



**SS358, BS 6004,
IEC 60227**

BS 6231

Conductor :
Insulation :
Colour :

Voltage Uo/U :
Conductor Stranding :

Operating Temperature :
Minimum Bending Radius :

Fire Performance :

Plain Annealed Copper
PVC Compound Type C
Red, Yellow, Blue, Black,
Brown, Grey, Green
White, or Green / Yellow

450 / 750 V
Class 2 stranded circular
or compacted conductors
-15°C to 70°C
3D for D < 10mm
4D for 10mm < D < 25 mm
6D for D > 25mm
IEC 60332-1

Plain Annealed Copper
PVC Compound Type T11, T13
Red, Yellow, Blue, Black,
Brown, Grey, Green
White, or Green / Yellow

600 / 1000 V
Class 5 stranded circular
-15°C to 70°C, -15°C to 90°C (UL 105°C)
3D for D < 10mm
4D for 10mm < D < 25 mm
6D for D > 25mm
IEC 60332-1

PVC Cables SS 358, BS 6004, IEC 60227

Table 2.1

Nominal Conductor Area (mm ²)	No. and Diameter of Wire (no./mm)	Radial Thickness of Insulation (mm)	Mean Overall Diameter (Upper Limit) (mm)	Approx. Weight (kg/km)	Minimum Insulation Resistance at 70°C (MΩ/km)
1.5	7 / 0.53	0.7	3.4	22.7	0.010
2.5	7 / 0.67	0.8	4.2	34.0	0.009
4	7 / 0.85	0.8	4.8	50.0	0.0077
6	7 / 1.04	0.8	5.4	70.9	0.0065
10	7 / 1.35	1.0	6.8	117.5	0.0065
16	7 / 1.70	1.0	8.0	177.4	0.0050
25	7 / 2.14	1.2	9.8	279.5	0.0050
35	7 / 2.52	1.2	11.0	372.0	0.0040
50	19 / 1.78	1.4	13.0	504.5	0.0045
70	19 / 2.14	1.4	15.0	710.6	0.0035
95	19 / 2.52	1.6	17.0	980.8	0.0035
120	37 / 2.03	1.6	19.0	1216.0	0.0032
150	37 / 2.25	1.8	21.0	1498.0	0.0032
185	37 / 2.52	2.0	23.5	1874.0	0.0032
240	61 / 2.25	2.2	26.5	2444.4	0.0032
300	61 / 2.52	2.4	29.5	3059.5	0.0030
400	61 / 2.85	2.6	33.5	3897.0	0.0028
500	61 / 3.20	2.8	37.0	4940.0	0.0028
630	127 / 2.52	2.8	41.0	6295.0	0.0025

Switchgear Wires BS 6231

Table 2.2

Nominal Conductor Area (mm ²)	No. and Diameter of Wire (no./mm)	Radial Thickness of Insulation (mm)	Mean Overall Diameter (Upper Limit) (mm)	Approx. Weight (kg/km)	Minimum Insulation Resistance at 70°C & 90°C (MΩ/km)
0.5	16 / 0.2	0.8	2.6	11.3	0.0161
0.75	24 / 0.2	0.8	2.8	14.5	0.0141
1.0	32 / 0.2	0.8	3.0	17.5	0.0128
1.5	30 / 0.25	0.8	3.3	23.0	0.0111
2.5	50 / 0.25	0.8	3.7	34.0	0.0094
4	56 / 0.3	0.8	4.3	50.2	0.0077
6	84 / 0.3	0.8	4.9	71.0	0.0059
10	80 / 0.4	1.0	6.3	119.3	0.0058
16	128 / 0.4	1.0	7.4	181.3	0.0048
25	200 / 0.4	1.2	9.1	280.9	0.0047
35	280 / 0.4	1.2	10.3	382.3	0.004
50	400 / 0.4	1.4	12.2	544.1	0.0039
70	356 / 0.5	1.4	13.8	739.9	0.0033
95	485 / 0.5	1.6	16.1	1005.2	0.0032
120	614 / 0.5	1.6	17.6	1255.7	0.0029
150	765 / 0.5	1.8	19.7	1565.6	0.0029
185	994 / 0.5	2.0	22.3	2028.7	0.0029
240	1125 / 0.5	2.2	23.9	2304.1	0.0028

1 & 2 cores

3 & 4 cores

multi-cores



1 & 2 cores

3 & 4 cores

multi-cores

Conductor :
Insulation :
Sheath :
Colour :

Plain Annealed Copper
PVC Compound Type A
PVC Compound Type ST1
Insulation: 1 Core - Black
2 Cores - Red & Black or
Brown & Blue
Sheath: 1 Core - Grey
2 Cores - Black

Plain Annealed Copper
PVC Compound Type A
PVC Compound Type ST1
Insulation: 3 Cores - Red, Yellow & Blue
or Brown, Black & Grey
4 Cores - Red, Yellow, Blue
& Black or Brown,
Black, Grey & Blue
Sheath: Black

Plain Annealed Copper
PVC Compound Type A
PVC Compound Type ST1
Insulation: White with Black
numberings
Sheath: Black

Voltage Uo/U :
Conductor Stranding :

600 / 1000 V
Class 2 stranded circular or
compacted conductors
-15°C to 70°C
1 Core - 8D for 1.5 mm² to 1000mm²
2 Cores - 8D for 1.5 mm² to 300mm²

600 / 1000 V
Class 2 standard circular or
compacted conductors
-15°C to 70°C
8D for 1.5 mm² to 300mm²

600 / 1000 V
Class 2 stranded circular or
compacted conductors
-15°C to 70°C
3D for D < 10mm
4D for 10mm < D < 25mm
6D for D > 25mm
IEC 60332-1

Fire Performance :

IEC 60332-1

IEC 60332-1

PVC / PVC Power Cables IEC 60502

Table 3

Nominal Conductor Area (mm ²)	No. and Diameter of Wire (no./mm)	Radial Thickness of Insulation (mm)	Approx. Overall Diameter (mm)	Approx. Weight (kg/km)
1.5	7 / 0.53	0.8	6.3	55
2.5	7 / 0.67	0.8	6.7	70
4	7 / 0.85	1.0	7.6	100
6	7 / 1.04	1.0	8.2	125
10	7 / 1.35	1.0	9.2	175
16	7 / 1.70	1.0	10.2	240
25	7 / 2.14	1.2	11.9	350
35	7 / 2.52	1.2	13.1	460
50	19 / 1.78	1.4	14.8	595
70	19 / 2.14	1.4	16.6	810
95	19 / 2.52	1.6	19.2	1110
120	37 / 2.03	1.6	20.8	1360
150	37 / 2.25	1.8	23.0	1670
185	37 / 2.52	2.0	25.4	2070
240	61 / 2.25	2.2	28.7	2690
300	61 / 2.52	2.4	31.7	3340
400	61 / 2.85	2.6	35.3	4230
500	61 / 3.20	2.8	39.5	5290
630	127 / 2.52	2.8	43.2	6680
800	127 / 2.85	2.8	47.7	8460
1000	127 / 3.20	3.0	53.0	10545
2 x 1.5	7 / 0.53	0.8	10.4	145
2 x 2.5	7 / 0.67	0.8	11.2	180
2 x 4	7 / 0.85	1.0	13.1	255
2 x 6	7 / 1.04	1.0	14.2	285
2 x 10	7 / 1.35	1.0	16.1	395
2 x 16	7 / 1.70	1.0	18.2	590
2 x 25	7 / 2.14	1.2	21.8	900
2 x 35	7 / 2.52	1.2	24.0	1160
2 x 50 (S)	19 / 1.78	1.4	23.0	1260
2 x 70 (S)	19 / 2.14	1.4	26.0	1700
2 x 95 (S)	19 / 2.52	1.6	30.0	2310
2 x 120 (S)	37 / 2.03	1.6	32.0	2880
2 x 150 (S)	37 / 2.25	1.8	36.0	3520
2 x 185 (S)	37 / 2.52	2.0	40.0	4290
2 x 240 (S)	61 / 2.25	2.2	44.0	5570
2 x 300 (S)	61 / 2.52	2.4	49.0	6970

Note: (S) - Sectoral Stranded Conductors.

PVC / PVC Power Cables IEC 60502

Table 4

Nominal Conductor Area (mm ²)	No. and Diameter of Wire (no./mm)	Radial Thickness of Insulation (mm)	Approx. Overall Diameter (mm)	Approx. Weight (kg/km)
3 x 1.5	7 / 0.53	0.8	10.9	165
3 x 2.5	7 / 0.67	0.8	11.8	210
3 x 4	7 / 0.85	1.0	13.8	305
3 x 6	7 / 1.04	1.0	15.0	370
3 x 10	7 / 1.35	1.0	17.1	515
3 x 16	7 / 1.70	1.0	19.3	740
3 x 25	7 / 2.14	1.2	23.2	1160
3 x 35	7 / 2.52	1.2	25.7	1520
3 x 50 (S)	19 / 1.78	1.4	26.0	1750
3 x 70 (S)	19 / 2.14	1.4	29.0	2435
3 x 95 (S)	19 / 2.52	1.6	34.0	3360
3 x 120 (S)	37 / 2.03	1.6	37.0	4140
3 x 150 (S)	37 / 2.25	1.8	40.0	5070
3 x 185 (S)	37 / 2.52	2.0	45.0	6330
3 x 240 (S)	61 / 2.25	2.2	51.2	8265
3 x 300 (S)	61 / 2.52	2.4	56.0	10355
4 x 1.5	7 / 0.53	0.8	11.7	200
4 x 2.5	7 / 0.67	0.8	12.8	255
4 x 4	7 / 0.85	1.0	15.0	375
4 x 6	7 / 1.04	1.0	16.4	455
4 x 10	7 / 1.35	1.0	18.6	665
4 x 16	7 / 1.70	1.0	21.2	930
4 x 25	7 / 2.14	1.2	25.6	1465
4 x 35	7 / 2.52	1.2	28.4	1920
4 x 35 (S)	7 / 2.52	1.2	26.0	1740
4 x 50 (S)	19 / 1.78	1.4	29.0	2320
4 x 70 (S)	19 / 2.14	1.4	33.0	3215
4 x 95 (S)	19 / 2.52	1.6	39.0	4400
4 x 120 (S)	37 / 2.03	1.6	42.5	5440
4 x 150 (S)	37 / 2.25	1.8	47.0	6675
4 x 185 (S)	37 / 2.52	2.0	52.0	8360
4 x 240 (S)	61 / 2.25	2.2	58.2	10870
4 x 300 (S)	61 / 2.52	2.4	65.0	13650

Note: (S) - Sectoral Stranded Conductors.

PVC / PVC Control Cables - In-house Standard

Table 5

No. of Cores	Nominal Conductor Area (mm ²)	No. and Diameter of Wire (no./mm)	Radial Thickness of Insulation (mm)	Approx. Overall Diameter (mm)	Approx. Weight (kg/km)
2	1.5	7 / 0.53	0.6	8.8	109
3		7 / 0.53	0.6	9.2	129
4		7 / 0.53	0.6	10.0	154
5		7 / 0.53	0.6	10.8	190
7		7 / 0.53	0.6	11.7	240
10		7 / 0.53	0.6	14.8	330
12		7 / 0.53	0.6	15.2	385
19		7 / 0.53	0.6	17.9	560
27		7 / 0.53	0.6	21.4	770
37		7 / 0.53	0.6	24.0	1015
48		7 / 0.53	0.6	27.6	1300
2	2.5	7 / 0.67	0.7	10.0	148
3		7 / 0.67	0.7	10.6	171
4		7 / 0.67	0.7	11.5	218
5		7 / 0.67	0.7	12.7	270
7		7 / 0.67	0.7	13.7	340
10		7 / 0.67	0.7	17.4	490
12		7 / 0.67	0.7	18.0	560
19		7 / 0.67	0.7	21.2	820
27		7 / 0.67	0.7	25.4	1135
37		7 / 0.67	0.7	28.6	1560
48		7 / 0.67	0.7	33.0	1930
2	4	7 / 0.85	0.8	11.5	205
3		7 / 0.85	0.8	12.2	252
4		7 / 0.85	0.8	13.3	315
5		7 / 0.85	0.8	14.7	415
7		7 / 0.85	0.8	16.2	535
10		7 / 0.85	0.8	20.6	720
12		7 / 0.85	0.8	21.3	850
19		7 / 0.85	0.8	25.1	1260
27		7 / 0.85	0.8	30.4	1740
37		7 / 0.85	0.8	34.2	2300
48		7 / 0.85	0.8	39.3	2900

PVC / AWA / PVC
(single core)

PVC / SWA / PVC
(2-4 & multi-cores)

single core

2-4 cores

multi-cores



single core

2-4 cores

multi-cores

Conductor :
Insulation :
Bedding :

Armour :
Sheath :
Colour :

Voltage Uo/U :
Conductor Stranding :

Operating Temperature :
Minimum Bending Radius :

Fire Performance :

Plain Annealed Copper
PVC Compound Type T11
PVC Compound Type TM1

Aluminium Wire
PVC Compound Type TM1
Insulation: Black
Sheath: Black

600 / 1000 V
Class 2 stranded circular or
compacted conductors
-15°C to 70°C
6D for 50mm² to 1000mm²

IEC 60332-1

Plain Annealed Copper
PVC Compound Type T11
PVC Compound Type TM1
or Lapped PVC Tape
Galvanised Steel Wire
PVC Compound Type TM1

Insulation: 2 Cores - Red & Black or
Brown & Blue
3 Cores - Red, Yellow & Blue
or Brown, Black & Grey
4 Cores - Red, Yellow, Blue &
Black or Brown, Black,
Grey & Blue

Sheath : Black
600 / 1000 V
Class 2 stranded circular or
compacted conductors
-15°C to 70°C
6D for 1.5mm² to 16mm²
8D for 25mm² and above
IEC 60332-1

Plain Annealed Copper
PVC Compound Type T11
PVC Compound Type TM1
or Lapped PVC Tape
Galvanised Steel Wire
PVC Compound Type TM1
Insulation: White with Black
numberings
Sheath: Black

600 / 1000 V
Class 2 stranded circular
conductors
-15°C to 70°C
6D for 1.5mm² to 4mm²

IEC 60332-1

PVC / AWA / PVC Cables BS 6346

Table 6

Nominal Conductor Area (mm ²)	No. and Diameter of Wire (no./mm)	Radial Thickness of Insulation (mm)	Approx. Overall Diameter (mm)	Approx. Weight (kg/km)
50	19 / 1.78	1.4	19.1	760
70	19 / 2.14	1.4	21.1	1010
95	19 / 2.52	1.6	23.4	1330
120	37 / 2.03	1.6	26.3	1690
150	37 / 2.25	1.8	28.3	2010
185	37 / 2.52	2.0	30.8	2450
240	61 / 2.25	2.2	34.1	3120
300	61 / 2.52	2.4	37.0	3810
400	61 / 2.85	2.6	42.0	4890
500	61 / 3.20	2.8	45.6	5990
630	127 / 2.52	2.8	49.7	7510
800	127 / 2.85	2.8	55.8	9590
1000	127 / 3.20	3.0	61.0	11820

PVC / SWA / PVC Cables BS 6346

Table 7

Nominal Conductor Area (mm ²)	No. and Diameter of Wire (no./mm)	Radial Thickness of Insulation (mm)	Approx. Overall Diameter (mm)	Approx. Weight (kg/km)
2 x 1.5	7 / 0.53	0.6	12.3	270
2 x 2.5	7 / 0.67	0.7	13.6	340
2 x 4	7 / 0.85	0.8	15.1	450
2 x 6	7 / 1.04	0.8	16.5	550
2 x 10	7 / 1.35	1.0	20.1	750
2 x 16	7 / 1.70	1.0	21.9	960
2 x 25	7 / 2.14	1.2	26.7	1400
2 x 35	7 / 2.52	1.2	29.4	1750
2 x 50 (S)	19 / 1.78	1.4	27.4	1990
2 x 70 (S)	19 / 2.14	1.4	30.0	2500
2 x 95 (S)	19 / 2.52	1.6	34.7	2460
2 x 120 (S)	37 / 2.03	1.6	37.2	4120
2 x 150 (S)	37 / 2.25	1.8	40.5	4890
2 x 185 (S)	37 / 2.52	2.0	45.2	6250
2 x 240 (S)	61 / 2.25	2.2	50.0	7860
2 x 300 (S)	61 / 2.52	2.4	54.8	9480
3 x 1.5	7 / 0.53	0.6	12.8	350
3 x 2.5	7 / 0.67	0.7	14.1	400
3 x 4	7 / 0.85	0.8	15.8	520
3 x 6	7 / 1.04	0.8	18.0	730
3 x 10	7 / 1.35	1.0	21.2	1010
3 x 16	7 / 1.70	1.0	23.1	1180
3 x 25	7 / 2.14	1.2	28.2	1760
3 x 35	7 / 2.52	1.2	30.8	2170
3 x 50 (S)	19 / 1.78	1.4	30.1	2560
3 x 70 (S)	19 / 2.14	1.4	34.2	3520
3 x 95 (S)	19 / 2.52	1.6	38.5	4640
3 x 120 (S)	37 / 2.03	1.6	41.4	5500
3 x 150 (S)	37 / 2.25	1.8	46.3	6970
3 x 185 (S)	37 / 2.52	2.0	50.7	8400
3 x 240 (S)	61 / 2.25	2.2	56.2	10550
3 x 300 (S)	61 / 2.52	2.4	61.6	12800
4 x 1.5	7 / 0.53	0.6	13.5	345
4 x 2.5	7 / 0.67	0.7	15.0	440
4 x 4	7 / 0.85	0.8	17.8	710
4 x 6	7 / 1.04	0.8	19.2	810
4 x 10	7 / 1.35	1.0	22.8	1130
4 x 16	7 / 1.70	1.0	26.3	1550
4 x 25	7 / 2.14	1.2	30.7	2150
4 x 35	7 / 2.52	1.2	33.7	2670
4 x 35 (S)	7 / 2.52	1.2	29.9	2510
4 x 50 (S)	19 / 1.78	1.4	34.6	3410
4 x 70 (S)	19 / 2.14	1.4	38.4	4400
4 x 95 (S)	19 / 2.52	1.6	43.5	5830
4 x 120 (S)	37 / 2.03	1.6	48.1	7400
4 x 150 (S)	37 / 2.25	1.8	52.4	8810
4 x 185 (S)	37 / 2.52	2.0	57.4	10660
4 x 240 (S)	61 / 2.25	2.2	64.1	13430
4 x 300 (S)	61 / 2.52	2.4	70.4	16330

Note: (S) - Sectoral Stranded Conductors.

PVC / SWA / PVC Cables BS 6346

Table 8

No. of Cores	Nominal Conductor Area (mm ²)	No. and Diameter of Wire (no./mm)	Radial Thickness of Insulation (mm)	Approx. Overall Diameter (mm)	Approx. Weight (kg/km)
5	1.5	7 / 0.53	0.6	14.3	357
7		7 / 0.53	0.6	15.2	416
10		7 / 0.53	0.6	19.0	446
12		7 / 0.53	0.6	19.4	716
19		7 / 0.53	0.6	22.2	938
27		7 / 0.53	0.6	26.7	1380
37		7 / 0.53	0.6	29.2	1689
48		7 / 0.53	0.6	32.9	2048
5	2.5	7 / 0.67	0.7	16.3	465
7		7 / 0.67	0.7	18.0	557
10		7 / 0.67	0.7	21.9	878
12		7 / 0.67	0.7	22.4	955
19		7 / 0.67	0.7	26.6	1455
27		7 / 0.67	0.7	30.7	1885
37		7 / 0.67	0.7	34.0	2340
48		7 / 0.67	0.7	39.5	3190
5	4	7 / 0.85	0.8	19.0	750
7		7 / 0.85	0.8	20.5	905
10		7 / 0.85	0.8	26.1	1405
12		7 / 0.85	0.8	26.8	1530
19		7 / 0.85	0.8	30.5	2060
27		7 / 0.85	0.8	37.1	3025
37		7 / 0.85	0.8	40.8	3900
48		7 / 0.85	0.8	46.0	4800