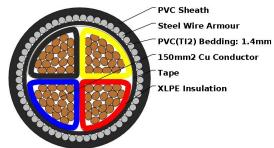


## **Technical Datasheet**

Cable Code: CARMXC150004BK1>

Description: METSEC CU/XLPE/SWA/PVC ARMOURED CABLE 4COREx150.00MM BLACK (SECTOR) - Loose

Reference: 6944X Standard: BS 5467



## **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	150 sq mm
	No. of Cores:	4
	Core Colours:	Red, Yellow, Blue, Black
	Nom. Thickness of Insulation	1.4 mm
	Nom. Overall Diameter	50.49 mm
	Nom. Weight	8.28226 kg/m
Electrical	Rated Voltage (U <sub>0</sub> /U)	600/1000 V
	Max. permissible operating voltage in AC systems (U <sub>m</sub> )	1.2 kV
	AC Tost voltage ever E minutes	2 5 1/1

wax permissible operating voitag	1.2 KV	
AC Test voltage over 5 minutes		3.5 kV
Max. Conductor D.C Resistance	20°C	0.124 Ohms
Max. Conductor A.C Resistance	@ 90°C	0.158 Ohms
Min. Insulation Resistance	@ 90°C	MΩ.km
Current Rating	Direct in Ground	348 A
Current Rating	In Duct	288 A
Current Rating	Installed in Free Air	369 A
Approx. Volt Drop		0.3 mV/A/m

Inductive Reactance of Cable at 50Hz (approx.)	0.07173 Ω/km
Mutual Reactance	0.22833 mH/km
Capacitance of Cable (approx.)	μF/km
Short Circuit Current Rating for 1 second duration	21.45 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	9000 N/mm²
	Min. bending radii (BS 7671)	8 * d

Chemical	Resistance to oil:	According to IEC Standard
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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:  $35^{\circ}C$
- 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

Despite every reasonable effort having been made to ensure the accuracy of the technical information contained in this datasheet:

- i. THE COMPANY MAKES NO WARRANTY OR REPRESENTATION WHATSOEVER AS TO THE SUITABILITY OF THE PRODUCT FOR ANY PARTICULAR PURPOSE. THE ONUS IS ENTIRELY ON THE PURCHASER OF THE PRODUCT TO ENSURE THAT THE PRODUCT IS SUITABLE FOR ITS INTENDED PURPOSE;
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Due to continuous product development and improvements, specifications set out in this Catalogue are subject to change without notice.