



## THHN / THWN-2 / THWN / MTW Cable

Conductors

2.22



### Technical data

- THHN copper conductors are made from soft drawn copper.
- The wire is covered with strong heat and moisture resistant PVC insulation with an overall nylon jacket.
- Available in black, white, red, blue and green.

### Applications

The conductors are primarily used in conduit and cable trays for services, feeders and branch circuits in commercial or industrial applications. Voltage for all applications is 600 volts.

The conductors are designed to be installed without the application of a pulling lubricant.

These conductors have multiple ratings. Upon the product application, allowable temperatures are as follows:

- THHN or T90 Nylon- Dry locations not to exceed 90° C
- THWN-2- Wet or dry locations not to exceed 90°C or locations not to exceed 75° C when exposed to oil.
- 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.
- 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).

### Specifications

THHN / THWN-2 / THWN / MTW conductors comply with the following:

- ASTM: B3, B8 and B787 (19 wire mixed unilay stranding).
- UL Standards 83, 1063 and 1581.
- NOM-ANCE 90° C.
- Federal Specification A-A-59544.
- NEMA WC-70 construction requirements (ICEA S-95-658).
- National Electrical Code, NFPA 70.
- VW-1 - Upright flame.
- FT1 - Horizontal flame.
- MTW - Stranded constructions only.
- RoHS.

### Construction

Sizes 14, 12, and 10 AWG can be solid wire or concentric stranded, while sizes 8 through 4/0 AWG use mixed unilay stranding. For sizes 250 kCM and larger, concentric wiring is used.





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Code	Caliber AWG / kCM	Conductors No. of strands	Thickness of isolation (mm)	Thickness of nylon cover (mm)	End diameter of the wire (mm)	Capacity of current conductors		
						60 °C	75 °C	90 °C
U1N00140	14	1	0.38	0.10	2.59	20	20	25
U1N00120	12	1	0.38	0.10	3.01	25	25	30
U1N00100	10	1	0.51	0.10	3.81	30	35	40
U1N00140	14	19	0.38	0.10	2.81	20	20	25
U1N00120	12	19	0.38	0.10	3.28	25	25	30
U1N00100	10	19	0.51	0.10	4.17	30	35	40
U1N00080	8	19	0.76	0.13	5.36	40	50	55
U1N00060	6	19	0.76	0.13	6.30	55	65	75
U1N00040	4	19	1.02	0.15	8.10	70	85	95
U1N00020	2	19	1.02	0.15	9.54	95	115	130
U1N01100	1/0	19	1.27	0.18	12.00	125	150	170
U1N02100	2/0	19	1.27	0.18	15.12	145	175	195
U1N03100	3/0	19	1.27	0.18	14.38	165	200	225
U1N04100	4/0	19	1.27	0.18	15.85	195	230	260
U1N02500	250	37	1.52	0.20	18.06	215	255	290
U1N03000	300	37	1.52	0.20	19.45	240	285	320
U1N03500	350	37	1.52	0.20	20.73	260	310	350
U1N04000	400	37	1.52	0.20	21.93	280	335	380
U1N05000	500	37	1.52	0.20	24.11	320	380	430

NOTE: These are approximate data and are subject to manufacturing tolerances.

This product is manufactured in different colors. The last digit of the product code is based on the desired color:

0: Black, 1: Red, 2: Blue, 3: Green, 4: White.