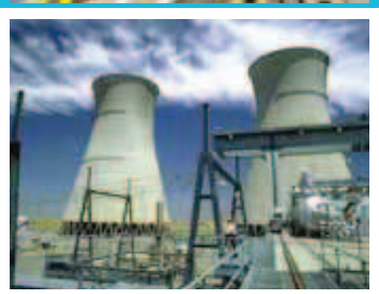
LOW VOLTAGE POWER & INSTRUMENTATION CABLES



MESLA WIRE & CABLE SDN. BHD.

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MESLA™

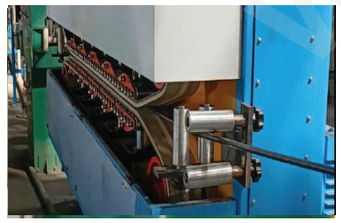
MESLA WIRE & CABLE SDN. BHD

CORPORATE PROFILE

Mesla Wire & Cable Sdn. Bhd. is a prominent cable manufacturing factory situated in Melaka, Malaysia. Founded in 2014, and we underwent a rebranding in 2020, adopting the name Mesla Wire & Cable Sdn Bhd. a private entity of Malaysia
Mesla Wire & Cable has solidified its presence in the market over the past decade, specializing in the production of high-quality cables to meet various industrial and commercial needs.

Throughout its operational history, Mesla Wire & Cable has consistently demonstrated a commitment to excellence in manufacturing, innovation, and customer satisfaction. The company's state-of-the-art facilities, coupled with a dedicated team of professionals, enable it to produce a wide range of cables that adhere to stringent quality standards.

Located strategically in Melaka, Mesla Wire & Cable benefits from its central position within Malaysia, facilitating efficient distribution networks both domestically and internationally. The company's reputation for reliability, durability, and performance has earned it a trusted status among clients across various industries.



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Multi Cores (6 and above) CU/XLPE/LSHF/SWA/LSHF

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500V, individually and collectively (ISOS)
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500V, collectively screened (OS) armoured braided SWB
500V, individually and collectively screened (ISOS) armoured SWA
500V, individually and collectively screened (ISOS) armoured braided SWB

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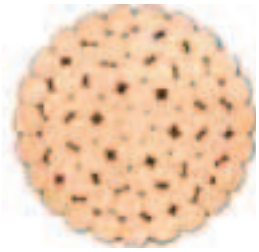
BARE ANNEALED COPPER SOFT DRAWN STRANDED PLAIN ANNEALED COPPER CONDUCTOR (SINGLE CORE)

APPLICATION

For use in overhead transmission and distribution applications. Also for use in grouding application.

Conductor:	Soft drawn plain annealed copper, class 2 Circular or compacted	Main Specification: Min. Bending Radius:	IEC60228, BSEN60228 6 X Overall Diameter



1 core
BARE COPPER

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	kg/km
1	1.5	7			1.59	14.0
1	2.5	7			2.01	22.4
1	4	7			2.55	36.1
1	6	7			3.12	54.0
1	10	7			4.05	90.80
1	16	7			5.10	145.0
1	25	7			6.42	229.0
1	35	19			7.56	317.0
1	50	19			8.90	429.0
1	70	19			10.70	620.0
1	95	19			12.60	860.0
1	120	37			14.21	1086.0
1	150	37			15.75	1334.0
1	185	37			17.64	1673.0
1	240	61			20.25	2199.0
1	300	61			22.68	2759.0
1	400	61			25.65	3528.0
1	500	61			28.80	4448.0
1	630	127			32.76	5744.0

PVC-INSULATED CABLE
450/750V, PVC INSULATED, NON SHEATHED CABLE

APPLICATION

Single core, non-sheathed general purpose cables are installed in surface mounted or embedded Conduits or similar closed systems. The cables are suitable for use in channels with cover, fixed Protection installation in or on lighting fittings and inside appliances, up to 1000V ac or up to 750V to earth, dc.

Conductor:	Single solid wire or circular stranded plain Annealed copper wire acc. To IEC60228 1.5mm ^{2} and 2.5mm ^{2} for class 1 and class 2 Class 2 for 4mm ^{2} and above
Insulation:	PVC (polyvinyl chloride) compound type TI1
Colour:	Assorted colours

Voltage:	450/750V
Temperature:	Maximum 70°C
Main Specification:	MS 2112-3, IEC 60227-3
Testing Voltage:	2500V
Min. Bending Radius:	4 x OD (<10mm) 6 x OD (≤ 10mm < 25mm) 10 x OD (≥ 25mm)

PVC-INSULATED CABLE
450/750V, PVC INSULATED, NON SHEATHED CABLE

1 core
CU/PVC

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	kg/km
1	1.5	1	0.7		2.9	20
1	1.5	7	0.7		3.1	22
1	2.5	1	0.8		3.5	32
1	2.5	7	0.8		3.7	34
1	4	7	0.8		4.3	50
1	6	7	0.8		4.8	70
1	10	7	1.0		6.2	120
1	16	7	1.0		7.2	180
1	25	7	1.2		9.0	280
1	35	19	1.2		10.0	375
1	50	19	1.4		11.9	505
1	70	19	1.4		13.7	715
1	95	19	1.6		16.0	985
1	120	37	1.6		17.6	1220
1	150	37	1.8		19.6	1505
1	185	37	2.0		21.9	1885
1	240	61	2.2		25.0	2460
1	300	61	2.4		28.0	3075
1	400	61	2.6		31.5	3915
1	500	19	2.8		34.7	4915
1	630	127	2.8		38.7	6260

PVC-INSULATED CABLE 600/1000V, PVC INSULATED, PVC-SHEATHED UNARMOURED CABLES

transmission of reliability & brightness

APPLICATION

Power Cables for electricity supply are installed in open air, underground, in cable ducts, outdoor and indoors, power stations, for industry and distribution boards as well as in subscriber networks where mechanical damages are not to be expected. The cables are suitable for continuous operation at a maximum conductor temperature of 70°C.

Conductor:	Circular stranded, circular compact stranded or sector shaped stranded plain annealed Copper wire acc. To IEC60228 class 2
Insulation:	PVC (polyvinyl chloride) compound type A
Identification of cores:	1 core – Red or Black 2 cores – Brown, Blue or Red, black 3 cores – Brown, Black, Grey or Red, Yellow, Blue 4 cores – Brown, Black, Grey, Blue or Red, Yellow, Blue, Black 5 core and above – (number) 1,2,3,4,5,6.., and the number shall be black printed on white cores
Laying Up:	Cores stranded together. Where necessary, binder tapes and non-hygroscopic fillers may be applied
Sheath:	PVC (Polyvinyl Chloride) compound type ST1
Colour:	Black

Voltage:	600/1000V
Temperature:	Maximum 70°C
Main Specification:	MS 2100; IEC 60502-1
Testing Voltage:	3500V
Min. Bending Radius:	8 x OD
Special Properties Upon Request:	Anti-Termite sheath Anti-Rodent sheath UV-Resistant sheath Flame Retardant sheath

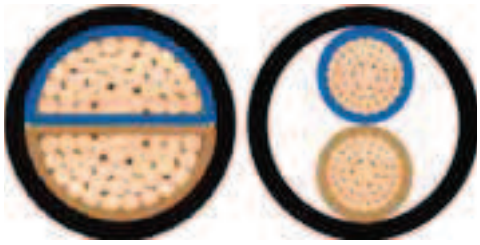
PVC-INSULATED CABLE
600/1000V, PVC INSULATED, PVC-SHEATHED UNARMOURED CABLES

1 core
CU/PVC/PVC

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	kg/km
1	1.5	1	0.8	1.4	6.0	52
1	1.5	7	0.8	1.4	6.2	55
1	2.5	1	0.8	1.4	6.4	65
1	2.5	7	0.8	1.4	6.7	68
1	4	7	1.0	1.4	7.6	95
1	6	7	1.0	1.4	8.2	120
1	10	7	1.0	1.4	9.1	169
1	16	7	1.0	1.4	10.2	236
1	25	7	1.2	1.4	11.9	350
1	35	19	1.2	1.4	13.1	455
1	50	19	1.4	1.4	14.8	595
1	70	19	1.4	1.4	16.6	813
1	95	19	1.6	1.5	19.2	1110
1	120	37	1.6	1.5	21.0	1358
1	150	37	1.8	1.6	23.0	1664
1	185	37	2.0	1.7	25.5	2075
1	240	61	2.2	1.8	29.0	2686
1	300	61	2.4	1.9	32.0	3328
1	400	61	2.6	2.0	36.0	4230
1	500	61	2.8	2.1	40.0	5285
1	630	127	2.8	2.2	44.0	6686
1	800	127	2.8	2.3	48.0	8410
1	1000	127	3.0	2.5	54.0	10545

PVC-INSULATED CABLE
600/1000V, PVC INSULATED, PVC-SHEATHED UNARMOURED CABLES

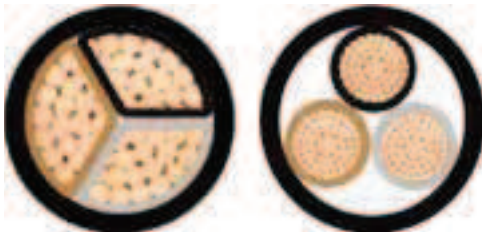
transmission of reliability & brightness



2 cores
CU/PVC/PVC

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm^2	no	mm	mm	mm	kg/km
2	1.5	7	0.8	1.8	10.2	145
2	2.5	7	0.8	1.8	11.0	180
2	4	7	1.0	1.8	12.9	255
2	6	7	1.0	1.8	14.3	285
2	10	7	1.0	1.8	16.0	395
2	16	7	1.0	1.8	18.0	590
2	25	7	1.2	1.8	21.0	710
2	35	19	1.2	1.8	19.2	930
2	50	19	1.4	1.8	21.6	1225
2	70	19	1.4	1.9	24.3	1680
2	95	19	1.6	2.0	27.8	2280
2	120	37	1.6	2.1	30.2	2805
2	150	37	1.8	2.2	33.2	3430
2	185	37	2.0	2.4	36.9	4285
2	240	61	2.2	2.5	41.5	5565
2	300	61	2.4	2.7	45.9	6965
2	400	61	2.6	2.9	51.1	9020

PVC-INSULATED CABLE
600/1000V, PVC INSULATED, PVC-SHEATHED UNARMOURED CABLES

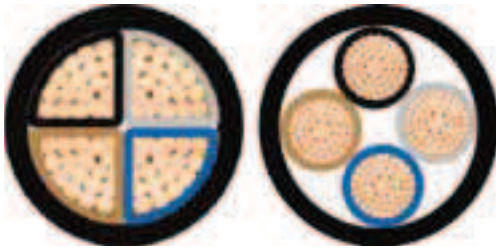


3 cores
CU/PVC/PVC

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	kg/km
3	1.5	7	0.8	1.8	10.5	165
3	2.5	7	0.8	1.8	11.5	210
3	4	7	1.0	1.8	13.5	305
3	6	7	1.0	1.8	15.2	370
3	10	7	1.0	1.8	16.9	515
3	16	7	1.0	1.8	19.2	740
3	25	7	1.2	1.8	22.5	1015
3	35	19	1.2	1.8	22.5	1330
3	50	19	1.4	1.8	25.5	1765
3	70	19	1.4	1.9	29.0	2435
3	95	19	1.6	2.1	33.0	3360
3	120	37	1.6	2.2	38.0	4140
3	150	37	1.8	2.3	43.0	5070
3	185	37	2.0	2.5	48.0	6330
3	240	61	2.2	2.6	52.0	8265
3	300	61	2.4	2.8	54.5	10355
3	400	61	2.6	3.1	60.0	13090

PVC-INSULATED CABLE
600/1000V, PVC INSULATED, PVC-SHEATHED UNARMOURED CABLES

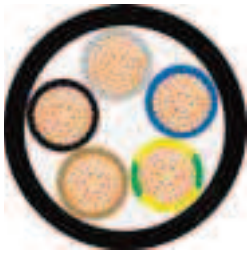
transmission of reliability & brightness



4 cores
CU/PVC/PVC

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	kg/km
4	1.5	7	0.8	1.8	11.5	200
4	2.5	7	0.8	1.8	12.5	255
4	4	7	1.0	1.8	14.6	375
4	6	7	1.0	1.8	16.6	455
4	10	7	1.0	1.8	18.6	665
4	16	7	1.0	1.8	21.0	930
4	25	7	1.2	1.8	24.0.	1325
4	35	19	1.2	1.8	24.2	1740
4	50	19	1.4	1.9	28.8	2320
4	70	19	1.4	2.0	32.7	3215
4	95	19	1.6	2.2	36.9	4400
4	120	37	1.6	2.3	40.6	5440
4	150	37	1.8	2.5	45.4	6675
4	185	37	2.0	2.6	48.9	8360
4	240	61	2.2	2.8	58.0	10870
4	300	61	2.4	3.1	62.8	13650
4	400	61	2.6	3.3	69.5	17360

PVC-INSULATED CABLE
600/1000V, PVC INSULATED, PVC-SHEATHED UNARMOURED CABLES



5 cores
CU/PVC/PVC

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	kg/km
5	1.5	7	0.8	1.8	12.3	230
5	2.5	7	0.8	1.8	13.4	300
5	4	7	1.0	1.8	15.9	438
5	6	7	1.0	1.8	17.5	569
5	10	7	1.0	1.8	20.0	820
5	16	7	1.0	1.8	22.8	1177
5	25	7	1.2	1.8	27.5	1765
5	35	19	1.2	2.0	31.1	2359
5	50	19	1.4	2.1	35.9	3288
5	70	19	1.4	2.3	41.1	4451
5	95	19	1.6	2.5	47.7	5999
5	120	37	1.6	2.6	52.4	7420
5	150	37	1.8	2.8	58.0	9224

Multi-cores
CU/PVC/PVC

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	kg/km
6	1.5	7	0.8	1.8	13.2	267
7	1.5	7	0.8	1.8	13.2	286
8	1.5	7	0.8	1.8	14.7	333
9	1.5	7	0.8	1.8	15.8	376
10	1.5	7	0.8	1.8	16.4	409
11	1.5	7	0.8	1.8	16.4	429
12	1.5	7	0.8	1.8	16.9	459
13	1.5	7	0.8	1.8	17.7	497
14	1.5	7	0.8	1.8	17.7	517
15	1.5	7	0.8	1.8	18.6	558
16	1.5	7	0.8	1.8	18.6	577
18	1.5	7	0.8	1.8	19.6	640
19	1.5	7	0.8	1.8	19.6	659
20	1.5	7	0.8	1.8	20.7	706
21	1.5	7	0.8	1.8	20.7	725
22	1.5	7	0.8	1.8	21.7	773
24	1.5	7	0.8	1.8	22.8	841
25	1.5	7	0.8	1.8	22.8	861
26	1.5	7	0.8	1.8	22.8	880
27	1.5	7	0.8	1.8	23.3	913
28	1.5	7	0.8	1.8	24.1	957
30	1.5	7	0.8	1.8	24.1	996
31	1.5	7	0.8	1.8	25.0	1043
32	1.5	7	0.8	1.8	25.0	1063

PVC-INSULATED CABLE
600/1000V, PVC INSULATED, PVC-SHEATHED UNARMOURED CABLES

Multi-cores
CU/PVC/PVC

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	kg/km
34	1.5	7	0.8	1.8	26.0	1131
35	1.5	7	0.8	1.8	26.0	1151
36	1.5	7	0.8	1.8	26.0	1170
37	1.5	7	0.8	1.8	26.0	1190
38	1.5	7	0.8	1.8	27.1	1245
40	1.5	7	0.8	1.8	27.1	1284
42	1.5	7	0.8	1.9	28.2	1364
44	1.5	7	0.8	1.9	29.4	1445
46	1.5	7	0.8	1.9	29.4	1484
48	1.5	7	0.8	1.9	29.9	1542
50	1.5	7	0.8	1.9	30.8	1615
6	2.5	7	0.8	1.8	14.5	351
7	2.5	7	0.8	1.8	14.5	380
8	2.5	7	0.8	1.8	16.1	443
9	2.5	7	0.8	1.8	17.4	500
10	2.5	7	0.8	1.8	18.1	547
11	2.5	7	0.8	1.8	18.1	576
12	2.5	7	0.8	1.8	18.7	619
13	2.5	7	0.8	1.8	19.6	671
14	2.5	7	0.8	1.8	19.6	700
15	2.5	7	0.8	1.8	20.6	756
16	2.5	7	0.8	1.8	20.6	786
18	2.5	7	0.8	1.8	21.7	873
19	2.5	7	0.8	1.8	21.7	903

Multi-cores
CU/PVC/PVC

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	kg/km
20	2.5	7	0.8	1.8	22.9	965
21	2.5	7	0.8	1.8	22.9	995
22	2.5	7	0.8	1.8	24.1	1059
24	2.5	7	0.8	1.8	25.3	1154
25	2.5	7	0.8	1.8	25.3	1183
26	2.5	7	0.8	1.8	25.3	1213
27	2.5	7	0.8	1.8	25.9	1259
28	2.5	7	0.8	1.8	26.8	1320
30	2.5	7	0.8	1.8	26.8	1379
31	2.5	7	0.8	1.8	27.9	1447
32	2.5	7	0.8	1.8	27.9	1447
34	2.5	7	0.8	1.9	29.1	1578
35	2.5	7	0.8	1.9	29.1	1607
36	2.5	7	0.8	1.9	29.1	1637
37	2.5	7	0.8	1.9	29.1	1666
38	2.5	7	0.8	1.9	30.4	1744
40	2.5	7	0.8	1.9	30.4	1803
42	2.5	7	0.8	2.0	31.7	1913
44	2.5	7	0.8	2.0	33.0	2024
46	2.5	7	0.8	2.0	33.0	2083
48	2.5	7	0.8	2.0	33.5	2167
50	2.5	7	0.8	2.1	34.5	2269
6	4.0	7	1.0	1.8	17.3	515
7	4.0	7	1.0	1.8	17.3	561

PVC-INSULATED CABLE
600/1000V, PVC INSULATED, PVC-SHEATHED UNARMOURED CABLES

Multi-cores
CU/PVC/PVC

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm^2	no	mm	mm	mm	kg/km
8	4.0	7	1.0	1.8	19.3	657
9	4.0	7	1.0	1.8	20.9	744
10	4.0	7	1.0	1.8	21.9	815
11	4.0	7	1.0	1.8	21.9	862
12	4.0	7	1.0	1.8	22.6	929
13	4.0	7	1.0	1.8	23.7	1008
14	4.0	7	1.0	1.8	23.7	1054
15	4.0	7	1.0	1.8	25.0	1140
16	4.0	7	1.0	1.8	25.0	1187
18	4.0	7	1.0	1.8	26.4	1323
19	4.0	7	1.0	1.8	26.4	1370
20	4.0	7	1.0	1.9	28.0	1472
21	4.0	7	1.0	1.9	28.0	1519
22	4.0	7	1.0	1.9	29.7	1627
24	4.0	7	1.0	2.0	31.3	1782
25	4.0	7	1.0	2.0	31.3	1829
26	4.0	7	1.0	2.0	31.3	1876
27	4.0	7	1.0	2.0	32.0	1952
28	4.0	7	1.0	2.0	33.3	2051
30	4.0	7	1.0	2.0	33.3	2145
31	4.0	7	1.0	2.1	34.7	2252
32	4.0	7	1.0	2.1	34.7	2299
34	4.0	7	1.0	2.1	36.1	2457
35	4.0	7	1.0	2.1	36.1	2504

PVC-INSULATED CABLE
600/1000V, PVC INSULATED, PVC-SHEATHED UNARMOURED CABLES

Multi-cores
CU/PVC/PVC

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	kg/km
36	4.0	7	1.0	2.1	36.1	2551
37	4.0	7	1.0	2.1	36.1	2598
38	4.0	7	1.0	2.2	37.7	2719
40	4.0	7	1.0	2.2	37.7	2812
42	4.0	7	1.0	2.2	39.4	2986
44	4.0	7	1.0	2.3	41.0	3160
46	4.0	7	1.0	2.3	41.0	3254
48	4.0	7	1.0	2.3	41.7	3385
50	4.0	7	1.0	2.3	43.0	3545
6	6.0	7	1.0	1.8	19.0	671
7	6.0	7	1.0	1.8	19.0	738
8	6.0	7	1.0	1.8	21.3	862
9	6.0	7	1.0	1.8	23.1	978
10	6.0	7	1.0	1.8	24.1	1074
6	10	7	1.0	1.8	21.8	972
7	10	7	1.0	1.8	21.8	1076
8	10	7	1.0	1.8	24.5	1258
9	10	7	1.0	1.8	26.7	1428
10	10	7	1.0	1.8	27.9	1578

PVC-INSULATED CABLE 600/1000V, PVC INSULATED, PVC-SHEATHED ARMOURED CABLES

APPLICATION

Power Cables for electricity supply are installed in open air, underground, in cable ducts, outdoor and indoors, power stations, for industry and distribution boards as well as in subscriber networks where mechanical damages are not to be expected. The cables are suitable for continuous operation at a maximum conductor temperature of 70°C.

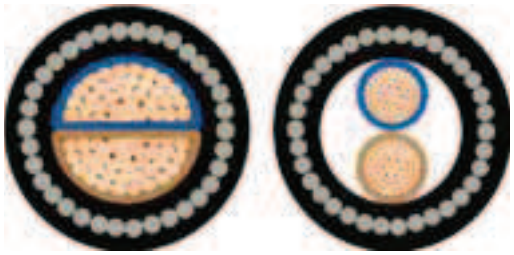
Conductor:	Circular stranded, circular compact stranded or sector shaped stranded plain annealed Copper wire acc. To BS6360 class 2
Insulation:	PVC(polyvinyl chloride) compound type TI1
Identification of cores:	1 core – Red or Black 2 cores – Brown, Blue or Red, black 3 cores – Brown, Black, Grey or Red, Yellow, Blue 4 cores – Brown, Black, Grey, Blue or Red, Yellow, Blue, Black 5 core and above – (number) 1,2,3,4,5,6..... and the number shall be black printed on white cores
Laying Up:	Cores stranded together. Where necessary, binder tapes and non-hygroscopic fillers May be applied
Bedding:	Extruded PVC compound
Colour:	Black
Armour:	Single core – consist of a single layer of non-magnetic material, such as aluminum wire Two core and above – consist of a single Layer of galvanized steel wires
Sheath:	PVC (Polyvinyl Chloride) compound type ST1
Colour:	Black

Voltage:	600/1000V
Temperature:	Maximum 70°C
Main Specification:	MS 2101, MS 2103, IEC 60502-1
Testing Voltage:	3500V
Min. Bending Radius:	20 × OD
Special Properties Upon Request:	Anti-Termite sheath Anti-Rodent sheath UV-Resistant sheath Flame Retardant sheath

1 core
CU/PVC/PVC/AWA/PVC

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Nom. Thickness of Bedding	Nom. Dia. of Armour Wire	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	mm	mm	kg/km
1	70	19	1.4	1.0	1.25	1.6	21.1	1090
1	95	19	1.6	1.0	1.25	1.6	23.4	1410
1	120	37	1.6	1.0	1.6	1.7	26.3	1790
1	150	37	1.8	1.0	1.6	1.7	28.3	2110
1	185	37	2.0	1.0	1.6	1.8	30.8	2560
1	240	61	2.2	1.0	1.6	1.9	34.1	3260
1	300	61	2.4	1.0	1.6	1.9	37.0	3970
1	400	61	2.6	1.2	2.0	2.1	42.0	5100
1	500	61	2.8	1.2	2.0	2.1	45.6	6230
1	630	127	2.8	1.2	2.0	2.2	49.7	7720
1	800	127	2.8	1.4	2.5	2.8	56.0	10108
1	1000	127	3.0	1.6	2.5	3.0	61.7	12449

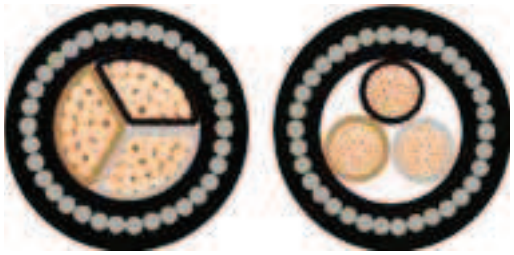
PVC-INSULATED CABLE
600/1000V, PVC INSULATED, PVC-SHEATHED ARMOURED CABLES



2 cores
CU/PVC/PVC/SWA/PVC

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Nom. Thickness of Bedding	Nom. Dia. of Armour Wire	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	mm	mm	kg/km
2	1.5	7	0.8	1.0	0.9	1.8	14.0	290
2	2.5	7	0.8	1.0	0.9	1.8	14.6	350
2	4	7	1.0	1.0	0.9	1.8	16.4	435
2	6	7	1.0	1.0	1.25	1.8	18.0	520
2	10	7	1.0	1.0	1.25	1.8	20.0	850
2	16	7	1.0	1.0	1.25	1.8	22.0	1030
2	25	7	1.2	1.0	1.6	1.8	23.5	1640
2	35	19	1.2	1.0	1.6	1.8	24.5	1735
2	50	19	1.4	1.0	1.6	1.9	27.0	2080
2	70	19	1.4	1.0	1.6	2.0	31.0	2610
2	95	19	1.6	1.2	2.0	2.2	35.0	3650
2	120	37	1.6	1.2	2.0	2.3	38.0	4280
2	150	37	1.8	1.2	2.0	2.4	41.0	5050
2	185	37	2.0	1.4	2.5	2.6	47.0	6530
2	240	61	2.2	1.4	2.5	2.8	51.8	8150
2	300	61	2.4	1.6	2.5	2.9	56.8	9850
2	400	61	2.6	1.6	2.5	3.2	61.5	11950

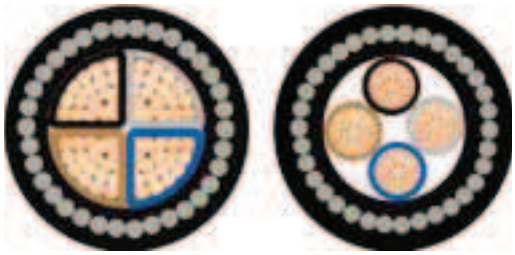
PVC-INSULATED CABLE
600/1000V, PVC INSULATED, PVC-SHEATHED ARMOURED CABLES



3 cores
CU/PVC/PVC/SWA/PVC

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Nom. Thicness of Bedding	Nom. Diameter of Armour Wire	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	mm	mm	kg/km
3	1.5	7	0.8	1.0	0.9	1.8	13.0	330
3	2.5	7	0.8	1.0	0.9	1.8	14.1	420
3	4	7	1.0	1.0	1.25	1.8	15.8	520
3	6	7	1.0	1.0	1.25	1.8	18.0	720
3	10	7	1.0	1.0	1.25	1.8	21.2	990
3	16	7	1.0	1.0	1.25	1.8	23.1	1240
3	25	7	1.2	1.0	1.6	1.8	28.2	1900
3	35	19	1.2	1.0	1.6	1.8	27.3	2220
3	50	19	1.4	1.0	1.6	1.9	30.5	2730
3	70	19	1.4	1.2	2.0	2.0	35.0	3820
3	95	19	1.6	1.2	2.0	2.1	39.3	4850
3	120	37	1.6	1.2	2.0	2.2	42.2	5780
3	150	37	1.8	1.4	2.5	2.4	47.5	7330
3	185	37	2.0	1.4	2.5	2.5	51.9	8830
3	240	61	2.2	1.6	2.5	2.6	57.8	11140
3	300	61	2.4	1.6	2.5	2.8	63.2	13500
3	400	61	2.6	1.6	3.15	3.0	69.6	16750

PVC-INSULATED CABLE
600/1000V, PVC INSULATED, PVC-SHEATHED ARMOURED CABLES



4 cores
CU/PVC/PVC/SWA/PVC

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Nom. Thicness of Bedding	Nom. Diameter of Armour Wire	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	mm	mm	kg/km
4	1.5	7	0.8	1.0	0.9	1.8	13.8	380
4	2.5	7	0.7	1.0	0.9	1.8	15.0	465
4	4	7	0.8	1.0	1.25	1.8	17.8	710
4	6	7	0.8	1.0	1.25	1.8	19.2	835
4	10	7	1.0	1.0	1.25	1.8	22.8	1175
4	16	7	1.0	1.0	1.6	1.8	26.3	1730
4	25	7	1.2	1.0	1.6	1.8	30.7	2350
4	35 (S)	19	1.2	1.0	1.6	1.9	30.5	2710
4	50 (S)	19	1.4	1.2	2.0	2.0	35.4	3850
4	70 (S)	19	1.4	1.2	2.0	2.1	39.2	4910
4	95 (S)	19	1.6	1.2	2.0	2.2	44.3	6370
4	120 (S)	37	1.6	1.4	2.5	2.4	49.3	8075
4	150 (S)	37	1.8	1.4	2.5	2.5	53.6	9540
4	185 (S)	37	2.0	1.6	2.5	2.6	59.0	11640
4	240 (S)	61	2.2	1.6	2.5	2.8	65.7	14650
4	300 (S)	61	2.4	1.6	2.5	3.0	72.0	17730
4	400 (S)	61	2.6	1.8	3.15	4.0	92.5	25248

PVC-INSULATED CABLE
600/1000V, PVC INSULATED, PVC-SHEATHED ARMOURED CABLES

transmission of reliability & brightness

Multi-cores
CU/PVC/PVC/SWA/PVC

No. of cores	Nominal cross-ectional area of conductor	Number of wires	Thickness of insulation	Nom. Thickness of Bedding	Nom. Diameter of Armour Wire	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	mm	mm	kg/km
6	1.5	7	0.8	1.0	1.25	1.8	17.7	86
7	1.5	7	0.8	1.0	1.25	1.8	17.7	101
8	1.5	7	0.8	1.0	1.25	1.8	19.2	115
9	1.5	7	0.8	1.0	1.25	1.8	20.3	130
10	1.5	7	0.8	1.0	1.25	1.8	20.9	144
11	1.5	7	0.8	1.0	1.25	1.8	20.9	158
12	1.5	7	0.8	1.0	1.6	1.8	22.1	1112
13	1.5	7	0.8	1.0	1.6	1.8	22.9	1178
14	1.5	7	0.8	1.0	1.6	1.8	22.9	1198
15	1.5	7	0.8	1.0	1.6	1.8	23.8	1273
16	1.5	7	0.8	1.0	1.6	1.8	23.8	1292
18	1.5	7	0.8	1.0	1.6	1.8	24.8	1390
19	1.5	7	0.8	1.0	1.6	1.8	24.8	1409
20	1.5	7	0.8	1.0	1.6	1.8	25.8	1494
21	1.5	7	0.8	1.0	1.6	1.8	25.9	1514
22	1.5	7	0.8	1.0	1.6	1.8	27.0	1604
24	1.5	7	0.8	1.0	1.6	1.9	28.1	1715
25	1.5	7	0.8	1.0	1.6	1.9	28.1	1735

PVC-INSULATED CABLE 600/1000V, PVC INSULATED, PVC-SHEATHED ARMOURED CABLES

Multi-cores
CU/PVC/PVC/SWA/PVC

No. of cores	Nominal cross-ectional area of conductor	Number of wires	Thickness of insulation	Nom. Thickness of Bedding	Nom. Diameter of Armour Wire	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	mm	mm	kg/km
26	1.5	7	0.8	1.0	1.6	1.9	28.1	1755
27	1.5	7	0.8	1.0	1.6	1.9	28.6	1808
28	1.5	7	0.8	1.0	1.6	1.9	29.5	1886
30	1.5	7	0.8	1.0	1.6	1.9	29.5	1925
31	1.5	7	0.8	1.0	1.6	1.9	30.5	2011
32	1.5	7	0.8	1.0	1.6	1.9	30.5	2031
34	1.5	7	0.8	1.0	1.6	2.0	31.5	2140
35	1.5	7	0.8	1.0	1.6	2.0	31.5	2160
36	1.5	7	0.8	1.0	1.6	2.0	31.5	2179
37	1.5	7	0.8	1.0	1.6	2.0	31.5	2199
38	1.5	7	0.8	1.0	2.0	2.0	33.5	2539
40	1.5	7	0.8	1.0	2.0	2.0	33.5	2578
42	1.5	7	0.8	1.0	2.0	2.0	34.7	2708
44	1.5	7	0.8	1.2	2.0	2.1	36.2	2888
46	1.5	7	0.8	1.2	2.0	2.1	36.2	2907
48	1.5	7	0.8	1.2	2.0	2.1	36.7	3008
50	1.5	7	0.8	1.2	2.0	2.2	37.6	3121

Multi-cores
CU/PVC/PVC/SWA/PVC

No. of cores	Nominal cross-ectional area of conductor	Number of wires	Thickness of insulation	Nom. Thickness of Bedding	Nom. Diameter of Armour Wire	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	mm	mm	kg/km
6	2.5	7	0.8	1.0	1.25	1.8	19.0	799
7	2.5	7	0.8	1.0	1.25	1.8	20.6	828
8	2.5	7	0.8	1.0	1.25	1.8	22.6	939
9	2.5	7	0.8	1.0	1.6	1.8	23.3	1169
10	2.5	7	0.8	1.0	1.6	1.8	23.3	1241
11	2.5	7	0.8	1.0	1.6	1.8	23.3	1271
12	2.5	7	0.8	1.0	1.6	1.8	23.9	1335
13	2.5	7	0.8	1.0	1.6	1.8	24.8	1420
14	2.5	7	0.8	1.0	1.6	1.8	24.8	1449
15	2.5	7	0.8	1.0	1.6	1.8	25.8	1543
16	2.5	7	0.8	1.0	1.6	1.8	25.8	1573
18	2.5	7	0.8	1.0	1.6	1.8	26.9	1702
19	2.5	7	0.8	1.0	1.6	1.8	26.9	1732
20	2.5	7	0.8	1.0	1.6	1.9	28.2	1843
21	2.5	7	0.8	1.0	1.6	1.9	28.2	1873
22	2.5	7	0.8	1.0	1.6	1.9	29.5	1989
24	2.5	7	0.8	1.0	1.6	1.9	29.5	2134
25	2.5	7	0.8	1.0	1.6	1.9	30.8	2164

PVC-INSULATED CABLE
600/1000V, PVC INSULATED, PVC-SHEATHED ARMOURED CABLES

Multi-cores
CU/PVC/PVC/SWA/PVC

No. of cores	Nominal cross-ectional area of conductor	Number of wires	Thickness of insulation	Nom. Thickness of Bedding	Nom. Diameter of Armour Wire	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	mm	mm	kg/km
26	2.5	7	0.8	1.0	1.6	1.9	30.8	2193
27	2.5	7	0.8	1.0	1.6	2.0	31.4	2263
28	2.5	7	0.8	1.0	2.0	2.0	33.2	2602
30	2.5	7	0.8	1.0	2.0	2.0	33.2	2661
31	2.5	7	0.8	1.0	2.0	2.0	34.4	2778
32	2.5	7	0.8	1.0	2.0	2.0	34.4	2808
34	2.5	7	0.8	1.2	2.0	2.1	35.9	3009
35	2.5	7	0.8	1.2	2.0	2.1	35.9	3039
36	2.5	7	0.8	1.2	2.0	2.1	35.9	3068
37	2.5	7	0.8	1.2	2.0	2.1	35.9	3098
38	2.5	7	0.8	1.2	2.0	2.2	37.2	3232
40	2.5	7	0.8	1.2	2.0	2.2	37.2	3291
42	2.5	7	0.8	1.2	2.0	2.2	38.5	3460
44	2.5	7	0.8	1.2	2.0	2.2	39.8	3628
46	2.5	7	0.8	1.2	2.0	2.2	39.8	3687
48	2.5	7	0.8	1.2	2.0	2.3	40.4	3796
50	2.5	7	0.8	1.2	2.0	2.3	41.4	3943

Multi-cores
CU/PVC/PVC/SWA/PVC

No. of cores	Nominal cross-ectional area of conductor	Number of wires	Thickness of insulation	Nom. Thickness of Bedding	Nom. Diameter of Armour Wire	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	mm	mm	kg/km
6	4.0	7	1.0	1.0	1.6	1.8	22.5	1181
7	4.0	7	1.0	1.0	1.6	1.8	22.5	1227
8	4.0	7	1.0	1.0	1.6	1.8	24.5	1397
9	4.0	7	1.0	1.0	1.6	1.8	26.1	1543
10	4.0	7	1.0	1.0	1.6	1.8	27.1	1650
11	4.0	7	1.0	1.0	1.6	1.8	27.1	1697
12	4.0	7	1.0	1.0	1.6	1.8	27.9	1794
13	4.0	7	1.0	1.0	1.6	1.9	29.1	1921
14	4.0	7	1.0	1.0	1.6	1.9	29.1	1967
15	4.0	7	1.0	1.0	1.6	1.9	30.5	2109
16	4.0	7	1.0	1.0	1.6	1.9	30.5	2156
18	4.0	7	1.0	1.0	1.6	2.0	32.0	2350
19	4.0	7	1.0	1.0	1.6	2.0	32.0	2397
20	4.0	7	1.0	1.0	2.0	2.1	34.4	2806
21	4.0	7	1.0	1.2	2.0	2.1	34.4	2853
22	4.0	7	1.0	1.2	2.0	2.1	36.5	3083
24	4.0	7	1.0	1.2	2.0	2.2	38.1	3311
25	4.0	7	1.0	1.2	2.0	2.2	38.1	3357

PVC-INSULATED CABLE 600/1000V, PVC INSULATED, PVC-SHEATHED ARMOURED CABLES

Multi-cores
CU/PVC/PVC/SWA/PVC

No. of cores	Nominal cross-ectional area of conductor	Number of wires	Thickness of insulation	Nom. Thickness of Bedding	Nom. Diameter of Armour Wire	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	mm	mm	kg/km
26	4.0	7	1.0	1.2	2.0	2.2	38.1	3404
27	4.0	7	1.0	1.2	2.0	2.2	38.8	3513
28	4.0	7	1.0	1.2	2.0	2.2	40.1	3668
30	4.0	7	1.0	1.2	2.0	2.2	40.1	3762
31	4.0	7	1.0	1.2	2.0	2.3	41.5	3932
32	4.0	7	1.0	1.2	2.0	2.3	41.5	3979
34	4.0	7	1.0	1.2	2.0	2.3	43.0	4203
35	4.0	7	1.0	1.2	2.0	2.3	43.0	4249
36	4.0	7	1.0	1.2	2.0	2.3	43.0	4296
37	4.0	7	1.0	1.2	2.0	2.3	43.0	4343
38	4.0	7	1.0	1.2	2.5	2.4	45.7	4953
40	4.0	7	1.0	1.2	2.5	2.4	45.7	5047
42	4.0	7	1.0	1.2	2.5	2.5	47.3	5263
44	4.0	7	1.0	1.4	2.5	2.5	49.3	5638
46	4.0	7	1.0	1.4	2.5	2.5	49.3	5732
48	4.0	7	1.0	1.4	2.5	2.6	50.1	5903
50	4.0	7	1.0	1.4	2.5	2.6	51.3	6134

Multi-cores
CU/PVC/PVC/SWA/PVC

No. of cores	Nominal cross-ectional area of conductor	Number of wires	Thickness of insulation	Nom. Thickness of Bedding	Nom. Diameter of Armour Wire	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	mm	mm	kg/km
6	6	7	1.0	1.0	1.6	1.8	24.2	1400
7	6	7	1.0	1.0	1.6	1.8	24.2	1466
8	6	7	1.0	1.0	1.6	1.8	26.5	1675
9	6	7	1.0	1.0	1.6	1.9	28.4	1865
10	6	7	1.0	1.0	1.6	1.9	29.5	2004
6	10	7	1.0	1.0	1.6	1.8	27.0	1805
7	10	7	1.0	1.0	1.6	1.8	27.0	1909
8	10	7	1.0	1.0	1.6	1.9	30.0	2205
9	10	7	1.0	1.0	2.0	2.0	33.1	2703
10	10	7	1.0	1.0	2.0	2.1	34.4	2909

XLPE-INSULATED CABLE
600/1000V, XLPE INSULATED, PVC-SHEATHED UNARMOURED CABLES

APPLICATION

Power Cables for electricity supply are installed in open air, underground, in cable ducts, outdoor and indoors, power stations, for industry and distribution boards as well as in subscriber networks where mechanical damages are not to be expected. The cables are suitable for continuous operation at a maximum conductor temperature of 90°C.

Conductor :	Circular stranded, circular compact stranded or sector shaped stranded plain annealed wire acc. To IEC 60228 class 2
Insulation :	XLPE (Cross-linked Polyethylene)
Identification of cores:	1 core – Red or Black 2 cores – Brown, Blue or Red, black 3 cores – Brown, Black, Grey or Red, Yellow , Blue 4 cores – Brown, Black, Grey, Blue or Red, Yellow, Blue, Black 5 core and above – (number) 1,2,3,4,5,6..... and the number shall be black printed on white cores
Laying Up:	Cores stranded together. Where necessary, binder tapes and non-hygroscopic fillers may be applied
Sheath :	PVC (Polyvinyl Chloride) compound type ST2
Colour:	Black

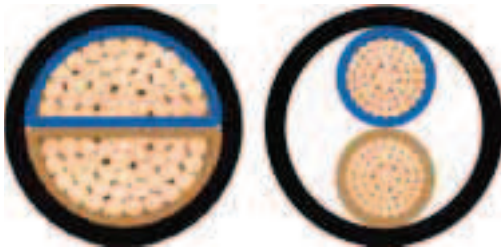
Voltage :	600/1000V
Temperature :	Maximum 90°C
Main Specification :	MS 2104, MS 2106, IEC 60502-1
Testing Voltage :	3500V
Min. Bending Radius :	15 × Overall Diameter
Special Properties Upon Request :	Anti-Termite sheath Anti-Rodent sheath UV-Resistant sheath Flame Retardant sheath

XLPE-INSULATED CABLE
600/1000V, XLPE INSULATED, PVC-SHEATHED UNARMOURED CABLES

1 core
CU/XLPE/PVC

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ²	no	mm	mm	mm	kg/km
1	1.5	7	0.7	1.4	6.0	50
1	2.5	7	0.7	1.4	6.5	60
1	4	7	0.7	1.4	7.0	80
1	6	7	0.7	1.4	7.5	105
1	10	7	0.7	1.4	8.5	150
1	16	7	0.7	1.4	9.7	210
1	25	7	0.9	1.4	11.3	310
1	35	19	0.9	1.4	12.5	415
1	50	19	1.0	1.4	13.8	540
1	70	19	1.1	1.4	15.7	750
1	95	19	1.1	1.5	18.0	1025
1	120	37	1.2	1.5	19.6	1265
1	150	37	1.4	1.6	22.0	1575
1	185	37	1.6	1.6	24.0	1885
1	240	61	1.7	1.7	27.0	2560
1	300	61	1.8	1.8	30.0	3175
1	400	61	2.0	1.9	33.5	4050
1	500	61	2.2	2.0	37.5	5090
1	630	127	2.4	2.2	42.2	6550
1	800	127	2.6	2.3	47.0	8290
1	1000	127	2.8	2.4	52.0	10455

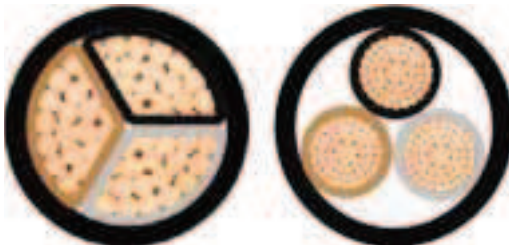
XLPE-INSULATED CABLE
600/1000V, XLPE INSULATED, PVC-SHEATHED UNARMOURED CABLES



2 cores
CU/XLPE/PVC

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	kg/km
2	1.5	7	0.7	1.8	9.8	125
2	2.5	7	0.7	1.8	10.6	160
2	4	7	0.7	1.8	11.6	205
2	6	7	0.7	1.8	13.3	260
2	10	7	0.7	1.8	14.5	375
2	16	7	0.7	1.8	16.5	515
2	25	7	0.9	1.8	17.6	680
2	35	19	0.9	1.8	18.5	850
2	50	19	1.0	1.8	19.9	1125
2	70	19	1.1	1.8	21.0	1580
2	95	19	1.1	1.9	24.5	2125
2	120	37	1.2	2.0	29.0	2665
2	150	37	1.4	2.2	31.5	3250
2	185	37	1.6	2.3	34.9	4080
2	240	61	1.7	2.5	39.1	5130
2	300	61	1.8	2.6	43.1	6310
2	400	61	2.0	2.9	48.3	8130

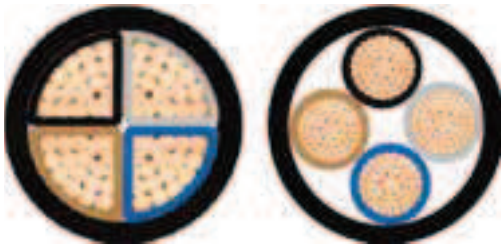
XLPE-INSULATED CABLE
600/1000V, XLPE INSULATED, PVC-SHEATHED UNARMOURED CABLES



3 cores
CU/XLPE/PVC

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	kg/km
3	1.5	7	0.7	1.8	10.6	145
3	2.5	7	0.7	1.8	11.6	185
3	4	7	0.7	1.8	12.8	250
3	6	7	0.7	1.8	14.0	310
3	10	7	0.7	1.8	16.0	460
3	16	7	0.7	1.8	17.8	640
3	25	7	0.9	1.8	22.0	920
3	35	19	0.9	1.8	21.0	1220
3	50	19	1.0	1.8	24.0	1585
3	70	19	1.1	1.9	27.5	2250
3	95	19	1.1	2.0	31.0	3075
3	120	37	1.2	2.1	34.0	3885
3	150	37	1.4	2.3	38.0	4750
3	185	37	1.6	2.4	42.0	5925
3	240	61	1.7	2.6	47.0	7840
3	300	61	1.8	2.8	51.0	9760
3	400	61	2.0	3.0	57.5	11985

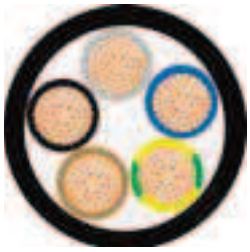
XLPE-INSULATED CABLE
600/1000V, XLPE INSULATED, PVC-SHEATHED UNARMOURED CABLES



4 cores
CU/XLPE/PVC

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm^2	no	mm	mm	mm	kg/km
4	1.5	7	0.7	1.8	11.0	170
4	2.5	7	0.7	1.8	11.8	225
4	4	7	0.7	1.8	13.0	305
4	6	7	0.7	1.8	15.0	385
4	10	7	0.7	1.8	17.0	580
4	16	7	0.7	1.8	19.5	855
4	25	7	0.9	1.8	22.9	1300
4	35 (S)	19	0.9	1.8	24.0	1635
4	50 (S)	19	1.0	1.9	26.5	2175
4	70 (S)	19	1.1	2.0	30.0	3070
4	95 (S)	19	1.1	2.1	34.5	4150
4	120 (S)	37	1.2	2.3	38.5	5210
4	150 (S)	37	1.4	2.4	42.0	6405
4	185 (S)	37	1.6	2.6	47.9	8010
4	240 (S)	61	1.7	2.8	54.0	10500
4	300 (S)	61	1.8	3.0	59.0	13070
4	400 (S)	61	2.0	3.3	67.0	16120

XLPE-INSULATED CABLE
600/1000V, XLPE INSULATED, PVC-SHEATHED UNARMOURED CABLES



5 cores
CU/XLPE/PVC

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm^2	no	mm	mm	mm	kg/km
5	1.5	7	0.7	1.8	11.7	200
5	2.5	7	0.7	1.8	12.9	266
5	4	7	0.7	1.8	14.3	362
5	6	7	0.7	1.8	15.9	484
5	10	7	0.7	1.8	18.4	720
5	16	7	0.7	1.8	21.2	1060
5	25	7	0.9	1.8	25.8	1604
5	35	19	0.9	1.9	29.4	2169
5	50	19	1.0	2.0	33.5	3018
5	70	19	1.1	2.2	39.3	4172
5	95	19	1.1	2.4	44.8	5560
5	120	37	1.2	2.6	50.0	6979
5	150	37	1.4	2.8	55.6	8701
5	185	37	1.6	3.0	62.3	10741
5	240	61	1.7	3.2	70.4	13827

XLPE-INSULATED CABLE
600/1000V, XLPE INSULATED, PVC-SHEATHED UNARMOURED CABLES

Multi-cores
CU/XLPE/PVC

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	kg/km
6	1.5	7	0.7	1.8	12.6	231
7	1.5	7	0.7	1.8	12.6	247
8	1.5	7	0.7	1.8	14.0	287
9	1.5	7	0.7	1.8	15.0	323
10	1.5	7	0.7	1.8	15.6	351
11	1.5	7	0.7	1.8	15.6	367
12	1.5	7	0.7	1.8	16.1	393
13	1.5	7	0.7	1.8	16.8	424
14	1.5	7	0.7	1.8	16.8	440
15	1.5	7	0.7	1.8	17.7	475
16	1.5	7	0.7	1.8	17.7	491
17	1.5	7	0.7	1.8	18.6	527
18	1.5	7	0.7	1.8	18.6	543
19	1.5	7	0.7	1.8	18.6	559
20	1.5	7	0.7	1.8	19.6	598
21	1.5	7	0.7	1.8	19.6	614
22	1.5	7	0.7	1.8	20.6	654
23	1.5	7	0.7	1.8	20.6	670
24	1.5	7	0.7	1.8	21.6	711
25	1.5	7	0.7	1.8	21.6	727

Multi-cores
CU/XLPE/PVC

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	kg/km
26	1.5	7	0.7	1.8	21.6	743
27	1.5	7	0.7	1.8	22.0	770
28	1.5	7	0.7	1.8	22.8	807
29	1.5	7	0.7	1.8	22.8	823
30	1.5	7	0.7	1.8	22.8	839
31	1.5	7	0.7	1.8	23.7	878
32	1.5	7	0.7	1.8	23.7	894
33	1.5	7	0.7	1.8	23.7	910
34	1.5	7	0.7	1.8	24.6	951
35	1.5	7	0.7	1.8	24.6	967
36	1.5	7	0.7	1.8	24.6	983
37	1.5	7	0.7	1.8	24.6	999
38	1.5	7	0.7	1.8	25.6	1043
39	1.5	7	0.7	1.8	25.6	1059
40	1.5	7	0.7	1.8	25.6	1075
42	1.5	7	0.7	1.8	26.6	1137
44	1.5	7	0.7	1.8	27.6	1204
46	1.5	7	0.7	1.8	27.6	1236
48	1.5	7	0.7	1.9	28.1	1285
50	1.5	7	0.7	1.9	29.0	1345

XLPE-INSULATED CABLE
600/1000V, XLPE INSULATED, PVC-SHEATHED UNARMOURED CABLES

Multi-cores
CU/XLPE/PVC

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm^2	no	mm	mm	mm	kg/km
6	2.5	7	0.7	1.8	13.9	310
7	2.5	7	0.7	1.8	13.9	336
8	2.5	7	0.7	1.8	15.4	390
9	2.5	7	0.7	1.8	16.6	440
10	2.5	7	0.7	1.8	17.3	480
11	2.5	7	0.7	1.8	17.3	505
12	2.5	7	0.7	1.8	17.8	543
13	2.5	7	0.7	1.8	18.7	587
14	2.5	7	0.7	1.8	18.7	613
15	2.5	7	0.7	1.8	19.7	661
16	2.5	7	0.7	1.8	19.7	686
17	2.5	7	0.7	1.8	20.7	736
18	2.5	7	0.7	1.8	20.7	762
19	2.5	7	0.7	1.8	20.7	787
20	2.5	7	0.7	1.8	21.8	841
21	2.5	7	0.7	1.8	21.8	866
22	2.5	7	0.7	1.8	23.0	922
23	2.5	7	0.7	1.8	23.0	947
24	2.5	7	0.7	1.8	24.1	1003
25	2.5	7	0.7	1.8	24.1	1029

Multi-cores
CU/XLPE/PVC

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	kg/km
26	2.5	7	0.7	1.8	24.1	1054
27	2.5	7	0.7	1.8	24.6	1094
28	2.5	7	0.7	1.8	25.5	1144
29	2.5	7	0.7	1.8	25.5	1170
30	2.5	7	0.7	1.8	25.5	1195
31	2.5	7	0.7	1.8	26.5	1250
32	2.5	7	0.7	1.8	26.5	1275
33	2.5	7	0.7	1.8	26.5	1301
34	2.5	7	0.7	1.8	27.6	1362
35	2.5	7	0.7	1.8	27.6	1388
36	2.5	7	0.7	1.8	27.6	1413
37	2.5	7	0.7	1.8	27.6	1439
38	2.5	7	0.7	1.9	28.8	1505
39	2.5	7	0.7	1.9	28.8	1530
40	2.5	7	0.7	1.9	28.8	1556
42	2.5	7	0.7	1.9	30.0	1651
44	2.5	7	0.7	2.0	31.2	1746
46	2.5	7	0.7	2.0	31.2	1796
48	2.5	7	0.7	2.0	31.8	1868
50	2.5	7	0.7	2.0	32.7	1955

XLPE-INSULATED CABLE
600/1000V, XLPE INSULATED, PVC-SHEATHED UNARMOURED CABLES

Multi-cores
CU/XLPE/PVC

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	kg/km
6	4	7	0.7	1.8	15.5	425
7	4	7	0.7	1.8	15.5	464
8	4	7	0.7	1.8	17.3	540
9	4	7	0.7	1.8	18.7	610
10	4	7	0.7	1.8	19.5	667
11	4	7	0.7	1.8	19.5	707
12	4	7	0.7	1.8	20.1	761
13	4	7	0.7	1.8	21.1	825
14	4	7	0.7	1.8	21.1	864
15	4	7	0.7	1.8	22.2	932
16	4	7	0.7	1.8	22.2	972
17	4	7	0.7	1.8	23.4	1043
18	4	7	0.7	1.8	23.4	1082
19	4	7	0.7	1.8	23.4	1121
20	4	7	0.7	1.8	24.7	1197
21	4	7	0.7	1.8	24.7	1236
22	4	7	0.7	1.8	26.0	1314
23	4	7	0.7	1.8	26.0	1353
24	4	7	0.7	1.8	27.4	1436
25	4	7	0.7	1.8	27.4	1475

XLPE-INSULATED CABLE
600/1000V, XLPE INSULATED, PVC-SHEATHED UNARMOURED CABLES

Multi-cores
CU/XLPE/PVC

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	kg/km
26	4	7	0.7	1.8	27.4	1515
27	4	7	0.7	1.9	28.0	1575
28	4	7	0.7	1.9	29.1	1652
29	4	7	0.7	1.9	29.1	1692
30	4	7	0.7	1.9	29.1	1731
31	4	7	0.7	1.9	30.4	1814
32	4	7	0.7	1.9	30.4	1854
33	4	7	0.7	1.9	30.4	1893
34	4	7	0.7	2.0	31.6	1979
35	4	7	0.7	2.0	31.6	2019
36	4	7	0.7	2.0	31.6	2058
37	4	7	0.7	2.0	31.6	2098
38	4	7	0.7	2.0	33.0	2191
39	4	7	0.7	2.0	33.0	2230
40	4	7	0.7	2.0	33.0	2270
42	4	7	0.7	2.1	34.5	2406
44	4	7	0.7	2.1	35.9	2543
46	4	7	0.7	2.1	35.9	2622
48	4	7	0.7	2.1	36.5	2727
50	4	7	0.7	2.2	37.6	2854

XLPE-INSULATED CABLE
600/1000V, XLPE INSULATED, PVC-SHEATHED UNARMOURED CABLES

Multi-cores
CU/XLPE/PVC

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	kg/km
6	6	7	0.7	1.8	17.2	570
7	6	7	0.7	1.8	17.2	628
8	6	7	0.7	1.8	19.2	731
9	6	7	0.7	1.8	20.8	827
10	6	7	0.7	1.8	21.7	907
6	10	7	0.7	1.8	20.0	852
7	10	7	0.7	1.8	20.0	947
8	10	7	0.7	1.8	22.5	1102
9	10	7	0.7	1.8	24.4	1248
10	10	7	0.7	1.8	25.5	1373

XLPE-INSULATED CABLE 600/1000V, XLPE INSULATED, PVC-SHEATHED ARMOURED CABLES

transmission of reliability & brightness

APPLICATION

Power Cables for electricity supply are installed in open air, underground, in cable ducts, outdoor and indoors, power stations, for industry and distribution boards as well as in subscriber networks where mechanical damages are not to be expected. The cables are suitable for continuous operation at a maximum conductor temperature of 90°C.

Conductor:	Circular stranded, circular compact stranded or sector shaped stranded plain annealed wire acc. To IEC 60228 class 2
Insulation:	XLPE (Cross-linked Polyethylene)
Identification of cores:	Single core – Black or Natural 2 cores – Brown, Blue or Red, black 3 cores – Brown, Black, Grey or Red, Yellow, Blue 4 cores – Brown, Black, Grey, Blue or Red, Yellow, Blue, Black 5 core and above – (number) 1,2,3,4,5,6..... and the number shall be black printed on white cores
Laying Up:	Cores stranded together. Where necessary, binder tapes and non-hygroscopic fillers may be applied
Bedding:	Extruded Black PVC (polyvinyl chloride) Compound or lapped PVC tapes
Colour:	Black
Armour:	Single Core – consist of a single layer of non-Magnetic material, such as aluminum wire Two core and above – consist of a single Layer of galvanized steel wires
Sheath:	PVC (Polyvinyl Chloride) compound type ST2
Colour:	Black

Voltage:	600/1000V
Temperature:	Maximum 90°C
Main Specification:	MS 2105, MS 2107, IEC 60502-1
Testing Voltage:	3500V
Min. Bending Radius:	20 x Overall Diameter
Special Properties Upon Request:	Anti-Termite sheath Anti-Rodent sheath UV-Resistant sheath Flame Retardant sheath

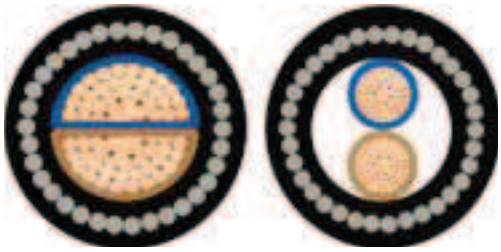
XLPE-INSULATED CABLE
600/1000V, XLPE INSULATED, PVC-SHEATHED ARMOURED CABLES

1 core
CU/XLPE/PVC/AWA/PVC

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Nom. Thick. of Bedding	Nom. Dia. of Armour Wire	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	mm	mm	kg/km
1	10	7	0.7	1.0	1.6	1.8	14.3	350
1	16	7	0.7	1.0	1.6	1.8	15.3	437
1	25	7	0.9	1.0	1.6	1.8	17.0	574
1	35	19	0.9	1.0	1.6	1.8	18.3	705
1	50	19	1.0	1.0	1.25	1.8	19.5	780
1	70	19	1.1	1.0	1.25	1.8	20.5	975
1	95	19	1.1	1.0	1.6	1.8	22.5	1270
1	120	37	1.2	1.0	1.6	1.8	24.5	1600
1	150	37	1.4	1.0	1.6	1.8	27.5	1910
1	185	37	1.6	1.0	1.6	1.8	30.5	2330
1	240	61	1.7	1.0	1.6	1.9	33.0	2985
1	300	61	1.8	1.0	1.6	1.9	36.0	3700
1	400	61	2.0	1.2	2.0	2.1	40.5	4790
1	500	61	2.2	1.2	2.0	2.2	44.5	5885
1	630	127	2.4	1.2	2.0	2.3	49.0	7480
1	800	127	2.6	1.4	2.5	2.5	55.5	9400
1	1000	127	2.8	1.4	2.5	2.7	61.0	11625

XLPE-INSULATED CABLE
600/1000V, XLPE INSULATED, PVC-SHEATHED UNARMOURED CABLES

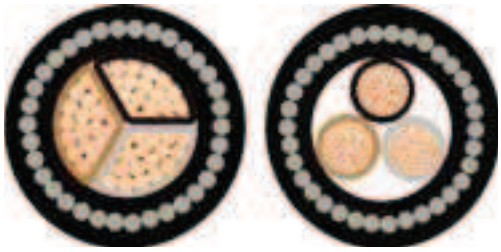
transmission of reliability & brightness



2 cores
CU/XLPE/PVC/SWA/PVC

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Nom. Thick. of Bedding	Nom. Dia. of Armour Wire	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	mm	mm	kg/km
2	1.5	7	0.7	1.0	0.9	1.8	13.5	340
2	2.5	7	0.7	1.0	0.9	1.8	14.4	390
2	4	7	0.7	1.0	0.9	1.8	15.4	460
2	6	7	0.7	1.0	0.9	1.8	17.0	535
2	10	7	0.7	1.0	1.25	1.8	19.5	800
2	16	7	0.7	1.0	1.25	1.8	21.0	865
2	25	7	0.9	1.0	1.6	1.8	22.5	1280
2	35	19	0.9	1.0	1.6	1.7	23.0	1525
2	50	19	1.0	1.0	1.6	1.8	26.0	1800
2	70	19	1.1	1.0	1.6	2.0	29.0	2455
2	95	19	1.1	1.2	2.0	2.1	32.3	3310
2	120	37	1.2	1.2	2.0	2.2	36.0	4010
2	150	37	1.4	1.2	2.0	2.3	39.5	4735
2	185	37	1.6	1.4	2.5	2.5	44.0	6120
2	240	61	1.7	1.4	2.5	2.7	48.0	7650
2	300	61	1.8	1.6	2.5	2.8	53.0	9120
2	400	61	2.0	1.6	2.5	3.1	58.0	11475

XLPE-INSULATED CABLE
600/1000V, XLPE INSULATED, PVC-SHEATHED ARMOURED CABLES



3 cores
CU/XLPE/PVC/SWA/PVC

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Nom. Thick. of Bedding	Nom. Dia. of Armour Wire	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	mm	mm	kg/km
3	1.5	7	0.7	1.0	0.9	1.8	14.3	370
3	2.5	7	0.7	1.0	0.9	1.8	15.0	435
3	4	7	0.7	1.0	0.9	1.8	16.1	520
3	6	7	0.7	1.0	0.9	1.8	18.0	610
3	10	7	0.7	1.0	1.25	1.8	20.0	910
3	16	7	0.7	1.0	1.25	1.8	22.0	1030
3	25	7	0.9	1.0	1.6	1.8	25.0	1650
3	35	19	0.9	1.0	1.6	1.8	26.0	2015
3	50	19	1.0	1.0	1.6	1.8	29.0	2500
3	70	19	1.1	1.2	2.0	2.0	34.0	3535
3	95	19	1.1	1.2	2.0	2.2	37.5	4550
3	120	37	1.2	1.2	2.0	2.3	40.0	5510
3	150	37	1.4	1.4	2.5	2.5	46.0	6990
3	185	37	1.6	1.4	2.5	2.6	49.0	8460
3	240	61	1.7	1.6	2.5	2.8	56.0	10610
3	300	61	1.8	1.6	2.5	3.0	60.0	12900
3	400	61	2.0	1.6	2.5	3.2	66.0	16520

XLPE-INSULATED CABLE
600/1000V, XLPE INSULATED, PVC-SHEATHED UNARMOURED CABLES

transmission of reliability & brightness

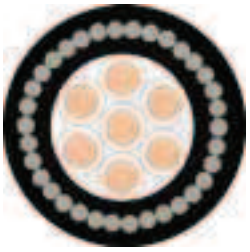
4 cores
CU/XLPE/PVC/SWA/PVC

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Nom. Thick. of Bedding	Nom. Dia. of Armour Wire	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	mm	mm	kg/km
4	1.5	7	0.7	1.0	0.9	1.8	15.0	415
4	2.5	7	0.7	1.0	0.9	1.8	17.0	490
4	4	7	0.7	1.0	0.9	1.8	18.0	600
4	6	7	0.7	1.0	1.25	1.8	19.5	815
4	10	7	0.7	1.0	1.25	1.8	21.5	1070
4	16	7	0.7	1.0	1.6	1.8	24.5	1520
4	25	7	0.9	1.0	1.6	1.8	27.0	2035
4	35 (S)	19	0.9	1.0	1.6	1.9	29.0	2525
4	50 (S)	19	1.0	1.0	1.6	2.0	32.0	3170
4	70 (S)	19	1.1	1.2	2.0	2.2	37.5	4550
4	95 (S)	19	1.1	1.2	2.0	2.3	41.0	5800
4	120 (S)	37	1.2	1.4	2.5	2.5	46.0	7480
4	150 (S)	37	1.4	1.4	2.5	2.6	51.0	8925
4	185 (S)	37	1.6	1.4	2.5	2.8	56.0	10800
4	240 (S)	61	1.7	1.6	2.5	3.0	63.0	13800
4	300 (S)	61	1.8	1.6	2.5	3.2	68.0	16800
4	400 (S)	61	2.0	1.8	3.15	3.5	77.0	22230

XLPE-INSULATED CABLE
600/1000V, XLPE INSULATED, PVC-SHEATHED UNARMOURED CABLES

5 cores
CU/XLPE/PVC/SWA/PVC

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Nom. Thick. of Bedding	Nom. Dia. of Armour Wire	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	mm	mm	kg/km
5	1.5	7	0.7	1.0	1.25	1.8	16.2	565
5	2.5	7	0.7	1.0	1.25	1.8	17.4	665
5	4	7	0.7	1.0	1.25	1.8	18.8	804
5	6	7	0.7	1.0	1.25	1.8	20.4	972
5	10	7	0.7	1.0	1.60	1.8	23.6	1423
5	16	7	0.7	1.0	1.60	1.8	26.4	1867
5	25	7	0.9	1.0	1.60	2.0	31.4	2606
5	35	19	0.9	1.2	2.0	2.1	36.2	3611
5	50	19	1.0	1.2	2.0	2.3	40.4	4648
5	70	19	1.1	1.2	2.50	2.5	47.2	6492
5	95	19	1.1	1.4	2.50	2.7	53.2	8251
5	120	37	1.2	1.4	2.50	2.8	58.4	9962
5	150	37	1.4	1.6	2.50	3.0	64.4	12081
5	185	37	1.6	1.6	2.50	3.3	71.0	14500
5	240	61	1.7	1.8	3.15	3.6	81.0	19123



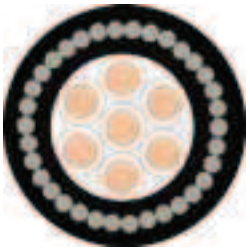
Multi-cores
CU/XLPE/PVC/SWA/PVC

No. of cores	Nominal cross-ectional area of conductor	Number of wires	Thickness of insulation	Nom. Thickness of Bedding	Nom. Diameter of Armour Wire	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	mm	mm	kg/km
6	1.5	7	0.7	1.0	1.25	1.8	17.1	623
7	1.5	7	0.7	1.0	1.25	1.8	17.1	638
8	1.5	7	0.7	1.0	1.25	1.8	18.5	719
9	1.5	7	0.7	1.0	1.25	1.8	19.5	786
10	1.5	7	0.7	1.0	1.25	1.8	20.1	831
11	1.5	7	0.7	1.0	1.25	1.8	20.1	847
12	1.5	7	0.7	1.0	1.25	1.8	20.6	887
13	1.5	7	0.7	1.0	1.60	1.8	22.0	1071
14	1.5	7	0.7	1.0	1.60	1.8	22.0	1087
15	1.5	7	0.7	1.0	1.60	1.8	22.9	1153
16	1.5	7	0.7	1.0	1.60	1.8	22.9	1169
17	1.5	7	0.7	1.0	1.60	1.8	23.8	1238
18	1.5	7	0.7	1.0	1.60	1.8	23.8	1254
19	1.5	7	0.7	1.0	1.60	1.8	23.8	2369
20	1.5	7	0.7	1.0	1.60	1.8	24.8	1345
21	1.5	7	0.7	1.0	1.60	1.8	24.8	1361
22	1.5	7	0.7	1.0	1.60	1.8	25.8	1439
23	1.5	7	0.7	1.0	1.60	1.8	25.8	1455
24	1.5	7	0.7	1.0	1.60	1.8	26.8	1534
25	1.5	7	0.7	1.0	1.60	1.8	26.8	1549

XLPE-INSULATED CABLE
600/1000V, XLPE INSULATED, PVC-SHEATHED UNARMOURED CABLES

Multi-cores
CU/XLPE/PVC/SWA/PVC

No. of cores	Nominal cross-ectional area of conductor	Number of wires	Thickness of insulation	Nom. Thickness of Bedding	Nom. Diameter of Armour Wire	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	mm	mm	kg/km
26	1.5	7	0.7	1.0	1.60	1.8	26.8	1565
27	1.5	7	0.7	1.0	1.60	1.8	27.3	1611
28	1.5	7	0.7	1.0	1.60	1.9	28.1	1680
29	1.5	7	0.7	1.0	1.60	1.9	28.1	1696
30	1.5	7	0.7	1.0	1.60	1.9	28.1	1712
31	1.5	7	0.7	1.0	1.60	1.9	29.1	1788
32	1.5	7	0.7	1.0	1.60	1.9	29.1	1804
33	1.5	7	0.7	1.0	1.60	1.9	29.1	1819
34	1.5	7	0.7	1.0	1.60	1.9	30.0	1899
35	1.5	7	0.7	1.0	1.60	1.9	30.0	1915
36	1.5	7	0.7	1.0	1.60	1.9	30.0	1930
37	1.5	7	0.7	1.0	1.60	1.9	30.0	1946
38	1.5	7	0.7	1.0	1.60	2.0	31.1	2033
39	1.5	7	0.7	1.0	1.60	2.0	31.1	2049
40	1.5	7	0.7	1.0	1.60	2.0	31.1	2065
42	1.5	7	0.7	1.0	2.00	2.0	32.2	2171
44	1.5	7	0.7	1.0	2.00	2.0	34.1	2521
46	1.5	7	0.7	1.0	2.00	2.0	34.1	2552
48	1.5	7	0.7	1.0	2.00	2.1	34.5	2621
50	1.5	7	0.7	1.2	2.00	2.1	35.8	2768



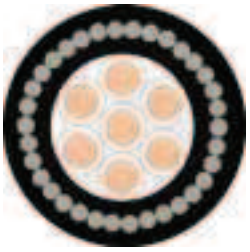
Multi-cores
CU/XLPE/PVC/SWA/PVC

No. of cores	Nominal cross-ectional area of conductor	Number of wires	Thickness of insulation	Nom. Thickness of Bedding	Nom. Diameter of Armour Wire	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	mm	mm	kg/km
6	2.5	7	0.7	1.0	1.25	1.8	18.4	739
7	2.5	7	0.7	1.0	1.25	1.8	18.4	764
8	2.5	7	0.7	1.0	1.25	1.8	19.9	865
9	2.5	7	0.7	1.0	1.60	1.8	21.8	1079
10	2.5	7	0.7	1.0	1.60	1.8	22.5	1144
11	2.5	7	0.7	1.0	1.60	1.8	22.5	1169
12	2.5	7	0.7	1.0	1.60	1.8	23.0	1226
13	2.5	7	0.7	1.0	1.60	1.8	23.9	1302
14	2.5	7	0.7	1.0	1.60	1.8	23.9	1327
15	2.5	7	0.7	1.0	1.60	1.8	24.9	1412
16	2.5	7	0.7	1.0	1.60	1.8	24.9	1437
17	2.5	7	0.7	1.0	1.60	1.8	25.9	1525
18	2.5	7	0.7	1.0	1.60	1.8	25.9	1550
19	2.5	7	0.7	1.0	1.60	1.8	25.9	1575
20	2.5	7	0.7	1.0	1.60	1.8	27.1	1673
21	2.5	7	0.7	1.0	1.60	1.8	27.1	1698
22	2.5	7	0.7	1.0	1.60	1.9	28.3	1803
23	2.5	7	0.7	1.0	1.60	1.9	28.3	1828
24	2.5	7	0.7	1.0	1.60	1.9	29.5	1932
25	2.5	7	0.7	1.0	1.60	1.9	29.5	1957

XLPE-INSULATED CABLE
600/1000V, XLPE INSULATED, PVC-SHEATHED UNARMOURED CABLES

Multi-cores
CU/XLPE/PVC/SWA/PVC

No. of cores	Nominal cross-ectional area of conductor	Number of wires	Thickness of insulation	Nom. Thickness of Bedding	Nom. Diameter of Armour Wire	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	mm	mm	kg/km
26	2.5	7	0.7	1.0	1.60	1.9	29.5	1982
27	2.5	7	0.7	1.0	1.60	1.9	30.1	2043
28	2.5	7	0.7	1.0	1.60	1.9	31.0	2133
29	2.5	7	0.7	1.0	1.60	1.9	31.0	2158
30	2.5	7	0.7	1.0	1.60	1.9	31.0	2183
31	2.5	7	0.7	1.0	1.60	2.0	32.1	2281
32	2.5	7	0.7	1.0	1.60	2.0	32.1	2306
33	2.5	7	0.7	1.0	1.60	2.0	32.1	2331
34	2.5	7	0.7	1.0	2.00	2.0	34.0	2676
35	2.5	7	0.7	1.0	2.00	2.0	34.0	2701
36	2.5	7	0.7	1.0	2.00	2.0	34.0	2726
37	2.5	7	0.7	1.0	2.00	2.0	34.0	2751
38	2.5	7	0.7	1.2	2.00	2.1	35.6	2621
39	2.5	7	0.7	1.2	2.00	2.1	35.6	2945
40	2.5	7	0.7	1.2	2.00	2.1	35.6	2970
42	2.5	7	0.7	1.2	2.00	2.1	36.9	3122
44	2.5	7	0.7	1.2	2.00	2.2	38.1	3272
46	2.5	7	0.7	1.2	2.00	2.2	38.1	3322
48	2.5	7	0.7	1.2	2.00	2.2	38.6	3418
50	2.5	7	0.7	1.2	2.00	2.2	39.6	3548



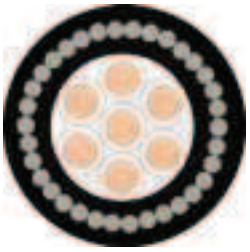
Multi-cores
CU/XLPE/PVC/SWA/PVC

No. of cores	Nominal cross-ectional area of conductor	Number of wires	Thickness of insulation	Nom. Thickness of Bedding	Nom. Diameter of Armour Wire	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	mm	mm	kg/km
6	4	7	0.7	1.0	1.25	1.8	20.0	902
7	4	7	0.7	1.0	1.25	1.8	20.0	940
8	4	7	0.7	1.0	1.60	1.8	22.5	1203
9	4	7	0.7	1.0	1.60	1.8	23.9	1324
10	4	7	0.7	1.0	1.60	1.8	24.7	1411
11	4	7	0.7	1.0	1.60	1.8	24.7	1449
12	4	7	0.7	1.0	1.60	1.8	25.3	1527
13	4	7	0.7	1.0	1.60	1.8	26.3	1627
14	4	7	0.7	1.0	1.60	1.8	26.3	1666
15	4	7	0.7	1.0	1.60	1.8	27.5	1781
16	4	7	0.7	1.0	1.60	1.8	27.5	1820
17	4	7	0.7	1.0	1.60	1.9	28.8	1941
18	4	7	0.7	1.0	1.60	1.9	28.8	1980
19	4	7	0.7	1.0	1.60	1.9	28.8	2018
20	4	7	0.7	1.0	1.60	1.9	30.1	2150
21	4	7	0.7	1.0	1.60	1.9	30.1	2189
22	4	7	0.7	1.0	1.60	2.0	31.6	2325
23	4	7	0.7	1.0	1.60	2.0	31.6	2364
24	4	7	0.7	1.0	2.00	2.0	33.8	2742
25	4	7	0.7	1.0	2.00	2.0	33.8	2781

XLPE-INSULATED CABLE
600/1000V, XLPE INSULATED, PVC-SHEATHED UNARMOURED CABLES

Multi-cores
CU/XLPE/PVC/SWA/PVC

No. of cores	Nominal cross-ectional area of conductor	Number of wires	Thickness of insulation	Nom. Thickness of Bedding	Nom. Diameter of Armour Wire	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	mm	mm	kg/km
26	4	7	0.7	1.0	2.00	2.0	33.8	2820
27	4	7	0.7	1.0	2.00	2.1	34.5	2908
28	4	7	0.7	1.2	2.00	2.1	36.0	3084
29	4	7	0.7	1.2	2.00	2.1	36.0	3123
30	4	7	0.7	1.2	2.00	2.1	36.0	3162
31	4	7	0.7	1.2	2.00	2.2	37.2	3301
32	4	7	0.7	1.2	2.00	2.2	37.2	3340
33	4	7	0.7	1.2	2.00	2.2	37.2	3379
34	4	7	0.7	1.2	2.00	2.2	38.5	3523
35	4	7	0.7	1.2	2.00	2.2	38.5	3562
36	4	7	0.7	1.2	2.00	2.2	38.5	3601
37	4	7	0.7	1.2	2.00	2.2	38.5	3639
38	4	7	0.7	1.2	2.00	2.2	39.9	3797
39	4	7	0.7	1.2	2.00	2.2	39.9	3835
40	4	7	0.7	1.2	2.00	2.2	39.9	3874
42	4	7	0.7	1.2	2.00	2.3	41.3	4076
44	4	7	0.7	1.2	2.00	2.3	42.7	4277
46	4	7	0.7	1.2	2.00	2.3	42.7	4355
48	4	7	0.7	1.2	2.00	2.4	43.3	4489
50	4	7	0.7	1.2	2.50	2.4	45.5	5079



Multi-cores
CU/XLPE/PVC/SWA/PVC

No. of cores	Nominal cross-ectional area of conductor	Number of wires	Thickness of insulation	Nom. Thickness of Bedding	Nom. Diameter of Armour Wire	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	mm	mm	kg/km
6	6	7	0.7	1.0	1.60	1.8	22.4	1231
7	6	7	0.7	1.0	1.60	1.8	22.4	1288
8	6	7	0.7	1.0	1.60	1.8	24.4	1466
9	6	7	0.7	1.0	1.60	1.8	26.0	1621
10	6	7	0.7	1.0	1.60	1.8	27.0	1737
6	10	7	0.7	1.0	1.60	1.8	25.2	1615
7	10	7	0.7	1.0	1.60	1.8	25.2	1708
8	10	7	0.7	1.0	1.60	1.8	27.7	1961
9	10	7	0.7	1.0	1.60	1.9	29.8	2188
10	10	7	0.7	1.0	1.60	1.9	30.9	2360

XLPE-INSULATED SCREENED CABLE 600/1000V, XLPE INSULATED, PVC-SHEATHED TINNED COPPER WIRE BRAID UNARMOURED CABLES

APPLICATION

Lighting, power & remote control/push buttons. The cables are suitable for continuous operation at a maximum conductor temperature of 90°C.

Conductor:	Circular stranded, circular compact stranded or sector shaped stranded plain annealed wire acc. To IEC 60228 class 2
Insulation:	XLPE (Cross-linked Polyethylene)
Identification of cores:	Single core – Black or Natural 2 cores – Brown, Blue or Red, black 3 cores – Brown, Black, Grey or Red, Yellow, Blue 4 cores – Brown, Black, Grey, Blue or Red, Yellow, Blue, Black 5 core and above – (number) 1,2,3,4,5,6..... and the number shall be black printed on white cores
Laying Up:	Cores stranded together. Where necessary, binder tapes and non-hygroscopic fillers may be applied
Bedding:	Extruded Black PVC (polyvinyl chloride) Compound or lapped PVC tapes
Colour:	Black
Screened:	TCWB (Tinned copper wire braid)
Sheath:	PVC (Polyvinyl Chloride) compound type ST2
Colour:	Black

Voltage:	600/1000V
Temperature:	Maximum 90oC
Main Specification:	IEC 60502-1
Testing Voltage:	3500V
Min. Bending Radius:	10 X Overall Diameter
Special Properties Upon Request:	Anti-Termite sheath Anti-Rodent sheath UV-Resistant sheath Flame Retardant sheath

Multi-cores
CU/XLPE/PVC/TCWB/PVC

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm^2	no	mm	mm	mm	kg/km
6	1.5	7	0.7	1.4	15.1	411
7	1.5	7	0.7	1.4	15.1	439
8	1.5	7	0.7	1.5	16.5	478
9	1.5	7	0.7	1.5	17.6	530
10	1.5	7	0.7	1.5	18.3	574
11	1.5	7	0.7	1.5	18.3	591
12	1.5	7	0.7	1.5	18.8	621
13	1.5	7	0.7	1.6	19.6	659
14	1.5	7	0.7	1.6	19.6	676
15	1.5	7	0.7	1.6	20.5	731
16	1.5	7	0.7	1.6	20.5	748
17	1.5	7	0.7	1.6	21.5	794
18	1.5	7	0.7	1.6	21.5	810
19	1.5	7	0.7	1.6	21.5	827
20	1.5	7	0.7	1.7	22.5	882
21	1.5	7	0.7	1.7	22.5	899
22	1.5	7	0.7	1.7	23.6	969
23	1.5	7	0.7	1.7	23.6	985
24	1.5	7	0.7	1.7	24.7	1039
25	1.5	7	0.7	1.7	24.7	1055

XLPE-INSULATED SCREENED CABLE 600/1000V, XLPE INSULATED, PVC-SHEATHED TINNED COPPER WIRE BRAID UNARMOURED CABLES

Multi-cores
CU/XLPE/PVC/TCWB/PVC

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm^2	no	mm	mm	mm	kg/km
26	1.5	7	0.7	1.7	24.7	1071
27	1.5	7	0.7	1.8	25.2	1105
28	1.5	7	0.7	1.8	26.0	1152
29	1.5	7	0.7	1.8	26.0	1169
30	1.5	7	0.7	1.8	26.0	1185
31	1.5	7	0.7	1.8	26.9	1237
32	1.5	7	0.7	1.8	26.9	1253
33	1.5	7	0.7	1.8	26.9	1270
34	1.5	7	0.7	1.8	27.9	1348
35	1.5	7	0.7	1.8	27.9	1364
36	1.5	7	0.7	1.8	27.9	1381
37	1.5	7	0.7	1.8	27.9	1397
38	1.5	7	0.7	1.9	28.9	1457
39	1.5	7	0.7	1.9	28.9	1473
40	1.5	7	0.7	1.9	28.9	1489
42	1.5	7	0.7	1.9	30.0	1577
44	1.5	7	0.7	2.0	30.0	1652
46	1.5	7	0.7	2.0	30.0	1685
48	1.5	7	0.7	2.0	31.6	1752
50	1.5	7	0.7	2.0	32.8	1855

Multi-cores
CU/XLPE/PVC/TCWB/PVC

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm^2	no	mm	mm	mm	kg/km
6	2.5	7	0.7	1.5	16.4	500
7	2.5	7	0.7	1.5	16.4	532
8	2.5	7	0.7	1.5	18.1	612
9	2.5	7	0.7	1.6	19.3	672
10	2.5	7	0.7	1.6	20.1	730
11	2.5	7	0.7	1.6	20.1	756
12	2.5	7	0.7	1.6	20.7	800
13	2.5	7	0.7	1.6	21.6	854
14	2.5	7	0.7	1.6	21.6	880
15	2.5	7	0.7	1.7	22.6	946
16	2.5	7	0.7	1.7	22.6	971
17	2.5	7	0.7	1.7	23.7	1051
18	2.5	7	0.7	1.7	23.7	1077
19	2.5	7	0.7	1.7	23.7	1103
20	2.5	7	0.7	1.7	24.9	1172
21	2.5	7	0.7	1.7	24.9	1198
22	2.5	7	0.7	1.8	26.2	1269
23	2.5	7	0.7	1.8	26.2	1295
24	2.5	7	0.7	1.8	27.4	1367
25	2.5	7	0.7	1.8	27.4	1393

XLPE-INSULATED SCREENED CABLE 600/1000V, XLPE INSULATED, PVC-SHEATHED TINNED COPPER WIRE BRAID UNARMOURED CABLES

Multi-cores
CU/XLPE/PVC/TCWB/PVC

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm^2	no	mm	mm	mm	kg/km
26	2.5	7	0.7	1.8	27.4	1419
27	2.5	7	0.7	1.8	27.9	1491
28	2.5	7	0.7	1.9	28.9	1555
29	2.5	7	0.7	1.9	28.9	1581
30	2.5	7	0.7	1.9	28.9	1607
31	2.5	7	0.7	1.9	29.9	1687
32	2.5	7	0.7	1.9	29.9	1713
33	2.5	7	0.7	1.9	29.9	1739
34	2.5	7	0.7	1.9	31.0	1808
35	2.5	7	0.7	1.9	31.0	1834
36	2.5	7	0.7	1.9	31.0	1860
37	2.5	7	0.7	1.9	31.0	1886
38	2.5	7	0.7	2.0	32.7	2011
39	2.5	7	0.7	2.0	32.7	2037
40	2.5	7	0.7	2.0	32.7	2063
42	2.5	7	0.7	2.0	33.9	2190
44	2.5	7	0.7	2.1	35.1	2297
46	2.5	7	0.7	2.1	35.1	2348
48	2.5	7	0.7	2.1	35.6	2426
50	2.5	7	0.7	2.1	36.6	2522

Multi-cores
CU/XLPE/PVC/TCWB/PVC

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm^2	no	mm	mm	mm	kg/km
6	4	7	0.7	1.5	18.2	646
7	4	7	0.7	1.5	18.2	686
8	4	7	0.7	1.6	20.1	790
9	4	7	0.7	1.6	21.5	876
10	4	7	0.7	1.7	22.4	948
11	4	7	0.7	1.7	22.4	988
12	4	7	0.7	1.7	23.1	1050
13	4	7	0.7	1.7	24.1	1144
14	4	7	0.7	1.7	24.1	1184
15	4	7	0.7	1.8	25.3	1268
16	4	7	0.7	1.8	25.3	1308
17	4	7	0.7	1.8	26.6	1395
18	4	7	0.7	1.8	26.6	1435
19	4	7	0.7	1.8	28.0	1475
20	4	7	0.7	1.9	28.0	1593
21	4	7	0.7	1.9	28.8	1633
22	4	7	0.7	1.9	29.4	1743
23	4	7	0.7	1.9	29.4	1783
24	4	7	0.7	1.9	30.8	1878
25	4	7	0.7	1.9	30.8	1918

XLPE-INSULATED SCREENED CABLE 600/1000V, XLPE INSULATED, PVC-SHEATHED TINNED COPPER WIRE BRAID UNARMOURED CABLES

Multi-cores
CU/XLPE/PVC/TCWB/PVC

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm^2	no	mm	mm	mm	kg/km
26	4	7	0.7	1.9	30.8	1958
27	4	7	0.7	2.0	31.5	2024
28	4	7	0.7	2.0	33.0	2160
29	4	7	0.7	2.0	33.0	2199
30	4	7	0.7	2.0	33.0	2239
31	4	7	0.7	2.1	34.2	2355
32	4	7	0.7	2.1	34.2	2395
33	4	7	0.7	2.1	34.2	2435
34	4	7	0.7	2.1	35.5	2532
35	4	7	0.7	2.1	35.5	2572
36	4	7	0.7	2.1	35.5	2612
37	4	7	0.7	2.1	35.5	2652
38	4	7	0.7	2.1	36.9	2758
39	4	7	0.7	2.1	36.9	2798
40	4	7	0.7	2.1	36.9	2838
42	4	7	0.7	2.2	38.3	3012
44	4	7	0.7	2.2	39.7	3163
46	4	7	0.7	2.2	39.7	3243
48	4	7	0.7	2.3	40.4	3357
50	4	7	0.7	2.3	41.5	3507

Multi-cores
CU/XLPE/PVC/TCWB/PVC

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm^2	no	mm	mm	mm	kg/km
6	6	7	0.7	1.6	20.0	827
7	6	7	0.7	1.6	20.0	878
8	6	7	0.7	1.7	22.2	1010
9	6	7	0.7	1.7	23.9	1141
10	6	7	0.7	1.7	24.8	1234
6	10	7	0.7	1.7	23.0	1139
7	10	7	0.7	1.7	23.0	1234
8	10	7	0.7	1.8	25.6	1439
9	10	7	0.7	1.9	27.6	1612
10	10	7	0.7	2.0	28.8	1778

XLPE-INSULATED SCREENED CABLE 600/1000V, XLPE INSULATED, PVC-SHEATHED COPPER TAPE SCREENED UNARMOURED CABLES

APPLICATION

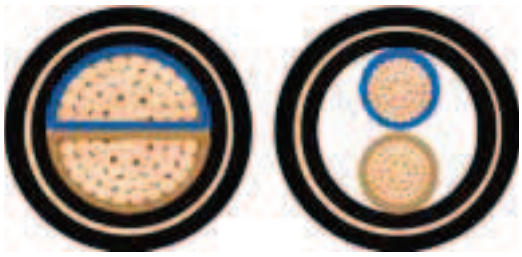
Lighting, power & remote control/push buttons. The cables are suitable for continuous operation at a maximum conductor temperature of 90°C.

Conductor:	Circular stranded, circular compact stranded or sector shaped stranded plain annealed wire acc. To IEC 60228 class 2
Insulation:	XLPE (Cross-linked Polyethylene)
Identification of cores:	Single core – Black or Natural 2 cores – Brown, Blue or Red, black 3 cores – Brown, Black, Grey or Red, Yellow, Blue 4 cores – Brown, Black, Grey, Blue or Red, Yellow, Blue, Black 5 core and above – number) 1,2,3,4,5,6..... and the number shall be black printed on white cores
Laying Up:	Cores stranded together. Where necessary, binder tapes and non-hygroscopic fillers may be applied
Bedding:	Extruded Black PVC (polyvinyl chloride) Compound or lapped PVC tapes
Colour:	Black
Shielding:	CTS (Copper Tape Screened)
Sheath:	PVC (Polyvinyl Chloride) compound type ST2
Colour:	Black

Voltage:	600/1000V
Temperature:	Maximum 90°C
Main Specification:	IEC 60502-1
Testing Voltage:	3500V
Min. Bending Radius:	10 x Overall Diameter
Special Properties Upon Request:	Anti-Termite sheath Anti-Rodent sheath UV-Resistant sheath Flame Retardant sheath

XLPE-INSULATED SCREENED CABLE 600/1000V, XLPE INSULATED, PVC-SHEATHED COPPER TAPE SCREENED UNARMOURED CABLES

transmission of reliability & brightness



2 cores
CU/XLPE/PVC/CTS/PVC

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	kg/km
2	1.5	7	0.7	1.8	12.0	240
2	2.5	7	0.7	1.8	12.9	282
2	4	7	0.7	1.8	14.0	341
2	6	7	0.7	1.8	15.1	412
2	10	7	0.7	1.8	17.1	543
2	16	7	0.7	1.8	19.1	721
2	25	7	0.9	1.8	22.5	1011
2	35	19	0.9	1.8	25.0	1286
2	50	19	1.0	1.8	27.9	1689
2	70	19	1.1	1.8	32.7	2289
2	95	19	1.1	1.9	37.4	3329
2	120	37	1.2	2.0	41.2	4045
2	150	37	1.4	2.2	45.8	4954
2	185	37	1.6	2.3	50.7	5978
2	240	61	1.7	2.5	57.2	7546
2	300	61	1.8	2.6	62.8	9148
2	400	61	2.0	2.9	70.0	11698

XLPE-INSULATED SCREENED CABLE 600/1000V, XLPE INSULATED, PVC-SHEATHED COPPER TAPE SCREENED UNARMOURED CABLES

3 cores
CU/XLPE/PVC/CTS/PVC

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	kg/km
3	1.5	7	0.7	1.8	12.5	269
3	2.5	7	0.7	1.8	13.4	323
3	4	7	0.7	1.8	14.6	399
3	6	7	0.7	1.8	15.8	491
3	10	7	0.7	1.8	17.8	665
3	16	7	0.7	1.8	20.1	905
3	25	7	0.9	1.8	23.8	1293
3	35	19	0.9	1.8	26.5	1668
3	50	19	1.0	1.9	29.8	2232
3	70	19	1.1	2.1	35.5	3401
3	95	19	1.1	2.2	39.9	4361
3	120	37	1.2	2.4	44.5	5389
3	150	37	1.4	2.5	49.0	6562
3	185	37	1.6	2.7	54.7	8019
3	240	61	1.7	2.9	61.2	10086
3	300	61	1.8	3.1	67.3	12297
3	400	61	2.0	3.4	75.5	15944

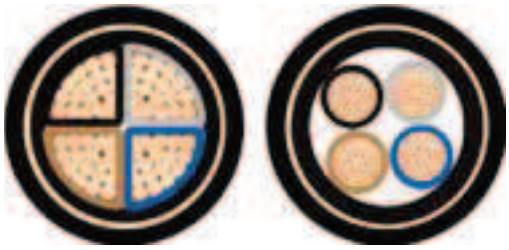
XLPE-INSULATED SCREENED CABLE 600/1000V, XLPE INSULATED, PVC-SHEATHED COPPER TAPE SCREENED UNARMOURED CABLES

3 cores + 3 earth

CU/XLPE/PVC/CTS/PVC

Nominal Conductor Area	Number of wires	Combined Earth Size	Nominal insulation Thickness	Thickness of oversheath	Approx overall diameter	Approx net weight
mm^2	no	mm^2	mm	mm	mm	kg/km
1.5	7	4.5	0.7	1.8	16.8	495
2.5	7	4.5	0.7	1.8	17.5	542
4	7	4.5	0.7	1.8	18.5	612
6	7	7.5	0.7	1.8	19.8	735
10	7	12	0.7	1.8	22.0	968
16	7	18	0.7	1.8	24.5	1280
25	7	30	0.9	1.8	28.5	1790
35	19	30	0.9	1.9	31	2135
50	19	30	1.0	2.1	33.0	2750
70	19	48	1.1	2.2	38.0	3765
95	19	48	1.1	2.4	41.0	4660
120	37	75	1.2	2.5	46.5	5915
150	37	75	1.4	2.7	50.5	6910
185	37	105	1.6	2.9	55.5	8585
240	61	150	1.7	3.1	63.5	11355
300	61	150	1.8	3.4	67.8	13380

XLPE-INSULATED SCREENED CABLE 600/1000V, XLPE INSULATED, PVC-SHEATHED COPPER TAPE SCREENED UNARMOURED CABLES



4 cores
CU/XLPE/PVC/CTS/PVC

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	kg/km
4	1.5	7	0.7	1.8	13.3	307
4	2.5	7	0.7	1.8	14.3	374
4	4	7	0.7	1.8	15.6	469
4	6	7	0.7	1.8	17.0	586
4	10	7	0.7	1.8	19.2	807
4	16	7	0.7	1.8	21.8	1114
4	25	7	0.9	1.8	25.9	1609
4	35 (S)	19	0.9	1.9	29.1	2106
4	50 (S)	19	1.0	2.0	33.3	2877
4	70 (S)	19	1.1	2.2	39.1	4277
4	95 (S)	19	1.1	2.4	44.4	5570
4	120 (S)	37	1.2	2.5	49.1	6834
4	150 (S)	37	1.4	2.7	54.2	8353
4	185 (S)	37	1.6	2.9	60.5	10223
4	240 (S)	61	1.7	3.2	67.8	12905
4	300 (S)	61	1.8	3.4	75.0	15866
4	400 (S)	61	2.0	3.7	84.4	21405

Multi-cores
CU/XLPE/PVC/CTS/PVC

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	kg/km	
6	1.5	7	0.7	1.8	15.0	390
7	1.5	7	0.7	1.8	15.0	406
8	1.5	7	0.7	1.8	16.4	464
9	1.5	7	0.7	1.8	17.4	514
10	1.5	7	0.7	1.8	18.0	550
11	1.5	7	0.7	1.8	18.0	565
12	1.5	7	0.7	1.8	18.5	597
13	1.5	7	0.7	1.8	19.2	639
14	1.5	7	0.7	1.8	19.2	655
15	1.5	7	0.7	1.8	20.1	701
16	1.5	7	0.7	1.8	20.1	717
17	1.5	7	0.7	1.8	21.0	765
18	1.5	7	0.7	1.8	21.0	781
19	1.5	7	0.7	1.8	21.0	797
20	1.5	7	0.7	1.8	22.0	850
21	1.5	7	0.7	1.8	22.0	866
22	1.5	7	0.7	1.8	23.0	920
23	1.5	7	0.7	1.8	23.0	936
24	1.5	7	0.7	1.8	24.0	990
25	1.5	7	0.7	1.8	24.0	1006
26	1.5	7	0.7	1.8	24.0	1022
27	1.5	7	0.7	1.8	24.4	1056

XLPE-INSULATED SCREENED CABLE 600/1000V, XLPE INSULATED, PVC-SHEATHED COPPER TAPE SCREENED UNARMOURED CABLES

Multi-cores
CU/XLPE/PVC/CTS/PVC

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	kg/km
28	1.5	7	0.7	1.8	25.2	1103
29	1.5	7	0.7	1.8	25.2	1119
30	1.5	7	0.7	1.8	25.2	1135
31	1.5	7	0.7	1.8	26.1	1186
32	1.5	7	0.7	1.8	26.1	1202
33	1.5	7	0.7	1.8	26.1	1218
34	1.5	7	0.7	1.8	27.0	1274
35	1.5	7	0.7	1.8	27.0	1290
36	1.5	7	0.7	1.8	27.0	1306
37	1.5	7	0.7	1.9	27.0	1322
38	1.5	7	0.7	1.9	28.1	1385
39	1.5	7	0.7	1.9	28.1	1401
40	1.5	7	0.7	1.9	28.1	1417
42	1.5	7	0.7	1.9	29.2	1498
44	1.5	7	0.7	1.9	29.2	1580
46	1.5	7	0.7	1.9	29.2	1612
48	1.5	7	0.7	2.0	32.0	1667
50	1.5	7	0.7	2.0	32.0	1776

Multi-cores
CU/XLPE/PVC/CTS/PVC

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	kg/km
6	2.5	7	0.7	1.8	16.3	486
7	2.5	7	0.7	1.8	16.3	511
8	2.5	7	0.7	1.8	17.8	586
9	2.5	7	0.7	1.8	19.0	652
10	2.5	7	0.7	1.8	19.7	701
11	2.5	7	0.7	1.8	19.7	726
12	2.5	7	0.7	1.8	20.2	770
13	2.5	7	0.7	1.8	21.1	826
14	2.5	7	0.7	1.8	21.1	852
15	2.5	7	0.7	1.8	22.1	914
16	2.5	7	0.7	1.8	22.1	939
17	2.5	7	0.7	1.8	23.1	1003
18	2.5	7	0.7	1.8	23.1	1028
19	2.5	7	0.7	1.8	23.1	1054
20	2.5	7	0.7	1.8	24.2	1123
21	2.5	7	0.7	1.8	24.2	1148
22	2.5	7	0.7	1.8	25.4	1220
23	2.5	7	0.7	1.8	25.4	1245
24	2.5	7	0.7	1.8	26.5	1317
25	2.5	7	0.7	1.8	26.5	1342
26	2.5	7	0.7	1.8	26.5	1368
27	2.5	7	0.7	1.8	27.1	1417

XLPE-INSULATED SCREENED CABLE 600/1000V, XLPE INSULATED, PVC-SHEATHED COPPER TAPE SCREENED UNARMOURED CABLES

Multi-cores
CU/XLPE/PVC/CTS/PVC

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	kg/km
28	2.5	7	0.7	1.9	28.0	1484
29	2.5	7	0.7	1.9	28.0	1510
30	2.5	7	0.7	1.9	28.0	1535
31	2.5	7	0.7	1.9	29.1	1609
32	2.5	7	0.7	1.9	29.1	1634
33	2.5	7	0.7	1.9	29.1	1659
34	2.5	7	0.7	1.9	30.2	1736
35	2.5	7	0.7	1.9	30.2	1761
36	2.5	7	0.7	1.9	30.2	1787
37	2.5	7	0.7	1.9	30.2	1812
38	2.5	7	0.7	2.0	31.8	1932
39	2.5	7	0.7	2.0	31.8	1957
40	2.5	7	0.7	2.0	33.0	1983
42	2.5	7	0.7	2.1	33.0	2096
44	2.5	7	0.7	2.1	34.2	2210
46	2.5	7	0.7	2.1	34.2	2260
48	2.5	7	0.7	2.1	35.4	2698
50	2.5	7	0.7	2.1	36.4	2811

Multi-cores
CU/XLPE/PVC/CTS/PVC

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	kg/km
6	4	7	0.7	1.8	17.9	621
7	4	7	0.7	1.8	17.9	660
8	4	7	0.7	1.8	19.7	760
9	4	7	0.7	1.8	21.1	849
10	4	7	0.7	1.8	21.9	917
11	4	7	0.7	1.8	21.9	956
12	4	7	0.7	1.8	22.5	1019
13	4	7	0.7	1.8	23.5	1096
14	4	7	0.7	1.8	23.5	1135
15	4	7	0.7	1.8	24.6	1219
16	4	7	0.7	1.8	24.6	1258
17	4	7	0.7	1.8	25.8	1345
18	4	7	0.7	1.8	25.8	1385
19	4	7	0.7	1.8	25.8	1424
20	4	7	0.7	1.8	27.1	1520
21	4	7	0.7	1.8	27.1	1559
22	4	7	0.7	1.8	28.6	1663
23	4	7	0.7	1.8	28.6	1702
24	4	7	0.7	1.8	30.0	1806
25	4	7	0.7	1.8	30.0	1846
26	4	7	0.7	1.8	30.0	1885
27	4	7	0.7	1.9	32.1	1954
28	4	7	0.7	2.0	32.1	2084
29	4	7	0.7	2.0	32.1	2123

XLPE-INSULATED SCREENED CABLE 600/1000V, XLPE INSULATED, PVC-SHEATHED COPPER TAPE SCREENED UNARMOURED CABLES

Multi-cores
CU/XLPE/PVC/CTS/PVC

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	kg/km
30	4	7	0.7	2.0	33.4	2162
31	4	7	0.7	2.0	33.4	2264
32	4	7	0.7	2.0	33.4	2303
33	4	7	0.7	2.0	33.4	2342
34	4	7	0.7	2.1	35.3	2805
35	4	7	0.7	2.1	35.3	2844
36	4	7	0.7	2.1	35.3	2883
37	4	7	0.7	2.1	35.3	2922
38	4	7	0.7	2.1	36.7	3052
39	4	7	0.7	2.1	36.7	3091
40	4	7	0.7	2.1	36.7	3130
42	4	7	0.7	2.2	38.1	3304
44	4	7	0.7	2.2	39.5	3478
46	4	7	0.7	2.2	39.5	3556
48	4	7	0.7	2.3	40.1	3678
50	4	7	0.7	2.3	41.2	3834

Multi-cores
CU/XLPE/PVC/CTS/PVC

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm^2	no	mm	mm	mm	kg/km
6	6	7	0.7	1.8	19.6	789
7	6	7	0.7	1.8	19.6	847
8	6	7	0.7	1.8	21.6	977
9	6	7	0.7	1.8	23.2	1095
10	6	7	0.7	1.8	24.1	1187
6	10	7	0.7	1.8	22.4	1108
7	10	7	0.7	1.8	22.4	1202
8	10	7	0.7	1.8	24.9	1391
9	10	7	0.7	1.8	26.8	1564
10	10	7	0.7	1.8	27.9	1710

XLPE-INSULATED SCREENED CABLE 600/1000V, XLPE INSULATED, PVC-SHEATHED COPPER TAPE SCREENED ARMOURED CABLES

APPLICATION

Lighting, power & remote control/push buttons. The cables are suitable for continuous operation at a maximum conductor temperature of 90°C.

Conductor:	Circular stranded, circular compact stranded or sector shaped stranded plain annealed wire acc. To IEC 60228 class 2
Insulation:	XLPE (Cross-linked Polyethylene)
Identification of cores:	Single core – Black or Natural 2 cores – Brown, Blue or Red, black 3 cores – Brown, Black, Grey or Red, Yellow, Blue 4 cores – Brown, Black, Grey, Blue or Red, Yellow, Blue, Black 5 core and above – (number) 1,2,3,4,5,6..... and the number shall be black printed on white cores
Laying Up:	Cores stranded together. Where necessary, binder tapes and non-hygroscopic fillers may be applied
Bedding:	Extruded Black PVC (polyvinyl chloride) Compound or lapped PVC tapes
Colour:	Black
Shielding:	CTS (Copper Tape Screened)
Bedding:	Extruded Black PVC (polyvinyl chloride) Compound or lapped PVC tapes
Colour:	Black
Armour:	Single Core – consist of a single layer of non-Magnetic material, such as aluminum wire Two core and above – consist of a single Layer of galvanized steel wires
Sheath:	PVC (Polyvinyl Chloride) compound type ST2
Colour:	Black

Voltage:	600/1000V
Temperature:	Maximum 90°C
Main Specification:	IEC 60502-1
Testing Voltage:	3500V
Min. Bending Radius:	10 x Overall Diameter
Special Properties Upon Request:	Anti-Termite sheath Anti-Rodent sheath UV-Resistant sheath Flame Retardant sheath

XLPE-INSULATED SCREENED CABLE 600/1000V, XLPE INSULATED, PVC-SHEATHED COPPER TAPE SCREENED ARMOURED CABLES

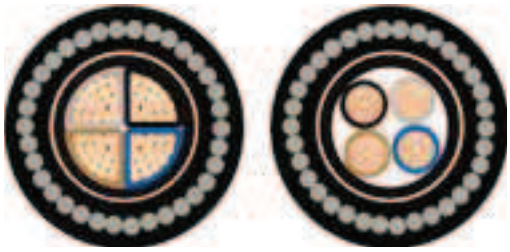
transmission of reliability & brightness

1 core

CU/XLPE/PVC/CTS/PVC/AWA/PVC

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Nom. Thick. of Bedding	Nom. Dia. of Armour Wire	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	mm	mm	kg/km
1	70	19	1.1	1.0	1.6	1.8	25.7	1670
1	95	19	1.1	1.0	1.6	1.8	27.8	2130
1	120	37	1.2	1.0	1.6	1.8	29.5	2465
1	150	37	1.4	1.0	1.6	1.8	31.5	2850
1	185	37	1.6	1.0	1.6	1.8	34.2	3535
1	240	61	1.7	1.0	2.0	1.9	38.5	4380
1	300	61	1.8	1.0	2.0	1.9	40.8	5190
1	400	61	2.0	1.2	2.0	2.1	44.5	6350
1	500	61	2.2	1.2	2.0	2.2	48.5	7580
1	630	127	2.4	1.2	2.5	2.3	55.0	9555
1	800	127	2.6	1.4	2.5	2.5	60.5	11700
1	1000	127	2.8	1.4	2.5	2.7	66.0	14200

XLPE-INSULATED SCREENED CABLE 600/1000V, XLPE INSULATED, PVC-SHEATHED COPPER TAPE SCREENED ARMOURED CABLES



4 cores

CU/XLPE/PVC/CTS/PVC/SWA/PVC

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Nom. Thick. of Bedding	Nom. Dia. of Armour Wire	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	mm	mm	kg/km
4	1.5	7	0.7	1.0	1.25	1.8	20.5	875
4	2.5	7	0.7	1.0	1.25	1.8	21.5	985
4	4	7	0.7	1.0	1.25	1.8	22.5	1130
4	6	7	0.7	1.0	1.25	1.8	23.8	1335
4	10	7	0.7	1.0	1.6	1.8	26.6	1785
4	16	7	0.7	1.0	1.6	1.8	29.5	2190
4	25	7	0.9	1.0	1.6	1.9	33.5	2950
4	35 (S)	19	0.9	1.0	1.6	2.0	36.5	3530
4	50 (S)	19	1.0	1.0	2.0	2.2	37.5	4375
4	70 (S)	19	1.1	1.2	2.0	2.3	42.5	5650
4	95 (S)	19	1.1	1.2	2.5	2.5	47.5	7450
4	120 (S)	37	1.2	1.4	2.5	2.6	52.5	8890
4	150 (S)	37	1.4	1.4	2.5	2.8	58.5	10635
4	185 (S)	37	1.6	1.4	2.5	2.9	63.0	12645
4	240 (S)	61	1.7	1.6	2.5	3.1	71.5	16120
4	300 (S)	61	1.8	1.6	3.15	3.3	79.5	20300

LOW SMOKE HALOGEN FREE CABLES
450/750V, LSHF INSULATED, NON SHEATHED CABLE

APPLICATION

Single core, non-sheathed general purpose cables are installed in surface mounted or embedded Conduits or similar closed systems. The cables are suitable for use in channels with cover, fixed Protection installation in or on lighting fittings and inside appliances, up to 1000V ac or up to 750 V to earth, dc.

Conductor:	Single solid wire or circular stranded plain Annealed copper wire acc. To IEC60228
Insulation:	LSHF (Low Smoke Halogen free) compound
Colour:	Assorted colours

Voltage:	450/750V
Temperature:	Maximum 105°C
Main Specification:	IEC 60502-1
Fire Retardant Test:	IEC60332-1
Smoke Density Test:	IEC61034
Halogen Test:	IEC60754-1
Acidity Test:	IEC60754-2
Testing Voltage:	3500V
Min Bending Radius:	8 x Overall Diameter

LOW SMOKE HALOGEN FREE CABLES
450/750V, LSHF INSULATED, NON SHEATHED CABLE

1 core
CU/LSHF

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	kg/km
1	1.5	7	0.7		3.1	24
1	2.5	7	0.8		3.7	36
1	4	7	0.8		4.3	52
1	6	7	0.8		4.8	73
1	10	7	1.0		6.2	124
1	16	7	1.0		7.2	182
1	25	7	1.2		9.0	285
1	35	19	1.2		10.0	378
1	50	19	1.4		11.9	510
1	70	19	1.4		13.7	720
1	95	19	1.6		16.0	995
1	120	19	1.6		17.6	1230
1	150	19	1.8		19.6	1515
1	185	19	2.0		21.9	1900
1	240	61	2.2		25.0	2475
1	300	61	2.4		28.0	3100
1	400	61	2.6		31.5	3950
1	500	61	2.8		34.7	4950
1	630	127	2.8		38.7	6300

LOW SMOKE HALOGEN FREE CABLES 600/1000V, XLPE INSULATED, LSHF-SHEATHED UNARMOURED CABLES

APPLICATION

Power Cables for electricity supply are installed in open air, underground, in cable ducts, outdoor and indoors, power stations, for industry and distribution boards as well as in subscriber networks where mechanical damages are not to be expected. The cables are suitable for continuous operation at a maximum conductor temperature of 90°C.

Conductor:	Circular stranded, circular compact stranded or sector shaped stranded plain annealed copper wire (CU) acc. To IEC 60228 class 2
Insulation:	XLPE (Cross-linked Polyethylene)
Identification of cores:	Single core – Black or Natural 2 cores – Brown, Blue or Red, black 3 cores – Brown, Black, Grey or Red, Yellow, Blue 4 cores – Brown, Black, Grey, Blue or Red, Yellow, Blue, Black 5 core and above – (number) 1,2,3,4,5,6..... and the number shall be black printed on white cores
Laying Up:	Cores stranded together. Where necessary, binder tapes and non-hygroscopic fillers may be applied
Sheath:	LSHF (Low Smoke Halogen free) compound;
Colour:	Black

Voltage:	600/1000V
Temperature:	Maximum 90°C
Main Specification:	IEC 60502-1
Fire Retardant Test:	IEC60332-1
Smoke Density Test:	IEC61034
Halogen Test:	IEC60754-1
Acidity Test:	IEC60754-2
Testing Voltage:	3500V
Min. Bending Radius:	8 x Overall Diameter
Special Properties Upon Request:	Anti-Termite sheath Anti-Rodent sheath UV-Resistant sheath Flame Retardant sheath

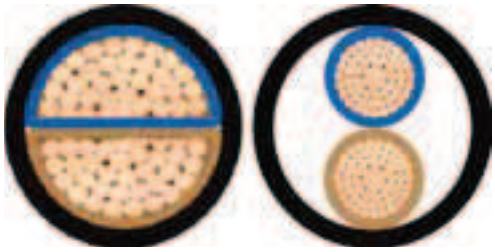
LOW SMOKE HALOGEN FREE CABLES 600/1000V, XLPE INSULATED, LSHF-SHEATHED UNARMOURED CABLES

1 core
CU/XLPE/LSHF

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	kg/km
1	1.5	7	0.7	1.4	6.0	58
1	2.5	7	0.7	1.4	6.5	69
1	4	7	0.7	1.4	7.0	92
1	6	7	0.7	1.4	7.5	121
1	10	7	0.7	1.4	8.5	173
1	16	7	0.7	1.4	9.7	242
1	25	7	0.9	1.4	11.3	357
1	35	19	0.9	1.4	12.5	477
1	50	19	1.0	1.4	13.8	621
1	70	19	1.1	1.4	15.7	863
1	95	19	1.1	1.5	18.0	1179
1	120	37	1.2	1.5	19.6	1455
1	150	37	1.4	1.6	22.0	1811
1	185	37	1.6	1.6	24.0	2168
1	240	61	1.7	1.7	27.0	2944
1	300	61	1.8	1.8	30.0	3651
1	400	61	2.0	1.9	33.5	4658
1	500	61	2.2	2.0	37.5	5854
1	630	127	2.4	2.2	42.2	7533
1	800	127	2.6	2.3	47.0	9534
1	1000	127	2.8	2.4	52.0	12023

LOW SMOKE HALOGEN FREE CABLES 600/1000V, XLPE INSULATED, LSHF-SHEATHED UNARMOURED CABLES

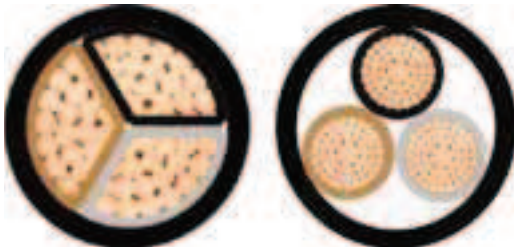
transmission of reliability & brightness



2 cores
CU/XLPE/LSHF

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	kg/km
2	1.5	7	0.7	1.8	10.0	144
2	2.5	7	0.7	1.8	10.5	184
2	4	7	0.7	1.8	12.0	236
2	6	7	0.7	1.8	13.0	299
2	10	7	0.7	1.8	15.0	431
2	16	7	0.7	1.8	17.2	592
2	25	7	0.9	1.8	20.8	782
2	35	19	0.9	1.8	19.3	978
2	50	19	1.0	1.8	21.5	1294
2	70	19	1.1	1.8	24.5	1817
2	95	19	1.1	1.9	27.4	2444
2	120	37	1.2	2.0	30.4	3065
2	150	37	1.4	2.2	34.0	3738
2	185	37	1.6	2.3	37.6	4692
2	240	61	1.7	2.5	42.3	5900
2	300	61	1.8	2.6	46.8	7257
2	400	61	2.0	2.9	52.6	9350

LOW SMOKE HALOGEN FREE CABLES 600/1000V, XLPE INSULATED, LSHF-SHEATHED UNARMOURED CABLES



3 cores
CU/XLPE/LSHF

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	kg/km
3	1.5	7	0.7	1.8	10.5	167
3	2.5	7	0.7	1.8	11.0	213
3	4	7	0.7	1.8	12.5	288
3	6	7	0.7	1.8	14.0	357
3	10	7	0.7	1.8	16.0	529
3	16	7	0.7	1.8	18.3	736
3	25	7	0.9	1.8	22.1	1058
3	35	19	0.9	1.8	21.5	1403
3	50	19	1.0	1.8	24.6	1823
3	70	19	1.1	1.9	27.9	2588
3	95	19	1.1	2.0	31.8	3536
3	120	37	1.2	2.1	35.2	4468
3	150	37	1.4	2.3	38.9	5463
3	185	37	1.6	2.4	43.5	6814
3	240	61	1.7	2.6	48.8	9016
3	300	61	1.8	2.8	54.0	11224
3	400	61	2.0	3.0	61.0	13783

LOW SMOKE HALOGEN FREE CABLES 600/1000V, XLPE INSULATED, LSHF-SHEATHED UNARMOURED CABLES

transmission of reliability & brightness

4 cores
CU/XLPE/LSHF

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	kg/km
4	1.5	7	0.7	1.8	11.0	196
4	2.5	7	0.7	1.8	12.0	259
4	4	7	0.7	1.8	13.5	351
4	6	7	0.7	1.8	15.0	443
4	10	7	0.7	1.8	17.5	667
4	16	7	0.7	1.8	19.5	983
4	25	7	0.9	1.8	22.0	1495
4	35 (S)	19	0.9	1.8	24.3	1880
4	50 (S)	19	1.0	1.9	27.5	2501
4	70 (S)	19	1.1	2.0	32.0	3531
4	95 (S)	19	1.1	2.1	35.8	4773
4	120 (S)	37	1.2	2.3	39.9	5992
4	150 (S)	37	1.4	2.4	44.0	7366
4	185 (S)	37	1.6	2.6	49.5	9212
4	240 (S)	61	1.7	2.8	55.8	12075
4	300 (S)	61	1.8	3.0	61.3	15031
4	400 (S)	61	2.0	3.3	68.5	18538

LOW SMOKE HALOGEN FREE CABLES 600/1000V, XLPE INSULATED, LSHF-SHEATHED UNARMOURED CABLES

5 cores
CU/XLPE/LSHF

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	kg/km
5	1.5	7	0.7	1.8	11.7	230
5	2.5	7	0.7	1.8	12.9	306
5	4	7	0.7	1.8	14.3	416
5	6	7	0.7	1.8	15.9	557
5	10	7	0.7	1.8	18.4	828
5	16	7	0.7	1.8	21.2	1219
5	25	7	0.9	1.8	25.8	1845
5	35	19	0.9	1.9	29.4	2494
5	50	19	1.0	2.0	33.5	3471
5	70	19	1.1	2.2	39.3	4798
5	95	19	1.1	2.4	44.8	6394
5	120	37	1.2	2.6	50.0	8026
5	150	37	1.4	2.8	55.6	10006
5	185	37	1.6	3.0	62.3	12352
5	240	61	1.7	3.2	70.4	15901

Multi-cores
CU/XLPE/LSHF

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ²	no	mm	mm	mm	kg/km
6	1.5	7	0.7	1.8	12.6	266
7	1.5	7	0.7	1.8	12.6	284
8	1.5	7	0.7	1.8	14.0	330
9	1.5	7	0.7	1.8	15.0	371
10	1.5	7	0.7	1.8	15.6	404
11	1.5	7	0.7	1.8	15.6	422
12	1.5	7	0.7	1.8	16.1	452
13	1.5	7	0.7	1.8	16.8	488
14	1.5	7	0.7	1.8	16.8	506
15	1.5	7	0.7	1.8	17.7	546
16	1.5	7	0.7	1.8	17.7	565
17	1.5	7	0.7	1.8	18.6	606
18	1.5	7	0.7	1.8	18.6	624
19	1.5	7	0.7	1.8	18.6	643
20	1.5	7	0.7	1.8	19.6	688
21	1.5	7	0.7	1.8	19.6	706
22	1.5	7	0.7	1.8	20.6	752
23	1.5	7	0.7	1.8	20.6	771
24	1.5	7	0.7	1.8	21.6	818
25	1.5	7	0.7	1.8	21.6	836
26	1.5	7	0.7	1.8	21.6	854
27	1.5	7	0.7	1.8	22.0	886
28	1.5	7	0.7	1.8	22.8	928
29	1.5	7	0.7	1.8	22.8	946

LOW SMOKE HALOGEN FREE CABLES 600/1000V, XLPE INSULATED, LSHF-SHEATHED UNARMOURED CABLES

Multi-cores
CU/XLPE/LSHF

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ²	no	mm	mm	mm	kg/km
30	1.5	7	0.7	1.8	22.8	965
31	1.5	7	0.7	1.8	23.7	1010
32	1.5	7	0.7	1.8	23.7	1028
33	1.5	7	0.7	1.8	23.7	1047
34	1.5	7	0.7	1.8	24.6	1094
35	1.5	7	0.7	1.8	24.6	1112
36	1.5	7	0.7	1.8	24.6	1130
37	1.5	7	0.7	1.8	24.6	1149
38	1.5	7	0.7	1.8	25.6	1199
39	1.5	7	0.7	1.8	25.6	1218
40	1.5	7	0.7	1.8	25.6	1236
42	1.5	7	0.7	1.8	26.6	1308
44	1.5	7	0.7	1.8	27.6	1385
46	1.5	7	0.7	1.8	27.6	1421
48	1.5	7	0.7	1.9	28.1	1478
50	1.5	7	0.7	1.9	29.0	1547

Multi-cores
CU/XLPE/LSHF

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ²	no	mm	mm	mm	kg/km
6	2.5	7	0.7	1.8	13.9	357
7	2.5	7	0.7	1.8	13.9	386
8	2.5	7	0.7	1.8	15.4	449
9	2.5	7	0.7	1.8	16.6	506
10	2.5	7	0.7	1.8	17.3	552
11	2.5	7	0.7	1.8	17.3	581
12	2.5	7	0.7	1.8	17.8	624
13	2.5	7	0.7	1.8	18.7	675
14	2.5	7	0.7	1.8	18.7	705
15	2.5	7	0.7	1.8	19.7	760
16	2.5	7	0.7	1.8	19.7	789
17	2.5	7	0.7	1.8	20.7	846
18	2.5	7	0.7	1.8	20.7	876
19	2.5	7	0.7	1.8	20.7	905
20	2.5	7	0.7	1.8	21.8	967
21	2.5	7	0.7	1.8	21.8	996
22	2.5	7	0.7	1.8	23.0	1060
23	2.5	7	0.7	1.8	23.0	1089
24	2.5	7	0.7	1.8	24.1	1153
25	2.5	7	0.7	1.8	24.1	1183
26	2.5	7	0.7	1.8	24.1	1212
27	2.5	7	0.7	1.8	24.6	1258
28	2.5	7	0.7	1.8	25.5	1316
29	2.5	7	0.7	1.8	25.5	1346

LOW SMOKE HALOGEN FREE CABLES 600/1000V, XLPE INSULATED, LSHF-SHEATHED UNARMOURED CABLES

Multi-cores
CU/XLPE/LSHF

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	kg/km
30	2.5	7	0.7	1.8	25.5	1374
31	2.5	7	0.7	1.8	26.5	1438
32	2.5	7	0.7	1.8	26.5	1466
33	2.5	7	0.7	1.8	26.5	1496
34	2.5	7	0.7	1.8	27.6	1566
35	2.5	7	0.7	1.8	27.6	1596
36	2.5	7	0.7	1.8	27.6	1625
37	2.5	7	0.7	1.8	27.6	1655
38	2.5	7	0.7	1.9	28.8	1731
39	2.5	7	0.7	1.9	28.8	1760
40	2.5	7	0.7	1.9	28.8	1789
42	2.5	7	0.7	1.9	30.0	1899
44	2.5	7	0.7	2.0	31.2	2008
46	2.5	7	0.7	2.0	31.2	2065
48	2.5	7	0.7	2.0	31.8	2148
50	2.5	7	0.7	2.0	32.7	2248

Multi-cores
CU/XLPE/LSHF

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ²	no	mm	mm	mm	kg/km
6	4	7	0.7	1.8	15.5	489
7	4	7	0.7	1.8	15.5	534
8	4	7	0.7	1.8	17.3	621
9	4	7	0.7	1.8	18.7	702
10	4	7	0.7	1.8	19.5	767
11	4	7	0.7	1.8	19.5	813
12	4	7	0.7	1.8	20.1	875
13	4	7	0.7	1.8	21.1	949
14	4	7	0.7	1.8	21.1	994
15	4	7	0.7	1.8	22.2	1072
16	4	7	0.7	1.8	22.2	1118
17	4	7	0.7	1.8	23.4	1199
18	4	7	0.7	1.8	23.4	1244
19	4	7	0.7	1.8	23.4	1289
20	4	7	0.7	1.8	24.7	1377
21	4	7	0.7	1.8	24.7	1421
22	4	7	0.7	1.8	26.0	1511
23	4	7	0.7	1.8	26.0	1556
24	4	7	0.7	1.8	27.4	1651
25	4	7	0.7	1.8	27.4	1696
26	4	7	0.7	1.8	27.4	1742
27	4	7	0.7	1.9	28.0	1811
28	4	7	0.7	1.9	29.1	1900
29	4	7	0.7	1.9	29.1	1946

LOW SMOKE HALOGEN FREE CABLES 600/1000V, XLPE INSULATED, LSHF-SHEATHED UNARMOURED CABLES

Multi-cores
CU/XLPE/LSHF

No. of cores	Nominal cross-sectional area of conductor	Number and diameter of wires	Thickness of insulation	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ²	no/mm	mm	mm	mm	kg/km
30	4	7/0.85	0.7	1.9	29.1	1991
31	4	7/0.85	0.7	1.9	30.4	2086
32	4	7/0.85	0.7	1.9	30.4	2132
33	4	7/0.85	0.7	1.9	30.4	2177
34	4	7/0.85	0.7	2.0	31.6	2276
35	4	7/0.85	0.7	2.0	31.6	2322
36	4	7/0.85	0.7	2.0	31.6	2367
37	4	7/0.85	0.7	2.0	31.6	2413
38	4	7/0.85	0.7	2.0	33.0	2520
39	4	7/0.85	0.7	2.0	33.0	2565
40	4	7/0.85	0.7	2.0	33.0	2611
42	4	7/0.85	0.7	2.1	34.5	2767
44	4	7/0.85	0.7	2.1	35.9	2924
46	4	7/0.85	0.7	2.1	35.9	3015
48	4	7/0.85	0.7	2.1	36.5	3136
50	4	7/0.85	0.7	2.2	37.6	3282

Multi-cores
CU/XLPE/LSHF

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ²	no	mm	mm	mm	kg/km
6	6	7	0.7	1.8	17.2	656
7	6	7	0.7	1.8	17.2	722
8	6	7	0.7	1.8	19.2	841
9	6	7	0.7	1.8	20.8	951
10	6	7	0.7	1.8	21.7	1043
6	10	7	0.7	1.8	20.0	980
7	10	7	0.7	1.8	20.0	1089
8	10	7	0.7	1.8	22.5	1267
9	10	7	0.7	1.8	24.4	1435
10	10	7	0.7	1.8	25.5	1579

LOW SMOKE HALOGEN FREE CABLES 600/1000V, XLPE INSULATED, LSHF-SHEATHED ARMOURED CABLES

APPLICATION

Power Cables for electricity supply are installed in open air, underground, in cable ducts, outdoor and indoors, power stations, for industry and distribution boards as well as in subscriber networks where mechanical damages are not to be expected. The cables are suitable for continuous operation at a maximum conductor temperature of 90°C.

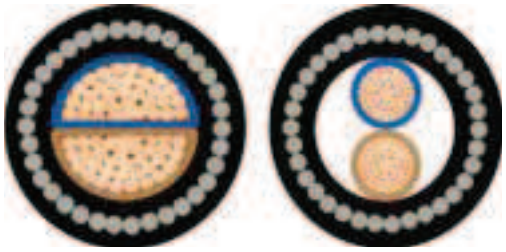
Conductor:	Circular stranded, circular compact stranded or sector shaped stranded plain annealed wire acc. To IEC 60228 class 2
Insulation:	XLPE (Cross-linked Polyethylene)
Identification of cores:	Single core – Black or Natural 2 cores – Brown, Blue or Red, black 3 cores – Brown, Black, Grey or Red, Yellow, Blue 4 cores – Brown, Black, Grey, Blue or Red, Yellow, Blue, Black 5 core and above – (number) 1,2,3,4,5,6..... and the number shall be black printed on white cores
Laying Up:	Cores stranded together. Where necessary, binder tapes and non-hygroscopic fillers may be applied
Bedding: Colour:	Extruded LSHF (low smoke halogen free) compound Black
Armour:	Single Core – consist of a single layer of non-Magnetic material, such as aluminum wire Two core and above- consist of a single Layer of galvanized steel wires
Sheath: Colour:	LSHF (Low smoke halogen free) compound; Black

Voltage:	600/1000V
Temperature:	Maximum 90°C
Main Specification:	IEC 60502-1
Fire Retardant Test:	IEC60332-1
Smoke Density Test:	IEC61034
Halogen Test:	IEC60754-1
Acidity Test:	IEC60754-2
Testing Voltage:	3500V
Min. Bending Radius:	8 × Overall Diameter
Special Properties Upon Request:	Anti-Termite sheath Anti-Rodent sheath UV-Resistant sheath Flame Retardant sheath

1 core
CU/XLPE/LSHF/AWA/LSHF

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Nom. Thickness of Bedding	Nom. Diameter of Armour Wire	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	mm	mm	kg/km
1	10	7	0.7	1.0	1.6	1.8	14.3	403
1	16	7	0.7	1.0	1.6	1.8	15.3	503
1	25	7	0.9	1.0	1.6	1.8	17.0	660
1	35	19	0.9	1.0	1.6	1.8	18.3	811
1	50	19	1.0	1.0	1.25	1.8	19.5	897
1	70	19	1.1	1.0	1.25	1.8	20.5	1121
1	95	19	1.1	1.0	1.6	1.8	22.5	1461
1	120	37	1.2	1.0	1.6	1.8	24.5	1840
1	150	37	1.4	1.0	1.6	1.8	27.5	2197
1	185	37	1.6	1.0	1.6	1.8	30.5	2680
1	240	61	1.7	1.0	1.6	1.9	33.0	3433
1	300	61	1.8	1.0	1.6	1.9	36.0	4255
1	400	61	2.0	1.2	2.0	2.1	40.5	5509
1	500	61	2.2	1.2	2.0	2.2	44.5	6768
1	630	127	2.4	1.2	2.0	2.3	49.0	8602
1	800	127	2.6	1.4	2.5	2.5	55.5	10810
1	1000	127	2.8	1.4	2.5	2.7	61.0	13369

LOW SMOKE HALOGEN FREE CABLES 600/1000V, XLPE INSULATED, LSHF-SHEATHED ARMOURED CABLES

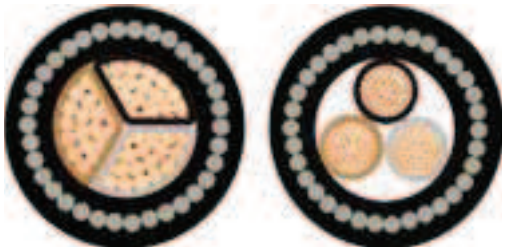


2 cores
CU/XLPE/LSHF/SWA/LSHF

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Nom. Thickness of Bedding	Nom. Diameter of Armour Wire	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	mm	mm	kg/km
2	1.5	7	0.7	1.0	0.9	1.8	13.5	391
2	2.5	7	0.7	1.0	0.9	1.8	14.5	449
2	4	7	0.7	1.0	0.9	1.8	15.5	529
2	6	7	0.7	1.0	0.9	1.8	17.0	615
2	10	7	0.7	1.0	1.25	1.8	19.0	920
2	16	7	0.7	1.0	1.25	1.8	20.5	995
2	25	7	0.9	1.0	1.6	1.8	24.0	1472
2	35	19	0.9	1.0	1.6	1.7	24.9	1754
2	50	19	1.0	1.0	1.6	1.8	27.0	2070
2	70	19	1.1	1.0	1.6	2.0	30.5	2823
2	95	19	1.1	1.2	2.0	2.1	34.2	3807
2	120	37	1.2	1.2	2.0	2.2	37.5	4612
2	150	37	1.4	1.2	2.0	2.3	40.8	5445
2	185	37	1.6	1.4	2.5	2.5	45.8	7038
2	240	61	1.7	1.4	2.5	2.7	50.8	8798
2	300	61	1.8	1.6	2.5	2.8	54.8	10488
2	400	61	2.0	1.6	2.5	3.1	62.0	13196

LOW SMOKE HALOGEN FREE CABLES 600/1000V, XLPE INSULATED, LSHF-SHEATHED ARMOURED CABLES

transmission of reliability & brightness



3 cores
CU/XLPE/LSHF/SWA/LSHF

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Nom. Thickness of Bedding	Nom. Diameter of Armour Wire	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	mm	mm	kg/km
3	1.5	7	0.7	1.0	0.9	1.8	14.0	426
3	2.5	7	0.7	1.0	0.9	1.8	15.0	500
3	4	7	0.7	1.0	0.9	1.8	16.0	598
3	6	7	0.7	1.0	0.9	1.8	17.5	702
3	10	7	0.7	1.0	1.25	1.8	20.0	1047
3	16	7	0.7	1.0	1.25	1.8	21.5	1185
3	25	7	0.9	1.0	1.6	1.8	25.5	1898
3	35	19	0.9	1.0	1.6	1.8	27.5	2317
3	50	19	1.0	1.0	1.6	1.8	30.5	2875
3	70	19	1.1	1.2	2.0	2.0	35.1	4065
3	95	19	1.1	1.2	2.0	2.2	39.3	5233
3	120	37	1.2	1.2	2.0	2.3	42.5	6337
3	150	37	1.4	1.4	2.5	2.5	48.0	8039
3	185	37	1.6	1.4	2.5	2.6	52.5	9729
3	240	61	1.7	1.6	2.5	2.8	58.0	12202
3	300	61	1.8	1.6	2.5	3.0	63.5	14835
3	400	61	2.0	1.6	2.5	3.2	74.0	18998

LOW SMOKE HALOGEN FREE CABLES 600/1000V, XLPE INSULATED, LSHF-SHEATHED ARMOURED CABLES

4 cores
CU/XLPE/LSHF/SWA/LSHF

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Nom. Thickness of Bedding	Nom. Diameter of Armour Wire	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	mm	mm	kg/km
4	1.5	7	0.7	1.0	0.9	1.8	15.0	477
4	2.5	7	0.7	1.0	0.9	1.8	16.0	564
4	4	7	0.7	1.0	0.9	1.8	17.0	690
4	6	7	0.7	1.0	1.25	1.8	19.5	937
4	10	7	0.7	1.0	1.25	1.8	22.0	1231
4	16	7	0.7	1.0	1.6	1.8	25.0	1748
4	25	7	0.9	1.0	1.6	1.8	28.0	2340
4	35 (S)	19	0.9	1.0	1.6	1.9	30.5	2904
4	50 (S)	19	1.0	1.0	1.6	2.0	33.5	3646
4	70 (S)	19	1.1	1.2	2.0	2.2	39.5	5233
4	95 (S)	19	1.1	1.2	2.0	2.3	43.5	6670
4	120 (S)	37	1.2	1.4	2.5	2.5	49.0	8602
4	150 (S)	37	1.4	1.4	2.5	2.6	53.5	10264
4	185 (S)	37	1.6	1.4	2.5	2.8	58.5	12420
4	240 (S)	61	1.7	1.6	2.5	3.0	65.5	15870
4	300 (S)	61	1.8	1.6	2.5	3.2	70.0	19320
4	400 (S)	61	2.0	1.8	3.15	3.5	83.0	25565

LOW SMOKE HALOGEN FREE CABLES 600/1000V, XLPE INSULATED, LSHF-SHEATHED ARMOURED CABLES

5 cores
CU/XLPE/LSHF/SWA/LSHF

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Nom. Thickness of Bedding	Nom. Diameter of Armour Wire	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	mm	mm	kg/km
5	1.5	7	0.7	1.0	1.25	1.8	16.2	650
5	2.5	7	0.7	1.0	1.25	1.8	17.4	765
5	4	7	0.7	1.0	1.25	1.8	18.8	925
5	6	7	0.7	1.0	1.25	1.8	20.4	1118
5	10	7	0.7	1.0	1.60	1.8	23.6	1636
5	16	7	0.7	1.0	1.60	1.8	26.4	2147
5	25	7	0.9	1.0	1.60	2.0	31.4	2997
5	35	19	0.9	1.2	2.0	2.1	36.2	4153
5	50	19	1.0	1.2	2.0	2.3	40.4	5345
5	70	19	1.1	1.2	2.50	2.5	47.2	7466
5	95	19	1.1	1.4	2.50	2.7	53.2	9489
5	120	37	1.2	1.4	2.50	2.8	58.4	11456
5	150	37	1.4	1.6	2.50	3.0	64.4	13893
5	185	37	1.6	1.6	2.50	3.3	71.0	16675
5	240	61	1.7	1.8	3.15	3.6	81.0	21991

LOW SMOKE HALOGEN FREE CABLES 600/1000V, XLPE INSULATED, LSHF-SHEATHED ARMOURED CABLES

Multi-cores
CU/XLPE/LSHF/SWA/LSHF

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Nom. Thickness of Bedding	Nom. Diameter of Armour Wire	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	mm	mm	kg/km
6	1.5	7	0.7	1.0	1.25	1.8	17.1	716
7	1.5	7	0.7	1.0	1.25	1.8	17.1	734
8	1.5	7	0.7	1.0	1.25	1.8	18.5	827
9	1.5	7	0.7	1.0	1.25	1.8	19.5	904
10	1.5	7	0.7	1.0	1.25	1.8	20.1	956
11	1.5	7	0.7	1.0	1.25	1.8	20.1	974
12	1.5	7	0.7	1.0	1.25	1.8	20.6	1020
13	1.5	7	0.7	1.0	1.60	1.8	22.0	1232
14	1.5	7	0.7	1.0	1.60	1.8	22.0	1250
15	1.5	7	0.7	1.0	1.60	1.8	22.9	1326
16	1.5	7	0.7	1.0	1.60	1.8	22.9	1344
17	1.5	7	0.7	1.0	1.60	1.8	23.8	1424
18	1.5	7	0.7	1.0	1.60	1.8	23.8	1442
19	1.5	7	0.7	1.0	1.60	1.8	23.8	2724
20	1.5	7	0.7	1.0	1.60	1.8	24.8	1547
21	1.5	7	0.7	1.0	1.60	1.8	24.8	1565
22	1.5	7	0.7	1.0	1.60	1.8	25.8	1655
23	1.5	7	0.7	1.0	1.60	1.8	25.8	1673
24	1.5	7	0.7	1.0	1.60	1.8	26.8	1764
25	1.5	7	0.7	1.0	1.60	1.8	26.8	1781
26	1.5	7	0.7	1.0	1.60	1.8	26.8	1800
27	1.5	7	0.7	1.0	1.60	1.8	27.3	1853

Multi-cores
CU/XLPE/LSHF/SWA/LSHF

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Nom. Thickness of Bedding	Nom. Diameter of Armour Wire	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	mm	mm	kg/km
28	1.5	7	0.7	1.0	1.60	1.9	28.1	1932
29	1.5	7	0.7	1.0	1.60	1.9	28.1	1950
30	1.5	7	0.7	1.0	1.60	1.9	28.1	1969
31	1.5	7	0.7	1.0	1.60	1.9	29.1	2056
32	1.5	7	0.7	1.0	1.60	1.9	29.1	2075
33	1.5	7	0.7	1.0	1.60	1.9	29.1	2092
34	1.5	7	0.7	1.0	1.60	1.9	30.0	2184
35	1.5	7	0.7	1.0	1.60	1.9	30.0	2202
36	1.5	7	0.7	1.0	1.60	1.9	30.0	2220
37	1.5	7	0.7	1.0	1.60	1.9	30.0	2238
38	1.5	7	0.7	1.0	1.60	2.0	31.1	2338
39	1.5	7	0.7	1.0	1.60	2.0	31.1	2356
40	1.5	7	0.7	1.0	1.60	2.0	31.1	2375
42	1.5	7	0.7	1.0	2.00	2.0	32.2	2497
44	1.5	7	0.7	1.0	2.00	2.0	34.1	2899
46	1.5	7	0.7	1.0	2.00	2.0	34.1	2935
48	1.5	7	0.7	1.0	2.00	2.1	34.5	3014
50	1.5	7	0.7	1.2	2.00	2.1	35.8	3183

LOW SMOKE HALOGEN FREE CABLES 600/1000V, XLPE INSULATED, LSHF-SHEATHED ARMOURED CABLES

Multi-cores
CU/XLPE/LSHF/SWA/LSHF

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Nom. Thickness of Bedding	Nom. Diameter of Armour Wire	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	mm	mm	kg/km
6	2.5	7	0.7	1.0	1.25	1.8	18.4	850
7	2.5	7	0.7	1.0	1.25	1.8	18.4	879
8	2.5	7	0.7	1.0	1.25	1.8	19.9	995
9	2.5	7	0.7	1.0	1.60	1.8	21.8	1241
10	2.5	7	0.7	1.0	1.60	1.8	22.5	1316
11	2.5	7	0.7	1.0	1.60	1.8	22.5	1344
12	2.5	7	0.7	1.0	1.60	1.8	23.0	1410
13	2.5	7	0.7	1.0	1.60	1.8	23.9	1497
14	2.5	7	0.7	1.0	1.60	1.8	23.9	1526
15	2.5	7	0.7	1.0	1.60	1.8	24.9	1624
16	2.5	7	0.7	1.0	1.60	1.8	24.9	1653
17	2.5	7	0.7	1.0	1.60	1.8	25.9	1754
18	2.5	7	0.7	1.0	1.60	1.8	25.9	1783
19	2.5	7	0.7	1.0	1.60	1.8	25.9	1811
20	2.5	7	0.7	1.0	1.60	1.8	27.1	1924
21	2.5	7	0.7	1.0	1.60	1.8	27.1	1953
22	2.5	7	0.7	1.0	1.60	1.9	28.3	2073
23	2.5	7	0.7	1.0	1.60	1.9	28.3	2102
24	2.5	7	0.7	1.0	1.60	1.9	29.5	2222
25	2.5	7	0.7	1.0	1.60	1.9	29.5	2251
26	2.5	7	0.7	1.0	1.60	1.9	29.5	2279
27	2.5	7	0.7	1.0	1.60	1.9	30.1	2349

Multi-cores
CU/XLPE/LSHF/SWA/LSHF

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Nom. Thickness of Bedding	Nom. Diameter of Armour Wire	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	mm	mm	kg/km
28	2.5	7	0.7	1.0	1.60	1.9	31.0	2453
29	2.5	7	0.7	1.0	1.60	1.9	31.0	2482
30	2.5	7	0.7	1.0	1.60	1.9	31.0	2510
31	2.5	7	0.7	1.0	1.60	2.0	32.1	2623
32	2.5	7	0.7	1.0	1.60	2.0	32.1	2652
33	2.5	7	0.7	1.0	1.60	2.0	32.1	2681
34	2.5	7	0.7	1.0	2.00	2.0	34.0	3077
35	2.5	7	0.7	1.0	2.00	2.0	34.0	3106
36	2.5	7	0.7	1.0	2.00	2.0	34.0	3135
37	2.5	7	0.7	1.0	2.00	2.0	34.0	3164
38	2.5	7	0.7	1.2	2.00	2.1	35.6	3014
39	2.5	7	0.7	1.2	2.00	2.1	35.6	3387
40	2.5	7	0.7	1.2	2.00	2.1	35.6	3416
42	2.5	7	0.7	1.2	2.00	2.1	36.9	3590
44	2.5	7	0.7	1.2	2.00	2.2	38.1	3763
46	2.5	7	0.7	1.2	2.00	2.2	38.1	3820
48	2.5	7	0.7	1.2	2.00	2.2	38.6	3931
50	2.5	7	0.7	1.2	2.00	2.2	39.6	4080

LOW SMOKE HALOGEN FREE CABLES 600/1000V, XLPE INSULATED, LSHF-SHEATHED ARMOURED CABLES

Multi-cores
CU/XLPE/LSHF/SWA/LSHF

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Nom. Thickness of Bedding	Nom. Diameter of Armour Wire	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	mm	mm	kg/km
6	4	7	0.7	1.0	1.25	1.8	20.0	1037
7	4	7	0.7	1.0	1.25	1.8	20.0	1081
8	4	7	0.7	1.0	1.60	1.8	22.5	1383
9	4	7	0.7	1.0	1.60	1.8	23.9	1523
10	4	7	0.7	1.0	1.60	1.8	24.7	1623
11	4	7	0.7	1.0	1.60	1.8	24.7	1666
12	4	7	0.7	1.0	1.60	1.8	25.3	1756
13	4	7	0.7	1.0	1.60	1.8	26.3	1871
14	4	7	0.7	1.0	1.60	1.8	26.3	1916
15	4	7	0.7	1.0	1.60	1.8	27.5	2048
16	4	7	0.7	1.0	1.60	1.8	27.5	2093
17	4	7	0.7	1.0	1.60	1.9	28.8	2232
18	4	7	0.7	1.0	1.60	1.9	28.8	2277
19	4	7	0.7	1.0	1.60	1.9	28.8	2321
20	4	7	0.7	1.0	1.60	1.9	30.1	2473
21	4	7	0.7	1.0	1.60	1.9	30.1	2517
22	4	7	0.7	1.0	1.60	2.0	31.6	2674
23	4	7	0.7	1.0	1.60	2.0	31.6	2719
24	4	7	0.7	1.0	2.00	2.0	33.8	3153
25	4	7	0.7	1.0	2.00	2.0	33.8	3198
26	4	7	0.7	1.0	2.00	2.0	33.8	3243
27	4	7	0.7	1.0	2.00	2.1	34.5	3344

Multi-cores
CU/XLPE/LSHF/SWA/LSHF

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Nom. Thickness of Bedding	Nom. Diameter of Armour Wire	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	mm	mm	kg/km
28	4	7	0.7	1.2	2.00	2.1	36.0	3547
29	4	7	0.7	1.2	2.00	2.1	36.0	3591
30	4	7	0.7	1.2	2.00	2.1	36.0	3636
31	4	7	0.7	1.2	2.00	2.2	37.2	3796
32	4	7	0.7	1.2	2.00	2.2	37.2	3841
33	4	7	0.7	1.2	2.00	2.2	37.2	3886
34	4	7	0.7	1.2	2.00	2.2	38.5	4051
35	4	7	0.7	1.2	2.00	2.2	38.5	4096
36	4	7	0.7	1.2	2.00	2.2	38.5	4141
37	4	7	0.7	1.2	2.00	2.2	38.5	4185
38	4	7	0.7	1.2	2.00	2.2	39.9	4367
39	4	7	0.7	1.2	2.00	2.2	39.9	4410
40	4	7	0.7	1.2	2.00	2.2	39.9	4455
42	4	7	0.7	1.2	2.00	2.3	41.3	4687
44	4	7	0.7	1.2	2.00	2.3	42.7	4919
46	4	7	0.7	1.2	2.00	2.3	42.7	5008
48	4	7	0.7	1.2	2.00	2.4	43.3	5162
50	4	7	0.7	1.2	2.50	2.4	45.5	5841

LOW SMOKE HALOGEN FREE CABLES 600/1000V, XLPE INSULATED, LSHF-SHEATHED ARMOURED CABLES

Multi-cores
CU/XLPE/LSHF/SWA/LSHF

No. of cores	Nominal cross-sectional area of conductor	Number of wires	Thickness of insulation	Nom. Thickness of Bedding	Nom. Diameter of Armour Wire	Thickness of oversheath	Approx overall diameter	Approx net weight
no	mm ^{2}	no	mm	mm	mm	mm	mm	kg/km
6	6	7	0.7	1.0	1.60	1.8	22.4	1416
7	6	7	0.7	1.0	1.60	1.8	22.4	1481
8	6	7	0.7	1.0	1.60	1.8	24.4	1686
9	6	7	0.7	1.0	1.60	1.8	26.0	1864
10	6	7	0.7	1.0	1.60	1.8	27.0	1998
6	10	7	0.7	1.0	1.60	1.8	25.2	1857
7	10	7	0.7	1.0	1.60	1.8	25.2	1964
8	10	7	0.7	1.0	1.60	1.8	27.7	2255
9	10	7	0.7	1.0	1.60	1.9	29.8	2516
10	10	7	0.7	1.0	1.60	1.9	30.9	2714

CONTENTS

INSTRUMENTATION CABLE
BS EN 50288-7

500V, individually and collectively screened (ISOS) armoured braided SWB		
Single & Multi Pair/Traids	CU/PVC/IS/OS/PVC/SWB/PVC-RP	70°C
Single & Multi Pair/Traids	CU/PE/IS/OS/PVC/SWB/PVC-RP	65°C
Single & Multi Pair/Traids	CU/PE/IS/OS/LSHF/SWB/LSHF	65°C
Single & Multi Pair/Traids	CU/XLPE/IS/OS/PVC/SWB/PVC-RP	90°C
Single & Multi Pair/Traids	CU/XLPE/IS/OS/LSHF/SWB/LSHF	90°C
Single & Multi Pair/Traids	CU/LSHF/IS/OS/LSHF/SWB/LSHF	90°C

COLLECTIVELY SCREENED (OS) 500V

APPLICATION

This Specification covers screened cables used in the provision of communication services and the interconnection of electrical equipment and instruments, particularly in and around process plants. These cables are generally for indoor applications.

CONSTRUCTION

Conductor	:	Plain Annealed Copper Wires to BS 6360
Insulation	:	PE or XLPE or PVC or LSHF compound
For Pairs	:	Insulated cores are twisted to form a pair, nominal length of lay of any pair shall not exceed 100mm
Insulation color	:	1 pair – Black & White 2 pair & above – Black & white core with number 1 Traid – Black, White and Red 2 Traids and above – Black, White and Red printed with number 2 cores and above – White cores printed with number
Wrapping	:	Polyester Binder tape
Overall screen	:	Aluminium/Polyester tape, metallic side down in contact with tinned copper drain wire 0.5mm ^{2}
Outer sheath	:	PVC-RP (Fire Retardant Compound) or LSHF (Fire retardant Low Smoke Halogen Free Compound)
Sheath color	:	Blue for intrinsically safe cable Black for non-intrinsically safe cable Anti-termite, anti-vermin, anti-rodent, UV-resistant is available upon request

COLLECTIVELY SCREENED (OS)
500V

TECHNICAL INFORMATION

Max. Operating Temperature (°C)	PE 65	XLPE 90	PVC 70 or 105	LSHF 90 or 150
High Voltage Test	2000 V_{ac} for 1 minute			
Reference Standard	BS EN50288-7			
Flame Retardant Property	IEC 60332-1			
Fire Retardant on bunched cables Property	IEC 60332-3-22			
Halogen Free Property	IEC 60754 (only for LSHF)			
Low Smoke Emission Property	IEC 61034 (only for LSHF)			
Min. Bending Radius	5 × OD			

Max. DC Conductor Resistance @ 20°C	Multi-pair/Multi-Traid	Multi-core
0.50mm ^{2}	39.7Ω/km	39.0Ω/km
0.75mm ^{2}	26.5Ω/km	26.0Ω/km
1.00mm ^{2}	18.4Ω/km	18.1Ω/km
1.50mm ^{2}	12.3Ω/km	12.1Ω/km
2.50mm ^{2}	7.56Ω/km	7.41Ω/km

Maximum L/R ratio	0.50mm ^{2}	0.75mm ^{2}	1.00mm ^{2}	1.50mm ^{2}	2.50mm ^{2}
µH/Ω	25	25	25	40	60

COLLECTIVELY SCREENED (OS)
500V

Type Available

CU/PVC/OS/PVC-RP
CU/XLPE/OS/PVC-RP
CU/PE/OS/PVC-RP
CU/XLPE/OS/LSHF
CU/PE/OS/LSHF
CU/LSHF/OS/LSHF

Nominal Area (mm^2) No. of pairs	Outer diameter approx (mm)	Cable Weight Approx. (kg/km)
1×2×0.5	6.9	67
2×2×0.5	11.5	138
3×2×0.5	12.0	161
4×2×0.5	13.5	193
5×2×0.5	14.5	229
6×2×0.5	15.9	268
8×2×0.5	17.9	335
10×2×0.5	20.5	419
12×2×0.5	21.0	461
15×2×0.5	23.5	564
16×2×0.5	23.5	575
20×2×0.5	26.5	709
24×2×0.5	29.5	857
30×2×0.5	31.0	993
36×2×0.5	33.7	1166
1×2×0.75	7.5	76
2×2×0.75	12.2	161
3×2×0.75	13.0	191
4×2×0.75	14.5	231
5×2×0.75	15.6	275
6×2×0.75	17.1	323
8×2×0.75	19.3	408

Nominal Area (mm^2) No. of pairs	Outer diameter approx (mm)	Cable Weight Approx. (kg/km)
10×2×0.75	22.0	527
12×2×0.75	22.8	566
15×2×0.75	25.5	694
16×2×0.75	25.5	710
20×2×0.75	28.6	877
24×2×0.75	31.9	1062
30×2×0.75	33.9	1238
36×2×0.75	36.7	1441
1×2×1.0	7.8	85
2×2×1.0	13.0	183
3×2×1.0	13.8	219
4×2×1.0	15.2	267
5×2×1.0	16.6	319
6×2×1.0	18.5	375
8×2×1.0	20.6	476
10×2×1.0	23.5	598
12×2×1.0	24.5	664
15×2×1.0	27.2	817
16×2×1.0	27.2	837
20×2×1.0	30.5	1036
24×2×1.0	34.0	1256
30×2×1.0	36.5	1470

COLLECTIVELY SCREENED (OS)
500V

Nominal Area (mm^2) No. of pairs	Outer diameter approx (mm)	Cable Weight Approx. (kg/km)
36×2×1.0	40.0	1733
1×2×1.5	8.5	101
2×2×1.5	14.0	223
3×2×1.5	15.0	271
4×2×1.5	16.6	332
5×2×1.5	18.5	399
6×2×1.5	20.0	472
8×2×1.5	22.7	603
10×2×1.5	26.0	759
12×2×1.5	27.0	848
16×2×1.5	30.0	1075
20×2×1.5	33.8	1229
24×2×1.5	37.7	1620
36×2×1.5	43.6	2253

Nominal Area (mm^2) No. of pairs	Outer diameter approx (mm)	Cable Weight Approx. (kg/km)
1×2×2.5	9.6	135
2×2×2.5	16.7	315
3×2×2.5	17.9	388
4×2×2.5	19.8	481
5×2×2.5	21.8	583
6×2×2.5	23.9	692
8×2×2.5	27.2	890
10×2×2.5	31.2	1127
12×2×2.5	32.3	1266
16×2×2.5	36.2	1616
20×2×2.5	41.0	2014
24×2×2.5	45.5	2449

Due to variables in production, the information on this sheet is approximate and subject to change without notice.

COLLECTIVELY SCREENED (OS)
500V

Type Available

CU/PVC/OS/PVC-RP
CU/XLPE/OS/PVC-RP
CU/PE/OS/PVC-RP
CU/XLPE/OS/LSHF
CU/PE/OS/LSHF
CU/LSHF/OS/LSHF

Nominal Area (mm^2) No. of traids	Outer diameter approx. (mm)	Cable Weight Approx. (kg/km)
1×3×0.5	7.3	79
2×3×0.5	12.0	167
5×3×0.5	15.5	290
10×3×0.5	21.8	496
20×3×0.5	28.2	941
24×3×0.5	31.4	1138
30×3×0.5	33.4	1335
1×3×0.75	7.8	92
2×3×0.75	13.0	198
5×3×0.75	16.7	354
10×3×0.75	23.6	669
20×3×0.75	30.7	1177
24×3×0.75	34.5	1425
30×3×0.75	36.4	1680
1×3×1.0	8.2	104
2×3×1.0	13.8	227
5×3×1.0	17.8	414
10×3×1.0	25.2	789
20×3×1.0	32.8	1401
24×3×1.0	36.7	1698
30×3×1.0	39.0	2009
1×3×1.5	8.8	126

Nominal Area (mm^2) No. of traids	Outer diameter approx. (mm)	Cable Weight Approx. (kg/km)
2×3×1.5	15.0	280
5×3×1.5	19.5	526
10×3×1.5	27.8	1013
20×3×1.5	36.3	1824
24×3×1.5	40.5	2212
30×3×1.5	43.1	2630
1×3×2.5	10.0	174
2×3×2.5	17.9	402
5×3×2.5	23.5	780
10×3×2.5	33.5	1524
20×3×2.5	43.8	2780
24×3×2.5	49.0	3376
30×3×2.5	52.5	3955
2×0.5	7.0	71
3×0.5	7.5	83
5×0.5	8.5	113
10×0.5	11.3	193
20×0.5	14.3	325
24×0.5	15.8	387
30×0.5	16.7	453
2×0.75	7.4	82
3×0.75	7.8	96

COLLECTIVELY SCREENED (OS)
500V

Nominal Area (mm^2) No. of traids	Outer diameter approx. (mm)	Cable Weight Approx. (kg/km)
5×0.75	9.0	133
10×0.75	12.5	235
20×0.75	15.5	402
24×0.75	17.2	480
30×0.75	18.1	565
2×1.0	7.8	91
3×1.0	8.2	109
5×1.0	9.5	153
10×1.0	13.0	274
20×1.0	16.5	475
24×1.0	18.5	568
30×1.0	19.3	672
2×1.5	8.3	108
3×1.5	8.8	132

Nominal Area (mm^2) No. of traids	Outer diameter approx. (mm)	Cable Weight Approx. (kg/km)
5×1.5	10.5	190
10×1.5	14.2	347
20×1.5	18.0	612
24×1.5	20.0	799
30×1.5	21.2	874
2×2.5	9.6	147
3×2.5	10.1	184
5×2.5	12.2	273
10×2.5	16.9	512
20×2.5	21.5	921
24×2.5	24.0	1108
30×2.5	25.5	1327

Due to variables in production, the information on this sheet is approximate and subject to change without notice.

INDIVIDUAL & COLLECTIVELY SCREENED (ISOS), 500V

APPLICATION

This Specification covers screened cables used in the provision of communication services and the interconnection of electrical equipment and instruments, particularly in and around process plants. These cables are generally for indoor applications.

CONSTRUCTION

Conductor	:	Plain Annealed Copper Wires to BS 6360
Insulation	:	PE or XLPE or PVC or LSHF compound
For Pairs	:	Insulated cores are twisted to form a pair, nominal length of lay of any pair shall not exceed 100mm
Insulation color	:	1 pair – Black & White 2 pair & above – Black & white core with black number 1 Traid – Black, White and Red 2 Traids and above – Black, White and Red printed with number
Individual screen	:	Aluminium/Polyester tape, metallic side down in contact with tinned copper drain wire 0.5mm ^{2}
Wrapping	:	Polyester Binder tape
Overall screen	:	Aluminium/Polyester tape, metallic side down in contact with tinned copper drain wire 0.5mm ^{2}
Outer sheath	:	PVC-RP (Fire Retardant Compound) or LSHF (Fire retardant Low Smoke Halogen Free Compound)
Sheath color	:	Blue for intrinsically safe cable Black for non-intrinsically safe cable Anti-termite, anti-vermin, anti-rodent, UV-resistant is available upon request

INDIVIDUAL & COLLECTIVELY SCREENED (ISOS), 500V

TECHNICAL INFORMATION

Max. Operating Temperature (°C)	PE 65	XLPE 90	PVC 70 or 105	LSHF 90 or 150
High Voltage Test	2000 V_{ac} for 1 minute			
Reference Standard	BS EN50288-7			
Flame Retardant Property	IEC 60332-1			
Fire Retardant on bunched cables Property	IEC 60332-3-22			
Halogen Free Property	IEC 60754 (only for LSHF)			
Low Smoke Emission Property	IEC 61034 (only for LSHF)			
Min. Bending Radius	5 × OD			

Max. DC Conductor Resistance @ 20°C	Multi-pair/Multi-Traid	Multi-core
0.50mm ^{2}	39.7Ω/km	39.0Ω/km
0.75mm ^{2}	26.5Ω/km	26.0Ω/km
1.00mm ^{2}	18.4Ω/km	18.1Ω/km
1.50mm ^{2}	12.3Ω/km	12.1Ω/km
2.50mm ^{2}	7.56Ω/km	7.41Ω/km

Maximum L/R ratio	0.50mm^2	0.75mm^2	1.00mm^2	1.50mm^2	2.50mm^2
µH/Ω	25	25	25	40	60

INDIVIDUAL & COLLECTIVELY SCREENED (ISOS), 500V

Type Available

CU/PVC/IS/OS/PVC-RP
CU/XLPE/IS/OS/PVC-RP
CU/PE/IS/OS/PVC-RP
CU/XLPE/IS/OS/LSHF
CU/PE/IS/OS/LSHF
CU/LSHF/IS/OS/LSHF

Nominal Area (mm^2) No. of pairs	Outer diameter approx. (mm)	Cable Weight Approx. (kg/km)
2×2×0.5	11.5	153
3×2×0.5	12.5	183
4×2×0.5	13.5	223
5×2×0.5	14.7	265
6×2×0.5	16.1	311
8×2×0.5	18.2	393
10×2×0.5	20.8	492
12×2×0.5	21.5	547
15×2×0.5	24.0	670
16×2×0.5	24.0	688
20×2×0.5	26.8	850
24×2×0.5	30.0	1027
30×2×0.5	31.8	1203
36×2×0.5	34.5	1399
2×2×0.75	12.4	178
3×2×0.75	13.2	214
4×2×0.75	14.5	261
5×2×0.75	15.9	312
6×2×0.75	17.4	368
8×2×0.75	20.0	467

Nominal Area (mm^2) No. of pairs	Outer diameter approx. (mm)	Cable Weight Approx. (kg/km)
10×2×0.75	22.5	586
12×2×0.75	23.5	654
15×2×0.75	26.0	826
16×2×0.75	26.0	826
20×2×0.75	27.5	942
24×2×0.75	32.5	1259
30×2×0.75	34.6	1454
36×2×0.75	37.6	1715
2×2×1.0	13.2	200
3×2×1.0	14.0	243
4×2×1.0	15.5	297
5×2×1.0	16.9	357
6×2×1.0	18.6	421
8×2×1.0	21.0	537
10×2×1.0	23.9	674
12×2×1.0	23.9	701
15×2×1.0	27.7	929
16×2×1.0	27.7	956
20×2×1.0	31.1	1185
24×2×1.0	34.7	1435

INDIVIDUAL & COLLECTIVELY SCREENED (ISOS), 500V

Nominal Area (mm^2) No. of pairs	Outer diameter approx. (mm)	Cable Weight Approx. (kg/km)
30×2×1.0	37.0	1691
36×2×1.0	40.1	1997
2×2×1.5	14.3	240
3×2×1.5	15.3	295
4×2×1.5	16.9	384
5×2×1.5	18.5	439
6×2×1.5	20.5	520
8×2×1.5	23.0	665
10×2×1.5	26.5	838
12×2×1.5	27.5	941
16×2×1.5	30.5	1198
20×2×1.5	34.5	1489
24×2×1.5	38.3	1806
36×2×1.5	44.5	2526

Nominal Area (mm^2) No. of pairs	Outer diameter approx. (mm)	Cable Weight Approx. (kg/km)
2×2×2.5	17.0	333
3×2×2.5	18.1	414
4×2×2.5	20.0	516
5×2×2.5	22.1	625
6×2×2.5	24.5	743
8×2×2.5	27.6	958
10×2×2.5	31.6	1212
12×2×2.5	32.7	1366
16×2×2.5	36.7	1748
20×2×2.5	41.5	2234
24×2×2.5	46.5	2649

Due to variables in production, the information on this sheet is approximate and subject to change without notice.

INDIVIDUAL & COLLECTIVELY SCREENED (ISOS), 500V

Type Available

CU/PVC/IS/OS/PVC-RP
CU/XLPE/IS/OS/PVC-RP
CU/PE/IS/OS/PVC-RP
CU/XLPE/IS/OS/LSHF
CU/PE/IS/OS/LSHF
CU/LSHF/IS/OS/LSHF

Nominal Area (mm^2) No. of traids	Outer diameter approx. (mm)	Cable Weight Approx. (kg/km)
2×3×0.5	12.3	183
5×3×0.5	15.7	327
10×3×0.5	22.2	616
20×3×0.5	28.9	1085
24×3×0.5	32.0	1339
30×3×0.5	34.1	1550
2×3×0.75	13.2	214
5×3×0.75	17.0	392
10×3×0.75	24.0	745
20×3×0.75	31.3	1326
24×3×0.75	34.9	1605
30×3×0.75	37.5	1901
2×3×1.0	14.0	244
5×3×1.0	18.0	453
10×3×1.0	25.6	867
20×3×1.0	33.5	1553

Nominal Area (mm^2) No. of traids	Outer diameter approx. (mm)	Cable Weight Approx. (kg/km)
24×3×1.0	37.5	1885
30×3×1.0	40.0	2235
2×3×1.5	15.5	298
5×3×1.5	20.0	567
10×3×1.5	28.2	1095
20×3×1.5	36.8	1982
24×3×1.5	41.2	2402
30×3×1.5	43.8	2885
2×3×2.5	18.1	421
5×3×2.5	23.6	824
10×3×2.5	33.9	1611
20×3×2.5	44.5	2951
24×3×2.5	50.0	3583
30×3×2.5	53.0	4287

Due to variables in production, the information on this sheet is approximate and subject to change without notice.

COLLECTIVELY SCREENED (OS) ARMOURED SWA, 500V

APPLICATION

This Specification covers screened cables used in the provision of communication services and the interconnection of electrical equipment and instruments, particularly in and around process plants. These cables are generally for indoor applications.

CONSTRUCTION

Conductor	:	Plain Annealed Copper Wires to BS 6360
Insulation	:	PE or XLPE or PVC or LSHF compound
For Pairs	:	Insulated cores are twisted to form a pair, nominal length of lay of any pair shall not exceed 100mm
Insulation color	:	1 pair – Black & White 2 pair & above – Black & white core with black number 1 Traid – Black, White and Red 2 Traids and above – Black, White and Red printed with number 2 cores and above – White cores printed with number
Wrapping	:	Polyester Binder tape
Overall screen	:	Aluminium/Polyester tape, metallic side down in contact with tinned copper drain wire 0.5mm ^{2}
Bedding	:	PVC or LSHF
Armouring	:	Galvanized steel wires SWA
Outer sheath	:	PVC-RP (Fire Retardant Compound) or LSHF (Fire retardant Low Smoke Halogen Free Compound)
Sheath color	:	Blue for intrinsically safe cable Black for non-intrinsically safe cable Anti-termite, anti-vermin, anti-rodent, UV-resistant is available upon request

COLLECTIVELY SCREENED (OS) ARMOURED SWA, 500V

TECHNICAL INFORMATION

Max. Operating Temperature (°C)	PE 65	XLPE 90	PVC 70 or 105	LSHF 90 or 150
High Voltage Test	2000 V_{ac} for 1 minute			
Reference Standard	BS EN50288-7			
Flame Retardant Property	IEC 60332-1			
Fire Retardant on bunched cables Property	IEC 60332-3-22			
Halogen Free Property	IEC 60754 (only for LSHF)			
Low Smoke Emission Property	IEC 61034 (only for LSHF)			
Min. Bending Radius	6 × OD			

Max. DC Conductor Resistance @ 20°C	Multi-pair/Multi-Traid	Multi-core
0.50mm ^{2}	39.7Ω/km	39.0Ω/km
0.75mm ^{2}	26.5Ω/km	26.0Ω/km
1.00mm ^{2}	18.4Ω/km	18.1Ω/km
1.50mm ^{2}	12.3Ω/km	12.1Ω/km
2.50mm ^{2}	7.56Ω/km	7.41Ω/km

Maximum L/R ratio	0.50mm^2	0.75mm^2	1.00mm^2	1.50mm^2	2.50mm^2
µH/Ω	25	25	25	40	60

COLLECTIVELY SCREENED (OS) ARMOURED SWA, 500V

Type Available

CU/PVC/OS/PVC/SWA/PVC-RP
CU/XLPE/OS/PVC/SWA/PVC-RP
CU/PE/OS/PVC/SWA/PVC-RP
CU/XLPE/OS/LSHF/SWA/LSHF
CU/PE/OS/LSHF/SWA/LSHF
CU/LSHF/OS/LSHF/SWA/LSHF

Nominal Area (mm^2) No. of pairs	Outer diameter approx. (mm)	Cable Weight Approx. (kg/km)
1×2×0.5	10.8	254
2×2×0.5	15.5	432
3×2×0.5	16.5	472
4×2×0.5	17.5	531
5×2×0.5	18.6	595
6×2×0.5	20.0	666
8×2×0.5	23.0	919
10×2×0.5	25.0	1077
12×2×0.5	26.0	1140
15×2×0.5	28.5	1315
16×2×0.5	28.5	1327
20×2×0.5	31.0	1545
24×2×0.5	35.5	2054
30×2×0.5	37.0	2260
36×2×0.5	40.0	2533
1×2×0.75	11.5	274
2×2×0.75	16.3	476
3×2×0.75	17.0	524
4×2×0.75	18.5	594
5×2×0.75	20.0	669
6×2×0.75	21.9	902
8×2×0.75	24.1	1037

Nominal Area (mm^2) No. of pairs	Outer diameter approx. (mm)	Cable Weight Approx. (kg/km)
10×2×0.75	27.0	1222
12×2×0.75	27.6	1299
15×2×0.75	30.3	1507
16×2×0.75	30.3	1523
20×2×0.75	34.1	2000
24×2×0.75	38.0	2359
30×2×0.75	40.0	2611
36×2×0.75	43.6	3228
1×2×1.0	11.7	291
2×2×1.0	17.0	515
3×2×1.0	17.8	570
4×2×1.0	19.2	650
5×2×1.0	21.5	887
6×2×1.0	23.0	971
8×2×1.0	25.4	1143
10×2×1.0	28.5	1352
12×2×1.0	29.5	1444
15×2×1.0	32.7	1889
16×2×1.0	32.7	1910
20×2×1.0	36.5	2133
24×2×1.0	40.0	2637
30×2×1.0	42.3	2933

COLLECTIVELY SCREENED (OS) ARMOURED SWA, 500V

Nominal Area (mm^2) No. of pairs	Outer diameter approx. (mm)	Cable Weight Approx. (kg/km)
36×2×1.0	46.7	3719
1×2×1.5	12.3	321
2×2×1.5	18.2	582
3×2×1.5	19.5	652
4×2×1.5	21.5	880
5×2×1.5	23.0	996
6×2×1.5	24.9	1122
8×2×1.5	27.5	1332
10×2×1.5	30.9	1585
12×2×1.5	32.5	1907
16×2×1.5	36.0	2273
20×2×1.5	40.0	2702
24×2×1.5	44.5	3464
36×2×1.5	51.0	4435

Nominal Area (mm^2) No. of pairs	Outer diameter approx. (mm)	Cable Weight Approx. (kg/km)
1×2×2.5	13.6	388
2×2×2.5	21.5	866
3×2×2.5	22.8	974
4×2×2.5	24.5	1124
5×2×2.5	26.5	1285
6×2×2.5	28.8	1460
8×2×2.5	32.7	1962
10×2×2.5	37.1	2396
12×2×2.5	38.2	2578
16×2×2.5	42.0	3028
20×2×2.5	48.0	4110
24×2×2.5	53.0	4723

Due to variables in production, the information on this sheet is approximate and subject to change without notice.

COLLECTIVELY SCREENED (OS) ARMOURED SWA, 500V

Type Available

CU/PVC/OS/PVC/SWA/PVC-RP
CU/XLPE/OS/PVC/SWA/PVC-RP
CU/PE/OS/PVC/SWA/PVC-RP
CU/XLPE/OS/LSHF/SWA/LSHF
CU/PE/OS/LSHF/SWA/LSHF
CU/LSHF/OS/LSHF/SWA/LSHF

Nominal Area (mm^2) No. of traids	Outer diameter approx. (mm)	Cable Weight Approx. (kg/km)
1×3×0.5	11.2	275
2×3×0.5	16.1	477
5×3×0.5	19.4	680
10×3×0.5	26.5	1243
20×3×0.5	33.7	2048
24×3×0.5	27.5	2417
30×3×0.5	40.0	2689
1×3×0.75	11.7	299
2×3×0.75	17.0	530
5×3×0.75	21.5	904
10×3×0.75	28.5	1428
20×3×0.75	36.8	2428
24×3×0.75	40.5	2811
30×3×0.75	42.5	3149
1×3×1.0	12.1	320
2×3×1.0	18.0	578
5×3×1.0	22.5	997
10×3×1.0	30.0	1594
20×3×1.0	39.0	2733
24×3×1.0	42.6	3175
30×3×1.0	45.8	3911
1×3×1.5	12.8	358

Nominal Area (mm^2) No. of traids	Outer diameter approx. (mm)	Cable Weight Approx. (kg/km)
2×3×1.5	19.1	661
5×3×1.5	24.5	1161
10×3×1.5	33.5	2107
20×3×1.5	42.5	3286
24×3×1.5	47.8	4251
30×3×1.5	51.0	4791
1×3×2.5	14.1	441
2×3×2.5	22.7	988
5×3×2.5	28.1	1529
10×3×2.5	39.5	2879
20×3×2.5	51.0	4972
24×3×2.5	57.5	6421
30×3×2.5	61.0	7284
2×0.5	10.8	259
3×0.5	11.5	279
5×0.5	12.5	338
10×0.5	15.5	487
20×0.5	18.5	688
24×0.5	20.0	785
30×0.5	21.5	989
2×0.75	11.5	279
3×0.75	12.0	303

COLLECTIVELY SCREENED (OS) ARMOURED SWA, 500V

Nominal Area (mm^2) No. of traids	Outer diameter approx. (mm)	Cable Weight Approx. (kg/km)
5×0.75	13.0	373
10×0.75	16.5	549
20×0.75	20.0	792
24×0.75	22.0	1043
30×0.75	23.0	1138
2×1.0	11.7	298
3×1.0	12.1	326
5×1.0	13.5	404
10×1.0	17.0	606
20×1.0	21.2	1018
24×1.0	23.0	1164
30×1.0	24.5	1288
2×1.5	12.2	329
3×1.5	12.8	364

Nominal Area (mm^2) No. of traids	Outer diameter approx. (mm)	Cable Weight Approx. (kg/km)
5×1.5	14.5	460
10×1.5	18.1	706
20×1.5	22.8	1203
24×1.5	24.8	1384
30×1.5	26.0	1542
2×2.5	13.6	400
3×2.5	14.1	450
5×2.5	16.1	585
10×2.5	21.5	1064
20×2.5	26.3	1616
24×2.5	28.7	1875
30×2.5	30.2	2138

Due to variables in production, the information on this sheet is approximate and subject to change without notice.

COLLECTIVELY SCREENDED (OS) ARMOURED SWB, 500V

APPLICATION

This Specification covers screened cables used in the provision of communication services and the interconnection of electrical equipment and instruments, particularly in and around process plants. These cables are generally for indoor applications.

CONSTRUCTION

Conductor	:	Plain Annealed Copper Wires to BS 6360
Insulation	:	PE or XLPE or PVC or LSHF compound
For Pairs	:	Insulated cores are twisted to form a pair, nominal length of lay of any pair shall not exceed 100mm
Insulation color	:	1 pair – Black & White 2 pair & above – Black & white core with black number 1 Traid – Black, White and Red 2 Traids and above – Black, White and Red printed with number 2 cores and above – White cores printed with number
Wrapping	:	Polyester Binder tape
Overall screen	:	Aluminium/Polyester tape, metallic side down in contact with tinned copper drain wire 0.5mm ^{2}
Bedding	:	PVC or LSHF
Armouring	:	Galvanized steel wires braiding SWB
Outer sheath	:	PVC-RP (Fire Retardant Compound) or LSHF (Fire retardant Low Smoke Halogen Free Compound)
Sheath color	:	Blue for intrinsically safe cable Black for non-intrinsically safe cable Anti-termite, anti-vermin, anti-rodent, UV-resistant is available upon request

COLLECTIVELY SCREENDED (OS) ARMOURED SWB, 500V

TECHNICAL INFORMATION

Max. Operating Temperature (°C)	PE 65	XLPE 90	PVC 70 or 105	LSHF 90 or 150
High Voltage Test	2000 V_{ac} for 1 minute			
Reference Standard	BS EN50288-7			
Flame Retardant Property	IEC 60332-1			
Fire Retardant on bunched cables Property	IEC 60332-3-22			
Halogen Free Property	IEC 60754 (only for LSHF)			
Low Smoke Emission Property	IEC 61034 (only for LSHF)			
Min. Bending Radius	6 × OD			

Max. DC Conductor Resistance @ 20°C	Multi-pair/Multi-Traid	Multi-core
0.50mm ^{2}	39.7Ω/km	39.0Ω/km
0.75mm ^{2}	26.5Ω/km	26.0Ω/km
1.00mm ^{2}	18.4Ω/km	18.1Ω/km
1.50mm ^{2}	12.3Ω/km	12.1Ω/km
2.50mm ^{2}	7.56Ω/km	7.41Ω/km

Maximum L/R ratio	0.50mm^2	0.75mm^2	1.00mm^2	1.50mm^2	2.50mm^2
µH/Ω	25	25	25	40	60

COLLECTIVELY SCREENDED (OS) ARMOURED SWB, 500V

Type Available
Lorem
CU/PVC/OS/PVC/SWB/PVC-RP
CU/XLPE/OS/PVC/SWB/PVC-RP
CU/PE/OS/PVC/SWB/PVC-RP
CU/XLPE/OS/LSHF/SWB/LSHF
CU/PE/OS/LSHF/SWB/LSHF
CU/LSHF/OS/LSHF/SWB/LSHF

Nominal Area (mm^2) No. of pairs	Outer diameter approx. (mm)	Cable Weight Approx. (kg/km)
1×2×0.5	9.6	169
2×2×0.5	14.1	298
3×2×0.5	14.8	323
4×2×0.5	16.0	375
5×2×0.5	17.2	417
6×2×0.5	18.6	478
8×2×0.5	20.6	565
10×2×0.5	23.0	667
12×2×0.5	23.8	724
15×2×0.5	26.2	839
16×2×0.5	26.2	847
20×2×0.5	29.0	1023
24×2×0.5	32.5	1217
30×2×0.5	34.3	1385
36×2×0.5	37.0	1557
1×2×0.75	10.0	238
2×2×0.75	14.9	342
3×2×0.75	16.0	374
4×2×0.75	17.0	419
5×2×0.75	18.4	485

Nominal Area (mm^2) No. of pairs	Outer diameter approx. (mm)	Cable Weight Approx. (kg/km)
6×2×0.75	20.0	540
8×2×0.75	22.1	651
10×2×0.75	24.8	786
12×2×0.75	25.6	839
15×2×0.75	28.2	991
16×2×0.75	28.2	1003
20×2×0.75	31.3	1199
24×2×0.75	35.1	1466
30×2×0.75	37.1	1625
36×2×0.75	40.0	1882
1×2×1.0	10.4	264
2×2×1.0	15.7	368
3×2×1.0	16.5	406
4×2×1.0	17.9	475
5×2×1.0	19.4	534
6×2×1.0	21.0	610
8×2×1.0	23.4	741
10×2×1.0	26.3	882
12×2×1.0	27.1	988
15×2×1.0	30.0	1142

COLLECTIVELY SCREENDED (OS) ARMOURED SWB, 500V

Nominal Area (mm^2) No. of pairs	Outer diameter approx. (mm)	Cable Weight Approx. (kg/km)
16×2×1.0	30.0	1158
20×2×1.0	33.7	1435
24×2×1.0	37.3	1670
30×2×1.0	39.5	1901
36×2×1.0	43.0	2228
1×2×1.5	11.0	226
2×2×1.5	16.9	416
3×2×1.5	17.8	481
4×2×1.5	19.4	549
5×2×1.5	21.0	640
6×2×1.5	22.8	722
8×2×1.5	25.4	882
10×2×1.5	28.7	1068
12×2×1.5	30.0	1176
16×2×1.5	33.2	1460
20×2×1.5	37.0	1750

Nominal Area (mm^2) No. of pairs	Outer diameter approx. (mm)	Cable Weight Approx. (kg/km)
24×2×1.5	40.9	2075
36×2×1.5	47.2	2803
1×2×2.5	12.3	269
2×2×2.5	19.5	538
3×2×2.5	20.7	624
4×2×2.5	22.5	731
5×2×2.5	24.5	858
6×2×2.5	26.7	981
8×2×2.5	29.9	1223
10×2×2.5	34.3	1545
12×2×2.5	35.5	1681
16×2×2.5	39.5	2061
20×2×2.5	44.3	2565
24×2×2.5	49.2	3030

Due to variables in production, the information on this sheet is approximate and subject to change without notice.

COLLECTIVELY SCREENDED (OS) ARMOURED SWB, 500V

Type Available

CU/PVC/OS/PVC/SWB/PVC-RP
CU/XLPE/OS/PVC/SWB/PVC-RP
CU/PE/OS/PVC/SWB/PVC-RP
CU/XLPE/OS/LSHF/SWB/LSHF
CU/PE/OS/LSHF/SWB/LSHF
CU/LSHF/OS/LSHF/SWB/LSHF

Nominal Area (mm^2) No. of traids	Outer diameter approx. (mm)	Cable Weight Approx. (kg/km)
1×3×0.5	9.9	240
2×3×0.5	14.8	329
5×3×0.5	18.2	493
10×3×0.5	24.5	801
20×3×0.5	31.0	1237
24×3×0.5	34.6	1509
30×3×0.5	36.6	1695
1×3×0.75	10.4	270
2×3×0.75	15.7	380
5×3×0.75	19.5	563
10×3×0.75	26.4	940
20×3×0.75	33.9	1548
24×3×0.75	37.4	1805
30×3×0.75	40.0	2079
1×3×1.0	10.8	226
2×3×1.0	16.5	414
5×3×1.0	20.5	639
10×3×1.0	28.0	1089
20×3×1.0	36.0	1780
24×3×1.0	40.0	2118

Nominal Area (mm^2) No. of traids	Outer diameter approx. (mm)	Cable Weight Approx. (kg/km)
30×3×1.0	42.2	2414
1×3×1.5	11.5	252
2×3×1.5	17.8	490
5×3×1.5	22.3	766
10×3×1.5	30.6	1334
20×3×1.5	40.0	2247
24×3×1.5	44.1	2727
30×3×1.5	46.7	3134
1×3×2.5	12.9	323
2×3×2.5	20.7	638
5×3×2.5	26.1	1054
10×3×2.5	36.6	1929
20×3×2.5	47.4	3302
24×3×2.5	52.6	3965
30×3×2.5	56.2	4672
2×0.5	9.6	173
3×0.5	10.0	186
5×0.5	11.2	235
10×0.5	14.1	343
20×0.5	17.1	494

COLLECTIVELY SCREENDED (OS) ARMOURED SWB, 500V

Nominal Area (mm^2) No. of traids	Outer diameter approx. (mm)	Cable Weight Approx. (kg/km)
24×0.5	18.6	575
30×0.5	19.5	633
2×0.75	10.0	186
3×0.75	10.5	216
5×0.75	11.7	259
10×0.75	14.9	412
20×0.75	18.2	582
24×0.75	20.0	682
30×0.75	21.0	771
2×1.0	22.3	869
3×1.0	10.8	231
5×1.0	12.2	282
10×1.0	15.7	445
20×1.0	19.2	666
24×1.0	21.0	780
30×1.0	22.1	881

Nominal Area (mm^2) No. of traids	Outer diameter approx. (mm)	Cable Weight Approx. (kg/km)
2×1.5	11.0	291
3×1.5	11.5	258
5×1.5	13.1	337
10×1.5	16.9	524
20×1.5	20.8	825
24×1.5	22.8	952
30×1.5	24.0	1104
2×2.5	12.3	279
3×2.5	12.9	332
5×2.5	14.8	428
10×2.5	19.5	712
20×2.5	24.3	1157
24×2.5	27.0	1351
30×2.5	28.2	1589

Due to variables in production, the information on this sheet is approximate and subject to change without notice.

INDIVIDUAL & COLLECTIVELY SCREENDED (ISOS) ARMOURED SWA, 500V

APPLICATION

This Specification covers screened cables used in the provision of communication services and the interconnection of electrical equipment and instruments, particularly in and around process plants. These cables are generally for indoor applications.

CONSTRUCTION

Conductor	:	Plain Annealed Copper Wires to BS 6360
Insulation	:	PE or XLPE or PVC or LSHF compound
For Pairs	:	Insulated cores are twisted to form a pair, nominal length of lay of any pair shall not exceed 100mm
Insulation color	:	1 pair – Black & White 2 pair & above – Black & white core with black number 1 Traid – Black, White and Red 2 Traids and above – Black, White and Red printed with number
Individual screen	:	Aluminium/Polyester tape, metallic side down in contact with tinned copper drain wire 0.5mm ^{2}
Wrapping	:	Polyester Binder tape
Overall screen	:	Aluminium/Polyester tape, metallic side down in contact with tinned copper drain wire 0.5mm ^{2}
Bedding	:	PVC or LSHF
Armouring	:	Galvanized steel wires SWA
Outer sheath	:	PVC-RP (Fire Retardant Compound) or LSHF (Fire retardant Low Smoke Halogen Free Compound)
Sheath color	:	Blue for intrinsically safe cable Black for non-intrinsically safe cable Anti-termite, anti-vermin, anti-rodent, UV-resistant is available upon request

INDIVIDUAL & COLLECTIVELY SCREENDED (ISOS) ARMOURED SWA, 500V

TECHNICAL INFORMATION

Max. Operating Temperature (°C)	PE 65	XLPE 90	PVC 70 or 105	LSHF 90 or 150
High Voltage Test	2000 V_{ac} for 1 minute			
Reference Standard	BS EN50288-7			
Flame Retardant Property	IEC 60332-1			
Fire Retardant on bunched cables Property	IEC 60332-3-22			
Halogen Free Property	IEC 60754 (only for LSHF)			
Low Smoke Emission Property	IEC 61034 (only for LSHF)			
Min. Bending Radius	6 × OD			

Max. DC Conductor Resistance @ 20°C	Multi-pair/Multi-Traid	Multi-core
0.50mm ^{2}	39.7Ω/km	39.0Ω/km
0.75mm ^{2}	26.5Ω/km	26.0Ω/km
1.00mm ^{2}	18.4Ω/km	18.1Ω/km
1.50mm ^{2}	12.3Ω/km	12.1Ω/km
2.50mm ^{2}	7.56Ω/km	7.41Ω/km

Maximum L/R ratio	0.50mm ^{2}	0.75mm ^{2}	1.00mm ^{2}	1.50mm ^{2}	2.50mm ^{2}
µH/Ω	25	25	25	40	60

INDIVIDUAL & COLLECTIVELY SCREENDED (ISOS) ARMOURED SWA, 500V

Type Available

CU/PVC/IS/OS/PVC/SWA/PVC-RP
CU/XLPE/IS/OS/PVC/SWA/PVC-RP
CU/PE/IS/OS/PVC/SWA/PVC-RP
CU/XLPE/IS/OS/LSHF/SWA/LSHF
CU/PE/IS/OS/LSHF/SWA/LSHF
CU/LSHF/IS/OS/LSHF/SWA/LSHF

Nominal Area (mm^2) No. of pairs	Outer diameter approx. (mm)	Cable Weight Approx. (kg/km)
2×2×0.5	10.8	254
3×2×0.5	16.3	499
4×2×0.5	17.5	566
5×2×0.5	18.8	638
6×2×0.5	20.9	844
8×2×0.5	22.9	988
10×2×0.5	25.5	1162
12×2×0.5	26.2	1239
15×2×0.5	28.7	1437
16×2×0.5	28.7	1454
20×2×0.5	32.3	1925
24×2×0.5	35.8	2248
30×2×0.5	37.7	2478
36×2×0.5	40.5	2812
2×2×0.75	16.5	497
3×2×0.75	17.3	552
4×2×0.75	18.5	630
5×2×0.75	19.9	713
6×2×0.75	22.2	940
8×2×0.75	24.5	1107

Nominal Area (mm^2) No. of pairs	Outer diameter approx. (mm)	Cable Weight Approx. (kg/km)
10×2×0.75	27.2	1309
12×2×0.75	28.0	1400
15×2×0.75	29.3	1520
16×2×0.75	30.7	1654
20×2×0.75	35.1	2215
24×2×0.75	38.4	2558
30×2×0.75	40.5	2852
36×2×0.75	44.3	3552
2×2×1.0	17.2	536
3×2×1.0	18.0	599
4×2×1.0	19.5	686
5×2×1.0	21.7	914
6×2×1.0	23.3	1053
8×2×1.0	25.7	1215
10×2×1.0	28.8	1441
12×2×1.0	29.6	1547
15×2×1.0	33.2	2020
16×2×1.0	33.2	2047
20×2×1.0	37.0	2452
24×2×1.0	40.7	2840

INDIVIDUAL & COLLECTIVELY SCREENDED (ISOS) ARMOURED SWA, 500V

Nominal Area (mm^2) No. of pairs	Outer diameter approx. (mm)	Cable Weight Approx. (kg/km)
30×2×1.0	43.7	3500
36×2×1.0	47.3	4018
2×2×1.5	18.4	604
3×2×1.5	19.3	682
4×2×1.5	21.6	919
5×2×1.5	23.3	1044
6×2×1.5	25.1	1179
8×2×1.5	27.8	1405
10×2×1.5	31.1	1677
12×2×1.5	32.8	1978
16×2×1.5	36.5	2444
20×2×1.5	40.2	2877
24×2×1.5	45.1	3878
36×2×1.5	51.5	4743

Nominal Area (mm^2) No. of pairs	Outer diameter approx. (mm)	Cable Weight Approx. (kg/km)
2×2×2.5	21.7	891
3×2×2.5	22.9	1007
4×2×2.5	24.8	1166
5×2×2.5	26.8	1336
6×2×2.5	29.0	1520
8×2×2.5	33.1	2043
10×2×2.5	37.5	2497
12×2×2.5	38.7	2695
16×2×2.5	43.5	3546
20×2×2.5	48.5	4254
24×2×2.5	53.5	4953

Due to variables in production, the information on this sheet is approximate and subject to change without notice.

INDIVIDUAL & COLLECTIVELY SCREENDED (ISOS) ARMOURED SWA, 500V

Type Available

CU/PVC/IS/OS/PVC/SWA/PVC-RP
CU/×LPE/IS/OS/PVC/SWA/PVC-RP
CU/PE/IS/OS/PVC/SWA/PVC-RP
CU/×LPE/IS/OS/LSHF/SWA/LSHF
CU/PE/IS/OS/LSHF/SWA/LSHF
CU/LSHF/IS/OS/LSHF/SWA/LSHF

Nominal Area (mm^2) No. of traids	Outer diameter approx. (mm)	Cable Weight Approx. (kg/km)
2×3×0.5	16.3	498
5×3×0.5	19.7	723
10×3×0.5	26.9	1329
20×3×0.5	34.6	2282
24×3×0.5	38.0	2615
30×3×0.5	40.0	2929
2×3×0.75	17.2	552
5×3×0.75	21.7	961
10×3×0.75	28.8	1515
20×3×0.75	37.2	2598
24×3×0.75	40.8	3015
30×3×0.75	43.9	3718
2×3×1.0	18.0	600
5×3×1.0	22.8	1044
10×3×1.0	30.4	1685
20×3×1.0	39.5	2906

Nominal Area (mm^2) No. of traids	Outer diameter approx. (mm)	Cable Weight Approx. (kg/km)
24×3×1.0	44.0	3747
30×3×1.0	46.9	4234
2×3×1.5	19.3	684
5×3×1.5	24.6	1210
10×3×1.5	33.7	2204
20×3×1.5	43.6	3786
24×3×1.5	48.3	4471
30×3×1.5	51.0	5057
2×3×2.5	22.9	444
5×3×2.5	28.5	1582
10×3×2.5	40.0	2983
20×3×2.5	51.6	5189
24×3×2.5	58.0	6585
30×3×2.5	62.0	7557

Due to variables in production, the information on this sheet is approximate and subject to change without notice.

INSTRUMENTATION CABLE BS EN 50288-7 INDIVIDUAL & COLLECTIVELY SCREENDED (ISOS) ARMOURED SWB , 500V

transmission of reliability & brightness

APPLICATION

This Specification covers screened cables used in the provision of communication services and the interconnection of electrical equipment and instruments, particularly in and around process plants. These cables are generally for indoor applications.

CONSTRUCTION

Conductor	:	Plain Annealed Copper Wires to BS 6360
Insulation	:	PE or XLPE or PVC or LSHF compound
For Pairs	:	Insulated cores are twisted to form a pair, nominal length of lay of any pair shall not exceed 100mm
Insulation color	:	1 pair – Black & White 2 pair & above – Black & white core with black number 1 Traid – Black, White and Red 2 Traids and above – Black, White and Red printed with number
Individual screen	:	Aluminium/Polyester tape, metallic side down in contact with tinned copper drain wire 0.5mm ^{2}
Wrapping	:	Polyester Binder tape
Overall screen	:	Aluminium/Polyester tape, metallic side down in contact with tinned copper drain wire 0.5mm ^{2}
Bedding	:	PVC or LSHF
Armouring	:	Galvanized steel wires Braiding SWB
Outer sheath	:	PVC-RP (Fire Retardant Compound) or LSHF (Fire retardant Low Smoke Halogen Free Compound)
Sheath color	:	Blue for intrinsically safe cable Black for non-intrinsically safe cable Anti-termite, anti-vermin, anti-rodent, UV-resistant is available upon request

INSTRUMENTATION CABLE BS EN 50288-7 INDIVIDUAL & COLLECTIVELY SCREENDED (ISOS) ARMOURED SWB , 500V

TECHNICAL INFORMATION

Max. Operating Temperature (°C)	PE 65	XLPE 90	PVC 70 or 105	LSHF 90 or 150
High Voltage Test	2000 V_{ac} for 1 minute			
Reference Standard	BS EN50288-7			
Flame Retardant Property	IEC 60332-1			
Fire Retardant on bunched cables Property	IEC 60332-3-22			
Halogen Free Property	IEC 60754 (only for LSHF)			
Low Smoke Emission Property	IEC 61034 (only for LSHF)			
Min. Bending Radius	6 × OD			

Max. DC Conductor Resistance @ 20°C	Multi-pair/Multi-Traid	Multi-core
0.50mm ^{2}	39.7Ω/km	39.0Ω/km
0.75mm ^{2}	26.5Ω/km	26.0Ω/km
1.00mm ^{2}	18.4Ω/km	18.1Ω/km
1.50mm ^{2}	12.3Ω/km	12.1Ω/km
2.50mm ^{2}	7.56Ω/km	7.41Ω/km

Maximum L/R ratio	0.50mm ^{2}	0.75mm ^{2}	1.00mm ^{2}	1.50mm ^{2}	2.50mm ^{2}
µH/Ω	25	25	25	40	60

INSTRUMENTATION CABLE BS EN 50288-7 INDIVIDUAL & COLLECTIVELY SCREENDED (ISOS) ARMOURED SWB , 500V

Type Available

CU/PVC/IS/OS/PVC/SWB/PVC-RP
CU/XLPE/IS/OS/PVC/SWB/PVC-RP
CU/PE/IS/OS/PVC/SWB/PVC-RP
CU/XLPE/IS/OS/LSHF/SWB/LSHF
CU/PE/IS/OS/LSHF/SWB/LSHF
CU/LSHF/IS/OS/LSHF/SWB/LSHF

Nominal Area (mm^2) No. of pairs	Outer diameter approx. (mm)	Cable Weight Approx. (kg/km)
2×2×0.5	14.3	315
3×2×0.5	15.0	362
4×2×0.5	16.2	406
5×2×0.5	17.5	462
6×2×0.5	18.9	523
8×2×0.5	21.0	626
10×2×0.5	23.5	758
12×2×0.5	24.2	813
15×2×0.5	26.7	950
16×2×0.5	26.7	965
20×2×0.5	29.6	1182
24×2×0.5	33.1	1407
30×2×0.5	35.0	1581
36×2×0.5	37.7	1814
2×2×0.75	15.2	349
3×2×0.75	16.0	398
4×2×0.75	17.3	451
5×2×0.75	18.7	533
6×2×0.75	20.2	598
8×2×0.75	22.4	713

Nominal Area (mm^2) No. of pairs	Outer diameter approx. (mm)	Cable Weight Approx. (kg/km)
10×2×0.75	25.2	864
12×2×0.75	26.0	930
15×2×0.75	28.7	1105
16×2×0.75	28.7	1123
20×2×0.75	32.3	1386
24×2×0.75	35.7	1646
30×2×0.75	37.8	1858
36×2×0.75	40.7	2147
2×2×1.0	15.9	386
3×2×1.0	16.8	431
4×2×1.0	18.2	500
5×2×1.0	19.7	584
6×2×1.0	21.3	658
8×2×1.0	23.7	805
10×2×1.0	26.7	963
12×2×1.0	27.6	1062
15×2×1.0	30.5	1258
16×2×1.0	30.5	1281
20×2×1.0	34.3	1572
24×2×1.0	37.9	1875

INSTRUMENTATION CABLE BS EN 50288-7 INDIVIDUAL & COLLECTIVELY SCREENDED (ISOS) ARMOURED SWB , 500V

Nominal Area (mm^2) No. of pairs	Outer diameter approx. (mm)	Cable Weight Approx. (kg/km)
30×2×1.0	40.1	2128
36×2×1.0	43.7	2499
2×2×1.5	17.1	434
3×2×1.5	18.1	499
4×2×1.5	19.6	583
5×2×1.5	21.3	677
6×2×1.5	23.1	787
8×2×1.5	25.8	948
10×2×1.5	29.1	1172
12×2×1.5	30.0	1272
16×2×1.5	33.7	1604
20×2×1.5	37.5	1909
24×2×1.5	41.5	2275
36×2×1.5	48.0	3085

Nominal Area (mm^2) No. of pairs	Outer diameter approx. (mm)	Cable Weight Approx. (kg/km)
2×2×2.5	20.0	558
3×2×2.5	21.0	657
4×2×2.5	22.8	767
5×2×2.5	24.8	903
6×2×2.5	27.0	1055
8×2×2.5	30.3	1293
10×2×2.5	34.7	1634
12×2×2.5	35.9	1785
16×2×2.5	40.0	3198
20×2×2.5	44.9	2737
24×2×2.5	49.8	3238

Due to variables in production, the information on this sheet is approximate and subject to change without notice.

INSTRUMENTATION CABLE BS EN 50288-7 INDIVIDUAL & COLLECTIVELY SCREENDED (ISOS) ARMOURED SWB , 500V

Type Available

CU/PVC/IS/OS/PVC/SWB/PVC-RP
CU/XLPE/IS/OS/PVC/SWB/PVC-RP
CU/PE/IS/OS/PVC/SWB/PVC-RP
CU/XLPE/IS/OS/LSHF/SWB/LSHF
CU/PE/IS/OS/LSHF/SWB/LSHF
CU/LSHF/IS/OS/LSHF/SWB/LSHF

Nominal Area (mm^2) No. of traids	Outer diameter approx. (mm)	Cable Weight Approx. (kg/km)
2×3×0.5	15.0	361
5×3×0.5	18.5	532
10×3×0.5	24.9	879
20×3×0.5	31.9	1422
24×3×0.5	35.2	1689
30×3×0.5	37.3	1915
2×3×0.75	15.9	398
5×3×0.75	19.7	603
10×3×0.75	26.8	1020
20×3×0.75	34.4	1685
24×3×0.75	38.1	2022
30×3×0.75	40.3	2306
2×3×1.0	16.7	432
5×3×1.0	20.8	685
10×3×1.0	28.4	1160
20×3×1.0	36.6	1937

Nominal Area (mm^2) No. of traids	Outer diameter approx. (mm)	Cable Weight Approx. (kg/km)
24×3×1.0	40.5	2307
30×3×1.0	43.3	2697
2×3×1.5	18.0	509
5×3×1.5	22.6	808
10×3×1.5	31.0	1431
20×3×1.5	40.0	2410
24×3×1.5	44.8	2925
30×3×1.5	47.4	3376
2×3×2.5	20.9	664
5×3×2.5	26.5	1100
10×3×2.5	37.1	2021
20×3×2.5	48.0	3479
24×3×2.5	53.2	4255
30×3×2.5	56.9	4935

Due to variables in production, the information on this sheet is approximate and subject to change without notice.

TECHNICAL DATA

COPPER CONDUCTOR RESISTANCE (mm ^{2})

Nominal cross-sectional area	Minimum number of wires in the conductor	Maximum diameter of wires in the conductor		Maximum resistance of conductor at 20°C (Ohm/km)			
	Class 2	Class 5	Class 6	Class 2		Class 5 & Class 6	
(mm ^{2})		(mm)	(mm)	Plain copper	Tinned copper	Plain copper	Tinned copper
0.5	7	0.21	0.16	36	36.7	39	40.1
0.75	7	0.21	0.16	24.5	24.8	26	26.7
1	7	0.21	0.16	18.1	18.2	19.5	20
1.5	7	0.26	0.16	12.1	12.2	13.3	13.7
2.5	7	0.26	0.16	7.41	7.56	7.98	8.21
4	7	0.31	0.16	4.61	4.70	4.95	5.09
6	7	0.31	0.21	3.08	3.11	3.3	3.39
10	7	0.41	0.21	1.83	1.84	1.91	1.95
16	7	0.41	0.21	1.15	1.16	1.21	1.24
25	7	0.41	0.21	0.727	0.734	0.78	0.795
35	7	0.41	0.21	0.524	0.529	0.554	0.565
50	19	0.41	0.31	0.387	0.391	0.386	0.393
70	19	0.51	0.31	0.268	0.270	0.272	0.277
95	19	0.51	0.31	0.193	0.195	0.206	0.210
120	37	0.51	0.31	0.153	0.154	0.161	0.164
150	37	0.51	0.31	0.124	0.126	0.129	0.132
185	37	0.51	0.41	0.0991	0.1	0.106	0.108
240	61	0.51	0.41	0.0754	0.0762	0.0891	0.0817
300	61	0.51	0.41	0.0601	0.0607	0.0641	0.0654
400	61	0.51		0.0470	0.0475	0.0486	
500	61	0.61		0.0366	0.0369	0.0384	
630	91	0.61		0.0283	0.0286	0.0287	
800	91			0.0221	0.0224		
1000	91			0.0176	0.0177		

Conductor Temperature Correction Factor

Temperature of conductor at time of measurement, t	Correction factor, kt
°C	
5	1.064
6	1.059
7	1.055
8	1.050
9	1.046
10	1.042
11	1.037
12	1.033
13	1.029
14	1.025
15	1.020
16	1.016
17	1.012
18	1.008
19	1.004
20	1.000
21	0.996
22	0.992
23	0.988
24	0.984
25	0.980
26	0.977
27	0.973
28	0.969
29	0.965
30	0.962
31	0.958
32	0.954
33	0.951
34	0.947
35	0.943

Note:
The value of correction factors, kt are based on a resistance temperature coefficient of 0.004 per °C at 20°C.

The value of temperature correction factors specified in column 2 are approximate but give practical value well within the accuracies that can normally be achieved in the measurement of conductor temperature and length of cables or flexible cords.

Rating factors for Ambient Temperature

The current-carrying capacities in this work standard are based upon the following reference ambient temperature:

i) For non-sheathed and sheathed cables in air, irrespective of the installation method: 30°C

ii) For buried cables, either directly in the soil or in ducts in the ground: 20°C

When the ambient temperature in the intended location of the non-sheathed or sheathed cables differs from the reference ambient temperature, pleases refer to the appropriate rating factors as below table.

Rating factors for ambient air temperatures other than 30°C to be applied to the current-carrying capacities for cables in free air		
Ambient Temperature, °C	PVC	XLPE
25	1.03	1.02
30	1.00	1.00
35	0.94	0.96
40	0.87	0.91
45	0.79	0.87
50	0.71	0.82
55	0.61	0.76
60	0.50	0.71
65	–	0.65
70	–	0.58
75	–	0.50
80	–	0.41
85	–	–
90	–	–
95	–	–

Rating factors for ambient air temperatures other than 20°C to be applied to the current-carrying capacities for cables buried to ground		
Ambient Temperature, °C	PVC	XLPE
10	1.10	1.07
15	1.05	1.04
20	1.00	1.00
25	0.95	0.96
30	0.89	0.93
35	0.84	0.89
40	0.77	0.85
45	0.71	0.80
50	0.63	0.76
55	0.55	0.71
60	0.45	0.65
65	–	0.60
70	–	0.53
75	–	0.46
80	–	0.38

Rating factors for Soil Thermal Resistivity's

Rating factor for cables buried direct in the ground or in an underground conduit system to BS EN 50086-2-4 for soil thermal resistivity's other than 2.5 K.m/W to be applied to the current-carrying capacities for Reference Method D

Thermal resistivity K.m/W	0.5	0.8	1	1.5	2	2.5	3
Rating factor for cables in buried ducts	1.28	1.20	1.18	1.1	1.05	1	0.96
Rating factor for direct buried cables	1.88	1.62	1.5	1.28	1.12	1	0.90

Notes:

(1) The rating factors given have been averaged over the range of conductor sizes and types of installation included in the rel evant tables in this appendix. The overall accuracy of rating factors is within ±5%.

(2) The rating factors are applicable to cables drawn into buried ducts for cables laid direct in the ground the rating factors for thermal resistivity's less than 2.5 K.m/W will be higher. Where more precise values, are required they may be calculated method s given in BS 7769 (BS IEC 60287).

(3) The rating factors are applicable to ducts buried at depths of up to 0.8.

Rating factors for one circuit or one multicore cable or for a group of circuits, or a group of multicore cables, to be used with current-carrying capacities Table

Arrangement (Cables touching)	Number of circuit or multicore cables												To be used with current-carrying capacities, Reference
	1	2	3	4	5	6	7	8	9	12	16	20	
Bunched in air on a surface, embedded or enclosed	1.00	0.80	0.70	0.65	0.60	0.57	0.54	0.52	0.50	0.45	0.41	0.38	Methods A to F
Single layer on wall or floor	1.00	0.85	0.79	0.75	0.73	0.72	0.72	0.71	0.70	0.70	0.70	0.70	Method C
Single layer multicore on a perforated horizontal or vertical tray cable system	1.00	0.88	0.82	0.77	0.75	0.73	0.73	0.72	0.72	0.72	0.72	0.72	Methods E and F
Single layer multicore on cable ladder system or cleats, etc	1.00	0.87	0.82	0.80	0.80	0.79	0.79	0.78	0.78	0.78	0.78	0.78	

Notes:

(1) These factors are applicable to uniform group of cables, equally loaded.

(2) Where horizontal clearances between adjacent cables exceed twice their overall diameter, no rating factor need be applied.

(3) The same factors are applied to

- groups of two or three single-core cables
- Multicore cables.

(4) If a system consists of both two and three core cables, the total number of cables is taken as the number of circuits, and the corresponding factor is applied to the tables for two loaded conductors for the two-core cables, and to the tables for three loaded conductors for the three-core cables.

(5) If a group consists of n single-core cables it may either be considered as n/2 circuits of two loaded conductors or n/3 cir cuits of three loaded conductor.

(6) The rating factors given have been averaged over the range of conductor size and type of installation included in Table Cur rent-carrying capacity the overall accuracy of tabulated value is within 5%.

(7) For some installations and for other methods not provided for in the above table, it may be appropriate to use factors calc ulated for specific case, see for example Table C3.1 to C3.2.

(8) When cables having different conductor operating temperature are grouped together, the current rating is to be based upon the lowest operating temperature of any cable in the group.

(9) If, due to know operating conditions, a cable is expected to carry not more than 30% of its grouped rating, it may be ignor ed for the purpose of obtaining the rating factor for the rest of the group. For example, a ground of N loaded cables would normal ly require a group rating factor of Cg applied to the tabulated it. However, if M cables in the group carry loads which are not greater than 0.3 C glt amperes the other cables can be sized by using the group rating factor corresponding to (N-M) cables.

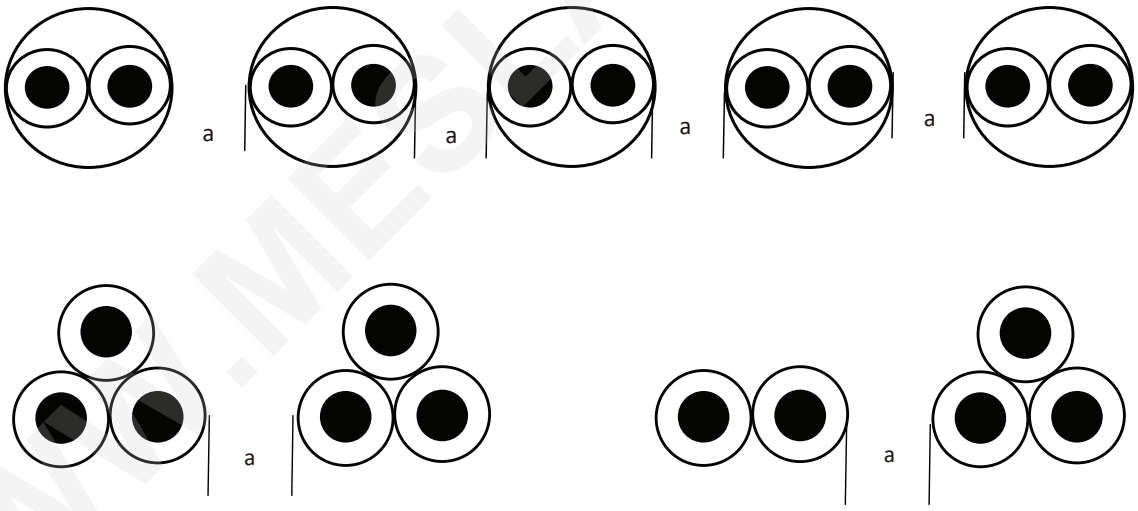
Rating factors for more than one circuit, cables laid directly in the Ground-Reference Method D in Table Installation method for single core or multicore cables.

Number of circuits	Cable-to-cable clearance (a)				
	Nil (cables touching)	One cable diameter	0.125m	0.25m	0.5m
2	0.75	0.80	0.85	0.90	0.90
3	0.65	0.70	0.75	0.80	0.85
4	0.60	0.60	0.70	0.75	0.80
5	0.55	0.55	0.65	0.70	0.80
6	0.50	0.55	0.60	0.70	0.80

Notes:

(1) Values given apply to an installation depth of 0.7m and a soil thermal resistivity of 2.5 K.m/W. These are average values f or the range of cable size and type quoted for Table Current-carrying capacity. The process of averaging, together with rounding off, can result in some cases in error of up to ±10%. (Where more precise value is required they may be calculated by method given in BS 7769 (BS IEC 60287)).

(2) In case of a thermal resistivity lower than 2.5 K.m/W the rating factors can, in general, be calculated by the method given in BS7769, IEC 50287).



Rating factors for more than one circuit, cables laid in ducts in the ground - Reference Method D

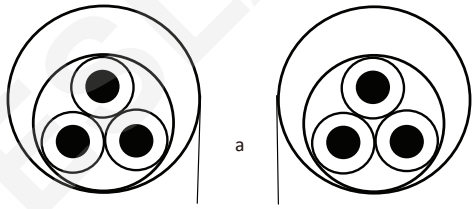
i) Multicore Cables in a Single-Way Ducts

Number of cables	Duct-to-duct clearance (a)			
	Nil (cables touching)	0.25m	0. 5m	1.0m
2	0.85	0.90	0.95	0.95
3	0.75	0.85	0.90	0.95
4	0.70	0.80	0.85	0.90
5	0.65	0.80	0.85	0.90
6	0.60	0.80	0.80	0.90

Notes:

(1) Values given apply to an installation depth of 0.7m and a soil thermal resistivity of 2.5 K.m/W. These are average values f or the range of cable size and type quoted for Table Current-carrying capacity. The process of averaging, together with rounding off, can result in some cases in error of up to ±10%. (Where more precise value is required they may be calculated by method given in BS 7769 (BS IEC 60287)).

(2) In case of a thermal resistivity lower than 2.5 K.m/W the rating factors can, in general, be calculated by the method given in BS 7769, IEC 50287).



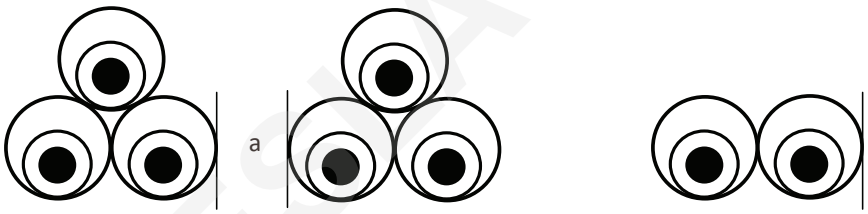
Rating factors for more than one circuit, cables laid in ducts in the ground - Reference Method D

Number of single-core circuits of 2 or 3 cables	Duct-to-duct clearance (a)			
	Nil (cables touching)	0.25m	0. 5m	1.0m
2	0.80	0.90	0.90	0.95
3	0.70	0.80	0.85	0.90
4	0.65	0.75	0.80	0.90
5	0.60	0.70	0.80	0.90
6	0.60	0.70	0.80	0.90

Notes:

(1) Values given apply to an installation depth of 0.7m and a soil thermal resistivity of 2.5 K.m/W. These are average values f or the range of cable size and type quoted for Table Current-carrying capacity. The process of averaging, together with rounding off, can result in some cases in error of up to ±10%. (Where more precise value is required they may be calculated by method given in BS 7769 (BS IEC 60287)).

(2) In case of a thermal resistivity lower than 2.5 K.m/W the rating factors can, in general, be calculated by the method given in BS 7769, IEC 50287).



TECHNICAL DATA

Short Circuit Ratings For Thermosetting 90°C (XLPE) Insulated Cables

Initial temperature of conductor: 90°C

Final temperature of conductor of conductor: 250°C

Duration of short circuit (seconds):

	Short circuit current (r.m.s over duration).	
Conductor cross-sectional area	0.2 second	3 second
mm^2	kA	kA
1.5	0.48	0.12
2.5	0.80	0.21
4.0	1.28	0.33
6.0	1.92	0.50
10.0	3.20	0.83
16.0	5.12	1.32
25.0	7.99	2.06
35.0	11.19	2.89
50.0	15.99	4.13
70.0	22.38	5.78
95.0	30.38	7.84
120.0	38.37	9.91
150	47.96	12.38
185	59.16	15.27
240	76.74	19.81
300	95.93	24.77
400	127.90	33.02
500	159.88	41.28
630	201.45	52.01

Short Circuit Ratings For Thermoplastic 70°C (PVC) Insulated Cables

Initial temperature of conductor: 70°C

Final temperature of conductor of conductor: 160°C Duration of short circuit (seconds):

	Short circuit current (r.m.s over duration).	
Conductor cross-sectional area	0.2 second	3 second
mm^2	kA	kA
1.5	0.39	0.10
2.5	0.64	0.17
4.0	1.03	0.27
6.0	1.54	0.40
10.0	2.57	0.66
16.0	4.11	1.06
25.0	6.43	1.66
35.0	9.00	2.32
50.0	12.86	3.32
70.0	18.00	4.65
95.0	24.43	6.31
120.0	30.86	7.97
150	38.57	9.96
185	47.57	12.28
240	61.72	15.93
300	77.14	19.92
400	102.86	26.56
500	128.57	33.20
630	162.00	41.83

Single-core 70°C thermoplastic (PVC) insulated cable, non armoured, with or without sheath (COPPER CONDUCTOR)

Ambient temperature: 30°C

Current-carrying capacity (amperes): Conductor operating temperature: 70°C

Conductor cross-sectional area	Reference Method 4 (enclosed in conduit in thermally insulating wall etc.)		Reference Method 3 (enclosed in conduit on a wall or in trucking etc.)		Reference Method 1 (clipped direct)		Reference Method 11 (on a perforated cable tray horizontal or vertical)		Reference Method 12 (free air)		
									Horizontal flat spaced	Vertical flat spaced	Trefoil
	2 cables, single-phase a.c. or d.c.	3 or 4 cables, three-phase a.c.	2 cables, single-phase a.c. or d.c.	3 or 4 cables, three-phase a.c.	2 cables, single-phase a.c. or d.c. flat and touching	3 or 4 cables, three-phase a.c. flat and touching or trefoil	2 cables, single-phase a.c. or d.c. flat and touching	3 or 4 cables, three-phase a.c. flat and touching or trefoil	2 cable single-phase a.c. or d.c. or 3 cable three-phase a.c.	2 cable single-phase a.c. or d.c. or 3 cable three-phase a.c.	3 cables trefoil, three phase a.c.
mm²	A	A	A	A	A	A	A				
1	11	10.5	13.5	12	15.5	14	–	–	–	–	–
1.5	14.5	13.5	17.5	15.5	20	18	–	–	–	–	–
2.5	19.5	18	24	21	27	25	–	–	–	–	–
4	26	24	32	28	37	33	–	–	–	–	–
6	34	31	41	36	47	43	–	–	–	–	–
10	46	42	57	50	65	59	–	–	–	–	–
16	61	56	76	68	87	79	–	–	–	–	–
25	80	73	101	89	114	104	126	112	146	130	110
35	99	89	125	110	141	129	156	141	181	162	137
50	119	108	151	134	182	167	191	172	219	197	167
70	151	136	192	171	234	214	246	223	281	254	216
95	182	164	232	207	284	261	300	273	341	311	264
120	210	188	269	239	330	303	349	318	396	362	308
150	240	216	300	262	381	349	404	369	456	419	356
185	273	245	341	296	436	400	463	424	521	480	409
240	320	286	400	346	515	472	549	504	615	569	485
300	367	328	458	394	594	545	635	584	709	659	561
400	–	–	546	467	694	634	732	679	852	795	656
500	–	–	626	533	792	723	835	778	982	920	749
630	–	–	720	611	904	826	953	892	1138	1070	855
800	–	–	–	–	1030	943	1086	1020	1265	1188	971
1000	–	–	–	–	1154	1058	1216	1149	1420	1337	1079

Note: Where the conductor is to be protected by a semi-enclosed fuse to BS 3036, see item 6.2 of the preface to this appendix. The current-carrying capacities in columns 2 to 5 are also applicable to flexible cable and to 90°C heat resisting thermoplastic (PVC) cable where the cable are used in fixed installation.

Single-core 70°C thermoplastic (PVC) insulated cable, non armoured, with or without sheath (COPPER CONDUCTOR)

VOLTAGE DROP (per ampere per meter): Conductor operating temperature: 70°C

Conductor cross-sectional area	2 Cable d.c.	2 Cable, Single Phase a.c.									3 or 4 cable, three- Phase a.c.									
		Reference Methods A & B (enclosed in conduit or trucking)			Reference Methods C & F (Clipped direction, on tray or in free air)						Reference Methods A & B (enclosed in conduit or trucking)			Reference Methods C & F (Clipped direction, on tray or in free air)						
					Cable touching			Cable spaced						Cable touching trefoil			Cable touching flat			Cable spaced flat		
mm²	(mV/A/m)	(mV/A/m)			(mV/A/m)			(mV/A/m)			(mV/A/m)			(mV/A/m)			(mV/A/m)			(mV/A/m)		
1	44	44			44			44			38			38			38			38		
1.5	29	29			29			29			25			25			25			25		
2.5	18	18			18			18			15			15			15			15		
4	11	11			11			11			9.5			9.5			9.5			9.5		
6	7.3	7.3			7.3			7.3			6.4			6.4			6.4			6.4		
10	4.4	4.4			4.4			4.4			3.8			3.8			3.8			3.8		
16	2.8	2.8			2.8			2.8			2.4			2.4			2.4			2.4		
		r	x	z	r	x	z	r	x	z	r	x	z	r	x	z	r	x	z	r	x	z
25	1.75	1.8	0.33	1.80	1.75	0.20	1.75	1.75	0.29	1.80	1.50	0.29	1.55	1.50	0.175	1.50	1.50	0.25	1.55	1.50	0.32	1.55
35	1.25	1.3	0.31	1.30	1.25	0.195	1.25	1.25	0.28	1.30	1.10	0.27	1.10	1.10	0.170	1.10	1.10	0.24	1.10	0.10	0.32	1.15
50	0.93	0.95	0.30	1.00	0.93	0.190	0.95	0.93	0.28	0.97	0.81	0.26	0.85	0.80	0.165	0.82	0.80	0.24	0.84	0.80	0.32	0.86
70	0.63	0.65	0.29	0.72	0.63	0.185	0.66	0.63	0.27	0.69	0.56	0.25	0.61	0.55	0.160	0.57	0.55	0.24	0.60	0.55	0.31	0.63
95	0.46	0.49	0.28	0.56	0.47	0.180	0.50	0.47	0.27	0.54	0.42	0.24	0.48	0.41	0.155	0.43	0.41	0.23	0.47	0.40	0.31	0.51
120	0.36	0.39	0.27	0.47	0.37	0.175	0.41	0.37	0.26	0.45	0.33	0.23	0.41	0.32	0.150	0.36	0.32	0.23	0.40	0.32	0.30	0.44
150	0.29	0.31	0.27	0.41	0.30	0.175	0.34	0.29	0.26	0.39	0.27	0.23	0.36	0.26	0.150	0.30	0.26	0.23	0.34	0.26	0.30	0.40
185	0.23	0.25	0.27	0.37	0.24	0.170	0.29	0.24	0.26	0.35	0.22	0.23	0.32	0.21	0.145	0.26	0.21	0.22	0.31	0.21	0.30	0.36
240	0.180	0.195	0.26	0.33	0.185	0.165	0.25	0.185	0.25	0.31	0.17	0.23	0.29	0.160	0.145	0.22	0.160	0.22	0.27	0.160	0.29	0.34
300	0.145	0.160	0.26	0.31	0.150	0.165	0.22	0.150	0.25	0.29	0.14	0.23	0.27	0.130	0.140	0.190	0.130	0.22	0.25	0.130	0.29	0.32
400	0.105	0.130	0.26	0.29	0.120	0.160	0.20	0.115	0.25	0.27	0.12	0.22	0.25	0.105	0.140	0.175	0.105	0.21	0.24	0.100	0.29	0.31
500	0.086	0.110	0.26	0.28	0.098	0.155	0.185	0.093	0.24	0.26	0.10	0.22	0.25	0.086	0.135	0.160	0.086	0.21	0.23	0.081	0.29	0.30
630	0.068	0.094	0.25	0.27	0.081	0.155	0.175	0.076	0.24	0.25	0.08	0.22	0.24	0.072	0.135	0.150	0.072	0.21	0.22	0.066	0.28	0.29
800	0.053				0.068	0.150	0.165	0.061	0.24	0.25				0.060	0.130	0.145	0.060	0.21	0.22	0.053	0.28	0.29
1000	0.042				0.059	0.150	0.160	0.050	0.24	0.24				0.052	0.130	0.140	0.052	0.20	0.21	0.044	0.28	0.28

Note: Spacing's large than one diameter will result in larger volt. drop.

TECHNICAL DATA

Multicore 70°C thermoplastic insulated & thermoplastic sheathed cable, non armoured (COPPER CONDUCTOR)

Ambient temperature: 30°C

Current-carrying capacity (amperes): Conductor operating temperature: 70°C

Conductor cross-sectional area	Reference Method A (enclosed in conduit in thermally insulating wall etc.)		Reference Method B (enclosed in conduit on a wall or in trucking etc.)		Reference Method C (clipped direct)		Reference Method E (in free air or on a perforated cable tray etc. horizontal or vertical)	
	1 two core cable*, single phase a.c or d.c.	1 three core cable* or 1 four core cable three phase a.c.	1 two core cable*, single phase a.c or d.c.	1 three core cable* or 1 four core cable three phase a.c.	1 two core cable* single phase a.c. or d.c.	1 three core cable* or 1 four core cable, three phase a.c.	1 two core cable* single phase a.c. or d.c.	1 three core cable* or 1 four core cable, three phase a.c.
mm^2	A	A	A	A	A	A	A	A
1	11	10	13	11.5	15	13.5	17	14.5
1.5	14	13	16.5	15	19.5	17.5	22	18.5
2.5	18.5	17.5	23	20	27	24	30	25
4	25	23	30	27	36	32	40	34
6	32	29	38	34	46	41	51	43
10	43	39	52	46	63	57	70	60
16	57	52	69	62	85	76	94	80
25	75	68	90	80	112	96	119	101
35	92	83	111	99	138	119	148	126
50	110	99	133	118	168	144	180	153
70	139	125	168	149	213	184	232	196
95	167	150	201	179	258	223	282	238
120	192	172	232	206	299	259	328	276
150	219	196	258	225	344	299	379	319
185	248	223	294	255	392	341	434	364
240	291	261	344	297	461	403	514	430
300	334	298	394	339	530	464	593	497
400	–	–	407	402	634	557	715	597

*With or without a protective conductor

Multicore 70°C thermoplastic insulated & thermoplastic sheathed cable, non armoured (COPPER CONDUCTOR)

Voltage Drop (per ampere per meter): Conductor operating temperature: 70°C

Conductor cross-sectional area	Two core cable, d.c.	Two core cable single phase a.c.			Three or four core cable, three phase a.c.		
mm²	mV/A/m	mV/A/m			mV/A/m		
1	44	44			38		
1.5	29	29			25		
2.5	18	18			15		
4	11	11			9.5		
6	7.3	7.3			6.4		
10	4.4	4.4			3.8		
16	2.8	2.8			2.4		
		r	×	z	r	×	z
25	1.75	1.75	0.170	1.75	1.50	0.145	1.50
35	1.25	1.25	0.165	1.25	1.10	0.145	1.10
50	0.93	0.93	0.165	0.94	0.80	0.140	0.81
70	0.63	0.63	0.160	0.65	0.55	0.140	0.57
95	0.46	0.47	0.155	0.50	0.41	0.135	0.43
120	0.36	0.38	0.155	0.41	0.33	0.135	0.35
150	0.29	0.30	0.155	0.34	0.26	0.130	0.29
185	0.23	0.25	0.150	0.29	0.21	0.130	0.25
240	0.180	0.190	0.150	0.24	0.165	0.130	0.21
300	0.145	0.155	0.145	0.21	0.135	0.130	0.185
400	0.105	0.115	0.145	0.185	0.100	0.125	0.160

*With or without a protective conductor

TECHNICAL DATA

Single core 70°C armoured thermoplastic insulated cable (non-magnetic armour) (COPPER CONDUCTOR)

Ambient temperature: 30°C

Current-carrying capacity (amperes): Conductor operating temperature: 70°C

Conductor cross-sectional area	Reference Method C (clipped direct)		Reference Method F (in free air or on a perforated cable tray horizontal or vertical)								
	Touching		Touching			Spaced by one cable diameter					
	2 cables single phase a.c. or d.c. flat	3 or 4 cables three phase a.c. flat	2 cables single phase a.c. or d.c. flat	3 cables three phase a.c. flat	3 cables three phase a.c. trefoil	2 cable d.c.		2 cables single phase a.c.		3 or 4 cables three-phase a.c.	
						Horizontal	Vertical	Horizontal	Vertical	Horizontal	Vertical
mm²	A	A	A	A	A	A	A	A	A	A	A
50	193	179	205	189	181	229	216	229	217	230	212
70	245	225	259	238	231	294	279	287	272	286	263
95	296	269	313	285	280	357	340	349	332	338	313
120	342	309	360	327	324	415	396	401	383	385	357
150	393	352	413	373	373	479	458	449	429	436	405
185	447	339	469	422	425	548	525	511	489	490	456
240	525	465	550	492	501	648	622	593	568	566	528
300	594	515	624	547	567	748	719	668	640	616	578
400	687	575	723	618	657	885	851	737	707	674	632
500	763	622	805	673	731	1035	997	810	777	721	676
630	843	669	891	728	809	1218	1174	893	856	771	723
800	919	710	976	777	886	1441	1390	943	905	824	772
1000	975	737	1041	808	945	1685	1627	1008	967	872	816

Single core 70°C armoured thermoplastic insulated cable (non-magnetic armour) (COPPER CONDUCTOR)

Voltage Drop (per ampere per meter): Conductor operating temperature: 70°C

Conductor cross-sectional area	2 cables d.c.	Reference Method C & F (clipped direct, on tray or free air)														
		2 Cables, single phase a.c.						3 or 4 cables three phase a.c.								
		Cables touching			Spaced			Trefoil & Touching			Flat & touching			Flat & Spaced		
mm²	mV/A/m	r	x	z	r	x	z	r	x	z	r	x	z	r	x	z
50	0.93	0.93	0.22	0.95	0.93	0.30	0.97	0.80	0.190	0.82	0.79	0.26	0.84	0.79	0.34	0.86
70	0.63	0.64	0.21	0.68	0.66	0.29	0.72	0.56	0.180	0.58	0.57	0.25	0.62	0.59	0.32	0.68
95	0.46	0.48	0.20	0.52	0.51	0.28	0.58	0.42	0.175	0.45	0.44	0.25	0.50	0.47	0.31	0.57
120	0.36	0.39	0.195	0.43	0.42	0.28	0.50	0.33	0.170	0.45	0.36	0.24	0.43	0.40	0.30	0.50
150	0.29	0.31	0.190	0.37	0.34	0.27	0.44	0.27	0.165	0.39	0.30	0.24	0.38	0.34	0.30	0.45
185	0.23	0.26	0.190	0.32	0.29	0.27	0.39	0.22	0.160	0.35	0.25	0.23	0.34	0.29	0.29	0.41
240	0.180	0.20	0.180	0.27	0.23	0.26	0.35	0.175	0.160	0.31	0.20	0.23	0.30	0.24	0.28	0.37
300	0.145	0.160	0.180	0.24	0.190	0.26	0.32	0.140	0.155	0.29	0.165	0.22	0.28	0.24	0.28	0.34
400	0.105	0.140	0.175	0.22	0.180	0.24	0.30	0.120	0.130	0.27	0.160	0.21	0.26	0.21	0.25	0.32
500	0.086	0.120	0.170	0.21	0.165	0.23	0.29	0.105	0.145	0.26	0.145	0.20	0.25	0.190	0.24	0.30
630	0.068	0.105	0.165	0.195	0.150	0.22	0.27	0.091	0.145	0.25	0.135	0.195	0.23	0.175	0.22	0.28
800	0.053	0.095	0.160	0.185	0.145	0.21	0.25	0.082	0.140	0.25	0.125	0.180	0.22	0.170	0.195	0.26
1000	0.042	0.091	0.155	0.180	0.140	0.19	0.24	0.079	0.135	0.24	0.125	0.165	0.21	0.165	0.170	0.24

TECHNICAL DATA

Multicore 70°C armoured thermoplastic insulated cable (COPPER CONDUCTOR)

Current-carrying capacity (amperes):

Air Ambient temperature: 30°C
Ground Ambient temperature: 20°C
Conductor operating temperature: 70°C

	Reference Method C (clipped direct)		Reference Method E (on a perforated horizontal or vertical cable tray or in free air)		Reference Method D (direct in ground or in ducting in ground in or around buildings)	
Conductor cross-sectional area	1 two core cable, single phase a.c. or d.c.	1 three or four core cable three phase a.c.	1 two core cable, single phase a.c. or d.c.	1 three or four core cable three phase a.c	1 two core cable, single phase a.c. or d.c.	1 three or four core cable three phase a.c.
mm^2	A	A	A	A	A	A
1.5	21	18	22	19	22	19
2.5	28	25	31	26	29	24
4	38	33	41	35	37	30
6	49	42	53	45	46	38
10	67	58	72	62	60	50
16	89	77	97	83	78	64
25	118	102	128	110	99	82
35	145	125	157	135	119	98
50	175	151	190	163	140	116
70	222	192	241	207	173	143
95	269	231	291	251	204	169
120	310	267	336	290	231	192
150	356	306	386	332	261	217
185	405	348	439	378	292	243
240	476	409	516	445	336	280
300	547	469	592	510	379	316
400	621	540	683	590	–	–

Multicore 70°C armoured thermoplastic insulated cable (COPPER CONDUCTOR)

Voltage Drop (per ampere per meter): Conductor operating temperature: 70°C

Conductor cross-sectional area	Two core cables d.c.	Two core cable single phase a.c.			Three or four core cable three phase a.c.		
mm²	mV/A/m	mV/A/m			mV/A/m		
1.5	29		29			25	
2.5	18		18			15	
4	11		11			9.5	
6	7.3		7.3			6.4	
10	4.4		4.4			3.8	
16	2.8		2.8			2.4	
		r	x	z	r	x	z
25	1.75	1.75	0.170	1.75	0.150	0.145	1.50
35	1.25	1.25	0.165	1.25	1.10	0.145	1.10
50	0.93	0.93	0.165	0.94	0.80	0.140	0.81
70	0.63	0.63	0.160	0.65	0.55	0.140	0.57
95	0.46	0.47	0.155	0.50	0.41	0.135	0.43
120	0.36	0.38	0.155	0.41	0.33	0.135	0.35
150	0.29	0.30	0.155	0.34	0.26	0.130	0.29
185	0.23	0.25	0.150	0.29	0.21	0.130	0.25
240	0.180	0.190	0.150	0.24	0.165	0.130	0.21
300	0.145	0.155	0.145	0.21	0.135	0.130	0.185
400	0.105	0.115	0.145	0.185	0.100	0.125	0.160

TECHNICAL DATA

Thermoplastic insulated & sheathed flat cable with protective conductor (COPPER CONDUCTOR)

Ambient temperature: 30°C
Conductor operating temperature: 70°C

Current-carrying capacity (amperes) and Voltage drop per ampere per meter:

Conductor cross-sectional area	Reference Method 100# (above a plasterboard ceiling covered by thermal insulation not exceeding 100mm in thickness)	Reference Method 101# (above a plasterboard ceiling covered by thermal insulation not exceeding 100mm in thickness)	Reference Method 102# (in a stud wall with thermal insulation with cable touching the inner wall surface)	Reference Method 103# (in a stud wall with thermal insulation with cable not touching the inner wall surface)	Reference Method C (clipped direct)	Reference Method A (enclosed in conduit in an insulated wall)	Voltage Drop (per ampere per meter)
mm^2	A	A	A	A	A	A	mV/A/m
1	13	10.5	13	8	16	11.5	44
1.5	16	13	16	10	20	14.5	29
2.5	21	17	21	13.5	27	20	18
4	27	22	27	17.5	37	26	11
6	34	27	35	23.5	47	32	7.3
10	45	36	47	32	64	44	4.4
16	57	46	63	42.5	85	57	2.8

A* For full installation refer to Table 4A2 Installation Method 2 but for flat twin and earth cable
C* For full installation refer to Table 4A2 Installation Method 20 but for flat twin and earth cable
100# For full installation refer to Table 4A2 Installation Method 100
101# For full installation refer to Table 4A2 Installation Method 101
102# For full installation refer to Table 4A2 Installation Method 102
103# For full installation refer to Table 4A2 Installation Method 103

Wherever practicable, a cable is to be fixed in a position such that it will not be covered with thermal insulation.
Regulation 523.7, BS5803-5: Appendix C: Avoidance of overheating of electric cable
Buliding Regulations Approved document B and Thermal insulation: avoiding risks, BR 262, BRE, 2001 refer

Single core 90°C thermosetting insulated cables, unarmoured, with or without sheath (COPPER CONDUCTOR)

Ambient temperature: 20°C

Current-carrying capacity (amperes): Conductor operating temperature: 70°C

Conductor cross-sectional area	Reference Method A (enclosed in conduit in thermally insulating wall etc.)		Reference Method B (enclosed in conduit on a wall or in trucking etc.)		Reference Method C (clipped direct)		Reference Method F (on a perforated cable tray horizontal or vertical or in free air) Touching			Reference Method F (in free air) (in free air) Spaced by one cable diameter	
	2 cables single phase a.c. or d.c.	3 or 4 cables three phase a.c. or d.c.	2 cables single phase a.c. or d.c.	3 or 4 cables three phase a.c. or d.c.	2 cables single phase a.c. or d.c. flat and touching	3 or 4 cables three phase a.c. or d.c. flat and touching or trefoil	2 cables single phase a.c. or d.c. flat	3 cables three phase a.c. flat	3 cables three phase a.c. trefoil	2 cables single phase a.c. or d.c. or 3 cables three phase a.c. flat Horizontal	Vertical
mm²	A	A	A	A	A	A	A	A	A	A	A
1	14	13	17	15	19	17.5	–	–	–	–	–
1.5	19	17	23	19	25	23	–	–	–	–	–
2.5	26	23	31	26	34	31	–	–	–	–	–
4	35	31	42	35	46	41	–	–	–	–	–
6	45	40	54	45	59	54	–	–	–	–	–
10	61	54	75	63	81	74	–	–	–	–	–
16	81	73	100	85	109	99	–	–	–	–	–
25	106	95	133	111	143	130	161	141	135	182	161
35	131	117	164	138	176	161	200	176	169	226	201
50	158	141	198	168	228	209	242	216	207	275	246
70	200	179	253	214	293	268	310	279	268	353	318
95	241	216	306	259	355	326	377	342	328	430	389
120	278	249	354	299	413	379	437	400	383	500	454
150	318	285	393	328	476	436	504	464	444	577	527
185	362	324	449	370	545	500	575	533	510	661	605
240	424	380	500	433	644	590	679	634	607	781	719
300	486	435	573	493	743	681	783	736	703	902	833
400	–	–	683	584	868	793	940	868	823	1085	1008
500	–	–	783	666	990	904	1083	998	946	1253	1169
630	–	–	900	764	1130	1033	1254	1151	1088	1451	1362
800	–	–	–	–	1288	1179	1358	1275	1214	1581	1485
1000	–	–	–	–	1443	1323	1520	1436	1349	1775	1671

Notes:

(1) Where a conductor operates at a temperature exceeding 70°C it must be ascertained that the equipment connected to the conductor is suitable for the conductor operating (see Regulation 512.1.2)

(2) Where cables in this table are connected to equipment or accessories designed to operate at temperature not exceeding 70°C, the current ratings give in the equivalent table for 70°C thermoplastic insulated cables (Table 4D1A) must be used (see Reg 523.1)

TECHNICAL DATA

Single core 90°C thermosetting insulated cables, unarmoured, with or without sheath (COPPER CONDUCTOR)

Voltage Drop (per ampere per meter): Conductor operating temperature: 90°C

Conductor cross-sectional area	2 Cables d.c.	2 Cable, Single Phase a.c.									3 or 4 cable, three phase a.c.									
		Reference Methods A & B (enclosed in conduit or trucking)			Reference Methods C & F (clipped direction, on tray or in free air)						Reference Methods A & B (enclosed in conduit or trucking)			Reference Methods C & F (clipped direction, on tray or in free air)						
					Cable touching			Cable spaced*						Cable touching trefoil			Cable touching flat			Cable spaced flat		
mm²	(mV/A/m)	(mV/A/m)			(mV/A/m)			(mV/A/m)			(mV/A/m)			(mV/A/m)			(mV/A/m)			(mV/A/m)		
1	46	46			46			46			40			40			40			40		
1.5	31	31			31			31			27			27			27			27		
2.5	19	19			19			19			16			16			16			16		
4	12	12			12			12			10			10			10			10		
6	7.9	7.9			7.9			7.9			6.8			6.8			6.8			6.8		
10	4.7	4.7			4.7			4.7			4.0			4.0			4.0			4.0		
16	2.9	2.9			2.9			2.9			2.5			2.5			2.5			2.5		
		r	x	z	r	x	z	r	x	z	r	x	z	r	x	z	r	x	z	r	x	z
25	1.85	1.85	0.31	1.90	1.85	0.190	1.85	1.85	0.28	1.85	0.16	0.27	1.65	1.60	0.165	1.60	1.60	0.190	1.60	1.60	0.27	1.65
35	1.35	1.35	0.29	1.35	1.35	0.180	1.35	1.35	0.27	1.35	0.15	0.25	1.15	1.15	0.155	0.15	1.15	0.180	1.15	1.15	0.26	1.20
50	0.99	1.00	0.29	1.05	0.99	0.180	1.00	0.99	0.27	1.00	0.87	0.25	0.90	0.86	0.155	0.87	0.86	0.180	0.87	0.86	0.26	0.89
70	0.68	0.70	0.28	0.75	0.68	0.175	0.71	0.68	0.26	0.73	0.60	0.24	0.65	0.59	0.150	0.61	0.59	0.175	0.62	0.59	0.25	0.65
95	0.49	0.51	0.27	0.58	0.49	0.170	0.52	0.49	0.26	0.56	0.44	0.23	0.50	0.43	0.145	0.45	0.43	0.170	0.46	0.43	0.25	0.49
120	0.39	0.41	0.26	0.48	0.39	0.165	0.43	0.39	0.25	0.47	0.35	0.23	0.42	0.34	0.140	0.37	0.34	0.165	0.38	0.34	0.24	0.42
150	0.32	0.33	0.26	0.43	0.32	0.165	0.36	0.32	0.25	0.41	0.29	0.23	0.37	0.28	0.140	0.31	0.28	0.165	0.32	0.28	0.24	0.37
185	0.25	0.27	0.26	0.37	0.26	0.165	0.30	0.25	0.25	0.36	0.23	0.23	0.32	0.22	0.140	0.26	0.22	0.165	0.28	0.22	0.24	0.33
240	0.190	0.21	0.26	0.33	0.20	0.160	0.25	0.195	0.25	0.31	0.185	0.22	0.29	0.170	0.140	0.22	0.170	0.165	0.24	0.170	0.24	0.29
300	0.155	0.175	0.25	0.31	0.160	0.160	0.22	0.155	0.25	0.29	0.150	0.22	0.27	0.140	0.140	0.195	0.135	0.160	0.21	0.135	0.24	0.27
400	0.120	0.140	0.25	0.29	0.130	0.155	0.20	0.125	0.24	0.27	0.125	0.22	0.25	0.110	0.135	0.175	0.110	0.160	0.195	0.110	0.24	0.26
500	0.093	0.120	0.25	0.28	0.105	0.155	0.185	0.098	0.24	0.26	0.100	0.22	0.24	0.090	0.135	0.160	0.088	0.160	0.180	0.085	0.24	0.25
630	0.072	0.100	0.25	0.27	0.086	0.155	0.175	0.078	0.24	0.25	0.088	0.21	0.23	0.074	0.135	0.150	0.171	0.160	0.170	0.068	0.23	0.24
800	0.056				0.072	0.150	0.170	0.064	0.24	0.25				0.062	0.130	0.145	0.059	0.155	0.165	0.055	0.23	0.24
1000	0.045				0.063	0.150	0.165	0.054	0.24	0.24				0.055	0.130	0.140	0.050	0.155	0.165	0.047	0.23	0.24

- Spacing's larger than one cable diameter will result in a larger voltage drop

Multicore 90°C thermosetting insulated and thermoplastic sheathed cables, unarmoured (COPPER CONDUCTOR)

Ambient temperature: 30°C

Current-carrying capacity (amperes): Conductor operating temperature: 90°C

Conductor cross-sectional area	Reference Method A (enclosed in conduit in thermally insulating wall etc.)		Reference Method B (enclosed in conduit on a wall or in trucking etc.)		Reference Method C (clipped direct)		Reference Method E (in free air or on a perforated cable tray etc. horizontal or vertical)	
	1 two core cable*, single phase a.c or d.c.	3 or 4 cables three phase a.c.	2 core cable single phase a.c or d.c.	3 or 4 cables three phase a.c.	2 core single phase a.c. or d.c.	3 or 4 cables three phase a.c.	2 core single phase a.c. or d.c.	3 or 4 cables three phase a.c.
mm^2	A	A	A	A	A	A	A	A
1	14.5	13	17	15	19	17	21	18
1.5	18.5	16.5	22	19.5	24	22	26	23
2.5	25	22	30	26	33	30	36	32
4	33	30	40	35	45	40	49	42
6	42	38	51	44	58	52	63	54
10	57	51	69	60	80	71	86	75
16	76	68	91	80	107	96	115	100
25	99	89	119	105	138	119	149	127
35	121	109	146	128	171	147	185	158
50	145	130	175	154	209	179	225	192
70	183	164	221	194	269	229	289	246
95	220	197	265	233	328	278	352	298
120	253	227	305	268	382	322	410	346
150	290	259	334	300	441	371	473	399
185	329	295	384	340	506	424	542	456
240	386	346	459	398	599	500	641	538
300	442	396	532	455	693	576	741	621
400	–	–	625	536	803	677	865	741

Notes:

(1) Where a conductor operates at a temperature exceeding 70°C it must be ascertained that the equipment connected to the conductor is suitable for the conductor operating (see Regulation 512.1.2)

(2) Where cables in this table are connected to equipment or accessories designed to operate at temperature not exceeding 70°C, the current ratings give in the equivalent table for 70°C thermoplastic insulated cables (Table 4D4A) must be used (see Reg 523.1)

*with or without a protective

TECHNICAL DATA

Multicore 90°C thermosetting insulated and thermoplastic sheathed cables, unarmoured (COPPER CONDUCTOR)

Voltage Drop (per ampere per meter): Conductor operating temperature: 90°C

Conductor cross-sectional area	2 cables d.c.	2 Cables, Single phase a.c. Reference Methods A & B (enclosed in conduit or trunking)			3 or 4 cables, three phase a.c. Reference Methods A & E (enclosed in conduit or trunking)		
mm²	mV/A/m	mV/A/m			mV/A/m		
1	46		46			40	
1.5	31		31			27	
2.5	19		19			16	
4	12		12			10	
6	7.9		7.9			6.8	
10	4.7		4.7			4.0	
			2.9			2.5	
16	2.9	r	x	z	r	x	z
25	1.85	1.85	0.160	1.90	1.60	0.140	1.65
35	1.35	1.35	0.155	1.35	1.15	0.135	1.15
50	0.98	0.99	0.155	1.00	0.86	0.135	0.87
70	0.67	0.67	0.150	0.69	0.59	0.130	0.60
95	0.49	0.50	0.150	0.52	0.43	0.130	0.45
120	0.39	0.40	0.145	0.42	0.34	0.130	0.37
150	0.31	0.32	0.145	0.35	0.28	0.125	0.30
185	0.25	0.26	0.145	0.29	0.22	0.125	0.26
240	0.195	0.20	0.140	0.24	0.175	0.125	0.21
300	0.155	0.16	0.140	0.21	0.140	0.120	0.185
400	0.120	0.13	0.140	0.19	0.115	0.120	0.165

Single core 90°C thermosetting insulated cables (nonmagnetic armour) (COPPER CONDUCTOR)

Ambient temperature: 30°C

Current-carrying capacity (amperes): Conductor operating temperature: 90°C

Conductor cross-sectional area	Reference Method C (clipped direct) Touching		Reference Method F (in free air or on a perforated cable tray, horizontal or vertical) Touching			Spaced by one cable diameter					
	2 cable single phase a.c. or d.c. flat	3 or 4 cables three phase a.c. flat	2 cables single phase a.c. or d.c. flat	3 cables three phase a.c. flat	3 cables three phase a.c. trefoil	2 cable d.c.		2 cables single phase a.c.		3 or 4 cables three-phase a.c.	
						Horizontal	Vertical	Horizontal	Vertical	Horizontal	Vertical
mm^2	A	A	A	A	A	A	A	A	A	A	A
50	237	220	253	232	222	284	270	282	266	288	266
70	303	277	322	293	285	356	349	357	337	358	331
95	367	333	389	352	346	446	426	436	412	425	393
120	425	383	449	405	402	519	497	504	477	485	449
150	488	437	516	462	463	600	575	566	539	549	510
185	557	496	587	524	529	688	660	643	614	618	574
240	656	579	689	612	625	815	782	749	714	715	666
300	755	662	792	700	720	943	906	842	805	810	755
400	853	717	899	767	815	1137	1094	929	889	848	797
500	962	791	1016	851	918	1314	1266	1032	989	923	871
630	1082	861	1146	935	1027	1528	1474	1139	1092	992	940
800	1170	904	1246	987	1119	1809	1744	1204	1155	1042	978
1000	1261	961	1345	1055	1214	2100	2026	1289	1238	1110	1041

Notes:

(1) Where a conductor operates at a temperature exceeding 70°C it must be ascertained that the equipment connected to the conductor is suitable for the conductor operating (see Regulation 512.1.2)

(2) Where cables in this table are connected to equipment or accessories designed to operate at temperature not exceeding 70°C, the current ratings give in the equivalent table for 70°C thermoplastic insulated cables (Table 4D3A) must be used (see Reg 523.1)

TECHNICAL DATA

SINGLE CORE 90°C THERMOSETTING INSULATED CABLES (NONMAGNETIC ARMOUR) (COPPER CONDUCTOR)

Voltage Drop (per ampere per meter): Conductor operating temperature: 90°C

Conductor cross-sectional area	2 cables d.c.	Reference Methods C & F (clipped direct, on tray or in free air)														
		2 cables, single-phase a.c.						3 or 4 cables, three-phase a.c.								
		touching			spaced			Trefoil & touching			Flat & touching			Flat & spaced		
mm²	mV/A/m	(mV/A/m)			(mV/A/m)			(mV/A/m)			(mV/A/m)			(mV/A/m)		
		r	x	z	r	x	z	r	x	z	r	x	z	r	x	z
50	0.98	0.99	0.210	1.000	0.980	0.29	1.00	0.86	0.180	0.87	0.84	0.25	0.88	0.84	0.33	0.90
70	0.67	0.68	0.200	0.710	0.690	0.29	0.75	0.59	0.170	0.62	0.60	0.25	0.65	0.62	0.32	0.70
95	0.49	0.51	0.195	0.550	0.530	0.28	0.60	0.44	0.170	0.47	0.46	0.24	0.52	0.49	0.31	0.58
120	0.39	0.41	0.190	0.450	0.430	0.27	0.51	0.35	0.165	0.39	0.38	0.24	0.44	0.41	0.30	0.51
150	0.31	0.33	0.185	0.380	0.360	0.27	0.45	0.29	0.160	0.33	0.31	0.23	0.39	0.34	0.29	0.45
185	0.25	0.27	0.185	0.330	0.300	0.26	0.40	0.23	0.160	0.28	0.26	0.23	0.34	0.29	0.29	0.41
240	0.195	0.21	0.180	0.280	0.240	0.26	0.35	0.180	0.155	0.24	0.21	0.22	0.30	0.24	0.28	0.37
300	0.155	0.170	0.175	0.250	0.195	0.25	0.32	0.145	0.150	0.21	0.170	0.22	0.28	0.20	0.27	0.34
400	0.115	0.145	0.170	0.220	0.180	0.24	0.30	0.125	0.150	0.195	0.160	0.21	0.27	0.20	0.27	0.33
500	0.093	0.125	0.170	0.210	0.165	0.24	0.29	0.105	0.145	0.180	0.145	0.20	0.25	0.190	0.24	0.31
630	0.073	0.105	0.165	0.195	0.150	0.23	0.27	0.092	0.145	0.170	0.135	0.195	0.24	0.175	0.23	0.29
800	0.056	0.090	0.160	0.190	0.145	0.23	0.27	0.086	0.140	0.165	0.130	0.180	0.23	0.175	0.195	0.26
1000	0.045	0.092	0.155	0.180	0.140	0.21	0.25	0.080	0.135	0.155	0.125	0.170	0.21	0.165	0.180	0.24

NOTE: * Spacing's larger than one cable diameter will result in larger volt drop.

MULTICORE 90°C ARMOURED THERMOSETTING INSULATED CABLES (COPPER CONDUCTOR)

Ambient temperature: 30°C
Ground ambient temperature: 20°C
Current-carrying capacity (amperes): Conductor operating temperature: 90°C

Conductor cross-sectional area	Reference Method C (clipped direct)		Reference Method E (in free air or on a perforated cable tray, horizontal or vertical)		Reference Method D (direct in ground or in ducting in ground, in or around buildings)	
	1 two core cable single phase a.c. or d.c.	1 three or four core cables three phase a.c.	1 two core cable single phase a.c. or d.c.	1 three or four core cables three phase a.c.	1 two core cable single phase a.c. or d.c.	1 three or four core cables three phase a.c.
mm^2	A	A	A	A	A	A
1.5	27	23	29	25	25	21
2.5	36	31	39	33	33	28
4	49	42	52	44	43	36
6	62	53	66	56	53	44
10	85	73	90	78	71	58
16	110	94	115	99	91	75
25	146	124	152	131	116	96
35	180	154	188	162	139	115
50	219	187	228	197	164	135
70	279	238	291	251	203	167
95	338	289	354	304	239	197
120	392	335	410	353	271	223
150	451	386	472	406	306	251
185	515	441	539	463	343	281
240	607	520	636	546	395	324
300	698	599	732	628	446	365
400	787	673	847	728	–	–

Notes:

(1) Where a conductor operates at a temperature exceeding 70°C it must be ascertained that the equipment connected to the conductor is suitable for the conductor operating (see Regulation 512.1.2)

(2) Where cables in this table are connected to equipment or accessories designed to operate at temperature not exceeding 70°C, the current ratings give in the equivalent table for 70°C thermoplastic insulated cables (Table 4D4A) must be used (see Reg 523.1)

TECHNICAL DATA

MULTICORE 90°C ARMOURED THERMOSETTING INSULATED CABLES (COPPER CONDUCTOR)

Voltage Drop (per ampere per meter): Conductor operating temperature: 90°C

Conductor cross-sectional area	2 cables d.c.	Two core cables, single-phase a.c.			Three-or four-core cable, three-phase a.c.		
mm^2	mV/A/m	(mV/A/m)			(mV/A/m)		
1.5	31	31			27		
2.5	19	19			16		
4	12	12			10		
6	7.9	7.9			6.8		
10	4.7	4.7			4.0		
16	2.9	2.9			2.5		
		r	x	z	r	x	z
25	1.85	1.85	0.160	1.90	1.60	0.140	1.65
35	1.35	1.35	0.155	1.35	1.15	0.135	1.15
50	0.98	0.99	0.155	1.00	0.86	0.135	0.87
70	0.67	0.67	0.150	0.69	0.59	0.130	0.60
95	0.49	0.50	0.150	0.52	0.43	0.130	0.45
120	0.39	0.40	0.145	0.42	0.34	0.130	0.37
150	0.31	0.32	0.145	0.35	0.28	0.125	0.30
185	0.25	0.26	0.145	0.29	0.22	0.125	0.26
240	0.195	0.20	0.140	0.24	0.175	0.125	0.21
300	0.155	0.16	0.140	0.21	0.140	0.120	0.185
400	0.120	0.13	0.140	0.19	0.115	0.120	0.165