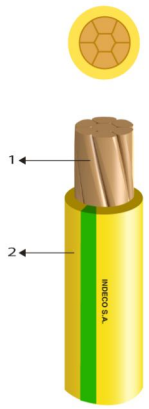
THW-90 450/750 V up to and including 10 mm2; Grounding conductor

THW-90 6 mm2

Contact
Local Sales
ventas.peru@nexans.com

Nexans Ref.: P00016362-4

Application generally in fixed installation, wet and heat resistant.



DESCRIPTION

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.

Construction:

1. Conductor: Soft copper, class 2.

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.

Cross section:

From 2.5 mm^2 and 4 mm^2.

Marking:

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

Packing:

100-meter standard coils.

Colour:

Yellow/green.

National standards

NTP-IEC 60228: Conductors of insulated cables.

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

STANDARDS

International IEC 60228

National NTP 370.252; NTP-IEC 60228; UL 2556

Lead free
Yes

Conductor flexibility
Class 2 IEC 60228

Rated Voltage Uo/U (Um)
450 / 750 V

Flame retardant
UL VW1

Oil resistance
Oil resistance II

Maximum operating temperature
90 °C

INDECO
empresa Nexans

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International standards

IEC 60228: Conductors of insulated cables.

UL 2556: Wire and Cable Test Methods. **Section 9.3:** FT1 (Vertical-Specimen) Flame Test.

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

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 7.15:** Flexibility at room temperature after aging.

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.

CHARACTERISTICS

Construction characteristics	
Conductor material	Soft copper
Insulating material	PVC
Lead free	Yes
Conductor flexibility	Class 2 IEC 60228
Conductor shape	Compressed
Insulation colour	Yellow/Green
Number of conductors	1
Dimensional characteristics	
Conductor cross-section	6 mm²
Total number of wires	7
Conductor diameter	3.0 mm
Minimum insulation thickness	0.76 mm
Nominal outer diameter	4.6 mm

Lead free
Yes

Conductor flexibility
Class 2 IEC 60228

Rated Voltage Uo/U (Um)
450 / 750 V

Flame retardant
UL VW1

Oil resistance
Oil resistance II

Maximum operating temperature
90 °C

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Dimensional characteristics	
Approximate weight	66 kg/km
Electrical characteristics	
Rated Voltage Uo/U (Um)	450 / 750 V
Dielectric strength	2.0 kV
Time of application Dielectric strength core to screen AC	1 min.
Max. DC resistance of the conductor at 20°C	3.08 Ohm/km
Nominal capacitance	1040.0 pF/m
Perm current rating in air 30°C	61 A
Perm current rating in duct 30°C	44 A
Usage characteristics	
Flame retardant	UL VW1
Oil resistance	Oil resistance II
Maximum operating temperature	90 °C
Overload maximum core temperature	130 °C
Short-circuit max. conductor temperature	250 °C

BENDING RADIUS WHEN INSTALLED IN L.V.

R=Dxf

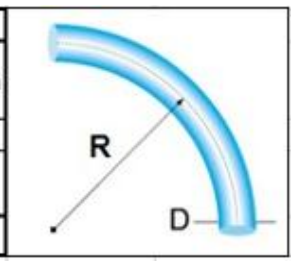
R: Bending radius when installed (mm)

D: Diameter over sheath or over insulation (when it has not sheath) (mm)

f: Multiplicative factor; given the following table:

BENDING RADIUS FACTOR LV

	Thickness of Conductor Insulation (mm)	Overall Diameter of Cable		
		< 25.4 mm	25.4 mm ≤ D ≤ 50.8 mm	> 50.8 mm
Without Armor	De 0 a 4.31	4	5	6
	Greater or equal 4.32	5	6	7
Cables with Tape Flat Armor or Wire Sheated Armor				12



Lead free
Yes

Conductor flexibility
Class 2 IEC 60228

Rated Voltage Uo/U (Um)
450 / 750 V

Flame retardant
UL VW1

Oil resistance
Oil resistance II

Maximum operating temperature
90 °C

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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.

Lead free
Yes

Conductor flexibility
Class 2 IEC 60228

Rated Voltage Uo/U (Um)
450 / 750 V

Flame retardant
UL VW1

Oil resistance
Oil resistance II

Maximum operating temperature
90 °C