



**VOLTAGE DROP CALCUTATION
CIRCUIT FOOTAGE FOR SPECIFIED % VOLTAGE DROP**

VOLT X'er 3 PH FACTOR % V.D.

WIRE SIZE	3 AMP	6 AMP	15 AMP	20 AMP	25 AMP	35 AMP	50 AMP	70 AMP	80 AMP	90 AMP	100 AMP	125 AMP
18	836.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	1320.48	665.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	2106.72	1048.32	423.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	3326.40	1673.28	665.28	504.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	5322.24	2661.12	1058.40	796.32	635.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	8467.20	4233.60	1693.44	1270.08	1008.00	725.76	0.00	0.00	0.00	0.00	0.00	0.00
6	13466.88	6733.44	2691.36	2016.00	1612.80	1149.12	806.40	0.00	0.00	0.00	0.00	0.00
4	21420.00	10704.96	4273.92	3205.44	2570.40	1834.56	1280.16	917.28	0.00	0.00	0.00	0.00
3	27014.40	13507.20	5402.88	4052.16	3235.68	2308.32	1612.80	1149.12	1008.00	0.00	0.00	0.00
2	34060.32	17025.12	6844.32	5110.56	4082.40	2913.12	2036.16	1451.52	1270.08	1128.96	0.00	0.00
1	42960.96	21480.48	8588.16	6441.12	5150.88	3679.20	2570.40	1834.56	1602.72	1431.36	1280.16	0.00
0	54149.76	27074.88	10825.92	8124.48	6491.52	4636.80	3245.76	2318.40	2026.08	1804.32	1622.88	1290.24
00	68322.24	34161.12	13658.40	10241.28	8195.04	5856.48	4082.40	2923.20	2560.32	2268.00	2046.24	1632.96
000	86113.44	43061.76	17226.72	12912.48	10332.00	7378.56	5160.96	3689.28	3225.60	2862.72	2580.48	2066.40
0000	0.00	54300.96	21722.40	16289.28	13033.44	9303.84	6511.68	4646.88	4072.32	3618.72	3255.84	2600.64
250	0.00	0.00	25663.68	19262.88	15392.16	10997.28	7691.04	5493.60	4808.16	4273.92	3840.48	3074.40
350	0.00	0.00	0.00	26943.84	21551.04	15382.08	10775.52	7691.04	6723.36	5987.52	5382.72	4304.16
400	0.00	0.00	0.00	30794.40	24635.52	17599.68	12317.76	8799.84	7691.04	6844.32	6158.88	4919.04
500	0.00	0.00	0.00	0.00	30794.40	21994.56	15392.16	10997.28	9414.72	8547.84	7691.04	6158.88
750	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

FOR 3 PHASE CIRCUITS USE FACTOR OF 1.12 ON FOOTAGES

VOLTAGE DROPS BASED ON 110 VOLT DC :

VOLTAGE DROP FORMULA (INDUCTANCE NEGLIGIBLE)

FOR 220 VOLTS USE MULTIPLICATION FACTOR OF 2
FOR 440 VOLTS USE MULTIPLICATION FACTOR OF 4
FOR 550 VOLTS USE MULTIPLICATION FACTOR OF 5

- 2 WIRE,1PH $V=(2K \times L \times I) / D$
- 3 WIRE,1PH $V=(2K \times L \times I) / D$
- 3WIRE,3PH $V=(2K \times L \times I) / D \times 0.866$
- 4 WIRE,3PH $V=(2K \times L \times I) / D$

K=12 FOR CIRCUITS LOADED MORE THAN 50% OF ALLOWABLE CURRENT (CU CONDUCTOR)

K=11 FOR CIRCUITS LOADED LESS THAN 50% OF ALLOWABLE CURRENT (CU CONDUCTOR).

K=18 FOR ALUMINUM CONDUCTORS