = Diameter of cable in mm

G. RECOMMENDED SAFE PULLING FORCE WHEN PULLED WITH PULLING EYE :

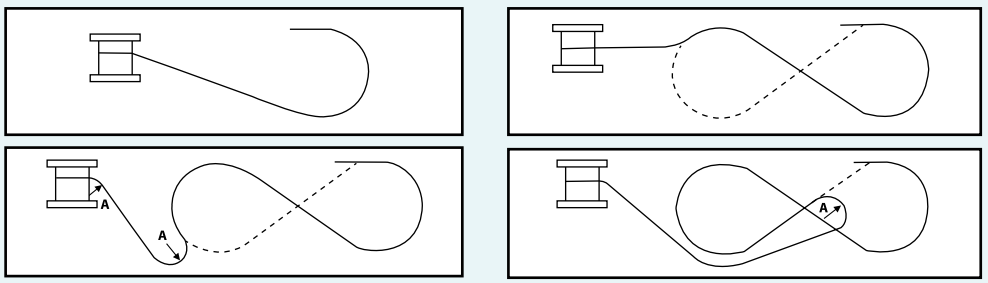
a) For Aluminium Conductor : 30 N/mm^2

b) For Copper Conductor : 50 N/mm^2

DO NOT ATTEMPT "COILING" OF CABLE ON THE GROUND

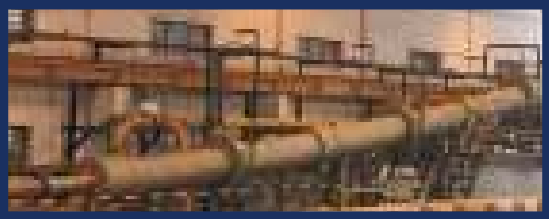


ON THE GROUND CABLE CAN BE FLAKED IN A FIGURE OF EIGHT FORMATION



Note: R Minimum Permissible bending radius of cable.













Production Facilities at Daman Factory

POLYCAB REGIONAL OFFICES

CHENNAI : Old No. 5/2, New No.9/2 Gopalkrishna Road, T-Nagar, CHENNAI - 600 017.
Tel: 044 42022775 / 32969257 • Fax: 044 42022774 • Email : chennai@polycab.com

BARODA : 9, Khushbu Corner, 56, Vishwas Colony, Alkapuri, BARODA - 390 007.
Tel: 0265 3252825 • Fax: 0265 3083366 • Email : gujarat@polycab.com

PUNE : 36, Sangam Project, Off. Indian Air Lines, Near RTO (PUNE), Ambedkar Road, PUNE - 411 001. • Tel: 020 26058277 / 30209678 • Email : pune@polycab.com

BENGALURU : #104/6, 5th Cross, 5th Block, SSI Area, Rajajinagar, BENGALURU - 560 010.
Tel: 080 23102172 • Fax: 080 23102071 • Email : karnataka@polycab.com

SECUNDERABAD : 401, A, 4th floor, Suryakiran Complex, S. D. Road, SECUNDERABAD - 500 003.
Tel: 040 66326228 / 30962600 • Fax: 040 66326229 / 3072355
Email : andhra@polycab.com

DELHI : O-13, 3rd Floor, Lajpat Nagar II, NEW DELHI - 110 024.
Tel: 011 29841721-24 • Fax: 011 29841697 • Email : north@polycab.com

KOLKATA : 1-3, A, South End Park, KOLKATA - 700 029.
Tel: 033 32929602-3 • Fax: 033 24197706 • Email : pwplkolkatta@polycab.com

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(an ISO 9001:2008, 14001:2004, 18001:2007 Company)

Regd. & Head office :

Polycab House, 771, Pandit Satwalekar Marg,
Mahim (W), Mumbai 400 016.

Tel. : 91-22-2432 7070 - 4, 6735 1400
Fax : 91-22-2432 7075

E-mail : enquiry@polycab.com
Website : www.polycab.com

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