



## XHIOAE Cable



Eland Product Group: MP47

### APPLICATION

Portuguese MV Cable for power distribution and power supply stations used in Utility and Industrial applications, for rated voltages for 3.6/6kV to 18/30kV. Suitable for fixed installations, directly buried. Good mechanical protection.

### CHARACTERISTICS

#### Voltage Rating $U_0/U$ (Um)

3.6/6 (7.2)kV,  
6/10 (12)kV,  
8.7/15 (17.5)kV,  
12/20 (24)kV,  
18/30 (36)kV

#### Temperature Rating

Conductor maximum operating temperature: 90°C  
Maximum short-circuit temperature: 250°C

#### Minimum Bending Radius

During installation: 15 x overall diameter  
After installation: 10 x overall diameter

### CONSTRUCTION

#### Conductor

Class 2 Copper, circular, stranded conductor

#### Conductor Screen

Semi-conductive XLPE (Cross-Linked Polyethylene)

#### Insulation

XLPE (Cross-Linked Polyethylene)

#### Insulation Screen

Semi-conductive XLPE (Cross-Linked Polyethylene)

#### Metallic Screen

Copper wire screen

#### Tape

Plastic tape applied over screen

#### Filler

Extruded polymeric material

#### Bedding

PE (Polyethylene)

#### Armour

STA (Steel Tape Armoured)

#### Sheath

Extruded PE (Polyethylene) type ST7

#### Sheath Colour

●Black

### STANDARDS

IEC 60228, IEC 60502-2

### THE CABLE LAB<sup>®</sup>

AN ISO/IEC 17025 AND IECEE 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)



### 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 3.6/6kV

| ELAND PART NO. | NO. OF CORES | NOMINAL GROSS SECTIONAL AREA<br>mm <sup>2</sup> | NOMINAL DIAMETER<br>mm |         | NOMINAL WEIGHT<br>kg/km |
|----------------|--------------|---|------------------------|---------|-------------------------|
|                |              |   | Over Insulation        | Overall |                         |
| MP4706KV03025  | 3            | 25  | 13.0                   | 44.5    | 3320                    |
| MP4706KV03035  | 3            | 35  | 14.0                   | 47.0    | 3775                    |
| MP4706KV03050  | 3            | 50  | 15.0                   | 49.5    | 4340                    |
| MP4706KV03070  | 3            | 70  | 16.5                   | 54.0    | 5280                    |
| MP4706KV03095  | 3            | 95  | 18.5                   | 58.0    | 6325                    |
| MP4706KV03120  | 3            | 120   | 20.0                   | 61.5    | 7290                    |
| MP4706KV03150  | 3            | 150   | 21.0                   | 64.5    | 8300                    |
| MP4706KV03185  | 3            | 185   | 22.5                   | 67.5    | 9640                    |
| MP4706KV03240  | 3            | 240   | 25.5                   | 75.0    | 11985                   |
| MP4706KV03300  | 3            | 300   | 28.5                   | 82.0    | 14475                   |
| MP4706KV03400  | 3            | 400   | 32.0                   | 91.5    | 18920                   |

## ELECTRICAL CHARACTERISTICS 3.6/6kV

| NO. OF CORES | NOMINAL GROSS SECTIONAL AREA<br>mm <sup>2</sup> | CURRENT CARRYING CAPACITY<br>Amps |        | CONDUCTOR MAXIMUM SHORT-CIRCUIT CURRENT, T=1S<br>kA | MAXIMUM CONDUCTOR DC RESISTANCE AT 20°C<br>ohm/km | INDUCTANCE<br>mH/km | CAPACITANCE<br>μF/km |
|--------------|---|-----------------------------------|--------|---|---|---------------------|----------------------|
|              |   | In air                            | Buried |   |   |                     |                      |
| 3            | 25  | 143                               | 148    | 3.6   | 0.7270  | 0.38                | 0.27                 |
| 3            | 35  | 172                               | 177    | 5.0   | 0.5240  | 0.36                | 0.30                 |
| 3            | 50  | 205                               | 209    | 7.5   | 0.3870  | 0.34                | 0.33                 |
| 3            | 70  | 253                               | 255    | 10.0  | 0.2680  | 0.32                | 0.38                 |
| 3            | 95  | 307                               | 304    | 13.6  | 0.1930  | 0.30                | 0.43                 |
| 3            | 120   | 352                               | 345    | 17.2  | 0.1530  | 0.29                | 0.48                 |
| 3            | 150   | 397                               | 388    | 21.5  | 0.1240  | 0.28                | 0.51                 |
| 3            | 185   | 453                               | 437    | 26.5  | 0.0991  | 0.28                | 0.54                 |
| 3            | 240   | 529                               | 503    | 34.3  | 0.0754  | 0.27                | 0.60                 |
| 3            | 300   | 599                               | 563    | 42.9  | 0.0601  | 0.26                | 0.63                 |
| 3            | 400   | 683                               | 631    | 57.2  | 0.0470  | 0.26                | 0.66                 |



## DIMENSIONS 6/10kV

| ELAND PART NO. | NO. OF CORES | NOMINAL CROSS SECTIONAL AREA<br>mm <sup>2</sup> | NOMINAL DIAMETER<br>mm |         | NOMINAL WEIGHT<br>kg/km |
|----------------|--------------|---|------------------------|---------|-------------------------|
|                |              |   | Over Insulation        | Overall |                         |
| MP4710KV03025  | 3            | 25  | 15.0                   | 49.0    | 3 775                   |
| MP4710KV03035  | 3            | 35  | 16.0                   | 51.5    | 4 255                   |
| MP4710KV03050  | 3            | 50  | 17.0                   | 54.5    | 4 850                   |
| MP4710KV03070  | 3            | 70  | 18.5                   | 58.5    | 5 815                   |
| MP4710KV03095  | 3            | 95  | 20.5                   | 62.5    | 6 830                   |
| MP4710KV03120  | 3            | 120   | 22.0                   | 66.5    | 7 885                   |
| MP4710KV03150  | 3            | 150   | 23.0                   | 69.5    | 8 960                   |
| MP4710KV03185  | 3            | 185   | 24.5                   | 72.5    | 10 290                  |
| MP4710KV03240  | 3            | 240   | 27.0                   | 78.5    | 12 455                  |
| MP4710KV03300  | 3            | 300   | 30.0                   | 85.0    | 14 935                  |
| MP4710KV03400  | 3            | 400   | 33.0                   | 93.0    | 19 215                  |

## ELECTRICAL CHARACTERISTICS 6/10kV

| NO. OF CORES | NOMINAL CROSS SECTIONAL AREA<br>mm <sup>2</sup> | CURRENT CARRYING CAPACITY<br>Amps |        | CONDUCTOR<br>MAXIMUM<br>SHORT-CIRCUIT<br>CURRENT. T=1S<br>kA | MAXIMUM<br>CONDUCTOR<br>DC RESISTANCE<br>AT 20°C<br>ohm/km | INDUCTANCE<br>mH/km | CAPACITANCE<br>μF/km |
|--------------|---|-----------------------------------|--------|--|--|---------------------|----------------------|
|              |   | In air                            | Buried |  |  |                     |                      |
| 3            | 25  | 143                               | 148    | 3.6  | 0.7270   | 0.40                | 0.22                 |
| 3            | 35  | 172                               | 177    | 5.0  | 0.5240   | 0.38                | 0.24                 |
| 3            | 50  | 205                               | 209    | 7.5  | 0.3870   | 0.37                | 0.27                 |
| 3            | 70  | 253                               | 255    | 10.0   | 0.2680   | 0.34                | 0.30                 |
| 3            | 95  | 307                               | 304    | 13.6   | 0.1930   | 0.32                | 0.34                 |
| 3            | 120   | 352                               | 345    | 17.2   | 0.1530   | 0.31                | 0.37                 |
| 3            | 150   | 397                               | 388    | 21.5   | 0.1240   | 0.30                | 0.39                 |
| 3            | 185   | 453                               | 437    | 26.5   | 0.0991   | 0.29                | 0.42                 |
| 3            | 240   | 529                               | 503    | 34.3   | 0.0754   | 0.28                | 0.48                 |
| 3            | 300   | 599                               | 563    | 42.9   | 0.0601   | 0.27                | 0.53                 |
| 3            | 400   | 683                               | 631    | 57.2   | 0.0470   | 0.26                | 0.59                 |



## DIMENSIONS 8.7/15kV

| ELAND PART NO. | NO. OF CORES | NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup> | NOMINAL DIAMETER mm |         | NOMINAL WEIGHT kg/km |
|----------------|--------------|--|---------------------|---------|----------------------|
|                |              |  | Over Insulation     | Overall |                      |
|                | 3            | 25   | 17.0                | 54.5    | 4 335                |
|                | 3            | 35   | 18.0                | 57.0    | 4 835                |
|                | 3            | 50   | 19.0                | 59.5    | 5 470                |
|                | 3            | 70   | 21.0                | 63.5    | 6 425                |
|                | 3            | 95   | 22.5                | 67.5    | 7 505                |
|                | 3            | 120  | 24.5                | 71.5    | 8 600                |
|                | 3            | 150  | 25.5                | 74.5    | 9 730                |
|                | 3            | 185  | 26.5                | 77.5    | 10 985               |
|                | 3            | 240  | 29.5                | 83.5    | 13 290               |
|                | 3            | 300  | 32.0                | 91.5    | 16 705               |
|                | 3            | 400  | 35.0                | 98.5    | 20 225               |

## ELECTRICAL CHARACTERISTICS 8.7/15kV

| NO. OF CORES | NOMINAL CROSS SECTIONAL AREA mm <sup>2</sup> | CURRENT CARRYING CAPACITY Amps |        | CONDUCTOR MAXIMUM SHORT-CIRCUIT CURRENT. T=1S kA | MAXIMUM CONDUCTOR DC RESISTANCE AT 20°C ohm/km | INDUCTANCE mH/km | CAPACITANCE μF/km |
|--------------|--|--------------------------------|--------|--|--|------------------|-------------------|
|              |  | In air                         | Buried |  |  |                  |                   |
| 3            | 25   | 143                            | 148    | 3.6  | 0.7270   | 0.43             | 0.18              |
| 3            | 35   | 172                            | 177    | 5.0  | 0.5240   | 0.41             | 0.20              |
| 3            | 50   | 205                            | 209    | 7.5  | 0.3870   | 0.39             | 0.21              |
| 3            | 70   | 253                            | 255    | 10.0   | 0.2680   | 0.36             | 0.24              |
| 3            | 95   | 307                            | 304    | 13.6   | 0.1930   | 0.34             | 0.27              |
| 3            | 120  | 352                            | 345    | 17.2   | 0.1530   | 0.33             | 0.29              |
| 3            | 150  | 397                            | 388    | 21.5   | 0.1240   | 0.32             | 0.31              |
| 3            | 185  | 453                            | 437    | 26.5   | 0.0991   | 0.31             | 0.33              |
| 3            | 240  | 529                            | 503    | 34.3   | 0.0754   | 0.30             | 0.38              |
| 3            | 300  | 599                            | 563    | 42.9   | 0.0601   | 0.29             | 0.42              |
| 3            | 400  | 683                            | 631    | 57.2   | 0.0470   | 0.27             | 0.46              |



## DIMENSIONS 12/20kV

| ELAND PART NO. | NO. OF CORES | NOMINAL CROSS SECTIONAL AREA<br>mm <sup>2</sup> | NOMINAL DIAMETER<br>mm |         | NOMINAL WEIGHT<br>kg/km |
|----------------|--------------|---|------------------------|---------|-------------------------|
|                |              |   | Over Insulation        | Overall |                         |
|                | 3            | 35  | 20.0                   | 61.5    | 5 325                   |
|                | 3            | 50  | 21.0                   | 64.5    | 6 000                   |
|                | 3            | 70  | 23.0                   | 68.5    | 7 045                   |
|                | 3            | 95  | 24.5                   | 72.5    | 8 190                   |
|                | 3            | 120   | 26.5                   | 76.5    | 9 280                   |
|                | 3            | 150   | 27.5                   | 79.0    | 10 330                  |
|                | 3            | 185   | 28.5                   | 82.0    | 11 760                  |
|                | 3            | 240   | 31.5                   | 90.0    | 14 985                  |
|                | 3            | 300   | 34.0                   | 96.5    | 17 595                  |
|                | 3            | 400   | 37.0                   | 103.0   | 21 170                  |

## ELECTRICAL CHARACTERISTICS 12/20kV

| NO. OF CORES | NOMINAL CROSS SECTIONAL AREA<br>mm <sup>2</sup> | CURRENT CARRYING CAPACITY<br>Amps |        | CONDUCTOR<br>MAXIMUM<br>SHORT-CIRCUIT<br>CURRENT. T=1S<br>kA | MAXIMUM<br>CONDUCTOR<br>DC RESISTANCE<br>AT 20°C<br>ohm/km | INDUCTANCE<br>mH/km | CAPACITANCE<br>μF/km |
|--------------|---|-----------------------------------|--------|--|--|---------------------|----------------------|
|              |   | In air                            | Buried |  |  |                     |                      |
| 3            | 35  | 172                               | 177    | 5.0  | 0.5240   | 0.43                | 0.17                 |
| 3            | 50  | 205                               | 209    | 7.5  | 0.3870   | 0.41                | 0.19                 |
| 3            | 70  | 253                               | 255    | 10.0   | 0.2680   | 0.37                | 0.21                 |
| 3            | 95  | 307                               | 304    | 13.6   | 0.1930   | 0.36                | 0.23                 |
| 3            | 120   | 352                               | 345    | 17.2   | 0.1530   | 0.34                | 0.25                 |
| 3            | 150   | 397                               | 388    | 21.5   | 0.1240   | 0.33                | 0.27                 |
| 3            | 185   | 453                               | 437    | 26.5   | 0.0991   | 0.32                | 0.28                 |
| 3            | 240   | 529                               | 503    | 34.3   | 0.0754   | 0.31                | 0.32                 |
| 3            | 300   | 599                               | 563    | 42.9   | 0.0601   | 0.30                | 0.35                 |
| 3            | 400   | 683                               | 631    | 57.2   | 0.0470   | 0.29                | 0.39                 |



## DIMENSIONS 18/30kV

| ELAND PART NO. | NO. OF CORES | NOMINAL CROSS SECTIONAL AREA<br>mm <sup>2</sup> | NOMINAL DIAMETER<br>mm |         | NOMINAL WEIGHT<br>kg/km |
|----------------|--------------|---|------------------------|---------|-------------------------|
|                |              |   | Over Insulation        | Overall |                         |
|                | 3            | 50  | 26.0                   | 76.0    | 7 595                   |
|                | 3            | 70  | 28.0                   | 80.5    | 8 730                   |
|                | 3            | 95  | 29.5                   | 86.0    | 10 845                  |
|                | 3            | 120   | 31.5                   | 90.0    | 12 105                  |
|                | 3            | 150   | 32.5                   | 92.5    | 13 170                  |
|                | 3            | 185   | 33.5                   | 95.5    | 14 725                  |
|                | 3            | 240   | 36.5                   | 102.0   | 17 205                  |
|                | 3            | 300   | 39.0                   | 108.0   | 19 950                  |
|                | 3            | 400   | 42.0                   | 115.0   | 23 760                  |

## ELECTRICAL CHARACTERISTICS 18/30kV

| NO. OF CORES | NOMINAL CROSS SECTIONAL AREA<br>mm <sup>2</sup> | CURRENT CARRYING CAPACITY<br>Amps |        | CONDUCTOR MAXIMUM SHORT-CIRCUIT CURRENT, T=1S<br>kA | MAXIMUM CONDUCTOR DC RESISTANCE AT 20°C<br>ohm/km | INDUCTANCE<br>mH/km | CAPACITANCE<br>μF/km |
|--------------|---|-----------------------------------|--------|---|---|---------------------|----------------------|
|              |   | In air                            | Buried |   |   |                     |                      |
| 3            | 50  | 205                               | 209    | 7.5   | 0.3870  | 0.45                | 0.14                 |
| 3            | 70  | 253                               | 255    | 10.0  | 0.2680  | 0.41                | 0.16                 |
| 3            | 95  | 307                               | 304    | 13.6  | 0.1930  | 0.39                | 0.18                 |
| 3            | 120   | 352                               | 345    | 17.2  | 0.1530  | 0.38                | 0.19                 |
| 3            | 150   | 397                               | 388    | 21.5  | 0.1240  | 0.36                | 0.20                 |
| 3            | 185   | 453                               | 437    | 26.5  | 0.0991  | 0.35                | 0.21                 |
| 3            | 240   | 529                               | 503    | 34.3  | 0.0754  | 0.34                | 0.24                 |
| 3            | 300   | 599                               | 563    | 42.9  | 0.0601  | 0.32                | 0.26                 |
| 3            | 400   | 683                               | 631    | 57.2  | 0.0470  | 0.31                | 0.29                 |

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.