

## 6381Y Cable to BS6004



### Application

Suitable for AC and DC power supplies on Telecom equipment and power applications where flexibility is required.

### Standards

1.5mm<sup>2</sup> - 35mm<sup>2</sup>: BS6004

50mm<sup>2</sup> and above: IEC 60502-1

### Technical Data

Conductor: Class 5 flexible plain copper conductors to BS EN 60228:2005 (previously BS6360)

Insulation: PVC (Polyvinyl Chloride) Type TI 1 to BS7655

Sheath: PVC (Polyvinyl Chloride) Type TM 1 to BS7655 with oxygen index > 30%

Flame retardant to BS4066 Part 1

Meets requirements for flammability as required by BT specification M231

Sheath Colour (Insulation Colour): Blue or Grey

Voltage Rating: 450/750V: 10-35mm<sup>2</sup>  
600/1000V: 50mm<sup>2</sup>+

Temperature Rating: 0°C to + 70°C

Minimum Bending Radius: Up to 50mm<sup>2</sup>: 3 x overall diameter  
Above 70mm<sup>2</sup>: 4 x overall diameter

### Dimensions

Part Number	No. of Cores x Nominal Cross sectional Area (mm <sup>2</sup> )	Nominal Thickness of Insulation (mm)	Nominal Thickness of Sheath (mm)	Nominal Overall Diameter (mm)	Nominal Weight (kg/Km)
6381Y-1.5	1 x 1.5	0.9	0.8	4.91	38.0
6381Y-2.5	1 x 2.5	0.9	0.8	5.35	48.8
6381Y-4	1 x 4.0	1.0	0.9	6.25	70.7
6381Y-6	1 x 6.0	1.1	0.9	7.60	100.5
6381Y-10	1 x 10.0	1.2	1.1	8.56	151.6
6381Y-16	1 x 16.0	1.2	1.1	9.75	212.7
6381Y-25	1 x 25.0	1.4	1.1	11.550	307.0
6381Y-35	1 x 35.0	1.4	1.1	12.50	404.5
6381Y-50	1 x 50.0	1.4	1.4	15.10	579.2
6381Y-70	1 x 70.0	1.4	1.4	16.95	768.2
6381Y-95	1 x 95.0	1.6	1.5	19.10	1007.3

6381Y-120	1 x 120.0	1.6	1.8	21.60	1281.3
6381Y-150	1 x 150.0	1.8	1.8	23.40	1570.6
6381Y-185	1 x 185.0	2.0	1.8	25.50	1895.0
6381Y-240	1 x 240.0	2.2	1.8	28.50	2435.0
6381Y-300	1 x 300.0	2.4	2.0	31.20	3050.0
6381Y-400	1 x 400.0	2.6	2.1	35.30	4035.0
6381Y-500	1 x 500.0	2.8	2.2	38.80	4970.0
6381Y-630	1 x 630.0	2.8	2.4	43.80	6510.0
6381Y-1.5	1 x 1.5	0.9	0.8	4.91	38.0

## Conductors

Class 5 flexible Copper Conductors for Single Core and Multi-Core cables.

Nominal Cross Sectional Area (mm <sup>2</sup> )	Maximum Diameter of Wires in Conductor (mm)	Maximum Resistance of Conductor at 20°C
		Plain Wires ohms/Km
1.5	0.26	13.30000
2.5	0.26	7.9800
4.0	0.31	4.9500
6.0	0.31	3.30000
10.0	0.41	1.9100
16.0	0.41	1.2100
25.0	0.41	0.7800
35.0	0.41	0.5540
50.0	0.41	0.3860
70.0	0.51	0.2720
95.0	0.51	0.2060
120.0	0.51	0.1610
150.0	0.51	0.1290
185.0	0.51	0.1060
240.0	0.51	0.0801
300.0	0.51	0.0641
400.0	0.51	0.0486
500.0	0.61	0.0384
630.0	0.61	0.0287

Table in accordance with BS EN 60228:2005 (previously BS6360)

## Electrical Characteristics

Current Carrying Capacity (amperes) and Resistance Values (ohms per kilometre)

Nominal Cross Sectional Area (mm <sup>2</sup> )	Voltage Drop mV/A/m	Current Rating in Earth Amps	Current Rating in Air Amps
1.5	26.6000	27	41
2.5	15.9600	32	55
4.0	9.9000	42	71
6.0	6.6000	59	90
10.0	3.8200	81	124
16.0	2.4200	107	160
25.0	1.5600	144	208
35.0	1.1080	176	250
50.0	0.7720	214	296
70.0	0.5440	270	365
95.0	0.4120	334	438
120.0	0.3220	389	501
150.0	0.2580	446	563
185.0	0.2120	516	639
240.0	0.1602	618	716
300.0	0.1282	711	845
400.0	0.0972	843	975
500.0	0.0768	994	1125
630.0	0.0574	1102	1230

*The information contained within this datasheet is for guidance only. When selecting accessories such as cleats, glands, etc please note that actual cable dimensions may vary due to manufacturing tolerances.*

*This is a reprint of the manufacturer's datasheet; please refer to the cable manufacturer for further details. GCA Ltd makes no claims as to the warranty of the information contained in this datasheet.*