

# N2XSY XLPE PVC - 12/20 (24)kV Cable



## APPLICATION

Medium voltage cables for distribution networks; also for connection to generation units and plant and process connection. To be laid directly in ground, outdoors, indoors and in cable ducts.

## CHARACTERISTICS

### Voltage Rating $U_0/U$ (Um)

12/20 (24)kV

### Temperature Rating

Maximum conductor operating temperature: 90°C  
 Initial temperature at S.C.C for metallic screen: 80°C  
 Maximum conductor temperature during S.C: 250°C

### Minimum Bending Radius

15 x overall diameter

## STANDARDS

IEC 60502-2, IEC/EN 60228  
 Flame Retardant according to IEC/EN 60332-1-2  
 UV Resistant

## 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

### Inner Semi-Conductive Layer

Semi-conductive material (Bonded Type)

### Insulation

XLPE (Cross-Linked Polyethylene)

### Outer Semi-Conductive Layer

Semi-conductive material (Strippable Type)

### Screen

Copper wires with Open Helix Copper Tape Screen

### Sheath

PVC (Polyvinyl Chloride)

### Sheath Colour

- Black

## DIMENSIONS

NO. OF CORES	NOMINAL CROSS SECTIONAL AREA	NOMINAL SCREEN CROSS SECTIONAL AREA	NOMINAL INSULATION THICKNESS	NOMINAL SHEATH THICKNESS	NOMINAL OVERALL DIAMETER	NOMINAL WEIGHT
	mm <sup>2</sup>	mm <sup>2</sup>	mm	mm	mm	kg/km
1	50	16	5.5	1.8	26.0	1056
1	70	16	5.5	1.9	28.0	1301
1	95	16	5.5	1.9	29.3	1567
1	120	16	5.5	2	30.9	1840
1	150	25	5.5	2	32.7	2221
1	185	25	5.5	2.1	34.2	2572
1	240	25	5.5	2.2	36.8	3182
1	300	25	5.5	2.2	39.2	3764
1	400	35	5.5	2.3	42.2	4715
1	500	35	5.5	2.4	45.8	5748
1	630	35	5.5	2.5	50.7	7215
1	800	35	5.5	2.7	55.2	9072

## ELECTRICAL CHARACTERISTICS

NOMINAL CROSS SECTIONAL AREA	MAXIMUM CONDUCT OR DC RESISTANCE AT 20°C	MAXIMUM CONDUCT OR AC RESISTANCE AT TEMP. AND 50HZ	CAPACITANCE	CHARGING CURRENT	DIELECTRIC LOSSES	REACTANCE AT 50 HZ	CONDUCTOR S.C.C FOR 1 SEC	COPPER SCREEN S.C.C FOR 1 SEC	CURRENT RATING A	
									Laid in ground	Laid in free air
mm <sup>2</sup>	Ω/km	Ω/km	uF/km	A/Km	W/Km	ohms/km	KA	KA	Laid in ground	Laid in free air
50	0.387	0.494	0.184	0.693	33.24	0.133	7.15	1.75	234	245
70	0.268	0.342	0.209	0.787	37.78	0.126	10.01	1.75	284	309
95	0.193	0.247	0.227	0.855	41.03	0.121	13.585	1.75	337	378
120	0.153	0.196	0.246	0.928	44.52	0.117	17.16	1.75	384	436
150	0.124	0.159	0.268	1.01	48.48	0.112	21.45	2.73	428	491
185	0.0991	0.128	0.288	1.087	52.18	0.109	26.455	2.73	483	567
240	0.0754	0.098	0.321	1.21	58.08	0.104	34.32	2.73	553	669
300	0.0601	0.078	0.353	1.333	63.97	0.101	42.9	2.73	621	772
400	0.047	0.062	0.388	1.465	70.33	0.097	57.2	3.82	697	883
500	0.0366	0.049	0.434	1.638	78.63	0.094	71.5	3.82	783	1019
630	0.0283	0.039	0.498	1.876	90.08	0.092	90.09	3.82	866	1153
800	0.0221	0.032	0.553	2.084	100.05	0.089	114.40	3.82	945	1299

Laying conditions at trefoil formation are as below:

-Soil thermal resistivity 120 °C.Cm/Watt

-Burial depth 0.5 m

-Ground temperature 15 °C

-Air temperature 25 °C

-Frequency 50 Hz