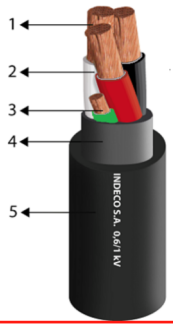
# RETFLEX N2XY 0,6/1 kV Multi-core with Insulated Grounding Conductor; METRIUM

**RETFLEX N2XY 0,6/1 kV 3x185+1x95 mm2**






**Nexans Ref.:** P00020449-17
**Country Ref.:** 10040051

## CONTACT

Local Sales
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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 RETFLEX 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 | Conductor flexibility | Rated Voltage Uo/U (Um) | Cable flexibility | Oil resistance | Water proof | U.V resistance | Maximum operating temperature |
|---|---|---|---|---|---|---|---|
| **Yes** | **Class 5 IEC 60228** | **0.6/ 1 (1.2) kV** | **Excellent** | **Good** | **AD8** | **UL 2556 - Sunlight Resistance** | **90 °C** |



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.

## 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 sheating.

**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 + yellow/green |



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

**RETFLEX N2XY 0,6/1 kV 3x185+1x95 mm2**

| | |
|---|---|
| **Construction characteristics** | |
| With Green/Yellow core | No |
| **Dimensional characteristics** | |
| Number of cores | 3 |
| Conductor cross-section | 185 mm² |
| Conductor diameter | 18.1 mm |
| Minimum insulation thickness | 1.6 mm |
| Ground conductor cross-section | 95 mm² |
| Minimum Insulation thickness of ground cable | 1.1 mm |
| Minimum outer sheath thickness | 2.0 mm |
| Diameter over Sheath | 53.6 mm |
| Approximate weight | 6984 kg/km |
| **Electrical characteristics** | |
| Rated Voltage Uo/U (Um) | 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 | 0.106 Ohm/km |
| Nominal capacitance | 807.0 pF/m |
| Perm current rating in air 30°C | 456 A |
| Perm. Current in duct 20°C | 281 A |
| Permissible current rating buried 20°C | 324 A |
| **Mechanical characteristics** | |
| Cable flexibility | Excellent |
| **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 |

## 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. | **16.03 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: 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 tringular 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.



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