

N2XS(F)H 12/20 (24)kV Cable



APPLICATION

Medium voltage power cables for distribution networks and generation units. LSZH outer sheathing makes the cable suitable for internal installation as well as directly in ground, outdoors, and in cable ducts. UV Resistant.

CHARACTERISTICS

Voltage Rating U_0/U (Um)

12/20 (24)kV

Test Voltage:

42kV AC 50Hz (5 mins)

Temperature Rating

-20°C to +60°C

Permissible Conductor Operating Temperature: +90°C

Permissible Short Circuit Temperature up to 5 sec: 250°C

Minimum Bending Radius

15 x overall diameter

STANDARDS

IEC 60502-2, EN 60228

Low Smoke Zero Halogen to: IEC 60754-1/2, IEC 61034-2

Flame Retardant: IEC 60332-3-24 Cat C, IEC 60332-1-2

UV Resistant: ISO 4892-3

Abrasion and Tear Resistant: EN 60229-4.1

Impact rated to: AG2 EN 60364-5.51

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 Screen

Semi-conductive material

Insulation

XLPE (Cross-Linked Polyethylene)

Insulation Screen

Semi-conductive material (bonded)

Longitudinal Waterblocking

Semi-conductive swellable tape

Screen

Copper Wires and copper tape

Longitudinal Waterblocking

Swellable Tapes

Outer Sheath

LSZH (Low Smoke Zero Halogen)

Sheath Colour

● Black

DIMENSIONS

NO. OF CORE	NOMINAL CROSS SECTIONAL AREA mm ²		NOMINAL Conductor DIAMETER mm	NUMBER WIRES CONDUCTOR mm	NOMINAL OVERALL DIAMTER mm		NOMINAL INSULATION THICKNESS mm	MINIMUM INSULATION THICKNESS mm	NOMINAL DIAMETER OVER INSULATION mm
	Conductor	Screen			INNER	OUTER			
					mm	mm			
1	35	16	6.90	7*2.62	0.50	0.40	5.50	4.85	19.1
1	50	16	8.10	10*2.62	0.50	0.40	5.50	4.85	20.3
1	70	16	9.70	14*2.62	0.50	0.40	5.50	4.85	21.9
1	95	16	11.4	19*2.62	0.50	0.40	5.50	4.85	23.6
1	120	16	12.7	19*2.67	0.50	0.40	5.50	4.85	24.9
1	150	25	14.5	19*3.20	0.50	0.40	5.50	4.85	26.7
1	185	25	15.9	27*2.62	0.50	0.40	5.50	4.85	28.1
1	240	25	18.6	48*2.62	0.50	0.40	5.50	4.85	30.8
1	300	25	20.7	61*2.62	0.50	0.40	5.50	4.85	32.9
1	400	35	23.5	61*2.97	0.50	0.40	5.50	4.85	35.7
1	500	35	26.5	61*3.29	0.50	0.40	5.50	4.85	38.7
1	630	35	30.2	61*3.80	0.50	0.40	5.50	4.85	42.9

NOMINAL CROSS SECTIONAL AREA	NUMBER WIRES SCREEN	DIAMETER TAPE SCREEN	NOMINAL SHEATH THICKNESS	MINIMUM SHEATH THICKNESS	NOMINAL OVERALL DIAMTER	NOMINAL WEIGHT	MAXIMUM SIDEWALL PRESSURE	MAXIMUM PULLING TENSION
mm ²	mm	mm	mm	mm	mm	kg/km	N/cm ²	N
35	44*0.66	1*0.1*10	1.8	1.24	25	900	366	1750
50	44*0.66	1*0.1*10	1.80	1.24	26	1000	489	2500
70	44*0.66	1*0.1*10	1.90	1.32	28	1200	619	3500
95	44*0.66	1*0.1*10	1.90	1.32	30	1500	785	4750
120	44*0.66	1*0.1*10	2.00	1.40	31	1800	915	6000
150	71*0.66	1*0.1*10	2.00	1.40	33	2250	1053	7500
185	71*0.66	1*0.1*10	2.10	1.48	35	2500	1236	9250
240	71*0.66	1*0.1*10	2.10	1.48	38	3250	1413	12000
300	71*0.66	1*0.1*10	2.20	1.56	40	3750	1647	15000
400	60*0.85	1*0.1*1.5	2.30	1.64	43	4750	2005	20000
500	60*0.85	1*0.1*1.5	2.40	1.72	48	5750	2299	25000
630	60*0.85	1*0.1*1.5	2.50	1.80	51	7000	2586	31500

ELECTRICAL CHARACTERISTICS

NOMINAL CROSS SECTIONAL AREA mm ²	CONDUCTOR DC RESISTANCE AT 20°C Ω/km	CONDUCTOR DC RESISTANCE AT 75°C Ω/km	CONDUCTOR AC RESISTANCE BY MAX TEMP. Ω/km	CURRENT CARRYING CAPACITY (A)		REACTANCE ohms/km	CHARGING ADMITTANCE A/km	CAPACITANCE uF/km	S.C.C CONDUCTOR 1SEC kA	S.C.C SCREEN 1SEC kA	CONDUCTOR LOSSES IN THE GROUND
				In Ground 20°C	In Air 30°C						
35	0.524	1.085	0.670	213	233	0.20	0.42	0.14	5.01	3.2	30.40
50	0.387	0.801	0.497	250	279	0.19	0.40	0.15	7.15	3.2	31.10
70	0.268	0.555	0.344	304	347	0.18	0.37	0.17	10.1	3.2	31.80
95	0.193	0.399	0.248	361	420	0.18	0.36	0.19	13.59	3.2	32.30
120	0.153	0.316	0.196	407	483	0.17	0.34	0.20	17.16	3.2	32.50
150	0.124	0.160	0.256	445	540	0.17	0.33	0.22	21.45	5.0	31.70
185	0.0991	0.205	0.128	498	614	0.17	0.32	0.24	26.46	5.0	31.70
240	0.0754	0.156	0.0980	569	718	0.16	0.31	0.27	34.32	5.0	31.70
300	0.0601	0.124	0.0800	633	813	0.16	0.30	0.29	42.90	5.0	32.10
400	0.0470	0.0974	0.0640	686	904	0.16	0.29	0.32	57.20	7.1	30.10
500	0.0366	0.0758	0.0510	756	1011	0.15	0.28	0.36	71.50	7.1	29.10
630	0.0283	0.0420	0.0586	850	1030	0.15	0.27	0.40	90.09	7.1	30.30

Derating factor (ground): 1 (Soil thermal resistivity: 1km/W, Depth 0.8m, Flat formation - touching)

Derating factor (air): 1 (Flat formation - touching)