

Fleximax

Copper Conductor THHN/THWN



Description

Fleximax THHN/THWN is an electrical copper conductor twisted Class C Cable; insulated with thermoplastic polyvinyl chloride (PVC) with a thermoplastic nylon outer jacket.

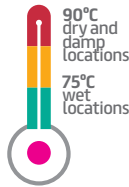
Standard Specifications

The Fleximax THHN/THWN conductors are built based on the following:

- Standards: **ASTM B3, B8, B787 and UL 83.**
- Certificates: **UL and CIDET.**

Features

- The Fleximax THHN/THWN conductor is manufactured from 14 AWG (2.08 mm²) to 10 AWG (5.26mm²) Class C conductor (19 strands).
- Designed to operate at 90°C maximum temperature in dry, damp and 75°C in wet locations at 600 V maximum voltage.
- The nylon jacket provides mechanical protection and resistance against petroleum derivatives, chemical agents and oils (GRII).
- Requires low pull tension and provides ease of installation due to the nylon jacket low friction coefficient.
- Conductors from 14 AWG (2.08mm²) to 10 AWG (5,26 mm²) are manufactured in multiple colors: black, red, white, blue and green.
- The Fleximax THHN/THWN conductor is VW-1 certified (Vertical Flame Capable). It does not propagate flame due to the PVC insulation.
- The lead-free PVC insulation is ecologically friendly.



- The conductor complies with RoHS (*Restriction of Hazardous Substances*) regulation.
- The conductor can be marked with a series of legends, according to their features and options, they are identified as follows:

Marking	Interpretation
THHN	For dry and humid locations*
THWN	For dry, humid and wet locations**
MTW	Machine tools wiring approved
AWM	Household appliances wiring approved
GRI and GRII	Hydrocarbons and oils resistant
VW-1	Vertical Flame test compliant (does not propagate flames)
Certifications #	UL E 103886 / CIDET 02647

* 90°C maximum temperature in the conductor
** 75°C maximum temperature in the conductor

Applications

- Due to its smaller external diameter, high current capacity and its ease of installation, the Fleximax THHN/THWN conductor is ideal for fixed electrical installations in residential, commercial and industrial buildings: power and lighting feeders, wiring of electrical connections and for the circuits' branches.
- Due to the Nylon protective jacket it is capable to be installed in petrochemical plants, gas stations and where oil is present. Its high insulation operating temperature (90°C) is suitable for industrial applications connecting motors, control panels, as well as in the internal wiring of machine tools and household appliances AWM/MTW (105°C).
- The conductor is flame retardant VW-1, it complies with FV2 UL test.

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Technical Information

Dimensions and nominal features

The conductor operating amperage is defined by the installation conditions and operating temperatures identified in the NEC. See TABLE 310.15(B) (16) NFPA 70 latest version

Gauge		Area		Wires	Insulation Thickness		Jacket Thickness		External Diameter		Weight	DC Max. @ 20°C Resistance
AWG/kcmil	cmil	mm ²	#	in	mm	in	mm	in	mm	kg/km	Ω/km	
14	4 110	2,08	19	0,015	0,38	0,004	0,10	0,111	2,81	23,30	8,62	
12	6 530	3,31	19	0,015	0,38	0,004	0,10	0,130	3,29	35,29	5,43	
10	10 380	5,26	19	0,020	0,51	0,004	0,10	0,164	4,17	56,18	3,41	

Note: The values given may vary according to the manufacturing tolerances

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