unicore
Wires & Cables

شارٹ سرکٹ سے محفوظ گھر

Product Catalogue

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Introduction

Unicore Cables

Unicore Cable Industries (UCI) established in 2020 as cable manufacturer with a wide range of products in Pakistan. UCI is headed by professionals who have substantial knowledge and experience in the field of cable manufacturing.

Our commitment to product quality and customer care makes us the most reliable manufacturer of cables, wires & conductors for both industrial and domestic clients.

UCI is properly equipped with all necessary equipment and machinery with the testing laboratory to ensure the product quality as per international standards & specifications at all stages of production.

Quality Assurance

Our lab for testing raw materials to finished products has been well equipped with latest instruments & equipment to perform electrical & physical tests to ensure international standards' specifications. Staff trainings strengthen us more as we eventually have well trained human resource.

It does not only help to reach customer satisfaction at max but also helps to comply with requirements of International Standards Organization (ISO, Certification body) and they conduct audits on regular basis. This helps us to meet Total Quality Management (TQM).

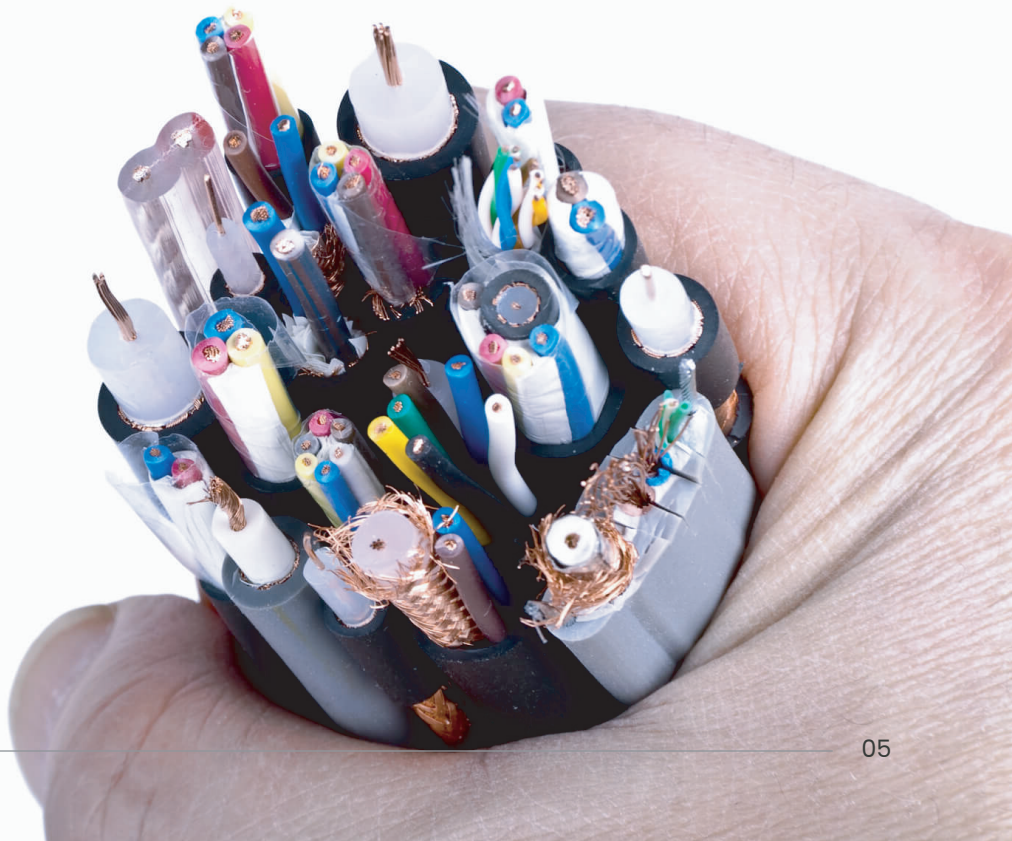
Manufacturing Capabilities

UCI has an extensive experience in the manufacturing of cables and wires. Our product is considered as one of the best quality available in the market due to the following reasons,

- Well trained technical staff for production,
- Superior quality raw materials e.g. 99.9% pure copper and other compounds as per International Standards' Specifications, and
- Testing equipment and our stage wise QC inspection during production and overall quality control.

We are manufacturing the following product range,

- General Wiring,
- Flexible Copper Cables,
- Solar Cables,
- Power Cables,
- Fire Resistant Cables,
- Instrumentation & Control Cables,
- Bare Copper Conductors,
- Data & Network Cables



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Wires & Cables

شارٹ سرکٹ سے محفوظ گھر

Classic Cables

250/440 V & 660/1100 V
PVC Insulated and PVC-Sheathed
Single and Multi-core Cables

Solid & Stranded Annealed Copper Conductors for Single-Core and Multi-Core Cables

Conductor Specification as per BS 3360 (Now Obsolete *)

Number & Nominal Diameter of Wires	Calculated Cross Sectional Area	Diameter of Wires in Conductor	Max. Resistance of the Conductor at 20° C	
			Plain	Metal Coated
inches	mm^2	mm	Ω/Km	Ω/Km
1/0.036"	0.66	0.91	27.31	27.58
1/0.044"	0.98	1.12	18.29	18.46
1/0.064"	2.08	1.63	8.64	8.73
1/0.083"	3.49	2.11	5.14	5.19
1/0.103"	5.38	2.62	3.34	3.37
1/0.128"	8.30	3.25	2.16	2.18
1/0.160"	12.97	4.06	1.38	1.40
1/0.192"	18.68	4.88	0.96	0.97
3/0.020"	0.61	1.09	29.50	30.09
3/0.029"	1.28	1.57	14.03	14.30
3/0.036"	1.97	1.98	9.10	9.19
7/0.029"	2.98	2.21	6.01	6.13
7/0.036"	4.60	2.74	3.90	3.94
7/0.044"	6.87	3.35	2.61	2.64
7/0.052"	9.60	3.96	1.87	1.59
7/0.064"	14.53	4.88	1.23	1.24
19/0.044"	18.64	5.59	0.96	0.97
19/0.052"	26.03	6.60	0.69	0.70
19/0.064"	39.43	8.13	0.45	0.45
19/0.083"	66.32	10.54	0.27	0.27
37/0.072"	97.19	12.80	0.18	0.18
37/0.083"	129.16	14.76	0.14	0.14
37/0.093"	162.15	16.54	0.11	0.11
37/0.103"	198.90	18.31	0.09	0.09

* Table data is as per BS 3360 that is obsolete now. The data is converted from yards and inches to meters, kilometers and milimeters to allow easy comparison with modern metric sized conductors.

Single Core, PVC Insulated, Non-Sheathed General Purpose 250/440 V & 660/1100 V Cables

Specification as per BS 2004:1961 (Now Obsolete *)

No. & Diameter of Wires	For 250/440 V Cables		For 660/1100 V Cables		Minimum Insulation Resistance
	Radial Thickness of Insulation	Overall Cable Diameter	Radial Thickness of Insulation	Overall Cable Diameter	
mm^2	mm	mm	mm	mm	MΩ/Km
1/0.044"	0.70	2.52	1.14	3.53	28
3/0.029"	0.89	3.37	1.14	3.99	22
3/0.036"	0.89	3.78	1.14	4.39	19
7/0.029"	0.89	4.01	1.14	4.62	16
7/0.036"	1.02	4.78	1.27	5.41	15
7/0.044"	1.02	5.39	1.27	6.02	14
7/0.052"	1.02	6.00	1.27	6.63	14
7/0.064"	1.02	6.92	1.27	7.54	12
19/0.044"	1.14	7.87	1.27	8.26	11
19/0.052"	1.27	9.27	1.27	9.27	11
19/0.064"	1.27	10.80	1.27	10.80	10
19/0.083"	1.40	13.59	1.40	13.59	9
37/0.072"	1.52	16.10	1.52	16.10	8
37/0.083"	1.65	18.31	1.65	18.31	8
37/0.093"	1.78	20.01	1.78	20.01	8
37/0.103"	1.91	22.38	1.91	22.38	8

* Table data is as per BS 2004 that is obsolete now. The data is converted from yards and inches to meters, kilometers and milimeters to allow easy comparison with modern metric sized conductors.

Circular Two, Three & Four Core PVC Insulated, PVC-Sheathed 250/440 V Cables

Specification as per BS 2004:1961 (Now Obsolete)

No. & Diameter of Wires	Radial Thickness of Insulation	Radial Thickness of Sheath	Overall Cable Diameter
mm^2	mm	mm	mm
2 × 1/0.044"	0.64	0.89	6.81
2 × 3/0.029"	0.64	0.89	7.72
2 × 3/0.036"	0.64	1.14	9.04
2 × 7/0.029"	0.64	1.14	9.50
2 × 7/0.036"	0.76	1.14	11.07
2 × 7/0.044"	0.76	1.14	12.29
2 × 7/0.052"	0.89	1.14	14.15
2 × 7/0.064"	0.89	1.40	16.48
2 × 19/0.044"	1.02	1.40	18.42
2 × 19/0.052"	1.14	1.40	21.08
3 × 1/0.044"	0.64	0.89	7.19
3 × 3/0.029"	0.64	0.89	8.15
3 × 3/0.036"	0.64	1.14	9.55
3 × 7/0.029"	0.64	1.14	10.03
3 × 7/0.036"	0.76	1.14	11.73
3 × 7/0.044"	0.76	1.14	13.18
3 × 7/0.052"	0.89	1.14	15.04
3 × 7/0.064"	0.89	1.40	17.53
3 × 19/0.044"	1.02	1.40	19.74
3 × 19/0.052"	1.14	1.78	23.22
4 × 1/0.044"	0.64	0.89	7.77
4 × 3/0.029"	0.64	1.14	9.40
4 × 3/0.036"	0.64	1.14	10.39
4 × 7/0.029"	0.64	1.14	10.95
4 × 7/0.036"	0.76	1.14	12.85
4 × 7/0.044"	0.76	1.14	14.43
4 × 7/0.052"	0.89	1.40	17.04
4 × 7/0.064"	0.89	1.40	19.23
4 × 19/0.044"	1.02	1.40	21.69
4 × 19/0.052"	1.14	1.78	25.53

Single, Circular Twin, Three & Four Core PVC Insulated, PVC-Sheathed 660/1100 V Cables

Specification as per BS 2004:1961 (Now Obsolete)

No. & Diameter of Wires	Radial Thickness of Insulation	Radial Thickness of Sheath	Overall Cable Diameter
mm^2	mm	mm	mm
1 × 1/0.044"	0.89	0.89	4.80
1 × 3/0.029"	0.89	0.89	5.26
1 × 3/0.036"	0.89	0.89	5.66
1 × 7/0.029"	0.89	0.89	5.89
1 × 7/0.036"	1.02	0.89	6.68
1 × 7/0.044"	1.02	0.89	7.29
1 × 7/0.052"	1.02	0.89	7.90
1 × 7/0.064"	1.02	1.14	9.32
1 × 19/0.044"	1.14	1.14	10.29
1 × 19/0.052"	1.27	1.14	11.56
1 × 19/0.064"	1.27	1.14	13.21
1 × 19/0.083"	1.40	1.40	16.38
1 × 37/0.072"	1.52	1.40	18.90
1 × 37/0.083"	1.65	1.40	21.11
1 × 37/0.103"	1.91	1.78	25.93
1 × 61/0.093"	2.16	2.03	29.90
2 × 1/0.044"	0.89	0.89	7.82
2 × 3/0.029"	0.89	1.14	9.25
2 × 3/0.036"	0.89	1.14	10.06
2 × 7/0.029"	0.89	1.14	10.52
2 × 7/0.036"	1.02	1.14	12.09
2 × 7/0.044"	1.02	1.14	13.44
2 × 7/0.052"	1.02	1.14	14.66
2 × 7/0.064"	1.02	1.40	16.99
2 × 19/0.044"	1.14	1.40	18.92
2 × 19/0.052"	1.27	1.40	21.59
2 × 19/0.064"	1.27	1.78	25.40
2 × 19/0.083"	1.40	2.03	31.24
2 × 37/0.072"	1.52	2.03	36.27
2 × 37/0.083"	1.65	2.29	41.33
2 × 37/0.103"	1.91	2.54	49.96
2 × 61/0.093"	2.16	3.05	58.14

No. & Diameter of Wires	Radial Thickness of Insulation	Radial Thickness of Sheath	Overall Cable Diameter
mm^2	mm	mm	mm
3 × 1/0.044"	0.89	0.89	8.28
3 × 3/0.029"	0.89	1.14	9.75
3 × 3/0.036"	0.89	1.14	10.64
3 × 7/0.029"	0.89	1.14	11.13
3 × 7/0.036"	1.02	1.14	12.83
3 × 7/0.044"	1.02	1.14	14.27
3 × 7/0.052"	1.02	1.40	16.10
3 × 7/0.064"	1.02	1.40	18.06
3 × 19/0.044"	1.14	1.40	20.27
3 × 19/0.052"	1.27	1.78	23.77
3 × 19/0.064"	1.27	1.78	27.05
3 × 19/0.083"	1.40	2.03	33.30
3 × 37/0.072"	1.52	2.29	39.37
3 × 37/0.083"	1.65	2.54	44.63
3 × 37/0.103"	1.91	2.79	54.15
3 × 61/0.093"	2.16	3.05	62.10
4 × 1/0.044"	0.89	1.14	9.53
4 × 3/0.029"	0.89	1.14	10.64
4 × 3/0.036"	0.89	1.14	11.61
4 × 7/0.029"	0.89	1.14	12.17
4 × 7/0.036"	1.02	1.14	14.20
4 × 7/0.044"	1.02	1.40	16.18
4 × 7/0.052"	1.02	1.40	17.65
4 × 7/0.064"	1.02	1.40	19.99
4 × 19/0.044"	1.14	1.40	22.30
4 × 19/0.052"	1.27	1.78	26.14
4 × 19/0.064"	1.27	2.03	30.33
4 × 19/0.083"	1.40	2.29	37.26
4 × 37/0.072"	1.52	2.54	43.97
4 × 37/0.083"	1.65	2.54	49.30
4 × 37/0.103"	1.91	3.05	60.40
4 × 61/0.093"	2.16	3.30	69.37

Single, Flat Twin & Three Core PVC Insulated, PVC-Sheathed 250/440 V Cables

Specification as per BS 2004:1961 (Now Obsolete)

No. & Diameter of Wires	Radial Thickness of Insulation	Radial Thickness of Sheath	Overall Cable Diameter
mm^2	mm	mm	mm
1 × 1/0.044"	0.64	0.89	4.29
1 × 3/0.029"	0.64	0.89	4.75
1 × 3/0.036"	0.64	0.89	5.16
1 × 7/0.029"	0.64	0.89	5.38
1 × 7/0.036"	0.76	0.89	6.17
1 × 7/0.044"	0.76	0.89	6.78
1 × 7/0.052"	0.89	0.89	7.65
1 × 7/0.064"	0.89	1.14	9.07
2 × 1/0.044"	0.64	0.89	6.81 × 4.42
2 × 3/0.029"	0.64	0.89	7.72 × 4.88
2 × 3/0.036"	0.64	1.14	9.04 × 5.79
2 × 7/0.029"	0.64	1.14	9.50 × 6.02
2 × 7/0.036"	0.76	1.14	11.07 × 6.81
2 × 7/0.044"	0.76	1.14	12.29 × 7.42
2 × 7/0.052"	0.89	1.14	14.15 × 8.41
2 × 7/0.064"	0.89	1.40	16.48 × 9.83
3 × 1/0.044"	0.64	0.89	9.19 × 4.42
3 × 3/0.029"	0.64	0.89	10.57 × 4.88
3 × 3/0.036"	0.64	1.14	12.29 × 5.79
3 × 7/0.029"	0.64	1.14	13.11 × 6.15
3 × 7/0.036"	0.76	1.14	15.47 × 6.93
3 × 7/0.044"	0.76	1.14	17.30 × 7.54
3 × 7/0.052"	0.89	1.14	20.02 × 8.53
3 × 7/0.064"	0.89	1.40	23.27 × 9.96

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Wires & Cables

شارٹ سرکٹ سے محفوظ گھر

Standard Cables

Conductor Information

Class-1 to Class-6
Circular, Compacted and
Shaped, Annealed Copper Conductor
For Single and Multi-core Cables

Class 1 Solid Conductor for Single-Core and Multi-Core Cables

Conductor Specification as per BS EN 60228

Nominal X-Area	Max. Resistance of the Conductor at 20° C		
	Circular Annealed Copper Conductor		Aluminium and Aluminium Alloy Conductor, Circular or Shaped
	Plain	Metal Coated	
mm^2	Ω/Km	Ω/Km	Ω/Km
0.5	36.00	36.70	-
0.75	24.50	24.80	-
1	18.10	18.20	-
1.5	12.10	12.20	-
2.5	7.41	7.56	-
4	4.61	4.70	-
6	3.08	3.11	-
10	1.83	1.84	3.08
16	1.15	1.16	1.91
25	0.727	-	1.20
35	0.524	-	0.868
50	0.387	-	0.641

Class 2 Stranded Conductor for Single-Core and Multi-Core Cables

Conductor Specification as per BS EN 60228

Nominal X-Area	Min. Number of Wires in the Conductor						Max. Resistance of the Conductor at 20° C		
	Circular		Compacted		Shaped		Annealed Copper Conductor		Aluminium or Aluminium Alloy Conductor
	Cu	Al	Cu	Al	Cu	Al	Plain Wires	Metal Coated Wires	
mm^2							Ω/Km	Ω/Km	Ω/Km
0.5	7	-	-	-	-	-	36.00	36.70	-
0.75	7	-	-	-	-	-	24.50	24.80	-
1	7	-	-	-	-	-	18.10	18.20	-
1.5	7	-	6	-	-	-	12.10	12.20	-
2.5	7	-	6	-	-	-	7.41	7.56	-
4	7	-	6	-	-	-	4.61	4.70	-
6	7	-	6	-	-	-	3.08	3.11	-
10	7	7	6	-	-	-	1.83	1.84	3.08
16	7	7	6	6	-	-	1.15	1.16	1.91
25	7	7	6	6	6	6	0.727	0.734	1.20
35	7	7	6	6	6	6	0.524	0.529	0.868
50	19	19	6	6	6	6	0.387	0.391	0.641
70	19	19	12	12	12	12	0.268	0.270	0.443
95	19	19	15	15	15	15	0.193	0.195	0.320
120	37	37	18	15	18	15	0.153	0.154	0.253
150	37	37	18	15	18	15	0.124	0.126	0.206
185	37	37	30	30	30	30	0.0991	0.1000	0.164
240	37	37	34	30	34	30	0.0754	0.0762	0.125
300	61	61	34	30	34	30	0.0601	0.0607	0.100
400	61	61	53	53	53	53	0.0470	0.0475	0.0778
500	61	61	53	53	53	53	0.0366	0.0369	0.0605
630	91	91	53	53	53	53	0.0283	0.0286	0.0469
800	91	91	53	53	-	-	0.0221	0.0224	0.0367
1000	91	91	53	53	-	-	0.0176	0.0177	0.0291

Class 5 Flexible Conductor for Single-Core and Multi-Core Cables

Conductor Specification as per BS EN 60228

Nominal X-Area	Max. Diameter of Wires in Conductor	Max. Resistance of the Conductor at 20° C	
		Plain Wires	Metal Coated Wires
mm^2	mm	Ω/Km	Ω/Km
0.5	0.21	39.00	40.10
0.75	0.21	26.00	26.70
1	0.21	19.50	20.00
1.5	0.26	13.30	13.70
2.5	0.26	7.98	8.21
4	0.31	4.95	5.09
6	0.31	3.30	3.39
10	0.41	1.91	1.95
16	0.41	1.21	1.24
25	0.41	0.780	0.795
35	0.41	0.554	0.565
50	0.41	0.386	0.393
70	0.51	0.272	0.277
95	0.51	0.206	0.210
120	0.51	0.161	0.164
150	0.51	0.129	0.132
185	0.51	0.106	0.108
240	0.51	0.0801	0.0817
300	0.51	0.0641	0.0654
400	0.51	0.0486	0.0495
500	0.61	0.0384	0.0391
630	0.61	0.0287	0.0292

Class 6 Flexible Conductor for Single-Core and Multi-Core Cables

Conductor Specification as per BS EN 60228

Nominal X-Area	Max. Diameter of Wires in Conductor	Max. Resistance of the Conductor at 20° C	
		Plain Wires	Metal Coated Wires
mm^2	mm	Ω/Km	Ω/Km
0.5	0.16	39.00	40.10
0.75	0.16	26.00	26.70
1	0.16	19.50	20.00
1.5	0.16	13.30	13.70
2.5	0.16	7.98	8.21
4	0.16	4.95	5.09
6	0.21	3.30	3.39
10	0.21	1.91	1.95
16	0.21	1.21	1.24
25	0.21	0.780	0.795
35	0.21	0.554	0.565
50	0.31	0.386	0.393
70	0.31	0.272	0.277
95	0.31	0.206	0.210
120	0.31	0.161	0.164
150	0.31	0.129	0.132
185	0.41	0.106	0.108
240	0.41	0.0801	0.0817
300	0.41	0.0641	0.0654

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Wires & Cables

شارٹ سرکٹ سے محفوظ گھر

Standard Cables

General Wiring Cables

450/750 V, 300/500 V &
600/1000 V PVC Insulated and
PVC-Sheathed Single and Multi-core Cables

Single Core, PVC Insulated, Non-Sheathed General Purpose Cables, 450/750 V, With Copper Conductor

Cable Specification as per BS 6004 & BS EN 50525-2-31

Nominal Cross Sectional Area of Conductor	Class of Conductor (BS EN 60228)	Thickness of Insulation: Specified Value	Mean Overall Diameter		Minimum Insulation Resistance
			Lower Limit	Upper Limit	
mm^2		mm	mm	mm	MΩ/Km
1.5	1	0.7	2.6	3.2	0.011
2.5	1	0.8	3.2	3.9	0.010
4	1	0.8	3.6	4.4	0.0087
6	1	0.8	4.1	5.0	0.0074
10	1	1.0	5.3	6.4	0.0072
1.5	2	0.7	2.7	3.3	0.0100
2.5	2	0.8	3.3	4.0	0.0099
4	2	0.8	3.8	4.6	0.0080
6	2	0.8	4.3	5.2	0.0070
10	2	1.0	5.6	6.7	0.0067
16	2	1.0	6.4	7.8	0.0056
25	2	1.2	8.1	9.7	0.0053
35	2	1.2	9.0	10.9	0.0046
50	2	1.4	10.6	12.8	0.0046
70	2	1.4	12.1	14.6	0.0040
95	2	1.6	14.1	17.1	0.0039
120	2	1.6	15.6	18.8	0.0035
150	2	1.8	17.3	20.9	0.0035
185	2	2.0	19.3	23.3	0.0035
240	2	2.2	22.0	26.6	0.0034
300	2	2.4	24.5	29.6	0.0033
400	2	2.6	27.5	33.2	0.0031
500	2	2.8	30.5	36.9	0.0030
630	2	2.8	34.0	41.1	0.0027
800	2	2.8	37.8	45.7	0.0024
1000	2	3.0	42.1	51.0	0.0023

Single Core, PVC Insulated, Non-Sheathed General Purpose Cables, 450/750 V, With Copper Conductor

Cable Specification as per BS 6004 & BS EN 50525-2-31

Nominal Cross Sectional Area of Conductor	Class of Conductor (BS EN 60228)	Thickness of Insulation: Specified Value	Mean Overall Diameter		Minimum Insulation Resistance
			Lower Limit	Upper Limit	
mm^2		mm	mm	mm	MΩ/Km
1.5	5	0.7	2.8	3.4	0.010
2.5	5	0.8	3.4	4.1	0.0095
4	5	0.8	3.9	4.8	0.0078
6	5	0.8	4.4	5.3	0.0068
10	5	1.0	5.7	6.8	0.0065
16	5	1.0	6.7	8.1	0.0053
25	5	1.2	8.4	10.2	0.0050
35	5	1.2	9.7	11.7	0.0043
50	5	1.4	11.5	13.9	0.0042
70	5	1.4	13.2	16.0	0.0036
95	5	1.6	15.1	18.2	0.0036
120	5	1.6	16.7	20.2	0.0032
150	5	1.8	18.6	22.5	0.0032
185	5	2.0	20.6	24.9	0.0032
240	5	2.2	23.5	28.4	0.0031

Single Core, PVC Insulated, Non-Sheathed Cables for Internal Wiring, 300/500 V, With Copper Conductor

Cable Specification as per BS 6004 & BS EN 50525-2-31

Nominal Cross Sectional Area of Conductor	Class of Conductor (BS EN 60228)	Thickness of Insulation: Specified Value	Mean Overall Diameter		Minimum Insulation Resistance
			Lower Limit	Upper Limit	
mm^2		mm	mm	mm	MΩ/Km
0.5	1	0.6	1.9	2.3	0.014
0.75	1	0.6	2.1	2.5	0.013
1	1	0.6	2.2	2.7	0.011
0.5	2	0.6	2.0	2.4	0.014
0.75	2	0.6	2.2	2.6	0.012
1	2	0.6	2.3	2.8	0.011
0.5	5	0.6	2.1	2.5	0.013
0.75	5	0.6	2.2	2.7	0.011
1	5	0.6	2.4	2.8	0.010

Single Core, PVC Insulated, PVC-Sheathed Cables for Internal Wiring, 300/500 V, With Copper Conductor

Cable Specification as per BS 6004 & BS EN 50525-2-31

Nominal Cross Sectional Area of Conductor	Class of Conductor (BS EN 60228)	Radial Thickness of Insulation	Radial Thickness of Sheath	Mean Overall Diameter		Minimum Insulation Resistance
				Lower Limit	Upper Limit	
mm^2		mm	mm	mm	mm	MΩ/Km
1	1	0.6	0.8	3.7	4.5	0.011
1.5	1	0.7	0.8	4.2	5.0	0.011
2.5	1	0.8	0.8	4.8	5.7	0.010
1.5	2	0.7	0.9	4.3	5.0	0.011
2.5	2	0.8	0.9	4.8	5.7	0.010
4	2	0.8	0.9	5.5	6.7	0.0077
6	2	0.8	0.9	6.0	7.3	0.0065
10	2	1.0	0.9	7.3	8.8	0.0065
16	2	1.0	1.0	8.4	10.1	0.0052
25	2	1.2	1.1	10.0	12.1	0.0050
35	2	1.2	1.1	11.1	13.5	0.0044

Flat Twin Core, PVC Insulated & PVC Sheathed Cables, 300/500 V, With Copper Conductor

Cable Specification as per BS 6004

Nominal Cross Sectional Area of Conductor	Class of Conductor (BS EN 60228)	Radial Thickness of Insulation	Radial Thickness of Sheath	Mean Overall Dimensions		Minimum Insulation Resistance
				Lower Limit	Upper Limit	
mm^2		mm	mm	mm	mm	MΩ/Km
2 × 1.0	1	0.6	0.9	3.9 × 6.1	4.8 × 7.4	0.011
2 × 1.5	1	0.7	0.9	4.4 × 7.0	5.3 × 8.5	0.011
2 × 2.5	1	0.8	1.0	5.1 × 8.4	6.2 × 10.1	0.010
2 × 1.5	2	0.7	0.9	4.5 × 7.2	5.4 × 8.7	0.011
2 × 2.5	2	0.8	1.0	5.2 × 8.5	6.3 × 10.3	0.010
2 × 4	2	0.8	1.0	5.7 × 9.5	6.9 × 11.5	0.0077
2 × 6	2	0.8	1.1	6.4 × 10.8	7.8 × 13.0	0.0065
2 × 10	2	1.0	1.2	7.9 × 13.4	9.5 × 16.2	0.0065
2 × 16	2	1.0	1.3	8.9 × 15.4	10.8 × 18.6	0.0052

Flat Three Core, PVC Insulated & PVC Sheathed Cables, 300/500 V, With Copper Conductor

Cable Specification as per BS 6004

Nominal Cross Sectional Area of Conductor	Class of Conductor (BS EN 60228)	Radial Thickness of Insulation	Radial Thickness of Sheath	Mean Overall Dimensions		Minimum Insulation Resistance
				Lower Limit	Upper Limit	
mm^2		mm	mm	mm	mm	MΩ/Km
3 × 1.0	1	0.6	0.9	3.9 × 8.4	4.8 × 10.1	0.011
3 × 1.5	1	0.7	0.9	4.4 × 9.6	5.3 × 11.7	0.011
3 × 2.5	1	0.8	1.0	5.1 × 11.6	6.2 × 14.0	0.0100
3 × 4	2	0.8	1.1	5.9 × 13.5	7.1 × 16.3	0.0077
3 × 6	2	0.8	1.1	6.4 × 15.1	7.8 × 18.2	0.0065
3 × 10	2	1.0	1.2	7.9 × 19.0	9.5 × 23.0	0.0065
3 × 16	2	1.0	1.3	8.9 × 21.8	10.8 × 26.3	0.0052

Circular Twisted Two Core, PVC Insulated & PVC Sheathed Cables, 300/500 V, With Copper Conductor

Cable Specification as per BS 6004

Nominal Cross Sectional Area of Conductor	Class of Conductor (BS EN 60228)	Radial Thickness of Insulation	Thickness of Inner Covering	Radial Thickness of Sheath	Mean Overall Dimensions		Minimum Insulation Resistance
					Lower Limit	Upper Limit	
mm^2		mm	mm	mm	mm	mm	MΩ/Km
2 × 1.5	1	0.7	0.4	1.2	8.4	10.0	0.011
2 × 2.5	1	0.8	0.4	1.2	9.6	11.5	0.010
2 × 4	1	0.8	0.4	1.2	10.5	12.5	0.0077
2 × 1.5	2	0.7	0.4	1.2	8.4	10.5	0.011
2 × 2.5	2	0.8	0.4	1.2	9.6	12.0	0.010
2 × 4	2	0.8	0.4	1.2	10.5	13.0	0.0077

Circular Twisted Three Core, PVC Insulated & PVC Sheathed Cables, 300/500 V, With Copper Conductor

Cable Specification as per BS 6004

Nominal Cross Sectional Area of Conductor	Class of Conductor (BS EN 60228)	Radial Thickness of Insulation	Thickness of Inner Covering	Radial Thickness of Sheath	Mean Overall Dimensions		Minimum Insulation Resistance
					Lower Limit	Upper Limit	
mm^2		mm	mm	mm	mm	mm	MΩ/Km
3 × 1.5	1	0.7	0.4	1.2	8.8	10.5	0.011
3 × 2.5	1	0.8	0.4	1.2	10.0	12.0	0.010
3 × 4	1	0.8	0.4	1.2	11.0	13.0	0.0077
3 × 1.5	2	0.7	0.4	1.2	8.8	11.0	0.011
3 × 2.5	2	0.8	0.4	1.2	10.0	12.5	0.010
3 × 4	2	0.8	0.4	1.2	11.0	13.5	0.0077
3 × 6	2	0.8	0.4	1.4	12.5	15.5	0.0065
3 × 10	2	1.0	0.6	1.4	15.5	19.0	0.0065
3 × 16	2	1.0	0.8	1.4	18.0	21.5	0.0052

Circular Twisted Four Core, PVC Insulated & PVC Sheathed Cables, 300/500 V, With Copper Conductor

Cable Specification as per BS 6004

Nominal Cross Sectional Area of Conductor	Class of Conductor (BS EN 60228)	Radial Thickness of Insulation	Thickness of Inner Covering	Radial Thickness of Sheath	Mean Overall Dimensions		Minimum Insulation Resistance
					Lower Limit	Upper Limit	
mm^2		mm	mm	mm	mm	mm	MΩ/Km
4 × 1.5	1	0.7	0.4	1.2	9.6	11.5	0.011
4 × 2.5	1	0.8	0.4	1.2	11.0	13.0	0.010
4 × 4	1	0.8	0.4	1.4	12.0	14.5	0.0077
4 × 1.5	2	0.7	0.4	1.2	9.6	12.0	0.011
4 × 2.5	2	0.8	0.4	1.2	11.0	13.5	0.010
4 × 4	2	0.8	0.4	1.4	12.5	15.0	0.0077
4 × 6	2	0.8	0.6	1.4	14.0	17.0	0.0065
4 × 10	2	1.0	0.6	1.4	17.0	20.5	0.0065

Circular Twisted Five Core, PVC Insulated & PVC Sheathed Cables, 300/500 V, With Copper Conductor

Cable Specification as per BS 6004

Nominal Cross Sectional Area of Conductor	Class of Conductor (BS EN 60228)	Radial Thickness of Insulation	Thickness of Inner Covering	Radial Thickness of Sheath	Mean Overall Dimensions		Minimum Insulation Resistance
					Lower Limit	Upper Limit	
mm^2		mm	mm	mm	mm	mm	MΩ/Km
5 × 1.5	1	0.7	0.4	1.2	10.0	12.0	0.011
5 × 2.5	1	0.8	0.4	1.2	11.5	14.0	0.010
5 × 4	1	0.8	0.6	1.4	13.5	16.0	0.0077
5 × 1.5	2	0.7	0.4	1.2	10.0	12.5	0.011
5 × 2.5	2	0.8	0.4	1.2	12.0	14.5	0.010
5 × 4	2	0.8	0.6	1.4	14.0	17.0	0.0077
5 × 6	2	0.8	0.6	1.4	15.5	18.5	0.0065

Circular Twisted Two Core, PVC Insulated & PVC Sheathed Flexible Cables, 300/500 V, With Copper Conductor

Cable Specification as per BS 6500

Nominal Cross Sectional Area of Conductor	Class of Conductor (BS EN 60228)	Radial Thickness of Insulation	Radial Thickness of Sheath	Mean Overall Dimensions		Minimum Insulation Resistance
				Lower Limit	Upper Limit	
mm^2		mm	mm	mm	mm	MΩ/Km
2 × 0.75	5	0.6	0.8	5.7	7.2	0.013
2 × 1	5	0.6	0.8	5.9	7.5	0.011
2 × 1.5	5	0.7	0.8	6.8	8.6	0.011
2 × 2.5	5	0.8	1.0	8.4	10.6	0.010
2 × 4	5	0.8	1.1	9.7	12.1	0.0077

Circular Twisted Three Core, PVC Insulated & PVC Sheathed Flexible Cables, 300/500 V, With Copper Conductor

Cable Specification as per BS 6500

Nominal Cross Sectional Area of Conductor	Class of Conductor (BS EN 60228)	Radial Thickness of Insulation	Radial Thickness of Sheath	Mean Overall Dimensions		Minimum Insulation Resistance
				Lower Limit	Upper Limit	
mm^2		mm	mm	mm	mm	MΩ/Km
3 × 0.75	5	0.6	0.8	6.0	7.6	0.013
3 × 1	5	0.6	0.8	6.3	8.0	0.011
3 × 1.5	5	0.7	0.9	7.4	9.4	0.011
3 × 2.5	5	0.8	1.1	9.2	11.4	0.010
3 × 4	5	0.8	1.2	10.5	13.1	0.0077

Circular Twisted Four Core, PVC Insulated & PVC Sheathed Flexible Cables, 300/500 V, With Copper Conductor

Cable Specification as per BS 6500

Nominal Cross Sectional Area of Conductor	Class of Conductor (BS EN 60228)	Radial Thickness of Insulation	Radial Thickness of Sheath	Mean Overall Dimensions		Minimum Insulation Resistance
				Lower Limit	Upper Limit	
mm^2		mm	mm	mm	mm	MΩ/Km
4 × 0.75	5	0.6	0.8	6.6	8.3	0.013
4 × 1	5	0.6	0.9	7.1	9.0	0.011
4 × 1.5	5	0.7	1.0	8.4	10.5	0.011
4 × 2.5	5	0.8	1.1	10.1	12.5	0.010
4 × 4	5	0.8	1.2	11.5	14.3	0.0077

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Wires & Cables

شارٹ سرکٹ سے محفوظ گھر

Standard Cables

Power Cables

600/1000 V PVC Insulated
and PVC Sheathed Armoured
and Un-Armoured Power Cables

Single Core PVC Insulated & PVC Sheathed 600/1000 V Un-Armoured & Armoured Power Cables

Cable Specification as per BS 6346

Nominal Cross Sectional Area of Conductor	Thickness of Insulation	Un-Armoured Cables		Armoured Cables			
		Thickness of Sheath	Overall Diameter	Thickness of Extruder Bedding	Armour Wire Diameter	Thickness of Sheath	Overall Diameter
mm^2	mm	mm	mm	mm	mm	mm	mm
50	1.4	1.4	15.1	0.8	1.25	1.5	19.1
70	1.4	1.4	16.9	0.8	1.25	1.6	21.1
95	1.6	1.5	19.4	0.8	1.25	1.6	23.4
120	1.6	1.5	21.0	1.0	1.6	1.7	26.3
150	1.8	1.6	23.2	1.0	1.6	1.7	28.3
185	2.0	1.7	25.8	1.0	1.6	1.8	30.8
240	2.2	1.8	29.0	1.0	1.6	1.9	34.1
300	2.4	1.9	32.1	1.0	1.6	1.9	37.0
400	2.6	2.0	35.8	1.2	2.0	2.1	42.0
500	2.8	2.1	39.6	1.2	2.0	2.1	45.6
630	2.8	2.2	43.8	1.2	2.0	2.2	49.7
800	2.8	2.3	48.3	1.4	2.5	2.4	55.8
1000	3.0	2.5	53.7	1.4	2.5	2.5	61.0

Two Core PVC Insulated & PVC Sheathed 600/1000 V Un-Armoured & Armoured Power Cables

Cable Specification as per BS 6346

Nominal Cross Sectional Area of Conductor	Thickness of Insulation	Un-Armoured Cables		Armoured Cables			
		Thickness of Sheath	Overall Diameter	Thickness of Extruder Bedding	Armour Wire Diameter	Thickness of Sheath	Overall Diameter
mm^2	mm	mm	mm	mm	mm	mm	mm
2 × 1.5 *	0.6	-	-	0.8	0.9	1.3	11.7
2 × 1.5 +	0.6	-	-	0.8	0.9	1.4	12.3
2 × 2.5 *	0.7	-	-	0.8	0.9	1.4	13.1
2 × 2.5 +	0.7	-	-	0.8	0.9	1.4	13.6
2 × 4 +	0.8	-	-	0.8	0.9	1.4	15.1
2 × 6 +	0.8	-	-	0.8	0.9	1.5	16.5
2 × 10 +	1.0	1.8	16.1	0.8	1.25	1.6	20.1
2 × 16 +	1.0	1.8	18.6	0.8	1.25	1.6	21.9
2 × 25 ^	1.2	1.8	18.4	1.0	1.6	1.7	23.0
2 × 25 +	1.2	1.8	22.1	1.0	1.6	1.7	26.7
2 × 35 ^	1.2	1.8	20.1	1.0	1.6	1.8	24.9
2 × 35 +	1.2	1.8	24.5	1.0	1.6	1.8	29.4
2 × 50 ^	1.4	1.8	22.8	1.0	1.6	1.9	27.8
2 × 70 ^	1.4	1.9	25.5	1.0	1.6	1.9	30.4
2 × 95 ^	1.6	2.0	29.3	1.2	2.0	2.1	35.5
2 × 120 ^	1.6	2.1	31.8	1.2	2.0	2.2	38.0
2 × 150 ^	1.8	2.2	35.1	1.2	2.0	2.3	41.3
2 × 185 ^	2.0	2.4	39.1	1.4	2.5	2.4	46.4
2 × 240 ^	2.2	2.5	43.9	1.4	2.5	2.5	51.2
2 × 300 ^	2.4	2.7	48.7	1.6	2.5	2.7	56.4
2 × 400 ^	2.6	2.9	54.2	1.6	2.5	2.9	61.9

* Circular Solid Class-1 Conductors

+ Circular or Circular Compacted Stranded Class-2 Conductors

^ Shaped Stranded Class-2 Conductors

Three Core PVC Insulated & PVC Sheathed 600/1000 V Un-Armoured & Armoured Power Cables

Cable Specification as per BS 6346

Nominal Cross Sectional Area of Conductor	Thickness of Insulation	Un-Armoured Cables		Armoured Cables			
		Thickness of Sheath	Overall Diameter	Thickness of Extruder Bedding	Armour Wire Diameter	Thickness of Sheath	Overall Diameter
mm^2	mm	mm	mm	mm	mm	mm	mm
3 × 1.5 *	0.6	-	-	0.8	0.9	1.4	12.3
3 × 1.5 +	0.6	-	-	0.8	0.9	1.4	12.8
3 × 2.5 *	0.7	-	-	0.8	0.9	1.4	13.6
3 × 2.5 +	0.7	-	-	0.8	0.9	1.4	14.1
3 × 4 +	0.8	-	-	0.8	0.9	1.4	15.8
3 × 6 +	0.8	-	-	0.8	1.25	1.5	18.0
3 × 10 +	1.0	1.8	17.0	0.8	1.25	1.6	21.2
3 × 16 +	1.0	1.8	19.7	0.8	1.25	1.6	23.1
3 × 25 ^	1.2	1.8	20.4	1.0	1.6	1.7	25.0
3 × 25 +	1.2	1.8	23.5	1.0	1.6	1.7	28.2
3 × 35 ^	1.2	1.8	22.4	1.0	1.6	1.8	27.3
3 × 35 +	1.2	1.8	26.2	1.0	1.6	1.8	31.0
3 × 50 ^	1.4	1.8	25.5	1.0	1.6	1.9	30.5
3 × 70 ^	1.4	1.9	28.7	1.2	2.0	2.0	35.0
3 × 95 ^	1.6	2.1	33.3	1.2	2.0	2.1	39.3
3 × 120 ^	1.6	2.2	36.3	1.2	2.0	2.2	42.2
3 × 150 ^	1.8	2.3	40.0	1.4	2.5	2.4	47.5
3 × 185 ^	2.0	2.5	44.6	1.4	2.5	2.5	51.9
3 × 240 ^	2.2	2.6	50.1	1.6	2.5	2.6	57.8
3 × 300 ^	2.4	2.8	55.6	1.6	2.5	2.8	63.2
3 × 400 ^	2.6	3.1	62.2	1.6	2.5	3.0	69.6

* Circular Solid Class-1 Conductors

+ Circular or Circular Compacted Stranded Class-2 Conductors

^ Shaped Stranded Class-2 Conductors

Four Core PVC Insulated & PVC Sheathed 600/1000 V Un-Armoured & Armoured Power Cables

Cable Specification as per BS 6346

Nominal Cross Sectional Area of Conductor	Thickness of Insulation	Un-Armoured Cables		Armoured Cables			
		Thickness of Sheath	Overall Diameter	Thickness of Extruder Bedding	Armour Wire Diameter	Thickness of Sheath	Overall Diameter
mm^2	mm	mm	mm	mm	mm	mm	mm
4 × 1.5 *	0.6	-	-	0.8	0.9	1.4	13.0
4 × 1.5 +	0.6	-	-	0.8	0.9	1.4	13.5
4 × 2.5 *	0.7	-	-	0.8	0.9	1.4	14.5
4 × 2.5 +	0.7	-	-	0.8	0.9	1.4	15.0
4 × 4 +	0.8	-	-	0.8	1.25	1.5	17.8
4 × 6 +	0.8	-	-	0.8	1.25	1.5	19.2
4 × 10 +	1.0	1.8	18.6	0.8	1.25	1.6	22.8
4 × 16 +	1.0	1.8	21.6	1.0	1.60	1.7	26.3
4 × 25 ^	1.2	1.8	22.9	1.0	1.6	1.8	27.8
4 × 25 +	1.2	1.8	25.9	1.0	1.6	1.8	30.7
4 × 35 ^	1.2	1.8	25.4	1.0	1.6	1.9	30.5
4 × 35 +	1.2	1.8	28.9	1.0	1.6	1.9	33.9
4 × 50 ^	1.4	1.9	29.2	1.2	2.0	2.0	35.4
4 × 70 ^	1.4	2.0	33.0	1.2	2.0	2.1	39.2
4 × 95 ^	1.6	2.2	38.3	1.2	2.0	2.2	44.3
4 × 120 ^	1.6	2.3	41.8	1.4	2.5	2.4	49.3
4 × 150 ^	1.8	2.5	46.3	1.4	2.5	2.5	53.6
4 × 185 ^	2.0	2.6	51.3	1.6	2.5	2.6	59.0
4 × 240 ^	2.2	2.8	58.0	1.6	2.5	2.8	65.7
4 × 300 ^	2.4	3.1	64.6	1.6	2.5	3.0	72.0
4 × 400 ^	2.6	3.3	72.0	1.8	3.15	3.3	81.3

* Circular Solid Class-1 Conductors

+ Circular or Circular Compacted Stranded Class-2 Conductors

^ Shaped Stranded Class-2 Conductors

Four Core PVC Insulated & PVC Sheathed 600/1000 V Un-Armoured & Armoured Power Cables With Reduced Neutral Conductor

Cable Specification as per BS 6346

Nominal Cross Sectional Area of Conductors	Nominal Cross Sectional Area of Neutral Conductor	Thickness of Insulation (Phase Conductor)	Thickness of Insulation (Neutral Conductor)	Un-Armoured Cables		Armoured Cables			
				Thickness of Sheath	Overall Diameter	Thickness of Extruder Bedding	Armour Wire Diameter	Thickness of Sheath	Overall Diameter
mm^2	mm^2	mm	mm	mm	mm	mm	mm	mm	mm
4 × 25	1 × 16	1.2	1.0	1.8	22.9	1.0	1.6	1.8	27.8
4 × 25 *	1 × 16	1.2	1.0	1.8	24.9	1.0	1.6	1.8	29.7
4 × 35	1 × 16	1.2	1.0	1.8	24.7	1.0	1.6	1.8	29.5
4 × 35 *	1 × 16	1.2	1.0	1.8	27.3	1.0	1.6	1.8	32.1
4 × 50	1 × 25	1.4	1.2	1.9	28.3	1.0	1.6	1.9	33.1
4 × 70	1 × 35	1.4	1.2	2.0	32.0	1.2	2.0	2.0	38.0
4 × 95	1 × 50	1.6	1.4	2.1	37.5	1.2	2.0	2.2	43.7
4 × 120	1 × 70	1.6	1.4	2.2	41.4	1.4	2.5	2.3	49.0
4 × 150	1 × 70	1.8	1.4	2.4	44.7	1.4	2.5	2.4	52.0
4 × 185	1 × 95	2.0	1.6	2.5	49.9	1.4	2.5	2.5	57.2
4 × 240	1 × 120	2.2	1.6	2.7	56.0	1.6	2.5	2.7	63.7
4 × 300	1 × 150	2.4	1.8	2.9	62.2	1.6	2.5	2.9	69.8
4 × 300	1 × 185	2.4	2.0	2.9	64.2	1.6	2.5	2.9	71.8
4 × 400	1 × 185	2.6	2.0	3.2	69.9	1.8	3.2	3.1	78.6

* Circular or Circular Compacted Stranded Class-2 Conductors

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Wires & Cables

شارٹ سرکٹ سے محفوظ گھر

Standard Cables

XLPE Insulated Power Cables

600/1000 V XLPE Insulated
and PVC Sheathed Armoured
and Un-Armoured Power Cables

Single Core XLPE Insulated & PVC Sheathed 600/1000 V Un-Armoured Cables

Cable Specification as per IEC 60502-1 / BS 7889

Nominal Cross Sectional Area of Conductor *	Thickness of Insulation	Thickness of Inner Covering	Thickness of Sheath
mm^2	mm	mm	mm
1.5	0.7	0.4	1.4
2.5	0.7	0.4	1.4
4	0.7	0.4	1.4
6	0.7	0.4	1.4
10	0.7	0.4	1.4
16	0.7	0.4	1.4
25	0.9	0.4	1.4
35	0.9	0.4	1.4
50	1.0	0.6	1.4
70	1.1	0.6	1.4
95	1.1	0.6	1.5
120	1.2	0.8	1.5
150	1.4	0.8	1.6
185	1.6	0.8	1.6
240	1.7	1.0	1.7
300	1.8	1.0	1.8
400	2.0	1.2	1.9
500	2.2	1.2	2.0
630	2.4	1.4	2.2
800	2.6	1.6	2.3
1000	2.8	1.6	2.4

* Circular or Circular Compacted Stranded Class-2 Conductors

Two Core XLPE Insulated & PVC Sheathed 600/1000 V Un-Armoured Cables

Cable Specification as per IEC 60502-1 / BS 7889

Nominal Cross Sectional Area of Conductor	Thickness of Insulation	Thickness of Inner Covering	Thickness of Sheath
mm^2	mm	mm	mm
2 × 1.5 *	0.7	0.4	1.8
2 × 2.5 *	0.7	0.4	1.8
2 × 4 *	0.7	0.4	1.8
2 × 6 *	0.7	0.4	1.8
2 × 10 *	0.7	0.6	1.8
2 × 16 *	0.7	0.6	1.8
2 × 25 *	0.9	0.8	1.8
2 × 35 *	0.9	0.8	1.8
2 × 50 *	1.0	1.0	1.8
2 × 70 *	1.1	1.0	1.8
2 × 95 *	1.1	1.2	1.9
2 × 120 *	1.2	1.2	2.0
2 × 25 ^	0.9	0.6	1.8
2 × 35 ^	0.9	0.6	1.8
2 × 50 ^	1.0	0.8	1.8
2 × 70 ^	1.1	0.8	1.8
2 × 90 ^	1.1	1.0	1.9
2 × 120 ^	1.2	1.0	2.0

* Circular or Circular Compacted Stranded Class-2 Conductors

^ Shaped Stranded Class-2 Conductors

Three Core XLPE Insulated & PVC Sheathed 600/1000 V Un-Armoured Cables

Cable Specification as per IEC 60502-1 / BS 7889

Nominal Cross Sectional Area of Conductor	Thickness of Insulation	Thickness of Inner Covering	Thickness of Sheath
mm^2	mm	mm	mm
3 × 1.5 *	0.7	0.4	1.8
3 × 2.5 *	0.7	0.4	1.8
3 × 4 *	0.7	0.4	1.8
3 × 6 *	0.7	0.4	1.8
3 × 10 *	0.7	0.6	1.8
3 × 16 *	0.7	0.6	1.8
3 × 25 *	0.9	0.8	1.8
3 × 35 *	0.9	0.8	1.8
3 × 50 *	1.0	1.0	1.8
3 × 70 *	1.1	1.2	1.9
3 × 95 *	1.1	1.2	2.0
3 × 120 *	1.2	1.2	2.1
3 × 25 ^	0.9	0.6	1.8
3 × 35 ^	0.9	0.8	1.8
3 × 50 ^	1.0	0.8	1.8
3 × 70 ^	1.1	1.0	1.9
3 × 90 ^	1.1	1.2	2.0
3 × 120 ^	1.2	1.2	2.1

* Circular or Circular Compacted Stranded Class-2 Conductors

^ Shaped Stranded Class-2 Conductors

Four Core XLPE Insulated & PVC Sheathed 600/1000 V Un-Armoured Cables

Cable Specification as per IEC 60502-1 / BS 7889

Nominal Cross Sectional Area of Conductor	Thickness of Insulation	Thickness of Inner Covering	Thickness of Sheath
mm^2	mm	mm	mm
4 × 1.5 *	0.7	0.4	1.8
4 × 2.5 *	0.7	0.4	1.8
4 × 4 *	0.7	0.4	1.8
4 × 6 *	0.7	0.6	1.8
4 × 10 *	0.7	0.6	1.8
4 × 16 *	0.7	0.6	1.8
4 × 25 *	0.9	0.8	1.8
4 × 35 *	0.9	1.0	1.8
4 × 50 *	1.0	1.0	1.8
4 × 70 *	1.1	1.2	2.0
4 × 95 *	1.1	1.2	2.1
4 × 120 *	1.2	1.2	2.3
4 × 25 ^	0.9	0.8	1.8
4 × 35 ^	0.9	0.8	1.8
4 × 50 ^	1.0	1.0	1.8
4 × 70 ^	1.1	1.2	2.0
4 × 90 ^	1.1	1.2	2.1
4 × 120 ^	1.2	1.2	2.3

* Circular or Circular Compacted Stranded Class-2 Conductors

^ Shaped Stranded Class-2 Conductors

Five Core XLPE Insulated & PVC Sheathed 600/1000 V Un-Armoured Cables

Cable Specification as per IEC 60502-1 / BS 7889

Nominal Cross Sectional Area of Conductor *	Thickness of Insulation	Thickness of Inner Covering	Thickness of Sheath
mm^2	mm	mm	mm
5 × 1.5	0.7	0.4	1.8
5 × 2.5	0.7	0.4	1.8
5 × 4	0.7	0.6	1.8
5 × 6	0.7	0.6	1.8
5 × 10	0.7	0.6	1.8
5 × 16	0.7	0.8	1.8
5 × 25	0.9	1.0	1.8
5 × 35	0.9	1.0	1.8
5 × 50	1.0	1.2	1.9
5 × 70	1.1	1.2	2.1
5 × 95	1.1	1.4	2.2
5 × 120	1.2	1.4	2.4

* Circular or Circular Compacted Stranded Class-2 Conductors

Single Core XLPE Insulated & PVC Sheathed 600/1000 V Armoured Cables

Cable Specification as per BS 5467

Nominal Cross Sectional Area of Conductor *	Thickness of Insulation	Thickness of Extruder Bedding	Nominal Aluminium Armour Wire Diameter	Thickness of Sheath	Overall Diameter
mm^2	mm	mm	mm	mm	mm
50	1.0	0.8	0.9	1.5	17.5
70	1.1	0.8	1.25	1.5	20.2
95	1.1	0.8	1.25	1.6	22.3
120	1.2	0.8	1.25	1.6	24.2
150	1.4	1.0	1.6	1.7	27.4
185	1.6	1.0	1.6	1.8	30.0
240	1.7	1.0	1.6	1.8	32.8
300	1.8	1.0	1.6	1.9	35.6
400	2.0	1.2	2.0	2.0	40.5
500	2.2	1.2	2.0	2.1	44.2
630	2.4	1.2	2.0	2.2	48.8
800	2.6	1.4	2.5	2.4	55.4
1000	2.8	1.4	2.5	2.5	60.6

* Circular or Circular Compacted Stranded Class-2 Conductors

Two Core XLPE Insulated & PVC Sheathed 600/1000 V Armoured Cables

Cable Specification as per BS 5467

Nominal Cross Sectional Area of Conductor	Thickness of Insulation	Thickness of Extruder Bedding	Nominal Steel Armour Wire Diameter	Thickness of Sheath	Overall Diameter
mm^2	mm	mm	mm	mm	mm
2 × 1.5 *	0.6	0.8	0.9	1.3	12.1
2 × 2.5 *	0.7	0.8	0.9	1.4	13.6
2 × 4 *	0.7	0.8	0.9	1.4	14.7
2 × 6 *	0.7	0.8	0.9	1.4	15.9
2 × 10 *	0.7	0.8	0.9	1.5	18.0
2 × 16 *	0.7	0.8	1.25	1.5	20.4
2 × 25 *	0.9	0.8	1.25	1.6	24.1
2 × 25 ^	0.9	0.8	1.25	1.6	20.4
2 × 35 *	0.9	1.0	1.6	1.7	27.7
2 × 35 ^	0.9	1.0	1.6	1.7	23.3
2 × 50 *	1.0	1.0	1.6	1.9	30.8
2 × 50 ^	1.0	1.0	1.6	1.8	25.8
2 × 70 *	1.1	1.2	2.0	2.0	36.2
2 × 70 ^	1.1	1.0	1.6	1.9	29.0
2 × 95 *	1.1	1.2	2.0	2.1	40.2
2 × 95 ^	1.1	1.2	2.0	2.0	33.1
2 × 120 *	1.2	1.2	2.0	2.1	44.1
2 × 120 ^	1.2	1.2	2.0	2.1	36.1
2 × 150 ^	1.4	1.2	2.0	2.2	39.3
2 × 185 ^	1.6	1.4	2.5	2.4	44.7
2 × 240 ^	1.7	1.4	2.5	2.5	49.0
2 × 300 ^	1.8	1.6	2.5	2.6	53.5
2 × 400 ^	2.0	1.6	2.5	2.8	59.0

* Circular or Circular Compacted Stranded Class-2 Conductors

^ Shaped Stranded Class-2 Conductors

Three Core XLPE Insulated & PVC Sheathed 600/1000 V Armoured Cables

Cable Specification as per BS 5467

Nominal Cross Sectional Area of Conductor	Thickness of Insulation	Thickness of Extruder Bedding	Nominal Steel Armour Wire Diameter	Thickness of Sheath	Overall Diameter
mm^2	mm	mm	mm	mm	mm
3 × 1.5 *	0.6	0.8	0.9	1.3	12.6
3 × 2.5 *	0.7	0.8	0.9	1.4	14.1
3 × 4 *	0.7	0.8	0.9	1.4	15.3
3 × 6 *	0.7	0.8	0.9	1.4	16.6
3 × 10 *	0.7	0.8	1.25	1.5	19.5
3 × 16 *	0.7	0.8	1.25	1.6	21.6
3 × 25 *	0.9	1.0	1.6	1.7	26.7
3 × 25 ^	0.9	1.0	1.6	1.7	23.6
3 × 35 *	0.9	1.0	1.6	1.8	29.4
3 × 35 ^	0.9	1.0	1.6	1.8	25.7
3 × 50 *	1.0	1.0	1.6	1.9	32.5
3 × 50 ^	1.0	1.0	1.6	1.8	28.5
3 × 70 *	1.1	1.2	2.0	2.0	38.3
3 × 70 ^	1.1	1.0	1.6	1.9	32.2
3 × 95 *	1.1	1.4	2.0	2.2	42.6
3 × 95 ^	1.1	1.2	2.0	2.1	37.0
3 × 120 *	1.2	1.4	2.5	2.3	48.1
3 × 120 ^	1.2	1.2	2.0	2.2	40.4
3 × 150 ^	1.4	1.4	2.5	2.3	45.5
3 × 185 ^	1.6	1.4	2.5	2.4	49.8
3 × 240 ^	1.7	1.4	2.5	2.6	55.1
3 × 300 ^	1.8	1.6	2.5	2.7	60.2
3 × 400 ^	2.0	1.6	2.5	2.9	66.6

* Circular or Circular Compacted Stranded Class-2 Conductors

^ Shaped Stranded Class-2 Conductors

Four Core XLPE Insulated & PVC Sheathed 600/1000 V Armoured Cables

Cable Specification as per BS 5467

Nominal Cross Sectional Area of Conductor	Thickness of Insulation	Thickness of Extruder Bedding	Nominal Steel Armour Wire Diameter	Thickness of Sheath	Overall Diameter
mm^2	mm	mm	mm	mm	mm
4 × 1.5 *	0.6	0.8	0.9	1.3	13.3
4 × 2.5 *	0.7	0.8	0.9	1.4	15.0
4 × 4 *	0.7	0.8	0.9	1.4	16.4
4 × 6 *	0.7	0.8	1.25	1.5	18.7
4 × 10 *	0.7	0.8	1.25	1.5	21.1
4 × 16 *	0.7	0.8	1.25	1.6	23.4
4 × 25 *	0.9	1.0	1.6	1.7	28.9
4 × 25 ^	0.9	1.0	1.6	1.7	26.1
4 × 35 *	0.9	1.0	1.6	1.8	31.9
4 × 35 ^	0.9	1.0	1.6	1.8	28.6
4 × 50 *	1.0	1.2	2.0	2.0	36.6
4 × 50 ^	1.0	1.0	1.6	1.9	32.0
4 × 70 *	1.1	1.2	2.0	2.2	41.9
4 × 70 ^	1.1	1.2	2.0	2.1	37.7
4 × 95 *	1.1	1.4	2.5	2.3	48.1
4 × 95 ^	1.1	1.2	2.0	2.2	41.7
4 × 120 *	1.2	1.4	2.5	2.4	52.6
4 × 120 ^	1.2	1.4	2.5	2.3	47.1
4 × 150 ^	1.4	1.4	2.5	2.4	51.4
4 × 185 ^	1.6	1.4	2.5	2.6	56.6
4 × 240 ^	1.7	1.6	2.5	2.7	63.0
4 × 300 ^	1.8	1.6	2.5	2.9	68.8
4 × 400 ^	2.0	1.8	3.15	3.2	78.1

* Circular or Circular Compacted Stranded Class-2 Conductors

^ Shaped Stranded Class-2 Conductors

Five Core XLPE Insulated & PVC Sheathed 600/1000 V Armoured Cables

Cable Specification as per BS 5467

Nominal Cross Sectional Area of Conductor *	Thickness of Insulation	Thickness of Extruder Bedding	Nominal Steel Armour Wire Diameter	Thickness of Sheath	Overall Diameter
mm^2	mm	mm	mm	mm	mm
5 × 1.5	0.6	0.8	0.9	1.4	14.3
5 × 2.5	0.7	0.8	0.9	1.4	16.1
5 × 4	0.7	0.8	0.9	1.5	17.8
5 × 6	0.7	0.8	1.25	1.5	20.0
5 × 10	0.7	0.8	1.25	1.6	22.9
5 × 16	0.7	1.0	1.6	1.7	26.6
5 × 25	0.9	1.0	1.6	1.8	31.5
5 × 35	0.9	1.0	1.6	1.9	34.8
5 × 50	1.0	1.2	2.0	2.0	40.4
5 × 70	1.1	1.2	2.0	2.2	46.3

* Circular or Circular Compacted Stranded Class-2 Conductors

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Standard Cables

XLPO Insulated Solar Cables

Single Core XLPO Insulated
& XLPO Sheathed 1000/1500 V
Cables for Photovoltaic Systems

Single Core XLPO Insulated & XLPO Sheathed 1000/1500 V Cables for Photovoltaic Systems

Cable Specification as per BS EN 50618

Nominal Cross Sectional Area of Conductor *	Thickness of Insulation Specified Value	Thickness of Sheath Specified Value	Mean Overall Diameter Upper Limit Informative Value	Minimum Insulation Resistance at 20 °C	Minimum Insulation Resistance at 90 °C
mm^2	mm	mm	mm	MΩ/Km	MΩ/Km
1 × 1.5	0.7	0.8	5.4	860	0.86
1 × 2.5	0.7	0.8	5.9	690	0.69
1 × 4	0.7	0.8	6.6	580	0.58
1 × 6	0.7	0.8	7.4	500	0.50
1 × 10	0.7	0.8	8.8	420	0.42
1 × 16	0.7	0.9	10.1	340	0.34
1 × 25	0.9	1.0	12.5	340	0.34
1 × 35	0.9	1.1	14.0	290	0.29
1 × 50	1.0	1.2	16.3	270	0.27
1 × 70	1.1	1.2	18.7	250	0.25
1 × 95	1.1	1.3	20.8	220	0.22
1 × 120	1.2	1.3	22.8	210	0.21
1 × 150	1.4	1.4	25.5	210	0.21
1 × 185	1.6	1.6	28.5	200	0.20
1 × 240	1.7	1.7	32.1	200	0.20

* Flexible Class-5 Conductors

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Wires & Cables

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Useful Information

Comparison Between Imperial and Nearest Metric Sizes of Conductors for Electric Cables

Imperial Cable Sizes (Obsolete)			Metric Cable Sizes (New)		
No. & Diameter of Wires	Cross Sectional Area of Conductor	Max. D.C Resistance at 20° C	Cross Sectional Area of Conductor	No. & Diameter of Wires	Max. D.C Resistance at 20° C
No./inches	mm^2	Ω/Km	mm^2	No./mm	Ω/Km
1/.044"	0.98 mm^2	18.30	1 mm^2	1/1.13	18.10
3/.029"	1.28 mm^2	14.03	1.5 mm^2	7/0.53	12.10
3/.036"	1.97 mm^2	9.10			
7/.029"	2.98 mm^2	6.01	2.5 mm^2	7/0.67	7.41
7/.036"	4.6 mm^2	3.90	4 mm^2	7/0.85	4.61
7/.044"	6.9 mm^2	2.61	6 mm^2	7/1.04	3.08
7/.052"	9.6 mm^2	1.87	10 mm^2	7/1.35	1.83
7/.064"	14.5 mm^2	1.23	16 mm^2	7/1.70	1.15
19/.044"	18.6 mm^2	0.962			
19/.052"	26 mm^2	0.689	25 mm^2	19/1.32	0.727
19/.064"	39 mm^2	0.454	35 mm^2	19/1.52	0.524
19/.072"	50 mm^2	0.359	50 mm^2	19/1.78	0.387
19/.083"	66 mm^2	0.271	70 mm^2	19/2.14	0.268
37/.072"	97 mm^2	0.185	95 mm^2	19/2.52	0.193
37/.083"	129 mm^2	0.139	120 mm^2	37/2.03	0.153
37/.093"	162 mm^2	0.111	150 mm^2	37/2.25	0.124
37/.103"	199 mm^2	0.090	185 mm^2	37/2.52	0.0991
61/.093"	267 mm^2	0.067	240 mm^2	61/2.25	0.0754
61/.103"	328 mm^2	0.054	300 mm^2	61/2.52	0.0601
91/.093"	399 mm^2	0.045	400 mm^2	61/2.85	0.0470
91/.103"	489 mm^2	0.037	500 mm^2	61/3.20	0.0366
127/.103"	683 mm^2	0.026	630 mm^2	127/2.52	0.0283
FLEXIBLE CONDUCTOR SIZES			FLEXIBLE CONDUCTOR SIZES		
14/.0076"	0.41 mm^2	44.2	0.5 mm^2	16/.20	39.0
23/.0076"	0.67 mm^2	26.9	0.75 mm^2	24/.20	26.0
			1 mm^2	32/.20	19.5
40/.0076"	1.17 mm^2	15.5	1.25 mm^2	40/.20	15.6
			1.5 mm^2	30/.25	13.30
70/.0076"	2.05 mm^2	8.84	2.5 mm^2	50/.25	7.98
110/.0076"	3.22 mm^2	5.62	4 mm^2	56/.30	4.95
162/.0076"	4.74 mm^2	3.82	6 mm^2	84/.30	3.30

Insulation Information

Both old and new color sequances are available depending upon customer's demand

Cable Type	Old Core Colors	New Core Colors
Single Core	Red or Black	Brown or Blue
Two Core	Red, Black	Brown, Blue
Three Core	Red, Black, Green (or Green+Yellow)	Brown, Black, Grey
Four Core	Red, White, Blue, Green (or Green+Yellow)	Blue, Brown, Black, Grey
Five Core	Red, White, Blue, Black, Green (or Green+Yellow)	Green+Yellow, Blue, Brown, Black, Grey

Cable Installation Bending Radius

Although larger bending radius should be used where possible, the minimum radius is specified below.

Cable Construction	Minimum Internal Radius of Bend
Circular Copper Conductor Overall Cable Diamater of upto 25mm	4 Times the Cable Diameter
Circular Copper Conductor Overall Cable Diamater of above 25mm	6 Times the Cable Diameter
Shaped Copper Conductor	8 Times the Cable Diameter
Armoured Cables	8 Times the Cable Diameter

Temperature Correction Factor for Conductor Resistance to Correct the Measured Resistance to 20° C

Temperature of Conductor at Time of Measurement	Correction Factor	Temperature of Conductor at Time of Measurement	Correction Factor
° C		° C	
0	1.087	21	0.996
1	1.082	22	0.992
2	1.078	23	0.988
3	1.073	24	0.984
4	1.068	25	0.980
5	1.064	26	0.977
6	1.059	27	0.973
7	1.055	28	0.969
8	1.050	29	0.965
9	1.046	30	0.962
10	1.042	31	0.958
11	1.037	32	0.954
12	1.033	33	0.951
13	1.029	34	0.947
14	1.025	35	0.943
15	1.020	36	0.940
16	1.016	37	0.936
17	1.012	38	0.933
18	1.008	39	0.929
19	1.004	40	0.926
20	1.000		

Conversion From Copper to Aluminium and Vice Versa for Cable Size Selection

Copper to Aluminium			Aluminium to Copper		
Standard Copper Cable X-Section Area	Equal Aluminium Cable X-Section Area	Closest Aluminium Cable X-Section Area	Standard Aluminium Cable X-Section Area	Equal Copper Cable X-Section Area	Closest Copper Cable X-Section Area
mm^2	mm^2	mm^2	mm^2	mm^2	mm^2
6 mm^2	9.8 mm^2	10 mm^2	10 mm^2	6.1 mm^2	6 mm^2
10 mm^2	16.4 mm^2	16 mm^2	16 mm^2	9.8 mm^2	10 mm^2
16 mm^2	26.2 mm^2	25 mm^2	25 mm^2	15.3 mm^2	16 mm^2
25 mm^2	41 mm^2	50 mm^2	35 mm^2	21.4 mm^2	25 mm^2
35 mm^2	57 mm^2	70 mm^2	50 mm^2	30.5 mm^2	35 mm^2
50 mm^2	82 mm^2	95 mm^2	70 mm^2	43 mm^2	50 mm^2
70 mm^2	115 mm^2	120 mm^2	95 mm^2	58 mm^2	70 mm^2
95 mm^2	156 mm^2	185 mm^2	120 mm^2	73 mm^2	70 mm^2
120 mm^2	197 mm^2	240 mm^2	150 mm^2	92 mm^2	95 mm^2
150 mm^2	246 mm^2	240 mm^2	185 mm^2	113 mm^2	120 mm^2
185 mm^2	303 mm^2	300 mm^2	240 mm^2	146 mm^2	150 mm^2
240 mm^2	393 mm^2	400 mm^2	300 mm^2	183 mm^2	185 mm^2
300 mm^2	492 mm^2	500 mm^2	400 mm^2	244 mm^2	240 mm^2
400 mm^2	656 mm^2	630 mm^2	500 mm^2	305 mm^2	300 mm^2
500 mm^2	820 mm^2	800 mm^2	630 mm^2	384 mm^2	400 mm^2
630 mm^2	1033 mm^2	1000 mm^2	800 mm^2	488 mm^2	500 mm^2
			1000 mm^2	610 mm^2	630 mm^2

Reference Table for Conversion Between Different Units of Measurement

LENGTH CONVERSION CHART									
	mm	mil	cm	inch	foot	yard	meter	km	mile
1 mm =	1	39.37	0.1	0.03937	0.003281	0.001094	0.001	-	-
1 mil =	0.0254	1	0.00254	0.0010	0.00008	0.000028	0.000025	-	-
1 cm =	10	393.701	1	0.3937	0.03280	0.0109	0.01	0.00001	-
1 inch =	25.4	1,000	2.54	1	0.08333	0.027778	0.0254	-	-
1 foot =	304.8	12,000	30.48	12	1	0.3333	0.3048	0.000305	0.000189
1 yard =	914.4	36,000	91.44	36	3	1	0.9144	0.000914	0.000568
1 meter =	1,000	39,370.1	100	39.37	3.28084	1.093610	1	0.001	0.000621
1 km =	-	-	100,000	39,370.1	3,280.84	1,093.61	1,000	1	0.6214
1 mile =	-	-	160,934	63,360	5,280	1,760	1,609.34	1.6093	1


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