

Copper TFN/TFFN

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

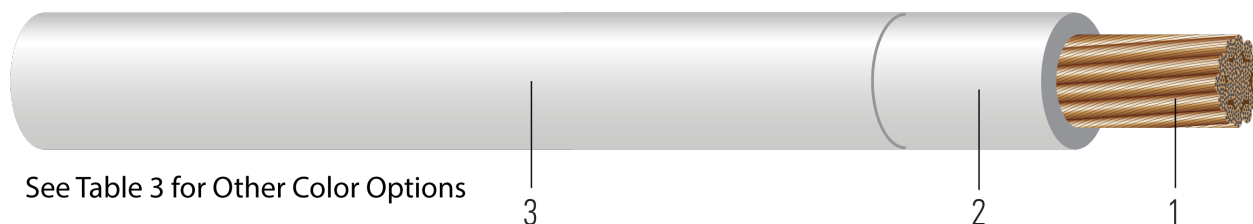


Image not to scale. See Table 1 for dimensions.

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



Table 1 – Weights and Measurements

Stock Number	Cond. Size	Strand Count	Insul. Thickness	Jacket Thickness	Approx. OD	Copper Weight	Approx. Weight
	AWG/Kcmil	No. of Strands	mil	mil	inch	lb/1000ft	lb/1000ft
269779◇	18	Solid	15	5	0.080	4	6
269886◇	16	Solid	15	5	0.090	7	10
270215◇	18	16	15	5	0.085	4	7
270322◇	16	26	15	5	0.101	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	Min Bending Radius	DC Resistance @ 25°C	AC Resistance @ 75°C	Allowable Ampacity At 90°C
	AWG/Kcmil	inch	Ω/1000ft	Ω/1000ft	Amp
269779◇	18	0.4	6.669	8.035	6
269886◇	16	0.4	4.181	5.037	8
270215◇	18	0.4	6.669	8.035	6
270322◇	16	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

