

8000 Series Aluminium Alloy Conductor Type THHN/THWN-2/T90 Cable



Application

Primarily used in conduit and cable trays for services, feeders, and branch circuits in commercial or industrial applications, as specified in the 2011 National Electrical Code. When used as Type THHN, this conductor is suitable for use in dry locations at temperatures not exceeding 90°C. When used as Type THWN-2, the conductor is suitable for use in wet or dry locations at temperatures not exceeding 90°C, or 75°C when exposed to oil or coolant. The voltage rating for all applications is 600 volts. This cable should be installed without the application of pulling lubricant.

Construction

The cable consists of twisted and compacted 8000 series aluminum alloy wire, insulated with heat-resistant and moisture-proof polyvinyl chloride (PVC), and sheathed in nylon (polyamide).

Technical Data

Rated Voltage	600V
Operating Temperature	The maximum permissible continuous operating temperature of the conductor shall not exceed 90°C.
Standard	THHN conductors meet or exceed UL 83, 1685, cUL CSA C22.2 No. 75, ASTM B800, B801, B836, Federal Specification AA-59544, VW-1/FT-1, and are ROHS Compliant. Sizes 1/0 and larger are rated for Tray Cable use, Gas and Oil Resistant II.

AWG kcmil	Number of Strands	Insulation Thickness (mils)	Jacket Thickness (mils)	Approx. Overall Diameter (inches)	Ampacity at 90°C
8	7	30	5	0.204	45
6	7	30	6	0.239	55
4	7	40	6	0.305	75
2	7	40	7	0.360	100
1	18	50	7	0.413	115
1/0	18	50	7	0.450	135
2/0	18	50	7	0.490	150
3/0	18	50	7	0.537	175
4/0	18	50	7	0.589	205
250	35	60	8	0.656	230
300	35	60	8	0.706	260
350	35	60	8	0.752	280
400	35	60	8	0.795	305
500	35	60	8	0.872	350
600	58	70	9	0.971	385
700	58	70	9	1.035	425
750	58	70	9	1.066	435
900	58	90	9	1.139	480
1000	58	90	9	1.218	500