

THHN / THWN-2 UL 83

Building wire for electrical systems and service entrance wiring

THHN / THWN-2 UL 83 is prepared for preliminary product selection and quotation review. This product is used for building electrical systems where conductor material, insulation rating, flame performance and local wiring rules determine product selection.



VOLTAGE

600V

CONDUCTOR

Copper conductor route, confirmed by technical table

TYPICAL USE

Residential and commercial wiring

STANDARDS

UL 83; UL 1063

DATA SCOPE

1 technical table(s) included for preliminary selection

SELECTION NOTE

Confirm conductor, insulation type, voltage rating, size and local wiring rule.

For quotation review, provide cable type, standard, size, quantity and project destination.

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Application & Selection Summary

Typical applications

- Residential and commercial wiring
- panel feeders
- branch circuits
- service entrance wiring
- conduit, tray or building electrical installation routes.

Selection logic

- Confirm conductor material, voltage rating, insulation type, installation method and applicable UL, IEC or local wiring standard before selection.

Construction Overview

Item	Website-ready content
Product route	Copper or aluminum conductor with thermoplastic or cross-linked insulation according to the selected building wire type and standard.
Voltage	600V
Conductor	Copper conductor route, confirmed by technical table
Standards	UL 83; UL 1063
Confirmation	Final structure, dimensions and packing should follow selected standard, quotation review and order specification.

Readable Data Index

Data route	Size / rating range	Construction	Diameter / OD	Resistance / weight / rating
Stranded Copper THHN / THWN-2 - 600V	14 AWG - 500 kcmil	See table	See table	See table

Data boundary: these tables support website launch, quotation review and preliminary product selection. For project execution, final dimensions, electrical performance, packing and compliance documents should be confirmed against the selected project standard and order specification.

Stranded Copper THHN / THWN-2 - 600V

Reference table for preliminary selection and quotation review.

Size (AWG / kcmil)	No. of Strands	PVC Thick. (mils/mm)	Nylon Thick. (mils/mm)	Approx. OD (mils/mm)	Allowable Ampacity @ 90°C (Amps)
Stranded Copper THHN / THWN-2 - 600V					
14 AWG	7	15 / 0.38	4 / 0.10	109 / 2.77	15
12 AWG	7	15 / 0.38	4 / 0.10	128 / 3.25	20
10 AWG	7	20 / 0.51	4 / 0.10	161 / 4.09	30
8 AWG	19	30 / 0.76	5 / 0.13	213 / 5.41	55
6 AWG	19	30 / 0.76	5 / 0.13	249 / 6.32	75
4 AWG	19	40 / 1.02	6 / 0.15	317 / 8.05	95
2 AWG	19	40 / 1.02	6 / 0.15	378 / 9.60	130
1/0 AWG	19	50 / 1.27	7 / 0.18	474 / 12.04	170
2/0 AWG	19	50 / 1.27	7 / 0.18	518 / 13.16	195
4/0 AWG	19	50 / 1.27	7 / 0.18	624 / 15.85	260
500 kcmil	37	60 / 1.52	9 / 0.23	921 / 23.39	430