

N2XS(FL)2Y XLPE HDPE 8.7/15 (17.5)kV Cable



APPLICATION

Medium Voltage HDPE power distribution cable with particular application in wind energy installations. Longitudinally and radially sealed cables for aid protection against water ingress.

CHARACTERISTICS

Voltage Rating U_0/U (Um)

8.7/15 (17.5)kV

STANDARDS

IEC 60502-2, EN 60228

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 Compacted Copper

Conductor Screen

Semi-conductive extruded XLPE (Cross-linked Polyethylene)

Insulation

XLPE (Cross-Linked Polyethylene)

Insulation Screen

Semi-conductive extruded XLPE (Cross-linked Polyethylene)

Longitudinal Waterblocking

Semi-conductive swellable tape

Metallic Screen

Copper Wires and copper tape

Longitudinal Waterblocking

Swellable Tapes

ORadial Waterblocking

Al/PET (Aluminium/Polyester) tape tightly bonded to sheath

Outer Sheath

HDPE (High Density Polyethylene)

Sheath Colour

● Black

DIMENSIONS

NO. OF CORES	NOMINAL CROSS SECTIONAL AREA	NOMINAL DIAMETER OF CONDUCTOR	INSULATION mm		METALLIC SCREEN		NOMINAL OUTER DIAMETER OF CABLE	NOMINAL WEIGHT	MAXIMUM PULLING FORCE	MINIMUM BENDING RADIUS
	mm ²	mm	NOMINAL THICKNESS	Nominal Diameter Over	Nominal Cross Section mm ²	Nominal diameter Over mm	mm	KG/KM	KN	m
1	35	7.0	4.5	17.2	16	21.3	27.3	920	1.75	0.57
1	50	8.25	4.5	18.5	16	22.5	28.6	1060	2.5	0.60
1	70	9.6	4.5	19.8	25	23.9	29.9	1370	3.5	0.63
1	95	11.5	4.5	21.7	35	25.8	31.8	1740	4.75	0.68
1	120	12.9	4.5	23.1	50	27.2	33.2	2140	6	0.72
1	150	14.5	4.5	24.7	50	28.8	34.8	2420	7.5	0.76
1	185	16.0	4.5	26.2	50	30.3	36.3	2780	9.25	0.79
1	240	18.5	4.5	28.7	50	32.8	38.8	3340	12	0.86
1	300	20.5	4.5	30.7	50	34.8	40.8	3930	15	0.91
1	400	23.5	4.5	33.7	50	37.8	43.8	4800	20	0.98
1	500	26.5	4.5	37.2	50	41.5	47.5	5910	25	1.07
1	630	30.3	4.5	41.3	50	45.5	51.8	7270	31.5	1.18
1	800	34.6	4.5	46.0	50	50.2	56.9	8970	40	1.30
1	1000	38.2	4.5	49.6	50	53.8	60.7	10880	50	1.38

ELECTRICAL CHARACTERISTICS

NOMINAL CROSS SECTIONAL AREA CONDUCTOR OR METALLIC SCREEN mm ²	MAXIMUM CONDUCTOR DC RESISTANCE AT 20°C Ω/km	MAXIMUM CONDUCTOR AC RESISTANCE AT 90°C Ω/km	MAXIMUM METALLIC SCREEN DC RESISTANCE AT 20°C Ω/km	MAXIMUM METALLIC SCREEN DC RESISTANCE AT 80°C Ω/km	ELECTRICAL FIELD STRESS KV/mm		RESISTANCE Ω/km	CAPACITANCE μF/km	CAPACITANCE REACTANCE Ω/km	CHARGING CURRENT A/km	REACTANCE Ω/km
					Conductor screen	Insulation					
	0.524	0.668	1.12	1.38	2.84	1.32	1.48	0.17	19.1	0.46	0.085
	0.387	0.494	1.12	1.38	2.72	1.37	1.30	0.19	17.2	0.51	0.078
	0.268	0.342	0.72	0.89	2.63	1.41	0.94	0.20	15.6	0.56	0.072
	0.193	0.247	0.51	0.63	2.52	1.45	0.71	0.23	13.7	0.63	0.066
	0.153	0.196	0.36	0.44	2.46	1.48	0.55	0.25	12.7	0.69	0.062
	0.124	0.159	0.36	0.44	2.41	1.51	0.51	0.27	11.6	0.75	0.058
	0.0991	0.128	0.36	0.44	2.37	1.54	0.47	0.30	10.8	0.81	0.055
	0.0754	0.0978	0.36	0.44	2.31	1.57	0.43	0.33	9.6	0.90	0.051
	0.0601	0.0789	0.36	0.44	2.27	1.59	0.41	0.36	8.9	0.98	0.048
	0.0470	0.0629	0.36	0.44	2.23	1.62	0.39	0.40	7.9	1.10	0.045
	0.0366	0.0505	0.36	0.44	2.17	1.63	0.37	0.44	7.2	1.21	0.043
	0.0283	0.0410	0.36	0.44	2.13	1.65	0.35	0.50	6.4	1.37	0.041
	0.0221	0.0342	0.36	0.44	2.1	1.67	0.34	0.57	5.6	1.55	0.039
	0.0176	0.0295	0.36	0.44	2.08	1.69	0.33	0.62	5.2	1.68	0.037

ELECTRICAL CHARACTERISTICS

NOMINAL CROSS SECTIONAL AREA CONDUCTOR /METALLIC SCREEN mm ²	INDUCTANCE L mH/km			INDUCTANCE REACTANCE XL Ω/km			IMPEDANCE Ω/km		
	2	3	4	2	3	4	2	3	4
	0.46	0.76	0.65	0.145	0.239	0.203	0.684	0.710	0.698
	0.44	0.73	0.62	0.137	0.23	0.195	0.512	0.544	0.531
	0.42	0.70	0.60	0.131	0.221	0.189	0.366	0.407	0.391
	0.39	0.67	0.58	0.123	0.211	0.181	0.276	0.324	0.306
	0.38	0.65	0.56	0.119	0.204	0.177	0.229	0.283	0.264
	0.36	0.63	0.55	0.114	0.198	0.172	0.196	0.254	0.234
	0.35	0.61	0.54	0.111	0.193	0.169	0.169	0.231	0.212
	0.34	0.59	0.52	0.106	0.185	0.164	0.144	0.209	0.191
	0.33	0.57	0.51	0.103	0.180	0.161	0.129	0.196	0.179
	0.31	0.55	0.50	0.098	0.173	0.156	0.117	0.184	0.169
	0.31	0.53	0.49	0.096	0.167	0.154	0.108	0.175	0.162
	0.30	0.51	0.48	0.093	0.161	0.151	0.102	0.166	0.156
	0.29	0.49	0.47	0.091	0.155	0.149	0.097	0.159	0.152
	0.28	0.48	0.47	0.088	0.151	0.146	0.093	0.154	0.149

2-Cable in trefoil formation, te distance between cables De

3-Cable in flat formation(in the ground), the distance between cables De + 70 mm

4-Cable in flat formation(in the air), the distance between cables 2 x De

NOMINAL CROSS SECTIONAL AREA mm ²	MAXIMM SHORT CIRCUIT CAPACITY CONDUCTOR kA/sec	MAXIMM SHORT CIRCUIT CAPACITY METALLIC SCREEN kA/sec	FLAT FORMATION		TREFOIL FORMATION		FLAT FORMATION		TREFOIL FORMATION	
			CONFIGURATIONS							
			SPP; CB	BOTH-ENDS	SPP; CB	BOTH-ENDS	SPP; CB	BOTH-ENDS	SPP; CB	BOTH-ENDS
CABLES IN EARTH						CABLES IN AIR				
35RMC/16	5.0	3.7	247	244	233	232	253	251	215	215
50RMC/16	7.2	3.7	294	289	276	275	304	300	258	258
70RMC/25	10.0	5.3	360	350	338	336	377	368	319	318
95RMC/35	13.6	7.1	435	413	408	404	463	443	391	387
120RMC/50	17.2	9.8	496	455	465	457	534	498	449	443
150RMC/50	21.5	9.8	560	502	523	513	510	559	512	503
185RMC/50	26.5	9.8	634	555	592	577	698	627	585	572
240RMC/50	34.3	9.8	740	624	689	667	830	723	693	672
300RMC/50	42.9	9.8	838	682	779	749	952	805	793	764
400RMC/50	57.2	9.8	962	749	890	848	1113	905	921	880
500RMC/50	71.5	9.8	1097	816	1009	951	1291	1008	1062	1006
630RMC/50	90.1	9.8	1252	887	1140	1062	1504	11177	1225	1146
800RMC/50	114.4	9.8	1412	951	1269	1165	1731	1220	1393	1288
1000RMC/50	143.0	9.8	1562	1003	1387	1257	1946	1306	1545	1411

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

SPB - Single Point Bonding; CB - Cross bonding Both-ends; BE - Both-ends bonding

Laying Condition at trefoil formation are as below:

Soil thermal resistivity: 1/2.5 km/w

Burial depth: 0.7m

Ground temperature: 20°C/Ambient temperature: 30°C

The information contained within this datasheet is for guidance only and is subject to change without notice or liability. All the information is provided in good faith and is believed to be correct at the time of publication. When selecting cable accessories, please note that actual cable dimensions may vary due to manufacturing tolerances.