H07RN-F TITANEX®

Contact
1300 CABLES
Phone: 1300 222 537
olex.customerservice@nexans.com

Industrial flexible cable, insulation and outer sheath in elastomer.
Oil resistant, flame retardant according to IEC/EN 60332-1-2 standard.

DESCRIPTION

Application

H07RN-F TITANEX® flexible cable is intended for installations with moving equipment, electric appliances and for building sites. The cable may be rated 0,6/1 kV where the installation has built-in protection and for motors in lifting appliances - machine tools - etc.

This cable can be used in refrigerating installations.

Installation

This cable can be installed in open air or be buried but with extra mechanical protection.

Conductors laid up

Assembled conductors.

Marquage

USE <har>N (x ou G) S TITANEX®

- N = nombre de conducteurs
- G = avec V/J
- x = sans V/J
- S = section en mm²

STANDARDS

International EN 50525-2-21;
HD 22.4; HD 516;
IEC 60245-4 type 66

National NF C 32-102-4

Lead free
Yes

Mechanical resistance to impacts
AG3

Cable flexibility
Flexible

Chemical resistance
Accidental

Water proof
Intermittent

RoHS compliant
Yes

Operating temperature, range
-25 .. 55 °C

Oil resistance
Yes

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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
Mechanical characteristics	
Mechanical resistance to impacts	AG3
Cable flexibility	Flexible
Usage characteristics	
Silicone free	Yes
Chemical resistance	Accidental
Water proof	Intermittent
RoHS compliant	Yes
Operating temperature, range	-25 .. 55 °C
Oil resistance	Yes
Max. conductor temperature in service	85 °C

SINGLE CORE

Cross section [mm²]	Perm. current rating open air [A]	Voltage drop, single phase [V/A.km]	Max. outer diam. [mm]	Min. outer diam. [mm]	Approx. weight [kg/km]
1.5	23	23.3	7.1	5.7	50
2.5	32	14.0	7.9	6.3	66
4	43	8.7	9.0	7.2	94
6	56	5.9	9.8	7.9	109
10	77	3.4	11.9	9.5	182
16	102	2.2	13.4	10.8	256
25	136	1.4	15.8	12.7	369
35	168	1.04	17.9	14.3	482
50	203	0.75	20.6	16.5	662
70	254	0.56	23.3	18.6	895
95	-	-	-	-	1144
120	363	0.36	28.6	22.8	1430
150	416	0.31	31.4	25.2	1740
185	475	0.28	34.4	27.6	2160
240	559	0.23	38.3	30.6	2730
500	833	0.16	52.0	41.3	5700

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TWO CORES

Cross section [mm²]	Perm. current rating open air [A]	Voltage drop, single phase [V/A.km]	Max. outer diam. [mm]	Min. outer diam. [mm]	Approx. weight [kg/km]
1	18	39.4	10.0	7.7	99
1.5	23	27.0	11.0	8.5	111
4	43	10.1	15.1	11.8	238
6	56	6.7	16.8	13.1	279
10	77	3.8	22.6	17.7	538
16	102	2.5	25.7	20.2	744
25	136	1.68	30.7	24.3	1074

THREE CORES

Cross section [mm²]	Perm. current rating open air [A]	Voltage drop, single phase [V/A.km]	Max. outer diam. [mm]	Min. outer diam. [mm]	Approx. weight [kg/km]
1	18	39.4	10.7	8.3	117
1.5	23	27.0	11.9	9.2	134
1.5	23	27.0	11.9	9.2	134
2.5	32	16.2	14.0	10.9	195
2.5	32	16.2	14.0	10.9	195
6	56	7.0	18.0	14.1	346
10	77	4.0	24.2	19.1	663
16	102	2.5	27.6	21.8	924
25	136	1.7	33.0	26.1	1345
35	168	1.21	37.1	29.3	1760
50	203	0.87	42.9	34.1	2390
70	262	0.64	48.3	38.4	3110
95	320	0.5	54.0	43.3	4170
120	373	0.4	60.0	47.4	5080
150	432	0.35	66.0	52.0	6220
185	495	0.3	72.0	57.0	7730

FOUR CORES

Cross section [mm²]	Perm. current rating open air [A]	Voltage drop, single phase [V/A.km]	Max. outer diam. [mm]	Min. outer diam. [mm]	Approx. weight [kg/km]
1	16	34.08	12.0	9.6	144
1.5	21	23.3	13.1	10.2	165
1.5	21	23.3	13.1	10.2	165
2.5	29	14.0	15.5	12.5	245
4	38	8.71	18.0	14.0	357
6	50	5.84	20.0	15.7	443

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Cross section [mm²]	Perm. current rating open air [A]	Voltage drop, single phase [V/A.km]	Max. outer diam. [mm]	Min. outer diam. [mm]	Approx. weight [kg/km]
10	68	3.42	26.5	20.8	818
16	92	2.2	30.1	23.8	1150
25	122	1.44	36.6	28.9	1700
35	150	1.04	41.1	32.5	2180
50	182	0.75	47.5	37.7	3030
70	232	0.56	54.0	42.7	3990
95	281	0.44	61.0	48.4	5360
120	325	0.36	66.0	53.0	6500
150	373	0.31	73.0	58.0	7990
185	425	0.28	80.0	64.0	9910
240	500	0.23	91.0	72.0	13120

FIVE CORES

Cross section [mm²]	Perm. current rating open air [A]	Voltage drop, single phase [V/A.km]	Max. outer diam. [mm]	Min. outer diam. [mm]	Approx. weight [kg/km]
1	16	34.1	14.0	10.9	180
1.5	21	23.6	14.4	11.2	238
2.5	29	14.0	17.0	13.3	297
4	38	8.72	19.9	15.6	453
6	50	5.84	22.2	17.5	557
10	68	3.43	29.1	22.9	1001
16	92	2.2	33.3	26.4	1430
25	122	1.44	40.4	32.0	2096

SEVEN CORES

Cross section [mm²]	Perm. current rating open air [A]	Voltage drop, single phase [V/A.km]	Max. outer diam. [mm]	Min. outer diam. [mm]	Approx. weight [kg/km]
1.5	-	-	-	-	349
2.5	-	-	21.8	17.1	487

TWELVE CORES

Cross section [mm²]	Perm. current rating open air [A]	Voltage drop, single phase [V/A.km]	Max. outer diam. [mm]	Min. outer diam. [mm]	Approx. weight [kg/km]
1.5	11	23.3	22.14	17.6	510
2.5	-	-	-	-	702

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EIGHTEEN CORES

Cross section [mm²]	Perm. current rating open air [A]	Voltage drop, single phase [V/A.km]	Max. outer diam. [mm]	Min. outer diam. [mm]	Approx. weight [kg/km]
1.5	9	20.7	26.3	20.7	730
2.5	-	-	-	-	1018

TWENTY FOUR CORES

Cross section [mm²]	Perm. current rating open air [A]	Voltage drop, single phase [V/A.km]	Min. outer diam. [mm]	Max. outer diam. [mm]	Approx. weight [kg/km]
1.5	8	-	24.3	30.7	1000

THIRTY SIX CORES

Cross section [mm²]	Perm. current rating open air [A]	Voltage drop, single phase [V/A.km]	Min. outer diam. [mm]	Max. outer diam. [mm]	Approx. weight [kg/km]
1.5	6	-	27.8	35.2	1325
2.5	-	-	-	-	1879

NEW CORES IDENTIFICATION

Core identification in accordance with HD 308 S2 - Identification of cores in cables and flexible cords.

Number of cores	HD 308 S2 since january 2004	
	G (earth core)	X (without earth core)
1		Black (preferential)
2		Blue + Brown
3*	Green - Yellow + Blue + Brown	Brown + Black + Grey
3**		Blue + Brown + Black
4	Green - Yellow + Brown + Black + Grey	Blue + Brown + Black + Grey
5	Green - Yellow + Blue + Brown + Black + Grey	Blue + Brown + Black + Grey + Black
> 5	White printed numbers + 1 Green - Yellow	White printed numbers
* For the cables without Green/Yellow with a cross-section >4mm²		
** For the cables without Green/Yellow with a cross-section of 1,5mm² & 2,5mm²		

COMPLEMENTS

Current rating capacities

The data are indicated for continuous duty operation in an ambient temperature of 30°C and apply to:

- Maximum conductor temperature = 85 °C

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- Operating temperature, dynamic : +60°C
- Operating temperature, static : +85°C
- Operating temperature, in short-circuit : +200°C

For other temperature, please refer to correction factors.

Minimum bending radius

- Dynamic use: 6 to 8x cable outer diameter
- Static use: 3x outer cable diameter if the outer diam is < or =12mm,
  4x outer cable diameter if the outer diam is >12mm.