

TABLE 4A - AC & DC Circuits - Allowable Amperage of Single Conductors Not Bundled, Sheathed, or in Conduit

CONDUCTOR SIZE AWG (mm ²)	TEMPERATURE RATING OF CONDUCTOR INSULATION												
	60°C (140°F)		75°C (167°F)		80°C (176°F)		90°C (194°F)		105°C (221°F)		125°C (257°F)		200°C (392°F)
	OUTSIDE ENGINE SPACE	INSIDE ENGINE SPACE	OUTSIDE ENGINE SPACE	INSIDE ENGINE SPACE	OUTSIDE ENGINE SPACE	INSIDE ENGINE SPACE	OUTSIDE ENGINE SPACE	INSIDE ENGINE SPACE	OUTSIDE ENGINE SPACE	INSIDE ENGINE SPACE	OUTSIDE ENGINE SPACE	INSIDE ENGINE SPACE	OUTSIDE/ INSIDE ENGINE SPACE
18 (0.82)	10	NOT PERMITTED	10	7.5	15	11.7	20	16.4	20	17.0	25	22.3	25
16 (1.31)	15		15	11.3	20	15.6	25	20.5	25	21.3	30	26.7	35
14 (2.08)	20		20	15.0	25	19.5	30	24.6	35	29.8	40	35.6	45
12 (3.31)	25		25	18.8	35	27.3	40	32.8	45	38.3	50	44.5	55
10 (5.26)	40		40	30.0	50	39.0	55	45.1	60	51.0	70	62.3	70
8 (8.39)	55		65	48.8	70	54.6	70	57.4	80	68.0	90	80.1	100
6 (13.3)	80		95	71.3	100	78.0	100	82.0	120	102.0	125	111.3	135
4 (21.2)	105		125	93.8	130	101.4	135	110.7	160	136.0	170	151.3	180
3 (26.6)	120		145	108.8	150	117.0	155	127.1	180	153.0	195	173.6	210
2 (33.6)	140		170	127.5	175	136.5	180	147.6	210	178.5	225	200.3	240
1 (42.4)	165		195	146.3	210	163.8	210	172.2	245	208.3	265	235.9	280
0 (53.5)	195		230	172.5	245	191.1	245	200.9	285	242.3	305	271.5	325
00 (67.7)	225		265	198.8	285	222.3	285	233.7	330	280.5	355	316.0	370
000 (85.2)	260		310	232.5	330	257.4	330	270.6	385	327.3	410	364.9	430
0000 (107)	300		360	270.0	385	300.3	385	315.7	445	378.3	475	422.8	510

NOTE: For DC, cross reference with voltage drop tables and formula in [E-11.15.1.2.8.1](#), NOTE 2.**TABLE 4B** - AC & DC Circuits - Allowable Amperage of Conductors When up to Three AC or More Than a Single DC Current Carrying Conductor(s) Are Bundled, Sheathed, or in Conduit

CONDUCTOR SIZE AWG (mm ²)	TEMPERATURE RATING OF CONDUCTOR INSULATION												
	60°C (140°F)		75°C (167°F)		80°C (176°F)		90°C (194°F)		105°C (221°F)		125°C (257°F)		200°C (392°F)
	OUTSIDE ENGINE SPACE	INSIDE ENGINE SPACE	OUTSIDE ENGINE SPACE	INSIDE ENGINE SPACE	OUTSIDE ENGINE SPACE	INSIDE ENGINE SPACE	OUTSIDE ENGINE SPACE	INSIDE ENGINE SPACE	OUTSIDE ENGINE SPACE	INSIDE ENGINE SPACE	OUTSIDE ENGINE SPACE	INSIDE ENGINE SPACE	OUTSIDE/ INSIDE ENGINE SPACE
18 (0.82)	7.0	NOT PERMITTED	7.0	5.3	10.5	8.2	14.0	11.5	14.0	11.9	17.5	15.6	17.5
16 (1.31)	10.5		10.5	7.9	14.0	10.9	17.5	14.4	17.5	14.9	21.0	18.7	24.5
14 (2.08)	14.0		14.0	10.5	17.5	13.7	21.0	17.2	24.5	20.8	28.0	24.9	31.5
12 (3.31)	17.5		17.5	13.1	24.5	19.1	28.0	23.0	31.5	26.8	35.0	31.2	38.5
10 (5.26)	28.0		28.0	21.0	35.0	27.3	38.5	31.6	42.0	35.7	49.0	43.6	49.0
8 (8.39)	38.5		45.5	34.1	49.0	38.2	49.0	40.2	56.0	47.6	63.0	56.1	70.0
6 (13.3)	56.0		66.5	49.9	70.0	54.6	70.0	57.4	84.0	71.4	87.5	77.9	94.5
4 (21.2)	73.5		87.5	65.6	91.0	71.0	94.5	77.5	112.0	95.2	119.0	105.9	126.0
3 (26.6)	84.0		101.5	76.1	105.0	81.9	108.5	89.0	126.0	107.1	136.5	121.5	147.0
2 (33.6)	98.0		119.0	89.3	122.5	95.6	126.0	103.3	147.0	125.0	157.5	140.2	168.0
1 (42.4)	115.5		136.5	102.4	147.0	114.7	147.0	120.5	171.5	145.8	185.5	165.1	196.0
0 (53.5)	136.5		161.0	120.8	171.5	133.8	171.5	140.6	199.5	169.6	213.5	190.0	227.5
00 (67.7)	157.5		185.5	139.1	199.5	155.6	199.5	163.6	231.0	196.4	248.5	221.2	259.0
000 (85.2)	182.0		217.0	162.8	231.0	180.2	231.0	189.4	269.5	229.1	287.0	255.4	301.0
0000 (107)	210.0		252.0	189.0	269.5	210.2	269.5	221.0	311.5	264.8	332.5	295.9	357.0

NOTE: For DC, cross reference with voltage drop tables and formula in [E-11.15.1.2.8.1](#), NOTE 2.