

ALSECURE® PREMIUM 300/500V

ALSECURE® PREMIUM 300/500V 5G2,5

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Nexans Ref.: 27010598

Country Ref.: 0474155

Uo/U: 300/500V

NBN 713-020

INFIT Technology

Halogen free

Fire resistant cables

DESCRIPTION

Application

ALSECURE® PREMIUM cables are designed to be used in safety systems (emergency lights, warning systems, fire fighting equipments, etc ...) in all premises open to the public (concert hall, theaters, cinemas, department stores, hospitals, schools, etc ...), in high-rises buildings, in tunnels, in industries.

ALSECURE® PREMIUM cables, with INFIT™ technology, are **fire resistant** and fire retardant, low smoke and **halogen free**. In the event of fire, emitted gazes are non corrosive and have a very low toxicity.

Installation

ALSECURE® PREMIUM cables will be installed in accordance with the current regulation. ALSECURE® PREMIUM has to be protected against direct sun lighting when used outside.

In case of laying operation between 0°C and -10°C, warm up the cables in a heated room 48 hours minimum before installation.

ALSECURE® PREMIUM cables are not designed for buried installation.

ALSECURE® PREMIUM products are designed in order to simplify installation conditions thanks to a very high sturdiness of INFIT™ insulation.

Fire performance



Halogen free
-



Conductor flexibility
Solid class 1



Rated Voltage Uo/U
(Um)
300 / 500 V



Cable flexibility
Rigid



Fire resistant
IEC 60331-21, EN
1363, NBN C
30-004 FR2 Rf2h



Fire retardant
IEC 60332-3, EN
1363, NBN C
30-004 F2, SS 424
14 75 class F4A



Smoke density
IEC 61034



Gases toxicity
Low



STANDARDS

International IEC 60228

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.

Generated 11/22/22 www.nexans.se Page 1 / 4

- Fire resistant according to :
International : IEC 60331-21, EN 50200, EN 1363 (PH 60),
Belgium : NBN C 30-004 FR2 Rf2h
- Fire retardant according to :
International : IEC 60332-3-22/23/24, EN 50266
Belgium : NBN C 30-004 F2
Sweden : SS 424 14 75 class F4A
- Flame retardant according to : NF C 32-070-1 Cat C2, IEC 60332-1,
- Low smoke : NF C 32-073, IEC 61034, EN 50268
- Halogen free : NF C 32-074, IEC 60754, EN 50267
- Low toxicity : NF C 20-454 (ITC<5)
- Low corrosivity : NF C 32-074, IEC 60754, EN 50267

Construction

Conductor

Bare copper

Insulation

High mechanical resistance INFIT™ rubber

Outer sheath

Halogen free compound

Colour: orange

Marking

ALSECURE PREMIUM "nx (or G) S" mm² 300/500V NEXANS 279 NBN C 30-004 F2
FR2 Rf2h week year

n = number of cores

S = section in mm²



Halogen free
-



Conductor flexibility
Solid class 1



Rated Voltage Uo/U
(Um)
300 / 500 V



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Rigid



Fire resistant
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30-004 F2, SS 424
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Smoke density
IEC 61034



Gases toxicity
Low

CHARACTERISTICS**Construction characteristics**

Halogen free	-
Conductor material	Bare copper
Insulation	High mechanical resistance elastomer - INFIT™ in accordance to standard NF C 32 102-1
Outer sheath	Halogen free polyolefin
Sheath colour	Orange
Conductor flexibility	Solid class 1
Higher heating value	1930 MJ/km
With Green/Yellow core	Yes
With smaller neutral conductor	No

Dimensional characteristics

Number of cores	5
Conductor cross-section	2.5 mm ²
Minimum outer diameter	11.3 mm
Maximum outer diameter	12.4 mm
Approximate weight	260 kg/km
Neutral conductor section (when smaller)	- mm ²

Electrical characteristics

Permissible current rating in open air	32 A
Rated Voltage U _o /U (U _m)	300 / 500 V
Voltage drop, 3 conductors	12.8 V/A.km
Voltage drop, single phase	- V/A.km

Mechanical characteristics

Cable flexibility	Rigid
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Usage characteristics

Fire resistant	IEC 60331-21, EN 1363, NBN C 30-004 FR2 Rf2h
Fire retardant	IEC 60332-3, EN 1363, NBN C 30-004 F2, SS 424 14 75 class F4A
Smoke density	IEC 61034
Gases toxicity	Low
Gases corrosivity	-
Operating temperature, range	-20 - 60 °C
Flame retardant	IEC 60332-1
Packaging	-
Max. conductor temperature in service	90 °C

COMPLEMENTARY CHARACTERISTICS

Core identification

(In accordance with european harmonization HD308 S2)

2x: brown - blue
3x: brown - black - grey
3G: brown - blue - green/yellow
4x: brown - black - grey - blue
4G: brown - black - grey - green/yellow
5x: black cores with printed numbers
5G: blue - brown - black - grey - green/yellow

Type approval

ISSEP : Institut Scientifique de Service Public

Current rating capacities

The data are indicated for continuous duty operation and apply to:

- Maximum conductor temperature = 90 °C
- Nominal frequency = 50 Hz
- One cable in free air (on perforated trays)
- Ambient temperature = 30 °C

Data recording from IEC 60364-5-52 or NF C 15-100

Voltage drop

The data are based on $\cos \phi = 0.8$

Minimum bending radius

$r = 6 \times \text{cable outer diameter}$