



BARE WIRE 61-WIRE CONCENTRIC LAY

STRANDED BARE COPPER CONDUCTORS

ASTM Standards B1, B2, B3, B8, B787

SIZE (AWG)	NUMBER & WIRE SIZE (INCHES)	AREA (CIRCULAR MILS)	APPROX. DIAMETER (INCHES)	APPROX WEIGHT (LBS./1000)	APPROX. RESISTANCE @ 68F(20C) OHMS PER 1,000 FT SOFT (ANNEALED)
4/0	61 X .0589	211,475	0.530	660	0.05000
350 MCM	61 X.0757	350,000	0.681	1087	0.03020
500 MCM	61 X.0905	500,000	0.814	1543	0.02120
600 MCM	61 X .0992	600,000	0.891	1853	0.01760
750 MCM	61 X .1109	750,000	0.998	2316	0.01410
1000 MCM	61 X .1280	1,000,000	1.152	3088	0.01060

The above data is approximate and subject to normal manufacturing tolerances.

APPLICATION NOTES

Stranded conductor is normally used in electrical applications where some degree of flexing is encountered either in installation or service. An application with a greater amount of expected service flexing should use a conductor with a larger number of wires and smaller individual wire diameter to make up a given conductor size as compared to a lesser flexing application.

Some of the stranded conductor types manufactured by Republic Wire, Inc. are:

- **CONCENTRIC:** A conductor constructed with a central wire surrounded by one or more layers of helically laid wires. The direction of lay is reversed in successive layers and generally with an increase in length for successive layers.
- **ASTM standards provide for five classes of concentric strand:** Class AA is the coarsest stranding and Class D is the finest. Concentric conductors are available only in the specific numbers of wires necessary to make up the construction in concentric layers. These numbers are 7, 19, 37, and 61. Larger wire counts are possible, but not in normal use and are not covered by these standards.