SIMpull® THHN/THWN-2 Copper Flexible Class C, Reduced Spring Back

600 Volts. Flexible Class C Copper Conductor. PVC Insulation/Nylon Sheath THHN/THWN-2. 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-2 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-2: Wet locations not to exceed 90° C
- TWN75- Wet locations not to exceed 75°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)
- AWM- Dry locations not to exceed 105°C only when rated and used as appliance wiring material

Features

- Easier pulling with SIMpull NoLube® wire jacket.
- Stationary package design to further reduce pulling tension.
- Designed to help lower potential for lifting/handling/pulling injuries.
- Patented parallel construction to reduce material handling and setup.
- Avoid broken spools and spool over-turn.

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

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- 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
250	61	0.575	62	BK	9	0.715	771	845
350	61	0.681	62	GN	9	0.821	1081	1167
500	61	0.814	62	BK	9	0.954	1544	1645
750	91	0.999	70	BK	10	1.158	2316	2457
1000	91	1.152	70	BK	10	1.312	3088	3249

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
250	2.9	2000	0.043	0.053	0.041	215	255	290
350	3.3	2800	0.031	0.039	0.04	260	310	350
500	3.8	4000	0.022	0.029	0.039	320	380	430
750	5.7	6000	0.022	0.023	0.038	400	475	535
1000	6.5	8000	0.018	0.019	0.037	455	545	615

* 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.

Award Winning Patent Pending Building Wire Selector

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