



NA2XSH 18/30 (36)kV Cable



Eland Product Group: CX9

APPLICATION

UV resistant Medium voltage cables for distribution networks; also for connection to generation units and plant and process connection. LSZH outer sheath allows internal and external installation including directly in ground and in cable ducts.

CHARACTERISTICS

Voltage Rating U_0/U (Um)
18/30 (36)kV

Temperature Rating

Permissible operating temperature of conductor: +90°C
Permissible short-circuit temperature up to 5 sec: +250°C

Minimum Bending Radius

15 x overall diameter

CONSTRUCTION

Conductor

Class 2 Stranded Aluminium

Conductor Screen

Semi-Conductive material

Insulation

XLPE (Cross-Linked Polyethylene)

Insulation Screen

Semi-Conductive material

Filler

LSZH (Low Smoke Zero Halogen)

Screen

Copper Wires and Copper Tape

Sheath

LSZH (Low Smoke Zero Halogen) - UV Resistant

Sheath Colour

● Red

STANDARDS

IEC 60502-2,

Flame Retardant according to IEC/EN 60332-1-2
Low Smoke Zero Halogen according to IEC/EN 61034-1/2,
IEC/EN 60754-1/2

THE CABLE LAB[®]

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



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[®].





DIMENSIONS

| ELAND PART NO. | NO. OF CORES | NOMINAL CROSS SECTIONAL AREA | | NOMINAL CONDUCTOR DIAMETER | NUMBER WIRES CONDUCTOR | NOM. THICKNESS SEMI-CON. LAYER | | NOMINAL INSULATION THICKNESS | MINIMUM INSULATION THICKNESS | NOMINAL DIAMETER OVER INSULATION |
|----------------|--------------|------------------------------|--------|----------------------------|------------------------|--------------------------------|-------|------------------------------|------------------------------|----------------------------------|
| | | mm ² | | | | INNER | OUTER | | | |
| | | Conductor | Screen | | | | | | | |
| C9XH30KV150RD | 1 | 50 | 16 | 8.20 | 7 x 2.90 | 0.50 | 0.40 | 8.00 | 7.10 | 25.2 |
| C9XH30KV170RD | 1 | 70 | 16 | 9.70 | 19 x 2.18 | 0.50 | 0.40 | 8.00 | 7.10 | 26.7 |
| C9XH30KV195RD | 1 | 95 | 16 | 11.4 | 19 x 2.55 | 0.50 | 0.40 | 8.00 | 7.10 | 28.4 |
| C9XH30KV1120RD | 1 | 120 | 16 | 12.65 | 19 x 2.90 | 0.50 | 0.40 | 8.00 | 7.10 | 29.7 |
| C9XH30KV1150RD | 1 | 150 | 25 | 14.4 | 19 x 3.16 | 0.50 | 0.40 | 8.00 | 7.10 | 31.4 |
| C9XH30KV1185RD | 1 | 185 | 25 | 15.75 | 37 x 2.55 | 0.50 | 0.40 | 8.00 | 7.10 | 33.2 |
| C9XH30KV1240RD | 1 | 240 | 25 | 18.2 | 37 x 2.90 | 0.50 | 0.40 | 8.00 | 7.10 | 35.7 |
| C9XH30KV1300RD | 1 | 300 | 25 | 20.5 | 61 x 2.55 | 0.50 | 0.40 | 8.00 | 7.10 | 38.0 |
| C9XH30KV1400RD | 1 | 400 | 35 | 23.0 | 61 x 2.90 | 0.50 | 0.40 | 8.00 | 7.10 | 40.5 |
| C9XH30KV1500RD | 1 | 500 | 35 | 26.0 | 61 x 3.20 | 0.50 | 0.40 | 8.00 | 7.10 | 43.5 |
| C9XH30KV1630RD | 1 | 630 | 35 | 30.2 | 61 x 3.65 | 0.50 | 0.40 | 8.00 | 7.10 | 47.7 |

| NOMINAL CROSS SECTIONAL AREA | NUMBER WIRES SCREEN | DIAMETER TAPE SCREEN | NOMINAL SHEATH THICKNESS | MINIMUM SHEATH THICKNESS | NOMINAL OVERALL DIAMETER | NOMINAL WEIGHT | MAXIMUM SIDEWALL PRESSURE | MAXIMUM PULLING TENSION |
|------------------------------|---------------------|----------------------|--------------------------|--------------------------|--------------------------|----------------|---------------------------|-------------------------|
| mm ² | mm | mm | mm | mm | mm | kg/km | N/cm ² | N |
| 50 | 44 x 0.66 | 1x0.1x10 | 2.00 | 1.40 | 32 | 900 | 255 | 1500 |
| 70 | 44 x 0.66 | 1x0.1x10 | 2.00 | 1.40 | 33 | 1100 | 328 | 2100 |
| 95 | 44 x 0.66 | 1x0.1x10 | 2.10 | 1.48 | 35 | 1200 | 409 | 2850 |
| 120 | 44 x 0.66 | 1x0.1x10 | 2.10 | 1.48 | 36 | 1300 | 493 | 3600 |
| 150 | 71 x 0.66 | 1x0.1x10 | 2.20 | 1.56 | 38 | 1500 | 573 | 4500 |
| 185 | 71 x 0.66 | 1x0.1x10 | 2.20 | 1.56 | 40 | 1700 | 664 | 5550 |
| 240 | 71 x 0.66 | 1x0.1x10 | 2.30 | 1.64 | 43 | 1900 | 784 | 7200 |
| 300 | 71 x 0.66 | 1x0.1x10 | 2.40 | 1.72 | 45 | 2250 | 916 | 9000 |
| 400 | 60 x 0.85 | 1x0.1x15 | 2.50 | 1.80 | 48 | 2750 | 1127 | 12000 |
| 500 | 60 x 0.85 | 1x0.1x15 | 2.60 | 1.88 | 51 | 3000 | 1299 | 15000 |
| 630 | 60 x 0.85 | 1x0.1x15 | 2.70 | 1.96 | 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 mm ² | CONDUCTOR DC RESISTANCE AT 20°C ohms/km | CONDUCTOR DC RESISTANCE AT 75°C ohms/km | CONDUCTOR AC RESISTANCE BY MAX TEMP ohms/km | CURRENT CARRYING CAPACITY (A) | | REACTANCE ohms/km | CHARGING ADMITTANCE A/km | CAPACITANCE uF/km | S.C.C CONDUCTOR 1SEC kA | S.C.C SCREEN 1SEC kA | CONDUCTOR LOSSES IN THE GROUND kW/km |
|---|--|--|--|---------------------------------|-------------|----------------------|-----------------------------|----------------------|----------------------------|-------------------------|---|
| | | | | In Ground 20°C | In Air 30°C | | | | | | |
| 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 | 0.570 | 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 | 0.132 | 516 | 649 | 0.17 | 0.32 | 0.22 | 28.20 | 5.0 | 35.1 |
| 400 | 0.0778 | 0.161 | 0.103 | 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)