

**VOLTS DROP FOR COPPER CONDUCTOR IN NON-MAGNETIC CONDUIT**  
**POWER FACTOR 100% SINGLE PHASE...2 WIRE 60 CYCLES**

Wire Size AWG or MCM	1000	900	800	750	700	600	500	400	350	300	250	4/0	3/0	2/0	1/0	1	2	4	6	8*	10*	12*	14*
Ampere Feet	Volts Drop																						
500,000	13.0	15.0	16.0	17.0	19.0	22.0	26.0	32.0	36.0	42.0	51.0	59.0	75.0	95.0	121.0	152.0	192.0	306.0	483.0				
400,000	10.4	12.0	12.8	13.6	15.2	17.6	20.8	25.6	28.8	33.6	40.8	47.2	60.0	76.0	96.8	122.0	154.0	244.0	386.0				
300,000	7.8	9.0	9.6	10.2	11.4	13.2	15.6	19.2	21.6	25.2	30.6	35.4	45.0	57.0	7.6	91.2	115.0	184.0	290.0	450.0			
200,000	5.2	6.0	6.4	6.8	7.6	8.8	10.4	12.8	14.4	16.8	20.4	23.6	30.0	38.0	48.4	60.8	76.8	122.0	193.0	300.0	480.0		
100,000	2.6	3.0	3.2	3.4	3.8	4.4	5.2	6.4	7.2	8.4	10.2	11.8	15.0	19.0	24.2	30.4	38.4	61.2	96.6	150.0	240.0	384.0	
90,000	2.3	2.7	2.0	3.0	3.4	4.0	4.6	5.8	6.4	7.6	9.2	10.6	13.5	17.1	21.8	27.4	34.5	55.1	87.0	135.0	216.0	345.0	
80,000	2.1	2.4	2.5	2.7	3.0	3.5	4.1	5.2	5.7	6.7	8.2	9.4	12.0	15.2	19.4	24.3	30.7	49.0	77.3	120.0	192.0	307.0	307.0
70,000	1.8	2.1	2.2	2.4	2.7	3.1	3.6	4.5	5.0	5.9	7.1	8.3	10.5	13.3	17.0	21.2	26.8	42.8	67.6	105.0	168.0	269.0	269.0
60,000	1.6	1.0	1.9	2.0	2.3	2.6	3.1	3.8	4.3	5.0	6.1	7.1	9.0	11.4	14.5	18.2	23.0	36.7	58.0	90.0	144.0	230.0	230.0
50,000	1.3	1.5	1.6	1.7	1.9	2.2	2.6	3.2	3.6	4.2	5.1	5.9	7.5	9.5	12.1	15.2	19.2	30.6	48.3	74.9	120.0	192.0	304.0
40,000	1.0	1.2	1.3	1.3	1.5	1.7	2.1	2.6	2.9	3.4	4.1	4.7	6.0	7.6	9.7	12.2	15.4	24.4	38.6	60.0	96.0	154.0	243.0
30,000	0.8	0.9	1.0	1.0	1.1	1.3	1.6	1.9	2.2	2.5	3.1	3.5	4.5	5.7	7.3	9.1	11.5	18.4	29.0	45.0	72.0	115.0	182.0
20,000	0.5	0.6	0.6	0.7	0.8	0.9	1.0	1.3	1.4	1.7	2.0	2.4	3.0	3.8	4.8	6.1	7.7	12.2	19.3	30.0	48.0	76.8	122.0
10,000	0.3	0.3	0.3	0.3	0.4	0.4	0.5	0.6	0.7	0.8	1.0	1.2	1.5	1.9	2.4	3.0	3.8	6.1	9.7	15.0	24.0	38.4	60.8
9,000	0.2	0.3	0.3	0.3	0.3	0.4	0.5	0.6	0.6	0.8	0.9	1.1	1.4	1.7	2.2	2.7	3.5	5.5	8.7	13.5	21.6	34.5	54.7
8,000	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.5	0.6	0.7	0.8	0.9	1.2	1.6	1.9	2.4	3.1	4.9	7.7	12.0	19.2	30.7	48.7
7,000	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.5	0.5	0.6	0.7	0.8	1.1	1.3	1.7	2.1	2.7	4.3	6.8	10.5	16.8	26.9	42.6
6,000	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.6	0.7	0.9	1.1	1.5	1.8	2.3	3.7	5.8	9.0	14.4	23.0	36.5
5,000	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.6	0.8	1.0	1.2	1.5	1.9	3.1	4.8	7.5	12.0	19.2	30.4
4,000	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.5	0.6	0.8	1.0	1.2	1.5	2.4	3.9	6.0	9.6	15.4	24.3
3,000	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.4	0.5	0.6	0.7	0.9	1.2	1.8	2.9	4.5	7.2	11.5	18.2
2,000	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.4	0.5	0.6	0.8	1.2	1.9	3.0	4.8	7.7	12.2
1,000							0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.4	0.6	1.0	1.5	2.4	3.8	6.1
900								0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.6	0.9	1.4	2.2	3.5	5.5
800								0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.5	0.8	1.2	1.9	3.1	4.9
700								0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.7	1.1	1.7	2.7	4.3
600									0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.4	0.6	0.9	1.4	2.3	3.7
500											0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.5	0.8	1.2	1.9	3.0	
400												0.1	0.1	0.1	0.1	0.1	0.2	0.4	0.6	1.0	1.5	2.4	
300													0.1	0.1	0.1	0.1	0.2	0.3	0.5	0.7	1.2	1.8	
200														0.1	0.1	0.1	0.1	0.2	0.3	0.6	0.8	1.2	
100															0.1	0.1	0.1	0.1	0.2	0.2	0.4	0.6	

\*Solid Conductors. Other conductors are stranded.

Note 2--Allowable voltage drops for systems other than single phase, two wire cannot be used directly in the above table. Such drops should be modified through multiplication by the appropriate factor listed below. The voltage thus modified may then be used to obtain the proper size directly from the table.

Note 1 - The above table gives voltage drops encountered in a single phase two-wire system. The voltage drops in other systems may be obtained through multiplication by appropriate factors listed below:

System for which Voltage Drop is Desired	Multiplying factors for modification of values in table	System for which allowable voltage drop is known	Multiplying factor for modification of known values to permit direct use of the table
Single phase--3 wire--line to line	1.000	Single phase-3 wire-line to line	1.00
Single phase--3 wire--line to neutral	0.500	Single phase-3 wire-line to neutral	2.00
Three phase--3 wire--line to line	0.866	Three phase-3 wire-line to line	1.155
Three phase--4 wire--line to line	0.886	Three phase-4 wire-line to line	1.155
three phase--4 wire--line to neutral	0.500	Three phase-4 wire-line to neutral	2.00

Note 3--The footage employed in the tabulated ampere feet refers to the run of the circuit rather than to the footage of the individual conductor.

Note 4--The above table is figured at 60 C since this is an estimate of the average temperature which maybe anticipated in service. The table may be used without significant error in conductor temperature up to and including 75 C

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