Nexans U-1000 AR2V

Nexans TWISTAL® U-1000 AR2V 3x1*95 + 1*50 mm²

Nexans Ref.: 10218441
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FIRE PERFORMANCE CLASS

Eca

CONTACT

Building Products Information
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Low voltage power cable for fixed application

Nexans U-1000 AR2V and Nexans TWISTAL U-1000 AR2V cables, 100% manufactured in France (plant Jeumont 59), guarantee a minimum 35% reduction in greenhouse gas emissions compared to standard cables.
This offer is built on the guaranteed use of low-carbon aluminium and recycled plastic, as well as the use of renewable or decarbonised energies in manufacturing the cables.
Nexans provides all the environmental data for its products (PEP Ecopassport®)

STANDARDS

Product IEC 60228; IEC 60502-1; NF C32-321

APPLICATION

Nexans U-1000 AR2V aluminium cables can be used in all low voltage power installations.

Our range also offers Nexans TWISTAL®, the twisted single-core version of Nexans U-1000 AR2V, specially designed to make three-phase links with neutral. Nexans TWISTAL® simplifies your life and offers many advantages :

- Each core is spotted with a color band
- The twisted core reduces the number of drums and cables pulling
- This solution can allow to reduce the section of used cables (in parallel circuits)
- Nexans TWISTAL® is more flexible and light than a multiconductor, allowing to increase comfort and saving of time

INSTALLATION

These cables can be fixed on cable trays, within conduits or fixed to walls.
They also can be buried directly with extra mechanical protection.

DESIGN

- **Conductor**: stranded circular aluminium - class 2
- **Insulation**: XLPE - cores identification by colours
- **Laying up**(for multi conductors): with non hygroscopic filler
- **Outer sheath** : Lead free black PVC

Construction according to AD8 is possible on request

Conductor flexibility **Stranded class 2**
Lead free **Yes**
Rated Voltage Uo/U (Um) **0.6/ 1 (1.2) kV**
Cable flexibility **Rigid**
Mechanical resistance to impacts **Good**
Max.conductor temp.in service **90 °C**
Operating temp. **-25 ... 60 °C**
Weather resistance **AN3**

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CHARACTERISTICS

Construction characteristics	
Conductor material	Aluminum
Conductor flexibility	Stranded class 2
With smaller neutral conductor	Yes
Insulation	XLPE (chemical)
With Green/Yellow core	No
Outer sheath	PVC
Sheath colour	Black
Lead free	Yes
Conductor shape	Circular
Higher heating value	- MJ/km
Lay Up	Twisted single cores
Dimensional characteristics	
Number of cores	4
Conductor cross-section	95 mm²
Maximum outer diameter	46.0 mm
Approximate weight	1373 kg/km
Neutral conductor section (when smaller)	50 mm²
Electrical characteristics	
Max. DC resistance of the conductor at 20°C	0.32 Ohm/km
Permissible current rating in open air	241 A
Permissible current rating when buried	234 A
Rated Voltage Uo/U (Um)	0.6/ 1 (1.2) kV
Voltage drop, 3 conductors	0.66 V/A.km
Voltage drop, single phase	- V/A.km
Mechanical characteristics	
Cable flexibility	Rigid
Mechanical resistance to impacts	Good
Usage characteristics	
Max. conductor temperature in service	90 °C
Short-circuit max. conductor temperature	250 °C
Operating temperature, range	-25 ... 60 °C
Weather resistance	AN3
Chemical resistance	Accidental
Flame retardant	C2, NF C 32-070
Water proof	Intermittent
Minimum static operating bending radius	276 mm
Packaging	Cut to length

MARKING

N (x ou G) S mm² U-1000 AR2V NF - USE N° Usine S.Y + Sans Pb

- N = number of cores
- S = section in mm²
- G = with Green-Yellow
- x = without Green-Yellow

Without mechanical protection, those cables can be fixed on the wall, cables trays or cable laders.

In buildings with explosion risks, they will be installed with particular protection. In this case, step down of 15% current carrying capacities.

Pulling on cable conductors

Tensile stress per mm2 of globale section shall in no case exceed 3 daN for LV aluminium cable.

The maximum pulling load must never exceed 2000 daN even rule above-mentionned sometimes leads to higher values for large section of cable.