



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

- 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)



CONTACT

Building Products Information
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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

SINGLE CORE

Cross section [mm²]	Perm. current rating open air [A]	Voltage drop, single phase [V/A.km]	Av. insul. thickness [mm]	Max. outer diam. [mm]	Approx. weight [kg/km]	Min. dynamic operating bending rad. [mm]	Nexans Ref.	Name
1.5	24	23.3	0.8	7.1	50	42.6	10055628	Nexans H07RN-F TITANEX 1x1.5
2.5	33	14.0	0.9	7.9	66	47.4	10275535	Nexans H07RN-F TITANEX 1x2.5
4	45	8.7	1.0	9.0	94	54.0	10055632	Nexans H07RN-F TITANEX 1x4
6	58	5.9	1.0	9.8	109	58.8	10055634	Nexans H07RN-F TITANEX 1x6
10	80	3.4	1.2	11.9	182	71.4	10055580	Nexans H07RN-F TITANEX 1x10
16	107	2.2	1.2	13.4	256	80.4	10055582	Nexans H07RN-F TITANEX 1x16
25	138	1.4	1.4	15.8	369	94.8	10055584	Nexans H07RN-F TITANEX 1x25
25	138	1.4	1.4	15.8	369	94.8	10273076	Nexans TITANEX 1X25 MBH R50
35	169	1.04	1.4	17.9	482	107.4	10055586	Nexans H07RN-F TITANEX 1x35
35	169	1.04	1.4	17.9	482	107.4	10273077	Nexans TITANEX 1X35 MBH R50
50	207	0.75	1.6	20.6	662	123.6	10055588	Nexans H07RN-F TITANEX 1x50
50	207	0.75	1.6	20.6	662	123.6	10273078	Nexans TITANEX 1X50 MBH R50
70	268	0.56	1.6	23.3	895	139.8	10055590	Nexans H07RN-F TITANEX 1x70
95	328	0.44	1.8	26.0	1144	-	10055591	Nexans H07RN-F TITANEX 1x95
120	382	0.36	1.8	28.6	1430	171.6	10055592	Nexans H07RN-F TITANEX 1x120

Cross section [mm²]	Perm. current rating open air [A]	Voltage drop, single phase [V/A.km]	Av. insul. thickness [mm]	Max. outer diam. [mm]	Approx. weight [kg/km]	Min. dynamic operating bending rad. [mm]	Nexans Ref.	Name
150	441	0.31	2.0	31.4	1740	188.4	10055593	Nexans H07RN-F TITANEX 1x150
185	506	0.28	2.2	34.4	2160	206.4	10055635	Nexans H07RN-F TITANEX 1x185
240	599	0.23	2.4	38.3	2730	229.8	10055636	Nexans H07RN-F TITANEX 1x240
300	693	0.2	2.6	41.9	3480	251.4	10055637	Nexans H07RN-F TITANEX 1x300
400	825	0.18	2.8	46.8	4510	280.8	10055958	Nexans H07RN-F TITANEX 1x400
500	946	0.16	3.0	52.0	5700	312.0	10055962	Nexans H07RN-F TITANEX 1x500

TWO CORES

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
1	20	39.4	0.8	7.7	10.0	99	10055641	Nexans H07RN-F TITANEX 2x1
1.5	26	27.0	0.8	8.5	11.0	111	10055509	Nexans H07RN-F TITANEX 2x1.5
2.5	36	16.2	0.9	10.2	13.2	161	10055514	Nexans H07RN-F TITANEX 2x2,5
4	49	10.1	1.0	11.8	15.1	238	10055517	Nexans H07RN-F TITANEX 2x4
6	63	6.7	1.0	13.1	16.8	279	10055519	Nexans H07RN-F TITANEX 2x6
10	86	3.8	1.2	17.7	22.6	538	10055642	Nexans H07RN-F TITANEX 2x10
16	115	2.5	1.2	20.2	25.7	744	10055643	Nexans H07RN-F TITANEX 2x16
25	149	1.68	1.4	24.3	30.7	1074	10055675	Nexans H07RN-F TITANEX 2x25

THREE CORES

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
1	20	39.4	0.8	8.3	10.7	117	10055624	Nexans H07RN-F TITANEX 3G1
1.5	23	27.0	0.8	9.2	11.9	134	10055674	Nexans H07RN-F TITANEX 3x1.5
1.5	26	27.0	0.8	9.2	11.9	134	10055523	Nexans H07RN-F TITANEX 3G1.5
2.5	31	16.2	0.9	10.9	14.0	195	10055505	Nexans H07RN-F TITANEX 3x2.5
2.5	36	16.2	0.9	10.9	14.0	195	10055530	Nexans H07RN-F TITANEX 3G2.5
4	49	10.1	1.0	12.7	16.2	290	10055535	Nexans H07RN-F TITANEX 3G4
6	63	7.0	1.0	14.1	18.0	346	10055537	Nexans H07RN-F TITANEX 3G6
10	86	4.0	1.2	19.1	24.2	663	10055645	Nexans H07RN-F TITANEX 3G10
16	115	2.5	1.2	21.8	27.6	924	10055621	Nexans H07RN-F TITANEX 3G16
25	149	1.7	1.4	26.1	33.0	1345	10055646	Nexans H07RN-F TITANEX 3G25
35	185	1.21	1.4	29.3	37.1	1760	10055647	Nexans H07RN-F TITANEX 3G35
50	225	0.87	1.6	34.1	42.9	2390	10055648	Nexans H07RN-F TITANEX 3G50
70	289	0.64	1.6	38.4	48.3	3110	10055649	Nexans H07RN-F TITANEX 3G70
95	352	0.5	1.8	43.3	54.0	4170	10055672	Nexans H07RN-F TITANEX 3G95
120	410	0.4	1.8	47.4	60.0	5080	10056078	Nexans H07RN-F TITANEX 3G120
150	473	0.35	2.0	52.0	66.0	6220	10056497	Nexans H07RN-F TITANEX 3G150
185	542	0.3	2.2	57.0	72.0	7730	10055934	Nexans H07RN-F TITANEX 3G185

FOUR CORES

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
1	18	34.08	0.8	9.6	12.0	144	10055652	Nexans H07RN-F TITANEX 4G1
1.5	23	23.3	0.8	10.2	13.1	165	10055541	Nexans H07RN-F TITANEX 4G1.5
2.5	31	14.0	0.9	12.5	15.5	245	10055547	Nexans H07RN-F TITANEX 4G2.5
4	42	8.71	1.0	14.0	18.0	357	10055551	Nexans H07RN-F TITANEX 4G4
6	54	5.84	1.0	15.7	20.0	443	10055574	Nexans H07RN-F TITANEX 4G6
10	75	3.42	1.2	20.8	26.5	818	10055555	Nexans H07RN-F TITANEX 4G10
16	100	2.2	1.2	23.8	30.1	1150	10055558	Nexans H07RN-F TITANEX 4G16
25	127	1.44	1.4	28.9	36.6	1700	10055594	Nexans H07RN-F TITANEX 4G25
35	158	1.04	1.4	32.5	41.1	2180	10055573	Nexans H07RN-F TITANEX 4G35
50	192	0.75	1.6	37.7	47.5	3030	10055560	Nexans H07RN-F TITANEX 4G50
70	246	0.56	1.6	42.7	54.0	3990	10055653	Nexans H07RN-F TITANEX 4G70
95	298	0.44	1.8	48.4	61.0	5360	10055620	Nexans H07RN-F TITANEX 4G95
120	346	0.36	1.8	53.0	66.0	6500	10055676	Nexans H07RN-F TITANEX 4G120
150	395	0.31	2.0	58.0	73.0	7990	10055983	Nexans H07RN-F TITANEX 4G150
185	450	0.28	2.2	64.0	80.0	9910	10055952	Nexans H07RN-F TITANEX 4G185
240	538	0.23	2.4	72.0	91.0	13120	10056547	Nexans H07RN-F TITANEX 4G240

FIVE CORES

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
1	18	34.1	0.8	10.9	14.0	180	10055656	Nexans H07RN-F TITANEX 5G1

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
1.5	23	23.6	0.8	11.2	14.4	238	10055564	Nexans H07RN-F TITANEX 5G1.5
2.5	31	14.0	0.9	13.3	17.0	297	10055571	Nexans H07RN-F TITANEX 5G2.5
4	42	8.72	1.0	15.6	19.9	453	10055597	Nexans H07RN-F TITANEX 5G4
6	54	5.84	1.0	17.5	22.2	557	10055600	Nexans H07RN-F TITANEX 5G6
6	54	5.84	1.0	17.5	22.2	557	10276125	Nexans TITANEX 5G6 MBH R50
10	75	3.43	1.2	22.9	29.1	1001	10055602	Nexans H07RN-F TITANEX 5G10
16	100	2.2	1.2	26.4	33.3	1430	10055605	Nexans H07RN-F TITANEX 5G16
16	100	2.2	1.2	26.4	33.3	1430	10273849	Nexans TITANEX 5G16 MBH D500
16	100	2.2	1.2	26.4	33.3	1430	10273850	Nexans TITANEX 5G16 MBH D1000
25	127	1.44	1.4	32.0	40.4	2096	10055627	Nexans H07RN-F TITANEX 5G25
35	158	1.04	1.4	35.6	45.1	2690	10055506	Nexans H07RN-F TITANEX 5G35
50	192	1.04	1.6	41.8	53.0	3840	10055799	Nexans H07RN-F TITANEX 5G50
70	246	0.56	1.6	47.5	60.0	4996	10055800	Nexans H07RN-F TITANEX 5G70
95	298	0.44	1.8	54.0	67.0	6640	10055801	Nexans H07RN-F TITANEX 5G95
150	395	0.31	2.0	66.0	83.0	9960	10058444	Nexans H07RN-F TITANEX 5G150

SEVEN CORES

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
1.5	17	23.3	0.8	14.7	18.7	349	10055577	Nexans H07RN-F TITANEX 7G1.5
2.5	21	13.9	0.9	17.1	21.8	487	10055609	Nexans H07RN-F TITANEX 7G2.5

TWELVE CORES

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
1.5	12	23.3	0.8	17.6	22.14	510	10055611	Nexans H07RN-F TITANEX 12G1.5
2.5	16	13.9	0.9	20.6	26.2	702	10055614	Nexans H07RN-F TITANEX 12G2.5
4	6	8.7	1.0	27.3	34.5	1025	10056024	Nexans H07RN-F TITANEX 12G4

EIGHTEEN CORES

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
1.5	10	20.7	0.8	20.7	26.3	730	10056293	Nexans H07RN-F TITANEX 18G1.5
2.5	14	13.9	0.9	24.4	30.9	1018	10056295	Nexans H07RN-F TITANEX 18G2.5

TWENTY FOUR CORES

Cross section [mm²]	Perm. current rating open air [A]	Voltage drop, single phase [V/A.km]	Av. insul. thickness [mm]	Max. outer diam. [mm]	Min. outer diam. [mm]	Approx. weight [kg/km]	Nexans Ref.	Name
1.5	9	-	0.8	30.7	24.3	1000	10055828	Nexans H07RN-F TITANEX 24G1.5
2.5	12	23.3	0.9	36.4	28.8	1406	10055878	Nexans H07RN-F TITANEX 24G2,5

THIRTY SIX CORES

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
1.5	7	23.3	0.8	27.8	35.2	1325	10056294	Nexans H07RN-F TITANEX 36G1.5
2.5	9	13.9	0.9	33.2	41.8	1879	10056296	Nexans H07RN-F TITANEX 36G2.5

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 $\cos \varphi = 0.8$

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



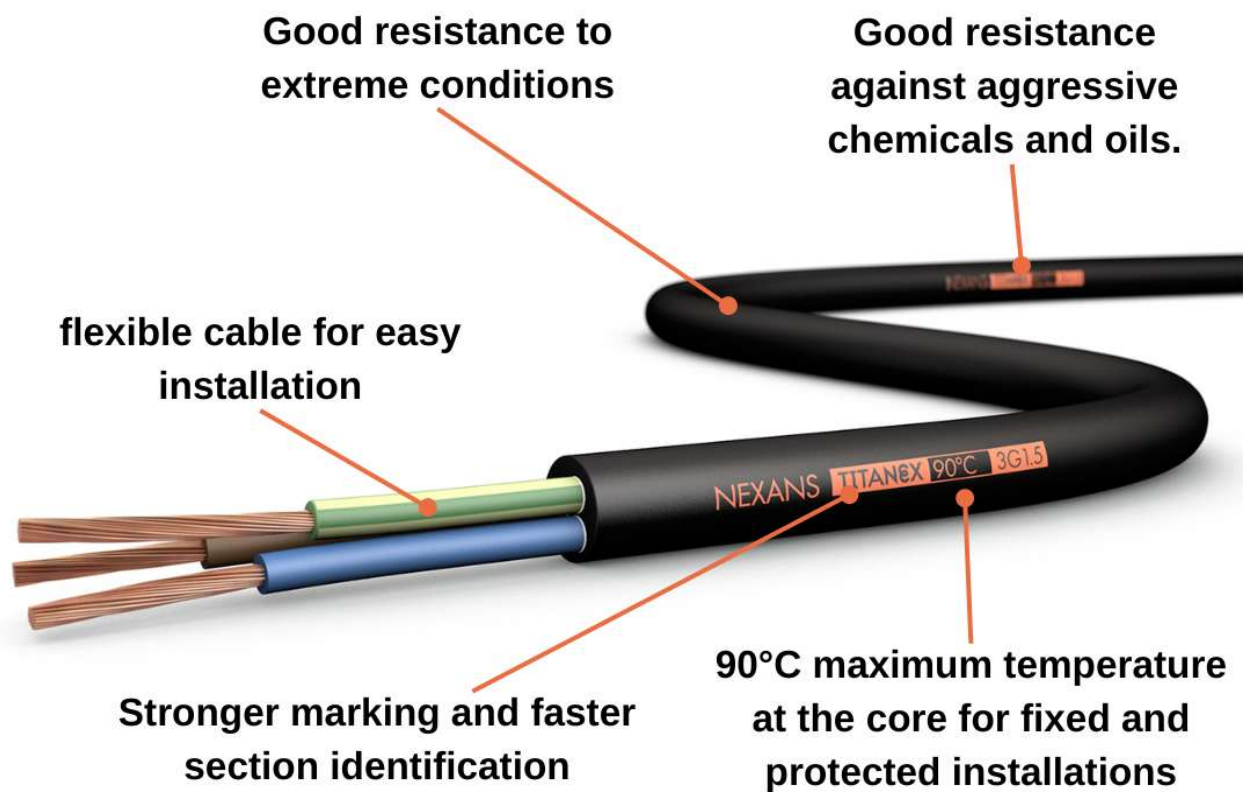
Durable
marking



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



NEXANS TITANEX FEATURES



TITANEX