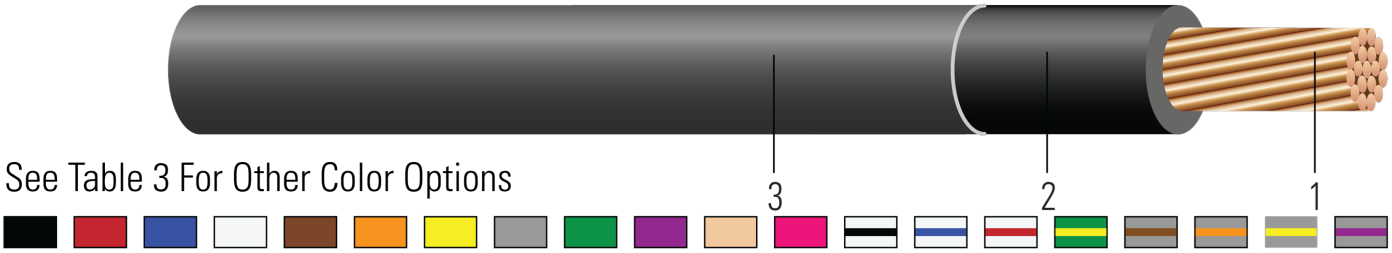
TFN/TFFN Copper

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

Copyright © 2026 Southwire Company, LLC. All Rights Reserved

Table 1 – Weights and Measurements

Cond. Size	Cond. Number	Strand Count	Diameter Over Conductor	Insul. Thickness	Insulation Color	Dia. Over Insulation	Jacket Thickness	Approx. OD	Copper Weight	Approx. Weight
AWG/ Kcmil		No. of Strands	inch	mil		inch	mil	inch	lb/1000ft	lb/1000ft
18	1	16	0.044	15	BN	0.074	5	0.085	4	7

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	Cond. Number	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	1	0.3	6.659	8.265	0.036	-	14

* 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

Copyright © 2026 Southwire Company, LLC. All Rights Reserved