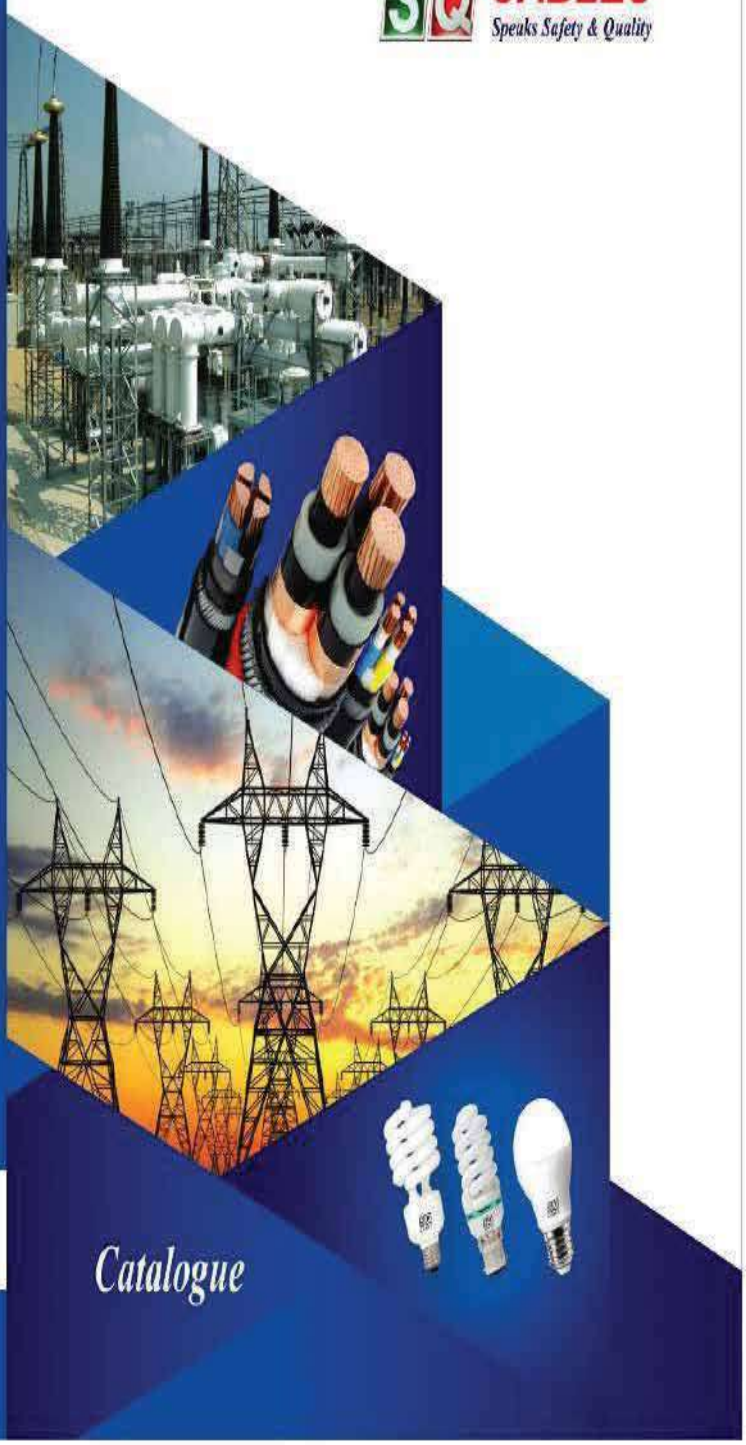
SQ Total Power Solution
Speaks Safety & Quality

Head Office
Suvastu Suraiya Trade Center, Level: 9-13, Plot: 57, Road: 21, Kemal Ataturk Avenue, Banani, Dhaka-1213
Phone: 01755-661166, Email: info@sq-bd.com

Factory Address:
124, Keodhala, Plot # 1979-1980, Madanpur, (Beside Dhaka-Chattogram Highway) Narayanganj

www.sqgroup.com | /sqgroupbd | 01755-661166

SQ CABLES
Speaks Safety & Quality



Catalogue

PVC INSULATED, SINGLE CORE NON -SHEATHED CABLES

Type : **BYA/BAYA**
Standard : **BDS-900, BS-6004 & IEC 60227**
Voltage : **450/750 Volts**

1. Conductor : Copper/ Aluminium
2. Insulation : PVC

Construction:
Plain annealed copper/Aluminium conductor, PVC insulated single core cable.

Application:
Suitable for use in surface mounted or embedded conduits or trunking.
Also suitable for field protected installation in lighting fittings and inside appliances.

Table: 01

Nominal cross sectional area of conductor	No. and Nominal diameter of wires	Max. DC Resistance of conductor at 20?C		Nominal thickness of insulation	Approx. overall diameter	Approx. weight of cable		Current Rating			
								Enclosed in conduit at 35?C		Clipped to a surface or on a open cable tray at 35?C	
		Cu	AL			Cu	AL	Cu	AL	Cu	AL
mm2	no./mm	ohm/km	ohm/km	mm	mm	kg/km	kg/km	amps	amps	amps	amps
0.5 re	1/0.80	36.0		0.6	2.1	10		7		9	
0.75 re	1/0.98	24.5		0.6	2.3	12		9		12	
1.0 re	1/1.13	18.1		0.7	2.6	15		13		16	
1.0 rm	3/0.65	18.1		0.7	2.85	17	-	13		17	
1.3 rm	3/0.74	14.03	22.95	0.7	3.05	20	12	15	9	19	11
1.5 re	1/1.38	12.1	18.1	0.7	2.9	21	12	16	10	20	12
1.5 rm	7/0.52	12.1	18.1	0.7	3.1	22	13	16	10	20	12
1.5 rm	3/0.80	12.1	18.1	0.7	3.15	22		16	10	20	12
2.0 rm	3/0.91	9.11	15.18	0.8	3.6	30	18	20	12	25	15
2.5 re	1/1.78	7.41	12.1	0.8	3.5	32	18	22	14	28	17
2.5 rm	7/0.67	7.41	12.1	0.8	3.7	34	19	22	14	28	17
3.0 rm	7/0.74	5.99	9.84	0.8	3.9	40	21	26	16	31	19
4.0 rm	7/0.85	4.61	7.41	0.8	4.3	50	26	30	18	37	23
4.5 rm	7/0.91	3.89	6.51	0.8	4.5	56	28	35	21	41	25
6.0 rm	7/1.05	3.08	4.61	0.8	4.9	71	34	38	23	47	29
7.0 rm	7/1.12	2.61	4.29	1.0	5.5	85	43	42	26	51	31
9.5 rm	7/1.32	1.86	3.09	1.0	6.1	113	52	51	31	62	39
10 rm	7/1.35	1.83	3.08	1.0	6.2	117	53	52	32	63	40
14.5 rm	7/1.63	1.23	2.03	1.0	7.0	164	73	68	42	83	51
16 rm	7/1.71	1.15	1.91	1.0	7.2	178	77	70	43	85	52
16 rm	19/1.04	1.15	1.91	1.0	7.25	180	78	70	43	85	52
25 rm	7/2.14	0.727	1.2	1.2	9.0	280	116	91	56	110	68
25 rm	19/1.30	0.727	1.2	1.2	9.1	282	117	91	56	110	68
35 rm	Min 6 wire	0.524	0.868	1.2	9.6	363	153	112	69	136	84
50 rm	Min 6 wire	0.387	0.641	1.4	11.0	490	216	136	84	164	101
70 rm	Min 12 wire	0.268	0.443	1.4	12.7	715	283	173	106	207	127
95 rm	Min 15 wire	0.193	0.320	1.6	14.9	940	390	216	133	253	155
120 rm	Min 18 wire	0.153	0.253	1.6	16.3	1195	470	244	150	291	179
150 rm	Min 18 wire	0.124	0.206	1.8	18.3	1496	590	290	196	330	211
185 rm	Min 30 wire	0.0991	0.164	2.0	20.3	1850	725	340	228	375	241
240 rm	Min 34 wire	0.0754	0.125	2.2	23.2	2388	965	435	260	450	272
300 rm	Min 34 wire	0.0601	0.100	2.4	25.9	2975	1170	525	295	603	312
400 rm	Min 53 wire	0.0470	0.0778	2.6	29.2	3930	1530	635	382	660	408
500 rm	Min 53 wire	0.0366	0.0605	2.8	32.4	4905	1900	760	458	795	480
630 rm	Min 53 wire	0.0283	0.0469	2.8	36.4	6130	2350	855	522	895	550

PVC INSULATED, PVC SHEATHED TWO & THREE CORE CABLES

Type : **BYFY**
Standard : **BDS-900, BS-6004 & IEC 60227**
Voltage : **300/500 Volts**

1. Conductor: Copper
2. Insulation: PVC
3. Sheath: PVC

Construction:
Plain annealed copper conductor, PVC insulated, two or three cores laid flat and PVC sheathed overall.

Application:
Suitable for use in fixed installation in dry or damp premises and for installation walls or boards and in channels or embedded in plaster.

Table: 02

Nominal cross sectional area of conductor	No. and Nominal diameter of wires	Max. DC Resistance of conductor at 20?C	Nominal thickness of insulation	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Current Rating	
							Enclosed in conduit at 35?C	Clipped to a surface or on a open cable tray at 35?C
mm2	no./mm	ohm/km	mm	mm	mm	kg/km	amps	amps
2 x 1.0 re	1/1.13	18.1	0.6	0.9	6.8 x 4.4	55	13	15
2 X 1.0 rm	3/0.65	18.1	0.6	0.9	7.6 x 4.8	58	13	15
2 x 1.3 rm	3/0.74	14.03	0.7	0.9	7.9 x 4.8	69	15	17
2 x 1.5 re	1/1.38	12.1	0.7	0.9	7.7 x 4.8	73	16	18
2 x 1.5 rm	7/0.52	12.1	0.7	0.9	7.9 x 4.9	77	16	18
2 x 2.0 rm	3/0.91	9.11	0.8	1.0	9.4 x 5.7	99	20	23
2 x 2.5 re	1/1.78	7.41	0.8	1.0	9.3 x 5.7	100	22	26
2 x 2.5 rm	7/0.67	7.41	0.8	1.0	9.5 x 5.8	104	22	26
2 x 3.0 rm	7/0.74	5.99	0.8	1.0	10.0 x 6.0	124	23	28
2 x 4.0 rm	7/0.85	4.61	0.8	1.0	10.8 x 6.5	152	30	33
2 x 4.5 rm	7/0.91	3.89	0.8	1.1	11.4 x 6.9	171	32	38
2 x 6.0 rm	7/1.05	3.08	0.8	1.1	12.1 x 7.3	205	37	43
2 x 7.0 rm	7/1.12	2.61	0.8	1.1	12.6 x 7.5	221	38	46
2 x 9.5 rm	7/1.32	1.86	1.0	1.2	14.8 x 8.7	316	48	57
2 x 10 rm	7/1.35	1.83	1.0	1.2	14.9 x 8.8	325	50	60
2 x 14.5 rm	7/1.63	1.23	1.0	1.2	16.7 x 9.6	426	64	76
2 x 16 rm	7/1.71	1.15	1.0	1.3	17.2 x 10	469	66	80
3 x 1.0 re	1/1.13	18.1	0.6	0.9	9.2 x 4.4	80	11	12
3 x 1.0 rm	3/0.65	18.1	0.6	0.9	10.4 x 4.8	87	12	13
3 x 1.3 rm	3/0.74	14.03	0.7	0.9	112 x 5.2	105	14	16
3 x 1.5 re	1/1.38	12.1	0.7	0.9	10.6 x 4.8	101	15	16
3 x 1.5 rm	7/0.52	12.1	0.7	0.9	10.8 x 4.9	112	15	16
3 x 2.0 rm	3/0.91	9.11	0.8	1	12.2 x 5.8	135	19	21
3 x 2.5 re	1/1.78	7.41	0.8	1	12.6 x 5.7	150	20	22
3 x 2.5 rm	7/0.67	7.41	0.8	1	13 x 5.8	166	20	22
3 x 3.0 rm	7/0.74	5.99	0.8	1	13.2 x 6	171	23	27
3 x 4.0 rm	7/0.85	4.61	0.8	1.1	15.2 x 6.7	230	28	33
3 x 6.0 rm	7/1.05	3.08	0.8	1.1	17 x 7.4	300	35	40
3 x 10 rm	7/1.35	1.83	1.0	1.2	21 x 8.9	490	48	54
3 x 16 rm	7/1.71	1.15	1.0	1.3	24.5 x 10.2	705	60	70

PVC INSULATED AND PVC SHEATHED CABLES

Type : **BYM**
Standard : **BDS-900, BS-6004 & IEC 60227**
Voltage : **300/500 Volts**

1. Conductor: Copper
2. Insulation: PVC
3. Sheath: PVC

Construction:
Plain annealed copper conductor, PVC insulated, single/two, three or four cores laid up, PVC inner covering (For multicore cables) & PVC sheathed overall.

Application:
Suitable for use in fixed installation in dry or damp premises clipped direct to a surface or on a cable tray unenclosed and for use in conduit enclosed.

Table: 03

Nominal cross sectional area of conductor	No. and Nominal diameter of wires	Nominal thickness of insulation	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Max. DC Resistance of conductor at 20?C	Current Rating	
							Enclosed in conduit at 35?C	Clipped to a surface or on a open cable tray at 35?C
mm2	no./mm	mm	mm	mm	kg/km	ohm/km	amps	amps
1 x 1.0 re	1/1.13	0.6	0.8	4.1	25	18.1	13	16
1 x 1.3 rm	3/0.74	0.7	0.8	4.8	36	14.03	15	19
1 x 1.5 re	1/1.38	0.7	0.8	4.6	36	12.1	16	20
1 x 1.5 rm	7/0.52	0.7	0.8	4.8	37	12.1	16	20
1 x 2.0 rm	3/0.91	0.8	0.8	5.4	47	9.11	20	25
1 x 2.5 re	1/1.78	0.8	0.8	5.2	48	7.41	22	28
1 x 2.5 rm	7/0.67	0.8	0.8	5.5	52	7.41	22	28
1 x 3.0 rm	7/0.74	0.8	0.9	5.9	62	5.99	26	31
1 x 4.0 rm	7/0.85	0.8	0.9	6.2	73	4.61	30	37
1 x 4.5 rm	7/0.91	0.8	0.9	6.4	79	3.89	35	41
1 x 6.0 rm	7/1.05	0.8	0.9	6.8	96	3.08	38	47
1 x 7.0 rm	7/1.12	0.8	0.9	7	107	2.61	42	51
1 x 9.5 rm	7/1.32	1.0	0.9	8.1	143	1.86	51	62
1 x 10 rm	7/1.35	1.0	0.9	8.3	148	1.83	52	63
1 x 14.5 rm	7/1.63	1.0	1	9.2	205	1.23	68	83
1 x 16 rm	7/1.71	1.0	1	9.5	220	1.15	70	85
1 x 16 rm	19/1.04	1.0	1	9.6	222	1.15	70	85
1 x 25 rm	7/2.14	1.2	1.1	11.5	325	0.727	91	110
1 x 25 rm	19/1.30	1.2	1.1	11.6	330	0.727	91	110
1 x 35 rm	Min. 6 wire	1.2	1.1	12	442	0.524	112	136
2 x 1.0 re	1/1.13	0.6	1.2	8.4	100	18.1	13	15
2 x 1.5 re	1/1.38	0.7	1.2	9.7	125	12.1	16	18
2 x 1.5 rm	7/0.52	0.7	1.2	9.9	136	12.1	16	18
2 x 2.5 re	1/1.78	0.8	1.2	10.9	170	7.41	22	26
2 x 2.5 rm	7/0.67	0.8	1.2	11.3	182	7.41	22	26
2 x 4.0 rm	7/0.85	0.8	1.2	12.4	235	4.61	30	33
2 x 6.0 rm	7/1.05	0.8	1.2	13.8	295	3.08	37	43
2 x 10 rm	7/1.35	1.0	1.4	17	480	1.83	50	60
2 x 16 rm	7/1.71	1.0	1.4	19	655	1.15	66	80
2 x 25 rm	7/2.14	1.2	1.4	23	980	0.727	75	88
2 x 35 rm	Min. 6 wire	1.2	1.6	24.4	1175	0.524	92	108

BYM

PVC INSULATED AND PVC SHEATHED CABLES

Type : **BYM**
Standard : **BDS-900, BS-6004 & IEC 60227**
Voltage : **300/500 Volts**

1. Conductor: Copper
2. Insulation: PVC
3. Sheath: PVC

Construction:
Plain annealed copper conductor, PVC insulated, single/two, three or four cores laid up, PVC inner covering (For multicore cables) & PVC sheathed overall.

Application:
Suitable for use in fixed installation in dry or damp premises clipped direct to a surface or on a cable tray unenclosed and for use in conduit enclosed.

Table: 04

Nominal cross sectional area of conductor	No. and Nominal diameter of wires	Max. DC Resistance of conductor at 20?C	Nominal thickness of insulation	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Current Rating	
							Enclosed in conduit at 35?C	Clipped to a surface or on a open cable tray at 35?C
mm2	no./mm	mm	mm	mm	kg/km	ohm/km	amps	amps
3 x 1.0 re	1/1.13	0.6	1.2	9	115	18.1	11	12
3 x 1.5 re	1/1.38	0.7	1.2	9.8	145	12.1	15	16
3 x 1.5 rm	7/0.52	0.7	1.2	10	160	12.1	15	16
3 x 2.5 re	1/1.78	0.8	1.2	11.3	208	7.41	20	22
3 x 2.5 rm	7/0.67	0.8	1.2	12.3	245	7.41	20	22
3 x 4.0 rm	7/0.85	0.8	1.2	13.5	310	4.61	27	30
3 x 6.0 rm	7/1.05	0.8	1.2	15.3	400	3.08	33	37
3 x 10 rm	7/1.35	1.0	1.2	18	595	1.83	46	51
3 x 16 rm	7/1.71	1.0	1.2	20	840	1.15	58	67
3 x 25 rm	7/2.14	1.2	1.6	24.5	1250	0.727	66	77
3 x 35 sm	Min. 6 wire	1.2	1.6	22.8	1478	0.524	81	90
4 x 1.0 re	1/1.13	0.6	1.2	9.5	140	18.1	11	12
4 x 1.5 re	1/1.38	0.7	1.2	10.7	180	12.1	15	16
4 x 1.5 rm	7/0.52	0.7	1.2	11.1	190	12.1	15	16
4 x 2.5 re	1/1.78	0.8	1.2	12.3	250	7.41	20	22
4 x 2.5 rm	7/0.67	0.8	1.2	12.8	265	7.41	20	22
4 x 4.0 rm	7/0.85	0.8	1.4	14.5	365	4.61	27	30
4 x 6.0 rm	7/1.05	0.8	1.4	16.2	480	3.08	33	37
4 x 10 rm	7/1.35	1.0	1.4	19.5	720	1.83	46	51
4 x 16 rm	7/1.71	1.0	1.4	22.5	1045	1.15	58	67
4 x 25 rm	7/2.14	1.2	1.6	27.5	1590	0.727	66	77
4 x 35 rm	Min. 6 wire	1.2	1.6	26.2	1965\	0.524	81	90

PVC INSULATED, SINGLE CORE NON SHEATHED CABLES

Type : **Flexible Cable**
Standard : **BDS-899 & BS-6004**
Voltage : **300/500 Volts**

1. Conductor: Copper
2. Insulation: PVC

Construction:
Plain annealed flexible copper conductor, PVC insulated Cable.

Application:
Suitable for use in flexible electrical connections.

Table: 05

Nominal cross sectional area of conductor	No. and Nominal diameter of wires	Nominal thickness of insulation	Approx. overall diameter	Approx. weight of cable	Max. DC Resistance of conductor at 20?C	Current Rating	
						In conduit	In Air
mm2	no./mm	mm	mm	kg/km	ohm/km	amps	amps
1 x 0.40	14/0.193	0.6	2.15	9	46.98	2	3
1 x 0.50	17/0.193	0.6	2.3	10	39	3	4
1 x 0.65	23/0.193	0.6	2.4	11	28.6	5	6
1 x 0.75	26/0.193	0.6	2.5	13	26	7	8
1 x 1.0	34/0.193	0.6	2.7	16	19.5	9	11
1 x 1.2	40/0.193	0.6	2.8	17	16.44	11	13
1 x 1.5	51/0.193	0.7	3.2	23	13.3	14	16
1 x 2.0	70/0.193	0.7	3.5	28	9.4	16	18
1 x 2.5	86/0.193	0.8	3.8	35	7.98	19	21
1 x 3.0	110/0.193	0.8	4.1	43	5.98	21	23
1 x 4.0	137/0.193	0.8	4.4	51	4.95	23	25

Type : **Flexible twisted Cable**
Standard : **BDS-899 & BS-6004**
Voltage : **300/500 Volts**

1. Conductor: Copper
2. Insulation: PVC

Construction:
Plain annealed flexible copper conductor, PVC insulated & two core twisted cable.

Application:
Suitable for use in flexible electrical connections.

Table: 06

Nominal cross sectional area of conductor	No. and Nominal diameter of wires	Nominal thickness of insulation	Approx. overall diameter	Approx. weight of cable	Max. DC Resistance of conductor at 20?C	Current Rating	
						In conduit	In Air
mm2	no./mm	mm	mm	kg/km	ohm/km	amps	amps
2 x 0.40	14/0.193	0.6	2.15	17	46.98	2	3
2 x 0.65	23/0.193	0.6	2.4	23	28.6	5	6
2 x 1.2	40/0.193	0.6	2.8	34	16.44	11	13
2 x 2.0	70/0.193	0.7	3.5	56	9.4	16	18

PVC INSULATED & PVC SHEATHED CABLES

Type : Flat Flexible Cord
Standard : BDS-899 & BS-6004
Voltage : 300/500 Volts

1. Conductor: Copper
2. Insulation: PVC
3. Sheath: PVC

Construction:
Plain annealed flexible copper conductor, PVC insulated, cores laid side by side & PVC sheathed flat flexible cord.

Application:
Suitable for use in flexible electrical connections.

Table: 07

Nominal cross sectional area of conductor	No. and Nominal diameter of wires	Nominal thickness of insulation	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Max. DC Resistance of conductor at 20?C	Current Rating	
							In conduit	In Air
mm2	no./mm	mm	mm	mm	kg/km	ohm/km	amps	amps
2 x 0.40	14/0.193	0.6	0.8	6.1 x 3.9	35	46.98	3	4
2 x 0.65	23/0.193	0.6	0.8	6.4 x 4.2	44	28.6	6	8
2 x 1.2	40/0.193	0.6	0.8	7.4 x 4.6	61	16.44	13	15

Type : Flexible Cords
Standard : BDS-899, BS-6004 & IEC 60227
Voltage : 300/500 Volts

1. Conductor: Copper
2. Insulation: PVC
3. 3. Sheath: PVC

Construction:
Plain annealed flexible copper conductor, PVC insulated, cores twisted together & PVC sheathed cable.

Application:
Suitable for use in flexible electrical connections.

Table: 08

Nominal cross sectional area of conductor	No. and Nominal diameter of wires	Nominal thickness of insulation	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Max. DC Resistance of conductor at 20?C	Current Rating	
							In conduit	In Air
mm2	no./mm	mm	mm	mm	kg/km	ohm/km	amps	amps
2 x 0.40	14/0.193	0.6	0.8	5.9	49	46.98	3	4
2 x 0.50	17/0.193	0.6	0.8	6.1	53	39	3	4
2 x 0.65	23/0.193	0.6	0.8	6.4	59	28.6	5	6
2 x 0.75	26/0.193	0.6	0.8	6.6	63	26	6	7
2 x 1.0	34/0.193	0.6	0.8	6.9	73	19.5	10	11
2 x 1.2	40/0.193	0.7	0.8	7.4	82	16.44	13	15
2 x 1.5	51/0.193	0.7	0.8	7.7	95	13.3	15	16
2 x 2.0	70/0.193	0.8	0.9	8.9	126	9.4	18	20
2 x 2.5	86/0.193	0.8	1	9.5	145	7.98	20	21
2 x 3.0	110/0.193	0.8	1	10.1	167	5.98	24	25
2 x 4.0	137/0.193	0.8	1.1	10.8	198	4.95	25	26

PVC INSULATED & PVC SHEATHED CABLES

Type : **Flexible Cords**
Standard : **BDS-899, BS-6004 & IEC 60227**
Voltage : **300/500 Volts**

1. Conductor: Copper
2. Insulation: PVC
3. Sheath: PVC

Construction:
Plain annealed flexible copper conductor, PVC insulated, cores twisted together & PVC sheathed cable.

Application:
Suitable for use in flexible electrical connections.

Table: 09

Nominal cross sectional area of conductor	No. and Nominal diameter of wires	Nominal thickness of insulation	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Max. DC Resistance of conductor at 20?C	Current Rating	
							In conduit	In Air
mm2	no./mm	mm	mm	mm	kg/km	ohm/km	amps	amps
3 x 0.40	14/0.193	0.6	0.8	6.2	55	46.98	2	3
3 x 0.50	17/0.193	0.6	0.8	6.4	62	39	3	4
3 x 0.65	23/0.193	0.6	0.8	6.7	69	28.6	5	6
3 x 0.75	26/0.193	0.6	0.8	6.9	75	26	6	7
3 x 1.0	34/0.193	0.6	0.8	7.2	86	19.5	10	11
3 x 1.2	40/0.193	0.7	0.9	8	103	16.44	11	14
3 x 1.5	51/0.193	0.7	0.9	8.6	120	13.3	15	16
3 x 2.0	70/0.193	0.8	1	9.8	154	9.4	16	20
3 x 2.5	86/0.193	0.8	1.1	10.5	182	7.98	20	21
3 x 3.0	110/0.193	0.8	1.1	11	210	5.98	21	24
3 x 4.0	137/0.193	0.8	1.2	11.8	252	4.95	25	26
4 x 0.40	14/0.193	0.6	0.8	6.8	68	46.98	2	3
4 x 0.50	17/0.193	0.6	0.8	7	75	39	3	4
4 x 0.65	23/0.193	0.6	0.8	7.3	84	28.6	5	6
4 x 0.75	26/0.193	0.6	0.8	7.5	91	26	6	7
4 x 1.0	34/0.193	0.6	0.9	8.1	110	19.5	10	11
4 x 1.2	40/0.193	0.7	1	9	130	16.44	11	14
4 x 1.5	51/0.193	0.7	1	9.5	151	13.3	15	16
4 x 2.0	70/0.193	0.8	1.1	10.8	196	9.4	16	20
4 x 2.5	86/0.193	0.8	1.1	11.3	223	7.98	20	21
4 x 3.0	110/0.193	0.8	1.2	12.1	262	5.98	21	24
4 x 4.0	137/0.193	0.8	1.2	13	310	4.95	25	26

FIRE ALARM SIGNALLING CIRCUIT CABLE (SHEILDED & UNSHEILDED)

Standard : IEC-60331, 60332 & IEC: 60228
Voltage : 300/500 Volts

1. Conductor: Copper
2. Fire proof layer: Mica tape
3. Insulation: FRLS
4. Sheath: FR/ FRLS

Construction:
Plain annealed copper conductor, Mica tape layer, FR/FRLS Insulation & FR/FRLS sheathed Overall.

Application:
Suitable for use in indoors, outdoors, fixed wiring building and also power limited circuit.

Table: 10

Nominal cross sectional area of conductor	No. and Nominal diameter of wires	Max. DC Resistance of conductor at 20?C	Mica tape dimention	Nominal thickness of insulation	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Current Rating
								In Air at 35?C
no. x mm2	no./mm	ohm/km	mm	mm	mm	mm	kg/km	amps
2 x 1.5	7/0.52	13.3	12x0.11	0.7	0.8	8.2	98	18
2 x 2.0	3/0.91	9.4	12x0.11	0.8	0.9	9.4	129	24
2 x 2.5	7/0.67	7.98	12x0.11	0.8	1	10.0	149	26
2 x 3.0	7/0.74	5.98	12x0.11	0.8	1	10.6	171	29
2 x 4.0	7/0.85	4.95	12x0.11	0.8	1.1	11.3	202	33
3 x 1.5	7/0.52	13.3	12x0.11	0.7	0.9	9.1	125	16
3 x 2.0	3/0.91	9.4	12x0.11	0.8	1	10.3	161	21
3 x 2.5	7/0.67	7.98	12x0.11	0.8	1.1	11.0	187	22
3 x 3.0	7/0.74	5.98	12x0.11	0.8	1.1	11.5	215	24
3 x 4.0	7/0.85	4.95	12x0.11	0.8	1.2	12.3	257	30
4 x 1.5	7/0.52	13.3	12x0.11	0.7	1	10.0	157	16
4 x 2.0	3/0.91	9.4	12x0.11	0.8	1.1	11.3	202	21
4 x 2.5	7/0.67	7.98	12x0.11	0.8	1.1	11.8	229	22
4 x 3.0	7/0.74	5.98	12x0.11	0.8	1.2	12.6	268	24
4 x 4.0	7/0.85	4.95	12x0.11	0.8	1.2	13.5	316	30

TELECOMMUNICATION CABLES

House Wiring
Standard : VDE-0815
PE Insulated & PVC Sheathed

1. Conductor: Copper
2. Insulation: PE
3. Sheath: PVC

Construction:
Bare solid Copper conductor, PE insulated & PVC sheathed overall.

Application:
Suitable for use in transmitting telecommunication signals. Normally they are suitable for expose or concealed instalation on the walls Permissible voltage 200V.

Table: 01

No. of core	Nominal Cross Sectional area	No. and size of Wire	Thickness of insulation	Thickness of sheath	Approx. overall diameter	Approx. weight
no.	mm2	no/mm	mm	mm	mm	kg/km
1 Pair (2 Cores)	0.125	1/0.4	0.25	0.8	4	18
2 Pair (4 Cores)	0.125	1/0.4	0.25	0.8	4.3	24
3 Pair (6 Cores)	0.125	1/0.4	0.25	1	5.4	35
4 Pair (8 Cores)	0.125	1/0.4	0.25	1.2	6.5	47
5 Pair (10 Cores)	0.125	1/0.4	0.25	1.2	7	53
6 Pair (12 Cores)	0.125	1/0.4	0.25	1.4	7.7	67
7 Pair (14 Cores)	0.125	1/0.4	0.25	1.4	8.1	74
8 Pair (16 Cores)	0.125	1/0.4	0.25	1.4	8.3	80
10 Pair (20 Cores)	0.125	1/0.4	0.25	1.4	9.3	97
15 Pair (30 Cores)	0.125	1/0.4	0.25	1.4	11	130
20 Pair (40 Cores)	0.125	1/0.4	0.25	1.6	13	170
25 Pair (50 Cores)	0.125	1/0.4	0.25	1.6	14.1	196
30 Pair (60 Cores)	0.125	1/0.4	0.25	1.6	14.5	228
40 Pair (80 Cores)	0.125	1/0.4	0.25	1.6	15.8	280
50 Pair (100 Cores)	0.125	1/0.4	0.25	1.6	17.8	330
100 Pair (200 Cores)	0.125	1/0.4	0.25	1.6	23	565
1 Pair (2 Cores)	0.282	1/0.6	0.25	0.8	4.3	22
2 Pair (4 Cores)	0.282	1/0.6	0.25	0.8	4.6	31
3 Pair (6 Cores)	0.282	1/0.6	0.25	1	5.7	44
4 Pair (8 Cores)	0.282	1/0.6	0.25	1.2	6.8	70
5 Pair (10 Cores)	0.282	1/0.6	0.25	1.2	7.2	75
6 Pair (12 Cores)	0.282	1/0.6	0.25	1.4	8.2	90
7 Pair (14 Cores)	0.282	1/0.6	0.25	1.4	8.5	99
8 Pair (16 Cores)	0.282	1/0.6	0.25	1.4	9.5	105
10 Pair (20 Cores)	0.282	1/0.6	0.25	1.4	10.4	132
15 Pair (30 Cores)	0.282	1/0.6	0.25	1.4	12	185
20 Pair (40 Cores)	0.282	1/0.6	0.25	1.6	14.2	245
25 Pair (50 Cores)	0.282	1/0.6	0.25	1.6	15.7	300
30 Pair (60 Cores)	0.282	1/0.6	0.25	1.6	16.8	352
40 Pair (80 Cores)	0.282	1/0.6	0.25	1.6	18.3	438
50 Pair (100 Cores)	0.282	1/0.6	0.25	1.6	20	525
100 Pair (200 Cores)	0.282	1/0.6	0.25	1.6	26.6	935

SWITCHBOARD CABLE

Type : **J-Y (St) Y**
Standard : **VDE-0815**

1. Cable core (Unite stranding)
2. Identification strip
3. Core wrap : PT foil
4. Shield: Static shield
5. Outersheath: PVC

Construction:
Bare solid Copper conductor, PVC insulated, Pairing, unit stranding to form cable core, core wrapped by PT foil, static shield of Aluminium tape, Gray PVC shealted overall.

Application:
Suitable for use in indoor installations with increased protection against interference.

Table: 02

Nominal cross sectional area of conductor	Conductor Diameter	Insulation thickness (Nominal)	Diameter Over core strand	Diameter Over PT foil	Sheath Thickness (Nominal)	Approx diameter over sheath	Approx weight of cable
no.	mm	mm	mm	mm	mm	mm	kg/km
10	0.5	0.25	6.4	6.5	1.2	9	115
20	0.5	0.25	8.3	8.4	1.2	11.4	185
30	0.5	0.25	10.3	10.4	1.4	13.7	268
50	0.5	0.25	13.3	13.4	1.6	17.2	420
100	0.5	0.25	18.8	18.9	1.6	22.8	740

KEY: J-Indoor cable (St)-static shield, Y-PVC insulated, Y-PVC sheath

JUMPER WIRES

1. Conductor: Copper
2. Insulation: PE

Construction:
Copper conductor (0.132 mm dia), PVC insulated, cores are uniformly twisted togather.

Application:
Suitable for use in distribution frames for wiring the speech and signalling connections.

Table: 03

No. of core	Noninal cross sectional area	No. and size of wire	Thickness of insulation	Approx overall Diameter	Approx weight of cable
no.	mm2	no./mm	mm	mm	kg/km
2 core (1 Pair)	0.123	9/0.132	0.2	2.3	6
4 core (2 Pair)	0.123	9/0.132	0.2	2.8	12
6 core (3 Pair)	0.123	9/0.132	0.2	3.5	18
8 core (4 Pair)	0.123	9/0.132	0.2	3.65	24
10 core (5 Pair)	0.123	9/0.132	0.2	4	30

DROP WIRE

1. Conductor: Copper
2.Insulation: PVC/ PE

Construction:
PE/PVC insulated, Two conductors placed parallel, common plastic jacket with a wave.

Application:
Suitable for connecting subscribers to communication networks.

Table: 04

No. of core	No. and size of wire	Thickness of insulation	Approx. overall diameter	Approx. weight
no.	no./mm	mm	mm	kg/km
2 core (1 Pair)	1/0.60	0.787	4.11x2.32	14
2 core (1 Pair)	1/0.90	1.05	6.30x3.20	26

TELEPHONE CORD

1. Conductor: Copper
2.Insulation: PVC/ PE
3. Sheath: PVC

Construction:
High conductivity stranded copper conductor, PE/PVC insulation & PVC shesthed overall.

Application:
Suitable for use in transmitting telecommunication signals.

Table: 05

No. of core	Nominal Cross Sectional area	No. and size of Wire	Thickness of insulation	Thickness of sheath	Approx. overall diameter	Approx. weight
no.	mm2	no/mm	mm	mm	mm	kg/km
2 core (1 Pair)	0.123	9/0.132	0.381	0.915	4.31	22
4 core (2 Pair)	0.123	9/0.132	0.381	0.915	4.45	27
6 core (3 Pair)	0.123	9/0.132	0.381	0.915	4.75	32

INSTALLATION CABLE

Type : **J-YY**
Standard : **VDE-0815**

1. Cable core (Unit stranding)
2.Insulation stripe
3. Core wrap: PT foil
4.Outersheath: PVC

Construction:
Bare solid Copper conductor, PVC insulated, Pairing, unit stranding to form cable core, core wrapped by PT foil and Gray PVC shealted overall.

Application:
Suitable for indoor insulations, as distribution cables and switchboard cables in telephone exchange.

Table: 06

No. of Pairs	Conductor diameter	Nominul Thickness of insulation	Diameter over core stand	Diameter over PT foil	Nominul Thickness of sheath	Approx diameter over sheath	Approx. weight of cable
no.	mm	mm	mm	mm	mm	mm	kg/km
1	0.5	0.25	2	-	1	4.1	22
2	0.5	0.25	2.4	-	1	4.5	30
5	0.5	0.25	4.4	4.5	1.2	6.8	60
10	0.5	0.25	6.4	6.5	1.2	8.6	99
20	0.5	0.25	8.4	8.5	1.2	11	165
30	0.5	0.25	10.3	10.4	1.4	13.5	245
50	0.5	0.25	13.3	13.4	1.6	17	390
100	0.5	0.25	18.8	18.9	1.6	22.5	705

KEY:
J- Indoor cable
Y- PVC insulation
Y- PVC Sheath

SUBSCRIBER CABLE (UNFIELD)

Type : **A-2Y (L) 2Y**
Standard : **VDE-0816**

1. Cable core (Unit stranding)
2.Identification stripe
3. Core wrap: PT foil
4. Screen: Copolymer AL foil
5.Outersheath: PE

Construction:
Bare solid Copper conductor, PE insulated, Pairing, unit stranding to cable core, core wrapped by PT foil, screen of copolymer Aluminium foil, Black PE shealted overall.

Application:
Suitable for use in underground conduits.

Table: 07

No. of Pairs	Conductor diameter	Insulation thickness (Nominul)	Diameter over AL foil	Sheath Thickness (Nominul)	Approx diameter over sheath	Approx. weight of cable
no.	mm	mm	mm	mm	mm	kg/km
10	0.4 0.5 0.6 0.9	0.25 0.25 0.3 0.45	6.20 6.80 8.00 11.70	1.8 1.8 1.8 1.8	10.2 11.0 12.5 16.0	100 120 150 270
20	0.4 0.5 0.6 0.9	0.25 0.25 0.3 0.45	8.40 9.20 10.90 16.00	1.8 1.8 1.8 1.8	12.3 13.5 15.0 20.5	145.0 185.0 241.0 460.0
30	0.4 0.5 0.6 0.9	0.25 0.25 0.3 0.45	10.10 11.10 13.20 19.50	1.8 1.8 1.8 1.8	14.0 15.1 17.5 24.0	190.0 247.0 327.0 640.0
40	0.4 0.5 0.6 0.9	0.25 0.25 0.3 0.45	11.60 12.80 15.10 22.50	1.8 1.8 1.8 1.8	15.5 16.7 19.5 27.0	240.0 308.0 410.0 816.0
50	0.4 0.5 0.6 0.9	0.25 0.25 0.3 0.45	12.80 14.20 16.80 25.00	1.8 1.8 1.8 1.8	16.5 18.1 20.8 29.5	280.0 366.0 492.0 992.0
70	0.4 0.5 0.6	0.25 0.25 0.3	15.00 16.60 19.80	1.8 1.8 1.8	19.0 20.5 24.0	360.0 480.0 650.0
100	0.4 0.5 0.6	0.25 0.25 0.3	17.80 19.70 23.50	1.8 1.8 1.8	21.0 23.5 27.0	475.0 648.0 880.0

KEY:
A- Outdoor cable, 2Y- PE insulated
(L)- Copolymer Aluminium foil screen, 2Y- PE Sheath

Type : **NYY**
Standard : **VDE-0271/3.69 & IEC-60502-1**
Voltage : **600/1000 Volts**

1. Conductor: Copper
2. Insulation: PVC
3. Sheath: PVC

Construction:
Plain annealed copper conductor, PVC insulated, PVC sheathed Single core cable.

Application:
Suitable for use in indoors, outdoors, underground and in water for continuous permissible service voltage of 720/1200 volts

Table: 01

Nominal cross sectional area of conductor	No. and Nominal diameter of wires	Max. DC Resistance of conductor at 20?C	Nominal thickness of insulation	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Current Rating	
							Under Ground at 30?C	In Air at 35?C
no. x mm2	no./mm	ohm/km	mm	mm	mm	kg/km	amps	amps
1 x 1.5 re	1/1.38	12.1	0.8	1.8	6.8	65	27	22
1 x 1.5 rm	7/0.52	12.1	0.8	1.8	6.9	68	27	22
1 x 2.5 re	1/1.78	7.41	0.9	1.8	7.3	80	36	30
1 x 2.5 rm	7/0.67	7.41	0.9	1.8	7.6	86	36	30
1 x 4.0 rm	7/0.85	4.61	1.0	1.8	8.3	113	47	39
1 x 6.0 rm	7/1.05	3.08	1.0	1.8	8.8	140	59	50
1 x 10 rm	7/1.35	1.83	1.0	1.8	9.8	190	78	69
1 x 16 rm	7/1.71	1.15	1.0	1.8	10.8	262	100	94
1 x 16 rm	19/1.04	1.15	1.0	1.8	11	268	100	94
1 x 25 rm	7/2.14	0.727	1.2	1.8	12.6	375	130	125
1 x 25 rm	19/1.30	0.727	1.2	1.8	12.8	385	130	125
1 x 35 rm	Min 6 wire	0.524	1.2	1.8	13.3	472	155	160
1 x 50 rm	Min 6 wire	0.387	1.4	1.8	14.7	610	185	195
1 x 70 rm	Min 12 wire	0.268	1.4	1.8	16.4	846	225	245
1 x 95 rm	Min 15 wire	0.193	1.6	1.8	18.6	1095	270	300
1 x 120 rm	Min 18 wire	0.153	1.6	1.8	20.2	1338	310	350
1 x 150 rm	Min 18 wire	0.124	1.8	1.8	21.9	1640	350	405
1 x 185 rm	Min 30 wire	0.0991	2.0	2.0	24.4	2026	390	460
1 x 240 rm	Min 34 wire	0.0754	2.2	2.0	27.2	2640	450	555
1 x 300 rm	Min 34 wire	0.0601	2.4	2.0	29.8	3250	515	640
1 x 400 rm	Min 53 wire	0.047	2.6	2.2	33.6	4220	585	770
1 x 500 rm	Min 53 wire	0.0366	3.0	2.2	37.2	5283	680	900
1 x 630 rm	Min 53 wire	0.0283	3.0	2.2	41.2	6515	800	1030
1 x 800 rm	Min 53 wire	0.0221	3.0	2.4	45.4	8162	945	1160
1 x 1000 rm	Min 53 wire	0.0176	3.0	2.6	50.0	10285	1095	1310

Type : **NYY**
Standard : **VDE-0271/3.69 & IEC-60502-1**
Voltage : **600/1000 Volts**

1. Conductor: Copper
2. Insulation: PVC
3. Common Covering: PVC
4. Sheath: PVC

Construction:
Plain annealed copper conductor, PVC insulated, Cores laid up, PVC Common Covering & PVC sheathed Overall.

Application:
Suitable for use in indoors, outdoors, underground and in water for continuous permissible service voltage of 720/1200 volts

Table: 02

Nominal cross sectional area of conductor	No. and Nominal diameter of wires	Max. DC Resistance of conductor at 20?C	Nominal thickness of insulation	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Current Rating	
							Under Ground at 30?C	In Air at 35?C
no. x mm2	no./mm	ohm/km	mm	mm	mm	kg/km	amps	amps
2 x 1.5 re	1/1.38	12.1	0.8	1.8	11.9	185	25	19
2 x 1.5 rm	7/0.52	12.1	0.8	1.8	12.1	195	25	19
2 x 2.5 re	1/1.78	7.41	0.9	1.8	13	240	34	27
2 x 2.5 rm	7/0.67	7.41	0.9	1.8	13.4	245	34	27
2 x 4.0 rm	7/0.85	4.61	1.0	1.8	15.1	320	44	35
2 x 6.0 rm	7/1.05	3.08	1.0	1.8	16.3	400	55	45
2 x 10 rm	7/1.35	1.83	1.0	1.8	18.1	550	74	62
2 x 16 rm	7/1.71	1.15	1.0	1.8	20.2	720	97	84
2 x 25 rm	7/2.14	0.727	1.2	1.8	24.5	1050	152	110
2 x 35 rm	19/1.53	0.524	1.2	2.0	27.4	1350	150	140
3 x 1.5 re	1/1.38	12.1	0.8	1.8	12.1	200	22	16
3 x 1.5 rm	7/0.52	12.1	0.8	1.8	12.5	210	22	16
3 x 2.5 re	1/1.78	7.41	0.9	1.8	13.5	266	30	23
3 x 2.5 rm	7/0.67	7.41	0.9	1.8	14.0	275	30	23
3 x 4.0 rm	7/0.85	4.61	1.0	1.8	15.8	376	38	32
3 x 6.0 rm	7/1.05	3.08	1.0	1.8	17.0	465	48	41
3 x 10 rm	7/1.35	1.83	1.0	1.8	19.0	650	64	56
3 x 16 rm	7/1.71	1.15	1.0	1.8	21.9	900	83	75
3 x 25 rm	7/2.14	0.727	1.2	2.0	25.8	1360	110	98
3 x 35 sm	Min 6 wire	0.524	1.2	1.8	23.5	1440	130	120
3 x 50 sm	Min 6 wire	0.387	1.4	2.0	27	2000	155	150
3 x 70 sm	Min 12 wire	0.268	1.4	2.0	30	2600	190	190
3 x 95 sm	Min 15 wire	0.193	1.6	2.0	34.5	3550	225	230
3 x 120 sm	Min 18 wire	0.153	1.6	2.2	37.1	4300	260	270
3 x 150 sm	Min 18 wire	0.124	1.8	2.2	41	5300	295	305
3 x 185 sm	Min 30 wire	0.0991	2.0	2.2	44.5	6460	330	350
3 x 240 sm	Min 34 wire	0.0754	2.2	2.6	50.5	8380	385	410
3 x 300 sm	Min 34 wire	0.0601	2.4	2.6	55.2	10350	425	470

NYY

Type : **NYY**
Standard : **VDE-0271/3.69 & IEC-60502-1**
Voltage : **600/1000 Volts**

1. Conductor: Copper
2. Insulation: PVC
3. Common Covering: PVC
4. Sheath: PVC

Construction:
Plain annealed copper conductor, PVC insulated, Cores laid up, PVC Common Covering & PVC sheathed Overall.

Application:
Suitable for use in indoors, outdoors, underground and in water for continuous permissible service voltage of 720/1200 volts

Table: 03

Nominal cross sectional area of conductor	No. and Nominal diameter of wires	Max. DC Resistance of conductor at 20?C	Nominal thickness of insulation	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Current Rating	
							Under Ground at 30?C	In Air at 35?C
no. x mm2	no./mm	ohm/km	mm	mm	mm	kg/km	amps	amps
3 x 25 rm/ 1 x 16 rm	7/2.14	0.727	1.2	2	27.4	1575	110	98
	7/1.71	1.15	1.0					
3 x 35 sm/ 1 x 16 rm	Min 6 wire	0.524	1.2	2	27.2	1740	130	120
	7/1.71	1.15	1.0					
3 x 50 sm/ 1 x 25 rm	Min 6 wire	0.387	1.4	2	29.5	2360	155	150
	7/2.14	0.727	1.2					
3 x 70 sm/ 1 x 35 rm	Min 12 wire	0.268	1.4	2	34.8	3330	190	190
	Min 15 wire	0.524	1.2					
3 x 95 sm/ 1 x 50 rm	Min 6 wire	0.193	1.6	2.2	38.8	4500	225	230
	Min 6 wire	0.387	1.4					
3 x 120 sm/ 1 x 70 rm	Min 18 wire	0.153	1.6	2.2	41.5	5400	260	270
	Min 12 wire	0.268	1.4					
3 x 150 sm/ 1 x 70 rm	Min 18 wire	0.124	1.8	2.6	46	6200	295	305
	Min 12 wire	0.268	1.4					
3 x 185 sm/ 1 x 95 rm	Min 30 wire	0.0991	2	2.6	51	7800	330	350
	Min 18 wire	0.193	1.6					
3 x 240 sm/ 1 x 120 rm	Min 15 wire	0.0754	2.2	3	57	9850	385	410
	Min 18 wire	0.153	1.6					
3 x 300 sm/ 1 x 150 rm	Min 34 wire	0.0601	2.4	3	63.4	12500	425	470
	Min 18 wire	0.124	1.8					

Type : **NYY**
Standard : **VDE-0271/3.69 & IEC-60502-1**
Voltage : **600/1000 Volts**

1. Conductor: Copper
2. Insulation: PVC
3. Common Covering: PVC
4. Sheath: PVC

Construction:
Plain annealed copper conductor, PVC insulated, Cores laid up, PVC Common Covering & PVC sheathed Overall.

Application:
Suitable for use in indoors, outdoors, underground and in water for continuous permissible service voltage of 720/1200 volts

Table: 04

Nominal cross sectional area of conductor	No. and Nominal diameter of wires	Max. DC Resistance of conductor at 20°C	Nominal thickness of insulation	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Current Rating	
							Under Ground at 30°C	In Air at 35°C
no. x mm²	no./mm	ohm/km	mm	mm	mm	kg/km	amps	amps
4 x 1.5 re	1/1.38	12.1	0.8	1.8	13	255	22	16
4 x 1.5 rm	7/0.52	12.1	0.8	1.8	13.3	260	22	16
4 x 2.5 re	1/1.78	7.41	0.9	1.8	14.5	330	30	23
4 x 2.5 rm	7/0.67	7.41	0.9	1.8	14.8	360	30	23
4 x 4.0 rm	7/0.85	4.61	1.0	1.8	17	460	38	32
4 x 6.0 rm	7/1.05	3.08	1.0	1.8	18.4	600	48	41
4 x 10 rm	7/1.35	1.83	1.0	1.8	20.6	820	64	56
4 x 16 rm	7/1.71	1.15	1.0	1.8	24	1150	83	75
4 x 25 rm	7/2.14	0.727	1.2	2.0	28.5	1730	110	98
4 x 35 sm	Min 6 wire	0.524	1.2	2.0	27.2	1950	130	120
4 x 50 sm	Min 6 wire	0.387	1.4	2.0	29.8	2620	155	150
4 x 70 sm	Min 12 wire	0.268	1.4	2.0	35.2	3460	190	190
4 x 95 sm	Min 15 wire	0.193	1.6	2.2	39.3	4800	225	230
4 x 120 sm	Min 18 wire	0.153	1.6	2.2	42	5700	260	270
4 x 150 sm	Min 18 wire	0.124	1.8	2.6	46.5	7080	295	305
4 x 185 sm	Min 30 wire	0.0991	2.0	2.6	51.4	8640	330	350
4 x 240 sm	Min 34 wire	0.0754	2.2	3.0	58	11300	385	410
4 x 300 sm	Min 34 wire	0.0601	2.4	3.0	64.2	13760	425	470

Type : **NYY-1**
Standard : **VDE-0271/3.69 & IEC-60502-1**
Voltage : **600/1000 Volts**

1. Conductor: Copper
2. Insulation: PVC
3.Common Covering: PVC Tape
4. Sheath: PVC

Construction:
Plain annealed copper conductor, PVC insulated, PVC sheathed Single core cable.

Application:
Suitable for use in indoors, outdoors, underground and in water for continuous permissible service voltage of 720/1200 volts

Table: 05

Nominal cross sectional area of conductor	No. and Nominal diameter of wires	Max. DC Resistance of conductor at 20°C	Nominal thickness of insulation	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Current Rating	
							Under Ground at 30°C	In Air at 35°C
no. x mm²	no./mm	ohm/km	mm	mm	mm	kg/km	amps	amps
5 x 1.5 re	1/1.38	12.1	0.8	1.8	13	210	18	13
7 x 1.5 re	1/1.38	12.1	0.8	1.8	13.5	258	16	12
10 x 1.5 re	1/1.38	12.1	0.8	1.8	17	365	13	10
1 2x 1.5 re	1/1.38	12.1	0.8	1.8	17.5	420	12	9
16 x 1.5 re	1/1.38	12.1	0.8	1.8	19.2	540	11	8
19 x 1.5 re	1/1.38	12.1	0.8	1.8	20.1	610	10	7
21 x 1.5 re	1/1.38	12.1	0.8	1.8	21.1	660	9	7
24x1.5 re	1/1.38	12.1	0.8	1.8	22.8	740	9	7
30x1.5 re	1/1.38	12.1	0.8	2	24.5	900	8	6
5x2.5 re	1/1.78	7.41	0.9	1.8	14.4	300	24	19
7x2.5 re	1/1.78	7.41	0.9	1.8	15.4	375	21	17
10x2.5 re	1/1.78	7.41	0.9	1.8	19.1	520	18	14
12x2.5 re	1/1.78	7.41	0.9	1.8	19.7	590	16	13
16x2.5 re	1/1.78	7.41	0.9	1.8	21.7	750	14	11
19x2.5 re	1/1.78	7.41	0.9	1.8	22.8	880	13	10
21x2.5 re	1/1.78	7.41	0.9	2	24.5	960	13	10
24x2.5 re	1/1.78	7.41	0.9	2	27	1100	12	9
30x2.5 re	1/1.78	7.41	0.9	2	28.5	1310	10	8
5x4 rm	7/0.85	4.61	1	1.8	17.2	430	31	25
7x4 rm	7/0.85	4.61	1	1.8	18.4	540	27	22
10x4 rm	7/0.85	4.61	1	1.8	23.1	750	23	19
12x4 rm	7/0.85	4.61	1	2	24.3	880	21	17

Type : **NYCY**
Standard : **VDE-0271/3.69 & IEC-60502-1**
Voltage : **600/1000 Volts**

1. Conductor: Copper
2. Insulation: PVC
3. Common Covering: PVC
4. Concentric Neutral: Copper
5. Sheath: PVC

Construction:
Plain annealed copper conductor, PVC insulated, Three Cores laid up, PVC Covering, Concentric neutral or protective conductor of annealed copper over common covering & PVC sheathed Overall.

Application:
Suitable for use in indoors, outdoors, underground and in water for continuous permissible service voltage of 720/1200 volts

Table: 06

Nominal cross sectional area of conductor	No. and Nominal diameter of wires	Max. DC Resistance of conductor at 20°C	Nominal thickness of insulation	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Current Rating	
							Under Ground at 30°C	In Air at 35°C
no. x mm²	no./mm	ohm/km	mm	mm	mm	kg/km	amps	amps
3 x 25 rm/ 1 x 16 C	7/2.14	0.727	1.2	2.0	27.0	1420	110	98
	19/1.05	1.15						
3 x 35 sm/ 1 x 16 C	Min 6 wire	0.524	1.2	2.0	24.8	1560	130	120
	19/1.05	1.15						
3 x 50 sm/ 1 x 25 C	Min 6 wire	0.387	1.4	2.0	29.0	2200	155	150
	29/1.05	0.727						
3 x 70 sm/ 1 x 35 C	Min 12 wire	0.268	1.4	2.0	31.4	2920	190	190
	35/1.13	0.524						
3 x 95 sm/ 1 x 50 C	Min 6 wire	0.193	1.6	2.2	36.9	3970	225	230
	50/1.13	0.387						
3 x 120 sm/ 1 x 70 C	Min 18 wire	0.153	1.6	2.2	39.8	4925	260	270
	71/1.13	0.268						
3 x 150 sm/ 1 x 70 C	Min 18 wire	0.124	1.8	2.2	43.2	5910	295	305
	49/1.35	0.268						
3 x 185 sm/ 1 x 95 C	Min 30 wire	0.0991	2.0	2.6	47.8	7370	330	350
	67/1.35	0.193						
3 x 240 sm/ 1 x 120 C	Min 15 wire	0.0754	2.2	2.6	53.4	9500	385	410
	67/1.53	0.153						
3 x 300 sm/ 1 x 150 C	Min 34 wire	0.0601	2.4	3.0	58.7	11700	425	470
	72/1.63	0.124						

Type : **NYFGbY**
Standard : **VDE-0271/3.69 & IEC-60502-1**
Voltage : **600/1000 Volts**

1. Conductor: Copper
2. Insulation: PVC
3. Common Covering: PVC
4. Armour: Flat Galv. Steel wire with Steel tape binder
5. Oversheath: PVC

Construction:
Plain annealed copper conductor, PVC insulated, Three Cores laid up, PVC Common Covering, Flat Galv. Steel wire with helical Steel tape binder & PVC sheathed Overall.

Application:
Suitable for use in indoors, outdoors, underground and in water for continuous permissible service voltage of 720/1200 volts

Table: 07

Nominal cross sectional area of conductor	No. and Nominal diameter of wires	Max. DC Resistance of conductor at 20°C	Nominal thickness of insulation	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Current Rating	
							Under Ground at 30°C	In Air at 35°C
no. x mm²	no./mm	ohm/km	mm	mm	mm	kg/km	amps	amps
3 x 16 rm	7/1.71	1.15	1.0	1.8	24.0	1360	83	75
3 x 25 rm	7/2.14	0.727	1.2	2.0	28.0	1890	110	98
3 x 35 sm	Min 6 wire	0.524	1.2	2.0	26.2	1950	130	120
3 x 50 sm	Min 6 wire	0.387	1.4	2.0	29.0	2500	155	150
3 x 70 sm	Min 12 wire	0.268	1.4	2.0	31.8	3100	190	190
3 x 95 sm	Min 15 wire	0.193	1.6	2.2	37.0	4250	225	230
3 x 120 sm	Min 18 wire	0.153	1.6	2.2	39.8	5160	260	270
3 x 150 sm	Min 18 wire	0.124	1.8	2.2	43.2	6250	295	305
3 x 185 sm	Min 30 wire	0.0991	2.0	2.6	47.4	7660	330	350
3 x 240 sm	Min 34 wire	0.0754	2.2	2.6	52.8	9600	385	410
3 x 300 sm	Min 34 wire	0.0601	2.4	3.0	58.2	11850	425	470

Type : **NYFGbY**
Standard : **VDE-0271/3.69 & IEC-60502-1**
Voltage : **600/1000 Volts**

1. Conductor: Copper
2. Insulation: PVC
3. Common Covering: PVC
4. Armour: Flat Galv. Steel wire with Steel tape binder
5. Oversheath: PVC

Construction:
Plain annealed copper conductor, PVC insulated, Three & Half Cores laid up, PVC Common Covering, Flat Galv. Steel wire with helical Steel tape binder & PVC sheathed Overall.

Application:
Suitable for use in indoors, outdoors, underground and in water for continuouspermissible service voltage of 720/1200 volts

Table: 08

Nominal cross sectional area of conductor	No. and Nominal diameter of wires	Max. DC Resistance of conductor at 20°C	Nominal thickness of insulation	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Current Rating	
							Under Ground at 30°C	In Air at 35°C
no. x mm²	no./mm	ohm/km	mm	mm	mm	kg/km	amps	amps
3 x 25 rm/ 1 x 16 rm	7/2.14	0.727	1.2	2.0	28.8	2140	110	98
	7/1.71	1.15	1.0					
3 x 35 sm/ 1 x 16 rm	Min 6 wire	0.524	1.2	2.0	29.1	2250	130	120
	7/1.71	1.15	1.0					
3 x 50 sm/ 1 x 25 rm	Min 6 wire	0.387	1.4	2.0	31.6	2950	155	150
	7/2.14	0.727	1.2					
3 x 70 sm/ 1 x 35 rm	Min 12 wire	0.268	1.4	2.2	37.3	3930	190	190
	Min 15 wire	0.524	1.2					
3 x 95 sm/ 1 x 50 rm	Min 6 wire	0.193	1.6	2.2	41.4	5100	225	230
	Min 6 wire	0.387	1.4					
3 x 120 sm/ 1 x 70 rm	Min 18 wire	0.153	1.6	2.2	44.0	6320	260	270
	Min 12 wire	0.268	1.4					
3 x 150 sm/ 1 x 70 rm	Min 18 wire	0.124	1.8	2.6	48.8	7380	295	305
	Min 12 wire	0.268	1.4					
3 x 185 sm/ 1 x 95 rm	Min 30 wire	0.0991	2	2.6	55.5	9250	330	350
	Min 18 wire	0.193	1.6					
3 x 240 sm/ 1 x 120 rm	Min 15 wire	0.0754	2.2	3.0	63.2	11600	385	410
	Min 18 wire	0.153	1.6					
3 x 300 sm/ 1 x 150 rm	Min 34 wire	0.0601	2.4	3.0	70.2	13800	425	470
	Min 18 wire	0.124	1.8					

Type : **NYFGbY**
Standard : **VDE-0271/3.69 & IEC-60502-1**
Voltage : **600/1000 Volts**

1. Conductor: Copper
2. Insulation: PVC
3. Common Covering: PVC
4. Armour: Flat Galv. Steel wire with Steel tape binder
5. Oversheath: PVC

Construction:
Plain annealed copper conductor, PVC insulated, Four Cores laid up, PVC Common Covering, Flat Galv. steel wire with helical Steel tape binder & PVC sheathed Overall.

Application:
Suitable for use in indoors, outdoors, underground and in water for continuous permissible service voltage of 720/1200 volts

Table: 09

Nominal cross sectional area of conductor	No. and Nominal diameter of wires	Max. DC Resistance of conductor at 20°C	Nominal thickness of insulation	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Current Rating	
							Under Ground at 30°C	In Air at 35°C
no. x mm²	no./mm	ohm/km	mm	mm	mm	kg/km	amps	amps
4 x 16 rm	7/1.71	1.15	1.0	2.0	26.4	1620	83	75
4 x 25 rm	7/2.14	0.727	1.2	2.0	30.5	2270	110	98
4 x 35 sm	Min 6 wire	0.524	1.2	2.0	29.5	2400	130	120
4 x 50 sm	Min 6 wire	0.387	1.4	2.0	33.0	3220	155	150
4 x 70 sm	Min 12 wire	0.268	1.4	2.2	38.0	4260	190	190
4 x 95 sm	Min 15 wire	0.193	1.6	2.2	42.0	5400	225	230
4 x 120 sm	Min 18 wire	0.153	1.6	2.2	44.6	6550	260	270
4 x 150 sm	Min 18 wire	0.124	1.8	2.6	49.2	8200	295	305
4 x 185 sm	Min 30 wire	0.0991	2.0	2.6	55.2	9950	330	350
4 x 240 sm	Min 34 wire	0.0754	2.2	3.0	63.3	12600	385	410
4 x 300 sm	Min 34 wire	0.0601	2.4	3.4	69.8	15400	425	470

Type : NYA
Standard : VDE-0250/3.69
Voltage : 600/1000 Volts

1. Conductor: Copper
2. Insulation: PVC

Construction:
Plain annealed copper conductor, PVC insulated and left bare.

Application:
Suitable for use in motor and switch panels and in distribution equipment.Cables of 1.5 mm² and above are for use in conduit over and undwr plaster and and over insulating bodies over plaster in dry rooms, for continuous permissible service voltage of 690/1150 volts.

Table: 10

Nominal cross sectional area of conductor	No. and Nominal diameter of wires	Max. DC Resistance of conductor at 20°C	Nominal thickness of insulation	Approx. overall diameter	Approx. weight of cable	Current Rating	
						Under Ground at 30°C	In Air at 35°C
no. x mm²	no./mm	ohm/km	mm	mm	kg/km	amps	amps
1x0.5 re	1/0.80	36.00	0.6	2.3	9	-	12
1x0.75 re	1/0.98	24.50	0.6	2.5	12	-	14
1x1.0 re	1/1.13	18.10	0.6	2.6	15	10	17
1x1.5 re	1/1.38	12.10	0.6	2.9	20	14	22
1x2.5 re	1/1.78	7.41	0.7	3.5	30	18	30
1x4.0 re	1/2.26	4.61	0.8	4.2	50	23	39
1x6.0 re	1/2.77	3.08	0.8	4.7	68	30	50
1x10 re	1/3.57	1.83	1.0	6.0	112	42	69
1x16 re	1/4.52	1.15	1.0	6.9	170	57	92

Type : NYIFY
Standard : VDE-0250/3.69
Voltage : 220/380 Volts

1. Conductor: Copper
2. Insulation: PVC
3. Sheath: PVC

Construction:
Plain annealed copper conductor, PVC insulated, Twin or Three core laid flat and PVC sheathed overall.

Application:
Suitable for use on undwr plaster in dry room for continuous permissible service voltage of 255/440 volts.

Table: 11

NYY

Nominal cross sectional	No. and Nominal diameter of	Max. DC Resistance of conductor at	Nominal thickness of insulation	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Current Rating at 35°C ambient
no. x mm²	no./mm	ohm/km	mm	mm	mm	kg/km	amps
2 x 1.5 re	1/1.38	12.1	0.4	0.8	4.2 x 6.5	60	17
2 x 2.5 re	1/1.78	7.41	0.5	0.9	5.0 x 8.0	92	23
2 x 4.0 re	1/2.26	4.61	0.6	0.9	5.7 x 9.2	132	31
3 x 1.5 re	1/1.38	12.1	0.4	0.8	4.2 x 8.8	84	17
3 x 2.5 re	1/1.78	7.41	0.5	0.9	5.0 x 10.8	130	23
3 x 4.0 re	1/2.26	4.61	0.6	0.9	5.7 x 12.9	192	31

Type : **NYMT**
Standard : **VDE-0250/3.69**
Voltage : **300/500 Volts**

1. Conductor: Copper
2. Insulation: PVC
3. Common Covering: PVC
4. Galv. Steel wire rope
5. Sheath: PVC

Construction:
Plain annealed copper conductor, PVC insulated, Twin, Three or Four core laid up, Filled and PVC sheathed overall along with a galvanized steel wire rope under the sheath.

Application:
Suitable for use as self supporting aerial cable for continuous permissible service voltage of 345/575 volts.

Table: 12

Nominal cross sectional area of conductor	No. and Nominal diameter of wires		Max. DC Resistance of conductor at 20°C	Nominal thickness of insulation	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Current Rating at 35°C ambient temperature under plaster
	Copper wire	Steel wire						
no. x mm2	no./mm		ohm/km	mm	mm	mm	kg/km	amps
2 x 1.5 re	1/1.38	19/0.6	12.1	0.6	1.4	9.8	205	17
2 x 2.5 re	1/1.78	19/0.6	7.41	0.7	1.4	11.0	250	23
2 x 4.0 re	1/2.26	19/0.6	4.61	0.8	1.4	12.5	330	31
2 x 6 re	1/ 2.77	19/0.6	3.08	0.8	1.4	13.5	400	41
3 x 1.5 re	1/1.38	19/0.6	12.1	0.6	1.4	10.5	225	17
3 x 2.5 re	1/1.78	19/0.6	7.41	0.7	1.4	11.5	280	23
3 x 4.0 re	1/2.26	19/0.6	4.61	0.8	1.4	13.0	376	31
3 x 6 re	1/ 2.77	19/0.6	3.08	0.8	1.6	15.0	507	41
4 x 1.5 re	1/1.38	19/0.6	12.1	0.6	1.4	11.0	250	17
4 x 2.5 re	1/1.78	19/0.6	7.41	0.7	1.4	12.5	320	23
4 x 4.0 re	1/2.26	19/0.6	4.61	0.8	1.6	14.5	460	31
4 x 6 re	1/ 2.77	19/0.6	3.08	0.8	1.6	16.5	590	41

Type : **NYYF**
Standard : **VDE-0250/3.69**
Voltage : **600/1000 Volts**

1. Conductor: Copper
2. Insulation: PVC
3. Common covering: PVC
4. Sheath: PVC

Construction:
Plain annealed flexible stranded copper conductor, PVC insulated, Single / Multi cores laid up with filling compound if necessary & PVC sheathed overall.

Application:
Suitable for use in single / three phase connection, electric connection for cranes, hoists, or any mobile overhead power driven equipment.

Coloue of Sheath : BLACK

Table: 13

Nominal cross sectional area of conductor	No. and Nominal diameter of wires	Max. DC Resistance of conductor at 20°C	Nominal thickness of insulation	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Current Rating at 30?C ambient temperature under plaster
no. x mm²	no./mm	ohm/km	mm	mm	mm	kg/km	amps
1 x 1.0 rm	34 /0.193	19.5	0.8	1.8	6.9	61	15
1 x 1.5 rm	30 /0.25	13.3	0.8	1.8	7.2	70	24
1 x 2.5 rm	50 /0.25	7.98	0.9	1.8	7.8	90	32
1 x 4 rm	56/ 0.30	4.95	1.0	1.8	8.6	112	41
1 x 6 rm	84/ 0.30	3.3	1.0	1.8	9.3	141	52
1 x 10 rm	80/ 0.40	1.91	1.0	1.8	10.3	190	72
1 x 16 rm	126/ 0.40	1.21	1.0	1.8	11.7	265	98
1 x 25 rm	196/ 0.40	0.780	1.2	1.8	13.6	379	131
1 x 35 rm	276/ 0.40	0.554	1.2	1.8	15.0	490	167
1 x 50 rm	396/ 0.40	0.386	1.4	1.8	17.2	675	204
1 x 70 rm	360/ 0.50	0.272	1.4	1.8	19.1	890	256
1 x 95 rm	475/ 0.50	0.206	1.6	1.8	21.6	1170	314
1 x 120 rm	608/ 0.50	0.161	1.6	1.8	23.4	1430	366
1 x 150 rm	760/ 0.50	0.129	1.8	1.8	25.7	1760	423
1 x 185 rm	950/ 0.50	0.106	2.0	2.0	28.5	2195	478
2 x 1.0 rm	34 /0.193	19.5	0.8	1.8	11.6	175	12
2 x 1.5 rm	30 /0.25	13.3	0.8	1.8	12.2	198	20
2 x 2.5 rm	50 /0.25	7.98	0.9	1.8	13.5	245	28
2 x 4 rm	56/ 0.30	4.95	1.0	1.8	15.0	313	37
2 x 6 rm	84/ 0.30	3.3	1.0	1.8	17.0	400	47
2 x 10 rm	80/ 0.40	1.91	1.0	1.8	18.5	528	64
2 x 16 rm	126/ 0.40	1.21	1.0	1.8	22.1	750	86
2 x 25 rm	196/ 0.40	0.780	1.2	1.8	26.3	1135	112
2 x 35 rm	276/ 0.40	0.554	1.2	1.8	29.2	1450	142

Type : NYYF
Standard : VDE-0250/3.69
Voltage : 600/1000 Volts

1. Conductor: Copper
2. Insulation: PVC
3. Common covering: PVC
4. Sheath: PVC

Construction:
Plain annealed flexible stranded copper conductor, PVC insulated, Single / Multi cores laid up with filling compound if necessary & PVC sheathed overall.

Application:
Suitable for use in single / three phase connection, electric connection for cranes, hoists, or any mobile overhead power driven equipment.

Coloue of Sheath: BLACK

Table: 14

Nominal cross sectional area of conductor	No. and Nominal diameter of wires	Max. DC Resistance of conductor at 20°C	Nominal thickness of insulation	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Current Rating at 30?C ambient temperature under plaster
no. x mm²	no./mm	ohm/km	mm	mm	mm	kg/km	amps
3 x 1.0 rm	34 /0.193	19.5	0.8	1.8	12.2	196	12
3 x 1.5 rm	30 /0.25	13.3	0.8	1.8	12.7	218	17
3 x 2.5 rm	50 /0.25	7.98	0.9	1.8	14.4	292	24
3 x 4 rm	56/ 0.30	4.95	1.0	1.8	16.1	380	33
3 x 6 rm	84/ 0.30	3.3	1.0	1.8	17.7	485	43
3 x 10 rm	80/ 0.40	1.91	1.0	1.8	19.8	655	58
3 x 16 rm	126/ 0.40	1.21	1.0	1.8	23.8	980	78
3 x 25 rm	196/ 0.40	0.780	1.2	2.0	28.2	1430	102
3 x 35 rm	276/ 0.40	0.554	1.2	2.0	31.0	1840	125
4 x 1.0 rm	34 /0.193	19.5	0.8	1.8	13.0	226	12
4 x 1.5 rm	30 /0.25	13.3	0.8	1.8	13.6	260	17
4 x 2.5 rm	50 /0.25	7.98	0.9	1.8	15.2	345	24
4 x 4 rm	56/ 0.30	4.95	1.0	1.8	17.6	460	33
4 x 6 rm	84/ 0.30	3.3	1.0	1.8	18.9	575	43
4 x 10 rm	80/ 0.40	1.91	1.0	1.8	22.0	835	58
4x 16 rm	126/ 0.40	1.21	1.0	2.0	26.2	1210	78
4 x 25 rm	196/ 0.40	0.780	1.2	2.0	30.6	1740	102
4x 35 rm	276/ 0.40	0.554	1.2	2.0	34.1	2280	125

Type : **NYAB**
Voltage : **600/1000 Volts**

1. Conductor: Copper
2. PVC Tape (Optional)
3. Insulation: PVC

Construction:
Plain annealed flexible copper conductor & PVC insulated insulated cable.

Application:
Suitable for use in temporary installation for electric connection, decorative illuination for continuous permissible service voltage 690/ 1140 volts.

Coloue of Sheath: BLACK

Table: 15

Nominal cross sectional area of conductor	No. and Nominal diameter of wires	Max. DC Resistance of conductor at 20°C	Nominal thickness of insulation	Approx. overall diameter	Approx. weight of cable	Current Rating at 30?C ambient temperature under plaster
no. x mm2	no./mm	ohm/km	mm	mm	kg/km	amps
1 x 4 rm	56/ 0.30	4.95	1.0	5.4	112	41
1 x 6 rm	84/ 0.30	3.3	1.0	6.1	141	52
1 x 10 rm	80/ 0.40	1.91	1.2	7.9	190	72
1 x 16 rm	126/ 0.40	1.21	1.2	9.1	265	98
1 x 25 rm	196/ 0.40	0.780	1.4	10.9	379	131
1 x 35 rm	276/ 0.40	0.554	1.4	12.3	490	167
1 x 50 rm	396/ 0.40	0.386	1.6	14.5	675	204
1 x 70 rm	360/ 0.50	0.272	1.6	16.5	890	256
1 x 95 rm	475/ 0.50	0.206	1.8	19.0	1170	314
1 x 120 rm	608/ 0.50	0.161	1.8	20.5	1430	366
1 x 150 rm	760/ 0.50	0.129	2.0	23.0	1760	423
1 x 185 rm	950/ 0.50	0.106	2.2	25.3	2195	478

Type : WELDING CABLE
Voltage : 200 Volts

1. Conductor: Copper
2. Insulation: PVC

Construction:
Plain annealed flexible copper conductor, Covering with PVC tape or cotton tape (Optional) and PVC sheathed overall.

Application:
Suitable for use in temporary installation for electric connection, decorative illuination for continuous permissible service voltage 690/ 1140 volts.

Coloue of Sheath: BLACK

Table: 16

Nominal cross sectional area of conductor	No. and Nominal diameter of wires	Max. DC Resistance of conductor at 20°C	Nominal thickness of insulation	Approx. overall diameter	Approx. weight of cable	Current Rating at maximum duty cycle 60%
no. x mm2	no./mm	ohm/km	mm	mm	kg/km	amps
1 x 25 rm	854/ 0.193	0.780	2.1	12.4	350	169
1 x 35 rm	1196/ 0.193	0.554	2.1	13.5	455	215
1 x 50 rm	1708/ 0.193	0.386	2.1	15.0	608	264
1 x 70 rm	2392/ 0.193	0.272	2.2	17.6	826	330
1 x 95 rm	3247/ 0.193	0.206	2.2	19.5	1065	405
1 x 120 rm	4101/ 0.193	0.161	2.2	23.0	1328	473

Type : CO-AXIAL CABLE
Voltage : MIL-C-17

1. Conductor: Copper
2. Insulation: PE
3. Copper wire braided
4. Oversheath: PVC

Construction:
Plain annealed flexible copper conductor, Polythene insulated, Copper wire braided and PVC sheathed overall.

Application:
Suitable for use as aerial down leads in local and fringe reception areas at both very high frequency and ultra high frequency.

Coloue of Sheath: BLACK

Table: 17

Type	Nominal cross sectional area of conductor	No. and Nominal diameter of wires	Diameter over core Approx	Nominal thickness of insulation	Approx. overall diameter	Approx Impedence	Approx. weight of cable
3/C	mm2	no./mm	mm	mm	mm	Ohm	kg/km
3/C	0.2	1/ 0.50	3.0	0.9	5.6	75	36
4/C	0.42	1/ 0.73	3.8	1.0	6.6	75	52
5/C	0.64	1/ 0.90	4.2	1.2	7.4	75	64
RG-6/U	0.82	1/ 1.02	4.3	1.2	7.6	75	70
6/C	1.23	1/ 1.25	5.4	1.2	8.5	75	84
RG-11/U	2.09	1/ 1.63	6.8	1.2	10.1	75	115

Type : SUBMERSIBLE PUMP CABLES
Standard : BS 6360 & BDS- IEC 60502-1
Voltage : 600/1000 Volts

1. Conductor: Copper
2. Insulation: PVC
3. Oversheath: PVC

Construction:
Plain annealed flexible copper conductor, PVC Insulation, Without lay up and PVC sheathed overall.

Application:
Suitable for use in 3 core Flat- submersible pumps in deep wells for irrigation, drinking water supply, industries, mines, fountains. 3 core round submersible cable are use in sewage, slurry, offshore drilling rigs, sea water handling, mine dewatering etc.

Coloue of Sheath: BLACK

Table: SPC

Nominal cross sectional area of conductor	No. and Nominal diameter of wires	Nominal thickness of insulation	Round Submersible Cable			Flat Submersible Cable			Current Rating at 35°C
			Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Nominal thickness of Sheath	Approx. overall diameter	Approx. weight of cable	
mm2	no./mm	mm	mm	mm	kg/km	mm	mm	kg/km	amps
3 x 1.5	21/0.30	0.8	1.4	9.8	144	1.2	5.8x12.3	134	10
3 x 2.5	35/0.30	0.8	1.4	10.8	189	1.2	6.4x14.0	180	20
3 x 4	57/0.30	1.0	1.6	13.5	273	1.4	7.2x16.3	252	26
3 x 6	85/0.30	1.0	1.6	14.7	362	1.4	8.1x18.8	345	34
3 x 10	80/0.40	1.0	1.8	17.6	567	1.6	9.5x22.5	520	46
3 x 16	127/0.40	1.0	1.8	20.8	828	1.6	11.4x27.5	785	63
3 x 25	199/0.40	1.2	2.0	25.8	1270	1.8	14.3x34.5	1205	80
3 x 35	278/0.40	1.2	2.0	28.1	1640	1.8	15.5x38.1	1580	99
3 x 50	397/0.40	1.4	2.2	33.4	2279	2.0	18.0x45.4	2195	126
3 x 70	356/0.50	1.4	2.2	37.7	3030	2.0	20.0x50.5	2910	157
3 x 95	483/0.50	1.6	2.4	43.5	4061	2.2	23.0x59.0	3921	180
4x 1.5	21/0.30	0.8	1.4	11	194	1.2	6.0x15.80	184	10
4 x 2.5	35/0.30	0.8	1.4	12.1	254	1.2	6.5x18.0	245	20
4 x 4	57/0.30	1.0	1.6	13.8	354	1.4	7.6x21.0	346	26
4 x 6	85/0.30	1.0	1.6	16.1	502	1.4	7.9x24.3	491	34
4 x 10	80/0.40	1.0	1.8	18.6	728	1.6	9.9x29.7	719	46
4 x 16	127/0.40	1.0	1.8	21.3	1025	1.6	11.8x36.0	1016	63
4 x 25	199/0.40	1.2	2.0	22.8	1430	1.8	14.7x45.1	1422	80
4 x 35	278/0.40	1.2	2.0	28.6	2018	1.8	16.2x50.10	2010	99
4 x 50	397/0.40	1.4	2.2	33.6	2825	2.0	18.3x58.10	2816	126

Type : **YRaY**
Standard : **IEC-60502-1**
Voltage : **600/1000 Volts**

1. Conductor: Copper
2. Insulation: PVC
3. Inner covering : PVC
4. Armour: Al. round wire
5. Oversheath: PVC

Construction:
Plain annealed copper conductor, PVC insulated, PVC inner covering single layer round hard drawn aluminium wires armouring & PVC sheathed overall.

Application:
Suitable for use in indoors, outdoors, underground and in water for continuous permissible service voltage of 720/1200 volts

Table: 18

Nominal cross sectional area of conductor	No. and Nominal diameter of wires	Max. DC Resistance of conductor at 20°C	Nominal thickness of insulation	Nominal diameter of round armour wire	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Current Rating	
								Under Ground at 30°C	In Air at at 35°C
no. x mm2	no./mm	ohm/km	mm	mm	mm	mm	kg/km	amps	amps
1 x 35 rm	Min 6 wire	0.524	1.2	1.25	1.8	17.3	625	155	160
1 x 50 rm	Min 6 wire	0.387	1.4	1.25	1.8	19.2	815	185	195
1 x 70 rm	Min 12 wire	0.268	1.4	1.25	1.8	20.9	1050	225	245
1 x 95 rm	Min 15 wire	0.193	1.6	1.25	1.8	23.0	1328	270	300
1 x 120 rm	Min 18 wire	0.153	1.6	1.6	1.8	25.5	1660	310	350
1 x 150 rm	Min 18 wire	0.124	1.8	1.6	1.8	27.8	2000	350	405
1 x 185 rm	Min 30 wire	0.0991	2.0	1.6	1.8	30.0	1410	390	460
1 x 240 rm	Min 34 wire	0.0754	2.2	1.6	1.9	33.0	3050	450	555
1 x 300 rm	Min 34 wire	0.0601	2.4	2.0	2.0	36.5	3820	515	640
1 x 400 rm	Min 53 wire	0.047	2.6	2.0	2.1	41.0	4900	580	770
1 x 500 rm	Min 53 wire	0.0366	2.8	2.0	2.2	44.5	6000	680	900
1 x 630 rm	Min 53 wire	0.0283	2.8	2.0	2.4	48.5	7370	800	1030
1 x 800 rm	Min 53 wire	0.0221	2.8	2.5	2.5	55.0	9400	945	1160
1 x 1000 rm	Min 53 wire	0.0176	3.0	2.5	2.7	60.0	11650	1095	1310

Type : **YRGY**
Standard : **IEC-60502-1**
Voltage : **600/1000 Volts**

1. Conductor: Copper
2. Insulation: PVC
3. Inner covering : PVC
4. Armour: Round steel wire
5. Helical steel tape (Optional)
6. Oversheath: PVC

Construction:
Plain annealed copper conductor, PVC insulated, PVC inner covering single layer round hard drawn aluminium wires armouring & PVC sheathed overall.

Application:
Suitable for use in indoors, outdoors, underground and in water for continuous permissible service voltage of 720/1200 volts

Colour of Sheath: BLACK

Table: 19

Nominal cross sectional area of conductor	No. and Nominal diameter of wires	Max. DC Resistance of conductor at 20°C	Nominal thickness of insulation	Nominal diameter of round armour wire	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Current Rating	
								Under Ground at 30°C	In Air at at 35°C
no. x mm2	no./mm	ohm/km	mm	mm	mm	mm	kg/km	amps	amps
3 x 4 rm	7/0.85	4.61	1.0	1.25	1.8	19.0	730	38	32
3 x 6 rm	7/1.05	3.08	1.0	1.25	1.8	20.5	860	48	41
3 x 10 rm	7/1.35	1.83	1.0	1.25	1.8	22.5	1070	64	56
3 x 16 rm	7/1.71	1.15	1.0	1.25	1.8	25.0	1340	83	75
3 x 25 rm	7/2.14	0.727	1.2	1.60	1.8	28.6	2000	110	98
3 x 35 sm	Min 6 wire	0.524	1.2	1.60	1.8	27.3	2070	130	120
3 x 50 sm	Min 6 wire	0.387	1.4	1.60	2.0	30.5	2720	155	150
3 x 70 sm	Min 12 wire	0.268	1.4	2.0	2.1	34.5	3715	190	190
3 x 95 sm	Min 15 wire	0.193	1.6	2.0	2.2	38.5	4720	225	230
3 x 120 sm	Min 18 wire	0.153	1.6	2.0	2.3	42.0	5650	260	270
3 x 150 sm	Min 18 wire	0.124	1.8	2.5	2.5	47.0	7250	295	305
3 x 185 sm	Min 30 wire	0.0991	2.0	2.5	2.7	50.5	8600	330	350
3 x 240 sm	Min 34 wire	0.0754	2.2	2.5	2.9	56.6	10800	385	410
3 x 300 sm	Min 34 wire	0.0601	2.4	2.5	3.1	61.0	13000	425	470

Type : **YRGY**
Standard : **IEC-60502-1**
Voltage : **300/500 Volts**

1. Conductor: Copper
2. Insulation: PVC
3. Inner covering : PVC
4. Armour: Round steel wire
5. Helical steel tape (Optional)
6. Oversheath: PVC

Construction:
Plain annealed copper conductor, PVC insulated, Core laid up, PVC inner covering, Round Galv. Steel wires armouring with or witjout helical steel tape binder & PVC sheathed overall.

Application:
Suitable for use in indoors, outdoors, underground and in water for continuous permissible service voltage of 720/1200 volts

Table: 20

Nominal cross sectional area of conductor	No. and Nominal diameter of wires	Max. DC Resistance of conductor at 20°C	Nominal thickness of insulation	Nominal diameter of round armour wire	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Current Rating	
								Under Ground at 30°C	In Air at 35°C
no. x mm²	no./mm	ohm/km	mm	mm	mm	mm	kg/km	amps	amps
3 x 25 rm/ 1 x 16 rm	7/2.14	0.727	1.2	1.6	1.8	29.4	2480	110	98
	7/1.71	1.15	1.0						
3 x 35 sm/ 1 x 16 rm	Min 6 wire	0.524	1.2	1.6	1.9	30.0	2815	130	120
	7/1.71	1.15	1.0						
3 x 50 sm/ 1 x 25 rm	Min 6 wire	0.387	1.4	2.0	2.0	33.5	3450	155	150
	7/2.14	0.727	1.2						
3 x 70 sm/ 1 x 35 rm	Min 12 wire	0.268	1.4	2.0	2.1	39.5	4500	190	190
	Min 15 wire	0.524	1.2						
3 x 95 sm/ 1 x 50 rm	Min 6 wire	0.193	1.6	2.0	2.3	43.0	5680	225	230
	Min 6 wire	0.387	1.4						
3 x 120 sm/ 1 x 70 rm	Min 18 wire	0.153	1.6	2.5	2.5	48.0	6760	260	270
	Min 12 wire	0.268	1.4						
3 x 150 sm/ 1 x 70 rm	Min 18 wire	0.124	1.8	2.5	2.6	51.0	8100	295	305
	Min 12 wire	0.268	1.4						
3 x 185 sm/ 1 x 95 rm	Min 30 wire	0.0991	2.0	2.5	2.7	56.0	9800	330	350
	Min 18 wire	0.193	1.6						
3 x 240 sm/ 1 x 120 rm	Min 15 wire	0.0754	2.2	2.5	2.9	62.0	12200	385	410
	Min 18 wire	0.153	1.6						
3 x 300 sm/ 1 x 150 rm	Min 34 wire	0.0601	2.4	2.5	3.1	69.0	14600	425	470
	Min 18 wire	0.124	1.8						

Type : **YRGY**
Standard : **IEC-60502-1**
Voltage : **600/1000 Volts**

1. Conductor: Copper
2. Insulation: PVC
3. Inner covering : PVC
4. Armour: Round steel wire
5. Helical steel tape (Optional)
6. Oversheath: PVC

Construction:
Plain annealed copper conductor, PVC insulated, Core laid up, PVC inner covering, Round Galv. Steel wires armouring with

Application:
Suitable for use in indoors, outdoors, underground and in water for continuouspermissible service voltage of 720/1200 volts

Colour of Sheath: BLACK

Table: 21

Nominal cross sectional area of conductor	No. and Nominal diameter of wires	Max. DC Resistance of conductor at 20°C	Nominal thickness of insulation	Nominal diameter of round armour wire	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Current Rating	
								Under Ground at 30°C	In Air at at 35°C
no. x mm²	no./mm	ohm/km	mm	mm	mm	mm	kg/km	amps	amps
4 x 4 rm	7/0.85	4.61	1.0	1.25	1.8	20.2	800	38	32
4 x 6 rm	7/1.05	3.08	1.0	1.25	1.8	22.0	950	48	41
4 x 10 rm	7/1.35	1.83	1.0	1.25	1.8	23.6	1200	64	56
4 x 16 rm	7/1.71	1.15	1.0	1.6	1.8	27.3	1710	83	75
4 x 25 rm	7/2.14	0.727	1.2	1.6	1.8	31.0	2285	110	98
4 x 35 sm	Min 6 wire	0.524	1.2	1.6	1.9	30.0	2600	130	120
4 x 50 sm	Min 6 wire	0.387	1.4	2.0	2.1	34.5	3650	155	150
4 x 70 sm	Min 12 wire	0.268	1.4	2.0	2.2	39.5	4730	190	190
4 x 95 sm	Min 15 wire	0.193	1.6	2.5	2.4	45.0	6400	225	230
4 x 120 sm	Min 18 wire	0.153	1.6	2.5	2.5	48.5	7600	260	270
4 x 150 sm	Min 18 wire	0.124	1.8	2.5	2.7	52.0	9100	295	305
4 x 185 sm	Min 30 wire	0.0991	2.0	2.5	2.9	58.0	11000	330	350
4 x 240 sm	Min 34 wire	0.0754	2.2	2.5	3.1	63.0	13800	385	410
4 x 300 sm	Min 34 wire	0.0601	2.4	2.5	3.3	70.5	17000	425	470

Type : **YFGY**
Standard : **IEC-60502-1**
Voltage : **600/1000 Volts**

1. Conductor: Copper
2. Insulation: PVC
3. Inner covering : PVC
4. Armour: Round steel wire
5. Helical steel tape (Optional)
6. Oversheath: PVC

Construction:
Plain annealed copper conductor, PVC insulated, Core laid up, PVC inner covering, Flat Galv. Steel wires armouring with or witjout helical steel tape binder & PVC sheathed overall.

Application:
Suitable for use in indoors, outdoors, underground and in water for continuous permissible service voltage of 720/1200 volts.

Colour of Sheath: BLACK

Table: 22

Nominal cross sectional area of conductor	No. and Nominal diameter of wires	Max. DC Resistance of conductor at 20°C	Nominal thickness of insulation	Nominal diameter of round armour wire	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Current Rating	
								Under Ground at 30°C	In Air at at 35°C
no. x mm²	no./mm	ohm/km	mm	mm	mm	mm	kg/km	amps	amps
3 x 25 rm	7/2.14	0.727	1.2	0.8	1.8	27.0	1650	110	98
3 x 35 sm	Min 6 wire	0.524	1.2	0.8	1.8	25.5	1930	130	120
3 x 50 sm	Min 6 wire	0.387	1.4	0.8	1.9	28.6	2520	155	150
3 x 70 sm	Min 12 wire	0.268	1.4	0.8	2.0	32.0	3280	190	190
3 x 95 sm	Min 15 wire	0.193	1.6	0.8	2.2	36.4	4300	225	230
3 x 120 sm	Min 18 wire	0.153	1.6	0.8	2.3	39.4	5200	260	270
3 x 150 sm	Min 18 wire	0.124	1.8	0.8	2.4	43.3	6300	295	305
3 x 185 sm	Min 30 wire	0.0991	2.0	0.8	2.6	47.0	7600	330	350
3 x 240 sm	Min 34 wire	0.0754	2.2	0.8	2.8	53.0	9800	385	410
3 x 300 sm	Min 34 wire	0.0601	2.4	0.8	2.9	57.8	11900	425	470
4 x 25 rm	7/2.14	0.727	1.2	0.8	1.8	27.6	2000	110	98
4 x 35 sm	Min 6 wire	0.524	1.2	0.8	1.9	29.1	2430	130	120
4 x 50 sm	Min 6 wire	0.387	1.4	0.8	2.0	32.7	3260	155	150
4 x 70 sm	Min 12 wire	0.268	1.4	0.8	2.1	37.2	4300	190	190
4 x 95 sm	Min 15 wire	0.193	1.6	0.8	2.3	41.8	5550	225	230
4 x 120 sm	Min 18 wire	0.153	1.6	0.8	2.4	45.0	6800	260	270
4 x 150 sm	Min 18 wire	0.124	1.8	0.8	2.6	48.5	8100	295	305
4 x 185 sm	Min 30 wire	0.0991	2.0	0.8	2.7	54.0	10100	330	350
4 x 240 sm	Min 34 wire	0.0754	2.2	0.8	3.0	61.0	12900	385	410
4 x 300 sm	Min 34 wire	0.0601	2.4	0.8	3.2	67.5	15500	425	470

Type : YRGY
Standard : IEC-60502-1
Voltage : 300/500 Volts

1. Conductor: Copper
2. Insulation: PVC
3. Inner covering : PVC
4. Armour: Round steel wire
5. Helical steel tape (Optional)
6. Oversheath: PVC

Construction:
Plain annealed copper conductor, PVC insulated, Core laid up, PVC inner covering, Round Galv. Steel wires armouring with or witjout helical steel tape binder & PVC sheathed overall.

Application:
Suitable for use in indoors, outdoors, underground and in water for continuous permissible service voltage of 720/1200 volts

Table: 23

Nominal cross sectional area of conductor	No. and Nominal diameter of wires	Max. DC Resistance of conductor at 20°C	Nominal thickness of insulation	Nominal diameter of round armour wire	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Current Rating	
								Under Ground at 30°C	In Air at 35°C
no. x mm²	no./mm	ohm/km	mm	mm	mm	mm	kg/km	amps	amps
3 x 25 rm/ 1 x 16 rm	7/2.14	0.727	1.2	0.8	1.8	28.2	1900	110	98
	7/1.71	1.15	1.0						
3 x 35 sm/ 1 x 16 rm	Min 6 wire	0.524	1.2	0.8	1.8	28.5	2220	130	120
	7/1.71	1.15	1.0						
3 x 50 sm/ 1 x 25 rm	Min 6 wire	0.387	1.4	0.8	1.9	31.8	2980	155	150
	7/2.14	0.727	1.2						
3 x 70 sm/ 1 x 35 rm	Min 12 wire	0.268	1.4	0.8	2.1	37.0	3900	190	190
	Min 15 wire	0.524	1.2						
3 x 95 sm/ 1 x 50 rm	Min 6 wire	0.193	1.6	0.8	2.2	41.2	5050	225	230
	Min 6 wire	0.387	1.4						
3 x 120 sm/ 1 x 70 rm	Min 18 wire	0.153	1.6	0.8	2.3	45.0	6220	260	270
	Min 12 wire	0.268	1.4						
3 x 150 sm/ 1 x 70 rm	Min 18 wire	0.124	1.8	0.8	2.4	48.3	7300	295	305
	Min 12 wire	0.268	1.4						
3 x 185 sm/ 1 x 95 rm	Min 30 wire	0.0991	2.0	0.8	2.6	53.4	9000	330	350
	Min 18 wire	0.193	1.6						
3 x 240 sm/ 1 x 120 rm	Min 15 wire	0.0754	2.2	0.8	2.8	59.4	11150	385	410
	Min 18 wire	0.153	1.6						
3 x 300 sm/ 1 x 150 rm	Min 34 wire	0.0601	2.4	0.8	3.0	68.0	14300	425	470
	Min 18 wire	0.124	1.8						

Type : **CONTROL CABLE (YY-1)**
Standard : **IEC-60502-1**
Voltage : **600/1000 Volts**

1. Conductor: Copper
2. Insulation: PVC
3.Common Covering: PVC Tape
4. Sheath: PVC

Construction:
Plain annealed copper conductor, PVC insulated, PVC sheathed Single core cable.

Application:
Suitable for use in indoors, outdoors, underground and in water for continuous permissible service voltage of 720/1200 volts

Table: 24

Nominal cross sectional area of conductor	No. and Nominal diameter of wires	Max. DC Resistance of conductor at 20°C	Nominal thickness of insulation	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Current Rating	
							Under Ground at 30°C	In Air at at 35°C
no. x mm²	no./mm	ohm/km	mm	mm	mm	kg/km	amps	amps
5 x 1.5 re	1/1.38	12.1	0.8	1.8	12.9	225	18	13
7 x 1.5 re	1/1.38	12.1	0.8	1.8	13.8	275	16	12
10 x 1.5 re	1/1.38	12.1	0.8	1.8	17.0	370	13	10
12 x 1.5 re	1/1.38	12.1	0.8	1.8	17.5	425	12	9
19 x 1.5 re	1/1.38	12.1	0.8	1.8	20.2	610	10	7
37 x 1.5 re	1/1.38	12.1	0.8	1.8	27.0	1100	8	5
5x2.5 re	1/1.78	7.41	0.9	1.8	14.2	290	24	19
7x2.5 re	1/1.78	7.41	0.9	1.8	15.3	370	21	17
10x2.5 re	1/1.78	7.41	0.9	1.8	19.0	507	18	14
12x2.5 re	1/1.78	7.41	0.9	1.8	19.4	570	16	13
19x2.5 re	1/1.78	7.41	0.9	1.8	22.5	835	14	12
37x2.5 re	1/1.78	7.41	0.9	2	30.0	1530	9	7

Type : **CONTROL CABLE (YRGY-1)**
Standard : **IEC-60502-1**
Voltage : **600/1000 Volts**

1. Conductor: Copper
2. Insulation: PVC
3. Common Covering: PVC Tape
4. Armour: Round steel wire
5. Helical tape (Optional)
6. Oversheath: PVC

Construction:
Plain annealed copper conductor, PVC insulated, Core laid up, PVC inner covering, Flat Galv. Steel wires armouring with or witjout helical steel tape binder & PVC sheathed overall.

Application:
Suitable for use in indoors, outdoors, underground and in water for continuous permissible service voltage of 720/1200 volts.

Table: 25

Nominal cross sectional area of conductor	No. and Nominal diameter of wires	Max. DC Resistance of conductor at 20°C	Nominal thickness of insulation	Nominal diameter of round armour wire	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Current Rating	
								Under Ground at 30°C	In Air at at 35°C
no. x mm²	no./mm	ohm/km	mm	mm	mm	mm	kg/km	amps	amps
5 x 1.5 re	1/1.38	12.1	0.8	1.25	1.8	16.7	545	18	13
7 x 1.5 re	1/1.38	12.1	0.8	1.25	1.8	17.5	620	16	12
10 x 1.5 re	1/1.38	12.1	0.8	1.25	1.8	20.7	805	13	10
12 x 1.5 re	1/1.38	12.1	0.8	1.25	1.8	21.5	885	12	9
19 x 1.5 re	1/1.38	12.1	0.8	1.6	1.8	25.0	1280	10	7
24 x 1.5 re	1/1.38	12.1	0.8	1.6	1.8	27.8	1510	9	6
37 x 1.5 re	1/1.38	12.1	0.8	1.6	1.9	31.2	1960	8	5
5x2.5 re	1/1.78	7.41	0.8	1.25	1.8	18.0	650	24	19
7x2.5 re	1/1.78	7.41	0.8	1.25	1.8	19.0	750	21	17
10x2.5 re	1/1.78	7.41	0.8	1.25	1.8	22.5	980	18	14
12x2.5 re	1/1.78	7.41	0.8	1.25	1.8	23.0	1060	16	13
19x2.5 re	1/1.78	7.41	0.8	1.6	1.8	26.9	1560	14	12
24x2.5 re	1/1.78	7.41	0.8	1.6	1.9	30.6	1880	13	11
37x2.5 re	1/1.78	7.41	0.8	1.6	2.0	34.5	2480	9	7

Type : **YSY**
Standard : **IEC-60502-1**
Voltage : **1.8/3.0 kV Volts**

1. Conductor: Copper
2. Insulation: PVC
3. Metallic screen: Copper
4. Oversheath: PVC

Construction:
Plain annealed copper conductor, PVC Insulated, Copper screen and PVC sheathed overall.

Application:
Suitable for use in indoors, outdoors, underground and in water for continuous permissible service for highest system voltage of 3.6 kV.

Table: 26

Nominal cross sectional area of conductor	No. and Nominal diameter of wires	Max. DC Resistance of conductor at 20°C	Nominal thickness of insulation	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Current Rating	
							Under Ground at 30°C	In Air at at 35°C
no. x mm^2	no./mm	ohm/km	mm	mm	mm	kg/km	amps	amps
1 x 25 rm	7/2.14	0.727	2.2	1.8	16.5	475	130	125
1 x 35 rm	Min 6 wire	0.524	2.2	1.8	16.0	590	155	160
1 x 50 rm	Min 6 wire	0.387	2.2	1.8	17.5	760	185	195
1 x 70 rm	Min 12 wire	0.268	2.2	1.8	19.5	975	225	245
1 x 95 rm	Min 15 wire	0.193	2.2	1.8	21.5	1230	270	300
1 x 120 rm	Min 18 wire	0.153	2.2	1.8	23.0	1490	310	350
1 x 150 rm	Min 18 wire	0.124	2.2	1.8	25.0	1800	350	405
1 x 185 rm	Min 30 wire	0.0991	2.2	1.8	27.0	2150	390	460
1 x 240 rm	Min 34 wire	0.0754	2.2	1.8	29.5	2700	450	555
1 x 300 rm	Min 34 wire	0.0601	2.4	1.9	32.5	3350	515	640
1 x 400 rm	Min 53 wire	0.047	2.6	2.0	37.0	4350	585	770
1 x 500 rm	Min 53 wire	0.0366	2.8	2.1	40.5	5350	680	900
1 x 630 rm	Min 53 wire	0.0283	2.8	2.2	44.0	6650	800	1030
1 x 800 rm	Min 53 wire	0.0221	2.8	2.3	49.0	8400	945	1160
1 x 1000 rm	Min 53 wire	0.0176	3.0	2.5	53.0	10500	1095	1310

Type : **YSY**
Standard : **IEC-60502-1**
Voltage : **1.8/3.0 kV Volts**

1. Conductor: Copper
2. Insulation: PVC
3. Inner covering: PVC
4. Metallic screen: Copper
5. Oversheath: PVC

Construction:
Plain annealed copper conductor, PVC Insulated, Cores laid up, PVC inner covering, Copper screen and PVC sheathed overall.

Application:
Suitable for use in indoors, outdoors, underground and in water for continuous permissible service for highest system voltage of 3.6 kV.

Table: 27

Nominal cross sectional area of conductor	No. and Nominal diameter of wires	Max. DC Resistance of conductor at 20°C	Nominal thickness of insulation	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Current Rating	
							Under Ground at 30°C	In Air at at 35°C
no. x mm²	no./mm	ohm/km	mm	mm	mm	kg/km	amps	amps
3 x 25 rm	Min 6 wire	0.727	2.2	1.8	28.0	1380	110	98
3 x 35 sm	Min 6 wire	0.524	2.2	1.9	29.0	1750	130	120
3 x 50 sm	Min 6 wire	0.387	2.2	2.0	32.0	2190	155	150
3 x 70 sm	Min 12 wire	0.268	2.2	2.1	35.0	2900	190	190
3 x 95 sm	Min 15 wire	0.193	2.2	2.2	38.5	3770	225	230
3 x 120 sm	Min 18 wire	0.153	2.2	2.3	41.5	4650	260	270
3 x 150 sm	Min 18 wire	0.124	2.2	2.4	44.0	5550	295	305
3 x 185 sm	Min 30 wire	0.0991	2.2	2.5	46.5	6700	330	350
3 x 240 sm	Min 34 wire	0.0754	2.2	2.7	52.0	8600	385	410
3 x 300 sm	Min 34 wire	0.0601	2.4	2.9	535	10500	425	470

Type : YSYRGY
Standard : IEC-60502-1
Voltage : 1.8/3.0 kV.

1. Conductor: Copper
2. Insulation: PVC
3. Inner covering : PVC
4. Metallic screen: Copper
5. Separation sheath: PVC
6. Armour: Round Galv. Steel wire
7. Helical steel tape (Optional)
8. Oversheath: PVC

Construction:
Plain annealed copper conductor, PVC insulated, Core laid up, PVC inner covering, Copper screen, PVC separation sheathed, Round Galv. Steel wires armouring with or without helical steel tape binder & PVC sheathed overall.

Application:
Suitable for use in indoors, outdoors, underground and in water for continuous servicefor highest system voltage of 3.6 kV.

Table: 28

Nominal cross sectional area of conductor	No. and Nominal diameter of wires	Max. DC Resistance of conductor at 20°C	Nominal thickness of insulation	Nominal diameter of round armour wire	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Current Rating	
								Under Ground at 30°C	In Air at at 35°C
no. x mm²	no./mm	ohm/km	mm	mm	mm	mm	kg/km	amps	amps
3 x 25 rm	Min 6 wire	0.727	2.2	1.6	2.0	34.0	2400	110	98
3 x 35 sm	Min 6 wire	0.524	2.2	2.0	2.1	36.0	3050	130	120
3 x 50 sm	Min 6 wire	0.387	2.2	2.0	2.2	39.0	3600	155	150
3 x 70 sm	Min 12 wire	0.268	2.2	2.0	2.3	42.0	4450	190	190
3 x 95 sm	Min 15 wire	0.193	2.2	2.5	2.5	47.0	5880	225	230
3 x 120 sm	Min 18 wire	0.153	2.2	2.5	2.6	50.5	6900	260	270
3 x 150 sm	Min 18 wire	0.124	2.2	2.5	2.7	53.0	7950	295	305
3 x 185 sm	Min 30 wire	0.0991	2.2	2.5	2.8	56.0	9300	330	350
3 x 240 sm	Min 34 wire	0.0754	2.2	2.5	3.0	61.5	11450	385	410
3 x 300 sm	Min 34 wire	0.0601	2.4	2.5	3.2	66.0	13750	425	470

Type : **YSYRGY**
Standard : **IEC-60502-1**
Voltage : **1.8/3.0 kV.**

1. Conductor: Copper
2. Insulation: PVC
3. Inner covering : PVC
4. Metallic screen: Copper
5. Separation sheath: PVC
6. Armour: Round Galv. Steel wire
7. Helical steel tape (Optional)
8. Oversheath: PVC

Construction:
Plain annealed copper conductor, PVC insulated, Core laid up, PVC inner covering, Copper screen, PVC separation sheathed, Flat Galv. Steel wires armouring with or without helical steel tape binder & PVC sheathed overall.

Application:
Suitable for use in indoors, outdoors, underground and in water for continuous servicefor highest system voltage of 3.6 kV.

Table: 29

Nominal cross sectional area of conductor	No. and Nominal diameter of wires	Max. DC Resistance of conductor at 20°C	Nominal thickness of insulation	Nominal diameter of round armour wire	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Current Rating	
								Under Ground at 30°C	In Air at at 35°C
no. x mm²	no./mm	ohm/km	mm	mm	mm	mm	kg/km	amps	amps
3 x 25 rm	Min 6 wire	0.727	2.2	0.8	1.9	32.5	2100	110	98
3 x 35 sm	Min 6 wire	0.524	2.2	0.8	2.0	33.5	2500	130	120
3 x 50 sm	Min 6 wire	0.387	2.2	0.8	2.1	36.0	3000	155	150
3 x 70 sm	Min 12 wire	0.268	2.2	0.8	2.2	39.5	3800	190	190
3 x 95 sm	Min 15 wire	0.193	2.2	0.8	2.3	43.5	4800	225	230
3 x 120 sm	Min 18 wire	0.153	2.2	0.8	2.4	46.5	5700	260	270
3 x 150 sm	Min 18 wire	0.124	2.2	0.8	2.6	50.0	6800	295	305
3 x 185 sm	Min 30 wire	0.0991	2.2	0.8	2.7	52.5	8000	330	350
3 x 240 sm	Min 34 wire	0.0754	2.2	0.8	2.9	57.0	10150	385	410
3 x 300 sm	Min 34 wire	0.0601	2.4	0.8	3.1	60.0	12000	425	470

Type : **NAYY (NYY-Aluminium)**
Standard : **VDE-0271/3.69**
Voltage : **600/1000 Volts**

1. Conductor: Aluminium
2. Insulation: PVC
3. Sheath: PVC

Construction:
Plain Aluminium conductor, PVC insulated, PVC sheathed Single core cable.

Application:
Suitable for use in indoors, outdoors, underground and in water for continuous permissible service voltage of 720/1200 volts.

Table: 30

Nominal cross sectional area of conductor	No. and Nominal diameter of wires	Max. DC Resistance of conductor at 20°C	Nominal thickness of insulation	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Current Rating	
							Under Ground at 30°C	In Air at at 35°C
no. x mm²	no./mm	ohm/km	mm	mm	mm	kg/km	amps	amps
1 x 1.5 re	1/1.38	18.1	0.8	1.8	6.8	56	21	18
1 x 2.5 re	1/1.78	12.1	0.9	1.8	7.3	69	28	25
1 x 4.0 rm	7/0.85	7.41	1.0	1.8	8.3	88	36	32
1 x 6.0 rm	7/1.05	4.61	1.0	1.8	8.8	102	44	41
1 x 10 rm	7/1.35	3.08	1.0	1.8	9.8	126	59	56
1 x 16 rm	7/1.71	1.91	1.0	1.8	10.8	158	75	72
1 x 25 rm	7/2.14	1.20	1.2	1.8	12.6	216	97	99
1 x 35 rm	19/1.53	0.868	1.2	1.8	13.9	262	120	120
1 x 50 rm	19/1.83	0.641	1.4	1.8	15.8	342	145	150
1 x 70 rm	19/2.17	0.443	1.4	1.8	17.8	425	170	185
1 x 95 rm	19/2.52	0.320	1.6	1.8	20.0	542	205	215
1 x 120 rm	37/2.03	0.253	1.6	1.8	21.6	638	250	260
1 x 150 rm	37/2.27	0.206	1.8	1.8	23.7	790	285	294
1 x 185 rm	37/2.52	0.164	2.0	2.0	26.3	954	325	333
1 x 240 rm	61/2.24	0.125	2.2	2.0	29.3	1194	368	382
1 x 300 rm	61/2.50	0.100	2.4	2.0	32.2	1451	407	431
1 x 400 rm	61/2.89	0.0778	2.6	2.2	36.0	1880	455	496
1 x 500 rm	61/3.23	0.0605	3.0	2.2	40.3	2320	483	534
1 x 630 rm	91/2.97	0.0469	3.0	2.2	44.2	2775	538	610

Type : NAYY (NYY-Aluminium)
Standard : VDE-0271/3.69
Voltage : 600/1000 Volts

1. Conductor: Aluminium
2. Insulation: PVC
3. Common Covering: PVC
4. Sheath: PVC

Construction:
Plain Aluminium conductor, PVC insulated, Cores laid up, PVC Common Covering & PVC sheathed Overall.

Application:
Suitable for use in indoors, outdoors, underground and in water for continuous permissible service voltage of 720/1200 volts.

Table: 31

Nominal cross sectional area of conductor	No. and Nominal diameter of wires	Max. DC Resistance of conductor at 20°C	Nominal thickness of insulation	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Current Rating	
							Under Ground at 30°C	In Air at at 35°C
no. x mm²	no./mm	ohm/km	mm	mm	mm	kg/km	amps	amps
2 x 1.5 re	1/1.38	18.1	0.8	1.8	11.9	160	18	16
2 x 2.5 re	1/1.78	12.1	0.9	1.8	13.0	200	25	21
2 x 4.0 rm	7/0.85	7.41	1.0	1.8	15.1	260	33	29
2 x 6.0 rm	7/1.05	4.61	1.0	1.8	16.3	300	42	38
2 x 10 rm	7/1.35	3.08	1.0	1.8	18.1	380	58	51
2 x 16 rm	7/1.71	1.91	1.0	1.8	20.2	475	74	64
2 x 25 rm	7/2.14	1.20	1.2	1.8	24.5	680	97	85
2 x 35 rm	19/1.53	0.868	1.2	2.0	27.4	885	119	108
3 x 1.5 re	1/1.38	18.1	0.8	1.8	12.1	175	16	13
3 x 2.5 re	1/1.78	12.1	0.9	1.8	13.5	215	22	19
3 x 4.0 rm	7/0.85	7.41	1.0	1.8	15.8	285	29	25
3 x 6.0 rm	7/1.05	4.61	1.0	1.8	17.0	335	37	33
3 x 10 rm	7/1.35	3.08	1.0	1.8	19.0	420	49	44
3 x 16 rm	7/1.71	1.91	1.0	1.8	21.9	575	64	56
3 x 25 rm	7/2.14	1.20	1.2	2.0	25.8	825	82	76
3 x 35 sm	Min 6 wire	0.868	1.2	1.8	23.5	732	99	94
3 x 50 sm	Min 6 wire	0.641	1.4	2.0	27	1000	119	114
3 x 70 sm	Min 12 wire	0.443	1.4	2.0	30	1250	146	142
3 x 95 sm	Min 15 wire	0.320	1.6	2.0	34.5	1640	178	169
3 x 120 sm	Min 18 wire	0.253	1.6	2.2	37.1	1955	201	196
3 x 150 sm	Min 18 wire	0.206	1.8	2.2	41	2400	229	223
3 x 185 sm	Min 30 wire	0.164	2.0	2.2	44.5	2920	256	262
3 x 240 sm	Min 34 wire	0.125	2.2	2.6	50.5	3760	300	305
3 x 300 sm	Min 34 wire	0.100	2.4	2.6	55.2	4500	332	343

Type : NAYY (NYY-Aluminium)
Standard : VDE-0271/3.69
Voltage : 600/1000 Volts

1. Conductor: Aluminium
2. Insulation: PVC
3. Common Covering: PVC
4. Sheath: PVC

Construction:
Plain annealed copper conductor, PVC insulated, Cores laid up, PVC Common Covering & PVC sheathed Overall.

Application:
Suitable for use in indoors, outdoors, underground and in water for continuous permissible service voltage of 720/1200 volts.

Table: 32

Nominal cross sectional area of conductor	No. and Nominal diameter of wires	Max. DC Resistance of conductor at 20°C	Nominal thickness of insulation	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Current Rating	
							Under Ground at 30°C	In Air at 35°C
no. x mm²	no./mm	ohm/km	mm	mm	mm	kg/km	amps	amps
3 x 25 rm/ 1 x 16 rm	7/2.14	1.20	1.2	2.0	27.4	860	82	76
	7/1.71	1.91	1.0					
3 x 35 sm/ 1 x 16 rm	Min 6 wire	0.868	1.2	2.0	27.2	1050	99	94
	7/1.71	1.91	1.0					
3 x 50 sm/ 1 x 25 rm	Min 6 wire	0.641	1.4	2.0	29.5	1220	119	114
	7/2.14	1.20	1.2					
3 x 70 sm/ 1 x 35 rm	Min 12 wire	0.443	1.4	2.0	34.8	1590	146	142
	19/1.53	0.868	1.2					
3 x 95 sm/ 1 x 50 rm	Min 15 wire	0.320	1.6	2.2	38.8	2050	178	169
	19/1.83	0.641	1.4					
3 x 120 sm/ 1 x 70 rm	Min 15 wire	0.253	1.6	2.2	41.5	2440	201	196
	19/2.17	0.443	1.4					
3 x 150 sm/ 1 x 70 rm	Min 15 wire	0.206	1.8	2.6	46.0	2965	229	223
	19/2.17	0.443	1.4					
3 x 185 sm/ 1 x 95 rm	Min 30 wire	0.164	2	2.6	51.0	3620	256	262
	19/2.52	0.320	1.6					
3 x 240 sm/ 1 x 120 rm	Min 30 wire	0.125	2.2	3	57.0	4600	300	305
	37/2.03	0.253	1.6					
3 x 300 sm/ 1 x 150 rm	Min 30 wire	0.100	2.4	3	63.4	5560	332	343
	37/2.27	0.206	1.8					

Type : NAYY (NYY-Aluminium)
Standard : VDE-0271/3.69
Voltage : 600/1000 Volts

1. Conductor: Aluminium
2. Insulation: PVC
3. Common Covering: PVC
4. Sheath: PVC

Construction:
Plain annealed copper conductor, PVC insulated, Cores laid up, PVC Common Covering & PVC sheathed Overall.

Application:
Suitable for use in indoors, outdoors, underground and in water for continuous permissible service voltage of 720/1200 volts.

Table: 33

Nominal cross sectional area of conductor	No. and Nominal diameter of wires	Max. DC Resistance of conductor at 20°C	Nominal thickness of insulation	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Current Rating	
							Under Ground at 30°C	In Air at at 35°C
no. x mm²	no./mm	ohm/km	mm	mm	mm	kg/km	amps	amps
4 x 1.5 re	1/1.38	18.1	0.8	1.8	13.0	200	16	13
4 x 2.5 re	1/1.78	12.1	0.9	1.8	14.5	250	22	19
4 x 4.0 rm	7/0.85	7.41	1.0	1.8	17.0	335	29	25
4 x 6.0 rm	7/1.05	4.61	1.0	1.8	18.4	400	37	33
4 x 10 rm	7/1.35	3.08	1.0	1.8	20.6	519	49	44
4 x 16 rm	7/1.71	1.91	1.0	1.8	24.0	712	64	56
4 x 25 rm	7/2.14	1.20	1.2	2.0	28.5	1010	82	76
4 x 35 sm	Min 6 wire	0.868	1.2	2.0	27.2	973	99	94
4 x 50 sm	Min 6 wire	0.641	1.4	2.0	29.8	1281	119	114
4 x 70 sm	Min 12 wire	0.443	1.4	2.0	35.2	1690	146	142
4 x 95 sm	Min 15 wire	0.320	1.6	2.2	39.3	2150	178	169
4 x 120 sm	Min 15 wire	0.253	1.6	2.2	42.0	2530	202	196
4 x 150 sm	Min 15 wire	0.206	1.8	2.6	46.5	3180	229	224
4 x 185 sm	Min 30 wire	0.164	2.0	2.6	51.4	3810	256	262
4 x 240 sm	Min 30 wire	0.125	2.2	3.0	58.0	4935	300	305
4 x 300 sm	Min 30 wire	0.100	2.4	3.0	64.2	5968	332	343

Type : **NAYFGbY (NYFGbY-Aluminium)**
Standard : **VDE-0271/3.69**
Voltage : **600/1000 Volts**

1. Conductor: Aluminium
2. Insulation: PVC
3. Common Covering: PVC
4. Armour: Flat Galv. Steel wire with helical Steel tape binder
5. Oversheath: PVC

Construction:
Plain Aluminium conductor, PVC insulated, Three or Four Cores laid up, PVC Common Covering, Flat Galv. Steel wire with helical Steel tape binder & PVC sheathed Overall.

Application:
Suitable for use in indoors, outdoors, underground and in water for continuous permissible service voltage of 720/1200 volts.

Table: 34

Nominal cross sectional area of conductor	No. and Nominal diameter of wires	Max. DC Resistance of conductor at 20°C	Nominal thickness of insulation	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Current Rating	
							Under Ground at 30°C	In Air at at 35°C
no. x mm²	no./mm	ohm/km	mm	mm	mm	kg/km	amps	amps
3 x 16 rm	7/1.71	1.91	1.0	1.8	24.0	1065	64	56
3 x 25 rm	7/2.14	1.20	1.2	2.0	28.0	1400	82	76
3 x 35 sm	Min 6 wire	0.868	1.2	2.0	26.2	1306	99	94
3 x 50 sm	Min 6 wire	0.641	1.4	2.0	29.0	1610	119	114
3 x 70 sm	Min 12 wire	0.443	1.4	2.0	31.8	1950	146	142
3 x 95 sm	Min 15 wire	0.320	1.6	2.2	37.0	2520	178	169
3 x 120 sm	Min 18 wire	0.253	1.6	2.2	39.8	2850	201	196
3 x 150 sm	Min 18 wire	0.206	1.8	2.2	43.2	3320	229	223
3 x 185 sm	Min 30 wire	0.164	2.0	2.6	47.4	4050	256	262
3 x 240 sm	Min 34 wire	0.125	2.2	2.6	52.8	4930	300	305
3 x 300 sm	Min 34 wire	0.100	2.4	3.0	58.2	5850	332	343
4 x 16 rm	7/1.71	1.91	1.0	2.0	26.4	1200	64	56
4 x 25 rm	7/2.14	1.20	1.2	2.0	30.5	1635	82	76
4 x 35 sm	Min 6 wire	0.868	1.2	2.0	29.5	1580	99	94
4 x 50 sm	Min 6 wire	0.641	1.4	2.0	33.0	1980	119	114
4 x 70 sm	Min 12 wire	0.443	1.4	2.2	38.0	2510	146	142
4 x 95 sm	Min 15 wire	0.320	1.6	2.2	42.0	3120	178	169
4 x 120 sm	Min 18 wire	0.253	1.6	2.2	44.6	3500	201	196
4 x 150 sm	Min 18 wire	0.206	1.8	2.6	49.2	4300	229	223
4 x 185 sm	Min 30 wire	0.164	2.0	2.6	55.2	5200	256	262
4 x 240 sm	Min 34 wire	0.125	2.2	3.0	63.3	6500	300	305
4 x 300 sm	Min 34 wire	0.100	2.4	3.4	69.8	8000	332	343

Type : **NAYFGbY (NYFGbY-Aluminium)**
Standard : **VDE-0271/3.69 & IEC-60502-1**
Voltage : **600/1000 Volts**

1. Conductor: Copper
2. Insulation: PVC
3. Common Covering: PVC
4. Armour: Flat Galv. Steel wire with Steel tape binder
5. Oversheath: PVC

Construction:
Plain annealed copper conductor, PVC insulated, Three & Half Cores laid up, PVC Common Covering, Flat Galv. Steel wire with helical Steel tape binder & PVC sheathed Overall.

Application:
Suitable for use in indoors, outdoors, underground and in water for continuous permissible service voltage of 720/1200 volts

Table: 35

Nominal cross sectional area of conductor	No. and Nominal diameter of wires	Max. DC Resistance of conductor at 20°C	Nominal thickness of insulation	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Current Rating	
							Under Ground at 30°C	In Air at 35°C
no. x mm²	no./mm	ohm/km	mm	mm	mm	kg/km	amps	amps
3 x 25 rm/ 1 x 16 rm	7/2.14	1.20	1.2	2.0	28.8	1520	82	76
	7/1.71	1.91	1.0					
3 x 35 sm/ 1 x 16 rm	Min 6 wire	0.868	1.2	2.0	29.1	1500	99	94
	7/1.71	1.91	1.0					
3 x 50 sm/ 1 x 25 rm	Min 6 wire	0.641	1.4	2.0	31.6	1900	119	114
	7/2.14	1.20	1.2					
3 x 70 sm/ 1 x 35 rm	Min 12 wire	0.443	1.4	2.2	37.3	2420	146	142
	19/1.53	0.868	1.2					
3 x 95 sm/ 1 x 50 rm	Min 15 wire	0.320	1.6	2.2	41.4	2960	178	169
	19/1.83	0.641	1.4					
3 x 120 sm/ 1 x 70 rm	Min 15 wire	0.253	1.6	2.2	44.0	3480	201	196
	19/2.17	0.443	1.4					
3 x 150 sm/ 1 x 70 rm	Min 15 wire	0.206	1.8	2.6	48.8	4140	229	223
	19/2.17	0.443	1.4					
3 x 185 sm/ 1 x 95 rm	Min 30 wire	0.164	2	2.6	55.5	5000	256	262
	19/2.52	0.320	1.6					
3 x 240 sm/ 1 x 120 rm	Min 15 wire	0.125	2.2	3.0	63.2	6120	300	305
	37/2.03	0.253	1.6					
3 x 300 sm/ 1 x 150 rm	Min 34 wire	0.100	2.4	3.0	70.2	7350	332	343
	37/2.27	0.206	1.8					

Type : **2xY**
Standard : **IEC-60502-1**
Voltage : **600/1000 Volts**

1. Conductor: Copper
2. Insulation: XLPE
3. Sheath: PVC

Construction:
Plain annealed copper conductor, XLPE Insulated, PVC sheathed Single core cable.

Application:
Suitable for use in indoors, outdoors, underground and in water for continuous permissible service voltage of 720/1200 volts.

Table: 36

Nominal cross sectional area of conductor	No. and Nominal diameter of wires	Max. DC Resistance of conductor at 20°C	Nominal thickness of insulation	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Current Rating	
							Under Ground at 30°C	In Air at at 35°C
no. x mm²	no./mm	ohm/km	mm	mm	mm	kg/km	amps	amps
1 x 1.5 re	1/1.38	12.1	0.7	1.4	6.1	51	36	30
1 x 2.5 re	1/1.78	7.41	0.7	1.4	6.4	65	47	39
1 x 4.0 rm	7/0.85	4.61	0.7	1.4	7.1	85	59	50
1 x 6.0 rm	7/1.05	3.08	0.7	1.4	7.8	107	78	69
1 x 10 rm	7/1.35	1.83	0.7	1.4	8.7	152	100	94
1 x 16 rm	7/1.71	1.15	0.7	1.4	9.8	220	130	125
1 x 25 rm	7/2.14	0.727	0.9	1.4	11.0	324	155	160
1 x 35 rm	Min 6 wire	0.524	0.9	1.4	11.6	404	185	195
1 x 50 rm	Min 6 wire	0.387	1.0	1.4	13.0	523	225	245
1 x 70 rm	Min 12 wire	0.268	1.1	1.4	14.9	754	270	300
1 x 95 rm	Min 15 wire	0.193	1.1	1.5	16.7	974	310	350
1 x 120 rm	Min 18 wire	0.153	1.2	1.5	18.3	1245	350	405
1 x 150 rm	Min 18 wire	0.124	1.4	1.6	20.5	1553	390	460
1 x 185 rm	Min 30 wire	0.0991	1.6	1.6	22.6	1902	450	555
1 x 240 rm	Min 34 wire	0.0754	1.7	1.7	25.6	2448	515	640
1 x 300 rm	Min 34 wire	0.0601	1.8	1.8	28.2	3035	585	770
1 x 400 rm	Min 53 wire	0.047	2.0	1.9	31.7	4005	680	900
1 x 500 rm	Min 53 wire	0.0366	2.2	2.0	35.4	4988	800	1030
1 x 630 rm	Min 53 wire	0.0283	2.4	2.2	39.6	6269	945	1160
1 x 800 rm	Min 53 wire	0.0221	2.6	2.3	44.3	7913	1095	1310
1 x 1000 rm	Min 53 wire	0.0176	2.8	2.4	49.2	9840	1270	1480

Type : **2xY**
Standard : **IEC-60502-1**
Voltage : **600/1000 Volts**

1. Conductor: Copper
2. Insulation: XLPE
3. Common Covering: PVC
4. Sheath: PVC

Construction:
Plain annealed copper conductor, XLPE Insulated, Cores laid up, PVC Common Covering & PVC sheathed Overall.

Application:
Suitable for use in indoors, outdoors, underground and in water for continuous permissible service voltage of 720/1200 volts.

Table: 37

Nominal cross sectional area of conductor	No. and Nominal diameter of wires	Max. DC Resistance of conductor at 20°C	Nominal thickness of insulation	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Current Rating	
							Under Ground at 30°C	In Air at at 35°C
no. x mm²	no./mm	ohm/km	mm	mm	mm	kg/km	amps	amps
2 x 1.5 re	1/1.38	12.1	0.7	1.8	11.5	168	34	27
2 x 2.5 re	1/1.78	7.41	0.7	1.8	12.4	205	44	35
2 x 4.0 rm	7/0.85	4.61	0.7	1.8	14	276	55	45
2 x 6.0 rm	7/1.05	3.08	0.7	1.8	15.2	350	74	62
2 x 10 rm	7/1.35	1.83	0.7	1.8	17	470	97	84
2 x 16 rm	7/1.71	1.15	0.7	1.8	19.2	640	125	110
2 x 25 rm	7/2.14	0.727	0.9	1.8	22.6	916	150	140
2 x 35 rm	19/1.53	0.524	0.9	1.8	25.3	1210	180	190
3 x 1.5 re	1/1.38	12.1	0.7	1.8	12	190	30	23
3 x 2.5 re	1/1.78	7.41	0.7	1.8	13	240	38	32
3 x 4.0 rm	7/0.85	4.61	0.7	1.8	14.7	321	48	41
3 x 6.0 rm	7/1.05	3.08	0.7	1.8	16.1	410	64	56
3 x 10 rm	7/1.35	1.83	0.7	1.8	18	570	83	75
3 x 16 rm	7/1.71	1.15	0.7	1.8	20.3	800	110	98
3 x 25 rm	7/2.14	0.727	0.9	1.8	24.2	1180	130	120
3 x 35 sm	Min 6 wire	0.524	0.9	1.8	22.3	1290	155	150
3 x 50 sm	Min 6 wire	0.387	1.0	1.8	25	1765	190	190
3 x 70 sm	Min 12 wire	0.268	1.1	1.9	28.4	2400	225	230
3 x 95 sm	Min 15 wire	0.193	1.1	2.0	32	3200	260	270
3 x 120 sm	Min 18 wire	0.153	1.2	2.1	35.3	4000	295	305
3 x 150 sm	Min 18 wire	0.124	1.4	2.3	39	5000	330	350
3 x 185 sm	Min 30 wire	0.0991	1.6	2.4	42.5	6080	385	410
3 x 240 sm	Min 34 wire	0.0754	1.7	2.6	47.6	7860	425	470
3 x 300 sm	Min 34 wire	0.0601	1.8	2.8	53.1	9660	478	564

Type : **2xY**
Standard : **IEC-60502-1**
Voltage : **600/1000 Volts**

1. Conductor: Copper
2. Insulation: XLPE
3. Common Covering: PVC
4. Sheath: PVC

Construction:
Plain annealed copper conductor, XLPE Insulated, Cores laid up, PVC Common Covering & PVC sheathed Overall.

Application:
Suitable for use in indoors, outdoors, underground and in water for continuous permissible service voltage of 720/1200 volts.

Table: 38

Nominal cross sectional area of conductor	No. and Nominal diameter of wires	Max. DC Resistance of conductor at 20°C	Nominal thickness of insulation	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Current Rating	
							Under Ground at 30°C	In Air at 35°C
no. x mm²	no./mm	ohm/km	mm	mm	mm	kg/km	amps	amps
3 x 25 rm/ 1 x 16 rm	7/2.14	0.727	0.9	1.8	25.5	1360	130	120
	7/1.71	1.15	0.7					
3 x 35 sm/ 1 x 16 rm	Min 6 wire	0.524	0.9	1.8	24.8	1500	155	150
	7/1.71	1.15	0.7					
3 x 50 sm/ 1 x 25 rm	Min 6 wire	0.387	1	1.8	27.1	2085	190	190
	7/2.14	0.727	0.9					
3 x 70 sm/ 1 x 35 rm	Min 12 wire	0.268	1.1	2.0	32.5	2850	225	230
	Min 15 wire	0.524	0.9					
3 x 95 sm/ 1 x 50 rm	Min 6 wire	0.193	1.1	2.1	35.6	3810	260	270
	Min 6 wire	0.387	1					
3 x 120 sm/ 1 x 70 rm	Min 18 wire	0.153	1.2	2.2	39	4816	295	305
	Min 12 wire	0.268	1.1					
3 x 150 sm/ 1 x 70 rm	Min 18 wire	0.124	1.4	2.3	42.7	5820	330	350
	Min 12 wire	0.268	1.1					
3 x 185 sm/ 1 x 95 rm	Min 30 wire	0.0991	1.6	2.5	47.8	7210	385	410
	Min 18 wire	0.193	1.1					
3 x 240 sm/ 1 x 120 rm	Min 15 wire	0.0754	1.7	2.7	53.2	9320	425	470
	Min 18 wire	0.153	1.2					
3 x 300 sm/ 1 x 150 rm	Min 34 wire	0.0601	1.8	2.9	59.5	11450	478	564
	Min 18 wire	0.124	1.4					

Type : **2xY**
Standard : **IEC-60502-1**
Voltage : **600/1000 Volts**

1. Conductor: Copper
2. Insulation: XLPE
3. Common Covering: PVC
4. Sheath: PVC

Construction:
Plain annealed copper conductor, XLPE insulated, Four Cores laid up, PVC Common Covering & PVC sheathed Overall.

Application:
Suitable for use in indoors, outdoors, underground and in water for continuous permissible service voltage of 720/1200 volts

Colour of Sheath: Black

Table: 39

Nominal cross sectional area of conductor	No. and Nominal diameter of wires	Max. DC Resistance of conductor at 20°C	Nominal thickness of insulation	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Current Rating	
							Under Ground at 30°C	In Air at at 35°C
no. x mm²	no./mm	ohm/km	mm	mm	mm	kg/km	amps	amps
4 x 1.5 re	1/1.38	12.1	0.7	1.8	13.1	225	30	23
4 x 2.5 re	1/1.78	7.41	0.7	1.8	14	285	38	32
4x 4 rm	7/0.85	4.61	0.7	1.8	15.9	388	48	41
4x 6 rm	7/1.05	3.08	0.7	1.8	17.2	490	64	56
4 x 10 rm	7/1.35	1.83	0.7	1.8	19.5	698	83	75
4 x 16 rm	7/1.71	1.15	0.7	1.8	22	1020	110	98
4 x 25 rm	7/2.14	0.727	0.9	1.8	26	1440	130	120
4 x 35 rm	Min 6 wire	0.524	0.9	1.8	25	1650	155	150
4 x 50 sm	Min 6 wire	0.387	1	1.9	27.3	2290	190	190
4 x70 sm	Min 12 wire	0.268	1.1	2	33.2	3200	225	230
4 x 95 sm	Min 15 wire	0.193	1.1	2.1	36.3	4165	260	270
4x120 sm	Min 18 wire	0.153	0.2	2.3	40	5250	295	305
4x150 sm	Min 18 wire	0.124	1.4	2.4	43.2	6500	330	350
4x185 sm	Min 30 wire	0.0991	1.6	2.6	48.7	8100	385	410
4x240 sm	Min 34 wire	0.0754	1.7	2.8	54	10400	425	470
4x300 sm	Min 34 wire	0.0601	1.8	3	60.5	12950	478	564

Type : **2xRay**
Standard : **IEC-60502-1**
Voltage : **1.8/3.0 kV.**

1. Conductor: Copper
2. Insulation: XLPE
3. Inner Covering: PVC
4. Armour: Round Al. wire
5. Oversheath: PVC

Construction:
Plain annealed copper conductor, XLPE insulated, PVC inner covering single layer round hard drawn aluminium wires armouring & PVC sheathed overall.

Application:
Suitable for use in indoors, outdoors, underground and in water for continuous permissible service voltage of 720/1200 volts.

Colour of Sheath: Black

Table: 40

Nominal cross sectional area of conductor	No. and Nominal diameter of wires	Max. DC Resistance of conductor at 20°C	Nominal thickness of insulation	Nominal diameter of round armour wire	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Current Rating	
								Under Ground at 30°C	In Air at at 35°C
no. x mm²	no./mm	ohm/km	mm	mm	mm	mm	kg/km	amps	amps
1x35 rm	Min 6 wire	0.524	0.9	1.25	1.8	17.3	555	185	195
1x50 rm	Min 6 wire	0.387	1.0	1.25	1.8	19.2	705	228	245
1x70 rm	Min 12 wire	0.268	1.1	1.25	1.8	20.9	933	275	305
1x95 rm	Min 15 wire	0.193	1.1	1.25	1.8	23.0	1192	310	350
1x120 rm	Min 18 wire	0.153	1.2	1.6	1.8	25.5	1518	355	410
1x150 rm	Min 18 wire	0.124	1.4	1.6	1.8	27.8	1895	390	460
1x185 rm	Min 30 wire	0.0991	1.6	1.6	1.8	30.0	2245	452	557
1x240 rm	Min 34 wire	0.0754	1.7	1.6	1.9	33.0	2825	518	640
1x300 rm	Min 34 wire	0.0601	1.8	2.0	2.0	36.5	3510	585	770
1x400 rm	Min 53 wire	0.047	2.0	2.0	2.1	41.0	4515	685	900
1x500 rm	Min 53 wire	0.0366	2.2	2.0	2.2	44.5	5565	800	1030
1x630 rm	Min 53 wire	0.0283	2.4	2.0	2.4	48.5	6828	945	1160
1x800 rm	Min 53 wire	0.0221	2.6	2.5	2.5	55.0	8710	1095	1310
1x1000 rm	Min 53 wire	0.0176	2.8	2.5	2.7	60.0	108000	1275	1485

Type : **2xFGY**
Standard : **IEC-60502-1**
Voltage : **600/1000 Volts**

1. Conductor: Copper
2. Insulation: XLPE
3. Inner Covering: PVC
4. Armour: Flat Galv. Steel wire with helical Steel tape binder
5. Sheath: PVC

Construction:
Plain annealed copper conductor, XLPE insulated, Three, Three& Half or four Cores laid up, PVC Common Covering, Flat Galv. steel wires armouring with helical Steel tape binder & PVC sheathed Overall.

Application:
Suitable for use in indoors, outdoors, underground and in water for continuous permissible service voltage of 720/1200 volts

Colour of Sheath: Black

Table: 41

Nominal cross sectional area of conductor	No. and Nominal diameter of wires	Max. DC Resistance of conductor at 20°C	Nominal thickness of insulation	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Current Rating	
							Under Ground at 30°C	In Air at at 35°C
no. x mm²	no./mm	ohm/km	mm	mm	mm	kg/km	amps	amps
3x16 rm	7/1.71	1.15	0.7	1.8	23	1250	110	98
3x25 rm	7/2.14	0.727	0.9	1.8	26.5	1680	130	120
3x35 sm	Min 6 wire	0.524	0.9	1.8	24.6	1780	155	150
3x50 sm	Min 6 wire	0.387	1	1.8	27.2	2329	190	190
3x70 sm	Min 12 wire	0.268	1.1	2	30.8	3060	225	230
3 x 95 sm	Min 15 wire	0.193	1.1	2.1	35	3920	260	270
3x 120 sm	Min 18 wire	0.153	1.2	2.2	38	4815	295	305
3x 150 sm	Min 18 wire	0.124	1.4	2.3	42.2	6000	330	350
3 x 185 sm	Min 30 wire	0.0991	1.6	2.5	45.5	7150	385	410
3 x 240 sm	Min 34 wire	0.0754	1.7	2.7	51.2	9220	425	470
3 x 300 sm	Min 34 wire	0.0601	1.8	2.9	55.8	11200	478	564

Type : **2xFGY**
Standard : **IEC-60502-1**
Voltage : **600/1000 Volts**

1. Conductor: Copper
2. Insulation: XLPE
3. Inner Covering: PVC
4. Armour: Flat Galv. Steel wire with helical Steel tape binder
5. Sheath: PVC

Construction:
Plain annealed copper conductor, XLPE insulated, Three, Three& Half or four Cores laid up, PVC Common Covering, Flat Galv. steel wires armouring with helical Steel tape binder & PVC sheathed Overall.

Application:
Suitable for use in indoors, outdoors, underground and in water for continuous permissible service voltage of 720/1200 volts

Colour of Sheath: Black

Table: 41

Nominal cross sectional area of conductor	No. and Nominal diameter of wires	Max. DC Resistance of conductor at 20°C	Nominal thickness of insulation	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Current Rating	
							Under Ground at 30°C	In Air at at 35°C
no. x mm²	no./mm	ohm/km	mm	mm	mm	kg/km	amps	amps
3x25 rm/ 1x16 rm	7/2.14 7/ 1.71	0.727 1.15	0.9 0.7	1.8	27.5	1900	130	120
3x35 sm/ 1x16 rm	Min 6 wire 7/1.71	0.524 1.15	0.9 0.7	1.8	27.3	2080	155	150
3x50 sm/ 1x25 rm	Min 6 wire 7/2.14	0.387 0.727	1.0 0.9	1.9	31	2780	190	190
3x70 sm/ 1x35 rm	Min 12 wire Min 6 wire	0.268 0.524	1.1 0.9	2	35.3	3700	225	230
3 x 95 sm/ 1x50 rm	Min 15 wire Min 6 wire	0.193 0.387	1.1 1.0	2.2	39.2	4740	260	270
3x 120 sm/ 1x70 rm	Min 18 wire Min 12 wire	0.153 0.268	1.2 1.1	2.3	42.8	5960	295	305
3x 150 sm/ 1x70 rm	Min 18 wire Min 12 wire	0.124 0.268	1.4 1.1	2.4	46.2	6950	330	350
3 x 185 sm/ 1x95 rm	Min 30 wire Min 15 wire	0.0991 0.193	1.6 1.1	2.6	52	8560	385	410
3 x 240 sm/ 1x120 rm	Min 34 wire Min 18 wire	0.0754 0.153	1.7 1.2	2.8	57.5	10700	425	470
3 x 300 sm/ 1x150 rm	Min 34 wire Min 18 wire	0.0601 0.124	1.8 1.4	2.9	64	13220	478	564

Type : **2xFGY**
Standard : **IEC-60502-1**
Voltage : **600/1000 Volts**

1. Conductor: Copper
2. Insulation: XLPE
3. Inner Covering: PVC
4. Armour: Flat Galv. Steel wire with helical Steel tape binder
5. Sheath: PVC

Construction:
Plain annealed copper conductor, XLPE insulated, Three, Three& Half or four Cores laid up, PVC Common Covering, Flat Galv. steel wires armouring with helical Steel tape binder & PVC sheathed Overall.

Application:
Suitable for use in indoors, outdoors, underground and in water for continuous permissible service voltage of 720/1200 volts

Colour of Sheath: Black

Table: 43

Nominal cross sectional area of conductor	No. and Nominal diameter of wires	Max. DC Resistance of conductor at 20°C	Nominal thickness of insulation	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Current Rating	
							Under Ground at 30°C	In Air at at 35°C
no. x mm²	no./mm	ohm/km	mm	mm	mm	kg/km	amps	amps
4x16 rm	7/1.71	1.15	0.7	1.8	24.6	1460	110	98
4x25 rm	7/2.14	0.727	0.9	1.8	28.6	2010	130	120
4x35 sm	Min 6 wire	0.524	0.9	1.8	27.7	2240	155	150
4x50 sm	Min 6 wire	0.387	1	1.9	30.6	2980	190	190
4x70 sm	Min 12 wire	0.268	1.1	2.1	36	4050	225	230
4 x 95 sm	Min 15 wire	0.193	1.1	2.2	39.7	5130	260	270
4x 120 sm	Min 18 wire	0.153	1.2	2.3	43.6	6250	295	305
4x 150 sm	Min 18 wire	0.124	1.4	2.5	47	7600	330	350
4 x 185 sm	Min 30 wire	0.0991	1.6	2.7	52.5	9320	385	410
4 x 240 sm	Min 34 wire	0.0754	1.7	2.9	57.6	12100	425	470
4 x 300 sm	Min 34 wire	0.0601	1.8	3.1	64.8	14550	478	564

Type : **A2xY (2xY-Aluminium)**
Standard : **IEC-60502-1**
Voltage : **600/1000 Volts**

1. Conductor: Aluminium
2. Insulation: XLPE
3. Sheath: PVC

Construction:
Plain Aluminium conductor, XLPE insulated, PVC sheathed single core cable.

Application:
Suitable for use in indoors, outdoors, underground and in water for continuous permissible service voltage of 720/1200 volts

Colour of Sheath: Black

Table: 44

Nominal cross sectional area of conductor	No. and Nominal diameter of wires	Max. DC Resistance of conductor at 20°C	Nominal thickness of insulation	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Current Rating	
							Under Ground at 30°C	In Air at at 35°C
no. x mm²	no./mm	ohm/km	mm	mm	mm	kg/km	amps	amps
1x1.5 re	1/1.38	18.1	0.7	1.4	6.1	40	26	22
1x2.5 re	1/1.78	12.1	0.7	1.4	6.4	46	35	30
1x4 rm	7/0.85	7.41	0.7	1.4	7.1	58	44	39
1x6 rm	7/1.05	4.61	0.7	1.4	7.8	69	58	52
1x10 rm	7/1.35	3.08	0.7	1.4	8.7	88	75	70
1x16 rm	7/1.71	1.91	0.7	1.4	9.8	115	94	97
1x25 rm	7/2.14	1.2	0.9	1.4	11.4	160	120	120
1x35 rm	19/1.53	0.868	0.9	1.4	12.7	200	145	150
1x50 rm	19/1.83	0.641	1	1.4	14.4	262	170	185
1x70 rm	19/2.17	0.443	1.1	1.4	16.2	342	205	215
1x95 rm	19/2.52	0.32	1.1	1.5	18.3	438	250	260
1x120 rm	37/2.03	0.253	1.2	1.6	20.2	538	285	294
1x150 rm	37/2.27	0.206	1.4	1.6	22.5	665	325	333
1x185 rm	37/2.52	0.164	1.6	1.7	24.7	800	368	382
1x240 rm	61/2.24	0.125	1.7	1.8	27.7	1016	407	431
1x300 rm	61/2.50	0.1	1.8	1.9	30.6	1245	455	496
1x400 rm	61/2.89	0.0778	2	2	34.6	1616	483	534
1x500 rm	61/3.23	0.0605	2.2	2.2	38.6	1988	538	610
1x630 rm	91/2.97	0.0469	2.4	2.2	42.7	2500	588	698

Type : A2xY (2xY-Aluminium)
Standard : IEC-60502-1
Voltage : 600/1000 Volts

1. Conductor: Copper
2. Insulation: XLPE
3. Common Covering: PVC
4. Sheath: PVC

Construction:
Plain Aluminium conductor, XLPE insulated, Core laid up,PVC common covering &PVC sheathed overall.

Application:
Suitable for use in indoors, outdoors, underground and in water for continuous permissible service voltage of 720/1200 volts

Colour of Sheath: Black

Table: 45

Nominal cross sectional area of conductor	No. and Nominal diameter of wires	Max. DC Resistance of conductor at 20°C	Nominal thickness of insulation	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Current Rating	
							Under Ground at 30°C	In Air at at 35°C
no. x mm2	no./mm	ohm/km	mm	mm	mm	kg/km	amps	amps
2x1.5 re	1/1.38	18.1	0.7	1.8	11.5	150	23	19
2x2.5 re	1/1.78	12.1	0.7	1.8	12.4	170	32	27
2x4 rm	7/0.85	7.41	0.7	1.8	14	220	42	37
2x6 rm	7/1.05	4.61	0.7	1.8	15.2	270	56	40
2x10 rm	7/1.35	3.08	0.7	1.8	17	335	74	64
2x16 rm	7/1.71	1.91	0.7	1.8	9.2	425	97	85
2x25 rm	7/2.14	1.2	0.9	1.8	22.6	585	119	108
2x35 rm	19/1.53	0.868	0.9	1.8	25.3	750	145	136
3x1.5 re	1/1.38	18.1	0.7	1.8	12	160	21	17
3x2.5 re	1/1.78	12.1	0.7	1.8	13	190	28	24
3x4 rm	7/0.85	7.41	0.7	1.8	14.7	245	36	32
3x6 rm	7/1.05	4.61	0.7	1.8	16.1	290	48	43
3x10 rm	7/1.35	3.08	0.7	1.8	18	380	64	56
3x16 rm	7/1.71	1.91	0.7	1.8	20.3	505	82	76
3x25 rm	7/2.14	1.2	0.9	1.8	24.2	700	99	95
3x35 sm	Min 6 wire	0.868	0.9	1.8	22.3	630	119	114
3x50 sm	Min 6 wire	0.641	1	1.8	25	815	146	142
3x70 sm	Min 12 wire	0.443	1.1	1.9	28.4	1075	178	169
3x95 sm	Min 15 wire	0.32	1.1	2	32	1370	201	196
3x120 sm	Min 15 wire	0.253	1.2	2.1	35.3	1680	229	223
3x150 sm	Min 15 wire	0.206	1.4	2.3	39	2120	256	262
3x185 sm	Min 30 wire	0.164	1.6	2.4	42.5	2550	300	305
3x240 sm	Min 30 wire	0.125	1.7	2.6	47.6	3260	332	343
3x300 sm	Min 30 wire	0.1	1.8	2.8	53.1	3930	369	409

Type : **A2xY (2xY-Aluminium)**
Standard : **IEC-60502-1**
Voltage : **600/1000 Volts**

1. Conductor: Aluminium
2. Insulation: XLPE
3. Common covering: PVC
4. Shesth: PVC

Construction:
Plain Aluminium conductor, XLPE insulated, Core laid up,PVC common covering &PVC sheathed overall.

Application:
Suitable for use in indoors, outdoors, underground and in water for continuous permissible service voltage of 720/1200 volts

Colour of Sheath: Black

Table: 46

Nominal cross sectional area of conductor	No. and Nominal diameter of wires	Max. DC Resistance of conductor at 20°C	Nominal thickness of insulation	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Current Rating	
							Under Ground at 30°C	In Air at at 35°C
no. x mm²	no./mm	ohm/km	mm	mm	mm	kg/km	amps	amps
3x25 rm/ 1x16 rm	7/2.14 7/1.71	1.2 1.91	0.9 0.7	1.8	25.5	790	99	95
3x35 sm/ 1x16 rm	Min 6 wire 7/1.71	0.868 1.91	0.9 0.7	1.8	24.8	762	119	114
3x50 sm/ 1x25 rm	Min 6 wire 7/2.14	0.641 1.2	1 0.9	1.8	27.1	975	146	142
3x70 sm/ 1x35 rm	Min 12 wire 19/1.53	0.443 0.868	1.1 0.9	2	32.5	1325	178	169
3x95 sm/ 1x50 rm	Min 15 wire 19/1.83	0.32 0.641	1.1 1	2.1	35.6	1705	201	196
3x120 sm/ 1x70 rm	Min 15 wire 19/2.17	0.253 0.443	1.2 1.1	2.2	39	2150	229	223
3x150 sm/ 1x70 rm	Min 15 wire 19/2.17	0.206 0.443	1.4 1.1	2.3	42.7	2515	256	262
3x185 sm/ 1x95 rm	Min 30 wire 19/2.52	0.164 0.320	1.6 1.1	2.5	47.8	3120	300	305
3x240 sm 1x120 rm	Min 30 wire 37/2.03	0.125 0.253	1.7 1.2	2.7	53.2	3950	332	343
3x300 sm/ 1x150 rm	Min 30 wire 37/2.27	0.1 0.206	1.8 1.4	2.9	59.5	4830	369	409

Type : A2xY (2xY-Aluminium)
Standard : IEC-60502-1
Voltage : 600/1000 Volts

1. Conductor: Copper
2. Insulation: XLPE
3. Common Covering: PVC
4. Sheath: PVC

Construction:
Plain Aluminium conductor, XLPE insulated, Core laid up,PVC common covering &PVC sheathed overall.

Application:
Suitable for use in indoors, outdoors, underground and in water for continuous permissible service voltage of 720/1200 volts

Colour of Sheath: Black

Table: 47

Nominal cross sectional area of conductor	No. and Nominal diameter of wires	Max. DC Resistance of conductor at 20°C	Nominal thickness of insulation	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Current Rating	
							Under Ground at 30°C	In Air at at 35°C
no. x mm2	no./mm	ohm/km	mm	mm	mm	kg/km	amps	amps
4x1.5 re	1/1.38	18.1	0.7	1.8	13.1	185	21	18
4x2.5 re	1/1.78	12.1	0.7	1.8	14	220	28	24
4x4 rm	7/0.85	7.41	0.7	1.8	15.9	290	36	32
4x6 rm	7/1.05	4.61	0.7	1.8	17.2	350	48	43
4x10 rm	7/1.35	3.08	0.7	1.8	19.5	452	64	56
4x16 rm	7/1.71	1.91	0.7	1.8	22	585	82	76
4x25 rm	7/2.14	1.2	0.9	1.8	26	812	99	95
4x35 sm	Min 6 wire	0.868	0.9	1.8	25	795	119	114
4x50 sm	Min 6 wire	0.641	1	1.9	27.3	1032	146	142
4x70 sm	Min 12 wire	0.443	1.1	2	33.2	1405	178	169
4x95 sm	Min 15 wire	0.32	1.1	2.1	36.3	1775	201	196
4x120 sm	Min 15 wire	0.253	1.2	2.3	40	2210	229	223
4x150 sm	Min 15 wire	0.206	1.4	2.4	43.2	2700	256	262
4x185 sm	Min 30 wire	0.164	1.6	2.6	48.7	3300	300	305
4x240 sm	Min 30 wire	0.125	1.7	2.8	54	4210	332	343
4x300 sm	Min 30 wire	0.1	1.8	3	60.5	5130	369	409

Type : **A2xY (2xY-Aluminium)**
Standard : **IEC-60502-1**
Voltage : **600/1000 Volts**

1. Conductor: Aluminium
2. Insulation: XLPE
3. Common covering: PVC
4. Armour: Flat Galv. Steel wire with helical steel tape.
5. Shesth: PVC

Construction:
Plain Aluminium conductor, XLPE insulated, Three, Three & half or Four Cores laid up, PVC common covering, Flat Galv. Steel wires armouring with helical steel tape binder &PVC sheathed overall.

Application:
Suitable for use in indoors, outdoors, underground and in water for continuous permissible service voltage of 720/1200 volts

Colour of Sheath: Black

Table: 48

Nominal cross sectional area of conductor	No. and Nominal diameter of wires	Max. DC Resistance of conductor at 20°C	Nominal thickness of insulation	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Current Rating	
							Under Ground at 30°C	In Air at at 35°C
no. x mm2	no./mm	ohm/km	mm	mm	mm	kg/km	amps	amps
3x16 rm	7/1.71	1.91	0.7	1.8	23	940	76	64
3x25 rm	7/2.14	1.2	0.9	1.8	26.5	1200	99	87
3x35 sm	Min 6 wire	0.868	0.9	1.8	24.6	1120	117	103
3x50 sm	Min 6 wire	0.641	1	1.8	27.2	1365	144	128
3x70 sm	Min 12 wire	0.443	1.1	2	30.8	1725	173	162
3x95 sm	Min 15 wire	0.32	1.1	2.1	35	2160	211	194
3x120 sm	Min 10 wire	0.253	1.2	2.2	38	2535	241	231
3x150 sm	Min 10 wire	0.206	1.4	2.3	42.2	3100	271	265
3x185 sm	Min 30 wire	0.164	1.6	2.5	45.5	3640	308	307
3x240 sm	Min 30 wire	0.125	1.7	2.7	51.2	4520	357	362
3x300 sm	Min 30 wire	0.1	1.8	2.9	55.8	5300	405	422
4x16 rm	7/1.71	1.91	0.7	1.8	24.6	1050	76	64
4x25 rm	7/2.14	1.2	0.9	1.8	28.6	1365	99	87
4x35 sm	Min 6 wire	0.868	1.6	1.8	27.7	1345	117	103
4x50 sm	Min 6 wire	0.641	1	1.9	30.6	1665	144	128
4x70 sm	Min 12 wire	0.443	1.1	2.1	36	2180	173	162
4x95 sm	Min 15 wire	0.32	1.1	2.2	39.7	2655	211	194
4x120 sm	Min 15 wire	0.253	1.2	2.3	43.6	3240	241	231
4x150 sm	Min 15 wire	0.206	1.4	2.5	47	3820	271	265
4x185 sm	Min 30 wire	0.164	1.6	2.7	52.5	4600	308	307
4x240 sm	Min 30 wire	0.125	1.7	2.9	57.6	5700	357	362
4x300 sm	Min 30 wire	0.1	1.8	3.1	64.8	6760	405	422

Type : **A2xFGY (2xFGY-Aluminium)**
Standard : **IEC-60502-1**
Voltage : **600/1000 Volts**

1. Conductor: Aluminium
2. Insulation: XLPE
3. Common covering: PVC
4. Armour: Flat Galv. Steel wire with helical steel tape.
5. Shesth: PVC

Construction:
Plain Aluminium conductor, XLPE insulated, Three & half Cores laid up, PVC common covering, Flat Galv. Steel wires armouring with helical steel tape binder &PVC sheathed overall.

Application:
Suitable for use in indoors, outdoors, underground and in water for continuous permissible service voltage of 720/1200 volts

Colour of Sheath: Black

Table: 49

Nominal cross sectional area of conductor	No. and Nominal diameter of wires	Max. DC Resistance of conductor at 20°C	Nominal thickness of insulation	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Current Rating	
							Under Ground at 30°C	In Air at at 35°C
no. x mm²	no./mm	ohm/km	mm	mm	mm	kg/km	amps	amps
3x25 rm/ 1X16 rm	7/2.14 7/1.71	1.2 1.91	0.9 0.7	1.8	27.5	1320	99	87
3x35 sm/ 1x16 rm	Min 6 wire 7/1.71	0.868 1.91	0.9 0.7	1.8	27.3	1290	117	103
3x50 sm/ 1x25 rm	Min 6 wire 7/2.14	0.641 1.2	1 0.9	1.9	31	1620	144	128
3x70 sm/ 1x35 rm	Min 12 wire 19/1.53	0.443 0.868	1.1 0.9	2	35.3	2145	173	162
3x95 sm/ 1x50 rm	Min 15 wire 19/1.83	0.32 0.641	1.1 1	2.2	39.2	2600	211	194
3x120 sm/ 1x70 rm	Min 15 wire 19/2.17	0.253 0.443	1.2 1.1	2.3	42.8	3120	241	231
3x150 sm/ 1x70 rm	Min 15 wire 19/2.17	0.206 0.443	1.4 1.1	2.4	46.2	3600	271	265
3x185 sm/ 1x95 rm	Min 30 wire 19/2.52	0.164 0.320	1.6 1.1	2.6	52	4420	308	307
3x240 sm/ 1x120 rm	Min 30 wire 37/2.03	0.125 0.253	1.7 1.2	2.8	57.5	5350	357	362
3x300 sm/ 1x150 rm	Min 30 wire 37/2.27	0.1 0.206	1.8 1.4	2.9	64	6400	405	422

Type : **YSY**
Standard : **IEC-60502-2**
Voltage : **3.6/6 KV**

1. Conductor: Copper
2. Insulation: PVC
3. Metallic screen: Copper
4. Oversheath: PVC

Construction:
Plain annealed copper conductor, PVC insulated, Copper screned & PVC sheathed overall.

Application:
Suitable for use in indoors, outdoors, underground and in water for continuous service for highest system voltage of 7.2 KV.

Table: 01

Nominal cross sectional area of conductor	No. of wires	Nominal thickness of insulation	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Max. DC Resistance of conductor at 20°C	Current Rating	
							Under Ground at 30°C	In Air at at 35°C
mm2	no./mm	mm	mm	mm	kg/km	ohm/km	amps	amps
1 x 25 rm	Min. 6 wire	3.4	1.8	18	645	0.727	131	125
1 x 35 rm	Min. 6 wire	3.4	1.8	19.5	770	0.524	156	150
1 x 50 rm	Min. 6 wire	3.4	1.8	20.5	860	0.387	183	180
1 x 70 rm	Min. 12 wire	3.4	1.8	22.5	1105	0.268	223	230
1 x 95 rm	Min. 15 wire	3.4	1.8	24.5	1410	0.193	268	280
1 x 120 rm	Min. 18 wire	3.4	1.8	26	1670	0.153	300	325
1 x 150 rm	Min. 18 wire	3.4	1.8	27.5	1980	0.124	335	365
1 x 185 rm	Min. 30 wire	3.4	1.8	29.2	2380	0.0991	380	420
1 x 240 rm	Min. 34 wire	3.4	1.9	32	3000	0.0754	450	500
1 x 300 rm	Min. 34 wire	3.4	1.9	34.3	3600	0.0601	490	580
1 x 400 rm	Min. 53 wire	3.4	2	37.8	4550	0.047	570	690
1 x 500 rm	Min. 53 wire	3.4	2.1	41	5600	0.0366	645	775
1 x 630 rm	Min. 53 wire	3.4	2.2	45.3	7100	0.0283	730	900
1 x 800 rm	Min. 53 wire	3.4	2.3	51	8500	0.0221	910	1035
1 x 1000 rm	Min. 53 wire	3.4	2.5	56	10500	0.0176	1060	1185

Type : **YSY**
Standard : **IEC-60502-2**
Voltage : **3.6/6 KV**

1. Conductor: Copper
2. Insulation: PVC
3. Inner covering: PVC
4. Metallic screen: Copper
5. Oversheath: PVC

Construction:
Plain annealed copper conductor, PVC insulated, three cores laid up, PVC inner covering, Copper screened & PVC sheathed overall.

Application:
Suitable for use in indoors, outdoors, underground and in water for continuous service for highest system voltage of 7.2 KV.

Table: 02

Nominal cross sectional area of conductor	No. of wires	Nominal thickness of insulation	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Max. DC Resistance of conductor at 20°C	Current Rating	
							Under Ground at 30°C	In Air at at 35°C
mm2	no./mm	mm	mm	mm	kg/km	ohm/km	amps	amps
3 x 25 rm	Min. 6 wire	3.4	2	34	1760	0.727	105	105
3 x 35 sm	Min. 6 wire	3.4	2.1	35	2130	0.524	125	125
3 x 50 sm	Min. 6 wire	3.4	2.1	37.5	2570	0.387	145	155
3 x 70 sm	Min. 12 wire	3.4	2.3	41	3350	0.268	180	190
3 x 95 sm	Min. 15 wire	3.4	2.4	44.5	4300	0.193	215	235
3 x 120 sm	Min. 18 wire	3.4	2.5	48	5200	0.153	245	270
3 x 150 sm	Min. 18 wire	3.4	2.6	50.5	6100	0.124	275	305
3 x 185 sm	Min. 30 wire	3.4	2.7	53	7350	0.0991	305	350
3 x 240 sm	Min. 34 wire	3.4	2.9	58	9300	0.0754	350	405
3 x 300 sm	Min. 34 wire	3.4	3	61.5	11200	0.0601	390	460

Type : **YSYRGY**
Standard : **IEC-60502-2**
Voltage : **3.6/6 KV**

1. Conductor: Copper
2. Insulation: PVC
3. Inner covering: PVC
4. Metallic screen: Copper
5. Sepration sheath: PVC
6. Armour: Round galv. Steel wire
7. Helical steel tape (Optional)
8. Oversheath: PVC

Construction:
Plain annealed copper conductor, PVC insulated, three cores laid up, PVC inner covering, Copper screned, extruded PVC separation sheathed, round galv. Steel wires armouring with or without helical steel tape binder and PVC sheathed overall.

Application:
Suitable for use in indoors, outdoors, underground and in water for continuous service for highest system voltage of 7.2 KV.

Table: 03

Nominal cross sectional area of conductor	No. of wires	Nominal thickness of insulation	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Max. DC Resistance of conductor at 20°C	Current Rating	
							Under Ground at 30°C	In Air at at 35°C
mm2	no./mm	mm	mm	mm	kg/km	ohm/km	amps	amps
3 x 25 rm	Min. 6 wire	3.4	2	41	3200	0.727	105	105
3 x 35 sm	Min. 6 wire	3.4	2	42	3630	0.524	125	125
3 x 50 sm	Min. 6 wire	3.4	2.5	46	4550	0.387	145	155
3 x 70 sm	Min. 12 wire	3.4	2.5	49	5480	0.268	180	190
3 x 95 sm	Min. 15 wire	3.4	2.5	53	6640	0.193	215	235
3 x 120 sm	Min. 18 wire	3.4	2.5	56	7700	0.153	245	270
3 x 150 sm	Min. 18 wire	3.4	2.5	59	8770	0.124	275	305
3 x 185 sm	Min. 30 wire	3.4	2.5	61.5	10200	0.0991	305	350
3 x 240 sm	Min. 34 wire	3.4	2.5	67	12370	0.0754	350	405
3 x 300 sm	Min. 34 wire	3.4	3.15	72	15300	0.0601	390	460

Type : **YSYFGY**
Standard : **IEC-60502-2**
Voltage : **3.6/6 KV**

1. Conductor: Copper
2. Insulation: PVC
3. Inner covering: PVC
4. Metallic screen: Copper
5. Sepration sheath: PVC
6. Armour: Round galv. Steel wire
7. Helical steel tape (Optional)
8. Oversheath: PVC

Construction:
Plain annealed copper conductor, PVC insulated, three cores laid up, PVC inner covering, Copper screned, extruded PVC separation sheathed, round galv. Steel wires armouring with or without helical steel tape binder and PVC sheathed overall.

Application:
Suitable for use in indoors, outdoors, underground and in water for continuous service for highest system voltage of 7.2 KV.

Table: 04

Nominal cross sectional area of conductor	No. of wires	Nominal thickness of insulation	Nominal thickness of flat Armour wire	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Max. DC Resistance of conductor at 20°C	Current Rating	
								Under Ground at 30°C	In Air at at 35°C
mm2	no./mm	mm	mm	mm	mm	kg/km	ohm/km	amps	amps
3 x 25 rm	Min. 6 wire	3.4	0.8	2.1	38	2600	0.727	105	105
3 x 35 sm	Min. 6 wire	3.4	0.8	2.2	39.5	3100	0.524	125	125
3 x 50 sm	Min. 6 wire	3.4	0.8	2.3	43	3590	0.387	145	155
3 x 70 sm	Min. 12 wire	3.4	0.8	2.4	46	4450	0.268	180	190
3 x 95 sm	Min. 15 wire	3.4	0.8	2.5	50	5500	0.193	215	235
3 x 120 sm	Min. 18 wire	3.4	0.8	2.7	53.5	6500	0.153	245	270
3 x 150 sm	Min. 18 wire	3.4	0.8	2.8	56	7500	0.124	275	305
3 x 185 sm	Min. 30 wire	3.4	0.8	2.9	59	8800	0.0991	305	350
3 x 240 sm	Min. 34 wire	3.4	0.8	3.1	64	10950	0.0754	350	405
3 x 300 sm	Min. 34 wire	3.4	0.8	3.2	68	13200	0.0601	390	460

Type : **NYSY**
Standard : **VDE 0271/3.69**
Voltage : **3.5/6 KV**

1. Conductor: Copper
2. Insulation: PVC
3. Common covering: PVC
4. Metallic sheild: Copper
5. Oversheath: PVC

Construction:
Plain annealed copper conductor, PVC insulated, single core/three cores laid up, PVC common covering (for three core), metallic sheild by copper and PVC sheathed overall.

Application:
Suitable for use in indoors, outdoors, underground and in water for continuous service for highest. system voltage of 4.2/7.2 KV.

Colour of sheath : RED

Table: 05

Nominal cross sectional area of conductor	No. of wires	Nominal thickness of insulation	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Max. DC Resistance of conductor at 20°C	Current Rating	
							Under Ground at 30°C	In Air at at 35°C
mm2	no./mm	mm	mm	mm	kg/km	ohm/km	amps	amps
1 x 25 rm	Min. 6 wire	3.4	1.8	17.8	590	0.727	131	120
1 x 35 rm	Min. 6 wire	3.4	1.8	18.8	710	0.524	156	150
1 x 50 rm	Min. 6 wire	3.4	1.8	20.3	885	0.387	183	180
1 x 70 rm	Min. 12 wire	3.4	1.8	22	1115	0.268	223	230
1 x 95 rm	Min. 15 wire	3.4	1.8	23.7	1400	0.193	268	280
1 x 120 rm	Min. 18 wire	3.4	1.8	25.4	1670	0.153	300	325
1 x 150 rm	Min. 18 wire	3.4	1.8	27	1980	0.124	335	365
1 x 185 rm	Min. 30 wire	3.4	2	29	2380	0.0991	380	420
1 x 240 rm	Min. 34 wire	3.4	2	31.8	3010	0.0754	450	500
1 x 300 rm	Min. 34 wire	3.4	2	34	3590	0.0601	490	580
1 x 400 rm	Min. 53 wire	3.4	2.2	38	4630	0.727	570	690
1 x 500 rm	Min. 53 wire	3.4	2.4	41.5	5670	0.524	645	775
1 x 630 rm	Min. 53 wire	3.4	2.4	45.2	7020	0.387	730	900
3 x 25 rm	Min. 6 wire	3.4	2.2	36.2	2015	0.727	105	105
3 x 35 sm	Min. 6 wire	3.4	2.2	39.4	2480	0.524	125	125
3 x 50 sm	Min. 6 wire	3.4	2.2	42.6	3100	0.387	145	155
3 x 70 sm	Min. 12 wire	3.4	2.6	47	3950	0.268	180	190
3 x 95 sm	Min. 15 wire	3.4	2.6	51.4	4900	0.193	215	235
3 x 120 sm	Min. 18 wire	3.4	2.6	54.5	5950	0.153	245	270
3 x 150 sm	Min. 18 wire	3.4	3	59.2	7200	0.124	275	305
3 x 185 sm	Min. 30 wire	3.4	3	63.4	8550	0.0991	305	350
3 x 240 sm	Min. 34 wire	3.4	3.4	69.8	10700	0.0754	350	405
3 x 300 sm	Min. 34 wire	3.4	3.4	75.5	13020	0.0601	390	460

Type : NYFGbY
Standard : VDE 0271/3.69
Voltage : 3.5/6 KV

1. Conductor: Copper
2. Insulation: PVC
3. Common covering: PVC
4. Armour: Flat Galv. Steel wire with steel tape binder
5. Oversheath: PVC

Construction:
Plain annealed copper conductor, PVC insulated, three cores laid up, PVC common covering , Flat galv. Steel wire armour with helical steel tape binder & PVC sheathed overall.

Application:
Suitable for use in indoors, outdoors, underground and in water for continuous service for highest system voltage of 4.2/7.2 KV.

Colour of sheath : RED

Table: 06

Nominal cross sectional area of conductor	No. of wires	Nominal thickness of insulation	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Max. DC Resistance of conductor at 20°C	Current Rating	
							Under Ground at 30°C	In Air at at 35°C
mm2	no./mm	mm	mm	mm	kg/km	ohm/km	amps	amps
3 x 25 rm	Min. 6 wire	3.4	2.2	37	2900	0.727	105	105
3 x 35 sm	Min. 6 wire	3.4	2.2	39	3300	0.524	125	125
3 x 50 sm	Min. 6 wire	3.4	2.2	42.5	4150	0.387	145	155
3 x 70 sm	Min. 12 wire	3.4	2.6	45	5230	0.268	180	190
3 x 95 sm	Min. 15 wire	3.4	2.6	49	6080	0.193	215	235
3 x 120 sm	Min. 18 wire	3.4	2.6	52	7150	0.153	245	270
3 x 150 sm	Min. 18 wire	3.4	2.6	54	8250	0.124	275	305
3 x 185 sm	Min. 30 wire	3.4	3	59.5	10000	0.0991	305	350
3 x 240 sm	Min. 34 wire	3.4	3	63.8	12000	0.0754	350	405
3 x 300 sm	Min. 34 wire	3.4	3.4	70.5	15500	0.0601	390	460

Type : **NYSEYFGbY**
Standard : **VDE 0271/3.69**
Voltage : **5.8/10 KV**

1. Conductor: Copper
2. Cond. Screen: Extruded semicon
3. Insulation: PVC
4. Ins. Screen: Extruded semicon
5. Metallic screen: Copper
6. Inner sheath: PVC
7. Armour: Flat galv. Steel wire
8. Sheath: PVC

Construction:
Plain annealed copper conductor, PVC insulated, Field limiting semi-conducting layer over each conductor and each core insulation, copper sheild over each core, three cores laid up, PVC inners heath (bedding), Flat galv. Steel wire armouring with helical steel tape binder & PVC sheathed overall.

Application:
Suitable for use in indoors, outdoors, underground and in water for continuous service for service voltage of 7/12 KV.

Colour of sheath: RED

Table: 07

Nominal cross sectional area of conductor	No. of wires	Nominal thickness of insulation	Nominal thickness of flat Armour wire	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Max. DC Resistance of conductor at 20°C	Current Rating	
								Under Ground at 30°C	In Air at at 35°C
mm2	no./mm	mm	mm	mm	kg/km	ohm/km	ohm/km	amps	amps
3 x 25 rm	Min. 6 wire	4	2.6	53	4850	0.727	0.727	100	100
3 x 35 sm	Min. 6 wire	4	2.6	55.3	5400	0.524	0.524	120	120
3 x 50 sm	Min. 6 wire	4	3	59	5840	0.387	0.387	140	145
3 x 70 sm	Min. 12 wire	4	3	62.5	7100	0.268	0.268	170	180
3 x 95 sm	Min. 15 wire	4	3	68	8600	0.193	0.193	200	220
3 x 120 sm	Min. 18 wire	4	3.4	71	9900	0.153	0.153	230	250
3 x 150 sm	Min. 18 wire	4	3.4	74.5	11400	0.124	0.124	260	290
3 x 185 sm	Min. 30 wire	4	3.8	79.5	13100	0.0991	0.0991	290	325
3 x 240 sm	Min. 34 wire	4	3.8	86.3	15000	0.0754	0.0754	320	370
3 x 300 sm	Min. 34 wire	4	4.2	93.5	17800	0.0601	0.0601	365	425

Type : **2xHSY**
Standard : **IEC 60502-2**
U0/U (Um) : **3.6 / 6 (7.2) KV**
Permissible service voltage : **3.8/6.5 kv**

1. Conductor: Copper
2. Cond. Semi conducting screen
3. XLPE insulation
4. Ins. Semi conducting screen
5. Metallic screen
6. Oversheath-PVC

Table: 08

Nominal cross sectional area of conductor	Nominal thickness of insulation	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Max. DC Resistance of conductor at 20°C	Capacitance of cable	Inductance of cable	Current Rating	
								Under Ground at 30°C	In Air at at 35°C
mm2	mm	mm	mm	kg/km	ohm/km	micro,F/km	mH/km	amps	amps
1 x 25 rm	2.5	1.8	20	560	0.7270	0.27	0.433	155	160
1 x 35 rm	2.5	1.8	21	680	0.5240	0.3	0.412	191	190
1 x 50 rm	2.5	1.8	22.2	820	0.3870	0.33	0.384	226	229
1 x 70 rm	2.5	1.8	23.8	1065	0.2680	0.37	0.363	280	285
1 x 95 rm	2.5	1.8	25.5	1350	0.1930	0.42	0.344	332	350
1 x 120 rm	2.5	1.8	26.5	1555	0.1530	0.46	0.33	378	410
1 x 150 rm	2.5	1.8	28	1850	0.1240	0.49	0.32	425	468
1 x 185 rm	2.5	1.8	29.7	2240	0.0991	0.54	0.309	480	542
1 x 240 rm	2.6	1.9	32.5	2830	0.0754	0.58	0.3	554	640
1 x 300 rm	2.8	2	35.5	3480	0.0601	0.6	0.294	625	732
1 x 400 rm	3	2.1	39.5	4370	0.047	0.64	0.285	716	850
1 x 500 rm	3.2	2.2	42.6	5480	0.0366	0.65	0.281	792	978
1 x 630 rm	3.2	2.3	47.3	6970	0.0283	0.73	0.272	902	1130
1 x 800 rm	3.2	2.4	51.5	8960	0.0221	0.81	0.266	970	1290
1 x 1000 rm	3.2	2.6	56	11150	0.0176	0.9	0.261	1040	1435

Type : 2xHSY
Standard : IEC 60502-2
U0/U (Um) = 6 / 10 (12) KV
Permissible service voltage : 6.35/11 kv

1. Conductor: Copper
2. Cond. Semi conducting screen
3. XLPE insulation
4. Ins. Semi conducting screen
5. Metallic screen
6. Oversheath- PVC

Table: 09

Nominal cross sectional area of conductor	Nominal thickness of insulation	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Max. DC Resistance of conductor at 20°C	Capacitance of cable	Inductance of cable	Current Rating	
								Under Ground at 30°C	In Air at at 35°C
mm2	mm	mm	mm	kg/km	ohm/km	micro,F/km	mH/km	amps	amps
1 x 25 rm	3.4	1.8	22	630	0.7270	0.21	0.452	155	160
1 x 35 rm	3.4	1.8	23	750	0.5240	0.23	0.43	191	190
1 x 50 rm	3.4	1.8	24.2	890	0.3870	0.26	0.401	226	229
1 x 70 rm	3.4	1.8	25.8	1140	0.2680	0.29	0.379	280	285
1 x 95 rm	3.4	1.8	27.6	1430	0.1930	0.33	0.359	332	350
1 x 120 rm	3.4	1.8	29	1640	0.1530	0.35	0.344	378	410
1 x 150 rm	3.4	1.8	30.5	1950	0.1240	0.38	0.333	425	468
1 x 185 rm	3.4	1.9	32.5	2350	0.0991	0.42	0.323	480	542
1 x 240 rm	3.4	2	35	2940	0.0754	0.46	0.312	554	640
1 x 300 rm	3.4	2	37.2	3570	0.0601	0.5	0.301	625	732
1 x 400 rm	3.4	2.1	40.7	4430	0.047	0.57	0.29	716	850
1 x 500 rm	3.4	2.2	43.6	5520	0.0366	0.62	0.283	792	978
1 x 630 rm	3.4	2.3	47.7	7000	0.0283	0.7	0.274	902	1130
1 x 800 rm	3.4	2.5	52	9020	0.0221	0.77	0.268	970	1290
1 x 1000 rm	3.4	2.6	56.2	11100	0.0176	0.85	0.262	1040	1435

Type : 2xHSY
Standard : IEC 60502-2
U0/U (Um) = 8.7 / 15 (17.5) KV
Permissible service voltage : 9.2/16.3 kv

1. Conductor: Copper
2. Cond. Semi conducting screen
3. XLPE insulation
4. Ins. Semi conducting screen
5. Metallic screen
6. Oversheath- PVC

Table: 10

Nominal cross sectional area of conductor	Nominal thickness of insulation	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Max. DC Resistance of conductor at 20°C	Capacitance of cable	Inductance of cable	Current Rating	
								Under Ground at 30°C	In Air at at 35°C
mm2	mm	mm	mm	kg/km	ohm/km	micro,F/km	mH/km	amps	amps
1 x 25 rm	4.5	1.8	24.5	720	0.7270	0.17	0.473	157	163
1 x 35 rm	4.5	1.8	25.4	840	0.5240	0.19	0.451	193	194
1 x 50 rm	4.5	1.8	26.5	990	0.3870	0.21	0.42	228	232
1 x 70 rm	4.5	1.8	28.2	1240	0.2680	0.23	0.396	282	288
1 x 95 rm	4.5	1.8	30	1540	0.1930	0.26	0.376	334	353
1 x 120 rm	4.5	1.9	31.7	1770	0.1530	0.28	0.361	380	413
1 x 150 rm	4.5	1.9	33	2075	0.1240	0.3	0.355	427	471
1 x 185 rm	4.5	2	35	2490	0.0991	0.33	0.339	482	545
1 x 240 rm	4.5	2	37.4	3070	0.0754	0.36	0.325	556	643
1 x 300 rm	4.5	2.1	39.9	3730	0.0601	0.4	0.314	627	735
1 x 400 rm	4.5	2.2	43.5	4650	0.047	0.45	0.302	718	853
1 x 500 rm	4.5	2.3	46.2	5760	0.0366	0.48	0.295	794	981
1 x 630 rm	4.5	2.4	50.4	7275	0.0283	0.54	0.285	904	1133
1 x 800 rm	4.5	2.5	54.3	9310	0.0221	0.6	0.277	972	1293
1 x 1000 rm	4.5	2.7	59	11500	0.0176	0.66	0.271	1042	1438

Type : 2xHSY
Standard : IEC 60502-2
U0/U (Um) = 12 / 20 (24) KV
Permissible service voltage : 12.7/22 kv

1. Conductor: Copper
2. Cond. Semi conducting screen
3. XLPE insulation
4. Ins. Semi conducting screen
5. Metallic screen
6. Oversheath- PVC

Table: 11

Nominal cross sectional area of conductor	Nominal thickness of insulation	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Max. DC Resistance of conductor at 20°C	Capacitance of cable	Inductance of cable	Current Rating	
								Under Ground at 30°C	In Air at at 35°C
mm2	mm	mm	mm	kg/km	ohm/km	micro,F/km	mH/km	amps	amps
1 x 35 rm	5.5	1.8	27.6	940	0.5240	0.17	0.467	193	194
1 x 50 rm	5.5	1.8	28.8	1100	0.3870	0.18	0.436	228	232
1 x 70 rm	5.5	1.8	30.4	1360	0.2680	0.2	0.411	282	288
1 x 95 rm	5.5	1.9	32.5	1650	0.1930	0.22	0.391	334	353
1 x 120 rm	5.5	1.9	33.9	1900	0.1530	0.24	0.375	380	413
1 x 150 rm	5.5	2	35.5	2200	0.1240	0.26	0.364	427	471
1 x 185 rm	5.5	2	37.3	2640	0.0991	0.28	0.351	482	545
1 x 240 rm	5.5	2.1	39.9	3250	0.0754	0.31	0.338	556	643
1 x 300 rm	5.5	2.2	42.3	3930	0.0601	0.34	0.326	627	735
1 x 400 rm	5.5	2.3	45.8	4800	0.047	0.38	0.313	718	853
1 x 500 rm	5.5	2.4	48.7	5940	0.0366	0.41	0.305	794	981
1 x 630 rm	5.5	2.5	52.8	7470	0.0283	0.45	0.294	904	1133
1 x 800 rm	5.5	2.6	56.8	9500	0.0221	0.5	0.286	972	1293
1 x 1000 rm	5.5	2.7	61	11500	0.0176	0.55	0.278	1042	1438

Type : **2xHSY**
Standard : **IEC 60502-2**
U0/U (Um) = 18 / 30 (36) KV
Permissible service voltage : 19/33 kv

1. Conductor: Copper
2. Cond. Semi conducting screen
3. XLPE insulation
4. Ins. Semi conducting screen
5. Metallic screen
6. Oversheath- PVC

Table: 12

Nominal cross sectional area of conductor	Nominal thickness of insulation	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Max. DC Resistance of conductor at 20°C	Capacitance of cable	Inductance of cable	Current Rating	
								Under Ground at 30°C	In Air at at 35°C
mm2	mm	mm	mm	kg/km	ohm/km	micro,F/km	mH/km	amps	amps
1 x 50 rm	8	1.9	35	1400	0.3870	0.14	0.474	228	232
1 x 70 rm	8	2	36.8	1700	0.2680	0.16	0.449	282	288
1 x 95 rm	8	2.1	38.9	2040	0.1930	0.17	0.427	334	353
1 x 120 rm	8	2.1	40	2270	0.1530	0.18	0.409	380	413
1 x 150 rm	8	2.1	41.5	2600	0.1240	0.2	0.396	427	471
1 x 185 rm	8	2.2	43.5	2950	0.0991	0.21	0.382	482	545
1 x 240 rm	8	2.3	46	3600	0.0754	0.23	0.367	556	643
1 x 300 rm	8	2.3	48	4300	0.0601	0.25	0.353	627	735
1 x 400 rm	8	2.5	52	5300	0.047	0.28	0.339	718	853
1 x 500 rm	8	2.5	54.5	6400	0.0366	0.3	0.328	794	981
1 x 630 rm	8	2.7	59	8000	0.0283	0.33	0.316	904	1133
1 x 800 rm	8	2.8	63	10000	0.0221	0.36	0.307	972	1293
1 x 1000 rm	8	2.9	67	12000	0.0176	0.4	0.298	1042	1438

Type : **2xHSYRaY**
Standard : **IEC 60502-2**
U0/U (Um) = 3.6 / 6 (7.2) KV
Permissible service voltage : 3.8/6.5 kv

1. Conductor: Copper
2. Cond. Semi conducting screen
3. XLPE insulation
4. Ins. Semi conducting screen
5. Metallic screen
6. Separation sheath
7. Round aluminium wire armour
8. Oversheath-PVC

Table: 13

Nominal cross sectional area of conductor	Nominal thickness of insulation	Nominal diameter of Al. wire Armour	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Max. DC Resistance of conductor at 20°C	Capacitance of cable	Inductance of cable	Current Rating	
									Under Ground at 30°C	In Air at at 35°C
mm2	mm	mm	mm	mm	kg/km	ohm/km	micro,F/km	mH/km	amps	amps
1 x 25 rm	2.5	1.6	1.8	26	930	0.727	0.27	0.486	152	157
1 x 35 rm	2.5	1.6	1.8	27	1060	0.524	0.3	0.463	184	186
1 x 50 rm	2.5	1.6	1.8	28	1230	0.3870	0.33	0.432	221	224
1 x 70 rm	2.5	1.6	1.8	30	1500	0.2680	0.37	0.408	274	279
1 x 95 rm	2.5	1.6	1.9	32	1850	0.1930	0.42	0.388	325	343
1 x 120 rm	2.5	1.6	1.9	33.5	2060	0.1530	0.46	0.371	370	402
1 x 150 rm	2.5	1.6	2	35	2400	0.1240	0.49	0.361	417	459
1 x 185 rm	2.5	2	2	37	2920	0.0991	0.54	0.352	470	531
1 x 240 rm	2.5	2	2.1	40.3	3560	0.0754	0.58	0.34	543	627
1 x 300 rm	2.5	2	2.2	43.2	4300	0.0601	0.6	0.33	613	717
1 x 400 rm	2.5	2	2.3	47.2	5250	0.047	0.64	0.319	702	833
1 x 500 rm	2.5	2.5	2.5	52	6650	0.0366	0.65	0.318	776	958
1 x 630 rm	2.5	2.5	2.6	56.2	7970	0.0283	0.73	0.307	884	1107
1 x 800 rm	2.5	2.5	2.7	60.2	10365	0.0221	0.81	0.298	951	1264
1 x 1000 rm	2.5	2.5	2.9	65	12750	0.0176	0.9	0.291	1019	1406

Type : 2xHSYRaY
Standard : IEC 60502-2
U0/U (Um) = 6 / 10 (12) KV
Permissible service voltage : 6.35/11 kv

1. Conductor: Copper
2. Cond. Semi conducting screen
3. XLPE insulation
4. Ins. Semi conducting screen
5. Metallic screen
6. Separation sheath
7. Round aluminium wire armour
8. Oversheath-PVC

Table: 14

Nominal cross sectional area of conductor	Nominal thickness of insulation	Nominal diameter of Al. wire Armour	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Max. DC Resistance of conductor at 20°C	Capacitance of cable	Inductance of cable	Current Rating	
									Under Ground at 30°C	In Air at at 35°C
mm2	mm	mm	mm	mm	kg/km	ohm/km	micro,F/km	mH/km	amps	amps
1 x 25 rm	3.4	1.6	1.8	28	1030	0.727	0.21	0.501	152	157
1 x 35 rm	3.4	1.6	1.8	29	1170	0.524	0.23	0.478	184	186
1 x 50 rm	3.4	1.6	1.8	30	1330	0.3870	0.26	0.446	221	224
1 x 70 rm	3.4	1.6	1.9	32	1630	0.2680	0.29	0.422	274	279
1 x 95 rm	3.4	1.6	1.9	34	1950	0.1930	0.33	0.4	325	343
1 x 120 rm	3.4	1.6	2	35.5	2200	0.1530	0.35	0.384	370	402
1 x 150 rm	3.4	2	2.1	38	2650	0.1240	0.38	0.378	417	459
1 x 185 rm	3.4	2	2.1	40	3060	0.0991	0.42	0.364	470	531
1 x 240 rm	3.4	2	2.2	42.3	3740	0.0754	0.46	0.35	543	627
1 x 300 rm	3.4	2	2.2	44.5	4400	0.0601	0.5	0.336	613	717
1 x 400 rm	3.4	2	2.4	48.3	5350	0.047	0.57	0.323	702	833
1 x 500 rm	3.4	2.5	2.5	52.5	6700	0.0366	0.62	0.319	776	958
1 x 630 rm	3.4	2.5	2.6	57	7850	0.0283	0.7	0.308	884	1107
1 x 800 rm	3.4	2.5	2.7	61	10450	0.0221	0.77	0.299	951	1264
1 x 1000 rm	3.4	2.5	2.9	66	12810	0.0176	0.85	0.292	1019	1406

Type : **2xHSYRaY**
Standard : **IEC 60502-2**
U0/U (Um) = 8.7 / 15 (17.5) KV
Permissible service voltage : 9.2/16.3 kv

1. Conductor: Copper
2. Cond. Semi conducting screen
3. XLPE insulation
4. Ins. Semi conducting screen
5. Metallic screen
6. Separation sheath
7. Round aluminium wire armour
8. Oversheath-PVC

Table: 15

Nominal cross sectional area of conductor	Nominal thickness of insulation	Nominal diameter of Al. wire Armour	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Max. DC Resistance of conductor at 20°C	Capacitance of cable	Inductance of cable	Current Rating	
									Under Ground at 30°C	In Air at at 35°C
mm2	mm	mm	mm	mm	kg/km	ohm/km	micro,F/km	mH/km	amps	amps
1 x 25 rm	4.5	1.6	1.8	30.5	1160	0.727	0.17	0.518	154	160
1 x 35 rm	4.5	1.6	1.9	31.5	1310	0.524	0.19	0.495	186	188
1 x 50 rm	4.5	1.6	1.9	33	1500	0.3870	0.21	0.462	223	227
1 x 70 rm	4.5	1.6	1.9	34.5	1770	0.2680	0.23	0.437	276	282
1 x 95 rm	4.5	2	2	37.5	2200	0.1930	0.26	0.419	327	346
1 x 120 rm	4.5	2	2.1	39	2470	0.1530	0.28	0.403	372	405
1 x 150 rm	4.5	2	2.1	40.5	2800	0.1240	0.3	0.39	418	462
1 x 185 rm	4.5	2	2.2	42	3260	0.0991	0.33	0.376	472	534
1 x 240 rm	4.5	2	2.3	45	3920	0.0754	0.36	0.362	545	630
1 x 300 rm	4.5	2	2.3	47.2	4600	0.0601	0.4	0.348	614	720
1 x 400 rm	4.5	2.5	2.5	52	5760	0.047	0.45	0.339	704	836
1 x 500 rm	4.5	2.5	2.6	55	6950	0.0366	0.48	0.329	778	961
1 x 630 rm	4.5	2.5	2.7	59.3	8560	0.0283	0.54	0.317	886	1110
1 x 800 rm	4.5	2.5	2.8	63.5	10750	0.0221	0.6	0.308	953	1267
1 x 1000 rm	4.5	2.5	3	68	13100	0.0176	0.66	0.3	1021	1409

Type : **2xHSYRaY**
Standard : **IEC 60502-2**
U0/U (Um) = 12 / 20 (24) KV
Permissible service voltage : 12.7/22 kv

1. Conductor: Copper
2. Cond. Semi conducting screen
3. XLPE insulation
4. Ins. Semi conducting screen
5. Metallic screen
6. Separation sheath
7. Round aluminium wire armour
8. Oversheath-PVC

Table: 16

Nominal cross sectional area of conductor	Nominal thickness of insulation	Nominal diameter of Al. wire Armour	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Max. DC Resistance of conductor at 20°C	Capacitance of cable	Inductance of cable	Current Rating	
									Under Ground at 30°C	In Air at at 35°C
mm2	mm	mm	mm	mm	kg/km	ohm/km	micro,F/km	mH/km	amps	amps
1 x 35 rm	5.5	1.6	1.9	34	1450	0.524	0.17	0.509	186	188
1 x 50 rm	5.5	2	2	35.5	1630	0.3870	0.18	0.477	223	227
1 x 70 rm	5.5	2	2	37.5	2010	0.2680	0.2	0.455	276	282
1 x 95 rm	5.5	2	2.1	39.8	2370	0.1930	0.22	0.432	327	346
1 x 120 rm	5.5	2	2.1	41	2650	0.1530	0.24	0.414	372	405
1 x 150 rm	5.5	2	2.2	42.5	2980	0.1240	0.26	0.401	418	462
1 x 185 rm	5.5	2	2.2	44.6	3450	0.0991	0.28	0.386	472	534
1 x 240 rm	5.5	2	2.3	47	4100	0.0754	0.31	0.371	545	630
1 x 300 rm	5.5	2.5	2.4	50.8	4975	0.0601	0.34	0.363	614	720
1 x 400 rm	5.5	2.5	2.5	54	5950	0.047	0.38	0.347	704	836
1 x 500 rm	5.5	2.5	2.6	57	7175	0.0366	0.41	0.338	778	951
1 x 630 rm	5.5	2.5	2.8	61.5	8850	0.0283	0.45	0.325	886	1110
1 x 800 rm	5.5	2.5	2.9	66	11000	0.0221	0.5	0.316	953	1267
1 x 1000 rm	5.5	2.5	3	70	13350	0.0176	0.55	0.307	1021	1409

Type : **2xHSYRaY**
Standard : **IEC 60502-2**
U0/U (Um) = 18 / 30 (36) KV
Permissible service voltage : 19/33 kv

1. Conductor: Copper
2. Cond. Semi conducting screen
3. XLPE insulation
4. Ins. Semi conducting screen
5. Metallic screen
6. Separation sheath
7. Round aluminium wire armour
8. Oversheath-PVC

Table: 17

Nominal cross sectional area of conductor	Nominal thickness of insulation	Nominal diameter of Al. wire Armour	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Max. DC Resistance of conductor at 20°C	Capacitance of cable	Inductance of cable	Current Rating	
									Under Ground at 30°C	In Air at at 35°C
mm2	mm	mm	mm	mm	kg/km	ohm/km	micro,F/km	mH/km	amps	amps
1 x 50 rm	8	2	2.2	42	2150	0.3870	0.14	0.514	223	227
1 x 70 rm	8	2	2.2	43.5	2450	0.2680	0.16	0.486	276	282
1 x 95 rm	8	2	2.3	45.5	2820	0.1930	0.17	0.462	327	346
1 x 120 rm	8	2	2.3	47	3080	0.1530	0.18	0.442	372	405
1 x 150 rm	8	2.5	2.4	50	3630	0.1240	0.2	0.434	418	462
1 x 185 rm	8	2.5	2.5	52	4120	0.0991	0.21	0.419	472	534
1 x 240 rm	8	2.5	2.5	54.4	4800	0.0754	0.23	0.401	545	630
1 x 300 rm	8	2.5	2.6	57	5555	0.0601	0.25	0.387	614	720
1 x 400 rm	8	2.5	2.7	60.5	6650	0.047	0.28	0.37	704	836
1 x 500 rm	8	2.5	2.8	63.5	7850	0.0366	0.3	0.359	778	961
1 x 630 rm	8	2.5	2.9	67.5	9500	0.0283	0.33	0.345	886	1110
1 x 800 rm	8	2.5	3.1	72	11750	0.0221	0.36	0.334	953	1267
1 x 1000 rm	8	2.5	3.2	76.5	14110	0.0176	0.4	0.324	1021	1409

Type : 2xHSYBaY
Standard : IEC 60502-2
U0/U (Um) = 3.6 / 6 (7.2) KV
Permissible service voltage : 3.8/6.5 kv

1. Conductor: Copper
2. Cond. Semi conducting screen
3. XLPE insulation
4. Ins. Semi conducting screen
5. Metallic screen
6. Separation sheath
7. Round aluminium wire armour
8. Oversheath-PVC

Table: 18

Nominal cross sectional area of conductor	Nominal thickness of insulation	Nominal diameter of Al. wire Armour	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Max. DC Resistance of conductor at 20°C	Capacitance of cable	Inductance of cable	Current Rating	
									Under Ground at 30°C	In Air at at 35°C
mm2	mm	mm	mm	mm	kg/km	ohm/km	micro,F/km	mH/km	amps	amps
1 x 25 rm	2.5	2 X 0.5	1.8	24.8	840	0.7270	0.27	0.476	152	157
1 x 35 rm	2.5	2 X 0.5	1.8	25.8	960	0.5240	0.3	0.454	184	186
1 x 50 rm	2.5	2 X 0.5	1.8	27	1120	0.3870	0.33	0.423	221	224
1 x 70 rm	2.5	2 X 0.5	1.8	28.6	1385	0.2680	0.37	0.399	274	279
1 x 95 rm	2.5	2 X 0.5	1.8	30.4	1700	0.1930	0.42	0.378	325	343
1 x 120 rm	2.5	2 X 0.5	1.9	32	1930	0.1530	0.46	0.364	370	402
1 x 150 rm	2.5	2 X 0.5	1.9	33.5	2250	0.1240	0.49	0.352	417	459
1 x 185 rm	2.5	2 X 0.5	2	35.5	2680	0.0991	0.54	0.341	470	531
1 x 240 rm	2.6	2 X 0.5	2.1	38.3	3320	0.0754	0.58	0.33	543	627
1 x 300 rm	2.8	2 X 0.5	2.1	41	4005	0.0601	0.6	0.32	613	717
1 x 400 rm	3	2 X 0.5	2.3	45.2	4970	0.047	0.64	0.31	702	833
1 x 500 rm	3.2	2 X 0.5	2.4	48.6	6150	0.0366	0.65	0.304	776	958
1 x 630 rm	3.2	2 X 0.5	2.5	53	7720	0.0283	0.73	0.294	884	1107
1 x 800 rm	3.2	2 X 0.5	2.6	57	9810	0.0221	0.81	0.287	951	1264
1 x 1000 rm	3.2	2 X 0.5	2.8	61.7	12100	0.0176	0.9	0.28	1019	1406

Type : 2xHSYBaY
Standard : IEC 60502-2
U0/U (Um) = 6 / 10 (12) KV
Permissible service voltage : 6.35/11 kv

1. Conductor: Copper
2. Cond. Semi conducting screen
3. XLPE insulation
4. Ins. Semi conducting screen
5. Metallic screen
6. Separation sheath
7. Round aluminium wire armour
8. Oversheath-PVC

Table: 19

Nominal cross sectional area of conductor	Nominal thickness of insulation	Nominal diameter of Al. wire Armour	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Max. DC Resistance of conductor at 20°C	Capacitance of cable	Inductance of cable	Current Rating	
									Under Ground at 30°C	In Air at at 35°C
mm2	mm	mm	mm	mm	kg/km	ohm/km	micro,F/km	mH/km	amps	amps
1 x 25 rm	3.4	2 X 0.5	1.8	26.8	925	0.7270	0.21	0.492	152	157
1 x 35 rm	3.4	2 X 0.5	1.8	27.8	1050	0.5240	0.23	0.469	184	186
1 x 50 rm	3.4	2 X 0.5	1.8	29	1210	0.3870	0.26	0.437	221	224
1 x 70 rm	3.4	2 X 0.5	1.8	30.6	1490	0.2680	0.29	0.413	274	279
1 x 95 rm	3.4	2 X 0.5	1.9	32.7	1820	0.1930	0.33	0.392	325	343
1 x 120 rm	3.4	2 X 0.5	1.9	34.1	2050	0.1530	0.35	0.376	370	402
1 x 150 rm	3.4	2 X 0.5	2	35.7	2385	0.1240	0.38	0.365	417	459
1 x 185 rm	3.4	2 X 0.5	2	37.5	2805	0.0991	0.42	0.352	470	531
1 x 240 rm	3.4	2 X 0.5	2.1	40	3440	0.0754	0.46	0.339	543	627
1 x 300 rm	3.4	2 X 0.5	2.2	42.5	4120	0.0601	0.5	0.327	613	717
1 x 400 rm	3.4	2 X 0.5	2.3	46	5040	0.047	0.57	0.314	702	833
1 x 500 rm	3.4	2 X 0.5	2.4	49	6190	0.0366	0.62	0.306	776	958
1 x 630 rm	3.4	2 X 0.5	2.5	53.3	7760	0.0283	0.7	0.296	884	1107
1 x 800 rm	3.4	2 X 0.5	2.6	57.5	9850	0.0221	0.77	0.288	951	1264
1 x 1000 rm	3.4	2 X 0.5	2.8	62	12150	0.0176	0.85	0.282	1019	1406

Type : 2xHSYBaY
Standard : IEC 60502-2
U0/U (Um) = 8.7 / 15 (17.5) KV
Permissible service voltage : 9.2/16.3 kv

1. Conductor: Copper
2. Cond. Semi conducting screen
3. XLPE insulation
4. Ins. Semi conducting screen
5. Metallic screen
6. Separation sheath
7. Round aluminium wire armour
8. Oversheath-PVC

Table: 20

Nominal cross sectional area of conductor	Nominal thickness of insulation	Nominal diameter of Al. wire Armour	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Max. DC Resistance of conductor at 20°C	Capacitance of cable	Inductance of cable	Current Rating	
									Under Ground at 30°C	In Air at at 35°C
mm2	mm	mm	mm	mm	kg/km	ohm/km	micro.F/km	mH/km	amps	amps
1 x 25 rm	4.5	2 X 0.5	1.8	29	1040	0.7270	0.17	0.509	154	160
1 x 35 rm	4.5	2 X 0.5	1.8	30	1180	0.5240	0.19	0.485	186	188
1 x 50 rm	4.5	2 X 0.5	1.9	31.5	1360	0.3870	0.21	0.455	223	227
1 x 70 rm	4.5	2 X 0.5	1.9	33	1640	0.2680	0.23	0.429	276	282
1 x 95 rm	4.5	2 X 0.5	2	35	1980	0.1930	0.26	0.408	327	346
1 x 120 rm	4.5	2 X 0.5	2	36.5	2210	0.1530	0.28	0.391	372	405
1 x 150 rm	4.5	2 X 0.5	2.1	38	2560	0.1240	0.3	0.379	418	462
1 x 185 rm	4.5	2 X 0.5	2.1	40	2980	0.0991	0.33	0.365	472	534
1 x 240 rm	4.5	2 X 0.5	2.2	42	3620	0.0754	0.36	0.351	545	630
1 x 300 rm	4.5	2 X 0.5	2.3	45	4320	0.0601	0.4	0.339	614	720
1 x 400 rm	4.5	2 X 0.5	2.4	48.9	5260	0.047	0.45	0.326	704	836
1 x 500 rm	4.5	2 X 0.5	2.5	51.8	6420	0.0366	0.48	0.317	778	961
1 x 630 rm	4.5	2 X 0.5	2.6	56.1	8010	0.0283	0.54	0.306	886	1110
1 x 800 rm	4.5	2 X 0.5	2.7	60.2	10120	0.0221	0.6	0.298	953	1267
1 x 1000 rm	4.5	2 X 0.5	2.8	64.6	12400	0.0176	0.66	0.29	1021	1409

Type : 2xHSYBaY
Standard : IEC 60502-2
U0/U (Um) = 12 / 20 (24) KV
Permissible service voltage : 12.7/22 kv

1. Conductor: Copper
2. Cond. Semi conducting screen
3. XLPE insulation
4. Ins. Semi conducting screen
5. Metallic screen
6. Separation sheath
7. Round aluminium wire armour
8. Oversheath-PVC

Table: 21

Nominal cross sectional area of conductor	Nominal thickness of insulation	Nominal diameter of Al. wire Armour	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Max. DC Resistance of conductor at 20°C	Capacitance of cable	Inductance of cable	Current Rating	
									Under Ground at 30°C	In Air at at 35°C
mm2	mm	mm	mm	mm	kg/km	ohm/km	micro.F/km	mH/km	amps	amps
1 x 35 rm	5.5	2 X 0.5	1.9	32.5	1320	0.5240	0.17	0.501	186	188
1 x 50 rm	5.5	2 X 0.5	1.9	34	1490	0.3870	0.18	0.468	223	227
1 x 70 rm	5.5	2 X 0.5	2	35.7	1780	0.2680	0.2	0.443	276	282
1 x 95 rm	5.5	2 X 0.5	2	37.5	2110	0.1930	0.22	0.42	327	346
1 x 120 rm	5.5	2 X 0.5	2.1	39	2365	0.1530	0.24	0.403	372	405
1 x 150 rm	5.5	2 X 0.5	2.1	40	2700	0.1240	0.26	0.39	418	462
1 x 185 rm	5.5	2 X 0.5	2.2	42.5	3150	0.0991	0.28	0.377	472	534
1 x 240 rm	5.5	2 X 0.5	2.3	45	3810	0.0754	0.31	0.362	545	630
1 x 300 rm	5.5	2 X 0.5	2.3	47.5	4500	0.0601	0.34	0.349	614	720
1 x 400 rm	5.5	2 X 0.5	2.4	51	5450	0.047	0.38	0.334	704	836
1 x 500 rm	5.5	2 X 0.5	2.5	54	6620	0.0366	0.41	0.326	778	961
1 x 630 rm	5.5	2 X 0.5	2.6	58.5	8250	0.0283	0.45	0.313	886	1110
1 x 800 rm	5.5	2 X 0.5	2.8	62.5	10380	0.0221	0.5	0.305	953	1267
1 x 1000 rm	5.5	2 X 0.5	2.9	67	12680	0.0176	0.55	0.297	1021	1409

Type : **2xHSYBaY**
Standard : **IEC 60502-2**
U0/U (Um) = 18 / 30 (36) KV
Permissible service voltage : 19/33 kv

1. Conductor: Copper
2. Cond. Semi conducting screen
3. XLPE insulation
4. Ins. Semi conducting screen
5. Metallic screen
6. Separation sheath
7. Round aluminium wire armour
8. Oversheath-PVC

Table: 22

Nominal cross sectional area of conductor	Nominal thickness of insulation	Nominal diameter of Al. wire Armour	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Max. DC Resistance of conductor at 20°C	Capacitance of cable	Inductance of cable	Current Rating	
									Under Ground at 30°C	In Air at at 35°C
mm2	mm	mm	mm	mm	kg/km	ohm/km	micro.F/km	mH/km	amps	amps
1 x 50 rm	8	2 X 0.5	2.1	40	1890	0.3870	0.14	0.501	223	227
1 x 70 rm	8	2 X 0.5	2.1	41.5	2190	0.2680	0.16	0.473	276	282
1 x 95 rm	8	2 X 0.5	2.2	43	2550	0.1930	0.17	0.449	327	346
1 x 120 rm	8	2 X 0.5	2.3	45	2825	0.1530	0.18	0.432	372	405
1 x 150 rm	8	2 X 0.5	2.3	46.5	3190	0.1240	0.2	0.418	418	462
1 x 185 rm	8	2 X 0.5	2.4	49	3670	0.0991	0.21	0.404	472	534
1 x 240 rm	8	2 X 0.5	2.4	51	4310	0.0754	0.23	0.387	545	630
1 x 300 rm	8	2 X 0.5	2.5	54	5060	0.0601	0.25	0.373	614	720
1 x 400 rm	8	2 X 0.5	2.6	57.5	6040	0.047	0.28	0.357	704	836
1 x 500 rm	8	2 X 0.5	2.7	60.5	7250	0.0366	0.3	0.347	778	961
1 x 630 rm	8	2 X 0.5	2.8	64.5	8880	0.0283	0.33	0.333	886	1110
1 x 800 rm	8	2 X 0.5	3	69	11085	0.0221	0.36	0.324	953	1267
1 x 1000 rm	8	2 X 0.5	3.1	73.5	13440	0.0176	0.4	0.314	1021	1409

Type : **2xHSYFaY**
Standard : **IEC 60502-2**
U0/U (Um) = 3.6 / 6 (7.2) KV
Permissible service voltage : 3.8/6.5 kv

1. Conductor: Copper
2. Cond. Semi conducting screen
3. XLPE insulation
4. Ins. Semi conducting screen
5. Metallic screen
6. Separation sheath
7. Round aluminium wire armour
8. Oversheath-PVC

Table: 23

Nominal cross sectional area of conductor	Nominal thickness of insulation	Nominal diameter of Al. wire Armour	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Max. DC Resistance of conductor at 20°C	Capacitance of cable	Inductance of cable	Current Rating	
									Under Ground at 30°C	In Air at at 35°C
mm2	mm	mm	mm	mm	kg/km	ohm/km	micro.F/km	mH/km	amps	amps
1 x 25 rm	2.5	0.8	1.8	24	850	0.7270	0.27	0.473	152	157
1 x 35 rm	2.5	0.8	1.8	25	980	0.5240	0.3	0.451	184	186
1 x 50 rm	2.5	0.8	1.8	26	1150	0.3870	0.33	0.42	221	224
1 x 70 rm	2.5	0.8	1.8	27.5	1410	0.2680	0.37	0.396	274	279
1 x 95 rm	2.5	0.8	1.8	29.5	1740	0.1930	0.42	0.376	325	343
1 x 120 rm	2.5	0.8	1.9	31	2000	0.1530	0.46	0.361	370	402
1 x 150 rm	2.5	0.8	1.9	32.5	2310	0.1240	0.49	0.35	417	459
1 x 185 rm	2.5	0.8	2	34.5	2760	0.0991	0.54	0.339	470	531
1 x 240 rm	2.6	0.8	2	37	3400	0.0754	0.58	0.328	543	627
1 x 300 rm	2.8	0.8	2.1	40	4120	0.0601	0.6	0.317	613	717
1 x 400 rm	3	0.8	2.2	43.5	5080	0.047	0.64	0.307	702	833
1 x 500 rm	3.2	0.8	2.4	47.5	6330	0.0366	0.65	0.303	776	958
1 x 630 rm	3.2	0.8	2.5	51.5	7900	0.0283	0.73	0.293	884	1107
1 x 800 rm	3.2	0.8	2.6	55.5	9800	0.0221	0.81	0.285	951	1264
1 x 1000 rm	3.2	0.8	2.7	60	12200	0.0176	0.9	0.278	1019	1406

Type : **2xHSYFaY**
Standard : **IEC 60502-2**
U0/U (Um) = 6 / 10 (12) KV
Permissible service voltage : 6.35/11 kv

1. Conductor: Copper
2. Cond. Semi conducting screen
3. XLPE insulation
4. Ins. Semi conducting screen
5. Metallic screen
6. Separation sheath
7. Round aluminium wire armour
8. Oversheath-PVC

Table: 24

Nominal cross sectional area of conductor	Nominal thickness of insulation	Nominal diameter of Al. wire Armour	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Max. DC Resistance of conductor at 20°C	Capacitance of cable	Inductance of cable	Current Rating	
									Under Ground at 30°C	In Air at at 35°C
mm2	mm	mm	mm	mm	kg/km	ohm/km	micro.F/km	mH/km	amps	amps
1 x 25 rm	3.4	0.8	1.8	25.5	950	0.7270	0.21	0.489	152	157
1 x 35 rm	3.4	0.8	1.8	26.5	1070	0.5240	0.23	0.466	184	186
1 x 50 rm	3.4	0.8	1.8	28	1240	0.3870	0.26	0.434	221	224
1 x 70 rm	3.4	0.8	1.8	29.5	1510	0.2680	0.29	0.41	274	279
1 x 95 rm	3.4	0.8	1.9	31.5	1860	0.1930	0.33	0.39	325	343
1 x 120 rm	3.4	0.8	1.9	32.8	2110	0.1530	0.35	0.373	370	402
1 x 150 rm	3.4	0.8	2	34.5	2440	0.1240	0.38	0.362	417	459
1 x 185 rm	3.4	0.8	2	36.5	2875	0.0991	0.42	0.349	470	531
1 x 240 rm	3.4	0.8	2.1	39	3520	0.0754	0.46	0.336	543	627
1 x 300 rm	3.4	0.8	2.2	41	4220	0.0601	0.5	0.325	613	717
1 x 400 rm	3.4	0.8	2.3	45	5175	0.047	0.57	0.312	702	833
1 x 500 rm	3.4	0.8	2.4	47.7	6360	0.0366	0.62	0.305	776	958
1 x 630 rm	3.4	0.8	2.5	52	7940	0.0283	0.7	0.295	884	1107
1 x 800 rm	3.4	0.8	2.6	56	9850	0.0221	0.77	0.286	951	1264
1 x 1000 rm	3.4	0.8	2.8	61	12300	0.0176	0.85	0.28	1019	1406

Type : **2xHSYFaY**
Standard : **IEC 60502-2**
U0/U (Um) = 8.7 / 15 (17.5) KV
Permissible service voltage : 9.2/16.3 kv

1. Conductor: Copper
2. Cond. Semi conducting screen
3. XLPE insulation
4. Ins. Semi conducting screen
5. Metallic screen
6. Separation sheath
7. Round aluminium wire armour
8. Oversheath-PVC

Table: 25

Nominal cross sectional area of conductor	Nominal thickness of insulation	Nominal diameter of Al. wire Armour	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Max. DC Resistance of conductor at 20°C	Capacitance of cable	Inductance of cable	Current Rating	
									Under Ground at 30°C	In Air at at 35°C
mm2	mm	mm	mm	mm	kg/km	ohm/km	micro,F/km	mH/km	amps	amps
1 x 25 rm	4.5	0.8	1.8	28	1060	0.7270	0.17	0.507	154	160
1 x 35 rm	4.5	0.8	1.8	29	1200	0.5240	0.19	0.483	186	188
1 x 50 rm	4.5	0.8	1.8	30.5	1370	0.3870	0.21	0.451	223	227
1 x 70 rm	4.5	0.8	1.9	32	1660	0.2680	0.23	0.427	276	282
1 x 95 rm	4.5	0.8	1.9	34	2000	0.1930	0.26	0.405	327	346
1 x 120 rm	4.5	0.8	2	35.5	2280	0.1530	0.28	0.389	372	405
1 x 150 rm	4.5	0.8	2	37	2600	0.1240	0.3	0.376	418	462
1 x 185 rm	4.5	0.8	2.1	39	3035	0.0991	0.33	0.363	472	534
1 x 240 rm	4.5	0.8	2.2	41.5	3710	0.0754	0.36	0.349	545	630
1 x 300 rm	4.5	0.8	2.2	43.5	4400	0.0601	0.4	0.336	614	720
1 x 400 rm	4.5	0.8	2.4	47.5	5400	0.047	0.45	0.324	704	836
1 x 500 rm	4.5	0.8	2.4	50	6570	0.0366	0.48	0.314	778	961
1 x 630 rm	4.5	0.8	2.6	54.5	8180	0.0283	0.54	0.304	886	1110
1 x 800 rm	4.5	0.8	2.7	59	10150	0.0221	0.6	0.296	953	1267
1 x 1000 rm	4.5	0.8	2.8	63.5	12550	0.0176	0.66	0.289	1021	1409

Type : **2xHSYFaY**
Standard : **IEC 60502-2**
U0/U (Um) = 12 / 20 (24) KV
Permissible service voltage : 12.7/22 kv

1. Conductor: Copper
2. Cond. Semi conducting screen
3. XLPE insulation
4. Ins. Semi conducting screen
5. Metallic screen
6. Separation sheath
7. Round aluminium wire armour
8. Oversheath-PVC

Table: 26

Nominal cross sectional area of conductor	Nominal thickness of insulation	Nominal diameter of Al. wire Armour	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Max. DC Resistance of conductor at 20°C	Capacitance of cable	Inductance of cable	Current Rating	
									Under Ground at 30°C	In Air at at 35°C
mm2	mm	mm	mm	mm	kg/km	ohm/km	micro,F/km	mH/km	amps	amps
1 x 35 rm	5.5	0.8	1.9	32	1335	0.5240	0.17	0.499	186	188
1 x 50 rm	5.5	0.8	1.9	33	1510	0.3870	0.18	0.466	223	227
1 x 70 rm	5.5	0.8	2	35	1800	0.2680	0.2	0.441	276	282
1 x 95 rm	5.5	0.8	2	36.5	2150	0.1930	0.22	0.418	327	346
1 x 120 rm	5.5	0.8	2.1	38	2430	0.1530	0.24	0.401	372	405
1 x 150 rm	5.5	0.8	2.1	39.5	2750	0.1240	0.26	0.388	418	462
1 x 185 rm	5.5	0.8	2.2	41.5	3210	0.0991	0.28	0.375	472	534
1 x 240 rm	5.5	0.8	2.2	43.5	3860	0.0754	0.31	0.359	545	630
1 x 300 rm	5.5	0.8	2.3	46.5	4610	0.0601	0.34	0.348	614	720
1 x 400 rm	5.5	0.8	2.4	50	5580	0.047	0.38	0.333	704	836
1 x 500 rm	5.5	0.8	2.5	53	6800	0.0366	0.41	0.324	778	961
1 x 630 rm	5.5	0.8	2.6	57	8370	0.0283	0.45	0.312	886	1110
1 x 800 rm	5.5	0.8	2.8	61.5	10400	0.0221	0.5	0.304	953	1267
1 x 1000 rm	5.5	0.8	2.9	66	12800	0.0176	0.55	0.296	1021	1409

Type : 2xHSYFaY
Standard : IEC 60502-2
U0/U (Um) = 18 / 30 (36) KV
Permissible service voltage : 19/33 kv

1. Conductor: Copper
2. Cond. Semi conducting screen
3. XLPE insulation
4. Ins. Semi conducting screen
5. Metallic screen
6. Separation sheath
7. Round aluminium wire armour
8. Oversheath-PVC

Table: 27

Nominal cross sectional area of conductor	Nominal thickness of insulation	Nominal diameter of Al. wire Armour	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Max. DC Resistance of conductor at 20°C	Capacitance of cable	Inductance of cable	Current Rating	
									Under Ground at 30°C	In Air at at 35°C
mm2	mm	mm	mm	mm	kg/km	ohm/km	micro.F/km	mH/km	amps	amps
1 x 50 rm	8	0.8	2.1	38.5	1860	0.3870	0.14	0.498	223	227
1 x 70 rm	8	0.8	2.1	40	2160	0.2680	0.16	0.471	276	282
1 x 95 rm	8	0.8	2.2	42	2540	0.1930	0.17	0.447	327	346
1 x 120 rm	8	0.8	2.2	43.5	2820	0.1530	0.18	0.429	372	405
1 x 150 rm	8	0.8	2.3	45	3200	0.1240	0.2	0.417	418	462
1 x 185 rm	8	0.8	2.3	47	3660	0.0991	0.21	0.401	472	534
1 x 240 rm	8	0.8	2.4	49.5	4350	0.0754	0.23	0.385	545	630
1 x 300 rm	8	0.8	2.5	52	5120	0.0601	0.25	0.372	614	720
1 x 400 rm	8	0.8	2.6	55.5	6100	0.047	0.28	0.355	704	836
1 x 500 rm	8	0.8	2.7	58.5	7350	0.0366	0.3	0.345	778	961
1 x 630 rm	8	0.8	2.8	63	8980	0.0283	0.33	0.332	886	1110
1 x 800 rm	8	0.8	2.9	67	11000	0.0221	0.36	0.322	953	1267
1 x 1000 rm	8	0.8	3.1	72	13500	0.0176	0.4	0.313	1021	1409

Type : 2xSEYY
Standard : IEC 60502-2
U0/U (Um) = 3.6 / 6 (7.2) KV
Permissible service voltage : 3.8/6.5 kv

1. Conductor: Copper
2. Cond. Semi conducting screen
3. XLPE insulation
4. Ins. Semi conducting screen
5. Metallic screen
6. Filler
7. Inner covering
8. Oversheath- PVC

Table: 28

Nominal cross sectional area of conductor	Nominal thickness of insulation	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Max. DC Resistance of conductor at 20°C	Capacitance of cable	Inductance of cable	Current Rating	
								Under Ground at 30°C	In Air at at 35°C
mm2	mm	mm	mm	kg/km	ohm/km	micro,F/km	mH/km	amps	amps
3 x 25 rm	2.5	2.1	42	2240	0.7270	0.27	0.387	146	148
3 x 35 rm	2.5	2.1	44	2650	0.5240	0.3	0.369	184	185
3 x 50 rm	2.5	2.2	47	3170	0.3870	0.33	0.343	220	220
3 x 70 rm	2.5	2.3	51	4080	0.2680	0.37	0.325	272	273
3 x 95 rm	2.5	2.5	55.5	5135	0.1930	0.42	0.309	327	336
3 x 120 rm	2.5	2.6	58.5	5885	0.1530	0.46	0.297	366	382
3 x 150 rm	2.5	2.7	62	6995	0.1240	0.49	0.289	415	440
3 x 185 rm	2.5	2.8	66	8370	0.0991	0.54	0.28	460	508
3 x 240 rm	2.6	3	72	10450	0.0754	0.58	0.273	532	586
3 x 300 rm	2.8	3.2	79	12830	0.0601	0.6	0.267	573	617

Type : 2xSEYY
Standard : IEC 60502-2
U0/U (Um) = 6 / 10 (12) KV
Permissible service voltage : 6.35/11 kv

1. Conductor: Copper
2. Cond. Semi conducting screen
3. XLPE insulation
4. Ins. Semi conducting screen
5. Metallic screen
6. Filler
7. Inner covering
8. Oversheath- PVC

Table: 29

Nominal cross sectional area of conductor	Nominal thickness of insulation	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Max. DC Resistance of conductor at 20°C	Capacitance of cable	Inductance of cable	Current Rating	
								Under Ground at 30°C	In Air at at 35°C
mm2	mm	mm	mm	kg/km	ohm/km	micro,F/km	mH/km	amps	amps
3 x 25 rm	3.4	2.2	46	2560	0.7270	0.21	0.41	146	148
3 x 35 rm	3.4	2.3	48.5	3055	0.5240	0.23	0.391	184	185
3 x 50 rm	3.4	2.4	51.5	3600	0.3870	0.26	0.364	220	220
3 x 70 rm	3.4	2.5	55.5	4495	0.2680	0.29	0.344	272	273
3 x 95 rm	3.4	2.6	59.5	5555	0.1930	0.33	0.327	327	336
3 x 120 rm	3.4	2.7	63.5	6380	0.1530	0.35	0.314	366	382
3 x 150 rm	3.4	2.8	66	7465	0.1240	0.38	0.304	415	440
3 x 185 rm	3.4	2.9	70	8865	0.0991	0.42	0.295	460	508
3 x 240 rm	3.4	3.1	76	10925	0.0754	0.46	0.284	532	586
3 x 300 rm	3.4	3.3	82	13230	0.0601	0.5	0.275	573	617

Type : 2xSEYY
Standard : IEC 60502-2
U0/U (Um) = 8.7 / 15 (17.5) KV
Permissible service voltage : 9.2/16.3 kv

Table: 30

Nominal cross sectional area of conductor	Nominal thickness of insulation	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Max. DC Resistance of conductor at 20°C	Capacitance of cable	Inductance of cable	Current Rating	
								Under Ground at 30°C	In Air at at 35°C
mm2	mm	mm	mm	kg/km	ohm/km	micro,F/km	mH/km	amps	amps
3 x 25 rm	4.5	2.4	52.5	3075	0.7270	0.17	0.436	148	151
3 x 35 rm	4.5	2.5	54.5	3540	0.5240	0.19	0.415	186	188
3 x 50 rm	4.5	2.6	57	4120	0.3870	0.21	0.386	222	223
3 x 70 rm	4.5	2.7	61	5095	0.2680	0.23	0.365	274	276
3 x 95 rm	4.5	2.8	65	6190	0.1930	0.26	0.346	329	339
3 x 120 rm	4.5	2.9	68	6995	0.1530	0.28	0.332	368	385
3 x 150 rm	4.5	3	72	8110	0.1240	0.3	0.322	417	443
3 x 185 rm	4.5	3.1	76.5	9550	0.0991	0.33	0.311	462	511
3 x 240 rm	4.5	3.3	82.5	11720	0.0754	0.36	0.299	534	589
3 x 300 rm	4.5	3.4	87	13960	0.0601	0.4	0.289	575	620

Type : **2xSEYY**
Standard : **IEC 60502-2**
U0/U (Um) = 12 / 20 (24) KV
Permissible service voltage : 12.7/22 kv

1. Conductor: Copper
2. Cond. Semi conducting screen
3. XLPE insulation
4. Ins. Semi conducting screen
5. Metallic screen
6. Filler
7. Inner covering
8. Oversheath- PVC

Table: 31

Nominal cross sectional area of conductor	Nominal thickness of insulation	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Max. DC Resistance of conductor at 20°C	Capacitance of cable	Inductance of cable	Current Rating	
								Under Ground at 30°C	In Air at at 35°C
mm2	mm	mm	mm	kg/km	ohm/km	micro.F/km	mH/km	amps	amps
3 x 35 rm	5.5	2.6	59	4010	0.5240	0.17	0.435	186	188
3 x 50 rm	5.5	2.7	63	4650	0.3870	0.18	0.405	222	223
3 x 70 rm	5.5	2.8	66	5610	0.2680	0.2	0.383	274	276
3 x 95 rm	5.5	2.9	71	6740	0.1930	0.22	0.363	329	339
3 x 120 rm	5.5	3	74	7570	0.1530	0.24	0.347	368	385
3 x 150 rm	5.5	3.1	77	8770	0.1240	0.26	0.337	417	443
3 x 185 rm	5.5	3.3	81	10280	0.0991	0.28	0.325	462	511
3 x 240 rm	5.5	3.4	86	12390	0.0754	0.31	0.312	534	589
3 x 300 rm	5.5	3.6	92	14710	0.0601	0.34	0.301	575	620

Type : **2xSEYY**
Standard : **IEC 60502-2**
U0/U (Um) = 18/ 30 (36) KV
Permissible service voltage : 19/33 kv

Table: 32

Nominal cross sectional area of conductor	Nominal thickness of insulation	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Max. DC Resistance of conductor at 20°C	Capacitance of cable	Inductance of cable	Current Rating	
								Under Ground at 30°C	In Air at at 35°C
mm2	mm	mm	mm	kg/km	ohm/km	micro.F/km	mH/km	amps	amps
3 x 50 rm	8	3.1	76	6200	0.3870	0.14	0.448	222	223
3 x 70 rm	8	3.2	80	7310	0.2680	0.16	0.423	274	276
3 x 95 rm	8	3.3	84	8520	0.1930	0.17	0.401	329	339
3 x 120 rm	8	3.4	87	9420	0.1530	0.18	0.384	368	385
3 x 150 rm	8	3.5	91	10625	0.1240	0.2	0.371	417	443
3 x 185 rm	8	3.6	95	12190	0.0991	0.21	0.358	462	511
3 x 240 rm	8	3.8	100	14450	0.0754	0.23	0.343	534	589
3 x 300 rm	8	4	105	16975	0.0601	0.25	0.33	575	620

Type : **2xSEYRGY**
Standard : **IEC 60502-2**
U0/U (Um) = 3.6 / 6 (7.2) KV
Permissible service voltage : 3.8/6.5 kv

1. Conductor: Copper
2. Cond. Semi conducting screen
3. XLPE insulation
4. Ins. Semi conducting screen
5. Metallic screen
6. Filler
7. Inner covering
8. Round galv. Steel wire armour
9. Steel tape binder (optional)
10. Oversheath-PVC

Table: 33

Nominal cross sectional area of conductor	Nominal thickness of insulation	Nominal diameter of Al. wire Armour	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Max. DC Resistance of conductor at 20°C	Capacitance of cable	Inductance of cable	Current Rating	
									Under Ground at 30°C	In Air at at 35°C
mm2	mm	mm	mm	mm	kg/km	ohm/km	micro,F/km	mH/km	amps	amps
3 x 25 rm	2.5	2	2.2	46.3	3650	0.7270	0.27	0.387	145	147
3 x 35 rm	2.5	2	2.3	48.5	4160	0.5240	0.3	0.369	182	183
3 x 50 rm	2.5	2.5	2.4	52.5	5190	0.3870	0.33	0.343	218	218
3 x 70 rm	2.5	2.5	2.5	56.5	6300	0.2680	0.37	0.325	269	270
3 x 95 rm	2.5	2.5	2.7	61	7520	0.1930	0.42	0.309	324	333
3 x 120 rm	2.5	2.5	2.8	64.3	8440	0.1530	0.46	0.297	411	378
3 x 150 rm	2.5	2.5	2.9	68	9670	0.1240	0.49	0.289	455	436
3 x 185 rm	2.5	2.5	3	72.1	11240	0.0991	0.54	0.28	527	503
3 x 240 rm	2.6	2.5	3.2	78	13560	0.0754	0.58	0.273	567	580
3 x 300 rm	2.8	3.15	3.4	86	17100	0.0601	0.6	0.267	575	611

Type : 2xSEYRGY
Standard : IEC 60502-2
U0/U (Um) = 6 / 10 (12) KV
Permissible service voltage : 6.35/11 kv

1. Conductor: Copper
2. Cond. Semi conducting screen
3. XLPE insulation
4. Ins. Semi conducting screen
5. Metallic screen
6. Filler
7. Inner covering
8. Round galv. Steel wire armour
9. Steel tape binder (optional)
10. Oversheath- PVC

Table: 34

Nominal cross sectional area of conductor	Nominal thickness of insulation	Nom. Dia of round steel wire armour	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Max. DC Resistance of conductor at 20°C	Capacitance of cable	Inductance of cable	Current Rating	
									Under Ground at 30°C	In Air at at 35°C
mm2	mm	mm	mm	mm	kg/km	ohm/km	micro,F/km	mH/km	amps	amps
3 x 25 rm	3.4	2	2.3	50.8	4130	0.7270	0.21	0.41	145	147
3 x 35 rm	3.4	2.5	2.4	54.5	5195	0.5240	0.23	0.391	182	183
3 x 50 rm	3.4	2.5	2.5	57.5	5835	0.3870	0.26	0.364	218	218
3 x 70 rm	3.4	2.5	2.7	61	6920	0.2680	0.29	0.344	269	270
3 x 95 rm	3.4	2.5	2.8	65.5	8140	0.1930	0.33	0.327	324	333
3 x 120 rm	3.4	2.5	2.9	69	9130	0.1530	0.35	0.314	411	378
3 x 150 rm	3.4	2.5	3	72.5	10340	0.1240	0.38	0.304	455	436
3 x 185 rm	3.4	2.5	3.1	76.5	11940	0.0991	0.42	0.295	527	503
3 x 240 rm	3.4	3.15	3.3	83	15070	0.0754	0.46	0.284	567	580
3 x 300 rm	3.4	3.15	3.5	89	17690	0.0601	0.5	0.275	575	611

Type : 2xSEYRGY
Standard : IEC 60502-2
U0/U (Um) = 8.7 / 15 (17.5) KV
Permissible service voltage : 9.2/16.3 kv

Table: 35

Nominal cross sectional area of conductor	Nominal thickness of insulation	Nom. Dia of round steel wire armour	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Max. DC Resistance of conductor at 20°C	Capacitance of cable	Inductance of cable	Current Rating	
									Under Ground at 30°C	In Air at at 35°C
mm2	mm	mm	mm	mm	kg/km	ohm/km	micro,F/km	mH/km	amps	amps
3 x 25 rm	4.5	2.5	2.5	58	5310	0.7270	0.17	0.436	145	147
3 x 35 rm	4.5	2.5	2.6	60	5900	0.5240	0.19	0.415	184	186
3 x 50 rm	4.5	2.5	2.7	63	6590	0.3870	0.21	0.386	220	222
3 x 70 rm	4.5	2.5	2.8	67	7730	0.2680	0.23	0.365	271	273
3 x 95 rm	4.5	2.5	3	71.5	9025	0.1930	0.26	0.346	326	336
3 x 120 rm	4.5	2.5	3.1	74.5	9990	0.1530	0.28	0.332	364	380
3 x 150 rm	4.5	2.5	3.2	78	11220	0.1240	0.3	0.322	413	439
3 x 185 rm	4.5	3.15	3.3	83.5	13750	0.0991	0.33	0.311	457	506
3 x 240 rm	4.5	3.15	3.5	89.5	16190	0.0754	0.36	0.299	530	583
3 x 300 rm	4.5	3.15	3.6	94.5	18740	0.0601	0.4	0.289	570	614

Type : 2xSEYRGY
Standard : IEC 60502-2
U0/U (Um) = 12 / 20 (24) KV
Permissible service voltage : 12.7/22 kv

1. Conductor: Copper
2. Cond. Semi conducting screen
3. XLPE insulation
4. Ins. Semi conducting screen
5. Metallic screen
6. Filler
7. Inner covering
8. Round galv. Steel wire armour
9. Steel tape binder (optional)
10. Oversheath- PVC

Table: 36

Nominal cross sectional area of conductor	Nominal thickness of insulation	Nom. Dia of round steel wire armour	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Max. DC Resistance of conductor at 20°C	Capacitance of cable	Inductance of cable	Current Rating	
									Under Ground at 30°C	In Air at at 35°C
mm2	mm	mm	mm	mm	kg/km	ohm/km	micro,F/km	mH/km	amps	amps
3 x 35 rm	5.5	2.5	2.8	65.5	6595	0.5240	0.17	0.435	184	186
3 x 50 rm	5.5	2.5	2.9	68.5	7365	0.3870	0.18	0.504	220	222
3 x 70 rm	5.5	2.5	3	72.5	8490	0.2680	0.2	0.383	271	273
3 x 95 rm	5.5	2.5	3.1	76.5	9810	0.1930	0.22	0.363	326	336
3 x 120 rm	5.5	2.5	3.2	79.5	10760	0.1530	0.24	0.347	364	380
3 x 150 rm	5.5	3.15	3.4	85	13080	0.1240	0.26	0.337	413	439
3 x 185 rm	5.5	3.15	3.5	89	14750	0.0991	0.28	0.325	457	506
3 x 240 rm	5.5	3.15	3.6	94	17170	0.0754	0.31	0.312	530	583
3 x 300 rm	5.5	3.15	3.8	99.5	19760	0.0601	0.34	0.301	570	614

Type : 2xSEYRGY
Standard : IEC 60502-2
U0/U (Um) = 18 / 30 (36) KV
Permissible service voltage : 19/33 kv

Table: 37

Nominal cross sectional area of conductor	Nominal thickness of insulation	Nom. Dia of round steel wire armour	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Max. DC Resistance of conductor at 20°C	Capacitance of cable	Inductance of cable	Current Rating	
									Under Ground at 30°C	In Air at at 35°C
mm2	mm	mm	mm	mm	kg/km	ohm/km	micro,F/km	mH/km	amps	amps
3 x 50 rm	8	2.5	3.3	82	9520	0.3870	0.14	0.448	220	222
3 x 70 rm	8	3.15	3.4	87	11710	0.2680	0.16	0.423	271	273
3 x 95 rm	8	3.15	3.5	91	13180	0.1930	0.17	0.401	326	336
3 x 120 rm	8	3.15	3.6	94.5	14210	0.1530	0.18	0.384	364	380
3 x 150 rm	8	3.15	3.7	98	15600	0.1240	0.2	0.371	413	439
3 x 185 rm	8	3.15	3.9	102	17470	0.0991	0.21	0.358	457	506
3 x 240 rm	8	3.15	4	107	19950	0.0754	0.23	0.343	530	583
3 x 300 rm	8	3.15	4.2	113.5	22780	0.0601	0.25	0.33	570	614

Type : 2xSEYBY
Standard : IEC 60502-2
U0/U (Um) = 3.6 / 6 (7.2) KV
Permissible service voltage : 3.8/6.5 kv

1. Conductor: Copper
2. Cond. Semi conducting screen
3. XLPE insulation
4. Ins. Semi conducting screen
5. Metallic screen
6. Filler
7. Inner covering
8. Steel tape armour
9. Oversheath-PVC

Table: 38

Nominal cross sectional area of conductor	Nominal thickness of insulation	Nominal diameter of Al. wire Armour	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Max. DC Resistance of conductor at 20°C	Capacitance of cable	Inductance of cable	Current Rating	
									Under Ground at 30°C	In Air at at 35°C
mm2	mm	mm	mm	mm	kg/km	ohm/km	micro,F/km	mH/km	amps	amps
3 x 25 rm	2.5	2 x .5	2.1	43	2910	0.727	0.27	0.387	145	147
3 x 35 rm	2.5	2 x .5	2.2	46	3390	0.5240	0.3	0.369	182	183
3 x 50 rm	2.5	2 x .5	2.3	49	3960	0.3870	0.33	0.343	218	218
3 x 70 rm	2.5	2 x .5	2.4	53	4940	0.2680	0.37	0.325	269	270
3 x 95 rm	2.5	2 x .5	2.5	57.5	6040	0.1930	0.42	0.309	324	333
3 x 120 rm	2.5	2 x .5	2.7	61	6870	0.1530	0.46	0.297	362	378
3 x 150 rm	2.5	2 x .5	2.8	64.5	8050	0.1240	0.49	0.289	411	436
3 x 185 rm	2.5	2 x .5	2.9	68.5	9490	0.0991	0.54	0.28	455	503
3 x 240 rm	2.6	2 x .5	3.1	74.5	11660	0.0754	0.58	0.273	527	580
3 x 300 rm	2.8	2 x .5	3.2	80.5	14120	0.0601	0.6	0.267	567	611

Type : 2xSEYBY
Standard : IEC 60502-2
U0/U (Um) = 6 / 10 (12) KV
Permissible service voltage : 6.35/11 kv

1. Conductor: Copper
2. Cond. Semi conducting screen
3. XLPE insulation
4. Ins. Semi conducting screen
5. Metallic screen
6. Filler
7. Inner covering
8. Steel tape armour
9. Oversheath-PVC

Table: 39

Nominal cross sectional area of conductor	Nominal thickness of insulation	Nom. Dia of round steel wire armour	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Max. DC Resistance of conductor at 20°C	Capacitance of cable	Inductance of cable	Current Rating	
									Under Ground at 30°C	In Air at at 35°C
mm2	mm	mm	mm	mm	kg/km	ohm/km	micro,F/km	mH/km	amps	amps
3 x 25 rm	3.4	2 x .5	2.3	48	3340	0.727	0.21	0.41	145	147
3 x 35 rm	3.4	2 x .5	2.3	51	3860	0.5240	0.23	0.391	182	183
3 x 50 rm	3.4	2 x .5	2.4	54	4450	0.3870	0.26	0.364	218	218
3 x 70 rm	3.4	2 x .5	2.6	57.5	5440	0.2680	0.29	0.344	269	270
3 x 95 rm	3.4	2 x .5	2.7	61.5	6560	0.1930	0.33	0.327	324	333
3 x 120 rm	3.4	2 x .5	2.8	65.5	7450	0.1530	0.35	0.314	362	378
3 x 150 rm	3.4	2 x .5	2.9	69	8590	0.1240	0.38	0.304	411	436
3 x 185 rm	3.4	2 x .5	3	73	10070	0.0991	0.42	0.295	455	503
3 x 240 rm	3.4	2 x .5	3.2	78.5	12210	0.0754	0.46	0.284	527	580
3 x 300 rm	3.4	2 x .5	3.3	84	14570	0.0601	0.5	0.275	567	611

Type : 2xSEYBY
Standard : IEC 60502-2
U0/U (Um) = 8.7 / 15 (17.5) KV
Permissible service voltage : 9.2/16.3 kv

Table: 40

Nominal cross sectional area of conductor	Nominal thickness of insulation	Nom. Dia of round steel wire armour	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Max. DC Resistance of conductor at 20°C	Capacitance of cable	Inductance of cable	Current Rating	
									Under Ground at 30°C	In Air at at 35°C
mm2	mm	mm	mm	mm	kg/km	ohm/km	micro,F/km	mH/km	amps	amps
3 x 25 rm	4.5	2 x .5	2.4	54	3930	0.727	0.17	0.436	145	147
3 x 35 rm	4.5	2 x .5	2.5	56.5	4440	0.5240	0.19	0.415	184	186
3 x 50 rm	4.5	2 x .5	2.6	59	5060	0.3870	0.21	0.386	220	222
3 x 70 rm	4.5	2 x .5	2.7	63	6110	0.2680	0.23	0.365	271	273
3 x 95 rm	4.5	2 x .5	2.9	68	7300	0.1930	0.26	0.346	326	336
3 x 120 rm	4.5	2 x .5	3	71	8170	0.1530	0.28	0.332	364	380
3 x 150 rm	4.5	2 x .5	3.1	74.5	9325	0.1240	0.3	0.322	413	439
3 x 185 rm	4.5	2 x .5	3.2	78.5	10840	0.0991	0.33	0.311	457	506
3 x 240 rm	4.5	2 x .5	3.3	84	13070	0.0754	0.36	0.299	530	583
3 x 300 rm	4.5	2 x .5	3.5	89.5	15450	0.0601	0.4	0.289	570	614

Type : 2xSEYBY
Standard : IEC 60502-2
U0/U (Um) = 12 / 20 (24) KV
Permissible service voltage : 12.7/22 kv

1. Conductor: Copper
2. Cond. Semi conducting screen
3. XLPE insulation
4. Ins. Semi conducting screen
5. Metallic screen
6. Filler
7. Inner covering
8. Steel tape armour
9. Oversheath-PVC

Table: 41

Nominal cross sectional area of conductor	Nominal thickness of insulation	Nom. Dia of round steel wire armour	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Max. DC Resistance of conductor at 20°C	Capacitance of cable	Inductance of cable	Current Rating	
									Under Ground at 30°C	In Air at at 35°C
mm2	mm	mm	mm	mm	kg/km	ohm/km	micro,F/km	mH/km	amps	amps
3 x 35 rm	5.5	2 x .5	2.7	62	5020	0.5240	0.17	0.44	184	186
3 x 50 rm	5.5	2 x .5	2.8	65	5720	0.3870	0.18	0.41	220	222
3 x 70 rm	5.5	2 x .5	2.9	68.5	6740	0.2680	0.2	0.387	271	273
3 x 95 rm	5.5	2 x .5	3	72.5	7940	0.1930	0.22	0.367	326	336
3 x 120 rm	5.5	2 x .5	3.1	76	8820	0.1530	0.24	0.351	364	380
3 x 150 rm	5.5	2 x .5	3.2	79.5	10080	0.1240	0.26	0.34	413	439
3 x 185 rm	5.5	2 x .5	3.3	83.5	11630	0.0991	0.28	0.328	457	506
3 x 240 rm	5.5	2 x .5	3.5	89	13870	0.0754	0.31	0.314	530	583
3 x 300 rm	5.5	2 x .5	3.7	95.5	17210	0.0601	0.34	0.304	570	614

Type : 2xSEYBY
Standard : IEC 60502-2
U0/U (Um) = 18 / 30 (36) KV
Permissible service voltage : 19 / 33 kv

Table: 42

Nominal cross sectional area of conductor	Nominal thickness of insulation	Nom. Dia of round steel wire armour	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Max. DC Resistance of conductor at 20°C	Capacitance of cable	Inductance of cable	Current Rating	
									Under Ground at 30°C	In Air at at 35°C
mm2	mm	mm	mm	mm	kg/km	ohm/km	micro,F/km	mH/km	amps	amps
3 x 50 rm	8	2 x .5	3.2	78	7500	0.3870	0.14	0.448	220	222
3 x 70 rm	8	2 x .5	3.3	82	8680	0.2680	0.16	0.423	271	273
3 x 95 rm	8	2 x .5	3.4	86	9960	0.1930	0.17	0.401	326	336
3 x 120 rm	8	2 x .5	3.5	90	10920	0.1530	0.18	0.384	364	380
3 x 150 rm	8	2 x .5	3.6	94	13100	0.1240	0.2	0.371	413	439
3 x 185 rm	8	2 x .5	3.7	98	14770	0.0991	0.21	0.358	457	506
3 x 240 rm	8	2 x .5	3.9	104	17170	0.0754	0.23	0.343	530	583
3 x 300 rm	8	2 x .5	4.1	109	19850	0.0601	0.25	0.33	570	614

Type : **2xSEYFGY**
Standard : **IEC 60502-2**
U0/U (Um) = 3.6 / 6 (7.2) KV
Permissible service voltage : 3.8 / 6.5 kv

1. Conductor: Copper
2. Cond. Semi conducting screen
3. XLPE insulation
4. Ins. Semi conducting screen
5. Metallic screen
6. Filler
7. Inner covering
8. Flat steel wire armour
9. Steel tape binder (Optional)
10. Over sheath-PVC

Table: 43

Nominal cross sectional area of conductor	Nominal thickness of insulation	Nominal diameter of Al. wire Armour	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Max. DC Resistance of conductor at 20°C	Capacitance of cable	Inductance of cable	Current Rating	
									Under Ground at 30°C	In Air at at 35°C
mm2	mm	mm	mm	mm	kg/km	ohm/km	micro.F/km	mH/km	amps	amps
3 X 25 rm	2.5	2.1	43.5	43	3080	0.727	0.27	0.387	145	147
3 x 35 rm	2.5	2.2	46	46	3560	0.5240	0.3	0.369	182	183
3 x 50 rm	2.5	2.3	49	49	4160	0.3870	0.33	0.343	218	218
3 x 70 rm	2.5	2.4	53	53	5120	0.2680	0.37	0.325	269	270
3 x 95 rm	2.5	2.5	57	57.5	6260	0.1930	0.42	0.309	324	333
3 x 120 rm	2.5	2.6	60	61	7130	0.1530	0.46	0.297	362	378
3 x 150 rm	2.5	2.7	64	64.5	8270	0.1240	0.49	0.289	411	436
3 x 185 rm	2.5	2.9	68	68.5	9780	0.0991	0.54	0.28	455	503
3 x 240 rm	2.6	3	74	74.5	11900	0.0754	0.58	0.273	527	580
3 x 300 rm	2.8	3.2	80.5	80.5	14450	0.0601	0.6	0.267	567	611

Type : 2xSEYFGY
Standard : IEC 60502-2
U0/U (Um) = 6 / 10 (12) KV
Permissible service voltage : 6.35 / 11 kv

1. Conductor: Copper
2. Cond. Semi conducting screen
3. XLPE insulation
4. Ins. Semi conducting screen
5. Metallic screen
6. Filler
7. Inner covering
8. Flat steel wire armour
9. Steel tape binder (Optional
10. Over sheath-PVC

Table: 44

Nominal cross sectional area of conductor	Nominal thickness of insulation	Nom. Dia of round steel wire armour	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Max. DC Resistance of conductor at 20°C	Capacitance of cable	Inductance of cable	Current Rating	
									Under Ground at 30°C	In Air at at 35°C
mm2	mm	mm	mm	mm	kg/km	ohm/km	micro,F/km	mH/km	amps	amps
3 X 25 rm	3.4	0.8	2.2	47.5	3460	0.727	0.21	0.41	145	147
3 x 35 rm	3.4	0.8	2.3	50.5	4020	0.5240	0.23	0.391	182	183
3 x 50 rm	3.4	0.8	2.4	53.5	4630	0.3870	0.26	0.363	218	218
3 x 70 rm	3.4	0.8	2.6	57	5570	0.2680	0.29	0.344	269	270
3 x 95 rm	3.4	0.8	2.7	61.5	6765	0.1930	0.33	0.327	324	333
3 x 120 rm	3.4	0.8	2.8	65	7750	0.1530	0.35	0.313	362	378
3 x 150 rm	3.4	0.8	2.9	68	8830	0.1240	0.38	0.304	411	436
3 x 185 rm	3.4	0.8	3	72.5	10320	0.0991	0.42	0.294	455	503
3 x 240 rm	3.4	0.8	3.2	77.5	12470	0.0754	0.46	0.284	527	580
3 x 300 rm	3.4	0.8	3.3	83	14900	0.0601	0.5	0.275	567	611

Type : 2xSEYFGY
Standard : IEC 60502-2
U0/U (Um) = 8.7 / 15 (17.5) KV
Permissible service voltage : 9.2 / 16.3 kv

Table: 45

Nominal cross sectional area of conductor	Nominal thickness of insulation	Nom. Dia of round steel wire armour	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Max. DC Resistance of conductor at 20°C	Capacitance of cable	Inductance of cable	Current Rating	
									Under Ground at 30°C	In Air at at 35°C
mm2	mm	mm	mm	mm	kg/km	ohm/km	micro,F/km	mH/km	amps	amps
3 X 25 rm	4.5	0.8	2.4	54	4100	0.727	0.17	0.436	145	147
3 x 35 rm	4.5	0.8	2.5	56	4620	0.5240	0.19	0.416	184	186
3 x 50 rm	4.5	0.8	2.6	59	5250	0.3870	0.21	0.387	220	222
3 x 70 rm	4.5	0.8	2.7	63	6280	0.2680	0.23	0.366	271	273
3 x 95 rm	4.5	0.8	2.8	67	7500	0.1930	0.26	0.347	326	336
3 x 120 rm	4.5	0.8	2.9	70.5	8420	0.1530	0.28	0.332	364	380
3 x 150 rm	4.5	0.8	3	73.5	9550	0.1240	0.3	0.322	413	439
3 x 185 rm	4.5	0.8	3.2	78	11100	0.0991	0.33	0.311	457	506
3 x 240 rm	4.5	0.8	3.3	83.5	13400	0.0754	0.36	0.3	530	583
3 x 300 rm	4.5	0.8	3.5	89	15700	0.0601	0.4	0.289	570	614

Type : 2xSEYFGY
Standard : IEC 60502-2
U0/U (Um) = 12 / 20 (24) KV
Permissible service voltage : 12.7 / 22 kv

1. Conductor: Copper
2. Cond. Semi conducting screen
3. XLPE insulation
4. Ins. Semi conducting screen
5. Metallic screen
6. Filler
7. Inner covering
8. Flat steel wire armour
9. Steel tape binder (Optional
10. Over sheath-PVC

Table: 46

Nominal cross sectional area of conductor	Nominal thickness of insulation	Nom. Dia of round steel wire armour	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Max. DC Resistance of conductor at 20°C	Capacitance of cable	Inductance of cable	Current Rating	
									Under Ground at 30°C	In Air at at 35°C
mm2	mm	mm	mm	mm	kg/km	ohm/km	micro,F/km	mH/km	amps	amps
3 x 35 rm	5.5	0.8	2.7	61	5180	0.5240	0.17	0.435	184	186
3 x 50 rm	5.5	0.8	2.8	64.5	5900	0.3870	0.18	0.405	220	222
3 x 70 rm	5.5	0.8	2.9	68	6930	0.2680	0.2	0.383	271	273
3 x 95 rm	5.5	0.8	3	72	8170	0.1930	0.22	0.363	326	336
3 x 120 rm	5.5	0.8	3.1	75.5	9120	0.1530	0.24	0.348	364	380
3 x 150 rm	5.5	0.8	3.2	79	10330	0.1240	0.26	0.337	413	439
3 x 185 rm	5.5	0.8	3.3	83	11900	0.0991	0.28	0.325	457	506
3 x 240 rm	5.5	0.8	3.5	88.5	14100	0.0754	0.31	0.313	530	583
3 x 300 rm	5.5	0.8	3.6	93.5	16500	0.0601	0.34	0.301	570	614

Type : 2xSEYFGY
Standard : IEC 60502-2
U0/U (Um) = 18 / 30 (36) KV
Permissible service voltage : 19 / 33 kv

Table: 47

Nominal cross sectional area of conductor	Nominal thickness of insulation	Nom. Dia of round steel wire armour	Nominal thickness of sheath	Approx. overall diameter	Approx. weight of cable	Max. DC Resistance of conductor at 20°C	Capacitance of cable	Inductance of cable	Current Rating	
									Under Ground at 30°C	In Air at at 35°C
mm2	mm	mm	mm	mm	kg/km	ohm/km	micro,F/km	mH/km	amps	amps
3 x 50 rm	8	0.8	3.1	76	7470	0.3870	0.14	0.445	220	222
3 x 70 rm	8	0.8	3.2	80.5	8650	0.2680	0.16	0.42	271	273
3 x 95 rm	8	0.8	3.4	85	10000	0.1930	0.17	0.398	326	336
3 x 120 rm	8	0.8	3.5	88	11000	0.1530	0.18	0.381	364	380
3 x 150 rm	8	0.8	3.6	91	12250	0.1240	0.2	0.369	413	439
3 x 185 rm	8	0.8	3.7	95	13850	0.0991	0.21	0.356	457	506
3 x 240 rm	8	0.8	3.9	101	16250	0.0754	0.23	0.341	530	583
3 x 300 rm	8	0.8	4	106	18800	0.0601	0.25	0.328	570	614

MV AERIAL BUNDLE CABLE (ABC)

Voltage Grade : 6 / 10 (12) KV

Standard : IEC 60502-2 & ASTM B 498 (A)

Construction:

Phase unit-

1. Conductor : Stranded circular compacted aluminium
2. Conductor screen : Semi conducting
3. Insulation : Cross-linked polyethylene
4. Insulation screen : Semi conducting
5. Metalic screen : Copper tape
6. Binder : Non-oven polyester tape
7. Sheath : Polyethylene (PE)

Suspension unit-

8. Conductor : Stranded galvanized steel
9. Insulation : Polyethylene (PE)

Description: The three XLPE insulated and copper tape screened PE sheathed single core cables are bundled with PE insulated galvanized steel messenger wire in a right hand lay.

Table: 48

No, & nominal cross sectional area of conductor	Phase unit					Suspension unit			Approx. diameter of bundled cable	Approx. weight of Bundled cable
	Minimum number of wire	Nominal thickness of insulation	Average thickness of semi conducting	Nominal thickness of sheath	Approx. diameter of single core	No. & diameter of steel wire	Minimum thickness of insulation	Approx. diameter		
no. x mm2	no.	mm	mm	mm	mm	no./mm	mm	mm	mm	kg/km
3x35+30	6 wire	3.4	0.7	1.8	21.9	7/2.38	1	9.5	50.4	1844
3x50+30	6 wire	3.4	0.7	1.8	23	7/2.38	1	9.5	53	2059
3x70+50	12 wire	3.4	0.7	1.8	24.6	7/3.1	1	11.8	56.6	2575
3x95+50	15 wire	3.4	0.7	1.8	26.5	7/3.1	1	11.8	61	2984
3x120+70	15 wire	3.4	0.7	1.8	27.9	7/3.57	1	13.4	64.2	3419
3x150+70	15 wire	3.4	0.7	1.9	29.5	7/3.57	1	13.4	67.9	3815
3x185+70	30 wire	3.4	0.7	1.9	31.2	7/3.57	1	13.4	71.8	4306
3x240+70	30 wire	3.4	0.7	1.9	33.6	7/3.57	1	13.4	77.4	5024

Technical data:

No, & nominal cross sectional area of conductor	Max. DC Resistance of conductor at 20°C	Capacitance	Inductance reactance at 50 HZ	Minimum breaking load of messenger conductor	Continous current rating at ambient temp. of 40°C
no. x mm2	ohm/km	micro,F/km	mH/km	KN	Amp.
3x35+30	0.868	0.233	0.145	41.7	145
3x50+30	0.641	0.253	0.126	41.7	170
3x70+50	0.443	0.287	0.119	70.8	215
3x95+50	0.32	0.323	0.113	70.8	260
3x120+70	0.253	0.357	0.108	91.8	305
3x150+70	0.206	0.38	0.105	91.8	340
3x185+70	0.164	0.414	0.101	91.8	390
3x240+70	0.125	0.462	0.097	91.8	443

PRODUCT RANGE

Base coat Enamel base Top coat	Modified Polyester (PE)	Polyester imide (PEI)	Polyester imide (PEI) Polyamide imide (PAI)	Polyamide imide (PAI)	Polyester (PE)	Polyvinyl formal (PVF/PVA)
Thermal insulation class & temp	F-155°C	H-180°C	H+C-200°C	C-220°C	F-130°C	A-105°C/120°C
Colour	Light brown to Dark brown	Light brown to Dark brown	Light brown to Dark brown	Brown	Light brown to Dark brown	Old Gold
Application	General purpose rotating & static electrical equipments	FHP motors, Hand tools, Hermetic applications, Ignition coils & all thermal class-'H' equipments.	FHP motors, Hand tools, Hermetic applications, Special purpose motors & all thermal class-'H' equipments.	Apparatus for High operating temp. motors for power tools, Motors with Freon gas. (R 12, R 22 & R134A)	General purpose rotating & static electrical equipments	Motors & coils required to withstand high mechanical properties. Auto electric parts, power & Distribution transformers.

TECHNICAL DATA

Cut through	270°C	320°C	320°C	365°C	240°C	180°C/170°C
Heat shock	180°C	200°C	210°C	220°C	155°C	155°C
Abrasion resistance	Good	Good	Excellent	Excellent	Good	Excellent
Resistance to Varnishes/solvents	Good	Excellent	Excellent	Excellent	Good	Excellent
Mechanical properties	Fair	Good	Excellent	Excellent	Fair	Excellent
Resistance to Freon 22	Not applicable	Very good	Excellent	Excellent	Not applicable	Not applicable
Flexibility & Adherence	Fair	Very good	Excellent	Excellent	Fair	Excellent
Special characteristics/ Advantages.	Good thermal & Electrical properties, Good solvent resistance.	Outstanding Heat resistance, Excellent hear shock resistance.	High resistance to over load & cut through, low co efficient of friction.	Excellent abrasion resistance, Outstanding thermal stability, High resistance to over load and high cut through.	Good thermal & Electrical properties, Good solvent resistance.	Good resistance to transformer oil, good abrasion resistance & Heat shock resistance.

DIAMETERS AND INCREASE DIAMETERS OF ENAMELLED ROUND COPPER WINDING WIRES

Table: 01

Nominal Conductor diameter		Conductor Tolerance	Grade-1		Grade-2		Grade-3	
			Minimum increase	Maximum overall dia	Minimum increase	Maximum overall dia	Minimum increase	Maximum overall dia
SWG	mm	± mm	mm	mm	mm	mm	mm	mm
11	2.964	0.03	0.045	3.029	0.084	3.072	0.127	3.112
12	2.642	0.027	0.043	2.772	0.081	2.764	0.123	2.803
13	2.337	0.024	0.042	2.415	0.079	2.455	0.119	2.493
14	2.032	0.021	0.041	2.108	0.077	2.147	0.116	2.184
15	1.829	0.019	0.04	1.903	0.075	1.941	0.113	1.977
16	1.626	0.017	0.039	1.698	0.073	1.735	0.110	1.77
17	1.422	0.015	0.038	1.492	0.071	1.528	0.107	1.562
18	1.219	0.013	0.035	1.285	0.067	1.318	0.100	1.35
19	1.016	0.011	0.034	1.080	0.065	1.113	0.098	1.144
20	0.914	0.01	0.034	0.976	0.063	1.008	0.095	1.038
21	0.813	0.009	0.032	0.872	0.06	0.902	0.090	0.931
22	0.711	0.008	0.03	0.766	0.056	0.795	0.085	0.822
23	0.61	0.006	0.027	0.659	0.05	0.684	0.075	0.708
24	0.559	0.006	0.025	0.605	0.047	0.629	0.071	0.652
25	0.508	0.006	0.025	0.554	0.047	0.578	0.071	0.601
26	0.457	0.005	0.024	0.501	0.045	0.523	0.067	0.544
27	0.417	0.005	0.022	0.458	0.042	0.48	0.064	0.5
28	0.376	0.005	0.021	0.417	0.04	0.435	0.060	0.454
29	0.345	0.004	0.02	0.382	0.038	0.401	0.057	0.418
30	0.315	0.004	0.019	0.349	0.035	0.367	0.053	0.384
31	0.295	0.004	0.019	0.329	0.035	0.347	0.053	0.364
32	0.274	0.004	0.018	0.306	0.033	0.323	0.050	0.339
33	0.254	0.004	0.018	0.286	0.033	0.303	0.050	0.319
34	0.234	0.004	0.017	0.265	0.032	0.281	0.048	0.296
35	0.213	0.003	0.015	0.241	0.029	0.255	0.043	0.269
36	0.193	0.003	0.014	0.219	0.027	0.232	0.039	0.245
37	0.173	0.003	0.013	0.197	0.025	0.21	0.036	0.222
38	0.152	0.003	0.012	0.174	0.023	0.186	0.033	0.197
39	0.132	0.003	0.011	0.152	0.021	0.162	0.030	0.171
40	0.122	0.003	0.01	0.141	0.019	0.151	0.028	0.16
41	0.112	0.003	0.009	0.130	0.017	0.139	0.026	0.147
42	0.102	0.003	0.009	0.119	0.017	0.128	0.026	0.136
43	0.091	0.003	0.008	0.107	0.016	0.115	0.023	0.122
44	0.081	0.003	0.008	0.096	0.015	0.103	0.022	0.11
45	0.071	0.003	0.007	0.084	0.012	0.091	0.018	0.097
46	0.061	0.003		0.074		0.081		
47	0.051	0.003		0.062		0.068		
48	0.041	0.003		0.050		0.056		

Note: 1. For intermediate conductor diameter minimum increase corresponding to the next largest nominal conductor Diameter shall be taken.
2. Maximum overall diameter for intermediate conductor size is equal to maximum overall diameter of next largest nominal conductor diameter corrected by difference in conductor diameters.

DIAMETERS-TOLERANCES-AREA-WEIGHT & RESISTANCES OF ENAMELLED ROUND COPPER WINDING WIRES

Table: 02

Nominal Conductor diameter		Conductor Tolerance	Conductor diameter		Nominal conductor area	Conductor weight	Conductor resistance at 20°C for one meter length		
			Minimum	Maximum			Nominal	Maximum	Minimum
SWG	mm	± mm	mm	mm	mm	mm	mm	mm	
11	2.964	0.030	2.916	2.976	6.8164	60.598	0.002508		
12	2.642	0.027	2.615	2.669	5.4822	48.737	0.003118		
13	2.337	0.024	2.313	2.361	4.2895	38.134	0.003985		
14	2.032	0.021	2.011	2.053	3.2429	28.829	0.005271		
15	1.829	0.019	1.810	1.848	2.6274	23.358	0.006506		
16	1.626	0.017	1.609	1.643	2.0765	18.46	0.008232		
17	1.422	0.015	1.407	1.437	1.5881	14.118	0.010760		
18	1.219	0.013	1.206	1.232	1.1671	10.376	0.014650		
19	1.016	0.011	1.005	1.027	0.8107	7.207	0.021080		
20	0.914	0.010	0.904	0.924	0.6561	5.833	0.026050	0.02686	0.02528
21	0.813	0.009	0.804	0.822	0.5191	4.615	0.03293	0.03396	0.03194
22	0.711	0.008	0.703	0.719	0.397	3.529	0.04305	0.04442	0.04175
23	0.61	0.006	0.604	0.616	0.2922	2.598	0.05848	0.06017	0.05687
24	0.559	0.006	0.553	0.565	0.2454	2.182	0.06965	0.07178	0.0676
25	0.508	0.006	0.502	0.514	0.2027	1.802	0.08434	0.08711	0.08168
26	0.457	0.005	0.452	0.462	0.164	1.458	0.1042	0.1075	0.1011
27	0.417	0.005	0.412	0.422	0.1366	1.214	0.1250	0.1293	0.1212
28	0.376	0.005	0.371	0.381	0.111	0.987	0.1539	0.1595	0.1487
29	0.345	0.004	0.341	0.349	0.09348	0.831	0.1829	0.1888	0.1772
30	0.315	0.004	0.311	0.319	0.07793	0.693	0.2193	0.2269	0.2121
31	0.295	0.004	0.291	0.299	0.06835	0.608	0.2501	0.2592	0.2414
32	0.274	0.004	0.27	0.278	0.05896	0.524	0.2899	0.3011	0.2792
33	0.254	0.004	0.25	0.258	0.05067	0.45	0.3374	0.3512	0.3242
34	0.234	0.004	0.23	0.238	0.04301	0.382	0.3974	0.4149	0.3809
35	0.213	0.003	0.21	0.216	0.03563	0.317	0.4798	0.4978	0.4625
36	0.193	0.003	0.19	0.196	0.02926	0.26	0.5842	0.6081	0.5618
37	0.173	0.003	0.17	0.176	0.02351	0.209	0.7271	0.7596	0.6967
38	0.152	0.003	0.149	0.155	0.01815	0.161	0.9418	0.9888	0.8982
39	0.132	0.003	0.129	0.135	0.01368	0.122	1.2496	1.3192	1.1841
40	0.122	0.003	0.119	0.125	0.01169	0.104	1.4623	1.5502	1.3811
41	0.112	0.003	0.109	0.115	0.00985	0.088	1.7354	1.8477	1.6318
42	0.102	0.003	0.099	0.105	0.00817	0.073	2.0923	2.2398	1.9574
43	0.091	0.003	0.088	0.094	0.0065	0.058	2.6298	2.8348	2.4423
44	0.081	0.003	0.078	0.084	0.00515	0.046	3.3192	3.6082	3.058
45	0.071	0.003	0.068	0.074	0.00396	0.035	4.3167	4.7475	3.9408
46	0.061				0.00292	0.026	5.8541	6.3809	5.3272
47	0.051				0.00204	0.018	8.3794	9.1335	7.6253
48	0.041				0.00132	0.012	12.9500	14.2062	11.6939

Note : Nominal conductivity of copper = 1/58 ohm.mm²/m

ALL ALUMINIUM CONDUCTOR (AAC)

Specification:

BDS : 1036, Part-1

BS : 215 Part-1 & IEC 207

Application:

Stranded hard drawn Aluminium conductors are to be used mainly for overhead power distribution line, overhead feeders and buses.

Table: 01

Code Name	Nominal Aluminium Area	Equivalent Copper Area	No. and Diameter of Aluminium wire	Overall Diameter of Conductor	Total Area	Approx. Weight	Nominal Breaking Load	Max. DC resistance of conductor at 20°C	Current Rating
	mm^2	mm^2	no./mm	mm	mm^2	kg/km	kgf	ohm/km	amp
MIDGE	22	14.2	7/2.06	6.18	23.3	64	408	1.227	114
APHIS	25	16.1	3/3.35	7.23	26.4	73	419	1.081	139
GNAT	25	16.1	7/2.21	6.63	26.9	74	468	1.068	124
WEEVIL	30	19.4	3/3.66	7.89	31.6	87	496	0.9082	144
MOSQUITO	35	22.6	7/2.59	7.77	36.9	102	617	0.7731	147
LADYBIRD	40	25.8	7/2.79	8.37	42.8	118	701	0.6694	159
ANT	50	32.3	7/3.10	9.30	52.8	145	846	0.5419	181
FLY	60	38.7	7/3.40	10.20	63.6	174	1010	0.4505	199
BLUEBOTTLE	70	45.2	7/3.66	10.98	73.6	203	1156	0.3884	219
EARWIG	75	48.4	7/3.78	11.34	78.6	216	1218	0.3645	227
GRASSHOPPER	80	51.6	7/3.91	11.73	84.1	232	1303	0.3405	238
CLEGG	90	58.1	7/4.17	12.5	95.6	264	1482	0.2994	256
WASP	100	64.5	7/4.39	13.17	106	292	1632	0.2702	271
BEETLE	100	64.5	19/2.67	13.35	106.4	293.3	1776	0.2699	274
BEE	125	80.6	7/4.90	14.70	132.0	363.9	2033	0.2169	308
CRICKET	150	96.8	7/5.36	16.08	157.9	435.5	2432	0.1814	342
HORNET	150	96.8	19/3.25	16.25	157.6	434.6	2519	0.1825	346
CATERPILLER	175	113	19/3.53	17.65	185.9	512.7	2920	0.1547	380
CHAFER	200	129	19/3.78	18.90	213.2	587.9	3304	0.1349	414
SPIDER	225	145	19/3.99	19.95	237.6	655	3672	0.1214	439
COCKROACH	250	161	19/4.22	21.10	265.7	732.7	4120	0.1083	470
BUTTERFLY	300	194	19/4.65	23.25	322.7	889.6	4966	0.08916	528
MOTH	350	226	19/5.00	25	373.1	1028.6	5748	0.07709	572
DRONE	350	226	37/3.58	25.06	372.4	1026.8	5858	0.07723	572
LOCUST	400	258	19/5.36	26.80	428.7	1182	6601	0.06714	626
CENTIPEDE	400	258	37/3.78	26.46	415.2	1144.8	6434	0.06944	619
MAYBUG	450	290	37/4.09	28.63	486.1	1340.2	7547	0.05921	676
SCORPION	500	323	37/4.27	29.89	529.8	1460.8	8156	0.05445	710
CICADA	600	387	37/4.65	32.55	628.3	1732.4	9682	0.04587	784
TARANTULA	750	484	37/5.23	36.61	794.9	2191.5	12247	0.03628	899

ALL ALUMINIUM CONDUCTOR (AAC)

Specification :

BDS: 1036, Part-1

ASTM B 231 (Class-A & Class-AA) IEC 207

Application:

Stranded hard drawn Aluminium conductors are to be used mainly for overhead power distribution line, overhead feeders and buses.

Table: 02

Code Name	Nominal Aluminium Area		Equivalent Copper Area		No. and Diameter of Aluminium wire	Overall Diameter of Conductor	Approx. Weight	Nominal Breaking Load	Max. DC resistance of conductor at 20°C	Current Rating
	AWG or MCM	mm²	AWG or MCM	mm²	no./mm	mm	kg/km	kgf	ohm/km	amp
ROSE	4	21.12	6	13.5	7/1.96	5.88	58	375	1.3624	104
IRIS	2	33.54	4	21.3	7/2.47	7.41	92	574	0.8574	136
POPPY	1/0	53.51	2	33.6	7/3.12	9.36	148	846	0.5390	180
ASTER	2/0	67.34	1	42.6	7/3.50	10.50	186	1066	0.4276	207
PHLOX	3/0	84.91	1/0	53.6	7/3.93	11.79	234	1291	0.3390	237
OXLIP	4/0	107.4	2/0	64.5	7/4.42	13.26	296	1628	0.2688	273
VALERIAN	250	126.36	157	77.4	19/2.91	14.55	348	2044	0.2275	305
DAISY	266.8	135.25	3/0	83.9	7/4.96	14.88	373	2053	0.2133	313
PEONY	300	151.85	189	95.6	19/3.19	15.95	419	2404	0.1896	340
TULIP	336.4	170.48	4/0	110	19/3.38	16.90	470	2697	0.1692	364
DAFFODIL	350	177.61	220	112	19/3.45	17.25	490	2805	0.1625	373
GOLDENTUFT	450	228.13	280	142	19/3.91	19.55	629	3462	0.1264	432
COSMOS	477	241.15	300	155	19/4.02	20.10	665	3670	0.1193	447
ZINNIA	500	253.3	315	161	19/4.12	20.60	698	3847	0.1137	459
DAHLIA	556.5	282.37	350	177	19/4.35	21.75	779	4282	0.1023	489

PVC INSULATED ALL ALUMINIUM CONDUCTOR (AAC-INS.)

Specification :

BS 6485 & BS 215, Part-1

Application:

These PVC covered all Aluminium stranded conductors are to be used for overhead power lines.

Table: 03

Code Name	Cross Sectional Area of Conductor	No. and Diameter of Aluminium wire	Diameter of bare Conductor	Minimum Thickness of Insulation	Approx Overall Diameter	Approx. Weight	Nominal Breaking Load	Max. DC resistance of conductor at 20°C	Current Rating
	mm²	no./mm	mm	mm	mm	kg/km	kgf	ohm/km	amp
MIDGE	23.3	7/2.06	6.18	0.8	8.18	98	408	1.227	106
GNAT	26.9	7/2.21	6.63	0.8	8.63	110	468	1.068	115
MOSQUITO	36.9	7/2.59	7.77	0.8	9.77	143	617	0.7731	134
ANT	52.8	7/3.10	9.3	0.8	11.30	192	846	0.5419	172
FLY	63.6	7/3.40	10.2	0.8	12.20	230	1010	0.4505	191
BLUE BOTTLE	73.7	7/3.66	10.98	0.8	12.98	261	1156	0.3884	210
EARWIG	78.6	7/3.78	11.34	0.8	13.34	275	1218	0.3645	218
GRASSHOPPER	84	7/3.91	11.73	0.8	13.83	292	1303	0.3405	228
CLEGG	95.6	7/4.17	12.51	0.8	14.61	330	1482	0.2994	245
WASP	106	7/4.39	13.17	0.8	15.57	372	1632	0.2702	260

ALUMINIUM CONDUCTOR STEEL REINFORCED (ACSR)

Specification :

BDS: 1037

BS 215, Part-2 & IEC 209

Application:

These conductors are to be used mainly for overhead power distribution line overhead feeders and busbar line.

Table: 04

Code Name	Nominal Aluminium Area	Equivalent Copper Area	Cross Sectional Area of Conductor			No. and Diameter of wire		Overall diameter of Conductor
			AL	Steel	Total	Aluminium	Steel	
	mm²	mm²	mm²	mm²	mm²	mm	mm	mm
MOLE	10	6.4	10.60	1.77	12.37	6/1.50	1/1.50	4.5
SQUIRREL	20	12.9	20.98	3.50	24.48	6/2.11	1/2.11	6.33
GOPHER	25	16.1	26.25	4.37	30.62	6/2.36	1/2.36	7.08
WEASEL	30	19.4	31.61	5.27	36.88	6/2.59	1/2.59	7.77
FOX	35	22.6	36.68	6.11	42.79	6/2.79	1/2.79	8.37
FERRET	40	25.8	42.41	7.07	49.48	6/3.00	1/3.00	9.00
RABBIT	50	32.3	52.88	8.81	61.69	6/3.35	1/3.35	10.05
HORSE	70	45.2	73.36	42.80	116.16	12/2.79	7/2.79	13.95
RACOON	75	48.4	79.22	13.20	92.42	6/4.10	1/4.10	12.30
CAT	90	58.1	95.43	15.90	111.33	6/4.50	1/4.50	13.50
HARE	100	64.5	104.98	17.50	122.48	6/4.72	1/4.72	14.16
DOG	100	64.5	104.98	13.55	118.53	6/4.72	7/1.57	14.15
TIGER	125	80.7	131.23	30.62	161.85	30/2.36	7/2.36	16.52
WOLF	150	96.8	158.06	36.88	194.94	30/2.59	7/2.59	18.13
DINGO	150	97.9	158.65	8.81	167.46	18/3.35	1/3.35	16.75
CARACAL	175	113.7	184.24	10.24	194.48	18/3.61	1/3.61	18.05
PANTHER	200	129	212.06	49.48	261.54	30/3.00	7/3.00	21.00
LION	225	145	238.27	55.60	293.87	30/3.18	7/3.18	22.26
GOAT	324	209	324.31	75.67	399.98	30/3.71	7/3.71	25.97
SHEEP	375	242	375.11	87.53	462.64	30/3.99	7/3.99	27.93
ELK	450	290	477.13	111.33	588.46	30/4.50	7/4.50	31.50
CAMEL	476	307	475.96	61.7	537.66	54/3.35	7/3.35	30.15

ALUMINIUM CONDUCTOR STEEL REINFORCED (ACSR)

Specification :

BDS: 1037

BS 215, Part-2 & IEC 209

Application:

These conductors are to be used mainly for overhead power distribution line overhead feeders and busbar line.

Table: 05

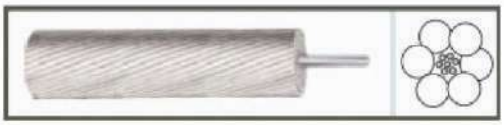
Code Name	Approx. Weight of Conductor			Nominal Breaking Load	Maximum DC Resistance of Conductor at 20°C	Current Rating
	Aluminium	Steel	Total			
	kg/km	kg/km	kg/km	kgf	ohm/km	Amp
MOLE	29	14	43	422	2.7027	66
SQUIRREL	58	27	85	806	1.37	109
GOPHER	72	34	106	979	1.093	126
WEASEL	87	41	128	1163	0.9077	134
FOX	101	48	149	1346	0.7827	147
FERRET	117	55	172	1550	0.6766	161
RABBIT	146	69	215	1876	0.5426	185
HORSE	202	336	538	6241	0.3936	268
RACOON	218	103	321	2774	0.3623	231
CAT	263	124	387	3335	0.3008	248
HARE	289	136	425	3671	0.2733	273
DOG	289	106	395	3335	0.2733	273
TIGER	362	241	603	5914	0.2204	323
WOLF	436	290	726	7056	0.1828	355
DINGO	437	69	506	3640	0.1815	349
CARACAL	508	80	588	4181	0.1563	383
PANTHER	585	389	974	9402	0.1363	421
LION	657	437	1094	10258	0.1212	448
GOAT	894	594	1488	13775	0.0891	543
SHEEP	1033	688	1721	15933	0.0771	592
ELK	1315	875	2190	20211	0.06058	679
CAMEL	1313	485	1798	14924	0.0608	677

ALUMINIUM CONDUCTOR STEEL REINFORCED (ACSR)

Specification :

BDS: 1037

ASTM B 232 & IEC 209



Application:

These conductors are to be used mainly for overhead power distribution line overhead feeders and busbar line.

Table: 06

Code Name	Cross Sectional Area of Conductor				Equivalent Copper Area		No. and Diameter of wire		Overall diameter of Conductor
	Aluminium		Steel	Total			Aluminium	Steel	
	AWG or MCM	mm²	mm²	mm²	AWG or MCM	mm²	no./mm	no./mm	mm
SWAN	4	21.18	3.53	24.71	6	13.29	6/2.12	1/2.12	6.36
SWALLOW	3	26.69	4.45	31.14	5	16.77	6/2.38	1/2.38	7.14
SPARROW	2	33.59	5.6	39.19	4	21.16	6/2.67	1/2.67	8.01
ROBIN	1	42.41	7.07	49.48	3	26.65	6/3.00	1/3.00	9.00
RAVEN	1/0	53.52	8.92	62.44	2	33.61	6/3.37	1/3.37	10.11
QUAIL	2/0	67.33	11.22	78.55	1	42.39	6/3.78	1/3.78	11.34
PIGEON	3/0	85.12	14.19	99.31	1/0	53.48	6/4.25	1/4.25	12.75
PENGUIN	4/0	107.22	17.87	125.09	2/0	67.42	6/4.77	1/4.77	14.31
WAXWING	266.8	134.98	7.5	142.48	3/0	85.03	18/3.09	1/3.09	15.45
OSTRICH	300	152.19	24.71	176.9	189	95.48	26/2.73	7/2.12	17.28
ORIOLE	336.4	170.50	39.78	210.28	250	107.23	30/2.69	7/2.69	18.83
MERLIN	336.4	170.22	9.46	179.68	250	107.23	18/3.47	1/3.47	17.35
CHICKADEE	397.5	200.93	11.16	212.09	4/0	126.45	18/3.77	1/3.77	18.85
PELICAN	477	242.31	13.46	255.77	300	152.26	18/4.14	1/4.14	20.70
HAWK	477	241.65	39.31	280.96	300	152.26	26/3.44	7/2.674	21.78
HEN	477	241.27	56.3	297.57	300	152.26	30/3.20	7/3.20	22.40
GROSBEAK	636	322.33	52.5	374.83	400	202.58	26/3.973	7/3.09	25.15
DRAKE	795	402.56	65.44	468	500	253.35	26/4.44	7/3.45	28.11

ALUMINIUM CONDUCTOR STEEL REINFORCED (ACSR)

Specification :

BDS: 1037

ASTM B 232 & IEC 209

Application:

These conductors are to be used mainly for overhead power distribution line, overhead feeders and busbar line.

Table: 07

Code Name	Approx. Weight of Conductor			Nominal Breaking Load	Maximum DC Resistance of Conductor at 20°C	Current Rating
	Aluminium	Steel	Total			
	kg/km	kg/km	kg/km	kgf	ohm/km	Amp
SWAN	58	27	85	848	1.3560	105
SWALLOW	73	35	108	1040	1.0760	121
SPARROW	92	44	136	1290	0.8530	139
ROBIN	116	55	171	1620	0.6765	160
RAVEN	147	69	216	1990	0.5364	183
QUAIL	185	87	272	2400	0.4255	210
PIGEON	235	110	345	3010	0.3373	241
PENGUIN	294	139	433	3790	0.2676	276
WAXWING	372	58	430	3120	0.2133	319
OSTRICH	420	194	614	5760	0.1906	346
MERLIN	469	74	543	3940	0.1692	366
ORIOLE	470	313	783	7870	0.1698	367
CHICKADEE	554	88	642	4510	0.1432	403
PELICAN	668	106	774	5330	0.1193	449
HAWK	667	310	977	8870	0.1119	455
HEN	667	442	1109	10800	0.1202	457
GROSBEAK	889	412	1301	11400	0.0876	538
DRAKE	1116	511	1627	14280	0.0720	650

ALUMINIUM CONDUCTOR STEEL REINFORCED (ACSR)

Specification :

BDS: 1037

ASTM B 232 & IEC 209

Application:

These conductors are to be used mainly for overhead power distribution line, overhead feeders and busbar line.

Table: 08

Code Name	Nominal Cross Sectional Area			No. & Diameter of wire		Overall Diameter of Conductor	Approx Weight	Nominal Breaking Load	Maximum DC Resistance at 20°C	Current Rating
	AL	Steel	Total	AL	Steel					
	mm²	mm²	mm²	no./mm	no./mm	mm	kg/km	kgf	ohm/km	Amp.
SWANATE	21.12	5.35	26.47	7/1.96	1/2.61	6.53	99.6	998	1.3539	102
SPARATE	33.54	8.55	42.09	7/2.47	1/3.30	8.24	158.7	1537	0.8525	135
PARTRIDGE	134.87	21.99	156.86	26/2.47	7/2.00	16.28	545.9	4806	0.2141	316
LINNET	170.55	27.83	198.38	26/2.89	7/2.25	18.31	687.5	6030	0.1693	365
ORIOLE	170.5	39.78	210.28	30/2.69	7/2.69	18.83	783.3	7344	0.1698	367
BRANT	201.56	26.13	227.69	24/3.27	7/2.18	19.62	761	6303	0.1433	403
IBIS	201.34	32.73	234.07	26/3.14	7/2.44	19.88	812.4	6937	0.1434	404
LARK	200.9	46.88	247.78	30/2.92	7/2.92	20.44	925.2	8570	0.1441	406
FLICKER	241.58	31.4	272.98	24/3.58	7/2.39	21.49	913.5	7345	0.1195	450
OSPREY	282.47	15.69	258.16	18/4.47	1/4.47	22.35	897.7	6075	0.1017	492
PARAKEET	282.31	36.6	318.91	24/3.87	7/2.58	23.22	1065.6	8479	0.1023	495
DOVE	282.59	45.92	328.51	26/3.72	7/2.89	23.55	1138.6	9613	0.1022	497
EAGLE	282.07	65.82	347.89	30/3.46	7/3.46	24.22	1295.6	11698	0.1026	499
PEACOCK	306.13	39.78	345.91	24/4.03	7/2.69	24.19	1158.9	9250	0.0943	520
SQUAB	305.83	49.81	355.64	26/3.87	7/3.01	24.51	1237	10337	0.0944	521
WOOD DUCK	307.04	71.65	378.71	30/3.61	7/3.61	25.27	1408.4	12378	0.0943	525
TEAL	307.06	69.62	376.68	30/3.61	19/2.16	25.24	1396.6	12695	0.0943	525
KINGBIRD	323.01	17.95	340.96	18/4.78	1/4.78	23.9	1026.6	6937	0.089	533
SWIFT	323.02	8.97	331.99	36/3.38	1/3.38	23.66	956.5	6121	0.089	532
ROOK	323.07	41.88	364.95	24/4.14	7/2.76	24.84	1217.5	9703	0.0894	537
SCOTER	322.56	75.26	397.82	30/3.70	7/3.70	25.9	1480.7	13013	0.0897	541
EGRET	322.56	73.54	396.1	30/3.70	19/2.22	25.9	1469	13330	0.0897	541
FLAMINGO	337.27	43.72	380.99	24/4.23	7/2.82	25.38	1276.6	10157	0.0856	551
GANNET	338.26	54.9	393.16	26/4.07	7/3.16	25.76	1363.3	11245	0.0854	553
STILT	363.27	46.88	410.15	24/4.39	7/2.92	26.32	1370.4	10928	0.0795	576
STARLING	361.93	59.15	421.08	26/4.21	7/3.28	26.68	1463.7	12061	0.0798	577
REDWING	362.06	82.41	444.47	30/3.92	19/2.35	27.43	1650.6	14600	0.0799	580
CUCKOO	402.33	52.15	454.48	24/4.62	7/3.08	27.72	1522.2	11970	0.0718	612
MALLARD	403.84	91.78	495.62	30/4.14	19/2.48	28.96	1836	16232	0.0717	619

ALUMINIUM CONDUCTOR STEEL REINFORCED (ACSR)

Specification :

BDS: 1037
ASTM B 232, B 498, B 230 & B 233
IEC 209

Application:

Stranded hard drawn Aluminium conductors are to be used mainly for overhead power distribution line, overhead feeders and buses.

Table: 09

BREB Item No.	Code Name	Size	No. & Diameter of wire		Overall Diameter of Conductor	Approx Weight of Conductor	Ultimate Strength	Maximum DC Resistance at 20°C
			AL	Steel				
			no./mm	no./mm	mm	kg/km	kgf	ohm/km
D-1	SWALLOW	3 AWG	6/2.38	1/2.38	7.14	108	1014	1.0737
D-2	RAVEN	1/0 AWG	6/3.37	1/3.37	10.11	216	1926	0.5350
D-3	PENGUIN	4/0 AWG	6/4.77	1/4.77	14.31	433	3760	0.2672
D-26	ORIOLE	366.4 MCM	30/2.69	7/2.69	18.83	783	7870	0.1698
D-27	GROSBEAK	636 MCM	26/3.973	7/3.09	25.16	1301	11431	0.0876
D-28	HAWK	477 MCM	26/3.44	7/2.674	21.78	977	8845	0.1168
D-32	DRAKE	795 MCM	26/4.442	7/3.454	28.13	1627	14289	0.0702

PVC INSULATED ALUMINIUM CONDUCTOR STEEL REINFORCED (ACSR-INS)

Specification :

BDS: 1037

BS 215 Part-2 & IEC 209

Application:

These conductors are to be used mainly for overhead power distribution lines.

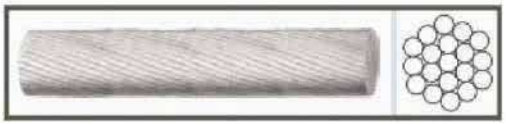
Table: 10

Code Name	Cross Sectional Area of Aluminium	No. & Diameter of wire		Diameter of Bare Conductor	Minimum Insulation Thickness	Approx Overall Diameter	Approx weight of insulated conductor	Minimum Breaking load of Conductor	Maximum DC Resistance at 20°C
		AL	Steel						
	mm^2	no./mm	no./mm	mm	mm	mm	kg/km	kgf	ohm/km
RABBIT (INS)	52.88	6/3.35	1/3.35	10.05	1.6	14.1	330	1876	0.5426
DOG (INS)	104.98	6/4.72	7/1.57	14.15	1.6	18.2	550	3335	0.2733

ALL ALUMINIUM ALLOY CONDUCTOR (AAAC)

Specification :

ASTM B 398 & B 399



Application:

These conductors are to be used in Railway Electrification as catenary conductor and as messenger conductor in Aerial bundled cables.

these Conductors are to be used to reduce power loss, to overcome corrosion, theft & uprating existing ACSR lines.

Table: 11

BREB Item No.	Code Name	Size	Nominal Area of Conductor	No. & diameter of wire	Overall diameter of Conductor	Approx. Weight of Conductor	Ultimate Conductor Strength	Maximum DC Resistance of Conductor at 20°C
		Kcmil	mm^2	no./mm	mm	kg/km	kgf	ohm/km
D-29	AMES	77.47	40	7/2.67	8.01	108	1270	0.8532
D-30	AZUSA	123.3	60	7/3.37	10.11	172	2023	0.5350
D-31	ALLIANCE	246.9	125	7/4.77	14.31	345	3883	0.2678
D-32	DARIEN	559.5	280	19/4.36	21.80	782	8528	0.1180
D-33	GREELY	927.2	470	37/4.02	28.14	1289	13800	0.0715

GROUND WIRE & TIE WIRE

Specification :

ASTM B 531, B 396, B193, B 233, B 609, & B 557

Application:

Bare solid hard drawn Aluminium wire suitable for use as grounding wire/jumper wire on electric distribution lines.
Bare solid annealed Aluminium wire suitable for use as Tie wire on electric distribution lines.

Table: 12

BREB Item No.	Conductor Name	Wire Size	Conductor Area	No. & diameter of wire	Overall diameter of Conductor	Approx. Weight of Conductor	Rated Breaking Strength	Maximum DC Resistance of at 20°C
		AWG	mm^2	no./mm	mm	kg/km	kgf	ohm/km
D- 4	Ground wire	4	21.15	1/5.189	5.189	57.2	342 (Min.)	1.3363
D- 5	Tie wire	4	21.15	1/5.189	5.189	57.2	167 (Max.)	1.3251

JUMPER WIRE

Specification :

ASTM B 3 & B193

Application:

Bare annealed Copper wire suitable for use as jumper wire on electric distribution lines.

Table: 13

BREB Item No.	Conductor Name	Wire Size	Conductor Area	No. & diameter of wire	Overall diameter of Conductor	Approx. Weight of Conductor	Rated Breaking Strength	Maximum DC Resistance of at 20°C
		AWG	mm^2	no./mm	mm	kg/km	kgf	ohm/km
D- 6	Annealed Copper wire	6	13.3	1/4.115	4.115	118.4	346	1.404

MEDIUM HARD DRAWN COPPER WIRE

Specification :

BDS: 1037

ASTM B 2,B 8 & B 193

Application:

Bare medium hard drawn copper wires are to be used on electric distribution systems.

Table: 14

BREB Item No.	Conductor Name	Wire Size	Conductor Area	No. & Diameter of wire	Overall Diameter of Conductor	Approx Weight of Conductor	Rated Breaking Strength	Maximum DC Resistance at 20°C
		AWG	mm^2	no./mm	mm	kg/km	kgf	ohm/km
D-7	Medium Hard Drawn Copper Wire	3	26.68	3/3.365	7.268	240	1070	0.6829
D-8	Medium Hard Drawn Copper Wire	1/0	53.48	7/3.12	9.36	485	2155	0.3442
D-9	Medium Hard Drawn Copper Wire	4/0	107.26	7/4.417	13.251	973	3694	0.1659
D-10	Medium Hard Drawn Copper Wire	2/0	67.43	7/3.502	10.51	611	2694	0.2750
DS-9	Medium Hard Drawn Copper Wire	4/0	107.18	19/2.68	13.40	972	4371	0.1731
DS-10	Medium Hard Drawn Copper Wire	2/0	67.77	19/2.131	10.66	613	2166	0.2712
DS-37	Medium Hard Drawn Copper Wire	350 MCM	177.29	37/2.47	17.29	1608	5662	0.1010
DS-38	Medium Hard Drawn Copper Wire	500 MCM	253	37/2.951	20.66	2297	10231	0.07

XLPE INSULATED JUMPER WIRE

Specification :

ASTM B 2 & B 8

ICEA S-66-524(NEMA WC7)

Application:

Cross-linked Polyethylene insulated medium hard drawn copper conductors are to be used as jumper on electric distribution system.

Table: 15

BREB Item No.	Conductor Size	No. & diameter of wire	Insulation Thickness		Overall diameter of Conductor		Approx. Weight of Cable	Rated Breaking Strength	Maximum DC Resistance at 20°C
		no./mm	mils	mm	mils	mm	kg/km	kgf	ohm/km
D-16	3 AWG	3/3.36	60	1.524	405	10.31	289	1070	0.6700
D-17	1/0 AWG	7/3.12	62	1.574	481	12.51	542	2155	0.3377
D-18	4/0 AWG	7/4.42	62	1.574	630	16.41	1050	3694	0.1627
D-19	1000 MCM	61/3.25	94	2.387	1306	34.02	4825	17570	0.0356

XLPE INSULATED AERIAL CABLE

Specification :

ASTM B 230, B 231, B 232 & B 498

ICEA S-66-524 (NEMA WC7)

Application:

Pre-assembled cross-linked polyethylene insulated Aluminium cables supported by a bare ACSR messenger wire shall be used as aerial single phase and three phase service drop cables.

Table: 16

BREB Item No.	Conductor Assembly	Aluminium phase Conductor (AAC)				Messenger (ACSR)				Approx. Weight of Cable	Maximum DC Resistance at 20°C	
		Size	No. & diameter of wire	Insulation Thickness	Overall Dia meter	Size	No. & diameter of wire		Bare Dia meter		Phase	Messenger
							AL	Steel				
		AWG	no./mm	mm	mm	AWG	no./mm	no./mm	mm	kg/km	ohm/km	ohm/km
D-11	DUPLEX	6	7/1.56	1.143	6.97	6	6/1.68	1/1.68	5.04	114	2.169	2.157
D-12	DUPLEX	3	7/2.20	1.143	8.89	3	6/2.38	1/2.38	7.14	212	1.076	1.074
D-14	QUADRUPLEX	3	7/2.20	1.143	8.89	3	6/2.38	1/2.38	7.14	420	1.076	1.074
D-15	QUADRUPLEX	1/0	7/3.12	1.524	12.41	1/0	6/3.37	1/3.37	10.11	835	0.5372	0.535
D-20	QUADRUPLEX	4	7/1.96	1.143	8.17	4	6/2.12	1/2.12	6.36	340	1.362	1.356
D-24	QUADRUPLEX	4/0	7/4.42	1.524	16.31	4/0	6/4.77	1/4.77	14.31	1580	0.2688	0.2676
D-25	QUADRUPLEX	6	7/1.56	1.143	6.97	6	6/1.68	1/1.68	5.04	230	2.169	2.157

PVC INSULATED AERIAL CABLE

Specification :

ASTM B 230, B 231, B 232 & B 498

Application:

Pre-assembled PVC insulated Aluminium cables supported by a bare ACSR messenger wire shall be used as aerial single phase and three phase service drop cables.

Table: 17

BREB Item No.	Conductor Assembly	Aluminium phase Conductor (AAC)				Messenger (ACSR)				Approx. Weight of Cable	Maximum DC Resistance at 20°C	
		Size	No. & diameter of wire	Insulation Thickness	Overall Dia meter	Size	No. & diameter of wire		Bare Dia meter		Phase	Messenger
							AL	Steel				
		AWG	no./mm	mm	mm	AWG	no./mm	no./mm	mm	kg/km	ohm/km	ohm/km
D-63	DUPLEX	6	7/1.56	1.524	7.73	6	6/1.68	1/1.68	5.04	140	2.169	2.157

HDPE INSULATED ACSR CONDUCTOR

Specification :

ASTM B 230, B 232, B 233 & B 498

Application:

High Density polyethylene covered Aluminium conductor steel reinforced concentric- lay-stranded (ACSR) to be used as 15 KV Insulated Tree wire on distribution lines.

Table: 18

BREB Item No.	Conductor Size	No. & Diameter of wire		Insulatio Thickness	Overall Diameter	Approx Weight Cable	Rated Breaking Strength	Maximum DC Resistance at 20°C
		Aluminium	Steel					
	AWG	no./mm	no./mm	mm	mm	kg/km	kgf	ohm/km
D- 59	2	6/2.67	1/2.67	3.81	15.63	274	1228	0.8530
D- 61	1/0	6/3.37	1/3.37	3.81	17.73	370	1887	0.5350
D- 62	4/0	6/4.77	1/4.77	3.81	21.93	634	3598	0.2672

GALVANIZED STEEL WIRE

Specification :

ASTM B 498 Class A & BS 183

Table: 19

Code Name	No. & diameter of steel wire	Overall Diameter	Approx. Weight of Cable	Nominal Breaking Load
	no./mm	mm	kg/km	kgf
Guy Wire	7/2.36	7.08	240	3885
Guy Wire	7/3.15	9.45	430	6400

GALVANIZED STEEL GROUND WIRE

Specification :

ASTM A 363, A 475, B 6 Class C & B 193

Application:

Stranded steel wire to be used as ground wires on the distribution system.

Table: 20

BREB Item No.	Nominal Wire Size	No. & diameter of wire	Overall diameter	Approx Weight of wire's	Minimum Breaking Strength	Maximum Resistance
	Inch	no./mm	mm	kg/km	LBS	ohm/km
N-1	5/16	3/3.68	7.94	255	6500	3.772

HIGH STRENGTH STRANDED STEEL WIRE

Specification :

ASTM A 475 & B 6 Class C

Application:

High strength stranded steel wire to be used as guy wires on the distribution system.

Table: 21

BREB Item No.	Nominal Wire Size	No. & diameter of wire	Overall diameter	Approx Weight of wire's	Minimum Breaking Strength
	Inch	no./mm	mm	kg/km	LBS
N-2	1/4	7/2.03	6.09	180	4750
N-3	3/8	7/3.05	9.15	406	10800
N-4	7/16	7/3.68	11.04	594	14500

Duplex Cables
Type: SERVICE DROP CABLES
Voltage: 600/1000 Volts

Construction:
Plain annealed Copper conductor & one core hard drawn copper conductor, PVC insulated & twisted cable. Suitable for use in electricity supply in low voltage installation system for permissble service voltage upto 600/1000 volts.

Table: 22

Nominal Cross Sectional Area of Conductor	No. and Nominal diameter of wires	Nominal thickness of Insulation	Approx. overall diameter	Approx. weight of Cable	Max. DC Resistance of Conductor at 20°C	Current Rating at 35°C Ambient temp.
mm^2	no./mm	mm	mm	kg	ohm/km	amp.
2.5 re x 2.5 re	1 x 1.78 / 1 x 1.78	1.6	10.0	93	7.41 / 7.41	27
2.5 rm x 2.5 rm	7 x 0.67 / 7 x 0.67	1.6	10.6	100	7.41 / 7.41	27
4 rm x 4 re	7 x 0.85 / 1 x 2.26	1.6	11.6	132	4.61 / 4.61	35
4 rm x 4 rm	7 x 0.85/ 7 x 0.85	1.6	11.8	140	4.61 / 4.61	35
4 rm x 6 rm	7 x 0.85 / 7 x 1.05	1.6	12.4	165	4.61 / 3.08	37
4 rm x 6 re	7 x 0.85 / 1 x 2.77	1.6	12.0	160	4.61 / 3.08	37
6 rm x 6 re	7 x 1.05 / 1 x 2.77	1.6	12.6	180	3.08 / 3.08	45
6 rm x 6 rm	7 x 1.05 / 7 x 1.05	1.6	13.0	186	3.08 / 3.08	45
10 rm x 10 rm	7 x 1.35 / 7 x 1.35	1.6	14.5	270	1.83 / 1.83	62
16 rm x 16 rm	7 x 1.71 / 7 x 1.71	1.6	16.6	396	1.15 / 1.15	84
25 rm x 25 rm	7 x 2.14 / 7 x 2.14	1.6	19.2	595	0.727 / 0.727	110

Duplex Cables
Type: SERVICE DROP CABLES
Voltage: 600/1000 Volts

Construction:
Plain annealed Copper conductor & one core hard drawn copper conductor, PVC insulated & twisted cable. Suitable for use in electricity supply in low voltage installation system for permissble service voltage upto 600/1000 volts.

Table: 23

Nominal Cross Sectional Area of Conductor	No. and Nominal diameter of wires	Nominal thickness of Insulation	Approx. overall diameter	Approx. weight of Cable	Max. DC Resistance of Conductor at 20°C	Current Rating at 35°C Ambient temp.
no. x mm^2	no./mm	mm	mm	kg	ohm/km	amp.
3 x 4 rm/1 x 4 re	7 x 0.85 / 1 x 2.26	1.6	14.0	270	4.61 / 4.61	32
3 x 4 rm/1 x 6 re	7 x 0.85 / 1 x 2.77	1.6	14.5	290	4.61 / 3.08	32
3 x 6 rm/1 x 6 rm	7 x 1.05 / 7 x 1.05	1.6	15.4	370	3.08 / 3.08	41
3 x 10 rm/1 x 10 rm	7 x 1.35 / 7 x 1.35	1.6	17.6	538	1.83 / 1.83	56
3 x 16 rm/1 x 16 rm	7 x 1.71 / 7 x 1.71	1.6	20.2	792	1.15 / 1.15	75
3 x 25 rm/1 x 25 rm	7 x 2.14 / 7 x 2.14	1.6	23.3	1180	0.727 / 0.727	98

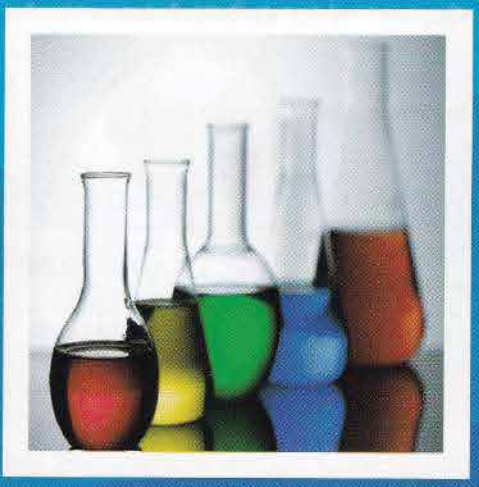
CONCENTRIC CABLES
Type: WATER BLOCKED CONCENTRIC CABLES
Voltage: 600/1000 Volts

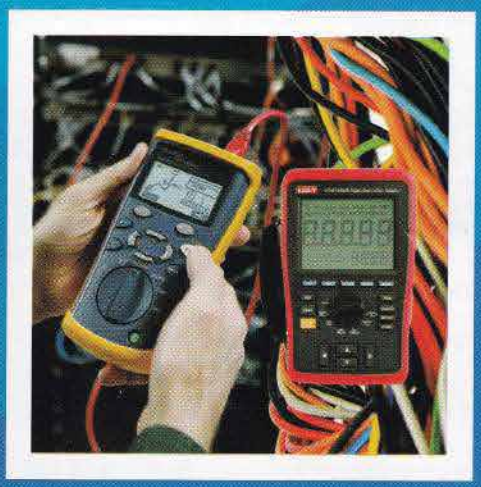
Construction:
Hard drawn stranded copper conductor, XLPE insulated, concentically laid up annealed solid copper wire with PE insulated neutral conductor & annealed solid copper wire earth conductor, fill with PE fillers, Polyester tape binding (optional), black PE over sheath.

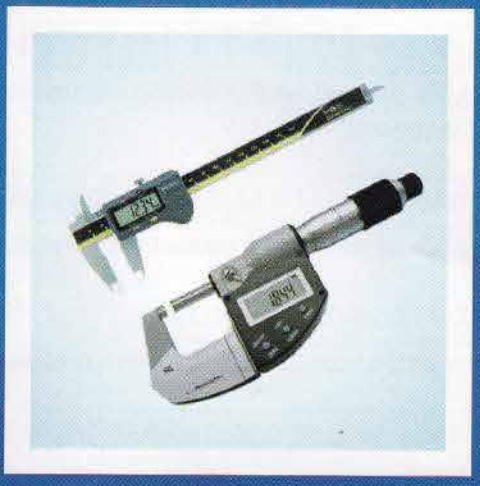
Table: 24

Nominal Cross Sectional Area of Conductor	No. and Nominal diameter of wires	Max. DC Resistance of Conductor at 20°C	Nominal Cross Sectional Area of Neutral Conductor	No. and Nominal diameter of wires	Nominal Cross Sectional Area of Earth Conductor	No. and Nominal diameter of wires	Nominal thickness of Insulation	Approx. overall diameter	Approx. weight of Cable
no. x mm²	no./mm	ohm/km	mm²	no./mm	mm²	no./mm	mm	mm	kg/km
1 x 6.0 rm	7 / 1.04	3.18	6.0	7 / 1.05	4.5 rm	3/1.40	1.0	11.2	225
1 x 16 rm	7 / 1.67	1.19	16	7 / 1.76	10.5 rm	3/2.20	1.0	15.3	505

Technical Data







CURRENT CARRYING CAPACITY OF CABLE MADE ACCORDING TO BDS 900 & BS 6004

1. DEFINED CONDITIONS:

The basis of the current ratings of cables has been so chosen for normal ambient temperature of 35°C and for normal laying condition as follows.

A. **For Group of unenclosed systems of sigle core cables:**

1) The horizontal clearance between the systems is around 150 mm and not less than six times the individual cables diameter or one time the overall width of the individual system.
2) The vertical clearance between systems is not less than 150 mm.
3) If the number of systems are more four, they are installed in a horizontal plane.

B. **For Group of unenclosed multi core cables:**

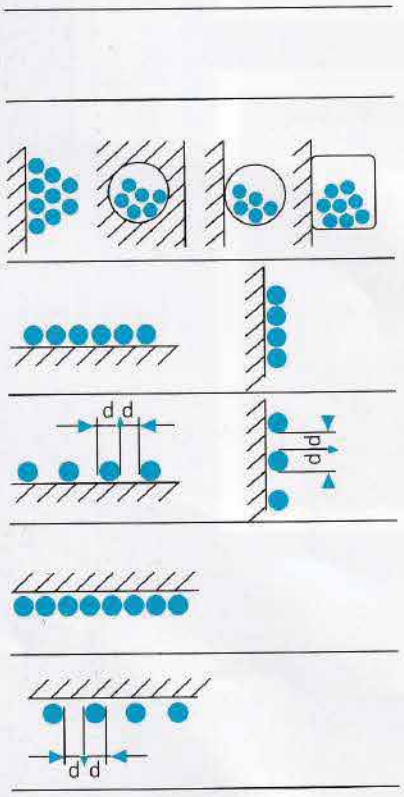
1) The horizontal clearance between the systems is around 150 mm and not less than six times the individual cables diameter.
2) The vertical clearance between cables is not less than 150 mm.
3) If the number of cables are more four, they are installed in a horizontal plane.

2. DEVIATED CONDITIONS

If the actual conditions of installations are not same as normal conditions the currrent rating given are to be multiplied with the rating factors as given bellow:

Ambient Temperature°C	25	30	35	40	45	50	55	60
Rating factors for cables having excess-current protection which will operate within four hours at 1.5 times of the designed load current	1.13	1.06	1.0	0.93	0.84	0.76	0.65	0.53
Rating factors for cables having no excess-current protection as above	1.05	1.03	1.0	0.97	0.94	0.91	0.79	0.65

Rating Factor for the Grouping of Cables



Number of the multicore cables or number of alternating and rotary current circuits for single core cable (2 and 3 current carrying conductors).

1	2	3	4	5	6	7	8	9	10	12	14	16	18	20
1.0	0.80	0.70	0.65	0.60	0.57	0.54	0.52	0.50	0.48	0.45	0.43	0.41	0.39	0.38

Laid in bundles directly on the wall, on the floor, in electro-installation ducts or conduits and on or in the wall.

1.0	0.85	0.79	0.75	0.73	0.72	0.72	0.71	0.70

Single-layer on the wall or on the floor in contact with one another.

1.0	0.94	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90

Single-layer on the wall or on the floor. Distance between two cable: Diameter of cable.

0.95	0.81	0.72	0.68	0.66	0.64	0.63	0.62	0.61

Single-layer under the ceiling in contact with one another

0.95	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85

Single-layer under the ceiling. Distance between two cable: Diameter of cable.

According to IEC TC 64 (Sec.) 261, edition March 1979

CURRENT CARRYING CAPACITY OF CABLE MADE ACCORDING TO VDE 0271,IEC 60502-1

The current carrrying capacity of cables should be limited in such a degree that all locations in cable system which causes the generated heat under given proportions to lead safely in the environment.

The heat flow depends on the inner heat-resistance between conductor and outer surface of the cable and as well as form the heat emission to the surroundings

DEFINED CONDITIONS:

The basis of the current ratings has been so chosen that they, without considering any multiplication factor, are suitablefor cable laid in our country under the following defined condition:
Indication for calculation:

a) Cable Laying in Ground:

1. Temperature of the soil at the depth of laying = 30°C
2. Depth of Laying = 70 cm
3. Cable way is covered with layers of sand and brick.
4. Thermal resistivity of the soil at continuous full loading of the cables = 120°C cm/W.
5. One single core dc cable installed separately, or one multi core cable installed separately, or three single core cables in three phase system installed in flat formation with clearance of 7 cm. or in trefoil formation, touching each other.
6. The cable way is through a pipe of length not more than 6 meters.

b) Cables Laying in Air:

1. Ambient temperature = 35°C
2. One single core dc. Cable installed separately free in air, or one multi core cable installed separately free in air, or one three phase system, comprising cable three single core cables installed separatelty free in air in flat formation with a clearance of one diameter between individual single-core cables or in trefoil formation each individual single core cable being in touch with each other.
3. One single core dc. Cable, one multi core cable or one three phase system of three single core cables indtalled free in air with minimum clearance of:
    a) 2 cm from floor, wall or roof of the room.
    b)Twice the cable diameter between two cables and four times the cables diameter between two systems
    c) 30 cm vertically between layers installed one above the other.
4. Cable is protected against radiation of heat from sun or any other source.

Key Information for Current Carrying Capacity of cable:

* Radiation of heats and solar influence must be taken into consideration, where a good air circulation is needed
* A sufficient large distance is to be retained between the cables and the heating elements, because badly insulated heating elements often raise additionally the temperature of the cable.
* Distance between the cable and the wall, floor or celling = 2 cm
* Distance between the cable being laid one above the other = 2 x D
* Distance between the cable system being laid one above the other = 20 cm
* Distance between the cable being laid side by side = 2 x D
* Approx. value of Specific Ground Thermal Resistivity

Very moist area	= 70°C.cm/w
Moist area	= 100°C.cm/w
Dry area	= 200°C.cm/w
Very dry area	= 300°C.cm/w

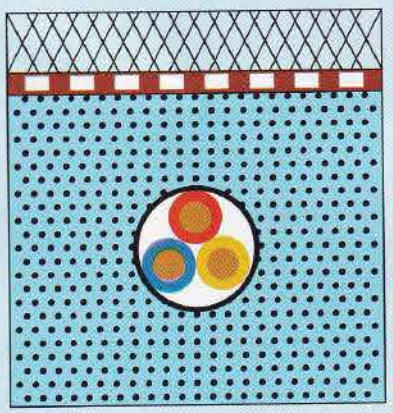
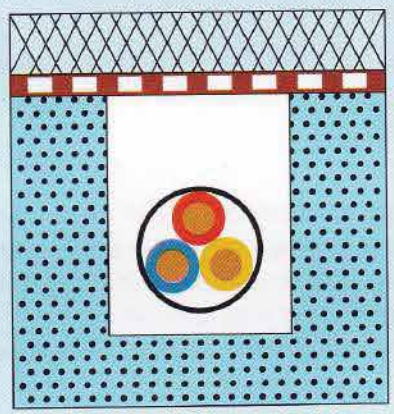
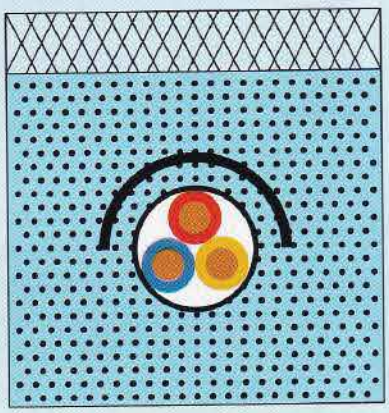
DEVIATED CONDITION FOR UNDERGROUND

If the actual condition of cable laying are not same as normal condition, the current rating value of cable are to be multiplied with rating factors given in the following tables:

Variation of Depth of Laying (Two or Multi-core Cables)

	Depth of Laying in cm									
	< 70	< 90	< 105	< 120	< 150	< 180	< 270	< 360	< 450	< 540 or, more
Rating factors	1.0	0.99	0.98	0.97	0.96	0.95	0.92	0.91	0.9	0.89

Rating Factors for Cables Laid in Sand

Condition of Laying		
Punned down sand and cover of bricks	Single-core or multi-core cable laid in ground and added mechanical protection for cables with air gilled hollow.	Single-core or multi-core cable direct in the ground with added mechanical protection for cables with and hollow filled with sand
		
Conversion Factor for Above		
1.0	0.80	0.86

Variation of Specific Thermal Resistivity of Soil for Cables: Factor (A)

	Specific Thermal Resistivity of Soil °C Cm/W						
	70	100	120	150	200	250	300
Below 25 sq. mm.	1.18	1.07	1	0.93	0.83	0.77	0.71
35 sq. mm. t0 96 sq. mm.	1.22	1.08	1	0.93	0.82	0.75	0.69
120 sq. mm. to 240 sq. mm.	1.23	1.08	1	0.93	0.82	0.74	0.69
300 sq. mm and Above	1.25	1.09	1	0.93	0.82	0.74	0.69

Variation of Specific Thermal Resistivity of Soil for Cables: Factor B

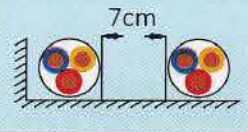
	Voltage E/Eo kv	Specific thermal resistivity of soil on°C cm/W						
		70	100	120	150	200	250	300
3 and 4 core cable	1/0.6	1	1	1	1	1	1	1
Twin core cable	1/0.6	0.97	0.99	1	1	1.01	1.01	1.02
Single core D.C	1/0.6	0.97	0.99	1	1	1.01	1.01	1.02
3 core cable with each core shielded	6/3.5 10/5.8	0.96	0.99	1	1.01	1.02	1.03	1.04
3 unarmoured single core cable	1/0.6, 6/3.5 10/5.8	1.01	1	1	0.98	0.97	0.97	0.96

For Variation of specific Thermal Resistivity of soil, PVC Cables from 120°C cm/W and current rating values in table :

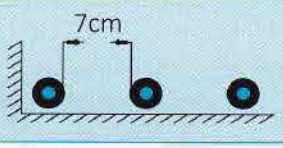
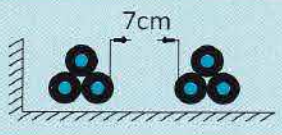
Variation Factors for ambient temperature of cables Laid in Underground

Rating factor	Voltage E/Eo kv 0.6/1.0	Ambient Temperature°C								
		15	20	25	30	35	40	45	50	55
		1.18	1.12	1.07	1	0.95	0.87	0.79	0.70	0.60

Group Rating Factors for Multicore and Single-Core D.C Cables in the Ground

Condiition of laying		No. of Systems or Cables						
		2	3	4	5	6	8	10
Cables laid direct in the Ground in flat formation clearance 7 cm (thickness of brick) between the cables		0.85	0.75	0.68	0.64	0.6	0.56	0.53

Group Rating Factors for Multicore and Single-Core Cabless in Three-Phase System in the Ground

Condfition of laying		No. of Systems or Cables		
		2	3	4
Cables laid direct in the Ground in flat formation clearance 7 cm between systems and also between individual cables in each system		0.82	0.74	0.68
Cables laid direct in the Ground in trefoil formation, touching each other,clearance 25 cm between systems		0.85	0.77	0.72

Multi-core Cable in Steel or Earthenware Pipe

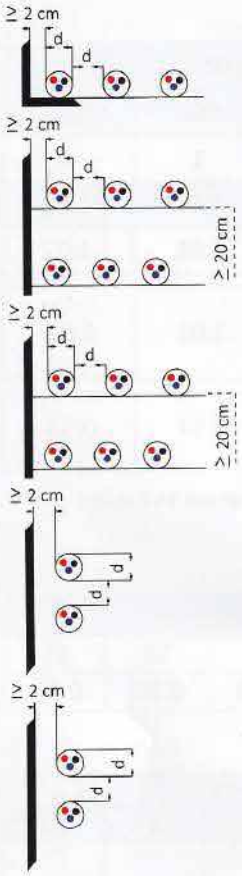
Rating factor	One Multi-core cable in each pipe									
	Number of Pipe									
	1	2	3	4	5	6	7	8	9	10
	0.82	0.74	0.70	0.67	0.65	0.63	0.62	0.60	0.59	0.58

DEVIATED CONDITIONS FOE AIR
Rating Factors for Varoation of Ambient Temperature for Cables Laid in Air

Rating factor	Voltage E/Eo kv 0.6/1.0	Ambient Temperature°C						
		25	30	35	40	45	50	55
		1.13	1.06	1.00	0.93	0.84	0.76	0.65

Group Rating Factor for Multicore Cables Laid in Air

Multicore cables in air



Arrangement of cables

Distance= Cable Diameter, d
Distance from the wall ≥ 2 cm

Number of cables side by side		1	2	3	6	9
Laid on the ground		0.95	0.9	0.88	0.85	0.84
Laid on cable thoughs (restricted air circulation)	Number of troughs					
	1	0.95	0.9	0.88	0.85	0.84
	2	0.9	0.85	0.83	0.81	0.8
	3	0.88	0.83	0.81	0.79	0.78
	6	0.86	0.81	0.79	0.77	0.76
Laid or cable racks	Number of racks					
	1	1	0.98	0.96	0.93	0.92
	2	1	0.95	0.93	0.9	0.89
	3	1	0.94	0.92	0.89	0.88
	6	1	0.93	0.9	0.87	0.86
Number of cables laid one above the other		1	2	3	6	9
Arranged on structure or on the wall		1.00	0.93	0.9	0.87	0.86

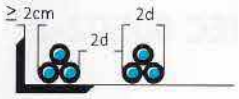
Multicore cables in air

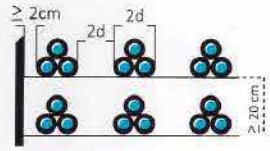
Arrangement of cables

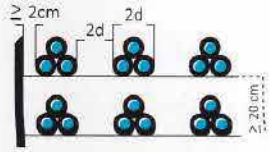
Cable touching each other
Cable in contact with the wall

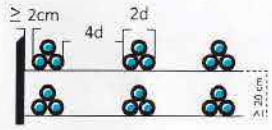
Number of cables side by side		1	2	3	6	9
Laid on the ground		0.9	0.84	0.8	0.75	0.73
Laid on cable thoughs (restricted air calculation)	Number of troughs					
	1	0.95	0.84	0.8	0.75	0.73
	2	0.95	0.8	0.76	0.71	0.68
	3	0.95	0.78	0.74	0.7	0.68
	6	0.95	0.76	0.72	0.68	0.66
Laid or cable racks	Number of troughs					
	1	0.95	0.84	0.8	0.75	0.73
	2	0.95	0.8	0.76	0.71	0.69
	3	0.95	0.78	0.74	0.7	0.68
	6	0.95	0.76	0.72	0.68	0.66
Number of cables laid one above the other		1	2	3	6	9
Arranged on structure or on the wall		0.95	0.78	0.73	0.68	0.66

Note: (i)Number of cables laid side by side is not restricted.
(ii) Arrangement where reduction of current is not necessary.
(iii) This applies only when the cable temperature has not effect on the ambient temperature.









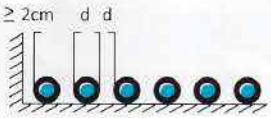
Group Rating Factor for Single-core Cables in Three Phase system in Air

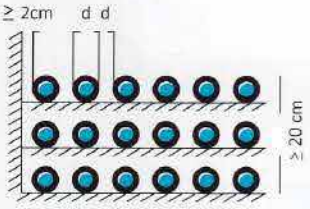
Single-core cable in air, trefoil formation

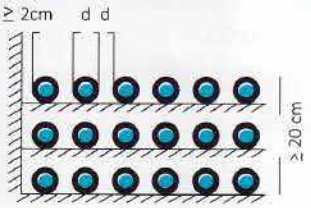
Arrangement of cables

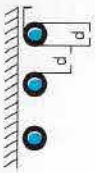
Cable laid in trefoil formation= 2d
Distance from the wall ≥ 2 cm

Number of system laid in flat formation		1	2	3
Laid on the ground		0.95	0.9	0.88
Laid on cable thoughs (restricted air circulation)	Number of troughs			
	1	0.95	0.9	0.88
	2	0.9	0.85	0.83
	3	0.88	0.83	0.81
	6	0.86	0.81	0.79
Laid on cable racks	Number of racks			
	1	1	0.98	0.96
	2	1	0.95	0.93
	3	1	0.94	0.92
	6	1	0.93	0.9
Number of system laid one above the other		1	2	3
Arranged on structure or on the wall		0.89	0.86	0.84









Singlecore cables in air, flat formation

Arrangement of cables

Cable laid in flat formation= d
Distance from the wall ≥ 2 cm

Number of system		1	2	3
Laid on the floor		0.92	0.89	0.88
Laid on cable thoughs	Number of troughs			
	1	0.92	0.89	0.88
	2	0.87	0.84	0.83
	3	0.84	0.82	0.81
	6	0.82	0.8	0.79
Laid on cable racks	Number of racks			
	1	1	0.97	0.96
	2	0.97	0.94	0.93
	3	0.99	0.93	0.92
	6	0.94	0.91	0.9
Number of system laid one above the other		1	2	3
Arranged on structure or on the wall		0.94	0.91	0.89

Note : (i) Arrangement where reduction of current is not necessary.
(ii) This applies only when the cable temperature has not effect on the ambient temperature.

CURRENT CARRYING CAPACITY OF CABLES MADE ACCORDING TO IEC 60502-2

DEFINED CONDITION :

1. Maximum continuous conductor temperature 90°C
2. Ground temperature 20°C
3. Thermal resistivity of soil 100°C.cm/w
4. Ambient Air temperature 30°C
5. Depth of laying for direct burial in ground
(a) For Cables up to 6/10 (12) KV grade 900 mm
(b) For Cables up to 8.7/15 (17.5) KV grade 1050 mm
6. Type of Insulation :
(a) Single core cables installed in Trefoil Formation
(b) Multi core cables installed singly.

DEVIATED CONDITIONS :

A. CABLES LAID DIRECT IN GROUND

(a) Correction factor for variation in ground temperature :

Ground Temperature (°C)	15	20	25	30	35	40	45
Rating Factor	1.04	1.00	0.96	0.93	0.89	0.85	0.81

(b) Correction factor for variation in thermal resistivity of soil :

Thermal Resistivity of Soil (°C.cm/W)	100	120	150	200	250	300
Rating Factor	1.00	0.94	0.84	0.75	0.68	0.62

(c) Correction factor for various depth of laying :

Depth of Laying (cm)	Up to 6/10 KV	8.7/15 KV
90	1.00	-
105	0.99	1.00
120	0.98	0.99
150	0.96	0.97
180 and above	0.95	0.96

CURRENT CARRYING CAPACITY OF CABLES MADE ACCORDING TO IEC 60502-2

DEFINED CONDITION :

1. Maximum continuous conductor temperature 90°C
2. Ground temperature 20°C
3. Thermal resistivity of soil 100°C.cm/w
4. Ambient Air temperature 30°C
5. Depth of laying for direct burial in ground
(a) For Cables up to 6/10 (12) KV grade 900 mm
(b) For Cables up to 8.7/15 (17.5) KV grade 1050 mm
6. Type of Insulation :
(a) Single core cables installed in Trefoil Formation
(b) Multi core cables installed singly.

DEVIATED CONDITIONS :

A. CABLES LAID DIRECT IN GROUND

(a) Correction factor for variation in ground temperature :

Ground Temperature (°C)	15	20	25	30	35	40	45
Rating Factor	1.04	1.00	0.96	0.93	0.89	0.85	0.81

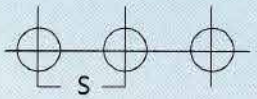
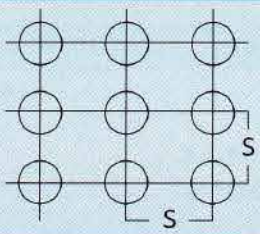
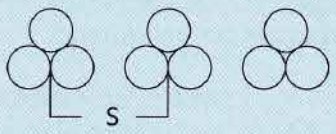
(b) Correction factor for variation in thermal resistivity of soil :

Thermal Resistivity of Soil (°C.cm/W)	100	120	150	200	250	300
Rating Factor	1.00	0.94	0.84	0.75	0.68	0.62

(c) Correction factor for various depth of laying :

Depth of Laying (cm)	Up to 6/10 KV	8.7/15 KV
90	1.00	-
105	0.99	1.00
120	0.98	0.99
150	0.96	0.97
180 and above	0.95	0.96

(IV) Correction Factor of Grouping of Cables :

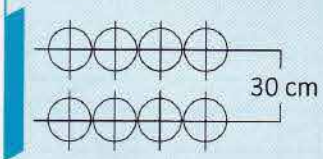
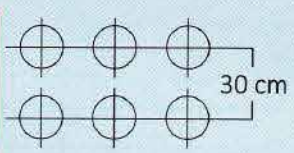
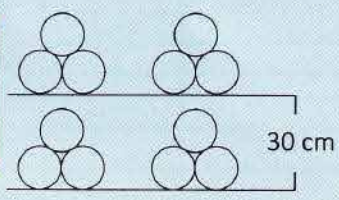
Number of Cables/ Circuits in Group	Multicore Cables in Horizontal Formation			Multicore Cables in Tier Formation			Multicore Cables in Trefoil Touching Formation (3 Cables per Circuit)		
									
	Touching	S=15 cm	S=30 cm	Touching	S=15 cm	S=30 cm	Touching	S=15 cm	S=30 cm
2	0.79	0.82	0.86	-	-	-	0.78	0.82	0.85
3	0.69	0.72	0.76	-	-	-	0.68	0.71	0.76
4	0.62	0.66	0.72	0.6	0.64	0.69	0.61	0.65	0.71
6	0.54	0.59	0.65	0.51	0.55	0.6	0.53	0.57	0.64

B. CABLE LAID ON RACKS IN AIR

(I) Correction factors for variation in ambient air temperature :

Ambient Air Temperature (°C)	20	25	30	35	40	45	50
Rating Factor	1.07	1.04	1	0.96	0.91	0.86	0.83

(II) Correction factors for grouping of cables :

Number of Cables/ Circuits in Group	Multicore Cable in (Touching)				Multi-core Cables (Spacing between cables equal to diameter of cable)				Single core cables in trefoil touching formation spacing between circuit equal to twice the diameter of cable			
												
	Number of Racks				Number of Racks				Number of Racks			
	1	2	3	6	1	2	3	6	1	2	3	6
1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
2	0.84	0.8	0.78	0.76	0.98	0.95	0.94	0.93	0.98	0.95	0.94	0.93
3	0.8	0.76	0.74	0.72	0.96	0.93	0.92	0.9	0.96	0.93	0.92	0.9
6	0.76	0.71	0.7	0.68	0.93	0.9	0.89	0.87	-	-	-	-

MAXIMUM SHORT CIRCUIT CURRENT RATING OF CONDUCTOR

Maximum conductor temperature under normal operation = 90°C
Maximum conductor temperature during Short Circuit = 250°C

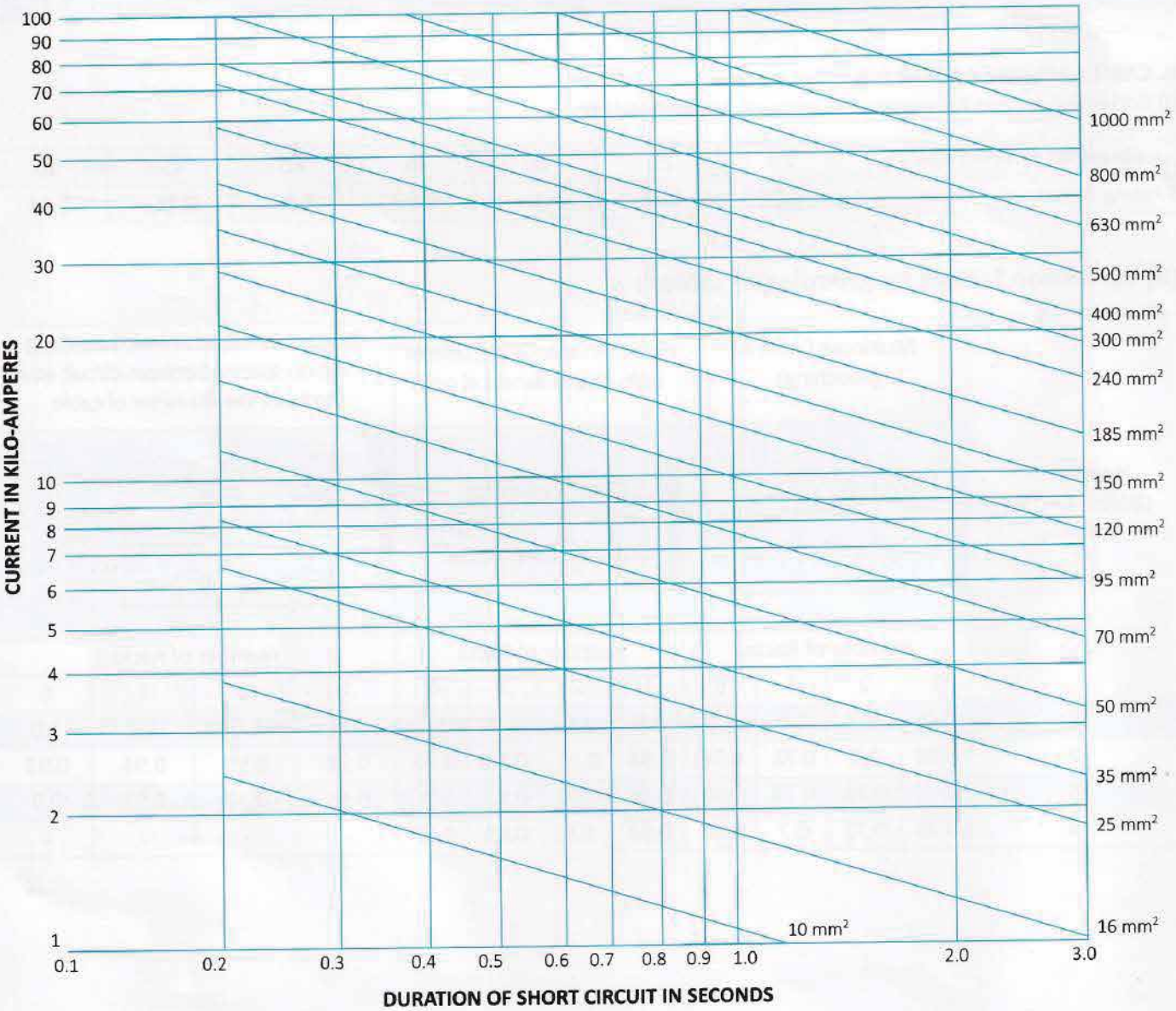
Conductor temperature at the beginning of short circuit °C	90	80	70	65	60	50
Short circuit current (A/mm²)	143	149	154	157	159	165

$$Isc = \frac{KA}{\sqrt{t}}$$

Where, Isc = Short circuit current, kA.
t = Duration of short circuit (Second)
A = Area of conductor
K = Constant, Cu/PVC = 0.115, Al/PVC = 0.076, Cu/XLPE = 0.143 & Al/XLPE = 0.094

Short Circuit Rating

The values of fault current given in the graph are based on the cables being fully loaded at the start of the short circuit (conductor temperature 70° C) and a final conductor temperature of 160° C for conductor sizes upto and including 300 mm², and 130° C for Conductor sizes upto 1000 mm²



VOLTAGE DROP FOR HT CABLES (Voltage up to 17.5 KV)
VOLTAGE DROP PER CORE/AMPS./KM.

Conductor Area	3.6/6(7.2) KV		6/10(12) KV		8.7/15(17.5) KV	
	Unarmoured	Armoured	Unarmoured	Armoured	Unarmoured	Armoured
No. x mm²	V/Core/A	V/Core/A	V/Core/A	V/Core/A	V/Core/A	V/Core/A
1 x 25	0.948	0.95	0.949	0.951	0.95	0.952
1 x 35	0.688	0.691	0.689	0.692	0.691	0.694
1 x 50	0.514	0.517	0.515	0.519	0.516	0.52
1 x 70	0.364	0.369	0.366	0.37	0.367	0.372
1 x 95	0.271	0.277	0.273	0.279	0.276	0.282
1 x 120	0.223	0.229	0.225	0.231	0.228	0.234
1 x 150	0.189	0.196	0.191	0.199	0.195	0.202
1 x 185	0.161	0.169	0.163	0.172	0.166	0.174
1 x 240	0.135	0.144	0.138	0.147	0.141	0.15
1 x 300	0.121	0.129	0.122	0.131	0.125	0.134
1 x 400	0.108	0.117	0.109	0.118	0.113	0.123
1 x 500	0.1	0.111	0.101	0.111	0.104	0.114
1 x 630	0.093	0.103	0.094	0.103	0.097	0.106
1 x 800	0.088	0.098	0.089	0.098	0.092	0.101

Conductor Area	3.6/6(7.2) KV		6/10(12) KV		8.7/15(17.5) KV	
	Unarmoured	Armoured	Unarmoured	Armoured	Unarmoured	Armoured
No. x mm²	V/Core/A	V/Core/A	V/Core/A	V/Core/A	V/Core/A	V/Core/A
3 x 25	0.946	0.946	0.947	0.947	0.948	0.948
3 x 35	0.686	0.686	0.687	0.687	0.688	0.688
3 x 50	0.511	0.511	0.512	0.512	0.514	0.514
3 x 70	0.36	0.36	0.362	0.362	0.364	0.364
3 x 95	0.267	0.267	0.269	0.269	0.272	0.272
3 x 120	0.218	0.218	0.221	0.221	0.223	0.223
3 x 150	0.184	0.184	0.186	0.186	0.189	0.189
3 x 185	0.155	0.155	0.158	0.158	0.161	0.161
3 x 240	0.13	0.13	0.132	0.132	0.135	0.135
3 x 300	0.114	0.114	0.116	0.116	0.119	0.119

VOLTAGE DROP FOR LT CABLES (VOLTAGE UP TO 1.0 KV

Nominal cross-sectional area	DC System	Single-phase AC-System	Three-phase AC-System
(mm^2)	mV/A/m	mV/A/m	mV/A/m
1.5	24.2	27.9	24.1
2.5	14.3	17.1	14.8
4	9.0	10.7	9.3
6	6.0	7.2	6.2
10	3.6	4.3	3.7
16	2.3	2.8	2.4
25	1.5	1.8	1.5
35	1.1	1.3	1.1
50	0.8	0.96	0.85
70	0.6	0.7	0.60
95	0.4	0.55	0.45
120	0.3	0.45	0.35
150	0.25	0.35	0.31
185	0.20	0.3	0.26
240	0.15	0.25	0.22
300	0.12	0.22	0.19
400	0.10	0.19	0.17

The voltage drop in a circuit, of which the cable forms a part, should not exceed 3-5% of the nominal voltage; e.g. 20.0 volts (5%) for a three-phase 400 volts supply. The above mentioned voltage drop is tabulated for a current of 1 ampere for a 1 meter run. For any cable length, the values need to be multiplied by the length of the cable (in metres) and by the current (in amperes).

Example:
Formula for the calculated voltage drop in mV/A/m:

$$e_{cal} = \frac{\text{Permissible voltage drop (e) x 1000}}{\text{current (i) x length (L)}}$$

Installation length, (L) : 500m
Current (I) to carry : 90A
Nominal voltage, (U) : 400V (Three-phase AC)
Permissible voltage drop, (e) : 20.0 V (5% of 400V)

$$e_{cal} = \frac{20.0\ V \times 1000}{90\ A \times 500m} = 0.44\ mV/A/m$$

Select a cross-section, such that the voltage drop is equal to or less than 0.44mV/A/m from the above table. It has to be ensured that the selected cross-section will carry the current. The corresponding cross-section will be 95 mm^2.

PHYSICAL & ELECTRICAL PROPERTIES OF COPPER & ALUMINIUM

Copper and Aluminium are used in their highly refined form for the power conductors of cables. The total impurities contained in high conductivity copper should be less than 0.1% and for aluminium less than 0.5%. The measured conductivity of these metals will have its highest value when they are annealed. Hard drawn conductors will have conductivity that is several percentage points lower than the annealed value. Note that castings made of these materials will generally have conductivity slightly lower than their rolled and drawn forms.

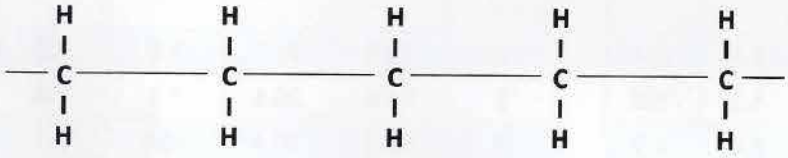
The presence of Oxygen in the form of Oxides is the most common impurity. It slightly reduces the conductivity, malleabillity and ductillity of the metal.

Following Table: shows some of the electrical and physical properties of these two metals. For use in most power cable applications these metals are formed into annealed conductors.

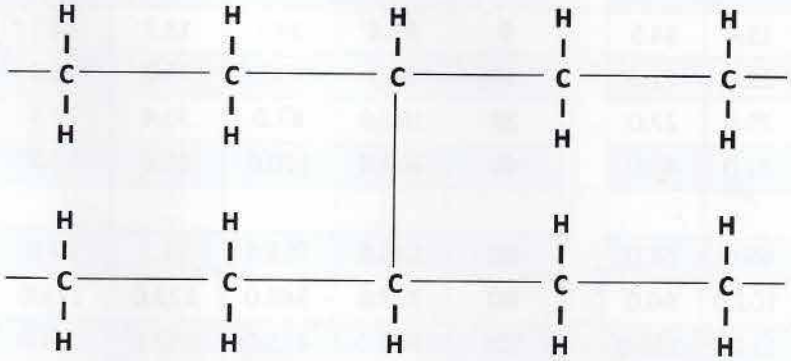
Property	Unit	Copper		Aluminium	
		Hard-drawn	Annealed	Hard-drawn	Annealed
Melting point	°C	1083	1083	658	658
Density	gm/cm^3	8.89	8.89	2.703	2.703
Tensile Strenth	kg/mm^2	34-47	34-47	15-20	7-14
Electrical Resistivity at 20°C	ohm-mm^2/m	17.77	17.241	28.73	28.2
Electrical conductivity at 20°C	%IACS	97	100	60	61
Temperature Co-efficient of resistance at 20°C, per unit of cons. Mass	-	0.00393	0.00393	0.00403	0.00403
Co-efficient of linear expansion	/°C	17x10^{-6}	17x10^{-6}	23x10^{-6}	23x10^{-6}
Thermal Conductivity	W/°C.cm	3.86	3.86	2.39	2.39
Specific heat	J/°C.cm^3	3.4	3.4	2.4	2.4

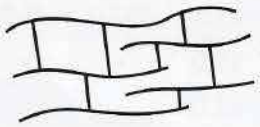
XLPE VIS-A-VIS PE INSULATION :

PE MATERIAL



XLPE MATERIAL





Formula of Electrical Calculation

To Calculate	Given	D.C	A.C Single Phase	A.C. 3 Phase
Current (A)	KW	$A=\frac{1000 \times KW}{V}$	$A=\frac{1000 \times KW}{VXp.f}$	$A=\frac{1000 \times KW}{1.73 \times VXp.f}$
Current (A)	KVA		$A=\frac{1000 \times KVA}{V}$	$A=\frac{1000 \times KVA}{1.73 \times V}$
Current (A)	HP	$A=\frac{746 \times HP}{V \times eff.}$	$A=\frac{746 \times HP}{V \times eff. \times pf}$	$A=\frac{746 \times HP}{1.73 \times V \times eff. \times p.f}$
Power (KW)	V.A	$KW=\frac{A \times V}{1000}$	$KW=\frac{A \times V \times p.f}{1000}$	$KW=\frac{1.73 \times A \times V \times p.f}{1000}$
Apparent Power (KVA)	V.A		$KVA=\frac{A \times V}{1000}$	$KVA=\frac{1.73 \times A \times V}{1000}$

p.f=Power factor of equipment or system under consideration
eff.=Efficiency of motor or machinery
V=Line Voltage

Some Useful Rated Current

Average Induction Motor						
Nominal Motor Rating		1 Phase		3 Phase		
		110 V	230 V	380 V	415 V	440 V
HP	KW	amp	amp	amp	amp	amp
1/2	0.37	7.8	3.7	1.2	1.1	1.0
3/4	0.55	10.4	5.0	1.60	1.5	1.4
1	0.75	13.2	6.3	2.00	1.9	1.8
1 1/2	1.1	19.2	9.2	3.00	2.8	2.6
2	1.5	25.0	12.2	3.9	3.6	3.4
3	2.2	37.0	17.9	5.8	5.3	5.0
5	3.7	59.0	28.0	9.2	8.4	7.9
7 1/2	5.5	84.0	40.0	13.1	11.9	11.3
10	7.5	109.0	52.0	16.8	15.4	14.5
15	11.0	157.0	75.0	24.0	22.0	21.0
20	15.0	-	-	32.0	29.0	27.0
30	22.0	-	-	46.0	42.0	40.0
50	37.0	-	-	75.0	69.0	64.0
75	55.0	-	-	111.0	102.0	96.0
100	75.0	-	-	146.0	134.0	126.0

Pure Resistive Load					
Power	1 Phase		3 Phase		
	110 V	230 V	380 V	415 V	440 V
KW	amp	amp	amp	amp	amp
1	9.1	4.3	1.5	1.4	1.3
2	18.2	8.7	3.0	2.8	2.6
3	27.3	13.0	4.60	4.2	3.9
4	36.4	17.4	6.10	5.6	5.3
5	45.5	21.7	7.6	7.0	6.6
6	54.6	26.1	9.1	8.4	7.9
7	63.6	30.4	10.6	9.7	9.2
8	72.7	34.8	12.2	11.1	0.5
9	81.8	39.1	13.7	12.5	11.8
10	91.0	43.5	15.2	13.9	13.1
20	182.0	87.0	30.4	27.9	26.3
40	364.0	170.0	60.8	55.7	52.5
60	545.0	261.0	91.3	83.6	78.8
80	727.0	348.0	122.0	111.0	105.0
100	909.0	435.0	152.0	139.0	131.0

COMPARISON OF COPPER & ALUMINIUM CONDUCTOR

Particulars	Aluminium Annealed EC grade Take annealed Copper as 100%	Copper (Annealed) Take annealed Aluminium as 100%
	%	%
For equal Cross sectional area and length		
Weight	30	329
Resistance	164	61
Breaking load (Approx.)	41	244
For equal weight and length		
Area	329	30
Diameter	180	55
Resistance	50	200
Breaking load (Approx.)	137	73
For equal Resistance		
Area	164	61
Diameter	128	78
Resistance	50	200
Breaking load (Approx.)	68	147
For equal current and temperature rise		
weight	42	237
Diameter	119	84

MAX. SHORT CIRCUIT CURRENT CARRYING CAPACITY IN KA/SEC

Nominal Cross Sectional Area	Aluminium Conductor		Copper Conductor	
	Type of Insulation		Type of Insulation	
mm^2	PVC	XLPE	PVC	XLPE
2.5	0.19	0.24	0.28	0.36
4	0.30	0.38	0.45	0.57
6	0.46	0.56	0.68	0.85
10	0.76	0.94	1.13	1.43
16	1.22	1.50	1.81	2.29
25	1.90	2.35	2.83	3.57
35	2.66	3.29	3.96	5.01
50	3.80	4.70	5.65	7.15
70	5.32	6.58	7.91	10.01
95	7.22	8.93	10.74	13.58
120	9.12	11.28	13.56	17.16
150	11.40	14.10	16.95	21.45
185	14.06	17.39	20.91	26.45
240	18.24	22.56	27.12	34.32
300	22.80	28.20	33.90	42.90
400	30.40	37.60	45.20	57.20
500	38.00	47.00	56.50	71.50
630	47.88	59.22	71.19	90.09
800	60.80	75.20	90.40	114.40
1000	76.00	94.00	113.00	143.00

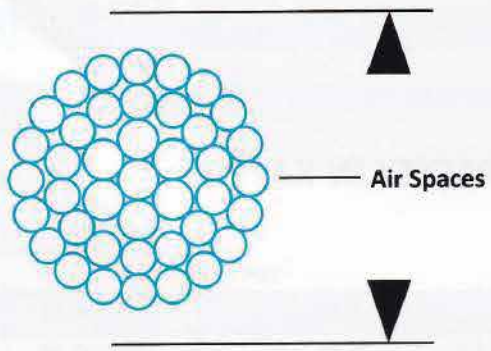
Difference Between Stranded Circular Conductor & Stranded Compact Circular Conductor

In the world of electrical conductors, there are several style that are used by electric utilities. The two common types of stranding that are using for power cable. 1) Round wire conductor 2) compact conductor.

Round wire conductor is the most common configuration that is used for bare conductor and insulated cable is made up of a number of the same size round wire that are cabled together (see Figure 1).This construction adds flexibility to the conductor, but the resulting air spaces that are introduced between the individual strands results in an overall increase in diameter of cable.

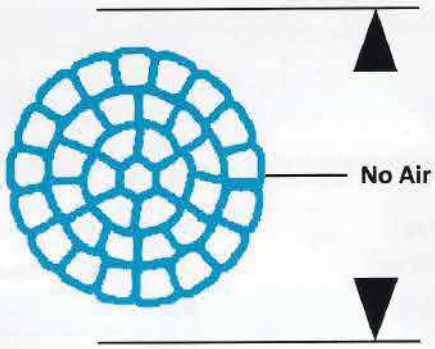
The first of the diameter reduction would be what classified compact conductor is. The individual strands of the conductor to reduce the total stranded diameter approximately 4% to 8% from the original diameter of the round wire conductor (see Figure-2). This type of conductor have no air spaces that are introduced between the individual strands. Compact conductor is made from EC grade scratch free and ensure excellent conductivity minimized electrical stress.

Figure- 01



Connecntric Round/ Rm

Figure- 02



Compacted/ Rmc

ABOUT CABLE LUGS

Compacted Conductor have a smaller diameter compared to standard stranded conductors, but their nominal cross sectional area is equivalent and a lug designated for the same cross sectional area must be used on the compacted conductor. Even though the lug will appear to fit more loosely, when crimped in accordance with the lug manufacturer's recommendations, the end result is the equivalent to the crimping of a standard conductor. Compacting the conductor by the cable manufacturer is just the action of pushing all the wires Together, getting rid of the air gaps, ahead of time.

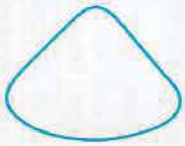
The general practice is for lug manufacturer's to manufacturer a range of lug sizes that suits both the compacted and standard conductors. However, if there are any concern, please consult your lug manufacturer.

CONSTRUCTION FOR VARIOUS TYPE OF CABLE CONDUCTORS

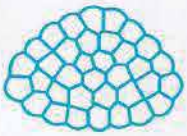
Circular Solid (RE)

Circular Stranded (RM)

Circular Stranded Compacted (Rmc)



Sectro Shaped Solid (SE)



Sectro Shaped Stranded (SM)

Nominal cross sectional area	Max. DC Resistance of conductor at 20°C		NON COMPACTED CONDUCTOR		COMPACTED CONDUCTOR			SECTOR SHAPED CONDUCTOR	
			No. & Nominal Diameter of wire	Nominal Diameter of Conductor	No. of Wire in Conductor Copper/Alu.	Conductor Diameter		No. of Wire in Conductor Copper/Alu.	Nominal Conductor Depth
	Copper	Aluminium			Min.	Min.	Max.	Min.	3C/4C
mm^2	Ohm/km	Ohm/km	No./mm	mm	No.	mm	mm	No.	mm
1.0	18.1	-	1/1.13	1.13	-	-	-	-	-
1.0	18.1	-	3/0.65	1.4	-	-	-	-	-
1.5	12.1	-	1/1.38	1.38	-	-	-	-	-
1.5	12.1	18.1	7/0.52	1.56	-	-	-	-	-
2.5	7.41	-	1/1.78	1.78	-	-	-	-	-
2.5	7.41	12.1	7/0.67	2.01	-	-	-	-	-
4	4.61	7.41	7/0.85	2.55	-	-	-	-	-
6	3.08	4.61	7/1.04	3.12	-	-	-	-	-
10	1.83	3.08	7/1.35	4.05	-	-	-	-	-
16	1.15	1.91	7/1.71	5.1	-	-	-	-	-
25	0.727	1.2	7/2.14	6.42	-	-	-	-	-
35	0.524	0.868	19/1.53	7.65	6	6.6	7.5	6	5.6/6.6
50	0.387	0.641	19/1.83	9.15	6	7.7	8.6	6	6.6/7.2
70	0.268	0.443	19/2.17	10.85	12	9.3	10.2	12	7.9/9.3
95	0.193	0.32	19/2.52	12.6	15	11	12	15	9.4/10.5
120	0.153	0.253	37/2.03	14.21	18/15	12.3	13.5	18/15	10.7/11.7
150	0.124	0.206	37/2.27	15.89	18/15	13.7	15	18/15	11.9/12.6
185	0.0991	0.164	37/2.52	17.64	30	15.3	16.8	30	12.8/14.4
240	0.0754	0.125	61/2.25	20.25	34/30	17.6	19.2	34/30	14.9/16.1
300	0.0601	0.1	61/2.52	22.68	34/30	19.7	21.6	34/30	16.5/18.6
400	0.047	0.0778	61/2.89	26.01	53	22.3	24.6	53	19.5/21.6
500	0.0366	0.0605	61/3.23	29.07	53	25.3	27.6	-	-
630	0.0283	0.0469	127/2.52	32.76	53	28.7	32.5	-	-
800	0.0221	0.0367	127/2.85	37.05	53	32.6	36.7	-	-
1000	0.0176	0.0291	127/3.20	41.6	53	36.3	40.5	-	-

Thermal, Mechanical, Electrical and Chemical Properties of Insulation and Sheathing Materials.

Designation				Properties (Guide Value)												
				Thermal			Mechanical			Electrical			Chemical Resistance			
Symbol	Material	Standard (VDE)	Permissible Operating Temperature to Standard °C	Tensile Strength	Elongation	Resistance to Abration	Behavior at low Temperature	Flame Resistance	Emmision of Corrosive Gases During a Combustion	Specific Volume Resistance	Permitivity Constant	Factor of Loss	Oils-Fats	Solvent	Diluted Acids	Water
Thermoplastics																
PVC	Polyvinyl Chloride Compounds	Y	70-105	12.5-25	125-350	Avg. to Good	Moderate to Avg.	Avg. to good	Hydrogen -chloride	10^{12}-10^{15}	4.0-6.5	10^{-2}-10^{-3}	Moderate to Avg.	Moderate	Good	Avg. to good
LDPE	Low Density Polythylene	2Y	70	10-20	400-600	Avg. to good	Good	Bad	-	>10^{16}	2.25-2.6	~ 10^{-4}	Average	Avg. to good	Very good	Very good
HDPE	High Density Polythylene	2X	90	25-40	500-1000	Good	Good	Bad	-	>10^{16}	2.4-2.5	~ 10^{-4}	Average	Avg. to good	Very good	Very good
-	Foamed Polythylene	02Y	70	8-12	350-500	-	Good	Bad	-	~ 10^{17}	~ 1.6	~ 10^{-4}	Average	Avg. to good	Very good	Very good
PA	Polyamide	4Y	80	50-60	50-200	Very Good	Good	Good	-	~ 10^{15}	~ 4.0	10^{-2}-10^{-3}	Very good	Avg. to good	Very good	Average
PUR	Polyurethane	11Y	80	35-50	500-700	Very Good	Good	Moderate to good	-	~ 10^{12}	~ 6.0	~ 10^{-2}	Good	Good	Moderate	Avg. to good
Elastomere																
XLPE	Cross-linked Polythylene	2X	90	12.5-20	300-450	Avg. to good	Good	Bad	-	~ 10^{16}	2.3-2.6	~ 10^{-4}	Average	Avg. to good	Very good	Very good
NR	Natural Rubber	G	60	5-10	300-600	Moderate to Avg.	Very Good	Bad	-	**	**	**	Bad	Bad	Average	Avg. to good
SBR	Styrene Butadiene Rubber Compound															
SIR	Silicon Rubber	2G	180	5-10	300-600	Moderate	Very Good	Moderate to good	-	~ 10^{15}	~ 3.0	~ 10^{-3}	Good	Bad	Moderate	Very good
EPR	Ethyiene-Propylene Rubber Compound	3G	90	5-10	300-500	Moderate to Avg.	Good	Moderate to bad	-	~ 10^{12}-10^{15}	3.0-3.8	10^{-2}-10^{-3}	Moderate to average	Moderate	Good	Very good to good
EVM	Ethylene-vinyl acetate Copolymer Compound	4G	120	8-12	200-350	Moderate to Avg.	Good	Moderate to Avg.	-	~ 10^{13}	~ 6.0	~ 10^{-2}	Moderate to average	Moderate	Average	Good to Avg.
CR	Polychloroprene Compound	5G	60-90	5-20	500-800	Avg. to Good	Moderate Good	Good	Hydrogen-chloride	**	**	**	Good Very good	Average	Good	Moderate.
CM	Chlorinated Polythelene Compound	9G	80-100	8-20	350-650	Avg. to Good	Moderate	Good	Hydrogen-chloride	**	**	**	Good Very good	Average	Good	Moderate.
CSM	Cholorosulfonated Polythelene Compound	6G	100	8-20	400-700	Avg. to Good	Moderate	Good	Hydrogen-chloride	**	**	**	Good Very good	Average	Good	Moderate.
Special Compounds																
-	Cross-linked Flame Retardant Halogen free Polymer Compound	H	70-90	5-12	>125	Moderate to average	Average	Good Very good	-	10^{13}-10^{14}	~ 4.0	10^{-2}-10^{-3}	Moderate to average	Moderate.	Good	Good
-	Flame Retardant Halogen free Polymer Compound, not Cross-linked	H	70-90	5-12	>125	Moderate to average	Average	Good	-	10^{12}-10^{14}	~ 4.0	~ 10^{-3}	Average	Moderate.	Good	Avg. to good

Measurement Comparison in Various System

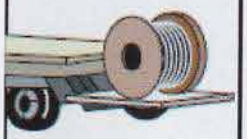
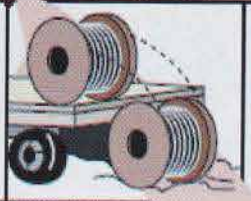
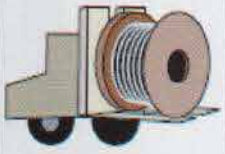
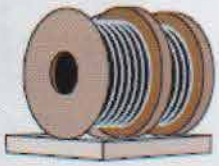
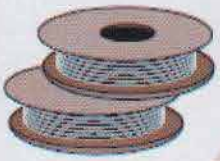
Gauge System		Diameter		Cross Sectional Area			Weight of Copper
A.W.G.	S.W.G.	mm	mil	mm^2	$Inch^2$	CM	kg/km
6/0	-	14.73	580	170.46	0.2642	336400	1515.4
5/0	-	13.11	516	134.92	0.2091	266156	1199.4
-	7/0	12.70	500	126.68	0.1964	250000	1126.2
-	6/0	11.79	464	109.09	0.1691	515296	969.8
4/0	-	11.68	460	107.22	0.1662	211600	953.2
-	5/0	10.97	432	94.56	0.1466	186624	840.7
3/0	-	10.41	410	85.16	0.132	168100	757.2
-	4/0	10.16	400	81.7	0.1256	160000	720.7
-	3/0	9.449	372	70.12	0.1087	138384	623.4
2/0	-	9.271	365	67.51	0.1046	133255	600.1
-	2/0	8.839	348	61.36	0.09512	121104	545.5
0	-	8.225	325	53.52	0.08296	105625	475.8
-	0	8.23	324	53.19	0.08245	104976	472.9
-	1	7.62	300	45.6	0.07069	90000	405.4
1	-	7.341	289	42.22	0.0656	83521	376.2
-	2	7.010	276	38.6	0.06983	76176	343.71
2	-	6.553	258	33.94	0.05228	66564	299.8
-	3	6.401	252	32.18	0.04988	63504	286.1
-	4	5.893	232	27.27	0.04227	53824	242.5
3	-	5.817	229	26.57	0.04119	52441	236.2
-	5	5.385	212	22.77	0.0353	44944	202.5
4	-	5.182	204	21.09	0.03269	41616	187.5
-	6	4.877	192	18.68	0.02895	36864	166.1
5	-	4.623	182	16.78	0.02602	33124	149.2
-	7	4.470	176	15.7	0.02433	30976	139.5
6	-	4.115	162	13.3	0.02061	26244	118.2
-	8	4.065	160	12.97	0.02011	25600	115.3
7	9	3.658	144	10.507	0.01629	20736	93.41
8	10	3.251	128	8.302	0.01287	16384	73.8
-	11	2.896	116	6.818	0.01057	13456	60,61
9	-	2.642	114	6.585	0.01021	12996	58.54
-	12	2.642	104	5.48	0.008495	10816	48.72
10	-	2.591	102	5.272	0.009171	10404	46.87
-	13	2.337	92	4.284	0.006648	8464	38.08
11	-	2.311	91	4.196	0.006504	8281	37.3
12	-	2.057	81	3.325	0.005153	5661	29.55
-	14	2.032	80	3.243	0.005027	6400	28.83
13	15	1.828	72	2.627	0.004072	5184	23.35
14	16	1.626	64	2.075	0.003217	4096	18.45
15	-	1.448	57	1.646	0.002552	3249	14.64
-	17	1.422	56	1.589	0.002463	3136	14.13
16	-	1.295	51	1.318	0.002443	2601	11.72
-	18	1.291	48	1.168	0.00181	2304	10.38
17	-	1.143	45	1.026	0.00159	2025	9.122
18	19	1.016	40	0.8107	0.001257	1600	7.207
19	20	0.9144	36	0.6567	0.001018	1296	5.838
20	21	0.8128	32	0.5189	0.0008043	1024	4.613
21	-	0.7239	29	0.4156	0.0006379	810	3.695
-	22	0.7112	28	0.3973	0.0006158	784	3.532
22	-	0.6428	25	0.3243	0.0005027	640	2.883
-	23	0.6096	24	0.2919	0.0004524	576	2.595
23	-	0.5733	23	0.2588	0.0004013	509	2.301
-	24	0.5588	22	0.2453	0.0003801	484	2.181
24	-	0.5105	21	0.2047	0.0003173	404	1.82
-	25	0.5080	21	0.2021	0.0003142	400	1.797

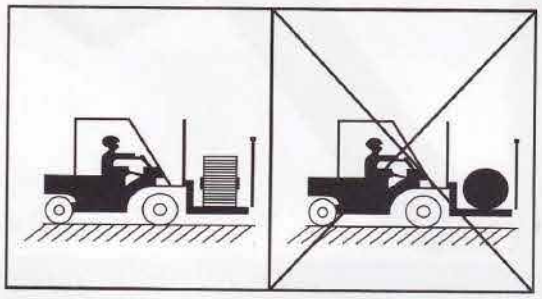
Measurement Comparison in Various System

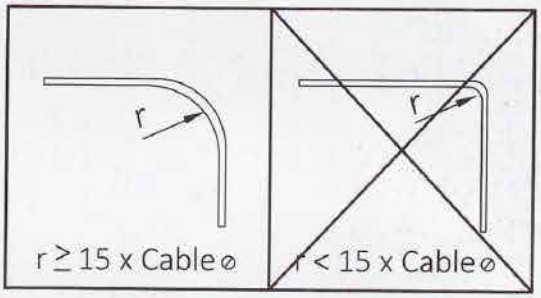
Gauge System		Diameter		Cross Sectional Area			Weight of Copper
A.W.G.	S.W.G.	mm	mil	mm^2	$Inch^2$	CM	kg/km
-	26	0.4572	18.00	0.1642	0.0002545	324.0	1.460
25	-	0.4547	17.90	0.1624	0.0002516	320.4	1.443
26	-	0.4639	15.90	0.1281	0.0001986	252.8	1.139
-	27	0.4166	16.40	0.1363	0.0002118	268.9	1.212
-	28	0.3759	14.80	0.111	0.0001720	219.0	0.9868
27	-	0.3609	14.20	0.1022	0.0001584	201.6	0.9083
-	29	0.3454	13.60	0.09372	0.0001453	184.9	0.8332
28	-	0.3211	12.60	0.08042	0.0001247	158.8	0.7149
-	30	0.315	12.40	0.07791	0.0001203	153.8	0.7032
-	31	0.2946	11.60	0.05818	0.0001057	136.6	0.6061
29	-	0.2859	11.30	0.0647	0.0001003	127.7	0.5752
-	32	0.2743	10.80	0.0591	0.00009161	116.6	0.5254
30	33	0.254	10.00	0.05067	0.00007854	100.0	0.4506
-	34	0.2337	9.20	0.04289	0.00006648	84.64	0.3813
31	-	0.2261	8.90	0.04041	0.00006221	79.21	0.3568
-	35	0.2134	8.40	0.03515	0.00005542	70.56	0.3125
32	-	0.2019	7.90	0.03203	0.00004964	63.21	0.2847
-	36	0.193	7.60	0.02927	0.00004537	57.76	0.2602
33	-	0.1803	7.10	0.02555	0.00003959	50.41	0.2271
-	37	0.1727	6.80	0.02348	0.00003632	46.20	0.2087
34	-	0.1601	6.30	0.0201	0.00003117	39.69	0.1788
-	38	0.1524	6.00	0.01824	0.00002827	36.00	0.1622
35	-	0.1422	5.60	0.01587	0.00002463	31.86	0.1413
-	39	0.1321	5.20	0.0137	0.00002124	27.04	0.1218
36	-	0.127	5.00	0.01267	0.00001964	25.00	0.1126
-	40	0.1219	4.80	0.01167	0.00001810	23.04	0.1038
37	-	0.1131	4.50	0.01005	0.00001557	19.83	0.08931
-	41	0.1118	4.40	0.00981	0.00001521	19.36	0.08721
38	42	0.1016	4.00	0.008107	0.00001257	16.00	0.07207
-	43	0.0914	3.60	0.006567	0.00001018	12.96	0.05838
39	-	0.0889	3.50	0.006207	0.000009621	12.25	0.05518
-	44	0.0813	3.20	0.005189	0.000008043	10.24	0.04613
40	-	0.0787	3.10	0.00487	0.000007548	9.61	0.04329
41	45	0.0711	2.80	0.00397	0.000006158	7.84	0.03529
42	-	0.0635	2.50	0.003167	0.000004909	6.25	0.02815
-	46	0.061	2.40	0.002922	0.000004524	5.76	0.02593
43	-	0.0559	2.20	0.002454	0.000003801	4.48	0.02182
44	47	0.0508	2.00	0.002027	0.000003142	4.00	0.01802
45	-	0.0447	1.80	0.001569	0.000002433	3.10	0.01895
-	48	0.0406	1.60	0.001295	0.000002011	2.56	0.01150
46	-	0.0399	1.57	0.00125	0.000001936	2.46	0.01111
47	-	0.0356	1.40	0.0009954	0.000001539	1.96	0.008849
48	-	0.0315	1.24	0.0007793	0.000001208	1.54	0.006928
-	49	0.0305	1.20	0.0007306	0.000001131	1.44	0.006495
49		0.0282	1.11	0.0006246	0.0000009677	1.23	0.005563
-	50	0.0251	1.00	0.0005056	0.0000007854	1.00	0.004503
50	-	0.0251	0.99	0.0004948	0.0000007698	0.980	0.004399

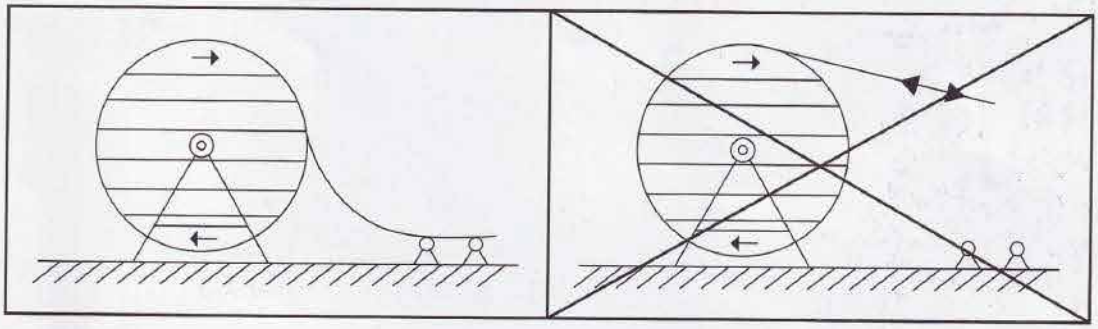
Note: 1 mil = 0.001 inch
S.W.G. = British Standard Wire Gauge
A.W.G. = American Standard Wire Gauge
1 CM = 0.7854×10^{-4} $inch^2$
1 CM is the area of a circle of 1 mil diameter

CABLE AND DRUM HANDLING USER GUIDE

Do this		Don't do this	
	When off loading reels from a truck, lower reels carefully using a hydraulic gate, hoist or forklift truck		Never drop reels. If reels must be rolled, roll in opposite direction of the cable wraps to keep cable from loosening on the reel.
	If a fork lift is used, approach the reel from the flange side. Position the forks such that the reel is lifted by both reel flanges. Also Consideration should be given to, Traffic patterns during off-loading & damage during the time in storage		Do not allow the lift forks to contact the cable. Care must be taken by the fork lift operator not to make sudden turns or stops.
	Cable reels should be stored on hard surfaces resting on the flanges edge (flanges vertical). Align reels flange to flange and, if possible, arrange so that first in is first out.		Multiple reels stacked on top of each other ("Pancake" storage) is not recommended for cable drums. The weight of the stack can total thousands of kgs. creating an enormous load on the bottom reel. Also, damage to the reel and/or cable will likely occur when the reel is flipped for transit. A concentration of stress on the reel flange may cause it to break and subsequently damage the cable.
	When using a hoist, install a mandrel through the reel arbor holes and attach a sling. Use a spreader bar approximately 6 inches longer than the overall reel width placed between the sling ends just above the reel flanges.		This may lead to the bending of the reel flanges and mashing the cable







Mica Tape

Aluminium Foil Tape

XLPE Compound

Copper Tape

ISO 9001

International Standards Certifications

ISO 9001:2008

CERTIFICATE OF REGISTRATION

THIS IS TO CERTIFY THAT THE
QUALITY MANAGEMENT SYSTEM OF

SQ Wire & Cable Co. Ltd.

124 Keodhala, Plot # 1979-1980
Madanpur (Beside Dhaka-Chittagong Highway)
Narayangonj 1411, Dhaka
BANGLADESH

Has been assessed and registered as complying with the requirements of the International Standard shown above for the following Goods and Services. Further clarifications regarding the scope of this certificate and the applicability of ISO 9001:2008 requirements may be obtained by consulting the organisation.

The design, development, manufacture, sales & after sale servcie of all types of electrical wires & cables.

MEMBER OF MULTILATERAL RECOGNITION ARRANGEMENT IAF

JAS-ANZ

www.jas-anz.org/register

Tony Wilde
Group Chairman
ISC (Global),
License # 1150/2011 CC

Registration Number: QAC/R880/0038
Registration Date: 21-Dec-2015
Expiry Date: 21-Dec-2018
Amendment Date:

ISC (Global), Building 11, 7th Floor, Bay Square, Business Bay, Dubai, UAE.

ISC GLOBAL

This certificate is valid until the Expiry Date on the condition that audits are conducted and paid for as per the Certification Agreement. Should this condition not be met, cancellation procedures will be initiated and the client will be removed form the JAS-ANZ regiser. This Certificate remains the property of International Standards Certifications (Global) FZ LLC and must be returned upon request. It must not be altered in any way. Intentional misuse of this certificate will result in cancellation without prior notification.

View of World Wide Raw Material