

Table 310.81 {Detail 9 - One Circuit, 3-1/c Spaced Directly Buried}

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

1 Circuit, 3-1/c Spaced Copper Cables (Fig. B-310-60, Detail 9)																	
COPPER						COPPER											
Size (AWG or kcmil)	2001-5000 Volts						5001-35,000 Volts										
	Ampacity						Ampacity										
	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		90C (194F) Type MV-90	105C (221F) Type MV-105						
	NEC			AmpCalc			%Deviation			NEC			AmpCalc			%Deviation	
8	110	115		108.2	116.6		-1.6%	1.4%		-	-		-	-		-	-
6	140	150		138.5	149.2		-1.1%	-0.5%		130	140		129.8	139.8		-0.2%	-0.1%
4	180	195		179.6	193.5		-0.2%	-0.8%		170	180		168.5	181.6		-0.9%	0.9%
2	230	250		230.2	248.1		0.1%	-0.8%		210	225		210.0	226.4		0.0%	0.6%
1	260	280		260.4	280.6		0.2%	0.2%		240	260		239.8	258.5		-0.1%	-0.6%
1/0	295	320		296.5	319.5		0.5%	-0.2%		275	295		273.4	294.7		-0.6%	-0.1%
2/0	335	365		337.3	363.4		0.7%	-0.4%		310	335		311.5	335.8		0.5%	0.2%
3/0	385	415		383.6	413.3		-0.4%	-0.4%		355	380		353.4	381.1		-0.5%	0.3%
4/0	435	465		433.0	466.5		-0.5%	0.3%		405	435		402.5	433.9		-0.6%	-0.3%
250	470	510		472.4	509.1		0.5%	-0.2%		440	475		442.2	476.9		0.5%	0.4%
350	570	615		568.6	612.8		-0.2%	-0.4%		535	575		533.6	575.5		-0.3%	0.1%
500	690	745		690.0	743.8		0.0%	-0.2%		650	700		649.3	700.6		-0.1%	0.1%
750	845	910		847.3	914.1		0.3%	0.5%		805	865		805.0	869.4		0.0%	0.5%
1000	980	1055		980.6	1059.0		0.1%	0.4%		930	1005		933.3	1009.0		0.4%	0.4%
Average Deviation =							-0.1%	-0.1%	Average Deviation =							-0.1%	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

NEC ampacities obtained from "NFPA 70, National Electric Code, 2002 Edition", © 2002, National Fire Protection Association, Inc.
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Table 310.81 {Detail 10 - Two Circuits, 6-1/c Spaced Directly Buried}

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

2 Circuits, 6-1/c Spaced Cables (Fig. B-310-60, Detail 10)																	
COPPER							COPPER										
Size (AWG or kcmil)	2001-5000 Volts Ampacity						5001-35,000 Volts Ampacity										
	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		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	100	110		101.1	108.9		1.1%	-1.0%		-	-		-	-		-
6	130	140		129.2	139.2		-0.6%	-0.6%		120	130		122.0	131.4		1.7%	1.1%
4	165	180		166.9	179.8		1.2%	-0.1%		160	170		157.8	170.1		-1.4%	0.1%
2	215	230		213.4	229.9		-0.7%	0.0%		195	210		196.8	212.2		0.9%	1.0%
1	240	260		241.2	259.8		0.5%	-0.1%		225	240		224.3	241.8		-0.3%	0.8%
1/0	275	295		274.0	295.2		-0.4%	0.1%		255	275		255.2	275.2		0.1%	0.1%
2/0	310	335		311.1	335.2		0.4%	0.1%		290	315		290.2	312.9		0.1%	-0.7%
3/0	355	380		353.1	380.5		-0.5%	0.1%		330	355		328.8	354.5		-0.4%	-0.1%
4/0	400	430		398.2	429.1		-0.5%	-0.2%		375	405		373.6	402.9		-0.4%	-0.5%
250	435	470		434.2	467.9		-0.2%	-0.4%		410	440		409.9	442.0		0.0%	0.5%
350	520	560		521.1	561.6		0.2%	0.3%		495	530		492.9	531.7		-0.4%	0.3%
500	630	680		630.3	679.5		0.0%	-0.1%		600	645		597.8	645.1		-0.4%	0.0%
750	775	835		772.5	833.4		-0.3%	-0.2%		740	795		738.4	797.6		-0.2%	0.3%
1000	890	960		891.7	963.0		0.2%	0.3%		855	920		853.5	923.0		-0.2%	0.3%
Average Deviation =				0.0%		-0.1%		Average Deviation =				-0.1%		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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