



## E-2XHCJ2Y Cable



Eland Product Group: A9D

### 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<sub>o</sub>/U (Um)

6/10 (12)kV  
12/20 (24)kV  
18/30 (36)kV

#### Test Voltage

21kV AC 50Hz (5 mins)  
42kV AC 50Hz (5 mins)  
63kV 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

### CONSTRUCTION

#### Conductor

Class 2 Stranded Copper

#### 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)

#### Sheath Colour

● Red ● Black

### STANDARDS

IEC 60502-2, IEC 60228,

Generally to HD620 10A

UV Resistant: ISO 4892-3

Abrasion and Tear Resistant: EN 60229-4.1

Impact rated to: AG2 EN 60364-5.51

### 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](http://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 6/10(12)KV

| ELAND PART NO. | NO. OF CORES | NOMINAL CROSS SECTIONAL AREA<br>mm <sup>2</sup> |        | NOMINAL CONDUCTOR DIAMETER<br>mm | NUMBER WIRES CONDUCTOR<br>mm | NOM. THICKNESS SEMI-CON. LAYER |             | NOMINAL INSULATION THICKNESS<br>mm | MINIMUM INSULATION THICKNESS<br>mm | NOMINAL DIAMETER OVER INSULATION<br>mm |
|----------------|--------------|-------------------------------------------------|--------|----------------------------------|------------------------------|--------------------------------|-------------|------------------------------------|------------------------------------|----------------------------------------|
|                |              | Conductor                                       | Screen |                                  |                              | INNER<br>mm                    | OUTER<br>mm |                                    |                                    |                                        |
| A9D10KV01050   | 1            | 50                                              | 16     | 8.10                             | 10 x 2.62                    | 0.50                           | 0.40        | 3.40                               | 2.96                               | 16.3                                   |
| A9D10KV01070   | 1            | 70                                              | 16     | 9.70                             | 14 x 2.62                    | 0.50                           | 0.40        | 3.40                               | 2.96                               | 17.9                                   |
| A9D10KV01095   | 1            | 95                                              | 16     | 11.4                             | 19 x 2.62                    | 0.50                           | 0.40        | 3.40                               | 2.96                               | 19.6                                   |
| A9D10KV01120   | 1            | 120                                             | 16     | 12.7                             | 19 x 2.97                    | 0.50                           | 0.40        | 3.40                               | 2.96                               | 20.9                                   |
| A9D10KV01150   | 1            | 150                                             | 25     | 14.5                             | 19 x 3.20                    | 0.50                           | 0.40        | 3.40                               | 2.96                               | 22.7                                   |
| A9D10KV01185   | 1            | 185                                             | 25     | 15.9                             | 27 x 2.62                    | 0.50                           | 0.40        | 3.40                               | 2.96                               | 24.1                                   |
| A9D10KV01240   | 1            | 240                                             | 25     | 18.6                             | 48 x 2.62                    | 0.50                           | 0.40        | 3.40                               | 2.96                               | 26.8                                   |
| A9D10KV01300   | 1            | 300                                             | 25     | 20.7                             | 61 x 2.62                    | 0.50                           | 0.40        | 3.40                               | 2.96                               | 28.9                                   |
| A9D10KV01400   | 1            | 400                                             | 35     | 23.5                             | 61 x 2.97                    | 0.50                           | 0.40        | 3.40                               | 2.96                               | 31.7                                   |
| A9D10KV01500   | 1            | 500                                             | 35     | 26.5                             | 61 x 3.29                    | 0.50                           | 0.40        | 3.40                               | 2.96                               | 34.7                                   |
| A9D10KV01630   | 1            | 630                                             | 35     | 30.2                             | 61 x 3.80                    | 0.50                           | 0.40        | 3.40                               | 2.96                               | 38.9                                   |

| NOMINAL CROSS SECTIONAL AREA<br>mm <sup>2</sup> | NUMBER WIRES SCREEN<br>mm | DIAMETER TAPE SCREEN<br>mm | NOMINAL SHEATH THICKNESS<br>mm | MINIMUM SHEATH THICKNESS<br>mm | NOMINAL OVERALL DIAMETER<br>mm | NOMINAL WEIGHT<br>kg/km | MAXIMUM SIDEWALL PRESSURE<br>N/cm <sup>2</sup> | MAXIMUM PULLING TENSION<br>N |
|-------------------------------------------------|---------------------------|----------------------------|--------------------------------|--------------------------------|--------------------------------|-------------------------|------------------------------------------------|------------------------------|
| 50                                              | 44 x 0.66                 | 1x0.1x10                   | 1.80                           | 1.24                           | 22                             | 850                     | 554                                            | 2500                         |
| 70                                              | 44 x 0.66                 | 1x0.1x10                   | 1.80                           | 1.24                           | 24                             | 1100                    | 692                                            | 3500                         |
| 95                                              | 44 x 0.66                 | 1x0.1x10                   | 1.80                           | 1.24                           | 26                             | 1300                    | 847                                            | 4750                         |
| 120                                             | 44 x 0.66                 | 1x0.1x10                   | 1.80                           | 1.24                           | 27                             | 1600                    | 1008                                           | 6000                         |
| 150                                             | 71 x 0.66                 | 1x0.1x10                   | 1.90                           | 1.32                           | 29                             | 2000                    | 1149                                           | 7500                         |
| 185                                             | 71 x 0.66                 | 1x0.1x10                   | 1.90                           | 1.32                           | 30                             | 2250                    | 1344                                           | 9250                         |
| 240                                             | 71 x 0.66                 | 1x0.1x10                   | 2.00                           | 1.40                           | 33                             | 3000                    | 1550                                           | 12000                        |
| 300                                             | 71 x 0.66                 | 1x0.1x10                   | 2.10                           | 1.48                           | 36                             | 3500                    | 1795                                           | 15000                        |
| 400                                             | 60 x 0.85                 | 1x0.1x15                   | 2.20                           | 1.56                           | 39                             | 4500                    | 2168                                           | 20000                        |
| 500                                             | 60 x 0.85                 | 1x0.1x15                   | 2.30                           | 1.64                           | 42                             | 5500                    | 2443                                           | 25000                        |
| 630                                             | 60 x 0.85                 | 1x0.1x15                   | 2.40                           | 1.72                           | 46                             | 6750                    | 2756                                           | 31500                        |



## ELECTRICAL CHARACTERISTICS 6/10(12)KV

| NOMINAL CROSS SECTIONAL AREA<br>mm <sup>2</sup> | CONDUCTOR DC RESISTANCE AT 20°C<br>ohms/km | CONDUCTOR DC RESISTANCE AT 75°C<br>ohms/km | CONDUCTOR AC RESISTANCE BY MAX TEMP<br>ohms/km | CURRENT CARRYING CAPACITY (A) |                | REACTANCE<br>ohms/km | CHARGING ADMITTANCE<br>A/km | CAPACITANCE<br>uF/km | S.C.C CONDUCTOR 1SEC<br>kA | S.C.C SCREEN 1SEC<br>kA | CONDUCTOR LOSSES IN THE GROUND<br>kW/km |
|-------------------------------------------------|--------------------------------------------|--------------------------------------------|------------------------------------------------|-------------------------------|----------------|----------------------|-----------------------------|----------------------|----------------------------|-------------------------|-----------------------------------------|
|                                                 |                                            |                                            |                                                | In Ground<br>20°C             | In Air<br>30°C |                      |                             |                      |                            |                         |                                         |
| 50                                              | 0.387                                      | 0.801                                      | 0.497                                          | 249                           | 277            | 0.18                 | 0.35                        | 0.21                 | 7.15                       | 3.2                     | 30.8                                    |
| 70                                              | 0.268                                      | 0.555                                      | 0.344                                          | 303                           | 345            | 0.17                 | 0.33                        | 0.24                 | 10.1                       | 3.2                     | 31.6                                    |
| 95                                              | 0.193                                      | 0.399                                      | 0.248                                          | 358                           | 418            | 0.17                 | 0.32                        | 0.27                 | 13.59                      | 3.2                     | 31.8                                    |
| 120                                             | 0.153                                      | 0.316                                      | 0.196                                          | 404                           | 481            | 0.16                 | 0.31                        | 0.30                 | 17.16                      | 3.2                     | 32.0                                    |
| 150                                             | 0.124                                      | 0.160                                      | 0.256                                          | 441                           | 537            | 0.16                 | 0.30                        | 0.33                 | 21.45                      | 5.0                     | 31.1                                    |
| 185                                             | 0.0991                                     | 0.205                                      | 0.128                                          | 493                           | 612            | 0.16                 | 0.29                        | 0.35                 | 26.46                      | 5.0                     | 31.1                                    |
| 240                                             | 0.0754                                     | 0.156                                      | 0.0980                                         | 563                           | 716            | 0.15                 | 0.28                        | 0.40                 | 34.32                      | 5.0                     | 31.1                                    |
| 300                                             | 0.0601                                     | 0.124                                      | 0.0800                                         | 626                           | 811            | 0.15                 | 0.27                        | 0.44                 | 42.90                      | 5.0                     | 31.4                                    |
| 400                                             | 0.0470                                     | 0.0974                                     | 0.0640                                         | 676                           | 901            | 0.15                 | 0.26                        | 0.49                 | 57.20                      | 7.1                     | 29.2                                    |
| 500                                             | 0.0366                                     | 0.0758                                     | 0.0510                                         | 743                           | 1006           | 0.15                 | 0.28                        | 0.54                 | 71.50                      | 7.1                     | 28.2                                    |
| 630                                             | 0.0283                                     | 0.0420                                     | 0.0586                                         | 850                           | 1030           | 0.14                 | 0.25                        | 0.62                 | 90.09                      | 7.1                     | 30.3                                    |

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

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

## DIMENSIONS 12/20 (24)KV

| ELAND PART NO. | NO. OF CORES | NOMINAL CROSS SECTIONAL AREA<br>mm <sup>2</sup> |        | NOMINAL CONDUCTOR DIAMETER<br>mm | NUMBER WIRES CONDUCTOR<br>mm | NOM. THICKNESS SEMI-CON. LAYER |             | NOMINAL INSULATION THICKNESS<br>mm | MINIMUM INSULATION THICKNESS<br>mm | NOMINAL DIAMETER OVER INSULATION<br>mm |
|----------------|--------------|-------------------------------------------------|--------|----------------------------------|------------------------------|--------------------------------|-------------|------------------------------------|------------------------------------|----------------------------------------|
|                |              | Conductor                                       | Screen |                                  |                              | INNER<br>mm                    | OUTER<br>mm |                                    |                                    |                                        |
| A9D20KV01050   | 1            | 50                                              | 16     | 8.10                             | 10 x 2.62                    | 0.50                           | 0.40        | 5.50                               | 4.85                               | 20.3                                   |
| A9D20KV01070   | 1            | 70                                              | 16     | 9.70                             | 14 x 2.62                    | 0.50                           | 0.40        | 5.50                               | 4.85                               | 21.9                                   |
| A9D20KV01095   | 1            | 95                                              | 16     | 11.4                             | 19 x 2.62                    | 0.50                           | 0.40        | 5.50                               | 4.85                               | 23.6                                   |
| A9D20KV01120   | 1            | 120                                             | 16     | 12.7                             | 19 x 2.97                    | 0.50                           | 0.40        | 5.50                               | 4.85                               | 24.9                                   |
| A9D20KV01150   | 1            | 150                                             | 25     | 14.5                             | 19 x 3.20                    | 0.50                           | 0.40        | 5.50                               | 4.85                               | 26.7                                   |
| A9D20KV01185   | 1            | 185                                             | 25     | 15.9                             | 27 x 2.62                    | 0.50                           | 0.40        | 5.50                               | 4.85                               | 28.1                                   |
| A9D20KV01240   | 1            | 240                                             | 25     | 18.6                             | 48 x 2.62                    | 0.50                           | 0.40        | 5.50                               | 4.85                               | 30.8                                   |
| A9D20KV01300   | 1            | 300                                             | 25     | 20.7                             | 61 x 2.62                    | 0.50                           | 0.40        | 5.50                               | 4.85                               | 32.9                                   |
| A9D20KV01400   | 1            | 400                                             | 35     | 23.5                             | 61 x 2.97                    | 0.50                           | 0.40        | 5.50                               | 4.85                               | 35.7                                   |
| A9D20KV01500   | 1            | 500                                             | 35     | 26.5                             | 61 x 3.29                    | 0.50                           | 0.40        | 5.50                               | 4.85                               | 38.7                                   |
| A9D20KV01630   | 1            | 630                                             | 35     | 30.2                             | 61 x 3.80                    | 0.50                           | 0.40        | 5.50                               | 4.85                               | 42.9                                   |

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.



| 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 <sup>2</sup>              | mm                  | mm                   | mm                       | mm                       | mm                       | kg/km          | N/cm <sup>2</sup>         | N                       |
| 50                           | 44 x 0.66           | 1x0.1x10             | 1.80                     | 1.24                     | 26                       | 1000           | 489                       | 2500                    |
| 70                           | 44 x 0.66           | 1x0.1x10             | 1.90                     | 1.32                     | 28                       | 1200           | 619                       | 3500                    |
| 95                           | 44 x 0.66           | 1x0.1x10             | 1.90                     | 1.32                     | 30                       | 1500           | 784                       | 4750                    |
| 120                          | 44 x 0.66           | 1x0.1x10             | 2.00                     | 1.40                     | 31                       | 1800           | 915                       | 6000                    |
| 150                          | 71 x 0.66           | 1x0.1x10             | 2.00                     | 1.40                     | 33                       | 2250           | 1053                      | 7500                    |
| 185                          | 71 x 0.66           | 1x0.1x10             | 2.10                     | 1.48                     | 35                       | 2500           | 1236                      | 9250                    |
| 240                          | 71 x 0.66           | 1x0.1x10             | 2.10                     | 1.48                     | 38                       | 3250           | 1439                      | 12000                   |
| 300                          | 71 x 0.66           | 1x0.1x10             | 2.20                     | 1.56                     | 40                       | 3750           | 1635                      | 15000                   |
| 400                          | 60 x 0.85           | 1x0.1x15             | 2.30                     | 1.64                     | 43                       | 4750           | 2005                      | 20000                   |
| 500                          | 60 x 0.85           | 1x0.1x15             | 2.40                     | 1.72                     | 48                       | 5750           | 2299                      | 25000                   |
| 630                          | 60 x 0.85           | 1x0.1x15             | 2.50                     | 1.80                     | 51                       | 7000           | 2618                      | 31500                   |

## ELECTRICAL CHARACTERISTICS 12/20 (24)KV

| 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 kA | S.C.C SCREEN 1SEC kA | CONDUCTOR LOSSES IN THE GROUND |
|------------------------------|---------------------------------|---------------------------------|-------------------------------------|-------------------------------|-------------|-----------|---------------------|-------------|-------------------------|----------------------|--------------------------------|
|                              |                                 |                                 |                                     | In Ground 20°C                | In Air 30°C |           |                     |             |                         |                      |                                |
| mm <sup>2</sup>              | ohms/km                         | ohms/km                         | ohms/km                             |                               |             | ohms/km   | A/km                | uF/km       |                         | kA                   | kW/km                          |
| 50                           | 0.387                           | 0.801                           | 0.497                               | 250                           | 279         | 0.19      | 0.39                | 0.15        | 7.15                    | 3.2                  | 31.1                           |
| 70                           | 0.268                           | 0.555                           | 0.344                               | 304                           | 347         | 0.18      | 0.37                | 0.17        | 10.1                    | 3.2                  | 31.8                           |
| 95                           | 0.193                           | 0.399                           | 0.248                               | 361                           | 420         | 0.18      | 0.35                | 0.19        | 13.59                   | 3.2                  | 32.3                           |
| 120                          | 0.153                           | 0.316                           | 0.196                               | 407                           | 483         | 0.17      | 0.34                | 0.20        | 17.16                   | 3.2                  | 32.5                           |
| 150                          | 0.124                           | 0.160                           | 0.256                               | 445                           | 540         | 0.17      | 0.33                | 0.24        | 21.45                   | 5.0                  | 31.7                           |
| 185                          | 0.0991                          | 0.205                           | 0.128                               | 498                           | 614         | 0.16      | 0.32                | 0.24        | 26.46                   | 5.0                  | 31.7                           |
| 240                          | 0.0754                          | 0.156                           | 0.0980                              | 569                           | 718         | 0.16      | 0.30                | 0.27        | 34.32                   | 5.0                  | 31.7                           |
| 300                          | 0.0601                          | 0.124                           | 0.0800                              | 633                           | 813         | 0.16      | 0.29                | 0.29        | 42.90                   | 5.0                  | 32.1                           |
| 400                          | 0.0470                          | 0.0974                          | 0.0640                              | 686                           | 904         | 0.16      | 0.28                | 0.32        | 57.20                   | 7.1                  | 30.1                           |
| 500                          | 0.0366                          | 0.0758                          | 0.0510                              | 756                           | 1011        | 0.15      | 0.28                | 0.36        | 71.50                   | 7.1                  | 29.1                           |
| 630                          | 0.0283                          | 0.0420                          | 0.0586                              | 850                           | 1030        | 0.15      | 0.27                | 0.40        | 90.09                   | 7.1                  | 30.3                           |

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

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



## DIMENSIONS 18/30 (36)KV

| ELAND PART NO. | NO. OF CORES | NOMINAL CROSS SECTIONAL AREA<br>mm <sup>2</sup> |        | NOMINAL CONDUCTOR DIAMETER<br>mm | NUMBER WIRES CONDUCTOR<br>mm | NOM. THICKNESS SEMI-CON. LAYER |             | NOMINAL INSULATION THICKNESS<br>mm | MINIMUM INSULATION THICKNESS<br>mm | NOMINAL DIAMETER OVER INSULATION<br>mm |
|----------------|--------------|-------------------------------------------------|--------|----------------------------------|------------------------------|--------------------------------|-------------|------------------------------------|------------------------------------|----------------------------------------|
|                |              | Conductor                                       | Screen |                                  |                              | INNER<br>mm                    | OUTER<br>mm |                                    |                                    |                                        |
| A9D30KV01050   | 1            | 50                                              | 16     | 8.10                             | 10 x 2.62                    | 0.50                           | 0.40        | 8.00                               | 7.10                               | 25.1                                   |
| A9D30KV01070   | 1            | 70                                              | 16     | 9.70                             | 14 x 2.62                    | 0.50                           | 0.40        | 8.00                               | 7.10                               | 26.7                                   |
| A9D30KV01095   | 1            | 95                                              | 16     | 11.4                             | 19 x 2.62                    | 0.50                           | 0.40        | 8.00                               | 7.10                               | 28.4                                   |
| A9D30KV01120   | 1            | 120                                             | 16     | 12.7                             | 19 x 2.97                    | 0.50                           | 0.40        | 8.00                               | 7.10                               | 29.7                                   |
| A9D30KV01150   | 1            | 150                                             | 25     | 14.5                             | 19 x 3.20                    | 0.50                           | 0.40        | 8.00                               | 7.10                               | 31.5                                   |
| A9D30KV01185   | 1            | 185                                             | 25     | 15.9                             | 27 x 2.62                    | 0.50                           | 0.40        | 8.00                               | 7.10                               | 32.9                                   |
| A9D30KV01240   | 1            | 240                                             | 25     | 18.6                             | 48 x 2.62                    | 0.50                           | 0.40        | 8.00                               | 7.10                               | 35.6                                   |
| A9D30KV01300   | 1            | 300                                             | 25     | 20.7                             | 61 x 2.62                    | 0.50                           | 0.40        | 8.00                               | 7.10                               | 37.7                                   |
| A9D30KV01400   | 1            | 400                                             | 35     | 23.5                             | 61 x 2.97                    | 0.50                           | 0.40        | 8.00                               | 7.10                               | 40.5                                   |
| A9D30KV01500   | 1            | 500                                             | 35     | 26.5                             | 61 x 3.29                    | 0.50                           | 0.40        | 8.00                               | 7.10                               | 43.5                                   |
| A9D30KV01630   | 1            | 630                                             | 35     | 30.2                             | 61 x 3.80                    | 0.50                           | 0.40        | 8.00                               | 7.10                               | 47.7                                   |

| NOMINAL CROSS SECTIONAL AREA<br>mm <sup>2</sup> | NUMBER WIRES SCREEN<br>mm | DIAMETER TAPE SCREEN<br>mm | NOMINAL SHEATH THICKNESS<br>mm | MINIMUM SHEATH THICKNESS<br>mm | NOMINAL OVERALL DIAMETER<br>mm | NOMINAL WEIGHT<br>kg/km | MAXIMUM SIDEWALL PRESSURE<br>N/cm <sup>2</sup> | MAXIMUM PULLING TENSION<br>N |
|-------------------------------------------------|---------------------------|----------------------------|--------------------------------|--------------------------------|--------------------------------|-------------------------|------------------------------------------------|------------------------------|
| 50                                              | 44 x 0.66                 | 1x0.1x10                   | 2.00                           | 1.40                           | 32                             | 1200                    | 426                                            | 2500                         |
| 70                                              | 44 x 0.66                 | 1x0.1x10                   | 2.00                           | 1.40                           | 33                             | 1500                    | 546                                            | 3500                         |
| 95                                              | 44 x 0.66                 | 1x0.1x10                   | 2.10                           | 1.48                           | 35                             | 1800                    | 682                                            | 4750                         |
| 120                                             | 44 x 0.66                 | 1x0.1x10                   | 2.10                           | 1.48                           | 36                             | 2000                    | 821                                            | 6000                         |
| 150                                             | 71 x 0.66                 | 1x0.1x10                   | 2.20                           | 1.56                           | 38                             | 2500                    | 952                                            | 7500                         |
| 185                                             | 71 x 0.66                 | 1x0.1x10                   | 2.20                           | 1.56                           | 40                             | 2750                    | 1103                                           | 9250                         |
| 240                                             | 71 x 0.66                 | 1x0.1x10                   | 2.30                           | 1.64                           | 43                             | 3500                    | 1299                                           | 12000                        |
| 300                                             | 71 x 0.66                 | 1x0.1x10                   | 2.40                           | 1.72                           | 45                             | 4000                    | 1522                                           | 15000                        |
| 400                                             | 60 x 0.85                 | 1x0.1x15                   | 2.50                           | 1.80                           | 48                             | 5000                    | 1885                                           | 20000                        |
| 500                                             | 60 x 0.85                 | 1x0.1x15                   | 2.60                           | 1.88                           | 51                             | 6000                    | 2151                                           | 25000                        |
| 630                                             | 60 x 0.85                 | 1x0.1x15                   | 2.70                           | 1.96                           | 56                             | 7500                    | 2465                                           | 31500                        |



## ELECTRICAL CHARACTERISTICS 18/30 (36)KV

| NOMINAL<br>CROSS<br>SECTIONAL<br>AREA<br><br>mm <sup>2</sup> | CONDUCTOR<br>DC RESISTANCE<br>AT 20°C<br><br>ohms/km | CONDUCTOR<br>DC RESISTANCE<br>AT 75°C<br><br>ohms/km | CONDUCTOR<br>AC RESISTANCE<br>BY MAX TEMP<br><br>ohms/km | CURRENT CARRYING<br>CAPACITY ( A ) |                | REACTANCE<br><br>ohms/km | CHARGING<br>ADMITTANCE<br><br>A/km | CAPACITANCE<br><br>uF/km | S.C.C<br>CONDUCTOR<br>1SEC<br>kA | S.C.C<br>SCREEN<br>1SEC<br>kA | CONDUCTOR<br>LOSSES IN THE<br>GROUND<br><br>kW/km |
|--------------------------------------------------------------|------------------------------------------------------|------------------------------------------------------|----------------------------------------------------------|------------------------------------|----------------|--------------------------|------------------------------------|--------------------------|----------------------------------|-------------------------------|---------------------------------------------------|
|                                                              |                                                      |                                                      |                                                          | In Ground<br>20°C                  | In Air<br>30°C |                          |                                    |                          |                                  |                               |                                                   |
| 50                                                           | 0.387                                                | 0.801                                                | 0.497                                                    | 251                                | 279            | 0.20                     | 0.43                               | 0.12                     | 7.15                             | 3.2                           | 31.3                                              |
| 70                                                           | 0.268                                                | 0.555                                                | 0.344                                                    | 306                                | 348            | 0.19                     | 0.41                               | 0.13                     | 10.1                             | 3.2                           | 32.2                                              |
| 95                                                           | 0.193                                                | 0.399                                                | 0.248                                                    | 363                                | 421            | 0.19                     | 0.39                               | 0.14                     | 13.59                            | 3.2                           | 32.7                                              |
| 120                                                          | 0.153                                                | 0.316                                                | 0.196                                                    | 410                                | 483            | 0.18                     | 0.37                               | 0.15                     | 17.16                            | 3.2                           | 32.9                                              |
| 150                                                          | 0.124                                                | 0.160                                                | 0.256                                                    | 449                                | 540            | 0.18                     | 0.36                               | 0.17                     | 21.45                            | 5.0                           | 32.3                                              |
| 185                                                          | 0.0991                                               | 0.205                                                | 0.128                                                    | 503                                | 615            | 0.17                     | 0.35                               | 0.17                     | 26.46                            | 5.0                           | 32.4                                              |
| 240                                                          | 0.0754                                               | 0.156                                                | 0.0980                                                   | 576                                | 718            | 0.17                     | 0.33                               | 0.20                     | 34.32                            | 5.0                           | 32.5                                              |
| 300                                                          | 0.0601                                               | 0.124                                                | 0.0800                                                   | 641                                | 812            | 0.17                     | 0.32                               | 0.21                     | 42.90                            | 5.0                           | 32.9                                              |
| 400                                                          | 0.0470                                               | 0.0974                                               | 0.0640                                                   | 697                                | 904            | 0.16                     | 0.31                               | 0.24                     | 57.20                            | 7.1                           | 31.1                                              |
| 500                                                          | 0.0366                                               | 0.0758                                               | 0.0510                                                   | 768                                | 1011           | 0.16                     | 0.30                               | 0.26                     | 71.50                            | 7.1                           | 30.1                                              |
| 630                                                          | 0.0283                                               | 0.0420                                               | 0.0586                                                   | 850                                | 1030           | 0.15                     | 0.29                               | 0.29                     | 90.09                            | 7.1                           | 30.3                                              |

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

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