

COPPER CONDUCTORS CLASSES & REQUIREMENTS

Class 1: Solid Copper Conductors

Nominal Cross-Sectional Area	Maximum Resistance at 20°C Circular Annealed Copper Conductors	
	Plain	Metal-Coated
mm ²	Ω/Km	Ω/Km
0.5	36.0	36.7
0.75	24.5	24.8
1	18.1	18.2
1.5	12.1	12.2
2.5	7.4	7.6
4	4.6	4.7
6	3.1	3.1

Class 2: Stranded Circular Copper Conductors

Nominal Cross-Sectional Area	Minimum Number of Wires in the Conductor	Maximum Resistance at 20°C Circular Annealed Copper Conductors	
		Plain	Metal-Coated
mm ²	Number	Ω/Km	Ω/Km
0.5	7	36.0	36.7
0.75	7	24.5	24.8
1	7	18.1	18.2
1.5	7	12.1	12.2
2.5	7	7.41	7.56
4	7	4.61	4.7
6	7	3.08	3.11
10	7	1.83	1.84
16	7	1.15	1.16
25	7	0.727	0.734
35	7	0.524	0.529
50	19	0.387	0.391
70	19	0.268	0.27
95	19	0.193	0.195
120	37	0.153	0.154
150	37	0.124	0.126
185	37	0.0991	0.1
240	61	0.0754	0.0726
300	61	0.0601	0.0607
400	61	0.0470	0.0475
500	61	0.0366	0.0369
630	91	0.0283	0.0286



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Class 5: Flexible Copper Conductors			
Nominal Cross-Sectional Area	Maximum Diameter of Wires in the Conductor	Maximum Resistance at 20°C Circular Annealed Copper Conductors	
		Plain	Metal-Coated
mm ²	Mm	Ω/Km	Ω/Km
0.14	0.11	148	152.4
0.22	0.21	92.0	92.4
0.25	0.16	79.9	82.3
0.34	0.26	57.5	59.2
0.5	0.21	39.0	40.1
0.75	0.21	26.0	26.7
1	0.21	19.5	20
1.25	0.21	15.6	16.1
1.35	0.31	14.6	15
1.5	0.26	13.3	13.7
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	0.78	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	0.21
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

