

N2XSH 18/30 (36)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)

18/30 (36)kV

Test Voltage:

63kV 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)

Screen

Copper Wires and copper tape

Outer Sheath

LSZH (Low Smoke Zero Halogen)

Sheath Colour

● Black

DIMENSIONS

NO. OF CORE	NOMINAL CROSS SECTIONAL AREA		NOMINAL CONDUCTOR DIAMETER	NUMBER WIRES CONDUCTOR	NOM. THICKNESS SEMI-CON. LAYER		NOMINAL INSULATION THICKNESS	MINIMUM INSULATION THICKNESS	NOMINAL DIAMETER OVER INSULATION
	Conductor	Screen			mm	mm			
1	50	16	8.10	10*2.62	0.50	0.40	8.00	7.10	25.1
1	70	16	9.70	14*2.62	0.50	0.40	8.00	7.10	26.7
1	95	16	11.4	19*2.62	0.50	0.40	8.00	7.10	28.4
1	120	16	12.7	19*2.97	0.50	0.40	8.00	7.10	29.7
1	150	25	14.5	19*3.20	0.50	0.40	8.00	7.10	31.5
1	185	25	15.9	27*2.62	0.50	0.40	8.00	7.10	32.9
1	240	25	18.6	48*2.62	0.50	0.40	8.00	7.10	35.6
1	300	25	20.7	61*2.62	0.50	0.40	8.00	7.10	37.7
1	400	35	23.5	61*2.97	0.50	0.40	8.00	7.10	40.5
1	500	35	26.5	61*3.29	0.50	0.40	8.00	7.10	43.5
1	630	35	30.2	61*3.80	0.50	0.40	8.00	7.10	47.7

NOMINAL CROSS SECTIONAL AREA mm ²	NUMBER WIRES SCREEN mm	DIAMETER TAPE SCREEN mm	NOMINAL SHEATH THICKNESS mm	MINIMUM SHEATH THICKNESS mm	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km	MAXIMUM SIDEWALL PRESSURE N/CM ²	MAXIMUM PULLING TENSION N
50	44*0.66	1*0.1*10	2.00	1.40	32	1200	416	2500
70	44*0.66	1*0.1*10	2.00	1.40	33	1500	546	3500
95	44*0.66	1*0.1*10	2.10	1.48	35	1800	682	4750
120	44*0.66	1*0.1*10	2.10	1.48	36	2000	821	6000
150	71*0.66	1*0.1*10	2.20	1.56	38	2500	952	7500
185	71*0.66	1*0.1*10	2.20	1.56	40	2750	1103	9250
240	71*0.66	1*0.1*10	2.30	1.64	43	3500	1299	12000
300	71*0.66	1*0.1*10	2.40	1.72	45	4000	1522	15000
400	60*0.85	1*0.1*15	2.50	1.80	48	5000	1885	20000
500	60*0.85	1*0.1*15	2.60	1.88	51	6000	2151	25000
630	60*0.85	1*0.1*15	2.70	1.96	56	7500	2436	31500

ELECTRICAL CHARACTERISTICS

NOMINAL CROSS SECTIONAL AREA mm ²	CONDUCTOR DC RESISTANCE AT 20°C ohms/km	CONDUCTOR DC RESISTANCE AT 75°C ohms/km	CONDUCTOR AC RESISTANCE BY MAX TEMP ohms/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 kW/km
				In Ground 20°C	In Air 30°C						
50	0.387	0.801	0.497	251	279	0.20	0.43	0.12	7.15	3.2	31.3
70	0.268	0.555	0.344	306	348	0.19	0.41	0.13	10.1	3.2	32.2
95	0.193	0.399	0.248	363	421	0.19	0.39	0.14	13.59	3.2	32.7
120	0.153	0.316	0.196	410	483	0.18	0.38	0.15	17.16	3.2	32.9
150	0.124	0.160	0.256	449	540	0.18	0.36	0.17	21.45	5.0	32.3
185	0.0991	0.205	0.128	503	615	0.18	0.35	0.18	26.46	5.0	32.4
240	0.0754	0.156	0.0980	576	718	0.17	0.33	0.20	34.32	5.0	32.5
300	0.0601	0.124	0.0800	641	812	0.17	0.32	0.21	42.90	5.0	32.9
400	0.0470	0.0974	0.0640	697	904	0.16	0.31	0.24	57.20	7.1	31.1
500	0.0366	0.0758	0.0510	768	1011	0.16	0.30	0.26	71.50	7.1	30.1
630	0.0283	0.0420	0.0586	850	1030	0.16	0.29	0.29	90.09	7.1	30.3

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

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