

Copper TFN/TFFN

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

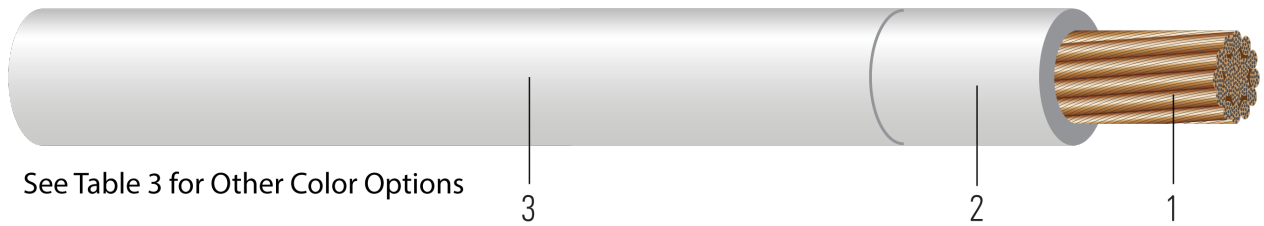


Image not to scale. See Table 1 for dimensions.

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

| Stock Number | Cond. Size | Cond. Number | Strand Count | Insul. Thickness | Jacket Thickness | Approx. OD | Copper Weight | Approx. Weight |
|--------------|------------|--------------|----------------|------------------|------------------|------------|---------------|----------------|
| | AWG/Kcmil | | No. of Strands | mil | mil | inch | lb/1000ft | lb/1000ft |
| 269886◇ | 16 | 1 | Solid | 15 | 5 | 0.090 | 7 | 10 |

All dimensions are nominal and subject to normal manufacturing tolerances

◇ Cable marked with this symbol is a standard stock item

Table 2 – Electrical and Engineering Data

| Stock Number | Cond. Size | Cond. Number | Min Bending Radius | DC Resistance @ 25°C | AC Resistance @ 75°C | Allowable Ampacity At 90°C |
|--------------|------------|--------------|--------------------|----------------------|----------------------|----------------------------|
| | AWG/Kcmil | | inch | Ω/1000ft | Ω/1000ft | Amp |
| 269886◇ | 16 | 1 | 0.4 | 4.181 | 5.037 | 8 |

† Ampacities based upon 2023 NEC Table 310.16 and do not take into account the overcurrent protection limitations in NEC 240.4(D) of 15 Amps for 14 AWG CU, 20 Amps for 12 AWG CU, and 30 Amps for 10 AWG CU (independent of the conductor temperature rating and stranding if size is present in table). Also, see NEC sections 310.15 and 110.14(C) for additional requirements.

† Ampacities have been adjusted for more than Three Current-Carrying Conductors.

* Inductive impedance is based on non-ferrous conduit with one diameter spacing.

Table 3 - Stock Code Colors and Standard Package

| Size (Strands) | Black | Red | Blue | White | Brown | Orange | Yellow | Gray | Pink | Purple |
|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | | | | | | | | | | |
| 18 (1) | 269779 | 269795 | 269803 | 269787 | 269845 | 269837 | 269829 | 269878 | | 269860 |
| 16 (1) | 269886 | 269902 | 269910 | 269894 | 269951 | 269944 | 269936 | 269985 | | 269977 |
| 18 (16) | 270215 | 270231 | 270249 | 270223 | 270280 | 270272 | 270264 | 270314 | 270298 | 270306 |
| 16 (26) | 270322 | 270348 | 270355 | 270330 | 270397 | 270389 | 270371 | 270421 | 270405 | 270413 |

| Size (Strands) | Tan | Green | Blue/White |
|----------------|--------|--------|------------|
| | | | |
| 18 (1) | | 269811 | |
| 16 (1) | | 269928 | |
| 18 (16) | 297549 | 270256 | |
| 16 (26) | 297531 | 270363 | 567169 |

