



H07RN-F

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

STANDARDS

Product 2014/68/EU; EN 50525-2-21; HD 516; IEC 60245-4 type 66; NF C32-102-4

Test IEC 60332-1; NF C32-070/C2

International EU Directive 2011/65/EU (RoHS)

ADVANTAGES

- Flex resistance up to five times greater than the standard requirements
- Excellent flexibility
- Excellent 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.

With a flexing endurance up to **five times greater than the standard requirements**, TITANEX® provides exceptional reliability and durability, even under intensive use. Its superior resistance to repeated handling, frequent coiling and uncoiling, and demanding mechanical conditions helps ensure safe installations while significantly reducing maintenance and cable replacement costs.

- 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)



Lead free
Yes



Mechanical
resistance to
impacts
AG3



Cable flexibility
Flexible



Chemical
resistance
Accidental



Water proof
Good



Max. conductor
temp. in service
90 °C



Oil resistance
Yes



Operating temp.
-25 ... 55 °C

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 ≤ 12mm ; 4x if OD > 12mm.

Laying cable conductors

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» USE H07RN-F - factory n° Made in France Y Eca n°DoP

Metric marking

Marking every metre, so that only the required length is unwound.

CHARACTERISTICS

Construction characteristics

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

Mechanical characteristics

Mechanical resistance to impacts	AG3
Cable flexibility	Flexible

Usage characteristics

Silicone free	Yes
Chemical resistance	Accidental
Water proof	Good
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

Nexans Ref.	Name	Cross section [mm²]	Perm. current rating open air [A]	Voltage drop, single phase [V/A.km]	Av. insul. thickne ss [mm]	Min. outer diam. [mm]	Max. outer diam. [mm]	Approx. weight [kg/km]	Min. dynamic operating bending rad. [mm]
20070998-901-05	Nexans H07RN-F TITANEX 2x1.5	1.5	26	27.0	0.8	8.5	11.0	111	66.0
20071198-901-05	Nexans H07RN-F TITANEX 2x4	4	49	10.1	1.0	11.8	15.1	238	90.6

THREE CORES

Nexans Ref.	Name	Cross section [mm²]	Perm. current rating open air [A]	Voltage drop, single phase [V/A.km]	Av. insul. thickne ss [mm]	Min. outer diam. [mm]	Max. outer diam. [mm]	Approx. weight [kg/km]	Min. dynamic operating bending rad. [mm]
20070198-901-05	Nexans H07RN-F TITANEX 3G1.5	1.5	26	27.0	0.8	9.2	11.9	134	71.4
20071598-901-05	Nexans H07RN-F TITANEX 3G6	6	63	7.0	1.0	14.1	18.0	346	108.0

FOUR CORES

Nexans Ref.	Name	Cross section [mm²]	Perm. current rating open air [A]	Voltage drop, single phase [V/A.km]	Av. insul. thickne ss [mm]	Min. outer diam. [mm]	Max. outer diam. [mm]	Approx. weight [kg/km]	Min. dynamic operating bending rad. [mm]
20070398-901-05	Nexans H07RN-F TITANEX 4G1.5	1.5	23	23.3	0.8	10.2	13.1	165	78.6
20071698-901-05	Nexans H07RN-F TITANEX 4G6	6	54	5.84	1.0	15.7	20.0	443	120.0
20072298-901-05	Nexans H07RN-F TITANEX 4G16	16	100	2.2	1.2	23.8	30.1	1150	180.6
20074098-901-05	Nexans H07RN-F TITANEX 4G25	25	127	1.44	1.4	28.9	36.6	1700	219.6

Nexans Ref.	Name	Cross section [mm²]	Perm. current rating open air [A]	Voltage drop, single phase [V/A.km]	Av. insul. thickne ss [mm]	Min. outer diam. [mm]	Max. outer diam. [mm]	Approx. weight [kg/km]	Min. dynamic operating bending rad. [mm]
20074398-901-05	Nexans H07RN-F TITANEX 4G35	35	158	1.04	1.4	32.5	41.1	2180	246.6
20074698-901-05	Nexans H07RN-F TITANEX 4G50	50	192	0.75	1.6	37.7	47.5	3030	285.0
20074998-901-05	Nexans H07RN-F TITANEX 4G70	70	246	0.56	1.6	42.7	54.0	3990	324.0
20075198-901-05	Nexans H07RN-F TITANEX 4G95	95	298	0.44	1.8	48.4	61.0	5360	366.0
20075398-901-05	Nexans H07RN-F TITANEX 4G150	150	395	0.31	2.0	58.0	73.0	7990	438.0

FIVE CORES

Nexans Ref.	Name	Cross section [mm²]	Perm. current rating open air [A]	Voltage drop, single phase [V/A.km]	Av. insul. thickne ss [mm]	Min. outer diam. [mm]	Max. outer diam. [mm]	Approx. weight [kg/km]	Min. dynamic operating bending rad. [mm]
20072098-901-05	Nexans H07RN-F TITANEX 5G10	10	75	3.43	1.2	22.9	29.1	1001	174.6
20072398-901-05	Nexans H07RN-F TITANEX 5G16	16	100	2.2	1.2	26.4	33.3	1430	199.8
20074198-901-05	Nexans H07RN-F TITANEX 5G25	25	127	1.44	1.4	32.0	40.4	2096	242.4
20074498-901-05	Nexans H07RN-F TITANEX 5G35	35	158	1.04	1.4	35.6	45.1	2690	270.6
20074798-901-05	Nexans H07RN-F TITANEX 5G50	50	192	0.75	1.6	41.8	53.0	3840	318.0

SEVEN CORES

Nexans Ref.	Name	Cross section [mm²]	Perm. current rating open air [A]	Voltage drop, single phase [V/A.km]	Av. insul. thickne ss [mm]	Min. outer diam. [mm]	Max. outer diam. [mm]	Approx. weight [kg/km]	Min. dynamic operating bending rad. [mm]
20070698-901-05	Nexans H07RN-F TITANEX 7G1.5	1.5	17	23.3	0.8	14.7	18.7	349	112.2

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 ϕ = 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



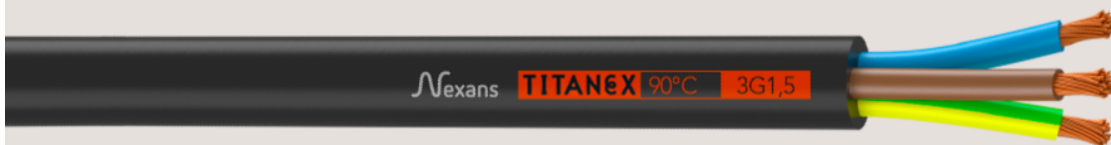
Highly flexible



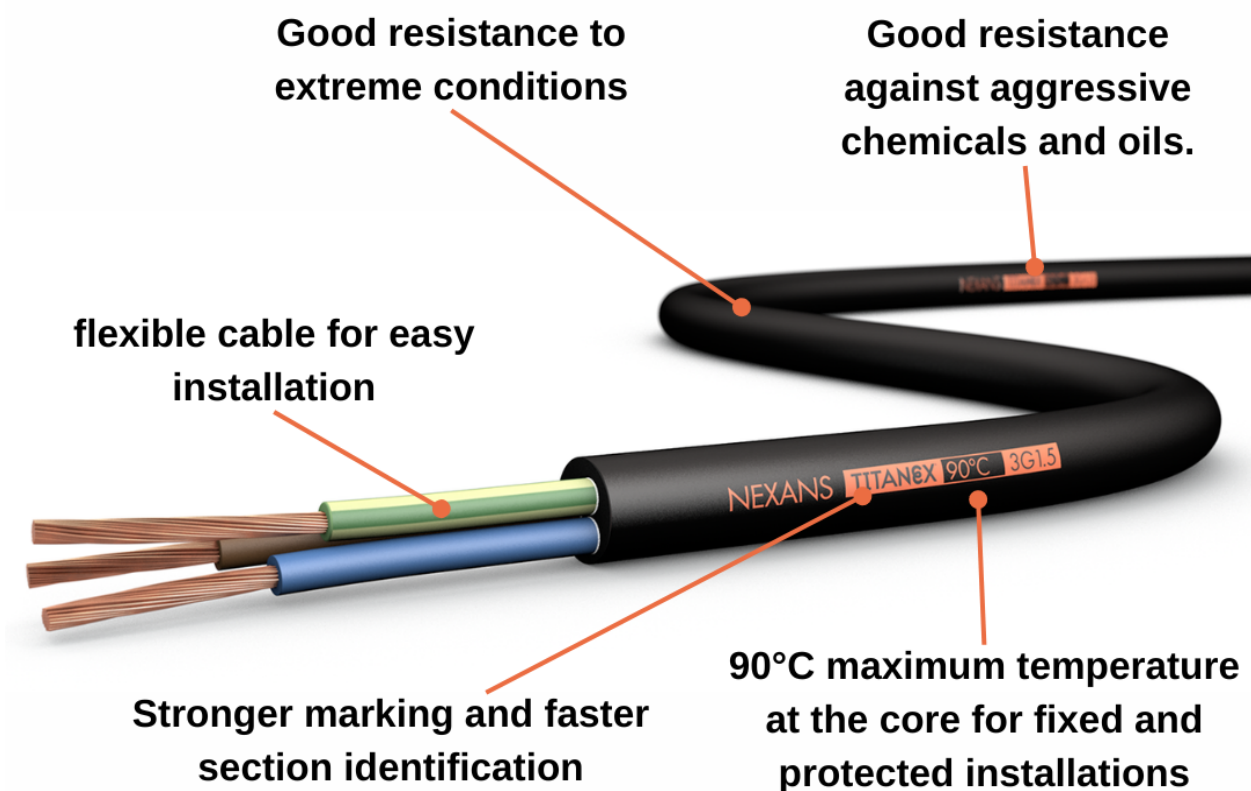
Durable
marking



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



NEXANS TITANEX FEATURES



TITANEX®