

# N2XS(F)2Y 6/10 (12)kV Cable



## APPLICATION

Medium voltage power cables for distribution networks and generation units, suitable for external installation including direct buried and in buried cable ducts. UV Resistant.

## CHARACTERISTICS

**Voltage Rating**  $U_0/U$  (Um)  
6/10 (12)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**  
20 x overall diameter

## STANDARDS

IEC 60502-2, IEC 60228,  
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 Screen**  
Semi-conductive material (Bonded type)

**Insulation**  
XLPE (Cross-Linked Polyethylene)

**Insulation Screen**  
Semi-conductive material (Strippable type)

**Longitudinal Waterblocking**  
Semi-conductive swellable tape

**Screen**  
Copper wires with Open Helix Copper Tape  
Screen

**Longitudinal Waterblocking**  
Swellable Tapes

**Outer Sheath**  
MDPE (Medium Density Polyethylene)

## DIMENSIONS

NO. OF CORES	NOMINAL CROSS SECTIONAL AREA	NOMINAL SCREEN CROSS SECTIONAL AREA	NOMINAL INSULATION THICKNESS	NOMINAL SHEATH THICKNESS	NOMINAL OVERALL DIAMTER	NOMINAL WEIGHT
	mm <sup>2</sup>	mm <sup>2</sup>	mm	mm	mm	kg/km
1	50	16	3.4	1.7	23.8	873
1	70	16	3.4	1.7	25.6	1090
1	95	16	3.4	1.8	27.1	1353
1	120	16	3.4	1.8	28.5	1599
1	150	25	3.4	1.9	30.5	1976
1	185	25	3.4	1.9	32.0	2314
1	240	25	3.4	2.0	34.6	2895
1	300	25	3.4	2.1	37.0	3458
1	400	35	3.4	2.2	40.0	4376
1	500	35	3.4	2.3	43.6	5368
1	630	35	3.4	2.4	48.5	6780
1	800	35	3.4	2.5	52.8	8561

## ELECTRICAL CHARACTERISTICS

NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup>	MAXIMUM CONDUCTOR DC RESISTANCE AT 20°C Ω/km	MAXIMUM CONDUCTOR AC RESISTANCE AT TEMP. AND 50HZ Ω/km	CAPACITANCE uF/km	CHARGING CURRENT A/Km	DIELECTRIC LOSSES W/km	REACTANCE AT 50 HZ ohm/km	CONDUCTOR S.C.C ISEC kA	COPPER SCREEN S.C.C FOR ISEC kA	CURRENT RATING A		
									Laid in ground	Laid in duct	Lain in free air
50	0.387	0.494	0.263	0.496	11.90	0.128	7.15	1.75	230	172	228
70	0.268	0.342	0.303	0.571	13.71	0.120	10.01	1.75	274	213	289
95	0.193	0.247	0.332	0.625	15.00	0.116	13.585	1.75	326	255	348
120	0.153	0.196	0.362	0.683	16.40	0.112	17.16	1.75	370	295	403
150	0.124	0.159	0.397	0.75	17.99	0.108	21.45	2.73	414	333	456
185	0.0991	0.128	0.43	0.812	19.47	0.104	26.455	2.73	468	387	525
240	0.0754	0.098	0.483	0.911	21.85	0.101	34.32	2.73	529	443	621
300	0.0601	0.078	0.535	1.009	24.22	0.097	42.9	2.73	595	506	714
400	0.047	0.062	0.592	1.116	26.79	0.094	57.2	3.82	669	578	823
500	0.0366	0.049	0.666	1.256	30.14	0.091	71.5	3.82	750	660	946
630	0.0283	0.039	0.768	1.449	34.77	0.089	90.09	3.82	832	750	1076
800	0.0221	0.032	0.858	1.617	38.81	0.087	114.4	3.82	910	840	1209

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

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

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