

H07RN-F TITANEX®

H07RN-F

TITANEX, the Nexans H07RN-F is a flexible cable, elastomer insulated and sheathed cable with a copper core.

DESCRIPTION

Advantages

- Very high flexibility
- Very high crush resistance
- Good resistance to chemicals, oils and vibrations

TITANEX® H07RN-F cables with EPR rubber insulation and rubber sheathing offer outstanding mechanical properties to meet your most varied requirements. No matter what the installation conditions are, whether indoors or outdoors, in cramped and hazardous environments or in the presence of oils and chemicals, TITANEX combines strength and flexibility to meet all your requirements.

For more than 50 years the TITANEX® cables have been recognized and are the guarantee of reliable installations in industrial environments (factories, construction sites, ports, ...) whether they are fixed or mobile such as for cranes, machines tool connections, motor power supplies The mechanical qualities of TITANEX cables also make them suitable for use in event environments, such as festivals, concerts and sport events, where the cable is exposed without protection and can be used several times.

- Core temperature : 90°C
- Operating Voltage : 450/750V mobile, 0.6/1kV fixed. TITANEX H07RN-F cables have been designed to limit the generation and spread of fire and smoke.
- Reaction to fire : Eca (according to EN 50575:2014+A1:2016)
- Flame retardant (IEC 60332-1, C2)

Installation

TITANEX H07RN-F cables can be laid in cable trays, on shelves, inside ducts or fixed to walls, outside with or without protection. They can also be immersed with additional mechanical protection. Additionally, they can also be installed outdoors without protection (UV resistance).

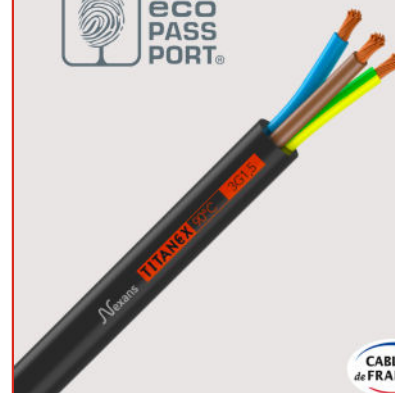
Minimum bending radius

- Dynamic : 6 to 8 x outer diameter of the cable.
- Static : 3 x outer diameter of the cable if OD < or = 12mm ; 4x if OD > 12mm.

Laying cable conductors



PEP
eco
PASS
PORT®



STANDARDS

International 2014/68/EU; EN 50525-2-21;
EU Directive 2011/65/
EU (RoHS); HD 516;
IEC 60245-4 type 66

National NF C 32-102-4



Lead free
Yes



Cable flexibility
Flexible



Chemical
resistance
Accidental



Water proof
Good



Max. conductor
temp. in service
90 °C



Oil resistance
Yes



Operating temp.
-25 ... 55 °C



RoHS compliant
Yes

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.

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When pulling the cable, all conductors must be equally stressed. The tensile force must never exceed 15N/mm² of total cross-sections.

The maximum tensile force should never exceed 1000N in total, although the above rule may lead to higher values for large cross-sections.

Marking

TITANEX 90°C n (x or G) s NEXANS CE «har» USEH07RN-F - factory n° Made in France Y Eca n°DoP



Lead free
Yes



Cable flexibility
Flexible



Chemical
resistance
Accidental



Water proof
Good



Max. conductor
temp. in service
90 °C



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CHARACTERISTICS

Construction characteristics

Conductor material	Bare copper
Insulation	Special cross-linked elastomer
Outer sheath	Special cross-linked elastomer
Sheath colour	Black
Lead free	Yes
Conductor shape	Circular

Dimensional characteristics

Average sheath thickness	- mm
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Mechanical characteristics

Cable flexibility	Flexible
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Usage characteristics

Silicone free	Yes
Chemical resistance	Accidental
Water proof	Good
Length	- m
Max. conductor temperature in service	90 °C
Oil resistance	Yes
Operating temperature, range	-25 ... 55 °C
RoHS compliant	Yes
Short-circuit max. conductor temperature	250 °C

TWO CORES

Green/ Yellow core	Cross section [mm²]	Perm. current rating open air [A]	Voltage drop, single phase [V/A.km]	Av. insul. thickness [mm]	Min. outer diam. [mm]	Max. outer diam. [mm]	Approx. weight [kg/km]
No	1.5	26	27.0	0.8	8.5	11.0	111
No	4	49	10.1	1.0	11.8	15.1	238

THREE CORES

Green/ Yellow core	Cross section [mm²]	Perm. current rating open air [A]	Voltage drop, single phase [V/A.km]	Av. insul. thickness [mm]	Min. outer diam. [mm]	Max. outer diam. [mm]	Approx. weight [kg/km]
Yes	1	20	39.4	0.8	8.3	10.7	117
Yes	1.5	26	27.0	0.8	9.2	11.9	134
Yes	6	63	7.0	1.0	14.1	18.0	346

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FOUR CORES

	Green/ Yellow core	Cross section [mm ²]	Perm. current rating open air [A]	Voltage drop, single phase [V/A.km]	Av. insul. thickness [mm]	Min. outer diam. [mm]	Max. outer diam. [mm]	Approx. weight [kg/km]
	Yes	1.5	23	23.3	0.8	10.2	13.1	165
	Yes	6	54	5.84	1.0	15.7	20.0	443
	Yes	16	100	2.2	1.2	23.8	30.1	1150
	Yes	25	127	1.44	1.4	28.9	36.6	1700
	Yes	35	158	1.04	1.4	32.5	41.1	2180
	Yes	50	192	0.75	1.6	37.7	47.5	3030
	Yes	70	246	0.56	1.6	42.7	54.0	3990
	Yes	95	298	0.44	1.8	48.4	61.0	5360
	Yes	150	395	0.31	2.0	58.0	73.0	7990

FIVE CORES

	Green/ Yellow core	Cross section [mm ²]	Perm. current rating open air [A]	Voltage drop, single phase [V/A.km]	Av. insul. thickness [mm]	Min. outer diam. [mm]	Max. outer diam. [mm]	Approx. weight [kg/km]
	Yes	10	75	3.43	1.2	22.9	29.1	1001
	Yes	16	100	2.2	1.2	26.4	33.3	1430
	Yes	25	127	1.44	1.4	32.0	40.4	2096
	Yes	35	158	1.04	1.4	35.6	45.1	2690
	Yes	50	192	1.04	1.6	41.8	53.0	3840

SEVEN CORES

	Green/ Yellow core	Cross section [mm ²]	Perm. current rating open air [A]	Voltage drop, single phase [V/A.km]	Av. insul. thickness [mm]	Min. outer diam. [mm]	Max. outer diam. [mm]	Approx. weight [kg/km]
	Yes	1.5	17	23.3	0.8	14.7	18.7	349

ADDITIONAL INFORMATIONS NEXANS TITANEX

Core identification

(In accordance with european harmonization HD308 S2)

- 1x: black
- 2x: brown - blue
- 3x: brown - black - grey (brown - black - blue if the conductor cross-section is 1.5 or 2.5mm²)
- 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
- 7 cores and above : black cores with printed numbers

Current rating capacities

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

- Maximum conductor temperature = 90 °C
- Nominal frequencies = 50 or 60 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

- Static use: 3 x cable outer diameter
- Dynamic use: 6 to 8 x outer cable diameter.

NEXANS TITANEX, MADE TO SURVIVE

Nexans TITANEX

Tough as nails since 1953



Withstands the
most extreme
situations



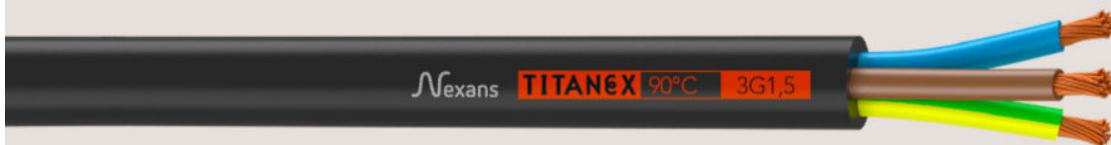
Highly flexible



Durable
marking

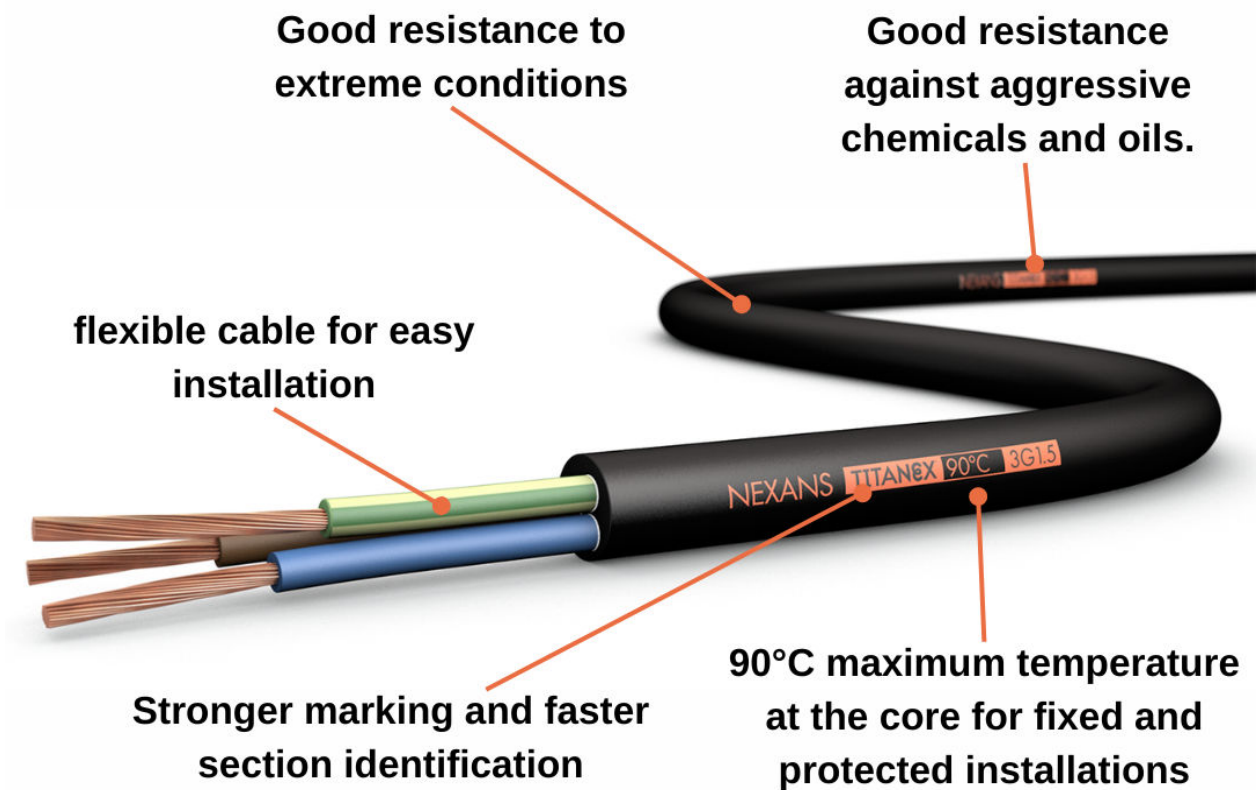


Up to 1kV and 90°C
maximum
temperature for
protected fixed
installations.



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NEXANS TITANEX FEATURES



TITANEX®