

## N2XSY XLPE PVC - 6/10 (12)kV Cable



Eland Product Group: A9X

### 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)  
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**

15 x overall diameter

### 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**

● Red ● Black

### STANDARDS

IEC 60502-2, EN 60228

Flame Retardant according to IEC/EN 60332-1-2

UV Resistant

### THE CABLE LAB<sup>®</sup>

AN ISO/IEC 17025 AND IECCE CBTL ACCREDITED FACILITY

Our world-class testing facility assures the quality and compliance of this cable through a continuous and rigorous testing regime.



### SUSTAINABILITY COMMITMENT

We are on a journey to Net Zero.

We've committed to near-term emissions reductions and a net-zero target with the Science Based Targets initiative and we're a signatory to the United Nations Global Compact Sustainable Development Goals.

Learn more about embodied carbon and our carbon emissions reduction actions, our comprehensive recycling services, and wider ESG activities for sustainable operations at: [www.elandcables.com/company/about-us/esg-sustainability](https://www.elandcables.com/company/about-us/esg-sustainability)



SCIENCE  
BASED  
TARGETS

BUSINESS  
AMBITION FOR **1.5°C**



### REGULATORY COMPLIANCE

This cable meets the requirements of the RoHS Directive 2015/65/EU and Reach Directive EC 1907/2006. RoHS compliance has been tested and confirmed by The Cable Lab<sup>®</sup>.





## DIMENSIONS

| ELAND PART NO. | NO. OF CORES | NOMINAL CROSS SECTIONAL AREA<br>mm <sup>2</sup> | NOMINAL SCREEN CROSS SECTIONAL AREA<br>mm <sup>2</sup> | NOMINAL INSULATION THICKNESS<br>mm | NOMINAL SHEATH THICKNESS<br>mm | NOMINAL OVERALL DIAMETER<br>mm | NOMINAL WEIGHT<br>kg/km |
|----------------|--------------|---|--|------------------------------------|--------------------------------|--------------------------------|-------------------------|
| A9X10KV1050    | 1            | 50  | 16   | 3.4                                | 1.7                            | 21.8                           | 897                     |
| A9X10KV1070    | 1            | 70  | 16   | 3.4                                | 1.7                            | 23.6                           | 1117                    |
| A9X10KV1095    | 1            | 95  | 16   | 3.4                                | 1.8                            | 25.1                           | 1387                    |
| A9X10KV1120    | 1            | 120   | 16   | 3.4                                | 1.8                            | 26.5                           | 1636                    |
| A9X10KV1150    | 1            | 150   | 25   | 3.4                                | 1.9                            | 28.5                           | 2020                    |
| A9X10KV1185    | 1            | 185   | 25   | 3.4                                | 1.9                            | 30                             | 2361                    |
| A9X10KV1240    | 1            | 240   | 25   | 3.4                                | 2                              | 32.6                           | 2952                    |
| A9X10KV1300    | 1            | 300   | 25   | 3.4                                | 2.1                            | 35                             | 3521                    |
| A9X10KV1400    | 1            | 400   | 35   | 3.4                                | 2.2                            | 38                             | 4450                    |
| A9X10KV1500    | 1            | 500   | 35   | 3.4                                | 2.3                            | 41.6                           | 5457                    |
| A9X10KV1630    | 1            | 630   | 35   | 3.4                                | 2.4                            | 46.5                           | 6893                    |
| A9X10KV1800    | 1            | 800   | 35   | 3.4                                | 2.5                            | 50.8                           | 8694                    |

## ELECTRICAL CHARACTERISTICS

| NOMINAL CROSS SECTIONAL AREA<br>mm <sup>2</sup> | MAXIMUM CONDUCTOR DC RESISTANCE AT 20 °C<br>Ω/Km | MAXIMUM CONDUCTOR AC RESISTANCE AT OPERATING TEMP. AND 50HZ<br>Ω/Km | CAPACITANCE<br>μF/Km | CHARGING CURRENT<br>A/Km | DIELECTRIC LOSSES<br>W/Km | REACTANCE AT 50 HZ<br>ohm/km | CONDUCTOR S.C.C FOR 1 SEC<br>KA | COPPER SCREEN S.C.C FOR 1 SEC<br>KA | CURRENT RATING<br>A |                  |
|---|--|---|----------------------|--------------------------|---------------------------|------------------------------|---------------------------------|-------------------------------------|---------------------|------------------|
|   |  |   |                      |                          |                           |                              |                                 |                                     | Laid in ground      | Laid in free air |
| 50  | 0.387  | 0.494   | 0.263                | 0.496                    | 11.90                     | 0.122                        | 7.15                            | 3.2                                 | 234                 | 244              |
| 70  | 0.268  | 0.342   | 0.303                | 0.571                    | 13.71                     | 0.115                        | 10.01                           | 3.2                                 | 279                 | 309              |
| 95  | 0.193  | 0.247   | 0.332                | 0.625                    | 15.00                     | 0.111                        | 13.585                          | 3.2                                 | 332                 | 373              |
| 120   | 0.153  | 0.196   | 0.362                | 0.683                    | 16.40                     | 0.107                        | 17.16                           | 3.2                                 | 376                 | 432              |
| 150   | 0.124  | 0.159   | 0.397                | 0.75                     | 17.99                     | 0.103                        | 21.45                           | 5.0                                 | 421                 | 489              |
| 185   | 0.0991   | 0.128   | 0.43                 | 0.812                    | 19.47                     | 0.100                        | 26.455                          | 5.0                                 | 476                 | 562              |
| 240   | 0.0754   | 0.098   | 0.483                | 0.911                    | 21.85                     | 0.097                        | 34.32                           | 5.0                                 | 550                 | 665              |
| 300   | 0.0601   | 0.078   | 0.535                | 1.009                    | 24.22                     | 0.093                        | 42.9                            | 5.0                                 | 618                 | 765              |
| 400   | 0.047  | 0.062   | 0.592                | 1.116                    | 26.79                     | 0.091                        | 57.2                            | 7.1                                 | 695                 | 882              |
| 500   | 0.0366   | 0.049   | 0.666                | 1.256                    | 30.14                     | 0.088                        | 71.5                            | 7.1                                 | 779                 | 1014             |
| 630   | 0.0283   | 0.039   | 0.768                | 1.449                    | 34.77                     | 0.087                        | 90.09                           | 7.1                                 | 864                 | 1152             |
| 800   | 0.0221   | 0.032   | 0.858                | 1.617                    | 38.81                     | 0.084                        | 114.4                           | 7.1                                 | 945                 | 1295             |

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

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.