

Table 310.84 {Detail 5 - One Circuit, 1-3/c Directly Buried}

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

1 Circuit, 1-3/c Aluminum Cables (Fig. B-310-60, Detail 5)													
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	65	70	60.8	65.5	-6.5%	-6.4%	8	-	-	-	-	-	-
6	80	88	79.2	85.3	-1.0%	-3.1%	6	90	95	86.8	93.5	-3.6%	-1.6%
4	105	115	102.9	110.8	-2.0%	-3.7%	4	115	125	112.3	120.9	-2.3%	-3.3%
2	140	150	132.8	143.0	-5.1%	-4.7%	2	145	155	143.5	154.7	-1.0%	-0.2%
1	155	170	152.0	163.7	-1.9%	-3.7%	1	165	175	163.7	176.4	-0.8%	0.8%
1/0	180	190	173.5	186.9	-3.6%	-1.6%	1/0	185	200	186.3	200.7	0.7%	0.3%
2/0	205	220	198.0	213.3	-3.4%	-3.0%	2/0	210	225	210.4	226.8	0.2%	0.8%
3/0	230	250	226.0	243.4	-1.7%	-2.6%	3/0	240	260	239.3	257.9	-0.3%	-0.8%
4/0	260	280	256.8	276.5	-1.2%	-1.3%	4/0	270	295	272.1	293.4	0.8%	-0.5%
250	285	310	282.2	303.9	-1.0%	-2.0%	250	300	320	298.5	321.9	-0.5%	0.6%
350	345	375	342.0	368.4	-0.9%	-1.8%	350	360	390	359.4	387.7	-0.2%	-0.6%
500	420	450	413.6	445.8	-1.5%	-0.9%	500	435	470	436.9	471.5	0.4%	0.3%
750	520	560	507.2	547.0	-2.5%	-2.3%	750	540	580	540.9	584.4	0.2%	0.8%
1000	600	650	592.4	639.7	-1.3%	-1.6%	1000	620	665	624.4	675.5	0.7%	1.6%
Average Deviation =					-2.4%	-2.8%	Average Deviation =					-0.4%	-0.1%

AmpCalc References:

AmpCalc Library = IEERUB_3
 AmpCalc Volume = IEERUB1
 1 kV non-shielded

AmpCalc Library = IEERUB_3
 AmpCalc Volume = IEERUB8 for #6, 4 , IEERUB15 for all others
 8 or 15 kV shielded with both ends grounded

NEC ampacities obtained from "NFPA 70, National Electric Code, 2002 Edition", © 2002, National Fire Protection Association, Inc.
 Remainder of table, © 2002, CalcWare, All Rights Reserved.

Table 310.84 {Detail 6 - Two Circuits, 2-3/c Directly Buried}

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

2 Circuits, 2-3/c Aluminum Cables (Fig. B-310-60, Detail 6)																	
ALUMINUM							ALUMINUM										
Size (AWG or kcmil)	2001-5000 Volts						5001-35,000 Volts										
	Ampacity						Shielded 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	60	66		57.6	62.0		-4.0%	-6.1%		-	-		-	-			
6	75	83		74.8	80.5		-0.3%	-3.0%		80	95		81.0	87.2			
4	100	110		96.8	104.2		-3.2%	-5.3%		105	115		104.4	112.4			
2	130	140		124.5	134.1		-4.2%	-4.2%		135	145		133.1	143.4			
1	145	155		142.3	153.2		-1.9%	-1.2%		150	165		151.4	163.2			
1/0	165	180		162.0	174.5		-1.8%	-3.1%		170	185		171.9	185.3			
2/0	190	205		184.5	198.7		-2.9%	-3.1%		195	210		194.0	209.2			
3/0	215	230		210.1	226.3		-2.3%	-1.6%		220	240		220.1	237.3			
4/0	245	260		238.3	256.7		-2.7%	-1.3%		250	270		249.8	269.4			
250	265	285		261.5	281.6		-1.3%	-1.2%		275	295		273.5	295.0			
350	320	345		315.7	340.1		-1.3%	-1.4%		330	355		328.1	353.9			
500	385	415		380.9	410.5		-1.1%	-1.1%		395	425		397.0	428.6			
750	480	515		466.3	502.9		-2.9%	-2.3%		485	525		488.9	528.4			
1000	550	590		542.3	585.6		-1.4%	-0.7%		560	600		562.1	608.3			
Average Deviation =							-2.2%	-2.5%	Average Deviation =							0.1%	-0.9%

AmpCalc References:

AmpCalc Library = IEERUB_3
 AmpCalc Volume = IEERUB1
 1 kV non-shielded

AmpCalc Library = IEERUB_3
 AmpCalc Volume = IEERUB8 for #6, 4 , IEERUB15 for all others
 8 or 15 kV shielded with both ends grounded

NEC ampacities obtained from "NFPA 70, National Electric Code, 2002 Edition", © 2002, National Fire Protection Association, Inc.
 Remainder of table, © 2002, CalcWare, All Rights Reserved.