



SYRIAN MODERN CABLES

LOW VOLTAGE CABLES





الشركة السورية للكابلات
SYRIAN MODERN CABLES

INTRODUCTION

Syrian Modern Cables

S.M.C has been a leader in the manufacture of cables in Syria since 1996, it has succeeded in starting with low voltage, control, flexible, coaxial, domestic, earthing, cam cables, flat, bare conductor, ABC.

Based on International Standards as:

IEC (60228, 60227, 60502, 60811, ...etc.)

BS (6500, 6004, 5467, ...etc.)

NFC 33-209, BS EN 50182, ...etc.

Using high quality raw materials imported from famous suppliers:

LSZH, XLPE, PVC, PE, etc. ...etc.

Due to high quality and long experience S.M.C succeeded in meeting the local market needs, and in exporting all kinds of LV cables to: Middle East, Gulf countries, Europe & Africa.

For these reasons the company decided to expand its activities in LV cables field and started to manufacture special cables.

The rigid quality we apply for the manufacturing, testing, marketing and selling of all LV products paved the way for our company to obtain such international certifications as: ISO 9001:2015 Swiss Approval, BASEC & KEMA certificates for all types of LV cables.

Our strategic goal is to serve and cover the local as well as foreign markets; whilst our main goal it to satisfy our customers by providing them highest quality, prompt delivery and best sales.



الشركة السورية للكابلات
SYRIAN MODERN CABLES





INDOOR CABLES





INDOOR 1A

SINGLE CORE CABLES, WITH SOLID
OR STRANDED CIRCULAR COPPER
CONDUCTOR PVC INSULATED

SPECIFICATION:	VDE 250	IEC 227-3	BS 6004
CABLE TYPE:	NYA	CU/PVC	CU/PVC
NOMINAL VOLTAGE:	450/750V	450/750V	450/750V



CONDUCTOR: Soft annealed solid or stranded copper wires

CORE: the conductor is insulated with a layer of extruded normal PVC compound rated 70°C or heat resistant PVC compound rated 85°C.

STANDARD COLOURS: Red -Yellow - Blue - Brown - Black -Yellow / Green.

APPLICATION: For indoor fixed installations in dry locations, laid in conduits over or under the walls, as well as on steel brackets.



INDOOR 1B

SINGLE CORE CABLES, WITH SOLID (NYAe) AND STRANDED (NYAm) COPPER CONDUCTORS PVC INSULATED ACCORDING TO VDE 0250/3.69 IEC 227-3 AND BS 6004 SPECIFICATIONS, RATED VOLTAGE 450/750 volts

NORMAL CROSS SECTION	MINIMUM NUMBER OF WIRES	NOMINAL INSULATION THICKNESS	APPROX. CABLE DIAMETER	APPROXIMATED CABLE WEIGHT	MAXIMUM D.C RESISTANCE AT 20° C
MM ²	NR	MM	MM	KG/KM	OHM/KM
A – SOLID COPPER CONDUCTORS (NYAe)					
0.5	1	0.6	2.1	8.6	36.0
0.75	1	0.6	2.3	11.1	24.5
1.0	1	0.6	2.5	14.0	18.1
1.5	1	0.7	2.9	20.1	12.1
2.5	1	0.8	3.5	31.0	7.41
4.0	1	0.8	4.0	47.5	4.61
6.0	1	0.8	4.5	66.8	3.08
10	1	1.0	5.7	110	1.83
16	1	1.0	6.6	171	1.15
B – STRANDED COPPER CONDUCTORS (NYAm)					
0.5	7	0.6	2.2	8.9	36.0
0.75	7	0.6	2.4	11.8	24.5
1.0	7	0.6	2.6	14.6	18.1
1.5	7	0.7	3.1	21.2	12.1
2.5	7	0.8	3.7	32.4	7.41
4.0	7	0.8	4.2	49.0	4.61
6.0	7	0.8	4.8	70.5	3.08
10	7	1.0	6.1	115	1.83
16	7	1.0	7.2	178	1.15
25	7	1.2	8.9	278	0.727
35	7	1.2	10.1	374	0.524
50	91	1.4	11.8	512	0.387
70	91	1.4	13.6	710	0.268
95	91	1.6	15.8	982	0.193
120	37	1.6	17.5	1210	0.153
150	37	1.8	19.4	1496	0.124
185	37	2.0	21.6	1882	0.0991
240	60	2.2	24.5	1430	0.0754
300	60	2.4	27.6	3065	0.0601
400	60	2.6	31.4	3928	0.0470
500	60	2.8	34.5	4870	0.0366
630	90	2.8	38.3	6380	0.0283
800	90	2.8	42.6	7850	0.0221
1000	90	3.0	47.4	9820	0.0176



INDOOR 2A

SINGLE CORE CABLES, WITH FLEXIBLE
COPPER CONDUCTOR, PVC INSULATED

SPECIFICATION:	VDE 250	IEC 227-3	BS 6004
CABLE TYPE:	NYAF	CU/PVC/FI	CU/PVC/FI
NOMINAL VOLTAGE:	450/750V	450/750V	450/750V



CONDUCTOR: Soft annealed copper fine wires, bunched in sub-units or stranded subunit groups into a main unit, which forms the flexible conductor solid or stranded copper wires

CORE: The flexible conductor is insulated with a layer of extruded normal PVC compound rated 70°C or heat resistant PVC compound rated 85°C.

STANDARD COLOURS: Red - Yellow - Blue - Black - Yellow / Green ...

APPLICATION: For indoor fixed installations in dry locations, where particular flexibility is required, for building installations they can be laid in conduits over or under the walls as well as in steel brackets.
For electrical panel connection or for electrical apparatus they can be laid in groups around steel sheets.
Wires having cross section less than 1.5 mm² can be used for movable installations, i.e. for portable tools or domestic appliances



INDOOR 2B

SINGLE CORE CABLES, WITH FLEXIBLE COPPER CONDUCTORS,
PVC INSULATED, ACCORDING TO VDE 0250/3.69 AND IEC 227-3,
BS 6004 AND IEC 502, WHERE APPLICABLE TYPE NYAF

NOMINAL CROSS SECTIONAL	MAX.WIRE DIAMETER	NOMINAL INSULATION THICKNESS	APPROX CABLE DIAMETER	APPROX CABLE WEIGHT	MAXIMUM D.C RESISTANCE AT 20° C
NRXMM ²	MM	MM	MM	KG/KM	OHM/KM
0.5	0.21	0.6	2.2	9.2	39.0
0.75	0.21	0.6	2.5	12.3	26.0
1.0	0.21	0.6	2.7	15.1	19.5
1.5	0.26	0.7	3.2	21.5	13.3
2.5	0.26	0.8	3.9	32.6	7.98
4.0	0.31	0.8	4.4	50.8	4.95
6.0	0.31	0.8	5.3	73.6	3.30
10	0.41	1.0	7.0	121	1.91
16	0.41	1.0	8.2	192	1.21
25	0.41	1.2	10.1	289	.0780
35	0.41	1.2	11.3	398	0.554
50	0.41	1.4	13.6	567	0.386
70	0.51	1.4	15.5	756	0.272
95	0.51	1.6	17.8	1002	0.206
120	0.51	1.6	19.7	1263	0.161
150	0.51	1.8	22.0	1570	0.129
185	0.51	2.0	24.4	1940	0.106
240	.051	2.2	27.5	2495	0.0801
300	0.51	2.4	30.6	3120	0.0641
400	0.51	2.6	35.0	4136	0.0486
500	0.61	2.8	38.8	5104	0.0384
630	0.61	2.8	43.0	6450	0.0287



INDOOR 3A

MULTICORE CABLES, WITH SOLID OR STRANDED
CIRCULAR COPPER CONDUCTORS,
PVC INSULATED, PVC SHEATHED



SPECIFICATION: VDE 250

IEC 227-4

BS 6004

CABLE TYPE: NYM

CU/PVC/

CU/PVC/

PVC 300/500 v

PVC 300/500 v

NOMINAL VOLTAGE: 300/500 v

300/500 v

300/500 v

CONDUCTOR:

soft annealed solid or stranded circular copper wires.

CORE:

The conductor is insulated with a layer of extruded normal PVC compound rated 70°C or heat resistant PVC compound rated 85°C.

ASSEMBLING:

Two or more insulated conductors are laid up with a suitable lay to form the assembled cable.

BEDDING:

The so assembled cores are bedded with an extruded layer of rubber or rubber like or any other suitable plastic material in order to fill the interstices between cores and render the cable round.

SHEATHING:

Over the so bedded cable is applied an outer protecting layer of extruded PVC compound.

APPLICATION:

For indoor fixed installation in dry locations laid over the walls or in steel brackets.



INDOOR 3B

MULTICORE CABLES WITH SOLID (NYM) OR STBANDED (NYM)
COPPER CONDUCTORS PVC
INSULATED PVC SHEATHED, ACCORDING TO VDE 0250/3.69, IEC
227-4 AND BS 6004

NUMBER AND CROSS-SECTION	MINIMUM NUMBER OF WIRE	NOMINAL INSULATION THICKNESS	NOMINAL SHEATH THICKNESS	APPROX CABLE DIAMETER	APPROX CABLE WEIGHT	MAXIMUM D.C RESISTANCE AT 20° C
NRXMM	NR	MM	MM	MM	KG/KM	OHM/KM
2X1.5	1	0.7	1.2	9.4	113	12.1
2X2.5	1	0.8	1.2	10.7	152	7.41
2X4	1	0.8	1.2	11.5	205	4.61
2X6	1	0.8	1.2	12.6	264	3.08
3X1.5	1	0.7	1.2	10.0	136	12.1
3X2.5	1	0.8	1.2	11.1	180	7.41
3X4	1	0.8	1.2	12.2	247	4.61
3X6	1	0.8	1.4	13.8	343	3.08
4X1.5	1	0.7	1.2	10.5	158	12.1
4X2.5	1	0.8	1.2	12.0	222	7.41
4X4	1	0.8	1.4	13.7	310	4.61
4X6	1	0.8	1.4	15.4	425	3.08
5X1.5	1	0.7	1.2	11.5	180	12.1
5X2.5	1	0.8	1.2	12.9	261	7.41
5X4	1	0.8	1.4	15.2	396	4.61
5X6	1	0.8	1.4	17.0	509	3.08
2X1.5	7	0.7	1.2	9.6	128	12.1
2X2.5	7	0.8	1.2	11.0	172	7.41
2X4	7	0.8	1.2	12.0	231	4.61
2X6	7	0.8	1.2	13.2	296	3.08
2X10	7	1.0	1.4	16.4	464	1.83
2X16	7	1.0	1.4	18.7	645	1.15
2X25	7	1.2	1.4	22.3	963	0.727
2X35	7	1.2	1.6	25.5	1297	0.529
3X1.5	7	0.7	1.2	9.9	150	12.1
3X2.5	7	0.8	1.2	11.5	205	7.41
3X4	7	0.8	1.2	12.9	283	4.61
3X6	7	0.8	1.4	14.3	376	3.08
3X10	7	1.0	1.4	17.5	570	1.83
3X16	7	1.0	1.4	20.4	827	1.15
3X25	7	1.2	1.6	24.2	1264	0.727
3X35	7	1.2	1.6	27.0	1628	0.524
4X1.5	7	0.7	1.2	10.8	176	12.1
4X2.5	7	0.8	1.2	12.1	252	7.41
4X4	7	0.8	1.4	14.0	353	4.61
4X6	7	0.8	1.4	15.8	470	3.08
4X10	7	1.0	1.4	18.9	780	1.83
4X16	7	1.0	1.4	21.8	1030	1.15
4X25	7	1.2	1.6	26.6	1547	0.727
4X35	7	1.2	1.6	29.5	2030	0.524
5X1.5	7	0.7	1.2	11.5	196	12.1
5X2.5	7	0.8	1.2	13.4	288	7.41
5X4	7	0.8	1.4	16.0	423	4.61
5X6	7	0.8	1.4	17.2	564	3.08
5X10	7	1.0	1.4	20.6	880	1.83
5X16	7	1.0	1.6	24.3	1285	1.15
5X25	7	1.2	1.6	29.7	1960	0.727
5X35	7	1.2	1.6	32.8	2692	0.524



INDOOR 4A

MULTICORE CABLES, WITH FLEXIBLE COPPER CONDUCTORS,
LIGHT OR NORMAL
PVC INSULATED, PVC SHEATHED



SPECIFICATION:	VDE 250	IEC 227-5	BS 6500
CABLE TYPE:			
LIGHT:	NYLHY	CU/PVC/PVC/FI light	H05VV-F
NORMAL:	NYMHY	CU/PVC/PVC/FI normal	H05VV-F
NOMINAL VOLTAGE:			
LIGHT:	380/380	V	300/300
NORMAL:	300/500	V	300/500

CONDUCTOR: Soft annealed copper fine wires, bunched in sub-units or stranded subunit group into a main unit, which forms the flexible conductor.

CORE: The flexible conductor is insulated with a layer of extruded normal PVC compound rated 70 C or heat resistant PVC 85 C

ASSEMBLING: Two or more cores are laid up with a suitable lay to form the assembled cable.

SHEATHING: The so assembled cable is protected with an extruded layer of PVC compound.

APPLICATION: For indoor movable installation in dry locations, connecting to source power portable electrical appliances operating under unfavorable conditions, such as lamps fans, refrigeration, washing machines, vacuum cleaners, tv and ventilating apparatus, where the cord cannot be in contact with surfaces having temperatures exceeding 85° C.



INDOOR 4B

MULTICORE CABLES WITH FLEXIBLE CONDUCTORS LIGHT (NYLHY) OR NORMAL (NYMHY), PVC INSULATED, PVC SHEATHED ACCORDING TO VDE 0250/3.69, IEC 227-5 AND BS 6500

NUMBER AND CROSS SECTION	MINIMUM NUMBER OF WIRE	NOMINAL INSULATION THICKNESS	NOMINAL SHEATH THICKNESS	APPROX CABLE DIAMETER	APPROX CABLE WEIGHT	MAXIMUM D.C RESISTANCE AT 20° C
NRXMM ²	NR	MM	MM	MM	KG/KM	OHM/KM
A - LIGHT FLEXIBLE CABLES (NYLHY)						
2X0.50	0.21	0.5	0.6	5.7	37	39.0
2X0.75	0.21	0.5	0.6	6.3	46	26.0
3X0.50	0.21	0.5	0.6	6.0	46	39.0
3X0.75	0.21	0.5	0.6	6.6	56	26.0
4X0.50	0.21	0.5	0.6	6.5	56	39.0
4X0.75	0.21	0.5	0.6	7.2	71	26.0
B - NORMAL FLEXIBLE CABLES (NYMHY)						
2X0.75	0.21	0.6	0.8	7.0	55	26.0
2X1.0	0.21	0.6	0.8	7.8	66	19.5
2X1.5	0.26	0.7	0.8	8.1	81	13.3
2X2.5	0.26	0.8	1.0	10.3	132	7.98
3X0.75	0.21	0.6	0.8	7.6	66	26.0
3X1.0	0.21	0.6	0.8	7.9	81	19.5
3X1.5	0.26	0.7	0.9	8.6	101	13.3
3X2.5	0.26	0.8	1.1	10.9	156	7.98
4X0.75	0.21	0.6	0.8	8.1	81	26.0
4X1.0	0.21	0.6	0.9	8.6	96	19.5
4X1.5	0.26	0.7	1.0	9.7	132	13.3
4X2.5	0.26	0.8	1.1	12.3	203	7.98
5X0.75	0.21	0.6	0.9	9.2	106	26.0
5X1.0	0.21	0.6	0.9	9.7	127	19.5
5X1.5	0.26	0.7	1.1	10.6	162	13.3
5X2.5	0.26	0.8	1.2	13.4	247	7.98



INDOOR 5A

FLAT-TWIN AND FLAT-THREE CORE CABLES
WITH OR WITHOUT EARTH CONTINUITY
CONDUCTOR PVC INSULATED, PVC SHEATHED.



SPECIFICATION: BS 6004
CABLE TYPE: FL CU / PVC / PVC
NOMINAL VOLTAGE: 300 / 500 V

CONDUCTOR: Soft annealed solid or stranded copper wires

INSULATION: The conductor is insulated with a layer of extruded normal PVC compound rated 70° C or heat resistant PVC compound rated 85°C.

SHEATHING: Two or three insulated conductors with or without earth continuity conductor are laid in parallel side by side and protected with an outer layer of extruded PVC compound.

APPLICATION: For indoor fixed installations in dry locations, laid over walls, surface clipped or embedded in plaster, in domestic, commercial and industrial application.



INDOOR 5B

FLAT-TWIN AND FLAT-THREE CORE CABLES, WITH OR WITHOUT
EARTH CONTINUITY CONDUCTOR, PVC INSULATED PVC
SHEATHED, ACCORDING TO BS 6004

NUMBER AND CROSS SECTION	NUMBER OF WIRE IN CONDUCT	NOMINAL INSULATION THICKNESS	EARTH CONDUCT OF WIRES	NOMINAL SHEATH THICKNESS	APPROX CABLE DIAMETER	APPROX CABLE WEIGHT	MAXIMUM D.C RESISTANCE AT 20° C
NRXMM ²	NR	MM	NR	MM	MM	KG/KM	OHM/KM INSUL EARTH

A – TWIN AND THREE CORES FLAT CABLES WITHOUT EARTH CONTINUITY CONDUCTOR

2X1.5	1	0.7		0.9	7.6X5.1	61	12.1
2X2.5	1	0.8		1.0	9.2X6.0	93	7.41
2X4.0	7	0.8		1.0	11.3X7.1	141	4.61
2X6.0	7	0.8		1.1	12.5X7.9	191	3.08
2X10	7	1.0		1.2	15.5X9.4	311	1.83
2X16	7	1.0		1.3	18X10.7	451	1.15
3X1.5	1	0.7		0.9	10.3X5.1	91	12.1
3X2.5	1	0.8		1.0	12.5X6.1	136	7.41
3X4.0	7	0.8		1.1	15.5X7.5	214	4.61
3X6.0	7	0.8		1.1	17.4X8.0	286	3.08
3X10	7	1.0		1.2	21.9X10.0	461	1.83
3X16	7	1.0		1.3	25.5X11.1	672	1.13

B – TWIN AND THREE CORES FLAT CABLES WITH EARTH CONTINUITY CONDUCTOR

2X1.5+1	1	0.7	1	0.9	8.3X5.3	76	12.1	18.1
2X2.5+1	1	0.8	1	1.0	10.3X6.0	109	7.41	18.1
2X4.0+1.5	7	0.8	1	1.0	12.6X7.1	166	4.61	12.1
2X6.0+2.5	7	0.8	1	1.1	14.5X8.0	231	3.08	7.41
2X10+4	7	1.0	7	1.2	18.1X9.5	371	1.83	4.61
2X16+6	7	1.0	7	1.3	21.2X11.0	536	1.15	3.08
3X1.5+1	1	0.7	1	0.9	11.7X5.5	106	12.1	18.1
3X2.5+1	1	0.8	1	1.0	13.6X6.1	152	7.41	18.1
3X4.0+1.5	7	0.8	1	1.1	17.3X7.3	245	4.61	12.1
3X6.0+2.5	7	0.8	1	1.1	19.4X8.2	319	3.08	7.41
3X10+4	7	1.0	7	1.2	24.5X10	522	1.83	4.61
3X16+6	7	1.0	7	1.3	28.8X10.8	755	1.15	3.08



INDOOR 6A

FLAT-TWIN FLEXIBLE CABLES, PVC
INSULATED WITH DIVISIBLE CORES.

SPECIFICATION:	VDE 250	IEC 227-5	BS 6500
CABLE TYPE:	NYZ	FL/CU/PVC/FI	FL/CU/PVC/PVC
NOMINAL VOLTAGE:	380 V	300/300 V	300/300 V

FLAT-TWIN FLEXIBLE CABLES, PVC
INSULATED, PVC SHEATHED.

SPECIFICATION:	VDE 250	IEC 227-5
CABLE TYPE:	NYMHY	FL/CU/PVC/FI
NOMINAL VOLTAGE:	380 V	300/300 V

CONDUCTOR:

Soft annealed copper fine wires, bunched together, with a suitable lay to form the flexible conductor.

INSULATION:

The flexible conductor is insulated with a layer of extruded normal PVC compound rated 70° C or heat resistant PVC compound rated 85° C.

SHEATHING:

Two insulated conductor are laid parallel side by side and protected with an outer extruded PVC compound especially in NYZ cables, insulating & sheathing coverings are applied in one layer and in such a way to be easy divisible.

APPLICATION:

For indoor movable installations in dry location, connecting to source power portable electrical appliances operating under unfavorable conditions, such as portable lamps, fans, refrigerators, washing machines, vacuum cleaners, TV and household heating and ventilating apparatus, where the cord cannot be in contact with surfaces having temperatures exceeding 85° C.



INDOOR 6B

FLAT.TWIN FLEXIBLE CABLES PVC INSULATED WITH DIVISIBLE CORES (NYZ) AND PVC INSULATED PVC SHEATHED (NYMHY), ACCORDING VDE 0250/3.69 AND IEC 227 WHERE APPLICABLE.

NUMBER & CROSS SECTION OF CONDUCT	MAXIMUM DIAMETER OF WIRE	NOMINAL INSULAT THIKNESS	NOMINAL SHEATH THIKNESS	APPROX CABLE DIMENSIONS	APPROX CABLE WEIGHT	MAXIMUM D.C RESISTANCE AT 20° C
NRXMM ²	MM	MM	MM	MM	KG/KM	OHM/KM
A – TWIN-FLAT CABLES PVC INSULATED WITH DIVISIBLE CORES						
2X0.50	0.21	0.8		2.7X5.7	21	39
2X0.75	0.21	0.8		2.9X6.1	27	26
B – TWIN-FLAT CABLES, PVC INSULATED, PVC SHEATHED						
2X0.50	0.21	0.5	0.6	3.3X5.9	31	39
2X0.75	0.21	0.5	0.6	3.5X6.2	42	26
ACCORDING TO S.M.C SPECIFICATIONS						
C – NYZ CABLES						
2X1.0	0.21	0.8		2.7X5.9	32	19.5
2X1.5	0.26	0.8		3.2X6.9	44	13.3
2X2.5	0.26	0.8		4.0X8.1	66	7.98
D – TWIN FLAT CABLES						
2X1.0	0.21	0.6	0.8	4.2X6.7	52	19.5
2X1.5	0.26	0.7	0.8	4.7X7.8	93	13.3
2X2.5	0.26	0.8	1.0	5.8X9.5	105	7.98



OUTDOOR CABLES





OUTDOOR 7A

SINGLE CORE CABLES, WITH CIRCULAR
STRANDED COPPER CONDUCTOR, XLPE
INSULATED, PVC SHEATHED



SPECIFICATION:	VDE 0271	IEC 502 XLPE BS 5467
CABLE TYPE:	N2YY	CU/XLPE/PVC
NOMINAL VOLTAGE:	0.6/1KV	0.6/1KV

CONDUCTOR: Soft annealed stranded copper wires

INSULATION: The conductor is insulated with a layer of extruded XLPE normal compound rated 90° C

SHEATHING: Over the insulated conductor is applied an outer protecting layer of extruded PVC compound.

APPLICATION: For outdoor and indoor installation in damp and wet locations, laid direct to the ground (when well protected), in duct, in trenches and in steel brackets. They are normally used for power distribution in urban networks, in industrial plants, as well as in thermopower and hydropower stations.



OUTDOOR 7B

LOW VOLTAGE (0.6/1KV) SINGLE CORE POWER CABLES, WITH CIRCULAR STRANDED COPPER CONDUCTORS XLPE INSULATED, PVC SHEATHED, ACCORDING TO IEC 502 SPECIFICATIONS.

NOMINAL CROSS SECTION	MINIMUM NUMBER OF WIRES	NOMINAL INSULAT THICKNESS	NOMINAL SHEATH THICKNESS	APPROX. CABLE DIAMET	APPROX CABLE WEIGHT	MAXIMUM D.C RESISTANCE AT 20° C
NRXMM²	NR	MM	MM	MM	KG/KM	OHM/KM
1X4	7	0.7	1.4	7.1	86	4.61
1X6	7	0.7	1.4	7.6	110	3.08
1X10	7	0.7	1.4	8.5	155	1.83
1X16	7	0.7	1.4	9.7	220	1.15
1X25	7	0.9	1.4	11.4	325	0.727
1X35	7	0.9	1.4	12.5	430	0.524
1X50	19	1.0	1.4	13.9	560	0.387
1X70	19	1.1	1.4	15.8	770	0.268
1X95	19	1.1	1.5	18.0	1050	0.193
1X120	37	1.2	1.5	19.6	1310	0.153
1X150	37	1.4	1.6	21.8	1590	0.124
1X180	37	1.6	1.7	24.0	1980	0.0991
1X240	61	1.7	1.8	27.0	2560	0.0754
1X300	61	1.8	1.9	30.0	3180	0.0601
1X400	61	2.0	2.0	33.6	4020	0.0470
1X500	61	2.2	2.1	37.8	5140	0.0366
1X630	91	2.4	2.2	42.2	6520	0.0283



OUTDOOR 8A



MULTICORE CABLES, WITH CIRCULAR
STRANDED COPPER CONDUCTORS, XLPE
INSULATED, PVC SHEATHED

SPECIFICATION:	VDE 0271	IEC 502 XLPE
CABLE TYPE:	N2YY	CU/XLPE/PVC
NOMINAL VOLTAGE:	0.6/1KV	0.6/1KV

CONDUCTOR:

Soft annealed copper wires, concentrically stranded in successive layers, in opposite direction, to form the stranded conductor.

INSULATION:

The so stranded conductor is insulated with a layer of extruded normal XLPE compound rated 90° C.

ASSEMBLING:

Two or more cores are laid up with a suitable lay to form the assembled cable cores.

BEDDING:

The so assembled cables core is bedded with a layer of extruded PVC or rubber or rubber like or other suitable plastic material, in order to fill the interstices between the conductors and render the cable round.

SHEATHING:

Over the so bedded cable is applied an outer protecting layer of extruded PVC compound.

APPLICATION:

For outdoor and indoor installation in damp and wet locations, laid direct to the ground (when well protected), in duct, in trenches and in steel brackets.
They are normally used for power distribution in urban networks, in industrial plants, as well as in thermopower and hydropower stations.



OUTDOOR 8B

LOW VOLTAGE (0.6/1KV) MULTICORE POWER CABLES, WITH CIRCULAR STRANDED COPPER CONDUCTORS, XLPE INSULATED, PVC SHEATHED, ACCORDING TO IEC 502 SEPCIFICATIONS.

NOMINAL CROSS SECTION	MINIMUM NUMBER OF WIRES	NOMINAL INSULAT THICKNESS	NOMINAL SHEATH THICKNESS	APPROX. CABLE DIAMET	APPROX CABLE WEIGHT	MAXIMUM D.C. RESISTANCE AT 20° C
NRXMM ²	NR	MM	MM	MM	KG/KM	OHM/KM
2X1.5	7	0.7	1.8	10.2	130	12.1
2X2.5	7	0.7	1.8	11.0	160	7.41
2X4	7	0.7	1.8	12.3	200	4.61
2X6	7	0.7	1.8	13.0	280	3.08
2X10	7	0.7	1.8	16.4	380	1.83
2X16	7	0.7	1.8	18.5	490	1.15
2X25	7	0.9	1.8	22.0	770	0.727
2X35	7	0.9	1.8	24.6	980	0.524
3X1.5	7	0.6	1.8	10.8	150	12.1
3X2.5	7	0.7	1.8	11.7	190	7.41
3X4	7	0.7	1.8	13.0	280	4.61
3X6	7	0.7	1.8	14.0	370	3.08
3X10	7	0.7	1.8	17.2	530	1.83
3X16	7	0.7	1.8	19.8	720	1.15
3X25	7	0.9	1.8	23.6	1100	0.727
3X35	7	0.9	1.8	26.0	1450	0.524
4X1.5	7	0.6	1.8	11.3	180	12.1
4X2.5	7	0.7	1.8	12.5	210	7.41
4X4	7	0.7	1.8	14.4	290	4.61
4X6	7	0.7	1.8	15.8	370	3.08
4X10	7	0.7	1.8	19.6	560	1.83
4X16	7	0.7	1.8	21.4	930	1.15
4X25	7	0.9	1.8	26.0	1380	0.727
4X35	7	0.9	1.8	28.4	1820	0.524
3X25+16	7	0.9/0.7	1.8	25.4	1980	0.727/1.15
3X35+25	7	0.9	1.8	27.8	1620	0.524/0.727



OUTDOOR 9A



MULTICORE CABLES, WITH STRANDED
SECTOR SHAPE COPPER CONDUCTORS, SLPE
INSULATED, PVC SHEATHED

SPECIFICATION:	VDE 0271	IEC 502
CABLE TYPE:	N2YY	CU/XLPE/PVC
NOMINAL VOLTAGE:	0.6/1KV	0.6/1KV

CONDUCTOR:

Soft annealed copper wires, concentrically stranded in successive layers, in opposite direction, to form the stranded and compacted into a sector shape conductor.

INSULATION:

The conductor is insulated with a layer of extruded normal XLPE rated 90° C.

ASSEMBLING:

Two or more cores are laid up with a suitable lay to form the assembled cable core.

WRAPPING:

The co assembled cable core, is wrapped with one or more plastic tapes, to form the suitable Inner protection covering.

SHEATHING:

Over the so wrapped cables, is finally applied an outer protection of extruded PVC compound.

APPLICATION:

For outdoor installation in damp and wet locations, laid direct in the ground (when properly protected). In ducts, in trenches and in steel brackets. They are normally used for power distribution in urban networks, in industrial plants, as well as in thermopower and hydropower stations.



OUTDOOR 9B

LOW VOLTAGE (0.6 / 1KV) POWER CABLES, WITH STRANDED SECTOR SHAPE COPPER CONDUCTORS XLPE INSULATED, PVC SHEATHED, ACCORDING TO VDE 0271 AND IEC 502 SPECIFICATIONS.

NOMINAL GROSS SECTION	MINIMUM NUMBER OF WIRES	NOMINAL INSULAT THIKNESS	NOMINAL SHEATH THIKNESS	APPROX. CABLE DIAMET	APPROX CABLE WEIGHT	MAXIMUM D.C RESISTANCE AT 20° C
NRXMM²	NR	MM	MM	MM	KG/KM	OHM/KM
3X35+16	6/7	0.9/0.7	1.8	23.0	1420	0.524/1.15
3X50+25	6/6	1.0/0.9	1.8	25.8	1980	0.387/0.727
3X70+35	12/6	1.1/0.9	1.9	30.2	2740	0.268/0.524
3X95+50	15/6	1.1/1.0	2.1	33.6	3660	0.193/0.387
3X120+70	18/12	1.2/1.1	2.2	37.4	4680	0.153/0.268
3X150+70	18/12	1.4/1.1	1.3	41.5	5570	0.124/0.268
3X185+95	30/15	1.6/1.1	2.5	46.0	7030	0.0991/0.193
3X240+120	34/18	1.7/1.2	2.7	51.6	9110	0.0754/0.153
3X300+150	34/18	1.8/1.4	2.9	47.2	11220	0.0601/0.124
4X35	6	0.9	1.8	24.2	1620	0.524
4X50	6	1.0	1.9	27.8	2260	0.387
4X70	12	1.1	2.0	31.6	3100	0.268
4X95	15	1.1	2.1	35.4	4170	0.193
4X120	18	1.2	2.3	39.2	5210	0.153
4X150	18	1.4	2.4	43.5	6420	0.124
4X185	30	1.6	2.6	48.6	8010	0.0991
4X240	34	1.7	2.8	54.4	11200	0.0754
4X300	34	1.8	3.0	59.8	12750	0.0601



OUTDOOR 10A



SINGLE CORE AND MULTICORE CABLES, WITH STRANDED CIRCULAR COPPER CONDUCTOR, XLPE INSULATED, STEEL WIRE ARMoured, PVC SHEATHED

SPECIFICATION: BS 5467

CABLE TYPE: CU/XLPE/SWA/PVC

NOMINAL VOLTAGE: 0.6/1KV

CONDUCTOR:

Soft annealed copper wires, concentrically stranded in successive layers, in opposite direction, to form the stranded conductor.

INSULATION:

The so stranded conductor is insulated with a layer of extruded normal XLPE compound rated 90° C.

ASSEMBLING:

Two or more cores are laid up with a suitable lay to form the assembled cable core. cable core.

BEDDING:

The so assembled cables core rubber or rubber like or other suitable plastic material, in order to fill the interstices between the conductors and render the cable round.

ARMOURING:

Over the so bedded cable is helically applied a layer of steel wires, in such a way to form a continuous metallic protecting covering. For single core, armoured with a layer of wire aluminium in such a way to form a continuous metallic protecting covering in case of single core cables, steel wires are replaced by an aluminium wire.

APPLICATION:

For outdoor installation in damp and wet locations, laid direct to the ground where mechanical damages are expected to occur, they are normally used for power distribution in urban networks, in industrial plants, as well as in thermopower and hydropower stations.



OUTDOOR 10B

LOW VOLTAGE (0.6/1KV) POWER CABLES, WITH STRANDED CIRCULAR COPPER CONDUCTORS, XLPE INSULATED, STEEL ARMOURED, PVC SHEATHED ACCORDING TO BS 5467 SPECIFICATIONS

NOMINAL CROSS SECTION	MINIMUM NUMBER OF WIRES	NOMINAL INSULAT THICKNESS	NOMINAL BEDDING THICKNESS	ARMOUR WIRES DIAMETER	NOMINAL SHEATH THICKNESS	APPROX. CABLE DIAMET	APPROX CABLE WEIGHT	MAXIMUM D.C RESISTANCE AT 20° C
NRXMM ²	NR	MM	MM	MM	MM	MM	KG/KM	OHM/KM
1X50	19	1.0	0.8	0.9	1.5	17.5	760	0.387
1X70	19	1.1	0.8	1.25	1.5	20.1	1030	0.268
1X95	19	1.1	0.8	1.25	1.6	22.2	1320	0.193
1X120	37	1.2	0.8	1.25	1.6	23.8	1570	0.153
1X150	37	1.4	1.0	1.6	1.7	27.0	1980	0.124
1X185	37	1.6	1.0	1.6	1.8	29.6	2390	0.1991
1X240	61	1.7	1.0	1.6	1.8	32.4	3010	0.0754
1X300	61	1.8	1.0	1.6	1.9	35.2	3640	0.0601
1X400	61	2.0	1.2	2.0	2.0	40.0	4750	0.0470
1X500	61	2.2	1.2	2.0	2.1	44.0	5860	0.0366
1X630	91	2.4	1.2	2.0	2.2	48.3	7320	0.0283
2X1.5	7	0.6	0.8	0.9	1.3	14.0	320	12.1
2X2.5	7	0.7	0.8	0.9	1.4	14.9	390	7.41
2X4	7	0.7	0.8	0.9	1.4	16.8	450	4.61
2X6	7	0.7	0.8	0.9	1.4	17.9	540	3.08
2X10	7	0.7	0.8	0.9	1.5	19.7	680	1.83
2X16	7	0.7	0.8	1.25	1.5	21.6	1020	1.15
2X25	7	0.9	0.8	1.25	1.6	27.1	1410	0.727
2X35	7	0.9	1.0	1.6	1.7	29.3	1940	0.524
3X1.5	7	0.6	0.8	0.9	1.3	14.7	350	12.1
3X2.5	7	0.7	0.8	0.9	1.4	15.5	430	7.41
3X4	7	0.7	0.8	0.9	1.4	17.6	520	4.61
3X6	7	0.7	0.8	0.9	1.4	18.7	610	3.08
3X10	7	0.7	0.8	1.25	1.5	20.8	940	1.83
3X16	7	0.7	0.8	1.25	1.6	23.2	1210	1.15
3X25	7	0.9	1.0	1.6	1.7	28.6	1890	0.727
3X35	7	0.9	1.0	1.6	1.8	31.3	2350	0.524
4X1.5	7	0.6	0.8	0.9	1.3	15.3	370	12.1
4X2.5	7	0.7	0.8	0.9	1.4	16.4	470	7.41
4X4	7	0.7	0.8	0.9	1.4	18.7	580	4.61
4X6	7	0.7	0.8	1.25	1.5	20.2	820	3.08
4X10	7	0.7	0.8	1.25	1.5	22.4	1080	1.83
4X16	7	0.7	0.8	1.25	1.6	26.5	1430	1.15
4X25	7	0.9	1.0	1.6	1.7	30.8	2210	0.727
4X35	7	0.9	1.0	1.6	1.8	33.6	2840	0.524
3X25+16	7	0.9/0.7	1.0	1.6	1.7	30.2	2160	0.727/1.15
3X35+25	7	0.9	1.0	1.6	1.8	33.0	2610	0.524/0.727



OUTDOOR 11A



MULTICORE CABLES, WITH STRANDED SECTOR SHAPE COPPER CONDUCTORS, XLPE INSULATED, STEEL WIRE ARMoured, PVC SHEATHED.

SPECIFICATION: BS 5467

CABLE TYPE: CU/XLPE/SWA/PVC

NOMINAL VOLTAGE: 0.6/1KV

CONDUCTOR:

Soft annealed copper wires, concentrically stranded in successive layers, in opposite direction, to form the stranded and compacted into a sector shape conductor.

INSULATION:

The sector shape conductors are insulated with a layer of extruded XLPE compound rated 90° C.

ASSEMBLING:

Two or more cores are laid up with a suitable lay to form the assembled cable core.

BEDDING:

The so assembled cables core is bedded with a layer of extruded PVC or unvulcanized rubber or rubber like or other suitable plastic material, in order to fill the interstices between the cores and render the cable round.

ARMOURING:

Over the so bedded cable is helically applied a layer of steel wires, in such a way to form a continuous metallic protecting covering.

SHEATHING:

Over the armoured cable is finally applied an outer protection of extruded PVC compound.

APPLICATION:

For outdoor installation in damp and wet locations, laid direct to the ground where mechanical damages are expected to occur, they are normally used for power distribution in urban networks, in industrial plants, as well as in thermopower and hydropower stations.



OUTDOOR 11B

VOLTAGE (0.6/1KV) POWER CABLES, WITH STRANDED SECTOR SHAPE COPPER CONDUCTORS, XLPE INSULATED, STEEL WIRE ARMoured, PVC SHEATHED, ACCORDING TO BS 5467 SPECIFICATION.

NOMINAL CROSS SECTION	MINIMUM NUMBER OF WIRES	NOMINAL INSULAT THICKNESS	NOMINAL BEDDING THICKNESS	ARMOUR WIRES DIAMETER	NOMINAL SHEATH THICKNESS	APPROX. CABLE DIAMET	APPROX CABLE WEIGHT	MAXIMUM D.C RESISTANCE AT 20° C
NRXMM ²	NR	MM	MM	MM	MM	MM	KG/KM	OHM/KM
3X35+16	6/7	0.9/0.7	1.0	1.6	1.8	27.8	2260	0.524/1.15
3X50+25	6/6	1.0/0.9	1.0	1.6	1.9	31.2	2960	0.3870/0.727
3X70+35	12/6	1.1/0.9	1.2	2.0	2.0	36.3	4980	0.268/0.524
3X95+50	15/6	1.1/1.0	1.2	2.0	2.1	39.8	5190	0.193/0.387
3X120+70	18/12	1.2/1.1	1.2	2.0	2.2	43.6	6260	0.153/0.268
3X150+70	18/12	1.4/1.1	1.4	2.5	2.4	49.1	7670	0.124/0.268
3X185+95	30/15	1.6/1.1	1.4	2.5	2.5	53.7	9380	0.0991/0.193
3X240+120	34/18	1.7/1.2	1.6	2.5	2.6	59.0	11830	0.0754/0.153
3X300+150	34/18	1.8/1.4	1.6	2.5	2.8	65.4	14290	0.0601/0.124
4X35	6	0.9	1.0	1.6	1.7	29.0	2440	0.524
4X50	6	1.0	1.0	1.6	1.8	32.7	3180	0.387
4X70	12	1.1	1.2	2.0	1.9	38.0	4650	0.268
4X95	15	1.1	1.2	2.0	2.0	42.0	5670	0.193
4X120	18	1.2	1.4	2.5	2.1	47.0	7180	0.153
4X150	18	1.4	1.4	2.5	2.2	51.8	8430	0.124
4X185	30	1.6	1.4	2.5	2.4	56.6	10360	0.0991
4X240	34	1.7	1.6	2.5	2.5	62.7	13050	0.0754
4X300	34	1.8	1.6	2.5	2.6	68.2	15840	0.0601



OUTDOOR 12A



SINGLE AND MULTICORE CABLES, WITH CIRCULAR STRANDED ALUMINUM CONDUCTORS, XLPE INSULATED, PVC SHEATHED

SPECIFICATION:	VD 0271	IEC 502
CABLE TYPE:	NA2YY	AL/XLPE/PVC
NOMINAL VOLTAGE:	0.6/1KV	0.6/1KV

CONDUCTOR:

Drawn aluminium wires, concentrically stranded in successive layers, in opposite direction, to form the stranded conductor.

INSULATION:

The so stranded conductor, is insulated with a layer of extruded XLPE compound rated 90° C.

ASSEMBLING:

Two or more cores are laid up with a suitable lay to form the assembled cable core.

BEDDING:

The so assembled cables core is bedded with a layer of extruded PVC or rubber or rubber like or other suitable plastic material, in order to fill the interstices between the conductors and render the cable round.

SHEATHING:

Over the so bedded cable is applied an outer protecting layer of extruded PVC compound.

APPLICATION:

For outdoor installation in damp and wet locations, laid direct to the ground where mechanical damages are expected to occur, they are normally used for power distribution in urban networks, in industrial plants, as well as in thermopower and hydropower stations.



OUTDOOR 12B

LOW VOLTAGE (0.6/1KV) POWER CABLES, WITH CIRCULAR STRANDED ALUMINIUM CONDUCTORS, XLPE INSULATED, PVC SHEATHED, ACCORDING TO IEC 502 SPECIFICATIONS.

A – ROUND TRANDED ALUMINIUM CONDUCTORS

NOMINAL CROSS SECTION	MINIMUM NUMBER OF WIRES	NOMINAL INSULAT THICKNESS	NOMINAL SHEATH THICKNESS	APPROX. CABLE DIAMET	APPROX CABLE WEIGHT	MAXIMUM D.C RESISTANCE AT 20° C
NRXMM ²	NR	MM	MM	MM	KG/KM	OHM/KM
1X16	7	0.7	1.4	9.7	120	1.91
1X25	7	0.9	1.4	11.4	160	1.20
1X35	7	0.9	1.4	12.5	205	0.868
1X50	19	1.0	1.4	13.9	250	0.641
1X70	19	1.1	1.4	15.8	340	0.443
1X95	19	1.1	1.5	18.0	450	0.320
1X120	37	1.2	1.5	19.6	560	0.253
1X150	37	1.4	1.6	21.8	670	0.206
1X185	37	1.6	1.7	24.0	820	0.164
1X240	61	1.7	1.8	27.0	1050	0.125
1X300	61	1.8	1.9	30.0	1260	0.100
1X400	61	2.0	2.0	33.6	1590	0.0778
1X500	61	2.2	2.1	37.8	1930	0.0605
1X630	91	2.4	2.2	42.2	2460	0.0469
2X16	7	0.7	1.8	18.5	310	1.910
2X25	7	0.9	1.8	22.0	460	1.200
2X35	7	0.9	1.8	24.6	570	0.868
3X16	7	0.7	1.8	19.8	380	1.910
3X25	7	0.9	1.8	23.6	560	1.200
3X35	7	0.9	1.8	26.0	690	0.866
4X16	7	0.7	1.8	21.4	470	1.910
4X25	7	0.9	1.8	26.0	680	1.200
4X35	7	0.9	1.8	28.4	870	0.868



OUTDOOR 13A

MULTICORE CABLES, WITH STRANDED SECTOR
SHAPE ALUMINIUM CONDUCTORS, XLPE INSULATED,
PVC SHEATHED.



SPECIFICATION:	VD 0271	IEC 502
CABLE TYPE:	NA2YY	AL/XLPE/PVC
NOMINAL VOLTAGE:	0.6/1KV	0.6/1KV

CONDUCTOR:

Drawn Aluminium wires, concentrically stranded in successive layers, in opposite direction, to form the stranded and compacted into a sector shape conductor.

INSULATION:

The conductor is insulated with a layer of extruded normal XLPE rated 90° C compound.

ASSEMBLING:

Two or more cores are laid up with a suitable lay to form the assembled cable.

WRAPPING:

The so assembled cable is wrapped with one or more plastic tapes, to form the suitable inner covering.

SHEATHING:

Over the so wrapped cables in finally applied an outer protection of extruded PVC compound.

APPLICATION:

For outdoor installation in damp and wet locations, laid direct to the ground (when properly protected), in ducts, in trenches and in steel brackets. they are normally used for power distribution in urban networks, in industrial plants, as well as in thermopower and hydropower stations.



OUTDOOR 13B

LOW VOLTAGE (0.6/1KV) POWER CABLES, WITH ALUMINIUM SECTOR SHAPE CONDUCTORS, XLPE INSULATED PVC SHEATHED, ACCORDING TO VDE 0271 AND IEC 502 SPECIFICATIONS

A – SECTOR SHAPE STRANDED ALUMINIUM CONDUCTORS

NOMINAL CROSS SECTION	MINIMUM NUMBER OF WIRES	NOMINAL INSULAT THICKNESS	NOMINAL SHEATH THICKNESS	APPROX. CABLE DIAMET	APPROX. CABLE WEIGHT	MAXIMUM D.C RESISTANCE AT 20° C
NRXMM ²	NR	MM	MM	MM	KG/KM	OHM/KM
4X35	6	0.9	1.8	24.2	746	0.868
4X50	6	1.0	1.9	27.8	1020	0.641
4X70	12	1.1	2.0	31.6	1340	0.443
4X95	15	1.1	2.1	35.4	1780	0.320
4X120	15	1.2	2.3	39.2	2190	0.253
4X150	15	1.4	2.4	63.5	2650	0.206
4X185	30	1.6	2.6	48.6	3360	0.164
4X240	30	1.7	2.8	54.4	5170	0.125
4X300	30	1.8	3.0	59.8	5230	0.100



OUTDOOR 14A



SINGLE AND MULTICORE CABLES
WITH CIRCULAR STRANDED
ALUMINIUM CONDUCTORS
PVC INSULATED, STEEL WIRE ARMOUR, PVC SHEATHED

SPECIFICATION: BS 5467

CABLE TYPE: AL/XLPE/SWA/PVC

NOMINAL VOLTAGE:

CONDUCTOR:

Soft aluminium wires, concentrically stranded in successive layers, in opposite direction, to form the stranded conductor.

INSULATION:

The so stranded conductor, is insulated with a layer of extruded normal XLPE rated 90° C.

ASSEMBLING:

Two or more cores are laid up with a suitable lay to form the assembled cable.

BEDDING:

The so assembled cables core is bedded with a layer of extruded PVC or rubber or rubber like or other suitable plastic material, in order to fill the interstices between the conductors and render the cable round.

ARMOURING:

Over the so bedded cable is helically applied a layer of steel wires, in such a way to form a continuous metallic protecting covering. For single core, armoured with a layer of wire aluminium in such a way to form a continuous metallic protecting covering in case of single core cables, steel wires are replaced by an aluminium wire.

SHEATHING:

Over the armoured cables is finally applied an outer protecting of extruded PVC compound.

APPLICATION:

For outdoor installation in damp and wet locations, laid direct to the ground where mechanical damages are expected to occur, they are normally used for power distribution in urban networks, in industrial plants, as well as in thermopower and hydropower stations.



OUTDOOR 14B

LOW VOLTAGE (0.6/1KV) POWER CABLES, WITH CIRCULAR STRANDED ALUMINIUM CONDUCTORS, XLPE INSULATED, STEEL WIRE ARMoured, PVC SHEATHED ACCORDING TO BS 5467 SPECIFICATION.

A – ROUND STRANDED ALUMINIUM CONDUCTORS

NOMINAL CROSS-SECTION	MINIMUM NUMBER OF WIRES	NOMINAL INSULATION THICKNESS	NOMINAL BEDDING THICKNESS	ARMOUR WIRES DIAMETER	NOMINAL SHEATH THICKNESS	APPROX. CABLE DIAMETER	APPROX. CABLE WEIGHT	MAXIMUM D.C RESISTANCE AT 20° C
NRXMM ²	NR	MM	MM	MM	MM	MM	KG/KM	OHM/KM
1X50	19	1.0	0.8	0.9	1.5	17.5	450	0.641
1X70	19	1.1	0.8	1.25	1.5	20.1	580	0.443
1X95	19	1.1	0.8	1.25	1.6	22.2	700	0.320
1X120	37	1.2	0.8	1.25	1.6	23.8	830	0.253
1X150	37	1.4	1.0	1.6	1.7	27.0	1110	0.206
1X185	37	1.6	1.0	1.6	1.8	29.6	1260	0.164
1X240	61	1.7	1.0	1.6	1.8	32.4	1540	0.125
1X300	61	1.8	1.0	1.6	1.9	35.2	1850	0.100
1X400	61	2.0	1.2	2.0	2.0	40.0	2290	0.0778
1X500	61	2.2	1.2	2.0	2.1	44.0	2730	0.0605
1X630	91	2.4	1.2	2.0	2.2	48.3	3370	0.0469
2X16	7	0.7	0.8	1.25	1.5	21.6	800	1.910
2X25	7	0.9	0.8	1.25	1.6	27.1	1050	1.200
2X35	7	0.9	1.0	1.6	1.7	29.3	1480	0.868
3X16	7	0.7	0.8	1.25	1.6	23.2	860	1.910
3X25	7	0.9	1.0	1.6	1.7	28.6	1330	1.200
3X35	7	0.9	1.0	1.6	1.8	31.3	1590	0.868
4X16	7	0.7	0.8	1.25	1.6	26.5	1020	1.910
4X25	7	0.9	1.0	1.6	1.7	30.8	1570	1.200
4X35	7	0.9	1.0	1.6	1.8	33.6	1920	0.868



OUTDOOR 15A

MULTICORE CABLES, WITH STRANDED SECTOR SHAPE ALUMINIUM CONDUCTORS XLPE INSULATED, STEEL WIRE ARMoured, PVC SHEATED



SPECIFICATION: BS 5467
CABLE TYPE: AL/XLPE/SWA/PVC
NOMINAL VOLTAGE: 0.6/1KV

CONDUCTOR: Drawn Aluminium wires, concentrically stranded in successive layers, in opposite direction, to form the stranded and compacted into a sector shape conductor.

INSULATION: The sector shape conductor, are insulated with a layer of extruded XLPE compound rated 90° C.

ASSEMBLING: Two or more cores are laid up with a suitable lay length to form the assembled cable core.

BEDDING: The so assembled cables core is bedded with a layer of extruded PVC or rubber or rubber like or other suitable plastic material, in order to fill the interstices between the conductors and render the cable round.

ARMOURING: Over the so bedded cable is helically applied a layer of steel wires, in such a way to form a continuous metallic protecting covering.

SHEATHING: Over the so armoured cable is finally applied an outer protecting of extruded PVC compound.

APPLICATION: For outdoor installation in damp and wet locations, laid direct to ground where mechanical damages are expected to occur, they are normally used for power distribution in urban networks, in industrial plants, as well as in thermopower and hydropower stations.



OUTDOOR 15B

LOW VOLTAGE (0.6/1KV) POWER CABLES, WITH ALUMINIUM STRANDED SECTOR SHAPE CONDUCTORS, XLPE INSULATED, STEEL WIRE ARMoured, PVC SHEATHED, ACCORDING TO BS 5467 SPECIFICATIONS.

A – SECTOR STRANDED ALUMINIUM CONDUCTORS

NOMINAL CROSS SECTION	MINIMUM NUMBER OF WIRES	NOMINAL INSULAT THICKNESS	NOMINAL BEDDING THICKNESS	ARMOUR WIRES DIAMETER	NOMINAL SHEATH THICKNESS	APPROX. CABLE DIAMET	APPROX CABLE WEIGHT	MAXIMUM D.C RESISTANCE AT 20° C
NRXMM ²	NR	MM	MM	MM	MM	MM	KG/KM	OHM/KM
4X35	6	0.9	1.0	1.6	1.7	29.0	1650	0.868
4X50	6	1.0	1.0	1.6	1.8	32.0	1980	0.641
4X70	12	1.1	1.2	2.0	1.9	38.0	2930	0.443
4X95	15	1.1	1.2	2.0	2.0	42.0	3390	0.320
4X120	15	1.2	1.4	2.5	2.1	47.0	4420	0.253
4X150	15	1.4	1.4	2.5	2.2	51.8	5080	0.206
4X185	30	1.6	1.4	2.5	2.4	56.6	59*30	0.164
4X240	30	1.7	1.6	2.5	2.5	62.7	7210	0.125
4X300	30	1.8	1.6	2.5	2.6	68.2	8440	0.100



OUTDOOR 16A



FLEXIBLE CABLES, RUBBER OR RUBBER LIKE INSULATED AND SHEATHED, ACCORDING VDE 0250/3.69 SPECIFICATIONS (TYPE NSH)

CONDUCTOR:

Soft annealed copper fine wires, bunched in sub-units or stranded subunit group into a main unit, which forms the flexible conductor.

CORE:

The flexible conductor is insulated with a layer of extruded thermosetting rubber or rubber like material.

ASSEMBLING:

Two or more cores are laid up with a suitable lay to form the assembled cable.

SHEATHING:

The assembled cable is protected with an extruded layer of rubber or rubber like material.

APPLICATION:

For outdoor installation in damp and wet locations, laid direct to ground where mechanical damages are expected to occur, they are normally used for power distribution in urban networks, in industrial plants, as well as in thermopower and hydropower stations.



OUTDOOR 16B

FLEXIBLE CABLES RUBBER OR RUBBER LIKE INSULATED AND SHEATHED
ACCORDING TO VDE 0250/3,69 SPECIFICATIONS (TYPE NSH)

NUMBER AND CROSS SECTIONAL	MAXIMUM DIAMETER OF WIRES	NOMINAL INSULATION THICKNESS	NOMINAL SHEATH THICKNESS	APPROX CABLE DIAMETER	APPROX CABLE WEIGHT
NRXMM ²	MM	MM	MM	MM	KG/KM
1X1.5	0.26	0.8	1.6	8.0	58
1X2.5	0.26	0.9	1.6	8.6	78
1X4	0.31	1.0	1.6	9.6	105
1X6	0.31	1.0	1.6	10.4	146
1X10	0.41	1.2	1.6	12.2	205
1X16	0.41	1.2	1.6	13.6	287
1X25	0.41	1.4	2.0	16.6	437
1X35	0.41	1.4	2.0	18.2	552
2X1.5	0.26	0.8	1.6	14.5	196
2X2.5	0.26	0.9	1.6	16.0	261
2X4	0.31	1.0	2.0	19.7	372
2X6	0.31	1.0	2.0	21.2	482
2X10	0.41	1.2	2.2	24.7	667
2X16	0.41	1.2	2.2	27.6	987
2X25	0.41	1.4	2.5	32.6	1420
2X35	0.41	1.4	2.5	36.1	1770
3X1.5	0.26	0.8	1.6	15.1	232
3X2.5	0.26	0.9	1.6	16.6	297
3X4	0.31	1.0	2.0	20.2	440
3X6	0.31	1.0	2.0	22.2	600
3X10	0.41	1.2	2.2	25.7	920
3X16	0.41	1.2	2.2	28.6	1200
3X25	0.41	1.4	2.5	34.6	1700
3X35	0.41	1.4	3.0	39.2	2280
3X50	0.41	1.6	3.5	45.0	3165
3X70	0.51	1.6	3.5	49.0	4000
4X1.5	0.26	0.8	1.6	16.1	270
4X2.5	0.26	0.9	2.0	19.1	405
4X4	0.31	1.0	2.0	21.4	525
4X6	0.31	1.0	2.0	23.1	725



OUTDOOR 17A



NYMHFLY FLAT CABLES
TYPE NSH

SPECIFICATIONS
ACCORDING TO CUSTOMERS REQUEST

RATED VOLTAGE: 1000V

SPECIFICATION: VDE 0250/3.69/810. Where applicable

CONDUCTOR: Soft annealed fine stranded copper.

INSULATION: Rubber or rubber like.

LAYING UP: Insulated conductors are assimilated in parallel side by side.

SHEATH: PVC or rubber or rubber like.



OUTDOOR 17B

NYMHFLY PUMP CABLES

SECTION	MAXIMUM DIAMETER OF WIRES	NOMINAL INSULATION THICKNESS	NOMINAL SHEATH THICKNESS	WXL	MAXIMUM D.C RESISTANCE AT 20° C	APPROX CABLE WEIGHT
MM ²	MM	MM	MM	MM	OHM/KM	KG/KM
3X6	0.30	1	1.2	8.0X19.2	3.30	329
3X10	0.35	1	1.2	9.0X22.2	1.91	475
3X16	0.35	1	1.3	10.3X25.7	1021	661
3X25	0.35	1.2	1.5	12.2X30.6	0.780	991
3X35	0.35	1.2	1.7	14.0X35.2	0.554	1332
3X50	0.35	1.4	1.8	16.4X42.0	0.386	1885
3X70	0.35	1.4	1.9	18.2X47.0	0.278	2532
3X95	0.35	1.4	2.0	20.4X35.2	0.206	3312



CONTROL CABLES





CONTROL DOOR 18A



CONTROL CABLES, WITH STRANDED COPPER CONDUCTORS, XLPE INSULATED, PVC SHEATHED

SPECIFICATION:	VDE 0271	IEC 502	BS 5467
CABLE TYPE:	N2YY	CU/XLPE/PVC	CU/XLPE/PVC
NOMINAL VOLTAGE:	0.6/1KV	0.6/1KV	0.6/1KV

CONDUCTOR:

Soft annealed copper wires, concentrically stranded in successive layers, in opposite direction, to form the stranded conductor.

INSULATION:

The conductors are then insulated with a layer of extruded XLPE compound rated 90° C.

COLOUR CODE:

The insulated conductor identification is made either by printing numbers on the insulating material, or by using different insulating colours or combination of two colours.

STRANDED:

The so insulated conductors are stranded in successive layers, in opposites direction, to form the cable core.

WRAPPING:

The cables core is wrapped with one or more plastic tapes helically or longitudinally applied with suitable overlapping

SHEATHING:

Over the so wrapped cable core is applied an outer protection of extruded PVC compound.

APPLICATION:

For outdoor and indoor installation in damp and wet locations, connecting signaling and control units in industry, in railways, in traffic signals, in thermopower and hydropower stations, they are laid in air, in ducts, in trenches, in steel brackets or direct in ground, when well protected.



CONTROL DOOR 18B

CONTROL CABLES, WITH STRANDED COPPER CONDUCTORS, XLPE INSULATED, PVC SHEATHED, ACCORDING BS 5467 AND IEC 502, WHERE APPLICABLE

NOMINAL CROSS SECTION	MINIMUM NUMBER OF WIRES	NOMINAL INSULAT THICKNESS	NOMINAL SHEATH THICKNESS	APPROX. CABLE DIAMET	APPROX. CABLE WEIGHT	MAXIMUM D.C. RESISTANCE AT 20° C
NRXMM ²	NR	MM	MM	MM	KG/KM	OHM/KM
5X1.5	7	0.7	1.8	12.2	290	12.1
7X1.5	7	0.7	1.8	13.0	330	12.1
12X1.5	7	0.7	1.8	16.5	470	12.1
14X1.5	7	0.7	1.8	17.3	560	12.1
19X1.5	7	0.7	1.8	19.0	660	12.1
25X1.5	7	0.7	1.8	22.5	820	12.1
30X1.5	7	0.7	1.8	23.3	950	12.1
37X1.5	7	0.7	1.9	25.2	1110	12.1
45X1.5	7	0.7	2.0	28.7	1340	12.1
52X1.5	7	0.7	2.0	29.5	1530	12.1
5X2.5	7	0.7	1.8	13.4	330	7.41
7X2.5	7	0.7	1.8	14.3	410	7.41
12X2.5	7	0.7	1.8	18.2	610	7.41
14X2.5	7	0.7	1.8	19.1	700	7.41
19X2.5	7	0.7	1.8	21.2	870	7.41
25X2.5	7	0.7	1.8	25.0	1130	7.41
30X2.5	7	0.7	1.9	26.0	1210	7.41
37X2.5	7	0.7	2.0	28.1	1550	7.41
45X2.5	7	0.7	2.0	32.5	1900	7.41
5X4	7	0.7	1.8	15.0	440	4.61
7X4	7	0.7	1.8	16.2	550	4.61
12X4	7	0.7	1.8	20.7	850	4.61
14X4	7	0.7	1.8	21.8	960	4.61
19X4	7	0.7	1.8	24.3	1220	4.61
25X4	7	0.7	2.0	28.9	1590	4.61
30X4	7	0.7	2.0	30.0	1880	4.61
37X4	7	0.7	2.1	32.8	2260	4.61



CONTROL DOOR 19A



CONTROL CABLES, WITH STRANDED SOFT COPPER CONDUCTORS, XLPE INSULATED, STEEL WORES ARMOURED, PVC SHEATHED.

SPECIFICATION:	VDE 0271	IEC 502	BS 5467
CABLE TYPE:	N2YY	CU/XLPE/SWA/PVC	CU/XLPE/SWA/PVC
NOMINAL VOLTAGE:	0.6/1KV	0.6/1KV	0.6/1KV

CONDUCTOR:

Soft annealed copper wires, concentrically stranded in successive layers, in opposite direction, to form the stranded conductor.

INSULATION:

The conductors then are insulated with a layer of extruded XLPE compound rated 90° C.

COLOUR CODE:

The insulated conductor identification is made either by printing numbers on the insulating material, or by using different insulating colours or combination of two colours.

STRANDING:

The so insulated conductor is stranded in successive layers, in opposites direction, to form the cable core.

BEDDING:

The cable core is bedded with a layer of PVC or rubber or rubber like or other suitable plastic material, to form the inner protecting layer.

ARMOURING:

Over the so bedded cable is helically applied a layer of steel wires in such a way to form a continuous metallic protection covering.

SHEATHING:

Over the so armoured cable is finally applied an outer protecting of extruded PVC compound.

APPLICATION:

For outdoor installation in damp and wet locations, laid direct to ground where mechanical damages are expected to occur, they are normally used for power distribution in urban networks, in industrial plants, as well as in thermopower and hydropower stations.



CONTROL DOOR 19B

CONTROL CABLES, WITH STRANDED COPPER CONDUCTORS, XLPE INSULATED, STEEL WIRE ARMoured, PVC SHEATED ACCORDING BS 547 AND IEC 502, WHERE APPLICABLE

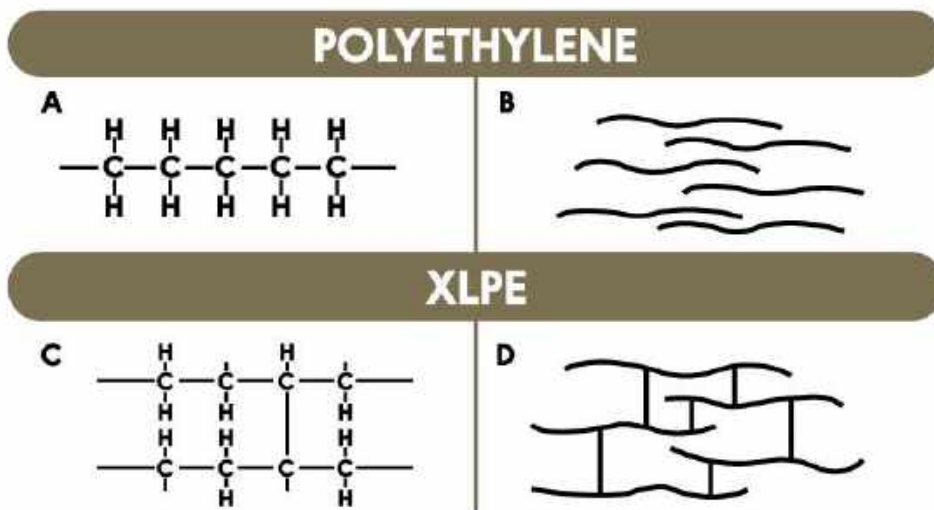
NUMBER CROSS SECTIONAL	MINIMUM NUMBER OF WIRE	NOMINAL INSULATION THICKNESS	NOMINAL STEEL WIRES DIAMETER	NOMINAL SHEATH THICKNESS	APPROX CABLE DIAMETER	APPROX CABLE WEIGHT	MAXIMUM D.C RESISTANCE AT 20° C
NRXMM ²	NR	MM	MM	MM	MM	KG/KM	OHM/KM
5X1.5	7	0.7	0.9	1.8	16.1	450	12.1
7X1.5	7	0.7	0.9	1.8	17.0	510	12.1
12X1.5	7	0.7	0.9	1.8	20.4	830	12.1
14X1.5	7	0.7	1.25	1.8	22.6	1080	12.1
19X1.5	7	0.7	1.25	1.8	24.5	1260	12.1
25X1.5	7	0.7	1.6	1.9	28.1	1510	12.1
30X1.5	7	0.7	1.6	1.9	29.0	1640	12.1
37X1.5	7	0.7	1.6	2.0	32.2	1920	12.1
45X1.5	7	0.7	1.6	2.1	35.7	2510	12.1
52X1.5	7	0.7	1.6	2.2	36.8	2730	12.1
5X2.5	7	0.7	0.9	1.8	17.3	520	7.41
7X2.5	7	0.7	0.9	1.8	18.2	620	7.41
12X2.5	7	0.7	1.25	1.8	23.5	1000	7.41
14X2.5	7	0.7	1.25	1.8	24.5	1160	7.41
19X2.5	7	0.7	1.6	1.8	26.6	1500	7.41
25X2.5	7	0.7	1.6	2.0	30.8	1950	7.41
30X2.5	7	0.7	1.6	2.0	32.0	2100	7.41
37X2.5	7	0.7	1.6	2.1	35.7	2280	7.41
45X2.5	7	0.7	2.0	2.3	39.8	3120	7.41
5X4	7	0.7	0.9	1.8	19.0	650	4.61
7X4	7	0.7	1.25	1.8	20.1	920	4.61
12X4	7	0.7	1.6	1.9	26.2	1450	4.61
14X4	7	0.7	1.6	1.9	27.3	1630	4.61
19X4	7	0.7	1.6	2.0	30.0	1940	4.61
25X4	7	0.7	1.6	2.2	36.0	2360	4.61
30X4	7	0.7	2.0	2.3	37.5	3010	4.61
37X4	7	0.7	2.0	2.4	40.2	3480	4.61

WHAT IS XLPE?

Pure low - density polyethylene polymer is a compound of carbon and hydrogen only and has a linear molecular structure, i.e., the polyethylene molecule is in the form of a long flexible chain.

These chains, being independent, may slide with respect to one another, showing once again the materials thermoplastic nature, if these chains can be cross - linked to one another by some process, converting the independent molecules to a three - dimensional linked network, slippage between molecular chains can be prevented, the material thus becomes thermosetting.

Cross-linking of the polyethylene molecules has been achieved by a process reminiscent of the vulcanization of rubber, whereby the thermal and physical properties of the material (i.e., polyethylene) are greatly improved, while its electrical properties largely remain unchanged, Cross-linked polyethylene (xlpe) is, therefore, no longer a thermoplastic polymer, it softens at the crystalline melting point of polyethylene (105- 115° C) and assumes an elastic, rubber like consistency, a property which it retains during further rises of temperature, until it become carbonized without melting at 300 C, the tendency to stress- cracking disappears entirely, and very good resistance to aging in hot air is acquired.





WHY ARE XLPE CABLES SO WIDELY PREFERRED

NO NEED FOR METALIC SHEATH

XLPE cable dose not generally require a metallic sheath, thus its free from the failures peculiar to metallic-sheathed cables, corrosion fatigue.

CAPABILITY OF CARRYING LARGE CURRENTS.

The excellent resistance to thermal deformation and the excellent ageing property of XLPE cable permit it to carry large currents under normal (90 C) emergency (130 C) and short circuit (250 C) conditions.

EXCELLENT ELECTRICAL AND PHYSICAL PROPERTIES.

XLPE cable is the best cable for trans - mission and distribution lines because of its excellent electrical and physical properties.

EASY TO INSTALL

XLPE cable withstands small radius bending and is light weight, allowing for easy and reliable installation.

Furthermore, the splicing and terminating methods for XLPE cable are very easy in comparison with other kinds of cables.

FREE FROM HIGHT LIMITATION, AND MAINTENANCE:

XLPE cable can be installed anywhere without special consideration of the route profile (height limitation), since it is not comprised of any oil and thus is free from the failures due to oil migration in oil-filled cable.





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SYRIAN MODERN CABLES



COMPARISON OF XLPE AND VAIROUS KINDS OF CABLES

Table: General Characteristics.

Properties		XLPE cable	PE cable	EPR cable	PVC cable	Impregnated paper
	Normal	90	70	90	70	65/80
Rated temperature (C °)	Emergency	130	90	130	95	110
	Short Circuit	250	140	250	160	160
Mechanical Strength	Tensile Strength (km/mm ²)	1.9	1.4	0.95	1.25 . 2.5	
	Elongation (%)	300-500	300-600	300-800	200-400	
Ageing resistance	100° C	Excellent	Good	Excellent	Good	Good
	120° C	Excellent	Melts	Good	Poor	Fair
	150° C	Good	Melts	Fair	Poor	Poor
Heat deformation at 150° C		Good	Melts	Excellent	Poor	Good
Solvent resistance		Good	Good	Poor	Poor	Fair
Volume resistivity at 20° C (Ohm-cm)		> 10	> 10	> 10	> 10	> 10
Dielectric constant		2.3	2.3	3	6 – 8	3.4 – 4
Dielectric strength (kv/mm)		40 – 50	40 – 50	25 – 40	20 – 35	40
Splicing and terminating		Easy	Easy	Easy	Easy	Not so Easy
Allowable bending radius	Single	15 D – 20 D	15 D – 20 D	15 D – 20 D	15 D – 20 D	15 D – 20 D
	Multi core	12 D – 15 D	12 D – 15 D	12 D – 15 D	12 D – 15 D	15 D – 20 D



SYRIAN MODERN CABLES

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