

FPN Figure B.310.3 {One Circuit, 3-1/c in Each of Nine Ducts, Nine Conductors per Phase}

0-5000 Volt Cable, Ambient Earth Temperature = 20 Deg C, Earth Thermal resistivity = 60, 90 or 120,
 Concrete Thermal resistivity (RHO) = Earth RHO minus 5, PVC Duct RHO = 650, Duct Diameter 3" to 5",
 Cable Insulation RHO = 500, Cable Jacket RHO = 650, Load Factor = 50% or 100%, Conductor Temperature = 75C (167F).

Size (AWG or kcmil)	Types RHW, THHW, THW, THWN, XHHW, USE OR MV-90									Size (AWG or kcmil)
	COPPER									
	Total per Phase Ampere Rating									
	NEC			AmpCalc			% Deviation			
RHO EARTH 60 LF 50	RHO EARTH 90 LF 100	RHO EARTH 120 LF 100	RHO EARTH 60 LF 50	RHO EARTH 90 LF 100	RHO EARTH 120 LF 100	RHO EARTH 60 LF 50	RHO EARTH 90 LF 100	RHO EARTH 120 LF 100		
250	2340 (260A/Cable)	1530 (170A/Cable)	1395 (155A/Cable)	2317.5 (257.5A/Cable)	1534.5 (170.5A/Cable)	1380.6 (153.4A/Cable)	-1.0%	0.3%	-1.0%	250
350	2790 (310A/Cable)	1800 (200A/Cable)	1665 (185A/Cable)	2811.6 (312.4A/Cable)	1827.9 (203.1A/Cable)	1639.8 (182.2A/Cable)	0.8%	1.6%	-1.5%	350
500	3375 (375A/Cable)	2160 (240A/Cable)	1980 (220A/Cable)	3406.5 (378.5A/Cable)	2179.8 (242.2A/Cable)	1951.2 (216.8A/Cable)	0.9%	0.9%	-1.5%	500
Average Deviation =							0.2%	0.9%	-1.3%	

AmpCalc References:

AmpCalc Library = IEERUB_2, AmpCalc Volume = IEERUB8 except 110 mil jacket added with RHO = 650,
 5 kV Shielded w/ one end grounded, Duct library = NEC_PVC, 4" duct for RHO=60, 4" duct for RHO=90, 5" duct for RHO=120.

NEC ampacities obtained from "NFPA 70, National Electric Code, 2002 Edition", © 2002, National Fire Protection Association, Inc.
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