

H07RN-F NEXANS FRANCE 85°C

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

This range of cables is recommended in dry , damp or wet workshops, indoor and outdoor,

according to regulation of the country and with some additional

recommendations and also for industrial devices and agricultures workshops ...

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.

Nota

Max continuous operating conductor temperature in normal use :

+60°C (in every case of mobile installation)

+85°C (in fixed and protected installation)

+200°C (in short circuit)

European Directive RoHS : Compliant

SY+ : French directive for lead free materials in materials.



STANDARDS

International EN 50525-2-21;
IEC 60228



Lead free
Yes



Rated Voltage Uo/U
(Um)
450 / 750 V



Cable flexibility
Flexible



Chemical resistance
Accidental



Water proof
Good



Operating temp.
-25 .. 55 °C



Oil resistance
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.

Version DH-S10-19 Generated 8/7/19 www.nexans.fr Page 1 / 6

 Nexans

CHARACTERISTICS

Construction characteristics

Sheath colour	Black
Lead free	Yes

Electrical characteristics

Rated Voltage U _o /U (U _m)	450 / 750 V
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Mechanical characteristics

Cable flexibility	Flexible
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Usage characteristics

Chemical resistance	Accidental
Water proof	Good
Operating temperature, range	-25 .. 55 °C
Oil resistance	Yes

SINGLE CORE

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	23	23.3	5.7	7.1	50
2.5	32	14.0	6.3	7.9	66
4	43	8.7	7.2	9.0	94
6	56	5.9	7.9	9.8	109
10	77	3.4	9.5	11.9	182
16	102	2.2	10.8	13.4	256
25	136	1.4	12.7	15.8	369
35	168	1.04	14.3	17.9	482
50	203	0.75	16.5	20.6	662
70	254	0.56	18.6	23.3	895
95	315	0.44	20.8	26.0	1144
120	363	0.36	22.8	28.6	1430
150	416	0.31	25.2	31.4	1740
185	475	0.28	27.6	34.4	2160
240	559	0.23	30.6	38.3	2730



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Oil resistance
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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]
300	633	0.2	33.5	41.9	3480
400	746	0.18	37.4	46.8	4510
500	833	0.16	41.3	52.0	5700

TWO 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	18	39.4	7.7	10.0	99
1.5	23	27.0	8.5	11.0	111
2.5	32	16.2	10.2	13.2	161
4	43	10.1	11.8	15.1	238
6	56	6.7	13.1	16.8	279
10	77	3.8	17.7	22.6	538
16	102	2.5	20.2	25.7	744
25	136	1.68	24.3	30.7	1074

THREE 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	20	39.4	8.3	10.7	117
1.5	23	27.0	9.2	11.9	134
1.5	23	27.0	9.2	11.9	134
2.5	31	16.2	10.9	14.0	195
2.5	32	16.2	10.9	14.0	195
4	43	10.1	12.7	16.2	290
6	56	7.0	14.1	18.0	346
10	77	4.0	19.1	24.2	663
16	102	2.5	21.8	27.6	924
25	136	1.7	26.1	33.0	1345
35	168	1.21	29.3	37.1	1760
50	203	0.87	34.1	42.9	2390
70	262	0.64	38.4	48.3	3110



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Yes

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]
95	320	0.5	43.3	54.0	4170
120	373	0.4	47.4	60.0	5080
150	473	0.35	52.0	66.0	6220
185	495	0.3	57.0	72.0	7730

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	16	34.08	9.6	12.0	144
1.5	21	23.3	10.2	13.1	165
2.5	29	14.0	12.5	15.5	245
4	38	8.71	14.0	18.0	357
6	50	5.84	15.7	20.0	443
10	68	3.42	20.8	26.5	818
16	92	2.2	23.8	30.1	1150
25	122	1.44	28.9	36.6	1700
35	150	1.04	32.5	41.1	2180
50	182	0.75	37.7	47.5	3030
70	232	0.56	42.7	54.0	3990
95	281	0.44	48.4	61.0	5360
120	325	0.36	53.0	66.0	6500
150	373	0.31	58.0	73.0	7990
185	425	0.28	64.0	80.0	9910
240	500	0.23	72.0	91.0	13120

FIVES 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	16	34.1	10.9	14.0	180
1.5	21	23.6	11.2	14.4	238
2.5	29	14.0	13.3	17.0	297
4	38	8.72	15.6	19.9	453



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Oil resistance
Yes

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]
6	50	5.84	17.5	22.2	557
10	68	3.43	22.9	29.1	1001
16	92	2.2	26.4	33.3	1430
25	122	1.44	32.0	40.4	2096
35	158	1.04	35.6	45.1	2690
50	192	1.04	41.8	53.0	3840
70	246	0.56	47.5	60.0	4996
95	298	0.44	54.0	67.0	6640
120	349	0.37	58.0	73.0	7900
150	395	0.31	66.0	83.0	9960

TWELVE 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	11	23.3	17.6	22.14	510
2.5	15	13.9	20.6	26.2	702

EIGHTEEN 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	10	20.7	20.7	26.3	730
2.5	12	13.9	24.4	30.9	1018

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	7	23.3	27.8	35.2	1325
2.5	9	13.9	33.2	41.8	1879



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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 >4mm ²		
** For the cables without Green/Yellow with a cross-section of 1,5mm ² & 2,5mm ²		

DERATING TABLE

Mobile application: 60°C maximum on core													
Temperature of air ambient °C	30	35	40	45	50	55							
Corrective factor	1	0.91	0.82	0.71	0.58	0.41							
Fixed application: 90°C maximum on core													
Temperature of air ambient °C	30	35	40	45	50	55	60	65	70	75	80	85	
Corrective factor	1	0.95	0.91	0.87	0.82	0.76	0.71	0.65	0.58	0.5	0.41	0.29	

SELLING INFORMATION

Marking

Nexans France USE <HAR> H07RN-F N (x or G) S mm²
CE 213 Metric marking Made in France 85°C Year N = number of cores

G = with Green-Yellow
x = without Green-Yellow
S = section in mm²



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