Nexans U-1000 AR2V

Nexans U-1000 AR2V 4x70

Contact
Building Products Information
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Country Ref.: 01362700
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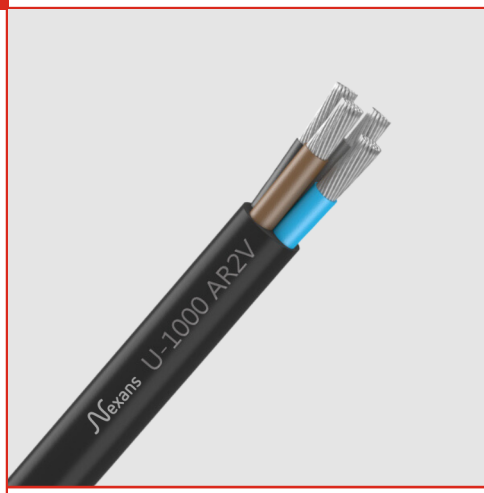
Low voltage power cable for fixed application

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®)



FIRE PERFORMANCE CLASS

Eca

STANDARDS

International IEC 60228; IEC 60502-1

National NF C32-321

DESCRIPTION

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	No
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	Multicores
Dimensional characteristics	
Number of cores	4
Conductor cross-section	70 mm²
Maximum outer diameter	37.5 mm
Approximate weight	1625 kg/km
Neutral conductor section (when smaller)	- mm²
Electrical characteristics	
Max. DC resistance of the conductor at 20°C	0.443 Ohm/km
Permissible current rating in open air	187 A
Permissible current rating when buried	197 A
Rated Voltage Uo/U (Um)	0.6/ 1 (1.2) kV
Voltage drop, 3 conductors	0.86 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	225 mm
Packaging	Cut to length

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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.