

Table 310.82 {Detail 9 - One Circuit, 3-1/c Spaced Directly Buried}

Ambient Earth Temperature = 20 Deg C, Earth Thermal resistivity (RHO) = 90, Load Factor = 100%, Aluminum Conductors.

1 Circuit, 3-1/c Spaced Aluminum Cables (Fig. B-310-60, Detail 9)													
ALUMINUM 2001-5000 Volts Ampacity						ALUMINUM 5001-35,000 Volts Ampacity							
Size (AWG or kcmil)	90C (194F) Type MV-90	105C (221F) Type MV-105	90C (194F) Type MV-90	105C (221F) Type MV-105	90C (194F) Type MV-90	105C (221F) Type MV-105	Size (AWG or kcmil)	90C (194F) Type MV-90	105C (221F) Type MV-105	90C (194F) Type MV-90	105C (221F) Type MV-105	90C (194F) Type MV-90	105C (221F) Type MV-105
	NEC		AmpCalc		%Deviation			NEC		AmpCalc		%Deviation	
8	85	90	84.3	90.8	-0.8%	0.9%	8	-	-	-	-	-	-
6	110	115	107.9	116.2	-1.9%	1.0%	6	100	110	101.1	108.9	1.1%	-1.0%
4	140	150	139.9	150.6	-0.1%	0.4%	4	130	140	131.3	141.4	1.0%	1.0%
2	180	195	179.3	193.1	-0.4%	-1.0%	2	165	175	163.6	176.2	-0.8%	0.7%
1	205	220	202.9	218.5	-1.0%	-0.7%	1	185	200	186.8	201.3	1.0%	0.7%
1/0	230	250	231.0	248.8	0.4%	-0.5%	1/0	215	230	213.0	229.5	-0.9%	-0.2%
2/0	265	285	262.8	283.0	-0.8%	-0.7%	2/0	245	260	242.7	261.5	-0.9%	0.6%
3/0	300	320	298.9	321.9	-0.4%	0.6%	3/0	275	295	275.4	296.8	0.1%	0.6%
4/0	340	365	337.5	363.5	-0.7%	-0.4%	4/0	315	340	313.7	338.1	-0.4%	-0.6%
250	370	395	368.4	396.8	-0.4%	0.5%	250	345	370	344.9	371.7	0.0%	0.5%
350	445	480	443.9	478.1	-0.2%	-0.4%	350	415	450	416.6	449.0	0.4%	-0.2%
500	540	580	540.0	581.6	0.0%	0.3%	500	510	545	508.2	547.9	-0.4%	0.5%
750	665	720	667.0	718.7	0.3%	-0.2%	750	635	680	633.8	683.6	-0.2%	0.5%
1000	780	840	778.0	838.6	-0.3%	-0.2%	1000	740	795	740.6	799.2	0.1%	0.5%
Average Deviation =					-0.5%	0.0%	Average Deviation =					0.0%	0.3%

AmpCalc References:

AmpCalc Library = IEERUB_1
 AmpCalc Volume = IEERUB1
 1 kV non-shielded

AmpCalc Library = IEERUB_1
 AmpCalc Volume = IEERUB8 for #6, 4, IEERUB15 for all others
 8 or 15 kV shielded with one end grounded

NEC ampacities obtained from "NFPA 70, National Electric Code, 2002 Edition", © 2002, National Fire Protection Association, Inc.
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Table 310.82 {Detail 10 - Two Circuits, 6-1/c Spaced Directly Buried}

Ambient Earth Temperature = 20 Deg C, Earth Thermal resistivity (RHO) = 90, Load Factor = 100%, Aluminum Conductors.

2 Circuits, 6-1/c Spaced Aluminum Cables (Fig. B-310-60, Detail 10)													
ALUMINUM 2001-5000 Volts Ampacity							ALUMINUM 5001-35,000 Volts Ampacity						
Size (AWG or kcmil)	90C (194F) Type MV-90	105C (221F) Type MV-105	90C (194F) Type MV-90	105C (221F) Type MV-105	90C (194F) Type MV-90	105C (221F) Type MV-105	Size (AWG or kcmil)	90C (194F) Type MV-90	105C (221F) Type MV-105	90C (194F) Type MV-90	105C (221F) Type MV-105	90C (194F) Type MV-90	105C (221F) Type MV-105
	NEC		AmpCalc		%Deviation			NEC		AmpCalc		%Deviation	
8	80	85	78.7	84.8	-1.6%	-0.2%	8	-	-	-	-	-	-
6	100	110	100.6	108.4	0.6%	-1.5%	6	95	100	95.0	102.3	0.0%	2.3%
4	130	140	130.0	140.0	0.0%	0.0%	4	125	130	122.9	132.4	-1.7%	1.8%
2	165	180	166.2	179.0	0.7%	-0.6%	2	155	165	153.3	165.2	-1.1%	0.1%
1	190	200	187.9	202.3	-1.1%	1.2%	1	175	190	174.7	188.3	-0.2%	-0.9%
1/0	215	230	213.5	229.9	-0.7%	0.0%	1/0	200	215	198.8	214.3	-0.6%	-0.3%
2/0	245	260	242.4	261.1	-1.1%	0.4%	2/0	225	245	226.1	243.7	0.5%	-0.5%
3/0	275	295	275.2	296.3	0.1%	0.4%	3/0	255	275	256.2	276.1	0.5%	0.4%
4/0	310	335	310.4	334.3	0.1%	-0.2%	4/0	290	315	291.3	313.9	0.4%	-0.3%
250	340	365	338.6	364.7	-0.4%	-0.1%	250	320	345	319.6	344.5	-0.1%	-0.1%
350	410	440	406.8	438.1	-0.8%	-0.4%	350	385	415	384.9	414.9	0.0%	0.0%
500	495	530	493.3	531.4	-0.3%	0.3%	500	470	505	467.9	504.5	-0.4%	-0.1%
750	610	665	608.1	655.2	-0.3%	-1.5%	750	580	625	581.4	627.2	0.2%	0.4%
1000	710	765	707.4	762.6	-0.4%	-0.3%	1000	680	730	677.3	731.1	-0.4%	0.2%
Average Deviation =					-0.4%	-0.2%	Average Deviation =					-0.2%	0.2%

AmpCalc References:

AmpCalc Library = IEERUB_1
 AmpCalc Volume = IEERUB1
 1 kV non-shielded

AmpCalc Library = IEERUB_1
 AmpCalc Volume = IEERUB8 for #6, 4 , IEERUB15 for all others
 8 or 15 kV shielded with one end grounded

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