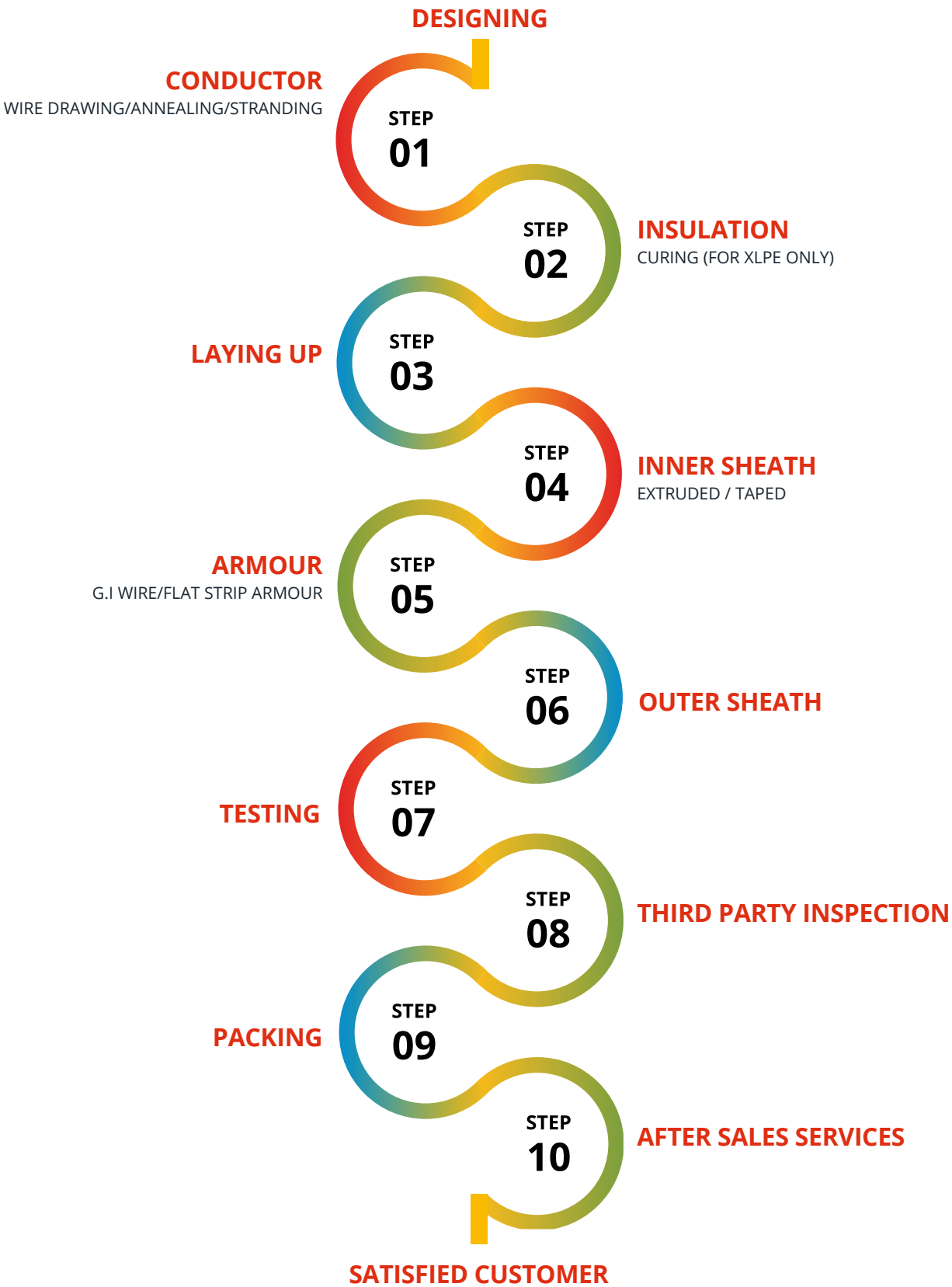
POWER-CONTROL CABLES

MANUFACTURING OF LV POWER AND CONTROL CABLES

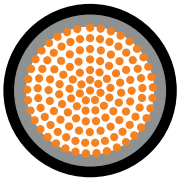
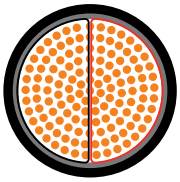
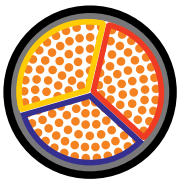


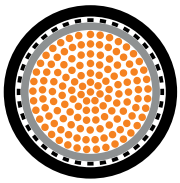
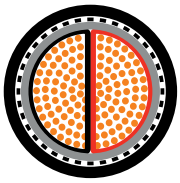
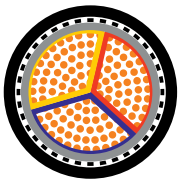
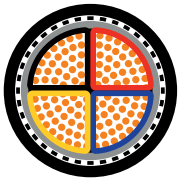
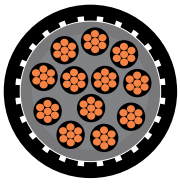
COMPONENTS OF LV CABLES

ELEMENT	XLPE	PVC/HR PVC
CONDUCTOR	Electrolytic Copper (Plain or Tinned) and Aluminum conductor in form of Solid, Stranded Circular, Compacted Circular and Shaped as per IS 8130, IEC 60228 & BS EN 60228. The sector shaped conductor are manufactured with pre-spiral lay which gives compact shape to the cable with reduced diameter at laid up stage.	
INSULATION	90 C thermoset dielectric, is applied as insulation over the conductor by extrusion process. Cross Linked Polyethelene (XLPE) as per IS:7098-1, IEC 60502-1, BS 7655	Thermoplastic dielectric, is applied as insulation over the conductor by extrusion process. We offer both general purpose PVC of 70 C (Type A) and Heat Resistant PVC of 85 C (Type C). Poly-V inyl Chloride (PVC) as per IS 5831, IEC 60502-1, BS 7655 Low Smoke Zero Halogen (LSZH) as per IEC 60502-1
LAYING UP OF CORES	The multi-cores are laid-up with appropriate tooling to form a compact circular shape, PVC fillers can be applied (Wherever necessary) to provide circular shape.	
INNERSHEATH	PVC/LSZH innersheath is applied as a protection over the laid up cores, innersheath can be offered in two forms Extruded or Taped. Extruded PVC bedding of ST2/LSZH as per IS5831, IEC 60502-1, BS 7655 Cables with special properties of FR and FRLS can be offered Taped Bedding of Thermoplastic Taped to be compatible with temperature rating of the cable as per IS 7098-1, IEC 60502-1	PVC/LSZH innersheath is applied as a protection over the laid up cores, innersheath can be offfered in two forms Extruded and Taped. Extruded PVC bedding of ST 1 or ST 2 PVC as per Is 5831, IEC 60502-1, BS 7655 Cables with special properties of FR and FRLS can be offered Taped Bedding of Thermoplastic tape to be compatible with temperature rating of the cable as per IS 1554-1, IEC 60502-1
ARMOUR	Galvanized Steel Round Wire as per IS 3975, IEC 60502-1, BS 10257 Galvanized Steel Flat Strip as per IS 3975, IEC 60502-1 For Single Core cables to be used in AC circuit Aluminum Round Wire or Flat Strip armour is provided to avoid magnetic hysteresis losses. For cables to be used in mines, required armour conductance (may be 75% to 40%) can be achieved by Double Wire armour or by incorporation Tinned Copper Wires with Galvanized Steel Wires.	
OUTERSHEATH	PVC/LSZH outersheath is applied by extrusion process generally Black in colour with sequential marking and required detail printed with non-contact ink jet printer and also embossing can be provided. Cables with special properties of FR and FRLS can be offered.Poly-Vinyl Chloride (PVC) as per IS 5831, IEC 60502-1, BS 7655	

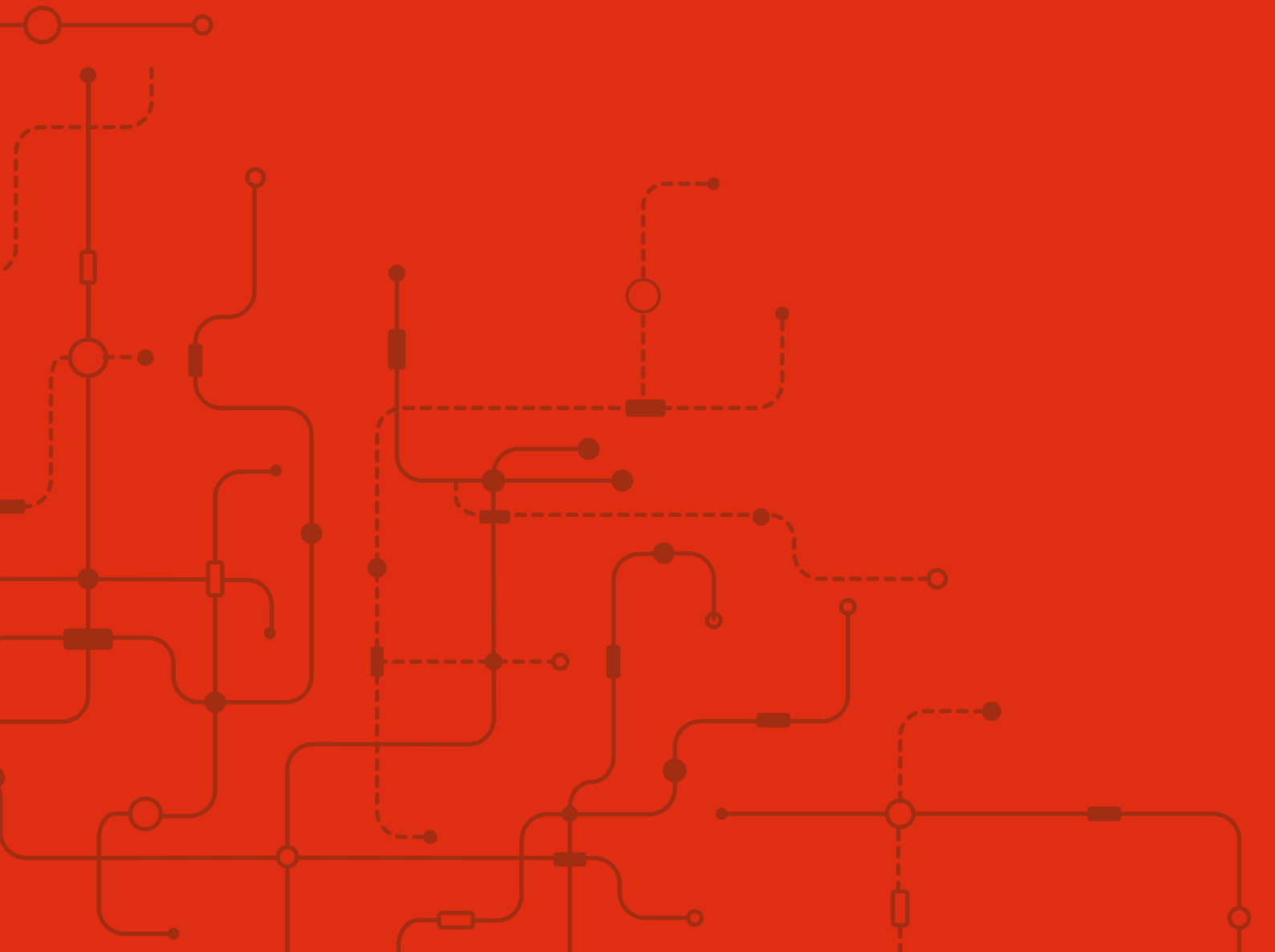
TYPICAL CROSS SECTIONAL VIEW

XLPE/ PVC/ HR PVC) Cables

		XLPE	PVC/ HR PVC
1 CORE UNARMOURED CABLE		01. Conductor - Copper or Aluminum (A) 02. Insulation - Type “XLPE” (2X) 03. Outersheath - ST2 PVC (Y) **Typical Cable Code : 2XY, A2XY**	01. Conductor - Copper or Aluminum (A) 02. Insulation - Type “A” or “C” PVC (Y) 03. Outersheath - ST1 or ST2 PVC (Y) **Typical Cable Code : YY, AYY**
2 CORE UNARMOURED CABLE		01. Conductor - Copper or Aluminum (A) 02. Insulation - Type “XLPE” (2X) 03. Innersheath - ST2 Extruded PVC or Thermoplastic Tapes 04. Outersheath - ST2 PVC (Y) **Typical Cable Code : 2XY, A2XY**	01. Conductor - Copper or Aluminum (A) 02. Insulation - Type “A” or “C” PVC (Y) 03.Innersheath - ST2 Extruded PVC or Thermoplastic Tapes 04. Outersheath - ST2 PVC (Y) **Typical Cable Code : YY, AYY**
3 CORE UNARMOURED CABLE		01. Conductor - Copper or Aluminum (A) 02. Insulation - Type “XLPE” (2X) 03. Outersheath - ST2 Extruded PVC or Thermoplastic Tapes 04. Outersheath - ST2 PVC (Y) **Typical Cable Code : 2XY, A2XY**	01. Conductor - Copper or Aluminum (A) 02. Insulation - Type “A” or “C” PVC (Y) 03. Outersheath - ST1 or ST2 Extruded PVC or Thermoplastic Tapes 04. Outersheath - ST1 or ST2 PVC (Y) **Typical Cable Code : YY, AYY**
3.5 CORE UNARMOURED CABLE		01. Conductor - Copper or Aluminum (A) 02. Insulation - Type “XLPE” (2X) 03. Outersheath - ST2 Extruded PVC or Thermoplastic Tapes 04. Outersheath - ST2 PVC (Y) **Typical Cable Code : 2XY, A2XY**	01. Conductor - Copper or Aluminum (A) 02. Insulation - Type “A” or “C” PVC (Y) 03. Outersheath - ST1 or ST2 Extruded PVC or Thermoplastic Tapes 04. Outersheath - ST1 or ST2 PVC (Y) **Typical Cable Code : YY, AYY**
4 CORE UNARMOURED CABLE		01. Conductor - Copper or Aluminum (A) 02. Insulation - Type “XLPE” (2X) 03. Outersheath - ST2 Extruded PVC or Thermoplastic Tapes 04. Outersheath - ST2 PVC (Y) **Typical Cable Code : 2XY, A2XY**	01. Conductor - Copper or Aluminum (A) 02. Insulation - Type “A” or “C” PVC (Y) 03. Outersheath - ST1 or ST2 Extruded PVC or Thermoplastic Tapes 04. Outersheath - ST1 or ST2 PVC (Y) **Typical Cable Code : YY, AYY**

		XLPE	PVC/ HR PVC
1 CORE ARMOURED CABLE		01. Conductor - Copper or Aluminum (A) 02. Insulation - Type “XLPE” (2X) 03. Armoured - Aluminum Round Wire/ Flat Strip 04. Outersheath - ST2 PVC (Y) **Typical Cable Code : A2XWaY, A2XFaY, 2XFaY, 2XWaY**	01. Conductor - Copper or Aluminum (A) 02. Insulation - Type “A” or “C” PVC (Y) 03. Armoured - Aluminum Round Wire/ Flat Strip 04. Outersheath - ST1 or ST2 PVC (Y) **Typical Cable Code : YYaY, AYWaY, YFaY, AYFaY**
2 CORE ARMOURED CABLE		01. Conductor - Copper or Aluminum (A) 02. Insulation - Type “XLPE” (2X) 03. Innersheath - ST2 Extruded PVC or Thermoplastic Tapes 04. Armoured - G.S.Round Wire/Strip 05. Outersheath - ST2 PVC (Y) **TCC : 2XWY, 2XFY, A2XWY, A2XFY**	01. Conductor - Copper or Aluminum (A) 02. Insulation - Type “A” or “C” PVC (Y) 03.Innersheath - ST2 Extruded PVC or Thermoplastic Tapes 04. Armoured - G.S.Round Wire/Strip 05. Outersheath - ST1 or ST2 PVC (Y) **Typical Cable Code : YWY, YFY, AYWY, AYFY**
3 CORE ARMOURED CABLE		01. Conductor - Copper or Aluminum (A) 02. Insulation - Type “XLPE” (2X) 03. Innersheath - ST2 Extruded PVC or Thermoplastic Tapes 04. Armoured - G.S.Round Wire/Strip 05. Outersheath - ST2 PVC (Y) **Typical Cable Code : 2XWY, 2XFY, A2XWY, A2XFY**	01. Conductor - Copper or Aluminum (A) 02. Insulation - Type “A” or “C” PVC (Y) 03.Innersheath - ST2 Extruded PVC or Thermoplastic Tapes 04. Armoured - G.S.Round Wire/Strip 05. Outersheath - ST1 or ST2 PVC (Y) **Typical Cable Code : YWY, YFY, AYWY, AYFY**
3.5 CORE ARMOURED CABLE		01. Conductor - Copper or Aluminum (A) 02. Insulation - Type “XLPE” (2X) 03. Innersheath - ST2 Extruded PVC or Thermoplastic Tapes 04. Armoured - G.S.Round Wire/Strip 05. Outersheath - ST2 PVC (Y) **Typical Cable Code : 2XWY, 2XFY, A2XWY, A2XFY**	01. Conductor - Copper or Aluminum (A) 02. Insulation - Type “A” or “C” PVC (Y) 03.Innersheath - ST2 Extruded PVC or Thermoplastic Tapes 04. Armoured - G.S.Round Wire/Strip 05. Outersheath - ST1 or ST2 PVC (Y) **Typical Cable Code : YWY, YFY, AYWY, AYFY**
4 CORE ARMOURED CABLE		01. Conductor - Copper or Aluminum (A) 02. Insulation - Type “XLPE” (2X) 03. Innersheath - ST2 Extruded PVC or Thermoplastic Tapes 04. Armoured - G.S.Round Wire/Strip 05. Outersheath - ST2 PVC (Y) **Typical Cable Code : 2XWY, 2XFY, A2XWY, A2XFY**	01. Conductor - Copper or Aluminum (A) 02. Insulation - Type “A” or “C” PVC (Y) 03.Innersheath - ST2 Extruded PVC or Thermoplastic Tapes 04. Armoured - G.S.Round Wire/Strip 05. Outersheath - ST1 or ST2 PVC (Y) **Typical Cable Code : YWY, YFY, AYWY, AYFY**
MULTI CORE ARMOURED CABLE		01. Conductor - Copper or Aluminum (A) 02. Insulation - Type “XLPE” (2X) 03. Innersheath - ST2 Extruded PVC or Thermoplastic Tapes 04. Armoured - G.S.Round Wire/Strip 05. Outersheath - ST2 PVC (Y) **Typical Cable Code : 2XWY, 2XFY, A2XWY, A2XFY**	01. Conductor - Copper or Aluminum (A) 02. Insulation - Type “A” or “C” PVC (Y) 03.Innersheath - ST2 Extruded PVC or Thermoplastic Tapes 04. Armoured - G.S.Round Wire/Strip 05. Outersheath - ST1 or ST2 PVC (Y) **Typical Cable Code : YWY, YFY, AYWY, AYFY**

PVC
HEAVY DUTY CABLE



WEIGHT DIMENSION DATA & CURRENT CARRYING CAPACITY

TABLE - 1 ADCAB 1.1 KV SINGLE CORE, ALUMINUM CONDUCTOR, PVC INSULATED ALUMINUM WIRE/STRIP ARMORED & PVC SHEATHED CABLE CONFIRMING TO IS:1554 (PART I) AMENDED UP TO DATE

Nominal Cross Sectional Area	Nominal Thickness of Insulation	Armour		Nominal Thickness of PVC Outer Sheath	Approx. Overall Diameter of Cable	Approx Weight of Cable	Max DC Conductor Resistance @ 20 C	Current Rating					
								Direct In Ground		In Duct		In Air	
		Aluminum Wire Dia	Aluminum Strip Thickness					2 Cables	3 Cables	2 Cables	3 Cables	2 Cables	3 Cables
sq mm	mm	mm	mm	mm	mm	kg/km	ohm/km	amps	amps	amps	amps	amps	amps
*4	1.3	1.4	-	1.24	11	155	7.410	36	31	33	30	32	27
*6	1.3	1.4	-	1.24	12	175	4.610	44	39	42	37	41	35
*10	1.3	1.4	-	1.24	13.5	205	3.080	50	51	56	51	56	47
16	1.3	1.4	-	1.24	14	230	1.191	75	66	71	65	72	64
25	1.5	1.4	-	1.24	15	300	1.200	97	86	93	84	99	84
35	1.5	1.4	-	1.24	16	350	0.868	97	100	110	100	120	105
50	1.7	1.4	-	1.24	18	430	0.641	120	110	130	115	150	130
70	1.7	1.4	-	1.40	20	530	0.443	145	140	155	135	185	155
95	1.9	-	4 x 0.80	1.40	21.5	610	0.320	170	175	180	155	215	190
120	1.9	-	4 x 0.80	1.40	22.5	710	0.253	205	195	200	170	240	220
150	2.1	-	4 x 0.80	1.40	24	840	0.206	230	220	220	190	270	250
185	2.3	-	4 x 0.80	1.40	26.5	1020	0.164	265	240	240	210	305	290
240	2.5	-	4 x 0.80	1.40	29	1250	0.125	300	270	270	225	350	335
300	2.7	-	4 x 0.80	1.56	32	1500	0.100	335	295	295	245	395	380
400	3.0	-	4 x 0.80	1.56	36	1910	0.0778	370	325	335	275	455	435
500	3.4	-	4 x 0.80	1.56	40	2350	0.0605	410	345	335	295	490	480
630	3.9	-	4 x 0.80	1.72	44	2920	0.0469	435	390	395	320	560	550

*size with star(*)only offered with solid conductor

TABLE -2 ADCAB 1.1 KV SINGLE CORE, ALUMINUM CONDUCTOR, PVC INSULATED UNARMORED & PVC SHEATHED CABLE CONFIRMING TO IS:1554 (PART I) AMENDED UP TO DATE

Nominal Cross Sectional Area	Nominal Thickness of Insulation	Nominal Thickness of PVC Outer Sheath	Approx. Overall Diameter of Cable	Approx Weight of Cable	Max DC Conductor Resistance @ 20 C	Current Rating					
						Direct In Ground		In Duct		In Air	
						2 Cables	3 Cables	2 Cables	3 Cables	2 Cables	3 Cables
sq mm	mm	mm	mm	kg/km	ohm/km	amps	amps	amps	amps	amps	amps
*1.5	0.8	1.8	7.0	55	18.100	21	17	19	17	18	15
*2.5	0.9	1.8	7.5	65	12.100	28	24	25	24	25	21
*4.0	1.0	1.8	8.0	75	7.410	36	31	33	30	32	27
*6.0	1.0	1.8	9.0	90	4.610	44	39	42	37	44	35
*10	1.0	1.8	10.0	105	3.080	54	51	56	51	56	47
16	1.0	1.8	11.0	140	1.910	72	66	71	65	72	64
25	1.2	1.8	12.5	195	1.200	97	83	93	84	99	84
35	1.2	1.8	13.5	235	0.868	120	100	110	100	120	105
50	1.4	1.8	15.0	305	0.641	145	120	130	115	150	130
70	1.4	1.8	17.0	385	0443	170	140	155	135	185	155
95	1.6	1.8	19.0	515	0.320	205	175	180	155	215	190
120	1.6	2.0	21.0	610	0.253	230	195	200	170	240	220
150	1.8	2.0	22.5	735	0.206	265	220	220	190	270	250
185	2.0	2.0	25.0	885	0.164	300	240	240	210	305	290
240	2.2	2.0	28.0	1100	0.125	335	270	270	225	350	335
300	2.4	2.0	30.0	1335	0.100	370	295	295	245	395	380
400	2.6	2.2	34.0	1665	0.0778	410	25	335	275	455	435
500	3.0	2.2	38.0	2130	0.0605	435	345	355	295	490	480
630	3.4	2.4	43.0	2685	0.0469	485	390	395	320	560	550

TABLE - 3 ADCAB 1.1 KV SINGLE CORE, COPPER CONDUCTOR, PVC INSULATED ALUMINUM WIRE/STRIP ARMORED & PVC SHEATHED CABLE CONFIRMING TO IS:1554 (PART I) AMENDED UP TO DATE

Nominal Cross Sectional Area	Nominal Thickness of Insulation	Armour		Nominal Thickness of PVC Outer Sheath	Approx. Overall Diameter of Cable	Approx Weight of Cable	Max DC Conductor Resistance @ 20 C	Current Rating					
								Direct In Ground		In Duct		In Air	
		Aluminum Wire Dia	Aluminum Strip Thickness					2 Cables	3 Cables	2 Cables	3 Cables	2 Cables	3 Cables
sq mm	mm	mm	mm	mm	mm	kg/km	ohm/km	amps	amps	amps	amps	amps	amps
*4	1.3	1.4	-	1.24	11	180	4.610	46	39	42	38	43	35
*6	1.3	1.4	-	1.24	12	215	3.080	57	49	54	48	54	44
*10	1.3	1.4	-	1.24	13	270	1.830	75	65	72	64	72	60
16	1.3	1.4	-	1.24	15	330	1.150	94	85	92	83	92	82
25	1.5	1.4	-	1.24	16	460	0.727	125	110	120	110	125	110
35	1.5	1.4	-	1.24	18	575	0.524	150	130	140	125	155	130
50	1.7	1.4	-	1.24	20	740	0.387	180	155	165	150	190	165
70	1.7	1.4	-	1.40	21	970	0.268	220	190	200	175	235	205
95	1.9	-	4 x 0.80	1.40	22	1200	0.193	265	220	230	200	275	245
120	1.9	-	4 x 0.80	1.40	24	1460	0.153	300	250	255	220	310	280
150	2.1	-	4 x 0.80	1.40	26	1770	0.124	340	280	280	245	345	320
185	2.3	-	4 x 0.80	1.40	29	2170	0.099	380	305	305	260	390	370
240	2.5	-	4 x 0.80	1.40	14	2740	0.075	420	345	340	285	445	425
300	2.7	-	4 x 0.80	1.56	32	3360	0.060	465	375	370	310	500	475
400	3.0	-	4 x 0.80	1.56	36	4400	0.047	500	400	405	335	570	550
500	3.4	-	4 x 0.80	1.56	40	5450	0.037	540	425	430	355	610	590
630	3.9	-	4 x 0.80	1.72	44	6820	0.028	590	470	465	375	680	660

*size with star(*)only offered with solid conducto

TABLE - 4 ADCAB 1.1 KV SINGLE CORE, COPPER CONDUCTOR, PVC INSULATED ALUMINUM WIRE/STRIP UNARMORED PVC SHEATHED CABLE CONFIRMING TO IS:1554 (PART I) AMENDED UP TO DATE

Nominal Cross Sectional Area	Nominal Thickness of Insulation	Nominal Thickness of PVC Outer Sheath	Approx. Overall Diameter of Cable	Approx Weight of Cable	Max DC Conductor Resistance @ 20 C	Current Rating					
						Direct In Ground		In Duct		In Air	
						2 Cables	3 Cables	2 Cables	3 Cables	2 Cables	3 Cables
sq mm	mm	mm	mm	kg/km	ohm/km	amps	amps	amps	amps	amps	amps
*1.5	0.8	1.8	7.0	65	12.100	25	22	23	21	24	20
*2.5	0.9	1.8	7.5	82	7.410	35	30	31	29	32	27
*4.0	1.0	1.8	8.0	100	4.610	46	39	42	38	43	35
*6.0	1.0	1.8	9.0	130	3.080	57	49	54	48	54	44
*10	1.0	1.8	10.0	170	1.830	75	65	72	64	72	60
16	1.0	1.8	11.0	240	1.150	94	85	92	83	92	82
25	1.2	1.8	12.5	350	0.727	125	110	120	110	125	110
35	1.2	1.8	13.5	455	0.524	150	130	140	125	155	130
50	1.4	1.8	15.0	620	0.387	180	155	165	150	190	165
70	1.4	1.8	17.0	820	0.268	220	190	200	175	235	205
95	1.6	1.8	19.0	1105	0.193	265	220	230	200	273	245
120	1.6	2.0	21.0	1355	0.153	300	250	255	220	310	280
150	1.8	2.0	22.5	1665	0.124	340	280	280	245	345	320
185	2.0	2.0	25.0	2040	0.099	380	305	305	260	390	370
240	2.2	2.0	28.0	2590	0.075	420	345	340	285	445	425
300	2.4	2.0	30.0	3200	0.060	465	375	370	310	500	475
400	2.6	2.2	34.0	4150	0.047	500	400	403	335	570	550
500	3.0	2.2	38.0	5230	0.370	540	425	430	355	610	590
630	3.4	2.4	43.0	6600	0.280	590	470	465	375	680	660

*size with star(*)only offered with solid conductor

TABLE - 5 ADCAB 1.1 KV TWO CORE, ALUMINUM CONDUCTOR, PVC INSULATED, GI WIRE/STRIP ARMORED & PVC SHEATHED CABLE CONFIRMING TO IS:1554 (PART I) AMENDED UP TO DATE

Nominal Cross Sectional Area	Nominal Thickness of Insulation	Nominal Thickness of Inner Sheath	Armour		Minimum Thickness of PVC Outer Sheath	Approx. Overall Diameter of Cable	Approx Weight of Cable	Max DC Conductor Resistance @ 20 C	Current Rating		
			GI Round Steel Wire Nom. Dia	GI Flat Strip Nom. Dia					Direct In Ground	In Duct	In Air
sq mm	mm	mm	mm	mm	mm	mm	kg/km	ohm/km	amps	amps	amps
*1.5	0.8	0.3	1.4	-	1.24	12.5	320	18.100	18	16	16
*2.5	0.9	0.3	1.4	-	1.24	13.5	380	12.100	25	21	21
*4	1.0	0.3	1.4	-	1.24	15.0	450	7.410	32	27	27
*6	1.0	0.3	1.4	-	1.24	16.0	500	4.610	40	34	35
*10	1.0	0.3	1.4	-	1.24	18.0	600	3.080	55	45	47
16	1.0	0.3	-	0.8	1.40	18.0	500	1.910	70	58	59
25	1.2	0.3	-	0.8	1.40	20.0	650	1.200	90	76	78
35	1.2	0.3	-	0.8	1.40	21.5	750	0.868	110	92	99
50	1.4	0.3	-	0.8	1.40	24.5	950	0.641	135	115	125
70	1.4	0.3	-	0.8	1.56	28.0	1150	0.443	160	140	150
95	1.6	0.4	-	0.8	1.56	31.0	1460	0.320	190	170	185
120	1.6	0.4	-	0.8	1.56	33.0	1670	0.253	210	190	210
150	1.8	0.4	-	0.8	1.72	37.0	2010	0.206	240	210	240
185	2.0	0.5	-	0.8	1.88	40.5	2450	0.164	275	240	275
240	2.2	0.5	-	0.8	2.04	45.0	2950	0.125	320	275	325
300	2.4	0.6	-	0.8	2.20	50.0	3560	0.100	355	305	365
400	2.6	0.7	-	0.8	2.36	56.0	4500	0.078	385	345	420

*size with star(*)only offered with solid conductor

TABLE - 6 ADCAB 1.1 KV TWO CORE, ALUMINUM CONDUCTOR, PVC INSULATED UNARMORED PVC SHEATHED CABLE CONFIRMING TO IS:1554 (PART I) AMENDED UP TO DATE

Nominal Cross Sectional Area	Nominal Thickness of Insulation	Nominal Thickness of Inner Sheath	Minimum Thickness of PVC Outer Sheath	Approx. Overall Diameter of Cable	Approx Weight of Cable	Max DC Conductor Resistance @ 20 C	Current Rating		
							Direct In Ground	In Duct	In Air
sq mm	mm	mm	mm	mm	kg/km	ohm/km	amps	amps	amps
*1.5	0.8	0.3	1.8	11.0	115	18.100	18	16	16
*2.5	0.9	0.3	1.8	12.0	150	12.100	25	21	21
*4	1.0	0.3	1.8	13.5	185	7.410	32	27	27
*6	1.0	0.3	1.8	14.5	220	4.610	40	34	35
*10	1.0	0.3	1.8	16.0	275	3.080	55	45	47
16	1.0	0.3	1.8	17.5	285	1.910	70	58	59
25	1.2	0.3	2.0	19.5	405	1.200	90	76	78
35	1.2	0.3	2.0	20.5	490	0.868	110	92	99
50	1.4	0.3	2.0	24.0	650	0.641	135	115	125
70	1.4	0.3	2.0	27.0	800	0.443	160	140	150
95	1.6	0.4	2.2	28.5	1065	0.320	190	170	185
120	1.6	0.4	2.2	33.0	1250	0.253	210	190	210
150	1.8	0.4	2.4	34.0	1550	0.206	240	210	240
185	2.0	0.5	2.4	37.0	1880	0.164	275	240	275
240	2.2	0.5	2.6	42.5	2400	0.125	320	275	325
300	2.4	0.6	2.8	45.5	2900	0.100	355	305	365
400	2.6	0.7	3.2	51.5	3800	0.078	385	345	420

*size with star(*)only offered with solid conductor

TABLE - 7 ADCAB 1.1 KV TWO CORE, COPPER CONDUCTOR, PVC INSULATED GI WIRE/STRIP ARMORED & PVC SHEATHED CABLE CONFIRMING TO IS:1554 (PART I) AMENDED UP TO DATE

Nominal Cross Sectional Area	Nominal Thickness of Insulation	Nominal Thickness of Inner Sheath	Armour		Minimum Thickness of PVC Outer Sheath	Approx. Overall Diameter of Cable	Approx Weight of Cable	Max DC Conductor Resistance @ 20 C	Current Rating		
			GI Round Steel Wire Nom. Dia	GI Flat Strip Nom. Dia					Direct In Ground	In Duct	In Air
sq mm	mm	mm	mm	mm	mm	mm	kg/km	ohm/km	amps	amps	amps
*1.5	0.8	0.3	1.4	-	1.24	12.5	350	12.100	23	20	20
*2.5	0.9	0.3	1.4	-	1.24	13.5	415	7.410	32	27	27
*4	1.0	0.3	1.4	-	1.24	15.0	500	4.610	41	35	35
*6	1.0	0.3	1.4	-	1.24	16.0	580	3.080	50	44	45
*10	1.0	0.3	1.4	-	1.24	18.0	730	1.830	70	58	60
16	1.0	0.3	-	0.8	1.40	18.0	740	1.150	90	75	78
25	1.2	0.3	-	0.8	1.40	20.0	960	0.727	115	97	105
35	1.2	0.3	-	0.8	1.40	21.5	1200	0.524	140	120	125
50	1.4	0.3	-	0.8	1.40	24.5	1580	0.387	165	145	155
70	1.4	0.3	-	0.8	1.56	28.0	2020	0.268	205	180	195
95	1.6	0.4	-	0.8	1.56	31.0	2650	0.193	240	215	230
120	1.6	0.4	-	0.8	1.56	33.0	3160	0.153	275	235	265
150	1.8	0.4	-	0.8	1.72	37.0	3870	0.124	310	270	305
185	2.0	0.5	-	0.8	1.88	40.5	4750	0.099	350	300	350
240	2.2	0.5	-	0.8	2.04	45.0	5930	0.075	405	345	410
300	2.4	0.6	-	0.8	2.20	56.0	7300	0.060	450	385	465
400	2.6	0.7	-	0.8	2.36	55.9	9450	0.047	490	425	530

*size with star(*)only offered with solid conductor

TABLE - 8 ADCAB 1.1 KV TWO CORE, COPPER CONDUCTOR, PVC INSULATED UNARMORED PVC SHEATHED CABLE CONFIRMING TO IS:1554 (PART I) AMENDED UP TO DATE

Nominal Cross Sectional Area	Nominal Thickness of Insulation	Nominal Thickness of Inner Sheath	Minimum Thickness of PVC Outer Sheath	Approx. Overall Diameter of Cable	Approx Weight of Cable	Max DC Conductor Resistance @ 20 C	Current Rating		
							Direct In Ground	In Duct	In Air
sq mm	mm	mm	mm	mm	kg/km	ohm/km	amps	amps	amps
*1.5	0.8	0.3	1.8	11.0	135	12.100	23	20	20
*2.5	0.9	0.3	1.8	12.0	185	7.410	32	27	27
*4	1.0	0.3	1.8	13.5	235	4.610	41	35	35
*6	1.0	0.3	1.8	14.5	295	3.080	50	44	45
*10	1.0	0.3	1.8	16.0	400	1.830	70	58	60
16	1.0	0.3	1.8	17.5	485	1.150	90	75	78
25	1.2	0.3	2.0	19.5	715	0.727	115	97	105
35	1.2	0.3	2.0	20.5	925	0.524	140	120	125
50	1.4	0.3	2.0	24.0	1270	0.387	165	145	155
70	1.4	0.3	2.0	27.0	1670	0.268	205	180	195
95	1.6	0.4	2.2	28.5	2250	0.193	240	215	230
120	1.6	0.4	2.2	33.0	2750	0.153	275	235	265
150	1.8	0.4	2.4	34.0	3410	0.124	310	270	305
185	2.0	0.5	2.4	37.5	4170	0.099	350	300	350
240	2.2	0.5	2.6	42.5	5370	0.075	405	345	410
300	2.4	0.6	2.8	45.5	6640	0.060	450	385	465
400	2.6	0.7	3.2	51.5	8770	0.047	490	425	530

*size with star(*)only offered with solid conductor

TABLE - 9 ADCAB 1.1 KV THREE CORE, ALUMINUM CONDUCTOR, PVC INSULATED GI WIRE/STRIP ARMORED & PVC SHEATHED CABLE CONFIRMING TO IS:1554 (PART I) AMENDED UP TO DATE

Nominal Cross Sectional Area	Nominal Thickness of Insulation	Nominal Thickness of Inner Sheath	Armour		Minimum Thickness of PVC Outer Sheath	Approx. Overall Diameter of Cable	Approx Weight of Cable	Max DC Conductor Resistance @ 20 C	Current Rating		
			GI Round Steel Wire Nom. Dia	GI Flat Strip Nom. Dia					Direct In Ground	In Duct	In Air
sq mm	mm	mm	mm	mm	mm	mm	kg/km	ohm/km	amps	amps	amps
*1.5	0.8	0.3	1.4	-	1.24	12.5	375	18.100	16	14	13
*2.5	0.9	0.3	1.4	-	1.24	14.0	425	12.100	21	18	18
*4	1.0	0.3	1.4	-	1.24	15.5	500	7.410	28	23	23
*6	1.0	0.3	1.4	-	1.24	17.0	575	4.610	35	30	30
*10	1.0	0.3	1.4	-	1.40	19.0	700	3.080	46	39	40
16	1.0	0.3	-	0.8	1.40	20.0	650	1.910	60	50	51
25	1.2	0.3	-	0.8	1.40	22.0	800	1.200	76	63	70
35	1.2	0.3	-	0.8	1.40	25.0	950	0.868	92	77	86
50	1.4	0.3	-	0.8	1.56	27.0	1200	0.641	110	95	105
70	1.4	0.3	-	0.8	1.56	31.0	1500	0.443	135	115	130
95	1.6	0.4	-	0.8	1.56	34.0	1900	0.320	165	140	155
120	1.6	0.4	-	0.8	1.72	38.0	2240	0.253	185	155	180
150	1.8	0.4	-	0.8	1.88	42.0	2700	0.206	210	175	205
185	2.0	0.5	-	0.8	1.88	46.0	3200	0.164	235	200	240
240	2.2	0.5	-	0.8	2.20	52.0	3990	0.125	275	235	280
300	2.4	0.6	-	0.8	2.36	56.5	4850	0.100	305	260	315
400	2.6	0.7	-	0.8	2.52	64.0	6100	0.078	335	290	375

TABLE - 10 ADCAB 1.1 KV THREE CORE, ALUMINUM CONDUCTOR, PVC INSULATED UNARMORED PVC SHEATHED CABLE CONFIRMING TO IS:1554 (PART I) AMENDED UP TO DATE

Nominal Cross Sectional Area	Nominal Thickness of Insulation	Nominal Thickness of Inner Sheath	Minimum Thickness of PVC Outer Sheath	Approx. Overall Diameter of Cable	Approx Weight of Cable	Max DC Conductor Resistance @ 20 C	Current Rating		
							Direct In Ground	In Duct	In Air
sq mm	mm	mm	mm	mm	kg/km	ohm/km	amps	amps	amps
*1.5	0.8	0.3	1.8	11.5	130	18.100	16	14	13
*2.5	0.9	0.3	1.8	12.5	170	12.100	21	18	18
*4	1.0	0.3	1.8	13.5	210	7.410	28	23	23
*6	1.0	0.3	1.8	15.0	255	4.610	35	30	30
*10	1.0	0.3	1.8	16.5	325	3.080	46	39	40
16	1.0	0.3	1.8	17.5	360	1.910	60	50	51
25	1.2	0.3	2.0	22.0	520	1.200	76	63	70
35	1.2	0.3	2.0	23.0	640	0.868	92	77	86
50	1.4	0.3	2.0	27.0	850	0.641	110	95	105
70	1.4	0.3	2.2	31.0	1110	0.443	135	115	130
95	1.6	0.4	2.2	33.0	1425	0.320	165	140	155
120	1.6	0.4	2.2	36.0	1690	0.253	185	155	180
150	1.8	0.4	2.4	41.0	2120	0.206	210	175	205
185	2.0	0.5	2.6	45.0	2600	0.164	235	200	240
240	2.2	0.5	2.8	50.0	3290	0.125	275	235	280
300	2.4	0.6	3.0	55.5	4050	0.100	305	260	315
400	2.6	0.7	3.4	63.5	5290	0.078	335	290	375

TABLE - 11 ADCAB 1.1 KV THREE CORE, COPPER CONDUCTOR, PVC INSULATED, GI WIRE/STRIP ARMORED & PVC SHEATHED CABLE CONFIRMING TO IS:1554 (PART I) AMENDED UP TO DATE

Nominal Cross Sectional Area	Nominal Thickness of Insulation	Nominal Thickness of Inner Sheath	Armour		Minimum Thickness of PVC Outer Sheath	Approx. Overall Diameter of Cable	Approx Weight of Cable	Max DC Conductor Resistance @ 20 C	Current Rating		
			GI Round Steel Wire Nom. Dia	GI Flat Strip Nom. Dia					Direct In Ground	In Duct	In Air
sq mm	mm	mm	mm	mm	mm	mm	kg/km	ohm/km	amps	amps	amps
*1.5	0.8	0.3	1.4	-	1.24	12.5	405	12.100	21	17	17
*2.5	0.9	0.3	1.4	-	1.24	14.0	475	7.410	27	24	24
*4	1.0	0.3	1.4	-	1.24	15.5	580	4.610	36	30	30
*6	1.0	0.3	1.4	-	1.24	17.0	700	3.080	45	38	39
*10	1.0	0.3	1.4	-	1.40	19.0	890	1.830	60	50	52
16	1.0	0.3	-	0.8	1.40	20.0	950	1.150	77	64	66
25	1.2	0.3	-	0.8	1.40	22.0	1270	0.727	99	81	90
35	1.2	0.3	-	0.8	1.40	25.0	1600	0.524	120	99	110
50	1.4	0.3	-	0.8	1.56	27.0	2150	0.387	145	125	135
70	1.4	0.3	-	0.8	1.56	31.0	2800	0.268	175	150	165
95	1.6	0.4	-	0.8	1.56	34.0	3670	0.193	210	175	200
120	1.6	0.4	-	0.8	1.72	38.0	4470	0.153	240	195	230
150	1.8	0.4	-	0.8	1.88	42.0	5500	0.124	270	225	265
185	2.0	0.5	-	0.8	1.88	46.0	6650	0.099	300	255	305
240	2.2	0.5	-	0.8	2.20	52.0	8450	0.075	345	295	355
300	2.4	0.6	-	0.8	2.36	56.5	10450	0.060	385	335	400
400	2.6	0.7	-	0.8	2.52	64.0	13525	0.047	425	360	455

TABLE - 12 ADCAB 1.1 KV THREE CORE, COPPER CONDUCTOR, PVC INSULATED UNARMORED PVC SHEATHED CABLE CONFIRMING TO IS:1554 (PART I) AMENDED UP TO DATE

Nominal Cross Sectional Area	Nominal Thickness of Insulation	Nominal Thickness of Inner Sheath	Minimum Thickness of PVC Outer Sheath	Approx. Overall Diameter of Cable	Approx Weight of Cable	Max DC Conductor Resistance @ 20 C	Current Rating		
							Direct In Ground	In Duct	In Air
sq mm	mm	mm	mm	mm	kg/km	ohm/km	amps	amps	amps
*1.5	0.8	0.3	1.8	11.5	160	12.100	21	17	17
*2.5	0.9	0.3	1.8	12.5	220	7.410	27	24	24
*4	1.0	0.3	1.8	13.5	290	4.610	36	30	30
*6	1.0	0.3	1.8	15.0	370	3.080	45	38	39
*10	1.0	0.3	1.8	16.5	510	1.830	60	50	52
16	1.0	0.3	1.8	17.5	660	1.150	77	64	66
25	1.2	0.3	2.0	22.0	990	0.727	99	81	90
35	1.2	0.3	2.0	23.0	1290	0.524	120	99	110
50	1.4	0.3	2.0	27.0	1780	0.387	145	125	135
70	1.4	0.3	2.2	31.0	2410	0.268	175	150	165
95	1.6	0.4	2.2	33.0	3190	0.193	210	175	200
120	1.6	0.4	2.2	36.0	3920	0.153	240	195	230
150	1.8	0.4	2.4	41.0	4910	0.124	270	225	265
185	2.0	0.5	2.6	45.0	6040	0.099	300	255	305
240	2.2	0.5	2.8	50.0	7750	0.075	345	295	355
300	2.4	0.6	3.0	55.5	9620	0.060	385	335	400
400	2.6	0.7	3.4	63.5	12715	0.047	425	360	455

TABLE - 13 ADCAB (1.1 KV) 3.5 CORE, ALUMINUM CONDUCTOR, PVC INSULATED, GI WIRE/STRIP ARMORED & PVC SHEATHED CABLE CONFIRMING TO IS:1554 (PART I) AMENDED UP TO DATE

Nominal Cross Sectional Area		Nominal Thickness of Insulation		Minimum Thickness of Inner Sheath	Armour GI Flat Strip Nom. Dia	Minimum Thickness of PVC Outer Sheath	Approx. Overall Diameter of Cable	Approx Weight of Cable	Max DC Conductor Resistance @ 20 C		Current Rating		
Main	Neutral	Main	Neutral						Main	Neutral	Direct In Ground	In Duct	In Air
sq mm	sq mm	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	23.5	900	1.200	1.910	76	63	70
35	16	1.2	1.0	0.3	0.8	1.40	26.0	1030	0.868	1.910	92	77	86
50	25	1.4	1.2	0.3	0.8	1.56	30.0	1350	0.641	1.200	100	95	105
70	35	1.4	1.2	0.3	0.8	1.56	32.5	1725	0.443	0.868	135	115	130
95	50	1.6	1.4	0.4	0.8	1.56	36.5	2130	0.320	0.641	165	140	155
120	70	1.6	1.4	0.4	0.8	1.72	40.5	2580	0.253	0.443	185	155	180
150	70	1.8	1.4	0.4	0.8	1.88	44.0	3050	0.206	0.443	210	175	205
185	95	2.0	1.6	0.5	0.8	2.04	50.0	3650	0.164	0.320	235	200	240
240	120	2.2	1.6	0.5	0.8	2.20	55.0	4580	0.125	0.253	275	235	280
300	150	2.4	1.8	0.6	0.8	2.36	61.0	5500	0.100	0.206	305	260	315
400	185	2.6	2.0	0.7	0.8	2.68	68.0	7000	0.078	0.164	335	290	375

TABLE - 14 ADCAB (1.1 KV) 3.5 CORE, ALUMINUM CONDUCTOR, PVC INSULATED UNARMORED PVC SHEATHED CABLE CONFIRMING TO IS:1554 (PART I) AMENDED UP TO DATE

Nominal Cross Sectional Area		Nominal Thickness of Insulation		Minimum Thickness of Inner Sheath	Minimum Thickness of PVC Outer Sheath	Approx. Overall Diameter of Cable	Approx Weight of Cable	Max DC Conductor Resistance @ 20 C		Current Rating		
Main	Neutral	Main	Neutral					Main	Neutral	Direct In Ground	In Duct	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	2.0	22.5	615	1.200	1.910	76	63	70
35	16	1.2	1.0	0.3	2.0	25.0	715	0.868	1.910	92	77	86
50	25	1.4	1.2	0.3	2.2	29.0	955	0.641	1.200	100	95	105
70	35	1.4	1.2	0.3	2.2	33.0	1290	0.443	0.868	135	115	130
95	50	1.6	1.4	0.4	2.2	36.5	1640	0.320	0.641	165	140	155
120	70	1.6	1.4	0.4	2.4	39.0	2020	0.253	0.443	185	155	180
150	70	1.8	1.4	0.4	2.4	42.5	2380	0.206	0.443	210	175	205
185	95	2.0	1.6	0.5	2.6	47.0	2940	0.164	0.320	235	200	240
240	120	2.2	1.6	0.5	3.0	54.0	3800	0.125	0.253	275	235	280
300	150	2.4	1.8	0.6	3.2	58.0	4650	0.100	0.206	305	260	315
400	185	2.6	2.0	0.7	3.4	65.0	6000	0.078	0.164	335	290	375

TABLE -15 ADCAB (1.1 KV) 3.5 CORE, COPPER CONDUCTOR, PVC INSULATED, GI WIRE/STRIP ARMORED & PVC SHEATHED CABLE CONFIRMING TO IS:1554 (PART I) AMENDED UP TO DATE

Nominal Cross Sectional Area		Nominal Thickness of		Minimum Thickness of Inner Sheath	Armour GI Flat Strip Nom. Dia	Minimum Thickness of PVC Outer Sheath	Approx. Overall Diameter of Cable	Approx Weight of Cable	Max DC Conductor Resistance @ 20 C		Current Rating		
Main	Neutral	Main	Neutral						Main	Neutral	Direct In Ground	In Duct	In Air
sq mm	sq mm	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	23.5	1465	0.727	1.150	99	81	90
35	16	1.2	1.0	0.3	0.8	1.40	26.0	1780	0.524	1.150	120	99	110
50	25	1.4	1.2	0.3	0.8	1.56	30.0	2430	0.387	0.727	145	125	135
70	35	1.4	1.2	0.3	0.8	1.56	32.5	3240	0.268	0.524	175	150	165
95	50	1.6	1.4	0.4	0.8	1.56	36.5	4200	0.193	0.387	210	175	200
120	70	1.6	1.4	0.4	0.8	1.72	40.5	5240	0.153	0.268	240	195	230
150	70	1.8	1.4	0.4	0.8	1.88	44.0	6270	0.124	0.268	270	225	265
185	95	2.0	1.6	0.5	0.8	2.04	50.0	7675	0.099	0.193	300	255	305
240	120	2.2	1.6	0.5	0.8	2.20	55.0	9780	0.075	0.153	345	295	355
300	150	2.4	1.8	0.6	0.8	2.36	61.0	12000	0.060	0.124	385	335	400
400	185	2.6	2.0	0.7	0.8	2.68	68.0	15550	0.047	0.099	425	360	455

TABLE - 16 ADCAB (1.1 KV) 3.5 CORE, COPPER CONDUCTOR, PVC INSULATED UNARMORED PVC SHEATHED CABLE CONFIRMING TO IS:1554 (PART I) AMENDED UP TO DATE

Nominal Cross Sectional Area		Nominal Thickness of Insulation		Minimum Thickness of Inner Sheath	Minimum Thickness of PVC Outer Sheath	Approx. Overall Diameter of Cable	Approx Weight of Cable	Max DC Conductor Resistance @ 20 C		Current Rating		
Main	Neutral	Main	Neutral					Main	Neutral	Direct In Ground	In Duct	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	2.0	22.5	1180	0.727	1.150	99	81	90
35	16	1.2	1.0	0.3	2.0	25.0	1465	0.524	1.150	120	99	110
50	25	1.4	1.2	0.3	2.2	29.0	2040	0.387	0.727	145	125	135
70	35	1.4	1.2	0.3	2.2	33.0	2810	0.268	0.524	175	150	165
95	50	1.6	1.4	0.4	2.2	36.5	3715	0.193	0.387	210	175	200
120	70	1.6	1.4	0.4	2.4	39.0	4680	0.153	0.268	240	195	230
150	70	1.8	1.4	0.4	2.4	42.5	5600	0.124	0.268	270	225	265
185	95	2.0	1.6	0.5	2.6	47.0	6970	0.099	0.193	300	255	305
240	120	2.2	1.6	0.5	3.0	54.0	9000	0.075	0.153	345	295	355
300	150	2.4	1.8	0.6	3.2	58.0	11150	0.060	0.124	385	335	400
400	185	2.6	2.0	0.7	3.4	65.0	14570	0.047	0.099	425	360	455

TABLE -17 ADCAB (1.1 KV) FOUR CORE, ALUMINUM CONDUCTOR, PVC INSULATED, GI WIRE/STRIP ARMORED & PVC SHEATHED CABLE CONFIRMING TO IS:1554 (PART I) AMENDED UP TO DATE

Nominal Cross Sectional Area	Nominal Thickness of Insulation	Nominal Thickness of Inner Sheath	Armour		Minimum Thickness of PVC Outer Sheath	Approx. Overall Diameter of Cable	Approx Weight of Cable	Max DC Conductor Resistance @ 20 C	Current Rating		
			GI Round Steel Wire Nom. Dia	GI Flat Strip Nom. Dia					Direct In Ground	In Duct	In Air
sq mm	mm	mm	mm	mm	mm	mm	kg/km	ohm/km	amps	amps	amps
*1.5	0.8	0.3	1.4	-	1.24	15.0	400	18.100	16	14	13
*2.5	0.9	0.3	1.4	-	1.24	16.5	480	12.100	21	18	18
*4	1.0	0.3	1.4	-	1.24	18.0	550	7.410	28	23	23
*6	1.0	0.3	1.4	-	1.24	19.5	650	4.610	35	30	30
*10	1.0	0.3	-	0.8	1.40	20.0	660	3.080	46	39	40
16	1.0	0.3	-	0.8	1.40	23.0	750	1.910	60	50	51
25	1.2	0.3	-	0.8	1.40	24.0	950	1.200	76	63	70
35	1.2	0.3	-	0.8	1.40	27.0	1165	0.868	92	77	86
50	1.4	0.3	-	0.8	1.56	31.0	1540	0.641	110	95	105
70	1.4	0.3	-	0.8	1.56	35.0	1800	0.443	135	115	130
95	1.6	0.4	-	0.8	1.72	38.0	2400	0.320	165	140	155
120	1.6	0.4	-	0.8	1.88	42.0	2800	0.253	185	155	180
150	1.8	0.4	-	0.8	1.88	46.0	3350	0.206	210	175	205
185	2.0	0.5	-	0.8	2.04	51.0	4000	0.164	235	200	240
240	2.2	0.5	-	0.8	2.36	58.0	5050	0.125	275	235	280
300	2.4	0.6	-	0.8	2.52	66.0	6200	0.100	305	260	315
400	2.6	0.7	-	0.8	2.84	72.0	7850	0.078	335	290	375

TABLE - 18 ADCAB (1.1 KV) FOUR CORE, ALUMINUM CONDUCTOR, PVC INSULATED UNARMORED PVC SHEATHED CABLE CONFIRMING TO IS:1554 (PART I) AMENDED UP TO DATE

Nominal Cross Sectional Area	Nominal Thickness of Insulation	Nominal Thickness of Inner Sheath	Minimum Thickness of PVC Outer Sheath	Approx. Overall Diameter of Cable	Approx Weight of Cable	Max DC Conductor Resistance @ 20 C	Current Rating		
							Direct In Ground	In Duct	In Air
sq mm	mm	mm	mm	mm	kg/km	ohm/km	amps	amps	amps
*1.5	0.8	0.3	1.8	12.5	150	18.100	16	14	13
*2.5	0.9	0.3	1.8	14.0	180	12.100	21	18	18
*4	1.0	0.3	1.8	15.5	220	7.410	28	23	23
*6	1.0	0.3	1.8	17.0	260	4.610	35	30	30
*10	1.0	0.3	1.8	19.0	340	3.080	46	39	40
16	1.0	0.3	2.0	21.5	460	1.910	60	50	51
25	1.2	0.3	2.0	24.0	600	1.200	76	63	70
35	1.2	0.3	2.0	26.5	800	0.868	92	77	86
50	1.4	0.3	2.2	32.5	1100	0.641	110	95	105
70	1.4	0.3	2.2	33.5	1400	0.443	135	115	130
95	1.6	0.4	2.4	38.5	1850	0.320	165	140	155
120	1.6	0.4	2.4	41.5	2250	0.253	185	155	180
150	1.8	0.4	2.6	46.0	2750	0.206	210	175	205
185	2.0	0.5	2.6	50.5	3400	0.164	235	200	240
240	2.2	0.5	3.0	58.0	4300	0.125	275	235	280
300	2.4	0.6	3.4	64.0	5300	0.100	305	260	315
400	2.6	0.7	3.6	72.0	6900	0.078	335	290	375

TABLE -19 ADCAB (1.1 KV) FOUR CORE, COPPER CONDUCTOR, PVC INSULATED, GI WIRE/STRIP ARMORED & PVC SHEATHED CABLE CONFIRMING TO IS:1554 (PART I) AMENDED UP TO DATE

Nominal Cross Sectional Area	Nominal Thickness of Insulation	Nominal Thickness of Inner Sheath	Armour		Minimum Thickness of PVC Outer Sheath	Approx. Overall Diameter of Cable	Approx Weight of Cable	Max DC Conductor Resistance @ 20 C	Current Rating		
			GI Round Steel Wire Nom. Dia	GI Flat Strip Nom. Dia					Direct In Ground	In Duct	In Air
sq mm	mm	mm	mm	mm	mm	mm	kg/km	ohm/km	amps	amps	amps
*1.5	0.8	0.3	1.4	-	1.24	15.0	440	12.100	21	17	17
*2.5	0.9	0.3	1.4	-	1.24	16.5	550	7.410	27	24	24
*4	1.0	0.3	1.4	-	1.24	18.0	650	4.610	36	30	30
*6	1.0	0.3	1.4	-	1.24	19.5	800	3.080	45	38	39
*10	1.0	0.3	-	0.8	1.40	20.0	910	1.830	60	50	52
16	1.0	0.3	-	0.8	1.40	23.0	1150	1.150	77	64	66
25	1.2	0.3	-	0.8	1.40	24.0	1570	0.727	99	81	90
35	1.2	0.3	-	0.8	1.40	27.0	2035	0.524	120	99	110
50	1.4	0.3	-	0.8	1.56	31.0	2780	0.387	145	125	135
70	1.4	0.3	-	0.8	1.56	35.0	3540	0.268	175	150	165
95	1.6	0.4	-	0.8	1.72	38.0	4760	0.193	210	175	200
120	1.6	0.4	-	0.8	1.88	42.0	5760	0.153	240	195	230
150	1.8	0.4	-	0.8	1.88	46.0	7065	0.124	270	225	265
185	2.0	0.5	-	0.8	2.04	51.0	8575	0.099	300	255	305
240	2.2	0.5	-	0.8	2.36	58.0	11000	0.075	345	295	355
300	2.4	0.6	-	0.8	2.52	66.0	13600	0.060	385	335	400
400	2.6	0.7	-	0.8	2.84	80.0	17700	0.047	425	360	455

TABLE - 20 ADCAB (1.1 KV) FOUR CORE, COPPER CONDUCTOR, PVC INSULATED UNARMORED PVC SHEATHED CABLE CONFIRMING TO IS:1554 (PART I) AMENDED UP TO DATE

Nominal Cross Sectional Area	Nominal Thickness of Insulation	Nominal Thickness of Inner Sheath	Minimum Thickness of PVC Outer Sheath	Approx. Overall Diameter of Cable	Approx Weight of Cable	Max DC Conductor Resistance @ 20 C	Current Rating		
							Direct In Ground	In Duct	In Air
sq mm	mm	mm	mm	mm	kg/km	ohm/km	amps	amps	amps
*1.5	0.8	0.3	1.8	15.0	190	12.100	21	17	17
*2.5	0.9	0.3	1.8	16.5	245	7.410	27	24	24
*4	1.0	0.3	1.8	18.0	320	4.610	36	30	30
*6	1.0	0.3	1.8	19.5	410	3.080	45	38	39
*10	1.0	0.3	1.8	20.0	590	1.830	60	50	52
16	1.0	0.3	2.0	23.0	860	1.150	77	64	66
25	1.2	0.3	2.0	24.0	1220	0.727	99	81	90
35	1.2	0.3	2.0	27.0	1670	0.524	120	99	110
50	1.4	0.4	2.2	31.0	2340	0.387	145	125	135
70	1.4	0.4	2.2	35.0	3140	0.268	175	150	165
95	1.6	0.4	2.4	38.0	4210	0.193	210	175	200
120	1.6	0.5	2.4	42.0	5220	0.153	240	195	230
150	1.8	0.5	2.6	46.0	6470	0.124	270	225	265
185	2.0	0.6	2.6	51.0	7980	0.099	300	255	305
240	2.2	0.6	3.0	58.0	10250	0.075	345	295	355
300	2.4	0.7	3.4	66.0	12730	0.060	385	335	400
400	2.6	0.7	3.6	80.0	16800	0.047	425	360	455

TABLE -21 ADCAB (1.1 KV) SOLID COPPER CONDUCTOR, 1.5 SQ MM, PVC INSULATED, ARMORED/UNARMORED PVC SHEATHED CONTROL CABLES CONFIRMING TO IS:1554 (PART I) AMENDED UP TO DATE

Number of Cores	Nominal Thickness of Insulation	Nominal Thickness of Inner Sheath	Armour		Nominal Sheath Thickness Unarmored Cable	Minimum Thickness of Sheath Armored Cable	Approx. Overall Diameter of Cable		Approx Weight of Cable		Max DC Conductor Resistance @ 20 C	Current Rating		
			GI Round Steel Wire Nom. Dia	GI Flat Strip Nom. Dia			Unarmored Cable	Armored Cable	Unarmored Cable	Armored Cable		Direct In Ground	In Duct	In Air
	mm	mm	mm	mm	mm	mm	mm	mm	kg/km	kg/km	ohm/km	Amps	Amps	Amps
2	0.8	0.3	1.4	-	1.80	1.24	10.50	13.50	130	350	12.1	23	20	20
3	0.8	0.3	1.4	-	1.80	1.24	11.00	14.00	160	400	12.1	21	17	17
4	0.8	0.3	1.4	-	1.80	1.24	11.50	15.00	190	450	12.1	21	17	17
5	0.8	0.3	1.4	-	1.80	1.24	12.50	15.50	225	500	12.1	21	17	17
6	0.8	0.3	1.4	-	1.80	1.24	13.00	16.00	250	550	12.1	15	13	13
7	0.8	0.3	1.4	-	1.80	1.24	13.50	16.50	265	565	12.1	14	13	13
10	0.8	0.3	1.4	-	1.80	1.40	16.50	19.00	350	750	12.1	13	11	11
12	0.8	0.3	-	0.8	1.80	1.40	17.50	19.50	400	650	12.1	12	10	10
14	0.8	0.3	-	0.8	1.80	1.40	18.00	20.00	450	760	12.1	11	10	10
16	0.8	0.3	-	0.8	1.80	1.40	19.50	21.00	500	800	12.1	11	9	9
19	0.8	0.3	-	0.8	2.00	1.40	20.00	22.00	600	850	12.1	10	9	9
24	0.8	0.3	-	0.8	2.00	1.40	23.00	25.00	725	1050	12.1	9	8	8
30	0.8	0.3	-	0.8	2.00	1.40	24.50	26.50	860	1200	12.1	9	7	7
37	0.8	0.3	-	0.8	2.00	1.40	26.00	28.00	1050	1400	12.1	8	7	7
61	0.8	0.4	-	0.8	2.00	1.56	33.00	35.00	1650	2100	12.1	7	6	6

TABLE -22 ADCAB (1.1 KV) SOLID COPPER CONDUCTOR, 2.5 SQ MM, PVC INSULATED, ARMORED/UNARMORED PVC SHEATHED CONTROL CABLES CONFIRMING TO IS:1554 (PART I) AMENDED UP TO DATE

Number of Cores	Nominal Thickness of Insulation	Nominal Thickness of Inner Sheath	Armour		Nominal Sheath Thickness Unarmored Cable	Minimum Thickness of Sheath Armored Cable	Approx. Overall Diameter of Cable		Approx Weight of Cable		Max DC Conductor Resistance @ 20 C	Current Rating		
			GI Round Steel Wire Nom. Dia	GI Flat Strip Nom. Dia			Unarmored Cable	Armored Cable	Unarmored Cable	Armored Cable		Direct In Ground	In Duct	In Air
	mm	mm	mm	mm	mm	mm	mm	mm	kg/km	kg/km	ohm/km	Amps	Amps	Amps
2	0.9	0.	1.4	-	1.80	1.24	11.00	14.50	160	425	7.41	32	27	27
3	0.9	0.3	1.4	-	1.80	1.24	11.50	15.50	225	475	7.41	27	24	24
4	0.9	0.3	1.4	-	1.80	1.24	11.50	16.50	250	530	7.41	27	24	24
5	0.9	0.3	1.4	-	1.80	1.24	14.00	17.50	300	600	7.41	27	24	24
6	0.9	0.3	1.4	-	1.80	1.24	15.50	18.50	340	675	7.41	20	18	18
7	0.9	0.3	1.4	-	1.80	1.24	15.50	18.50	375	700	7.41	20	17	17
10	0.9	0.3	-	0.8	1.80	1.40	19.00	21.00	500	780	7.41	18	15	15
12	0.9	0.3	-	0.8	2.00	1.40	20.00	22.00	600	850	7.41	17	14	14
14	0.9	0.3	-	0.8	2.00	1.40	21.00	23.00	650	950	7.41	16	13	13
16	0.9	0.3	-	0.8	2.00	1.40	22.00	24.00	750	1050	7.41	15	13	13
19	0.9	0.3	-	0.8	2.00	1.40	23.00	25.00	850	1150	7.41	14	12	12
24	0.9	0.3	-	0.8	2.00	1.40	27.00	29.00	1050	1400	7.41	13	11	11
30	0.9	0.3	-	0.8	2.00	1.40	28.50	30.50	1250	1700	7.41	12	10	10
37	0.9	0.4	-	0.8	2.20	1.40	31.00	33.00	1550	2000	7.41	11	10	10
61	0.9	0.4	-	0.8	2.20	1.56	38.50	41.00	2450	3100	7.41	9	8	8

TABLE -23 CONDUCTOR RESISTANCE OF PLAIN CONDUCTOR 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 Single Core & Multi Core	Size in sq mm.	Conductor Construction	Max. Cond. Resistance in Ohm/km at 20 C Single Core & Multi Core
1.5*	7/0.53	12.100	95	19/2.50	0.193
2.5*	7/0.67	7.410	120	19/2.84	0.153
4*	7/0.85	4.610	150	19/3.20	0.124
6*	7/1.0	3.080	185	37/2.50	0.0991
10	7/1.35	1.830	240	37/2.68	0.0754
16	7/1.71	1.150	300	37/3.24	0.0601
25	7/2.14	0.727	400	61/2.85	0.0470
35	7/2.50	0.524	500	61/3.20	0.0366
50	7/3.00	0.387	630	91/3.00	0.0283
70	19/2.14	0.268	-	-	

TABLE -24 CURRENT RATING OF 'ADCAB' COPPER ARMORED / UN ARMORED CABLES 650/1100 V GRADE IN AIR

Area	Twin Core	3, 3.5 & 4 Core	Area	Twin Core	3, 3.5 & 4 Core
sq mm	Amps.	Amps.	sq mm	Amps.	Amps.
1.5	20	17	70	195	175
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	-	-	-

TABLE -25 ESTIMATED A.C RESISTANCE, REACTANCE, CAPACITANCE, IMPEDANCE, VOLTAGE DROP AND SHORT CIRCUIT RATING FOR PVC INSULATED, ALUMINUM CONDUCTOR ARMORED SINGLE CORE CABLES

Nominal Area of Conductor	A.C Resistance at 70 C	Reactance at 50 Hz	Capacitance	Impedance at 70 C	Voltage Drop	Short Circuit rating of conductor for 1 second thickness of outer sheath
SQ MM	Ohm/km	Ohm/km	uF/km	Ohm/km	V/km/A	kA
16	2.3000	0.1250	0.81	2.3000	3.980	1.22
25	1.4400	0.1200	0.83	1.4500	2.510	1.90
35	1.0400	0.1140	0.95	0.1500	1.820	2.66
50	0.7700	0.1120	0.95	0.7780	1.350	3.80
70	0.5330	0.1040	1.13	0.5430	0.940	5.32
95	0.3850	0.0970	1.17	0.3970	0.688	7.22
120	0.3050	0.0926	1.32	0.3180	0.552	9.12
150	0.2480	0.0916	1.30	0.2650	0.459	11.41
185	0.1980	0.0895	1.35	0.2170	0.377	14.07
240	0.1520	0.0876	1.40	0.1750	0.303	18.25
300	0.1220	0.0863	1.44	0.1500	0.259	22.81
400	0.0961	0.0845	1.48	0.1280	0.222	30.41
500	0.0761	0.0835	1.47	0.1130	0.196	38.02
630	0.0606	0.0833	1.45	0.1030	0.178	47.90
1000	0.1416	0.1797	1.81	0.0899	0.156	76.03

TABLE -26 ESTIMATED A.C RESISTANCE, REACTANCE, CAPACITANCE, IMPEDANCE, VOLTAGE DROP AND SHORT CIRCUIT RATING FOR PVC INSULATED, ALUMINUM CONDUCTOR ARMORED MULTI CORE CABLES

Nominal Area of Conductor	A.C Resistance at 70 C	Reactance at 50 Hz	Capacitance	Impedance at 70 C	Voltage Drop	Short Circuit rating of conductor for 1 second thickness of outer sheath
SQ MM	Ohm/km	Ohm/km	uF/km	Ohm/km	V/km/A	kA
1.5	21.7000	0.1120	0.38	21.700	37.700	0.11
2.5	14.5000	0.1100	0.41	14.500	25.200	0.19
4.0	8.9000	0.1050	0.45	8.900	15.400	0.30
6.0	5.5400	0.988	0.52	5.540	9.600	0.46
10	3.7000	0.938	0.60	3.700	6.410	0.76
16	2.3000	0.0862	0.80	2.300	3.980	1.22
25	1.4400	0.0854	0.84	1.440	2.500	1.90
35	1.0400	0.0827	0.96	1.050	1.810	2.66
50	0.7700	0.0825	0.98	0.775	1.340	3.80
70	0.5330	0.0771	1.12	0.538	0.932	5.32
95	0.3850	0.0767	1.16	0.393	0.680	7.22
120	0.3050	0.0744	1.28	0.314	0.543	9.12
150	0.2490	0.0745	1.26	0.259	0.449	11.41
185	0.1980	0.0744	1.28	0.212	0.367	14.07
240	0.1520	0.0740	1.31	0.169	0.293	18.25
300	0.1220	0.0732	1.35	0.142	0.247	22.81
400	0.0960	0.0727	1.40	0.121	0.209	30.41

TABLE -27 ESTIMATED A.C RESISTANCE, REACTANCE, CAPACITANCE, IMPEDANCE, VOLTAGE DROP AND SHORT CIRCUIT RATING FOR PVC INSULATED, ALUMINUM CONDUCTOR ARMORED SINGLE CORE CABLES

Nominal Area of Conductor	A.C Resistance at 85 C	Reactance at 50 Hz	Capacitance	Impedance at 85 C	Voltage Drop	Short Circuit rating of conductor for 1 second thickness of outer sheath
SQ MM	Ohm/km	Ohm/km	uF/km	Ohm/km	V/km/A	kA
16	2.4100	0.1250	0.81	2.4100	4.180	1.01
25	1.5100	0.1200	0.83	1.5200	2.630	1.72
35	1.0100	0.1140	0.95	1.1000	1.910	2.40
50	0.8090	0.1120	0.95	0.8170	1.410	3.43
70	0.5590	0.1040	1.13	0.5690	0.985	4.80
95	0.4040	0.0970	1.17	0.4160	0.720	6.52
120	0.3200	0.0926	1.32	0.3330	0.577	0.823
150	0.2610	0.0916	1.30	0.2760	0.479	10.29
185	0.2080	0.0895	1.35	0.2260	0.392	12.69
240	0.1590	0.0876	1.40	0.1820	0.315	16.46
300	0.1280	0.0863	1.44	0.1540	0.267	20.58
400	0.1010	0.0845	1.48	0.1310	0.228	27.44
500	0.0796	0.0835	1.47	0.1150	0.200	34.30
630	0.0632	0.0833	1.45	0.1020	0.181	43.21
1000	0.0431	0.0797	1.81	0.0906	0.157	68.59

TABLE -28 ESTIMATED A.C RESISTANCE, REACTANCE, CAPACITANCE, IMPEDANCE, VOLTAGE DROP AND SHORT CIRCUIT RATING FOR PVC INSULATED, ALUMINUM CONDUCTOR ARMORED SINGLE CORE CABLES

Nominal Area of Conductor	A.C Resistance at 85 C	Reactance at 50 Hz	Capacitance	Impedance at 85 C	Voltage Drop	Short Circuit rating of conductor for 1 second thickness of outer sheath
SQ MM	Ohm/km	Ohm/km	uF/km	Ohm/km	V/km/A	kA
1.5	22.800	0.1120	0.38	22.800	39.600	0.10
2.5	15.300	0.1100	0.41	15.300	26.400	0.17
4.0	9.350	0.1050	0.45	9.350	16.200	0.27
6.0	5.820	0.0988	0.52	5.820	10.100	0.41
10	3.890	0.0938	0.60	3.890	6.730	0.69
16	2.410	0.0862	0.80	2.410	4.180	1.01
25	1.510	0.0854	0.84	1.520	2.630	1.72
35	1.010	0.0827	0.96	1.010	1.900	2.40
50	1.809	0.0825	0.98	0.813	1.41	3.43
70	0.559	0.0771	1.12	0.565	0.978	4.80
95	0.404	0.0797	1.16	0.412	0.713	6.52
120	0.320	0.0744	1.28	0.329	0.569	8.23
150	0.261	0.0745	1.26	0.271	0.470	10.29
185	0.208	0.0744	1.28	0.221	0.383	12.69
240	0.159	0.0740	1.31	0.176	0.304	16.46
300	0.128	0.0732	1.35	0.148	0.256	20.58
400	0.101	0.0727	1.40	0.124	0.215	27.44

TABLE -29 ESTIMATED A.C RESISTANCE, REACTANCE, CAPACITANCE, IMPEDANCE, VOLTAGE DROP AND SHORT CIRCUIT RATING FOR PVC INSULATED, COPPER CONDUCTOR ARMORED SINGLE CORE CABLES

Nominal Area of Conductor	A.C Resistance at 70 C	Reactance at 50 Hz	Capacitance	Impedance at 70 C	Voltage Drop	Short Circuit rating of conductor for 1 second thickness of outer sheath
SQ MM	Ohm/km	Ohm/km	uF/km	Ohm/km	V/km/A	kA
16	1.3800	0.1250	0.81	1.3800	2.390	1.84
25	0.8700	0.1200	0.83	0.8780	1.520	2.88
35	0.6270	0.1140	0.95	0.6380	1.100	4.03
50	0.4630	0.1120	0.95	0.4770	0.830	5.75
70	0.3210	0.1040	1.13	0.3370	0.585	8.05
95	0.2320	0.0970	1.17	0.2510	0.435	10.93
120	0.1840	0.0926	1.32	0.2060	0.357	13.80
150	0.1500	0.0916	1.30	0.1760	0.304	17.25
185	0.1200	0.0895	1.35	0.1500	0.260	21.28
240	0.0928	0.0876	1.40	0.1280	0.211	27.60
300	0.0751	0.0863	1.44	0.1140	0.198	34.50
400	0.0604	0.0845	1.48	0.\1040	0.180	46.00
500	0.0490	0.0835	1.47	0.0968	0.168	57.50
630	0.0401	0.30833	1.45	0.0925	0.160	72.45
1000	0.0297	0.0797	1.81	0.0850	0.147	115.00

TABLE -30 ESTIMATED A.C RESISTANCE, REACTANCE, CAPACITANCE, IMPEDANCE, VOLTAGE DROP AND SHORT CIRCUIT RATING FOR PVC INSULATED, COPPER CONDUCTOR ARMORED MULTI CORE CABLES

Nominal Area of Conductor	A.C Resistance at 70 C	Reactance at 50 Hz	Capacitance	Impedance at 70 C	Voltage Drop	Short Circuit rating of conductor for 1 second thickness of outer sheath
SQ MM	Ohm/km	Ohm/km	uF/km	Ohm/km	V/km/A	kA
1.5	14.500	0.1140	0.37	14.500	25.100	0.17
2.5	8.9000	0.1100	0.40	8.900	14.500	0.29
4.0	5.5200	0.1060	0.44	5.520	9.560	0.46
6.0	3.6900	0.10001	0.51	3.690	6.390	0.69
10	2.1900	0.0907	0.67	2.190	3.800	1.15
16	1.3800	0.0862	0.80	1.380	2.390	1.84
25	0.8700	0.0854	0.84	0.870	1.510	2.88
35	0.6300	0.0827	0.96	0.630	1.010	4.03
50	0.4640	0.0825	0.98	0.471	0.815	5.75
70	0.3210	0.0771	1.12	0.331	0.572	8.05
95	0.2320	0.0767	1.16	0.244	0.423	10.93
120	0.1840	0.1744	1.28	0.199	0.344	13.80
150	0.1500	0.0745	1.28	0.142	0.246	21.28
240	0.0930	0.0740	1.1	0.119	0.206	27.60
300	0.0750	0.0732	1.35	0.105	0.182	34.50
400	0.0604	0.0727	1.40	0.095	0.164	46.00

TABLE -31 ESTIMATED A.C RESISTANCE, REACTANCE, CAPACITANCE, IMPEDANCE, VOLTAGE DROP AND SHORT CIRCUIT RATING FOR HR PVC INSULATED, COPPER CONDUCTOR ARMORED SINGLE CORE CABLES

Nominal Area of Conductor	A.C Resistance at 85 C	Reactance at 50 Hz	Capacitance	Impedance at 85 C	Voltage Drop	Short Circuit rating of conductor for 1 second thickness of outer sheath
SQ MM	Ohm/km	Ohm/km	uF/km	Ohm/km	V/km/A	kA
16	1.4400	0.1250	0.81	1.4500	2.510	1.66
25	0.9130	0.1200	0.83	0.9210	1.590	2.59
35	0.6580	0.1140	0.95	0.6680	1.160	3.63
50	0.4860	0.1120	0.95	0.4990	0.864	5.19
70	0.3370	0.1040	1.13	0.3530	0.611	7.26
95	0.2430	0.0970	1.17	0.2620	0.453	9.86
120	0.1930	0.0926	1.32	0.2140	0.371	12.45
150	0.1570	0.0916	1.30	0.1820	0.315	15.57
185	0.1260	0.0895	1.35	0.1550	0.268	19.20
240	0.0971	0.0876	1.40	0.1310	0.226	24.91
300	0.0785	0.0863	1.44	0.1170	0.202	31.13
400	0.0630	0.0845	1.48	0.1050	0.183	41.51
500	0.0509	0.0835	1.47	0.0978	0.169	51.89
630	0.0416	0.0833	1.45	0.0931	0.161	65.38
1000	0.0306	0.0797	1.81	0.0853	0.148	103.78

TABLE -32 ESTIMATED A.C RESISTANCE, REACTANCE, CAPACITANCE, IMPEDANCE, VOLTAGE DROP AND SHORT CIRCUIT RATING FOR HR PVC INSULATED, COPPER CONDUCTOR ARMORED MULTI CORE CABLES

Nominal Area of Conductor	A.C Resistance at 85 C	Reactance at 50 Hz	Capacitance	Impedance at 85 C	Voltage Drop	Short Circuit rating of conductor for 1 second thickness of outer sheath
SQ MM	Ohm/km	Ohm/km	uF/km	Ohm/km	V/km/A	kA
1.5	15.2000	0.1140	0.37	15.200	26.300	0.16
2.5	9.3000	0.1100	0.40	9.3000	16.100	0.26
4.0	5.7900	0.1060	0.44	5.7900	10.000	0.42
6.0	3.8700	0.1001	0.51	3.8700	6.700	0.62
10	2.3000	0.0907	0.67	2.3000	3.980	1.04
16	1.4400	0.0862	0.80	1.4500	2.510	1.66
25	0.9130	0.0854	0.84	0.9170	1.590	2.59
35	0.6580	0.0827	0.96	0.6630	1.150	3.63
50	0.4860	0.0825	0.98	0.4930	0.854	5.19
70	0.3370	0.0771	1.12	0.3460	0.599	7.26
95	0.2430	0.0767	1.16	0.2550	0.442	9.86
120	0.1930	0.0744	1.28	0.2070	0.359	12.45
150	0.1570	0.0745	1.28	0.1740	0.301	15.57
185	0.1260	0.0744	1.28	0.1470	0.254	19.20
240	0.0972	0.0740	1.1	0.1220	0.212	24.91
300	0.0787	0.0732	1.35	0.1070	0.186	31.13
400	0.0630	0.0727	1.40	0.0962	0.167	41.51

RATING FACTORS

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 Factor	1.25	1.16	1.09	1.00	0.90	0.80
B. Rating factors for variation in ground temperature						
Ground Temp (C)	20	25	30	35	40	45
Rating Factor	1.12	1.06	1.00	0.94	0.87	0.79
C. Rating factors for variation in ground temperature (for Cables in Ducts)						
Ground Temp (C)	20	25	30	35	40	45
Rating Factor	1.12	0.16	1.00	0.94	0.87	0.79

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

Depth of Laying	Size		
Cm	Upto 25 sq mm	Above 25 sqmm Upto 300 sq mm	Above 300 sq mm
75	1.00	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 (TWO AND THREE AND MULTICORE CABLES LAID DIRECT IN THE GROUND)

Nominal Are of Conductor sq mm	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	092	0.86	0.81
2.5	1.10	1.05	1.00	0.92	0.586	0.81
4.0	1.10	1.05	1.00	0.92	0.86	0.81
6.0	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

GROUP RATING FACTORS

A) Cables laid direct in the ground in horizontal formation

No. of Trefoils in group	Distance between Trefoil			
	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 Trefoil		
	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 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

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

No of 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 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
2	1	0.98	0.96	0.93	0.92
3	1	0.95	0.93	0.90	0.89
4	1	0.94	0.92	0.89	0.88
5	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
2	0.95	0.90	0.88	0.85	0.84
3	0.90	0.85	0.83	0.81	0.80
4	0.88	0.83	0.81	0.79	0.78
5	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
2	1	0.84	0.80	0.75	0.73
3	1	0.80	0.76	0.71	0.69
4	1	0.78	0.74	0.70	0.68
5	1	0.76	0.72	0.68	0.66

D) Cables laid direct in ground in horizontal formation.

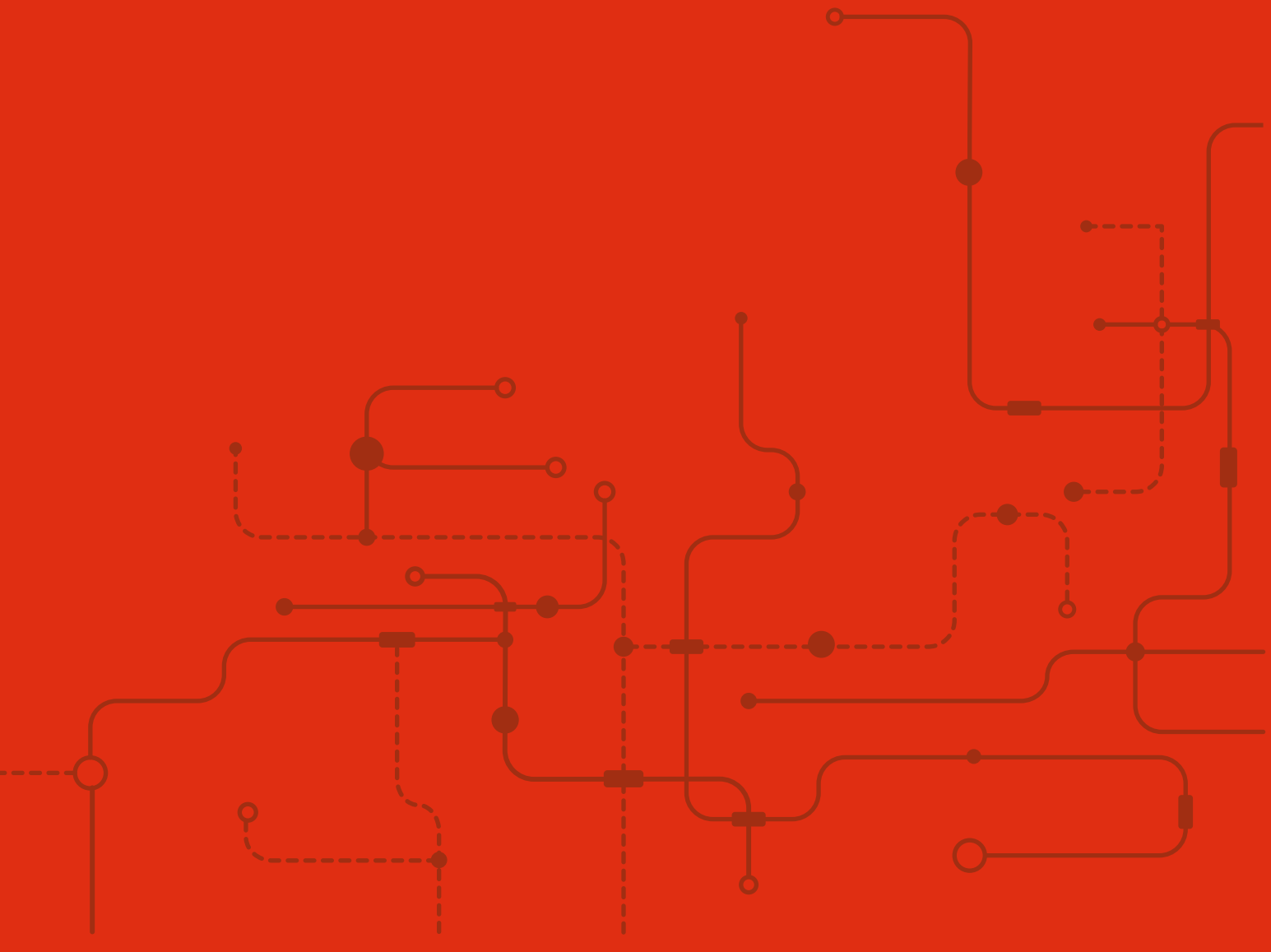
No of cables in Group	Distance of Cables			
	Touching	15 cm	30 cm	45 cm
2	0.79	0.82	0.87	0.90
3	0.69	0.75	0.79	0.83
4	0.62	0.69	0.74	0.79
5	0.58	0.65	0.72	0.76
6	0.54	0.61	0.69	0.75

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

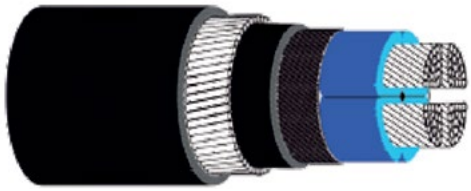
No of cables in Group	Distance of Cables			
	Touching	30 cm	45 cm	60 cm
2	0.88	0.90	0.92	0.94
3	0.82	0.84	0.87	0.89
4	0.77	0.80	0.84	0.87
5	0.74	0.78	0.82	0.85
6	0.71	0.76	0.81	0.84

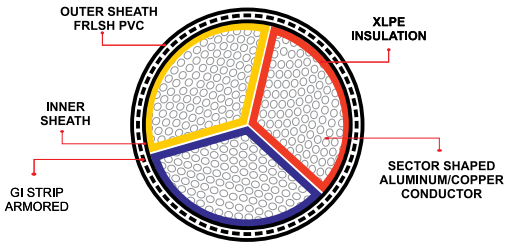
XLPE
HEAVY DUTY CABLE

650/1100 VOLTS
IS 7098 (P-1) 1988



XLPE HEAVY DUTY CABLE

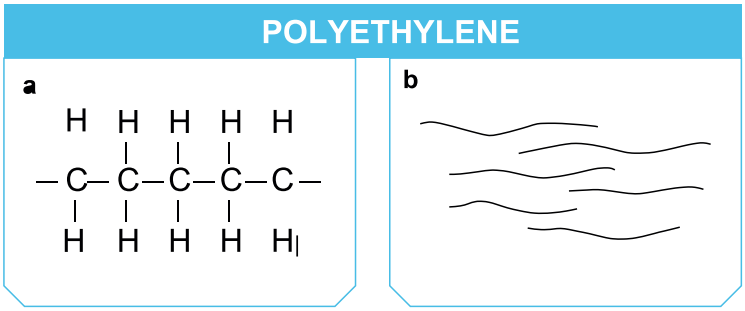


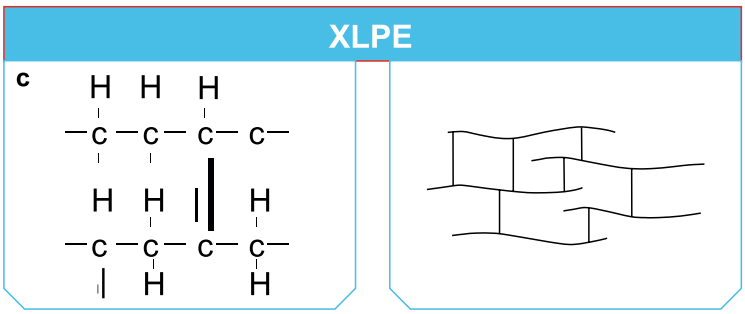


XLPE is an abbreviated designation cross—n|iked polyethylene has a linear molecular structure as shown in A. Molecules ofp olyethylene notc hemically bonded as shown inB a re easilyd eformed ath ight emperature, while XLPE molecules bonded in a three dimensional network as shown in C and D, have strong resistance tod eformaiton even ath ight emperature.

Cross linked polyethylene is produced from polyethylene under high pressure with organic peroxides as additives. The application ofh eata nd pressure isu sed to eject the cross linking. This causes the individual molecular chains to link with one another which in turn causes the material to change from a thermoplastic to an elastic material.

An important advantage of XLPE insulation for medium and high voltage cables is their low dielectric loss. The dielectric loss factor isa bouto ne decimal power lower than thato fp aper insulated cables and about two decimal powers lower than that of PVC-insulated cables. Since the dielectric constant is also more favorable the mutual capacitance ofX LPE cables is also lower, thus reducing the charging currents and earth-leakage currentsin n etworks wtihoutth e rigids tar pointea rthing.





APPLICATION :

The Cable are suitable for use on AC single phase or three phase (earthed or unearthed) systems for rated Voltage up to and including 1100 Volts. These cables can be used on DC Systems for rated Voltage up to and including 1500 Volts to earth.

TECHNICAL ADVANTAGES

Higher Current Rating, Short Circuit rating approx 1.2 times that of PVC
Higher resistance to moisture.
Low dielectrics losses.
Thermosetting in nature
Higher insulation resistance 1000 times more than PVC Cables
Better Resistance to surge current.
Longer service life
Better resistance to chemical
Comparatively higher operation temperature 90 C and short circuit temperature 250 C.
XLPE can retain flexibility down up to -40
Jointing and Termination is easy
Can be installed along cable routes without elevation limitation.
They are not prone to fatigue damage due to vibration or loading cycles.

COMMERCIAL ADVANTAGES

Lower laying cost because of comparatively smaller diameter of cable and higher weight*.
Lower installation charges as the diameter of cable is comparatively lesser with smaller bending radius. requiring less space for laying cables.
**One side lower cable can be used as compared to PVC Insulated Cable.

COMPARISON OF MAIN PROPERTIES BETWEEN PVC AND XLPE INSULATION			
Characteristics	**Unit**	**PVC**	**XLPE**
Permitivity (50Hz, 20° C)	-	4.6	2.3
Dielectric Loss Factor (50Hz, 20° C)	-	0.05 - 0.007	0.0004
Volume Resistivity (27° C)	ohms cm(min.)	10^{13}	10^{14}
Max. Conductor Temp	°C	70	90
Max. Short Circuit Temp	°C	160	250
Tensile Strength	N/mm2 (min)	12.5	12.5
Elongation at break	-	Medium	Excellent
Flexibility at -10° C	-	Poor	Good
Resistance to abrasion	-	Medium	Good

COMPARATIVE CURRENT RATING AND SHORT-CIRCUITS RATING FOR XLPE CABLE VIS-A-VIS PVC CABLES

Comparative Current Rating of 650/1100 Volts Multicore Heavy Duty Aluminum Conductor, PVC Insulated Cables & XLPE Insulated Cables						
Nominal Size of Cable	3, 3.5 & 4 Core PVC Insulated & Sheathed Cables as per IS-1554 (Part-I) 1988			3, 3.5 & 4 Core XLPE Insulated & Sheathed Cables as per IS-7098 (Part-I) 1988		
	In Ground	In Air	Approx Voltage Drop	In Ground	In Air	Approx Voltage Drop
SQ MM	Amps	Amps	MV/Amps/Mtr	Amps	Amps	MV/Amps/Mtr
16	60	51	4.0	73	70	4.20
25	476	70	2.5	94	96	2.70
35	92	86	1.8	113	117	1.90
50	110	105	1.3	133	140	1.40
70	135	130	0.93	164	176	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	315	0.20	420	530	0.21

COMPARISON OF SHORT CIRCUIT RATING FOR 1 SECOND FOR *PVC & XLPE Insulated Cables ** With Copper And Aluminum Conductor. Current in AMPS				
Nominal Size	PVC Insulated		XLPE Insulated	
SQ MM	Copper	Aluminum	Copper	Aluminum
1.5	0.173	-	0.21	-
2.5	0.283	-	0.36	-
4	0.460	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	21.60	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	57.15	37.70
500	57.50	38.00	71.40	47.20
630	72.50	47.25	90.00	59.40

*PVCT ypeA Insulationa s per IS-583'18 4
**PVCC ablea s per IS:1554(P art-I01 988
**XLPEC ablesa s per IS:7098(P art-I)1 988
1) MaxC onductoTr emperaturDeu ringO peration PVC-70 C XLPE-90 C
2) MaxC onductoTr emperaturDeu ringS hortC ircuit PVC-160 C XLPE-250 C
Formulare latingS hortC ircuitR atingw ith Duration

$$Ish = \frac{K*A}{\sqrt{t}}$$

A = Cross Section Area in Sq MM
T = Durationin Seconds
K = Consultant
Ish = Short Circuit Current K, A

APPROXIMATE CAPACITANCE (Microfarads / Km) 1100 V CABLES			
Nominal Area of Conductor	Single Core	Two Core	Three, Three & Half and Four Core
	Armoured	Armoured	Armoured
1.5	-	0.18	0.18
2.5	-	0.21	0.21
4.0	-	0.25	0.25
6.0	-	0.29	0.29
10	0.34	0.36	0.36
16	0.40	0.43	0.43
25	0.42	0.43	0.43
35	0.47	0.50	0.50
50	0.50	0.53	0.53
70	0.55	0.57	0.56
95	0.62	0.65	0.65
120	0.66	0.67	0.67
150	0.64	0.65	0.64
185	0.66	0.63	0.63
240	0.70	0.68	0.67
300	0.74	0.71	0.71
400	0.75	0.73	0.72
500	0.78	0.74	0.74
630	0.82	0.77	0.77
1000	0.87	-	-

APPROXIMATE REACTANCE AT 50 HZ (Ohm / Km) 1100 V CABLES			
Nominal Area of Conductor	Single Core		Multicore
	Un-Armoured	Armoured	
1.5	0.154	-	0.105
2.5	0.143	-	0.0990
4.0	0.134	-	0.0933
6.0	0.125	-	0.0888
10	0.116	0.131	0.0842
16	0.110	0.124	0.0805
25	0.105	0.117	0.0808
35	0.101	0.112	0.0787
50	0.0937	0.108	0.0780
70	0.0910	0.100	0.0742
95	0.0879	0.099	0.0725
120	0.0850	0.0951	0.0713
150	0.0855	0.0936	0.0718
185	0.0839	0.0913	0.0720
240	0.0820	0.0887	0.0713
300	0.0801	0.0868	0.0703
400	0.0792	0.0861	0.0702
500	0.0780	0.0842	0.0700
630	0.0767	0.0829	0.0697
1000	0.0757	0.0820	-

Conductor Technical Information for Single Core & Multi Core Cables Conforming to IS:8130/1984 (Stranded Class-2) Copper & Aluminum Conductors.

Nominal Size of Conductor	Minimum No. of Wires				Max D.C. Resistance at 20 C		A.C. Resistance at 20 C	
	Non Compacted		Compacted Round/Shaped		Plain Copper	Aluminum	Plain Copper	Aluminum
SQ MM	CU.	ALU.	CU.	ALU.	Ohm/Km	Ohm/Km	Ohm/Km	Ohm/Km
1.5*	3	3	-	-	12.10	18.1	15.40	23.2
2.5*	3	3	-	-	7.41	12.1	9.45	15.50
4.0*	7	3	-	-	4.61	7.41	5.88	9.50
6.0*	7	3	-	-	3.08	4.61	3.93	5.91
10*	7	7	6	-	1.83	3.08	2.33	3.95
16	7	7	6	6	1.15	1.91	1.47	2.44
25	7	7	6	6	0.727	1.20	0.93	1.54
35	7	7	6	6	0.524	0.868	0.668	1.11
50	19	19	6	6	0.387	0.641	0.494	0.82
70	19	19	12	12	0.268	0.443	0.342	0.568
95	19	19	15	15	0.193	0.320	0.247	0.410
120	37	37	18	15	0.153	0.253	0.196	0.325
150	37	37	18	15	0.124	0.206	0.159	0.264
185	37	37	30	30	0.0991	0.164	0.128	0.211
240	61	37	34	30	0.0754	0.125.	0.0985	0.161
300	61	61	34	30	0.0601	0.100	0.0796	0.129
400	61	61	53	53	0.047	0.0778	0.0637	0.101
500	61	61	53	53	0.0366	0.0605	0.0515	0.0786
630	91	91	53	53	0.0283	0.0469	0.0421	0.0615
1000	91	91	53	53	0.0176	0.0291	0.0225	0.0372

*These sizes can be manufactured with solid conductor having single strand

PRECONDITIONS FOR CURRENT RATING

The valued given in the table are valid for on circuit in a three phase system under conditions specified. For grouping cables rating factor must be used. The current carrying capacities mentioned in above technical data are intended as a guide, to assist operating engineers in selecting cables for safety and reliability.

Basic assumptions and condition of installation

Ambient ground Temperature : 30°C Ambient Air Temperature : 40°C

Depth of Cable Burial : 750 mm

Thermal Resistivity of Soil L 1.5 k.m/w

Single Core Cables are installed as indicated in the table, spacing between cables in flat formation is as indicated.

For 3 & core Cables, it is usual to assume the same current carrying capacity for 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 the air the values are too conservative, due to the large cable surface and consequent high heat dissipation factor.

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 following :

Ia=Kls (in Amperes) Where

Ia = Current Rating at Actual Operating Conditions (amperes)

Is = Current Rating at Standard Operating Conditions (amperes)

K = Rating Factors as Applicable

TABLE 33 - ADCAB SINGLE CORE ALUMINUM CONDUCTOR, XLPE INSULATED, ARMORED & UN ARMORED CABLE CONFIRMING TO IS 7098 PART-1

WEIGHT & DIMENSIONS **650/1100 VOLTS**

Nominal Size of Conductor	Form of Conductors Circular	Nominal Thickness of XLPE Insulation For U/A	Minimum Thickness of PVC Inner Sheath	Unarmored Cable			Nominal Thickness of XLPE Insulation for Armored Cable	Formed Wire/Strip Armored Cable				Round Wired Armored Cable				Current Rating*		*Normal Standard Length
				Nominal Thickness of PVC Outer Sheath	Approx Overall Dia. of Cable	Approx Weight of Cable		Nominal Dimension of Aluminum Flat Strip	Minimum Thickness of PVC Outer Sheath	Approx Over All Dia. of Cable	Approx Weight of Cable	Nominal Dimension of Aluminum Round Wire	Minimum Thickness of PVC Outer Sheath	Approx Over All Dia. of Cable	Approx Weight of Cable	In Ground	In Air	
sq mm	mm	mm	mm	mm	mm	kgs./km	mm	mm	mm	mm	kgs./km	mm	mm	mm	kgs./mm	Amps.	Amps.	Mtrs.
4	Solid	0.70	NA	1.80	7.50	60	-	-	-	-	-	-	-	-	-	43	38	1000
4	Stranded	0.70	NA	1.80	8	65	-	-	-	-	-	-	-	-	-	43	38	1000
6	Solid	0.70	NA	1.80	8	70	-	-	-	-	-	-	-	-	-	55	50	1000
6	Stranded	0.70	NA	1.80	8.50	75	-	-	-	-	-	-	-	-	-	55	50	1000
10	Solid	0.70	NA	1.80	9	80	1	-	-	-	-	-	-	-	-	69	64	1000
10	Stranded	0.70	NA	1.80	9.50	90	1	-	-	-	-	-	-	-	-	69	64	1000
16	Stranded	0.70	NA	1.80	10	115	1	-	-	-	-	1.40	1.24	12.5	190	89	84	1000
25	Stranded	0.90	NA	1.80	12	155	1.20	-	-	-	-	1.40	1.24	14	247	115	112	1000
35	Stranded	0.90	NA	1.80	13	180	1.20	-	-	-	-	1.40	1.24	15	290	137	137	1000
50	Stranded	1	NA	1.80	14	240	1.30	-	-	-	-	1.40	1.24	16.5	342	161	165	1000
70	Stranded	1.10	NA	1.80	15.5	310	1.40	-	-	-	-	1.40	1.24	18.5	428	198	209	1000
95	Stranded	1.10	NA	1.80	17.50	385	1.40	4 x 0.80	1.40	18.60	494	1.60	1.40	20.20	260	243	264	1000
120	Stranded	1.20	NA	1.80	19.5	470	1.50	4 x 0.80	1.40	20.40	589	1.60	1.40	22.5	665	276	308	500
150	Stranded	1.40	NA	2	21.50	600	1.70	4 x 0.80	1.40	22.5	694	1.60	1.40	24.0	779	308	350	500
185	Stranded	1.60	NA	2	23.50	710	1.90	4 x 0.80	1.40	24.5	827	1.60	1.40	26.50	921	349	406	500
240	Stranded	1.70	NA	2	26	900	2	4 x 0.80	1.40	26.60	1026	1.60	1.40	29.0	1121	404	490	500
300	Stranded	1.80	NA	2	28.50	1158	2.10	4 x 0.80	1.56	29.60	1235	1.60	1.56	31.50	1349	454	551	500
400	Stranded	2	NA	2.20	31.5	1385	2.40	4 x 0.80	1.56	33.00	1548	2	1.56	35.50	1739	518	647	250
500	Stranded	2.20	NA	2.20	35.5	1650	2.60	4 x 0.80	1.56	36.70	1909	2	1.56	39.50	2128	588	751	250
630	Stranded	2.40	NA	2.20	39.5	2100	2.80	4 x 0.80	1.72	40.50	2413	2	1.72	43.0	2660	663	868	250
800	Stranded	2.60	NA	2.40	44.50	2730	3.10	4 x 0.80	1.72	46.00	2990	2	1.88	47.90	3236	740	992	250
1000	Stranded	2.80	NA	2.60	48.50	3350	3.30	4 x 0.80	1.88	50.00	3667	2.250	2.04	54.37	4142	812	1117	250

The above data is approximate and subject to manufacturing tolerance.
*Delivery Length tolerance is +/-5%

TABLE 34 - ADCAB SINGLE CORE COPPER CONDUCTOR, XLPE INSULATED, ARMORED & UN ARMORED CABLE CONFIRMING TO IS 7098 PART-1

WEIGHT & DIMENSIONS **650/1100 VOLTS**

Nominal Size of Conductor	Form of Conductor Circular	Nominal Thickness of XLPE Insulation For U/A	Minimum Thickness of PVC Inner Sheath	Unarmored Cable			Nominal Thickness of XLPE Insulation for Armored Cable	Formed Wire/Strip Armored Cable				Round Wired Armored Cable				Current Rating*		*Normal Standard Length
				Nominal Thickness of PVC Outer Sheath	Approx Overall Dia. of Cable	Approx Weight of Cable		Nominal Dimension of Aluminum Flat Strip	Minimum Thickness of PVC Outer Sheath	Approx Over All Dia. of Cable	Approx Weight of Cable	Nominal Dimension of Aluminum Round Wire	Minimum Thickness of PVC Outer Sheath	Approx Over All Dia. of Cable	Approx Weight of Cable	In Ground	In Air	
sq mm	mm	mm	mm	mm	mm	kgs./km	mm	mm	mm	mm	kgs./km	mm	mm	mm	kgs./mm	Amps.	Amps.	Mtrs.
4	Solid	0.70	NA	1.80	7.50	85.5	-	-	-	-	-	-	-	-	-	54	48	1000
4	Stranded	0.70	NA	1.80	8	88	-	-	-	-	-	-	-	-	-	54	48	1000
6	Solid	0.70	NA	1.80	8	109	-	-	-	-	-	-	-	-	-	67	61	1000
6	Stranded	0.70	NA	1.80	8.50	114	-	-	-	-	-	-	-	-	-	67	61	1000
10	Stranded	0.70	NA	1.80	9.50	152	1	-	-	-	-	1.40	1.24	12	219	90	83	1000
16	Stranded	0.70	NA	1.80	10.0	209	1	-	-	-	-	1.40	1.24	13	281	115	108	1000
25	Stranded	0.90	NA	1.80	12.0	309	1.20	-	-	-	-	1.40	1.24	14	390	148	144	1000
35	Stranded	0.90	NA	1.80	13.0	399	1.20	-	-	-	-	1.40	1.24	16	485	177	176	1000
50	Stranded	1	NA	1.80	14.0	513	1.30	-	-	-	-	1.40	1.24	17	608	208	212	1000
70	Stranded	1.10	NA	1.80	16.0	712	1.40	-	-	-	-	1.40	1.24	19	817	255	269	1000
95	Stranded	1.10	NA	1.80	17.50	940	1.40	4 x 0.80	1.40	18.60	1036	1.60	1.40	22	1102	312	340	1000
120	Stranded	1.20	NA	1.80	19.00	1168	1.50	4 x 0.80	1.40	20.40	1264	1.60	1.40	23.50	1339	355	396	500
150	Stranded	1.40	NA	2	21.50	1444	1.70	4 x 0.80	1.40	22.20	1530	1.60	1.40	24.50	1615	396	450	500
185	Stranded	1.60	NA	2	23.50	1786	1.90	4 x 0.80	1.40	24.40	1890	1.60	1.40	26.50	1976	447	519	500
240	Stranded	1.70	NA	2	26.00	2299	2.00	4 x 0.80	1.40	26.60	2404	1.60	1.40	29	2508	515	613	500
300	Stranded	1.80	NA	2	28.50	2840	2.10	4 x 0.80	1.56	29.60	2974	1.60	1.56	31.50	3078	576	700	500
400	Stranded	2	NA	2.20	33.00	3629	2.40	4 x 0.80	1.56	33.20	3762	2	1.56	26.00	3962	651	813	250
500	Stranded	2.20	NA	2.20	36.00	4598	2.60	4 x 0.80	1.56	36.70	4770	2	1.56	39.50	4969	727	930	250
630	Stranded	2.40	NA	2.20	40.00	5880	2.80	4 x 0.80	1.72	41.20	6070	2	1.72	43.00	6318	806	1056	250
800	Stranded	2.60	NA	2.40	43.70	7486	3.10	4 x 0.80	1.72	45.10	7676	2	1.88	18.50	7990	877	1179	250
1000	Stranded	2.80	NA	2.60	49.20	9358	3.30	4 x 0.80	1.88	50.60	9567	2.50	2.04	54.00	10051	935	1288	250

The above data is approximate and subject to manufacturing tolerance.
*Delivery Length tolerance is +/-5%

TABLE 35 - ADCAB TWO CORE ALUMINUM CONDUCTOR, XLPE INSULATED, ARMORED & UN ARMORED CABLE CONFIRMING TO IS 7098 PART-1

WEIGHT & DIMENSIONS **650/1100 VOLTS**

Nominal Size of Conductor	Form of Conductor Circular	Nomina	Minimu	Unarmored Cable			Formed Wire/Strip Armored Cable				Round Wired Armored Cable				Current Rating*		*Normal Standard Length
				Nominal Thickness of PVC Outer	Appro	Appro	Nominal Dimension of Aluminum Flat	Minimu	Appro	Appro	Nominal Dimension of Aluminu	Minimu	Approx Over All Dia. of Cable	Approx Weight of Cable	In Ground	In Air	
sq mm	mm	mm	mm	mm	mm	kgs./k	mm	mm	mm	kgs./km	mm	mm	mm	kgs./mm	Amps.	Amps.	Mtrs.
4	Solid	0.70	0.30	1.80	12.50	140	-	-	-	-	1.40	1.24	14.50	375	42	38	1000
4	Stranded	0.70	0.30	1.80	13	150	-	-	-	-	1.40	1.24	15.00	403	42	38	1000
6	Solid	0.70	0.30	1.80	13.50	170	-	-	-	-	1.40	1.24	15.50	437	55	50	1000
6	Stranded	0.70	0.30	1.80	14	180	-	-	-	-	1.40	1.24	16.50	465	55	50	1000
10	Solid	0.70	0.30	1.80	15	205	-	-	-	-	1.40	1.24	16	503	68	64	1000
10	Stranded	0.70	0.30	1.80	16	225	-	-	-	-	1.40	1.24	18	551	68	64	1000
16	Stranded	0.70	0.30	1.80	14	225	-	-	-	-	1.40	1.40	17	480	89	83	1000
25	Stranded	0.90	0.30	2	17	330	4 x 0.80	1.40	18.50	509	1.60	1.40	20	671	114	109	1000
35	Stranded	0.90	0.30	2	19	410	4 x 0.80	1.40	20	605	1.60	1.40	22	775	136	133	1000
50	Stranded	1	0.30	2	21	510	4 x 0.80	1.40	22.50	753	1.60	1.40	24	937	161	162	1000
70	Stranded	1.10	0.30	2	23	675	4 x 0.80	1.56	22.50	989	1.60	1.56	27	1186	197	204	1000
95	Stranded	1.10	0.40	2.20	26.50	893	4 x 0.80	1.56	28	1204	2	1.56	28.68	1572	235	251	1000
120	Stranded	1.20	0.40	2.20	28.50	1050	4 x 0.80	1.56	30.50	1408	2	1.56	33	1849	266	287	500
150	Stranded	1.40	0.50	2.20	32	1215	4 x 0.80	1.72	31.79	1690	2	1.72	36	2182	296	328	500
185	Stranded	1.60	0.50	2.40	35.50	1510	4 x 0.80	1.72	34.95	2004	2	1.88	37.70	2597	335	379	500
240	Stranded	1.70	0.60	2.60	39.50	1900	4 x 0.80	1.88	38.69	2480	2.50	2.04	45	3418	385	448	500
300	Stranded	1.80	0.60	2.80	43.50	2360	4 x 0.80	2.04	42.53	2964	2.50	2.20	46.22	4019	432	513	500
400	Stranded	2	0.60	3	49	3100	4 x 0.80	2.36	48.24	3676	2.50	2.36	51.61	4854	487	593	500
500	Stranded	2.20	0.70	3.40	55.50	4000	4 x 0.80	2.52	56.50	4599	3.15	2.68	61.50	6517	548	683	500
630	Stranded	2.40	0.70	3.60	61.50	4997	4 x 0.80	2.68	62.50	5662	3.15	2.84	67.50	7790	612	784	500

The above data is approximate and subject to manufacturing tolerance.
*Delivery Length tolerance is +/-5%

TABLE 36 - ADCAB TWO CORE COPPER CONDUCTOR, XLPE INSULATED, ARMORED & UN ARMORED CABLE CONFIRMING TO IS 7098 PART-1

WEIGHT & DIMENSIONS **650/1100 VOLTS**

Nominal Size of Conductor	Form of Conductor Circular	Nomina	Minimu	Unarmored Cable			Formed Wire/Strip Armored Cable				Round Wired Armored Cable				Current Rating*		*Normal Standard Length
				Nominal Thickness of PVC Outer Sheath	Appro	Appro	Nominal Dimension of Aluminum Flat Strip	Minimu	Appro	Appro	Nominal Dimension of Aluminu	Minimu	Approx Over All Dia. of Cable	Approx Weight of Cable	In Ground	In Air	
sq mm	mm	mm	mm	mm	mm	kgs./k	mm	mm	mm	kgs./km	mm	mm	mm	kgs./mm	Amps.	Amps.	Mtrs.
4	Solid	0.70	0.30	1.80	12.50	165	-	-	-	-	1.40	1.24	14.00	408	54	48	1000
4	Stranded	0.70	0.30	1.80	13	175	-	-	-	-	1.40	1.24	14.50	427	54	48	1000
6	Solid	0.70	0.30	1.80	13.50	210	-	-	-	-	1.40	1.24	15.00	484	67	61	1000
6	Stranded	0.70	0.30	1.80	14	225	-	-	-	-	1.40	1.24	16.00	522	67	61	1000
10	Stranded	0.70	0.30	1.80	16	300	-	-	-	-	1.40	1.24	17.50	665	89	83	1000
16	Stranded	0.70	0.30	1.80	14	422	-	-	-	-	1.40	1.40	17	696	115	108	1000
25	Stranded	0.90	0.30	2	17	636	4 x 0.80	1.40	18.50	804	1.60	1.40	20	1000	147	140	1000
35	Stranded	0.90	0.30	2	19	817	4 x 0.80	1.40	20	1019	1.60	1.40	22	1224	176	172	1000
50	Stranded	1	0.30	2	21	1054	4 x 0.80	1.40	22.50	1311	1.60	1.40	24	1520	208	208	1000
70	Stranded	1.10	0.30	2	23	1453	4 x 0.80	1.56	22.50	1757	1.60	1.56	27	2004	253	262	1000
95	Stranded	1.10	0.40	2.20	26.50	1966	4 x 0.80	1.56	28	2289	2	1.56	30.50	2736	302	322	1000
120	Stranded	1.20	0.40	2.20	28.50	2413	4 x 0.80	1.56	30.50	2755	2	1.56	33	3230	340	368	500
150	Stranded	1.40	0.40	2.20	32	2935	4 x 0.80	1.72	31.80	3353	2	1.72	36	3876	379	419	500
185	Stranded	1.60	0.50	2.40	35.50	3676	4 x 0.80	1.72	37	4094	2	1.88	40	4731	425	482	500
240	Stranded	1.70	0.50	2.60	39.50	4750	4 x 0.80	1.88	38.70	5225	2.50	2.04	42.40	6203	486	566	500
300	Stranded	1.80	0.60	2.80	43.50	5918	4 x 0.80	2.04	42.50	6412	2.50	2.20	46.20	7514	541	644	500
400	Stranded	2	0.60	3.00	49	7495	4 x 0.80	2.36	48.20	8075	2.50	2.36	51.60	9262	602	734	250

The above data is approximate and subject to manufacturing tolerance.
*Delivery Length tolerance is +/-5%

TABLE 37 - ADCAB THREE CORE ALUMINUM CONDUCTOR, XLPE INSULATED, ARMORED & UN ARMORED CABLE CONFIRMING TO IS 7098 PART-1

WEIGHT & DIMENSIONS

650/1100 VOLTS

Nominal Size of Conductor	Form of Conductor Circular	Nomina	Minimu	Unarmored Cable			Formed Wire/Strip Armored Cable				Round Wired Armored Cable				Current Rating*		*Normal Standard Length
				Nominal Thickness of PVC Outer	Appro	Appro	Nominal Dimension of Aluminum Flat	Minimu	Appro	Approx Weight of Cable	Nominal Dimension of Aluminu	Minimu	Approx Over All Dia. of Cable	Approx Weight of Cable	In Ground	In Air	
sq mm	mm	mm	mm	mm	mm	kgs./k	mm	mm	mm	kgs./km	mm	mm	mm	kgs./mm	Amps.	Amps.	Mtrs.
4	Solid	0.70	0.30	1.80	13	140	-	-	-	-	1.40	1.24	15	460	35	32	1000
4	Stranded	0.70	0.30	1.80	13.50	160	-	-	-	-	1.40	1.24	16	399	35	32	1000
6	Solid	0.70	0.30	1.80	14.50	170	-	-	-	-	1.40	1.24	16	530	46	42	1000
6	Stranded	0.70	0.30	1.80	15	190	-	-	-	-	1.40	1.24	17	470	46	42	1000
10	Solid	0.70	0.30	1.80	15.50	220	-	-	-	-	1.40	1.24	18	640	57	54	1000
10	Stranded	0.70	0.30	1.80	17	230	-	-	-	-	1.40	1.24	18.50	551	57	54	1000
16	Stranded	0.70	0.30	1.80	16.20	304	4 x 0.80	1.24	16.80	487	1.60	1.40	19	648	74	69	1000
25	Stranded	0.90	0.30	2	19.20	446	4 x 0.80	1.40	20.10	670	1.60	1.40	21.70	855	95	93	1000
35	Stranded	0.90	0.30	2	21.50	551	4 x 0.80	1.40	22	798	1.60	1.40	23.60	997	114	114	1000
50	Stranded	1	0.30	2	24.50	693	4 x 0.80	1.40	24.80	960	1.60	1.56	26.80	1235	134	138	1000
70	Stranded	1.10	0.40	2.20	28	950	4 x 0.80	1.56	28.50	1282	2	1.56	30.90	1729	164	175	1000
95	Stranded	1.10	0.40	2.20	30.80	1206	4 x 0.80	1.56	31.30	1577	2	1.56	33.70	2077	197	216	1000
120	Stranded	1.20	0.40	2.20	33.80	1463	4 x 0.80	1.56	34.30	1871	2	1.72	37	2422	223	249	500
150	Stranded	1.40	0.50	2.40	37.90	1814	4 x 0.80	1.72	38.30	2100	2	1.88	41.10	2888	249	284	500
185	Stranded	1.60	0.50	2.60	42	2242	4 x 0.80	1.88	42.30	2500	2.50	2.04	16	3733	282	329	500
240	Stranded	1.70	0.60	2.80	46.90	2869	4 x 0.80	2.04	47.20	3382	2.50	2.20	50.90	4531	327	392	500
300	Stranded	1.80	0.60	3	51.50	3505	4 x 0.80	2.20	51.80	4066	2.50	2.36	55.45	5339	369	452	500
400	Stranded	2	0.70	3.20	58.60	4427	4 x 0.80	2.52	58.50	5101	3.15	2.68	64	7115	420	526	500
500	Stranded	2.20	0.70	3.60	66	5681	4 x 0.80	2.68	65	6365	3.15	2.84	73	8597	478	612	500
630	Stranded	2.40	0.70	3.80	72	7125	4 x 0.80	2.84	73	7894	4	3	78	11290	542	712	500

The above data is approximate and subject to manufacturing tolerance.
*Delivery Length tolerance is +/-5%

TABLE 38 - ADCAB THREE CORE COPPER CONDUCTOR, XLPE INSULATED, ARMORED & UN ARMORED CABLE CONFIRMING TO IS 7098 PART-1

WEIGHT & DIMENSIONS **650/1100 VOLTS**

Nominal Size of Conductor	Form of Conductor Circular	Nomina	Minimu	Unarmored Cable			Formed Wire/Strip Armored Cable				Round Wired Armored Cable				Current Rating*		*Normal Standard Length
				Nominal Thickness of PVC Outer Sheath	Appro	Appro	Nominal Dimension of Aluminum Flat Strip	Minimu	Appro	Approx Weight of Cable	Nominal Dimension of Aluminu	Minimu	Approx Over All Dia. of Cable	Approx Weight of Cable	In Ground	In Air	
sq mm	mm	mm	mm	mm	mm	kgs./k	mm	mm	mm	kgs./km	mm	mm	mm	kgs./mm	Amps.	Amps.	Mtrs.
4	Solid	0.70	0.30	1.80	13	210	-	-	-	-	1.40	1.24	15	530	45	41	1000
4	Stranded	0.70	0.30	1.80	13.50	232	-	-	-	-	1.40	1.24	16	460	45	41	1000
6	Solid	0.70	0.30	1.80	14.50	280	-	-	-	-	1.40	1.24	16	640	56	52	1000
6	Stranded	0.70	0.30	1.80	15	299	-	-	-	-	1.40	1.24	17	551	56	52	1000
10	Stranded	0.70	0.30	1.80	17	415	-	-	-	-	1.40	1.24	18.50	722	74	70	1000
16	Stranded	0.70	0.30	1.80	16.20	425	4 x 0.80	1.24	16.80	772	1.60	1.40	19	921	95	89	1000
25	Stranded	0.90	0.30	2	19.20	874	4 x 0.80	1.40	20.10	1100	1.60	1.40	21.70	1282	122	119	1000
35	Stranded	0.90	0.30	2	21.50	1150	4 x 0.80	1.40	22	1395	1.60	1.40	23.60	1596	146	147	1000
50	Stranded	1	0.30	2	24.50	1501	4 x 0.80	1.40	24.80	1760	1.60	1.56	26.80	2042	173	179	1000
70	Stranded	1.10	0.40	2.20	28	2118	4 x 0.80	1.56	28.50	2440	2	1.56	30.90	2888	212	226	1000
95	Stranded	1.10	0.40	2.20	30.80	2821	4 x 0.80	1.56	31.30	3171	2	1.56	33.70	3685	254	279	1000
120	Stranded	1.20	0.40	2.20	33.80	3496	4 x 0.80	1.56	34.30	3890	2	1.72	37	4451	287	320	500
150	Stranded	1.40	0.50	2.40	37.90	4322	4 x 0.80	1.72	38.30	4751	2	1.88	41.10	5390	321	365	500
185	Stranded	1.60	0.50	2.60	42	5377	4 x 0.80	1.88	42.30	5851	2.50	2.04	16	6860	362	422	500
240	Stranded	1.70	0.60	2.80	46.90	6992	4 x 0.80	2.04	47.20	7500	2.50	2.20	50.90	8650	418	500	500
300	Stranded	1.80	0.60	3	51.50	8683	4 x 0.80	2.20	51.80	9240	2.50	2.36	55.45	10500	469	574	500
400	Stranded	2	0.70	3.20	58.60	11020	4 x 0.80	2.52	58.50	11700	3.15	2.68	64	13700	528	662	500

The above data is approximate and subject to manufacturing tolerance.
*Delivery Length tolerance is +/-5%

TABLE 39 - ADCAB THREE AND HALF CORE ALUMINUM CONDUCTOR, XLPE INSULATED, ARMORED & UN ARMORED CABLE CONFIRMING TO IS 7098 PART-1

WEIGHT & DIMENSIONS **650/1100 VOLTS**

Nominal Size of Conductor	Form of Conductor Circular	Nominal Thickness of XLPE Insulation For U/A	Minimum Thickness of PVC Inner Sheath	Unarmored Cable			Formed Wire/Strip Armored Cable				Round Wired Armored Cable				Current Rating*		*Normal Standard Length
				Nominal Thickness of PVC Outer Sheath	Approx Overall Dia. of Cable	Approx Weight of Cable	Nominal Dimension of Aluminum Flat Strip	Minimum Thickness of PVC Outer Sheath	Approx Over All Dia. of Cable	Approx Weight of Cable	Nominal Dimension of Aluminum Round Wire	Minimum Thickness of PVC Outer Sheath	Approx Over All Dia. 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./mm	Amps.	Amps.	Mtrs.
25/16	Stranded	0.90/0.70	0.30	2	21.30	525	4 x 0.80	1.40	21.90	730	1.60	1.40	23.60	960	95	93	1000
35/16	Stranded	0.90/0.70	0.30	2	23.60	625	4 x 0.80	1.40	24.20	880	1.60	1.40	25.80	1133	114	114	1000
50/25	Stranded	1/0.90	0.30	2	26.80	800	4 x 0.80	1.40	27.40	1100	1.60	1.56	29.50	1382	134	138	1000
70/35	Stranded	1.10/0.90	0.40	2.20	31	1090	4 x 0.80	1.56	31.50	1450	2	1.56	34	1930	164	175	1000
95/50	Stranded	1.10/1	0.40	2.20	34.30	1395	4 x 0.80	1.56	34.80	1791	2	1.56	37.20	2345	197	216	1000
120/70	Stranded	1.20/1.10	0.40	2.20	37.50	1645	4 x 0.80	1.72	38.50	2195	2	1.72	41	2799	223	249	500
150/70	Stranded	1.40/1.10	0.50	2.40	41	1994	4 x 0.80	1.72	42	2574	2	1.88	45	3290	249	284	500
185/95	Stranded	1.60/1.10	0.50	2.60	46.50	2547	4 x 0.80	1.88	47.20	3150	2.50	2.04	50	4313	282	329	500
240/120	Stranded	1.70/1.20	0.60	2.80	52.50	3200	4 x 0.80	2.04	52.70	3900	2.50	2.20	56	5190	327	392	500
300/150	Stranded	1.80/1.40	0.60	3	56	3999	4 x 0.80	2.20	57	4690	2.50	2.36	61	6100	369	452	500
400/185	Stranded	2/1.60	0.70	3.40	64	5170	4 x 0.80	2.52	65	5888	3.15	2.68	70	8151	420	526	500

The above data is approximate and subject to manufacturing tolerance.
*Delivery Length tolerance is +/-5%

TABLE 40 - ADCAB THREE AND HALF CORE COPPER CONDUCTOR, XLPE INSULATED, ARMORED & UN ARMORED CABLE CONFIRMING TO IS 7098 PART-1

WEIGHT & DIMENSIONS **650/1100 VOLTS**

Nominal Size of Conductor	Form of Conductor Circular	Nominal Thickness of XLPE Insulation For U/A	Minimum Thickness of PVC Inner Sheath	Unarmored Cable			Formed Wire/Strip Armored Cable				Round Wired Armored Cable				Current Rating*		*Normal Standard Length
				Nominal Thickness of PVC Outer Sheath	Approx Overall Dia. of Cable	Approx Weight of Cable	Nominal Dimension of Aluminum Flat Strip	Minimum Thickness of PVC Outer Sheath	Approx Over All Dia. of Cable	Approx Weight of Cable	Nominal Dimension of Aluminum Round Wire	Minimum Thickness of PVC Outer Sheath	Approx Over All Dia. 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./mm	Amps.	Amps.	Mtrs.
25/16	Stranded	0.90/0.70	0.30	2	21.30	1030	4 x 0.80	1.40	21.90	1270	1.60	1.40	23.60	1490	122	119	1000
35/16	Stranded	0.90/0.70	0.30	2	23.60	1300	4 x 0.80	1.40	24.20	1585	1.60	1.40	25.80	1820	146	147	1000
50/25	Stranded	1/0.90	0.30	2	26.80	1748	4 x 0.80	1.40	27.40	2060	1.60	1.56	29.50	2330	173	179	1000
70/35	Stranded	1.10/0.90	0.40	2.20	31	2460	4 x 0.80	1.56	31.50	2830	2	1.56	34	3290	212	226	1000
95/50	Stranded	1.10/1	0.40	2.20	34.30	3280	4 x 0.80	1.56	34.80	3686	2	1.56	37.20	4237	254	279	1000
120/70	Stranded	1.20/1.10	0.40	2.20	37.60	4140	4 x 0.80	1.72	38.50	4617	2	1.72	41	5225	287	320	500
150/70	Stranded	1.40/1.10	0.50	2.40	42.30	4980	4 x 0.80	1.72	42.70	5481	2	1.88	45	6190	321	365	500
185/95	Stranded	1.60/1.10	0.50	2.60	46.80	4275	4 x 0.80	1.88	47.20	6830	2.50	2.04	50	7989	362	422	500
240/120	Stranded	1.70/1.20	0.60	2.80	52.40	8120	4 x 0.80	2.04	52.70	8700	2.50	2.20	56	10000	418	500	500
300/150	Stranded	1.80/1.40	0.60	3	57	10079	4 x 0.80	2.20	57.90	10716	2.50	2.36	61	12130	469	574	500
400/185	Stranded	2/1.60	0.70	3.40	65	12800	4 x 0.80	2.52	65.50	13550	3.15	2.68	70	15810	528	660	500

The above data is approximate and subject to manufacturing tolerance.
*Delivery Length tolerance is +/-5%

TABLE 41 - ADCAB FOUR CORE ALUMINUM CONDUCTOR, XLPE INSULATED, ARMORED & UN ARMORED CABLE CONFIRMING TO IS 7098 PART-1

WEIGHT & DIMENSIONS

650/1100 VOLTS

Nominal Size of Conductor	Form of Conductor Circular	Nominal Thickness of XLPE Insulation For U/A	Minimum Thickness of PVC Inner Sheath	Unarmored Cable			Formed Wire/Strip Armored Cable				Round Wired Armored Cable				Current Rating*		*Normal Standard Length
				Nominal Thickness of PVC Outer Sheath	Approx Overall Dia. of Cable	Approx Weight of Cable	Nominal Dimension of Aluminum Flat Strip	Minimum Thickness of PVC Outer Sheath	Approx Over All Dia. of Cable	Approx Weight of Cable	Nominal Dimension of Aluminum Round Wire	Minimum Thickness of PVC Outer Sheath	Approx Over All Dia. 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./mm	Amps.	Amps.	Mtrs.
4	Solid	0.70	0.30	1.80	13.50	160	-	-	-	-	1.40	1.24	15.30	413	35	32	1000
4	Stranded	0.70	0.30	1.80	14.20	180	-	-	-	-	1.40	1.24	16	435	35	32	1000
6	Solid	0.70	0.30	1.80	14.70	200	-	-	-	-	1.40	1.24	16.50	473	46	42	1000
6	Stranded	0.70	0.30	1.80	15.50	215	-	-	-	-	1.40	1.24	17.30	506	46	42	1000
10	Solid	0.70	0.30	1.80	16.60	250	-	-	-	-	1.40	1.40	18.60	592	57	54	1000
10	Stranded	0.70	0.30	1.80	17.50	260	-	-	-	-	1.40	1.40	19.80	633	57	54	1000
16	Stranded	0.70	0.30	1.80	17.80	350	4 x 0.80	1.40	20	608	1.60	1.40	21	795	74	69	1000
25	Stranded	0.90	0.30	2	21	550	4 x 0.80	1.40	23	828	1.60	1.40	25	1045	95	93	1000
35	Stranded	0.90	0.30	2	23.50	680	4 x 0.80	1.40	25	997	1.60	1.40	26.50	1244	114	114	1000
50	Stranded	1	0.30	2	26	875	4 x 0.80	1.56	28	1230	1.60	1.56	29.50	1520	134	138	1000
70	Stranded	1.10	0.40	2.20	30.50	1200	4 x 0.80	1.56	32	1615	2	1.56	34	2137	164	175	1000
95	Stranded	1.10	0.40	2.20	33.50	1530	4 x 0.80	1.56	35	2014	2	1.72	38	2622	197	216	1000
120	Stranded	1.20	0.50	2.40	37.50	1850	4 x 0.80	1.72	39	2403	2	1.88	42	3087	223	249	500
150	Stranded	1.40	0.50	2.60	42	2280	4 x 0.80	1.88	43	2888	2.50	2.04	47	3980	249	284	500
185	Stranded	1.60	0.50	2.80	46.50	2800	4 x 0.80	2.04	48	3505	2.50	2.20	52	4721	282	329	500
240	Stranded	1.70	0.60	3	52.50	3700	4 x 0.80	2.20	54	4389	2.50	2.36	57.50	5709	327	392	500
300	Stranded	1.80	0.70	3.20	58	4600	4 x 0.80	2.36	59	5291	3.15	2.52	64.50	7372	369	452	500
400	Stranded	2	0.70	3.60	65.50	6000	4 x 0.80	2.68	66	6583	3.15	2.84	71.50	8985	420	526	500

The above data is approximate and subject to manufacturing tolerance.
*Delivery Length tolerance is +/-5%

TABLE 42 - ADCAB FOUR CORE COPPER CONDUCTOR, XLPE INSULATED, ARMORED & UN ARMORED CABLE CONFIRMING TO IS 7098 PART-1

WEIGHT & DIMENSIONS **650/1100 VOLTS**

Nominal Size of Conductor	Form of Conductor Circular	Nominal Thickness of XLPE Insulation For U/A	Minimum Thickness of PVC Inner Sheath	Unarmored Cable			Formed Wire/Strip Armored Cable				Round Wired Armored Cable				Current Rating*		*Normal Standard Length
				Nominal Thickness of PVC Outer Sheath	Approx Overall Dia. of Cable	Approx Weight of Cable	Nominal Dimension of Aluminum Flat Strip	Minimum Thickness of PVC Outer Sheath	Approx Over All Dia. of Cable	Approx Weight of Cable	Nominal Dimension of Aluminum Round Wire	Minimum Thickness of PVC Outer Sheath	Approx Over All Dia. 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./mm	Amps.	Amps.	Mtrs.
4	Solid	0.70	0.30	1.80	13.50	260	-	-	-	-	1.40	1.24	15.30	503	45	41	1000
4	Stranded	0.70	0.30	1.80	14.20	280	-	-	-	-	1.40	1.24	16	533	45	41	1000
6	Solid	0.70	0.30	1.80	14.70	350	-	-	-	-	1.40	1.24	16.50	618	56	52	1000
6	Stranded	0.70	0.30	1.80	15.50	365	-	-	-	-	1.40	1.24	17.30	646	56	52	1000
10	Stranded	0.70	0.30	1.80	17.80	510	-	-	-	-	1.40	1.40	19.80	870	74	70	1000
16	Stranded	0.70	0.30	1.80	17.50	741	4 x 0.80	1.40	16.80	772	1.60	1.40	21	1159	95	89	1000
25	Stranded	0.90	0.30	2	21	1140	4 x 0.80	1.40	20.10	1100	1.60	1.40	25	1615	122	119	1000
35	Stranded	0.90	0.30	2	23.50	1491	4 x 0.80	1.40	22	1395	1.60	1.40	26.50	2033	146	147	1000
50	Stranded	1	0.30	2	26	1957	4 x 0.80	1.56	24.80	1760	1.60	1.56	29.50	2593	173	179	1000
70	Stranded	1.10	0.40	2.20	30.50	2774	4 x 0.80	1.56	28.50	2440	2	1.56	34	3686	212	226	1000
95	Stranded	1.10	0.40	2.20	33.50	3714	4 x 0.80	1.56	31.30	3171	2	1.72	38	4769	254	279	1000
120	Stranded	1.20	0.50	2.20	37.50	4645	4 x 0.80	1.72	34.30	3890	2	1.88	42	5795	287	320	500
150	Stranded	1.40	0.50	2.40	42	5719	4 x 0.80	1.88	38.30	4751	2	2.04	47	7324	321	365	500
185	Stranded	1.60	0.50	2.60	46.50	7125	4 x 0.80	2.04	42.30	5851	2.50	2.20	52	8901	362	422	500
240	Stranded	1.70	0.60	2.80	52.50	9253	4 x 0.80	2.20	47.20	7500	2.50	2.36	57.50	11210	418	500	500
300	Stranded	1.80	0.70	3	58	11524	4 x 0.80	2.36	51.80	9240	2.50	2.52	64.50	14279	469	574	500
400	Stranded																

The above data is approximate and subject to manufacturing tolerance.
*Delivery Length tolerance is +/-5%

TABLE 43 - ADCAB 650/1100 VOLTS MULTICORE CONTROL CABLE WITH SOLID COPPER CONDUCTOR OF SIZE 1.5 SQ MM XLPE INSULATED, ARMORED & UN ARMORED CABLE CONFIRMING TO IS 7098 PART-1

WEIGHT & DIMENSIONS **650/1100 VOLTS**

Number of Cores	Nominal Thickness of XLPE Insulation For U/A	Minimum Thickness of PVC Inner Sheath	Unarmored Cable			Formed Wire/Strip Armored Cable				Round Wired Armored Cable				Current Rating*		*Normal Standard Length
			Nominal Thickness of PVC Outer Sheath	Approx Overall Dia. of Cable	Approx Weight of Cable	Nominal Dimension of Aluminum Flat Strip	Minimum Thickness of PVC Outer Sheath	Approx Over All Dia. of Cable	Approx Weight of Cable	Nominal Dimension of Aluminum Round Wire	Minimum Thickness of PVC Outer Sheath	Approx Over All Dia. of Cable	Approx Weight of Cable	In Ground	In Air	
core	mm	mm	mm	mm	kgs./km	mm	mm	mm	kgs./km	mm	mm	mm	kgs./mm	Amps.	Amps.	Mtrs.
2	0.70	0.30	1.80	10	140	-	-	-	-	1.40	1.24	11.90	288	31	27	1000
3	0.70	0.30	1.80	10.50	160	-	-	-	-	1.40	1.24	12.40	300	26	23	1000
4	0.70	0.30	1.80	11.50	171	-	-	-	-	1.40	1.24	13.10	345	26	23	1000
5	0.70	0.30	1.80	12.10	195	-	-	-	-	1.40	1.24	13.90	381	26	23	1000
6	0.70	0.30	1.80	12.90	222	-	-	-	-	1.40	1.24	14.70	430	23	20	1000
7	0.70	0.30	1.80	12.90	239	-	-	-	-	1.40	1.24	14.70	448	20	18	1000
8	0.70	0.30	1.80	14	275	-	-	-	-	1.40	1.24	16.50	489	17	15	1000
9	0.70	0.30	1.80	15	308	-	-	-	-	1.40	1.24	17.50	540	17	15	1000
10	0.70	0.30	1.80	15.70	327	-	-	-	-	1.40	1.24	17.50	594	17	15	1000
12	0.70	0.30	1.80	16.10	365	-	-	-	-	1.40	1.24	18	645	16	14	1000
14	0.70	0.30	1.80	16.80	413	-	-	-	-	1.40	1.40	18.90	709	16	14	1000
16	0.70	0.30	1.80	17.70	460	4 x 0.80	1.40	18.50	650	1.60	1.40	20.10	800	14	12	500
19	0.70	0.30	1.80	18.50	513	4 x 0.80	1.40	19.30	736	1.60	1.40	20.90	899	14	12	500
21	0.70	0.30	2	19.80	560	4 x 0.80	1.40	20.20	782	1.60	1.40	21.80	952	12	11	500
24	0.70	0.30	2	21.70	627	4 x 0.80	1.40	22.10	870	1.60	1.40	23.70	1090	12	11	500
27	0.70	0.30	2	22.10	684	4 x 0.80	1.40	22.50	950	1.60	1.40	24.10	1150	11	9	500
30	0.70	0.30	2	22.80	741	4 x 0.80	1.40	23.20	1010	1.60	1.40	24.90	1229	11	9	500
33	0.70	0.30	2	23.70	807	4 x 0.80	1.40	24.10	1100	1.60	1.40	25.70	1322	11	9	500
37	0.70	0.30	2	24.50	874	4 x 0.80	1.40	24.90	1161	1.60	1.40	26.50	1415	11	9	500
44	0.70	0.30	2	27.30	1026	4 x 0.80	1.40	27.70	1352	1.60	1.40	29.70	1662	9	8	500
52	0.70	0.30	2	28.40	1170	4 x 0.80	1.56	29.20	1543	1.60	1.56	30.90	1833	9	8	500
61	0.70	0.30	2.20	30.70	1380	4 x 0.80	1.56	31.10	1740	2	1.56	33.50	2251	9	8	500

The above data is approximate and subject to manufacturing tolerance.
*Delivery Length tolerance is +/-5%

TABLE 44 - ADCAB 650/1100 VOLTS MULTICORE CONTROL CABLE WITH SOLID COPPER CONDUCTOR OF SIZE 2.5 SQ MM XLPE INSULATED, ARMORED & UN ARMORED CABLE CONFIRMING TO IS 7098 PART-1

WEIGHT & DIMENSIONS **650/1100 VOLTS**

Number of Cores	Nominal Thickness of XLPE Insulation For U/A	Minimum Thickness of PVC Inner Sheath	Unarmored Cable			Formed Wire/Strip Armored Cable				Round Wired Armored Cable				Current Rating*		*Normal Standard Length
			Nominal Thickness of PVC Outer Sheath	Approx Overall Dia. of Cable	Approx Weight of Cable	Nominal Dimension of Aluminum Flat Strip	Minimum Thickness of PVC Outer Sheath	Approx Over All Dia. of Cable	Approx Weight of Cable	Nominal Dimension of Aluminum Round Wire	Minimum Thickness of PVC Outer Sheath	Approx Over All Dia. of Cable	Approx Weight of Cable	In Ground	In Air	
core	mm	mm	mm	mm	kgs./km	mm	mm	mm	kgs./km	mm	mm	mm	kgs./mm	Amps.	Amps.	Mtrs.
2	0.70	0.30	1.80	10.90	171	-	-	-	-	1.40	1.24	12.70	342	41	36	1000
3	0.70	0.30	1.80	11.40	201	-	-	-	-	1.40	1.24	13.20	358	34	30	1000
4	0.70	0.30	1.80	12.20	215	-	-	-	-	1.40	1.24	14	400	34	30	1000
5	0.70	0.30	1.80	13.10	250	-	-	-	-	1.40	1.24	14.90	461	34	30	1000
6	0.70	0.30	1.80	14	290	-	-	-	-	1.40	1.24	15.90	520	31	27	1000
7	0.70	0.30	1.80	14	311	-	-	-	-	1.40	1.24	15.90	545	27	23	1000
8	0.70	0.30	1.80	16	340	-	-	-	-	1.40	1.24	17	599	23	20	1000
9	0.70	0.30	1.80	16.50	384	-	-	-	-	1.40	1.40	18.50	679	23	20	1000
10	0.70	0.30	1.80	17.20	422	4 x 0.80	1.24	17.80	624	1.40	1.40	19.60	789	23	20	1000
12	0.70	0.30	1.80	17.70	480	4 x 0.80	1.40	18.50	694	1.40	1.40	20.10	865	20	18	1000
14	0.70	0.30	1.80	18.50	551	4 x 0.80	1.40	19.30	780	1.40	1.40	20.90	940	20	18	1000
16	0.70	0.30	1.80	19.80	636	4 x 0.80	1.40	20.20	867	1.60	1.40	21.90	1020	18	16	500
19	0.70	0.30	1.80	20.80	722	4 x 0.80	1.40	21.20	960	1.60	1.40	22.80	1140	18	16	500
21	0.70	0.30	2	21.80	765	4 x 0.80	1.40	22.20	1016	1.60	1.40	23.90	1243	16	14	500
24	0.70	0.30	2	24	860	4 x 0.80	1.40	24.40	1159	1.60	1.40	26	1387	16	14	500
27	0.70	0.30	2	24.50	950	4 x 0.80	1.40	24.90	1235	1.60	1.40	26.50	1480	14	13	500
30	0.70	0.30	2	25.30	1030	4 x 0.80	1.40	25.70	1349	1.60	1.40	27.30	1586	14	13	500
33	0.70	0.30	2	26.20	1128	4 x 0.80	1.40	26.60	1437	1.60	1.56	28.60	1729	14	13	500
37	0.70	0.30	2	27.20	1230	4 x 0.80	1.40	27.60	1567	1.60	1.56	29.60	1852	14	13	500
44	0.70	0.30	2	30.90	1500	4 x 0.80	1.56	31.30	1862	1.60	1.56	33.70	2356	12	11	500
52	0.70	0.30	2	32.20	1710	4 x 0.80	1.56	32.60	2109	1.60	1.56	35	2630	12	11	500
61	0.70	0.30	2.20	34.10	1971	4 x 0.80	1.56	34.50	2375	2	1.56	36.90	2920	12	11	500

The above data is approximate and subject to manufacturing tolerance.
*Delivery Length tolerance is +/-5%

RATING FACTORS

Table 1 - Rating factors for variation in ambient air temperature for cables in free air

Maximum conductor temperature	Ambient air temperature C							
C	15	30	35	40	45	50	55	60
90	1.14	1.10	1.05	1	0.96	0.89	0.87	0.77

Table 2 - Rating factors for variation in ground temperature for direct buried cables

Maximum conductor temperature	Ground temperature C							
C	15	20	25	30	35	40	45	50
90	1.12	1.08	1.04	1	0.96	0.91	0.87	0.82

Table 3 - Rating factors for variation in ground temperature for cables in ducts

Maximum conductor temperature	Ground temperature C							
C	15	20	25	30	35	40	45	50
90	1.12	1.08	1.04	1	0.96	0.91	0.87	0.82

Table 4 - Rating factors for depths of laying for direct buried cables

Depth of laying mm	Up to 25 mm2		Above 25 mm 2 Up to 300 mm 2		Above 300 mm2	
	Single Core	Multi Core	Single Core	Multi Core	Single Core	Multi Core
750	1	1	1	1	1	1
900	0.98	0.98	0.98	0.98	0.98	0.98
1050	0.97	0.98	0.96	0.97	0.96	0.96
1200	0.96	0.97	0.95	0.95	0.94	0.95
1500	0.94	0.95	0.93	0.93	0.92	0.93
1800	0.93	0.93	0.91	0.92	0.90	0.91
2000	0.92	0.93	0.90	0.91	0.89	0.90
2500	0.90	0.92	0.89	0.89	0.87	0.88
3000	0.90	0.90	0.87	0.88	0.86	0.87

Table 5 - Rating factors for depths of laying for cables in ducts

Depth of laying mm	Up to 25 mm2		Above 25 mm 2 Up to 300 mm 2		Above 300 mm2	
	Single Core	Multi Core	Single Core	Multi Core	Single Core	Multi Core
750	1	1	1	1	1	1
900	0.98	0.98	0.98	0.99	0.98	0.98
1050	0.97	0.98	0.96	0.97	0.96	0.97
1200	0.96	0.97	0.95	0.97	0.94	0.96
1500	0.94	0.96	0.93	0.95	0.92	0.94
1800	0.93	0.95	0.91	0.94	0.90	0.93
2000	0.92	0.94	0.90	0.93	0.89	0.92
2500	0.90	0.93	0.88	0.92	0.87	0.91
3000	0.89	0.92	0.87	0.91	0.86	0.90

Table 6 - Rating factors for variations in soil thermal resistivities for two single-core cables laid direct in ground

Normal area of conductor mm2	Values of soil thermal resistivity K.m/W					
	1	1.2	1.5	2	2.5	3
1.50	1.16	1.09	1	0.91	0.81	0.75
2.50	1.16	1.09	1	0.89	0.81	0.75
4	1.17	1.09	1	0.89	0.81	0.75
6	1.17	1.09	1	0.89	0.81	0.75
10	1.17	1.09	1	0.89	0.80	0.74
16	1.17	1.09	1	0.89	0.80	0.74
25	1.18	1.09	1	0.89	0.80	0.74
35	1.18	1.10	1	0.88	0.80	0.73
50	1.19	1.10	1	0.88	0.80	0.73
70	1.19	1.10	1	0.88	0.80	0.73
95	1.19	1.10	1	0.88	0.79	0.73
120	1.19	1.10	1	0.88	0.79	0.73
150	1.19	1.10	1	0.88	0.79	0.73
185	1.19	1.10	1	0.88	0.79	0.72
240	1.20	1.10	1	0.88	0.79	0.72
300	1.20	1.10	1	0.88	0.79	0.72
400	1.20	1.10	1	0.88	0.79	0.72
500	1.20	1.11	1	0.87	0.79	0.72
630	1.20	1.11	1	0.87	0.79	0.72
800	1.20	1.11	1	0.87	0.79	0.72
1000	1.20	1.11	1	0.87	0.79	0.72

Table 7 - Rating factors for variations in soil thermal resistivities for two single-core cables laid in buried duct

Normal area of conductor mm2	Values of soil thermal resistivity K.m/W					
	1	1.2	1.5	2	2.5	3
1.50	1.16	1.09	1	0.91	0.81	0.75
2.50	1.16	1.09	1	0.89	0.81	0.75
4	1.17	1.09	1	0.89	0.81	0.75
6	1.17	1.09	1	0.89	0.81	0.75
10	1.17	1.09	1	0.89	0.80	0.74
16	1.17	1.09	1	0.89	0.80	0.74
25	1.18	1.09	1	0.89	0.80	0.74
35	1.18	1.10	1	0.88	0.80	0.73
50	1.19	1.10	1	0.88	0.80	0.73
70	1.19	1.10	1	0.88	0.80	0.73
95	1.19	1.10	1	0.88	0.79	0.73
120	1.19	1.10	1	0.88	0.79	0.73
150	1.19	1.10	1	0.88	0.79	0.73
185	1.19	1.10	1	0.88	0.79	0.72
240	1.20	1.10	1	0.88	0.79	0.72
300	1.20	1.10	1	0.88	0.79	0.72
400	1.20	1.10	1	0.88	0.79	0.72
500	1.20	1.11	1	0.87	0.79	0.72
630	1.20	1.11	1	0.87	0.79	0.72
800	1.20	1.11	1	0.87	0.79	0.72
1000	1.20	1.11	1	0.87	0.79	0.72

Table 8 - Rating factors for variations in soil thermal resistivities for three single-core cables laid direct in ground

Normal area of conductor mm2	Values of soil thermal resistivity K.m/W					
	1	1.2	1.5	2	2.5	3
1.50	1.14	1.07	1	0.89	0.80	0.75
2.50	1.17	1.08	1	0.89	0.80	0.75
4	1.17	1.09	1	0.88	0.79	0.73
6	1.17	1.09	1	0.88	0.79	0.73
10	1.18	1.09	1	0.88	0.79	0.73
16	1.18	1.10	1	0.88	0.79	0.72
25	1.19	1.10	1	0.88	0.79	0.72
35	1.19	1.10	1	0.88	0.79	0.72
50	1.19	1.10	1	0.88	0.79	0.72
70	1.20	1.11	1	0.88	0.79	0.72
95	1.20	1.11	1	0.87	0.79	0.72
120	1.20	1.11	1	0.87	0.79	0.72
150	1.20	1.11	1	0.87	0.79	0.72
185	1.20	1.11	1	0.87	0.78	0.72
240	1.20	1.11	1	0.87	0.78	0.72
300	1.20	1.11	1	0.87	0.78	0.72
400	1.20	1.11	1	0.87	0.78	0.72
500	1.21	1.11	1	0.87	0.78	0.72
630	1.21	1.11	1	0.87	0.78	0.72
800	1.21	1.11	1	0.87	0.78	0.72
1000	1.21	1.11	1	0.87	0.78	0.72

Table 9 - Rating factors for variations in soil thermal resistivities for three single-core cables laid in buried duct

Normal area of conductor mm2	Values of soil thermal resistivity K.m/W					
	1	1.2	1.5	2	2.5	3
1.50	1.08	1.04	1	0.92	0.88	0.84
2.50	1.08	1.05	1	0.93	0.88	0.84
4	1.08	1.05	1	0.93	0.87	0.83
6	1.09	1.06	1	0.93	0.87	0.83
10	1.10	1.06	1	0.93	0.87	0.82
16	1.10	1.06	1	0.93	0.87	0.82
25	1.10	1.06	1	0.93	0.87	0.82
35	1.10	1.06	1	0.93	0.86	0.81
50	1.11	1.06	1	0.92	0.86	0.81
70	1.11	1.06	1	0.92	0.86	0.80
95	1.12	1.06	1	0.92	0.85	0.80
120	1.12	1.06	1	0.91	0.85	0.79
150	1.12	1.07	1	0.91	0.84	0.79
185	1.12	1.07	1	0.91	0.84	0.79
240	1.12	1.07	1	0.91	0.84	0.78
300	1.13	1.07	1	0.91	0.84	0.78
400	1.13	1.07	1	0.91	0.84	0.78
500	1.13	1.07	1	0.90	0.83	0.78
630	1.13	1.07	1	0.90	0.83	0.77
800	1.14	1.08	1	0.90	0.83	0.77
1000	1.14	1.08	1	0.90	0.82	0.77

Table 10 - Rating factors for variations in soil thermal resistivities for multi core cables laid direct in ground

Normal area of conductor mm2	Values of soil thermal resistivity K.m/W					
	1	1.2	1.5	2	2.5	3
1.50	1.14	1.04	1	0.92	0.88	0.84
2.50	1.15	1.05	1	0.93	0.88	0.84
4	1.15	1.05	1	0.93	0.87	0.83
6	1.16	1.06	1	0.93	0.87	0.83
10	1.16	1.06	1	0.93	0.87	0.82
16	1.17	1.06	1	0.93	0.87	0.82
25	1.17	1.06	1	0.93	0.87	0.82
35	1.18	1.06	1	0.93	0.86	0.81
50	1.18	1.06	1	0.92	0.86	0.81
70	1.18	1.06	1	0.92	0.86	0.80
95	1.18	1.06	1	0.92	0.85	0.80
120	1.18	1.06	1	0.91	0.85	0.79
150	1.18	1.07	1	0.91	0.84	0.79
185	1.18	1.07	1	0.91	0.84	0.79
240	1.19	1.07	1	0.91	0.84	0.78
300	1.19	1.07	1	0.91	0.84	0.78
400	1.19	1.07	1	0.91	0.84	0.78
500	1.19	1.07	1	0.90	0.83	0.78
630	1.19	1.07	1	0.90	0.83	0.77

Table 11 - Rating factors for variations in soil thermal resistivities for multi core cables laid in buried duct

Normal area of conductor mm2	Values of soil thermal resistivity K.m/W					
	1	1.2	1.5	2	2.5	3
1.50	1.05	1.03	1	0.96	0.92	0.88
2.50	1.05	1.03	1	0.95	0.91	0.88
4	1.06	1.03	1	0.95	0.91	0.87
6	1.06	1.03	1	0.95	0.91	0.87
10	1.06	1.04	1	0.95	0.90	0.86
16	1.06	1.04	1	0.95	0.90	0.86
25	1.07	1.04	1	0.95	0.90	0.86
35	1.07	1.04	1	0.94	0.90	0.85
50	1.07	1.04	1	0.94	0.89	0.85
70	1.07	1.04	1	0.94	0.89	0.84
95	1.08	1.04	1	0.94	0.88	0.84
120	1.08	1.05	1	0.94	0.88	0.84
150	1.08	1.05	1	0.93	0.88	0.83
185	1.08	1.05	1	0.93	0.88	0.83
240	1.09	1.05	1	0.93	0.87	0.83
300	1.09	1.05	1	0.93	0.87	0.82
400	1.09	1.05	1	0.93	0.87	0.82
500	1.09	1.05	1	0.93	0.87	0.82
630	1.10	1.06	1	0.92	0.86	0.81

Table 12 - Current rating (D.C) for Two single core cable with XLPE Insulation and rated voltage 1500 V

Nominal area of conductor mm2	Buried Direct in the Ground		In Single Wau Ducts		In Air	
	Copper	Aluminum	Aluminum	Aluminum	Copper	Aluminum
1.50	32	26	27	22	28	22
2.50	42	32	36	28	37	28
4	54		46	36	48	38
6	67	55	57	47	61	50
10	90	69	76	58	83	64
16	115	89	97	75	108	84
25	148	115	124	96	144	112
35	177	137	148	115	176	137
50	208	161	174	135	212	165
70	255	198	213	165	269	209
95	314	243	258	200	342	265
120	358	278	293	227	399	310
150	401	310	328	254	455	352
185	455	352	371	288	528	409
240	528	409	431	334	628	487
300	598	463	487	377	726	561
400	687	533	558	433	857	664
500	790	613	640	497	1008	1782
630	911	705	736	570	1189	921
800	1046	809	843	652	1398	1082
1000	1190	923	956	741	1629	1264

Table 13 - Current rating (D.C) for Two core cable with XLPE Insulation and rated voltage 1500 V

Nominal area of conductor mm2	Buried Direct in the Ground		In Single Wau Ducts		In Air	
	Copper	Aluminum	Aluminum	Aluminum	Copper	Aluminum
1.50	31	26	27	22	27	22
2.50	41	32	35	27	36	28
4	54	42	45	36	48	38
6	67	55	56	46	61	50
10	89	68	75	57	83	64
16	115	89	96	74	108	84
25	147	114	122	95	141	109
35	176	137	146	113	172	133
50	209	162	174	134	209	162
70	256	198	213	165	265	205
95	306	237	255	198	326	253
120	347	269	290	225	375	290
150	389	301	326	252	430	332
185	441	342	370	287	498	386
240	513	397	432	334	595	461
300	581	449	490	379	689	533
400	666	516	563	436	807	626
500	764	593	647	502	948	735
630	883	684	749	580	1123	870

Table 1 - Group rating factors for circuits of two-core cables laid direct in the ground, horizontal formation

Number of circuits	Spacing between group centres mm				
	Touching	150	300	450	600
2	0.80	0.85	0.90	0.92	0.95
3	0.70	0.78	0.85	0.88	0.91
4	0.64	0.73	0.81	0.86	0.89
5	0.59	0.70	0.79	0.84	0.88
6	0.55	0.67	0.77	0.83	0.87
7	0.53	0.65	0.76	0.82	0.86
8	0.51	0.64	0.75	0.82	0.86
9	0.49	0.63	0.74	0.81	0.85
10	0.48	0.63	0.74	0.81	0.85
11	0.47	0.62	0.73	0.80	0.84
12	0.46	0.61	0.73	0.80	0.84

Table 2 - Group rating factors for circuits of three single-core cables laid direct in the ground, horizontal formation

Number of circuits	Spacing between group centres mm				
	Touching	150	300	450	600
2	0.77	0.81	0.86	0.88	0.89
3	0.67	0.71	0.78	0.81	0.83
4	0.61	0.64	0.72	0.76	0.80
5	0.57	0.60	0.69	0.74	0.77
6	0.53	0.57	0.66	0.72	0.75
7	0.51	0.55	0.64	0.70	0.74
8	0.49	0.53	0.63	0.69	0.73
9	0.47	0.52	0.62	0.68	0.73
10	0.45	0.51	0.61	0.67	0.72
11	0.44	0.50	0.60	0.66	0.72
12	0.43	0.49	0.59	0.65	0.71

Table 3 - Group rating factors for circuits of three single-core cables in single way ducts

Number of circuits	Spacing between group centres mm				
	Touching	150	300	450	600
2	0.78	0.83	0.87	0.90	0.91
3	0.66	0.73	0.78	0.82	0.85
4	0.59	0.67	0.74	0.78	0.82
5	0.55	0.63	0.70	0.76	0.80
6	0.51	0.61	0.68	0.74	0.78
7	0.48	0.58	0.66	0.73	0.77
8	0.46	0.57	0.65	0.72	0.76
9	0.44	0.55	0.64	0.71	0.76
10	0.43	0.54	0.63	0.70	-
11	0.42	0.53	0.62	0.69	-
12	0.40	0.51	0.61	0.69	-

Table 4 - Group rating factors for multi-core cables laid direct in the ground, in tier formation

Number of cables	Number of tiers	Spacing between group centres mm				
		Touching	150	300	450	600
2	1	0.80	0.84	0.87	0.90	0.91
3	1	0.68	0.74	0.79	0.83	0.86
4	2	0.60	0.66	0.73	0.77	0.79
5	2	0.55	0.61	0.68	0.71	0.73
6	2	0.51	0.57	0.63	0.67	0.69
7	3	0.48	0.54	0.59	0.63	0.64
8	3	0.46	0.51	0.56	0.60	0.61
9	3	0.44	0.48	0.53	0.57	0.58
10	4	0.42	0.47	0.52	0.55	0.56
11	4	0.41	0.46	0.50	0.54	0.55
12	4	0.40	0.45	0.49	0.53	0.54

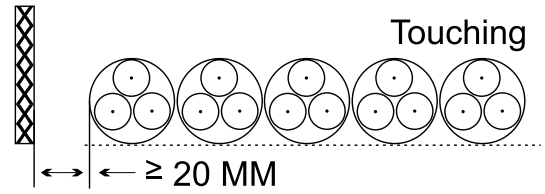
Table 5 - Group rating factors for multi-core cables laid direct in the ground, in horizontal formation

Number of circuits	Spacing between group centres mm				
	Touching	150	300	450	600
2	0.80	0.84	0.87	0.90	0.91
3	0.68	0.74	0.79	0.83	0.86
4	0.62	0.69	0.75	0.80	0.83
5	0.58	0.65	0.72	0.77	0.80
6	0.55	0.62	0.69	0.75	0.78
7	0.52	0.59	0.67	0.73	0.77
8	0.50	0.57	0.66	0.72	0.75
9	0.48	0.55	0.65	0.71	0.75
10	0.46	0.54	0.64	0.70	0.74
11	0.45	0.53	0.63	0.70	0.74
12	0.44	0.52	0.62	0.69	0.73

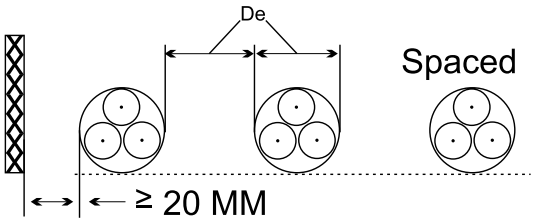
Table 6 - Group rating factors for three-core cables in single way ducts in horizontal formation

Number of circuits	Spacing between group centres mm				
	Touching	150	300	450	600
2	0.85	0.87	0.90	0.92	0.94
3	0.75	0.79	0.83	0.86	0.88
4	0.69	0.74	0.79	0.83	0.86
5	0.65	0.70	0.76	0.80	0.84
6	0.62	0.67	0.73	0.79	0.83
7	0.59	0.65	0.72	0.78	0.82
8	0.57	0.63	0.70	0.77	0.81
9	0.55	0.62	0.69	0.76	0.80
10	0.54	0.61	0.68	0.75	-
11	0.52	0.60	0.68	0.75	-
12	0.51	0.59	0.67	0.74	-

Table 7 - Group rating factors for multi-core cables in air on perforated trays



Number of trays	Numbers of Cables					
	1	2	3	4	6	9
1	1	0.88	0.82	0.79	0.76	0.73
2	1	0.87	0.80	0.77	0.73	0.68
3	1	0.86	0.79	0.76	0.71	0.66

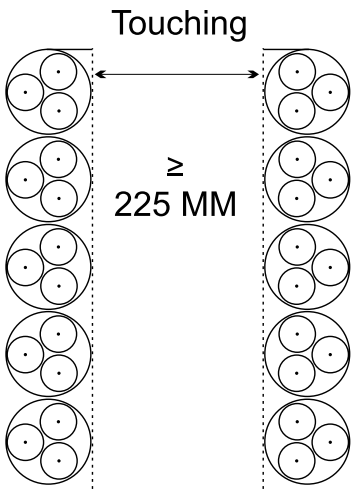


Number of trays	Numbers of Cables					
	1	2	3	4	6	9
1	1	1	0.98	0.95	0.91	-
2	1	0.99	0.96	0.92	0.87	-
3	1	0.98	0.95	0.91	0.85	-

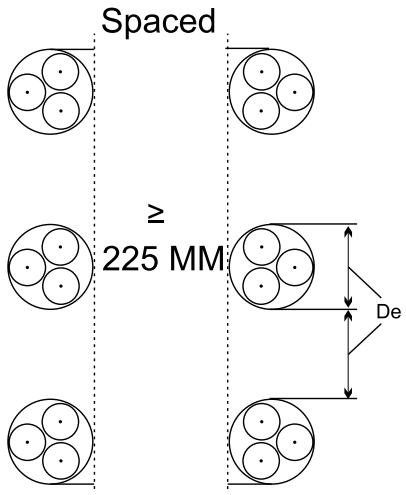
Note 1 : Factors apply to single layer groups of cables as shown above. Factors for cables installed in mote than one layer touching eachother will be significantly lower and must be determined by an appropriate method.

Note 2 : Factors are given for vertical spacing between trays of 300 mm and at least 20 mm between trays and wall. For closer spacing, the factors should be reduced.

Table 8 - Group rating factors for multi-core cables in air on vertical perforated trays



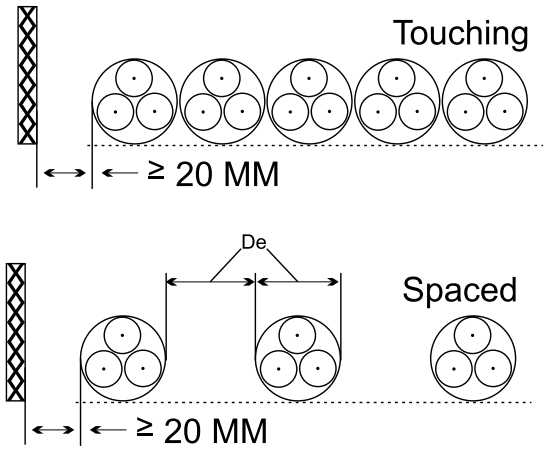
Number of trays	Numbers of Cables					
	1	2	3	4	6	9
1	1	0.88	0.82	0.78	0.73	0.72
2	1	0.88	0.81	0.76	0.71	0.70



Number of trays	Numbers of Cables					
	1	2	3	4	6	9
1	1	0.91	0.89	0.88	0.87	-
2	1	0.91	0.88	0.87	0.85	-

Note 1 : Factors are given for horizontal spacing between trays of 225 mm with trays mounted back to back. For closer spacing, the factors should be reduced.

Table 9 - Group rating factors for multi-core cables in air on ladder supported, cleats ect.

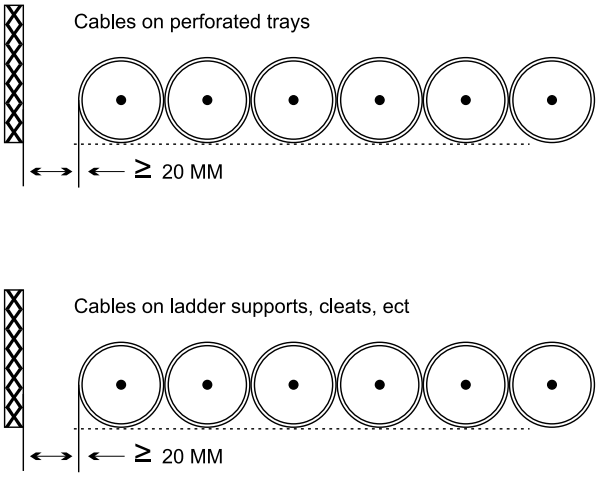


Number of trays	Numbers of Cables					
	1	2	3	4	6	9
1	1	0.87	0.82	0.80	0.79	0.78
2	1	0.86	0.80	0.78	0.76	0.73
3	1	0.85	0.79	0.76	0.73	0.70
1	1	1	1	1	1	1
2	1	0.99	0.98	0.97	0.96	-
3	1	0.98	0.97	0.96	0.93	-

Note 1 : Factors apply to single layer groups of cables as shown above. Factors for cables installed in more than one layer touching each other will be significantly lower and must be determined by an appropriate method.

Note 2 : Factors are given for vertical spacing between trays of 300 mm and at least 20 mm between trays and wall. For closer spacing, the factors should be reduced.

Table 10 - Group rating factors to be applied for circuits of three single core cables in air flat touching



Number of trays	Numbers of three-phase circuits		
	1	2	3
1	0.98	0.91	0.87
2	0.96	0.87	0.81
3	0.95	0.85	0.78
1	1	1	1
2	0.98	0.93	0.89
3	0.97	0.90	0.86

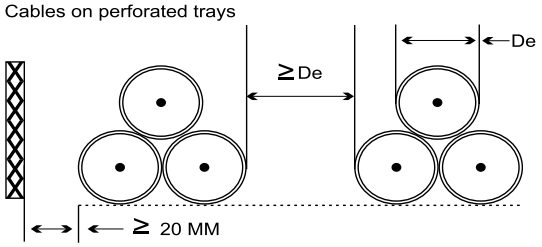
Note 1 : Factors apply to single layer groups of cables as shown above. Factors for cables installed in more than one layer touching each other will be significantly lower and must be determined by an appropriate method.

Note 2 : Factors are given for vertical spacing between trays of 300 mm and at least 20 mm between trays and wall. For closer spacing, the factors should be reduced.

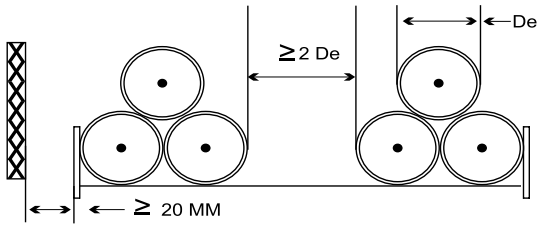
Note 3 : For circuits having more than one cable in parallel per phase, each three phase set of conductors should be considered as a circuit for the purpose of this table.

Table 11 - Group rating to be applied for circuits of three single core cables in air on perforated trays and ladder air on perforated trays and ladder supports in trefoil formation.

Cables on perforated trays



Cables on ladder supports, cleats, ect



Number of trays	Numbers of three-phase circuits		
	1	2	3
1	0.98	0.91	0.87
2	0.96	0.87	0.81
3	0.95	0.85	0.78
1	1	1	1
2	0.98	0.93	0.89
3	0.97	0.90	0.86

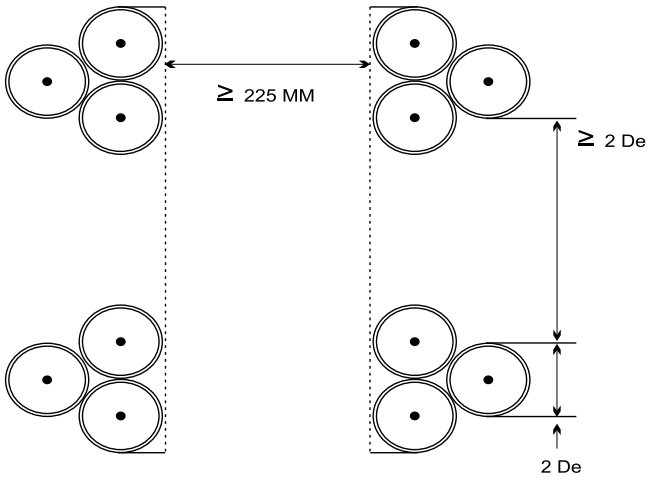
Note 1 : Factors apply to single layer groups of cables as shown above. Factors for cables installed in more than one layer touching each other will be significantly lower and must be determined by an appropriate method.

Note 2 : Factors are given for vertical spacing between trays of 300 mm and at least 20 mm between trays and wall. For closer spacing, the factors should be reduced.

Note 3 : For circuits having more than one cable in parallel per phase, each three phase set of conductors should be considered as a circuit for the purpose of this table.

Table 12 - Group rating factor to be applied for circuits of three single core cables in air on vertical perforated tray in trefoil formation.

Cables on perforated trays

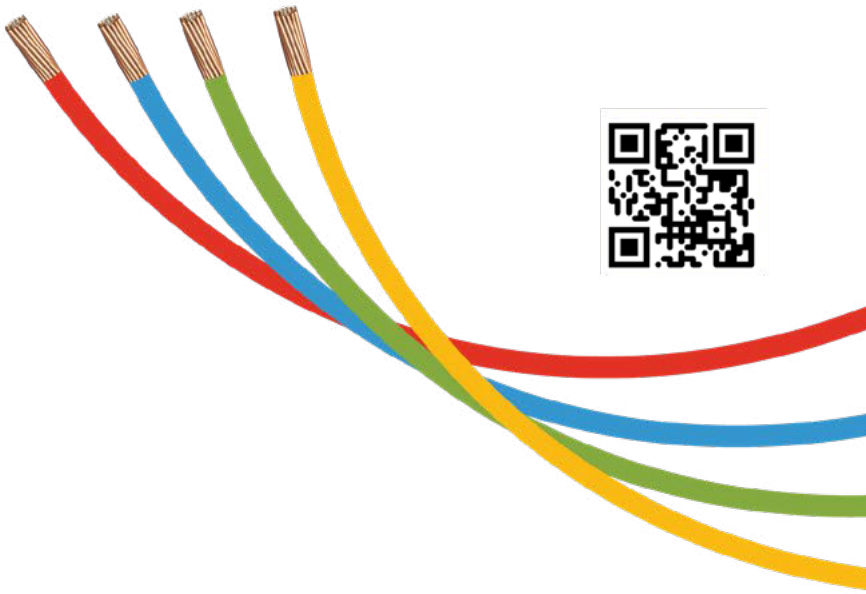


Number of trays	Numbers of three-phase circuits		
	1	2	3
1	1	0.91	0.89
2	1	0.90	0.86

Note 1 : Factors apply to single layer groups of cables as shown above. Factors for cables installed in more than one layer touching each other will be significantly lower and must be determined by an appropriate method.

Note 2 : Factors are given for vertical spacing between trays of 300 mm and at least 20 mm between trays and wall. For closer spacing, the factors should be reduced.

Note 3 : For circuits having more than one cable in parallel per phase, each three phase set of conductors should be considered as a circuit for the purpose of this table.



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