



LASER CABLES P LTD
Power and Control cables

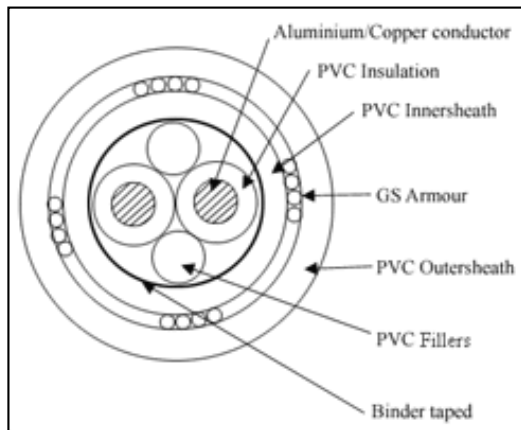
LASER CABLES PRODUCT SPECIFICATIONS

Type of Power and Control Cables



Technical specifications of LASER 1.1 KV Twin Core, Armoured PVC Sheathed Cables
Aluminium Conductor, PVC Insulated, Inner Sheathed 1.1 KV Grade conforming to IS: 1554 (PART I)

Nominal cross sectional area sq. mm.	Nominal thickness of insulation mm	Minimum thickness of Inner Sheath mm	ARMOURED		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 wire nominal diameter mm					Direct in Ground Amps	In Ducts Amps	in Amps
1.5	0.8	0.30	1.4	-	1.24	13.6	304	18.1000	18	16	16
2.5	0.9	0.30	1.4	-	1.24	15.0	361	12.1000	25	21	21
4.0	1.0	0.30	1.4	-	1.24	16.0	428	7.4100	32	27	27
6.0	1.0	0.30	1.4	-	1.24	17.5	475	4.6100	40	34	35
10	1.0	0.30	1.4	-	1.24	19.0	570	3.0800	55	45	47
16	1.0	0.30	-	0.80	1.40	17.0	475	1.9100	70	58	59
25	1.2	0.30	-	0.80	1.40	19.5	618	1.2000	90	76	78
35	1.2	0.30	-	0.80	1.40	21.0	713	0.8680	110	92	99
50	1.4	0.30	-	0.80	1.40	24.0	903	0.6410	135	115	125
70	1.4	0.30	-	0.80	1.56	26.0	1093	0.4430	160	140	150
95	1.6	0.40	-	0.80	1.56	29.5	1387	0.3200	190	170	185
120	1.6	0.40	-	0.80	1.56	31.5	1587	0.2530	210	190	210
150	1.8	0.40	-	0.80	1.72	34.5	1910	0.2060	240	210	240
185	2.0	0.50	-	0.80	1.88	38.5	2328	0.1640	275	240	275
240	2.2	0.50	-	0.80	2.04	42.5	2803	0.1250	320	275	325
300	2.4	0.60	-	0.80	2.20	46.5	3382	0.1000	355	305	365
400	2.6	0.70	-	0.80	2.36	52.0	4275	0.0778	385	345	420
500	3.0	0.70	-	0.80	2.68	58.5	5320	0.0605	410	370	450

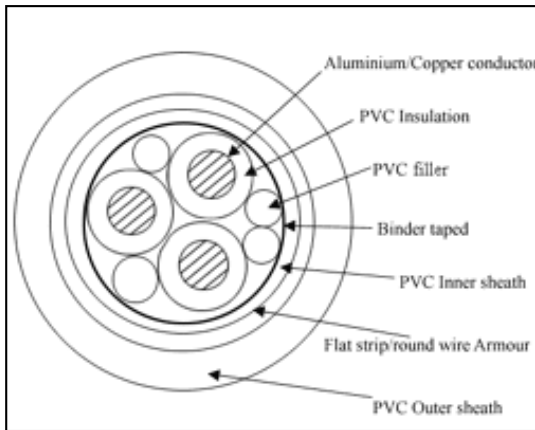


**2C Aluminium/Copper Conductor,
PVC Insulated, Armoured,
PVC Sheathed Cable**

Type: AYFY/AYWY/YFY/YWY

Technical specifications of LASER 1.1 KV Three Core, Armoured PVC Sheathed Cables
Aluminium Conductor, PVC Insulated, Inner Sheathed 1.1 KV Grade conforming to IS: 1554 (PART I)

Nominal cross sectional area sq. mm.	Nominal thickness of insulation mm	Minimum thickness of Inner Sheath mm	ARMOURED		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 wire nominal diameter mm					Direct in Ground Amps	In Ducts Amps	in Amps
1.5	0.8	0.30	1.4	-	1.24	14.5	356	18.1000	16	14	13
2.5	0.9	0.30	1.4	-	1.24	15.5	404	12.1000	21	18	18
4.0	1.0	0.30	1.4	-	1.24	17.0	475	7.4100	28	23	23
6.0	1.0	0.30	1.4	-	1.24	18.0	548	4.6100	35	30	30
10	1.0	0.30	1.4	-	1.40	20.0	665	3.0800	46	39	40
16	1.0	0.30	-	0.80	1.40	20.0	618	1.9100	60	50	51
25	1.2	0.30	-	0.80	1.40	22.5	760	1.2000	76	63	70
35	1.2	0.30	-	0.80	1.40	24.5	903	0.8680	92	77	86
50	1.4	0.30	-	0.80	1.56	26.5	1140	0.6410	110	95	105
70	1.4	0.30	-	0.80	1.56	31.0	1425	0.4430	135	115	130
95	1.6	0.40	-	0.80	1.56	35.0	1805	0.3200	165	140	155
120	1.6	0.40	-	0.80	1.72	38.0	2128	0.2530	185	155	180
150	1.8	0.40	-	0.80	1.88	42.0	2565	0.2060	210	175	205
185	2.0	0.50	-	0.80	1.88	46.0	3040	0.1640	235	200	240
240	2.2	0.50	-	0.80	2.20	51.0	3791	0.1250	275	235	280
300	2.4	0.60	-	0.80	2.36	56.5	4608	0.1000	305	260	315
400	2.6	0.70	-	0.80	2.52	63.5	5795	0.0778	335	290	375
500	3.0	0.70	-	0.80	2.84	70.5	7220	0.0605	350	310	410

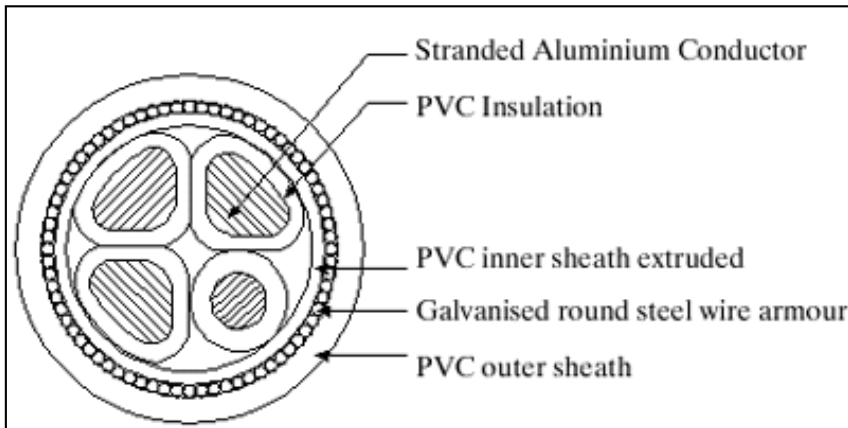


**3C Aluminium/Copper Conductor,
PVC Insulated, Armoured,
PVC Sheathed Cable**

Type: AYFY/AYWY/YFY/YWY

**Technical specifications of LASER 1.1 KV 3 1/2 Core, Armoured PVC Sheathed Cables
Aluminium Conductor, PVC Insulated, Inner Sheathed 1.1 KV Grade conforming to IS: 1554 (PART I)**

Nominal cross sectional area		Nominal thickness of insulation		Minimum thickness of Inner sheath	ARMOURED Galv. Flat Steel Strip Nominal Thickness mm	Minimum thickness of outer sheath	Approx. overall diameter	Approx. Weight of Cable	Max, DC Conductor resistance at 20deg C		CURRENT RATINGS		
Main	Neutral	Main	Neutral						Main	Neutral	Direct in Ground	In Ducts	In Air
Sq. mm	Sq. mm	mm	mm	mm	mm	mm	Kg/Km	Ohm/Km	Ohm/Km	Amps	Amps	Amps	
25	16	1.2	1.0	0.3	0.8	1.40	25.0	855	1.200	1.910	76	63	70
35	16	1.2	1.0	0.3	0.8	1.40	27.0	979	0.868	1.910	92	77	86
50	25	1.4	1.2	0.3	0.8	1.56	31.0	1283	0.641	1.200	100	95	105
70	35	1.4	1.2	0.4	0.8	1.56	34.0	1639	0.443	0.868	135	115	130
95	50	1.6	1.4	0.4	0.8	1.56	39.0	2024	0.320	1.641	165	140	155
120	70	1.6	1.4	0.5	0.8	1.72	42.0	2451	0.253	0.443	185	155	180
150	70	1.8	1.4	0.5	0.8	1.88	46.5	2898	0.206	0.443	210	175	205
185	95	2.0	1.6	0.5	0.8	2.04	51.5	3468	0.164	0.320	235	200	240
240	120	2.2	1.6	0.6	0.8	2.20	57.5	4351	0.125	0.253	275	235	280
300	150	2.4	1.8	0.6	0.8	2.36	64.0	5225	0.100	0.206	305	260	315
400	185	2.6	2.0	0.7	0.8	2.68	72.0	6650	0.0778	0.164	335	290	375
500	240	3.0	2.2	0.7	0.8	2.84	80.0	8170	0.0605	0.125	350	310	410

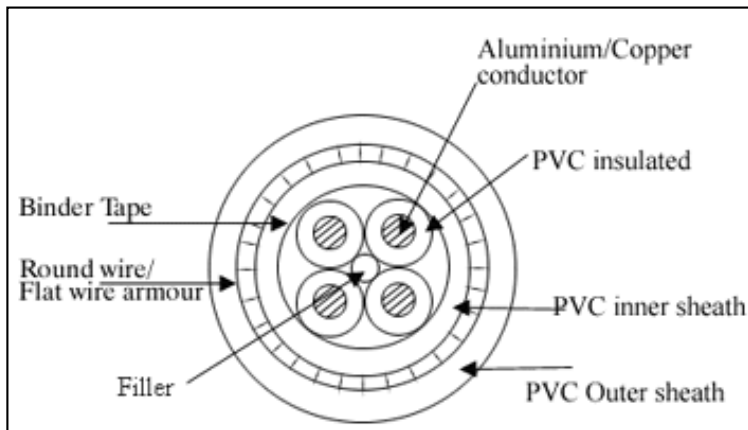


**3.5C Aluminium/Copper Conductor,
PVC Insulated, Armoured,
PVC Sheathed Cable**

Type: AYFY/AYWY/YFY/YWY

**Technical specifications of LASER 1.1 KV Four Core, Armoured PVC Sheathed Cables
Aluminium Conductor, PVC Insulated, Inner Sheathed 1.1 KV Grade conforming to IS: 1554 (PART I)**

Nominal cross sectional area sq. mm.	Nominal thickness of insulation mm	Minimum thickness of Inner Sheath mm	ARMOURED		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 wire nominal diameter mm					Direct in Ground Amps	In Ducts Amps	in Amps
1.5	0.8	0.30	1.4	-	1.24	15.0	380	18.1000	16	14	13
2.5	0.9	0.30	1.4	-	1.24	16.5	456	12.1000	21	18	18
4.0	1.0	0.30	1.4	-	1.24	18.0	523	7.4100	28	23	23
6.0	1.0	0.30	1.4	-	1.24	19.5	618	4.6100	35	30	30
10	1.0	0.30	1.4	-	1.40	20.0	627	3.0800	46	39	40
16	1.0	0.30	-	0.80	1.40	23.0	713	1.9100	60	50	51
25	1.2	0.30	-	0.80	1.40	26.5	903	1.2000	76	63	70
35	1.2	0.30	-	0.80	1.40	29.0	1107	0.8680	92	77	86
50	1.4	0.30	-	0.80	1.56	33.5	1463	0.6410	110	95	105
70	1.4	0.30	-	0.80	1.56	37.0	1710	0.4430	135	115	130
95	1.6	0.40	-	0.80	1.72	42.0	2280	0.3200	165	140	155
120	1.6	0.40	-	0.80	1.88	46.0	2660	0.2530	185	155	180
150	1.8	0.40	-	0.80	1.88	50.5	3183	0.2060	210	175	205
185	2.0	0.50	-	0.80	2.04	55.5	3800	0.1640	235	200	240
240	2.2	0.50	-	0.80	2.36	62.5	4798	0.1250	275	235	280
300	2.4	0.60	-	0.80	2.52	69.0	5890	0.1000	305	260	315
400	2.6	0.70	-	0.80	2.84	78.0	7458	0.0778	335	290	375
500	3.0	0.70	-	0.80	3.00	86.5	9120	0.0605	350	310	410



**4C Aluminium/Copper Conductor,
PVC Insulated, Armoured,
PVC Sheathed Cable**

Type: AYFY/AYWY/YFY/YWY

Conductor resistance of Plain Copper Conductors used for heavy duty cables as per IS: 8130-1984

Size in Sq. mm.	Conductor Construction	Max. Contd. Resistance in Ohm/Km at 20deg C	Size in Sq. mm.	Conductor Construction	Max. Contd. Resistance in Ohm/Km at 20deg C
		Single core & Multicore			Single core & Multicore
1.5*	1/1.38	12.100	120	37/2.03	0.153
2.5*	1/1.78	7.410	150	37/2.24	0.124
4.0*	1/2.24	4.610	185	37/2.25	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

Current rating of LASER Copper Armoured/ Unarmoured Cables 1.1 KV grade in air

Area Sq. mm.	Twin Core Amp	3, 3.5, 4Core Amp	Area Sq. mm.	Twin Core Amp	3, 3.5, 4Core 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	-	-	-

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