

TECHNICAL DATA SHEET LOW VOLTAGE POWER CABLE

Cable Description:

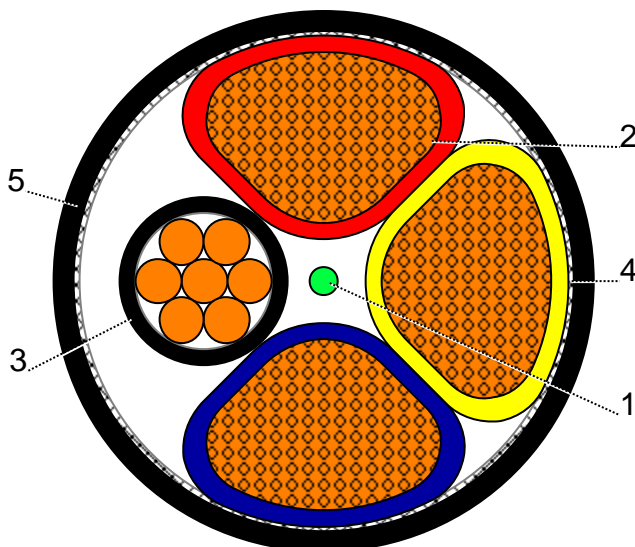
Cu / XLPE / PVC 1kV 3X70 mm² SM+35 mm² RM
IEC 60502-1 FR-IEC 60332-1

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 ₀ / U'	kV	0.6 / 1.0
Number of Phase Conductors x Cross-Section	mm ²	3 x 70
Phase Conductor Material & Shape		Copper & Stranded Class 2 Compacted Sector Shape
Number of Reduced Conductors x Cross-Section		1 x 35
Reduced Conductor Material & Shape		Copper & Stranded Class 2 non-compacted Round Shape
Insulation Material		XLPE
Phase Conductor Nominal Insulation Thickness	mm	1.10
Reduced Conductor Nominal Insulation Thickness	mm	0.90
Insulation Color		RED, YELLOW, BLUE, BLACK
Outer Sheath Material		PVC - ST2
Colour of Outer Sheath		BLACK
Approximate Cable Overall Diameter	mm	29.4
Electrical Data:		
Max Phase Conductor DC resistance @ 20 °C	ohms/km	0.2680
Max Phase Conductor AC resistance @ 90 °C	ohms/km	0.3428
Max Reduced Conductor DC resistance @ 20 °C	ohms/km	0.5240
Max Phase Conductor Short Circuit Current @ 1 Second	kA	10.01
Current Carry Capacity		
Laid in air @ 40 °C Ambient Temperature		
Free In Air	A	220
In Pipes	A	161
Laid in Ground		
Direct Laid	A	229
Laid In Duct	A	183
Laid in Ground with the following conditions: Ambient Ground Temperature: 35 °C Depth of laying in ground: 0.5 m Soil Thermal Resistivity: 1.2 °K.m/W		
Additional Data:		
Maximum pulling Tension	kN	10.50
Maximum side wall pressure	kN/m	44.7
Minimum Bending Radius	mm	235
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	500
Drum Dimensions "Height x Width" (Approx.)	m	1.2 x 1.01
Gross Weight (Approximate without Lagging)	kg	1316

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Cable Marking:

BAHRA CABLES CO. KSA 3 X 70 + 35 mm² Cu / XLPE / PVC 600 / 1000 V IEC 60502-1 FR IEC 60332-1
Manufacturing Year - Meter marked

Cable Drawing


Description	Cu / XLPE / PVC 1kV 3X70 mm ² SM+35 mm ² RM	Approx. Diameter
1	Non-Hygroscopic Filler	-
2	Core	
	Stranded Copper Conductor with sectored shape	13 X 9.15
	XLPE insulated	15.2 X 11.35
3	Core	
	Stranded Copper Conductor with round shape	7.38
	XLPE insulated	9.18
4	Polymeric Tape	25.97
5	PVC Outer Sheathing	29.42