

Power BS6724 LSZH SWA Cable 600/1000 Volts



APPLICATIONS

Multi-core LSZH cable with steel wire armour (SWA). Power and auxiliary fixed wiring cables for use in power networks, underground, outdoor and indoor applications and for use in cable ducting. For installation where fire, smoke emission and toxic fumes create a potential threat to life and equipment.



CABLE THIRD-PARTY ACCREDITATIONS

Cables are tested and certified by BASEC, The British Approvals Service for Cables

STANDARDS

- BS 6724, BS EN/IEC 60228, BS EN/IEC 60754-1/2, BS EN 50267-2-1, BS EN/IEC 60502-1, BS EN/IEC 61034-2
- Flame Retardant according to BS EN/IEC 60332-1-2, BS EN/ IEC 60332-3-24 Cat C

CHARACTERISTICS

Voltage Rating Uo/U	Temperature Rating	Minimum Bending Radius
0.6/1kV	Fixed intallation: -20°C to +90°C	<ul style="list-style-type: none">• 1.5mm2 to 16mm2 - Fixed: 6 x overall diameter• 25mm2 and above - Fixed: 8 x overall diameter

CONSTRUCTION

Core Identification

- 2 core: ●Brown ●Blue
3 core: ●Brown ●Black ●Grey
3 core (optional) : ●Green/Yellow ●Blue ●Brown
4 core: ●Brown ●Black ●Blue ●Grey
4 core (optional) : ●Green/Yellow ●Brown ●Black ●Grey
5 core: ●Green/Yellow ●Brown ●Blue ●Black ●Grey
7 core and above: ○White cores with ●Black numbers

Conductor	Class 2 stranded copper conductor
Insulation	XLPE (Cross-Linked Polyethylene)
Bedding	LSZH (Low Smoke Zero Halogen)
Armour	SWA (Steel Wire Armour)
Sheath	LSZH (Low Smoke Zero Halogen)
Sheath Colour	●Black

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DIMENSIONS

NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm ²	NOMINAL THICKNESS OF INSULATION	NOMINAL DIAMETER mm		NOMINAL WEIGHT kg/km
			Under Armour	Overall	
2	1.5	0.6	7.3	12.1	302
2	2.5	0.7	8.5	13.6	346
2	4	0.7	9.4	14.7	410
2	6	0.7	10.5	15.9	499
2	10	0.7	12.3	18	648
2	16	0.7	14.3	20.4	978
2	25	0.9	14.7	20.4	1290
2	35	0.9	16.8	23.3	1500
2	50	1	19	25.8	1890
2	70	1.1	22	29	2450
2	95	1.1	25.1	33.1	3300
2	120	1.2	31.1	39.3	4020
2	150	1.4	30.9	39.3	4750
3	1.5	0.6	7.8	12.6	330
3	2.5	0.7	9.2	14.1	390
3	4	0.7	10	15.3	464
3	6	0.7	11.2	16.6	568
3	10	0.7	13.1	19.5	866
3	16	0.7	15.3	21.6	1152
3	25	0.9	18.9	23.6	1800
3	35	0.9	21.3	25.7	2230
3	50	1	21.7	28.5	2490
3	70	1.1	25.2	32.2	3290
3	95	1.1	28.8	37	4440
3	120	1.2	32	40.4	5470
3	150	1.4	35.9	45.5	6930
4	1.5	0.6	8.5	13.5	365
4	2.5	0.7	9.9	15	438
4	4	0.7	11	16.4	532
4	6	0.7	12.3	18.7	764
4	10	0.7	14.5	21.1	1013
4	16	0.7	17	23.4	1360
4	25	0.9	21	26.1	2160
4	35	0.9	23.6	28.6	2690
4	50	1	25	32	3130
4	70	1.1	29.5	37.7	4500
4	95	1.1	33.3	41.7	5600
4	120	1.2	37.5	47.1	7400
4	150	1.4	41.6	51.4	8780
4	185	1.6	46.4	56.6	10630
4	240	1.7	52.6	63	13390
4	300	1.8	56.3	63.6	14998
5	1.5	0.6	9.7	14.3	410
5	2.5	0.7	11.7	16.3	470
5	4	0.7	13	17.8	710
5	6	0.7	14.5	20	876

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NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm²	NOMINAL THICKNESS OF INSULATION	NOMINAL DIAMETER mm		NOMINAL WEIGHT kg/km
			Under Armour	Overall	
5	10	0.7	17.2	22.9	1165
5	16	0.7	20	26.6	1742
5	25	0.9	24.7	31.5	2323
5	35	0.9	27.8	34.8	2932
5	50	1	32.4	40.4	4192
5	70	1.1	35.8	43.0	5500
5	95	1.1	42.1	49.0	7145
7	1.5	0.6	10.2	15.2	470
7	2.5	0.7	12.3	17.1	600
12	1.5	0.6	13.7	19.4	780
12	2.5	0.7	16.3	22.4	1000
19	1.5	0.6	16.2	22.2	1000
19	2.5	0.7	19.9	26.6	1540
	1.5	0.6	20	26.7	1500
	2.5	0.7	24	30.7	1950
	1.5	0.6	22.3	29	1800
	2.5	0.7	26.9	33.8	2350

mm

CONDUCTORS

Class 2 Stranded Conductors for Single Core and Multi-Core Cables

NOMINAL CROSS SECTIONAL AREA mm²	MINIMUM NO. OF WIRES IN CONDUCTOR						MAXIMUM RESISTANCE OF CONDUCTOR AT 20°C ohms/km
	Circular		Circular Compacted		Shaped		Annealed Copper Conductor
	Cu	Al	Cu	Al	Cu	Al	Plain Wires
1.5	7	-	6	-	-	-	12.1
2.5	7	-	6	-	-	-	7.41
4	7	-	6	-	-	-	4.61
6	7	-	6	-	-	-	3.08
10	7	7	6	6	-	-	1.83
16	7	7	6	6	-	-	1.15
25	7	7	6	6	6	6	0.727
35	7	7	6	6	6	6	0.524
50	19	19	6	6	6	6	0.387
70	19	19	12	12	12	12	0.268
95	19	19	15	15	15	15	0.193
120	37	37	18	15	18	15	0.153
150	37	37	18	15	18	15	0.124
185	37	37	30	30	30	30	0.0991
240	37	37	34	30	34	30	0.0754

The above table is in accordance with BS EN 60228 (previously BS 6360)

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ELECTRICAL CHARACTERISTICS XLPE/LSZH/SWA/LSZH

Current Carrying Capacity

NOMINAL CROSS SECTIONAL AREA mm ²	REFERENCE METHOD C (CLIPPED DIRECT) Amps		REFERENCE METHOD E (IN FREE AIR OR ON A PERFORATED CABLE TRAY, HORIZONTAL OR VERTICAL) Amps		REFERENCE METHOD D (DIRECT IN GROUND OR IN DUCTING, IN GROUND, IN OR AROUND BUILDINGS) Amps	
	1 Two Core Cable Single-Phase AC or DC	1 Three or 1 Four Core Cable Three-Phase AC	1 Two Core Cable Single-Phase AC or DC	1 Three or 1 Four Core Cable Three-Phase AC	1 Two Core Cable Single-Phase AC or DC	1 Three or 1 Four Core Cable Three-Phase AC
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	-	-

Air ambient temperature: 30°C
Ground ambient temperature: 20°C
Conductor operating temperature: 90°C

- Note.** 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 temperature (see Regulation 512.1.2 of the 17th Edition of IEE Wiring Regulations).
2. Where cables in this table are connected to equipment or accessories designed to operate at a temperature not exceeding 70°C, the current ratings given in the equivalent table for 70°C thermoplastic insulated cables (Table 4D4A) must be used (see also Regulation 523.1 of the 17th Edition of IEE Wiring Regulations).

The above table is in accordance with Table 4E4A of the 17th Edition of IEE Wiring Regulations.

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VOLTAGE DROP

NOMINAL CROSS SECTIONAL AREA mm ²	TWO CORE CABLE DC	TWO CORE CABLE SINGLE-PHASE AC mV/A/m			THREE OR FOUR CORE CABLE THREE-PHASE AC 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		
16	2.9	2.9			2.5		
		r	x	z	r	x	z
25	1.85	1.85	0.160	1.900	1.600	0.140	1.650
35	1.35	1.35	0.155	1.350	1.150	0.135	1.150
50	0.98	0.99	0.155	1.000	0.860	0.135	0.870
70	0.67	0.67	0.150	0.690	0.590	0.130	0.600
95	0.49	0.50	0.150	0.520	0.430	0.130	0.450
120	0.39	0.40	0.145	0.420	0.340	0.130	0.370
150	0.31	0.32	0.145	0.350	0.280	0.125	0.300
185	0.25	0.26	0.145	0.290	0.220	0.125	0.260
240	0.195	0.20	0.140	0.240	0.175	0.125	0.210
300	0.155	0.16	0.140	0.210	0.140	0.120	0.185
400	0.12	0.13	0.140	0.190	0.115	0.120	0.165

Conductor operating temperature: 90°C

r = Resistive Component

x = Reactive Component

z = Impedance Value

The above table is in accordance with Table 4E4B of the 17th Edition of IEE Wiring Regulations.

For cables having conductors of 16mm² or less cross sectional area their inductances can be ignored and (mV/A/m)r values only are tabulated. For cables having conductors greater than 16mm² , cross sectional area the impedance values are given as (mV/A/m)z, together with the resistive component (mV/A/m)r and the reactive component (mV/A/m)x.

The above paragraph is extracted from Appendix 4 of the 17th Edition of IEE Wiring Regulations.

The information contained within this datasheet is for guidance only and is subject to change without notice or liability. All the information is provided in good faith and is believed to be correct at the time of publication. When selecting cable accessories, please note that actual cable dimensions may vary due to manufacturing tolerances.