NEC Table 310.86 {Detail 7 - One Circuit, 3-1/c Triplexed Directly Buried}

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

1 Circuit, 3-1/c Triplexed Aluminum Cables
(Fig. B-310-60, Detail 7)

Size (AWG or kcmil)	ALUMINUM 2001-5000 Volts Ampacity						Size (AWG or kcmil)	ALUMINUM 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	90C (194F) Type MV-90	105C (221F) Type MV-105
	NEC		AmpCalc		%Deviation			NEC		AmpCalc		%Deviation	
8	70	75	71.6	77.1	2.3%	2.8%	8	-	-	-	-	-	-
6	90	100	92.1	99.1	2.3%	-0.9%	6	90	95	89.5	96.3	-0.6%	1.4%
4	120	130	119.1	128.2	-0.8%	-1.4%	4	115	125	115.8	124.7	0.7%	-0.2%
2	155	165	153.3	165.1	-1.1%	0.1%	2	145	155	146.9	158.3	1.3%	2.1%
1	175	190	174.2	187.5	-0.5%	-1.3%	1	165	175	167.4	180.4	1.5%	3.1%
1/0	200	210	198.3	213.5	-0.8%	1.7%	1/0	190	205	190.6	205.4	0.3%	0.2%
2/0	225	240	225.6	242.9	0.3%	1.2%	2/0	215	230	216.8	233.7	0.8%	1.6%
3/0	255	275	256.6	276.3	0.6%	0.5%	3/0	245	265	246.2	265.4	0.5%	0.2%
4/0	290	310	291.1	313.5	0.4%	1.1%	4/0	280	305	280.1	301.9	0.0%	-1.0%
250	320	350	318.9	343.4	-0.3%	-1.9%	250	305	325	307.4	331.4	0.8%	2.0%
350	385	420	384.4	414.1	-0.2%	-1.4%	350	370	400	370.1	399.1	0.0%	-0.2%
500	465	500	467.6	503.9	0.6%	0.8%	500	445	480	449.1	484.7	0.9%	1.0%
750	580	625	579.5	625.0	-0.1%	0.0%	750	550	590	555.1	599.8	0.9%	1.7%
1000	670	725	671.7	725.3	0.3%	0.0%	1000	635	680	640.3	692.7	0.8%	1.9%
			Average Deviation =		0.2%	0.1%				Average Deviation =		0.6%	1.0%

AmpCalc References:

AmpCalc Library = IEERUB_2 AmpCalc Volume = IEERUB1 1 kV non-shielded	AmpCalc Library = IEERUB_2 AmpCalc Volume = IEERUB8 for #6, 4 , IEERUB15 for all others 8 or 15 kV shielded with both ends grounded

NEC Table 310.86 {Detail 8 - Two Circuits, each with 3-1/c Triplexed Directly Buried}

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

2 Circuits, two sets of 3-1/c Triplexed Aluminum Cables
(Fig. B-310-60, Detail 8)

Size (AWG or kcmil)	ALUMINUM 2001-5000 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
	NEC		AmpCalc		%Deviation	
8	65	70	66.5	71.6	2.3%	2.3%
6	85	95	85.2	91.8	0.2%	-3.4%
4	110	120	109.8	118.3	-0.2%	-1.4%
2	140	150	141.0	151.9	0.7%	1.3%
1	160	170	159.9	172.2	-0.1%	1.3%
1/0	180	195	181.6	195.6	0.9%	0.3%
2/0	205	220	206.2	222.0	0.6%	0.9%
3/0	235	250	234.0	252.0	-0.4%	0.8%
4/0	265	285	265.0	285.4	0.0%	0.1%
250	290	310	289.9	312.2	0.0%	0.7%
350	350	375	348.2	375.1	-0.5%	0.0%
500	420	455	421.8	454.5	0.4%	-0.1%
750	520	560	520.5	561.4	0.1%	0.2%
1000	600	645	601.1	649.1	0.2%	0.6%
			Average Deviation =		0.3%	0.3%

Size (AWG or kcmil)	ALUMINUM 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
	NEC		AmpCalc		%Deviation	
8	-	-	-	-	-	-
6	85	90	83.1	89.5	-2.2%	-0.6%
4	105	115	107.2	115.4	2.1%	0.3%
2	135	145	135.7	146.3	0.5%	0.9%
1	155	170	154.3	166.3	-0.5%	-2.2%
1/0	175	190	175.3	188.9	0.2%	-0.6%
2/0	200	215	198.9	214.5	-0.5%	-0.2%
3/0	225	245	225.4	243.0	0.2%	-0.8%
4/0	255	275	255.7	275.8	0.3%	0.3%
250	280	300	280.0	302.0	0.0%	0.7%
350	355	360	335.7	362.2	-5.4%	0.6%
500	405	435	405.3	437.5	0.1%	0.6%
750	485	525	497.6	537.9	2.6%	2.5%
1000	565	605	570.7	617.8	1.0%	2.1%
			Average Deviation =		-0.1%	0.3%

AmpCalc References:

AmpCalc Library = IEERUB_2 AmpCalc Volume = IEERUB1 1 kV non-shielded	AmpCalc Library = IEERUB_2 AmpCalc Volume = IEERUB8 for #6, 4 , IEERUB15 for all others 8 or 15 kV shielded with both ends grounded