

Hook-Up Wire



Everything You Need to Hook Up Anything



The broad range of hook-up wire from Alpha Wire means you will find the wire exactly suited to your application—whether it’s as straightforward as a control cabinet in a protected environment or as specialized as a machine tool on the factory floor, a high-temperature oven, or off-road construction equipment. Our hook-up wire is available in a variety of insulation to meet

your needs for temperature, ability to withstand wear and abrasion, electrical properties, and resistance to oil, solvents, and chemicals.

- Stranded and solid copper conductors, bare or tinned, with other platings available for special application needs
- Broad range of insulations
- Color-coded insulation for easy circuit identification

- UL, CSA, and mil-spec compliance
- Convenient put-ups as short as 100 feet
- Excellent uniformity for easy handling, stripping, and termination



| Choice of Insulations to Meet Temperature Range and Mechanical and Environmental Requirements | | | | |
|---|------------------------------|-------------------|---|----------|
| Insulation | Material | Temperature Range | Features | Page No. |
| PVC | Polyvinyl chloride | -55°C to +105°C | General-purpose insulation Good abrasion resistance Excellent flame resistance | 4 |
| XL-PVC | Cross-linked PVC | -55°C to +105°C | Better abrasion and cut-through resistance than standard PVC Improved temperature and solder iron resistance over standard PVC Used in high-density wiring | 7, 8 |
| PTFE | Polytetrafluoroethylene | -55°C to +200°C | High temperature Chemically inert: excellent chemical and solvent resistance Excellent electrical properties | 10 |
| XLPE | Cross-linked polyethylene | -55°C to +125°C | Higher temperature rating than PVC | 8 |
| Silicone | Silicone | -40°C to +150°C | High-voltage material Excellent flexibility Excellent dielectric strength and resistance to radiation, corona, and ozone | 12 |
| PDVF | Polyvinylidene fluoride | -40°C to +125°C | Widely used in wire wrap applications | 12 |
| ETFE | Ethylene tetrafluoroethylene | -70°C to +150°C | | 11 |
| MG | Mica glass | +450°C | High-temperature applications, such as heat-treating furnaces, kilns, and food service equipment Excellent thermal stability | 14 |
| mPPE | Modified polyphenylene ether | -40°C to +105°C | Modified polyphenylene ether insulation (mPPE) Lighter, tougher, and more durable than PVC Meets RoHS and WEEE requirements, 100% recyclable 45% smaller diameter, 40% lighter | 16 |
| mPPE* | Modified polyphenylene ether | -40°C to +110°C | All the environmental benefits and abrasion resistance characteristics of EcoWire; 100% recyclable Excellent resistance to oils, chemicals, solvents, and fuels Meets ISO 6722 for thin-wall and ultra-thin wall wire | 16 |

*EcoWire® Plus

| Choice of Features and Approvals by Application | | | | | | | |
|---|------------|------------------|-------------------------|--|-------------------|-------------------|----------|
| Voltage | Insulation | Wire Range (AWG) | | Approvals | | Temperature Range | Page No. |
| | | Stranded | Solid | UL | CSA | | |
| UL/CSA | | | | | | | |
| 150 | XL-PVC | 26 - 16 | — | UL AWM 1429 | CSA AWM I A/B FT1 | -55°C to +105°C | 7 |
| | XLPE | 22 - 18 | — | UL AWM 3265 | CSA AWM I A/B FT1 | -55°C to +125°C | 9 |
| 300 | PVC | 30 - 16 | 24 - 16 | UL AWM 1569 | | -40°C to +105°C | |
| | | | | UL AWM 1007 | | -40°C to +80°C | 4 |
| | | | | CSA TR-64 | | -40°C to +90°C | |
| | SR-PVC | 30 - 16 | — | UL AWM 1061 | CSA AWM I A/B FT1 | -10°C to +80°C | 4 |
| | XL-PVC | 26 - 16 | — | UL AWM 1430 | CSA REW XL-PVC | -55°C to +105°C | 8 |
| 600 | XLPE | 22 - 18 | — | UL AWM 3266 | CSA CL 1252 XLPE | -55°C to +125°C | 9 |
| | PVC | 24 - 10 | 26 - 10 | UL AWM 1015, 1230 UL MTW, THW, TW | CSA TEW-105 | -20°C to +105°C | 5 |
| | | | | UL AWM 1242, 1284 | | -20°C to +105°C | |
| | XLPE | 18 - 10 | — | UL AWM 3271 | CSA CL 1251 XLPE | -55°C to +125°C | 8 |
| | XLPE | 20 - 2/0 | — | UL AWM 3173, 3195, 3196, 3300 SIS Rated | | -55°C to +125°C | 9 |
| Silicone | 22 - 4/0 | — | UL AWM 3212, 3213, 3214 | CSA AWM I A/B FT2 | -40°C to +150°C | 12 | |
| 10,000+ | Silicone | 22 - 2 | — | UL AWM 3239 | | -40°C to +150°C | 13 |
| Military | | | | | | | |
| 250 | PTFE | 32 - 22 | 30 - 26 | MIL-DTL-16878/6 (Type ET) | | -60°C to +200°C | 10 |
| 600 | XL-PVC | 26 - 16 | — | MIL-DTL-16878/1 (Type B) | | -55°C to +105°C | 7 |
| 600 | PVC | 32 - 14 | — | MIL-DTL-16878/1 (Type B) | | -55°C to +105°C | 6 |
| | PVC | 14 - 8 | — | MIL-W-76B Type HW | | -20°C to +80°C | 6 |
| | PTFE | 30 - 10 | 26 - 18 | MIL-DTL-16878/4 (Type E) | | -60°C to +200°C | 10 |
| 1000 | XL-PVC | 26 - 16 | — | MIL-DTL-16878/1 (Type C) | | -55°C to +105°C | 8 |
| | PVC | 24 - 12 | 24 - 18 | MIL-DTL-16878/1 (Type C) | | -40°C to +80°C | 8 |
| | XLPE | 22 - 18 | — | MIL-DTL-16878/1 (Type C) | | -55°C to +105°C | 9 |
| | PTFE | 24 - 8 | — | MIL-DTL-16878/5 (Type EE) | | -60°C to +200°C | 11 |
| 3000 | XLPE | 18 - 10 | — | MIL-DTL-16878/1 (Type D) | | -55°C to +105°C | 8 |
| Wire Wrap | | | | | | | |
| | PVDF | — | 30 - 24 | UL 1422, 1423 | | -40°C to +125°C | 12 |
| | ETFE | — | 30 - 24 | UL 1516, 1523 | | -70°C to +150°C | 12 |
| Ribbon Cable: 5 to 30 Conductors | | | | | | | |
| 150/600 | PVC | 26 - 22 | — | UL 2713, 2555 | | -55°C to +80°C | 17 |
| 300/1000 | PVC | 26 - 22 | — | MIL-W-16878/1 (Types B & C) | | -55°C to +105°C | 18 |
| Bus Bar Wire | | | | | | | |
| | — | — | 30 - 12 | A-A59551 | | | 18 |

Bulk Hook-Up Wire

We support your high-volume needs with large put-ups for a wide range of both military and UL style PVC hook-up wire.

Bulk PVC wire options include:

- Stranded and solid conductors
- Bare or tinned copper
- Standard and semirigid PVC
- Variety of temperature ranges

For additional information, visit www.alphawire.com

600 V, mPPE Wire

EcoWire®



Innovative EcoWire combines increased performance with a minimized environmental impact. Compared to PVC wire, EcoWire's modified polyphenylene ether (mPPE) insulation allows wire that are:

- Up to 45% smaller in diameter
- Up to 40% lighter
- Non-halogenated, with no heavy metal pigments
- 100% recyclable

UL AWM 11028 VW-1
CSA AWM I A/B FT1
IEC 60332-2 Flame Behavior
RoHS/RoHS2 Compliant
REACH Compliant
Halogen-Free
CE compliant

-40°C to +105°C

Stranded or solid tinned copper conductors

Modified polyphenylene ether insulation

| Part No. | Conductor Size | | Stranding | | Insulation Thickness | | Wire Diameter | |
|--------------|----------------|-----------------|-----------|------------|----------------------|------|---------------|------|
| | AWG | mm ² | AWG | mm | Inch | mm | Inch | mm |
| 6710 | 28 | 0.08 | 7/36 | 7 x 0.12 | 0.010 | 0.25 | 0.034 | 0.86 |
| 6711 | 26 | 0.13 | 7/34 | 7 x 0.16 | 0.010 | 0.25 | 0.038 | 0.97 |
| 6712 | 24 | 0.20 | 7/32 | 7 x 0.20 | 0.010 | 0.25 | 0.043 | 1.09 |
| 6713 | 22 | 0.32 | 7/30 | 7 x 0.25 | 0.010 | 0.25 | 0.049 | 1.24 |
| 6714 | 20 | 0.52 | 10/30 | 10 x 0.25 | 0.010 | 0.25 | 0.055 | 1.40 |
| 6715 | 18 | 0.82 | 16/30 | 16 x 0.25 | 0.010 | 0.25 | 0.067 | 1.70 |
| 6715S | 18 | 0.82 | Solid | Solid | 0.010 | 0.25 | 0.059 | 1.50 |
| 6716 | 16 | 1.30 | 26/30 | 26 x 0.25 | 0.011 | 0.28 | 0.081 | 2.06 |
| 6717 | 14 | 2.08 | 41/30 | 41 x 0.25 | 0.011 | 0.28 | 0.096 | 2.44 |
| 6717S | 14 | 2.08 | Solid | Solid | 0.011 | 0.28 | 0.086 | 2.18 |
| 6718 | 12 | 3.30 | 65/30 | 65 x 0.25 | 0.012 | 0.30 | 0.117 | 2.97 |
| 6719 | 10 | 5.26 | 105/30 | 105 x 0.25 | 0.012 | 0.30 | 0.142 | 3.66 |

White, Black, Red, Green, Yellow, Blue, Brown, Orange, Slate, Violet, Yellow/Green, Dark Blue

Availability

- 100 ft (30.5 m)
- 1000 ft (305 m)
- 5000 ft (1524 m)
- 25,000 ft (7620 m) drum



EcoWire and EcoWire Plus are part of the EcoGen family of weight- and space-saving, environmentally friendly wires and cables.

300 V, mPPE Wire

EcoWire® Plus

All the benefits of EcoWire, plus higher temperature range and additional fluid resistance for demanding factory applications.

ISO 6722 Ultra Thin Wall
ISO 6722 Thin Wall
RoHS Compliant
REACH Compliant
Halogen-Free
CE compliant

-40°C to +110°C

Stranded bare copper conductors

Modified polyphenylene ether insulation

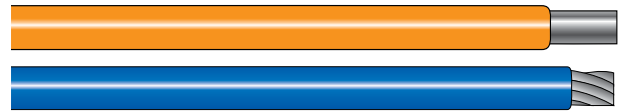
| Part No. | Conductor Size | | | Stranding | | Insulation Thickness | | Wire Diameter | |
|-------------|----------------|-----------------|---------------|-----------|-----------|----------------------|------|---------------|------|
| | AWG | mm ² | ISO mm Equiv. | AWG | mm | Inch | mm | Inch | mm |
| 6820 | 28 | 0.09 | — | 7/36 | 7 x 0.12 | 0.008 | 0.20 | 0.031 | 0.79 |
| 6821 | 26 | 0.14 | 0.13 | 7/34 | 7 x 0.16 | 0.008 | 0.20 | 0.035 | 0.89 |
| 6822 | 24 | 0.23 | 0.22 | 7/32 | 7 x 0.20 | 0.008 | 0.20 | 0.040 | 1.02 |
| 6823 | 22 | 0.35 | 0.35 | 7/30 | 7 x 0.25 | 0.008 | 0.20 | 0.046 | 1.17 |
| 6824 | 20 | 0.56 | 0.5 | 7/28 | 7 x 0.32 | 0.008 | 0.20 | 0.054 | 1.37 |
| 6825 | 18 | 0.81 | 0.75 | 19/0.0092 | 19 x 0.23 | 0.008 | 0.20 | 0.062 | 1.57 |
| 6826 | 17 | 0.96 | 1 | 19/30 | 19 x 0.25 | 0.008 | 0.20 | 0.066 | 1.68 |
| 6827 | 16 | 1.23 | — | 19/29 | 19 x 0.29 | 0.010 | 0.24 | 0.077 | 1.96 |
| 6828 | 15 | 1.53 | 1.5 | 19/28 | 19 x 0.32 | 0.010 | 0.24 | 0.083 | 2.11 |
| 6829 | 14 | 1.94 | 2 | 19/27 | 19 x 0.36 | 0.012 | 0.30 | 0.095 | 2.41 |
| 6830 | 12 | 3.08 | 3 | 19/25 | 19 x 0.46 | 0.015 | 0.38 | 0.120 | 3.05 |
| 6831 | 10 | 4.92 | 5 | 19/23 | 19 x 0.57 | 0.017 | 0.43 | 0.147 | 3.73 |

White, Black, Red, Green, Yellow, Blue, Brown, Orange, Green/Yellow

Availability

- 100 ft (30.5 m)
- 1000 ft (305 m)

300 V, PVC Wire



**UL AWM 1007, 1581, 1569 VW-1
CSA AWM I A/B FT1
CSA TR-64 FT1**

-40°C to +105°C
(AWM 1569, CSA AWM)
-40°C to +90°C (CSA TR-64)
-40°C to +80°C
(AWM 1007, 1581)

Stranded or solid tinned
copper conductor
PVC insulation

Availability

100 ft (30.5 m)
1000 ft (305 m)

| Part No. | Wire Size | | Stranding | | Insulation Thickness | | Nominal Diameter | | Colors |
|----------------------------|-----------|-----------------|-----------|------------|----------------------|------|------------------|------|--------------------|
| | AWG | mm ² | AWG | mm | Inch | mm | Inch | mm | |
| 3047 | 30 | 0.06 | 7/38 | 7 x 0.10 | 0.016 | 0.41 | 0.044 | 1.12 | Z1, 1 - 10 |
| 3048 | 28 | 0.09 | 7/36 | 7 x 0.13 | 0.016 | 0.41 | 0.047 | 1.19 | Z1, 1 - 10 |
| 3049 | 26 | 0.14 | 7/34 | 7 x 0.16 | 0.016 | 0.41 | 0.051 | 1.30 | Z1, 1 - 10 |
| 3050/1 | 24 | 0.20 | Solid | 1 x 0.51 | 0.016 | 0.41 | 0.052 | 1.32 | Z1, 1 - 10 |
| 3050 | 24 | 0.23 | 7/32 | 7 x 0.20 | 0.016 | 0.41 | 0.056 | 1.42 | Z1, 1 - 19, 28, 30 |
| 892419[†] | 24 | 0.24 | 19/36 | 19 x 0.13 | 0.016 | 0.41 | 0.057 | 1.45 | Z2, 0 - 9 |
| 3051/1 | 22 | 0.32 | Solid | 1 x 0.64 | 0.016 | 0.41 | 0.057 | 1.45 | Z1, 1 - 10 |
| 3051 | 22 | 0.35 | 7/30 | 7 x 0.25 | 0.016 | 0.41 | 0.062 | 1.57 | Z1, 1 - 19, 28, 30 |
| 892219[†] | 22 | 0.38 | 19/34 | 19 x 0.16 | 0.016 | 0.41 | 0.064 | 1.63 | Z2, 0 - 9 |
| 3053 | 20 | 0.51 | 10/30 | 10 x 0.25 | 0.016 | 0.41 | 0.069 | 1.75 | Z1, 1 - 19, 28, 30 |
| 3053/1 | 20 | 0.52 | Solid | 1 x 0.81 | 0.016 | 0.41 | 0.064 | 1.63 | Z1, 1 - 10 |
| 892007[†] | 20 | 0.56 | 7/28 | 7 x 0.32 | 0.016 | 0.41 | 0.070 | 1.78 | Z2, 0 - 9 |
| 892019[†] | 20 | 0.62 | 19/32 | 19 x 0.20 | 0.016 | 0.41 | 0.072 | 1.83 | Z2, 0 - 9 |
| 3055 | 18 | 0.81 | 16/30 | 16 x 0.25 | 0.016 | 0.41 | 0.079 | 2.01 | Z1, 1 - 19, 28, 30 |
| 3055/1 | 18 | 0.82 | Solid | 1 x 1.02 | 0.016 | 0.41 | 0.072 | 1.83 | Z1, 1 - 10 |
| 891819[†] | 18 | 0.96 | 19/30 | 19 x 0.25 | 0.016 | 0.41 | 0.082 | 2.08 | Z2, 0 - 9 |
| 3057/1 | 16 | 1.31 | Solid | 1 x 1.29 | 0.016 | 0.41 | 0.083 | 2.11 | Z1, 1 - 10 |
| 3057 | 16 | 1.32 | 26/30 | 26 x 0.25 | 0.016 | 0.41 | 0.092 | 2.34 | Z1, 1 - 19, 28, 30 |
| 891441[†] | 14 | 2.08 | 41/30 | 41 x 0.25 | 0.016 | 0.41 | 0.106 | 2.69 | Z2, 0 - 9 |
| 891265^{††} | 12 | 3.30 | 65/30 | 65 x 0.25 | 0.016 | 0.41 | 0.125 | 3.18 | Z2, 0 - 9 |
| 891000^{††} | 10 | 5.32 | 105/30 | 105 x 0.25 | 0.016 | 0.41 | 0.150 | 3.81 | Z2, 0 - 9 |

Z1 Insulation Colors: 1 White • 2 Black • 3 Red • 4 Green • 5 Yellow • 6 Blue • 7 Brown • 8 Orange • 9 Slate • 10 Violet • 11 White/Black • 12 White/Red • 13 White/Green • 14 White/Yellow • 15 White/Blue • 16 White/Brown • 17 White/Orange • 18 White/Slate • 19 White/Violet • 28 Green/Yellow • 29 Yellow/Green • 30 Pink

Z2 Insulation Colors: 0 Black • 1 Brown • 2 Red • 3 Orange • 4 Yellow • 5 Green • 6 Blue • 7 Violet • 8 Slate • 9 White

[†]These wires also available in 500 ft (152 m) put-ups.

300 V, Semirigid PVC Wire



**UL AWM 1061 VW-1
CSA AWM I A/B FT1**

-10°C to +80°C
Stranded or solid tinned
copper conductor
Semirigid PVC insulation

Availability

100 ft (30.5 m)
1000 ft (305 m)

| Part No. | Wire Size | | Stranding | | Insulation Thickness | | Nominal Diameter | | Colors |
|---------------|-----------|-----------------|-----------|-----------|----------------------|------|------------------|------|--------|
| | AWG | mm ² | AWG | mm | Inch | mm | Inch | mm | |
| 422807 | 28 | 0.09 | 7/36 | 7 x 0.13 | 0.010 | 0.25 | 0.035 | 0.89 | Z2 |
| 422801 | 28 | 0.08 | Solid | 1 x 0.32 | 0.010 | 0.25 | 0.033 | 0.84 | Z2 |
| 422607 | 26 | 0.14 | 7/34 | 7 x 0.16 | 0.010 | 0.25 | 0.039 | 0.99 | Z2 |
| 422601 | 26 | 0.13 | Solid | 1 x 0.40 | 0.010 | 0.25 | 0.036 | 0.91 | Z2 |
| 3250 | 24 | 0.23 | 7/32 | 7 x 0.20 | 0.010 | 0.25 | 0.044 | 1.12 | Z1 |
| 3251 | 22 | 0.35 | 7/30 | 7 x 0.25 | 0.010 | 0.25 | 0.050 | 1.27 | Z1 |
| 422010 | 20 | 0.51 | 10/30 | 10 x 0.25 | 0.010 | 0.25 | 0.057 | 1.45 | Z2 |
| 3252 | 20 | 0.56 | 7/28 | 7 x 0.32 | 0.010 | 0.25 | 0.058 | 1.47 | Z1 |
| 422001 | 20 | 0.52 | Solid | 1 x 0.81 | 0.010 | 0.25 | 0.052 | 1.32 | Z2 |
| 421816 | 18 | 0.81 | 16/30 | 16 x 0.25 | 0.010 | 0.25 | 0.067 | 1.70 | Z2 |
| 3253 | 18 | 0.90 | 7/26 | 7 x 0.40 | 0.010 | 0.25 | 0.068 | 1.73 | Z1 |
| 421626 | 16 | 1.32 | 26/30 | 26 x 0.25 | 0.010 | 0.25 | 0.080 | 2.03 | Z2 |
| 3254 | 16 | 1.43 | 7/24 | 7 x 0.51 | 0.010 | 0.25 | 0.080 | 2.03 | Z1 |

Z1 Insulation Colors: 1 White • 2 Black • 3 Red • 4 Green • 5 Yellow • 6 Blue • 7 Brown • 8 Orange • 9 Slate • 10 Violet

Z2 Insulation Colors: 0 Black • 1 Brown • 2 Red • 3 Orange • 4 Yellow • 5 Green • 6 Blue • 7 Violet • 8 Slate • 9 White

600 V, PVC Wire



UL AWM 1015, 1028, 1230, 1231, 1232, 1283, 1284
UL MTW (22 to 1/0 AWG)
UL THW (6 to 1/0 AWG)
CSA AWM I A/B FT1 and TEW 105
UL VW-1

-20°C to +105°C (AWM, TEW)
 -20°C to +90°C (MTW)
 -20°C to +75°C (THW)
 -20°C to +60°C (TW)

Stranded or solid tinned copper conductor

Availability

100 ft (30.5 m)
 1000 ft (305 m)

| Part No. | Wire Size | | Stranding | | Insulation Thickness | | Nominal Diameter | | UL Style | Colors |
|----------------|-----------|-----------------|-----------|-------------|----------------------|------|------------------|-------|------------|----------------|
| | AWG | mm ² | AWG | mm | Inch | mm | Inch | mm | | |
| 782607* | 26 | 0.14 | 7/34 | 7 x 0.16 | 0.032 | 0.81 | 0.083 | 2.11 | 1015, 1230 | Z2, 0 - 9 |
| 782401* | 24 | 0.20 | Solid | 1 x 0.51 | 0.032 | 0.81 | 0.084 | 2.13 | 1015, 1230 | Z2, 0 - 9 |
| 3070* | 24 | 0.23 | 7/32 | 7 x 0.20 | 0.032 | 0.81 | 0.088 | 2.24 | 1015, 1230 | Z1, 1 - 10, 28 |
| 782201 | 22 | 0.32 | Solid | 1 x 0.64 | 0.032 | 0.81 | 0.089 | 2.26 | 1015, 1230 | Z2, 0 - 9 |
| 3071 | 22 | 0.35 | 7/30 | 7 x 0.25 | 0.032 | 0.81 | 0.094 | 2.39 | 1015, 1230 | Z1, 1 - 10, 28 |
| 782010T | 20 | 0.51 | 10/30 | 10 x 0.25 | 0.032 | 0.81 | 0.101 | 2.57 | 1015, 1230 | Z2, 0 - 9 |
| 3073 | 20 | 0.51 | 10/30 | 10 x 0.25 | 0.032 | 0.81 | 0.101 | 2.57 | 1015, 1230 | Z1, 1 - 10, 28 |
| 782001 | 20 | 0.52 | Solid | 1 x 0.81 | 0.032 | 0.81 | 0.096 | 2.44 | 1015, 1230 | Z2, 0 - 9 |
| 3075 | 18 | 0.81 | 16/30 | 16 x 0.25 | 0.032 | 0.81 | 0.111 | 2.82 | 1015, 1230 | Z1, 1 - 10, 28 |
| 781801 | 18 | 0.82 | Solid | 1 x 1.02 | 0.032 | 0.81 | 0.104 | 2.64 | 1015, 1230 | Z2, 0 - 9 |
| 781601 | 16 | 1.31 | Solid | 1 x 1.29 | 0.032 | 0.81 | 0.115 | 2.92 | 1015, 1230 | Z2, 0 - 9 |
| 3077 | 16 | 1.32 | 26/30 | 26 x 0.25 | 0.032 | 0.81 | 0.124 | 3.15 | 1015, 1230 | Z1, 1 - 10, 28 |
| 781401 | 14 | 2.08 | Solid | 1 x 1.63 | 0.032 | 0.81 | 0.128 | 3.25 | 1015, 1230 | Z2, 0 - 9 |
| 3079 | 14 | 2.08 | 41/30 | 41 x 0.25 | 0.032 | 0.81 | 0.138 | 3.51 | 1015, 1230 | Z1, 1 - 10, 28 |
| 3080 | 12 | 3.29 | 65/30 | 65 x 0.25 | 0.032 | 0.81 | 0.157 | 3.99 | 1015, 1230 | Z1, 1 - 10 |
| 781201 | 12 | 3.31 | Solid | 1 x 2.06 | 0.032 | 0.81 | 0.145 | 3.68 | 1015, 1230 | Z2, 0 - 9 |
| 781001 | 10 | 5.26 | Solid | 1 x 2.59 | 0.032 | 0.81 | 0.166 | 4.22 | 1015, 1230 | Z2, 0 - 9 |
| 3081 | 10 | 5.32 | 105/30 | 105 x 0.25 | 0.032 | 0.81 | 0.184 | 4.67 | 1015, 1230 | Z1, 1 - 4 |
| 788133 | 8 | 8.61 | 133/29 | 133 x 0.29 | 0.047 | 1.19 | 0.263 | 6.68 | 1028, 1231 | Z2, 0 - 9 |
| 786133 | 6 | 13.57 | 133/27 | 133 x 0.36 | 0.063 | 1.60 | 0.336 | 8.53 | 1283, 1232 | Z2, 0 - 9 |
| 784133 | 4 | 21.55 | 133/25 | 133 x 0.45 | 0.063 | 1.60 | 0.395 | 10.03 | 1283, 1232 | Z2, 0 - 9 |
| 782665 | 2 | 33.72 | 665/30 | 665 x 0.25 | 0.063 | 1.60 | 0.461 | 11.71 | 1283, 1232 | Z2, 0 - 9 |
| 782133 | 2 | 34.45 | 133/23 | 133 x 0.57 | 0.063 | 1.60 | 0.465 | 11.81 | 1283, 1232 | Z2, 0 - 9 |
| 781259 | 1 | 41.96 | 259/25 | 259 x 0.45 | 0.082 | 2.08 | 0.540 | 13.72 | 1284, 1232 | Z2, 0 - 9 |
| 781836 | 1 | 42.39 | 836/30 | 836 x 0.25 | 0.082 | 2.08 | 0.547 | 13.89 | 1284, 1232 | Z2, 0 - 9 |
| 780001 | 1/0 | 52.98 | 1045/30 | 1045 x 0.25 | 0.082 | 2.08 | 0.592 | 15.04 | 1284, 1232 | Z2, 0 - 9 |

*Not MTW

Z1 Insulation Colors: 1 White • 2 Black • 3 Red • 4 Green • 5 Yellow • 6 Blue • 7 Brown • 8 Orange • 9 Slate • 10 Violet • 28 Green/Yellow • 29 Yellow/Green

Z2 Insulation Colors: 0 Black • 1 Brown • 2 Red • 3 Orange • 4 Yellow • 5 Green • 6 Blue • 7 Violet • 8 Slate • 9 White

*These wires also available in 500 ft (152 m) put-ups.

UL AWM 1015, 1028, 1230, 1231, 1232, 1283, 1284 VW-1
UL MTW, TW (14 to 8 AWG), THW (6 to 1/0 AWG)
CSA AWM I A/B FT1 and TEW-105

-40°C to +105°C (AWM, TEW)
 -40°C to +90°C (MTW)
 -40°C to +75°C (THW)
 -40°C to +60°C (TW)

Stranded bare copper conductor

Availability

100 ft (30.5 m)
 1000 ft (305 m)

| Part No. | Wire Size | | Stranding | | Insulation Thickness | | Nominal Diameter | | UL Style |
|---------------|-----------|-----------------|-----------|-----------|----------------------|------|------------------|-------|------------|
| | AWG | mm ² | AWG | mm | Inch | mm | Inch | mm | |
| 461816 | 18 | 0.81 | 16/30 | 16 x 0.25 | 0.032 | 0.81 | 0.111 | 2.82 | 1015, 1230 |
| 461626 | 16 | 1.32 | 26/30 | 26 x 0.25 | 0.032 | 0.81 | 0.124 | 3.15 | 1015, 1230 |
| 461419 | 14 | 2.07 | 19/0.0147 | 19 x 0.37 | 0.032 | 0.81 | 0.138 | 3.51 | 1015, 1230 |
| 461219 | 12 | 3.29 | 19/0.0185 | 19 x 0.47 | 0.032 | 0.81 | 0.157 | 3.99 | 1015, 1230 |
| 461265 | 12 | 3.29 | 65/0.010 | 65 x 0.25 | 0.031 | 0.79 | 0.153 | 3.89 | 1015, 1230 |
| 461019 | 10 | 5.26 | 19/0.0234 | 19 x 0.59 | 0.032 | 0.81 | 0.181 | 4.60 | 1015, 1230 |
| 460819 | 8 | 8.38 | 19/0.0295 | 19 x 0.75 | 0.047 | 1.19 | 0.242 | 6.15 | 1028, 1231 |
| 460619 | 6 | 13.32 | 19/0.0372 | 19 x 0.94 | 0.063 | 1.59 | 0.311 | 7.90 | 1283, 1232 |
| 460419 | 4 | 21.09 | 19/0.0469 | 19 x 1.19 | 0.063 | 1.59 | 0.360 | 9.14 | 1283, 1232 |
| 460219 | 2 | 33.63 | 19/0.0591 | 19 x 1.50 | 0.063 | 1.59 | 0.421 | 10.69 | 1283, 1232 |

Insulation Colors: White • Black • Red • Green • Yellow • Blue • Brown • Orange • Slate • Violet

600 V, PVC Wire



MIL-DTL-16878/1 (Type B) MIL-W-76 Type LW

-55°C to +105°C

Stranded or solid tinned
copper conductor

PVC insulation

Availability

100 ft (30.5 m)

1000 ft (305 m)

| Part No. | Wire Size | | Stranding | | Insulation Thickness | | Nominal Diameter | | Colors |
|----------|-----------|-----------------|-----------|-----------|----------------------|------|------------------|------|------------|
| | AWG | mm ² | AWG | mm | Inch | mm | Inch | mm | |
| 1850 | 32 | 0.03 | 7/40 | 7 x 0.08 | 0.010 | 0.25 | 0.029 | 0.74 | Z1, 1 - 6 |
| 1851* | 30 | 0.06 | 7/38 | 7 x 0.10 | 0.010 | 0.25 | 0.032 | 0.81 | Z1, 1 - 6 |
| 1852* | 28 | 0.09 | 7/36 | 7 x 0.12 | 0.010 | 0.25 | 0.035 | 0.89 | Z1, 1 - 10 |
| 1853* | 26 | 0.14 | 7/34 | 7 x 0.16 | 0.010 | 0.25 | 0.039 | 0.99 | Z1, 1 - 19 |
| 172619 | 26 | 0.15 | 19/38 | 19 x 0.10 | 0.010 | 0.25 | 0.040 | 1.02 | Z2, 0 - 9 |
| 1854* | 24 | 0.23 | 7/32 | 7 x 0.20 | 0.010 | 0.25 | 0.044 | 1.12 | Z1, 1 - 19 |
| 1854/19 | 24 | 0.24 | 19/36 | 19 x 0.13 | 0.010 | 0.25 | 0.045 | 1.14 | Z1, 1 - 19 |
| 1855 | 22 | 0.35 | 7/30 | 7 x 0.25 | 0.010 | 0.25 | 0.050 | 1.27 | Z1, 1 - 19 |
| 1855/19 | 22 | 0.38 | 19/34 | 19 x 0.16 | 0.010 | 0.25 | 0.052 | 1.32 | Z1, 1 - 19 |
| 1856* | 20 | 0.56 | 7/28 | 7 x 0.32 | 0.010 | 0.25 | 0.058 | 1.47 | Z1, 1 - 19 |
| 1856/19 | 20 | 0.62 | 19/32 | 19 x 0.20 | 0.010 | 0.25 | 0.060 | 1.52 | Z1, 1 - 19 |
| 1857 | 18 | 0.90 | 7/26 | 7 x 0.40 | 0.010 | 0.25 | 0.068 | 1.73 | Z1, 1 - 19 |
| 1857/19 | 18 | 0.96 | 19/30 | 19 x 0.25 | 0.010 | 0.25 | 0.070 | 1.78 | Z1, 1 - 19 |
| 1858/19 | 16 | 1.23 | 19/29 | 19 x 0.29 | 0.010 | 0.25 | 0.076 | 1.93 | Z1, 1 - 19 |
| 1859/19 | 14 | 1.94 | 19/27 | 19 x 0.36 | 0.010 | 0.25 | 0.091 | 2.31 | Z1, 1 - 10 |

Z1 Insulation Colors: 1 White • 2 Black • 3 Red • 4 Green • 5 Yellow • 6 Blue • 7 Brown • 8 Orange • 9 Slate • 10 Violet • 11 White/Black • 12 White/Red • 13 White/Green • 14 White/Yellow • 15 White/Blue • 16 White/Brown • 17 White/Orange • 18 White/Slate • 19 White/Violet

Z2 Insulation Colors: 0 Black • 1 Brown • 2 Red • 3 Orange • 4 Yellow • 5 Green • 6 Blue • 7 Violet • 8 Slate • 9 White

MIL-W-76 Type HW

-20°C to +80°C

Stranded tinned copper
conductor

Availability

100 ft (30.5 m)

1000 ft (305 m)

| Part No. | Wire Size | | Stranding | | Insulation Thickness | | Nominal Diameter | |
|----------|-----------|-----------------|-----------|------------|----------------------|------|------------------|------|
| | AWG | mm ² | AWG | mm | Inch | mm | Inch | mm |
| 1579 | 14 | 2.08 | 41/30 | 41 x 0.25 | 0.045 | 1.14 | 0.164 | 4.17 |
| 1651 | 12 | 3.29 | 65/30 | 65 x 0.25 | 0.045 | 1.14 | 0.183 | 4.65 |
| 1653 | 10 | 5.32 | 105/30 | 105 x 0.25 | 0.045 | 1.14 | 0.210 | 5.33 |
| 1655 | 8 | 8.61 | 133/29 | 133 x 0.28 | 0.045 | 1.14 | 0.259 | 6.58 |

Insulation Colors: White • Black • Red

600 V, PVC/Nylon Wire



UL THHN, THWN, TFN, TFFN

-40°C to +90°C

(THHN, TFN, TFFN)

-40°C to +75°C (THWN)

Stranded or solid bare
copper conductor

PVC/nylon insulation

Availability

100 ft (30.5 m)

500 ft (152 m)

1000 ft (305 m)

| Part No. | Wire Size | | Stranding | | Insulation Thickness | | Nominal Diameter | | UL Type |
|----------|-----------|-----------------|-----------|-----------|----------------------|------|------------------|------|------------|
| | AWG | mm ² | AWG | mm | Inch | mm | Inch | mm | |
| 541816 | 18 | 0.81 | 16/30 | 16 x 0.25 | 0.016 | 0.41 | 0.089 | 2.26 | TFFN |
| 541801 | 18 | 0.82 | Solid | 1 x 1.02 | 0.016 | 0.41 | 0.082 | 2.08 | TFN |
| 541626 | 16 | 1.32 | 26/30 | 26 x 0.25 | 0.016 | 0.41 | 0.102 | 2.59 | TFFN |
| 541419 | 14 | 2.07 | 19/0.0147 | 19 x 0.37 | 0.016 | 0.41 | 0.116 | 2.95 | THHN, THWN |
| 541401 | 14 | 2.08 | Solid | 1 x 1.63 | 0.016 | 0.41 | 0.106 | 2.69 | THHN, THWN |
| 541219 | 12 | 3.29 | 19/0.0185 | 19 x 0.47 | 0.016 | 0.41 | 0.135 | 3.43 | THHN, THWN |
| 541201 | 12 | 3.31 | Solid | 1 x 2.06 | 0.016 | 0.41 | 0.123 | 3.12 | THHN, THWN |
| 541019 | 10 | 5.26 | 19/0.0234 | 19 x 0.59 | 0.022 | 0.56 | 0.166 | 4.22 | THHN, THWN |
| 541001 | 10 | 5.26 | Solid | 1 x 2.59 | 0.022 | 0.56 | 0.156 | 3.96 | THHN, THWN |
| 540819 | 8 | 8.38 | 19/0.0295 | 19 x 0.75 | 0.032 | 0.81 | 0.224 | 5.69 | THHN, THWN |
| 540619 | 6 | 13.32 | 19/0.0372 | 19 x 0.94 | 0.032 | 0.81 | 0.262 | 6.65 | THHN, THWN |
| 540419 | 4 | 21.09 | 19/0.0469 | 19 x 1.19 | 0.042 | 1.07 | 0.333 | 8.46 | THHN, THWN |
| 540219 | 2 | 33.63 | 19/0.0591 | 19 x 1.50 | 0.042 | 1.07 | 0.383 | 9.73 | THHN, THWN |

Insulation Colors: White • Black • Red • Green • Yellow • Blue • Brown • Orange • Slate • Violet

1000 V, PVC Wire



MIL-W-76 Type MWP

-55°C to +90°C

Stranded or solid tinned copper conductor

PVC insulation

Availability

1000 ft (305 m)

| Part No. | Wire Size | | Stranding | | Insulation Thickness | | Nominal Diameter | |
|----------|-----------|-----------------|-----------|-----------|----------------------|------|------------------|------|
| | AWG | mm ² | AWG | mm | Inch | mm | Inch | mm |
| 302407 | 24 | 0.23 | 7/32 | 7 x 0.20 | 0.016 | 0.41 | 0.056 | 1.42 |
| 302207 | 22 | 0.35 | 7/30 | 7 x 0.25 | 0.016 | 0.41 | 0.064 | 1.63 |
| 302010 | 20 | 0.51 | 10/30 | 10 x 0.25 | 0.016 | 0.41 | 0.069 | 1.75 |
| 301816 | 18 | 0.81 | 16/30 | 16 x 0.25 | 0.016 | 0.41 | 0.079 | 2.01 |
| 301626 | 16 | 1.32 | 26/30 | 26 x 0.25 | 0.016 | 0.41 | 0.092 | 2.34 |
| 301619 | 16 | 1.23 | 19/29 | 19 x 0.29 | 0.016 | 0.41 | 0.088 | 2.24 |
| 301441 | 14 | 2.08 | 41/30 | 41 x 0.25 | 0.016 | 0.41 | 0.106 | 2.69 |

Insulation Colors: White • Black • Red • Green • Yellow • Blue • Brown • Orange • Slate • Violet

MIL-W-76 B Type MW

-40°C to +80°C

Stranded or solid tinned copper conductor

PVC insulation

Availability

100 ft (30.5 m)

1000 ft (305 m)

| Part No. | Wire Size | | Stranding | | Insulation Thickness | | Nominal Diameter | | Colors* |
|----------|-----------|-----------------|-----------|-----------|----------------------|------|------------------|------|---------|
| | AWG | mm ² | AWG | mm | Inch | mm | Inch | mm | |
| 1550 | 24 | 0.23 | 7/32 | 7 x 0.20 | 0.016 | 0.41 | 0.056 | 1.42 | 1 - 19 |
| 1561/24 | 24 | 0.20 | Solid | 1 x 0.51 | 0.016 | 0.41 | 0.052 | 1.32 | 1 - 6 |
| 1551 | 22 | 0.35 | 7/30 | 7 x 0.25 | 0.016 | 0.41 | 0.062 | 1.57 | 1 - 19 |
| 1561 | 22 | 0.32 | Solid | 1 x 0.64 | 0.016 | 0.41 | 0.057 | 1.45 | 1 - 6 |
| 1553 | 20 | 0.51 | 10/30 | 10 x 0.25 | 0.016 | 0.41 | 0.069 | 1.75 | 1 - 19 |
| 1563 | 20 | 0.52 | Solid | 1 x 0.81 | 0.016 | 0.41 | 0.064 | 1.63 | 1 - 6 |
| 1555 | 18 | 0.81 | 16/30 | 16 x 0.25 | 0.016 | 0.41 | 0.079 | 2.01 | 1 - 19 |
| 1565 | 18 | 0.82 | Solid | 1 x 1.02 | 0.016 | 0.41 | 0.072 | 1.83 | 1 - 6 |
| 1557 | 16 | 1.32 | 26/30 | 26 x 0.25 | 0.016 | 0.41 | 0.092 | 2.34 | 1 - 19 |
| 1559 | 14 | 2.08 | 41/30 | 41 x 0.25 | 0.016 | 0.41 | 0.106 | 2.69 | 1 - 10 |
| 1560 | 12 | 3.29 | 65/30 | 65 x 0.25 | 0.016 | 0.41 | 0.125 | 3.18 | 1 - 10 |

Insulation Colors: 1 White • 2 Black • 3 Red • 4 Green • 5 Yellow • 6 Blue • 7 Brown • 8 Orange • 9 Slate • 10 Violet • 11 White/Black • 12 White/Red • 13 White/Green • 14 White/Yellow • 15 White/Blue • 16 White/Brown • 17 White/Orange • 18 White/Slate • 19 White/Violet

600/150 V, Irradiated PVC Wire



Soldering Iron Resistant

MIL-DTL-16878/1 (Type B) (600 V)

UL AWM 1429 (150 V)

CSA AWM I A/B FT1 (150 V)

-55°C to +105°C (MIL)

-55°C to +80°C (AWM, CSA)

Stranded tinned copper conductor

Irradiated PVC insulation

Availability

100 ft (30.5 m)

1000 ft (305 m)

| Part No. | Wire Size | | Stranding | | Insulation Thickness | | Nominal Diameter | |
|----------|-----------|-----------------|-----------|-----------|----------------------|------|------------------|------|
| | AWG | mm ² | AWG | mm | Inch | mm | Inch | mm |
| 7053 | 26 | 0.14 | 7/34 | 7 x 0.16 | 0.010 | 0.25 | 0.039 | 0.99 |
| 7054 | 24 | 0.23 | 7/32 | 7 x 0.20 | 0.010 | 0.25 | 0.044 | 1.12 |
| 7054/19 | 24 | 0.24 | 19/36 | 19 x 0.13 | 0.010 | 0.25 | 0.045 | 1.14 |
| 7055 | 22 | 0.35 | 7/30 | 7 x 0.25 | 0.010 | 0.25 | 0.050 | 1.27 |
| 7055/19 | 22 | 0.38 | 19/34 | 19 x 0.16 | 0.010 | 0.25 | 0.052 | 1.32 |
| 7056 | 20 | 0.56 | 7/28 | 7 x 0.32 | 0.010 | 0.25 | 0.058 | 1.47 |
| 7056/19 | 20 | 0.62 | 19/32 | 19 x 0.20 | 0.010 | 0.25 | 0.060 | 1.52 |
| 7057 | 18 | 0.90 | 7/26 | 7 x 0.40 | 0.010 | 0.25 | 0.068 | 1.73 |
| 7057/19 | 18 | 0.96 | 19/30 | 19 x 0.25 | 0.010 | 0.25 | 0.070 | 1.78 |
| 7058/19 | 16 | 1.32 | 19/0.0117 | 19 x 0.30 | 0.010 | 0.25 | 0.076 | 1.93 |

Insulation Colors: White • Black • Red • Green • Yellow • Blue • Brown • Orange • Slate • Violet

1000/300 V, Irradiated PVC Wire

Soldering Iron Resistant



**MIL-DTL-16878/2 (Type C)
(1000 V)**
UL AWM 1430 (300 V)
CSA REW XLPVC FT1 (300 V)

-55°C to +105°C

Stranded tinned copper
conductor
Irradiated PVC insulation

Availability

100 ft (30.5 m)
1000 ft (305 m)

| Part No. | Wire Size | | Stranding | | Insulation Thickness | | Nominal Diameter | | Colors |
|--------------|-----------|-----------------|-----------|-----------|----------------------|------|------------------|------|------------|
| | AWG | mm ² | AWG | mm | Inch | mm | Inch | mm | |
| 7130 | 24 | 0.23 | 7/32 | 7 x 0.20 | 0.016 | 0.41 | 0.056 | 1.42 | 1 - 10, 29 |
| 7131 | 22 | 0.35 | 7/30 | 7 x 0.25 | 0.016 | 0.41 | 0.062 | 1.57 | 1 - 10 |
| 7132 | 20 | 0.56 | 7/28 | 7 x 0.32 | 0.016 | 0.41 | 0.070 | 1.78 | 1 - 10 |
| 7133 | 18 | 0.89 | 7/26 | 7 x 0.40 | 0.016 | 0.41 | 0.080 | 2.03 | 1 - 10, 29 |
| 7134 | 16 | 1.32 | 19/0.0117 | 19 x 0.30 | 0.016 | 0.41 | 0.088 | 2.24 | 1 - 10, 29 |
| 7035* | 14 | 2.07 | 19/0.0147 | 19 x 0.37 | 0.016 | 0.41 | 0.103 | 2.62 | 1 - 10, 29 |
| 7036* | 12 | 3.29 | 19/0.0185 | 19 x 0.47 | 0.016 | 0.41 | 0.122 | 3.10 | 1 - 10, 29 |

Insulation Colors: 1 White • 2 Black • 3 Red • 4 Green • 5 Yellow • 6 Blue • 7 Brown • 8 Orange • 9 Slate • 10 Violet • 29 Yellow/Green

3000/600 V, XLPE Wire



**MIL-DTL-16878/3 (Type D)
(3000 V)**
UL AWM 3271 (600 V) VW-1
CSA CL 1251 XLPE (600 V)

-55°C to +105°C (MIL)

-55°C to +125°C (UL, CSA)

Stranded tinned copper
conductor
Cross-linked polyolefin
insulation

Availability

100 ft (30.5 m)
1000 ft (305 m)

| Part No. | Wire Size | | Stranding | | Insulation Thickness | | Nominal Diameter | |
|-------------|-----------|-----------------|-----------|------------|----------------------|------|------------------|------|
| | AWG | mm ² | AWG | mm | Inch | mm | Inch | mm |
| 7044 | 18 | 0.81 | 16/30 | 16 x 0.25 | 0.032 | 0.81 | 0.111 | 2.82 |
| 7045 | 16 | 1.32 | 26/30 | 26 x 0.25 | 0.032 | 0.81 | 0.119 | 3.02 |
| 7046 | 14 | 2.08 | 41/30 | 41 x 0.25 | 0.032 | 0.81 | 0.138 | 3.51 |
| 7047 | 12 | 3.29 | 65/30 | 65 x 0.25 | 0.032 | 0.81 | 0.155 | 3.94 |
| 7048 | 10 | 5.32 | 105/30 | 105 x 0.25 | 0.032 | 0.81 | 0.184 | 4.67 |

Insulation Colors: White • Black • Red

1000/300 V, XLPE



**MIL-DTL-16878/2 (Type C)
(1000 V)
UL AWM 3266 (300 V) VW-1
CSA CL 1252 XLPE (300 V)**

-55°C to +105°C (MIL)
-55°C to +125°C (UL, CSA)

Stranded tinned copper
conductor

Cross-linked polyolefin
insulation

Availability

100 ft (30.5 m)
1000 ft (305 m)

| Part No. | Wire Size | | Stranding | | Insulation Thickness | | Nominal Diameter | |
|-------------|-----------|-----------------|-----------|-----------|----------------------|------|------------------|------|
| | AWG | mm ² | AWG | mm | Inch | mm | Inch | mm |
| 7024 | 22 | 0.38 | 19/34 | 19 x 0.16 | 0.016 | 0.41 | 0.064 | 1.63 |
| 7025 | 20 | 0.62 | 19/32 | 19 x 0.20 | 0.016 | 0.41 | 0.072 | 1.83 |
| 7026 | 18 | 0.96 | 19/30 | 19 x 0.25 | 0.016 | 0.41 | 0.080 | 2.03 |

Insulation Colors: White • Black • Red

600/150 V, XLPE

**MIL-DTL-16878/1 (Type B)
(600 V)
UL AWM 3265 (150 V) VW-1
CSA AWM I A/B FT1 (150 V)**

-55°C to +105°C (MIL)
-55°C to +125°C (UL, CSA)

Stranded tinned copper
conductor

Cross-linked polyolefin
insulation

Availability

1000 ft (305 m)

| Part No. | Wire Size | | Stranding | | Insulation Thickness | | Nominal Diameter | |
|-------------|-----------|-----------------|-----------|-----------|----------------------|------|------------------|------|
| | AWG | mm ² | AWG | mm | Inch | mm | Inch | mm |
| 7012 | 22 | 0.38 | 19/34 | 19 x 0.16 | 0.011 | 0.28 | 0.054 | 1.37 |
| 7013 | 20 | 0.62 | 19/32 | 19 x 0.20 | 0.011 | 0.28 | 0.06 | 1.52 |
| 7014 | 18 | 0.96 | 19/30 | 19 x 0.25 | 0.011 | 0.28 | 0.070 | 1.78 |

Insulation Colors: White • Black

600 V, XLPE Wire



**UL AWM 3173
UL SIS
CSA AWM I A/B FT2
CSA CL1251 XLPE**

-40°C to +125°C (AWM)
-40°C to +150°C (CSA CL)
-40°C to +90°C (SIS)

Stranded tinned copper
conductor

Cross-linked polyethylene
insulation

Availability

1000 ft (305 m)

| Part No. | Wire Size | | Stranding | | Insulation Thickness | | Nominal Diameter | |
|-----------------|-----------|-----------------|-----------|------------|----------------------|------|------------------|------|
| | AWG | mm ² | AWG | mm | Inch | mm | Inch | mm |
| 752010 | 20 | 0.51 | 10/30 | 10 x 0.25 | 0.031 | 0.79 | 0.099 | 2.51 |
| 751816 | 18 | 0.81 | 16/30 | 16 x 0.25 | 0.031 | 0.79 | 0.109 | 2.77 |
| 751626 | 16 | 1.32 | 26/30 | 26 x 0.25 | 0.031 | 0.79 | 0.122 | 3.10 |
| 751441* | 14 | 2.08 | 41/30 | 41 x 0.25 | 0.031 | 0.79 | 0.136 | 3.45 |
| 751265* | 12 | 3.29 | 65/30 | 65 x 0.25 | 0.031 | 0.79 | 0.155 | 3.94 |
| 751000* | 10 | 5.32 | 105/30 | 105 x 0.25 | 0.031 | 0.79 | 0.180 | 4.57 |
| 758133** | 8 | 8.63 | 133/29 | 133 x 0.29 | 0.047 | 1.19 | 0.263 | 6.68 |

Insulation Colors: White • Black • Red • Green • Yellow • Blue • Brown • Orange • Slate • Violet

250 V, PTFE Wire



MIL-DTL-16878/6 (Type ET) UL VW-1 NEMA HP3

-60°C to +200°C

Stranded or solid silver-plated copper conductor

PTFE insulation

Availability

100 ft (30.5 m)

1000 ft (305 m)*

*May contain multiple lengths

| Part No. | Wire Size | | Stranding | | Insulation Thickness | | Nominal Diameter | | NEMA HP3 Type | Colors |
|----------|-----------|-----------------|-----------|-----------|----------------------|------|------------------|------|---------------|--------|
| | AWG | mm ² | AWG | mm | Inch | mm | Inch | mm | | |
| 33201 | 32 | 0.03 | Solid | 1 x 0.20 | 0.006 | 0.15 | 0.019 | 0.48 | — | Z2 |
| 2840/7* | 32 | 0.03 | 7/40 | 7 x 0.08 | 0.006 | 0.15 | 0.022 | 0.56 | ETXBAB | Z1 |
| 2841/7* | 30 | 0.06 | 7/38 | 7 x 0.10 | 0.006 | 0.15 | 0.024 | 0.61 | ETXBBB | Z1 |
| 2841/1* | 30 | 0.05 | Solid | 1 x 0.25 | 0.006 | 0.15 | 0.022 | 0.56 | ETXBBA | Z1 |
| 2842/7* | 28 | 0.09 | 7/36 | 7 x 0.12 | 0.006 | 0.15 | 0.027 | 0.69 | ETXBCB | Z1 |
| 2842/19* | 28 | 0.09 | 19/40 | 19 x 0.08 | 0.006 | 0.15 | 0.027 | 0.69 | ETXBCE | Z1 |
| 2842/1* | 28 | 0.08 | Solid | 1 x 0.32 | 0.006 | 0.15 | 0.025 | 0.64 | ETXBCA | Z1 |
| 2843/7* | 26 | 0.14 | 7/34 | 7 x 0.16 | 0.006 | 0.15 | 0.031 | 0.79 | ETXBDB | Z1 |
| 2843/19* | 26 | 0.15 | 19/38 | 19 x 0.10 | 0.006 | 0.15 | 0.031 | 0.79 | ETXBDE | Z1 |
| 2843/1* | 26 | 0.13 | Solid | 1 x 0.40 | 0.006 | 0.15 | 0.028 | 0.71 | ETXBDA | Z1 |
| 2844/7* | 24 | 0.23 | 7/32 | 7 x 0.20 | 0.006 | 0.15 | 0.036 | 0.91 | ETXBEB | Z1 |
| 2844/19* | 24 | 0.24 | 19/36 | 19 x 0.13 | 0.006 | 0.15 | 0.036 | 0.91 | ETXBEE | Z1 |
| 2845/7 | 22 | 0.35 | 7/30 | 7 x 0.25 | 0.006 | 0.15 | 0.042 | 1.07 | ETXBFB | Z1 |
| 2845/19 | 22 | 0.38 | 19/34 | 19 x 0.16 | 0.005 | 0.13 | 0.042 | 1.07 | ETXBF E | Z1 |

*Not VW-1

Z1 Insulation Colors: 1 White • 2 Black • 3 Red • 4 Green • 5 Yellow • 6 Blue • 7 Brown • 8 Orange • 9 Slate • 10 Violet

Z2 Insulation Colors: 0 Black • 1 Brown • 2 Red • 3 Orange • 4 Yellow • 5 Green • 6 Blue • 7 Violet • 8 Slate • 9 White

*These wires also available in 500 ft (152 m) put-ups.

600 V, PTFE Wire

MIL-DTL-16878/4 (Type E) (600 V) UL AWM 1213* NEMA HP3

-60°C to +200°C (MIL)

-60°C to +105°C (UL)

Stranded or solid silver-plated copper conductor

PTFE insulation

Availability

100 ft (30.5 m)

1000 ft (305 m)†

†May contain multiple lengths

| Part No. | Wire Size | | Stranding | | Insulation Thickness | | Nominal Diameter | | NEMA HP3 Type |
|-----------|-----------|-----------------|-----------|-----------|----------------------|------|------------------|------|---------------|
| | AWG | mm ² | AWG | mm | Inch | mm | Inch | mm | |
| 5851 | 30 | 0.06 | 7/38 | 7 x 0.10 | 0.010 | 0.25 | 0.032 | 0.81 | EXBBB |
| 5852 | 28 | 0.09 | 7/36 | 7 x 0.13 | 0.010 | 0.25 | 0.035 | 0.89 | EXBCB |
| 5853 | 26 | 0.14 | 7/34 | 7 x 0.16 | 0.010 | 0.25 | 0.039 | 0.99 | EXBDB |
| 5853/19 | 26 | 0.15 | 19/38 | 19 x 0.10 | 0.010 | 0.25 | 0.039 | 0.99 | EXBDE |
| 2853/1 | 26 | 0.13 | Solid | 1 x 0.40 | 0.010 | 0.25 | 0.036 | 0.91 | EXBDA |
| 5854 | 24 | 0.24 | 19/36 | 19 x 0.13 | 0.010 | 0.25 | 0.044 | 1.12 | EXBEE |
| 5854/7 | 24 | 0.23 | 7/32 | 7 x 0.20 | 0.010 | 0.25 | 0.044 | 1.12 | EXBEB |
| 2854/1 | 24 | 0.20 | Solid | 1 x 0.51 | 0.010 | 0.25 | 0.040 | 1.02 | EXBEA |
| 5855 | 22 | 0.38 | 19/34 | 19 x 0.16 | 0.010 | 0.25 | 0.050 | 1.27 | EXBFE |
| 5855/7 | 22 | 0.35 | 7/30 | 7 x 0.25 | 0.010 | 0.25 | 0.050 | 1.27 | EXBFB |
| 2855/1 | 22 | 0.32 | Solid | 1 x 0.64 | 0.010 | 0.25 | 0.045 | 1.14 | EXBFA |
| 5856 | 20 | 0.62 | 19/32 | 19 x 0.20 | 0.010 | 0.25 | 0.058 | 1.47 | EXBGE |
| 5856/7 | 20 | 0.56 | 7/28 | 7 x 0.32 | 0.010 | 0.25 | 0.058 | 1.47 | EXBGB |
| 2856/1*** | 20 | 0.52 | Solid | 1 x 0.81 | 0.010 | 0.25 | 0.052 | 1.32 | EXBGA |
| 5857 | 18 | 0.96 | 19/30 | 19 x 0.25 | 0.010 | 0.25 | 0.069 | 1.75 | EXBHE |
| 2857/1*** | 18 | 0.82 | Solid | 1 x 1.02 | 0.011 | 0.27 | 0.061 | 1.55 | EXBHA |
| 5858 | 16 | 1.23 | 19/29 | 19 x 0.29 | 0.012 | 0.30 | 0.080 | 2.03 | EXBJE |
| 5859† | 14 | 1.94 | 19/27 | 19 x 0.36 | 0.012 | 0.30 | 0.095 | 2.41 | EXBKE |
| 5859/12† | 12 | 3.08 | 19/25 | 19 x 0.45 | 0.012 | 0.30 | 0.114 | 2.90 | EXBLE |
| 5859/10† | 10 | 4.74 | 37/26 | 37 x 0.40 | 0.012 | 0.30 | 0.134 | 3.40 | EXBMG |

*Voltage rating not specified.

***White, black, red only.

†Colors 1-5 only, not UL AWM 1213.

Insulation Colors: White • Black • Red • Green • Yellow • Blue • Brown • Orange • Slate • Violet

1000/300 V, PTFE Wire



MIL-DTL-16878/5 (TYPE EE)
(1000V)
UL AWM 1180 (300V)
NEMA HP3

-60°C to +200°C

Stranded or solid silver-plated
copper conductor

PTFE insulation

Availability

100 ft (30.5 m)

1000 ft (305 m)*

*May contain multiple lengths

| Part No. | Wire Size | | Stranding | | Insulation Thickness | | Nominal Diameter | | NEMA HP3 Type |
|----------|-----------|-----------------|-----------|------------|----------------------|------|------------------|------|---------------|
| | AWG | mm ² | AWG | mm | Inch | mm | Inch | mm | |
| 5874 | 24 | 0.24 | 19/36 | 19 x 0.13 | 0.015 | 0.37 | 0.054 | 1.37 | EEXBEE |
| 5875 | 22 | 0.38 | 19/34 | 19 x 0.16 | 0.014 | 0.36 | 0.060 | 1.52 | EEXBFE |
| 5876 | 20 | 0.62 | 19/32 | 19 x 0.20 | 0.014 | 0.36 | 0.068 | 1.73 | EEXBGE |
| 5877 | 18 | 0.96 | 19/30 | 19 x 0.25 | 0.015 | 0.37 | 0.079 | 2.01 | EEXBHE |
| 5878 | 16 | 1.23 | 19/29 | 19 x 0.29 | 0.016 | 0.41 | 0.089 | 2.26 | EEXBJE |
| 5879 | 14 | 1.94 | 19/27 | 19 x 0.36 | 0.017 | 0.43 | 0.106 | 2.69 | EEXBKE |
| 5879/10 | 10 | 4.74 | 37/26 | 37 x 0.40 | 0.017 | 0.43 | 0.145 | 3.68 | EEXBMG |
| 5879/12 | 12 | 3.08 | 19/25 | 19 x 0.45 | 0.017 | 0.43 | 0.125 | 3.18 | EEXBLE |
| 5879/8* | 8 | 8.61 | 133/29 | 133 x 0.29 | 0.020 | 0.51 | 0.209 | 5.31 | EEXBNL |

*Not UL AWM 1180.

Insulation Colors: White • Black • Red • Green • Yellow • Blue • Brown • Orange • Slate • Violet
Parts 5878, 5879, 5879/8, 5879/10, 5879/12: white only.

600 V, ETFE or PTFE Wire



SAE AS22759/11
(MIL-DTL-22759/11)
SAE AS22759/16
(MIL-DTL-22759/16)

-55°C to +200°C (PTFE)

-55°C to +150°C (ETFE)

Stranded silver-plated copper
conductors (SAE AS22759/11)

Stranded tinned copper
conductor (SAE AS22759/16)

ETFE or PTFE insulation

Availability

100 ft (30.5 m)

1000 ft (305 m)*

*May contain multiple lengths

PTFE, SAE AS22759/11, -55°C to +200°C, Silver-Plated Copper Conductors

| Part No. | Wire Size | | Stranding | | Insulation Thickness | | Nominal Diameter | |
|----------|-----------|-----------------|-----------|-----------|----------------------|------|------------------|------|
| | AWG | mm ² | AWG | mm | Inch | mm | Inch | mm |
| AT261938 | 26 | 0.15 | 19/38 | 19 x 0.10 | 0.010 | 0.25 | 0.038 | 0.97 |
| AT241936 | 24 | 0.24 | 19/36 | 19 x 0.13 | 0.009 | 0.23 | 0.043 | 1.09 |
| AT221934 | 22 | 0.38 | 19/34 | 19 x 0.16 | 0.009 | 0.23 | 0.049 | 1.24 |
| AT201932 | 20 | 0.62 | 19/32 | 19 x 0.20 | 0.011 | 0.28 | 0.058 | 1.47 |
| AT181930 | 18 | 0.96 | 19/30 | 19 x 0.25 | 0.010 | 0.25 | 0.068 | 1.73 |
| AT161929 | 16 | 1.23 | 19/29 | 19 x 0.29 | 0.010 | 0.25 | 0.075 | 1.90 |
| AT141927 | 14 | 1.94 | 19/27 | 19 x 0.36 | 0.011 | 0.27 | 0.090 | 2.29 |
| AT121925 | 12 | 3.08 | 19/25 | 19 x 0.45 | 0.013 | 0.32 | 0.111 | 2.82 |

ETFE, SAE AS22759/16, -55°C to +150°C, Tinned Copper Conductors

| Part No. | Wire Size | | Stranding | | Insulation Thickness | | Nominal Diameter | |
|----------|-----------|-----------------|-----------|-----------|----------------------|------|------------------|------|
| | AWG | mm ² | AWG | mm | Inch | mm | Inch | mm |
| AZ241936 | 24 | 0.24 | 19/36 | 19 x 0.13 | 0.011 | 0.27 | 0.045 | 1.14 |
| AZ221934 | 22 | 0.38 | 19/34 | 19 x 0.16 | 0.011 | 0.28 | 0.052 | 1.32 |
| AZ201932 | 20 | 0.62 | 19/32 | 19 x 0.20 | 0.011 | 0.28 | 0.060 | 1.52 |
| AZ181930 | 18 | 0.96 | 19/30 | 19 x 0.25 | 0.012 | 0.29 | 0.071 | 1.80 |
| AZ161929 | 16 | 1.23 | 19/29 | 19 x 0.29 | 0.013 | 0.33 | 0.079 | 2.01 |
| AZ141927 | 14 | 1.94 | 19/27 | 19 x 0.36 | 0.013 | 0.33 | 0.093 | 2.36 |
| AZ123728 | 12 | 2.97 | 37/28 | 37 x 0.32 | 0.014 | 0.34 | 0.114 | 2.90 |

Insulation Colors: White • Black • Red • Green • Yellow • Blue • Brown • Orange • Slate • Violet

Wire Wrap, PVDF or ETFE Wire



UL 1422, 1423, 1516, 1523 VW-1

-40°C to +125°C (PVDF)
-70°C to +150°C (ETFE)
+105°C (UL)

Silver-plated solid
copper conductors

PVDF or ETFE insulation

Availability

100 ft (30.5 m) (ETFE)
1000 ft (305 m) (PVDF or ETFE)

PVDF Insulation

| Part No. | Wire Size | | Insulation Thickness | | Nominal Diameter | | UL Style |
|----------|-----------|-----------------|----------------------|------|------------------|------|----------|
| | AWG | mm ² | Inch | mm | Inch | mm | |
| 5951 | 30 | 0.05 | 0.005 | 0.11 | 0.019 | 0.51 | 1423 |
| 5952 | 28 | 0.08 | 0.006 | 0.14 | 0.024 | 0.61 | 1422 |
| 5953 | 26 | 0.13 | 0.006 | 0.14 | 0.027 | 0.69 | 1422 |
| 5954 | 24 | 0.20 | 0.005 | 0.11 | 0.030 | 0.76 | 1423 |

ETFE Insulation

| Part No. | Wire Size | | Insulation Thickness | | Nominal Diameter | | UL Style |
|----------|-----------|-----------------|----------------------|------|------------------|------|----------|
| | AWG | mm ² | Inch | mm | Inch | mm | |
| 1805 | 30 | 0.05 | 0.005 | 0.11 | 0.020 | 0.51 | 1516 |
| 1806 | 28 | 0.08 | 0.006 | 0.14 | 0.024 | 0.61 | 1523 |
| 1807 | 26 | 0.13 | 0.006 | 0.14 | 0.027 | 0.69 | 1523 |
| 1808 | 24 | 0.20 | 0.005 | 0.11 | 0.030 | 0.76 | 1516 |

Insulation Colors: White • Black • Red • Green • Yellow • Blue • Brown • Orange • Slate • Violet

Test Lead, EPR Rubber Wire



-30°C to +90°C

See table for voltage rating

Stranded tinned
copper conductors

EPR rubber insulation

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)

| Part No. | Wire Size | | Stranding | | Insulation Thickness | | Nominal Diameter | | Breakdown Voltage (RMS) | Working Voltage (RMS) |
|----------|-----------|-----------------|-----------|-----------|----------------------|------|------------------|------|-------------------------|-----------------------|
| | AWG | mm ² | AWG | mm | Inch | mm | Inch | mm | | |
| 1632 | 20 | 0.52 | 41/36 | 41 x 0.13 | 0.040 | 1.02 | 0.118 | 3.00 | 6000 | 1500 |
| 1635 | 20 | 0.52 | 41/36 | 41 x 0.13 | 0.047 | 1.19 | 0.132 | 3.35 | 12,000 | 3000 |
| 1636 | 18 | 0.83 | 65/36 | 65 x 0.13 | 0.045 | 1.14 | 0.137 | 3.48 | 20,000 | 5000 |

Insulation Colors: Black • Red

600 V, Silicone Rubber Wire



UL AWM 3212, 3213, 3214 CSA AWM I A/B FT2

-40°C to +150°C

Stranded tinned
copper conductor

Silicone rubber insulation

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)

| Part No. | Wire Size | | Stranding | | Insulation Thickness | | Nominal Diameter | | UL AWM |
|----------|-----------|-----------------|-----------|------------|----------------------|------|------------------|-------|--------|
| | AWG | mm ² | AWG | mm | Inch | mm | Inch | mm | |
| 392207 | 22 | 0.35 | 7/30 | 7 x 0.25 | 0.047 | 1.19 | 0.124 | 3.15 | 3212 |
| 392010 | 20 | 0.51 | 10/30 | 10 x 0.25 | 0.047 | 1.19 | 0.131 | 3.33 | 3212 |
| 391816 | 18 | 0.81 | 16/30 | 16 x 0.25 | 0.047 | 1.19 | 0.141 | 3.58 | 3212 |
| 391626 | 16 | 1.32 | 26/30 | 26 x 0.25 | 0.047 | 1.19 | 0.154 | 3.91 | 3212 |
| 391441 | 14 | 2.08 | 41/30 | 41 x 0.25 | 0.047 | 1.19 | 0.168 | 4.27 | 3212 |
| 391265 | 12 | 3.29 | 65/30 | 65 x 0.25 | 0.047 | 1.19 | 0.187 | 4.75 | 3212 |
| 391000 | 10 | 5.32 | 105/30 | 105 x 0.25 | 0.047 | 1.19 | 0.212 | 5.38 | 3212 |
| 398133 | 8 | 8.61 | 133/29 | 133 x 0.29 | 0.063 | 1.60 | 0.295 | 7.49 | 3213 |
| 396133 | 6 | 13.57 | 133/27 | 133 x 0.36 | 0.063 | 1.60 | 0.339 | 8.61 | 3213 |
| 394133 | 4 | 21.55 | 133/25 | 133 x 0.45 | 0.063 | 1.60 | 0.395 | 10.03 | 3213 |
| 392259 | 2 | 33.15 | 259/26 | 259 x 0.40 | 0.063 | 1.60 | 0.460 | 11.68 | 3213 |
| 391259 | 1 | 41.96 | 259/25 | 259 x 0.45 | 0.078 | 1.98 | 0.532 | 13.51 | 3214 |

Insulation Colors: White • Black

High Voltage, Silicone Rubber Wire



UL AWM 3239

-40°C to +150°C

Stranded tinned
copper conductor

Silicone rubber insulation

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)

UL 3239

| Part No. | Wire Size | | Stranding | | Insulation Thickness | | Nominal Diameter | | Voltage |
|----------|-----------|-----------------|-----------|-----------|----------------------|------|------------------|------|---------|
| | AWG | mm ² | AWG | mm | Inch | mm | Inch | mm | |
| 392297 | 22 | 0.35 | 7/30 | 7 x 0.25 | 0.097 | 2.46 | 0.224 | 5.69 | 40 kV |
| 392275 | 22 | 0.35 | 7/30 | 7 x 0.25 | 0.075 | 1.90 | 0.180 | 4.57 | 30 kV |
| 392262 | 22 | 0.35 | 7/30 | 7 x 0.25 | 0.062 | 1.57 | 0.154 | 3.91 | 25 kV |
| 392250 | 22 | 0.35 | 7/30 | 7 x 0.25 | 0.050 | 1.27 | 0.131 | 3.33 | 20 kV |
| 392245 | 22 | 0.35 | 7/30 | 7 x 0.25 | 0.045 | 1.14 | 0.120 | 3.05 | 15 kV |
| 392240 | 22 | 0.35 | 7/30 | 7 x 0.25 | 0.040 | 1.02 | 0.11 | 2.79 | 10 kV |
| 392097 | 20 | 0.51 | 10/30 | 10 x 0.25 | 0.097 | 2.46 | 0.231 | 5.87 | 40 kV |
| 392075 | 20 | 0.51 | 10/30 | 10 x 0.25 | 0.075 | 1.90 | 0.187 | 4.75 | 30 kV |
| 392062 | 20 | 0.51 | 10/30 | 10 x 0.25 | 0.062 | 1.57 | 0.161 | 4.09 | 25 kV |
| 392050 | 20 | 0.51 | 10/30 | 10 x 0.25 | 0.050 | 1.27 | 0.137 | 3.48 | 20 kV |
| 392045 | 20 | 0.51 | 10/30 | 10 x 0.25 | 0.045 | 1.14 | 0.127 | 3.23 | 15 kV |
| 392040 | 20 | 0.51 | 10/30 | 10 x 0.25 | 0.040 | 1.02 | 0.117 | 2.97 | 10 kV |
| 391897 | 18 | 0.81 | 16/30 | 16 x 0.25 | 0.097 | 2.46 | 0.241 | 6.12 | 40 kV |
| 391875 | 18 | 0.81 | 16/30 | 16 x 0.25 | 0.075 | 1.90 | 0.197 | 5.00 | 30 kV |
| 391862 | 18 | 0.81 | 16/30 | 16 x 0.25 | 0.062 | 1.57 | 0.171 | 4.34 | 25 kV |
| 391850 | 18 | 0.81 | 16/30 | 16 x 0.25 | 0.050 | 1.27 | 0.147 | 3.73 | 20 kV |
| 391845 | 18 | 0.81 | 16/30 | 16 x 0.25 | 0.045 | 1.14 | 0.137 | 3.48 | 15 kV |
| 391840 | 18 | 0.81 | 16/30 | 16 x 0.25 | 0.040 | 1.02 | 0.127 | 3.23 | 10 kV |
| 391699 | 16 | 1.32 | 26/30 | 26 x 0.25 | 0.150 | 3.81 | 0.360 | 9.14 | 50 kV |
| 391697 | 16 | 1.32 | 26/30 | 26 x 0.25 | 0.097 | 2.46 | 0.254 | 6.45 | 40 kV |
| 391675 | 16 | 1.32 | 26/30 | 26 x 0.25 | 0.075 | 1.90 | 0.210 | 5.33 | 30 kV |
| 391662 | 16 | 1.32 | 26/30 | 26 x 0.25 | 0.062 | 1.57 | 0.184 | 4.67 | 25 kV |
| 391650 | 16 | 1.32 | 26/30 | 26 x 0.25 | 0.050 | 1.27 | 0.160 | 4.06 | 20 kV |
| 391645 | 16 | 1.32 | 26/30 | 26 x 0.25 | 0.045 | 1.14 | 0.150 | 3.81 | 15 kV |
| 391640 | 16 | 1.32 | 26/30 | 26 x 0.25 | 0.040 | 1.02 | 0.140 | 3.56 | 10 kV |
| 391499 | 14 | 2.08 | 41/30 | 41 x 0.25 | 0.150 | 3.81 | 0.374 | 9.50 | 50 kV |
| 391497 | 14 | 2.08 | 41/30 | 41 x 0.25 | 0.097 | 2.46 | 0.268 | 6.81 | 40 kV |
| 391475 | 14 | 2.08 | 41/30 | 41 x 0.25 | 0.075 | 1.90 | 0.224 | 5.69 | 30 kV |
| 391462 | 14 | 2.08 | 41/30 | 41 x 0.25 | 0.062 | 1.57 | 0.198 | 5.03 | 25 kV |
| 391450 | 14 | 2.08 | 41/30 | 41 x 0.25 | 0.050 | 1.27 | 0.174 | 4.42 | 20 kV |
| 391445 | 14 | 2.08 | 41/30 | 41 x 0.25 | 0.045 | 1.14 | 0.164 | 4.17 | 15 kV |
| 391440 | 14 | 2.08 | 41/30 | 41 x 0.25 | 0.040 | 1.02 | 0.154 | 3.91 | 10 kV |

Insulation Colors: White • Black • Red

UL AWM 3239

-40°C to +150°C

Finely stranded tinned
copper conductor

Silicone rubber insulation

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)

UL 3239

| Part No. | Wire Size | | Stranding | | Insulation Thickness | | Nominal Diameter | | Voltage |
|----------|-----------|-----------------|-----------|------------|----------------------|------|------------------|-------|---------|
| | AWG | mm ² | AWG | mm | Inch | mm | Inch | mm | |
| 391297 | 12 | 3.29 | 65/30 | 65 x 0.25 | 0.097 | 2.46 | 0.287 | 7.29 | 40 kV |
| 391275 | 12 | 3.29 | 65/30 | 65 x 0.25 | 0.075 | 1.90 | 0.243 | 6.17 | 30 kV |
| 391262 | 12 | 3.29 | 65/30 | 65 x 0.25 | 0.062 | 1.57 | 0.217 | 5.51 | 25 kV |
| 391250 | 12 | 3.29 | 65/30 | 65 x 0.25 | 0.050 | 1.27 | 0.193 | 4.90 | 20 kV |
| 391245 | 12 | 3.29 | 65/30 | 65 x 0.25 | 0.045 | 1.14 | 0.183 | 4.65 | 15 kV |
| 391099 | 10 | 5.32 | 105/30 | 105 x 0.25 | 0.150 | 3.81 | 0.418 | 10.62 | 50 kV |
| 391097 | 10 | 5.32 | 105/30 | 105 x 0.25 | 0.097 | 2.46 | 0.312 | 7.92 | 40 kV |
| 391045 | 10 | 5.32 | 105/30 | 105 x 0.25 | 0.045 | 1.14 | 0.208 | 5.28 | 15 kV |
| 391040 | 10 | 5.32 | 105/30 | 105 x 0.25 | 0.040 | 1.02 | 0.198 | 5.03 | 10 kV |
| 390897 | 8 | 8.61 | 133/29 | 133 x 0.28 | 0.097 | 2.46 | 0.363 | 9.22 | 40 kV |
| 390862* | 8 | 8.61 | 133/29 | 133 x 0.28 | 0.062 | 1.57 | 0.293 | 7.44 | 25 kV |
| 390845 | 8 | 8.61 | 133/29 | 133 x 0.28 | 0.045 | 1.14 | 0.259 | 6.58 | 15 kV |
| 390662* | 6 | 13.57 | 133/27 | 133 x 0.36 | 0.062 | 1.57 | 0.337 | 8.56 | 25 kV |
| 390645 | 6 | 13.57 | 133/27 | 133 x 0.36 | 0.045 | 1.14 | 0.303 | 7.70 | 15 kV |
| 390462* | 4 | 21.55 | 133/25 | 133 x 0.45 | 0.062 | 1.57 | 0.393 | 9.98 | 25 kV |
| 390262* | 2 | 34.45 | 259/26 | 259 x 0.40 | 0.062 | 1.57 | 0.463 | 11.76 | 25 kV |

*Not UL Recognized.

Insulation Colors: White • Black

High Voltage, Silicone Rubber Wire



UL VW-1

-40°C to +200°C

Stranded silver-plated
copper conductor

White silicone rubber insulation

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)

| Part No. | Wire Size | | Stranding | | Insulation Thickness | | Nominal Diameter | | Voltage |
|----------------|-----------|-----------------|-----------|-----------|----------------------|------|------------------|-------|---------|
| | AWG | mm ² | AWG | mm | Inch | mm | Inch | mm | |
| 39X2220 | 22 | 0.35 | 7/30 | 7 x 0.25 | 0.050 | 1.27 | 0.130 | 3.30 | 20 kV |
| 39X2215 | 22 | 0.35 | 7/30 | 7 x 0.25 | 0.040 | 1.02 | 0.110 | 2.79 | 15 kV |
| 39X2205 | 22 | 0.35 | 7/30 | 7 x 0.25 | 0.020 | 0.51 | 0.070 | 1.78 | 5 kV |
| 39X2025 | 20 | 0.62 | 19/32 | 19 x 0.20 | 0.063 | 1.60 | 0.166 | 4.22 | 25 kV |
| 39X2020 | 20 | 0.62 | 19/32 | 19 x 0.20 | 0.055 | 1.40 | 0.150 | 3.81 | 20 kV |
| 39X2015 | 20 | 0.62 | 19/32 | 19 x 0.20 | 0.040 | 1.02 | 0.120 | 3.05 | 15 kV |
| 39X1825 | 18 | 0.96 | 19/30 | 19 x 0.25 | 0.055 | 1.40 | 0.160 | 4.06 | 25 kV |
| 39X1660 | 16 | 1.32 | 26/30 | 26 x 0.25 | 0.162 | 4.11 | 0.384 | 9.75 | 60 kV |
| 39X1645 | 16 | 1.23 | 19/29 | 19 x 0.28 | 0.125 | 3.18 | 0.306 | 7.77 | 45 kV |
| 39X1635 | 16 | 1.23 | 41/32 | 41 x 0.20 | 0.105 | 2.67 | 0.269 | 6.83 | 35 kV |
| 39X1620 | 16 | 1.33 | 41/32 | 41 x 0.20 | 0.053 | 1.33 | 0.164 | 4.17 | 20 kV |
| 39X1460 | 14 | 1.94 | 19/27 | 19 x 0.36 | 0.157 | 3.99 | 0.385 | 9.78 | 60 kV |
| 39X1260 | 12 | 3.08 | 19/25 | 19 x 0.45 | 0.178 | 4.51 | 0.445 | 11.30 | 60 kV |

600 V, Mica-Glass, PTFE Wire

High-Temperature



UL AWM 5107 CSA AWM I A/B

-55°C to +538°C

-55°C to +450°C (UL, CSA)

Stranded nickel-plated
copper conductor

Mica-glass tape insulation

Tan PTFE-impregnated
fiberglass jacket

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length

| Part No. | Wire Size | | Stranding | | Insulation Thickness | | Nominal Diameter | |
|----------------|-----------|-----------------|-----------|------------|----------------------|------|------------------|-------|
| | AWG | mm ² | AWG | mm | Inch | mm | Inch | mm |
| 3112010 | 20 | 0.51 | 10/30 | 10 x 0.25 | 0.025 | 0.64 | 0.101 | 2.57 |
| 3111816 | 18 | 0.81 | 16/30 | 16 x 0.25 | 0.025 | 0.64 | 0.111 | 2.82 |
| 3111626 | 16 | 1.32 | 26/30 | 26 x 0.25 | 0.025 | 0.64 | 0.124 | 3.15 |
| 3111441 | 14 | 2.08 | 41/30 | 41 x 0.25 | 0.025 | 0.64 | 0.138 | 3.51 |
| 3111265 | 12 | 3.29 | 65/30 | 65 x 0.25 | 0.025 | 0.64 | 0.157 | 3.99 |
| 3111000 | 10 | 5.32 | 105/30 | 105 x 0.25 | 0.030 | 0.76 | 0.206 | 5.23 |
| 3118133 | 8 | 8.63 | 133/29 | 133 x 0.28 | 0.030 | 0.76 | 0.260 | 6.60 |
| 3116133 | 6 | 13.6 | 133/27 | 133 x 0.36 | 0.030 | 0.76 | 0.304 | 7.72 |
| 3114133 | 4 | 21.6 | 133/25 | 133 x 0.36 | 0.030 | 0.76 | 0.361 | 9.17 |
| 3112133 | 2 | 34.4 | 133/23 | 133 x 0.57 | 0.035 | 0.89 | 0.444 | 11.28 |

600 V, PTFE/Glass Braid Wire

High-Temperature



**UL AWM 5196
CSA AWM I A/B**

-55°C to +250°C

Stranded nickel-plated
copper conductor

White PTFE tape insulation

Double fiberglass serve

Tan PTFE-impregnated
fiberglass jacket

| Part No. | Wire Size | | Stranding | | Insulation Thickness | | Nominal Diameter | |
|----------------|-----------|-----------------|-----------|------------|----------------------|------|------------------|------|
| | AWG | mm ² | AWG | mm | Inch | mm | Inch | mm |
| 3131816 | 18 | 0.81 | 19/30 | 16 x 0.25 | 0.016 | 0.41 | 0.109 | 2.77 |
| 3131626 | 16 | 1.32 | 26/30 | 26 x 0.25 | 0.016 | 0.41 | 0.122 | 3.10 |
| 3131441 | 14 | 2.08 | 41/30 | 41 x 0.25 | 0.016 | 0.41 | 0.136 | 3.45 |
| 3131265 | 12 | 3.29 | 65/30 | 65 x 0.25 | 0.016 | 0.41 | 0.155 | 3.94 |
| 3131000 | 10 | 5.32 | 105/30 | 105 x 0.25 | 0.016 | 0.41 | 0.180 | 4.57 |
| 3138133 | 8 | 8.61 | 133/29 | 133 x 0.29 | 0.016 | 0.41 | 0.232 | 5.89 |
| 3136133 | 6 | 13.6 | 133/27 | 133 x 0.36 | 0.016 | 0.41 | 0.315 | 8.00 |

Availability

100 ft (30.5 m)

500 ft (152 m)

1000 ft (305 m)

Bulk, cut to length

600V, EPDM Welding Cable



-50°C to +105°C

Stranded bare
copper conductor

Black EPDM rubber insulation

Availability

Bulk, cut to length

| Part No. | Wire Size | | Stranding | | Insulation Thickness | | Nominal Diameter | | Current-Carrying Capacity A | Voltage Drop* V |
|-------------|-----------|-----------------|-----------|-------------|----------------------|------|------------------|-------|--------------------------------|--------------------|
| | AWG | mm ² | AWG | mm | Inch | mm | Inch | mm | | |
| 6112 | 6 | 13.5 | 266/30 | 266 x 0.25 | 0.060 | 1.52 | 0.320 | 8.13 | 75 | 3.30 |
| 6113 | 4 | 19.9 | 392/30 | 392 x 0.25 | 0.060 | 1.52 | 0.375 | 9.53 | 100 | 2.80 |
| 6115 | 2 | 32.6 | 644/30 | 644 x 0.25 | 0.060 | 1.52 | 0.440 | 11.18 | 200 | 3.60 |
| 6116 | 1 | 39.7 | 784/30 | 784 x 0.25 | 0.080 | 2.03 | 0.515 | 13.08 | 250 | 3.80 |
| 6117 | 1/0 | 52.0 | 1026/30 | 1026 x 0.25 | 0.080 | 2.03 | 0.550 | 13.97 | 300 | 3.60 |
| 6118 | 2/0 | 63.5 | 1254/30 | 1254 x 0.25 | 0.080 | 2.03 | 0.590 | 14.99 | 375 | 3.37 |
| 6119 | 3/0 | 81.8 | 1615/30 | 1615 x 0.25 | 0.080 | 2.03 | 0.660 | 16.76 | 450 | 3.40 |
| 6120 | 4/0 | 104 | 2056/30 | 2056 x 0.25 | 0.080 | 2.03 | 0.725 | 18.42 | 550 | 3.30 |

*Voltage drop per 100 ft (30.5 m) at 60°C.

1000/2000 V, XLPE, PVC

Photovoltaic Wire



**UL 4703 PV VW-1 (2000 V)
UL Sunlight Resistant**

-40°C to +90°C

Stranded tinned
copper conductor

Black cross-linked
polyethylene insulation

Black PVC jacket

| Part No. | Wire Size | | Stranding | | Insulation/Jacket Thickness | | Nominal Diameter | |
|---------------|-----------|-----------------|-----------|------------|-----------------------------|-----------|------------------|-------|
| | AWG | mm ² | AWG | mm | Inch | mm | Inch | mm |
| PV1430 | 14 | 2.08 | 41/30 | 41 x 0.25 | 0.063/0.032 | 1.60/0.81 | 0.267 | 6.78 |
| PV1230 | 12 | 3.29 | 65/30 | 65 x 0.25 | 0.063/0.032 | 1.60/0.81 | 0.286 | 7.26 |
| PV1030 | 10 | 5.32 | 105/30 | 105 x 0.25 | 0.063/0.032 | 1.60/0.81 | 0.311 | 7.90 |
| PV0830 | 8 | 8.51 | 168/30 | 168 x 0.25 | 0.078/0.032 | 1.98/0.81 | 0.390 | 9.91 |
| PV0630 | 6 | 13.5 | 266/30 | 266 x 0.25 | 0.078/0.032 | 1.98/0.81 | 0.433 | 11.00 |
| PV0430 | 4 | 21.3 | 420/30 | 420 x 0.25 | 0.078/0.032 | 1.98/0.81 | 0.491 | 12.47 |
| PV0230 | 2 | 33.7 | 665/30 | 665 x 0.25 | 0.078/0.032 | 1.98/0.81 | 0.558 | 14.17 |

Availability

100 ft (30.5 m)

1000 ft (305 m)

150/600 V, PVC

Ribbon Cable



**MIL-DTL-16878/1 (Type B)
(600 V)
UL AWM 2713 (150 V) VW-1**

-20°C to +105°C (MIL)
-20°C to +80°C (AWM)

Brown, red, orange, yellow,
green, blue, violet, slate, white,
black . . . repeats

Stranded tinned
copper conductors

Color-coded PVC insulation
bonded into a flat configuration

Availability

100 ft (30.5 m)

26 AWG (0.14 mm²)

Stranding: 7/34 (7 x 0.16 mm)
Insulation thickness: 0.010 (0.25 mm)
Cable height: 0.039 (0.99 mm)

| Part No. | Conductors | Width | |
|----------------|------------|-------|-------|
| | | Inch | mm |
| 3550 | 10 | 0.392 | 9.96 |
| 3550/14 | 14 | 0.546 | 13.87 |
| 3551 | 15 | 0.585 | 14.68 |
| 3551/16 | 16 | 0.624 | 15.85 |
| 3553 | 30 | 1.170 | 29.72 |

24 AWG (0.23 mm²)

Stranding: 7/32 (7 x 0.20 mm)
Insulation thickness: 0.010 (0.25 mm)
Cable height: 0.044 (1.12 mm)

| Part No. | Conductors | Width | |
|---------------|------------|-------|-------|
| | | Inch | mm |
| 3540/7 | 10 | 0.440 | 11.18 |
| 3541/7 | 15 | 0.660 | 16.76 |
| 3542/7 | 20 | 0.880 | 22.35 |

24 AWG (0.24 mm²)

Stranding: 19/36 (19 x 0.12 mm)
Insulation thickness: 0.010 (0.25 mm)
Cable height: 0.044 (1.12 mm)

| Part No. | Conductors | Width | |
|-------------|------------|-------|-------|
| | | Inch | mm |
| 3540 | 10 | 0.440 | 11.18 |
| 3541 | 15 | 0.660 | 16.76 |
| 3542 | 20 | 0.880 | 22.35 |
| 3543 | 30 | 1.320 | 33.53 |

22 AWG (0.35 mm²)

Stranding: 7/30 (7 x 0.25 mm)
Insulation thickness: 0.010 (0.25 mm)
Cable height: 0.050 (1.27 mm)

| Part No. | Conductors | Width | |
|---------------|------------|-------|-------|
| | | Inch | mm |
| 3530/7 | 10 | 0.500 | 12.70 |
| 3531/7 | 15 | 0.750 | 19.05 |
| 3532/7 | 20 | 1.000 | 25.40 |
| 3533/7 | 30 | 1.500 | 38.10 |

22 AWG (0.38 mm²)

Stranding: 19/34 (19 x 0.16 mm)
Insulation thickness: 0.010 (0.25 mm)
Cable height: 0.051 (1.29 mm)

| Part No. | Conductors | Width | |
|-------------|------------|-------|-------|
| | | Inch | mm |
| 3530 | 10 | 0.510 | 12.95 |
| 3531 | 15 | 0.765 | 19.43 |
| 3532 | 20 | 1.020 | 25.91 |
| 3533 | 30 | 1.530 | 38.86 |

300/1000 V, PVC

Ribbon Cable



**MIL-DTL-16878/2 (Type C)
(1000 V)**

UL AWM 2555 (300 V)

-20°C to +105°C (MIL)

-20°C to +80°C (AWM)

Brown, red, orange, yellow,
green, blue, violet, slate, white,
black . . . repeats

Stranded tinned
copper conductors

Color-coded PVC insulation
bonded into a flat configuration

Availability

100 ft (30.5 m)

22 AWG (0.35 mm²)

Stranding: 7/30 (7 x 0.25 mm)
Insulation thickness: 0.016 (0.41 mm)
Cable height: 0.065 (1.65 mm)

| Part No. | Conductors | Width | |
|-------------|------------|-------|-------|
| | | Inch | mm |
| 3505 | 5 | 0.310 | 7.87 |
| 3510 | 10 | 0.620 | 15.75 |
| 3515 | 15 | 0.930 | 23.62 |
| 3520 | 20 | 1.240 | 31.50 |

Bus Bar Wire



**CID AA-59551 Type S
ASTM B33**

Electrolytic soft-drawn
and annealed solid tin-plated
copper conductor

Availability

100 ft (30.5 m)

1000 ft (305 m)

| Part No | Wire Size | | | Diameter | |
|--------------|-----------|-------|-----------------|----------|------|
| | AWG | CMA | mm ² | Inch | mm |
| 938 | 38 | 16 | .008 | 0.004 | 0.10 |
| 936 | 36 | 25 | 0.01 | 0.005 | 0.13 |
| 934 | 34 | 40 | 0.02 | 0.006 | 0.15 |
| 932 | 32 | 64 | 0.03 | 0.008 | 0.20 |
| 299/3 | 30 | 100 | 0.05 | 0.010 | 0.25 |
| 299/2 | 28 | 159 | 0.08 | 0.013 | 0.33 |
| 299/1 | 26 | 253 | 0.12 | 0.016 | 0.41 |
| 299 | 24 | 404 | 0.20 | 0.020 | 0.51 |
| 298 | 22 | 640 | 0.32 | 0.025 | 0.64 |
| 297 | 20 | 1020 | 0.51 | 0.032 | 0.81 |
| 296 | 18 | 1620 | 0.82 | 0.040 | 1.02 |
| 295 | 16 | 2580 | 1.31 | 0.051 | 1.30 |
| 286 | 14 | 4110 | 2.08 | 0.064 | 1.63 |
| 289 | 12 | 6530 | 3.31 | 0.081 | 2.06 |
| 910 | 10 | 10380 | 5.26 | 0.102 | 2.59 |
| 908 | 8 | 16510 | 8.37 | 0.129 | 3.28 |
| 906 | 6 | 26250 | 13.3 | 0.162 | 4.11 |

Hook-Up Wire Kits



Alpha's hook-up wire kits contain an assortment of 100 ft (30.5 m) spools of hook-up wire suitable for military or UL/CSA applications. These kits have been designed for use by technicians, engineers, and designers in the R&D lab or maintenance shop. Each kit contains a stripping tool and five spools of hook-up wire in a unique, rack-mounted, transparent dispensing tube. The tube and rack system keeps hook-up wire neat, clean, and conveniently at hand.

| Part No. | Wire Type | Wire Size | | Colors | Wire Length (each order) | | Reorder No. |
|------------------|---|-----------|-----------------|--|--------------------------|--------|-------------|
| | | AWG | mm ² | | Feet | Meters | |
| HU-KIT-40 | UL AWM 1007 UL AWM 1569 CSA TR 64 | 24 | 0.23 | White Black Red Green Blue | 100 | 30.5 | 3050 |
| HU-KIT-30 | MIL-W-76B Type MW | 24 | 0.23 | White Black Red Green Blue | 100 | 30.5 | 1550 |
| HU-KIT-20 | UL AWM 1007 UL AWM 1569 CSA TR 64 | 22 | 0.36 | White Black Red Green Blue | 100 | 30.5 | 3051 |
| HU-KIT-10 | MIL-W-76B Type MW | 22 | 0.36 | White Black Red Green Blue | 100 | 30.5 | 1551 |

-40°C to +80°C (HU-KIT-10, 30)
-40°C to +105°C (HU-KIT-20, 40)

1000 V (HU-KIT-10, 30)
300 V (HU-KIT-20, 40)

Stranded tinned copper conductor
Color-coded PVC insulation

Availability

1 box

How to Order Alpha Hook-Up Wire

The following applies to our most popular hook-up wires.

1. Start with the base part number for the product.

2. Add the insulation color code. The most common choices are:

| | | | |
|-----------------|------------------------|------------------------|------------------|
| BK Black | GY Green/Yellow | SL Slate | YL Yellow |
| BL Blue | OR Orange | VI Violet | |
| BR Brown | PK Pink | WH White | |
| GR Green | RD Red | YG Yellow/Green | |

3. Add the put-up code for the desire length. The most common choices are:

| |
|--------------------|
| 005 100 ft |
| 001 1000 ft |
| 013 5000 ft |

Example:

3070 BK001 = Part No. 3070 with black insulation in a 100-foot put-up.

Note: See the wire's Product Specification for complete range of color choices. Product Specifications are available at www.alphawire.com.

The cables you trust. The service you deserve.

Every application is critical and wire failure is not an option when the safety of your equipment and personnel is paramount. Specify Alpha hook-up wire for harsh environments and crucial applications; since the integrity of your system is only as robust as the products you use.

Superior availability

Alpha offers hook-up wire from stock in most sizes and constructions, in both small and large put-ups, so you can order it when you need it. Our products are available for same-day shipment, eliminating long lead times.

Service and support, second-to-none

Selecting the correct wire for your critical application is essential to overall system reliability, performance, and safety. So we make it easy for you select the right Alpha hook-up wire for your specific application.

Our online resources include a wire and cable selection guide, technical information, full product catalog, and a distributor locator to make it easy to select and get the cable you need. Can't find what you're looking for? Design the cable to your specification, it's easy, just visit **www.alphawire.com**!

GLOBAL HEADQUARTERS
711 Lidgerwood Avenue
Elizabeth, NJ 07207-0711 USA
Toll Free: 1-800-52 ALPHA
Tel: 1-908-925-8000
Fax: 1-908-925-5411
E-mail: info@alphawire.com

EUROPE
Alpha Wire International
Saxon House
1 Downside | Sunbury-on-Thames
Middlesex | United Kingdom | TW16 6RT
Tel: 01 932 772 422
Fax: 01 932 772 433
E-mail: europe@alphawire.com

ASIA PACIFIC
Alpha Wire
Silver Center | Room 1708
North Shanxi Road 1388
Shanghai | China | 200060
Tel: +86-21-61498201/61498205
Fax: +86-21-61498001
E-mail: apac@alphawire.com



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