

Continuous current-carrying capacity of copper conductors (DIN 43 671)

Table 13-4

Copper conductors of rectangular cross-section in indoor installations. Ambient temperature 35 °C. Conductor temperature 65 °C. Conductor width vertical: clearance between conductors equal to conductor thickness; with alternating current, clearance between phases > 0.8 × phase centre-line distance.

Width × thickness	Cross- section	Weight ¹⁾ kg/m	Material ³⁾	Continuous current in A AC up to 60 Hz				Continuous current in A DC and AC 16⅔ Hz				Continuous current in A bare			
				painted				painted				no. of conductors			
				1	2	3	4	1	2	3	4	1	2	3	4
mm	mm ²	kg/m													
12 × 5	59.5	0.529	E-Cu F 37	203	345	411		203	345	411		177	312	398	
12 × 10	119.5	1.063	E-Cu F 37	326	605	879		326	605	879		285	553	811	
20 × 5	99.1	0.882	E-Cu F 37	319	560	728		320	562	729		274	502	687	
20 × 10	199	1.77	E-Cu F 30	497	924	1 320		499	932	1 300		428	832	1 210	
30 × 5	149	1.33	E-Cu F 37	447	760	944		448	766	950		380	676	897	
30 × 10	299	2.66	E-Cu F 30	676	1 200	1 670		683	1 230	1 630		579	1 080	1 520	
40 × 5	199	1.77	E-Cu F 37	573	952	1 140		576	966	1 160		484	848	1 100	
40 × 10	399	3.55	E-Cu F 30	850	1 470	2 000	2 580	865	1 530	2 000	2 280	728	1 350	1 880	



¹⁾ Calculated for a density of 8.9 kg/dm³.

²⁾ Minimum clearance given in mm.

³⁾ Material: E-Cu or other material to DIN 40500 Part 3, preferred semi-finished material. Flat bars with rounded edges to DIN 46433 Selection Part 3.

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Table 13-4 (continued)

Copper conductors of rectangular cross-section in indoor installations. Ambient temperature 35 °C. Conductor temperature 65 °C. Conductor width vertical: clearance between conductors equal to conductor thickness; with alternating current, clearance between phases > 0.8 × phase centre-line distance.

Width × thickness	Cross- section	Weight ¹⁾	Material ³⁾			Continuous current in A				Continuous current in A							
			AC up to 60 Hz			DC and AC 16⅓ Hz				DC and AC 16⅓ Hz							
			painted			bare				painted				bare			
			no. of conductors	1	2	3	4	no. of conductors	1	2	3	4	no. of conductors	1	2	3	4
mm	mm ²	kg/m		I	II	III	III	III	I	II	III	III	III	I	II	III	III
							50 ²⁾						50 ²⁾				
50 × 5	249	2.22	E-Cu F 37	679	1 140	1 330	2 010	583	994	1 240	1 920	703	1 170	1 370	588	1 020	1 300
50 × 10	499	4.44	E-Cu F 30	1 020	1 720	2 320	2 950	852	1510	2 040	2 600	1 050	1 830	2 360	875	1 610	2 220
60 × 5	299	2.66	E-Cu F 30	826	1 330	1 510	2 310	688	1 150	1 440	2 210	836	1 370	1 580	696	1 190	1 500
60 × 10	599	5.33	E-Cu F 30	1 180	1 960	2 610	3 290	985	1 720	2 300	2 900	1 230	2 130	2 720	1 020	1 870	2 570
80 × 5	399	3.55	E-Cu F 30	1 070	1 680	1 830	2 830	885	1 450	1 750	2 720	1 090	1 770	1 990	902	1 530	1 890
80 × 10	799	7.11	E-Cu F 30	1 500	2 410	3 170	3 930	1 240	2 110	2 790	3 450	1 590	2 730	3 420	1 310	2 380	3 240
100 × 5	499	4.44	E-Cu F 30	1 300	2 010	2 150	3 300	1 080	1 730	2 050	3 190	1 340	2 160	2 380	1 110	1 810	2 270
100 × 10	988	8.89	E-Cu F 30	1 810	2 850	3 720	4 530	1 490	2 480	3 260	3 980	1 940	3 310	4 100	1 600	2 890	3 900
120 × 10	1 200	10.7	E-Cu F 30	2 110	3 280	4 270	5 130	1 740	2 860	3 740	4 500	2 300	3 900	4 780	1 890	3 390	4 560
160 × 10	1 600	14.2	E-Cu F 30	2 700	4 130	5 360	6 320	2 220	3 590	4 680	5 530	3 010	5 060	6 130	2 470	4 400	5 860
200 × 10	2 000	17.8	E-Cu F 30	3 290	4 970	6 430	7 490	2 690	4 310	5 610	6 540	3 720	6 220	7 460	3 040	5 390	7 150

¹⁾ Calculated for a density of 8.9 kg/dm³.

²⁾ Minimum clearance given in mm.

³⁾ Material: E-Cu or other material to DIN 40500 Part 3 preferred semi-finished material. Flat bars with rounded edges to DIN 46433 Selection Part 3.

Table 13-5

Copper conductors of annular cross-section, ambient temperature 35 °C, conductor temperature 65 °C, with alternating current, phase centre-line distance $\geq 2.5 \times$ outside diameter

Outside diameter D mm	Wall-thickness a mm	Cross-section mm ²	Weight ¹⁾ kg/m	Material ²⁾	Continuous in A DC and AC up to 60 Hz			
					indoor painted	bare	outdoor painted	bare
20	2	113	1.01	E-Cu F 37	384	329	460	449
	3	160	1.43	E-Cu F 37	457	392	548	535
	4	201	1.79	E-Cu F 30	512	438	613	599
	5	236	2.10	E-Cu F 30	554	475	664	648
	6	264	2.35	E-Cu F 25	591	506	708	691
32	2	188	1.68	E-Cu F 37	602	508	679	660
	3	273	2.44	E-Cu F 37	725	611	818	794
	4	352	3.14	E-Cu F 30	821	693	927	900
	5	424	3.78	E-Cu F 30	900	760	1 020	987
	6	490	4.37	E-Cu F 25	973	821	1 100	1 070
40	2	239	2.13	E-Cu F 37	744	624	816	790
	3	349	3.11	E-CU F 37	899	753	986	955
	4	452	4.04	E-Cu F 30	1 020	857	1 120	1 090
	5	550	4.90	E-Cu F 30	1 130	944	1 240	1 200
	6	641	5.72	E-Cu F 25	1 220	1 020	1 340	1 300
50	3	443	3.95	E-Cu F 37	1 120	928	1 190	1 150
	4	578	5.16	E-Cu F 30	1 270	1 060	1 360	1 310
	5	707	6.31	E-Cu F 30	1 410	1 170	1 500	1 450
	6	829	7.40	E-Cu F 25	1 530	1 270	1 630	1 570
	8	1 060	9.42	E-Cu F 25	1 700	1 420	1 820	1 750
63	3	565	5.04	E-Cu F 30	1 390	1 150	1 440	1 390
	4	741	6.61	E-Cu F 30	1 590	1 320	1 650	1 590
	5	911	8.13	E-Cu F 30	1 760	1 460	1 820	1 750
	6	1 070	9.58	E-Cu F 25	1 920	1 590	1 990	1 910
	8	1 380	12.3	E-Cu F 25	2 150	1 780	2 230	2 140
80	3	726	6.47	E-Cu F 30	1 750	1 440	1 760	1 690
	4	955	8.52	E-Cu F 30	2 010	1 650	2 020	1 930
	5	1 180	10.5	E-Cu F 30	2 230	1 820	2 230	2 140
	6	1 400	12.4	E-Cu F 25	2 430	1 990	2 440	2 340
	8	1 810	16.1	E-Cu F 25	2 730	2 240	2 740	2 630
100	3	914	8.15	E-Cu F 30	2 170	1 770	2 120	2 020
	4	1 210	10.8	E-Cu F 30	2 490	2 030	2 430	2 320
	5	1 490	13.3	E-Cu F 30	2 760	2 250	2 700	2 580
	6	1 770	15.8	E-Cu F 25	3 020	2 460	2 950	2 820
	8	2 310	20.6	E-Cu F 25	3 410	2 780	3 330	3 180

¹⁾ Calculated for a density of 8.9 kg/dm³. Preferred outside diameters in heavy type.

²⁾ Material: E-Cu or other material to DIN 40500 Part 2; preferably semi-finished material to be used: tube to DIN 1754.

Table 13-6

Copper conductors of round cross-section (round copper bar), ambient temperature 35 °C, conductor temperature 65 °C; with alternating current, phase centre-line distance $\geq 2 \times$ diameter.

Diameter D mm	Cross- section a mm ²	Weight ¹⁾ kg/m	Material ²⁾	Continuous current in A DC and AC up to 60 Hz painted bare	
5	19.6	0.175	E-Cu F 37	95	85
8	50.3	0.447	E-Cu F 37	179	159
10	78.5	0.699	E-Cu F 37	243	213
16	210	1.79	E-Cu F 30	464	401
20	314	2.80	E-Cu F 30	629	539
32	804	7.16	E-Cu F 30	1 160	976
50	1960	17.50	E-Cu F 30	1 930	1 610

¹⁾ Calculated for a density of 8.9 kg/dm³.

²⁾ Material: E-Cu or other material to DIN 40500 Part 3, preferably semi-finished product to be used: round bars to DIN 1756.

Continuous current-carrying capacity of aluminium conductors (DIN 43670)

Table 13-7

Aluminium conductors of rectangular cross-section in indoor installations. Ambient temperature 35 °C. Conductor temperature 65 °C. Conductor width vertical: clearance between conductors equal to conductor thickness; with alternating current, clearance between phases > 0.8 × phase centre-line distance.

Width × thickness	Cross- section	Weight ¹⁾ kg/m	Material ³⁾	Continuous current in A AC up to 60 Hz				Continuous current in A DC and AC 16⅔ Hz				Continuous current in A bare							
				painted				painted				painted							
				no. of conductors	1	2	3	4	no. of conductors	1	2	3	4	no. of conductors	1	2	3	4	
mm	mm ²	kg/m		I	II	III	III	III	I	II	III	III	I	II	III	I	II	III	III
								50 ²⁾					50 ²⁾						
12 × 5	59.5	0.160	E-Al F 10	160	292	398			139	263	375	160	292	398	139	263	375		
12 × 10	119.5	0.322	E-Al F 10	257	490	720			224	440	652	257	490	720	224	440	652		
20 × 5	99.1	0.268	E-Al F 10	254	446	570			214	392	537	254	446	576	214	392	539		
20 × 10	199	0.538	E-Al F 10	393	730	1 060			331	643	942	393	733	1 020	331	646	943		
30 × 5	149	0.403	E-Al F 10	356	606	739			295	526	699	356	608	749	296	528	703		
30 × 10	299	0.808	E-Al F 10	536	956	1 340			445	832	1 200	538	964	1 280	447	839	1 180		
40 × 5	199	0.538	E-Al F 10	456	762	898			376	658	851	457	766	915	376	662	862		
40 × 10	399	1.08	E-Al F 10	677	1 180	1 650			557	1 030	1 460	682	1 200	1 570	561	1 040	1 460		
50 × 5	249	0.673	E-Al F 10	556	916	1 050			455	786	995	558	924	1 080	456	794	1 020		
50 × 10	499	1.35	E-Al F 10	815	1 400	1 940			667	1 210	1 710	824	1 140	1 850	674	1 250	1 730		
60 × 5	299	0.808	E-Al F 10	655	1 070	1 190			533	910	1 130	658	1 080	1 240	536	924	1 170	1 530	
60 × 10	599	1.62	E-Al F 10	951	1 610	2 200			774	1 390	1 940	966	1 680	2 130	787	1 450	2 000	2 650	

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Table 13-7 (continued)

Width × thickness	Cross- section	Weight ¹⁾	Material ³⁾	Continuous current in A AC up to 60 Hz				Continuous current in A DC and AC 16 ² / ₃ Hz				bare no. of conductors			
				painted				painted				no. of conductors			
				1	2	3	4	1	2	3	4	1	2	3	4
mm	mm ²	kg/m		I	II	III	IIII	I	II	III	IIII	I	II	III	IIII
80 × 5	399	1.08	E-Al F 10	851	1 360	1 460	2 250	688	1 150	1 400	2 180	858	1 390	1 550	2 010
80 × 10	799	2.16	E-Al F 10	1 220	2 000	2 660	3 460	983	1 720	2 380	2 990	1 250	2 150	2 670	3 520
100 × 5	499	1.35	E-Al F 6.5	1 050	1 650	1 730	2 660	846	1 390	1 660	2 580	1 060	1 710	1 870	2 420
100 × 10	999	2.70	E-Al F 6.5	1 480	2 390	3 110	4 020	1 190	2 050	2 790	3 470	1 540	2 630	3 230	4 250
100 × 15	1 500	4.04	E-Al F 6.5	1 800	2 910	3 730	4 490	1 450	2 500	3 220	3 380	1 930	3 380	4 330	5 710
120 × 10	1 200	3.24	E-Al F 6.5	1 730	2 750	3 540	4 560	1 390	2 360	3 200	3 930	1 830	3 090	3 770	4 940
120 × 15	1 800	4.86	E-Al F 6.5	2 090	3 320	4 240	5 040	1 680	2 850	3 650	4 350	2 280	3 950	5 020	6 610
160 × 10	1 600	4.32	E-Al F 6.5	2 220	3 470	4 390	5 610	1 780	2 960	4 000	4 820	2 380	4 010	4 820	6 300
160 × 15	2 400	6.47	E-Al F 6.5	2 670	4 140	5 230	6 120	2 130	3 540	4 510	5 270	2 960	5 090	6 370	8 380
200 × 10	2 000	5.40	E-Al F 6.5	2 710	4 180	5 230	6 660	2 160	3 560	4 790	5 710	2 960	4 940	5 880	7 680
200 × 15	3 000	8.09	E-Al F 6.5	3 230	4 950	6 240	7 190	2 580	4 230	5 370	6 190	3 660	6 250	7 740	10 160

1) Calculated for a density of 2.7 kg/dm³.

2) Minimum clearance given in mm.

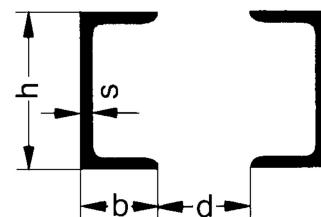
3) Material: E-Al or other material to DIN 40501 Part 3, preferred semi-finished material. Flat bars with rounded edges to DIN 46 433 Selection Part 3.

Table 13-8

Aluminium conductors of U-section in indoor installations, ambient temperature 35 °C, conductor temperature 65 °C.

When facing [], gap vertical; with alternating current, phase centre-line distance $\geq 2h$

Material: E-Al or other material to DIN 40501 Part 3; semi-finished product to be used; channel sections to DIN 46424.

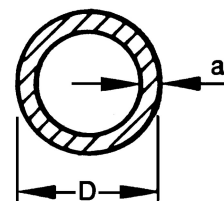


Dimensions				Cross-section		Weight ¹⁾		Material	Continuous current in A DC and AC up to 60 Hz			
<i>h</i>	<i>b</i>	<i>s</i>	<i>d</i>	[]	[]		painted	bare	[]
mm	mm	mm	mm	mm ²	mm ²	kg/m	kg/m					
60	30	4	25	448	896	1.22	2.44	E-Al F 6.5	880	1 800	685	1 370
80	37.5	6	25	858	1 720	2.32	4.64	E-Al F 8	1 460	2 540	1 140	2 000
100	37.5	8	25	1 270	2 540	3.47	6.94	E-Al F 8	2 000	3 450	1 550	2 700
120	45	10	30	1 900	3 800	5.17	10.3	E-Al F 8	2 720	4 700	2 100	3 750
140	52.5	11	35	2 450	4 900	6.66	13.3	E-Al F 8	3 350	5 800	2 600	4 600
160	60	12	40	3 070	6 140	8.34	16.7	E-Al F 8	4 000	7 000	3 100	5 400
180	67.5	13	45	3 760	7 520	10.2	20.4	E-Al F 8	4 750	8 200	3 800	6 400
200	75	14	50	4 510	9 020	12.2	24.4	E-Al F 8	5 500	9 500	4 300	7 400

¹⁾ Calculated for a density of 2.7 kg/dm³.

Table 13-9

Aluminium conductors of annular cross-section, ambient temperature 35 °C, conductor temperature 65 °C; with alternating current, phase centre-line distance $\geq 2.0 \times$ outside diameter.



Outside diameter <i>D</i> mm	Wall-thickness <i>a</i> mm	Cross-section mm ²	Weight ¹⁾ kg/m	Material ²⁾	Continuous current in A DC and AC up to 60 Hz indoor		Continuous current in A outdoor	
					painted	bare	painted	bare
20	2	113	0.305	E-Al F 10	305	257	365	354
	3	160	0.433	E-Al F 10	363	305	435	421
	4	201	0.544	E-Al F 10	407	342	487	472
	5	236	0.636	E-Al F 10	440	370	527	511
	6	264	0.713	E-Al F 10	465	392	558	540

¹⁾ Calculated for a density of 2.7 kg/dm³. Preferred outside diameters in heavy type.

²⁾ Material: E-Al or other material to DIN 40501 Part 2; preferably semi-finished product to be used. Tube to DIN 1795, DIN 9107.

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Table 13-9 (continued)

Outside diameter D mm	Wall- thick- ness a mm	Cross- section mm ²	Weight ¹⁾ kg/m	Material ²⁾	Continuous current in A DC and AC up to 60 Hz		Continuous current in A	
					indoor painted	bare	outdoor painted	bare
32	2	188	0.509	E-Al F 10	478	395	539	519
	3	273	0.739	E-Al F 10	575	476	649	624
	4	352	0.950	E-Al F 10	653	539	737	708
	5	424	1.15	E-Al F 10	716	592	808	777
	6	490	1.32	E-Al F 10	769	636	868	835
40	2	239	0.645	E-Al F 10	591	485	648	621
	3	349	0.942	E-Al F 10	714	595	783	750
	4	452	1.22	E-Al F 10	813	667	892	854
	5	550	1.48	E-Al F 10	896	734	982	941
	6	641	1.73	E-Al F 10	966	792	1 060	1020
50	4	578	1.56	E-Al F 10	1 010	822	1 080	1030
	5	707	1.91	E-Al F 10	1 120	909	1 190	1 140
	6	829	2.24	E-Al F 10	1 210	983	1 290	1 230
	8	1 060	2.85	E-Al F 7	1 370	1 110	1 460	1390
	10	1 260	3.39	E-Al F 7	1 490	1 210	1 580	1 510
63	4	741	2.00	E-Al F 10	1 270	1 020	1 310	1 240
	5	911	2.46	E-Al F 10	1 400	1 130	1 450	1 380
	6	1 070	2.89	E-Al F 10	1 520	1 230	1 570	1 490
	8	1 380	3.73	E-Al F 7	1 730	1 390	1 790	1 700
80	4	955	2.58	E-Al F 10	1 600	1 280	1 600	1 510
	5	1 180	3.18	E-Al F 10	1 770	1 420	1 780	1 680
	6	1 400	3.77	E-Al F 10	1 920	1 540	1 930	1 820
	8	1 810	4.89	E-Al F 7	2 200	1 760	2 200	2 080
	10	2 200	5.94	E-Al F 7	2 410	1 920	2 420	2 280
100	4	1 210	3.26	E-Al F 10	1 980	1 570	1 930	1 820
	5	1 490	4.03	E-Al F 10	2 200	1 750	2 150	2 020
	6	1 770	4.78	E-Al F 10	2 390	1 900	2 340	2 200
	8	2 310	6.24	E-Al F 7	2 740	2 170	2 670	2 510
120	4	1 460	3.94	E-Al F 10	2 360	1 860	2 250	2 100
	5	1 810	4.88	E-Al F 10	2 620	2 070	2 500	2 340
	6	2 150	5.80	E-Al F 10	2 860	2 250	2 730	2 550
	8	2 820	7.60	E-Al F 7	3 270	2 580	3 120	2 920
	10	3 460	9.33	E-Al F 7	3 590	2 830	3 420	3 200
160	4	1 960	5.29	E-Al F 10	3 110	2 430	2 910	2 710
	5	2 440	6.57	E-Al F 10	3 460	2 710	3 240	3 010
	6	2 900	7.84	E-Al F 10	3 780	2 950	3 530	3 290
	8	3 820	10.3	E-Al F 7	4 340	3 390	4 060	3 780
	10	4 710	12.7	E-Al F 7	4 760	3 720	4 460	4 140

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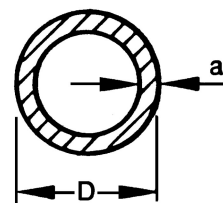
Table 13-9 (continued)

Outside diameter D mm	Wall-thickness a mm	Cross-section mm ²	Weight ¹⁾ kg/m	Material ²⁾	Continuous current in A DC and AC up to 60 Hz		Continuous current in A	
					indoor painted	bare	outdoor painted	bare
200	5	3 060	8.27	E-Al F 10	4 290	3 330	3 960	3 670
	6	3 660	9.87	E-Al F 10	4 690	3 640	4 320	4 000
	8	4 830	13.0	E-Al F 7	5 390	4 180	4 970	4 600
	10	5 970	16.1	E-Al F 7	5 920	4 600	5 460	5 060
	12	7 090	19.1	E-Al F 7	6 330	4 910	5 830	5 400
250	5	3 850	10.4	E-Al F 10	5 330	4 100	4 840	4 460
	6	4 600	12.4	E-Al F 10	5 810	4 480	5 280	4 870
	8	6 080	16.4	E-Al F 7	6 690	5 160	6 080	5 610
	10	7 540	20.4	E-Al F 7	7 360	5 680	6 690	6 170
	12	8 970	24.2	E-Al F 7	7 870	6 070	7 150	6 600

Continuous current-carrying capacity of Al Mg Si conductors

Table 13-10

Conductors of E-AlMgSi 0.5 F 22, annular cross-section, $\kappa = 30 \text{ m}/\Omega\text{mm}^2$ at ambient temperature 35 °C and conductor temperature 85 °C with AC, phase centre-line distance $\geq 2 \times$ outside diameter



Outside diameter D mm	Wall-thickness a mm	Cross-section mm ²	Weight kg/m	Continuous current in A ¹⁾ DC and AC up to 60 Hz			
				indoor painted	bare	outdoor painted	bare
20	2	113	0.305	372	314	446	432
	3	160	0.433	443	372	531	514
	4	201	0.544	497	418	595	576
	5	236	0.636	537	452	643	624
	6	264	0.713	568	479	681	659
32	2	188	0.509	584	482	658	634
	3	273	0.739	702	581	792	762
	4 ²⁾	352	0.950	797	658	900	864
	5	424	1.15	874	723	987	949
	6	490	1.32	939	777	1 060	1 020
40	2	239	0.645	721	592	791	758
	3	349	0.942	872	714	958	916
	4	452	1.22	993	814	1 089	1 042
	5 ²⁾	550	1.48	1 094	896	1 199	1 149
	6	641	1.73	1 179	967	1 294	1 245

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Table 13-10 (continued)

Outside diameter D mm	Wall-thickness a mm	Cross-section mm ²	Weight kg/m	Continuous current in A ¹⁾ DC and AC up to 60 Hz			
				indoor painted	bare	outdoor painted	bare
50	4 ²⁾	578	1.56	1 233	1 004	1 319	1 258
	5	707	1.91	1 368	1 110	1 453	1 392
	6	829	2.24	1 477	1 200	1 575	1 502
	8 ²⁾	1 060	2.85	1 673	1 355	1 783	1 697
	10	1 260	3.39	1 819	1 477	1 929	1 844
63	4	741	2.00	1 551	1 245	1 600	1 514
	5 ²⁾	911	2.46	1 709	1 380	1 770	1 685
	6	1 070	2.90	1 856	1 502	1 917	1 819
	8 ²⁾	1 380	3.73	2 112	1 697	2 186	2 076
80	4	955	2.58	1 954	1 563	1 954	1 844
	5 ²⁾	1 180	3.18	2 161	1 734	2 173	2 051
	6 ²⁾	1 400	3.77	2 344	1 880	2 357	2 222
	8 ²⁾	1 810	4.89	2 686	2 149	2 686	2 540
	10	2 200	5.94	2 943	2 344	2 955	2 784
100	4	1 210	3.26	2 420	1 915	2 355	2 220
	5	1 490	4.03	2 685	2 135	2 625	2 466
	6	1 770	4.78	2 920	2 320	2 855	2 685
	8	2 310	6.24	3 345	2 650	3 260	3 065
120	4	1 460	3.94	2 880	2 270	2 745	2 565
	5	1 810	4.88	3 200	2 525	3 055	2 855
	6	2 150	5.80	3 490	2 745	3 335	3 115
	8	2 820	7.60	3 995	3 150	3 810	3 565
	10	3 460	9.33	4 385	3 455	4 175	3 905
160	4	1 960	5.29	3 795	2 965	3 555	3 310
	5	2 440	6.57	4 225	3 310	3 955	3 675
	6	2 900	7.84	4 615	3 600	4 310	4 015
	8	3 820	10.3	5 300	4 140	4 955	4 615
	10	4 710	12.7	5 810	4 540	5 445	5 055
200	5	3 060	8.27	5 240	4 065	4 835	4 480
	6	3 660	9.87	5 725	4 445	5 275	4 885
	8	4 830	13.0	6 580	5 105	6 070	5 615
	10	5 970	16.1	7 230	5 615	6 665	6 180
	12	7 090	19.1	7 730	5 995	7 120	6 595
250	5	3 850	10.4	6 510	5 005	5 910	5 445
	6	4 600	12.4	7 095	5 470	6 445	5 945
	8	6 080	16.4	8 170	6 300	7 425	6 850
	10	7 540	20.4	8 985	6 945	8 170	7 535
	12	8 970	24.2	9 610	7 410	8 730	8 060

¹⁾ The currents have been calculated from Table 13-9 with account taken of the correction factors $k_1 = 0.925$ as in Fig. 13-3 and $k_2 = 1.32$ as in Fig. 13-4. With an ambient temperature of 50 °C and a conductor temperature of 85 °C, the currents must be multiplied by the correction factor 0.82.

²⁾ Preferred wall thickness

Continuous current-carrying capacity of copper-clad aluminium conductors (DIN 43 670, Part 2)

Table 13-11

Copper-clad aluminium conductors of rectangular cross-section in indoor installations, ambient temperature 35 °C, conductor temperature 65 °C. Conductor width vertical: clearance between conductors equal to conductor thickness; with alternating current, clearance between phases > 0.8 × phase centre-line distance.

Width × thickness	Cross- section	Weight ¹⁾ kg/m	Continuous current in A AC up to 60 Hz				Continuous current in A DC and AC 16 $\frac{2}{3}$ Hz				bare no. of conductors			
			painted				painted				no. of conductors			
			1	2	3	4	1	2	3	4	1	2	3	4
mm	mm ²	kg/m	I	II	III	III	I	II	III	III	I	II	III	III
12 × 5	59.8	0.217	177	324	440	440	177	324	442	442	154	292	416	
12 × 10	120	0.434	284	542	796	796	285	544	778	778	248	488	722	
20 × 5	98.7	0.358	265	464	594	594	265	464	600	600	225	415	565	
20 × 10	192	0.698	408	760	1 100	1 100	408	763	1 060	1 060	350	632	985	
30 × 5	148	0.538	370	630	772	772	370	632	780	780	313	556	736	
30 × 10	292	1.06	555	993	1 390	1 390	558	1 000	1 330	1 330	475	876	1 240	
40 × 5	198	0.719	474	794	937	937	475	798	953	953	400	702	905	
40 × 10	392	1.42	705	1 230	1 720	2 280	710	1 250	1 640	1 640	600	1 100	1 540	



Material: E-Al to DIN 40 501 Parts 2 and 3 and E-Cu to DIN 40 500 Parts 2 and 3, copper cladding comprises 15 % of cross-section area.

¹⁾ Calculated for a density of 3.63 kg/dm³

²⁾ Minimum clearance given in mm.

(continued)

Copper-clad aluminium conductors of rectangular cross-section in indoor installations. Ambient temperature 35 °C. Conductor temperature 65 °C. Conductor width vertical: clearance between conductors equal to conductor thickness; with alternating current, clearance between phases > 0.8 × phase centre-line distance.

[illegible]

Material: E-Al to DIN 40 501 Parts 2 and 3 and E-Cu to DIN 40 500 Parts 2 and 3, copper cladding comprises 15 % of cross-section area.

11) Calculated for a density of 3.63 kg/dm³

2) Minimum clearance given in mm