

# WELDING CABLE

600 Volts. Rated for -55°C to 105°C. Sizes 6 AWG - 500 MCM  
Good Flexibility. Oil Resistant.  
Resists Compression, Cuts and Abrasion.  
Black EPDM Jacket, RoHS Compliant .



## APPLICATIONS

Southwire Welding Cables are used for Secondary voltage resistance welding leads. Power supply applications not exceeding 600 volts AC.

## SPECIFICATIONS

- ASTM B-3
- ASTM B-172
- RoHS Compliant
- ICEA S-75-381

## CONSTRUCTION

Southwire Welding Cables are manufactured using annealed rope-stranded bare copper conductor as per ICEA S-75-381. A paper tape separates the conductor from the insulation to facilitate stripping. A 105° EPDM black jacket is extruded onto the cable.

## ALTERNATE CONSTRUCTION

Also available with a red jacket. May be subject to minimum order.

# Black non-UL Welding Cable

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| SUGGESTED AMPACITIES: FOR 600 VOLT IN-LINE APPLICATIONS |         |         |         |
|---------------------------------------------------------|---------|---------|---------|
| AWG                                                     | AMPERES | AWG     | AMPERES |
| 6                                                       | 115     | 3/0     | 380     |
| 4                                                       | 150     | 4/0     | 440     |
| 2                                                       | 205     | 250 MCM | 495     |
| 1                                                       | 240     | 350 MCM | 680     |
| 1/0                                                     | 285     | 500 MCM | 720     |
| 2/0                                                     | 325     |         |         |

Ampacities for portable cable, continuous-duty (Ambient Temperature of 40° C).  
May not be suitable for all installations per National Electrical Code® .

# Black non-UL Welding Cable

## WEIGHTS, MEASUREMENTS AND PACKAGING

| SIZE (AWG) | CONDUCTOR STRAND (#/AWG) | NOMINAL OVERALL DIAMETER |       | APPROX. NET WEIGHT LBS/M** | AMPS | PART NUMBER |
|------------|--------------------------|--------------------------|-------|----------------------------|------|-------------|
|            |                          | In.                      | mm    |                            |      |             |
| 6          | 273 x 30                 | 0.320                    | 8.128 | 125                        | 115  | 500'        |
| 4          | 427 x 30                 | 0.375                    | 9.53  | 182                        | 150  | 500'        |
| 2          | 651 x 30                 | 0.440                    | 11.12 | 271                        | 205  | 500'        |
| 1          | 840 x 30                 | 0.505                    | 12.87 | 360                        | 240  | 500'        |
| 1/0        | 1044 x 30                | 0.570                    | 12.82 | 444                        | 285  | 500'        |
| 2/0        | 1308 x 30                | 0.605                    | 15.37 | 535                        | 325  | 500'        |
| 3/0        | 1653 x 30                | 0.670                    | 17.02 | 667                        | 380  | 500'        |
| 4/0        | 2071 x 30                | 0.720                    | 18.29 | 809                        | 440  | 500'        |
| 250 MCM    | 2516 x 30                | 0.860                    | 21.84 | 1048                       | 495  | 500'        |
| 350 MCM    | 3478 x 30                | 0.905                    | 22.99 | 1396                       | 625  | 500'        |
| 500 MCM    | 5002 x 30                | 1.110                    | 28.19 | 1973                       | 765  | 500'        |

\* Actual shipping weight may vary.

\* 250', 1000' and 2500' reels also available.

\* Ampacity based on 105°C conductor temperature and 30°C Ambient.

# Black non-UL Welding Cable

| WELDING CABLE AMPACITIES SINGLE CONDUCTOR<br>REQUIRED CABLE SIZES: FOR WELDING CABLE APPLICATION |                                                                                                                           |      |      |      |      |      |      |
|--------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|------|------|------|------|------|------|
| AMPS                                                                                             | LENGTH IN FEET FOR TOTAL CIRCUIT FOR SECONDARY VOLTAGES ONLY<br>(DO NOT USE THIS TABLE FOR 600 VOLT IN-LING APPLICATIONS) |      |      |      |      |      |      |
|                                                                                                  | 50'                                                                                                                       | 100' | 150' | 200' | 250' | 300' | 350' |
| 100                                                                                              | 4                                                                                                                         | 2    | 1/0  | 2/0  | 3/0  | 4/0  | 4/0  |
| 150                                                                                              | 4                                                                                                                         | 1/0  | 2/0  | 4/0  |      |      |      |
| 200                                                                                              | 2                                                                                                                         | 2/0  | 4/0  |      |      |      |      |
| 250                                                                                              | 1                                                                                                                         | 3/0  |      |      |      |      |      |
| 300                                                                                              | 1/0                                                                                                                       | 4/0  |      |      |      |      |      |
| 350                                                                                              | 2/0                                                                                                                       | 4/0  |      |      |      |      |      |
| 400                                                                                              | 3/0                                                                                                                       |      |      |      |      |      |      |
| 450                                                                                              | 3/0                                                                                                                       |      |      |      |      |      |      |
| 500                                                                                              | 4/0                                                                                                                       |      |      |      |      |      |      |
| 550                                                                                              | 4/0                                                                                                                       |      |      |      |      |      |      |
| 600                                                                                              |                                                                                                                           |      |      |      |      |      |      |

Distances shown are half the length of cable required. For total cable length of welding lead and ground lead, double distance shown.  
4 volts maximum drop. Nominal DC resistance @ 25 C per ICEA S-19-81 Table 7.5.1

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| AWG                                                     | AMPERES | AWG     | AMPERES |
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| 4                                                       | 150     | 4/0     | 440     |
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|                                                                                                  | 50'                                                                                                                       | 100' | 150' | 200' | 250' | 300' | 350' |
| 100                                                                                              | 4                                                                                                                         | 2    | 1/0  | 2/0  | 3/0  | 4/0  | 4/0  |
| 150                                                                                              | 4                                                                                                                         | 1/0  | 2/0  | 4/0  |      |      |      |
| 200                                                                                              | 2                                                                                                                         | 2/0  | 4/0  |      |      |      |      |
| 250                                                                                              | 1                                                                                                                         | 3/0  |      |      |      |      |      |
| 300                                                                                              | 1/0                                                                                                                       | 4/0  |      |      |      |      |      |
| 350                                                                                              | 2/0                                                                                                                       | 4/0  |      |      |      |      |      |
| 400                                                                                              | 3/0                                                                                                                       |      |      |      |      |      |      |
| 450                                                                                              | 3/0                                                                                                                       |      |      |      |      |      |      |
| 500                                                                                              | 4/0                                                                                                                       |      |      |      |      |      |      |
| 550                                                                                              | 4/0                                                                                                                       |      |      |      |      |      |      |
| 600                                                                                              |                                                                                                                           |      |      |      |      |      |      |

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