

N2XRH Cu/XLPE/LSZH/SWA/LSZH 0.6/1kV Cable



APPLICATION

European reference for a low voltage multi-core LSZH power cable with steel wire armour (SWA). Same construction as the British Standard BS6724 cable. Power and auxiliary control 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.

CHARACTERISTICS

Voltage Rating U_0/U (Um)

0.6/1kV

Temperature Rating

Fixed Installation: -20° C to +90° C

Minimum Bending Radius

1.5mm² to 16mm² - Fixed: 6 x overall diameter

25mm² and above - Fixed: 8 x overall diameter

STANDARDS

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

THE CABLE TEST

We have world-class testing facility, and made rigorous testing regime, every meter of cable before leaving the factory must go through strict testing, testing qualified products will be shipped to customers, effectively ensure product quality and meet customer requirements.

SUSTAINABILITY COMMITMENT

Guowang Cable actively implements the "carbon reduction" goal, strives to promote the green's low-carbon transformation, strengthens energy-saving and emission reduction technology innovation, and promotes the company's healthy and sustainable development.

CONSTRUCTION

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, Customized as needed

Core Identification

2 core: Brown Blue

3 core: Brown Black Grey

4 core: Brown Blue Black Grey

5 core: Green/Yellow Brown Blue Black Grey

Alternative Core Identification

White cores with Black numbers

DIMENSIONS

NO. OF CORES	NOMINAL CROSS	NOMINAL THICKNESS	NOMINAL OVERALL DIAMETER		NOMINAL WEIGHT (kg/km)	BW/CW GLAND	WRAPAROUND CLEATS
	SECTIONAL AREA (mm ²)	OF INSULATION (mm)	UNDER ARMOUR (mm)	OVERALL (mm)			
2	1.5	0.6	7.3	12.1	302	20S	CC5
2	2.5	0.7	8.5	13.6	346	20S	CC6
2	4	0.7	9.4	14.7	410	20S	CC6
2	6	0.7	10.5	15.9	499	20	CC7
2	10	0.7	12.3	18	648	20	CC8
2	16	0.7	14.3	20.4	978	20	CC9
2	25	0.9	14.7	20.4	1290	25	CC9
2	35	0.9	16.8	23.3	1500	32	CC10
2	50	1	19	25.8	1890	32	CC12
2	70	1.1	22	29	2450	32	CC12
2	95	1.1	25.1	33.1	3300	32	CC14
2	120	1.2	31.1	39.3	4020	40	CC16
2	150	1.4	30.9	39.3	4750	40	CC18
3	1.5	0.6	7.8	12.6	330	20S	CC5
3	2.5	0.7	9.2	14.1	390	20S	CC6
3	4	0.7	10	15.3	464	20	CC7
3	6	0.7	11.2	16.6	568	20	CC7
3	10	0.7	13.1	19.5	866	20	CC8
3	16	0.7	15.3	21.6	1152	25	CC9
3	25	0.9	18.9	23.6	1800	25	CC11
3	35	0.9	21.3	25.7	2230	32	CC12
3	50	1	21.7	28.5	2490	32	CC12
3	70	1.1	25.2	32.2	3290	32	CC14
3	95	1.1	28.8	37	4440	40	CC16
3	120	1.2	32	40.4	5470	40	CC16
3	150	1.4	35.9	45.5	6930	50S	CC18
4	1.5	0.6	8.5	13.5	365	20S	CC6
4	2.5	0.7	9.9	15	438	20	CC6
4	4	0.7	11	16.4	532	20	CC7
4	6	0.7	12.3	18.7	764	20	CC8
4	10	0.7	14.5	21.1	1013	25	CC9
4	16	0.7	17	23.4	1360	25	CC10
4	25	0.9	21	26.1	2160	32	CC11
4	35	0.9	23.6	28.6	2690	32	CC12
4	50	1	25	32	3130	32	CC14
4	70	1.1	29.5	37.7	4500	40	CC16
4	95	1.1	33.3	41.7	5600	50S	CC18
4	120	1.2	37.5	47.1	7400	50	CC20
4	150	1.4	41.6	51.4	8780	50	—
4	185	1.6	46.4	56.6	10630	63S	—
4	240	1.7	52.6	63	13390	63	—
4	300	1.8	56.3	63.6	14998	75S	—

DIMENSIONS

NO. OF CORES	NOMINAL CROSS	NOMINAL THICKNESS	NOMINAL OVERALL DIAMETER		NOMINAL WEIGHT	BW/CW GLAND	WRAPAROUND CLEATS
	SECTIONAL AREA	OF INSULATION	UNDER ARMOUR	OVERALL			
	(mm ²)	(mm)	(mm)	(mm)	(kg/km)		
5	1.5	0.6	9.7	14.3	410	20S	CC6
5	2.5	0.7	11.7	16.3	470	20	CC7
5	4	0.7	13	17.8	710	20	CC7
5	6	0.7	14.5	20	876	25	CC8
5	10	0.7	17.2	22.9	1165	25	CC10
5	16	0.7	20	26.6	1742	32	CC11
5	25	0.9	24.7	31.5	2323	32	CC14
5	35	0.9	27.8	34.8	2932	40	CC14
5	50	1	32.4	40.4	4192	50S	CC16
5	70	1.1	35.8	43	5500	50S	CC18
5	95	1.1	42.1	49	7145	50S	CC20
7	1.5	0.6	10.2	15.2	470	20S	CC6
7	2.5	0.7	12.3	17.1	600	20	CC7
12	1.5	0.6	13.7	19.4	780	20	CC8
12	2.5	0.7	16.3	22.4	1000	25	CC9
19	1.5	0.6	16.2	22.2	1000	25	CC9
19	2.5	0.7	19.9	26.6	1540	25	CC11
27	1.5	0.6	20	26.7	1500	32	CC11
27	2.5	0.7	24	30.7	1950	32	CC14
37	1.5	0.6	22.3	29	1800	32	CC12
37	2.5	0.7	26.9	33.8	2350	40	CC14

CONDUCTORS

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

NOMINAL CROSS SECTIONAL AREA (mm ²)	MINIMUM NO. OF WIRES IN CONDUCTOR						MAXIMUM RESISTANCE OF CONDUCTOR AT 20℃
	Circular		Circular Compacted		Shaped		Annealed Copper Conductor
	Cu	Al	Cu	Al	Cu	Al	Plain Wires (ohms/km)
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

ELECTRICAL CHARACTERISTICS XLPE/PVC/SWA/PVC
Current Carrying Capacity

NOMINAL CROSS SECTIONAL AREA (mm ²)	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 AC or DC (Amps)	1 Three or 1 Four Core Cable Three- Phase AC (Amps)	1 Two Core Cable Single-Phase AC or DC (Amps)	1 Three or 1 Four Core Cable Three- Phase AC (Amps)	1 Two Core Cable Single-Phase AC or DC (Amps)	1 Three or 1 Four Core Cable Three- Phase AC (Amps)
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
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 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 18th Edition of IEE Wiring Regulations BS7671 and IEC 60364-5-52

Voltage Drop

NOMINAL CROSS SECTIONAL AREA (mm ²)	TWO CORE CABLE DC	TWO CORE CABLE SINGLE-PHASE AC			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	0.16	1.9	1.6	0.14	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	0.86	0.135	0.87
70	0.67	0.67	0.15	0.69	0.59	0.13	0.6
95	0.49	0.5	0.15	0.52	0.43	0.13	0.45
120	0.39	0.4	0.145	0.42	0.34	0.13	0.37
150	0.31	0.32	0.145	0.35	0.28	0.125	0.3
185	0.25	0.26	0.145	0.29	0.22	0.125	0.26
240	0.195	0.2	0.14	0.24	0.175	0.125	0.21
300	0.155	0.16	0.14	0.21	0.14	0.12	0.185
400	0.12	0.13	0.14	0.19	0.115	0.12	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 18th Edition of IEE Wiring Regulations BS7671 and IEC 60364-5-52

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 18th Edition of IEE Wiring Regulations.