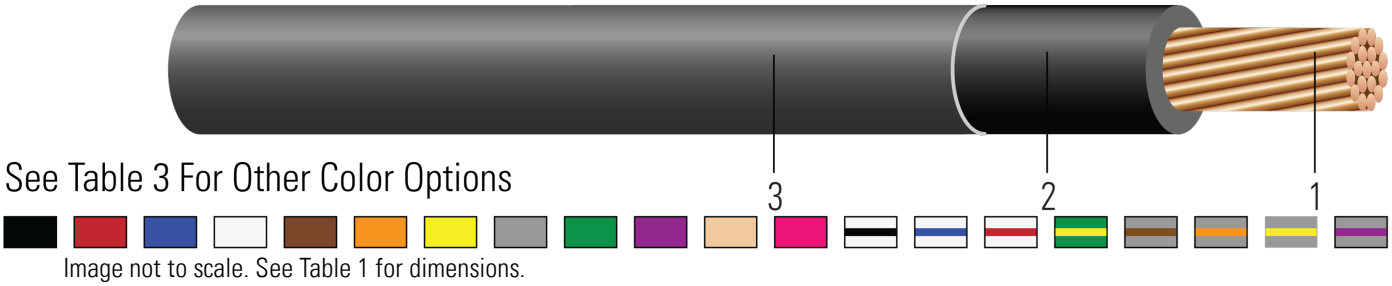
# TFN/TFFN Copper

600 Volt. Copper Conductor. PVC Insulation/Nylon Sheath. Heat, Moisture, Oil, and Gasoline Resistant II. Also Rated MTW and AWM.




See Table 3 For Other Color Options

Image not to scale. See Table 1 for dimensions.

## CONSTRUCTION:

1. **Conductor:** Solid soft drawn bare copper per ASTM B3 for TFN. Class K bunch-stranded soft drawn bare copper per ASTM B174 for TFFN.
2. **Insulation:** Heat and moisture resistant PVC
3. **Sheath:** Nylon

## APPLICATIONS AND FEATURES:

### APPLICATION

Southwire Type TFN/TFFN or MTW or AWM may be used as fixture wire, machine tool wiring, or appliance wiring material as specified in the National Electrical Code® and other applicable codes and standards. Voltage for all applications is 600 volts. Allowable temperatures are as follows:

- TFN/TFFN- Dry locations not to exceed 90°C
- AWM- When rated as appliance wiring material in dry locations, conductor temperatures not to exceed 105°C
- MTW- Wet locations or when exposed to oil at temperatures not to exceed 60°C or dry locations not to exceed 90°C (with ampacity limited to that for 75°C conductor temperature per NFPA 79)

### FEATURES

- Gasoline and Oil Resistant II
- MTW- Stranded Constructions Only
- RoHS Compliant

## SPECIFICATIONS:

- ASTM B3 Soft or Annealed Copper Wire
- ASTM B174 Standard Specification for Bunch-Stranded Copper
- UL 66 Fixture Wire
- UL 758 Standard for Appliance Wiring Material
- UL 1063 Machine Tool Wiring (MTW)

## SAMPLE PRINT LEGEND:

E30071 (UL) XX AWG CU TYPE TFFN OR MTW OR GASOLINE AND OIL RESISTANT II OR AWM 600 VOLTS --- RoHS


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## Table 1 – Weights and Measurements

| Cond. Size | Strand Count | Diameter Over Conductor | Insul. Thickness | Insulation Color | Jacket Thickness | Approx. OD | Copper Weight | Approx. Weight |
|---|---|---|---|---|---|---|---|---|
| AWG/Kcmil | No. of Strands | inch | mil | | mil | inch | lb/1000ft | lb/1000ft |
| 18 | SOLID | 0.04 | 15 | GN | 5 | 0.08 | 4 | 7 |
| 18 | 16 | 0.044 | 15 | BK/BE | 5 | 0.087 | 4 | 7 |
| 16 | SOLID | 0.051 | 15 | GN | 5 | 0.091 | 7 | 10 |
| 16 | 26 | 0.059 | 15 | GN | 5 | 0.101 | 7 | 11 |

All dimensions are nominal and subject to normal manufacturing tolerances
◊ Cable marked with this symbol is a standard stock item
TBA stock codes are estimations only and actual product may vary. Please wait until a stock code is assigned to purchase connectors and/or fittings.

## Table 2 – Electrical and Engineering Data

| Cond. Size | Min Bending Radius | DC Resistance @ 25°C | AC Resistance @ 75°C | Inductive Reactance @ 60Hz | Allowable Ampacity At 75°C | Allowable Ampacity At 90°C |
|---|---|---|---|---|---|---|
| AWG/ Kcmil | inch | Ω/1000ft | Ω/1000ft | Ω/1000ft | Amp | Amp |
| 18 | 0.3 | 6.669 | 8.277 | 0.036 | - | 14 |
| 18 | 0.3 | 6.659 | 8.265 | 0.036 | - | 14 |
| 16 | 0.4 | 4.181 | 5.189 | 0.033 | - | 18 |
| 16 | 0.4 | 4.181 | 5.189 | 0.033 | - | 18 |

***** Ampacities based on 2023 NEC Table 402.5.
***** Inductive impedance is based on non-ferrous conduit with one diameter spacing center-to-center.

## Table 3 - Stock Code Colors ( / means stripe. Blue/White: Blue with White Stripe)

| Size (Strand) | Black | Red | Blue | White | Brown | Orange | Yellow | Gray | Pink | Purple | Tan | Green |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 18 (Solid) | 269779 | 269795 | 269803 | 269787 | 269845 | 269837 | 269829 | 269878 | | 269860 | | 269811 |
| 16 (Solid) | 269886 | 269902 | 269910 | 269894 | 269951 | 269944 | 269936 | 269985 | 457241 | 269977 | | 269928 |
| 18 (16) | 270215 | 270231 | 270249 | 270223 | 270280 | 270272 | 270264 | 270314 | 270298 | 270306 | | 270256 |
| 16 (26) | 270322 | 270348 | 270355 | 270330 | 270397 | 270389 | 270371 | 270421 | 270405 | 270413 | 297531 | 270363 |

Award Winning Patent Pending Building Wire Selector


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