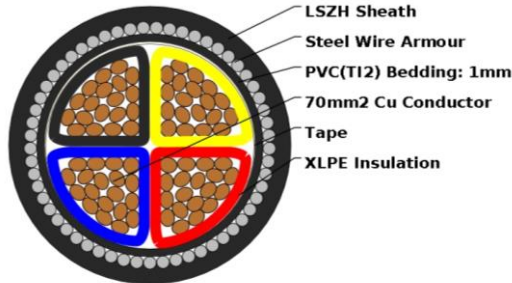


Cable Code: CARMZC050004BK1>
Description: METSEC CU/XLPE/SWA/LSZH ARMoured CABLE 4COREx50.00MM BLACK (SECTOR) - Loose
Reference: 6944X
Standard: BS 6724



Main Application:

Armoured power cables are available with both copper and aluminium conductors as required. The armour provides additional protection where mechanical stress has the potential to cause damage to the cable, such as direct burial, outdoors or underground. The armour also enables the cable to withstand higher pulling loads. It should be noted, however, that the armour provides no protection for climatic conditions.

Parameters:

| | | | |
|--|--|---------------------------|--------------|
| Physical | Conductor | Copper | |
| | Insulation | XLPE | |
| | Cross sectional area | 50 sq mm | |
| | No. of Cores: | 4 | |
| | Core Colours: | Red, Yellow, Blue, Black | |
| | Nom. Thickness of Insulation | 1 mm | |
| | Nom. Overall Diameter | 31.85 mm | |
| Nom. Weight | 3.04638 kg/m | | |
| Electrical | Rated Voltage (U ₀ /U) | 600/1000 V | |
| | Max. permissible operating voltage in AC systems (U _m) | 1.2 kV | |
| | AC Test voltage over 5 minutes | 3.5 kV | |
| | Max. Conductor D.C Resistance | 20°C | 0.387 Ohms |
| | Max. Conductor A.C Resistance | @ 90°C | 0.493 Ohms |
| | Min. Insulation Resistance | @ 90°C | MΩ.km |
| | Current Rating | Direct in Ground | 185 A |
| | Current Rating | In Duct | 151 A |
| | Current Rating | Installed in Free Air | 179 A |
| | Approx. Volt Drop | | 0.9 mV/A/m |
| | Inductive Reactance of Cable at 50Hz (approx.) | | 0.07495 Ω/km |
| Mutual Reactance | | 0.23856 mH/km | |
| Capacitance of Cable (approx.) | | μF/km | |
| Short Circuit Current Rating for 1 second duration | | 7.15 kA | |
| Thermal | Maximum conductor operating temperature: | 90 °C | |
| | Lowest ambient temperature for fixed installation: | -30 °C | |
| | Lowest installation temperature: | 5 °C | |
| | Maximum short-circuit conductor temperature: | 250 °C | |
| Mechanical | Tensile load | 3000 N/mm ² | |
| | Min. bending radii (BS 7671) | 8 * d | |
| Chemical | Resistance to oil: | According to IEC Standard | |
| | Weather resistance: | | |

BASIC ASSUMPTION FOR CURRENT RATINGS & RATING FACTORS

The current ratings of cables as indicated in various tables have been calculated on certain assumed conditions. In actual practice these conditions may be different. Therefore to determine the actual current ratings as per installation conditions, the tabulated ratings shall be multiplied with appropriate factors

- i. Maximum permissible temperature: 90°C for XLPE insulation, 70°C for general purpose PVC, 85°C for HR PVC
- ii. Ground/Duct temperature: 35°C
- iii. Ambient temperature: 40°C
- iv. Thermal resistivity of soil: 1.2°C m/W
- v. Thermal resistivity of Dielectric 650°C cm/W for PVC, 350°C cm/W for XLPE
- vi. Cables are installed in a single circuit
- vii. Depth of laying: 500mm

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Due to continuous product development and improvements, specifications set out in this Catalogue are subject to change without notice.