

# Power Cable, PVC Insulation and Sheath

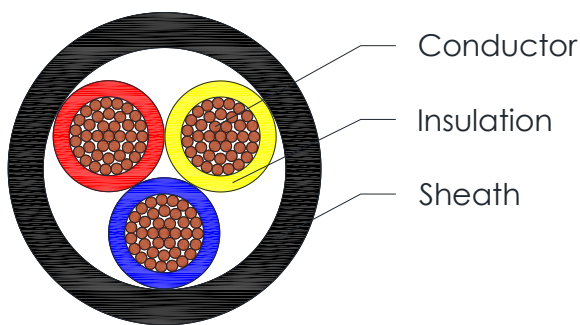


CI4100, CI4101, CI4102, CI4103, CI4104

## Applications

Multi cores cable 0.6/1 kV [1.2], of annealed stranded plain copper conductors, insulated by polyvinyl chloride (PVC) suitable for maximum operating temperature of 70°C, cores are assembled together, then banded with suitable binder tape (if needed), then extruded by poly vinyl chloride (PVC) as an outer sheath.

## Cross Section Drawing



## Design

Unit	Properties
Conductor	Flexible Bare Copper wire
Insulation	Polyvinyl Chloride (PVC) Core 1: Red Core 2: Yellow Core 3: Blue Core 4: Black
Filler (if applicable)	PVC (cross section bigger than 4.0mm <sup>2</sup> )
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.

# Power Cable, PVC Insulation and Sheath



## C14100, C14101, C14102, C14103, C14104

### Physical Characteristics

Part Number	C14100	C14101	C14102	C14103	C14104
No of cores x cross section (mm <sup>2</sup> )	3 x 3.0	3 x 4.0	3 x 10.0	4 x 16.0	4 x 25.0
Conductor Shape	Circular	Circular	Circular-Compacted	Circular-Compacted	Sector-Compacted
Nom. Radial Thickness Insulation(mm)	1.0	1.0	1.0	1.0	1.2
Nom. Radial Thickness Sheath(mm)	1.5				
Nom. Overall Diameter(mm)	12.0	12.8	15.7	19.6	22.2
Nominal Cable Weight (kg/km)	236	282	459	826	1231
Bending Radius (mm)	102	120	126	156	177

### Electrical Characteristics at 20°C

Part Number	C14100	C14101	C14102	C14103	C14104
No of cores x cross section (mm <sup>2</sup> )	3 x 3.0	3 x 4.0	3 x 10.0	4 x 16.0	4 x 25.0
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)	28	31	53	72	94
Laid in ground (Amp)	33	35	60	75	100
Laid in duct (Amp)	28	30	48	60	80
Normal Operation Electrical Parameters					
Max. Operating Temp. in conductor (°C)	70				
Conductor DC resistance at 20°C (Ohm/km)	6.21	4.61	1.83	1.15	0.727
Conductor AC resistance at max. operating temp.& 50Hz (Ohm/km)	7.41	5.51	2.19	1.39	0.87
Short circuit Operation Electrical Parameters					
Max. Conductor Temp during short circuit (°C)	160				
Conductor short circuit current for 1sec (KA)	0.345	0.46	1.15	1.84	2.9
Max. Operating Voltage (KVrms)	0.6/1 (1.2)				

**Power Cable,  
PVC Insulation and Sheath**



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**Reference Standards**

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