

XHIOE(cbe) 12/20kV Cable



Eland Product Group: MP08

APPLICATION

Portuguese referenced Medium Voltage cable with additional waterblocking properties for power distribution and power supply stations used in Utility and Industrial applications, for rated voltages up to 12/20kV. Suitable for fixed installations, indoor or outdoor, in open air on cable trays, or underground in ducts or directly buried.

CHARACTERISTICS

Voltage Rating U_o/U (U_m)
12/20 (24)kV

Test Voltage
42kV

Temperature Range
Fixed: -20°C to +90°C

Minimum Bending Radius
15 x overall diameter

CONSTRUCTION

Conductor
Stranded copper conductor

Tape 1
Waterblocking tape

Conductor Screen
Semi-conductive XLPE (Cross-Linked Polyethylene)

Insulation
XLPE (Cross-Linked Polyethylene)

Insulation Screen
Semi-conductive XLPE (Cross-Linked Polyethylene) and tape

Metallic Screen
Copper wires

Tape 2
Waterblocking yarn

Outer Sheath
PE (Polyethylene)

Sheath Colour
● Black

STANDARDS

IEC 60228, IEC 60502-2

ISO/IEC 17025 LABORATORY TESTED

This product is subject to the Quality Assurance protocols of The Cable Lab®, an ISO/IEC 17025 accredited cable testing laboratory. Testing includes vertical flame, conductor resistance, tensile & elongation, and dimensional consistency, verified to published standards and approved product drawings.



REGULATORY COMPLIANCE

This cable meets the requirements of the RoHS compliance has been tested and confirmed by The Cable Lab® as meeting the requirements of the BSI RoHS Trusted Kitemark™.





DIMENSIONS

| ELAND PART NO. | NO. OF CORES | CONDUCTOR NOMINAL CROSS SECTIONAL AREA mm ² | NOMINAL DIAMETER OVER INSULATION mm | NOMINAL OVERALL DIAMETER mm | NOMINAL WEIGHT kg/km |
|----------------|--------------|---|--|--------------------------------|-------------------------|
| MP0820K01035 | 1 | 35 | 20.0 | 27.5 | 1025 |
| MP0820K01050 | 1 | 50 | 21.0 | 29.0 | 1170 |
| MP0820K01070 | 1 | 70 | 23.0 | 31.0 | 1425 |
| MP0820K01095 | 1 | 95 | 24.5 | 32.5 | 1705 |
| MP0820K01120 | 1 | 120 | 26.5 | 34.5 | 2000 |
| MP0820K01150 | 1 | 150 | 27.5 | 35.5 | 2270 |
| MP0820K01185 | 1 | 185 | 28.5 | 37.0 | 2660 |
| MP0820K01240 | 1 | 240 | 31.5 | 39.5 | 3250 |
| MP0820K01300 | 1 | 300 | 34.0 | 42.5 | 3920 |
| MP0820K01400 | 1 | 400 | 37.0 | 45.5 | 4880 |
| MP0820K01500 | 1 | 500 | 40.0 | 49.0 | 5855 |
| MP0820K01630 | 1 | 630 | 46.0 | 52.5 | 7510 |
| MP0820K03035 | 3 | 35 | 20.0 | 56.0 | 3950 |
| MP0820K03050 | 3 | 50 | 21.0 | 59.0 | 4525 |
| MP0820K03070 | 3 | 70 | 23.0 | 63.0 | 5470 |
| MP0820K03095 | 3 | 95 | 24.5 | 67.0 | 6485 |
| MP0820K03120 | 3 | 120 | 26.5 | 70.5 | 7480 |
| MP0820K03150 | 3 | 150 | 27.5 | 73.5 | 8465 |
| MP0820K03185 | 3 | 185 | 28.5 | 76.5 | 9775 |
| MP0820K03240 | 3 | 240 | 31.5 | 82.5 | 11930 |
| MP0820K03300 | 3 | 300 | 34.0 | 88.5 | 14270 |
| MP0820K03400 | 3 | 400 | 37.0 | 95.5 | 17600 |

ELECTRICAL CHARACTERISTICS

| NO. OF CORES | CONDUCTOR NOMINAL CROSS SECTIONAL AREA mm ² | CONDUCTOR MAXIMUM SHORT CIRCUIT CURRENT T=1S kA | CONDUCTOR DC RESISTANCE AT 20°C ohm/km | INDUCTANCE mH/km | CAPACITANCE uF/km | CURRENT CARRYING CAPACITY Amps | |
|--------------|---|--|---|---------------------|----------------------|-----------------------------------|--------|
| | | | | | | In Air | Buried |
| 1 | 35 | 5.0 | 0.5240 | 0.44 | 0.20 | 197 | 191 |
| 1 | 50 | 7.5 | 0.3870 | 0.42 | 0.21 | 236 | 226 |
| 1 | 70 | 10.0 | 0.2680 | 0.40 | 0.24 | 295 | 277 |
| 1 | 95 | 13.6 | 0.1930 | 0.38 | 0.27 | 359 | 333 |
| 1 | 120 | 17.2 | 0.1530 | 0.36 | 0.29 | 416 | 379 |
| 1 | 150 | 21.5 | 0.1240 | 0.35 | 0.31 | 471 | 425 |
| 1 | 185 | 26.5 | 0.0991 | 0.34 | 0.33 | 537 | 479 |
| 1 | 240 | 34.3 | 0.0754 | 0.33 | 0.38 | 639 | 558 |
| 1 | 300 | 42.9 | 0.0601 | 0.32 | 0.42 | 738 | 632 |
| 1 | 400 | 57.2 | 0.0470 | 0.30 | 0.46 | 858 | 720 |
| 1 | 500 | 71.5 | 0.0366 | 0.29 | 0.51 | 993 | 817 |
| 1 | 630 | 90.1 | 0.0283 | 0.29 | 0.56 | 1 143 | 922 |
| 3 | 35 | 5.0 | 0.5240 | 0.43 | 0.17 | 170 | 175 |
| 3 | 50 | 7.5 | 0.3870 | 0.41 | 0.19 | 204 | 209 |
| 3 | 70 | 10.0 | 0.2680 | 0.37 | 0.21 | 253 | 256 |
| 3 | 95 | 13.6 | 0.1930 | 0.36 | 0.23 | 304 | 303 |
| 3 | 120 | 17.2 | 0.1530 | 0.34 | 0.25 | 351 | 345 |

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

| NO. OF CORES | CONDUCTOR NOMINAL CROSS SECTIONAL AREA mm ² | CONDUCTOR MAXIMUM SHORT CIRCUIT CURRENT T=1S kA | CONDUCTOR DC RESISTANCE AT 20°C ohm/km | INDUCTANCE mH/km | CAPACITANCE uF/km | CURRENT CARRYING CAPACITY Amps | |
|--------------|--|---|--|------------------|-------------------|--------------------------------|--------|
| | | | | | | In Air | Buried |
| 3 | 150 | 21.5 | 0.1240 | 0.27 | 0.31 | 398 | 390 |
| 3 | 185 | 26.5 | 0.0991 | 0.28 | 0.33 | 455 | 440 |
| 3 | 240 | 34.3 | 0.0754 | 0.32 | 0.38 | 531 | 507 |
| 3 | 300 | 42.9 | 0.0601 | 0.35 | 0.42 | 606 | 571 |
| 3 | 400 | 57.2 | 0.0470 | 0.39 | 0.46 | 696 | 645 |

