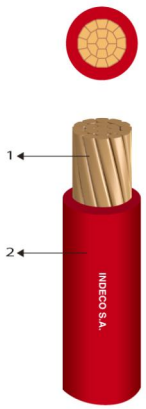
THW-90 AWG/KCMIL from 6 AWG



APPLICATION

In fixed installations, in buildings, dry or wet indoor locations, control board connections and generally in all installations requiring a current capacity greater than TW-80 cable.

STANDARDS

PRODUCT

NTP 370.250; NTP 370.252; IEC 60227-2; IEC 60228

TEST

2556

CONSTRUCTION

1. Conductor: Compact soft copper, class B.

2. Insulation: Compound polyvinyl chloride PVC.

MAIN CHARACTERISTICS

Good dielectric strength, resistance to moisture, grease, oil and heat up to serving temperature. Flame retardant VW-1.

GAUGE

From 6 AWG up to 500 kcmil.

MARKING

INDECO S.A. THW-90 - Gauge - 450/750 V - OIL RESISTANCE II - DOES NOT PROPAGATE THE FLAME VW-1 - MADE IN PERU - Year - Sequential length.

PACKING

Non returnable wooden reels.

COLOUR

To costumer request.

Conductor flexibility	Rated Voltage Uo/U (Um)	Oil resistance	Maximum operating temperature	Flame retardant
Class B	**450/750 V**	**Oil resistance II**	**90 °C**	**UL 1581 VW1**

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THW-90 AWG/KCMIL from 6 AWG

PRODUCT STANDARDS

NTP 370.250: Conductors of insulated cables.

NTP 370.252: Thermoplastic and thermoset insulated cables of rated voltages up to and including 450/750 V.

IEC 60227-2: Cables aislados con cloruro de polivinilo de tensiones hasta e inclusive 450/750 V - Métodos de ensayo.

IEC 60228: Conductors of insulated cables.

TEST STANDARDS

UL 2556: Wire and Cable Test Methods. Section 4.1: Insulation, overall covering, and jacket materials tests.

UL 2556: Wire and Cable Test Methods. Section 4.2: Physical properties (ultimate elongation and tensile strength)

UL 2556: Wire and Cable Test Methods. Section 4.2.8.4: Gasoline Resistance.

UL 2556: Wire and Cable Test Methods. Section 7.2: Heat shock.

UL 2556: Wire and Cable Test Methods. Section 7.6: Cold bend.

UL 2556: Wire and Cable Test Methods. Section 7.8: Deformation.

UL 2556: Wire and Cable Test Methods. Section 7.15: Flexibility at room temperature after aging.

UL 2556: Wire and Cable Test Methods. Section 9.4: VW1 (Vertical-Specimen) Flame Test.

CHARACTERISTICS

Construction characteristics	
Conductor material	Soft copper
Insulating material	PVC
Conductor flexibility	Class B
Conductor shape	Compact stranded
Electrical characteristics	
Rated Voltage Uo/U (Um)	450/750 V
Usage characteristics	
Oil resistance	Oil resistance II
Maximum operating temperature	90 °C
Fire safety characteristics	
Flame retardant	UL 1581 VW1

DIMENSIONAL DATA AWG

Reference	Cond.cross sect.(AWG/ KCMIL)	Total nb wires	Conductor diam. [mm]	Min. insulation thick. [mm]	Nom. outer diam. [mm]	Approx. weight [kg/km]
01	6 AWG	7	4.2	1.52	7.5	163
02	4 AWG	7	5.3	1.52	8.6	242
04	1/0 AWG	19	8.6	2.03	12.8	577
05	2/0 AWG	19	9.6	2.03	13.9	710
06	4 AWG	19	12.2	2.41	17.2	1118

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DIMENSIONAL DATA KCMIL

Reference	Conductor cross-section [kcmil]	Total nb wires	Conductor diam. [mm]	Min. insulation thick. [mm]	Nom. outer diam. [mm]	Approx. weight [kg/km]
07	250	37	13.3	2.41	18.3	1299
08	350	37	15.7	2.41	20.7	1779
09	500	37	18.7	2.79	24.5	2524

ELECTRICAL DATA AWG

Reference	Cond.cross sect.(AWG/ KCMIL)	Max. DC Resist. Cond. 20°C [Ohm/km]	Dielectric strength [kV]	Time of application Dielectric strength core to screen AC [min.]	Perm current rating in air 30°C [A]	Perm rating in duct 30°C [A]	Nominal capacitance [pF/m]
01	6 AWG	1.375	2.0	1	105	75	804.0
02	4 AWG	0.8651	2.0	1	140	95	918.0
04	1/0 AWG	0.3421	2.5	1	260	170	1118.0
05	2/0 AWG	0.2713	2.5	1	300	195	1201.0
06	4 AWG	0.1706	2.5	1	405	260	1294.0

ELECTRICAL DATA KCMIL

Reference	Conductor cross-section [kcmil]	Max. DC Resist. Cond. 20°C [Ohm/km]	Dielectric strength [kV]	Time of application Dielectric strength core to screen AC [min.]	Perm current rating in air 30°C [A]	Perm rating in duct 30°C [A]	Nominal capacitance [pF/m]
07	250	0.1444	3.0	1	455	290	1393.0
08	350	0.1031	3.0	1	570	350	1608.0
09	500	0.07222	3.5	1	700	430	1645.0

PRODUCT LIST

Nexans Ref.	Country Ref.	Name	Colour
P00014419-6	10000374	THW-90 6 AWG, R100	Black
P00014403-4	10000366	THW-90 4 AWG	Black
P00013871-2	-	THW-90 1/0 AWG	Customer Request
P00013873-2	-	THW-90 4/0 AWG	Customer Request
P00013875-2	-	THW-90 250 KCMIL	Customer Request
P00019725-2	-	THW-90 350 KCMIL	Customer Request
P00013877-2	-	THW-90 500 KCMIL	Customer Request
P00036135-1	10050481	THW-90 2/0 AWG	Customer Request

= Make to order, = In stock,

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CALCULATION OF CURRENT CONDITION L.V.; 90°C

CALCULATION OF CURRENT CONDITION

Maximum conductor temperature : 90°C.
Ambient air temperature : 30°C.

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