

TYPE	OIL	WET	DRY	VOLTAGE
THHN-THWN	75°C	75°C	90°C	600V
THWN-2	75°C	90°C	90°C	600V
MTW	60°C	60°C	90°C	600V
AWM 1316 to 1321	80°C	-	105°C	600V
AWM 1408 to 1414	60°C	60°C	90°C	600V <sup>T T</sup>
AWM 1452 to 1453 <sup>T</sup>	80°C	-	90°C	100V
T90 NYLON	60°C	-	90°C	600V
TWN 75	-	75°C	-	600V

<sup>T</sup> 14-10 AWG only  
<sup>T T</sup> 14-10 AWG only 2500 volts peak for electronic use only



SIZE (AWG OR KCMIL)	NUM OF STRANDS	PVC INSUL. THICK (INCHES)	NYLON JACKET THICK. (INCHES)	APPROX. OUTSIDE DIAMETER (INCHES)	AMPACITY			APPROX. WEIGHT 1000 FT. (LBS)
					THWN <sup>z</sup> 75°C	THHN <sup>z</sup> 90°C	MTW <sup>l</sup> 60°C	
14	Solid	.015	.004	.104	15	15	-	16
12	Solid	.015	.004	.121	20	20	-	24
10	19	.020	.004	.152	30	30	-	38
14	19	.015	.004	.112	15	15	15	17
12	19	.015	.004	.131	20	20	20	26
10	19	.020	.004	.164	30	30	30	40
8	19	.030	.005	.216	50	55	40	66
6	19	.030	.005	.253	65	75	55	100
4	19	.040	.006	.322	85	95	70	159
3	19	.040	.006	.350	100	110	85	191
2	19	.040	.006	.381	115	130	95	241
1	19	.050	.007	.443	130	150	110	305
1/0	19	.050	.007	.483	150	170	125	377
2/0	19	.050	.007	.528	175	195	145	468
3/0	19	.050	.007	.579	200	225	165	581
4/0	19	.050	.007	.636	230	260	195	722
250	37	.060	.008	.704	255	290	215	860
300	37	.060	.008	.758	285	320	240	1018
350	37	.060	.008	.808	310	350	260	1180
400	37	.060	.008	.855	335	380	280	1342
500	37	.060	.008	.938	380	430	320	1661
600	61	.070	.009	1.039	420	475	355	2007
700	61	.070	.009	1.143	475	535	400	2497

NOTES:

- <sup>z</sup> Allowable ampacity of not more than three conductors in raceway or cable based on ambient temperatures of 30°C (86°F), per Table 310.16 on 2008 National Electrical Code (NFPA 70 2008).
- <sup>l</sup> Allowable ampacity of Type MTW conductors 60°C wet or dry in cable or raceway per Table 12.5.1 of the Electrical Standard for Industrial Machinery, NFPA 79-2008 (ANSI).

**600 Volts. Copper Conductor  
Thermoplastic Insulation/Nylon Sheath  
Heat, Moisture, Gasoline, and Oil Resistant <sup>1</sup>  
Also Rated MTW and THWN  
Sizes 14 through 10 solid and stranded**



## APPLICATIONS

Southwire Type THHN or THWN-2\* conductors are primarily used in conduit and cable trays for services, feeders, and branch circuits in commercial or industrial applications as specified in the National Electrical Code <sup>2</sup>. When used as Type THHN, or T90 Nylon conductor is suitable for use in dry locations at temperatures not to exceed 90 °C. When used as Type THWN-2\* or TWN75, conductor is suitable for use in wet or dry locations at temperatures not to exceed 90 °C or not to exceed 75 °C when exposed to oil or coolant. When used as Type MTW, conductor is suitable for use in wet locations or when exposed to oil or coolant at temperatures not to exceed 60 °C or dry locations at temperatures not to exceed 90 °C (with ampacity limited to that for 75 °C conductor temperature per NFPA 79). Conductor temperatures not to exceed 105 °C in dry locations when rated AWM and used as appliance wiring material or when used as T90 Nylon. Voltage for all applications is 600 volts.

## SPECIFICATIONS

Southwire Type THHN or THWN-2\* or MTW (also AWM) meets or exceeds all applicable ASTM specifications, UL Standard 83, UL Standard 1063 (MTW), CSA, NOM-ANCE 90(D)C, Federal Specification A-A-59544, and requirements of the National Electrical Code (NFPA70).

- VW-1 - Sizes 14 Through 1 AWG
- CT Use - Size 1/0 AWG and Larger
- FT1 - Sizes 14 AWG through 500 kcmil
- T90 Nylon - Sizes 14 AWG through 500 kcmil
- TWN 75 - Sizes 14 AWG through 500 kcmil
- THWN-2 - 8 AWG and Larger
- AWM - 14 Through 6 AWG
- Sunlight Resistant - Colors available in sizes 2 AWG and Larger

## CONSTRUCTION

Southwire Type THHN or THWN-2\* or MTW copper conductors are annealed (soft) copper, compressed strand, insulated with a tough heat and moisture resistant polyvinyl chloride (PVC), over which a nylon (polyamide) or UL-listed equal jacket is applied. Available in black, white, red, blue, green, yellow, brown, orange, and gray. Some colors standard, some subject to economic order quantity. Conductor sizes 2 AWG and larger listed and marked sunlight resistant in all colors.

<sup>1</sup> Oil and gasoline resistant II as defined by Underwriters Laboratories.

<sup>2</sup> 2008 Edition.

\*rated -2 for 8 AWG and larger only.