SIMpull® T90 Copper

SIMpull® THHN THWN-2 MTW / c(UL) T90 Nylon TWN75 Copper Conductor, 600V, Thermoplastic-Insulated Cable, All Sizes Rated TWN75

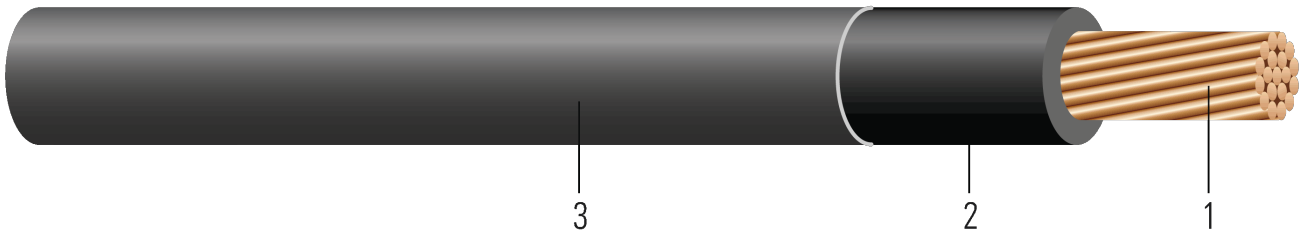

Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Solid per ASTM B3 or Combination unilay-stranded copper conductors per ASTM B787.
2. **Insulation:** All phases are insulated with Polyvinyl Chloride with Nylon Sheath
3. **Jacket:** Polyvinyl Chloride PVC jacket utilizing SIMpull® Technology.

APPLICATIONS AND FEATURES:

SIMpull® THHN, THWN-2, MTW - (UL)- Suitable for dry locations not exceeding 90°C. For Gasoline and Oil Resistant II applications not to exceed 75°C. MTW (UL) - suitable for dry locations not exceeding 90°C. For wet locations, Gasoline and Oil Resistant II applications not to exceed 60°C. T90 Nylon c(UL) - cables are primarily intended for installation in conduit (raceways) as exposed wiring in dry locations not exceeding 90°C. TWN75 c(UL) - suitable for wet or dry locations at not more than 75°C. The maximum voltage rating for all intended applications is 600 volts. Minimum installation handling temperature is limited to -25°C. Minimum operating temperature limited to -40°C. Non-SIMpull Silicone Free size 14, 12, 10.

SPECIFICATIONS:

- ASTM B3 Soft or Annealed Copper Wire
- ASTM B8 Concentric-Lay-Stranded Copper Conductors
- CSA Certified LL90458
- ASTM B787 19 Wire Combination Unilay-Stranded Copper Conductors
- Canadian Electrical Code
- CSA FT-1 Flame Test

SAMPLE PRINT LEGEND:

SOUTHWIRE SIMpull{TM} E51583 {UL} (XX AWG) XX.X{mm2} CU TYPE MTW OR THWN-2 OR THHN OR GASOLINE AND OIL RESISTANT II OR AWM 600 VOLTS VW-1 --- {CSA} T90 NYLON OR TWN75 600 VOLTS FT1 {NOM}-ANCE 90°C - (X AWG) ---RoHS PAT www.patentSW.com

Table 1 – Weights and Measurements

Cond. Size	Cond. Number	Strand Count	Diameter Over Conductor	Insul. Thickness	Jacket Thickness	Approx. OD	Copper Weight	Approx. Weight
AWG/Kcmil		No. of Strands	inch	mil	mil	inch	lb/1000ft	lb/1000ft
12	1	19	0.090	15	5	0.132	20	24

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	Cond. Number	Min Bending Radius	Max Pull Tension	DC Resistance @ 25°C	AC Resistance @ 75°C	Inductive Reactance @ 60Hz	Allowable Ampacity At 75°C	Allowable Ampacity At 90°C
AWG/ Kcmil		inch	lb	Ω/1000ft	Ω/1000ft	Ω/1000ft	Amp	Amp
12	1	0.500	52	1.662	2.002	0.054	25	30

* 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 center-to-center.
* Non-SIMpull Silicone Free sizes: 14, 12, 10.

Table 3 - Stock Code Colors

Size (Strand)	Color	Stock Number
14 (Solid)	BK	507665
14 (Solid)	RD	507699
14 (Solid)	WE	507673
14 (Solid)	YW	507723
14 (Solid)	OE	610483
14 (Solid)	BE	507707
14 (Solid)	BN	553096
14 (Solid)	GN	507681
14 (19)	BK	472001
14 (19)	YW	672659
14 (19)	WE	472019
14 (19)	RD	472027
14 (19)	OE	687517
14 (19)	BE	472043
14 (19)	GN	472035
14 (19)	BN	507715
12 (Solid)	BK	495770
12 (Solid)	OE	507632
12 (Solid)	BE	495812
12 (Solid)	GN	495804
12 (Solid)	BN	507640
12 (Solid)	WE	495788
12 (Solid)	RD	495796
12 (Solid)	YW	507657
12 (19)	BK	472050
12 (19)	WE	472068
12 (19)	YW	672675
12 (19)	BE	472092
12 (19)	RD	472076
12 (19)	GN	472084
12 (19)	OE	552660
12 (19)	BN	672667
10 (Solid)	RD	484626
10 (Solid)	BE	507756
10 (Solid)	BK	507731
10 (Solid)	GN	672683
10 (Solid)	WE	507749
10 (19)	BK	472100
10 (19)	YW	552663
10 (19)	OE	610486
10 (19)	GN	472134
10 (19)	WE	472118
10 (19)	BN	552662
10 (19)	RD	472126
10 (19)	BE	472142

Size (Strand)	Color	Stock Number
8 (19)	BK	472159
8 (19)	RD	611462
8 (19)	RD	472175
8 (19)	WE	472167
8 (19)	BE	472191
8 (19)	GN	472183
6 (19)	BK	472209
6 (19)	WE	472217
6 (19)	RD	472225
6 (19)	BE	472241
6 (19)	GN	472233
4 (19)	BK	472258
4 (19)	GN	472282
3 (19)	WE	484667
3 (19)	GN	684068
3 (19)	BK	484675
2 (19)	BK	672386
2 (19)	GN	684076
2 (19)	WE	672394
1 (19)	BK	684084
1/0 (19)	BK	471979
2/0 (19)	GN	688051
2/0 (19)	BK	672402
3/0 (19)	WE	471987
3/0 (19)	BK	471995
4/0 (19)	WE	677820