TW-80 +PLUS AWG 450/750 V

TW-80 +PLUS 14 AWG, C400



Nexans Ref.: P00040611-2
Country Ref.: 10055735

CONTACT

Local Sales
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DESCRIPTION

Copper cable with Low Smoke PVC insulation and ribbed surface, whose operating temperature is 80°C. General application in fixed installations, resistant to humidity and heat. The ribbed surface offers better cable sliding during installation.

APPLICATION

Special application in those poorly ventilated residential environments in which a fire increases the possibility of survival of possible victims by having a good visibility for rescue and escape from the place due to: low emission of dense smoke. They are generally installed in pipes for fixed installations, in buildings, inside places with dry or humid environment. Not recommended for outdoor installations.

STANDARDS

PRODUCT

NTP 370.250; NTP 370.252; UL 83

TEST

IEC 61034-2; UL 2556;

CONSTRUCTION

1. Conductor: Soft copper, class B.

2. Insulation: Compound polyvinyl chloride PVC Low Smoke.

From 14 AWG up to 10 AWG in double-layer insulation.

MAIN CHARACTERISTICS

Good dielectric strength, resistance to moisture, grease and heat up to serving temperature. The insulation has the following characteristics when the cable is exposed to fire:

Low dense emission smoke: Delayed dense smoke emission.

GAUGE

From 14 AWG up to 10 AWG.

MARKING

INDECO BY NEXANS TW-80 +PLUS - Gauge(AWG) - Section(mm2) - 60227-IEC01 - 450/750 V - LOW SMOKE - MADE IN PERU.

Conductor flexibility
Class B

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

Oil resistance
Oil resistance II

Maximum operating temperature
80 °C

Slightly halogenous

Smoke density
Low IEC 61034-2

Flame retardant
IEC 60332-1-2; FT1

Fire retardant
EN IEC 60332-3-25 (cat D)

All drawings, designs, specifications, plans and particulars of weights, size and dimensions contained in the technical or commercial documentation of Nexans is indicative only and shall not be binding on Nexans or be treated as constituting a representation on the part of Nexans.

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TW-80 +PLUS 14 AWG, C400

PACKING

In 100-meter standard coils and wooden reels.

COLOUR

Black, White, Red, Blue.

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.

UL 83: Thermoplastic-Insulated Wires and Cables.

TESTING STANDARDS

IEC 61034-2: Measurement of smoke density of cables burning under defined conditions.

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

CHARACTERISTICS

Construction characteristics	
Conductor material	Soft copper
Insulating material	PVC Low Smoke
Colour	Black
Conductor flexibility	Class B
Insulation	PVC
With Green/Yellow core	No
Dimensional characteristics	
Conductor cross-section (AWG/KCMIL)	14 AWG
Total number of wires	7
Conductor diameter	1.7 mm
Minimum insulation thickness	0.8 mm
Nominal outer diameter	3.4 mm
Approximate weight	27 kg/km
Conductor cross-section	2.08 mm²
Number of cores	1
Electrical characteristics	
Rated Voltage Uo/U (Um)	450/750 V
Dielectric strength	2.5 kV
Time of application Dielectric strength core to screen AC	5 min.
Max. DC resistance of the conductor at 20°C	8.97 Ohm/km
Nominal capacitance	641.0 pF/m
Perm current rating in air 30°C	28 A
Perm current rating in duct 30°C	22 A
Usage characteristics	
Oil resistance	Oil resistance II

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Usage characteristics	
Maximum operating temperature	80 °C
Overload maximum core temperature	100 °C
Short-circuit max. conductor temperature	160 °C
Midspan	No
Reference	01
Fire safety characteristics	
Slightly halogenous	
Smoke density	Low IEC 61034-2
Flame retardant	IEC 60332-1-2; FT1
Fire retardant	EN IEC 60332-3-25 (cat D)

CALCULATION OF CURRENT CONDITION L.V.; 80°C

CALCULATION OF CURRENT CONDITION

Maximum conductor temperature : 80°C.

Ambient air temperature : 30°C.

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