

# NA2XS(F)H 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)V

### Test Voltage:

63 kV AC 50Hz (15 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: IEC 60754-1/2, IEC 61034-2

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

UV Resistant: EN 50396

Abrasion and Tear Resistant to: 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 Aluminium

### 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)  
 - UV Resistant

### Sheath Colour

- Black

## DIMENSIONS

NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>		NOMINAL Conductor DIAMETER	NUMBER WIRES CONDUCTOR	NOMINAL THICKNESS SEMI-CON. LAYER		NOMINAL INSULATION THICKNESS	MINIMUM INSULATION THICKNESS	NOMINAL DIAMETER OVER INSULATION
	Conductor	Screen	mm	mm	mm	mm	mm	mm	mm
1	50	16	8.20	7*2.90	0.50	0.40	8.00	7.10	25.2
1	70	16	9.70	19*2.18	0.50	0.40	8.00	7.10	26.7
1	95	16	11.4	19*2.55	0.50	0.40	8.00	7.10	28.4
1	120	16	12.65	19*2.90	0.50	0.40	8.00	7.10	29.7
1	150	25	14.4	19*3.16	0.50	0.40	8.00	7.10	31.4
1	185	25	15.75	37*2.55	0.50	0.40	8.00	7.10	33.2
1	240	25	18.2	37*2.90	0.50	0.40	8.00	7.10	35.7
1	300	25	20.5	61*2.55	0.50	0.40	8.00	7.10	38.0
1	400	35	23.0	61*2.90	0.50	0.40	8.00	7.10	40.5
1	500	35	26.0	61*3.20	0.50	0.40	8.00	7.10	43.5
1	630	35	30.2	61*3.65	0.50	0.40	8.00	7.10	47.7

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 <sup>2</sup>	mm	mm	mm	mm	mm	kg/km	N/cm <sup>2</sup>	N
50	44*0.66	1*0.1*10	2.00	1.40	32	1000	249	1500
70	44*0.66	1*0.1*10	2.00	1.40	34	1100	320	2100
95	44*0.66	1*0.1*10	2.10	1.48	36	1300	401	2850
120	44*0.66	1*0.1*10	2.10	1.48	37	1400	483	3600
150	71*0.66	1*0.1*10	2.20	1.56	39	1600	562	4500
185	71*0.66	1*0.1*10	2.20	1.56	41	1800	652	5550
240	71*0.66	1*0.1*10	2.30	1.64	43	2000	784	7200
300	71*0.66	1*0.1*10	2.40	1.72	46	2250	902	9000
400	60*0.85	1*0.1*1.5	2.50	1.80	49	2750	1111	12000
500	60*0.85	1*0.1*1.5	2.60	1.88	52	3250	1282	15000
630	60*0.85	1*0.1*1.5	2.70	1.96	56	3750	1462	18900

## ELECTRICAL CHARACTERISTICS

NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	CONDUCTOR OR DC RESISTANCE AT 20°C Ω/km	CONDUCTOR OR DC RESISTANCE AT 75°C Ω/km	CONDUCTOR AC RESISTANCE BY MAX TEMP. Ω/km	NOMINAL INSULATION THICKNESS		REACTANCE ohms/km	CHARGING ADMITTANCE A/km	CAPACITANCE uF/km	S.C.C CONDUCTOR OR 1SEC kA	S.C.C SCREEN 1SEC kA	CONDUCTOR LOSSES IN THE GROUND
				In Ground 20°C	In Air 30°C						
50	0.641	1.32	0.825	196	217	0.20	0.44	0.12	4.70	3.2	31.7
70	0.443	0.917	0.570	238	270	0.20	0.41	0.13	6.58	3.2	32.3
95	0.32	0.662	0.412	284	328	0.19	0.39	0.14	8.98	3.2	33.2
120	0.258	0.524	0.328	322	378	0.18	0.38	0.15	11.28	3.2	34.0
150	0.203	0.426	0.268	355	425	0.18	0.36	0.17	14.10	5.0	33.8
185	0.164	0.339	0.213	400	485	0.18	0.36	0.18	17.39	5.0	34.1
240	0.125	0.258	0.160	461	572	0.17	0.34	0.20	22.56	5.0	34.6
300	0.100	0.207	0.132	516	649	0.17	0.33	0.22	28.20	5.0	35.1
400	0.0778	0.161	0.103	572	737	0.16	0.32	0.24	37.60	7.1	33.7
500	0.0605	0.125	0.0810	638	835	0.16	0.30	0.26	47.00	7.1	33.0
630	0.0469	0.0972	0.0640	860	1080	0.16	0.29	0.29	59.22	7.1	47.3

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

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