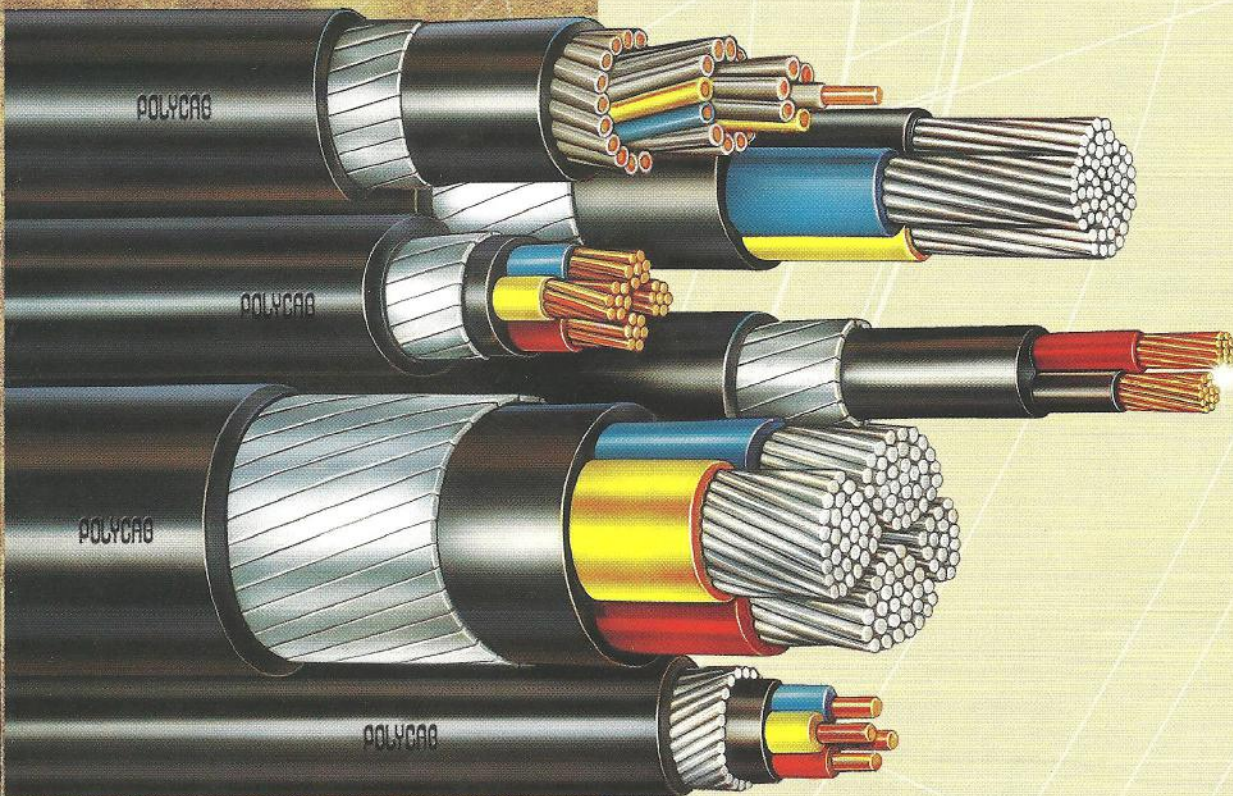


POLYCAB[®]
WIRES & CABLES

**PVC INSULATED
HEAVY DUTY CABLES**

1100 V.



ISO
9001:2000



IS 1554 (Part I)

Details make the Difference


**"POLYCAB" 1.1 KV TWIN CORE, ALUMINIUM CONDUCTOR, PVC INSULATED, INNER SHEATHED,
 ARMURED PVC SHEATHED CABLES CONFORMING TO IS: 1554 (PART I) AMENDED UPTO DATE**

Nominal cross sectional area Sq. mm	Nominal thickness of insulation mm	Minimum thickness of inner sheath mm	ARMOUR		Minimum thickness of outer sheath mm	Approx. overall diameter mm	Approx. weight of cable Kg/Km	Max. DC conductor resistance at 20° C Ohm/Km	CURRENT RATINGS		
			Galv. round steel wire nominal diameter mm	Galv. flat steel strip nominal thickness mm					Direct in Ground Amps.	In Ducts Amps.	In Air Amps.
*1.5	0.8	0.3	1.4	—	1.24	12.2	320	18.1000	18	16	16
*2.5	0.9	0.3	1.4	—	1.24	13.4	380	12.1000	25	21	21
*4.0	1.0	0.3	1.4	—	1.24	14.7	450	7.4100	32	27	27
*6.0	1.0	0.3	1.4	—	1.24	15.8	500	4.6100	40	34	35
*10	1.0	0.3	1.4	—	1.24	17.9	600	3.0800	55	45	47
16	1.0	0.3	—	0.8	1.40	17.0	500	1.9100	70	58	59
25	1.2	0.3	—	0.8	1.40	20.1	650	1.2000	90	76	78
35	1.2	0.3	—	0.8	1.40	21.7	750	0.8680	110	92	99
50	1.4	0.3	—	0.8	1.40	24.5	950	0.6410	135	115	125
70	1.4	0.3	—	0.8	1.56	27.1	1150	0.4430	160	140	150
95	1.6	0.4	—	0.8	1.56	30.8	1460	0.3200	190	170	185
120	1.6	0.4	—	0.8	1.56	32.9	1670	0.2530	210	190	210
150	1.8	0.4	—	0.8	1.72	36.3	2010	0.2060	240	210	240
185	2.0	0.5	—	0.8	1.88	40.3	2450	0.1640	275	240	275
240	2.2	0.5	—	0.8	2.04	44.8	2950	0.1250	320	275	325
300	2.4	0.6	—	0.8	2.20	49.6	3560	0.1000	355	305	365
400	2.6	0.7	—	0.8	2.36	55.9	4500	0.0778	385	345	420
500	3.0	0.7	—	0.8	2.68	62.5	5600	0.0605	410	370	450

**"POLYCAB" 1.1 KV THREE CORE, ALUMINIUM CONDUCTOR, PVC INSULATED, INNER SHEATHED,
 ARMURED PVC SHEATHED CABLES CONFORMING TO IS: 1554 (PART I) AMENDED UPTO DATE**

*1.5	0.8	0.30	1.4	—	1.24	12.7	375	18.1000	16	14	13
*2.5	0.9	0.30	1.4	—	1.24	14.0	425	12.1000	21	18	18
*4.0	1.0	0.30	1.4	—	1.24	15.6	500	7.4100	28	23	23
*6.0	1.0	0.30	1.4	—	1.24	17.3	575	4.6100	35	30	30
*10	1.0	0.30	1.4	—	1.40	19.0	700	3.0800	46	39	40
16	1.0	0.30	—	0.80	1.40	19.3	650	1.9100	60	50	51
25	1.2	0.30	—	0.80	1.40	22.0	800	1.2000	76	63	70
35	1.2	0.30	—	0.80	1.40	24.0	950	0.8680	92	77	86
50	1.4	0.30	—	0.80	1.56	27.6	1200	0.6410	110	95	105
70	1.4	0.40	—	0.80	1.56	30.8	1500	0.4430	135	115	130
95	1.6	0.40	—	0.80	1.56	34.6	1900	0.3200	165	140	155
120	1.6	0.40	—	0.80	1.72	37.5	2240	0.2530	185	155	180
150	1.8	0.50	—	0.80	1.88	41.9	2700	0.2060	210	175	205
185	2.0	0.50	—	0.80	1.88	45.6	3200	0.1640	235	200	240
240	2.2	0.60	—	0.80	2.20	51.6	3990	0.1250	275	235	280
300	2.4	0.60	—	0.80	2.36	56.7	4850	0.1000	305	260	315
400	2.6	0.70	—	0.80	2.52	64.1	6100	0.0778	335	290	375
500	3.0	0.70	—	0.80	2.84	71.5	7600	0.0605	350	310	410

**"POLYCAB" 1.1 KV FOUR CORE, ALUMINIUM CONDUCTOR, PVC INSULATED, INNER SHEATHED,
 ARMURED PVC SHEATHED CABLES CONFORMING TO IS: 1554 (PART I) AMENDED UPTO DATE**

*1.5	0.8	0.3	1.4	—	1.24	15.0	400	18.1000	16	14	13
*2.5	0.9	0.3	1.4	—	1.24	16.5	480	12.1000	21	18	18
*4.0	1.0	0.3	1.4	—	1.24	18.0	550	7.4100	28	23	23
*6.0	1.0	0.3	1.4	—	1.24	19.5	650	4.6100	35	30	30
*10	1.0	0.3	—	0.8	1.40	20.0	660	3.0800	46	39	40
16	1.0	0.3	—	0.8	1.40	23.0	750	1.9100	60	50	51
25	1.2	0.3	—	0.8	1.40	23.7	950	1.2000	76	63	70
35	1.2	0.3	—	0.8	1.40	25.9	1165	0.8680	92	77	86
50	1.4	0.4	—	0.8	1.56	30.4	1540	0.6410	110	95	105
70	1.4	0.4	—	0.8	1.56	33.5	1800	0.4430	135	115	130
95	1.6	0.4	—	0.8	1.72	38.1	2400	0.3200	165	140	155
120	1.6	0.5	—	0.8	1.88	41.9	2800	0.2530	185	155	180
150	1.8	0.5	—	0.8	1.88	45.9	3350	0.2060	210	175	205
185	2.0	0.6	—	0.8	2.04	50.9	4000	0.1640	235	200	240
240	2.2	0.6	—	0.8	2.36	57.1	5050	0.1250	275	235	280
300	2.4	0.7	—	0.8	2.52	63.2	6200	0.1000	305	260	315
400	2.6	0.7	—	0.8	2.84	71.4	7850	0.0778	335	290	375
500	3.0	0.7	—	0.8	3.00	79.2	9600	0.0605	350	310	410

* If required, these sizes can be offered with standard conductors also.

THE ABOVE DATA IS INDICATIVE AND MAY BE REVISED WITHOUT PRIOR INFORMATION



"POLYCAP" 1.1 KV 3¹/₂ CORE, ALUMINIUM CONDUCTOR, PVC INSULATED, INNER SHEATHED, ARMoured PVC SHEATHED CABLES CONFORMING TO IS: 1554 (PART I) AMENDED UPTO DATE

Nominal cross sectional area		Nominal thickness of insulation		Minimum thickness of inner sheath mm	ARMOUR Galv. flat steel strip nominal thickness mm	Minimum thickness of outer sheath mm	Approx. overall diameter mm	Approx. weight of cable Kg/Km	Max. DC conductor resistance at 20° C		CURRENT RATINGS		
Main Sq. mm	Neutral Sq. mm	Main mm	Neutral mm						Main Ohm/km	Neutral Ohm/km	Direct in Ground Amps.	In Ducts Amps.	In Air Amps.
25	16	1.2	1.0	0.3	0.8	1.40	23.1	900	1.200	1.910	76	63	70
35	16	1.2	1.0	0.3	0.8	1.40	24.9	1030	0.868	1.910	92	77	86
50	25	1.4	1.2	0.3	0.8	1.56	28.8	1350	0.641	1.200	100	95	105
70	35	1.4	1.2	0.4	0.8	1.56	32.2	1725	0.443	0.868	135	115	130
95	50	1.6	1.4	0.4	0.8	1.56	36.3	2130	0.320	0.641	165	140	155
120	70	1.6	1.4	0.5	0.8	1.72	40.1	2580	0.253	0.443	185	155	180
150	70	1.8	1.4	0.5	0.8	1.88	43.8	3050	0.206	0.443	210	175	205
185	95	2.0	1.6	0.5	0.8	2.04	48.4	3650	0.164	0.320	235	200	240
240	120	2.2	1.6	0.6	0.8	2.20	54.3	4580	0.125	0.253	275	235	280
300	150	2.4	1.8	0.6	0.8	2.36	59.7	5500	0.100	0.206	305	260	315
400	185	2.6	2.0	0.7	0.8	2.68	67.6	7000	0.0778	0.164	335	290	375
500	240	3.0	2.2	0.7	0.8	2.84	75.2	8600	0.0605	0.125	350	310	410

"POLYCAP" 1.1 KV, ANNEALED HIGH CONDUCTIVITY SOLID COPPER CONDUCTOR, 1.5 SQ. MM, PVC INSULATED, INNER SHEATHED, ARMoured/UNARMoured PVC SHEATHED CONTROL CABLES CONFORMING TO IS: 1554 (PART I) AMENDED UPTO DATE

Number of cores	Nominal thickness of insulation mm	Min. thickness of Inner sheath mm	ARMOUR		Nominal sheath thickness Unarmoured mm	Minimum sheath thickness Armoured mm	Approx. overall diameter		Approx. weight of cable		Max. DC conductor resistance at 20° C Ohm/Km	CURRENT RATINGS		
			Galv. round steel wire nom. dia. mm	Galv. flat steel strip nom. thick. mm			Unarmoured mm	Armoured mm	Unarmoured Kg/Km	Armoured Kg/Km		Direct in Ground Amps.	In Ducts Amps.	In Air Amps.
2	0.8	0.3	1.4	—	1.80	1.24	10.20	13.38	130	350	12.1	23	20	20
3	0.8	0.3	1.4	—	1.80	1.24	10.70	13.88	160	400	12.1	21	17	17
4	0.8	0.3	1.4	—	1.80	1.24	11.50	14.68	190	450	12.1	21	17	17
5	0.8	0.3	1.4	—	1.80	1.24	12.45	15.55	225	500	12.1	21	17	17
6	0.8	0.3	1.4	—	1.80	1.24	13.20	16.48	250	550	12.1	15	13	13
7	0.8	0.3	1.4	—	1.80	1.24	13.20	16.48	265	565	12.1	14	13	13
10	0.8	0.3	1.4	—	1.80	1.40	16.20	18.70	350	750	12.1	13	11	11
12	0.8	0.3	—	0.8	1.80	1.24	17.80	19.20	400	650	12.1	12	10	10
14	0.8	0.3	—	0.8	1.80	1.40	17.90	19.97	450	760	12.1	11	10	10
16	0.8	0.3	—	0.8	1.80	1.40	19.25	20.87	500	800	12.1	11	9	9
19	0.8	0.3	—	0.8	2.00	1.40	20.00	21.80	600	850	12.1	10	9	9
24	0.8	0.3	—	0.8	2.00	1.40	23.00	24.90	725	1050	12.1	9	8	8
30	0.8	0.3	—	0.8	2.00	1.40	24.50	26.17	860	1200	12.1	9	7	7
37	0.8	0.3	—	0.8	2.00	1.40	26.00	28.0	1050	1400	12.1	8	7	7
61	0.8	0.4	—	0.8	2.20	1.56	33.00	34.72	1650	2100	12.1	7	6	6

"POLYCAP" 1.1 KV, ANNEALED HIGH CONDUCTIVITY SOLID COPPER CONDUCTOR, 2.5 SQ. MM, PVC INSULATED, INNER SHEATHED, ARMoured/UNARMoured PVC SHEATHED CONTROL CABLES CONFORMING TO IS: 1554 (PART I) AMENDED UPTO DATE

2	0.9	0.3	1.4	—	1.8	1.24	10.68	14.58	160	425	7.41	32	27	27
3	0.9	0.3	1.4	—	1.8	1.24	11.40	15.17	225	475	7.41	27	24	24
4	0.9	0.3	1.4	—	1.8	1.24	11.50	16.13	250	530	7.41	27	24	24
5	0.9	0.3	1.4	—	1.8	1.24	14.10	17.49	300	600	7.41	27	24	24
6	0.9	0.3	1.4	—	1.8	1.24	15.40	18.28	340	675	7.41	20	18	18
7	0.9	0.3	1.4	—	1.8	1.24	15.40	18.28	375	700	7.41	20	17	17
10	0.9	0.3	—	0.8	1.8	1.40	19.00	21.10	500	780	7.41	18	15	15
12	0.9	0.3	—	0.8	2.0	1.40	20.00	21.69	600	850	7.41	17	14	14
14	0.9	0.3	—	0.8	2.0	1.40	20.90	22.62	650	950	7.41	16	13	13
16	0.9	0.3	—	0.8	2.0	1.40	22.10	23.69	750	1050	7.41	15	13	13
19	0.9	0.3	—	0.8	2.0	1.40	23.00	24.80	850	1150	7.41	14	12	12
24	0.9	0.3	—	0.8	2.0	1.40	26.60	28.82	1050	1400	7.41	13	11	11
30	0.9	0.3	—	0.8	2.0	1.56	28.40	30.34	1250	1700	7.41	12	10	10
37	0.9	0.4	—	0.8	2.2	1.56	31.00	32.72	1550	2000	7.41	11	10	10
61	0.9	0.4	—	0.8	2.2	1.56	38.40	40.44	2450	3100	7.41	9	8	8

* If required, these sizes can be offered with standard conductors also.

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CONDUCTOR RESISTANCE OF PLAIN COPPER CONDUCTORS USED FOR HEAVY DUTY CABLES AS PER IS:8130-1984

Size in Sq. mm	Conductor Construction	Max. cond. resistance in ohm/km at 20°C	Size in Sq. mm	Conductor Construction	Max. cond. resistance in ohm/km at 20° C
		Single core & Multi core			Single core & Multi core
1.5*	1/1.38	12.100	120	37/2.03	0.153
2.5*	1/1.78	7.410	150	37/2.24	1.124
4.0*	1/2.24	4.610	185	37/2.50	0.0991
6.0*	1/2.76	3.080	240	61/2.24	0.0754
10	7/1.35	1.830	300	61/2.50	0.0601
16	7/1.70	1.150	400	61/2.85	0.0470
25	7/2.14	0.727	500	61/3.20	0.0366
35	7/2.50	0.524	630	91/3.00	0.0283
50	7/3.00	0.387	—	—	—
70	19/2.14	0.268	800	127/2.83	0.0221
95	19/2.50	0.193	1000	127/3.16	0.0176

* Solid Conductor

CURRENT RATING OF "POLYCAB" COPPER ARMoured/UNARMoured CABLES 650/1100 V GRADE IN AIR

Area Sq. mm	Twin Core Amp.	3, 3 1/2, 4 Core Amp.	Area Sq. mm	Twin Core Amp.	3, 3 1/2, 4 Core Amp.
1.5	20	17	70	195	165
2.5	27	24	95	230	200
4	35	30	120	265	235
6	45	39	150	305	265
10	60	52	185	350	*305
16	78	66	240	410	355
25	105	90	300	465	400
35	125	110	400	530	455
50	155	135	—	—	—

THE ABOVE DATA IS INDICATIVE AND MAY BE REVISED WITHOUT PRIOR INFORMATION
POLYCAB WILL NOT BE LIABLE FOR ANY DAMAGES ARISING OUT OF INCORRECT APPLICATION



POLYCAB WIRES PVT. LTD.

(an ISO 9001:2000 Company)

ARIHANT CABLES

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