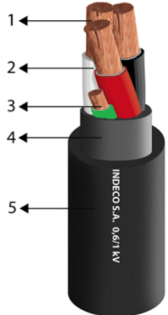


RETREFLEX N2XY 0,6/1 kV Multi-core with Insulated Grounding Conductor; METRIUM

RETREFLEX N2XY 0,6/1 kV 3x16+1x16mm²



Nexans Ref.: P00020490-18
Country Ref.: 10043995

CONTACT

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APPLICATION

General application as power cable. In low voltage distribution power networks, industrial installations, in buildings and operation stations. Indoor and outdoor areas (trays, gutters, staples). It can be installed in ducts, in dry or wet locations.

STANDARDS

PRODUCT

NTP-IEC 60228; NTP--IEC 60502-1; IEC 60228; IEC 60502-1

TEST

IEC 60332-1-2; IEC 60811-401; IEC 60811-402; IEC 60811-409; IEC 60811-501; IEC 60811-502; IEC 60811-504; IEC 60811-505; IEC 60811-506; IEC 60811-507; IEC 60811-508; IEC 60811-509; UL 2556

CONSTRUCTION

1. Conductor: Flexible soft copper, class 5.
2. Insulation: Cross linked polyethylene XLPE.
3. Insulated grounding conductor: Flexible soft copper, class 5 - XLPE
4. Filler: Flexible compound polyvinyl chloride PVC (when applicable).
5. Outer sheath: Flexible compound polyvinyl chloride PVC.

MAIN CHARACTERISTICS

Good electrical and mechanical properties. Cross-linked polyethylene insulation allows greater power capacity under any operating condition, minimum dielectric losses, high insulation resistance. The PVC outer sheath allows an adequate resistance to greases, oils, abrasion and sunlight. Flame retardant.

CROSS SECTION

From 4 mm² up to 300 mm².

MARKING

INDECO BY NEXANS RETREFLEX N2XY 0,6/1 kV - Nb. Cores x section + Grounding Cond. Section - 90°C - Year (- sequential length m. || sequential length m. +) .

PACKING

Non returnable wooden reels.



Lead free
Yes



Conductor flexibility
Class 5 IEC 60228



Rated Voltage U₀/U
(Um)
0.6/ 1 (1.2) kV



Cable flexibility
Excellent



Oil resistance
Good



Water proof
AD8



U.V resistance
UL 2556 - Sunlight
Resistance



Maximum operating
temperature
90 °C

COLOUR

Insulation: See insulation color.

Outer sheath: Black.

PRODUCT STANDARDS

NTP-IEC 60228:Conductors of insulated cables.

NTP-IEC 60502-1:Power cables with extruded insulation and their accessories for rated voltages from 1 kV and 3 kV.

IEC 60228:Conductors of insulated cables.

IEC 60502-1:Power cables with extruded insulation and their accessories for rated voltages from 1 kV and 3 kV.

TESTING STANDARDS

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

IEC 60811-401:Thermal ageing methods -Ageing in an air oven.

IEC 60811-402:Water absorption test.

IEC 60811-409:Mass loss test for thermoplastic insulations and covers.

IEC 60811-501:Test for determining the mechanical properties of insulating and sheathing.

IEC 60811-502:Shrinkage test for isolations.

IEC 60811-504:Bending test at low temperature for insulation and covers.

IEC 60811-505:Low temperature elongation test for insulations and covers.

IEC 60811-506:Impact test at low temperature for insulations and covers.

IEC 60811-507:Hot elongation test for crosslinked materials.

IEC 60811-508:High temperature pressure tests for insulations and covers.

IEC 60811-509:Tests of resistance to cracking of the insulations and covers (thermal shock).

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

CHARACTERISTICS

Construction characteristics

Conductor material	Soft copper
Insulating material	XLPE
Outer sheath	PVC Flexible
Sheath colour	Black
Lead free	Yes
Conductor flexibility	Class 5 IEC 60228
Conductor shape	Circular
Insulation	XLPE
Insulation colour	White + Black + Red + green

Construction characteristics

With Green/Yellow core	No
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Dimensional characteristics

Number of cores	3
Conductor cross-section	16 mm ²
Conductor diameter	5.3 mm
Minimum insulation thickness	0.7 mm
Ground conductor cross-section	16 mm ²
Minimum Insulation thickness of ground cable	0.7 mm
Minimum outer sheath thickness	1.2 mm
Diameter over Sheath	19.2 mm
Approximate weight	792 kg/km

Electrical characteristics

Rated Voltage U ₀ /U (U _m)	0.6/ 1 (1.2) kV
Dielectric strength	3.5 kV
Time of application Dielectric strength core to screen AC	5 min.
Max. DC resistance of the conductor at 20°C	1.21 Ohm/km
Nominal capacitance	557.0 pF/m
Perm current rating in air 30°C	100 A
Perm. Current in duct 20°C	75 A
Permissible current rating buried 20°C	84 A

Mechanical characteristics

Cable flexibility	Excellent
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Usage characteristics

Oil resistance	Good
Water proof	AD8
Metric marking	Double marking of sequential footage METRIUM
U.V resistance	UL 2556 - Sunlight Resistance
Maximum operating temperature	90 °C
Short-circuit max. conductor temperature	250 °C

Fire safety characteristics

Flame retardant	IEC 60332-1-2; FT1
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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.	1.84 t eq. CO₂
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Manufacturing site

Manufactured in Peru	Lima
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Environmental information coming from Nexans' Product Environmental Profile (PEP Ecopassport®)

CALCULATION OF CURRENT CONDITION: COPPER CONDUCTOR MULTI-CORE L.V.; 90°C

CURRENT CAPACITY VALUES AND CURRENT CALCULATION CONDITIONS BASED ON IEC 60364-5-52:2009 :

FOR TWO LOADED CONDUCTORS

TABLE B.52.3 - METHOD D1: Buried duct.

TABLE B.52.3 - METHOD D2: Buried.

TABLE B.52.12 - METHOD E2: Air.

FOR THREE LOADED CONDUCTORS

TABLE B.52.5 - METHOD D1: Buried duct in triangular formation.

TABLE B.52.5 - METHOD D2: Buried in triangular formation.

TABLE B.52.12 - METHOD E3: Air in triangular formation.

Maximum conductor temperature : 90°C.

Ambient air temperature : 30°C.

Ground temperature : 20°C.

Depth of laying up to: 0,7 m.

Thermal resistivity of soil : 2,5 K.m/W.