

Table-1A
1.9/3.3 or 3.3/3.3 (3.6) kV Single XLPE Insulated Unscreened Armoured / Unarmoured Cable with Aluminium / Copper Conductor Confirming to IS 7098 Part 2.
Physical Data

Area	Thickness of XLPE Insulation		Dimension of Armour Wire	Thickness of Outer sheath		Approx. Overall diameter		Approx. Net Wt. of Cable			
	Arm	Un-Arm		Arm	Un-Arm	Arm	Un-Arm	Armoured		Unarmoured	
	mm ²	mm	mm	mm	mm	mm	mm	kg/km	kg/km	kg/km	kg/km
	Nom	Nom		Min	Nom			Al	Cu	Al	Cu
25	2.5	2.2	1.4	1.24	1.8	17	15	335	485	240	390
35	2.5	2.2	1.4	1.24	1.8	18	16	385	595	280	490
50	2.5	2.2	1.4	1.40	1.8	19	17	460	740	330	615
70	2.5	2.2	1.6	1.40	1.8	21	19	580	990	415	825
95	2.5	2.2	1.6	1.40	2.0	23	21	690	1255	525	1090
120	2.5	2.2	1.6	1.40	2.0	24	22	785	1500	615	1330
150	2.5	2.2	1.6	1.40	2.0	26	23	890	1775	710	1590
185	2.5	2.2	1.6	1.40	2.0	27	25	1035	2135	835	1940
240	2.5	2.2	1.6	1.56	2.0	30	27	1265	2695	1025	2460
300	2.6	2.2	1.6	1.56	2.0	32	29	1485	3300	1220	3035
400	2.6	2.2	2.0	1.56	2.2	36	33	1870	4200	1525	3855
500	2.8	2.4	2.0	1.56	2.2	40	36	2270	5250	1890	4865
630	3.1	2.6	2.0	1.72	2.2	44	40	2815	6695	2340	6220
800	3.3	2.8	2.0	1.88	2.4	50	46	3500	8450	2975	7920
1000	3.6	3.0	2.5	2.04	2.6	56	51	4455	10510	3690	9740

1.9/3.3 or 3.3/3.3 (3.6) kV Single XLPE Insulated Unscreened Armoured / Unarmoured Cable with Aluminium / Copper Conductor Confirming to IS 7098 Part 2.
Electrical Data

Area	Max.D.C. resistance at 20 °C		Approx. A.C. resistance at operating Temp. 90 °C.		Approx reactance at 50 Hz		Current Rating						Short circuit rating for 1 Sec.	Voltage Drop for Armoured cables		
	/km	/km	/km	/km	Arm.	Un-Arm.	Direct in Ground		In duct		In Air			V/A/km		
	mm ²	Al	Cu	Al	Cu	/km	/km	Amps	Amps	Amps	Amps	Amps	Amps	kA(rms)	Al	Cu
25	1.20	0.727	1.54	0.927	0.128	0.120	98	125	96	125	94	123	2.35	3.58	3.09	1.87
35	0.868	0.524	1.113	0.668	0.122	0.114	114	148	114	143	118	146	3.29	5.01	2.24	1.36
50	0.641	0.387	0.822	0.494	0.117	0.109	138	180	139	180	152	203	4.70	7.15	1.66	1.01
70	0.443	0.268	0.568	0.342	0.109	0.100	170	222	169	217	194	260	6.58	10.01	1.16	0.72
95	0.320	0.193	0.411	0.247	0.104	0.097	203	265	199	255	238	319	8.93	13.6	0.85	0.54
120	0.253	0.153	0.325	0.196	0.101	0.094	231	301	225	286	276	370	11.28	17.2	0.68	0.44
150	0.206	0.124	0.265	0.159	0.098	0.092	258	337	246	309	319	425	14.1	21.5	0.56	0.37
185	0.164	0.0991	0.211	0.1280	0.094	0.088	292	379	273	341	367	488	17.4	26.5	0.46	0.32
240	0.125	0.0754	0.162	0.0984	0.091	0.085	338	436	310	382	435	576	22.6	34.3	0.37	0.27
300	0.100	0.0601	0.130	0.0795	0.089	0.083	379	486	342	417	498	656	28.2	42.9	0.32	0.24
400	0.0778	0.0470	0.1021	0.0636	0.087	0.081	371	539	314	443	487	749	37.6	57.2	0.27	0.22
500	0.0605	0.0366	0.0806	0.0514	0.085	0.080	393	597	336	480	538	847	47.0	71.5	0.23	0.20
630	0.0469	0.0283	0.0641	0.0420	0.084	0.078	447	657	382	518	616	954	59.2	90.1	0.21	0.19
800	0.0367	0.0221	0.0521	0.0354	0.082	0.077	505	693	432	540	690	1037	75.2	114.4	0.19	0.18
1000	0.0291	0.0176	0.0433	0.0304	0.082	0.076	567	735	485	574	775	1125	94.0	143.0	0.19	0.18

Property of Ravin Cables Ltd.

- The above data is indicative & may be changed without prior information.
- All Conductors will be Compacted Circular.
- Screened construction can also be offered on request.

Operating Conditions

Ambient Air temp. : 40 °C
 Ground temp. : 30 °C

Depth of Laying : 75 cm
 Thermal resistivity of Soil : 150 °C-cm/W

Table-1B **Physical Data**
1.9/3.3 or 3.3/3.3 (3.6) kV Three Core XLPE Insulated Unscreened Armoured Cable with Aluminium / Copper Conductor Confirming to IS 7098 Part 2.

Area	Thickness of XLPE Insulation	Thickness of Inner Sheath	Dimension of Armour Strip	Thickness of Outer sheath	Approx. Overall diameter	Approx. Net Wt. of Cable					
						mm ²	mm	mm	mm	kg/km	kg/km
						Nom	Min	Min	Al	Cu	
25	2.2	0.30	4.0 x 0.8	1.40	26	975	1425				
35	2.2	0.30	4.0 x 0.8	1.56	29	1180	1810				
50	2.2	0.40	4.0 x 0.8	1.56	31	1360	2215				
70	2.2	0.40	4.0 x 0.8	1.56	34	1640	2880				
95	2.2	0.40	4.0 x 0.8	1.72	37	1990	3705				
120	2.2	0.50	4.0 x 0.8	1.72	40	2320	4485				
150	2.2	0.50	4.0 x 0.8	1.88	42	2675	5355				
185	2.2	0.50	4.0 x 0.8	2.04	46	3135	6470				
240	2.2	0.60	4.0 x 0.8	2.20	50	3835	8170				
300	2.2	0.60	4.0 x 0.8	2.20	54	4515	10015				
400	2.2	0.70	4.0 x 0.8	2.52	60	5505	12585				
500	2.4	0.70	4.0 x 0.8	2.68	67	6750	15795				

Electrical Data.

Area	Max.D.C. resistance at 20 °C		Approx. A.C. resistance at operating Temp. 90 °C		Approx reactance at 50 Hz	Current Rating						Short circuit rating for 1 Sec.	Voltage Drop for Armoured cables		
						Arm.	Direct in Ground		In duct		In Air				
							Amps	Amps	Amps	Amps	Amps				Amps
mm ²	/km	/km	/km	/km	/km	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu
25	1.20	0.727	1.54	0.927	0.098	91	119	74	97	93	123	2.35	3.58	2.67	1.61
35	0.868	0.524	1.113	0.668	0.094	109	142	88	116	114	151	3.29	5.01	1.93	1.17
50	0.641	0.387	0.822	0.494	0.091	129	169	105	138	138	184	4.70	7.15	1.43	0.87
70	0.443	0.268	0.568	0.342	0.084	158	208	130	170	174	231	6.58	10.01	1.00	0.61
95	0.320	0.193	0.411	0.247	0.081	191	249	157	205	215	285	8.93	13.6	0.73	0.45
120	0.253	0.153	0.325	0.196	0.079	217	283	180	234	249	331	11.28	17.2	0.58	0.37
150	0.206	0.124	0.265	0.160	0.078	243	317	202	264	285	378	14.1	21.5	0.48	0.31
185	0.164	0.0991	0.211	0.1282	0.076	276	358	230	298	330	436	17.4	26.5	0.39	0.26
240	0.125	0.0754	0.162	0.0987	0.074	319	413	267	345	391	514	22.6	34.3	0.31	0.21
300	0.100	0.0601	0.130	0.0799	0.073	360	462	301	387	447	586	28.2	42.9	0.26	0.19
400	0.0778	0.0470	0.1024	0.0641	0.071	406	521	342	445	461	674	37.6	57.2	0.22	0.17
500	0.0605	0.0366	0.0809	0.0518	0.071	460	590	388	504	523	764	47	71.5	0.19	0.15

Property of Ravin Cables Ltd.

- The above data is indicative & may be changed without prior information.
- All Conductors will be Compacted Sector shaped.
- Screened construction can also be offered on request.

Operating Conditions

Ambient Air temp. : 40 °C

Ground temp. : 30 °C

Depth of Laying : 75 cm

Thermal resistivity of Soil : 150 °C-cm/W

Table-2A **Physical Data**
3.8/6.6 (7.2) kV Single XLPE Insulated Screened Armoured / Unarmoured Cable with Aluminium / Copper Conductor Confirming to IS 7098 Part 2.

Area	Thickness of XLPE Insulation	Thickness of Inner sheath	Dimension of Armour Wire	Thickness of Outer sheath		Approx. Overall diameter		Approx. Net Wt. of Cable			
				Arm	Un-Arm	Arm	Un-Arm	Armoured		Unarmoured	
				mm	mm	mm	mm	kg/km	kg/km	kg/km	kg/km
mm ²	mm	mm	mm	mm	mm	mm	mm	Al	Cu	Al	Cu
	Nom	Nom		Min	Nom						
25	2.8	0.3	1.6	1.40	1.8	21	18	525	675	345	490
35	2.8	0.3	1.6	1.40	2.0	22	19	585	795	410	620
50	2.8	0.3	1.6	1.40	2.0	23	20	655	940	470	750
70	2.8	0.3	1.6	1.40	2.0	25	22	770	1175	565	975
95	2.8	0.3	1.6	1.40	2.0	26	23	885	1450	670	1235
120	2.8	0.3	1.6	1.40	2.0	28	25	995	1710	765	1480
150	2.8	0.3	1.6	1.56	2.0	29	26	1130	2015	865	1750
185	2.8	0.3	1.6	1.56	2.0	32	29	1325	2425	1035	2135
240	2.8	0.4	2.0	1.56	2.2	34	31	1635	3065	1255	2685
300	3.0	0.4	2.0	1.56	2.2	37	34	1905	3720	1490	3310
400	3.3	0.4	2.0	1.72	2.2	41	37	2315	4655	1825	4165
500	3.5	0.5	2.0	1.88	2.4	45	41	2810	5795	2260	5245
630	3.5	0.5	2.0	1.88	2.4	49	45	3305	7195	2710	6600
800	3.5	0.5	2.5	2.04	2.6	55	50	4185	9145	3360	8320
1000	3.6	0.6	2.5	2.20	2.8	60	55	5020	11085	4100	10165

Electrical Data

Area	Max.D.C. resistance at 20 °C		Approx. A.C. resistance at operating Temp. 90 °C.		Approx reactance at 50 Hz		Current Rating						Short circuit rating for 1 Sec.		Voltage Drop for Armoured cables	
							Arm.		Un-Arm.		Direct in Ground					
	mm ²	/km	/km	/km	/km	/km	/km	Amps	Amps	Amps	Amps	Amps	Amps	kA(rms)	kA(rms)	V/A/km
	Al	Cu	Al	Cu			Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu
25	1.20	0.727	1.54	0.927	0.142	0.131	99	125	87	110	115	150	2.35	3.58	3.09	1.88
35	0.868	0.524	1.113	0.668	0.135	0.126	115	150	105	135	140	180	3.29	5.01	2.24	1.36
50	0.641	0.387	0.822	0.494	0.128	0.120	140	175	120	155	165	215	4.70	7.15	1.66	1.02
70	0.443	0.268	0.568	0.342	0.118	0.110	170	215	145	190	210	270	6.58	10.01	1.16	0.72
95	0.320	0.193	0.411	0.247	0.113	0.106	200	255	175	225	255	325	8.93	13.6	0.85	0.54
120	0.253	0.153	0.325	0.196	0.109	0.102	225	290	195	250	295	375	11.28	17.2	0.69	0.45
150	0.206	0.124	0.265	0.159	0.106	0.099	250	320	220	380	330	425	14.1	21.5	0.57	0.38
185	0.164	0.0991	0.211	0.1277	0.102	0.096	285	360	245	315	380	485	17.4	26.5	0.47	0.33
240	0.125	0.0754	0.161	0.0980	0.101	0.094	325	410	280	355	450	570	22.6	34.3	0.38	0.28
300	0.100	0.0601	0.130	0.0790	0.098	0.091	365	455	315	395	510	640	28.2	42.9	0.33	0.25
400	0.0778	0.0470	0.1017	0.0631	0.095	0.089	410	510	355	435	590	730	37.6	57.2	0.28	0.23
500	0.0605	0.0366	0.0802	0.0507	0.093	0.087	455	550	395	475	680	830	47.0	71.5	0.25	0.21
630	0.0469	0.0283	0.0636	0.0413	0.090	0.085	510	600	435	520	780	930	59.2	90.1	0.22	0.20
800	0.0367	0.0221	0.0515	0.0345	0.088	0.082	550	640	470	540	870	1010	75.2	114.4	0.20	0.19
1000	0.0291	0.0176	0.0428	0.0298	0.087	0.081	590	670	500	570	960	1090	94.0	143.0	0.19	0.18

Property of Ravin Cables Ltd.

- The above data is indicative & may be changed without prior information.
- All Conductors will be Compacted Circular.

Operating Conditions

Ambient Air temp. : 40 °C

Depth of Laying : 90 cm

Ground temp. : 30 °C

Thermal resistivity of Soil : 150 °C-cm/W

Table-2B **Physical Data**
3.8/6.6 (7.2) kV Three Core XLPE Insulated Screened Armoured Cable with Aluminium / Copper Conductor Confirming to IS 7098 Part 2.

Area	Thickness of XLPE Insulation	Thickness of Inner Sheath	Dimension of Armour Strip	Thickness of Outer sheath	Approx. Overall diameter	Approx. Net Wt. of Cable		
	mm ²	mm		mm		mm	kg/km	kg/km
		Nom		Min		Min	Al	Cu
25	2.8	0.4	4.0 x 0.8	1.56	36	1605	2055	
35	2.8	0.4	4.0 x 0.8	1.72	38	1815	2450	
50	2.8	0.5	4.0 x 0.8	1.72	42	2100	2955	
70	2.8	0.5	4.0 x 0.8	1.88	45	2510	3745	
95	2.8	0.5	4.0 x 0.8	1.88	49	2895	4615	
120	2.8	0.6	4.0 x 0.8	2.04	52	3345	5515	
150	2.8	0.6	4.0 x 0.8	2.20	55	3770	6455	
185	2.8	0.6	4.0 x 0.8	2.20	61	4445	7790	
240	2.8	0.7	4.0 x 0.8	2.36	65	5285	9610	
300	3.0	0.7	4.0 x 0.8	2.52	71	6215	11725	
400	3.3	0.7	4.0 x 0.8	2.84	80	7615	14710	
500	3.5	0.7	4.0 x 0.8	3.00	88	9165	18255	

Electrical Data

Area	Max.D.C. resistance at 20 °C		Approx. A.C. resistance at operating Temp. 90 °C		Approx reactance at 50 Hz	Current Rating						Short circuit rating for 1 Sec.	Voltage Drop for Armoured cables		
						Arm.	Direct in Ground		In duct		In Air				
							Amps	Amps	Amps	Amps	Amps				Amps
mm ²	Al	Cu	Al	Cu	/km	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu
25	1.20	0.727	1.54	0.927	0.124	95	120	82	105	105	135	2.35	3.58	2.67	1.62
35	0.868	0.524	1.113	0.668	0.118	115	145	97	125	125	165	3.29	5.01	1.94	1.18
50	0.641	0.387	0.822	0.494	0.112	130	170	115	150	150	195	4.70	7.15	1.44	0.88
70	0.443	0.268	0.568	0.342	0.104	160	210	140	180	190	240	6.58	10.01	1.00	0.62
95	0.320	0.193	0.411	0.247	0.100	190	250	165	215	230	295	8.93	13.6	0.73	0.46
120	0.253	0.153	0.325	0.196	0.096	220	280	190	240	260	335	11.28	17.2	0.59	0.38
150	0.206	0.124	0.265	0.159	0.094	245	310	210	270	295	380	14.1	21.5	0.49	0.32
185	0.164	0.0991	0.211	0.1281	0.091	275	350	240	305	335	430	17.4	26.5	0.40	0.27
240	0.125	0.0754	0.162	0.0986	0.088	315	400	275	350	395	500	22.6	34.3	0.32	0.23
300	0.100	0.0601	0.130	0.0798	0.086	355	445	310	390	450	570	28.2	42.9	0.27	0.20
400	0.0778	0.0470	0.1024	0.0641	0.083	400	500	350	440	520	650	37.6	57.2	0.23	0.18
500	0.0605	0.0366	0.0811	0.0521	0.081	454	567	397	499	590	737	47	71.5	0.20	0.17

Property of Ravin Cables Ltd.

- The above data is indicative & may be changed without prior information.
- All Conductors will be Compacted Circular shaped.

Operating Conditions

Ambient Air temp. : 40 °C

Depth of Laying : 90 cm

Ground temp. : 30 °C

Thermal resistivity of Soil : 150 °C-cm/W

Table - 3A **Physical Data**
6.35/11 (12) kV Single XLPE Insulated Screened Armoured / Unarmoured Cable with Aluminium / Copper Conductor Confirming to IS 7098 Part 2.

Area	Thickness of XLPE Insulation	Thickness of Inner sheath	Dimension of Armour Wire	Thickness of Outer sheath		Approx. Overall diameter		Approx. Net Wt. of Cable			
				Arm	Un-Arm	Arm	Un-Arm	Armoured		Unarmoured	
				mm	mm	mm	mm	kg/km	kg/km	kg/km	kg/km
mm ²	mm	mm	mm	mm	mm	mm	mm	Al	Cu	Al	Cu
25	3.6	0.3	1.6	1.40	2.0	22	20	595	745	415	560
35	3.6	0.3	1.6	1.40	2.0	23	21	655	865	465	675
50	3.6	0.3	1.6	1.40	2.0	25	22	730	1010	525	810
70	3.6	0.3	1.6	1.40	2.0	26	24	845	1255	625	1035
95	3.6	0.3	1.6	1.40	2.0	28	25	965	1530	735	1300
120	3.6	0.3	1.6	1.56	2.0	30	27	1105	1820	835	1550
150	3.6	0.3	1.6	1.56	2.0	31	28	1215	2100	940	1820
185	3.6	0.4	2.0	1.56	2.2	34	31	1510	2610	1140	2240
240	3.6	0.4	2.0	1.56	2.2	36	32	1735	3165	1335	2770
300	3.6	0.4	2.0	1.56	2.2	38	35	1980	3795	1560	3375
400	3.6	0.4	2.0	1.72	2.2	42	38	2365	4700	1865	4200
500	3.6	0.5	2.0	1.88	2.4	46	41	2825	5810	2270	5255
630	3.6	0.5	2.0	1.88	2.4	49	45	3320	7210	2720	6610
800	3.6	0.5	2.5	2.04	2.6	55	50	4200	9160	3375	8335
1000	3.6	0.6	2.5	2.20	2.8	60	55	5020	11085	4100	10165

Electrical Data

Area	Max.D.C. resistance at 20 °C		Approx. A.C. resistance at operating Temp. 90 °C.		Approx reactance at 50 Hz		Current Rating						Short circuit rating for 1 Sec.		Voltage Drop for Armoured cables	
							Arm.		Un-Arm.		Direct in Ground					
	mm ²	/km	/km	/km	/km	/km	/km	Amps	Amps	Amps	Amps	Amps	Amps	kA(rms)	kA(rms)	V/A/km
	Al	Cu	Al	Cu			Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu
25	1.20	0.727	1.54	0.927	0.146	0.138	99	125	87	110	115	150	2.35	3.58	3.09	1.88
35	0.868	0.524	1.113	0.668	0.139	0.131	115	150	105	135	140	180	3.29	5.01	2.24	1.37
50	0.641	0.387	0.822	0.494	0.133	0.125	140	175	120	155	165	215	4.70	7.15	1.67	1.02
70	0.443	0.268	0.568	0.342	0.122	0.115	170	215	145	190	210	270	6.58	10.01	1.16	0.73
95	0.320	0.193	0.411	0.247	0.117	0.110	200	255	175	225	255	325	8.93	13.6	0.85	0.55
120	0.253	0.153	0.325	0.196	0.113	0.106	225	290	195	250	295	375	11.28	17.2	0.69	0.45
150	0.206	0.124	0.265	0.159	0.110	0.103	250	320	220	380	330	425	14.1	21.5	0.57	0.39
185	0.164	0.0991	0.211	0.1276	0.107	0.100	285	360	245	315	380	485	17.4	26.5	0.47	0.33
240	0.125	0.0754	0.161	0.0979	0.104	0.097	325	410	280	355	450	570	22.6	34.3	0.38	0.29
300	0.100	0.0601	0.130	0.0790	0.100	0.094	365	455	315	395	510	640	28.2	42.9	0.33	0.25
400	0.0778	0.0470	0.1017	0.0630	0.096	0.090	410	510	355	435	590	730	37.6	57.2	0.28	0.23
500	0.0605	0.0366	0.0802	0.0507	0.094	0.087	455	550	395	475	680	830	47.0	71.5	0.25	0.21
630	0.0469	0.0283	0.0636	0.0413	0.090	0.085	510	600	435	520	780	930	59.2	90.1	0.22	0.20
800	0.0367	0.0221	0.0515	0.0345	0.088	0.082	550	640	470	540	870	1010	75.2	114.4	0.20	0.19
1000	0.0291	0.0176	0.0428	0.0298	0.087	0.081	590	670	500	570	960	1090	94.0	143.0	0.19	0.18

Property of Ravin Cables Ltd.

- The above data is indicative & may be changed without prior information.
- All Conductors will be Compacted Circular.

Operating Conditions

Ambient Air temp. : 40 °C

Depth of Laying : 90 cm

Ground temp. : 30 °C

Thermal resistivity of Soil : 150 °C-cm/W

Table-3B **Physical Data**
6.35/11 (12) kV Three Core XLPE Insulated Screened Armoured Cable with Aluminium / Copper Conductor Confirming to IS 7098 Part 2.

Area	Thickness of XLPE Insulation	Thickness of Inner Sheath	Dimension of Armour Strip	Thickness of Outer sheath	Approx. Overall diameter	Approx. Net Wt. of Cable	
						kg/km	kg/km
						Al	Cu
mm ²	mm	mm	mm	mm	mm		
	Nom	Min		Min			
25	3.6	0.4	4.0 x 0.8	1.72	40	1860	2310
35	3.6	0.5	4.0 x 0.8	1.72	42	2095	2730
50	3.6	0.5	4.0 x 0.8	1.88	45	2410	3265
70	3.6	0.5	4.0 x 0.8	1.88	49	2775	4015
95	3.6	0.6	4.0 x 0.8	2.04	53	3265	4985
120	3.6	0.6	4.0 x 0.8	2.20	56	3715	5890
150	3.6	0.6	4.0 x 0.8	2.20	59	4110	6793
185	3.6	0.7	4.0 x 0.8	2.36	65	4860	8204
240	3.6	0.7	4.0 x 0.8	2.52	69	5675	10023
300	3.6	0.7	4.0 x 0.8	2.68	74	6575	12085
400	3.6	0.7	4.0 x 0.8	2.84	81	7775	14875
500	3.6	0.7	4.0 x 0.8	3.00	88	9215	18280

Electrical Data

Area	Max.D.C. resistance at 20 °C		Approx. A.C. resistance at operating Temp. 90 °C		Approx reactance at 50 Hz	Current Rating						Short circuit rating for 1 Sec.	Voltage Drop for Armoured cables		
						Arm.	Direct in Ground		In duct		In Air				
							Amps	Amps	Amps	Amps	Amps				Amps
mm ²	/km	/km	/km	/km	/km	Amps	Amps	Amps	Amps	Amps	Amps	Al	Cu	Al	Cu
	Al	Cu	Al	Cu		Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu
25	1.20	0.727	1.54	0.927	0.124	95	120	82	105	105	135	2.35	3.58	2.67	1.62
35	0.868	0.524	1.113	0.668	0.118	115	145	97	125	125	165	3.29	5.01	1.94	1.18
50	0.641	0.387	0.822	0.494	0.112	130	170	115	150	150	195	4.70	7.15	1.44	0.88
70	0.443	0.268	0.568	0.342	0.104	160	210	140	180	190	240	6.58	10.01	1.00	0.62
95	0.320	0.193	0.411	0.247	0.100	190	250	165	215	230	295	8.93	13.6	0.73	0.46
120	0.253	0.153	0.325	0.196	0.096	220	280	190	240	260	335	11.28	17.2	0.59	0.38
150	0.206	0.124	0.265	0.159	0.094	245	310	210	270	295	380	14.1	21.5	0.49	0.32
185	0.164	0.0991	0.211	0.1281	0.091	275	350	240	305	335	430	17.4	26.5	0.40	0.27
240	0.125	0.0754	0.162	0.0986	0.088	315	400	275	350	395	500	22.6	34.3	0.32	0.23
300	0.100	0.0601	0.130	0.0798	0.086	355	445	310	390	450	570	28.2	42.9	0.27	0.20
400	0.0778	0.0470	0.1024	0.0641	0.083	400	500	350	440	520	650	37.6	57.2	0.23	0.18
500	0.0605	0.0366	0.0811	0.0521	0.081	514	567	450	499	669	737	47.0	71.5	0.20	0.17

Property of Ravin Cables Ltd.

- The above data is indicative & may be changed without prior information.
- All Conductors will be Compacted Circular shaped.

Operating Conditions

Ambient Air temp. : 40 °C

Depth of Laying : 90 cm

Ground temp. : 30 °C

Thermal resistivity of Soil : 150 °C-cm/W

Table - 4A

Physical Data

11/11 (12) kV Single XLPE Insulated Screened Armoured / Unarmoured Cable with Aluminium / Copper Conductor Confirming to IS 7098 Part 2.

Area	Thickness of XLPE Insulation	Thickness of Inner sheath	Dimension of Armour Wire	Thickness of Outer sheath		Approx. Overall diameter		Approx. Net Wt. of Cable			
				Arm	Un-Arm	Arm	Un-Arm	Armoured		Unarmoured	
				mm	mm	mm	mm	kg/km	kg/km	kg/km	kg/km
mm ²	mm	mm	mm	mm	mm	mm	mm	Al	Cu	Al	Cu
25	5.5	0.3	1.6	1.40	2.0	26	23	770	920	555	700
35	5.5	0.3	1.6	1.40	2.0	27	24	830	1040	610	820
50	5.5	0.3	1.6	1.56	2.0	29	26	935	1215	680	960
70	5.5	0.3	1.6	1.56	2.0	30	27	1065	1475	790	1195
95	5.5	0.3	2.0	1.56	2.0	33	29	1270	1835	905	1470
120	5.5	0.4	2.0	1.56	2.2	34	31	1425	2140	1045	1760
150	5.5	0.4	2.0	1.56	2.2	36	32	1540	2425	1150	2035
185	5.5	0.4	2.0	1.56	2.2	38	34	1760	2865	1340	2440
240	5.5	0.4	2.0	1.72	2.2	40	36	2020	3450	1550	2980
300	5.5	0.4	2.0	1.72	2.2	43	39	2290	4105	1785	3600
400	5.5	0.5	2.0	1.88	2.4	46	42	2715	5055	2145	4485
500	5.5	0.5	2.5	2.04	2.4	51	45	3330	6315	2535	5520
630	5.5	0.5	2.5	2.04	2.6	54	49	3860	7750	3050	6940
800	5.5	0.6	2.5	2.20	2.8	60	54	4660	9620	3740	8700
1000	5.5	0.6	2.5	2.36	2.8	64	58	5465	11535	4435	10500

Electrical Data

Area	Max.D.C. resistance at 20 °C		Approx. A.C. resistance at operating Temp. 90 °C.		Approx reactance at 50 Hz		Current Rating						Short circuit rating for 1 Sec.		Voltage Drop for Armoured cables	
							Arm.		Un-Arm.		Direct in Ground					
	mm ²	/km	/km	/km	/km	/km	/km	Amps	Amps	Amps	Amps	Amps	Amps	kA(rms)	kA(rms)	V/A/km
	Al	Cu	Al	Cu			Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu
25	1.20	0.727	1.54	0.927	0.156	0.149	99	125	87	110	115	150	2.35	3.58	3.09	1.88
35	0.868	0.524	1.113	0.668	0.149	0.142	115	150	105	135	140	180	3.29	5.01	2.25	1.37
50	0.641	0.387	0.822	0.494	0.142	0.135	140	175	120	155	165	215	4.70	7.15	1.67	1.03
70	0.443	0.268	0.568	0.342	0.131	0.124	170	215	145	190	210	270	6.58	10.01	1.17	0.73
95	0.320	0.193	0.411	0.247	0.127	0.119	200	255	175	225	255	325	8.93	13.6	0.86	0.55
120	0.253	0.153	0.325	0.196	0.122	0.115	225	290	195	250	295	375	11.28	17.2	0.69	0.46
150	0.206	0.124	0.265	0.159	0.119	0.112	250	320	220	380	330	425	14.1	21.5	0.58	0.40
185	0.164	0.0991	0.211	0.1275	0.114	0.107	285	360	245	315	380	485	17.4	26.5	0.48	0.34
240	0.125	0.0754	0.161	0.0977	0.111	0.104	325	410	280	355	450	570	22.6	34.3	0.39	0.30
300	0.100	0.0601	0.130	0.0787	0.106	0.100	365	455	315	395	510	640	28.2	42.9	0.34	0.26
400	0.0778	0.0470	0.1015	0.0627	0.102	0.096	410	510	355	435	590	730	37.6	57.2	0.29	0.24
500	0.0605	0.0366	0.0799	0.0502	0.100	0.093	455	550	395	475	680	830	47.0	71.5	0.26	0.22
630	0.0469	0.0283	0.0632	0.0407	0.097	0.090	510	600	435	520	780	930	59.2	90.1	0.23	0.21
800	0.0367	0.0221	0.0511	0.0340	0.093	0.087	550	640	470	540	870	1010	75.2	114.4	0.21	0.20
1000	0.0291	0.0176	0.0423	0.0292	0.091	0.085	590	670	500	570	960	1090	94.0	143.0	0.20	0.19

Property of Ravin Cables Ltd.

- The above data is indicative & may be changed without prior information.
- All Conductors will be Compacted Circular.

Operating Conditions

Ambient Air temp. : 40 °C

Depth of Laying : 90 cm

Ground temp. : 30 °C

Thermal resistivity of Soil : 150 °C-cm/W

Table-4B **Physical Data**
11/11 (12) kV Three Core XLPE Insulated Screened Armoured Cable with Aluminium / Copper Conductor Confirming to IS 7098 Part 2.

Area	Thickness of XLPE Insulation	Thickness of Inner Sheath	Dimension of Armour Strip	Thickness of Outer sheath	Approx. Overall diameter	Approx. Net Wt. of Cable	
	mm	mm	mm	mm	mm	kg/km	kg/km
	Nom	Min		Min		Al	Cu
25	5.5	0.5	4.0 x 0.8	1.88	48	2550	3000
35	5.5	0.5	4.0 x 0.8	2.04	51	2805	3440
50	5.5	0.6	4.0 x 0.8	2.20	55	3210	4065
70	5.5	0.6	4.0 x 0.8	2.20	58	3620	4860
95	5.5	0.6	4.0 x 0.8	2.36	62	4110	5825
120	5.5	0.7	4.0 x 0.8	2.36	65	4605	6775
150	5.5	0.7	4.0 x 0.8	2.52	68	5055	7740
185	5.5	0.7	4.0 x 0.8	2.68	73	5870	9215
240	5.5	0.7	4.0 x 0.8	2.84	78	6745	11090
300	5.5	0.7	4.0 x 0.8	3.00	83	7685	13195
400	5.5	0.7	4.0 x 0.8	3.00	90	8920	16020
500	5.5	0.7	4.0 x 0.8	3.00	96	10355	19420

Electrical Data

Area	Max.D.C. resistance at 20 °C		Approx. A.C. resistance at operating Temp. 90 °C		Approx reactance at 50 Hz	Current Rating						Short circuit rating for 1 Sec.	Voltage Drop for Armoured cables		
						Arm.	Direct in Ground		In duct		In Air				
	mm ²	/km	/km	/km	/km	/km	Amps	Amps	Amps	Amps	Amps	Amps	kA(rms)		V/A/km
	Al	Cu	Al	Cu		Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu
25	1.20	0.727	1.54	0.927	0.139	95	120	82	105	105	135	2.35	3.58	2.68	1.62
35	0.868	0.524	1.113	0.668	0.132	115	145	97	125	125	165	3.29	5.01	1.94	1.18
50	0.641	0.387	0.822	0.494	0.125	130	170	115	150	150	195	4.70	7.15	1.44	0.88
70	0.443	0.268	0.568	0.342	0.115	160	210	140	180	190	240	6.58	10.01	1.00	0.63
95	0.320	0.193	0.411	0.247	0.110	190	250	165	215	230	295	8.93	13.6	0.74	0.47
120	0.253	0.153	0.325	0.196	0.106	220	280	190	240	260	335	11.28	17.2	0.59	0.39
150	0.206	0.124	0.265	0.159	0.104	245	310	210	270	295	380	14.1	21.5	0.49	0.33
185	0.164	0.0991	0.211	0.1279	0.100	275	350	240	305	335	430	17.4	26.5	0.40	0.28
240	0.125	0.0754	0.162	0.0982	0.097	315	400	275	350	395	500	22.6	34.3	0.33	0.24
300	0.100	0.0601	0.130	0.0794	0.094	355	445	310	390	450	570	28.2	42.9	0.28	0.21
400	0.0778	0.0470	0.1020	0.0636	0.090	400	500	350	440	520	650	37.6	57.2	0.24	0.19
500	0.0605	0.0366	0.0806	0.0514	0.087	514	567	450	499	669	737	47.0	71.5	0.21	0.18

Property of Ravin Cables Ltd.

- The above data is indicative & may be changed without prior information.
- All Conductors will be Compacted Circular shaped.

Operating Conditions

Ambient Air temp. : 40 °C

Depth of Laying : 90 cm

Ground temp. : 30 °C

Thermal resistivity of Soil : 150 °C-cm/W

Table - 5A **Physical Data**
12.7/22 (24) kV Single XLPE Insulated Screened Armoured / Unarmoured Cable with Aluminium / Copper Conductor Confirming to IS 7098 Part 2.

Area	Thickness of XLPE Insulation	Thickness of Inner sheath	Dimension of Armour Wire	Thickness of Outer sheath		Approx. Overall diameter		Approx. Net Wt. of Cable			
				Arm	Un-Arm	Arm	Un-Arm	Armoured		Unarmoured	
								kg/km	kg/km	kg/km	kg/km
mm ²	mm	mm	mm	mm	mm	mm	mm	Al	Cu	Al	Cu
	Nom	Nom		Min	Nom						
35	6.0	0.3	1.6	1.56	2.0	28	25	930	1140	650	860
50	6.0	0.3	1.6	1.56	2.0	30	27	1015	1295	720	1005
70	6.0	0.3	1.6	1.56	2.0	31	28	1145	1555	835	1240
95	6.0	0.4	2.0	1.56	2.2	34	30	1385	1950	980	1545
120	6.0	0.4	2.0	1.56	2.2	35	32	1520	2235	1095	1810
150	6.0	0.4	2.0	1.56	2.2	37	33	1650	2535	1205	2090
185	6.0	0.4	2.0	1.72	2.2	39	35	1900	3000	1395	2495
240	6.0	0.4	2.0	1.72	2.2	41	37	2140	3570	1605	3040
300	6.0	0.4	2.0	1.72	2.2	44	40	2410	4225	1845	3660
400	6.0	0.5	2.0	1.88	2.4	47	43	2845	5180	2215	4550
500	6.0	0.5	2.5	2.04	2.6	52	47	3485	6470	2650	5635
630	6.0	0.5	2.5	2.04	2.6	55	50	4025	7915	3130	7020
800	6.0	0.6	2.5	2.20	2.8	61	55	4840	9800	3825	8785
1000	6.0	0.6	2.5	2.36	3.0	65	60	5660	11725	4585	10650

Electrical Data

Area	Max.D.C. resistance at 20 °C		Approx. A.C. resistance at operating Temp. 90 °C.		Approx reactance at 50 Hz		Current Rating						Short circuit rating for 1 Sec.		Voltage Drop for Armoured cables	
	/km	/km	/km	/km	/km	/km	Direct in Ground		In duct		In Air		kA(rms)	kA(rms)	V/A/km	
							Amps	Amps	Amps	Amps	Amps	Amps			Al	Cu
mm ²	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu
35	0.868	0.524	1.113	0.668	0.152	0.145	115	150	100	130	145	185	3.29	5.01	2.25	1.37
50	0.641	0.387	0.822	0.494	0.145	0.137	135	175	120	150	170	220	4.70	7.15	1.67	1.03
70	0.443	0.268	0.568	0.342	0.133	0.126	165	215	145	185	215	275	6.58	10.01	1.17	0.73
95	0.320	0.193	0.411	0.247	0.129	0.122	195	250	170	220	260	335	8.93	13.6	0.86	0.56
120	0.253	0.153	0.325	0.196	0.124	0.117	225	285	195	245	300	385	11.28	17.2	0.70	0.46
150	0.206	0.124	0.265	0.159	0.121	0.114	250	315	215	275	340	430	14.1	21.5	0.58	0.40
185	0.164	0.0991	0.211	0.1275	0.116	0.109	280	355	240	305	385	490	17.4	26.5	0.48	0.34
240	0.125	0.0754	0.161	0.0977	0.112	0.106	320	400	275	350	450	570	22.6	34.3	0.39	0.30
300	0.100	0.0601	0.129	0.0787	0.108	0.102	355	445	305	380	510	650	28.2	42.9	0.34	0.27
400	0.0778	0.0470	0.1015	0.0627	0.103	0.098	400	495	345	425	600	740	37.6	57.2	0.29	0.24
500	0.0605	0.0366	0.0798	0.0502	0.101	0.095	445	543	380	460	680	830	47.0	71.5	0.26	0.23
630	0.0469	0.0283	0.0631	0.0406	0.098	0.092	495	580	420	500	770	920	59.2	90.1	0.23	0.21
800	0.0367	0.0221	0.0510	0.0339	0.094	0.088	540	630	460	530	870	1020	75.2	114.4	0.21	0.20
1000	0.0291	0.0176	0.0422	0.0291	0.092	0.086	570	650	490	550	950	1080	94.0	143.0	0.20	0.19

Property of Ravin Cables Ltd.

- The above data is indicative & may be changed without prior information.
- All Conductors will be Compacted Circular.

Operating Conditions

Ambient Air temp. : 40 °C

Depth of Laying : 105 cm

Ground temp. : 30 °C

Thermal resistivity of Soil : 150 °C-cm/W

Table-5B **Physical Data**
12.7/22 (24) kV Three Core XLPE Insulated Screened Armoured Cable with Aluminium / Copper Conductor Confirming to IS 7098 Part 2.

Area	Thickness of XLPE Insulation	Thickness of Inner Sheath	Dimension of Armour Strip	Thickness of Outer sheath	Approx. Overall diameter	Approx. Net Wt. of Cable	
						kg/km	kg/km
						Al	Cu
mm ²	mm	mm	mm	mm	mm		
	Nom	Min		Min			
35	6.0	0.6	4.0 x 0.8	2.04	53	3030	3660
50	6.0	0.6	4.0 x 0.8	2.20	57	3395	4255
70	6.0	0.6	4.0 x 0.8	2.36	60	3865	5100
95	6.0	0.7	4.0 x 0.8	2.36	64	4370	6085
120	6.0	0.7	4.0 x 0.8	2.52	67	4875	7045
150	6.0	0.7	4.0 x 0.8	2.68	70	5360	8045
185	6.0	0.7	4.0 x 0.8	2.68	76	6110	9455
240	6.0	0.7	4.0 x 0.8	2.84	80	6995	11345
300	6.0	0.7	4.0 x 0.8	3.00	85	7975	13485
400	6.0	0.7	4.0 x 0.8	3.00	92	9205	16300
500	6.0	0.7	4.0 x 0.8	3.00	98	10680	19745

Electrical Data

Area	Max.D.C. resistance at 20 °C		Approx. A.C. resistance at operating Temp. 90 °C		Approx reactance at 50 Hz	Current Rating						Short circuit rating for 1 Sec.	Voltage Drop for Armoured cables		
						Arm.	Direct in Ground		In duct		In Air				
							Amps	Amps	Amps	Amps	Amps				Amps
mm ²	/km	/km	/km	/km	/km	Amps	Amps	Amps	Amps	Amps	Amps	Al	Cu	Al	Cu
	Al	Cu	Al	Cu		Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu
35	0.868	0.524	1.113	0.668	0.135	110	145	98	125	130	165	3.29	5.01	1.94	1.18
50	0.641	0.387	0.822	0.494	0.128	130	170	115	150	155	200	4.70	7.15	1.44	0.88
70	0.443	0.268	0.568	0.342	0.118	160	205	140	180	190	245	6.58	10.01	1.01	0.63
95	0.320	0.193	0.411	0.247	0.113	190	245	170	215	230	300	8.93	13.6	0.74	0.47
120	0.253	0.153	0.325	0.196	0.109	215	275	190	245	265	340	11.28	17.2	0.59	0.39
150	0.206	0.124	0.265	0.159	0.106	240	305	215	275	300	385	14.1	21.5	0.49	0.33
185	0.164	0.0991	0.211	0.1278	0.102	270	345	240	305	340	435	17.4	26.5	0.41	0.28
240	0.125	0.0754	0.162	0.0981	0.099	310	395	275	350	400	510	22.6	34.3	0.33	0.24
300	0.100	0.0601	0.130	0.0793	0.095	350	440	310	390	455	580	28.2	42.9	0.28	0.21
400	0.0778	0.0470	0.1020	0.0634	0.092	395	495	355	440	530	660	37.6	57.2	0.24	0.19
500	0.0605	0.0366	0.0805	0.0512	0.089	508	561	457	499	682	748	47.0	71.5	0.21	0.18

Property of Ravin Cables Ltd.

- The above data is indicative & may be changed without prior information.
- All Conductors will be Compacted Circular shaped.

Operating Conditions

Ambient Air temp. : 40 °C

Depth of Laying : 105 cm

Ground temp. : 30 °C

Thermal resistivity of Soil : 150 °C-cm/W

Table - 6A **Physical Data**
19/33 (36) kV Single XLPE Insulated Screened Armoured / Unarmoured Cable with Aluminium / Copper Conductor Confirming to IS 7098 Part 2.

Area	Thickness of XLPE Insulation	Thickness of Inner sheath	Dimension of Armour Wire	Thickness of Outer sheath		Approx. Overall diameter		Approx. Net Wt. of Cable			
				Arm	Un-Arm	Arm	Un-Arm	Armoured		Unarmoured	
				mm	mm	mm	mm	kg/km	kg/km	kg/km	kg/km
mm ²	Nom	Nom	mm	Min	Nom			Al	Cu	Al	Cu
50	8.8	0.4	2.0	1.56	2.2	36	33	1455	1740	1020	1305
70	8.8	0.4	2.0	1.56	2.2	38	34	1615	2020	1150	1560
95	8.8	0.4	2.0	1.72	2.2	40	36	1795	2360	1280	1845
120	8.8	0.4	2.0	1.72	2.2	41	37	1940	2655	1410	2125
150	8.8	0.4	2.0	1.72	2.2	43	39	2080	2965	1530	2415
185	8.8	0.5	2.0	1.88	2.4	46	41	2380	3480	1775	2880
240	8.8	0.5	2.0	1.88	2.4	47	43	2635	4065	2005	3435
300	8.8	0.5	2.5	2.04	2.6	51	46	3145	4960	2310	4125
400	8.8	0.5	2.5	2.04	2.6	54	49	3550	5890	2670	5005
500	8.8	0.6	2.5	2.20	2.8	58	53	4105	7090	3135	6120
630	8.8	0.6	2.5	2.36	2.8	62	56	4725	8615	3645	7535
800	8.8	0.6	2.5	2.36	3.0	67	61	5500	10465	4395	9355
1000	8.8	0.7	3.15	2.52	3.2	72	66	6725	12790	5195	11260

Electrical Data

Area	Max.D.C. resistance at 20 °C		Approx. A.C. resistance at operating Temp. 90 °C.		Approx reactance at 50 Hz		Current Rating						Short circuit rating for 1 Sec.		Voltage Drop for Armoured cables	
					Arm.	Un-Arm.	Direct in Ground		In duct		In Air					
	mm ²	/km	/km	/km	/km	/km	/km	Amps	Amps	Amps	Amps	Amps	Amps	kA(rms)	kA(rms)	V/A/km
	Al	Cu	Al	Cu			Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu
50	0.641	0.387	0.822	0.494	0.157	0.150	135	175	120	150	170	220	4.70	7.15	1.67	1.04
70	0.443	0.268	0.568	0.342	0.145	0.138	165	215	145	185	215	275	6.58	10.01	1.17	0.74
95	0.320	0.193	0.411	0.247	0.139	0.132	195	250	170	220	260	335	8.93	13.6	0.87	0.57
120	0.253	0.153	0.325	0.196	0.134	0.127	225	285	195	245	300	385	11.28	17.2	0.70	0.47
150	0.206	0.124	0.265	0.159	0.130	0.124	250	315	215	275	340	430	14.1	21.5	0.59	0.41
185	0.164	0.0991	0.211	0.1274	0.125	0.119	280	355	240	305	385	490	17.4	26.5	0.49	0.36
240	0.125	0.0754	0.161	0.0975	0.121	0.115	320	400	275	350	450	570	22.6	34.3	0.40	0.31
300	0.100	0.0601	0.129	0.0784	0.118	0.111	355	445	305	380	510	650	28.2	42.9	0.35	0.28
400	0.0778	0.0470	0.1012	0.0623	0.112	0.106	400	495	345	425	600	740	37.6	57.2	0.30	0.26
500	0.0605	0.0366	0.0796	0.0498	0.109	0.102	445	543	380	460	680	830	47.0	71.5	0.27	0.24
630	0.0469	0.0283	0.0628	0.0401	0.105	0.099	495	580	420	500	770	920	59.2	90.1	0.24	0.22
800	0.0367	0.0221	0.0506	0.0333	0.100	0.095	540	630	460	530	870	1020	75.2	114.4	0.22	0.21
1000	0.0291	0.0176	0.0417	0.0284	0.099	0.092	570	650	490	550	950	1080	94.0	143.0	0.21	0.21

Property of Ravin Cables Ltd.

- The above data is indicative & may be changed without prior information.
- All Conductors will be Compacted Circular.

Operating Conditions

Ambient Air temp. : 40 °C
 Ground temp. : 30 °C

Depth of Laying : 105 cm
 Thermal resistivity of Soil : 150 °C-cm/W

Table-6B **Physical Data**
19/33 (36) kV Three Core XLPE Insulated Screened Armoured Cable with Aluminium / Copper Conductor Confirming to IS 7098 Part 2.

Area	Thickness of XLPE Insulation	Thickness of Inner Sheath	Dimension of Armour Strip	Thickness of Outer sheath	Approx. Overall diameter	Approx. Net Wt. of Cable	
						kg/km	kg/km
						Al	Cu
mm ²	mm	mm	mm	mm	mm		
	Nom	Min		Min			
50	8.8	0.7	4.0 x 0.8	2.52	70	4765	5620
70	8.8	0.7	4.0 x 0.8	2.68	73	5300	6540
95	8.8	0.7	4.0 x 0.8	2.84	77	5870	7585
120	8.8	0.7	4.0 x 0.8	2.84	80	6375	8545
150	8.8	0.7	4.0 x 0.8	3.00	83	6915	9600
185	8.8	0.7	4.0 x 0.8	3.00	88	7780	11120
240	8.8	0.7	4.0 x 0.8	3.00	93	8670	13015
300	8.8	0.7	4.0 x 0.8	3.00	97	9625	15135
400	8.8	0.7	4.0 x 0.8	3.00	104	10950	18045
500	8.8	0.7	4.0 x 0.8	3.00	110	12520	21585

Electrical Data

Area	Max.D.C. resistance at 20 °C		Approx. A.C. resistance at operating Temp. 90 °C		Approx reactance at 50 Hz	Current Rating						Short circuit rating for 1 Sec.	Voltage Drop for Armoured cables		
						Arm.	Direct in Ground		In duct		In Air				
	/km	/km	/km	/km	/km		Amps	Amps	Amps	Amps	Amps	Amps	kA(rms)		V/A/km
mm ²	Al	Cu	Al	Cu		Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu
50	0.641	0.387	0.822	0.494	0.142	130	170	115	150	155	200	4.70	7.15	1.44	0.89
70	0.443	0.268	0.568	0.342	0.132	160	205	140	180	190	245	6.58	10.01	1.01	0.63
95	0.320	0.193	0.411	0.247	0.126	190	245	170	215	230	300	8.93	13.6	0.74	0.48
120	0.253	0.153	0.325	0.196	0.121	215	275	190	245	265	340	11.28	17.2	0.60	0.40
150	0.206	0.124	0.265	0.159	0.118	240	305	215	275	300	385	14.1	21.5	0.50	0.34
185	0.164	0.0991	0.211	0.1276	0.113	270	345	240	305	340	435	17.4	26.5	0.41	0.29
240	0.125	0.0754	0.161	0.0978	0.109	310	395	275	350	400	510	22.6	34.3	0.34	0.25
300	0.100	0.0601	0.130	0.0788	0.105	350	440	310	390	455	580	28.2	42.9	0.29	0.23
400	0.0778	0.0470	0.1016	0.0629	0.100	395	495	355	440	530	660	37.6	57.2	0.25	0.21
500	0.0605	0.0366	0.0801	0.0506	0.097	508	561	457	499	682	748	47.0	71.5	0.22	0.19

Property of Ravin Cables Ltd.

- The above data is indicative & may be changed without prior information.
- All Conductors will be Compacted Circular shaped.

Operating Conditions

Ambient Air temp. : 40 °C

Depth of Laying : 105 cm

Ground temp. : 30 °C

Thermal resistivity of Soil : 150 °C-cm/W

Group Rating Factors for Circuits for Three Single Core Cables in Trefoil formation

Table 7 A

A) Touching Horizontal Formation laid Direct in Ground

Number of circuits in group	Spacing between Trefoil group centers, cm			
	Touching	20	40	60
2	0.76	0.83	0.87	0.90
3	0.64	0.72	0.79	0.83
4	0.58	0.67	0.75	0.8
5	0.53	0.63	0.71	0.77

Table 7 B

B) Cables laid on Racks/Trays in covered trench with removable covers where air circulation is restricted, Trefoils are separated by two cable dia horizontally and the trays are in tiers with 30 cm. gap between them.

No. of 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

Table 7 C

C) Cables laid as per 'B' but in open air

No. of Racks	No. of Cables per Rack		
	1	2	3
1	1.0	0.98	0.96
2	1.0	0.95	0.93
3	1.0	0.94	0.92
6	1.0	0.93	0.90

Group Rating Factors for Circuits for Multi-core Cables

Table 8A

A) Cables laid inside concrete trench with removable covers, on cable trays where air circulation is restricted. The cables spaced by one cable diameter and trays in tiers by 300 mm. The clearance of the cable from the Wall is 25 mm

No. of Cable trays in Tier	Number of cables				
	1	2	3	6	9
1	0.95	0.9	0.88	0.85	0.84
2	0.9	0.85	0.83	0.81	0.8
3	0.88	0.83	0.81	0.79	0.78
6	0.86	0.81	0.79	0.77	0.76

Table 8B

B) Cables laid on cable trays exposed to air, the cables spaced by one cable diameter & trays in tiers by 300 mm. The clearance between the wall & the cable is 25 mm

No. of Cable trays in Tier	No. of Cables per Rack			
	2	3	6	9
1	0.98	0.96	0.93	0.92
2	0.95	0.93	0.9	0.89
3	0.94	0.92	0.89	0.88
6	0.93	0.90	0.87	0.86

Table 8C

C) Cables laid on cable trays exposed to air, the cables are touching & trays in tiers by 300 mm. The clearance between the wall & the cable is 25 mm.

No. of Cable trays in Tier	No. of Cables per Rack			
	2	3	6	9
1	0.84	0.8	0.75	0.73
2	0.80	0.76	0.71	0.69
3	0.78	0.74	0.70	0.68

Table 8D

D) Cables laid direct in ground in horizontal formation

No. of Cables in group	Spacing of cables, cm			
	Touching	20	40	60
2	0.79	0.86	0.90	0.92
3	0.67	0.77	0.82	0.86
4	0.61	0.72	0.79	0.83
5	0.56	0.68	0.76	0.81
6	0.53	0.65	0.74	0.80

Table 9**Rating Factor for Variation in Dept. of Laying in Ground**

Dept. of Laying (cm)	90	105	120	150	180	200	250	300 & above
For Voltage grades 3.3 to 11/11 kV, all sizes	1.00	0.99	0.97	0.95	0.94	0.93	0.91	0.90
For Voltage grades 22 & 33 kV, all sizes	--	1.00	0.99	0.97	0.95	0.94	0.92	0.91

Table 10**Rating Factors for Variation in Ambient Air Temperature**

Air Temp. °C	15	20	25	30	35	40	45	50	55
Rating Factor	1.22	1.18	1.16	1.11	1.06	1.0	0.94	0.88	0.81

Table 11**Rating Factors for Variation in Ground Temperature**

Group Temp. °C	15	20	25	30	35	40	45	50	55
Rating Factor	1.12	1.08	1.04	1.0	0.96	0.91	0.87	0.82	0.76

Table 12**Rating Factors for variation in thermal resistivity of soil (multicourse cables laid direct in the ground)**

Nominal area of conductor mm ²	For values of thermal resistivity of Soil in °C-cm/W					
	100	120	150	200	250	300
25	1.16	1.08	1.0	0.9	0.82	0.75
35	1.16	1.08	1.0	0.9	0.81	0.75
50	1.16	1.08	1.0	0.89	0.81	0.75
70	1.16	1.09	1.0	0.89	0.81	0.75
95	1.16	1.09	1.0	0.89	0.81	0.75
120	1.16	1.09	1.0	0.89	0.81	0.75
150	1.16	1.09	1.0	0.89	0.81	0.75
185	1.16	1.09	1.0	0.89	0.81	0.75
240	1.17	1.09	1.0	0.89	0.81	0.75
300	1.17	1.09	1.0	0.89	0.81	0.75
400	1.17	1.09	1.0	0.89	0.81	0.75

Table 13**Rating Factors for variation in thermal resistivity of soil, three single core cables laid direct in the ground (three cables in trefoil touching) :**

Nominal area of conductor mm ²	For values of thermal resistivity of Soil in °C-cm/W					
	100	120	150	200	250	300
25	1.17	1.09	1.0	0.88	0.80	0.74
35	1.18	1.1	1.0	0.88	0.80	0.74
50	1.19	1.1	1.0	0.88	0.80	0.73
70	1.19	1.1	1.0	0.88	0.80	0.73
95	1.19	1.1	1.0	0.88	0.79	0.73
120	1.19	1.1	1.0	0.88	0.79	0.73
150	1.19	1.1	1.0	0.88	0.79	0.73
185	1.19	1.1	1.0	0.88	0.79	0.72
240	1.2	1.11	1.0	0.88	0.79	0.72
300	1.2	1.11	1.0	0.87	0.79	0.72
400	1.2	1.11	1.0	0.87	0.79	0.72
500	1.2	1.11	1.0	0.87	0.79	0.72
630	1.21	1.11	1.0	0.87	0.78	0.72
800	1.21	1.11	1.0	0.87	0.78	0.72
1000	1.21	1.11	1.0	0.87	0.78	0.72