



# ARC-WELDING CABLE EP

## 600V

UL 1581

Zero Halogen EP Insulated Welding Cable 105°C

### APPLICATIONS

- Secondary voltage resistant welding leads
- Leads for motors, generators, batteries
- Other industrial applications
- Product is manufactured in accordance with UL 1581 standard. (It is not UL listed)

### CONSTRUCTION

|            |  |
|------------|--|
| Conductor  | Flexible stranded bare copper per ASTM B 172 Class K                     |
| Separator  | Paper separator between conductor and insulation                         |
| Insulation | Ethylene-propylene rubber (EPR). Class 45, 105°C, Table 50.55 of UL 1581 |
| Color      | Black or other color   |

### Features

|                               |                         |
|-------------------------------|-------------------------|
| Excellent flexibility         | Heat resistant at 105°C |
| Ozone, sun, weather resistant | Oil resistant           |
| Rated and flexible at -40°C   |                         |



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Standard length cable packing

1000ft on drums. Other forms of packing and delivery are available on request

| Part Number | Size   | Conductor strand | Nominal Insulation Thickness |      | Nominal O.D. |      | Approx. Weight |       | Maximum Direct Current Resistance at 20°C | Ampacity(1) |
|-------------|--------|------------------|------------------------------|------|--------------|------|----------------|-------|---|-------------|
|             |        |                  | Inches                       | mm   | Inches       | mm   | lbs/1000ft     | kg/km |   |             |
| WC6         | 6AWG   | 253/30           | 0.06                         | 1.52 | 0.315        | 8.0  | 110            | 163   | 1.38                                      | 133         |
| WC4         | 4AWG   | 403/30           | 0.06                         | 1.52 | 0.358        | 9.1  | 161            | 240   | 0.865                                     | 179         |
| WC2         | 2AWG   | 636/30           | 0.06                         | 1.52 | 0.422        | 10.7 | 242            | 360   | 0.549                                     | 237         |
| WC1         | 1AWG   | 798/30           | 0.08                         | 2.03 | 0.492        | 12.5 | 314            | 468   | 0.436                                     | 284         |
| WC1/0       | 1/0AWG | 1016/30          | 0.08                         | 2.03 | 0.547        | 13.9 | 392            | 583   | 0.345                                     | 327         |
| WC2/0       | 2/0AWG | 1261/30          | 0.08                         | 2.03 | 0.591        | 15.0 | 476            | 708   | 0.276                                     | 377         |
| WC3/0       | 3/0AWG | 1590 /30         | 0.08                         | 2.03 | 0.657        | 16.7 | 589            | 877   | 0.219                                     | 449         |
| WC4/0       | 4/0AWG | 2007/30          | 0.08                         | 2.03 | 0.705        | 17.9 | 727            | 1082  | 0.173                                     | 514         |
| WC250       | 250MCM | 2399/30          | 0.095                        | 2.41 | 0.807        | 20.5 | 914            | 1361  | 0.147                                     | 577         |
| WC350       | 350MCM | 3327/30          | 0.095                        | 2.41 | 0.894        | 22.7 | 1189           | 1770  | 0.106                                     | 719         |
| WC500       | 500MCM | 4746/30          | 0.095                        | 2.41 | 1.122        | 28.5 | 1733           | 2579  | 0.0743                                    | 908         |
| WC6-RED     | 6AWG   | 253/30           | 0.06                         | 1.52 | 0.315        | 8.0  | 110            | 163   | 1.38                                      | 133         |
| WC4-RED     | 4AWG   | 403/30           | 0.06                         | 1.52 | 0.358        | 9.1  | 161            | 240   | 0.865                                     | 179         |
| WC2-RED     | 2AWG   | 636/30           | 0.06                         | 1.52 | 0.422        | 10.7 | 242            | 360   | 0.549                                     | 237         |
| WC1-RED     | 1AWG   | 798/30           | 0.08                         | 2.03 | 0.492        | 12.5 | 314            | 468   | 0.436                                     | 284         |
| WC1/0-RED   | 1/0AWG | 1016/30          | 0.08                         | 2.03 | 0.547        | 13.9 | 392            | 583   | 0.345                                     | 327         |
| WC2/0-RED   | 2/0AWG | 1261/30          | 0.08                         | 2.03 | 0.591        | 15.0 | 476            | 708   | 0.276                                     | 377         |
| WC3/0-RED   | 3/0AWG | 1590 /30         | 0.08                         | 2.03 | 0.657        | 16.7 | 589            | 877   | 0.219                                     | 449         |
| WC4/0-RED   | 4/0AWG | 2007/30          | 0.08                         | 2.03 | 0.705        | 17.9 | 727            | 1082  | 0.173                                     | 514         |

(1) Ampacity –Free air measured. Based on continuous duty at 105°C conductor temperature and ambient temperature of 40°C.

\*Not covered by 1523058 certificate

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## Special Factory Options

|             |                                       |
|-------------|---------------------------------------|
| Conductors: | Class M (34 AWG ) stranding           |
| Jacket:     | Polychloroprene                       |
| CSA:        | 1523058 (LR 103932) for 8AWG+300kcmil |

## Standard Print Legend

TF CABLE (SIZE) ARC WELDING CABLE 600 V OIL RESISTANT -40°C +105°C

WELDING CABLES AMPACITIES SINGLE CONDUCTOR Required Cables Sizes: For Welding Cables Application

| AMPS | Length in feet for total circuit for secondary voltages only (do not use this table for 600 Volt in-line applications) |      |      |      |      |      |      |
|------|--|------|------|------|------|------|------|
|      | 100'   | 150' | 200' | 250' | 300' | 350' | 400' |
| 100  | 4  | 4    | 2    | 2    | 1    | 1/0  | 1/0  |
| 150  | 4  | 2    | 1    | 1/0  | 2/0  | 3/0  | 3/0  |
| 200  | 2  | 1    | 1/0  | 2/0  | 3/0  | 4/0  | 4/0  |
| 250  | 1  | 1/0  | 2/0  | 3/0  | 4/0  |      |      |
| 300  | 1/0  | 2/0  | 3/0  | 4/0  |      |      |      |
| 350  | 1/0  | 3/0  | 4/0  |      |      |      |      |
| 400  | 2/0  | 3/0  |      |      |      |      |      |
| 450  | 2/0  | 4/0  |      |      |      |      |      |
| 500  | 3/0  | 4/0  |      |      |      |      |      |
| 550  | 3/0  | 4/0  |      |      |      |      |      |
| 600  | 4/0  |      |      |      |      |      |      |

Required Cable Sizes Shown In AWG Numbers

The total circuit length includes both welding and ground leads ( based on 4 volt drop), 60% duty cycle. These values for current-carrying capacity are based on a copper temperature of 60°C (140°F), an ambient temperature of 40°C (104°F) and yield load factors of from approximately 32% for the No.2AWG cable to approximately 23% for the No. 3/0AWG cable, and higher for the smaller sizes. The sizes of cables generally used range from No.2AWG to No.3/0AWG. In actual service, the load factor may be much higher than indicated without overheating the cable as the ambient temperature will generally be substantially lower than 40°C.

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