

## TECHNICAL DATA SHEET LOW VOLTAGE POWER CABLE

Cable Description:

Cu / XLPE / PVC 1kV 4X10 mm<sup>2</sup> RM  
IEC 60502-1 FR-IEC 60332-1

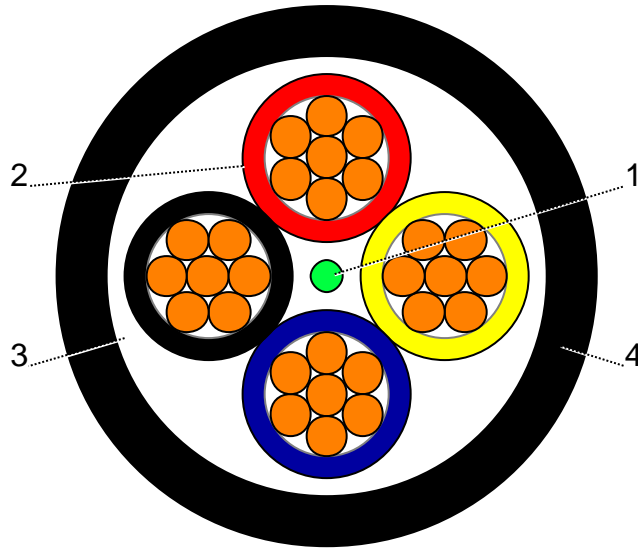
| Design and Construction Data:  |   |   |
|--|---|---|
| Reference Manufacturing Standards  |   | IEC/BS EN 60228, IEC 60502-1                        |
| Max. Permissible Continuous Conductor Temp   | °C  | 90  |
| Max. Conductor Short Circuit Temp for 5 Seconds  | °C  | 250   |
| Rated Voltage 'U <sub>0</sub> / U'   | kV  | 0.6 / 1.0   |
| Number of Conductors x Cross-Section   | mm <sup>2</sup>                           | 4 x 10  |
| Conductor Material & Shape   |   | Copper & Stranded Class 2 non-compacted Round Shape |
| Insulation Material  |   | XLPE  |
| Conductor Nominal Insulation Thickness   | mm  | 0.70  |
| Insulation Color   |   | RED, YELLOW, BLUE, BLACK                            |
| Outer Sheath Material  |   | PVC - ST2   |
| Colour of Outer Sheath   |   | BLACK   |
| Approximate Cable Overall Diameter   | mm  | 17.5  |
| Electrical Data:   |   |   |
| Max Conductor DC resistance @ 20 °C  | ohms/km                                   | 1.8300  |
| Max Conductor AC resistance @ 90 °C  | ohms/km                                   | 2.3336  |
| Max Conductor Short Circuit Current @ 1 Second   | kA  | 1.43  |
| Current Carry Capacity   |   |   |
| Laid in air @ 40 °C Ambient Temperature  |   |   |
| Free In Air  | A   | 67  |
| In Pipes   | A   | 52  |
| Laid in Ground   |   |   |
| Direct Laid  | A   | 76  |
| Laid In Duct   | A   | 62  |
| Laid in Ground with the following conditions:<br>Ambient Ground Temperature: 35 °C<br>Depth of laying in ground: 0.5 m<br>Soil Thermal Resistivity: 1.2 °K.m/W |   |   |
| Additional Data:   |   |   |
| Maximum pulling Tension  | kN  | 2.00  |
| Maximum side wall pressure   | kN/m                                      | 14.3  |
| Minimum Bending Radius   | mm  | 140   |
| The Cable shall meet all Test requirements of:   | IEC/BS EN 60228, IEC 60502-1, IEC 60332-1 |   |
| Packing Data:  |   |   |
| Drum Type  |   | Non-Returnable                                      |
| Length of Cable per drum (± 5%)  | m   | 1000  |
| Drum Dimensions "Height x Width" (Approx.)   | m   | 1.1 x 0.81  |
| Gross Weight (Approximate without Lagging)   | kg  | 678   |

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**Cable Marking:**

BAHRA CABLES CO. KSA 4 X 10 mm<sup>2</sup> Cu / XLPE / PVC 600 / 1000 V IEC 60502-1 FR IEC 60332-1  
Manufacturing Year - Meter marked

**Cable Drawing**



| Description | Cu / XLPE / PVC 1kv 4X10 mm <sup>2</sup> RM | Approx. Diameter |
|-------------|---|------------------|
| 1           | Non-Hygroscopic Filler                      | -                |
| 2           | Core  |                  |
|             | Stranded Copper Conductor with round shape  | 4.01             |
|             | XLPE insulated                              | 5.41             |
| 3           | PVC Compound                                | 14.19            |
| 4           | PVC Outer Sheathing                         | 17.46            |