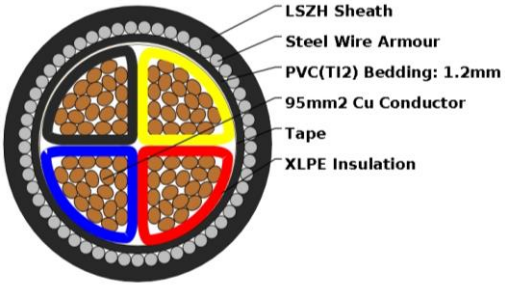
METSEC CABLES LIMITED

Technical Datasheet

Cable Code: CARMZC095004BK1>
Description: METSEC CU/XLPE/SWA/LSZH ARMOURED CABLE 4COREx95.00MM 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		95	sq mm
	No. of Cores:		4	
	Core Colours:		Red, Yellow, Blue, Black	
	Nom. Thickness of Insulation		1.1	mm
	Nom. Overall Diameter		40.94	mm
	Nom. Weight		5.36337	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	0.193	Ohms
	Max. Conductor A.C Resistance	@ 90°C	0.246	Ohms
	Min. Insulation Resistance	@ 90°C		MΩ.km
	Current Rating	Direct in Ground	271	A
	Current Rating	In Duct	224	A
	Current Rating	Installed in Free Air	277	A
	Approx. Volt Drop		0.5	mV/A/m
	Inductive Reactance of Cable at 50Hz (approx.)		0.07239	Ω/km
	Mutual Reactance		0.23043	mH/km
	Capacitance of Cable (approx.)			µF/km
	Short Circuit Current Rating for 1 second duration		13.585	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		5700	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

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;

ii. DUE TO MATERIAL AND MANUFACTURING TOLERANCES, TEST RESULTS AND / OR LENGTH OF PRODUCT CAN VARY PER INDIVIDUAL PRODUCT. ACCORDINGLY, ALL TECHNICAL DATA SHOWN IN THIS DATASHEET IS GIVEN FOR GUIDANCE PURPOSES ONLY. THE COMPANY DOES NOT WARRANT THAT THE PRODUCT WILL MATCH THE TEST RESULTS EXACTLY AND THE COMPANY ACCEPTS NO LIABILITY SHOULD THE PRODUCT NOT MATCH THE STATED FIGURES.

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