

# LV CABLES

**Table-1: Single Core XLPE Insulated Aluminium wire armoured cable with Copper Conductor conf. to BS: 5467/1997**

Area	Thickness of XLPE Insulation	Thickness of Bedding	Dimension of Armour wire sheath	Thickness of PVC Outer sheath	Overall diameter	Net Wt. of Cable
	Nominal	Nominal	Nominal	Nominal	Approx.	Approx.
mm <sup>2</sup>	mm	mm	mm	mm	mm	kg/km
50	1.0	0.8	0.90	1.5	17.5	650
70	1.1	0.8	1.25	1.5	20.2	940
95	1.1	0.8	1.25	1.6	22.3	1210
120	1.2	0.8	1.25	1.6	24.2	1465
150	1.4	1.0	1.60	1.7	27.4	1920
185	1.6	1.0	1.60	1.8	30.0	2325
240	1.7	1.0	1.60	1.8	32.8	2875
300	1.8	1.0	1.60	1.9	35.6	3445
400	2.0	1.2	2.00	2.0	40.5	4480
500	2.2	1.2	2.00	2.1	44.2	5550
630	2.4	1.2	2.00	2.2	48.8	7040
800	2.6	1.4	2.50	2.4	55.4	9020
1000	2.8	1.4	2.50	2.5	60.6	11040

Area	D.C. resistance at 20° C	A.C. resistance at operating Temp. 90° C	Resistance at 50 Hz	Current Rating			Short circuit rating for 1 Sec.	Voltage Drop
	Max	Approx.	Approx.	Ground	Duct	Air		
mm <sup>2</sup>	Ohm/km	Ohm/km	Ohm/km	Amps	Amps	Amps	kA(rms)	V/A/km
50	0.387	0.494	0.106	208	208	203	7.15	1.01
70	0.268	0.342	0.102	262	256	260	10.01	0.71
95	0.193	0.247	0.098	313	301	319	13.6	0.53
120	0.153	0.196	0.096	355	337	370	17.2	0.44
150	0.124	0.159	0.095	397	364	425	21.5	0.37
185	0.0991	0.1280	0.092	447	402	488	26.5	0.32
240	0.0754	0.0984	0.089	514	451	576	34.3	0.27
300	0.0601	0.0795	0.090	573	492	656	42.9	0.24
400	0.0470	0.0635	0.089	648	533	749	57.2	0.22
500	0.0366	0.0512	0.088	718	577	847	71.5	0.20
630	0.0283	0.0418	0.086	790	623	954	90.1	0.19
800	0.0221	0.0349	0.086	833	649	1037	114.4	0.18
1000	0.0176	0.0302	0.084	884	690	1125	143.0	0.18

The above data is indicative & may be changed without prior information.  
Cables can be supplied in multiples of 500/1000 mtrs or as per customer requirement.

Operating conditions - Amb. air temp: 40° C  
Ground temp: 20° C  
Depth of laying: 50 cm  
Thermal resistivity of soil: 120° C-cm/W

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**Table-2: Two Core XLPE Insulated Gal. steel wire armoured cable with Copper Conductor conf. to BS: 5467/1997**

Area	Thickness of XLPE Insulation	Thickness of Bedding	Dimension of Armour Wire	Thickness of PVC Outer sheath	Overall diameter	Net Wt. of Cable
	Nominal	Nominal	Nominal	Nominal	Approx.	Approx.
mm <sup>2</sup>	mm	mm	mm	mm	mm	kg/km
1.5	0.6	0.8	0.90	1.3	12.1	255
2.5	0.7	0.8	0.90	1.4	13.6	315
4	0.7	0.8	0.90	1.4	14.7	370
6	0.7	0.8	0.90	1.4	15.9	440
10	0.7	0.8	0.90	1.5	18.0	575
16	0.7	0.8	1.25	1.5	20.4	740
25	0.9	0.8	1.25	1.6	20.4	1000
35	0.9	1.0	1.60	1.7	23.3	1425
50	1.0	1.0	1.60	1.8	25.8	1755
70	1.1	1.0	1.60	1.9	29.0	2310
95	1.1	1.2	2.00	2.0	33.1	3160
120	1.2	1.2	2.00	2.1	36.1	3750
150	1.4	1.2	2.00	2.2	39.3	4410
185	1.6	1.4	2.50	2.4	44.7	5680
240	1.7	1.4	2.50	2.5	49.0	6955
300	1.8	1.6	2.50	2.6	53.5	8400
400	2.0	1.6	2.50	2.8	59.0	10400

Area	D.C. resistance at 20° C	A.C. resistance at operating Temp. 90° C	Resistance at 50 Hz	Current Rating			Short circuit rating for 1 Sec.	Voltage Drop
	Max	Approx.	Approx.	Ground	Duct	Air		
mm <sup>2</sup>	Ohm/km	Ohm/km	Ohm/km	Amps	Amps	Amps	kA(rms)	V/A/km
1.5	12.1	15.43	0.105	33	27	27	0.21	26.72
2.5	7.41	9.45	0.099	42	36	36	0.36	16.37
4	4.61	5.88	0.093	57	46	48	0.57	10.18
6	3.08	3.93	0.088	70	58	62	0.86	6.80
10	1.83	2.33	0.084	96	78	84	1.43	4.04
16	1.15	1.47	0.081	124	101	111	2.29	2.54
25	0.727	0.927	0.081	164	133	144	3.58	1.61
35	0.524	0.669	0.079	196	159	178	5.01	1.17
50	0.387	0.494	0.078	232	189	215	7.15	0.87
70	0.268	0.343	0.074	286	235	269	10.01	0.61
95	0.193	0.248	0.072	344	283	333	13.6	0.45
120	0.153	0.197	0.072	395	326	385	17.2	0.36
150	0.124	0.160	0.073	443	366	439	21.5	0.30
185	0.0991	0.1291	0.072	499	415	507	26.5	0.26
240	0.0754	0.0998	0.071	576	480	598	34.3	0.21
300	0.0601	0.0812	0.071	646	540	682	42.9	0.19
400	0.0470	0.0645	0.070	744	622	785	57.2	0.16

The above data is indicative & may be changed without prior information.  
 Conductor upto 16mm<sup>2</sup> will be non-compacted.  
 Above 16mm<sup>2</sup> will be compacted sector shaped conductor.  
 Cables can be supplied in multiples of 500/1000 mtrs or as per customer requirement.

Operating conditions - Amb. air temp. 40° C  
 Ground temp: 20° C  
 Depth of laying : 50 cm  
 Thermal resistivity of soil: 120° C-cm/W

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**Table-3: Three Core XLPE Insulated Gal. steel wire armoured cable with Copper Conductor conf. to BS: 5467/1997**

Area	Thickness of XLPE Insulation	Thickness of Bedding	Dimension of Armour Wire	Thickness of PVC Outer sheath	Overall diameter	Net Wt. of Cable
	Nominal	Nominal	Nominal	Nominal	Approx.	Approx.
mm <sup>2</sup>	mm	mm	mm	mm	mm	kg/km
1.5	0.6	0.8	0.9	1.3	12.6	280
2.5	0.7	0.8	0.9	1.4	14.1	355
4	0.7	0.8	0.9	1.4	15.3	430
6	0.7	0.8	0.9	1.4	16.6	525
10	0.7	0.8	1.25	1.5	19.5	810
16	0.7	0.8	1.25	1.6	21.6	985
25	0.9	1.0	1.6	1.7	23.6	1500
35	0.9	1.0	1.6	1.8	25.7	1905
50	1.0	1.0	1.6	1.8	28.5	2335
70	1.1	1.0	1.6	1.9	32.2	3150
95	1.1	1.2	2.0	2.1	37.0	4270
120	1.2	1.2	2.0	2.2	40.4	5160
150	1.4	1.4	2.5	2.3	45.5	6560
185	1.6	1.4	2.5	2.4	49.8	7820
240	1.7	1.4	2.5	2.6	55.1	9660
300	1.8	1.6	2.5	2.7	60.2	11845
400	2.0	1.6	2.5	2.9	66.6	14715

Area	D.C. resistance at 20° C	A.C. resistance at operating Temp. 90° C	Resistance at 50 Hz	Current Rating			Short circuit rating for 1 Sec.	Voltage Drop
	Max	Approx.	Approx.	Ground	Duct	Air		
mm <sup>2</sup>	Ohm/km	Ohm/km	Ohm/km	Amps	Amps	Amps	kA(rms)	V/A/km
1.5	12.1	15.43	0.105	25	22	23	0.21	26.72
2.5	7.41	9.45	0.099	32	30	31	0.36	16.37
4	4.61	5.88	0.093	42	39	41	0.57	10.18
6	3.08	3.93	0.088	52	49	52	0.86	6.80
10	1.83	2.33	0.084	71	66	72	1.43	4.04
16	1.15	1.47	0.081	105	84	94	2.29	2.54
25	0.727	0.927	0.081	136	111	123	3.58	1.61
35	0.524	0.669	0.079	163	133	151	5.01	1.17
50	0.387	0.494	0.078	194	158	184	7.15	0.87
70	0.268	0.343	0.074	241	197	231	10.01	0.61
95	0.193	0.248	0.072	288	237	285	13.6	0.45
120	0.153	0.197	0.072	331	273	331	17.2	0.36
150	0.124	0.160	0.073	370	309	378	21.5	0.30
185	0.0991	0.1291	0.072	418	348	436	26.5	0.26
240	0.0754	0.0998	0.071	483	403	514	34.3	0.21
300	0.0601	0.0812	0.071	540	452	586	42.9	0.19
400	0.0470	0.0656	0.070	621	530	674	57.2	0.17

The above data is indicative & may be changed without prior information.  
 Conductor upto 16mm<sup>2</sup> will be non-compacted.  
 Above 16mm<sup>2</sup> will be compacted sector shaped conductor.  
 Cables can be supplied in multiples of 500/1000 mtrs or as per customer requirement.

Operating conditions - Amb. air temp: 40° C  
 Ground temp: 20° C  
 Depth of laying: 50 cm  
 Thermal resistivity of soil: 120° C-cm/W

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**Table-4: Four Core XLPE Insulated Gal. steel wire armoured cable with Copper Conductor conf. to BS: 5467/1997**

Area	Thickness of XLPE Insulation	Thickness of Bedding	Dimension of Armour Wire	Thickness of PVC Outer sheath	Overall diameter	Net Wt. of Cable
	Nominal	Nominal	Nominal	Nominal	Approx.	Approx.
mm <sup>2</sup>	mm	mm	mm	mm	mm	kg/km
1.5	0.6	0.8	0.9	1.3	13.3	335
2.5	0.7	0.8	0.9	1.4	15.0	430
4	0.7	0.8	0.9	1.4	16.4	535
6	0.7	0.8	1.25	1.5	18.7	770
10	0.7	0.8	1.25	1.5	21.1	960
16	0.7	0.8	1.25	1.6	23.4	1200
25	0.9	1.0	1.6	1.7	26.1	1855
35	0.9	1.0	1.6	1.8	28.6	2370
50	1.0	1.0	1.6	1.9	32.0	2950
70	1.1	1.2	2.0	2.1	37.7	4355
95	1.1	1.2	2.0	2.2	41.7	5445
120	1.2	1.4	2.5	2.3	47.1	7010
150	1.4	1.4	2.5	2.4	51.4	8365
185	1.6	1.4	2.5	2.6	56.6	10050
240	1.7	1.6	2.5	2.7	63.0	12450
300	1.8	1.6	2.5	2.9	68.8	15300
400	2.0	1.8	3.15	3.2	78.1	20100

Area	D.C. resistance at 20° C	A.C. resistance at operating Temp. 90° C	Resistance at 50 Hz	Current Rating			Short circuit rating for 1 Sec.	Voltage Drop
	Max	Approx.	Approx.	Ground	Duct	Air		
mm <sup>2</sup>	Ohm/km	Ohm/km	Ohm/km	Amps	Amps	Amps	kA(rms)	V/A/km
1.5	12.1	15.43	0.105	25	22	23	0.21	26.72
2.5	7.41	9.45	0.099	32	30	31	0.36	16.37
4	4.61	5.88	0.093	42	39	41	0.57	10.18
6	3.08	3.93	0.088	52	49	52	0.86	6.80
10	1.83	2.33	0.084	71	66	72	1.43	4.04
16	1.15	1.47	0.081	105	84	94	2.29	2.54
25	0.727	0.927	0.081	136	111	123	3.58	1.61
35	0.524	0.669	0.079	163	133	151	5.01	1.17
50	0.387	0.494	0.078	194	158	184	7.15	0.87
70	0.268	0.343	0.074	241	197	231	10.01	0.61
95	0.193	0.248	0.072	288	237	285	13.6	0.45
120	0.153	0.197	0.072	331	273	331	17.2	0.36
150	0.124	0.160	0.073	370	309	378	21.5	0.30
185	0.0991	0.1291	0.072	418	348	436	26.5	0.26
240	0.0754	0.0998	0.071	483	403	514	34.3	0.21
300	0.0601	0.0812	0.071	540	452	586	42.9	0.19
400	0.0470	0.0656	0.070	621	530	674	57.2	0.17

The above data is indicative & may be changed without prior information.  
 Conductor upto 16mm<sup>2</sup> will be non-compacted.  
 Above 16mm<sup>2</sup> will be compacted sector shaped conductor.  
 Cables can be supplied in multiples of 250/500/1000 mtrs or as per customer requirement.

Operating conditions - Amb. air temp. 40° C  
 Ground temp: 20° C  
 Depth of laying : 50 cm  
 Thermal resistivity of soil: 120° C-cm/W

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**Table-5: Five Core XLPE Insulated Gal. steel wire armoured cable with Copper Conductor conf. to BS: 5467/1997**

Area	Thickness of XLPE Insulation	Thickness of Bedding	Dimension of Armour Wire	Thickness of PVC Outer sheath	Overall diameter	Net Wt. of Cable
	Nominal	Nominal	Nominal	Nominal	Approx.	Approx.
mm <sup>2</sup>	mm	mm	mm	mm	mm	kg/km
1.5	0.6	0.8	0.9	1.4	14.3	385
2.5	0.7	0.8	0.9	1.4	16.1	495
4	0.7	0.8	0.9	1.5	17.8	620
6	0.7	0.8	1.25	1.5	20.0	845
10	0.7	0.8	1.25	1.6	22.9	1130
16	0.7	1.0	1.6	1.7	26.6	1685
25	0.9	1.0	1.6	1.8	31.5	2330
35	0.9	1.0	1.6	1.9	34.8	2965
50	1.0	1.2	2.0	2.0	40.4	4075
70	1.1	1.2	2.0	2.2	46.3	5475

Area	D.C. resistance at 20° C	A.C. resistance at operating Temp. 90° C	Resistance at 50 Hz	Current Rating			Short circuit rating for 1 Sec.	Voltage Drop
	Max	Approx.	Approx.	Ground	Duct	Air		
mm <sup>2</sup>	Ohm/km	Ohm/km	Ohm/km	Amps	Amps	Amps	kA(rms)	V/A/km
1.5	12.1	15.43	0.105	25	22	23	0.21	26.72
2.5	7.41	9.45	0.099	32	30	31	0.36	16.37
4	4.61	5.88	0.093	42	39	41	0.57	10.18
6	3.08	3.93	0.088	52	49	52	0.86	6.80
10	1.83	2.33	0.084	71	66	72	1.43	4.04
16	1.15	1.47	0.081	105	84	94	2.29	2.54
25	0.727	0.927	0.081	136	111	123	3.58	1.61
35	0.524	0.669	0.079	163	133	151	5.01	1.17
50	0.387	0.494	0.078	194	158	184	7.15	0.87
70	0.268	0.343	0.074	241	197	231	10.01	0.61

The above data is indicative & may be changed without prior information.

Conductor upto 16mm<sup>2</sup> will be non-compacted.

Above 16mm<sup>2</sup> will be compacted sector shaped conductor.

Cables can be supplied multiples of 250/500 mtrs or as per customer requirement.

Operating conditions - Amb. Air temp. 40° C

Ground temp: 20° C

Depth of laying : 50 cm

Thermal resistivity of soil: 120° C-cm/W

**Table-6: XLPE Insulated armoured Auxillary (Control) cable with Copper Conductor of 1.5 mm<sup>2</sup> conf. To BS:5467/1997**

Area	Thickness of XLPE Insulation	Thickness of Bedding	Dimension of Armour Wire	Thickness of PVC Outer sheath	Overall diameter	Net Wt. of Cable
	Nominal	Nominal	Nominal	Nominal	Approx.	Approx.
mm <sup>2</sup>	mm	mm	mm	mm	mm	kg/km
7 x 1.5	0.6	0.8	0.9	1.4	15.2	440
12 x 1.5	0.6	0.8	1.25	1.5	19.4	745
19 x 1.5	0.6	0.8	1.25	1.6	22.2	965
27 x 1.5	0.6	1.0	1.6	1.7	26.7	1425
37 x 1.5	0.6	1.0	1.6	1.7	29.0	1710
48 x 1.5	0.6	1.0	1.6	1.8	32.7	2070

Area	D.C. resistance at 20° C	A.C. resistance at operating Temp. 90° C	Resistance at 50 Hz	Current Rating			Short circuit rating for 1 Sec.	Voltage Drop
	Max	Approx.	Approx.	Ground	Duct	Air		
mm <sup>2</sup>	Ohm/km	Ohm/km	Ohm/km	Amps	Amps	Amps	kA(rms)	V/A/km
7 x 1.5	12.1	15.43	0.105	21	17	17	0.215	26.73
12 x 1.5	12.1	15.43	0.105	18	14	14	0.215	26.73
19 x 1.5	12.1	15.43	0.105	15	12	12	0.215	26.73
27 x 1.5	12.1	15.43	0.105	13	10	10	0.215	26.73
37 x 1.5	12.1	15.43	0.105	11	9	9	0.215	26.73
48 x 1.5	12.1	15.43	0.105	10	8	8	0.215	26.73

The above data is indicative & may be changed without prior information.

Cables can be supplied in multiples of 250/500 mtrs or as per customer requirement.

Operating conditions - Amb. air temp. 40° C

Ground temp: 20° C

Depth of laying : 50 cm

Thermal resistivity of soil: 120° C-cm/W

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**Table-7: XLPE Insulated armoured Auxillary (Control) cable with Copper Conductor of 2.5 mm<sup>2</sup> conf. To BS:5467/1997**

Area	Thickness of XLPE Insulation	Thickness of Bedding	Dimension of Armour Wire	Thickness of PVC Outer sheath	Overall diameter	Net Wt. of Cable
	Nominal	Nominal	Nominal	Nominal	Approx.	Approx.
mm <sup>2</sup>	mm	mm	mm	mm	mm	kg/km
7 x 2.5	0.7	0.8	0.9	1.4	17.1	570
12 x 2.5	0.7	0.8	1.25	1.6	22.4	980
19 x 2.5	0.7	1.0	1.6	1.7	26.6	1485
27 x 2.5	0.7	1.0	1.6	1.8	30.7	1905
37 x 2.5	0.7	1.0	1.6	1.8	33.8	2320
48 x 2.5	0.7	1.0	1.6	2.0	39.3	3165

Area	D.C. resistance at 20° C	A.C. resistance at operating Temp. 90° C	Resistance at 50 Hz	Current Rating			Short circuit rating for 1 Sec.	Voltage Drop
	Max	Approx.	Approx.	Ground	Duct	Air		
mm <sup>2</sup>	Ohm/km	Ohm/km	Ohm/km	Amps	Amps	Amps	kA(rms)	V/A/km
7 x 2.5	7.41	9.45	0.099	27	22	23	0.358	16.37
12 x 2.5	7.41	9.45	0.099	22	19	19	0.358	16.37
19 x 2.5	7.41	9.45	0.099	19	16	16	0.358	16.37
27 x 2.5	7.41	9.45	0.099	16	14	13	0.358	16.37
37 x 2.5	7.41	9.45	0.099	14	12	12	0.358	16.37
48 x 2.5	7.41	9.45	0.099	13	11	11	0.358	16.37

The above data is indicative & may be changed without prior information.  
Cables can be supplied multiples of 500/1000 mtrs or as per customer requirement.

Operating conditions - Amb. Air temp. 40° C  
Ground temp: 20° C  
Depth of laying : 50 cm  
Thermal resistivity of soil: 120° C-cm/W

**Table-8: XLPE Insulated armoured Auxillary (Control) cable with Copper Conductor of 4 mm<sup>2</sup> conf. To BS:5467/1997**

Area	Thickness of XLPE Insulation	Thickness of Bedding	Dimension of Armour Wire	Thickness of PVC Outer sheath	Overall diameter	Net Wt. of Cable
	Nominal	Nominal	Nominal	Nominal	Approx.	Approx.
mm <sup>2</sup>	mm	mm	mm	mm	mm	kg/km
7 x 4	0.7	0.8	1.25	1.5	19.7	840
12 x 4	0.7	1.0	1.25	1.6	25.7	1400
19 x 4	0.7	1.0	1.6	1.7	29.3	1900
27 x 4	0.7	1.0	1.6	1.9	34.4	2485
37 x 4	0.7	1.2	2.0	2.0	39.2	3410
48 x 4	0.7	1.2	2.0	2.1	44.1	4150

Area	D.C. resistance at 20° C	A.C. resistance at operating Temp. 90° C	Resistance at 50 Hz	Current Rating			Short circuit rating for 1 Sec.	Voltage Drop
	Max	Approx.	Approx.	Ground	Duct	Air		
mm <sup>2</sup>	Ohm/km	Ohm/km	Ohm/km	Amps	Amps	Amps	kA(rms)	V/A/km
7 x 4	4.61	5.88	0.093	36	29	30	0.572	10.18
12 x 4	4.61	5.88	0.093	30	24	25	0.572	10.18
19 x 4	4.61	5.88	0.093	25	20	21	0.572	10.18
27 x 4	4.61	5.88	0.093	22	17	18	0.572	10.18
37 x 4	4.61	5.88	0.093	19	16	16	0.572	10.18
48 x 4	4.61	5.88	0.093	18	14	15	0.572	10.18

The above data is indicative & may be changed without prior information.  
Cables can be supplied in multiples of 500/1000 mtrs or as per customer requirement.

Operating conditions - Amb. air temp. 40° C  
Ground temp: 20° C  
Depth of laying : 50 cm  
Thermal resistivity of soil: 120° C-cm/W

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

Table 9A: Touching Horizontal Formation laid Direct in Ground

No. of Circuits	Spacing (Between Centres of Circuits)				
	Touching	15 cm	30 cm	45 cm	60 cm
2	0.78	0.81	0.85	0.88	0.90
3	0.68	0.71	0.77	0.81	0.83
4	0.61	0.65	0.72	0.76	0.79
5	0.56	0.61	0.68	0.73	0.78

Table 9C 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 9B: Cables laid in Trefoil Ducts in horizontal formation

No. of Circuits	Spacing (Between Centres of Circuits)		
	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	0.79

Table 9D Cables laid as in 'C' but open air

No. of Racks	No. of Cables per Rack		
	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

## Group Rating Factors for Circuits for Multi-core Cables

Table 10A: 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 Cables trays in Tier	Number of cables				
	1	2	3	6	9
1	0.95	0.9	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

Table 10C: Cables laid on cable trays exposed to air, the cables are touching and trays in tiers by 300 mm. The clearance between the wall and the cable is 25 mm.

No. of Cables Trays in Tier	Number of cables per Rack			
	2	3	6	9
1	0.84	0.80	0.75	0.73
2	0.80	0.76	0.71	0.69
3	0.78	0.74	0.70	0.68
6	0.76	0.72	0.68	0.66

Table 10E: Cables laid Direct in single way ducts/pipes in horizontal formation.

No. of Cables in group	Spacing 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

Table 12: Rating Factors for Variation in Ambient Air Temperature

Air Temp. °C	15	20	25	30	35	40	45	50	55
Rating Factor	1.2	1.2	1.1	1.1	1.1	1.0	1.0	0.9	0.8

Table 14: Rating Factors for Variation in thermal resistivity of soil (multicore cables laid direct in the ground) - Average values

Nominal area of conductor mm <sup>2</sup>	For values of thermal resistivity of Soil in °C-cm/W					
	80	90	100	150	200	250
Up to 16	1.09	1.06	1.04	0.95	0.86	0.79
25 to 150	1.14	1.10	1.07	0.93	0.84	0.76
185 & above	1.16	1.11	1.07	0.92	0.82	0.74

Table 10B: Cables laid on cable trays exposed to air, the cables spaced by one cable diameter and trays in tiers by 300 mm. The clearance between the Wall and the cable is 25 mm.

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

Table 10D: Cables laid Direct in Ground in horizontal formation.

No. of Cables in group	Spacing 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

Table 11: Rating Factor for Variation in Dept. of laying in Ground

Dept. of Laying (cm)	50	80	100	125	150	200 & above
Rating Factor upto 50 mm <sup>2</sup>	1	0.97	0.95	0.94	0.93	0.91
Rating Factor 70 mm <sup>2</sup>	1	0.96	0.94	0.92	0.91	0.88
Rating Factor upto 300 mm <sup>2</sup>	1	0.94	0.92	0.90	0.89	0.86

Table 13: Rating Factors for Variation in Ambient Group Temperature

Group Temp. °C	15	20	25	30	35	40	45	50	55
Rating Factor	1	1	1	0.9	0.9	0.9	0.8	0.8	0.7

Table 15: Rating Factors for Variation in thermal resistivity of soil, three single core cables laid direct in the ground (three cables in trefoil touching) : Average Values

Nominal area of conductor mm <sup>2</sup>	For values of thermal resistivity of Soil in °C-cm/W					
	80	90	100	150	200	250
Up to 150	1.16	1.11	1.07	0.91	0.81	0.73
185 to 400	1.17	1.12	1.07	0.90	0.80	0.72
500 & above	1.18	1.13	1.08	0.90	0.79	0.71