Caledonian

BS 7211
LSOH Sheathed Cables

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

Addison

Company Profile

Caledonian. established in 1978.offers one of the most complete lines of fiber and copper cabling system 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 Cables offers a comprehensive stock of cables and cabling products through its nationwide network of resellers and distributors. Caledonian Cables 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. Italy and Spain. To stay in front. we continually keep expanding our manufacturing capabilities in more low cost region such as Romania. Taiwan. 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.

Our Certificate

Registration Certificate

This document certifies that the administration systems of

Caledonian Cables Limited / Addison Technology Limited

Marchants Industrial Centre, Mill Lane, Laughton, Lewes, Sussex, BN8 6AJ, United Kingdom

have been assessed and approved by QAS International to the following management systems, standards and guidelines:

ISO 9001 : 2008

With the permitted exclusion of clauses 7.3 Design and Development

The approved administration systems apply to the following:

The manufacture and supply of electrical cables and ancillary power equipment to customers internationally.

Original Approval	6th September 1997
Current Certificate	7th February 2013
Certificate Expiry	7th February 2014
Certificate Number	A6211

On behalf of QAS International

www.qas-international.com

This certificate remains valid while the holder maintains their quality administration systems in accordance with the standards and guidelines stated above, which will be audited annually by QAS International. The holder is entitled to display the above registration mark for the duration of this certificate. This certificate must be returned to QAS International on reasonable request.

Issuing Office: QAS International, 20A Oxford Street, Malmesbury, Wiltshire, SN16 9AX

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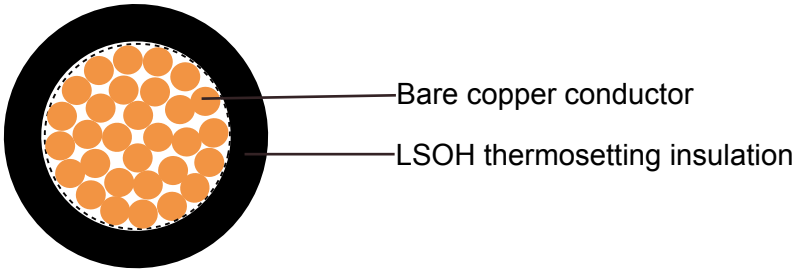
2491B/6701B Single Core Cable

Application and Description

2491B/6701B is equivalent to harmonized code H05Z-K/H07Z-K, these cables are designed for the internal wiring of switchboards and distributor boards with an alternating nominal voltage up to 1000 Volts or a direct voltage up to 750 volts. Generally install in pipes or ducts and internal wiring of appliances with maximum operating temperature of 90º C, and generally in areas (such as public and government buildings) where smoke and toxic fumes may cause a threat to life and equipment. The cables produce no corrosive gasses when burnt which is particularly important where electronic equipment is installed.

Cable Construction

- Fine bare copper strands
- Strands to IEC 60228 Cl-5
- Thermosetting core insulation type EI5
- LSOH - low smoke, zero halogen



Insulation Colour

Green/Yellow, Black, Blue, Brown, Red, White, Yellow, Grey, Violet,Grey, Orange, Pink

Technical Characteristics

- Working voltage: 300/500v (2491B), 450/750v (6701B)
- Test voltage: 2000 / 2500 volts
- Minimum bending radius: 5 x Ø
- Flexing temperature: -15º C to +90º C
- Static temperature: -40º C to +90º C
- Insulation resistance: 10 MΩ x km

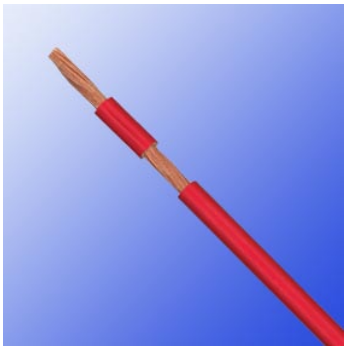
- Flame retardant: IEC 60332.1
- Smoke density acc. to EN 50268 / IEC 61034
- Corrosiveness of combustion gases acc. to EN 50267-2-2, IEC 60754-2
- Flame test: flame-retardant acc. to EN 50265-2-1, IEC 60332.1

Cable Parameter

AWG	No. of Cores x Nominal Cross Sectional Area	Nominal Thickness of Insulation	Nominal Overall Diameter	Nominal Copper Weight	Nominal Weight	Minimum insulation resistance at 90 °C
	# x mm²	mm	mm	kg/km	kg/km	MΩ·km
2491B						
20(16/32)	1 x 0.5	0.6	2.1-2.6	4.8	9	0.013
18(24/32)	1 x 0.75	0.6	2.2-2.8	7.2	12.4	0.011
17(32/32)	1 x 1	0.6	2.4-2.9	9.6	15	0.010
6701B						
16(30/30)	1 x 1.5	0.7	2.8-3.5	14.4	24	0.010
14(50/30)	1 x 2.5	0.8	3.4-4.3	24	35	0.009
12(56/28)	1 x 4	0.8	3.9-4.9	38	51	0.007
10(84/28)	1 x 6	0.8	4.4-5.5	58	71	0.006
8(80/26)	1 x 10	1.0	5.7-7.1	96	118	0.0056
6(128/26)	1 x 16	1.0	6.7-8.4	154	180	0.0046
4(200/26)	1 x 25	1.2	8.4-10.6	240	278	0.0044
2(280/26)	1 x 35	1.2	9.7-12.1	336	375	0.0038
1(400/26)	1 x 50	1.4	11.5-14.4	480	560	0.0037
2/0(356/24)	1 x 70	1.4	13.2-16.6	672	780	0.0032
3/0(485/24)	1 x 95	1.6	15.1-18.8	912	952	0.0032
4/0(614/24)	1 x 120	1.6	16.7-20.9	1152	1200	0.0029
300 MCM (765/24)	1 x 150	1.8	18.6-23.3	1440	1505	0.0029
350 MCM (944/24)	1 x 185	2.0	20.6-25.8	1776	1845	0.0029
500MCM(1225/24)	1 x 240	2.2	23.5-29.4	2304	2400	0.0028

6491B Conduit Wiring Cable

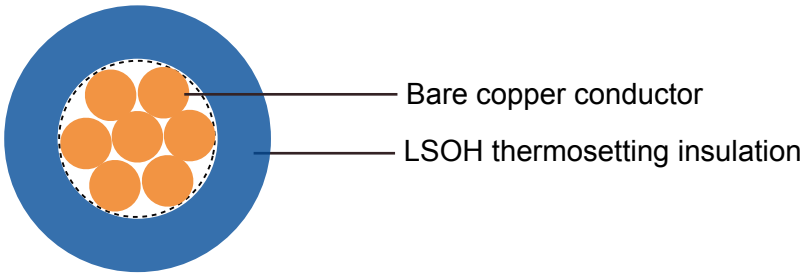
Application and Description



6491B is equivalent to harmonized code H07Z-R, these cables are designed for fixed wiring purposes in domestic and industrial power/ lighting applications. Can be used in trunking or conduit, or may be surface mounted when used for earthing. and generally in areas (such as public and government buildings) where smoke and toxic fumes may cause a threat to life and equipment. The cables produce no corrosive gasses when burnt which is particularly important where electronic equipment is installed.

Cable Construction

- Fine bare copper strands
- Strands to IEC 60228 Cl-2
- Thermosetting core insulation type EI5
- LSOH - low smoke, zero halogen



Insulation Colour

Black, Blue, Green/Yellow, Red, Yellow, White, Violet, Brown, Grey, Orange, Pink

Technical Characteristics

- Working voltage: 450/750v
- Test voltage: 2500 volts
- Minimum bending radius: up to 10 mm² - 3 x overall diameter,
  above 25 mm² - 6 x overall diameter
- Flexing temperature: +0° C to +90° C
- Short circuit temperature: +250° C
- Insulation resistance: 10 MΩ x km

- Flame retardant: IEC 60332.1
- Smoke density acc. to EN 50268 / IEC 61034
- Corrosiveness of combustion gases acc. to EN 50267-2-2, IEC 60754-2
- Flame test: flame-retardant acc. to EN 50265-2-1, IEC 60332.1

Cable Parameter

AWG	No. of Cores x Nominal Cross Sectional Area	Nominal Thickness of Insulation	Nominal Overall Diameter	Nominal Copper Weight	Nominal Weight	Minimum Insulation resistance at 90 °C
	# x mm²	mm	mm	kg/km	kg/km	MΩ·km
16(7/24)	1 x 1.5	0.7	2.7-3.4	14.4	21	0.010
14(7/22)	1 x 2.5	0.8	3.3-4.1	24	33	0.009
12(7/20)	1 x 4	0.8	3.8-4.7	39	49	0.0077
10(7/18)	1 x 6	0.8	4.3-5.4	58	71	0.0065
8(7/16)	1 x 10	1	5.6-7.0	94	114	0.0065
6(7/14)	1 x 16	1	6.4-8.0	154	172	0.0050
4(7/12)	1 x 25	1.2	8.1-10.1	240	265	0.0050
2(7/10)	1 x 35	1.2	9.0-11.3	350	397	0.0043
1(19/13)	1 x 50	1.4	10.6-13.2	480	534	0.0043
2/0(19/11)	1 x 70	1.4	12.1-15.1	672	830	0.0035
3/0(19/10)	1 x 95	1.6	14.1-17.6	912	1054	0.0035
4/0(37/12)	1 x 120	1.6	15.6-19.4	1152	1274	0.0032
300MCM(37/11)	1 x 150	1.8	17.3-21.6	1440	1604	0.0032
350MCM(37/10)	1 x 185	2.0	19.3-24.1	1776	2030	0.0032
500MCM(61/11)	1 x 240	2.2	22.0-27.5	2400	2630	0.0032
-(61/10)	1 x 300	2.4	24.5-30.6	3010	3330	0.0030
-(61/9)	1 x 400	2.6	27.5-34.3	3820	4190	0.0028
-(61/8)	1 x 500	2.8	30.5-38.2	4800	5240	0.0028
-(127/10)	1 x 630	2.8	34.0-42.5	6350	6820	0.0025

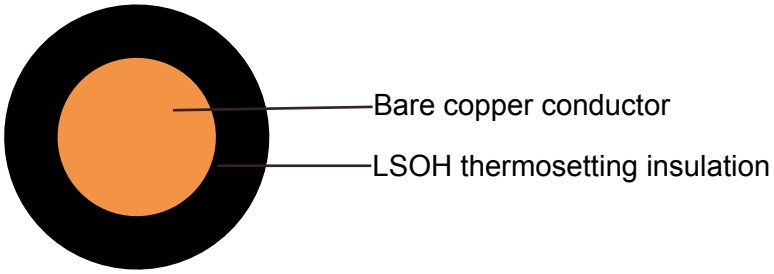
H05Z-U / H07Z-U

Application and Description

These cables are designed for the internal wiring of switchboards and distributor boards with an alternating nominal voltage up to 1000 Volts or a direct voltage up to 750 volts. Generally install in pipes or ducts and internal wiring of appliances with maximum operating temperature of 90º C, and generally in areas (such as public and government buildings) where smoke and toxic fumes may cause a threat to life and equipment. The cables produce no corrosive gasses when burnt which is particularly important where electronic equipment is installed.

Cable Construction

- Solid bare copper
- single wire to IEC 60228 Cl-1
- Cross-link polyolefin EI5 core insulation
- LSOH - low smoke, zero halogen



Insulation Colour

Green/Yellow, Black, Blue, Brown, Red, White, Yellow, Grey, Violet

Technical Characteristics

- Working voltage: 300/500v (H05Z-U), 450/750v (H07Z-U)
- Test voltage: 2000 / 2500 volts
- Flexing bending radius: 15 x Ø
- Static bending radius: 10 x Ø
- Flexing temperature: +5º C to +90º C
- Short circuit temperature: +250º C
- Insulation resistance: 10 MΩ x km

- Flame retardant: IEC 60332.1
- Smoke density acc. to EN 50268 / IEC 61034
- Corrosiveness of combustion gases acc. to EN 50267-2-2, IEC 60754-2
- Flame test: flame-retardant acc. to EN 50265-2-1, IEC 60332.1

Cable Parameter

AWG	No. of Cores x Nominal Cross Sectional Area	Nominal Thickness of Insulation	Nominal Overall Diameter	Nominal Copper Weight	Nominal Weight	Minimum insulation resistance at 90 °C
	# x mm²	mm	mm	kg/km	kg/km	MΩ·km
H05Z-U						
20	1 x 0.5	0.6	1.9-2.4	4.8	8	0.015
18	1 x 0.75	0.6	2.1-2.6	7.2	12	0.012
17	1 x 1	0.6	2.2-2.8	9.6	14	0.011
H07Z-U						
16	1 x 1.5	0.7	2.6-3.3	14.4	20	0.011
14	1 x 2.5	0.8	3.2-4.0	24	30	0.010
12	1 x 4	0.8	3.6-4.6	38	45	0.0085
10	1 x 6	0.8	4.1-5.2	58	65	0.0070
8	1 x 10	1.0	5.3-6.6	96	105	0.0070

Thermosetting insulated, single-core, sheathed cables

Application and Description

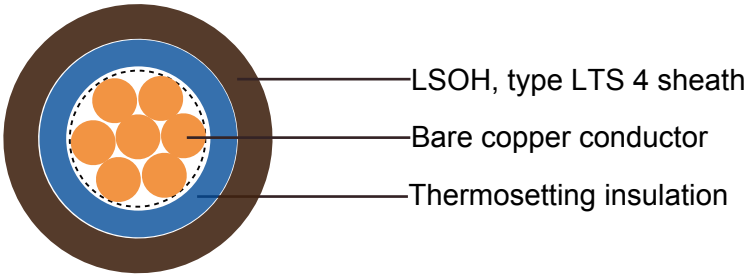
These single core cables are designed for fixed wiring purposes in domestic and industrial power/lighting applications. Can be used in trunking or conduit, or may be surface mounted when used for earthing. and generally in areas (such as public and government buildings) where smoke and toxic fumes may cause a threat to life and equipment. The cables produce no corrosive gasses when burnt which is particularly important where electronic equipment is installed.

Cable Construction

- Fine bare copper strands
- Strands to IEC 60228 Cl-1 or 2
- Thermosetting core insulation type EI5 or GP 8
- Core identification: brown or blue
- LSOH sheath, type LTS 4

Technical Characteristics

- Working voltage: 450/750v
- Test voltage: 2500 volts
- Flexing bending radius: 15 x Ø
- Static bending radius: 10 x Ø
- Flexing temperature: -25º C to +90º C
- Short circuit temperature: +250º C
- Flame retardant: IEC 60332.1
- Insulation resistance: 10 MΩ x km
- Smoke density acc. to EN 50268 / IEC 61034
- Corrosiveness of combustion gases acc. to EN 50267-2-2, IEC 60754-2
- Flame test: flame-retardant acc. to EN 50265-2-1, IEC 60332.1



Cable Parameter

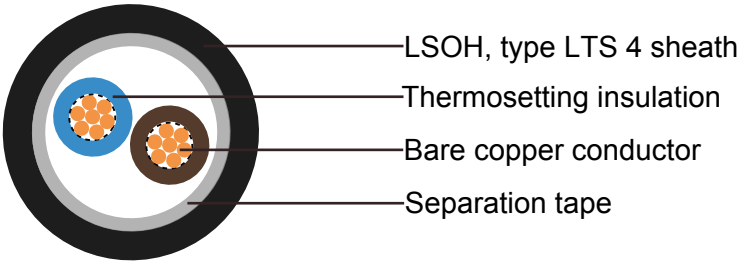
AWG	No. of Cores x Nominal Cross Sectional Area	Nominal thickness of insulation	Nominal thickness of sheath	Nominal overall diameter	Nominal Weight	Minimum insulation resistance at 90 °C
	# x mm²	mm	mm	mm	kg/km	MΩ·km
17	1 × 1.0	0.7	0.8	3.9-4.8	26	0.011
17(7/26)	1 × 1.0	0.7	0.8	4-4.9	31	0.011
16	1 × 1.5	0.7	0.8	4.2-5	34	0.011
16(7/24)	1 × 1.5	0.7	0.8	4.3-5.2	39	0.010
14	1 × 2.5	0.7	0.8	4.6-5.5	46	0.0092
14(7/22)	1 × 2.5	0.7	0.8	4.7-5.6	51	0.0084
12	1 × 4	0.7	0.8	5.0-6.0	65	0.0077
12(7/20)	1 × 4	0.7	0.9	5.3-6.4	72	0.0070
10	1 × 6	0.7	0.9	5.7-6.8	90	0.0065
10(7/18)	1 × 6	0.7	0.9	5.9-7.1	99	0.0059
8(7/16)	1 × 10	0.7	0.9	6.7-8.1	141	0.0047
6(7/14)	1 × 16	0.7	0.9	7.6-9.2	205	0.0039
4(7/12)	1 × 25	0.9	1.0	9.4-11.4	318	0.0039
2(7/10)	1 × 35	0.9	1.1	10.6-12.8	482	0.0034

Thermosetting insulated, twin, 3-core, 4-core and 5-core circular sheathed cables

Application and Description

These cables are designed for fixed wiring purposes in domestic and industrial power/lighting applications. Can be used in trunking or conduit, or may be surface mounted when used for earthing. and generally in areas (such as public and government buildings) where smoke and toxic fumes may cause a threat to life and equipment. The cables produce no corrosive gasses when burnt which is particularly important where electronic equipment is installed.

Cable Construction



- Fine bare copper strands
- Strands to IEC 60228 Cl-1 or 2
- Thermosetting core insulation type EI5 or GP 8
- The cores shall be twisted together. A centre filler may be used.
- The twisted core shall be covered by an extruded inner covering or separating tape
- LSOH sheath, type LTS 4

Insulation Colour

Twin: brown and blue

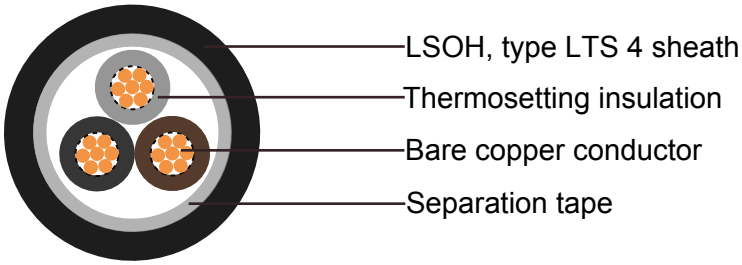
3-core: brown, black and grey

4-core: blue, brown, black and grey

5-core: green/yellow, blue, brown, black and grey

Technical Characteristics

- Working voltage: 450/750v
- Test voltage: 2500 volts
- Flexing bending radius: 15 x Ø
- Static bending radius: 10 x Ø
- Flexing temperature: -25° C to +90° C
- Short circuit temperature: +250° C
- Flame retardant: IEC 60332.1
- Insulation resistance: 10 MΩ x km
- Smoke density acc. to EN 50268 / IEC 61034
- Corrosiveness of combustion gases acc. to EN 50267-2-2, IEC 60754-2
- Flame test: flame-retardant acc. to EN 50265-2-1, IEC 60332.1



Cable Parameter

Two Cores

AWG	No. of Cores x Nominal Cross Sectional Area	Nominal thickness of insulation	Nominal thickness of inner covering	Nominal thickness of sheath	Nominal overall diameter	Nominal Weight	Minimum insulation resistance at 90 °C
	# x mm²	mm	mm	mm	mm	kg/km	MΩ·km
17	2 × 1.0	0.7	0.4	1.2	7.9-9.5	94	0.011
17(7/26)	2 × 1.0	0.7	0.4	1.2	8.1-9.7	110	0.011
16	2 × 1.5	0.7	0.4	1.2	8.4-10.1	121	0.011
16(7/24)	2 × 1.5	0.7	0.4	1.2	8.5-10.3	132	0.010
14	2 × 2.5	0.7	0.4	1.2	9.1-11.0	165	0.0092
14(7/22)	2 × 2.5	0.7	0.4	1.2	9.3-11.3	178	0.0084
12	2 × 4.0	0.7	0.4	1.2	10.0-12.1	212	0.0077
12(7/20)	2 × 4.0	0.7	0.4	1.2	10.3-12.4	232	0.0070
10	2 × 6.0	0.7	0.4	1.2	10.9-13.2	272	0.0065
10(7/18)	2 × 6.0	0.7	0.4	1.2	11.3-13.7	302	0.0059
8	2 × 10	0.7	0.4	1.4	12.9-15.5	446	0.0053
8(7/16)	2 × 10	0.7	0.6	1.4	13.8-16.7	490	0.0047
6(7/14)	2 × 16	0.7	0.6	1.4	15.6-18.8	674	0.0039
4(7/12)	2 × 25	0.9	0.8	1.4	19.2-23.2	1040	0.0039
2(7/10)	2 × 35	0.9	0.8	1.6	21.5-26.0	1130	0.0034

Three Cores

AWG	No. of Cores x Nominal Cross Sectional Area	Nominal thickness of insulation	Nominal thickness of inner covering	Nominal thickness of sheath	Nominal overall diameter	Nominal Weight	Minimum insulation resistance at 90 °C
	# x mm²	mm	mm	mm	mm	kg/km	MΩ·km
17	3 × 1.0	0.7	0.4	1.2	8.3-10.0	110	0.011
17(7/26)	3 × 1.0	0.7	0.4	1.2	8.8-10.2	128	0.011
16	3 × 1.5	0.7	0.4	1.2	8.8-10.6	143	0.011
16(7/24)	3 × 1.5	0.7	0.4	1.2	9.0-10.9	156	0.010
14	3 × 2.5	0.7	0.4	1.2	9.6-11.6	198	0.0092
14(7/22)	3 × 2.5	0.7	0.4	1.2	9.8-11.9	213	0.0084
12	3 × 4.0	0.7	0.4	1.2	10.5-12.7	260	0.0077
12(7/20)	3 × 4.0	0.7	0.4	1.2	10.8-13.1	282	0.0070
10	3 × 6.0	0.7	0.4	1.2	11.8-14.0	351	0.0065
10(7/18)	3 × 6.0	0.7	0.4	1.4	12.4-15.0	387	0.0059
8	3 × 10	0.7	0.6	1.4	14.0-16.9	557	0.0053
8(7/16)	3 × 10	0.7	0.6	1.4	14.6-17.5	607	0.0047
6(7/14)	3 × 16	0.7	0.6	1.4	16.5-19.9	850	0.0039
4(7/12)	3 × 25	0.9	0.8	1.4	20.4-24.7	1315	0.0039
2(7/10)	3 × 35	0.9	0.8	1.6	22.9-27.6	1562	0.0034

Four Cores

AWG	No. of Cores x Nominal Cross Sectional Area	Nominal thickness of insulation	Nominal thickness of inner covering	Nominal thickness of sheath	Nominal overall diameter	Nominal Weight	Minimum insulation resistance at 90 °C
	# x mm²	mm	mm	mm	mm	kg/km	MΩ·km
17	4 × 1.0	0.7	0.4	1.2	8.9-11.2	130	0.011
17(7/26)	4 × 1.0	0.7	0.4	1.2	9.5-11.5	150	0.011
16	4 × 1.5	0.7	0.4	1.2	9.5-11.4	170	0.011
16(7/24)	4 × 1.5	0.7	0.4	1.2	9.7-11.7	185	0.010
14	4 × 2.5	0.7	0.4	1.2	10.4-12.6	240	0.0092
14(7/22)	4 × 2.5	0.7	0.4	1.2	10.6-12.8	256	0.0084
12	4 × 4.0	0.7	0.4	1.2	11.4-13.8	330	0.0077
12(7/20)	4 × 4.0	0.7	0.4	1.2	11.6-14.0	344	0.0070
10	4 × 6.0	0.7	0.4	1.4	13.0-15.7	445	0.0065
10(7/18)	4 × 6.0	0.7	0.6	1.4	13.8-16.7	490	0.0059

AWG	No. of Cores x Nominal Cross Sectional Area	Nominal thickness of insulation	Nominal thickness of inner covering	Nominal thickness of sheath	Nominal overall diameter	Nominal Weight	Minimum insulation resistance at 90 °C
	# x mm²	mm	mm	mm	mm	kg/km	MΩ·km
8	4 × 10	0.7	0.6	1.4	15.2-18.4	687	0.0053
8(7/16)	4 × 10	0.7	0.6	1.4	15.9-19.2	747	0.0047
6(7/14)	4 × 16	0.7	0.6	1.4	18.0-21.8	1055	0.0039
4(7/12)	4 × 25	0.9	0.8	1.6	22.7-27.5	1670	0.0039
2(7/10)	4 × 35	0.9	1.0	1.6	25.4-30.7	2044	0.0034

Five Cores

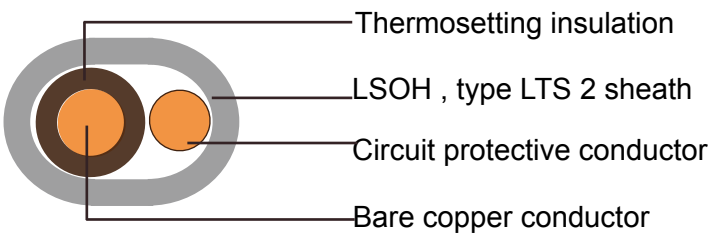
AWG	No. of Cores x Nominal Cross Sectional Area	Nominal thickness of insulation	Nominal thickness of inner covering	Nominal thickness of sheath	Nominal overall diameter	Nominal Weight	Minimum insulation resistance at 90 °C
	# x mm²	mm	mm	mm	mm	kg/km	MΩ·km
17	5 × 1.0	0.7	0.4	1.2	9.6-11.5	157	0.011
17(7/26)	5 × 1.0	0.7	0.4	1.2	10.2-11.9	183	0.011
16	5 × 1.5	0.7	0.4	1.2	10.2-12.3	208	0.011
16(7/24)	5 × 1.5	0.7	0.4	1.2	10.5-12.6	227	0.010
14	5 × 2.5	0.7	0.4	1.2	11.2-13.6	295	0.0092
14(7/22)	5 × 2.5	0.7	0.4	1.2	11.5-13.9	317	0.0084
12	5 × 4.0	0.7	0.4	1.4	12.8-15.5	422	0.0077
12(7/20)	5 × 4.0	0.7	0.6	1.4	13.6-16.4	460	0.0070
10	5 × 6.0	0.7	0.6	1.4	14.5-17.5	551	0.0065
10(7/18)	5 × 6.0	0.7	0.6	1.4	15.0-18.1	610	0.0059
8	5 × 10	0.7	0.6	1.4	16.5-20.0	858	0.0053
8(7/16)	5 × 10	0.7	0.6	1.4	17.3-20.9	937	0.0047
6(7/14)	5 × 16	0.7	0.8	1.4	20.0-24.2	1328	0.0039
4(7/12)	5 × 25	0.9	1.0	1.6	25.2-30.5	1860	0.0039
2(7/10)	5 × 35	0.9	1.0	1.6	27.8-33.6	2500	0.0034

6241B/6242B/ 6243B, LSOH Flat Wiring Cables with circuit protective conductor

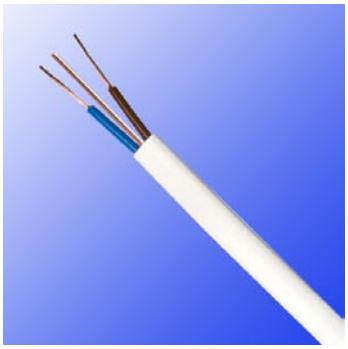
Application and Description

These cables are suitable for fixed installation particularly for situations in which low emission smoke and domestic wiring cable for the surface wiring of sockets and lighting where fire, smoke emission and toxic fumes create a potential threat to life and equipment. Can be installed in fixed installations in dry or damp premises on walls, boards or trays, in channels or embedded in plaster. Suitable for laying in conduit or trunking where mechanical protection is required.

Cable Construction



6241B



6242B

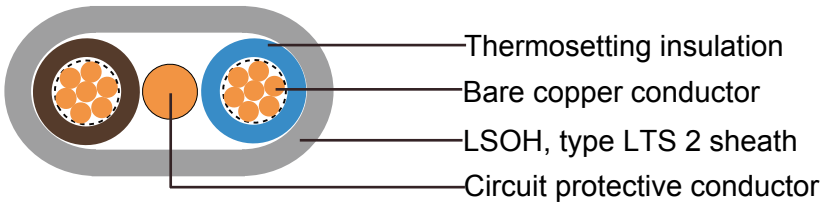
- Fine bare copper strands
- Strands to IEC 60228 Cl-1 or 2
- Thermosetting core insulation type EI5 or GP 8
- The core or cores shall be laid parallel with the uninsulated circuit protective conductor
- For twin cores, the protective conductor centrally placed between cores in same plane
- For 3 cores, the protective conductor centrally placed between black and grey cores in same plane
- LSOH sheath, type LTS 2

Insulation Colour

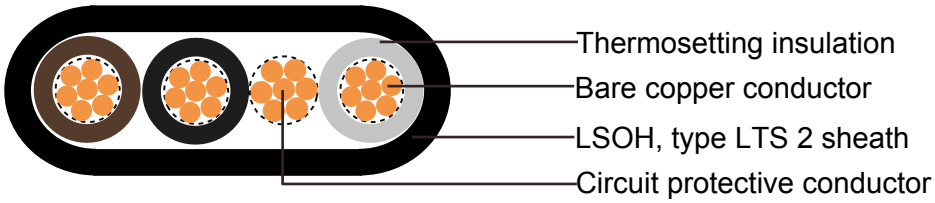
Single core: brown or blue

Twin: brown and blue, or, for 2 × 1.0 and 2 × 1.5 cables, brown and brown

3-core: brown, black (centre core) and grey



6242B



6243B

Technical Characteristics

- Working voltage: 300/500v
- Test voltage: 2000 volts
- Flexing bending radius: 15 x Ø
- Static bending radius: 10 x Ø
- Flexing temperature: +5º C to +90º C
- Short circuit temperature: +250º C
- Flame retardant: IEC 60332.1
- Insulation resistance: 10 MΩ x km
- Smoke density acc. to EN 50268 / IEC 61034
- Corrosiveness of combustion gases acc. to EN 50267-2-2, IEC 60754-2
- Flame test: flame-retardant acc. to EN 50265-2-1, IEC 60332.1

Cable Parameter

AWG	No. of Cores x Nominal Cross Sectional Area	Nominal thickness of insulation	Nominal thickness of sheath	Nominal overall dimensions		Circuit protective conductor AWG	Nominal Weight	Minimum insulation resistance at 90 °C
				lower limit	upper limit			
	# x mm²	mm	mm	mm	mm		kg/km	MΩ·km
6241B								
17	1 × 1.0	0.7	0.9	4.1 × 5.2	5.0 × 6.3	17	45	0.011
16	1 × 1.5	0.7	0.9	4.4 × 5.4	5.3 × 6.6	17	55	0.011

AWG	No. of Cores x Nominal Cross Sectional Area	Nominal thickness of insulation	Nominal thickness of sheath	Nominal overall dimensions		Circuit protective conductor AWG	Nominal Weight	Minimum insulation resistance at 90 °C
				lower limit	upper limit			
	# x mm²	mm	mm	mm	mm		kg/km	MΩ·km
6242B								
17	2 × 1.0	0.7	0.9	4.1 × 7.6	5.0 × 9.1	17	68	0.011
17(7/26)	2 × 1.0	0.7	0.9	4.2 × 7.8	5.1 × 9.4	17	73	0.011
16	2 × 1.5	0.7	0.9	4.4 × 8.1	5.3 × 9.7	17	85	0.011
16(7/24)	2 × 1.5	0.7	0.9	4.5 × 8.3	5.4 × 10.0	17	90	0.011
14	2 × 2.5	0.7	1.0	4.9 × 9.3	6.0 × 11.2	16	120	0.0092
14(7/22)	2 × 2.5	0.7	1.0	5.0 × 9.5	6.1 × 11.4	16	125	0.0084
12(7/20)	2 × 4	0.7	1.0	5.5 × 10.4	6.7 × 12.6	16	175	0.0070
10(7/18)	2 × 6	0.7	1.1	6.2 × 12.0	7.5 × 14.6	14	240	0.0059
8(7/16)	2 × 10	0.7	1.2	7.3 × 14.5	8.8 × 17.6	12(7/20)	390	0.0047
6(7/14)	2 × 16	0.7	1.3	8.4 × 17.0	10.1 × 20.5	10(7/18)	560	0.0039
6243B								
17	3 × 1.0	0.7	0.9	4.1 × 10.0	5.1 × 12.1	17	91	0.011
16	3 × 1.5	0.7	0.9	4.4 × 10.7	5.3 × 12.9	17	115	0.011
14	3 × 2.5	0.7	1.0	4.9 × 12.0	6.0 × 14.6	17	170	0.0092
12(7/20)	3 × 4	0.7	1.0	5.5 × 14.0	6.7 × 16.9	16	196	0.0070
10(7/18)	3 × 6	0.7	1.1	6.2 × 16.2	7.5 × 19.5	14	291	0.0059
8(7/16)	3 × 10	0.7	1.2	7.3 × 19.5	8.8 × 23.6	12(7/20)	440	0.0047
6(7/14)	3 × 16	0.7	1.3	8.4 × 22.8	10.1 × 27.6	10(7/18)	670	0.0039

Technical Reference

Conductor Resistance:

Nominal cross-section area	Plain copper conductor wires (Ohm/km)		Tinned copper conductor wires (Ohm/km)	
mm^2	class 1 and 2	Class 5 and 6	class 1 and 2	Class 5 and 6
0.05	–	380	–	392
0.08	–	237	–	244
0.11	–	170	–	175
0.126	–	150	–	155
0.14	–	134	–	138
0.22	–	96	–	99
0.25	–	76	–	79
0.34	–	53	–	56
0.5	36	39	36.7	40.1
0.75	24.5	26	24.8	26.7
1	18.1	19.5	18.2	20
1.5	12.1	13.3	12.2	13.7
2.5	7.41	7.98	7.56	8.21
4	4.61	4.95	4.7	5.09
6	3.08	3.3	3.11	3.39
10	1.83	1.91	1.84	1.95
16	1.15	1.21	1.16	1.24
25	0.727*	0.78	0.734	0.795
35	0.524*	0.554	0.529	0.565
50	0.387*	0.386	0.391	0.393
70	0.268*	0.272	0.27	0.277
95	0.193*	0.206	0.195	0.21
120	0.153*	0.161	0.154	0.164
150	0.124*	0.129	0.126	0.132
185	0.0991	0.106	0.1	0.108
240	0.0754	0.0801	0.0762	0.0817
300	0.0601	0.0641	0.0607	0.0654
400	0.047	0.0486	0.0475	0.0495
500	0.0366	0.0384	0.0369	0.0391
630	0.0283	0.0287	0.0286	0.0292

Electrical Test:

Test	Unit	H07Z-K H07Z-R H07Z-U	H05Z-K H05Z-U	Thermosetting insulated, single-core cables	Thermosetting insulated, twin, 3-core, 4-core and 5-core circular sheathed cables	6241B 6242B 6243B
Voltage test on complete cable						
Length of sample (min.)	m	20	20	20	20	20
Period of immersion (min.)	h	1	1	1	1	1
Temperature of water	°C	20 ± 5	20 ± 5	20 ± 5	20 ± 5	20 ± 5
Applied voltage (a.c.)	V	2 500	2 000	2 500	2 500	2 000
Time of application	min	15	15	15	15	15
Voltage test on cores						
Length of sample	m	—	—	20	20	20
Period of immersion (min.)	h	—	—	1	1	1
Temperature of water	°C	—	—	20 ± 5	20 ± 5	20 ± 5
Applied voltage (a.c.)	V	—	—	2 500	2 500	2 000
Time of application	min	—	—	5	5	5
Insulation resistance						
Length of sample	m	5	5	5	5	5
Period of immersion (min.)	h	2	2	2	2	2
Temperature of water	°C	90 ± 2	90 ± 2	90 ± 2	90 ± 2	90 ± 2
Spark test						
Result to be obtained		No failure	No failure	No failure	—	—
Voltage test						
Applied voltage a.c.	V	—	—	—	2500	2000
Applied voltage d.c. (min)	V	—	—	—	5000	5000
Duration of test	min	—	—	—	5	5
Result to be obtained		—	—	—	No breakdown	No breakdown

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