- LOW VOLTAGE FIRE RESISTANT CABLES
- FLEXIBLE CABLES
- MEDIUM VOLTAGE HIGH VOLTAGE EXTRA HIGH VOLTAGE CABLES
- LOW VOLTAGE POWER & INSTRUMENTATION CABLES

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LOW VOLTAGE POWER & INSTRUMENTATION CABLES

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UNPARALLED SUCCESS

*SINCE **1993***

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- FLEXIBLE CABLES
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ASIAN WIRE & CABLE

OUR VISION WORLD LEADER
THAT SETS THE BECNHMARK FOR
QUALITY AND EXCELLENCE

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About Us

TEAMWORK

INNOVATION

WIN-WIN

Established in 1993, Asian Wire and Cable specializes in manufacturing wires and cables. The company is also an enterprise collection of R & D, Sales and Services. The main products include Power Cables, Electrical Cables, Control Cables, Housing Wires (CCC Approval), Mineral Insulation Cables, Prefabricated Branch Cables.

Our mission is to consistently engineer, produce, and deliver exceptional cable solutions that empower connectivity across industries and geographies. By adhering to the highest standards of innovation, craftsmanship, and environmental responsibility, we aim to exceed our customers' expectations and contribute to the advancement of global technological progress. Through collaborative partnerships, cutting-edge research, and a commitment to continuous improvement, we strive to create lasting value for our customers, employees, stakeholders, and the communities we serve. Our unwavering dedication to excellence drives us forward on the path to becoming the foremost global leader for superior cables that power the connections of today and tomorrow.

WORLD-CLASS MANUFACTURING We are committed to bring world-class manufacturing to our customers through standardization of processes and manufacturing high quality products. Striving to improve and standardize our Production models and business processes, we also aim to reduce lead time and manufacturing costs of building materials.

UNPARALLELED CUSTOMER SERVICE
In this highly competitive industry, we are also driven to focus on our R&D in order to fulfil an extensive range of our customers’ requirements and standards.

STRINGENT QUALITY CONTROL We believe that our strong customers’ satisfaction comes from our “Best or Nothing" quality control. We have a strong quality control system to ensure that we complete every project to the highest industry standards. We have a strong quality control system that begins from the purchasing, warehouse, production, packaging, and transportation to ensure professional quality is maintained throughout.

With this commitment, we are able to assist our customers to manufacture cables of various standards that include CCC, ISO9002, CE, ROHS, VDE, TIR, SAA, SON CAP, SIRIM, UL, CSA, JET, SAA, SEMKO, NEMKO, FIMKO, DEMKO, SEV, OVE, CEBEC, CNS, PSB, etc. At Asian Wire and Cable, we believe that with quality comes longevity and with customer satisfaction comes growth.

Our Mission

Win-win **Innovation** **Teamwork**

Our mission is to consistently engineer, produce, and deliver exceptional cable solutions that empower connectivity across industries and geographies. By adhering to the highest standards of innovation, craftsmanship, and environmental responsibility, we aim to exceed our customers' expectations and contribute to the advancement of global technological progress. Through collaborative partnerships, cutting-edge research, and a commitment to continuous improvement, we strive to create lasting value for our customers, employees, stakeholders, and the communities we serve. Our unwavering dedication to excellence drives us forward on the path to becoming the foremost global leader for superior cables that power the connections of today and tomorrow.

OUR BUSINESS PHILOSOPHY

WE VALUE RELATIONSHIPS & SUSTAIN TRUST WITH OUR VALUED STAKEHOLDERS

Production Equipment

Good Service with Sincerity

Production Equipment

Quality Inspection Center

ASIAN WIRE & CABLE

Good Service with Sincerity

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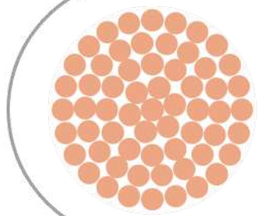
BARE ANNEALED COPPER SOFT DRAWN STRANDED PLAIN ANNEALED COPPER CONDUCTOR (SINGLE CORE)

APPLICATION

For use in overhead transmission, distribution and grounding application.

Conductor :	Soft drawn plain annealed copper, class 2	Main specification :	IEC 60228, BS EN 60228
	Circular or compacted	Min. bending radius :	6 X overall diameter



1 Core
BARE COPPER

No. of cores	Nominal cross-sectional area of conductor (mm^2)	Number and diameter of wires (no/mm)	Thickness of insulation (mm)	Thickness of oversheath (mm)	Approx. overall diameter (mm)	Approx. net weight (kg/km)
1	1.5	7/0.53			1.59	14.0
1	2.5	7/0.67			2.01	22.4
1	4	7/0.85			2.55	36.1
1	6	7/1.04			3.12	54.0
1	10	7/1.35			4.05	90.80
1	16	7/1.70			5.10	145.0
1	25	7/2.14			6.42	229.0
1	35	19/1.53			7.56	317.0
1	50	19/1.78			8.90	429.0
1	70	19/2.14			10.70	620.0
1	95	19/2.52			12.60	860.0
1	120	37/2.03			14.21	1086.0
1	150	37/2.25			15.75	1334.0
1	185	37/2.52			17.64	1673.0
1	240	61/2.25			20.25	2199.0
1	300	61/2.52			22.68	2759.0
1	400	61/2.85			25.65	3528.0
1	500	61/3.20			28.80	4448.0
1	630	127/2.52			32.76	5744.0

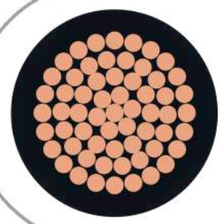
PVC INSULATED CABLE
450/750V, PVC INSULATED, NON-SHEATHED CABLE

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 a.c. or up to 750V to earth d.c.

Conductor :	Single solid wire or circular stranded plain Annealed copper wire acc. To IEC 60228, BS 6360 1.5mm2 and 2.5mm2 for class 1 and class 2	Voltage :	450/750V
		Temperature :	Maximum 70°C
Insulation :	Class 2 for 4mm2 and above PVC (polyvinyl chloride) compound type Ti1	Main specification :	BS EN 50525-2-31, SS358 Part 3, IEC 60227
		Testing voltage :	2500V
Colour :	Assorted colours	Min. bending radius :	3 x OD (<10mm) 4 x OD (≤ 10mm < 25mm) 6 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 (mm²)	Number and diameter of wires (no/mm)	Thickness of insulation (mm)	Thickness of oversheath (mm)	Approx. overall diameter (mm)	Approx. net weight (kg/km)
1	1.5	1/1.38	0.7		2.9	20
1	1.5	7/0.53	0.7		3.1	22
1	2.5	1/1.78	0.8		3.5	32
1	2.5	7/0.67	0.8		3.7	34
1	4	7/0.85	0.8		4.3	50
1	6	7/1.04	0.8		4.8	70
1	10	7/1.35	1.0		6.2	120
1	16	7/1.70	1.0		7.2	180
1	25	7/2.14	1.2		9.0	280
1	35	19/1.53	1.2		10.0	375
1	50	19/1.78	1.4		11.9	505
1	70	19/2.14	1.4		13.7	715
1	95	19/2.52	1.6		16.0	985
1	120	37/2.03	1.6		17.6	1220
1	150	37/2.25	1.8		19.6	1505
1	185	37/2.52	2.0		21.9	1885
1	240	61/2.25	2.2		25.0	2460
1	300	61/2.52	2.4		28.0	3075
1	400	61/2.85	2.6		31.5	3915
1	500	61/3.20	2.8		34.7	4915
1	630	127/2.52	2.8		38.7	6260

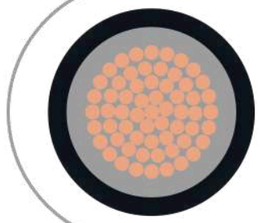
PVC INSULATED CABLE
600/1000V, PVC INSULATED,
PVC SHEATHED UNARMOURED CABLES

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 70°C.

Conductor :	Circular stranded, circular compact stranded or sector shaped stranded plain annealed Copper wire acc. To IEC 60228 & 6360 class 2		Voltage :	600/1000V
Insulation :	PVC (polyvinyl chloride) compound type A		Temperature :	Maximum 70°C
Identification of cores :	1 core	Red or Black	Main specification :	IEC 60502-1
	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 cores & 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		Testing voltage :	3500V
Sheath :	PVC (Polyvinyl Chloride) compound type St1		Min. bending radius :	15 x OD
Colour :	Black		Special Properties upon request :	Anti-termite sheath Anti-rodent sheath UV-resistant sheath Flame retardant sheath

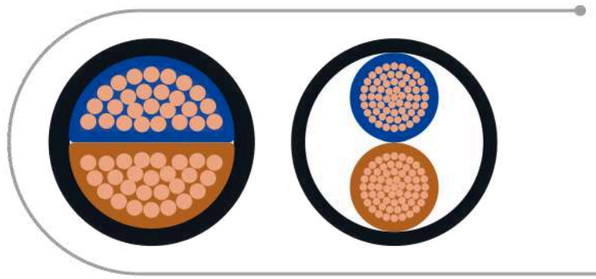
PVC INSULATED CABLE
600/1000V, PVC INSULATED,
PVC SHEATHED UNARMOURED CABLES



1 Core
CU/PVC/PVC

No. of cores	Nominal cross-sectional area of conductor (mm^2)	Number and diameter of wires (no/mm)	Thickness of insulation (mm)	Thickness of oversheath (mm)	Approx. overall diameter (mm)	Approx. net weight (kg/km)
1	1.5	7/0.53	0.8	1.4	6.0	52
1	2.5	7/0.67	0.8	1.4	6.4	65
1	4	7/0.85	1.0	1.4	7.6	95
1	6	7/1.04	1.0	1.4	8.2	120
1	10	7/1.35	1.0	1.4	9.1	169
1	16	7/1.70	1.0	1.4	10.2	236
1	25	7/2.14	1.2	1.4	11.9	350
1	35	19/1.53	1.2	1.4	13.1	455
1	50	19/1.78	1.4	1.4	14.8	595
1	70	19/2.14	1.4	1.4	16.6	813
1	95	19/2.52	1.6	1.5	19.2	1110
1	120	37/2.03	1.6	1.5	21.0	1358
1	150	37/2.25	1.8	1.6	23.0	1664
1	185	37/2.52	2.0	1.7	25.5	2075
1	240	61/2.25	2.2	1.8	29.0	2686
1	300	61/2.52	2.4	1.9	32.0	3328
1	400	61/2.85	2.6	2.0	36.0	4230
1	500	61/3.20	2.8	2.1	40.0	5285
1	630	127/2.52	2.8	2.2	44.0	6686
1	800	127/2.85	2.8	2.3	48.0	8410
1	1000	127/3.20	3.0	2.5	54.0	10545

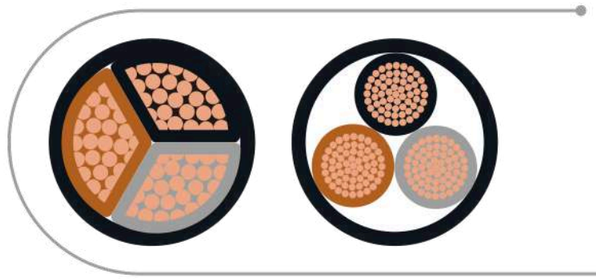
PVC INSULATED CABLE
600/1000V, PVC INSULATED,
PVC SHEATHED UNARMOURED CABLES



2 Cores
CU/PVC/PVC

No. of cores	Nominal cross-sectional area of conductor (mm^2)	Number and diameter of wires (no/mm)	Thickness of insulation (mm)	Thickness of oversheath (mm)	Approx. overall diameter (mm)	Approx. net weight (kg/km)
2	1.5	7/0.53	0.8	1.8	11.0	145
2	2.5	7/0.67	0.8	1.8	11.5	180
2	4	7/0.85	1.0	1.8	13.5	255
2	6	7/1.04	1.0	1.8	15.0	285
2	10	7/1.35	1.0	1.8	17.0	395
2	16	7/1.70	1.0	1.8	19.0	590
2	25	7/2.14	1.2	1.8	19.0	710
2	35 (S)	19/1.53	1.2	1.8	20.0	930
2	50 (S)	19/1.78	1.4	1.8	23.0	1225
2	70 (S)	19/2.14	1.4	1.9	25.5	1680
2	95 (S)	19/2.52	1.6	2.0	29.0	2280
2	120 (S)	37/2.03	1.6	2.1	32.0	2805
2	150 (S)	37/2.25	1.8	2.2	35.0	3430
2	185 (S)	37/2.52	2.0	2.4	39.0	4285
2	240 (S)	61/2.25	2.2	2.5	48.0	5565
2	300 (S)	61/2.52	2.4	2.7	53.0	6965
2	400 (S)	61/2.85	2.6	2.9	58.0	9020

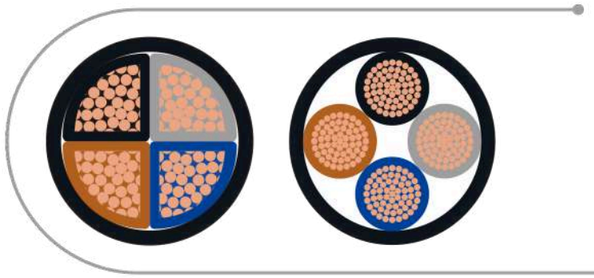
PVC INSULATED CABLE
600/1000V, PVC INSULATED,
PVC SHEATHED UNARMOURED CABLES



3 Cores
CU/PVC/PVC

No. of cores	Nominal cross-sectional area of conductor (mm^2)	Number and diameter of wires (no/mm)	Thickness of insulation (mm)	Thickness of oversheath (mm)	Approx. overall diameter (mm)	Approx. net weight (kg/km)
3	1.5	7/0.53	0.8	1.8	11.5	165
3	2.5	7/0.67	0.8	1.8	12.0	210
3	4	7/0.85	1.0	1.8	14.0	305
3	6	7/1.04	1.0	1.8	15.5	370
3	10	7/1.35	1.0	1.8	17.5	515
3	16	7/1.70	1.0	1.8	20.0	740
3	25	7/2.14	1.2	1.8	21.0	1015
3	35 (S)	19/1.53	1.2	1.8	23.0	1330
3	50 (S)	19/1.78	1.4	1.8	26.0	1765
3	70 (S)	19/2.14	1.4	1.9	29.0	2435
3	95 (S)	19/2.52	1.6	2.1	35.0	3360
3	120 (S)	37/2.03	1.6	2.2	38.0	4140
3	150 (S)	37/2.25	1.8	2.3	42.0	5070
3	185 (S)	37/2.52	2.0	2.5	46.0	6330
3	240 (S)	61/2.25	2.2	2.6	56.0	8265
3	300 (S)	61/2.52	2.4	2.8	63.0	10355
3	400 (S)	61/2.85	2.6	3.1	70.0	13090

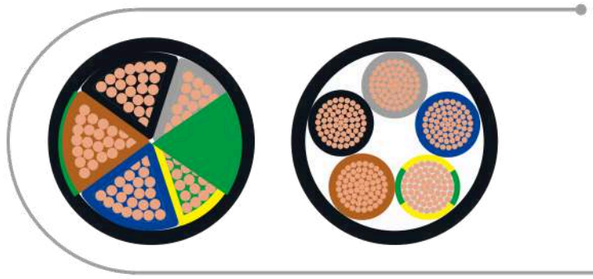
PVC INSULATED CABLE
600/1000V, PVC INSULATED,
PVC SHEATHED UNARMOURED CABLES



4 Cores
CU/PVC/PVC

No. of cores	Nominal cross-sectional area of conductor (mm^2)	Number and diameter of wires (no/mm)	Thickness of insulation (mm)	Thickness of oversheath (mm)	Approx. overall diameter (mm)	Approx. net weight (kg/km)
4	1.5	7/0.53	0.8	1.8	12.0	200
4	2.5	7/0.67	0.8	1.8	13.0	255
4	4	7/0.85	1.0	1.8	15.5	375
4	6	7/1.04	1.0	1.8	17.0	455
4	10	7/1.35	1.0	1.8	19.0	665
4	16	7/1.70	1.0	1.8	22.0	930
4	25	7/2.14	1.2	1.8	23.5	1325
4	35 (S)	19/1.53	1.2	1.8	26.0	1740
4	50 (S)	19/1.78	1.4	1.9	29.0	2320
4	70 (S)	19/2.14	1.4	2.0	33.0	3215
4	95 (S)	19/2.52	1.6	2.2	39.0	4400
4	120 (S)	37/2.03	1.6	2.3	42.5	5440
4	150 (S)	37/2.25	1.8	2.5	47.0	6675
4	185 (S)	37/2.52	2.0	2.6	53.0	8360
4	240 (S)	61/2.25	2.2	2.8	61.0	10870
4	300 (S)	61/2.52	2.4	3.1	68.0	13650
4	400 (S)	61/2.85	2.6	3.3	78.0	17360

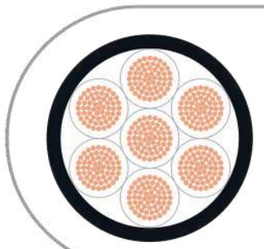
PVC INSULATED CABLE
600/1000V, PVC INSULATED,
PVC SHEATHED UNARMOURED CABLES



5 Cores
CU/PVC/PVC

No. of cores	Nominal cross-sectional area of conductor (mm^2)	Number and diameter of wires (no/mm)	Thickness of insulation (mm)	Thickness of oversheath (mm)	Approx. overall diameter (mm)	Approx. net weight (kg/km)
5	1.5	7/0.53	0.8	1.8	12.3	230
5	2.5	7/0.67	0.8	1.8	13.4	300
5	4	7/0.85	1.0	1.8	15.9	438
5	6	7/1.04	1.0	1.8	17.5	569
5	10	7/1.35	1.0	1.8	20.0	820
5	16	7/1.70	1.0	1.8	22.8	1177
5	25	7/2.14	1.2	1.8	27.5	1765
5	35	19/1.53	1.2	2.0	31.1	2359
5	50	19/1.78	1.4	2.1	35.9	3288
5	70	19/2.14	1.4	2.3	41.1	4451
5	95	19/2.52	1.6	2.5	47.7	5999
5	120	37/2.03	1.6	2.6	52.4	7420
5	150	37/2.25	1.8	2.8	58.0	9224

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

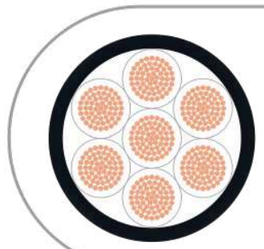


Multi-Cores

CU/PVC/PVC

No. of cores	Nominal cross-sectional area of conductor (mm^2)	Number and diameter of wires (no/mm)	Thickness of insulation (mm)	Thickness of oversheath (mm)	Approx. overall diameter (mm)	Approx. net weight (kg/km)
6	1.5	7/0.53	0.8	1.8	13.2	267
7	1.5	7/0.53	0.8	1.8	13.2	286
8	1.5	7/0.53	0.8	1.8	14.7	333
10	1.5	7/0.53	0.8	1.8	16.4	409
12	1.5	7/0.53	0.8	1.8	16.9	459
14	1.5	7/0.53	0.8	1.8	17.7	517
16	1.5	7/0.53	0.8	1.8	18.6	577
19	1.5	7/0.53	0.8	1.8	19.6	659
24	1.5	7/0.53	0.8	1.8	22.8	841
27	1.5	7/0.53	0.8	1.8	23.3	913
30	1.5	7/0.53	0.8	1.8	24.1	996
37	1.5	7/0.53	0.8	1.8	26.0	1190
44	1.5	7/0.53	0.8	1.9	29.4	1445
48	1.5	7/0.53	0.8	1.9	29.9	1542
6	2.5	7/0.67	0.8	1.8	14.5	351
7	2.5	7/0.67	0.8	1.8	14.5	380
8	2.5	7/0.67	0.8	1.8	16.1	443
10	2.5	7/0.67	0.8	1.8	18.1	547
12	2.5	7/0.67	0.8	1.8	18.7	619
14	2.5	7/0.67	0.8	1.8	19.6	700
16	2.5	7/0.67	0.8	1.8	20.6	786
19	2.5	7/0.67	0.8	1.8	21.7	903
24	2.5	7/0.67	0.8	1.8	25.3	1154
27	2.5	7/0.67	0.8	1.8	25.9	1259
30	2.5	7/0.67	0.8	1.8	26.8	1379
37	2.5	7/0.67	0.8	1.9	29.1	1666
44	2.5	7/0.67	0.8	2.0	33.0	2024
48	2.5	7/0.67	0.8	2.0	33.5	2167

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 (mm^2)	Number and diameter of wires (no/mm)	Thickness of insulation (mm)	Thickness of oversheath (mm)	Approx. overall diameter (mm)	Approx. net weight (kg/km)
6	4.0	7/0.85	1.0	1.8	17.3	515
7	4.0	7/0.85	1.0	1.8	17.3	561
8	4.0	7/0.85	1.0	1.8	19.3	657
10	4.0	7/0.85	1.0	1.8	21.9	815
12	4.0	7/0.85	1.0	1.8	22.6	929
14	4.0	7/0.85	1.0	1.8	23.7	1054
16	4.0	7/0.85	1.0	1.8	25.0	1187
19	4.0	7/0.85	1.0	1.8	26.4	1370
24	4.0	7/0.85	1.0	2.0	31.3	1782
27	4.0	7/0.85	1.0	2.0	32.0	1952
30	4.0	7/0.85	1.0	2.0	33.3	2145
37	4.0	7/0.85	1.0	2.1	36.1	2598
44	4.0	7/0.85	1.0	2.3	41.0	3160
48	4.0	7/0.85	1.0	2.3	41.7	3385
6	6.0	7/1.04	1.0	1.8	19.0	671
7	6.0	7/1.04	1.0	1.8	19.0	738
8	6.0	7/1.04	1.0	1.8	21.3	862
10	6.0	7/1.04	1.0	1.8	24.1	1074
6	10	7/1.35	1.0	1.8	21.8	972
7	10	7/1.35	1.0	1.8	21.8	1076
8	10	7/1.35	1.0	1.8	24.5	1258
10	10	7/1.35	1.0	1.8	27.9	1578

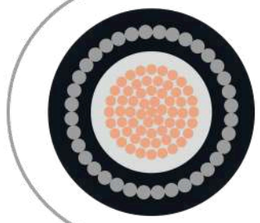
PVC INSULATED CABLE 600/1000V, PVC INSULATED, PVC SHEATHED ARMOURED CABLES

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 IEC 60228 & 6360 class 2		Voltage :	600/1000V
Insulation :	PVC (polyvinyl chloride) compound type A		Temperature :	Maximum 70°C
Identification of cores :	1 core	Red or Black	Main specification :	BS 6346
	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 cores & 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		Testing voltage :	3500V
Bedding :	Extruded PVC compound		Min. bending radius :	10 x OD
Colour :	Black PVC (Polyvinyl Chloride) compound type Tm1		Special Properties upon request :	Anti-termite sheath Anti-rodent sheath UV-resistant sheath Flame retardant sheath
Armour :	Single core – consist of a single layer of non-magnetic material. such as aluminum wire. Wot-core and above – consist of a single layer of galvanized steel wires			
Sheath :	PVC (Polyvinyl Chloride) compound type Tm1		Colour :	Black

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

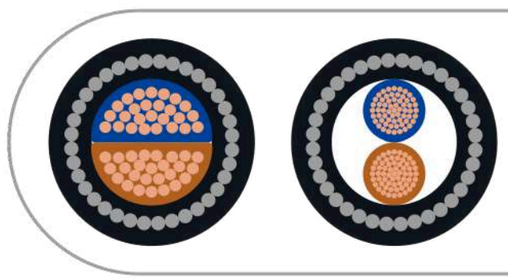


1 Core

CU/PVC/PVC/AWA/PVC

No. of cores	Nominal cross-sectional area of conductor (mm^2)	Number and diameter of wires (no/mm)	Thickness of insulation (mm)	Nom. hickness of bedding (mm)	Nom. dia. of armour wire (mm)	Thickness of oversheath (mm)	Approx. overall diameter (mm)	Approx. net weight (kg/km)
1	70	19/2.14	1.4	0.8	1.25	1.6	21.1	1090
1	95	19/2.52	1.6	0.8	1.25	1.6	23.4	1410
1	120	37/2.03	1.6	1.0	1.6	1.7	26.3	1790
1	150	37/2.25	1.8	1.0	1.6	1.7	28.3	2110
1	185	37/2.52	2.0	1.0	1.6	1.8	30.8	2560
1	240	61/2.25	2.2	1.0	1.6	1.9	34.1	3260
1	300	61/2.52	2.4	1.0	1.6	1.9	37.0	3970
1	400	61/2.85	2.6	1.2	2.0	2.1	42.0	5100
1	500	61/3.20	2.8	1.2	2.0	2.1	45.6	6230
1	630	127/2.52	2.8	1.2	2.0	2.2	49.7	7720
1	800	127/2.85	2.8	1.4	2.5	2.8	56.0	10108
1	1000	127/3.20	3.0	1.6	2.5	3.0	61.7	12449

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

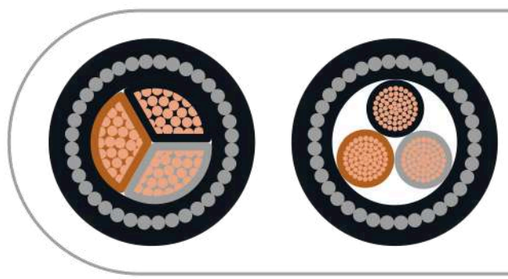


2 Cores

CU/PVC/PVC/SWA/PVC

No. of cores	Nominal cross-sectional area of conductor (mm^2)	Number and diameter of wires (no/mm)	Thickness of insulation (mm)	Nom. hickness of bedding (mm)	Nom. dia. of armour wire (mm)	Thickness of oversheath (mm)	Approx. overall diameter (mm)	Approx. net weight (kg/km)
2	1.5	7/0.53	0.8	0.8	0.8	1.4	12.3	290
2	2.5	7/0.67	0.8	0.8	0.8	1.4	13.6	350
2	4	7/0.85	1.0	0.8	0.8	1.4	15.1	435
2	6	7/1.04	1.0	0.8	0.8	1.5	16.5	520
2	10	7/1.35	1.0	0.8	1.25	1.6	20.1	850
2	16	7/1.70	1.0	0.8	1.25	1.6	21.9	1030
2	25	7/2.14	1.2	1.0	1.6	1.7	26.7	1640
2	35 (S)	19/1.53	1.2	1.0	1.6	1.8	24.9	1735
2	50 (S)	19/1.78	1.4	1.0	1.6	1.9	27.8	2080
2	70 (S)	19/2.14	1.4	1.0	1.6	1.9	30.4	2610
2	95 (S)	19/2.52	1.6	1.2	2.0	2.1	35.5	3650
2	120 (S)	37/2.03	1.6	1.2	2.0	2.2	38.0	4280
2	150 (S)	37/2.25	1.8	1.2	2.0	2.3	41.3	5050
2	185 (S)	37/2.52	2.0	1.4	2.5	2.4	46.4	6530
2	240 (S)	61/2.25	2.2	1.4	2.5	2.5	51.2	8150
2	300 (S)	61/2.52	2.4	1.6	2.5	2.7	56.4	9850
2	400 (S)	61/2.85	2.6	1.6	2.5	2.9	61.9	11950

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

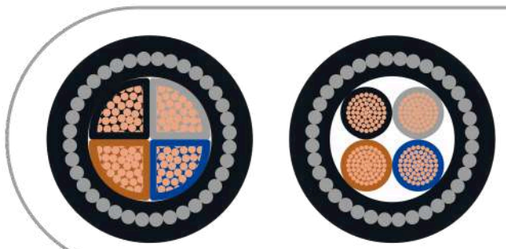


3 Cores

CU/PVC/PVC/SWA/PVC

No. of cores	Nominal cross-sectional area of conductor (mm^2)	Number and diameter of wires (no/mm)	Thickness of insulation (mm)	Nom. hickness of bedding (mm)	Nom. dia. of armour wire (mm)	Thickness of oversheath (mm)	Approx. overall diameter (mm)	Approx. net weight (kg/km)
3	1.5	7/0.53	0.6	0.8	0.8	1.4	13.0	330
3	2.5	7/0.67	0.7	0.8	0.8	1.4	14.1	420
3	4	7/0.85	0.8	0.8	0.8	1.4	15.8	520
3	6	7/1.04	0.8	0.8	1.25	1.5	18.0	720
3	10	7/1.35	1.0	0.8	1.25	1.6	21.2	990
3	16	7/1.70	1.0	0.8	1.25	1.6	23.1	1240
3	25	7/2.14	1.2	1.0	1.6	1.7	28.2	1900
3	35 (S)	19/1.53	1.2	1.0	1.6	1.8	27.3	2220
3	50 (S)	19/1.78	1.4	1.0	1.6	1.9	30.5	2730
3	70 (S)	19/2.14	1.4	1.2	2.0	2.0	35.0	3820
3	95 (S)	19/2.52	1.6	1.2	2.0	2.1	39.3	4850
3	120 (S)	37/2.03	1.6	1.2	2.0	2.2	42.2	5780
3	150 (S)	37/2.25	1.8	1.4	2.5	2.4	47.5	7330
3	185 (S)	37/2.52	2.0	1.4	2.5	2.5	51.9	8830
3	240 (S)	61/2.25	2.2	1.6	2.5	2.6	57.8	11140
3	300 (S)	61/2.52	2.4	1.6	2.5	2.8	63.2	13500
3	400 (S)	61/2.85	2.6	1.6	2.5	3.0	69.6	16750

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

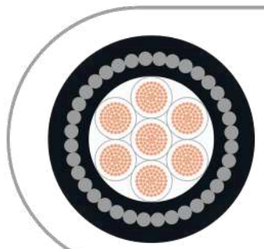


4 Cores

CU/PVC/PVC/SWA/PVC

No. of cores	Nominal cross-sectional area of conductor (mm^2)	Number and diameter of wires (no/mm)	Thickness of insulation (mm)	Nom. hickness of bedding (mm)	Nom. dia. of armour wire (mm)	Thickness of oversheath (mm)	Approx. overall diameter (mm)	Approx. net weight (kg/km)
4	1.5	7/0.53	0.6	0.8	0.8	1.4	13.8	380
4	2.5	7/0.67	0.7	0.8	0.8	1.4	15.0	465
4	4	7/0.85	0.8	0.8	1.25	1.5	17.8	710
4	6	7/1.04	0.8	0.8	1.25	1.5	19.2	835
4	10	7/1.35	1.0	0.8	1.25	1.6	22.8	1175
4	16	7/1.70	1.0	1.0	1.6	1.7	26.3	1730
4	25	7/2.14	1.2	1.0	1.6	1.8	30.7	2350
4	35 (S)	19/1.53	1.2	1.0	1.6	1.9	30.5	2710
4	50 (S)	19/1.78	1.4	1.2	2.0	2.0	35.4	3850
4	70 (S)	19/2.14	1.4	1.2	2.0	2.1	39.2	4910
4	95 (S)	19/2.52	1.6	1.2	2.0	2.2	44.3	6370
4	120 (S)	37/2.03	1.6	1.4	2.5	2.4	49.3	8075
4	150 (S)	37/2.25	1.8	1.4	2.5	2.5	53.6	9540
4	185 (S)	37/2.52	2.0	1.6	2.5	2.6	59.0	11640
4	240 (S)	61/2.25	2.2	1.6	2.5	2.8	65.7	14650
4	300 (S)	61/2.52	2.4	1.6	2.5	3.0	72.0	17730
4	400 (S)	61/2.85	2.6	1.8	3.15	4.0	92.5	25248

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

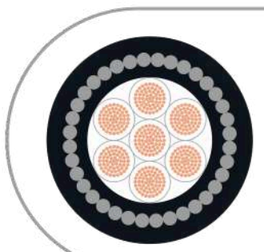


Multi-Cores

CU/PVC/PVC/SWA/PVC

No. of cores	Nominal cross-sectional area of conductor (mm^2)	Number and diameter of wires (no/mm)	Thickness of insulation (mm)	Nom. hickness of bedding (mm)	Nom. dia. of armour wire (mm)	Thickness of oversheath (mm)	Approx. overall diameter (mm)	Approx. net weight (kg/km)
6	1.5	7/0.53	0.8	1.0	1.25	1.8	17.7	86
7	1.5	7/0.53	0.8	1.0	1.25	1.8	17.7	101
9	1.5	7/0.53	0.8	1.0	1.25	1.8	20.3	130
10	1.5	7/0.53	0.8	1.0	1.25	1.8	20.9	144
12	1.5	7/0.53	0.8	1.0	1.6	1.8	22.1	1112
14	1.5	7/0.53	0.8	1.0	1.6	1.8	22.9	1198
16	1.5	7/0.53	0.8	1.0	1.6	1.8	23.8	1292
19	1.5	7/0.53	0.8	1.0	1.6	1.8	24.8	1409
24	1.5	7/0.53	0.8	1.0	1.6	1.9	28.1	1715
27	1.5	7/0.53	0.8	1.0	1.6	1.9	28.6	1808
30	1.5	7/0.53	0.8	1.0	1.6	1.9	29.5	1925
37	1.5	7/0.53	0.8	1.0	1.6	2.0	31.5	2199
44	1.5	7/0.53	0.8	1.2	2.0	2.1	36.2	2888
48	1.5	7/0.53	0.8	1.2	2.0	2.1	36.7	3008
6	2.5	7/0.67	0.8	1.0	1.25	1.8	19.0	799
7	2.5	7/0.67	0.8	1.0	1.25	1.8	20.6	828
8	2.5	7/0.67	0.8	1.0	1.25	1.8	22.6	939
10	2.5	7/0.67	0.8	1.0	1.6	1.8	23.3	1241
12	2.5	7/0.67	0.8	1.0	1.6	1.8	23.9	1335
14	2.5	7/0.67	0.8	1.0	1.6	1.8	24.8	1449
16	2.5	7/0.67	0.8	1.0	1.6	1.8	25.8	1573
19	2.5	7/0.67	0.8	1.0	1.6	1.8	26.9	1732
24	2.5	7/0.67	0.8	1.0	1.6	1.9	29.5	2134
27	2.5	7/0.67	0.8	1.0	1.6	2.0	31.4	2263
30	2.5	7/0.67	0.8	1.0	2.0	2.0	33.2	2661
37	2.5	7/0.67	0.8	1.2	2.0	2.1	35.9	3098
44	2.5	7/0.67	0.8	1.2	2.0	2.2	39.8	3628
48	2.5	7/0.67	0.8	1.2	2.0	2.3	40.4	3796

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



Multi-Cores

CU/PVC/PVC/SWA/PVC

No. of cores	Nominal cross-sectional area of conductor (mm^2)	Number and diameter of wires (no/mm)	Thickness of insulation (mm)	Nom. hickness of bedding (mm)	Nom. dia. of armour wire (mm)	Thickness of oversheath (mm)	Approx. overall diameter (mm)	Approx. net weight (kg/km)
6	4.0	7/0.85	1.0	1.0	1.6	1.8	22.5	1181
7	4.0	7/0.85	1.0	1.0	1.6	1.8	22.5	1227
8	4.0	7/0.85	1.0	1.0	1.6	1.8	24.5	1397
10	4.0	7/0.85	1.0	1.0	1.6	1.8	27.1	1650
12	4.0	7/0.85	1.0	1.0	1.6	1.8	27.9	1794
14	4.0	7/0.85	1.0	1.0	1.6	1.9	29.1	1967
16	4.0	7/0.85	1.0	1.0	1.6	1.9	30.5	2156
19	4.0	7/0.85	1.0	1.0	1.6	2.0	32.0	2397
24	4.0	7/0.85	1.0	1.2	2.0	2.2	38.1	3311
27	4.0	7/0.85	1.0	1.2	2.0	2.2	38.8	3513
30	4.0	7/0.85	1.0	1.2	2.0	2.2	40.1	3762
37	4.0	7/0.85	1.0	1.2	2.0	2.3	43.0	4343
44	4.0	7/0.85	1.0	1.4	2.5	2.5	49.3	5638
48	4.0	7/0.85	1.0	1.4	2.5	2.6	50.1	5903
6	6	7/1.04	1.0	1.0	1.6	1.8	24.2	1400
7	6	7/1.04	1.0	1.0	1.6	1.8	24.2	1466
8	6	7/1.04	1.0	1.0	1.6	1.8	26.5	1675
10	6	7/1.04	1.0	1.0	1.6	1.9	29.5	2004
6	10	7/1.35	1.0	1.0	1.6	1.8	27.0	1805
7	10	7/1.35	1.0	1.0	1.6	1.8	27.0	1909
8	10	7/1.35	1.0	1.0	1.6	1.9	30.0	2205
10	10	7/1.35	1.0	1.0	2.0	2.1	34.4	2909

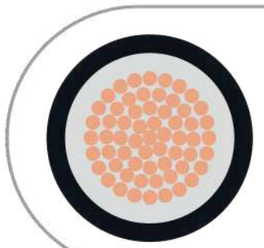
XLPE INSULATED CABLE
600/1000V, XLPE INSULATED, PVC SHEATHED UNARMOURED CABLES

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 acc. To IEC 60228 & BS6360 class 2		Voltage :	600/1000V
Insulation :	XLPE (Cross-linked Polyethylene)		Temperature :	Maximum 90°C
Identification of cores :	1 core	Red or Black	Main specification :	IEC 60502-1
	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 cores & 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		Testing voltage :	3500V
Sheath :	PVC (Polyvinyl Chloride) compound type St2		Min. bending radius :	8 x Overall diameter
Colour :	Black		Special Properties upon request :	Anti-termite sheath Anti-rodent sheath UV-resistant sheath Flame retardant sheath

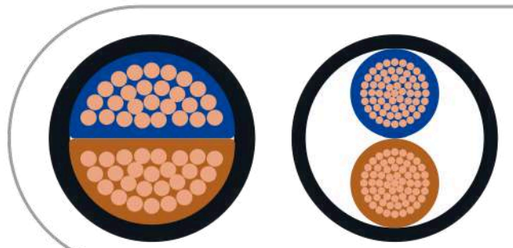
XLPE INSULATED CABLE
600/1000V, XLPE INSULATED,
PVC SHEATHED UNARMOURED CABLES



1 Core
CU/XLPE/PVC

No. of cores	Nominal cross-sectional area of conductor (mm^2)	Number and diameter of wires (no/mm)	Thickness of insulation (mm)	Thickness of oversheath (mm)	Approx. overall diameter (mm)	Approx. net weight (kg/km)
1	1.5	7/0.53	0.7	1.4	6.0	50
1	2.5	7/0.67	0.7	1.4	6.5	60
1	4	7/0.85	0.7	1.4	7.0	80
1	6	7/1.04	0.7	1.4	7.5	105
1	10	7/1.35	0.7	1.4	8.5	150
1	16	7/1.70	0.7	1.4	9.7	210
1	25	7/2.14	0.9	1.4	11.3	310
1	35	19/1.53	0.9	1.4	12.5	415
1	50	19/1.78	1.0	1.4	13.8	540
1	70	19/2.14	1.1	1.4	15.7	750
1	95	19/2.52	1.1	1.5	18.0	1025
1	120	37/2.03	1.2	1.5	19.6	1265
1	150	37/2.25	1.4	1.6	22.0	1575
1	185	37/2.52	1.6	1.6	24.0	1885
1	240	61/2.25	1.7	1.7	27.0	2560
1	300	61/2.52	1.8	1.8	30.0	3175
1	400	61/2.85	2.0	1.9	33.5	4050
1	500	61/3.20	2.2	2.0	37.5	5090
1	630	127/2.52	2.4	2.2	42.2	6550
1	800	127/2.85	2.6	2.3	47.0	8290
1	1000	127/3.20	2.8	2.4	52.0	10455

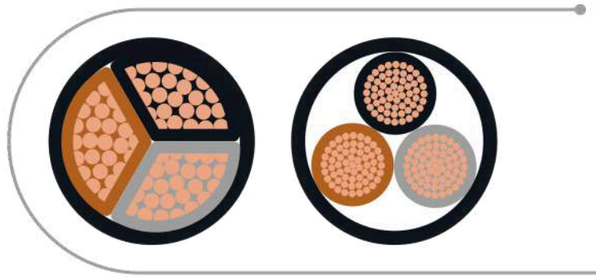
XLPE INSULATED CABLE
600/1000V, XLPE INSULATED,
PVC SHEATHED UNARMOURED CABLES



2 Cores
CU/XLPE/PVC

No. of cores	Nominal cross-sectional area of conductor (mm^2)	Number and diameter of wires (no/mm)	Thickness of insulation (mm)	Thickness of oversheath (mm)	Approx. overall diameter (mm)	Approx. net weight (kg/km)
2	1.5	7/0.53	0.7	1.8	10.0	125
2	2.5	7/0.67	0.7	1.8	10.5	160
2	4	7/0.85	0.7	1.8	12.0	205
2	6	7/1.04	0.7	1.8	13.0	260
2	10	7/1.35	0.7	1.8	15.0	375
2	16	7/1.70	0.7	1.8	17.2	515
2	25	7/2.14	0.9	1.8	20.8	680
2	35 (S)	19/1.53	0.9	1.8	19.3	850
2	50 (S)	19/1.78	1.0	1.8	21.5	1125
2	70 (S)	19/2.14	1.1	1.8	24.5	1580
2	95 (S)	19/2.52	1.1	1.9	27.4	2125
2	120 (S)	37/2.03	1.2	2.0	30.4	2665
2	150 (S)	37/2.25	1.4	2.2	34.0	3250
2	185 (S)	37/2.52	1.6	2.3	37.6	4080
2	240 (S)	61/2.25	1.7	2.5	42.3	5130
2	300 (S)	61/2.52	1.8	2.6	46.8	6310
2	400 (S)	61/2.85	2.0	2.9	52.6	8130

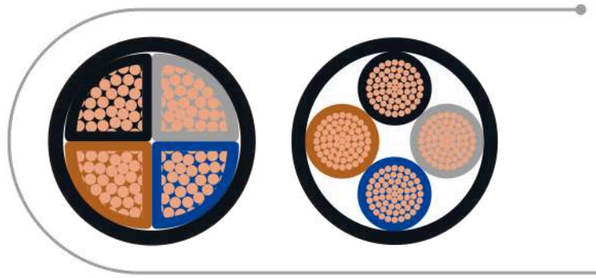
XLPE INSULATED CABLE
600/1000V, XLPE INSULATED,
PVC SHEATHED UNARMOURED CABLES



3 Cores
CU/XLPE/PVC

No. of cores	Nominal cross-sectional area of conductor (mm^2)	Number and diameter of wires (no/mm)	Thickness of insulation (mm)	Thickness of oversheath (mm)	Approx. overall diameter (mm)	Approx. net weight (kg/km)
3	1.5	7/0.53	0.7	1.8	10.5	145
3	2.5	7/0.67	0.7	1.8	11.0	185
3	4	7/0.85	0.7	1.8	12.5	250
3	6	7/1.04	0.7	1.8	14.0	310
3	10	7/1.35	0.7	1.8	16.0	460
3	16	7/1.70	0.7	1.8	18.3	640
3	25	7/2.14	0.9	1.8	22.1	920
3	35 (S)	19/1.53	0.9	1.8	21.5	1220
3	50 (S)	19/1.78	1.0	1.8	24.6	1585
3	70 (S)	19/2.14	1.1	1.9	27.9	2250
3	95 (S)	19/2.52	1.1	2.0	31.8	3075
3	120 (S)	37/2.03	1.2	2.1	35.2	3885
3	150 (S)	37/2.25	1.4	2.3	38.9	4750
3	185 (S)	37/2.52	1.6	2.4	43.5	5925
3	240 (S)	61/2.25	1.7	2.6	48.8	7840
3	300 (S)	61/2.52	1.8	2.8	54.0	9760
3	400 (S)	61/2.85	2.0	3.0	61.0	11985

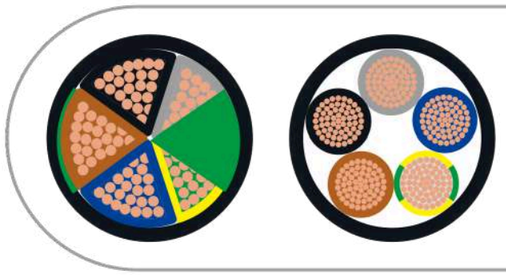
XLPE INSULATED CABLE
600/1000V, XLPE INSULATED,
PVC SHEATHED UNARMOURED CABLES



4 Cores
CU/XLPE/PVC

No. of cores	Nominal cross-sectional area of conductor (mm^2)	Number and diameter of wires (no/mm)	Thickness of insulation (mm)	Thickness of oversheath (mm)	Approx. overall diameter (mm)	Approx. net weight (kg/km)
4	1.5	7/0.53	0.7	1.8	11.0	170
4	2.5	7/0.67	0.7	1.8	12.0	225
4	4	7/0.85	0.7	1.8	13.5	305
4	6	7/1.04	0.7	1.8	15.0	385
4	10	7/1.35	0.7	1.8	17.5	580
4	16	7/1.70	0.7	1.8	19.5	855
4	25	7/2.14	0.9	1.8	22.0	1300
4	35 (S)	19/1.53	0.9	1.8	24.3	1635
4	50 (S)	19/1.78	1.0	1.9	27.5	2175
4	70 (S)	19/2.14	1.1	2.0	32.0	3070
4	95 (S)	19/2.52	1.1	2.1	35.8	4150
4	120 (S)	37/2.03	1.2	2.3	39.9	5210
4	150 (S)	37/2.25	1.4	2.4	44.0	6405
4	185 (S)	37/2.52	1.6	2.6	49.5	8010
4	240 (S)	61/2.25	1.7	2.8	55.8	10500
4	300 (S)	61/2.52	1.8	3.0	61.3	13070
4	400 (S)	61/2.85	2.0	3.3	68.5	16120

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

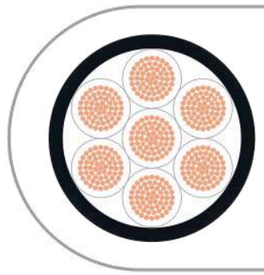


5 Cores

CU/XLPE/PVC

No. of cores	Nominal cross-sectional area of conductor (mm^2)	Number and diameter of wires (no/mm)	Thickness of insulation (mm)	Thickness of oversheath (mm)	Approx. overall diameter (mm)	Approx. net weight (kg/km)
5	1.5	7/0.53	0.7	1.8	11.7	200
5	2.5	7/0.67	0.7	1.8	12.9	266
5	4	7/0.85	0.7	1.8	14.3	362
5	6	7/1.04	0.7	1.8	15.9	484
5	10	7/1.35	0.7	1.8	18.4	720
5	16	7/1.70	0.7	1.8	21.2	1060
5	25	7/2.14	0.9	1.8	25.8	1604
5	35	19/1.53	0.9	1.9	29.4	2169
5	50	19/1.78	1.0	2.0	33.5	3018
5	70	19/2.14	1.1	2.2	39.3	4172
5	95	19/2.52	1.1	2.4	44.8	5560
5	120	37/2.03	1.2	2.6	50.0	6979
5	150	37/2.25	1.4	2.8	55.6	8701
5	185	37/2.52	1.6	3.0	62.3	10741
5	240	61/2.25	1.7	3.2	70.4	13827

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

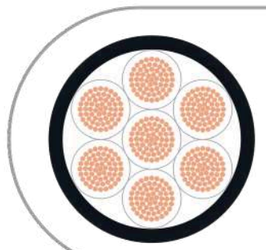


Multi-Cores

CU/XLPE/PVC

No. of cores	Nominal cross-sectional area of conductor (mm^2)	Number and diameter of wires (no/mm)	Thickness of insulation (mm)	Thickness of oversheath (mm)	Approx. overall diameter (mm)	Approx. net weight (kg/km)
6	1.5	7/0.53	0.7	1.8	12.6	231
7	1.5	7/0.53	0.7	1.8	12.6	247
8	1.5	7/0.53	0.7	1.8	14.0	287
10	1.5	7/0.53	0.7	1.8	15.6	351
12	1.5	7/0.53	0.7	1.8	16.1	393
14	1.5	7/0.53	0.7	1.8	16.8	440
16	1.5	7/0.53	0.7	1.8	17.7	491
19	1.5	7/0.53	0.7	1.8	18.6	559
24	1.5	7/0.53	0.7	1.8	21.6	711
27	1.5	7/0.53	0.7	1.8	22.0	770
30	1.5	7/0.53	0.7	1.8	22.8	839
37	1.5	7/0.53	0.7	1.8	24.6	999
44	1.5	7/0.53	0.7	1.8	27.6	1204
48	1.5	7/0.53	0.7	1.9	28.1	1285
6	2.5	7/0.67	0.7	1.8	13.9	310
7	2.5	7/0.67	0.7	1.8	13.9	336
8	2.5	7/0.67	0.7	1.8	15.4	390
10	2.5	7/0.67	0.7	1.8	17.3	480
12	2.5	7/0.67	0.7	1.8	17.8	543
14	2.5	7/0.67	0.7	1.8	18.7	613
16	2.5	7/0.67	0.7	1.8	19.7	686
19	2.5	7/0.67	0.7	1.8	20.7	787
24	2.5	7/0.67	0.7	1.8	24.1	1003
27	2.5	7/0.67	0.7	1.8	24.6	1094
30	2.5	7/0.67	0.7	1.8	25.5	1195
37	2.5	7/0.67	0.7	1.8	27.6	1439
44	2.5	7/0.67	0.7	2.0	31.2	1746
48	2.5	7/0.67	0.7	2.0	31.8	1868

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 (mm^2)	Number and diameter of wires (no/mm)	Thickness of insulation (mm)	Thickness of oversheath (mm)	Approx. overall diameter (mm)	Approx. net weight (kg/km)
6	4	7/0.85	0.7	1.8	15.5	425
7	4	7/0.85	0.7	1.8	15.5	464
8	4	7/0.85	0.7	1.8	17.3	540
10	4	7/0.85	0.7	1.8	19.5	667
12	4	7/0.85	0.7	1.8	20.1	761
14	4	7/0.85	0.7	1.8	21.1	864
16	4	7/0.85	0.7	1.8	22.2	972
19	4	7/0.85	0.7	1.8	23.4	1121
24	4	7/0.85	0.7	1.8	27.4	1436
27	4	7/0.85	0.7	1.9	28.0	1575
30	4	7/0.85	0.7	1.9	29.1	1731
37	4	7/0.85	0.7	2.0	31.6	2098
44	4	7/0.85	0.7	2.1	35.9	2543
48	4	7/0.85	0.7	2.1	36.5	2727
6	6	7/1.04	0.7	1.8	17.2	570
7	6	7/1.04	0.7	1.8	17.2	628
8	6	7/1.04	0.7	1.8	19.2	731
10	6	7/1.04	0.7	1.8	21.7	907
6	10	7/1.35	0.7	1.8	20.0	852
7	10	7/1.35	0.7	1.8	20.0	947
8	10	7/1.35	0.7	1.8	22.5	1102
10	10	7/1.35	0.7	1.8	25.5	1373

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

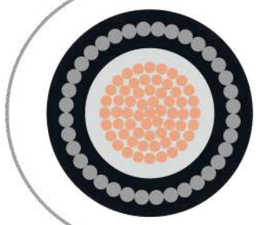
APPLICATION

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 90°C.

<table>
<tr><td>Conductor :</td><td colspan="2">Circular stranded, circular compact stranded or sector shaped stranded plain annealed wire acc. To IEC 60228 & BS6360 class 2</td><td>Voltage :</td><td>600/1000V</td></tr>
<tr><td>Insulation :</td><td colspan="2">XLPE (Cross-linked Polyethylene)</td><td>Temperature :</td><td>Maximum 90°C</td></tr>
<tr><td rowspan="4">Identification of cores :</td><td>Single core</td><td>Black or Natural</td><td rowspan="4">Main specification :</td><td rowspan="4">IEC 60502-1</td></tr>
<tr><td>2 cores</td><td>Brown, Blue or Red, Black</td></tr>
<tr><td>3 cores</td><td>Brown, Black, Grey or Red, Yellow, Blue</td></tr>
<tr><td>4 cores</td><td>Brown, Black, Grey, Blue or Red, Yellow, Blue, Black</td></tr>
<tr><td>Laying up :</td><td colspan="2">Cores stranded together. Where necessary, binder tapes and non-hygroscopic fillers may be applied</td><td>Testing voltage :</td><td>3500V</td></tr>
<tr><td>Bedding :</td><td colspan="2">Extruded Black PVC (Polyvinyl Chloride) Compound or lapped PVC tapes</td><td>Min. bending radius :</td><td>10 x Overall diameter</td></tr>
<tr><td>Colour :</td><td colspan="2">Black</td><td>Special Properties upon request :</td><td>Anti-termite sheath
Anti-rodent sheath
UV-resistant sheath
Flame retardant sheath</td></tr>
<tr><td rowspan="2">Armour :</td><td colspan="2" rowspan="2">Single core – consists of a single layer of non-magnetic material, such as aluminum wire

Two cores and above – consist of a single layer of galvanized steel wires</td><td>Sheath :</td><td>PVC (Polyvinyl Chloride) compound type ST2</td></tr>
<tr><td>Colour :</td><td>Black</td></tr>
</table>

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

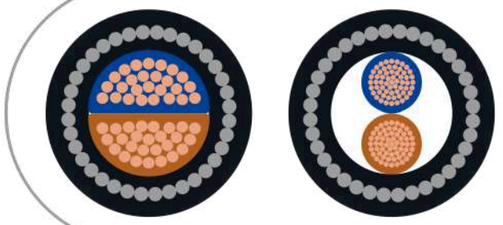


1 Core

CU/XLPE/PVC/AWA/PVC

No. of cores	Nominal cross-sectional area of conductor (mm^2)	Number and diameter of wires (no/mm)	Thickness of insulation (mm)	Nom. thick of bedding (mm)	Thickness of armour wire (mm)	Thickness of oversheath (mm)	Approx. overall diameter (mm)	Approx. net weight (kg/km)
1	10	7/1.35	0.7	1.0	1.25	1.8	14.3	350
1	16	7/1.70	0.7	1.0	1.25	1.8	15.3	437
1	25	7/2.14	0.9	1.0	1.25	1.8	17.0	574
1	35	19/1.53	0.9	1.0	1.25	1.8	18.3	705
1	50	19/1.78	1.0	1.0	1.25	1.8	19.5	780
1	70	19/2.14	1.1	1.0	1.25	1.8	20.5	975
1	95	19/2.52	1.1	1.0	1.6	1.8	22.5	1270
1	120	37/2.03	1.2	1.0	1.6	1.8	24.5	1600
1	150	37/2.25	1.4	1.0	1.6	1.8	27.5	1910
1	185	37/2.52	1.6	1.0	1.6	1.8	30.5	2330
1	240	61/2.25	1.7	1.0	1.6	1.9	33.0	2985
1	300	61/2.52	1.8	1.0	1.6	1.9	36.0	3700
1	400	61/2.85	2.0	1.2	2.0	2.1	40.5	4790
1	500	61/3.20	2.2	1.2	2.0	2.2	44.5	5885
1	630	127/2.52	2.4	1.2	2.0	2.3	49.0	7480
1	800	127/2.85	2.6	1.4	2.5	2.5	55.5	9400
1	1000	127/3.20	2.8	1.4	2.5	2.7	61.0	11625

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

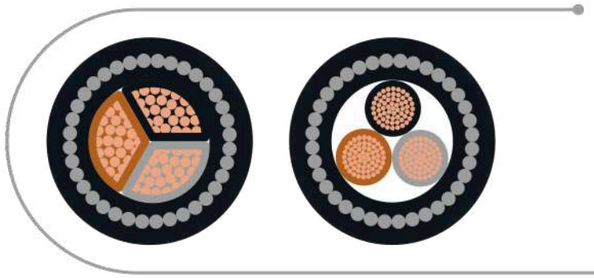


2 Cores

CU/XLPE/PVC/SWA/PVC

No. of cores	Nominal cross-sectional area of conductor (mm^2)	Number and diameter of wires (no/mm)	Thickness of insulation (mm)	Nom. thick of bedding (mm)	Nom. Dia. of armour wire (mm)	Thickness of oversheath (mm)	Approx. overall diameter (mm)	Approx. net weight (kg/km)
2	1.5	7/0.53	0.7	1.0	0.8	1.8	13.5	340
2	2.5	7/0.67	0.7	1.0	0.8	1.8	14.5	390
2	4	7/0.85	0.7	1.0	0.8	1.8	15.5	460
2	6	7/1.04	0.7	1.0	0.8	1.8	17.0	535
2	10	7/1.35	0.7	1.0	1.25	1.8	19.0	800
2	16	7/1.70	0.7	1.0	1.25	1.8	20.5	865
2	25	7/2.14	0.9	1.0	1.6	1.8	24.0	1280
2	35 (S)	19/1.53	0.9	1.0	1.6	1.7	24.9	1525
2	50 (S)	19/1.78	1.0	1.0	1.6	1.8	27.0	1800
2	70 (S)	19/2.14	1.1	1.0	1.6	2.0	30.5	2455
2	95 (S)	19/2.52	1.1	1.2	2.0	2.1	34.2	3310
2	120 (S)	37/2.03	1.2	1.2	2.0	2.2	37.5	4010
2	150 (S)	37/2.25	1.4	1.2	2.0	2.3	40.8	4735
2	185 (S)	37/2.52	1.6	1.4	2.5	2.5	45.8	6120
2	240 (S)	61/2.25	1.7	1.4	2.5	2.7	50.8	7650
2	300 (S)	61/2.52	1.8	1.6	2.5	2.8	54.8	9120
2	400 (S)	61/2.85	2.0	1.6	2.5	3.1	62.0	11475

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

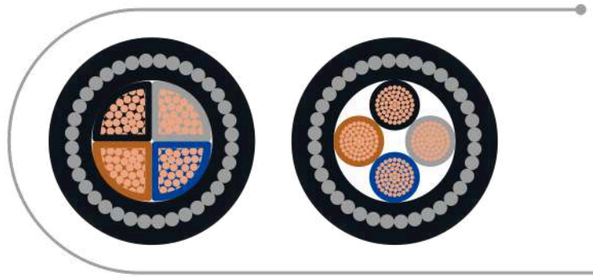


3 Cores

CU/XLPE/PVC/SWA/PVC

No. of cores	Nominal cross-sectional area of conductor (mm^2)	Number and diameter of wires (no/mm)	Thickness of insulation (mm)	Nom. thick of bedding (mm)	Nom. Dia. of armour wire (mm)	Thickness of oversheath (mm)	Approx. overall diameter (mm)	Approx. net weight (kg/km)
3	1.5	7/0.53	0.7	1.0	0.8	1.8	14.0	370
3	2.5	7/0.67	0.7	1.0	0.8	1.8	15.0	435
3	4	7/0.85	0.7	1.0	0.8	1.8	16.0	520
3	6	7/1.04	0.7	1.0	0.8	1.8	17.5	610
3	10	7/1.35	0.7	1.0	1.25	1.8	20.0	910
3	16	7/1.70	0.7	1.0	1.25	1.8	21.5	1030
3	25	7/2.14	0.9	1.0	1.6	1.8	25.5	1650
3	35 (S)	19/1.53	0.9	1.0	1.6	1.8	27.5	2015
3	50 (S)	19/1.78	1.0	1.0	1.6	1.8	30.5	2500
3	70 (S)	19/2.14	1.1	1.2	2.0	2.0	35.1	3535
3	95 (S)	19/2.52	1.1	1.2	2.0	2.2	39.3	4550
3	120 (S)	37/2.03	1.2	1.2	2.0	2.3	42.5	5510
3	150 (S)	37/2.25	1.4	1.4	2.5	2.5	48.0	6990
3	185 (S)	37/2.52	1.6	1.4	2.5	2.6	52.5	8460
3	240 (S)	61/2.25	1.7	1.6	2.5	2.8	58.0	10610
3	300 (S)	61/2.52	1.8	1.6	2.5	3.0	63.5	12900
3	400 (S)	61/2.85	2.0	1.6	2.5	3.2	74.0	16520

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

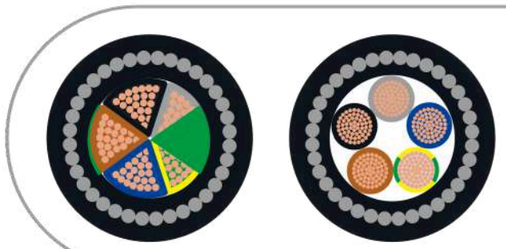


4 Cores

CU/XLPE/PVC/SWA/PVC

No. of cores	Nominal cross-sectional area of conductor (mm^2)	Number and diameter of wires (no/mm)	Thickness of insulation (mm)	Nom. thick of bedding (mm)	Nom. Dia. of armour wire (mm)	Thickness of oversheath (mm)	Approx. overall diameter (mm)	Approx. net weight (kg/km)
4	1.5	7/0.53	0.7	1.0	0.8	1.8	15.0	415
4	2.5	7/0.67	0.7	1.0	0.8	1.8	16.0	490
4	4	7/0.85	0.7	1.0	0.8	1.8	17.0	600
4	6	7/1.04	0.7	1.0	1.25	1.8	19.5	815
4	10	7/1.35	0.7	1.0	1.25	1.8	22.0	1070
4	16	7/1.70	0.7	1.0	1.6	1.8	25.0	1520
4	25	7/2.14	0.9	1.0	1.6	1.8	28.0	2035
4	35 (S)	19/1.53	0.9	1.0	1.6	1.9	30.5	2525
4	50 (S)	19/1.78	1.0	1.0	1.6	2.0	33.5	3170
4	70 (S)	19/2.14	1.1	1.2	2.0	2.2	39.5	4550
4	95 (S)	19/2.52	1.1	1.2	2.0	2.3	43.5	5800
4	120 (S)	37/2.03	1.2	1.4	2.5	2.5	49.0	7480
4	150 (S)	37/2.25	1.4	1.4	2.5	2.6	53.5	8925
4	185 (S)	37/2.52	1.6	1.4	2.5	2.8	58.5	10800
4	240 (S)	61/2.25	1.7	1.6	2.5	3.0	65.5	13800
4	300 (S)	61/2.52	1.8	1.6	2.5	3.2	70.0	16800
4	400 (S)	61/2.85	2.0	1.8	3.15	3.5	83.0	22230

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

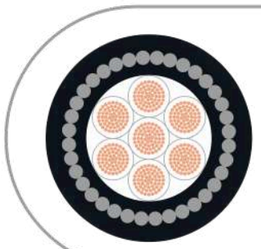


5 Cores

CU/XLPE/PVC/SWA/PVC

No. of cores	Nominal cross-sectional area of conductor (mm^2)	Number and diameter of wires (no/mm)	Thickness of insulation (mm)	Nom. thick of bedding (mm)	Nom. Dia. of armour wire (mm)	Thickness of oversheath (mm)	Approx. overall diameter (mm)	Approx. net weight (kg/km)
5	1.5	7/0.53	0.7	1.0	1.25	1.8	16.2	565
5	2.5	7/0.67	0.7	1.0	1.25	1.8	17.4	665
5	4	7/0.85	0.7	1.0	1.25	1.8	18.8	804
5	6	7/1.04	0.7	1.0	1.25	1.8	20.4	972
5	10	7/1.35	0.7	1.0	1.60	1.8	23.6	1423
5	16	7/1.70	0.7	1.0	1.60	1.8	26.4	1867
5	25	7/2.14	0.9	1.0	1.60	2.0	31.4	2606
5	35	19/1.53	0.9	1.2	2.0	2.1	36.2	3611
5	50	19/1.78	1.0	1.2	2.0	2.3	40.4	4648
5	70	19/2.14	1.1	1.2	2.50	2.5	47.2	6492
5	95	19/2.52	1.1	1.4	2.50	2.7	53.2	8251
5	120	37/2.03	1.2	1.4	2.50	2.8	58.4	9962
5	150	37/2.25	1.4	1.6	2.50	3.0	64.4	12081
5	185	37/2.52	1.6	1.6	2.50	3.3	71.0	14500
5	240	61/2.25	1.7	1.8	3.15	3.6	81.0	19123

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

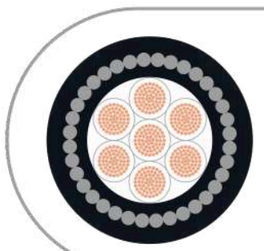


Multi-Cores

CU/XLPE/PVC/SWA/PVC

No. of cores	Nominal cross-sectional area of conductor (mm^2)	Number and diameter of wires (no/mm)	Thickness of insulation (mm)	Nom. thickness of bedding (mm)	Nom. Dia. of armour wire (mm)	Thickness of oversheath (mm)	Approx. overall diameter (mm)	Approx. net weight (kg/km)
6	1.5	7/0.53	0.7	1.0	1.25	1.8	17.1	623
7	1.5	7/0.53	0.7	1.0	1.25	1.8	17.1	638
8	1.5	7/0.53	0.7	1.0	1.25	1.8	18.5	719
10	1.5	7/0.53	0.7	1.0	1.25	1.8	20.1	831
12	1.5	7/0.53	0.7	1.0	1.25	1.8	20.6	887
14	1.5	7/0.53	0.7	1.0	1.60	1.8	22.0	1087
16	1.5	7/0.53	0.7	1.0	1.60	1.8	22.9	1169
19	1.5	7/0.53	0.7	1.0	1.60	1.8	23.8	2369
24	1.5	7/0.53	0.7	1.0	1.60	1.8	26.8	1534
27	1.5	7/0.53	0.7	1.0	1.60	1.8	27.3	1611
30	1.5	7/0.53	0.7	1.0	1.60	1.9	28.1	1712
37	1.5	7/0.53	0.7	1.0	1.60	1.9	30.0	1946
44	1.5	7/0.53	0.7	1.0	2.00	2.0	34.1	2521
48	1.5	7/0.53	0.7	1.0	2.00	2.1	34.5	2621
6	2.5	7/0.67	0.7	1.0	1.25	1.8	18.4	739
7	2.5	7/0.67	0.7	1.0	1.25	1.8	18.4	764
8	2.5	7/0.67	0.7	1.0	1.25	1.8	19.9	865
10	2.5	7/0.67	0.7	1.0	1.60	1.8	22.5	1144
12	2.5	7/0.67	0.7	1.0	1.60	1.8	23.0	1226
14	2.5	7/0.67	0.7	1.0	1.60	1.8	23.9	1327
16	2.5	7/0.67	0.7	1.0	1.60	1.8	24.9	1437
19	2.5	7/0.67	0.7	1.0	1.60	1.8	25.9	1575
24	2.5	7/0.67	0.7	1.0	1.60	1.9	29.5	1932
27	2.5	7/0.67	0.7	1.0	1.60	1.9	30.1	2043
30	2.5	7/0.67	0.7	1.0	1.60	1.9	31.0	2183
37	2.5	7/0.67	0.7	1.0	2.00	2.0	34.0	2751
44	2.5	7/0.67	0.7	1.2	2.00	2.2	38.1	3272
48	2.5	7/0.67	0.7	1.2	2.00	2.2	38.6	3418

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



Multi-Cores

CU/XLPE/PVC/SWA/PVC

No. of cores	Nominal cross-sectional area of conductor (mm^2)	Number and diameter of wires (no/mm)	Thickness of insulation (mm)	Nom. thickness of bedding (mm)	Nom. Dia. of armour wire (mm)	Thickness of oversheath (mm)	Approx. overall diameter (mm)	Approx. net weight (kg/km)
6	4	7/0.85	0.7	1.0	1.25	1.8	20.0	902
7	4	7/0.85	0.7	1.0	1.25	1.8	20.0	940
8	4	7/0.85	0.7	1.0	1.60	1.8	22.5	1203
10	4	7/0.85	0.7	1.0	1.60	1.8	24.7	1411
12	4	7/0.85	0.7	1.0	1.60	1.8	25.3	1527
14	4	7/0.85	0.7	1.0	1.60	1.8	26.3	1666
16	4	7/0.85	0.7	1.0	1.60	1.8	27.5	1820
19	4	7/0.85	0.7	1.0	1.60	1.9	28.8	2018
20	4	7/0.85	0.7	1.0	1.60	1.9	30.1	2150
24	4	7/0.85	0.7	1.0	2.00	2.0	33.8	2742
27	4	7/0.85	0.7	1.0	2.00	2.1	34.5	2908
30	4	7/0.85	0.7	1.2	2.00	2.1	36.0	3162
37	4	7/0.85	0.7	1.2	2.00	2.2	38.5	3639
44	4	7/0.85	0.7	1.2	2.00	2.3	42.7	4277
48	4	7/0.85	0.7	1.2	2.00	2.4	43.3	4489
6	6	7/1.04	0.7	1.0	1.60	1.8	22.4	1231
7	6	7/1.04	0.7	1.0	1.60	1.8	22.4	1288
8	6	7/1.04	0.7	1.0	1.60	1.8	24.4	1466
10	6	7/1.04	0.7	1.0	1.60	1.8	27.0	1737
6	10	7/1.35	0.7	1.0	1.60	1.8	25.2	1615
7	10	7/1.35	0.7	1.0	1.60	1.8	25.2	1708
8	10	7/1.35	0.7	1.0	1.60	1.8	27.7	1961
10	10	7/1.35	0.7	1.0	1.60	1.9	30.9	2360

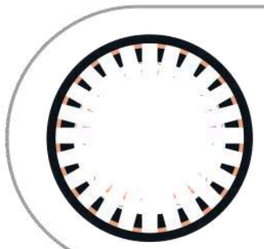
XLPE INSULATED SCREENED CABLE
600/1000V, XLPE INSULATED, PVC SHEATHED TINNED COPPER WIRE BRAID UNARMOURED CABLES

APPLICATION

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

<table>
<tr><td>Conductor :</td><td colspan="2">Circular stranded, circular compact stranded or sector shaped stranded plain annealed wire acc. To IEC 60228 & BS6360 class 2</td><td>Voltage :</td><td>600/1000V</td></tr>
<tr><td>Insulation :</td><td colspan="2">XLPE (Cross-linked Polyethylene)</td><td>Temperature :</td><td>Maximum 90°C</td></tr>
<tr><td rowspan="4">Identification of cores :</td><td>Single core</td><td>Black or Natural</td><td rowspan="4">Main specification :</td><td rowspan="4">IEC 60502-1</td></tr>
<tr><td>2 cores</td><td>Brown, Blue or Red, Black</td></tr>
<tr><td>3 cores</td><td>Brown, Black, Grey or Red, Yellow, Blue</td></tr>
<tr><td>4 cores</td><td>Brown, Black, Grey, Blue or Red, Yellow, Blue, Black</td></tr>
<tr><td>Laying up :</td><td colspan="2">Cores stranded together. Where necessary, binder tapes and non-hygroscopic fillers may be applied</td><td>Testing voltage :</td><td>3500V</td></tr>
<tr><td>Bedding :</td><td colspan="2">Extruded Black PVC (Polyvinyl Chloride) Compound or lapped PVC tapes</td><td>Min. bending radius :</td><td>10 x Overall diameter</td></tr>
<tr><td>Colour :</td><td colspan="2">Black</td><td>Special Properties upon request :</td><td>Anti-termite sheath
Anti-rodent sheath
UV-resistant sheath
Flame retardant sheath</td></tr>
<tr><td rowspan="2">Screened :</td><td colspan="2" rowspan="2">TCWB (Tinned copper wire braid)</td><td>Sheath :</td><td>PVC (Polyvinyl Chloride) compound type ST2</td></tr>
<tr><td>Colour :</td><td>Black</td></tr>
</table>

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

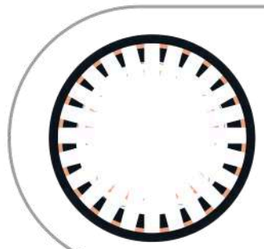


Multi-Cores

CU/XLPE/PVC/TCWB/PVC

No. of cores	Nominal cross-sectional area of conductor (mm^2)	Number and diameter of wires (no/mm)	Thickness of insulation (mm)	Thickness of oversheath (mm)	Approx. overall diameter (mm)	Approx. net weight (kg/km)
6	1.5	7/0.53	0.7	1.4	15.1	411
7	1.5	7/0.53	0.7	1.4	15.1	439
8	1.5	7/0.53	0.7	1.5	16.5	478
10	1.5	7/0.53	0.7	1.5	18.3	574
12	1.5	7/0.53	0.7	1.5	18.8	621
14	1.5	7/0.53	0.7	1.6	19.6	676
16	1.5	7/0.53	0.7	1.6	20.5	748
19	1.5	7/0.53	0.7	1.6	21.5	827
24	1.5	7/0.53	0.7	1.7	24.7	1039
27	1.5	7/0.53	0.7	1.8	25.2	1105
30	1.5	7/0.53	0.7	1.8	26.0	1185
37	1.5	7/0.53	0.7	1.8	27.9	1397
44	1.5	7/0.53	0.7	2.0	30.0	1652
48	1.5	7/0.53	0.7	2.0	31.6	1752
6	2.5	7/0.67	0.7	1.5	16.4	500
7	2.5	7/0.67	0.7	1.5	16.4	532
8	2.5	7/0.67	0.7	1.5	18.1	612
10	2.5	7/0.67	0.7	1.6	20.1	730
12	2.5	7/0.67	0.7	1.6	20.7	800
14	2.5	7/0.67	0.7	1.6	21.6	880
16	2.5	7/0.67	0.7	1.7	22.6	971
19	2.5	7/0.67	0.7	1.7	23.7	1103
24	2.5	7/0.67	0.7	1.8	27.4	1367
27	2.5	7/0.67	0.7	1.8	27.9	1491
30	2.5	7/0.67	0.7	1.9	28.9	1607
37	2.5	7/0.67	0.7	1.9	31.0	1886
44	2.5	7/0.67	0.7	2.1	35.1	2297
48	2.5	7/0.67	0.7	2.1	35.6	2426

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 (mm^2)	Number and diameter of wires (no/mm)	Thickness of insulation (mm)	Thickness of oversheath (mm)	Approx. overall diameter (mm)	Approx. net weight (kg/km)
6	4	7/0.85	0.7	1.5	18.2	646
7	4	7/0.85	0.7	1.5	18.2	686
8	4	7/0.85	0.7	1.6	20.1	790
10	4	7/0.85	0.7	1.7	22.4	948
12	4	7/0.85	0.7	1.7	23.1	1050
14	4	7/0.85	0.7	1.7	24.1	1184
16	4	7/0.85	0.7	1.8	25.3	1308
19	4	7/0.85	0.7	1.8	28.0	1475
24	4	7/0.85	0.7	1.9	30.8	1878
27	4	7/0.85	0.7	2.0	31.5	2024
30	4	7/0.85	0.7	2.0	33.0	2239
37	4	7/0.85	0.7	2.1	35.5	2652
44	4	7/0.85	0.7	2.2	39.7	3163
48	4	7/0.85	0.7	2.3	40.4	3357
6	6	7/1.04	0.7	1.6	20.0	827
7	6	7/1.04	0.7	1.6	20.0	878
8	6	7/1.04	0.7	1.7	22.2	1010
10	6	7/1.04	0.7	1.7	24.8	1234
6	10	7/1.35	0.7	1.7	23.0	1139
7	10	7/1.35	0.7	1.7	23.0	1234
8	10	7/1.35	0.7	1.8	25.6	1439
10	10	7/1.35	0.7	2.0	28.8	1778

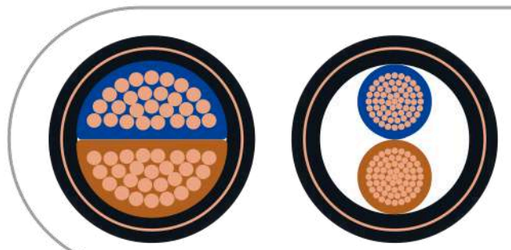
XLPE INSULATED SCREENED CABLE 600/1000V, XLPE INSULATED, PVC SHEATHED TINNED COPPER WIRE BRAID UNARMOURED CABLES

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 & BS6360 class 2		Voltage :	600/1000V
Insulation :	XLPE (Cross-linked Polyethylene)		Temperature :	Maximum 90°C
Identification of cores :	Single core	Black or Natural	Main specification :	IEC 60502-1
	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 cores & 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		Testing voltage :	3500V
Bedding :	Extruded Black PVC (Polyvinyl Chloride) Compound or lapped PVC tapes		Min. bending radius :	10 x Overall diameter
Colour :	Black		Special Properties upon request :	Anti-termite sheath Anti-rodent sheath UV-resistant sheath Flame retardant sheath
Screened :	CTS (Copper Tape Screened)		Sheath :	PVC (Polyvinyl Chloride) compound type ST2
			Colour :	Black

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

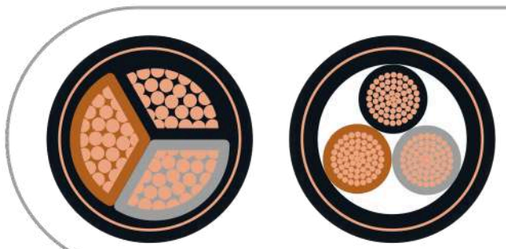


2 Cores

CU/XLPE/PVC/CTS/PVC

No. of cores	Nominal cross-sectional area of conductor (mm^2)	Number and diameter of wires (no/mm)	Thickness of insulation (mm)	Thickness of oversheath (mm)	Approx. overall diameter (mm)	Approx. net weight (kg/km)
2	1.5	7/0.53	0.7	1.8	12.0	240
2	2.5	7/0.67	0.7	1.8	12.9	282
2	4	7/0.85	0.7	1.8	14.0	341
2	6	7/1.04	0.7	1.8	15.1	412
2	10	7/1.35	0.7	1.8	17.1	543
2	16	7/1.70	0.7	1.8	19.1	721
2	25	7/2.14	0.9	1.8	22.5	1011
2	35 (S)	19/1.53	0.9	1.8	25.0	1286
2	50 (S)	19/1.78	1.0	1.8	27.9	1689
2	70 (S)	19/2.14	1.1	1.8	32.7	2289
2	95 (S)	19/2.52	1.1	1.9	37.4	3329
2	120 (S)	37/2.03	1.2	2.0	41.2	4045
2	150 (S)	37/2.25	1.4	2.2	45.8	4954
2	185 (S)	37/2.52	1.6	2.3	50.7	5978
2	240 (S)	61/2.25	1.7	2.5	57.2	7546
2	300 (S)	61/2.52	1.8	2.6	62.8	9148
2	400 (S)	61/2.85	2.0	2.9	70.0	11698

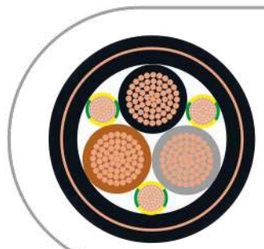
XLPE INSULATED SCREENED CABLE
600/1000V, XLPE INSULATED, PVC SHEATHED
COPPER TAPE SCREENED UNARMOURED CABLES



3 Cores
CU/XLPE/PVC/CTS/PVC

No. of cores	Nominal cross-sectional area of conductor (mm^2)	Number and diameter of wires (no/mm)	Thickness of insulation (mm)	Thickness of oversheath (mm)	Approx. overall diameter (mm)	Approx. net weight (kg/km)
3	1.5	7/0.53	0.7	1.8	12.5	269
3	2.5	7/0.67	0.7	1.8	13.4	323
3	4	7/0.85	0.7	1.8	14.6	399
3	6	7/1.04	0.7	1.8	15.8	491
3	10	7/1.35	0.7	1.8	17.8	665
3	16	7/1.70	0.7	1.8	20.1	905
3	25	7/2.14	0.9	1.8	23.8	1293
3	35 (S)	19/1.53	0.9	1.8	26.5	1668
3	50 (S)	19/1.78	1.0	1.9	29.8	2232
3	70 (S)	19/2.14	1.1	2.1	35.5	3401
3	95 (S)	19/2.52	1.1	2.2	39.9	4361
3	120 (S)	37/2.03	1.2	2.4	44.5	5389
3	150 (S)	37/2.25	1.4	2.5	49.0	6562
3	185 (S)	37/2.52	1.6	2.7	54.7	8019
3	240 (S)	61/2.25	1.7	2.9	61.2	10086
3	300 (S)	61/2.52	1.8	3.1	67.3	12297
3	400 (S)	61/2.85	2.0	3.4	75.5	15944

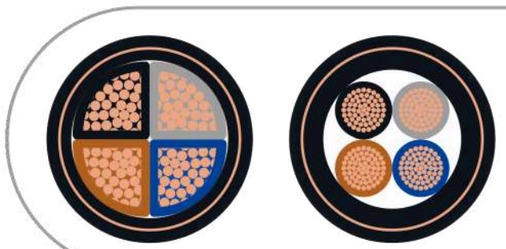
XLPE INSULATED SCREENED CABLE
600/1000V, XLPE INSULATED, PVC SHEATHED
COPPER TAPE SCREENED UNARMOURED CABLES



3 Cores + 3 Earth
CU/XLPE/PVC/CTS/PVC

Nominal conductor area (mm^2)	Number and diameter of wires (no/mm)	Combined earth size (mm^2)	Nominal insulation thickness (mm)	Thickness of oversheath (mm)	Approx. overall diameter (mm)	Approx. net weight (kg/km)
1.5	7/0.53	4.5	0.7	1.8	16.8	495
2.5	7/0.67	4.5	0.7	1.8	17.5	542
4	7/0.85	4.5	0.7	1.8	18.5	612
6	7/1.04	7.5	0.7	1.8	19.8	735
10	7/1.35	12	0.7	1.8	22.0	968
16	7/1.70	18	0.7	1.8	24.5	1280
25	7/2.14	30	0.9	1.8	28.5	1790
35	19/1.53	30	0.9	1.9	31	2135
50	19/1.78	30	1.0	2.1	33.0	2750
70	19/2.14	48	1.1	2.2	38.0	3765
95	19/2.52	48	1.1	2.4	41.0	4660
120	37/2.03	75	1.2	2.5	46.5	5915
150	37/2.25	75	1.4	2.7	50.5	6910
185	37/2.52	105	1.6	2.9	55.5	8585
240	61/2.25	150	1.7	3.1	63.5	11355
300	61/2.52	150	1.8	3.4	67.8	13380

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

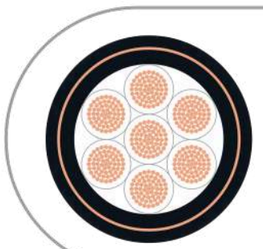


4 Cores

CU/XLPE/PVC/CTS/PVC

No. of cores	Nominal cross-sectional area of conductor (mm^2)	Number and diameter of wires (no/mm)	Thickness of insulation (mm)	Thickness of oversheath (mm)	Approx. overall diameter (mm)	Approx. net weight (kg/km)
4	1.5	7/0.53	0.7	1.8	13.3	307
4	2.5	7/0.67	0.7	1.8	14.3	374
4	4	7/0.85	0.7	1.8	15.6	469
4	6	7/1.04	0.7	1.8	17.0	586
4	10	7/1.35	0.7	1.8	19.2	807
4	16	7/1.70	0.7	1.8	21.8	1114
4	25	7/2.14	0.9	1.8	25.9	1609
4	35 (S)	19/1.53	0.9	1.9	29.1	2106
4	50 (S)	19/1.78	1.0	2.0	33.3	2877
4	70 (S)	19/2.14	1.1	2.2	39.1	4277
4	95 (S)	19/2.52	1.1	2.4	44.4	5570
4	120 (S)	37/2.03	1.2	2.5	49.1	6834
4	150 (S)	37/2.25	1.4	2.7	54.2	8353
4	185 (S)	37/2.52	1.6	2.9	60.5	10223
4	240 (S)	61/2.25	1.7	3.2	67.8	12905
4	300 (S)	61/2.52	1.8	3.4	75.0	15866
4	400 (S)	61/2.85	2.0	3.7	84.4	21405

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

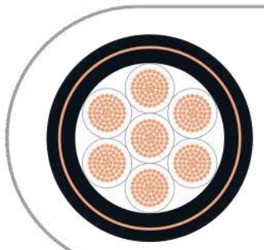


Multi-cores

CU/XLPE/PVC/CTS/PVC

No. of cores	Nominal cross-sectional area of conductor (mm^2)	Number and diameter of wires (no/mm)	Thickness of insulation (mm)	Thickness of oversheath (mm)	Approx. overall diameter (mm)	Approx. net weight (kg/km)
6	1.5	7/0.53	0.7	1.8	15.0	390
7	1.5	7/0.53	0.7	1.8	15.0	406
8	1.5	7/0.53	0.7	1.8	16.4	464
10	1.5	7/0.53	0.7	1.8	18.0	550
12	1.5	7/0.53	0.7	1.8	18.5	597
14	1.5	7/0.53	0.7	1.8	19.2	655
16	1.5	7/0.53	0.7	1.8	20.1	717
19	1.5	7/0.53	0.7	1.8	21.0	797
24	1.5	7/0.53	0.7	1.8	24.0	990
27	1.5	7/0.53	0.7	1.8	24.4	1056
30	1.5	7/0.53	0.7	1.8	25.2	1135
37	1.5	7/0.53	0.7	1.9	27.0	1322
44	1.5	7/0.53	0.7	1.9	29.2	1580
48	1.5	7/0.53	0.7	2.0	32.0	1667
6	2.5	7/0.67	0.7	1.8	16.3	486
7	2.5	7/0.67	0.7	1.8	16.3	511
8	2.5	7/0.67	0.7	1.8	17.8	586
10	2.5	7/0.67	0.7	1.8	19.7	701
12	2.5	7/0.67	0.7	1.8	20.2	770
14	2.5	7/0.67	0.7	1.8	21.1	852
16	2.5	7/0.67	0.7	1.8	22.1	939
19	2.5	7/0.67	0.7	1.8	23.1	1054
24	2.5	7/0.67	0.7	1.8	26.5	1317
27	2.5	7/0.67	0.7	1.8	27.1	1417
30	2.5	7/0.67	0.7	1.9	28.0	1535
37	2.5	7/0.67	0.7	1.9	30.2	1812
44	2.5	7/0.67	0.7	2.1	34.2	2210
48	2.5	7/0.67	0.7	2.1	35.4	2698

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 (mm^2)	Number and diameter of wires (no/mm)	Thickness of insulation (mm)	Thickness of oversheath (mm)	Approx. overall diameter (mm)	Approx. net weight (kg/km)
6	4	7/0.85	0.7	1.8	17.9	621
7	4	7/0.85	0.7	1.8	17.9	660
8	4	7/0.85	0.7	1.8	19.7	760
10	4	7/0.85	0.7	1.8	21.9	917
12	4	7/0.85	0.7	1.8	22.5	1019
14	4	7/0.85	0.7	1.8	23.5	1135
16	4	7/0.85	0.7	1.8	24.6	1258
19	4	7/0.85	0.7	1.8	25.8	1424
24	4	7/0.85	0.7	1.8	30.0	1806
27	4	7/0.85	0.7	1.9	32.1	1954
30	4	7/0.85	0.7	2.0	33.4	2162
37	4	7/0.85	0.7	2.1	35.3	2922
44	4	7/0.85	0.7	2.2	39.5	3478
48	4	7/0.85	0.7	2.3	40.1	3678
6	6	7/1.04	0.7	1.8	19.6	789
7	6	7/1.04	0.7	1.8	19.6	847
8	6	7/1.04	0.7	1.8	21.6	977
10	6	7/1.04	0.7	1.8	24.1	1187
6	10	7/1.35	0.7	1.8	22.4	1108
7	10	7/1.35	0.7	1.8	22.4	1202
8	10	7/1.35	0.7	1.8	24.9	1391
10	10	7/1.35	0.7	1.8	27.9	1710

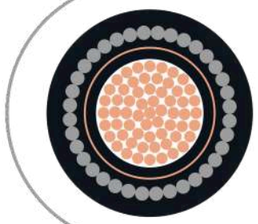
XLPE INSULATED SCREENED CABLE 600/1000V, XLPE INSULATED, PVC SHEATHED COPPER TAPE SCREENED ARMOURED CABLES

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 & BS6360 class 2		Voltage :	600/1000V
Insulation :	XLPE (Cross-linked Polyethylene)		Temperature :	Maximum 90°C
Identification of cores :	Single core	Black or Natural	Main specification :	IEC 60502-1
	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 cores & 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		Testing voltage :	3500V
Bedding :	Extruded Black PVC (Polyvinyl Chloride) Compound or lapped PVC tapes		Min. bending radius :	10 x Overall diameter
Colour :	Black		Special Properties upon request :	Anti-termite sheath Anti-rodent sheath UV-resistant sheath Flame retardant sheath
Screened :	CTS (Copper Tape Screened)		Sheath :	PVC (Polyvinyl Chloride) compound type ST2
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		Colour :	Black

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

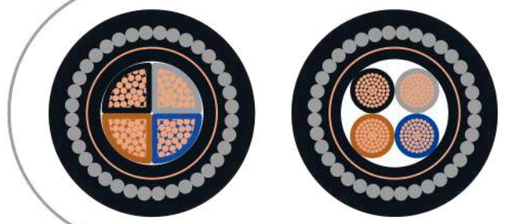


1 Core

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

No. of cores	Nominal cross-sectional area of conductor (mm^2)	Number and diameter of wires (no/mm)	Thickness of insulation (mm)	Nom. thickness of bedding (mm)	Nom. Dia. of armour wire (mm)	Thickness of oversheath (mm)	Approx. overall diameter (mm)	Approx. net weight (kg/km)
1	70	19/2.14	1.1	1.0	1.6	1.8	25.7	1670
1	95	19/2.52	1.1	1.0	1.6	1.8	27.8	2130
1	120	37/2.03	1.2	1.0	1.6	1.8	29.5	2465
1	150	37/2.25	1.4	1.0	1.6	1.8	31.5	2850
1	185	37/2.52	1.6	1.0	1.6	1.8	34.2	3535
1	240	61/2.25	1.7	1.0	2.0	1.9	38.5	4380
1	300	61/2.52	1.8	1.0	2.0	1.9	40.8	5190
1	400	61/2.85	2.0	1.2	2.0	2.1	44.5	6350
1	500	61/3.20	2.2	1.2	2.0	2.2	48.5	7580
1	630	127/2.52	2.4	1.2	2.5	2.3	55.0	9555
1	800	127/2.85	2.6	1.4	2.5	2.5	60.5	11700
1	1000	127/3.20	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 (mm^2)	Number and diameter of wires (no/mm)	Thickness of insulation (mm)	Nom. thickness of bedding (mm)	Nom. Dia. of armour wire (mm)	Thickness of oversheath (mm)	Approx. overall diameter (mm)	Approx. net weight (kg/km)
4	1.5	7/0.53	0.7	1.0	1.25	1.8	20.5	875
4	2.5	7/0.67	0.7	1.0	1.25	1.8	21.5	985
4	4	7/0.85	0.7	1.0	1.25	1.8	22.5	1130
4	6	7/1.04	0.7	1.0	1.25	1.8	23.8	1335
4	10	7/1.35	0.7	1.0	1.6	1.8	26.6	1785
4	16	7/1.70	0.7	1.0	1.6	1.8	29.5	2190
4	25	7/2.14	0.9	1.0	1.6	1.9	33.5	2950
4	35 (S)	19/1.53	0.9	1.0	1.6	2.0	36.5	3530
4	50 (S)	19/1.78	1.0	1.0	2.0	2.2	37.5	4375
4	70 (S)	19/2.14	1.1	1.2	2.0	2.3	42.5	5650
4	95 (S)	19/2.52	1.1	1.2	2.5	2.5	47.5	7450
4	120 (S)	37/2.03	1.2	1.4	2.5	2.6	52.5	8890
4	150 (S)	37/2.25	1.4	1.4	2.5	2.8	58.5	10635
4	185 (S)	37/2.52	1.6	1.4	2.5	2.9	63.0	12645
4	240 (S)	61/2.25	1.7	1.6	2.5	3.1	71.5	16120
4	300 (S)	61/2.52	1.8	1.6	3.15	3.3	79.5	20300

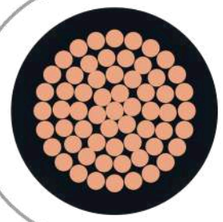
LOW SMOKE HALOGEN FREE (LSHF) CABLES 450/750V, LSHF INSULATED, NON-SHEATHED CABLE

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 IEC 60228, BS 6360 Class 2	Voltage :	450/750V
Insulation :	LSHF (Low Smoke Halogen free) compound	Temperature :	Maximum 70°C
Colour :	Assorted colours	Main specification :	IEC 60502-1
		Fire Retardant Test :	IEC 60332-1
		Smoke Density Test :	IEC 61034
		Halogen Test :	IEC 60754-1
		Acidity Test :	IEC 60754-2
		Testing Voltage :	3500V
		Min. Bending Radius :	8 x Overall Diameter

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



1 Core

CU/LSHF

No. of cores	Nominal cross-sectional area of conductor (mm^2)	Number and diameter of wires (no/mm)	Thickness of insulation (mm)	Thickness of oversheath (mm)	Approx. overall diameter (mm)	Approx. net weight (kg/km)
1	1.5	7/0.53	0.7		3.1	24
1	2.5	7/0.67	0.8		3.7	36
1	4	7/0.85	0.8		4.3	52
1	6	7/1.04	0.8		4.8	73
1	10	7/1.35	1.0		6.2	124
1	16	7/1.70	1.0		7.2	182
1	25	7/2.14	1.2		9.0	285
1	35	19/1.53	1.2		10.0	378
1	50	19/1.78	1.4		11.9	510
1	70	19/2.14	1.4		13.7	720
1	95	19/2.52	1.6		16.0	995
1	120	37/2.03	1.6		17.6	1230
1	150	37/2.25	1.8		19.6	1515
1	185	37/2.52	2.0		21.9	1900
1	240	61/2.25	2.2		25.0	2475
1	300	61/2.52	2.4		28.0	3100
1	400	61/2.85	2.6		31.5	3950
1	500	61/3.20	2.8		34.7	4950
1	630	127/2.52	2.8		38.7	6300

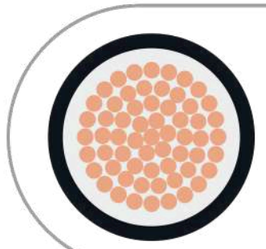
LOW SMOKE HALOGEN FREE (LSHF) CABLES 600/1000V, XLPE INSULATED, LSHF-SHEATHED UNARMOURED CABLES

APPLICATION

Power cables for electricity supply is installed in open air, underground, in cable ducts, outdoor and indoor, power stations, for industry and distribution boards as well as in subscriber networks where mechanical damage is 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 & BS6360 class 2		Voltage :	600/1000V	
Insulation :	XLPE (Cross-linked Polyethylene)		Temperature :	Maximum 90°C	
Identification of cores :	Single core	Black or Natural	Main specification :	IEC 60502-1	
	2 cores	Brown, Blue or Red, Black	Fire Retardant Test :	IEC 60332-1	
	3 cores	Brown, Black, Grey or Red, Yellow, Blue	Smoke Density Test :	IEC 61034	
	4 cores	Brown, Black, Grey, Blue or Red, Yellow, Blue, Black	Halogen Test :	IEC 60754-1	
	5 cores & above	(number) 1, 2, 3, 4, 5, 6, and the number shall be black printed on white cores	Acidity Test :	IEC 60754-2	
			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	
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				

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

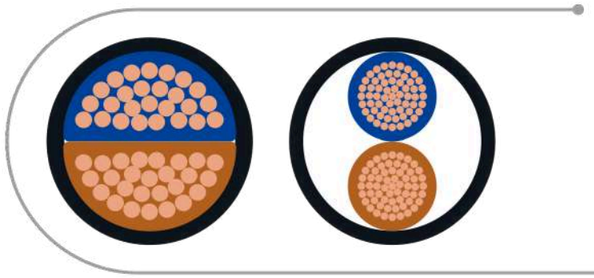


1 Core

CU/XLPE/LSHF

No. of cores	Nominal cross-sectional area of conductor (mm²)	Number and diameter of wires (no/mm)	Thickness of insulation (mm)	Thickness of oversheath (mm)	Approx. overall diameter (mm)	Approx. net weight (kg/km)
1	1.5	7/0.53	0.7	1.4	6.0	58
1	2.5	7/0.67	0.7	1.4	6.5	69
1	4	7/0.85	0.7	1.4	7.0	92
1	6	7/1.04	0.7	1.4	7.5	121
1	10	7/1.35	0.7	1.4	8.5	173
1	16	7/1.70	0.7	1.4	9.7	242
1	25	7/2.14	0.9	1.4	11.3	357
1	35	19/1.53	0.9	1.4	12.5	477
1	50	19/1.78	1.0	1.4	13.8	621
1	70	19/2.14	1.1	1.4	15.7	863
1	95	19/2.52	1.1	1.5	18.0	1179
1	120	37/2.03	1.2	1.5	19.6	1455
1	150	37/2.25	1.4	1.6	22.0	1811
1	185	37/2.52	1.6	1.6	24.0	2168
1	240	61/2.25	1.7	1.7	27.0	2944
1	300	61/2.52	1.8	1.8	30.0	3651
1	400	61/2.85	2.0	1.9	33.5	4658
1	500	61/3.20	2.2	2.0	37.5	5854
1	630	127/2.52	2.4	2.2	42.2	7533
1	800	127/2.85	2.6	2.3	47.0	9534
1	1000	127/3.20	2.8	2.4	52.0	1 2023

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

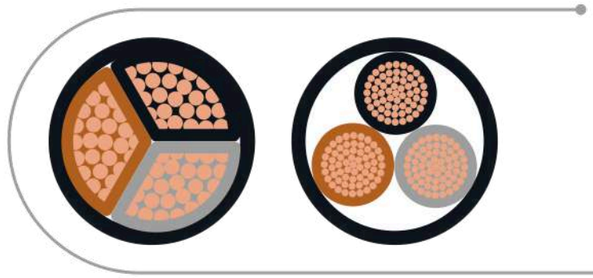


2 Cores

CU/XLPE/LSHF

No. of cores	Nominal cross-sectional area of conductor (mm^2)	Number and diameter of wires (no/mm)	Thickness of insulation (mm)	Thickness of oversheath (mm)	Approx. overall diameter (mm)	Approx. net weight (kg/km)
2	1.5	7/0.53	0.7	1.8	10.0	144
2	2.5	7/0.67	0.7	1.8	10.5	184
2	4	7/0.85	0.7	1.8	12.0	236
2	6	7/1.04	0.7	1.8	13.0	299
2	10	7/1.35	0.7	1.8	15.0	431
2	16	7/1.70	0.7	1.8	17.2	592
2	25	7/2.14	0.9	1.8	20.8	782
2	35 (S)	19/1.53	0.9	1.8	19.3	978
2	50 (S)	19/1.78	1.0	1.8	21.5	1294
2	70 (S)	19/2.14	1.1	1.8	24.5	1817
2	95 (S)	19/2.52	1.1	1.9	27.4	2444
2	120 (S)	37/2.03	1.2	2.0	30.4	3065
2	150 (S)	37/2.25	1.4	2.2	34.0	3738
2	185 (S)	37/2.52	1.6	2.3	37.6	4692
2	240 (S)	61/2.25	1.7	2.5	42.3	5900
2	300 (S)	61/2.52	1.8	2.6	46.8	7257
2	400 (S)	61/2.85	2.0	2.9	52.6	9350

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

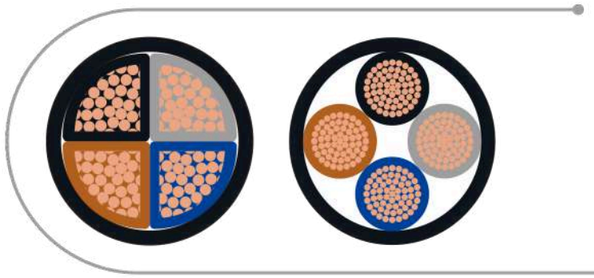


3 Cores

CU/XLPE/LSHF

No. of cores	Nominal cross-sectional area of conductor (mm^2)	Number and diameter of wires (no/mm)	Thickness of insulation (mm)	Thickness of oversheath (mm)	Approx. overall diameter (mm)	Approx. net weight (kg/km)
3	1.5	7/0.53	0.7	1.8	10.5	167
3	2.5	7/0.67	0.7	1.8	11.0	213
3	4	7/0.85	0.7	1.8	12.5	288
3	6	7/1.04	0.7	1.8	14.0	357
3	10	7/1.35	0.7	1.8	16.0	529
3	16	7/1.70	0.7	1.8	18.3	736
3	25	7/2.14	0.9	1.8	22.1	1058
3	35 (S)	19/1.53	0.9	1.8	21.5	1403
3	50 (S)	19/1.78	1.0	1.8	24.6	1823
3	70 (S)	19/2.14	1.1	1.9	27.9	2588
3	95 (S)	19/2.52	1.1	2.0	31.8	3536
3	120 (S)	37/2.03	1.2	2.1	35.2	4468
3	150 (S)	37/2.25	1.4	2.3	38.9	5463
3	185 (S)	37/2.52	1.6	2.4	43.5	6814
3	240 (S)	61/2.25	1.7	2.6	48.8	9016
3	300 (S)	61/2.52	1.8	2.8	54.0	11224
3	400 (S)	61/2.85	2.0	3.0	61.0	13783

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

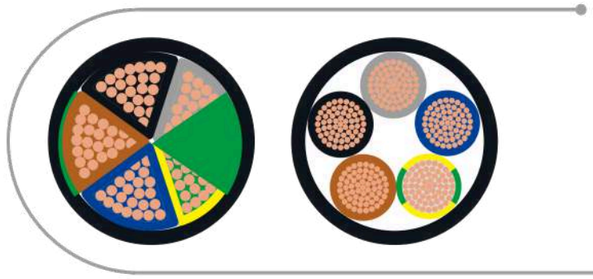


4 Cores

CU/XLPE/LSHF

No. of cores	Nominal cross-sectional area of conductor (mm^2)	Number and diameter of wires (no/mm)	Thickness of insulation (mm)	Thickness of oversheath (mm)	Approx. overall diameter (mm)	Approx. net weight (kg/km)
4	1.5	7/0.53	0.7	1.8	11.0	196
4	2.5	7/0.67	0.7	1.8	12.0	259
4	4	7/0.85	0.7	1.8	13.5	351
4	6	7/1.04	0.7	1.8	15.0	443
4	10	7/1.35	0.7	1.8	17.5	667
4	16	7/1.70	0.7	1.8	19.5	983
4	25	7/2.14	0.9	1.8	22.0	1495
4	35 (S)	19/1.53	0.9	1.8	24.3	1880
4	50 (S)	19/1.78	1.0	1.9	27.5	2501
4	70 (S)	19/2.14	1.1	2.0	32.0	3531
4	95 (S)	19/2.52	1.1	2.1	35.8	4773
4	120 (S)	37/2.03	1.2	2.3	39.9	5992
4	150 (S)	37/2.25	1.4	2.4	44.0	7366
4	185 (S)	37/2.52	1.6	2.6	49.5	9212
4	240 (S)	61/2.25	1.7	2.8	55.8	12075
4	300 (S)	61/2.52	1.8	3.0	61.3	15031
4	400 (S)	61/2.85	2.0	3.3	68.5	18538

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

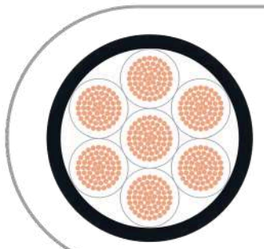


5 Cores

CU/XLPE/LSHF

No. of cores	Nominal cross-sectional area of conductor (mm^2)	Number and diameter of wires (no/mm)	Thickness of insulation (mm)	Thickness of oversheath (mm)	Approx. overall diameter (mm)	Approx. net weight (kg/km)
5	1.5	7/0.53	0.7	1.8	11.7	230
5	2.5	7/0.67	0.7	1.8	12.9	306
5	4	7/0.85	0.7	1.8	14.3	416
5	6	7/1.04	0.7	1.8	15.9	557
5	10	7/1.35	0.7	1.8	18.4	828
5	16	7/1.70	0.7	1.8	21.2	1219
5	25	7/2.14	0.9	1.8	25.8	1845
5	35	19/1.53	0.9	1.9	29.4	2494
5	50	19/1.78	1.0	2.0	33.5	3471
5	70	19/2.14	1.1	2.2	39.3	4798
5	95	19/2.52	1.1	2.4	44.8	6394
5	120	37/2.03	1.2	2.6	50.0	8026
5	150	37/2.25	1.4	2.8	55.6	10006
5	185	37/2.52	1.6	3.0	62.3	12352
5	240	61/2.25	1.7	3.2	70.4	15901

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

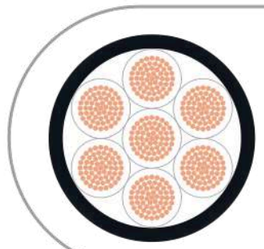


Multi-cores

CU/XLPE/LSHF

No. of cores	Nominal cross-sectional area of conductor (mm^2)	Number and diameter of wires (no/mm)	Thickness of insulation (mm)	Thickness of oversheath (mm)	Approx. overall diameter (mm)	Approx. net weight (kg/km)
6	1.5	77/0.53	0.7	1.8	12.6	266
7	1.5	7/0.53	0.7	1.8	12.6	284
8	1.5	7/0.53	0.7	1.8	14.0	330
10	1.5	7/0.53	0.7	1.8	15.6	404
12	1.5	7/0.53	0.7	1.8	16.1	452
14	1.5	7/0.53	0.7	1.8	16.8	506
16	1.5	7/0.53	0.7	1.8	17.7	565
19	1.5	7/0.53	0.7	1.8	18.6	643
24	1.5	7/0.53	0.7	1.8	21.6	818
27	1.5	7/0.53	0.7	1.8	22.0	886
30	1.5	7/0.53	0.7	1.8	22.8	965
37	1.5	7/0.53	0.7	1.8	24.6	1149
44	1.5	7/0.53	0.7	1.8	27.6	1385
48	1.5	7/0.53	0.7	1.9	28.1	1478
6	2.5	7/0.67	0.7	1.8	13.9	357
7	2.5	7/0.67	0.7	1.8	13.9	386
8	2.5	7/0.67	0.7	1.8	15.4	449
10	2.5	7/0.67	0.7	1.8	17.3	552
12	2.5	7/0.67	0.7	1.8	17.8	624
14	2.5	7/0.67	0.7	1.8	18.7	705
16	2.5	7/0.67	0.7	1.8	19.7	789
19	2.5	7/0.67	0.7	1.8	20.7	905
24	2.5	7/0.67	0.7	1.8	24.1	1153
27	2.5	7/0.67	0.7	1.8	24.6	1258
30	2.5	7/0.67	0.7	1.8	25.5	1374
37	2.5	7/0.67	0.7	1.8	27.6	1655
44	2.5	7/0.67	0.7	2.0	31.2	2008
48	2.5	7/0.67	0.7	2.0	31.8	2148

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



Multi-cores

CU/XLPE/LSHF

No. of cores	Nominal cross-sectional area of conductor (mm^2)	Number and diameter of wires (no/mm)	Thickness of insulation (mm)	Thickness of oversheath (mm)	Approx. overall diameter (mm)	Approx. net weight (kg/km)
6	4	7/0.85	0.7	1.8	15.5	489
7	4	7/0.85	0.7	1.8	15.5	534
8	4	7/0.85	0.7	1.8	17.3	621
10	4	7/0.85	0.7	1.8	19.5	767
12	4	7/0.85	0.7	1.8	20.1	875
14	4	7/0.85	0.7	1.8	21.1	994
16	4	7/0.85	0.7	1.8	22.2	1118
19	4	7/0.85	0.7	1.8	23.4	1289
24	4	7/0.85	0.7	1.8	27.4	1651
27	4	7/0.85	0.7	1.9	28.0	1811
30	4	7/0.85	0.7	1.9	29.1	1991
37	4	7/0.85	0.7	2.0	31.6	2413
44	4	7/0.85	0.7	2.1	35.9	2924
48	4	7/0.85	0.7	2.1	36.5	3136
6	6	7/1.04	0.7	1.8	17.2	656
7	6	7/1.04	0.7	1.8	17.2	722
8	6	7/1.04	0.7	1.8	19.2	841
10	6	7/1.04	0.7	1.8	21.7	1043
6	10	7/1.35	0.7	1.8	20.0	980
7	10	7/1.35	0.7	1.8	20.0	1089
8	10	7/1.35	0.7	1.8	22.5	1267
10	10	7/1.35	0.7	1.8	25.5	1579

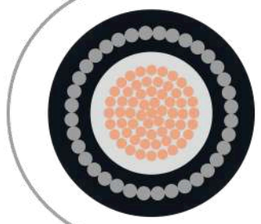
LOW SMOKE HALOGEN FREE (LSHF) CABLES 600/1000V, XLPE INSULATED, LSHF-SHEATHED ARMOURED CABLES

APPLICATION

Power Cables for electricity supply is installed in open air, underground, in cable ducts, outdoor and indoor, power stations, for industry and distribution boards as well as in subscriber networks where mechanical damage is 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 & BS6360 class 2		Voltage :	600/1000V
Insulation :	XLPE (Cross-linked Polyethylene)		Temperature :	Maximum 90°C
Identification of cores :	Single core	Black or Natural	Main specification :	IEC 60502-1
	2 cores	Brown, Blue or Red, Black		
	3 cores	Brown, Black, Grey or Red, Yellow, Blue	Fire Retardant Test :	IEC 60332-1
	4 cores	Brown, Black, Grey, Blue or Red, Yellow, Blue, Black	Smoke Density Test :	IEC 61034
			Halogen Test :	IEC 60754-1
	5 cores & above	(number) 1, 2, 3, 4, 5, 6, and the number shall be black printed on white cores	Acidity Test :	IEC 60754-2
Laying up :	Cores stranded together. Where necessary, binder tapes and non-hygroscopic fillers may be applied		Testing voltage :	3500V
Bedding :	Extruded LSHF (low smoke halogen free) compound		Min. bending radius :	8 x Overall diameter
Colour :	Black		Special Properties upon request :	Anti-termite sheath Anti-rodent sheath UV-resistant sheath Flame retardant sheath
			Sheath :	LSHF (Low smoke halogen free) Compound;
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		Colour :	Black

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

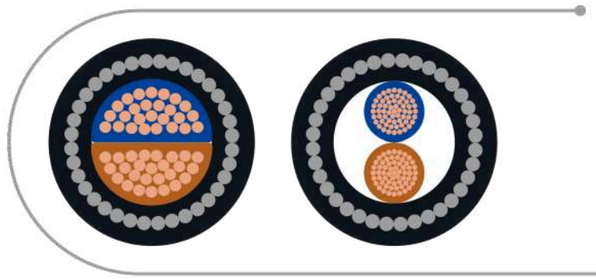


1 Core

CU/XLPE/LSHF/AWA/LSHF

No. of cores	Nominal cross-sectional area of conductor (mm^2)	Number and diameter of wires (no/mm)	Thickness of insulation (mm)	Nom. thickness of bedding (mm)	Nom. Dia. of armour wire (mm)	Thickness of oversheath (mm)	Approx. overall diameter (mm)	Approx. net weight (kg/km)
1	10	7/1.35	0.7	1.0	1.6	1.8	14.3	403
1	16	7/1.70	0.7	1.0	1.6	1.8	15.3	503
1	25	7/2.14	0.9	1.0	1.6	1.8	17.0	660
1	35	19/1.53	0.9	1.0	1.6	1.8	18.3	811
1	50	19/1.78	1.0	1.0	1.25	1.8	19.5	897
1	70	19/2.14	1.1	1.0	1.25	1.8	20.5	1121
1	95	19/2.52	1.1	1.0	1.6	1.8	22.5	1461
1	120	37/2.03	1.2	1.0	1.6	1.8	24.5	1840
1	150	37/2.25	1.4	1.0	1.6	1.8	27.5	2197
1	185	37/2.52	1.6	1.0	1.6	1.8	30.5	2680
1	240	61/2.25	1.7	1.0	1.6	1.9	33.0	3433
1	300	61/2.52	1.8	1.0	1.6	1.9	36.0	4255
1	400	61/2.85	2.0	1.2	2.0	2.1	40.5	5509
1	500	61/3.20	2.2	1.2	2.0	2.2	44.5	6768
1	630	127/2.52	2.4	1.2	2.0	2.3	49.0	8602
1	800	127/2.85	2.6	1.4	2.5	2.5	55.5	10810
1	1000	127/3.20	2.8	1.4	2.5	2.7	61.0	13369

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

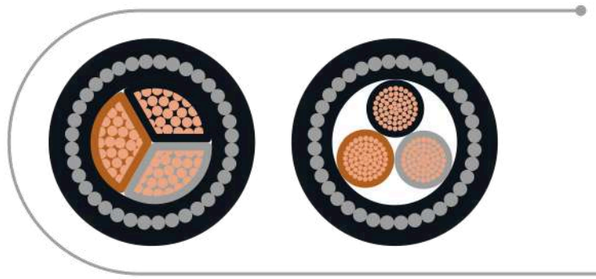


2 Cores

CU/XLPE/LSHF/SWA/LSHF

No. of cores	Nominal cross-sectional area of conductor (mm^2)	Number and diameter of wires (no/mm)	Thickness of insulation (mm)	Nom. thickness of bedding (mm)	Nom. Dia. of armour wire (mm)	Thickness of oversheath (mm)	Approx. overall diameter (mm)	Approx. net weight (kg/km)
2	1.5	7/0.53	0.7	1.0	0.9	1.8	13.5	391
2	2.5	7/0.67	0.7	1.0	0.9	1.8	14.5	449
2	4	7/0.85	0.7	1.0	0.9	1.8	15.5	529
2	6	7/1.04	0.7	1.0	0.9	1.8	17.0	615
2	10	7/1.35	0.7	1.0	1.25	1.8	19.0	920
2	16	7/1.70	0.7	1.0	1.25	1.8	20.5	995
2	25	7/2.14	0.9	1.0	1.6	1.8	24.0	1472
2	35 (S)	19/1.53	0.9	1.0	1.6	1.7	24.9	1754
2	50 (S)	19/1.78	1.0	1.0	1.6	1.8	27.0	2070
2	70 (S)	19/2.14	1.1	1.0	1.6	2.0	30.5	2823
2	95 (S)	19/2.52	1.1	1.2	2.0	2.1	34.2	3807
2	120 (S)	37/2.03	1.2	1.2	2.0	2.2	37.5	4612
2	150 (S)	37/2.25	1.4	1.2	2.0	2.3	40.8	5445
2	185 (S)	37/2.52	1.6	1.4	2.5	2.5	45.8	7038
2	240 (S)	61/2.25	1.7	1.4	2.5	2.7	50.8	8798
2	300 (S)	61/2.52	1.8	1.6	2.5	2.8	54.8	10488
2	400 (S)	61/2.85	2.0	1.6	2.5	3.1	62.0	13196

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

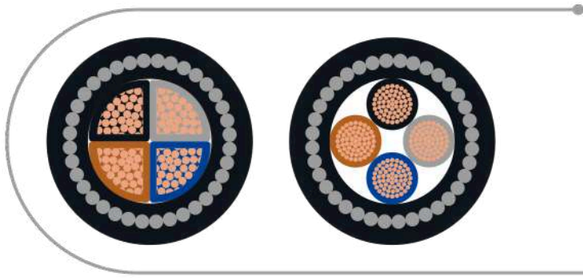


3 Cores

CU/XLPE/LSHF/SWA/LSHF

No. of cores	Nominal cross-sectional area of conductor (mm^2)	Number and diameter of wires (no/mm)	Thickness of insulation (mm)	Nom. thickness of bedding (mm)	Nom. Dia. of armour wire (mm)	Thickness of oversheath (mm)	Approx. overall diameter (mm)	Approx. net weight (kg/km)
3	1.5	7/0.53	0.7	1.0	0.9	1.8	14.0	426
3	2.5	7/0.67	0.7	1.0	0.9	1.8	15.0	500
3	4	7/0.85	0.7	1.0	0.9	1.8	16.0	598
3	6	7/1.04	0.7	1.0	0.9	1.8	17.5	702
3	10	7/1.35	0.7	1.0	1.25	1.8	20.0	1047
3	16	7/1.70	0.7	1.0	1.25	1.8	21.5	1185
3	25	7/2.14	0.9	1.0	1.6	1.8	25.5	1898
3	35 (S)	19/1.53	0.9	1.0	1.6	1.8	27.5	2317
3	50 (S)	19/1.78	1.0	1.0	1.6	1.8	30.5	2875
3	70 (S)	19/2.14	1.1	1.2	2.0	2.0	35.1	4065
3	95 (S)	19/2.52	1.1	1.2	2.0	2.2	39.3	5233
3	120 (S)	37/2.03	1.2	1.2	2.0	2.3	42.5	6337
3	150 (S)	37/2.25	1.4	1.4	2.5	2.5	48.0	8039
3	185 (S)	37/2.52	1.6	1.4	2.5	2.6	52.5	9729
3	240 (S)	61/2.25	1.7	1.6	2.5	2.8	58.0	12202
3	300 (S)	61/2.52	1.8	1.6	2.5	3.0	63.5	14835
3	400 (S)	61/2.85	2.0	1.6	2.5	3.2	74.0	18998

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

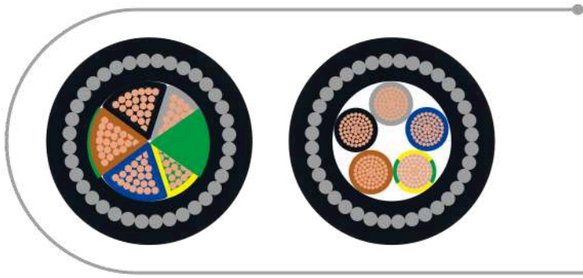


4 Cores

CU/XLPE/LSHF/SWA/LSHF

No. of cores	Nominal cross-sectional area of conductor (mm^2)	Number and diameter of wires (no/mm)	Thickness of insulation (mm)	Nom. thickness of bedding (mm)	Nom. Dia. of armour wire (mm)	Thickness of oversheath (mm)	Approx. overall diameter (mm)	Approx. net weight (kg/km)
4	1.5	7/0.53	0.7	1.0	0.9	1.8	15.0	477
4	2.5	7/0.67	0.7	1.0	0.9	1.8	16.0	564
4	4	7/0.85	0.7	1.0	0.9	1.8	17.0	690
4	6	7/1.04	0.7	1.0	1.25	1.8	19.5	937
4	10	7/1.35	0.7	1.0	1.25	1.8	22.0	1231
4	16	7/1.70	0.7	1.0	1.6	1.8	25.0	1748
4	25	7/2.14	0.9	1.0	1.6	1.8	28.0	2340
4	35 (S)	19/1.53	0.9	1.0	1.6	1.9	30.5	2904
4	50 (S)	19/1.78	1.0	1.0	1.6	2.0	33.5	3646
4	70 (S)	19/2.14	1.1	1.2	2.0	2.2	39.5	5233
4	95 (S)	19/2.52	1.1	1.2	2.0	2.3	43.5	6670
4	120 (S)	37/2.03	1.2	1.4	2.5	2.5	49.0	8602
4	150 (S)	37/2.25	1.4	1.4	2.5	2.6	53.5	10264
4	185 (S)	37/2.52	1.6	1.4	2.5	2.8	58.5	12420
4	240 (S)	61/2.25	1.7	1.6	2.5	3.0	65.5	15870
4	300 (S)	61/2.52	1.8	1.6	2.5	3.2	70.0	19320
4	400 (S)	61/2.85	2.0	1.8	3.15	3.5	83.0	25565

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

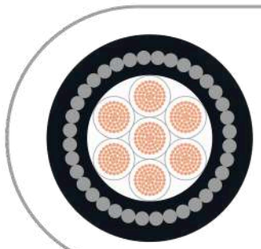


5 Cores

CU/XLPE/LSHF/SWA/LSHF

No. of cores	Nominal cross-sectional area of conductor (mm^2)	Number and diameter of wires (no/mm)	Thickness of insulation (mm)	Nom. thickness of bedding (mm)	Nom. Dia. of armour wire (mm)	Thickness of oversheath (mm)	Approx. overall diameter (mm)	Approx. net weight (kg/km)
5	1.5	7/0.53	0.7	1.0	1.25	1.8	16.2	650
5	2.5	7/0.67	0.7	1.0	1.25	1.8	17.4	765
5	4	7/0.85	0.7	1.0	1.25	1.8	18.8	925
5	6	7/1.04	0.7	1.0	1.25	1.8	20.4	1118
5	10	7/1.35	0.7	1.0	1.60	1.8	23.6	1636
5	16	7/1.70	0.7	1.0	1.60	1.8	26.4	2147
5	25	7/2.14	0.9	1.0	1.60	2.0	31.4	2997
5	35	19/1.53	0.9	1.2	2.0	2.1	36.2	4153
5	50	19/1.78	1.0	1.2	2.0	2.3	40.4	5345
5	70	19/2.14	1.1	1.2	2.50	2.5	47.2	7466
5	95	19/2.52	1.1	1.4	2.50	2.7	53.2	9489
5	120	37/2.03	1.2	1.4	2.50	2.8	58.4	11456
5	150	37/2.25	1.4	1.6	2.50	3.0	64.4	13893
5	185	37/2.52	1.6	1.6	2.50	3.3	71.0	16675
5	240	61/2.25	1.7	1.8	3.15	3.6	81.0	21991

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

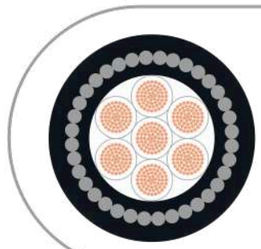


Multi-cores

CU/XLPE/LSHF/SWA/LSHF

No. of cores	Nominal cross-sectional area of conductor (mm^2)	Number and diameter of wires (no/mm)	Thickness of insulation (mm)	Nom. thickness of bedding (mm)	Nom. Dia. of armour wire (mm)	Thickness of oversheath (mm)	Approx. overall diameter (mm)	Approx. net weight (kg/km)
6	1.5	7/0.53	0.7	1.0	1.25	1.8	17.1	716
7	1.5	7/0.53	0.7	1.0	1.25	1.8	17.1	734
8	1.5	7/0.53	0.7	1.0	1.25	1.8	18.5	827
10	1.5	7/0.53	0.7	1.0	1.25	1.8	20.1	956
12	1.5	7/0.53	0.7	1.0	1.25	1.8	20.6	1020
14	1.5	7/0.53	0.7	1.0	1.60	1.8	22.0	1250
16	1.5	7/0.53	0.7	1.0	1.60	1.8	22.9	1344
19	1.5	7/0.53	0.7	1.0	1.60	1.8	23.8	2724
24	1.5	7/0.53	0.7	1.0	1.60	1.8	26.8	1764
27	1.5	7/0.53	0.7	1.0	1.60	1.8	27.3	1853
30	1.5	7/0.53	0.7	1.0	1.60	1.9	28.1	1969
37	1.5	7/0.53	0.7	1.0	1.60	1.9	30.0	2238
44	1.5	7/0.53	0.7	1.0	2.00	2.0	34.1	2899
48	1.5	7/0.53	0.7	1.0	2.00	2.1	34.5	3014
6	2.5	7/0.67	0.7	1.0	1.25	1.8	18.4	850
7	2.5	7/0.67	0.7	1.0	1.25	1.8	18.4	879
8	2.5	7/0.67	0.7	1.0	1.25	1.8	19.9	995
10	2.5	7/0.67	0.7	1.0	1.60	1.8	22.5	1316
12	2.5	7/0.67	0.7	1.0	1.60	1.8	23.0	1410
14	2.5	7/0.67	0.7	1.0	1.60	1.8	23.9	1526
16	2.5	7/0.67	0.7	1.0	1.60	1.8	24.9	1653
19	2.5	7/0.67	0.7	1.0	1.60	1.8	25.9	1811
24	2.5	7/0.67	0.7	1.0	1.60	1.9	29.5	2222
27	2.5	7/0.67	0.7	1.0	1.60	1.9	30.1	2349
30	2.5	7/0.67	0.7	1.0	1.60	1.9	31.0	2510
37	2.5	7/0.67	0.7	1.0	2.00	2.0	34.0	3164
44	2.5	7/0.67	0.7	1.2	2.00	2.2	38.1	3763
48	2.5	7/0.67	0.7	1.2	2.00	2.2	38.6	3931

LOW SMOKE HALOGEN FREE (LSHF) 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 (mm^2)	Number and diameter of wires (no/mm)	Thickness of insulation (mm)	Nom. thickness of bedding (mm)	Nom. Dia. of armour wire (mm)	Thickness of oversheath (mm)	Approx. overall diameter (mm)	Approx. net weight (kg/km)
6	4	7/0.85	0.7	1.0	1.25	1.8	20.0	1037
7	4	7/0.85	0.7	1.0	1.25	1.8	20.0	1081
8	4	7/0.85	0.7	1.0	1.60	1.8	22.5	1383
10	4	7/0.85	0.7	1.0	1.60	1.8	24.7	1623
12	4	7/0.85	0.7	1.0	1.60	1.8	25.3	1756
14	4	7/0.85	0.7	1.0	1.60	1.8	26.3	1916
16	4	7/0.85	0.7	1.0	1.60	1.8	27.5	2093
19	4	7/0.85	0.7	1.0	1.60	1.9	28.8	2321
24	4	7/0.85	0.7	1.0	2.00	2.0	33.8	3153
27	4	7/0.85	0.7	1.0	2.00	2.1	34.5	3344
30	4	7/0.85	0.7	1.2	2.00	2.1	36.0	3636
37	4	7/0.85	0.7	1.2	2.00	2.2	38.5	4185
44	4	7/0.85	0.7	1.2	2.00	2.3	42.7	4919
48	4	7/0.85	0.7	1.2	2.00	2.4	43.3	5162
6	6	7/1.04	0.7	1.0	1.60	1.8	22.4	1416
7	6	7/1.04	0.7	1.0	1.60	1.8	22.4	1481
8	6	7/1.04	0.7	1.0	1.60	1.8	24.4	1686
10	6	7/1.04	0.7	1.0	1.60	1.8	27.0	1998
6	10	7/1.35	0.7	1.0	1.60	1.8	25.2	1857
7	10	7/1.35	0.7	1.0	1.60	1.8	25.2	1964
8	10	7/1.35	0.7	1.0	1.60	1.8	27.7	2255
10	10	7/1.35	0.7	1.0	1.60	1.9	30.9	2714

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INSTRUMENTATION CABLE
BS EN 50288-7

- P71 - P76 **500V, collectively screened (OS)**

Single & Multi Pair/Traids/Cores	70°C	CU/PVC/OS/PVC-RP
Single & Multi Pair/Traids/Cores	65°C	CU/PE/OS/PVC-RP
Single & Multi Pair/Traids/Cores	65°C	CU/PE/OS/LSHF
Single & Multi Pair/Traids/Cores	90°C	CU/XLPE/OS/PVC-RP
Single & Multi Pair/Traids/Cores	90°C	CU/XLPE/OS/LSHF
Single & Multi Pair/Traids/Cores	90°C	CU/LSHF/OS/LSHF

- P77 - P81 **500V, individually and collectively screened (ISOS)**

Single & Multi Pair/Traids	70°C	CU/PVC/IS/OS/PVC-RP
Single & Multi Pair/Traids	65°C	CU/PE/IS/OS/PVC-RP
Single & Multi Pair/Traids	65°C	CU/PE/IS/OS/LSHF
Single & Multi Pair/Traids	90°C	CU/XLPE/IS/OS/PVC-RP
Single & Multi Pair/Traids	90°C	CU/LSHF/IS/OS/LSHF

- P82 - P87 **500V, collectively screened (OS) armoured SWA**

Single & Multi Pair/Traids/Cores	70°C	CU/PVC/OS/PVC/SWA/PVC-RP
Single & Multi Pair/Traids/Cores	65°C	CU/PE/OS/PVC/SWA/PVC-RP
Single & Multi Pair/Traids/Cores	65°C	CU/PE/OS/LSHF/SWA/LSHF
Single & Multi Pair/Traids/Cores	90°C	CU/XLPE/OS/PVC/SWA/PVC-RP
Single & Multi Pair/Traids/Cores	90°C	CU/XLPE/OS/LSHF/SWA/LSHF
Single & Multi Pair/Traids/Cores	90°C	CU/LSHF/OS/LSHF/SWA/LSHF

- P88 - P93 **500V, collectively screened (OS) armoured braided SWB**

Single & Multi Pair/Traids/Cores	70°C	CU/PVC/OS/PVC/SWB/PVC-RP
Single & Multi Pair/Traids/Cores	65°C	CU/PE/OS/PVC/SWB/PVC-RP
Single & Multi Pair/Traids/Cores	65°C	CU/PE/OS/LSHF/SWB/LSHF
Single & Multi Pair/Traids/Cores	90°C	CU/XLPE/OS/PVC/SWB/PVC-RP
Single & Multi Pair/Traids/Cores	90°C	CU/XLPE/OS/LSHF/SWB/LSHF
Single & Multi Pair/Traids/Cores	90°C	CU/LSHF/OS/LSHF/SWB/LSHF

- P94 - P98 **500V, individually and collectively screened (ISOS) armoured SWA**

Single & Multi Pair/Traids	70°C	CU/PVC/IS/OS/PVC/SWA/PVC-RP
Single & Multi Pair/Traids	65°C	CU/PE/IS/OS/PVC/SWA/PVC-RP
Single & Multi Pair/Traids	65°C	CU/PE/IS/OS/LSHF/SWA/LSHF
Single & Multi Pair/Traids	90°C	CU/XLPE/IS/OS/LSHF/SWA/PVC-RP
Single & Multi Pair/Traids	90°C	CU/LSHF/IS/OS/LSHF/SWA/LSHF

- P99 - P103 **500V, individually and collectively screened (ISOS) armoured braided SWB**

Single & Multi Pair/Traids	70°C	CU/PVC/IS/OS/PVC/SWB/PVC-RP
Single & Multi Pair/Traids	65°C	CU/PE/IS/OS/PVC/SWB/PVC-RP
Single & Multi Pair/Traids	65°C	CU/PE/IS/OS/LSHF/SWB/LSHF
Single & Multi Pair/Traids	90°C	CU/XLPE/IS/OS/PVC/SWB/PVC-RP
Single & Multi Pair/Traids	90°C	CU/XLPE/IS/OS/LSHF/SWB/LSHF
Single & Multi Pair/Traids	90°C	CU/LSHF/IS/OS/LSHF/SWB/LSHF

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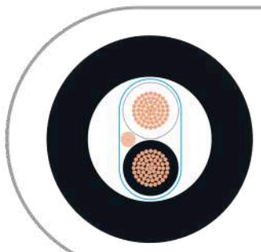

500V, COLLECTIVELY
SCREENED (OS)

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, IEC 60228
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 & above – Black, White and Red printed with number
2 cores & above – White cores printed with number
Wrapping: Polyester Binder tape
Overall screen: Aluminum/Polyester tape, metallic side down in contact with tinned copper drain wire 0.5mm²
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

TECHNICAL INFORMATION

Max. Operating Temperature (°C)	PE	XLPE	PVC	LSHF
	65	90	70 or 105	90 or 150

High Voltage Test	2000 V_{AC} for 1 minute
Reference Standard	BS EN 50288-7
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 x OD

Max. DC Conductor Resistance @ 20°C	Multi-pair/Multi-Traid	Multi-core
0.5 mm²	39.7 Ω /km	39.0 Ω /km
0.75 mm²	26.5 Ω /km	26.0 Ω /km
1.00 mm²	18.4 Ω /km	18.1 Ω /km
1.50 mm²	12.3 Ω /km	12.1 Ω /km
2.50 mm²	7.56 Ω /km	7.41 Ω /km

Maximum L/R ratio μH/0	0.5 mm²	0.75 mm²	1.00 mm²	1.50 mm²	2.50 mm²
	25	25	25	40	60

INSTRUMENTATION
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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

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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 changes without notice.

INSTRUMENTATION
CABLE BS EN 50288-7

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)
1×3×0.5	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 pairs	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

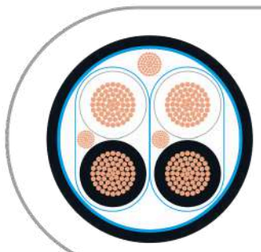
INSTRUMENTATION
CABLE BS EN 50288-7

Nominal Area (mm^2) No. of pairs	Outer diameter Approx (mm)	Cable Weight Approx (kg/km)
5x0.75	9.0	133
10x0.75	12.5	235
20x0.75	15.5	402
24x0.75	17.2	480
30x0.75	18.1	565
2x1.0	7.8	91
3x1.0	8.2	109
5x1.0	9.5	153
10x1.0	13.0	274
20x1.0	16.5	475
24x1.0	18.5	568
30x1.0	19.3	672
2x1.5	8.3	108
3x1.5	8.8	132

Nominal Area (mm^2) No. of pairs	Outer diameter Approx (mm)	Cable Weight Approx (kg/km)
5x1.5	10.5	190
10x1.5	14.2	347
20x1.5	18.0	612
24x1.5	20.0	799
30x1.5	21.2	874
2x2.5	9.6	147
3x2.5	10.1	184
5x2.5	12.2	273
10x2.5	16.9	512
20x2.5	21.5	921
24x2.5	24.0	1108
30x2.5	25.5	1327

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

INSTRUMENTATION
CABLE BS EN 50288-7



500V, INDIVIDUALLY AND COLLECTIVELY

SCREENED (ISOS)

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, IEC 60228
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 & above – Black, White and Red printed with number
Individual screen: Aluminum/Polyester tape, metallic side down in contact with tinned copper drain wire 0.5mm²
Wrapping: Polyester Binder tape
Overall screen: Aluminum/Polyester tape, metallic side down in contact with tinned copper drain wire 0.5mm²
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

TECHNICAL INFORMATION

Max. Operating Temperature (°C)	PE 65	XLPE 90	PVC 70 or 105	LSHF 90 or 150
High Voltage Test	2000 Vac for 1 minute			
Reference Standard	BS EN 50288-7			
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 x OD			

Max. DC Conductor Resistance @ 20°C	Multi-pair/Multi-Traid	Multi-core
0.5 mm²	39.7 Ω /km	39.0 Ω /km
0.75 mm²	26.5 Ω /km	26.0 Ω /km
1.00 mm²	18.4 Ω /km	18.1 Ω /km
1.50 mm²	12.3 Ω /km	12.1 Ω /km
2.50 mm²	7.56 Ω /km	7.41 Ω /km

Maximum L/R ratio μH/0	0.5 mm²	0.75 mm²	1.00 mm²	1.50 mm²	2.50 mm²
	25	25	25	40	60

INSTRUMENTATION
CABLE BS EN 50288-7

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

INSTRUMENTATION
CABLE BS EN 50288-7

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 changes without notice.

INSTRUMENTATION
CABLE BS EN 50288-7

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)	Nominal Area (mm^2) No. of pairs	Outer diameter Approx (mm)	Cable Weight Approx (kg/km)
2×3×0.5	12.3	183	24×3×1.0	37.5	1885
5×3×0.5	15.7	327	30×3×1.0	40.0	2235
10×3×0.5	22.2	616	2×3×1.5	15.5	298
20×3×0.5	28.9	1085	5×3×1.5	20.0	567
24×3×0.5	32.0	1339	10×3×1.5	28.2	1095
30×3×0.5	34.1	1550	20×3×1.5	36.8	1982
2×3×0.75	13.2	214	24×3×1.5	41.2	2402
5×3×0.75	17.0	392	30×3×1.5	43.8	2885
10×3×0.75	24.0	745	2×3×2.5	18.1	421
20×3×0.75	31.3	1326	5×3×2.5	23.6	824
24×3×0.75	34.9	1605	10×3×2.5	33.9	1611
30×3×0.75	37.5	1901	20×3×2.5	44.5	2951
2×3×1.0	14.0	244	24×3×2.5	50.0	3583
5×3×1.0	18.0	453	30×3×2.5	53.0	4287
10×3×1.0	25.6	867			
20×3×1.0	33.5	1553			

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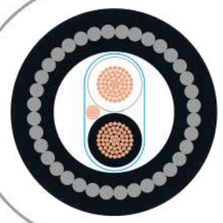
INSTRUMENTATION
CABLE BS EN 50288-7



500V, COLLECTIVELY
SCREENED (OS) ARMOURED
SWA

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, IEC 60228
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 & above – Black, White and Red printed with number
2 cores & above – White cores printed with number
Wrapping: Polyester Binder tape
Overall screen: Aluminum/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

INSTRUMENTATION
CABLE BS EN 50288-7

TECHNICAL INFORMATION

Max. Operating Temperature (°C)	PE	XLPE	PVC	LSHF
	65	90	70 or 105	90 or 150

High Voltage Test	2000 Vac for 1 minute
Reference Standard	BS EN 50288-7
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 x OD

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

Maximum L/R ratio	0.5 mm^2	0.75 mm^2	1.00 mm^2	1.50 mm^2	2.50 mm^2
μH/Ω	25	25	25	40	60

INSTRUMENTATION
CABLE BS EN 50288-7

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

INSTRUMENTATION
CABLE BS EN 50288-7

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 changes without notice.

INSTRUMENTATION
CABLE BS EN 50288-7

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)
1×3×0.5	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 pairs	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

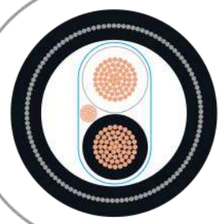
INSTRUMENTATION
CABLE BS EN 50288-7

Nominal Area (mm^2) No. of pairs	Outer diameter Approx (mm)	Cable Weight Approx (kg/km)
5x0.75	13.0	373
10x0.75	16.5	549
20x0.75	20.0	792
24x0.75	22.0	1043
30x0.75	23.0	1138
2x1.0	11.7	298
3x1.0	12.1	326
5x1.0	13.5	404
10x1.0	17.0	606
20x1.0	21.2	1018
24x1.0	23.0	1164
30x1.0	24.5	1288
2x1.5	12.2	329
3x1.5	12.8	364

Nominal Area (mm^2) No. of pairs	Outer diameter Approx (mm)	Cable Weight Approx (kg/km)
5x1.5	14.5	460
10x1.5	18.1	706
20x1.5	22.8	1203
24x1.5	24.8	1384
30x1.5	26.0	1542
2x2.5	13.6	400
3x2.5	14.1	450
5x2.5	16.1	585
10x2.5	21.5	1064
20x2.5	26.3	1616
24x2.5	28.7	1875
30x2.5	30.2	2138

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

INSTRUMENTATION
CABLE BS EN 50288-7



500V, COLLECTIVELY
SCREENED (OS) ARMOURED
BRAIDED SWB

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, IEC 60228
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 & above – Black, White and Red printed with number
2 cores & above – White cores printed with number
Wrapping: Polyester Binder tape
Overall screen: Aluminum/Polyester tape, metallic side down in contact with tinned copper drain wire 0.5mm^2
Bedding: PVC or LSHF
Armouring: Galvanized steel wires 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

TECHNICAL INFORMATION

Max. Operating Temperature (°C)	PE 65	XLPE 90	PVC 70 or 105	LSHF 90 or 150
High Voltage Test	2000 Vac for 1 minute			
Reference Standard	BS EN 50288-7			
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 x OD			

Max. DC Conductor Resistance @ 20°C	Multi-pair/Multi-Traid	Multi-core
0.5 mm²	39.7 Ω /km	39.0 Ω /km
0.75 mm²	26.5 Ω /km	26.0 Ω /km
1.00 mm²	18.4 Ω /km	18.1 Ω /km
1.50 mm²	12.3 Ω /km	12.1 Ω /km
2.50 mm²	7.56 Ω /km	7.41 Ω /km

Maximum L/R ratio μH/0	0.5 mm²	0.75 mm²	1.00 mm²	1.50 mm²	2.50 mm²
	25	25	25	40	60

INSTRUMENTATION
CABLE BS EN 50288-7

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 (mm²) 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 (mm²) 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

INSTRUMENTATION
CABLE BS EN 50288-7

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 changes without notice.

INSTRUMENTATION
CABLE BS EN 50288-7

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 pairs	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 pairs	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

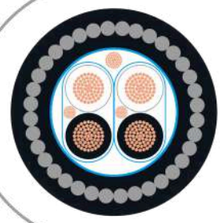
INSTRUMENTATION
CABLE BS EN 50288-7

Nominal Area (mm^2) No. of pairs	Outer diameter Approx (mm)	Cable Weight Approx (kg/km)
24x0.5	18.6	575
30x0.5	19.5	633
2x0.75	10.0	186
3x0.75	10.5	216
5x0.75	11.7	259
10x0.75	14.9	412
20x0.75	18.2	582
24x0.75	20.0	682
30x0.75	21.0	771
2x1.0	22.3	869
3x1.0	10.8	231
5x1.0	12.2	282
10x1.0	15.7	445
20x1.0	19.2	666
24x1.0	21.0	780
30x1.0	22.1	881

Nominal Area (mm^2) No. of pairs	Outer diameter Approx (mm)	Cable Weight Approx (kg/km)
2x1.5	11.0	291
3x1.5	11.5	258
5x1.5	13.1	337
10x1.5	16.9	524
20x1.5	20.8	825
24x1.5	22.8	952
30x1.5	24.0	1104
2x2.5	12.3	279
3x2.5	12.9	332
5x2.5	14.8	428
10x2.5	19.5	712
20x2.5	24.3	1157
24x2.5	27.0	1351
30x2.5	28.2	1589

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

INSTRUMENTATION
CABLE BS EN 50288-7



500V, INDIVIDUALLY AND COLLECTIVELY

SCREENED (ISOS)
ARMOURED SWA

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, IEC 60228
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 & above – Black, White and Red printed with number
Individual screen: Aluminum/Polyester tape, metallic side down in contact with tinned copper drain wire 0.5mm^2
Wrapping: Polyester Binder tape
Overall screen: Aluminum/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

INSTRUMENTATION
CABLE BS EN 50288-7

TECHNICAL INFORMATION

Max. Operating Temperature (°C)	PE 65	XLPE 90	PVC 70 or 105	LSHF 90 or 150
High Voltage Test	2000 Vac for 1 minute			
Reference Standard	BS EN 50288-7			
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 x OD			

Max. DC Conductor Resistance @ 20°C	Multi-pair/Multi-Traid	Multi-core
0.5 mm²	39.7 Ω /km	39.0 Ω /km
0.75 mm²	26.5 Ω /km	26.0 Ω /km
1.00 mm²	18.4 Ω /km	18.1 Ω /km
1.50 mm²	12.3 Ω /km	12.1 Ω /km
2.50 mm²	7.56 Ω /km	7.41 Ω /km

Maximum L/R ratio μH/0	0.5 mm²	0.75 mm²	1.00 mm²	1.50 mm²	2.50 mm²
	25	25	25	40	60

INSTRUMENTATION
CABLE BS EN 50288-7

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 (mm²) 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 (mm²) 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

INSTRUMENTATION
CABLE BS EN 50288-7

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 changes without notice.

INSTRUMENTATION
CABLE BS EN 50288-7

TYPE AVAILABLE

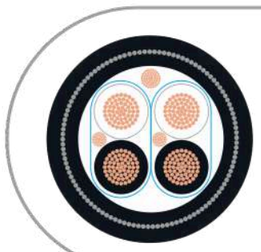
- CU/PVC/IS/OS/PVC/SWA/PVC-RP
- CU/XLPE/IS/OS/PVC/SWA/PVC-RP
- CU/PE/IS/OS/PVC/SWA/PVC-RP
- CU/XLPE/IS/OS/LSHF/SWA/LSHF
- CU/PE/IS/OS/LSHF/SWA/LSHF
- CU/LSHF/IS/OS/LSHF/SWA/LSHF

Nominal Area (mm^2) No. of pairs	Outer diameter Approx (mm)	Cable Weight Approx (kg/km)
2×3×0.5	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 pairs	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 changes without notice.

INSTRUMENTATION
CABLE BS EN 50288-7



500V, INDIVIDUALLY AND COLLECTIVELY

SCREENED (ISOS)
ARMOURED BRAIDED SWB

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, IEC 60228
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 & above – Black, White and Red printed with number
Individual screen:Aluminum/Polyester tape, metallic side down in contact with tinned copper drain wire 0.5mm²
Wrapping: Polyester Binder tape
Overall screen: Aluminum/Polyester tape, metallic side down in contact with tinned copper drain wire 0.5mm²
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

TECHNICAL INFORMATION

Max. Operating Temperature (°C)	PE	XLPE	PVC	LSHF
	65	90	70 or 105	90 or 150

High Voltage Test	2000 Vac for 1 minute
Reference Standard	BS EN 50288-7
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 x OD

Max. DC Conductor Resistance @ 20°C	Multi-pair/Multi-Traid	Multi-core
0.5 mm²	39.7 Ω /km	39.0 Ω /km
0.75 mm²	26.5 Ω /km	26.0 Ω /km
1.00 mm²	18.4 Ω /km	18.1 Ω /km
1.50 mm²	12.3 Ω /km	12.1 Ω /km
2.50 mm²	7.56 Ω /km	7.41 Ω /km

Maximum L/R ratio μH/0	0.5 mm²	0.75 mm²	1.00 mm²	1.50 mm²	2.50 mm²
	25	25	25	40	60

INSTRUMENTATION
CABLE BS EN 50288-7

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

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 changes without notice.

INSTRUMENTATION
CABLE BS EN 50288-7

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)
2×3×0.5	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 pairs	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 changes without notice.

Copper Conductor Resistance (mm^2)

Nominal cross-sectional area	Minimum number of wires in the conductor	Maximum diameter of wires in the conductor		Voltage Drop (For Guidance Only) Volts Per 100 Amp per 10 metres (DC Current*)			
	Class 2	Class 5	Class 6	Class 2		Class 5 & 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 °C	Correction factor, kt
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, please 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 0086-2-4 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 relevant 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 methods 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	10	11	12	
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	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 circuits 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 Current-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 calculated for specific cases, see for example Table C3.1 to C3.2.
(8) When cables having different conductor operating temperatures 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 known operating conditions, a cable is expected to carry not more than 30% of its grouped rating, it may be ignored for the purpose of obtaining the rating factor for the rest of the group. For example, a ground of N loaded cables would normally 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.

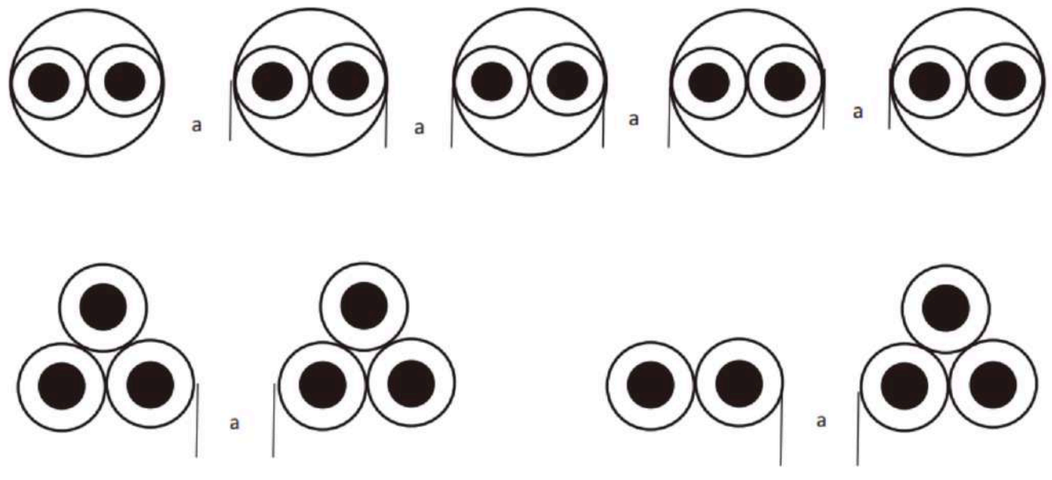
Rating factors for more than one circuit, cables laid directly in the Ground-Reference Method D in Table Installation method for single core or multicore cables.

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 for 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

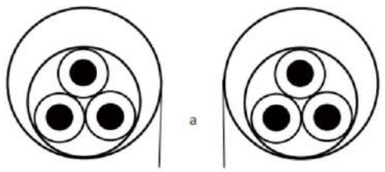
i)Multicore Cables in a Single-Way Ducts

Number of circuits	Duct-to-duct clearance (a)			
	Nil (Cables touching)	0.25m	0.50m	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 for 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).



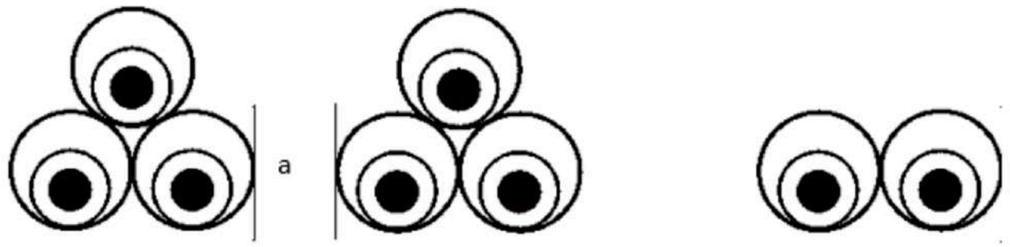
Rating factors for more than one circuit, cables laid in ducts in the ground – Reference Method D

Number of single-core circuits of 2 or 3 cables	Duct-to-duct clearance (a)			
	Nil (Cables touching)	0.25m	0.50m	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 for 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).



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

Initial temperature of conductor: 90°C
Final temperature of conductor: 250°C

Duration of short circuit (seconds):

Conductor cross-sectional area mm²	Short circuit current (r.m.s over duration). 0.2 second kA	3 seconds 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: 160°C

Duration of short circuit (seconds):

Conductor cross-sectional area mm²	Short circuit current (r.m.s over duration). 0.2 second kA	3 seconds 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

TABLE 4D1A
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 trunking 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, singles-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.

TABLE 4D1B
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 Cables, Single Phase a.c.c												3 or 4 cables, three-phase a.c.c												Reference Methods C&F (Clipped direction, on tray or in free air)											
	2 cable d.c.		Reference methods A&B (enclosed in conduit or trunking)				Reference Methods C & F (Clipped direction, on tray or in free air)				Reference Methods A&B (enclosed in conduit or trunking)				Cable touching trefoil		Cable touching flat		Cable spaced flat																	
					Cable touching		Cable spaced																															
mm²	(mV/A/m)		(mV/A/m)												(mV/A/m)																						
1	44		44				44				44				38		38		38																		
1.5	29		29				29				29				25		25		25																		
2.5	18		18				18				18				15		15		15																		
4	11		11				11				11				9.5		9.5		9.5																		
6	7.3		7.3				7.3				7.3				6.4		6.4		6.4																		
10	4.4		4.4				4.4				4.4				3.8		3.8		3.8																		
16	2.8		2.8				2.8				2.8				2.4		2.4		2.4																		
	r	x	z		r	x	z		r	x	z		r	x	z	x	r	z	x	r	z	x	r	z	x	r	z	x	r	z	x	r	z	x	r	z
25	1.75	1.8	0.33	1.80	1.75	0.20	1.75	1.75	0.29	1.80	1.75	0.29	1.80	1.50	1.50	0.175	1.50	1.50	0.25	1.55	1.50	0.32	1.55	1.50	0.32	1.55	1.50	0.32	1.55	1.50	0.32	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	1.25	0.28	1.30	1.10	1.10	0.170	1.10	1.10	0.24	1.10	1.10	0.27	1.10	1.10	0.27	1.10	1.10	0.27	1.10	1.10	0.27	1.10	1.10	0.27	1.10
50	0.93	0.95	0.30	1.00	0.93	0.190	0.95	0.93	0.28	0.97	0.95	0.28	0.97	0.80	0.80	0.165	0.82	0.80	0.24	0.84	0.80	0.26	0.85	0.80	0.26	0.85	0.80	0.26	0.85	0.80	0.26	0.85	0.80	0.26	0.85
70	0.63	0.65	0.29	0.72	0.63	0.185	0.66	0.63	0.27	0.69	0.63	0.27	0.69	0.55	0.55	0.160	0.57	0.55	0.24	0.60	0.55	0.25	0.61	0.55	0.25	0.61	0.55	0.25	0.61	0.55	0.25	0.61	0.55	0.25	0.61

Note

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

TABLE 4D1B
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 Cables, Single Phase a.c.c						3 or 4 cables, three-phase a.c.c					
	2 cable d.c.	Reference methods A&B (enclosed in conduit or trunking)	Reference Methods C & F (Clipped direction, on tray or in free air)				Reference Methods A&B (enclosed in conduit or trunking)	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)	
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
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
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
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
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
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
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
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
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
800	0.053				0.068	0.150	0.165	0.061	0.24	0.25		
1000	0.042				0.059	0.150	0.160	0.050	0.24	0.24		

Note

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

TABLE 4D2A
Multicore 70°C thermoplastic insulated & thermoplastic sheathed cable, non armoured, (COPPER CONDUCTOR)

Current – carrying capacity (amperes):

Ambient temperature: 70°C
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 trunking 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.
mm²	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

TABLE 4D2B
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	r	2.8 x	z	r	2.4 x	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

TABLE 4D3A
Single core 70°C armoured thermoplastic insulated cable (non-magnetic armour) (COPPER CONDUCTOR)

Current-carrying capacity (amperes): Ambient temperature: 70°C
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 cables 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

TABLE 4D3B
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			Flat & touching			Trefoil & 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	0.79	0.26	0.84	0.80	0.190	0.82	0.79	0.34	0.86	
70	0.63	0.64	0.21	0.68	0.66	0.29	0.72	0.57	0.25	0.62	0.56	0.180	0.58	0.59	0.32	0.68	
95	0.46	0.48	0.20	0.52	0.51	0.28	0.58	0.44	0.25	0.50	0.42	0.175	0.45	0.47	0.31	0.57	
120	0.36	0.39	0.195	0.43	0.42	0.28	0.50	0.36	0.24	0.43	0.33	0.170	0.45	0.40	0.30	0.50	
150	0.29	0.31	0.190	0.37	0.34	0.27	0.44	0.30	0.24	0.38	0.27	0.165	0.39	0.34	0.30	0.45	
185	0.23	0.26	0.190	0.32	0.29	0.27	0.39	0.25	0.23	0.34	0.22	0.160	0.35	0.29	0.29	0.41	
240	0.180	0.20	0.180	0.27	0.23	0.26	0.35	0.20	0.23	0.30	0.175	0.160	0.31	0.24	0.28	0.37	
300	0.145	0.160	0.180	0.24	0.190	0.26	0.32	0.165	0.22	0.28	0.140	0.155	0.29	0.24	0.28	0.34	
400	0.105	0.140	0.175	0.22	0.180	0.24	0.30	0.160	0.21	0.26	0.120	0.130	0.27	0.21	0.25	0.32	
500	0.086	0.120	0.170	0.21	0.165	0.23	0.29	0.145	0.20	0.25	0.105	0.145	0.26	0.190	0.24	0.30	
630	0.068	0.105	0.165	0.195	0.150	0.22	0.27	0.135	0.195	0.23	0.091	0.145	0.25	0.175	0.22	0.28	
800	0.053	0.095	0.160	0.185	0.145	0.21	0.25	0.125	0.180	0.22	0.082	0.140	0.25	0.170	0.195	0.26	
1000	0.042	0.091	0.155	0.180	0.140	0.19	0.24	0.125	0.165	0.21	0.079	0.135	0.24	0.165	0.170	0.24	

TABLE 4D4A
Multicore 70°C armoured thermoplastic insulated cable
(COPPER CONDUCTOR)

Air Ambient temperature: 30°C
Ground Ambient temperature: 20°C
Current-carrying capacity (amperes): Conductor operating temperature: 70°C

Conductor cross-sectional area	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)	
	1 two core cable, single phase a.c or d.c	1 three or four core cable, 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.
mm²	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	–	–

TABLE 4D4B
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 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		
1.5	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	r	2.8 x	z	r	2.4 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

TTABLE 4D5
Thermoplastic insulated & sheathed flat cable with protective conductor (COPPER CONDUCTOR)

Current-carrying capacity (amperes) and Voltage drop per ampere per meter: Air Ambient temperature: 30°C
Conductor operating temperature: 70°C

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)
mm²	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, BS 5803-5: Appendix C: Avoidance of overheating of electric cable
Building Regulations Approved document B and Thermal insulation: avoiding risks, BR 262, BRE, 2001 refer

TABLE 4E1A
Single core 90°C thermosetting insulated cable, 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 trunking 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. or 3 cables three phase a.c. flat	
	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	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	Horizontal	Vertical
mm^2	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 Single-core 70°C thermoplastic (PVC) insulated cable, non-armoured, with or without sheath) must be used (see Reg 523.1

TABLE 4E1B
Single-core 90°C thermosetting insulated cable, unarmoured, with or without sheath (COPPER CONDUCTOR)

VOLTAGE DROP (per ampere per meter):

Conductor operating temperature: 90°C

Conductor cross-sectional area	2 cable d.c.	2 Cables, Single Phase a.c.c												3 or 4 cables, three-phase a.c.c											
		Reference methods A&B (enclosed in conduit or trunking)			Reference Methods C & F (Clipped direction, on tray or in free air)						Reference Methods A&B (enclosed in conduit or trunking)			Reference Methods C&F (Clipped direction, on tray or in free air)								
					Cable touching (mV/A/m)			Cable spaced (mV/A/m)						Cable touching trefoil (mV/A/m)			Cable touching flat (mV/A/m)			Cable spaced flat (mV/A/m)		
mm^2	(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	r	2.9 x	z	r	2.9 x	z	r	2.9 x	z	r	2.5 x	z	r	2.5 x	z	r	2.5 x	z	r	2.5 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	70	0.68	0.70	0.28	0.75	0.68	0.175	0.717	0.68	70	0.68	0.70	0.28	0.75

TABLE 4E1B
Single-core 90°C thermosetting insulated cable, unarmoured, with or without sheath (COPPER CONDUCTOR)

VOLTAGE DROP (per ampere per meter):

Conductor operating temperature: 90°C

Conductor cross-sectional area	2 Cables, Single Phase a.c.c				3 or 4 cables, three-phase a.c.c				
	2 cable d.c.	Reference methods A&B (enclosed in conduit or trunking)	Reference Methods C & F (Clipped direction, on tray or in free air)		Reference Methods A&B (enclosed in conduit or trunking)	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)	
95	0.49	0.51	0.27	0.58	0.49	0.170	0.52	0.49	
120	0.39	0.41	0.26	0.48	0.39	0.165	0.43	0.39	
150	0.32	0.33	0.26	0.43	0.32	0.165	0.36	0.32	
185	0.25	0.27	0.26	0.37	0.26	0.165	0.30	0.25	
240	0.190	0.21	0.26	0.33	0.20	0.160	0.25	0.195	
300	0.155	0.175	0.25	0.31	0.160	0.160	0.22	0.155	
400	0.120	0.140	0.25	0.29	0.130	0.155	0.20	0.125	
500	0.093	0.120	0.25	0.28	0.105	0.155	0.185	0.098	
630	0.072	0.100	0.25	0.27	0.086	0.155	0.175	0.078	
800	0.056				0.072	0.150	0.170	0.064	
1000	0.045				0.063	0.150	0.165	0.054	

Note

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

TABLE 4E2A
Multicore 90°C thermosetting insulated & thermoplastic sheathed cable, unarmoured (COPPER CONDUCTOR)

Current - carrying capacity (amperes): Ambient temperature: 30°C; 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 trunking 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.
mm²	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 Multicore 70°C armoured thermoplastic insulated cable) must be used (see Reg 523.1)

*with or without a protective

TABLE 4E2B
Multicore 90°C thermosetting insulated and thermoplastic sheathed cable, unarmoured (COPPER CONDUCTOR)

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

Conductor cross-sectional area	Two core cable, d.c.	Two core cable single phase a.c. Reference Methods A&B (enclosed in conduit or trunking)			Three or four core cable, 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	
16	2.9	r	2.9 x	z	r	2.5 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

TABLE 4E3A
Single core 90°C thermosetting insulated cable (non-magnetic armour) (COPPER CONDUCTOR)

Current-carrying capacity (amperes): Ambient temperature: 30°C
Conductor operating temperature: 90°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 cables 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	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 Single core 70°C armoured thermoplastic insulated cable (non-magnetic armour)) must be used (see Reg 523.1)

TABLE 4E3B
Single-core 90°C thermosetting insulated cable (non-magnetic 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

Note

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

TECHNICAL DATA

TABLE 4E3B
Single-core 90°C thermosetting insulated cable (non-magnetic 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	c	x	z	r	x	z	r	x	z	r	x	z
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 diameter will result in larger volt. drop.

TABLE 4E4A
Multicore 90°C armoured thermosetting insulated cable (COPPER CONDUCTOR)

Air 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 cable, 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 cable three phase a.c.
mm²	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 Multicore 70°C armoured thermoplastic insulated cable) must be used (see Reg 523.1)

TABLE 4E4B
Multicore 90° armoured thermosetting insulated cables (COPPER CONDUCTOR)

Voltage Drop (per ampere per meter): Conductor operating temperature: 90°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		
1.5	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	r	2.9 x	z	r	2.5 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

HONGKONG Kai Tak Sports Park

HONGKONG YOHO-WEST

Nanning International Convention and Exhibition Center

HONGKONG NOVO Land

Shiji Bridge

Nur Sultan City Government

OLYMPIC STADIUM

Pazhou International Convention and Exhibition Center

STAR CITY

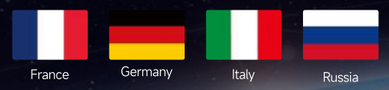
ONE PARK

Global Layout

Asia

Africa

Europe



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