N2XH Mains Cable - Non Armoured, LSZH - 1.5mm² to 630mm²

Description

These cables are widely used European power cables used for electricity supply for fixed installations with a voltage rating of 600/1000V in public buildings. Cables can be fixed on cable trays, within conduits or fixed to walls. This cable is not suitable for direct burial.

Key Features

Voltage Rating
600/1000 Volts

Minimum Bending Radius
10 x Overall Diameter

Flame Retardancy
BS EN 60332-3-24

Temperature Limits
Fixed: -30°C to +90°C
Flexing: -5°C up to +90°C

Core Colours

1 Core -	Green Yellow				
2 Core -	Blue	Brown			
3 Core -	Blue	Brown	Green Yellow		
4 Core -	Brown	Black	Grey	Green Yellow	
5 Core -	Brown	Black	Grey	Blue	Green Yellow

Standards

- IEC 60502-1
- VDE 0276
- BS EN/IEC 60332-3-24 (cat C)
- IEC/EN 61034-1/2,
- BS EN/IEC 60332-1-2
- IEC/EN 60754-1/2
- BS EN/IEC 60228
- BS EN/IEC 60332-3-24

Construction

- **Conductor**: Up to 6mm^2, Class 1 solid copper conductor | Above 10mm^2 , Class 2 stranded copper conductor
- **Insulation**: Cross Linked Polyethylene (XLPE) Type 2XI1
- **Bedding**: LSZH (Low Smoke Zero Halogen) Type HM4
- **Sheath**: Low Smoke Zero Halogen (LSZH) Type HM4

QA Lab

Cleveland Cable Test & Training Lab
Our state-of-the-art cable testing facility ensures that every cable meets the highest standards of quality and compliance through continuous, rigorous testing. Where applicable, cables are independently tested and certified by BASEC to ensure full compliance.

CPR
Cleveland Cable Company is committed to compliance with the Construction Products Regulation (CPR). Where applicable, all cables manufactured after 1st July 2017 have been assessed in accordance with CPR requirements, with full supporting documentation available.

Our Sustainability Commitment

We are committed to the journey to Net Zero as a business partner, an employer and a community member.

By thinking and acting sustainably, we deliver excellent customer service while reducing carbon emissions in collaboration with our customers and suppliers.

ecovadis
Cleveland Cable Company has been independently assessed by EcoVadis, a globally recognised provider of business sustainability ratings. Our score places us among the top 35% of companies evaluated worldwide, reflecting our strong commitment to environmental, social, and ethical performance

N2XH Mains Cable - Non Armoured, LSZH - 1.5mm² to 630mm² - Dimensions

Reference	Conductor Size (mm2)	No Of Cores	Stranding(mm)	Overall Diameter(mm)	Weight(Kg/Km)
N2XH3X1/5	1.5	3	1/1.38	11.0	170
N2XH4X1/5	1.5	4	1/1.38	12.0	200
N2XH5X1/5	1.5	5	1/1.38	13.0	245
N2XH1X2/5	2.5	1	1/1.78	8.0	75
N2XH2X2/5	2.5	2	1/1.78	10.25	155
N2XH3X2/5	2.5	3	1/1.78	12.0	220
N2XH4X2/5	2.5	4	1/1.78	12.2	239
N2XH5X2/5	2.5	5	1/1.78	13.1	300
N2XH7X2/5	2.5	7	1/1.78	13.4	337
N2XH1X4	4	1	1/2.25	8.4	90
N2XH2X4	4	2	1/1.38	11.10	199
N2XH3X4	4	3	1/2.25	13.0	285
N2XH4X4	4	4	1/2.25	14.0	318
N2XH5X4	4	5	1/2.25	15.0	410
N2Xh1X6	6	1	1/2.76	9.0	115
N2XH2X6	6	2	1/2.76	12.10	300
N2XH3X6	6	3	1/2.76	14.0	365
N2XH4X6	6	4	1/2.76	15.0	414
N2XH5X6	6	5	1/2.76	16.3	530
N2XH1X10	10	1	7/1.35	9.7	160
N2XH2X10	10	2	7/1.35	14.5	395
N2XH3X10	10	3	7/1.35	16.0	520
N2XH4X10	10	4	7/1.35	17.5	620
N2XH5X10	10	5	7/1.35	19.0	770
N2XH1X16	16	1	7/1.70	10.5	230
N2XH2X16	16	2	7/1.70	16.50	560
N2XH3X16	16	3	7/1.70	18.0	780
N2XH4X16	16	4	7/1.70	20.3	950
N2XH5X16	16	5	7/1.70	21.0	1160
N2XH1X25	25	1	7/2.14	12.1	345
N2XH2X25	25	2	7/2.14	20.0	850
N2XH3X25	25	3	7/2.14	21.2	1095
N2XH4X25	25	4	7/2.14	24.5	1350
N2XH5X25	25	5	7/2.14	25.0	1658
N2XH1X35	35	1	7/2.52	11.6	399
N2XH2X35	35	2	7/2.52	22.25	1020
N2XH3X35	35	3	7/2.52	23.50	1440
N2XH4X35	35	4	7/2.52	28.5	1875

Reference	Conductor Size (mm2)	No Of Cores	Stranding(mm)	Overall Diameter(mm)	Weight(Kg/Km)
N2XH5X35	35	5	7/2.52	29.0	2184
N2XH1X50	50	1	19/1.78	14.5	575
N2XH2X50	50	2	19/1.78	25.0	1365
N2XH3X50	50	3	19/1.78	26.70	1850
N2XH4X50	50	4	19/1.78	31.1	2550
N2XH5X50	50	5	19/1.78	33.0	2881
N2XH1X70	70	1	19/2.14	16.5	800
N2XH2X70	70	2	19/2.14	28.95	1930
N2XH3X70	70	3	19/2.14	31.0	2550
N2XH4X70	70	4	19/2.14	36.2	3010
N2XH5X70	70	5	19/2.14	37.0	4056
N2XH1X95	95	1	19/2.52	16.8	992
N2XH2X95	95	2	19/2.52	32.75	2585
N2XH3X95	95	3	19/2.52	35.0	3435
N2XH4X95	95	4	19/2.52	40.6	941
N2XH5X95	95	5	19/2.52	41.0	5455
N2XH1X120	120	1	37/2.03	22.0	1250
N2XH2X120	120	2	37/2.03	36.1	3310
N2XH3X120	120	3	37/2.03	38.70	2550
N2XH4X120	120	4	37/2.03	45.4	5160
N2XH5X120	120	5	37/2.03	47.85	7045
N2XH1X150	150	1	37/2.25	24.0	1700
N2XH2X150	150	2	37/2.25	41.5	4010
N2XH3X150	150	3	37/2.25	44.2	5385
N2XH4X150	150	4	37/2.25	49.5	6150
N2Xh5X150	150	5	37/2.25	55.0	8450
N2XH1X185	185	1	37/2.52	25.0	2200
N2XH2X185	185	2	37/2.52	45.5	4965
NB2XH3X185	185	3	37/2.52	48.5	6930
N2XH4X185	185	4	37/2.52	54.4	7780
N2XH5X185	185	5	37/2.52	59.5	10800
N2XH1X240	240	1	61/2.25	28.0	2750
N2XH2X240	240	2	61/2.25	51.3	6500
N2XH3X240	240	3	61/2.25	55.1	8435
N2XH4X240	240	4	61/2.25	61.5	9650
N2XH5X240	240	5	61/2.25	70.0	14600
N2XH1X300	300	1	61/2.52	32.0	3300
N2XH2X300	300	2	61/2.52	56.5	8225
N2XH3X300	300	3	61/2.52	60.5	11000

Reference	Conductor Size (mm2)	No Of Cores	Stranding(mm)	Overall Diameter(mm)	Weight(Kg/Km)
N2XH4X300	300	4	61/2.52	64.6	12450
N2XH1X400	400	1	61/2.85	32.0	3825
N2XH3X400	400	3	61/2.85	67.75	13700
N2XH4X400	400	4	61/2.85	75.9	17060
N2XH1X500	500	1	61/3.20	35.35	4835
N2XH1X630	630	1	127/2.52	40.0	6210

Multicore 90°C thermosetting insulated and thermoplastic sheathed cables, non-armoured (COPPER CONDUCTORS) Reproduced from *BS7671:2018 Wiring Regulation*

TABLE 4E2A

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 (free air or on a perforated cable tray etc, horizontal or vertical)	
	1 two-core cable*, single-phase AC or DC	1 three- or four-core cable*, three-phase AC	1 two-core cable*, single-phase AC or DC	1 three- or four-core cable*, three-phase AC	1 two-core cable*, single-phase AC or DC	1 three- or four-core cable*, three-phase AC	1 two-core cable*, single-phase AC or DC	1 three- or four-core cable*, three-phase AC
(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	667	865	741

* with or without a protective conductor

1. Where it is intended to connect the cables in this table to equipment or accessories designed to operate at a temperature lower than the maximum operating temperature of the cable, the cables should be rated at the maximum operating temperature of the equipment or accessory (see Regulation 512.1.5).
2. Where it is intended to group a cable in this table with other cables, the cable should be rated at the lowest of the maximum operating temperatures of any of the cables in the group (see Regulation 512.1.5).
3. For cables having flexible conductors see section 2.4 of this appendix for adjustment factors for current-carrying capacity and voltage drop.

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TABLE 4E2B

VOLTAGE DROP (per ampere per metre)

Conductor operating temperature:90°C

Conductor cross- sectional area	Two-core cable DC	Two-core cable, single-phase AC			Three- or four-core cable, three-phase AC		
(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	2.9			2.5		
		R	X	Z	R	X	Z
25	1.85	1.85	0.160	1.90	0.160	0.140	1.65
35	1.35	1.35	0.151	1.35	1.15	0.135	1.15
50	0.98	0.99	0.155	1.00	0.86	0.1351	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	0.200	0.140	0.24	0.175	0.125	0.21
300	0.155	0.160	0.140	0.21	0.140	0.120	0.185
400	0.120	0.130	0.140	0.115	0.115	0.120	0.165

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