Insertion Losses at 1000 Cycles

LOSS DUE TO INSERTION OF SHORT LENGTHS OF NON-LOADED QUADDED CABLE

Length of Cable in Miles	Gauge of Conductors					
	13 Gauge		16 Gauge		19 Gauge	
	Sd.	Phan.	Sd.	Phan.	Sd.	Phan.
.1	0	0	0	0	.1	.1
.2	0	0	.1	.1	.1	.1
.3	.1	.1	.1	.1	.2	.2
.4	.1	.1	.2	.2	.2	.2
.5	.1	.1	.2	.2	.3	.3
.6	.1	.1	.2	.2	.4	.3
.7	.1	.2	.3	.2	.5	.4
.8	.2	.2	.3	.3	.5	.4
.9	.2	.2	.4	.3	.6	.5
1.0	.2	.3	.4	.3	.7	.5
1.1	.2	.3	.4	.3	.7	.6
1.2	.2	.3	.4	.4	.8	.6
1.3	.3	.3	.5	.4	.8	.7
1.4	.3	.3	.5	.5	.9	.7
1.5	.3	.3	.5	.5	.9	.8
1.6	.3	.3	.6	.6	1.0	.9
1.7	.4	.4	.6	.6	1.1	1.0
1.8	.4	.4	.7	.7	1.2	1.0
1.9	.5	.5	.7	.7	1.3	1.1
2.0	.5	.5	.8	.8	1.4	1.2
2.1	.5	.5	.8	.8	1.5	1.3
2.2	.6	.6	.9	.9	1.6	1.4
2.3	.6	.6	.9	.9	1.6	1.4
2.4	.7	.7	1.0	1.0	1.7	1.5
2.5	.7	.7	1.0	1.0	1.8	1.6
2.6	.7	.7	1.1	1.0	1.9	1.7
2.7	.7	.8	1.2	1.1	2.0	1.7
2.8	.8	.8	1.2	1.2	2.0	1.8
2.9	.8	.9	1.3	1.2	2.1	1.8
3.0	.8	.9	1.4	1.3	2.2	1.9
3.5	1.1	1.1	1.7	1.6	2.7	2.3
4.0	1.4	1.4	2.0	1.8	3.1	2.7
4.5	1.7	1.6	2.3	2.2	3.6	3.2
5.0	1.9	1.9	2.7	2.5	4.1	3.6
5.5	2.2	2.2	3.1	2.9	4.6	4.1
6.0	2.5	2.5	3.4	3.2	5.1	4.6
6.5	2.8	2.8	3.9	3.6	5.6	5.0
7.0	3.4	3.1	4.2	4.0	6.4	5.6
7.5	3.5	3.4	4.7	4.3	6.7	6.0
8.0	3.9	3.8	5.1	4.7	7.4	6.6
8.5	4.1	4.0	5.5	5.1	7.7	7.0
9.0	4.5	4.4	5.9	5.5	8.5	7.5
9.5	4.8	4.7	6.3	5.8	8.8	8.0
10.0	5.1	5.0	6.7	6.2	9.1	8.5

Notes:

1. These values may be used as the approximate loss introduced by the insertion of a short length of cable in an open wire circuit, irrespective of the size of the open wire. The loss for other lengths of cable may be obtained by interpolation. For lengths of cable greater than 10 miles use data sheets .017 and .083.

2. When the inserted cable consists of two sections of different gauge, assume first that it is all of the same gauge as that of the longer section and find from the above table the insertion loss. Then, using the unit loss figures from data sheet .017, determine (a) the loss if the cable were all of the gauge used in the longer section and (b) the loss for the actual gauges used. The difference between (a) and (b) is a correction factor for the insertion loss determined above (1) to be added if the shorter section uses the smaller gauge and (2) to be subtracted if the shorter section uses the larger gauge.

3. Side circuit values are losses between 600 ohm resistances; phantom circuit values are losses between 400 ohm resistances.