



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

International EU Directive 2011/65/EU (RoHS)

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)



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
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
--------------------------	------

Mechanical characteristics

Mechanical resistance to impacts	AG3
Cable flexibility	Flexible

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

SINGLE CORE

Green/ Yellow core	Cross section [mm²]	Perm. current rating open air [A]	Voltage drop, single phase [V/A.km]	Av. insul. thickn ess [mm]	Max. outer diam. [mm]	Approx weight [kg/km]	Chemical resistanc e	Flame retard ant	Lea d free	Min. dynamic operating bending rad. [mm]	Nexans Ref.	Name
No	150	441	0.31	2.0	31.4	1740	Accidental	C2, NF C 32-070 & IEC 60332- 1	Yes	188.4	10055593	Nexans H07RN-F TITANEX 1x150
No	185	506	0.28	2.2	34.4	2160	Accidental	C2, NF C 32-070 & IEC 60332- 1	Yes	206.4	10055635	Nexans H07RN-F TITANEX 1x185
No	240	599	0.23	2.4	38.3	2730	Accidental	C2, NF C 32-070 & IEC 60332- 1	Yes	229.8	10055636	Nexans H07RN-F TITANEX 1x240
No	300	693	0.2	2.6	41.9	3480	Accidental	C2, NF C 32-070 & IEC 60332- 1	Yes	251.4	10055637	Nexans H07RN-F TITANEX 1x300
No	400	825	0.18	2.8	46.8	4510	Accidental	C2, NF C 32-070 & IEC 60332- 1	Yes	280.8	10055958	Nexans H07RN-F TITANEX 1x400
No	500	946	0.16	3.0	52.0	5700	Accidental	C2, NF C 32-070 & IEC 60332- 1	Yes	312.0	10055962	Nexans H07RN-F TITANEX 1x500

TWO CORES

Green/ Yellow core	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]	Chemical resistance	Nexans Ref.	Name
No	4	49	10.1	1.0	11.8	15.1	238	Accidental	10055517	Nexans H07RN-F TITANEX 2x4

THREE CORES

Green/ Yellow core	Cross section [mm ²]	Perm. current rating open air [A]	Voltage drop, single phase [V/A.km]	Av. insul. thicknes s [mm]	Min. outer diam. [mm]	Max. outer diam. [mm]	Approx. weight [kg/km]	Nexans Ref.	Name
Yes	1	20	39.4	0.8	8.3	10.7	117	10055624	Nexans H07RN-F TITANEX 3G1
Yes	1.5	26	27.0	0.8	9.2	11.9	134	10547748	Nexans H07RN-F TITANEX 3G1.5
Yes	6	63	7.0	1.0	14.1	18.0	346	10055537	Nexans H07RN-F TITANEX 3G6

FOUR CORES

Green/ Yellow core	Cross section [mm ²]	Perm. current rating open air [A]	Voltage drop, single phase [V/A.km]	Av. insul. thicknes s [mm]	Min. outer diam. [mm]	Max. outer diam. [mm]	Approx. weight [kg/km]	Nexans Ref.	Name
Yes	1.5	23	23.3	0.8	10.2	13.1	165	10055541	Nexans H07RN-F TITANEX 4G1.5
Yes	2.5	31	14.0	0.9	12.5	15.5	245	10055547	Nexans H07RN-F TITANEX 4G2.5
Yes	10	75	3.42	1.2	20.8	26.5	818	10055555	Nexans H07RN-F TITANEX 4G10
Yes	16	100	2.2	1.2	23.8	30.1	1150	10055558	Nexans H07RN-F TITANEX 4G16
Yes	25	127	1.44	1.4	28.9	36.6	1700	10547763	Nexans H07RN-F TITANEX 4G25
Yes	35	158	1.04	1.4	32.5	41.1	2180	10055573	Nexans H07RN-F TITANEX 4G35
Yes	50	192	0.75	1.6	37.7	47.5	3030	10055560	Nexans H07RN-F TITANEX 4G50

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]	Nexans Ref.	Name
Yes	70	246	0.56	1.6	42.7	54.0	3990	10055653	Nexans H07RN-F TITANEX 4G70
Yes	95	298	0.44	1.8	48.4	61.0	5360	10055620	Nexans H07RN-F TITANEX 4G95
Yes	120	346	0.36	1.8	53.0	66.0	6500	10055676	Nexans H07RN-F TITANEX 4G120
Yes	150	395	0.31	2.0	58.0	73.0	7990	10055983	Nexans H07RN-F TITANEX 4G150
Yes	185	450	0.28	2.2	64.0	80.0	9910	10055952	Nexans H07RN-F TITANEX 4G185
Yes	240	538	0.23	2.4	72.0	91.0	13120	10056547	Nexans H07RN-F TITANEX 4G240

FIVE 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]	Nexans Ref.	Name
Yes	1.5	23	23.6	0.8	11.2	14.4	238	10055564	Nexans H07RN-F TITANEX 5G1.5
Yes	2.5	31	14.0	0.9	13.3	17.0	297	10509962	Nexans H07RN-F TITANEX 5G2.5
Yes	6	54	5.84	1.0	17.5	22.2	557	10547754	Nexans H07RN-F TITANEX 5G6
Yes	10	75	3.43	1.2	22.9	29.1	1001	10509975	Nexans H07RN-F TITANEX 5G10

Green/ Yellow core	Cross section [mm²]	Perm. current rating open air [A]	Voltage drop, single phase [V/A.km]	Av. insul. thicknes s [mm]	Min. outer diam. [mm]	Max. outer diam. [mm]	Approx. weight [kg/km]	Nexans Ref.	Name
Yes	16	100	2.2	1.2	26.4	33.3	1430	10273849	Nexans H07RN-F TITANEX 5G16
Yes	25	127	1.44	1.4	32.0	40.4	2096	10055627	Nexans H07RN-F TITANEX 5G25
Yes	35	158	1.04	1.4	35.6	45.1	2690	10055506	Nexans H07RN-F TITANEX 5G35
Yes	50	192	1.04	1.6	41.8	53.0	3840	10055799	Nexans H07RN-F TITANEX 5G50
Yes	70	246	0.56	1.6	47.5	60.0	4996	10055800	Nexans H07RN-F TITANEX 5G70
Yes	95	298	0.44	1.8	54.0	67.0	6640	10055801	Nexans H07RN-F TITANEX 5G95

SEVEN CORES

Green/ Yellow core	Cross section [mm²]	Perm. current rating open air [A]	Voltage drop, single phase [V/A.km]	Av. insul. thicknes s [mm]	Min. outer diam. [mm]	Max. outer diam. [mm]	Approx. weight [kg/km]	Nexans Ref.	Name
Yes	1.5	17	23.3	0.8	14.7	18.7	349	10055577	Nexans H07RN-F TITANEX 7G1.5

SINGLE CORE DUPLICATA

Green/ Yellow core	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]	Chemical resistance	Nexans Ref.	Name
No	150	441	0.31	2.0	25.2	31.4	1740	Accidental	10055593	Nexans H07RN-F TITANEX 1x150

Green/ Yellow core	Cross section [mm ²]	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]	Chemical resistance	Nexans Ref.	Name
No	185	506	0.28	2.2	27.6	34.4	2160	Accidental	10055635	Nexans H07RN-F TITANEX 1x185
No	240	599	0.23	2.4	30.6	38.3	2730	Accidental	10055636	Nexans H07RN-F TITANEX 1x240
No	300	693	0.2	2.6	33.5	41.9	3480	Accidental	10055637	Nexans H07RN-F TITANEX 1x300
No	400	825	0.18	2.8	37.4	46.8	4510	Accidental	10055958	Nexans H07RN-F TITANEX 1x400
No	500	946	0.16	3.0	41.3	52.0	5700	Accidental	10055962	Nexans H07RN-F TITANEX 1x500

SINGLE CORE DUPLICATA

Green/ Yellow core	Cross section [mm ²]	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]	Chemical resistance	Nexans Ref.	Name
No	150	441	0.31	2.0	25.2	31.4	1740	Accidental	10055593	Nexans H07RN-F TITANEX 1x150
No	185	506	0.28	2.2	27.6	34.4	2160	Accidental	10055635	Nexans H07RN-F TITANEX 1x185
No	240	599	0.23	2.4	30.6	38.3	2730	Accidental	10055636	Nexans H07RN-F TITANEX 1x240
No	300	693	0.2	2.6	33.5	41.9	3480	Accidental	10055637	Nexans H07RN-F TITANEX 1x300
No	400	825	0.18	2.8	37.4	46.8	4510	Accidental	10055958	Nexans H07RN-F TITANEX 1x400

Green/ Yellow core	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]	Chemical resistance	Nexans Ref.	Name
No	500	946	0.16	3.0	41.3	52.0	5700	Accidental	10055962	Nexans H07RN-F TITANEX 1x500

SINGLE CORE DUPLICATA

Green/ Yellow core	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]	Chemical resistance	Nexans Ref.	Name
No	150	441	0.31	2.0	25.2	31.4	1740	Accidental	10055593	Nexans H07RN-F TITANEX 1x150
No	185	506	0.28	2.2	27.6	34.4	2160	Accidental	10055635	Nexans H07RN-F TITANEX 1x185
No	240	599	0.23	2.4	30.6	38.3	2730	Accidental	10055636	Nexans H07RN-F TITANEX 1x240
No	300	693	0.2	2.6	33.5	41.9	3480	Accidental	10055637	Nexans H07RN-F TITANEX 1x300
No	400	825	0.18	2.8	37.4	46.8	4510	Accidental	10055958	Nexans H07RN-F TITANEX 1x400
No	500	946	0.16	3.0	41.3	52.0	5700	Accidental	10055962	Nexans H07RN-F TITANEX 1x500

SINGLE CORE DUPLICATA

Green/ Yellow core	Cross section [mm²]	Perm. current rating open air [A]	Voltage drop, single phase [V/A.km]	Av. insul. thickn ess [mm]	Min. outer diam. [mm]	Max. outer diam. [mm]	Approx . weight [kg/km]	Chemical resistanc e	Flame retarda nt	Nexans Ref.	Name
No	150	441	0.31	2.0	25.2	31.4	1740	Accidental	C2, NF C 32-070 & IEC 60332-1	10055593	Nexans H07RN-F TITANEX 1x150

Green/ Yellow core	Cross section [mm²]	Perm. current rating open air [A]	Voltage drop, single phase [V/A.km]	Av. insul. thickn ess [mm]	Min. outer diam. [mm]	Max. outer diam. [mm]	Approx . weight [kg/km]	Chemical resistanc e	Flame retarda nt	Nexans Ref.	Name
No	185	506	0.28	2.2	27.6	34.4	2160	Accidental	C2, NF C 32-070 & IEC 60332-1	10055635	Nexans H07RN-F TITANEX 1x185
No	240	599	0.23	2.4	30.6	38.3	2730	Accidental	C2, NF C 32-070 & IEC 60332-1	10055636	Nexans H07RN-F TITANEX 1x240
No	300	693	0.2	2.6	33.5	41.9	3480	Accidental	C2, NF C 32-070 & IEC 60332-1	10055637	Nexans H07RN-F TITANEX 1x300
No	400	825	0.18	2.8	37.4	46.8	4510	Accidental	C2, NF C 32-070 & IEC 60332-1	10055958	Nexans H07RN-F TITANEX 1x400
No	500	946	0.16	3.0	41.3	52.0	5700	Accidental	C2, NF C 32-070 & IEC 60332-1	10055962	Nexans H07RN-F TITANEX 1x500

TWO CORES DUPLICATA

Green/ Yellow core	Cross section [mm²]	Perm. current rating open air [A]	Voltage drop, single phase [V/A.km]	Av. insul. thicknes s [mm]	Min. outer diam. [mm]	Max. outer diam. [mm]	Approx. weight [kg/km]	Nexans Ref.	Name
No	4	49	10.1	1.0	11.8	15.1	238	10055517	Nexans H07RN-F TITANEX 2x4

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



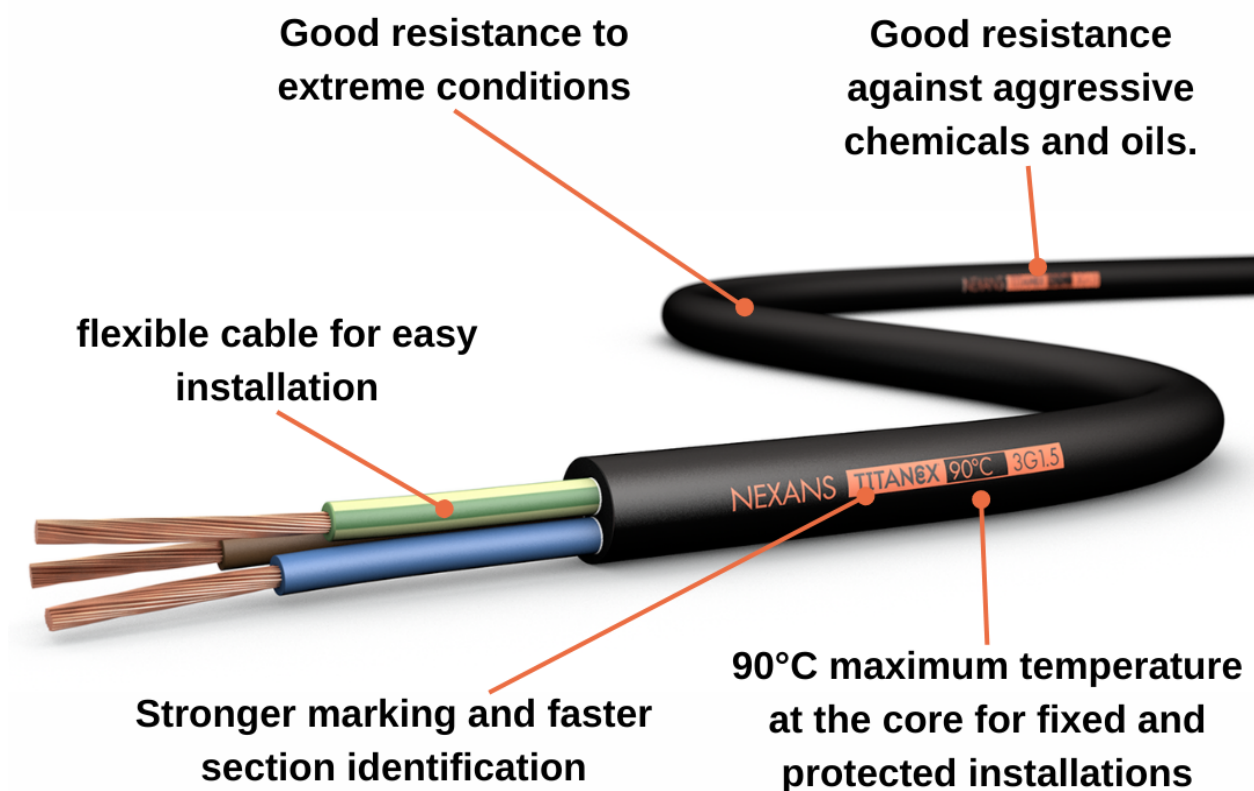
Durable
marking



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



NEXANS TITANEX FEATURES



TITANEX®