

Power Cable, XLPE Insulation and PVC Sheath

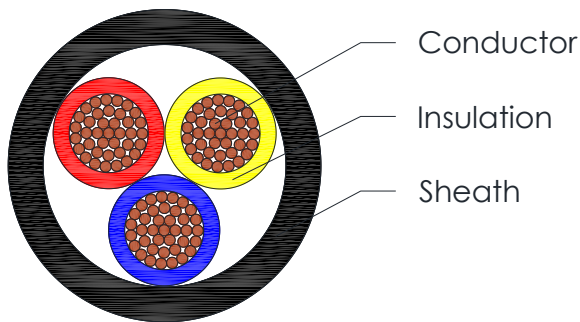


CI4105, CI4106, CI4107

Applications

Multi cores cable 0.6/1 kV [1.2], of soft annealed stranded plain copper conductors, insulated by cross linked polyethylene (XLPE) suitable for maximum operating temperature of 90°C, core are assembled together, then extruded by poly vinyl chloride (PVC) as an outer sheath.

Cross Section Drawing



Design

| Unit | Properties |
|------------------------|--|
| Conductor | Flexible Bare Copper wire |
| Insulation | Cross Linked Polyethylene (XLPE) Core 1: Red Core 2: Yellow Core 3: Blue Core 4: Black |
| Sheath | Flame-Retardant Polyvinyl Chloride (PVC) Standard colour: Black |
| Standard Put Up Length | 305 meters |

*Other Colors, Put Up Lengths and structures can be manufactured upon request, please contact your local B3 International sales representative.

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C14105, C14106, C14107

Physical Characteristics

| Part Number | C14105 | C14106 | C14107 |
|--|--------------------|------------------|------------------|
| No of cores x cross section (mm ²) | 3 x 16.0 | 4 x 25.0 | 4 x 35.0 |
| Conductor Shape | Circular-Compacted | Sector-Compacted | Sector-Compacted |
| Nom. Radial Thickness Insulation(mm) | 0.7 | 0.9 | 0.9 |
| Nom. Radial Thickness Sheath(mm) | 1.5 | | |
| Nom. Overall Diameter(mm) | 16.2 | 20.8 | 23.1 |
| Nominal Cable Weight (kg/km) | 624 | 1118 | 1494 |
| Bending Radius (mm) | 162 | 166 | 185 |

Electrical Characteristics at 20°C

| Part Number | C14105 | C14106 | C14107 |
|--|------------|----------|----------|
| No of cores x cross section (mm ²) | 3 x 16.0 | 4 x 25.0 | 4 x 35.0 |
| Service Initial Conditions | | | |
| Air Temperature (°C) | 40 | | |
| Ground Temperature (°C) | 35 | | |
| Soil Thermal Resistivity (°C.m/W) | 1.2 | | |
| Burial Depth (mm) | 500 | | |
| Current Carrying Capacity | | | |
| Laid in Free air (Amp) | 88 | 120 | 145 |
| Laid in ground (Amp) | 98 | 128 | 155 |
| Laid in duct (Amp) | 80 | 102 | 120 |
| Normal Operation Electrical Parameters | | | |
| Max. Operating Temp. in conductor (°C) | 90 | | |
| Conductor DC resistance at 20°C (Ohm/km) | 1.15 | 0.727 | 0.524 |
| Conductor AC resistance at max. operating temp.& 50Hz (Ohm/km) | 1.47 | 0.927 | 0.669 |
| Short circuit Operation Electrical Parameters | | | |
| Max. Conductor Temp during short circuit (°C) | 160 | 250 | 250 |
| Conductor short circuit current for 1sec (KA) | 2.3 | 3.6 | 5.005 |
| Max. Operating Voltage (KVrms) | 0.6/1(1.2) | | |

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Reference Standards

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|-----------------|
| (BS) EN 50290-2 |
| IEC 60228 |
| IEC 60502-1 |
| RoHS directives |