

NA2XS(F)2Y 6/10 (12)kV Cable



APPLICATION

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

CHARACTERISTICS

Voltage Rating U_0/U (U_m)
6/10 (12)kV

Test Voltage
21kV 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, IEC 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 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
MDPE (Medium Density Polyethylene)

DIMENSIONS

| NO. OF CORE | NOMINAL CROSS SECTIONAL AREA mm ² | | 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 | INNER mm | OUTER mm | mm | mm | mm |
| 1 | 50 | 16 | 8.20 | 7*2.90 | 0.50 | 0.40 | 3.40 | 2.96 | 16.4 |
| 1 | 70 | 16 | 9.70 | 19*2.18 | 0.50 | 0.40 | 3.40 | 2.96 | 17.9 |
| 1 | 95 | 16 | 11.4 | 19*2.55 | 0.50 | 0.40 | 3.40 | 2.96 | 19.6 |
| 1 | 120 | 16 | 12.65 | 19*2.90 | 0.50 | 0.40 | 3.40 | 2.96 | 20.9 |
| 1 | 150 | 25 | 14.4 | 19*3.16 | 0.50 | 0.40 | 3.40 | 2.96 | 22.6 |
| 1 | 185 | 25 | 15.75 | 37*2.55 | 0.50 | 0.40 | 3.40 | 2.96 | 24.4 |
| 1 | 240 | 25 | 18.2 | 37*2.90 | 0.50 | 0.40 | 3.40 | 2.96 | 26.9 |
| 1 | 300 | 25 | 20.5 | 61*2.55 | 0.50 | 0.40 | 3.40 | 2.96 | 29.2 |
| 1 | 400 | 35 | 23.0 | 61*2.90 | 0.50 | 0.40 | 3.40 | 2.96 | 31.7 |
| 1 | 500 | 35 | 26.0 | 61*3.20 | 0.50 | 0.40 | 3.40 | 2.96 | 34.7 |
| 1 | 630 | 35 | 30.2 | 61*3.65 | 0.50 | 0.40 | 3.40 | 2.96 | 38.9 |

| 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 | 1.80 | 1.80 | 32 | 900 | 255 | 1500 |
| 70 | 44*0.66 | 1*0.1*10 | 1.80 | 1.80 | 33 | 1100 | 328 | 2100 |
| 95 | 44*0.66 | 1*0.1*10 | 1.80 | 1.80 | 35 | 1200 | 409 | 2850 |
| 120 | 44*0.66 | 1*0.1*10 | 1.80 | 1.80 | 36 | 1300 | 493 | 3600 |
| 150 | 71*0.66 | 1*0.1*10 | 1.90 | 1.90 | 38 | 1500 | 573 | 4500 |
| 185 | 71*0.66 | 1*0.1*10 | 1.90 | 1.90 | 40 | 1700 | 664 | 5550 |
| 240 | 71*0.66 | 1*0.1*10 | 2.00 | 2.00 | 43 | 1900 | 784 | 7200 |
| 300 | 71*0.66 | 1*0.1*10 | 2.10 | 2.10 | 45 | 2250 | 916 | 9000 |
| 400 | 60*0.85 | 1*0.1*15 | 2.20 | 2.20 | 48 | 2750 | 1127 | 12000 |
| 500 | 60*0.85 | 1*0.1*15 | 2.30 | 2.30 | 51 | 3000 | 1299 | 15000 |
| 630 | 60*0.85 | 1*0.1*15 | 2.40 | 2.40 | 56 | 3500 | 1462 | 18900 |

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.

ELECTRICAL CHARACTERISTICS

| NOMINAL CROSS SECTIONAL AREA | CONDUCTOR DC RESISTANCE AT 20°C | CONDUCTOR DC RESISTANCE AT 75°C | CONDUCTOR AC RESISTANCE BY MAX TEMP | CURRENT CARRYING CAPACITY (A) | | REACTANCE | CHARGING ADMITTANCE | CAPACITANCE | S.C.C CONDUCTOR 1SEC | S.C.C SCREEN 1SEC | CONDUCTOR LOSSES IN THE GROUND |
|------------------------------|---------------------------------|---------------------------------|-------------------------------------|---------------------------------|-------------|-----------|---------------------|-------------|----------------------|-------------------|--------------------------------|
| | | | | In Ground 20°C | In Air 30°C | | | | | | |
| mm ² | ohms/km | ohms/km | ohms/km | | | ohms/km | A/km | uF/km | kA | kA | kW/km |
| 50 | 0.641 | 1.32 | 0.825 | 196 | 217 | 0.20 | 0.43 | 0.12 | 4.70 | 3.2 | 31.7 |
| 70 | 0.443 | 0.917 | 0.57 | 238 | 270 | 0.19 | 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 | 8.93 | 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 | 0.35 | 0.18 | 17.39 | 5.0 | 34.1 |
| 240 | 0.125 | 0.258 | 0.160 | 461 | 572 | 0.17 | 0.33 | 0.20 | 22.56 | 5.0 | 34.6 |
| 300 | 0.100 | 0.207 | 0.1320 | 516 | 649 | 0.17 | 0.32 | 0.22 | 28.20 | 5.0 | 35.1 |
| 400 | 0.0778 | 0.161 | 0.1030 | 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 | 0.15 | 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)