



## **SIMpull® THHN/THWN Copper Flexible Class C**

600 Volts. Flexible Class C Copper Conductor. PVC Insulation/Nylon Sheath THHN/THWN. Heat, Moisture, Gasoline and Oil Resistant II. SIMpull® Technology for Easier Pulling.



Image not to scale. See Table 1 for dimensions.

### **CONSTRUCTION:**

1. **Conductor:** Flexible Class C soft drawn bare copper per ASTM B8
2. **Insulation:** Heat and moisture resistant PVC
3. **Sheath:** Nylon, SIMpull® Technology for Easier Pulling.

### **APPLICATIONS AND FEATURES:**

Southwire Flexible THHN/THWN copper conductors are primarily used in conduit for power circuits in commercial or industrial applications as specified in the National Electrical Code and other applicable codes and standards. Voltage for all applications is 600 volts. These conductors have multiple ratings depending upon the product application.

#### **Allowable temperatures are as follows:**

- THHN or T90 Nylon: Dry locations not to exceed 90°C
- THWN: Wet locations not to exceed 75°C or dry locations not to exceed 90°C or locations not to exceed 75°C when exposed to oil
- TWN75: Wet locations not to exceed 75°C

### **FEATURES**

- Sunlight resistant
- Gasoline and Oil Resistant II
- FT4- All Sizes
- CT Rated
- VW-1
- FT1
- RoHS Compliant

### **SPECIFICATIONS:**

- ASTM B8 Concentric-Lay-Stranded Copper Conductors
- UL 83 Thermoplastic Insulated Wires and Cables
- CSA C22.2 No. 75 Thermoplastic Insulated Wires and Cables
- ICEA S-95-658 (NEMA WC70) Power Cables Rated 2000 Volts or Less for the Distribution of Electrical Energy
- Federal Specification A-A-59544





- NMX-J-010-ANCE Thermoplastic insulated wires and cables
- NOM-063-SCFI Electrical Products – Conductors – Safety Requirements

**SAMPLE PRINT LEGEND:**

SOUTHWIRE SIMpull(TM) E23919 (UL) (XX AWG OR KCMIL) X,XXmm2 CU TYPE THWN OR THHN 600 VOLTS GR II PR II VW-1 OR AWM --- c(UL) T90 NYLON OR TWN75 600 VOLTS FT1 NOM-ANCE 90(D)C --- RoHS PAT www.patentSW.com

**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
3/0	37	0.471	52	BK	8	0.591	518	570
4/0	37	0.529	52	BK	8	0.649	653	710
250	61	0.575	62	BK	9	0.715	771	845
350	61	0.681	62	BK	9	0.821	1081	1167
500	61	0.814	62	BK	9	0.954	1544	1645

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**

Cond. Size	Min Bending Radius	Max Pull Tension	DC Resistance @ 25°C	AC Resistance @ 75°C	Inductive Reactance @ 60Hz	Allowable Ampacity At 60°C	Allowable Ampacity At 75°C	Allowable Ampacity At 90°C
AWG/Kcmil	inch	lb	Ω/1000ft	Ω/1000ft	Ω/1000ft	Amp	Amp	Amp
3/0	2.3	1342	0.064	0.078	0.042	165	200	225
4/0	2.5	1692	0.051	0.062	0.041	195	230	260
250	2.9	2000	0.043	0.053	0.041	215	255	290
350	3.3	2800	0.031	0.039	0.040	260	310	350
500	3.8	4000	0.022	0.029	0.039	320	380	430

\* Ampacities based upon 2023 NEC Table 310.16. Also, see NEC sections 310.15 and 110.14(C) for additional requirements.

\* Inductive Reactance is based on non-ferrous conduit with one diameter spacing center-to-center.

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