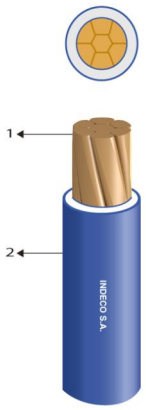
PC NH-90 450/750 V

PC NH-90 450/750 V 2,5 mm2



Nexans Ref.: P00039299-5
Country Ref.: 10053676

CONTACT

Local Sales
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APPLICATION

Special application in places with poor ventilation, where, in case of fire, the emission of corrosive, toxic gases and smoke threatens life and destroys electrical and electronic equipment. In case of fire, possible victims have higher chances of surviving because they don't breath in toxic gases and have good visibility to escape the area. They are usually installed in conduits and in indoor areas in tray. Not recommended for outdoor installations

STANDARDS

PRODUCT

NTP-IEC 60228; NTP 370.252; NTP 370.266-3-31; NTP 370.264-7; IEC 60228

TEST

IEC 60332-1-2; UL 2556; IEC 60332-3-24; IEC 60754-1; IEC 60754-2; IEC 61034-2

CONSTRUCTION

1. Conductor: Soft copper, class 2.

2. Insulation: Halogen free thermoplastic sliding material HFFR.

MAIN CHARACTERISTICS

- Fire retardant, zero dense smoke emission and halogen free.
- Easy and fast opening due to its innovative OPEN FAST die-cut packaging.
- Easy installation due to its sliding insulation, it does not need any type of lubricant for installation in pipes.
- Easy to measure due to its double sequential marking called METRIUM which allows to quickly read the installed lengths.
- Use of VIGICHECK technology product originality identification hologram.

CROSS SECTION

From 1,5 mm2 up to 6 mm2.

MARKING

INDECO BY NEXANS PC NH-90 450/750 V - Section - H07Z1-R TYPE 2 - Year - MADE IN PERU (- sequential length m. || sequential length m. +).

PACKING

From 1,5 mm2 to 6 mm2 in standard 100 meter rolls with VIGICHECK hologram.

COLOUR

Black, Red, Blue and White.

Lead free	Conductor flexibility	Rated Voltage Uo/U (Um)	Bending factor installed	Minimum operating temperature	Maximum operating temperature	Halogen free	Gases toxicity
Yes	**Class 2 IEC 60228**	**450/750 V**	**4 (xD)**	**-40 °C**	**90 °C**	**Low content Halogen IEC 60754-1**	**Zero toxicity to IEC 60684-2**

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.

PRODUCT 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.

NTP 370.266-3-31: Low voltage electrical cables. Cable with nominal voltage less than or equal to 450/750 V - **Part 3-31:** Cables with special properties before the fire. Single core cables without cover with halogen-free thermoplastic insulation and low smoke emission.

NTP 370.264-7: Insulation, covering and coating materials for low voltage electrical power cables - **Part 7:** Halogen-free thermoplastic compounds for insulation.

IEC 60228: Conductors of insulated cables.

TESTING STANDARDS

IEC 60228: Conductors of insulated cables.

IEC 60332-1-2: Test for vertical flame propagation for a single insulated wire or cable - Procedure for 1 kW pre-mixed flame.

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

IEC 60332-3-24: Test for vertical flame spread of vertically-mounted bunched wires or cables - Category C.

IEC 60684-2: Flexible insulating sleeving - **Part 2:** Methods of test.

IEC 60754-1: Test on gases evolved during combustion of materials from cables - **Part 1:** Determination of the halogen acid gas content.

IEC 60754-2: Test on gases evolved during combustion of materials from cables - **Part 2:** Determination of acidity (by pH measurement) and conductivity.

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

CHARACTERISTICS

Construction characteristics	
Conductor material	Soft copper
Insulation	Halogen free thermoplastic material sliding
Colour	Red
Lead free	Yes
Conductor flexibility	Class 2 IEC 60228
Conductor shape	
Insulating material	Halogen free thermoplastic material sliding
With Green/Yellow core	No
Dimensional characteristics	
Conductor cross-section	2.5 mm²
Total number of wires	7
Conductor diameter	1.9 mm
Minimum insulation thickness	0.8 mm
Nominal outer diameter	3.6 mm
Approximate weight	33 kg/km
Number of cores	1

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PC NH-90 450/750 V

PC NH-90 450/750 V 2,5 mm2

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	7.41 Ohm/km
Nominal capacitance	695.0 pF/m
Perm current rating in air 30°C	37 A
Perm current rating in duct 30°C	27 A
Usage characteristics	
Bending factor when installed	4 (xD)
Installation type	Indoor
Packaging	OPEN FAST - N'Roll 100 m
Metric marking	Double marking of sequential footage METRIUM
Minimum operating temperature	-40 °C
Maximum operating temperature	90 °C
Midspan	No
Overload maximum core temperature	100 °C
Short-circuit max. conductor temperature	160 °C
Fire safety characteristics	
Halogen free	Low content Halogen IEC 60754-1
Gases toxicity	Zero toxicity to IEC 60684-2
Gases corrosivity	Low Corrosivity IEC 60754-2
Smoke density	Low Smoke Emission IEC 61034-2
Flame retardant	IEC 60332-1-2; FT1
Fire retardant	EN IEC 60332-3-24 (cat C)

ENVIRONMENTAL DATA

Global Carbon Footprint	
Amount of CO_2 emitted Cradle to Gate phase (raw material collection and manufacturing), for the production of 1 km of cable.	**88.88 t eq. CO_2**
Manufacturing site	
Manufactured in Peru	**Lima**

Environmental information coming from Nexans' Product Environmental Profile (PEP Ecopassport®)

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CALCULATION OF CURRENT CONDITION L.V.; NH-90

CALCULATION OF CURRENT CONDITION

Calculation of current capacity based on NEC (National Electrical Code NFPA 70) table 310.16 and table 310.17.

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

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