BS 8573
600/1000V
XLPE Insulation
LSZH Sheath Cables

Caledonian

www.caledonian-cables.co.uk
www.addison-cables.com

Caledonian

Company Profile

Caledonian & Addison, branded under Caledoniea & Addimax, established in 1978, offers one of the most complete lines of fiber and copper cabling solutions with over hundreds of different cabling system products. Our superior products provide leading edge within every cable series and for every application.

Among the national and international standards with which our cables could comply are: BS-British Standard; LPCB Fire Performance Standard. ISO Standard etc. Caledonian & Addison offers a comprehensive stock of cables and cabling products through its nationwide network of resellers and distributors. Caledonian & Addison has continually expanded its global presence in Europe and Asia.

Caledonian & Addison produces a wide range of cables for communication. power and electronics in its primary plants in UK. Turkey. Malaysia. Italy and Spain. To stay in front, we continually keep expanding our manufacturing capabilities in more low cost region such as China, Malaysia etc. This low-cost manufacturing facilities enable us provide a flexible scalable global system that delivers superior operational performance and optimal results for our customers.

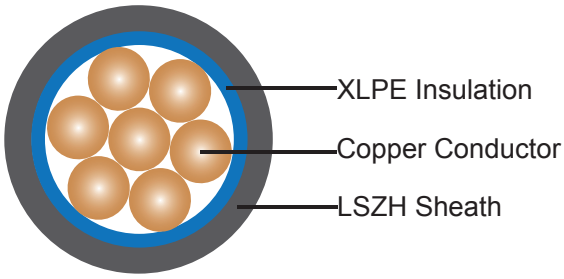
Our extensive global network of manufacturing facilities gives us significant scale and the flexibility to fulfill our customer requirements. This global presence provides design and consultancy solutions that are combined with core cable manufacturing, logistic services and vertically integrated with our E commerce technologies, to optimize customer operations by lowering costs and reducing time to market.

Caledonian & Addison has been respected for its high standards of quality, excellent service level, competitive pricing and a unique and innovative spirit. With our latest technologies, we are both inspired and well-positioned to meet the changing needs of our customers. We have the resources to diversify and to enhance our product lines and services. We understand the need for change and with our accurate planning. we are ready for the future and the promise of new marketing opportunities. Our tradition of growth through excellence is assured.

Our Design Centers work closely with customers to constantly improve its standard range of products and technologies and to develop customized, country and industry-specific solutions. Caledonian & Addison has established an extensive network of design, manufacturing, and logistics facilities in the world's major markets to serve the growing outsourcing needs of both multinational and regional customers.

Table of Content

Single Core 600/1000V XLPE Insulation, LSZH Sheath Cables to BS 8573



APPLICATION

These XLPE insulated and LSZH sheathed cables are generally used for fixed installation. Suitable for building wiring, especially in areas where smoke and fume emissions may cause a potential threat to life but not for burial in the ground, either directly or in ducts.

STANDARD

Basic design to BS 8573:2012

FIRE PERFORMANCE

Flame Retardance (Single Vertical Wire Test)	BS EN 60332-1-2:2004
Reduced Fire Propagation (Vertically-mounted bundled wires & cable test)	BS EN 60332-3-24:2009 (cat. C)
Halogen Free	BS EN 50267-2-1
Minimum Smoke Emission	BS EN 61034-2
Spark Test	BS EN 62230

VOLTAGE RATING

600/1000V

CABLE CONSTRUCTION

Conductor: Annealed copper conductor, strand according to BS EN 60228 class 2.

Insulation: XLPE type GP8 according to BS 7655-1.3. HEPR type GP6 according to BS 7655-1.2, or crosslinked polyolefi n material type EI 5 according to BS EN 50363-5 can be offered as option.
Inner Covering option: The laid up cores may be coverd by an optional extrued inner covering or separating tape. It shall be possible to separate the cores easily.
Outer Sheath: Thermoplastic LSZH type LTS 4 according to BS 7655-6.1.
Outer Sheath option: UV resistance, hydrocarbon resistance, oil resistance, anti rodent and anti termite properties can be offered as option.

COLOUR CODE

Insulation Colour: Brown or blue
Sheath Colour: Black, other colours can be offered upon request.

PHYSICAL AND THERMAL PROPERTIES

Maximum temperature range during operation (XLPE): 90°C
Maximum short circuit temperature (5 Seconds): 250°C
Minimum bending radius:
Circular copper conductors(up to 25mm^2): 4 x Overall Diameter
Circular copper conductors(above 25mm^2): 6 x Overall Diameter
Shaped copper conductors: 8 x Overall Diameter

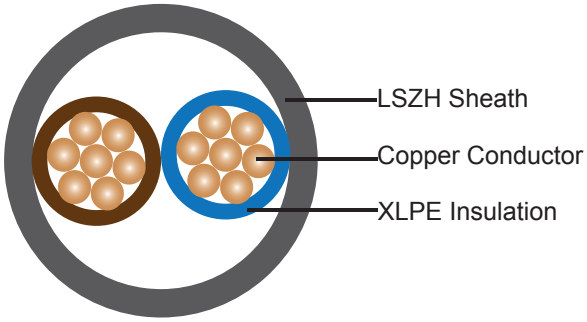
CONSTRUCTION PARAMETERS

Conductor		Nominal Insulation Thickness	Nominal Inner Covering Thickness	Nominal Sheath Thickness
No. of CoresxCross Section	Class of Conductor			
No.xmm^2		mm	mm	mm
1x1.5	2	0.7	0.4	1.4
1x2.5	2	0.7	0.4	1.4
1x4.0	2	0.7	0.4	1.4
1x6.0	2	0.7	0.4	1.4
1x10	2	0.7	0.4	1.4
1x16	2	0.7	0.4	1.4
1x25	2	0.9	0.4	1.4
1x35	2	0.9	0.4	1.4
1x50	2	1.0	0.6	1.4
1x70	2	1.1	0.6	1.4
1x95	2	1.1	0.6	1.5
1x120	2	1.2	0.8	1.5

Conductor		Nominal Insulation Thickness	Nominal Inner Covering Thickness	Nominal Sheath Thickness
No. of CoresxCross Section	Class of Conductor			
No.xmm^2		mm	mm	mm
1x150	2	1.4	0.8	1.6
1x185	2	1.6	0.8	1.6
1x240	2	1.7	1.0	1.7
1x300	2	1.8	1.0	1.8
1x400	2	2.0	1.2	1.9
1x500	2	2.2	1.2	2.0
1x630	2	2.4	1.4	2.2
1x800	2	2.6	1.6	2.3
1x1000	2	2.8	1.6	2.4

Standard

Two-core 600/1000V XLPE Insulation, LSZH Sheath Cables to BS 8573



APPLICATION

These XLPE insulated and LSZH sheathed cables are generally used for fixed installation. Suitable for building wiring, especially in areas where smoke and fume emissions may cause a potential threat to life but not for burial in the ground, either directly or in ducts.

STANDARD

Basic design to BS 8573:2012

FIRE PERFORMANCE

Flame Retardance (Single Vertical Wire Test)	BS EN 60332-1-2:2004
Reduced Fire Propagation (Vertically-mounted bundled wires & cable test)	BS EN 60332-3-24:2009 (cat. C)
Halogen Free	BS EN 50267-2-1
Minimum Smoke Emission	BS EN 61034-2
Spark Test	BS EN 62230

VOLTAGE RATING

600/1000V

CABLE CONSTRUCTION

Conductor: Annealed copper conductor, strand according to BS EN 60228 class 2.
Insulation: XLPE type GP8 according to BS 7655-1.3. HEPR type GP6 according to BS 7655-1.2, or crosslinked polyolefi n material type EI 5 according to BS EN 50363-5 can be offered as option.
Inner Covering option: The laid up cores may be coverd by an optional extrued inner covering or

separating tape. It shall be possible to separate the cores easily.
Outer Sheath: Thermoplastic LSZH type LTS 4 according to BS 7655-6.1.
Outer Sheath option: UV resistance, hydrocarbon resistance, oil resistance, anti rodent and anti termite properties can be offered as option.

COLOUR CODE

Insulation Colour: Brown and blue
Sheath Colour: Black, other colours can be offered upon request.

PHYSICAL AND THERMAL PROPERTIES

Maximum temperature range during operation (XLPE): 90°C
Maximum short circuit temperature (5 Seconds): 250°C
Minimum bending radius:
Circular copper conductors(up to 25mm^2): 4 x Overall Diameter
Circular copper conductors(above 25mm^2): 6 x Overall Diameter
Shaped copper conductors: 8 x Overall Diameter

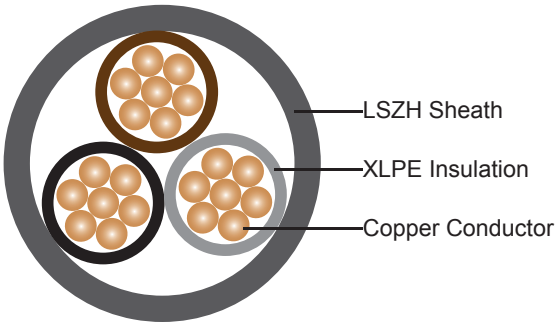
CONSTRUCTION PARAMETERS

Conductor		Nominal Insulation Thickness	Nominal Inner Covering Thickness	Nominal Sheath Thickness
No. of CoresxCross Section	Class of Conductor			
No.xmm^2		mm	mm	mm
2x1.5	2	0.7	0.4	1.8
2x2.5	2	0.7	0.4	1.8
2x4.0	2	0.7	0.4	1.8
2x6.0	2	0.7	0.4	1.8
2x10	2	0.7	0.6	1.8
2x16	2	0.7	0.6	1.8
2x25	2	0.9	0.8	1.8
2x35	2	0.9	0.8	1.8
2x50	2	1.0	1.0	1.8
2x70	2	1.1	1.0	1.8
2x95	2	1.1	1.2	1.9
2x120	2	1.2	1.2	2.0
2x25	2	0.9	0.6	1.8
2x35	2	0.9	0.6	1.8
2x50	2	1.0	0.8	1.8

Conductor		Nominal Insulation Thickness	Nominal Inner Covering Thickness	Nominal Sheath Thickness
No. of CoresxCross Section	Class of Conductor			
No.xmm^2		mm	mm	mm
2x70	2	1.1	0.8	1.8
2x95	2	1.1	1.0	1.9
2x120	2	1.2	1.0	2.0

Standard

Three-core 600/1000V XLPE Insulation, LSZH Sheath Cables to BS 8573



APPLICATION

These XLPE insulated and LSZH sheathed cables are generally used for fixed installation. Suitable for building wiring, especially in areas where smoke and fume emissions may cause a potential threat to life but not for burial in the ground, either directly or in ducts.

STANDARD

Basic design to BS 8573:2012

FIRE PERFORMANCE

Flame Retardance (Single Vertical Wire Test)	BS EN 60332-1-2:2004
Reduced Fire Propagation (Vertically-mounted bundled wires & cable test)	BS EN 60332-3-24:2009 (cat. C)
Halogen Free	BS EN 50267-2-1
Minimum Smoke Emission	BS EN 61034-2
Spark Test	BS EN 62230

VOLTAGE RATING

600/1000V

CABLE CONSTRUCTION

Conductor: Annealed copper conductor, strand according to BS EN 60228 class 2.
Insulation: XLPE type GP8 according to BS 7655-1.3. HEPR type GP6 according to BS 7655-1.2, or crosslinked polyolefi n material type EI 5 according to BS EN 50363-5 can be offered as option.

Inner Covering option: The laid up cores may be coverd by an optional extrued inner covering or separating tape. It shall be possible to separate the cores easily.
Outer Sheath: Thermoplastic LSZH type LTS 4 according to BS 7655-6.1.
Outer Sheath option: UV resistance, hydrocarbon resistance, oil resistance, anti rodent and anti termite properties can be offered as option.

COLOUR CODE

Insulation Colour: Brown, black and grey,
Sheath Colour: Black, other colours can be offered upon request.

PHYSICAL AND THERMAL PROPERTIES

Maximum temperature range during operation (XLPE): 90°C
Maximum short circuit temperature (5 Seconds): 250°C
Minimum bending radius:
Circular copper conductors(up to 25mm^2): 4 x Overall Diameter
Circular copper conductors(above 25mm^2): 6 x Overall Diameter
Shaped copper conductors: 8 x Overall Diameter

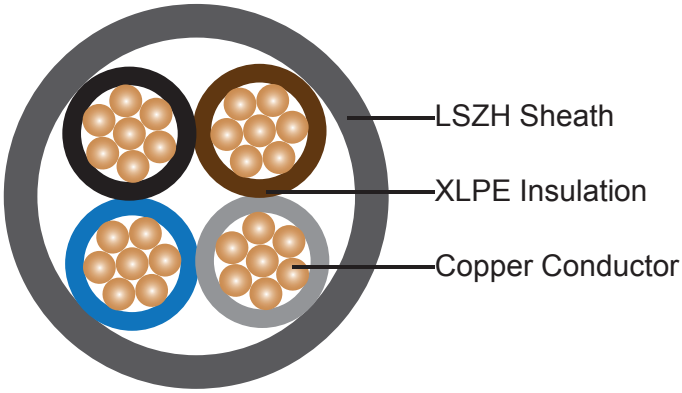
CONSTRUCTION PARAMETERS

Conductor		Nominal Insulation Thickness	Nominal Inner Covering Thickness	Nominal Sheath Thickness
No. of CoresxCross Section	Class of Conductor			
No.xmm^2		mm	mm	mm
3x1.5	2	0.7	0.4	1.8
3x2.5	2	0.7	0.4	1.8
3x4.0	2	0.7	0.4	1.8
3x6.0	2	0.7	0.4	1.8
3x10	2	0.7	0.6	1.8
3x16	2	0.7	0.6	1.8
3x25	2	0.9	0.8	1.8
3x35	2	0.9	0.8	1.8
3x50	2	1.0	1.0	1.8
3x70	2	1.1	1.2	1.9
3x95	2	1.1	1.2	2.0
3x120	2	1.2	1.2	2.1
3x25	2	0.9	0.6	1.8

Conductor		Nominal Insulation Thickness	Nominal Inner Covering Thickness	Nominal Sheath Thickness
No. of CoresxCross Section	Class of Conductor			
No.xmm^2		mm	mm	mm
3x35	2	0.9	0.8	1.8
3x50	2	1.0	0.8	1.8
3x70	2	1.1	1.0	1.9
3x95	2	1.1	1.2	2.0
3x120	2	1.2	1.2	2.1

Standard

Four-core 600/1000V XLPE Insulation, LSZH Sheath Cables to BS 8573



APPLICATION

These XLPE insulated and LSZH sheathed cables are generally used for fixed installation. Suitable for building wiring, especially in areas where smoke and fume emissions may cause a potential threat to life but not for burial in the ground, either directly or in ducts.

STANDARD

Basic design to BS 8573:2012

FIRE PERFORMANCE

Flame Retardance (Single Vertical Wire Test)	BS EN 60332-1-2:2004
Reduced Fire Propagation (Vertically-mounted bundled wires & cable test)	BS EN 60332-3-24:2009 (cat. C)
Halogen Free	BS EN 50267-2-1
Minimum Smoke Emission	BS EN 61034-2
Spark Test	BS EN 62230

VOLTAGE RATING

600/1000V

CABLE CONSTRUCTION

Conductor: Annealed copper conductor, strand according to BS EN 60228 class 2.
Insulation: XLPE type GP8 according to BS 7655-1.3. HEPR type GP6 according to BS 7655-1.2, or

crosslinked polyolefi n material type EI 5 according to BS EN 50363-5 can be offered as option.
Inner Covering option: The laid up cores may be coverd by an optional extrued inner covering or separating tape. It shall be possible to separate the cores easily.
Outer Sheath: Thermoplastic LSZH type LTS 4 according to BS 7655-6.1.
Outer Sheath option: UV resistance, hydrocarbon resistance, oil resistance, anti rodent and anti termite properties can be offered as option.

COLOUR CODE

Insulation Colour:
Blue, brown black and grey,
Alternatively, green-and-yellow, brown, black, grey
Sheath Colour: Black, other colours can be offered upon request.

PHYSICAL AND THERMAL PROPERTIES

Maximum temperature range during operation (XLPE): 90°C
Maximum short circuit temperature (5 Seconds): 250°C
Minimum bending radius:
Circular copper conductors(up to 25mm^2): 4 x Overall Diameter
Circular copper conductors(above 25mm^2): 6 x Overall Diameter
Shaped copper conductors: 8 x Overall Diameter

CONSTRUCTION PARAMETERS

Conductor		Nominal Insulation Thickness	Nominal Inner Covering Thickness	Nominal Sheath Thickness
No. of CoresxCross Section	Class of Conductor			
No.xmm^2		mm	mm	mm
4x1.5	2	0.7	0.4	1.8
4x2.5	2	0.7	0.4	1.8
4x4.0	2	0.7	0.4	1.8
4x6.0	2	0.7	0.6	1.8
4x10	2	0.7	0.6	1.8
4x16	2	0.7	0.6	1.8
4x25	2	0.9	0.8	1.8
4x35	2	0.9	1.0	1.8
4x50	2	1.0	1.0	1.8
4x70	2	1.1	1.2	2.0
4x95	2	1.1	1.2	2.1

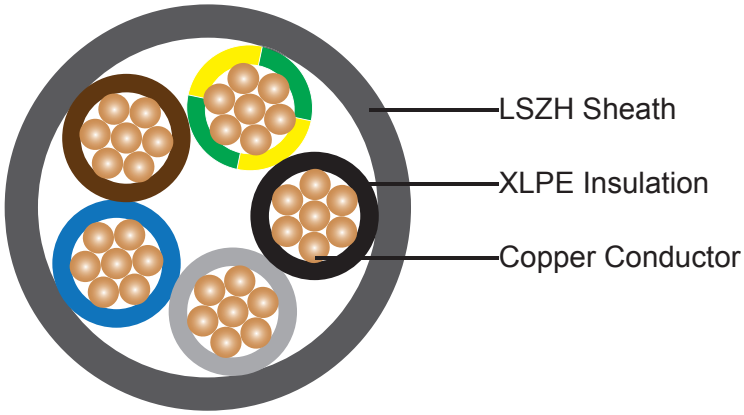
Conductor		Nominal Insulation Thickness	Nominal Inner Covering Thickness	Nominal Sheath Thickness
No. of CoresxCross Section	Class of Conductor			
No.xmm^2		mm	mm	mm
4x120	2	1.2	1.2	2.3
4x25	2	0.9	0.8	1.8
4x35	2	0.9	0.8	1.8
4x50	2	1.0	1.0	1.8
4x70	2	1.1	1.2	2.0
4x95	2	1.1	1.2	2.1
4x120	2	1.2	1.2	2.3

BS 8573

N

Standard

Five-core 600/1000V XLPE Insulation, LSZH Sheath Cables to BS 8573



APPLICATION

These XLPE insulated and LSZH sheathed cables are generally used for fixed installation. Suitable for building wiring, especially in areas where smoke and fume emissions may cause a potential threat to life but not for burial in the ground, either directly or in ducts.

STANDARD

Basic design to BS 8573:2012

FIRE PERFORMANCE

Flame Retardance (Single Vertical Wire Test)	BS EN 60332-1-2:2004
Reduced Fire Propagation (Vertically-mounted bundled wires & cable test)	BS EN 60332-3-24:2009 (cat. C)
Halogen Free	BS EN 50267-2-1
Minimum Smoke Emission	BS EN 61034-2
Spark Test	BS EN 62230

VOLTAGE RATING

600/1000V

CABLE CONSTRUCTION

Conductor: Annealed copper conductor, strand according to BS EN 60228 class 2.

Insulation: XLPE type GP8 according to BS 7655-1.3. HEPR type GP6 according to BS 7655-1.2, or crosslinked polyolefi n material type EI 5 according to BS EN 50363-5 can be offered as option.
Inner Covering option: The laid up cores may be coverd by an optional extrued inner covering or separating tape. It shall be possible to separate the cores easily.
Outer Sheath: Thermoplastic LSZH type LTS 4 according to BS 7655-6.1.
Outer Sheath option: UV resistance, hydrocarbon resistance, oil resistance, anti rodent and anti termite properties can be offered as option.

COLOUR CODE

Insulation Colour: Green and yellow, blue, brown black, grey.
Sheath Colour: Black, other colours can be offered upon request.

PHYSICAL AND THERMAL PROPERTIES

Maximum temperature range during operation (XLPE): 90°C
Maximum short circuit temperature (5 Seconds): 250°C
Minimum bending radius:
Circular copper conductors(up to 25mm^2): 4 x Overall Diameter
Circular copper conductors(above 25mm^2): 6 x Overall Diameter
Shaped copper conductors: 8 x Overall Diameter

CONSTRUCTION PARAMETERS

Conductor		Nominal Insulation Thickness	Nominal Inner Covering Thickness	Nominal Sheath Thickness
No. of CoresxCross Section	Class of Conductor			
No.xmm^2		mm	mm	mm
5x1.5	2	0.7	0.4	1.8
5x2.5	2	0.7	0.4	1.8
5x4.0	2	0.7	0.6	1.8
5x6.0	2	0.7	0.6	1.8
5x10	2	0.7	0.6	1.8
5x16	2	0.7	0.8	1.8
5x25	2	0.9	1.0	1.8
5x35	2	0.9	1.0	1.8
5x50	2	1.0	1.2	1.9
5x70	2	1.1	1.2	2.1
5x95	2	1.1	1.4	2.2

Conductor		Nominal Insulation Thickness	Nominal Inner Covering Thickness	Nominal Sheath Thickness
No. of CoresxCross Section	Class of Conductor			
No.xmm^2		mm	mm	mm
5x120	2	1.2	1.4	2.4

Standard

Technical Reference

CONDUCTOR RESISTANCE

No. of CoresxCross Section	Min. no. of wires in the conductor			Max. resistance of conductor@20°C	
	Circular	Circular Compacted	Shaped	Annealed copper conductor	
mm^2	CU	CU	CU	plain wires	Metal-coated wires
1.5	7	6	-	12,1	12,2
2.5	7	6	-	7,41	7,56
4.0	7	6	-	4,61	4,70
6.0	7	6	-	3,08	3,11
10	7	6	-	1,83	1,84
16	7	6	-	1,15	1,16
25	7	6	6	0,727	0,734
35	7	6	6	0,524	0,529
50	19	6	6	0,387	0,391
70	19	12	12	0,268	0,270
95	19	15	15	0,193	0,195
120	37	18	18	0,153	0,154
150	37	18	18	0,124	0,126
185	37	30	30	0,0991	0,100
240	37	34	34	0,0754	0,0762
300	61	34	34	0,0601	0,0607
400	61	53	53	0,0470	0,0475
500	61	53	53	0,0366	0,0369
630	91	53	53	0,0283	0,0286
800	91	53	-	0,0221	0,0224
1000	91	53	-	0,0176	0,0177

ELECTRICAL PROPERTIES

Conductor Operating Temperature : 90°C
Ambient Temperature : 30°C

Current-Carrying Capacities (Amp)

Single-core 90°C thermosetting insulated cables, unarmoured, with or without sheath

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 (in free air or on a perforated cable tray, horizontal or vertical etc) Touching			Reference Method G (in free air) Spaced by one cable diameter	
	2 cables, single-phase a.c. or d.c.	3 or 4 cables, three -phase a.c.	2 cables, single-phase a.c. or d.c	3 or 4 cables, three-phase a.c.	2 cables, single-phase a.c. or d.c. flat and touching	3 or 4 cables, three-phase a.c. flat and touching or trefoil	2 cables, single-phase a.c. or d.c. flat	3 cables, three-phase a.c. flat	3 cables, three-phase a.c. trefoil	2 cables, single-phase a.c. or d.c. or 3 cables three-phase a.c. flat	
										Horizontal	Vertical
1	2	3	4	5	6	7	8	9	10	11	12
mm^2	A	A	A	A	A	A	A	A	A	A	A
1.5	19	17	23	20	25	23	-	-	-	-	-
2.5	26	23	31	28	34	31	-	-	-	-	-
4.0	35	31	42	37	46	41	-	-	-	-	-
6.0	45	40	54	48	59	54	-	-	-	-	-
10	61	54	75	66	81	74	-	-	-	-	-
16	81	73	100	88	109	99	-	-	-	-	-
25	106	95	133	117	143	130	161	141	135	182	161
35	131	117	164	144	176	161	200	176	169	226	201
50	158	141	198	175	228	209	242	216	207	275	246
70	200	179	253	222	293	268	310	279	268	353	318
95	241	216	306	269	355	326	377	342	328	430	389
120	278	249	354	312	413	379	437	400	383	500	454
150	318	285	393	342	476	436	504	464	444	577	527
185	362	324	449	384	545	500	575	533	510	661	605
240	424	380	528	450	644	590	679	634	607	781	719
300	486	435	306	514	743	681	783	736	703	902	833
400	-	-	383	584	868	793	940	868	823	1085	1008
500	-	-	783	666	990	904	1083	998	946	1253	1169
630	-	-	900	764	113	1033	1254	1151	1088	1454	1362
800	-	-	-	-	1288	1179	1358	1275	1214	1581	1485

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 (in free air or on a perforated cable tray, horizontal or vertical etc) Touching			Reference Method G (in free air) Spaced by one cable diameter	
	2 cables, single-phase a.c. or d.c.	3 or 4 cables, three -phase a.c.	2 cables, single-phase a.c. or d.c	3 or 4 cables, three-phase a.c.	2 cables, single-phase a.c. or d.c. flat and touching	3 or 4 cables, three-phase a.c. flat and touching or trefoil	2 cables, single-phase a.c. or d.c. flat	3 cables, three-phase a.c. flat	3 cables, three-phase a.c. trefoil	2 cables, single-phase a.c. or d.c. or 3 cables three-phase a.c. flat	
										Horizontal	Vertical
1	2	3	4	5	6	7	8	9	10	11	12
mm^2	A	A	A	A	A	A	A	A	A	A	A
1000	-	-	-	-	1443	1323	1520	1436	1349	1775	1671

Multicore 90°C thermosetting insulated and thermoplastic sheathed cables, unarmoured

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 (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- or four-core cable, three -phase a.c.	1 two-core cable, single-phase a.c. or d.c.	1 three- or four-core cable, three -phase a.c.	1 two-core cable, single-phase a.c. or d.c.	1 three- or four-core cable, three -phase a.c.	1 two-core cable, single-phase a.c. or d.c.	1 three- or four-core cable, three -phase a.c.
1	2	3	4	5	6	7	8	9
mm^2	A	A	A	A	A	A	A	A
1.5	18.5	16.5	22	19.5	24	22	26	23
2.5	25	22	30	26	33	30	36	32
4.0	33	30	40	35	45	40	49	42
6.0	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

Voltage Drop (Per Amp Per Meter)

Single-core 90°C thermosetting insulated cables, unarmoured, with or without sheath

Nominal Cross Section Area	2 cables d.c.	2 cables, single-phase a.c.									3 or 4 cables, three-phase a.c.											
		Ref. Methods A and B (enclosed in conduit or trunking)			Ref. Methods C, F&G(clipped direct, on trays or in free air)						Ref. Methods 3 and 4 (enclosed in conduit etc, in or on a wall)			Ref. Methods C, F&G (clipped direct, on trays or in free air)								
														Cables touching, Trefoil			Cables touching, Flat			Cables spaced*, Flat		
1	2	3			Cables touching 4			Cables spaced*5			6			7			8			9		
mm^2	mV/A/m	mV/A/m			mV/A/m			mV/A/m			mV/A/m			mV/A/m			mV/A/m			mV/A/m		
1.0	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		
4.0	12	12			12			12			10			10			10			10		
6.0	7.9	7.9			7.9			7.9			6.8			6.8			6.8			6.8		
10	4.7	4.7			4.7			4.7			4.0			4.0			4.0			4.0		
16	2.9	2.9			2.9			2.9			2.5			2.5			2.5			2.5		
		r	x	z	r	x	z	r	x	z	r	x	z	r	x	z	r	x	z	r	x	z
25	1.85	1.85	0.31	1.90	1.85	0.190	1.85	1.85	0.28	1.85	1.60	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	1.15	0.25	1.15	1.15	0.155	1.15	1.15	0.180	1.15	1.15	0.26	1.20
50	0.99	1.00	0.29	1.05	0.99	0.180	1.00	0.99	0.27	1.00	0.87	0.25	0.90	0.86	0.155	0.87	0.86	0.180	0.87	0.86	0.26	0.89
70	0.68	0.70	0.28	0.75	0.68	0.175	0.71	0.68	0.26	0.73	0.60	0.24	0.65	0.59	0.150	0.61	0.59	0.175	0.62	0.59	0.25	0.65
95	0.49	0.51	0.27	0.58	0.49	0.170	0.52	0.49	0.26	0.56	0.44	0.23	0.50	0.43	0.145	0.50	0.43	0.170	0.45	0.43	0.25	0.49
120	0.39	0.41	0.26	0.48	0.39	0.165	0.43	0.39	0.25	0.47	0.35	0.23	0.42	0.34	0.140	0.37	0.34	0.165	0.38	0.34	0.24	0.42
150	032	0.33	0.26	0.43	0.32	0.165	0.36	0.32	0.25	0.41	0.29	0.23	0.37	0.28	0.140	0.31	0.28	0.165	0.32	0.28	0.24	0.37
185	0.25	0.27	0.26	0.37	0.26	0.165	0.30	0.25	0.25	0.36	0.23	0.23	0.32	0.22	0.140	0.26	0.22	0.165	0.28	0.22	0.24	0.33
240	0.190	0.21	0.26	0.33	0.20	0.160	0.25	0.195	0.25	0.31	0.185	0.22	0.29	0.170	0.140	0.22	0.170	0.165	0.24	0.170	0.24	0.29
300	0.155	0.175	0.25	0.31	0.160	0.160	0.22	0.155	0.25	0.29	0.150	0.22	0.27	0.140	0.140	0.195	0.135	0.160	0.21	0.135	0.24	0.27
400	0.120	0.140	0.25	0.29	0.130	0.155	0.20	0.125	0.24	0.27	0.125	0.22	0.25	0.110	0.135	0.175	0.110	0.160	0.195	0.110	0.24	0.26
500	0.093	0.120	0.25	0.28	0.105	0.155	0.185	0.098	0.24	0.26	0.100	0.22	0.24	0.090	0.135	0.160	0.088	0.160	0.180	0.085	0.24	0.25
630	0.072	0.100	0.25	0.27	0.086	0.155	0.175	0.078	0.24	0.25	0.088	0.21	0.23	0.074	0.135	0.150	0.071	0.160	0.170	0.068	0.23	0.24
800	0.056	-			0.072	0.150	0.170	0.064	0.24	0.25	-			0.062	0.130	0.145	0.059	0.155	0.165	0.055	0.23	0.24
1000	0.045	-			0.063	0.150	0.165	0.054	0.24	0.24	-			0.055	0.130	0.140	0.050	0.155	0.165	0.047	0.23	0.24

Note: *Spacings larger than one cable diameter will result in a large voltage drop.
r = conductor resistance at operating temperature
x = reactance
z = impedance

Multicore 90°C thermosetting insulated and thermoplastic sheathed cables, unarmoured

Nominal Cross Section Area	Two-core cable d.c.	Two-core cable, single-phase a.c.			Three- or four-core cable, three-phase a.c.		
1	2	3			Cables touching 4		
mm^2	mV/A/m	mV/A/m			mV/A/m		
1.5	31	31			27		
2.5	19	19			16		
4	12	12			10		
6	7.9	7.9			6.8		
10	4.7	4.7			4.0		
16	2.9	2.9			2.5		
		r	x	z	r	x	z
25	1.85	1.85	0.160	1.90	1.60	0.140	1.65
35	1.35	1.35	0.155	1.35	1.15	0.135	1.15
50	0.98	0.99	0.155	1.00	0.86	0.135	0.87
70	0.67	0.67	0.150	0.69	0.59	0.130	0.60
95	0.49	0.50	0.150	0.52	0.43	0.130	0.45
120	0.39	0.40	0.145	0.42	0.34	0.130	0.37

Note: *Spacings larger than one cable diameter will result in a large voltage drop.
r = conductor resistance at operating temperature
x = reactance
z = impedance

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