Table B.310.15(B)(2)(6) {Detail 1 - One Circuit, 1-3/c in Single Duct}

0-2000 Volt Cable, Ambient Earth Temperature = 20 Deg C, Earth Thermal resistivity = 60, 90 or 120, Concrete Thermal resistivity (RHO) = 85, Load Factor = 50% or 100%, Conductor Temperature = 75C (167F).

1-3/c Cable in 1 Electrical Duct
(Fig. B-310.15(B)(2)(2), Detail 1)

Types
RHW, THHW, THW
THWN, XHHW, USE

Size (AWG or kcmil)	COPPER									ALUMINUM OR COPPER-CLAD ALUMINUM								
	NEC			AmpCalc			% Deviation			NEC			AmpCalc			% Deviation		
	RHO 60 LF 50	RHO 90 LF 100	RHO 120 LF 100	RHO 60 LF 50	RHO 90 LF 100	RHO 120 LF 100	RHO 60 LF 50	RHO 90 LF 100	RHO 120 LF 100	RHO 60 LF 50	RHO 90 LF 100	RHO 120 LF 100	RHO 60 LF 50	RHO 90 LF 100	RHO 120 LF 100	RHO 60 LF 50	RHO 90 LF 100	RHO 120 LF 100
8	58	54	53	55.4	52.1	51.0	-4.5%	-3.5%	-3.8%	45	42	41	43.2	40.6	39.7	-4.0%	-3.3%	-3.2%
6	77	71	69	74.5	69.4	67.8	-3.2%	-2.3%	-1.7%	60	55	54	58.0	54.1	52.8	-3.3%	-1.6%	-2.2%
4	101	93	91	97.8	90.6	88.4	-3.2%	-2.6%	-2.9%	78	72	71	76.2	70.6	68.9	-2.3%	-1.9%	-3.0%
2	132	121	118	128.1	118.1	115.0	-3.0%	-2.4%	-2.5%	103	94	92	99.9	92.1	89.6	-3.0%	-2.0%	-2.6%
1	154	140	136	150.1	137.5	133.5	-2.5%	-1.8%	-1.8%	120	109	106	117.0	107.2	104.1	-2.5%	-1.7%	-1.8%
1/0	177	160	156	172.5	157.4	152.7	-2.5%	-1.6%	-2.1%	138	125	122	134.5	122.7	119.1	-2.5%	-1.8%	-2.4%
2/0	203	183	178	198.4	180.2	174.6	-2.3%	-1.5%	-1.9%	158	143	139	154.7	140.6	136.2	-2.1%	-1.7%	-2.0%
3/0	233	210	204	228.2	206.4	199.7	-2.1%	-1.7%	-2.1%	182	164	159	178.1	161.1	155.9	-2.1%	-1.8%	-1.9%
4/0	268	240	232	262.4	236.2	228.3	-2.1%	-1.6%	-1.6%	209	187	182	205.0	184.5	178.3	-1.9%	-1.3%	-2.0%
250	297	265	256	291.7	261.4	252.3	-1.8%	-1.4%	-1.4%	233	207	201	228.0	204.3	197.2	-2.1%	-1.3%	-1.9%
350	363	321	310	356.7	317.1	305.4	-1.7%	-1.2%	-1.5%	285	252	244	279.9	248.8	239.7	-1.8%	-1.3%	-1.8%
500	444	389	375	435.6	384.4	369.5	-1.9%	-1.2%	-1.5%	352	308	297	344.4	304.0	292.2	-2.2%	-1.3%	-1.6%
750	552	478	459	536.9	470.2	451.1	-2.7%	-1.6%	-1.7%	446	386	372	431.1	377.6	362.3	-3.3%	-2.2%	-2.6%
1000	628	539	518	621.5	539.5	516.4	-1.0%	0.1%	-0.3%	521	447	430	508.5	441.4	422.4	-2.4%	-1.3%	-1.8%
				Average Deviation =			-2.5%	-1.7%	-1.9%				Average Deviation =			-2.5%	-1.8%	-2.2%

AmpCalc References:

AmpCalc Library = IEERUB_3, AmpCalc Volume = IEERUB1, 1 kV non-shielded, Duct library = NEC_PVC, 5" duct.

Table B.310.15(B)(2)(6) {Detail 2 - Three Circuits, 1-3/c in Each Duct}

Ambient Earth Temperature = 20 Deg C, Earth Thermal resistivity = 60, 90 or 120, Concrete Thermal resistivity (RHO) = 85, 0-2000 Volt Cable, Load Factor = 50% or 100%, Conductor Temperature = 75C (167F).

3 Electrical Ducts (Fig. B-310.15(B)(2)(2), Detail 2)

Types RHW, THHW, THW THWN, XHHW, USE

Size (AWG or kcmil)	COPPER									ALUMINUM OR COPPER-CLAD ALUMINUM								
	NEC			AmpCalc			% Deviation			NEC			AmpCalc			% Deviation		
	RHO 60 LF 50	RHO 90 LF 100	RHO 120 LF 100	RHO 60 LF 50	RHO 90 LF 100	RHO 120 LF 100	RHO 60 LF 50	RHO 90 LF 100	RHO 120 LF 100	RHO 60 LF 50	RHO 90 LF 100	RHO 120 LF 100	RHO 60 LF 50	RHO 90 LF 100	RHO 120 LF 100	RHO 60 LF 50	RHO 90 LF 100	RHO 120 LF 100
8	56	48	46	53.6	46.6	44.7	-4.3%	-2.9%	-2.8%	43	37	36	41.8	36.3	34.9	-2.8%	-1.9%	-3.1%
6	74	63	60	71.8	61.5	58.7	-3.0%	-2.4%	-2.2%	57	49	47	55.9	47.9	45.8	-1.9%	-2.2%	-2.6%
4	96	81	77	94.0	79.6	75.9	-2.1%	-1.7%	-1.4%	75	63	60	73.2	62.1	59.2	-2.4%	-1.4%	-1.3%
2	126	105	100	122.8	103.0	97.9	-2.5%	-1.9%	-2.1%	98	82	78	95.7	80.3	76.3	-2.3%	-2.1%	-2.2%
1	146	121	114	143.3	118.8	112.7	-1.8%	-1.8%	-1.1%	114	94	89	111.7	92.6	87.8	-2.0%	-1.5%	-1.3%
1/0	168	137	130	164.4	135.3	128.2	-2.1%	-1.2%	-1.4%	131	107	101	128.2	105.5	99.9	-2.1%	-1.4%	-1.1%
2/0	192	156	147	188.6	154.1	145.8	-1.8%	-1.2%	-0.8%	150	122	115	147.1	120.2	113.7	-1.9%	-1.5%	-1.1%
3/0	221	178	158	216.4	175.5	165.7	-2.1%	-1.4%	4.9%	172	139	131	168.9	137.0	129.3	-1.8%	-1.4%	-1.3%
4/0	253	202	190	248.2	199.7	188.3	-1.9%	-1.1%	-0.9%	198	158	149	193.9	156.0	147.1	-2.1%	-1.3%	-1.3%
250	280	222	209	275.2	219.8	206.8	-1.7%	-1.0%	-1.1%	219	174	163	215.1	171.8	161.7	-1.8%	-1.3%	-0.8%
350	340	267	250	335.0	264.1	248.0	-1.5%	-1.1%	-0.8%	267	209	196	262.9	207.3	194.6	-1.5%	-0.8%	-0.7%
500	414	320	299	407.4	317.5	297.4	-1.6%	-0.8%	-0.5%	328	254	237	322.2	251.1	235.2	-1.8%	-1.1%	-0.8%
750	511	388	362	500.0	385.3	360.1	-2.2%	-0.7%	-0.5%	413	314	293	401.5	309.4	289.2	-2.8%	-1.5%	-1.3%
1000	579	435	405	575.9	437.8	408.2	-0.5%	0.6%	0.8%	480	361	336	471.1	358.2	334.0	-1.9%	-0.8%	-0.6%
				Average Deviation =			-2.1%	-1.3%	-0.7%				Average Deviation =			-2.1%	-1.4%	-1.4%

AmpCalc References:

AmpCalc Library = IEERUB_3, AmpCalc Volume = IEERUB1, 1 kV non-shielded, Duct library = NEC_PVC, 5" duct.

Table B.310.15(B)(2)(6) {Detail 3 - Six Circuits, 1-3/c in Each Duct}

Ambient Earth Temperature = 20 Deg C, Earth Thermal resistivity = 60, 90 or 120, Concrete Thermal resistivity (RHO) = 85, 0-2000 Volt Cable, Load Factor = 50% or 100%, Conductor Temperature = 75C (167F).

6 Electrical Ducts
(Fig. B-310.15(B)(2)(2), Detail 3)

Types
RHW, THHW, THW
THWN, XHHW, USE

Size (AWG or kcmil)	COPPER									ALUMINUM OR COPPER-CLAD ALUMINUM								
	NEC			AmpCalc			% Deviation			NEC			AmpCalc			% Deviation		
	RHO 60 LF 50	RHO 90 LF 100	RHO 120 LF 100	RHO 60 LF 50	RHO 90 LF 100	RHO 120 LF 100	RHO 60 LF 50	RHO 90 LF 100	RHO 120 LF 100	RHO 60 LF 50	RHO 90 LF 100	RHO 120 LF 100	RHO 60 LF 50	RHO 90 LF 100	RHO 120 LF 100	RHO 60 LF 50	RHO 90 LF 100	RHO 120 LF 100
8	53	42	39	51.3	40.8	38.4	-3.2%	-2.9%	-1.5%	41	32	30	40.0	31.8	29.9	-2.4%	-0.6%	-0.3%
6	70	54	51	68.2	53.2	49.8	-2.6%	-1.5%	-2.4%	54	42	39	53.2	41.5	38.8	-1.5%	-1.2%	-0.5%
4	91	69	65	89.0	68.5	64.0	-2.2%	-0.7%	-1.5%	71	54	51	69.3	53.4	49.9	-2.4%	-1.1%	-2.2%
2	119	89	83	115.8	88.0	82.0	-2.7%	-1.1%	-1.2%	92	70	65	90.3	68.6	63.9	-1.8%	-2.0%	-1.7%
1	137	102	95	134.6	100.7	93.6	-1.8%	-1.3%	-1.5%	107	79	74	104.9	78.5	73.0	-2.0%	-0.6%	-1.4%
1/0	157	116	107	154.0	114.3	106.1	-1.9%	-1.5%	-0.8%	122	90	84	120.1	89.1	82.7	-1.6%	-1.0%	-1.5%
2/0	179	131	121	176.2	129.6	120.1	-1.6%	-1.1%	-0.7%	140	102	95	137.4	101.1	93.7	-1.9%	-0.9%	-1.4%
3/0	205	148	137	201.5	146.9	135.9	-1.7%	-0.7%	-0.8%	160	116	107	157.3	114.7	106.1	-1.7%	-1.1%	-0.8%
4/0	234	168	155	230.4	166.4	153.8	-1.5%	-1.0%	-0.8%	183	131	121	180.0	130.0	120.1	-1.6%	-0.8%	-0.7%
250	258	184	169	254.7	182.4	168.2	-1.3%	-0.9%	-0.5%	202	144	132	199.2	142.6	131.5	-1.4%	-1.0%	-0.4%
350	312	219	202	308.5	217.7	200.4	-1.1%	-0.6%	-0.8%	245	172	158	242.1	170.8	157.3	-1.2%	-0.7%	-0.4%
500	377	261	240	373.5	260.1	239.0	-0.9%	-0.3%	-0.4%	299	207	190	295.4	205.7	189.0	-1.2%	-0.6%	-0.5%
750	462	314	288	456.2	313.8	287.8	-1.3%	-0.1%	-0.1%	374	254	233	366.4	252.0	231.1	-2.0%	-0.8%	-0.8%
1000	522	351	321	522.6	354.3	324.3	0.1%	0.9%	1.0%	433	291	266	427.5	289.9	265.3	-1.3%	-0.4%	-0.3%
				Average Deviation =			-1.7%	-0.9%	-0.9%				Average Deviation =			-1.7%	-0.9%	-0.9%

AmpCalc References:

AmpCalc Library = IEERUB_3, AmpCalc Volume = IEERUB1, 1 kV non-shielded, Duct library = NEC_PVC, 5" duct.