

## H07RN8-F

This new range of flexible cable is made especially for all submersion uses and all system liable to flooding.

### Description

#### Application :

New european test -known as AD8, specify from now on strictlier performance of the materials used in H07RN8-F cables.

These cables are made for carriable machine like submergerd pump and for immersed pump too.They can be used in every submerged environment like ports, offshore rigs...

The good resistance of sheathing material to oil, grease and chiminal product allow various usage.

Used in fixed installation they could be adapted for evacuation system

H07RN8-F cables are made with specific synthetic rubber having high waterproof degree can be used for intensive applications.

Use up to 1000V in alternative current is authorized for protected static installations and for connecting of motors in lifting appliances.

Maximum temperature on conductor in normal use + 60°C and under short circuit condition 200°C.

**AD8 application Cenelec test 100 days.**

**Submersible - 10 m.**

#### Installation

Can be used in open air. If buried it must have an extra mechanical protection (tube, gutter).

#### Conductors laid up

assembled conductor. Filler and reinforcement tape in some case.

#### Tractive force

Maxi 15N/mm<sup>2</sup> in relation to the section of core or 1000 N max for the full cable.

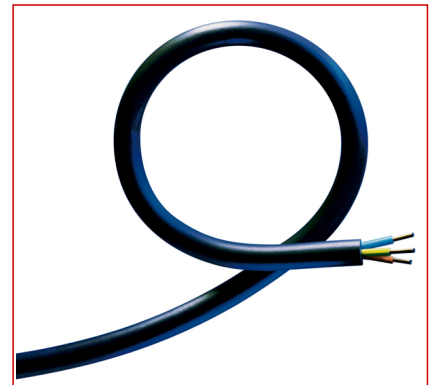
#### Marking

**USE <HAR> H07RN8-F N X (or G) S**

- N = number of cores
- G = with Green/Yellow
- x = without Green/Yellow
- S = section in mm<sup>2</sup>

#### Nota









Max continuous operating conductor temperature in normal use :



#### Standards

**International** HD 22.16; HD 516;  
IEC 60245-4 type 66









**National** NF C 15-100; NF C 32-080;  
NF C 32-102-16

							
Conductor flexibility Flexible class 5	Rated Voltage Uo/ U (Um) 450 / 750 V	Mechanical resistance to impacts Very good	Cable flexibility Flexible	Operating temp. range -25 .. 55 °C	Chemical resistance Accidental	Water proof AD8	Flame retardant C2, NF C 32-070

## H07RN8-F

- +60°C ( in every case of mobile installation)
- +85°C ( fixed protected installation )
- +200°C ( in short circuit )

Permissible current rating is measured for an ambient temperature of 30°C and a maximum operating and conductor temperature of 85°C . For other temperature please refer to correction factors .

							
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## H07RN8-F

### Characteristics

Construction characteristics	
Conductor flexibility	Flexible class 5
Sheath colour	Black
Conductor material	Bare copper
Electrical characteristics	
Rated Voltage U <sub>0</sub> /U (U <sub>m</sub> )	450 / 750 V
Mechanical characteristics	
Mechanical resistance to impacts	Very good
Cable flexibility	Flexible
Usage characteristics	
Short-circuit max. conductor temperature	200 °C
Operating temperature, range	-25 .. 55 °C
Chemical resistance	Accidental
Water proof	AD8
Flame retardant	C2, NF C 32-070
Oil resistance	Yes
Max. conductor temperature in service	60 °C
Dynamic bending factor	8 (xD)
Bending factor when installed	4 (xD)

### Single core

Cross section [mm <sup>2</sup> ]	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	27.0	5.7	7.1	50
2.5	32	16.2	6.3	7.9	66
4	43	10.1	7.2	9.0	94
6	56	6.7	7.9	9.8	109
10	77	3.94	9.5	11.9	182
16	102	2.5	10.8	13.4	256
25	136	1.68	12.7	15.8	369
35	168	1.21	14.3	17.9	482
50	203	0.87	16.5	20.6	662
70	254	0.64	18.6	23.3	895
95	315	0.44	20.8	26.0	1160
120	363	0.4	22.8	28.6	1430
150	416	0.35	25.2	31.4	1740
185	475	0.32	27.6	34.4	2160



Conductor flexibility  
Flexible class 5



Rated Voltage U<sub>0</sub>/U (U<sub>m</sub>)  
450 / 750 V



Mechanical resistance to impacts  
Very good



Cable flexibility  
Flexible



Operating temp. range  
-25 .. 55 °C



Chemical resistance  
Accidental



Water proof  
AD8



Flame retardant  
C2, NF C 32-070

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Cross section [mm <sup>2</sup> ]	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]
240	559	0.26	30.6	38.3	2730
300	637	0.23	33.5	41.9	3480
400	746	0.21	37.4	46.8	4510
500	833	0.18	41.3	52.0	5700

### Two cores

Cross section [mm <sup>2</sup> ]	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	13.1	161
4	43	10.1	11.8	15.1	238
6	56	6.7	13.1	16.8	279
10	77	3.94	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 [mm <sup>2</sup> ]	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	8.3	10.7	117
1.5	23	27.0	9.2	11.9	134
2.5	32	16.2	10.9	14.0	195
4	43	10.1	12.7	16.2	290
6	56	6.7	14.1	18.0	346
10	77	3.94	19.1	24.2	663
16	102	2.5	21.8	27.6	924
25	136	-	26.1	33.0	1345
25	136	1.68	26.1	33.0	1345
35	168	-	29.3	37.1	1760
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
95	320	0.5	43.3	54.0	4170
120	373	0.4	47.4	60.0	5080
150	432	0.35	52.0	66.0	6620


 Conductor flexibility  
 Flexible class 5

 Rated Voltage U<sub>0</sub>/U (Um)  
 450 / 750 V

 Mechanical resistance to impacts  
 Very good

 Cable flexibility  
 Flexible

 Operating temp. range  
 -25 .. 55 °C

 Chemical resistance  
 Accidental

 Water proof  
 AD8

 Flame retardant  
 C2, NF C 32-070

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Cross section [mm <sup>2</sup> ]	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]
185	495	0.32	57.0	72.0	7730
240	587	0.26	65.0	82.0	9780
300	680	0.23	72.0	90.0	12620

### Four cores

Cross section [mm <sup>2</sup> ]	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	-	9.2	11.9	144
1.5	21	-	10.2	13.1	165
2.5	29	-	12.5	15.5	245
4	38	-	14.0	17.9	357
6	50	-	15.7	20.0	443
10	68	-	20.8	26.5	818
16	92	-	23.8	30.1	1150
25	122	-	28.9	36.6	1700
25	122	-	28.9	36.6	1700
35	150	-	32.5	41.1	2180
50	182	-	37.7	47.5	3030
50	182	-	37.7	47.5	3030
70	232	-	42.7	54.0	3990
95	281	-	48.4	61.0	5360
120	325	-	53.0	66.0	6500
150	373	-	58.0	73.0	7990
185	425	-	64.0	80.0	9910
240	500	-	72.0	91.0	13120

### Five cores

Cross section [mm <sup>2</sup> ]	Perm. current rating open air [A]	Voltage drop, 3 conductors [V/A.km]	Min. outer diam. [mm]	Max. outer diam. [mm]	Approx. weight [kg/km]
1	16	34.0	10.2	13.1	180
1.5	21	23.3	11.2	14.4	238
2.5	29	14.0	13.3	17.0	297
4	38	8.71	15.6	19.9	453
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



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Mechanical resistance to impacts  
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Cross section [mm <sup>2</sup> ]	Perm. current rating open air [A]	Voltage drop, 3 conductors [V/A.km]	Min. outer diam. [mm]	Max. outer diam. [mm]	Approx. weight [kg/km]
25	122	1.44	32.0	40.4	2096
35	150	1.04	35.8	45.1	2720

### Twelve cores

Cross section [mm <sup>2</sup> ]	Perm. current rating open air [A]	Voltage drop, single phase [V/A.km]	Voltage drop, 3 conductors [V/A.km]	Min. outer diam. [mm]	Max. outer diam. [mm]	Approx. weight [kg/km]
1.5	11	-	23.3	17.6	22.4	510

### Eighteen cores

Cross section [mm <sup>2</sup> ]	Perm. current rating open air [A]	Voltage drop, 3 conductors [V/A.km]	Min. outer diam. [mm]	Max. outer diam. [mm]	Approx. weight [kg/km]
1.5	9	23.3	20.7	26.3	730

### twenty-four cores

Cross section [mm <sup>2</sup> ]	Voltage drop, 3 conductors [V/A.km]	Max. outer diam. [mm]	Min. outer diam. [mm]	Perm. current rating open air [A]	Approx. weight [kg/km]
1.5	23.3	30.7	24.3	8	1000









### thirty-six cores

Cross section [mm <sup>2</sup> ]	Voltage drop, 3 conductors [V/A.km]	Max. outer diam. [mm]	Min. outer diam. [mm]	Perm. current rating open air [A]	Approx. weight [kg/km]
1.5	23.3	35.2	27.8	6	1325

### Core identification of HD 308 S2

Core identification in accordance with HD 308 S2 (October 2001) Identification of cores in cables and flexible cords. Used for rubber flexible cables.

Number of cores	HD 308 S2 since January 2004	
	G (earth core)	X (without earth core)
1	Black (preferential)	Black (preferential)
2	Blue + Brown	Blue + Brown
3*	Green - Yellow + Blue + Brown	Brown + Black + Grey
3**		Blue + Brown + Black









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

### Selling information

Product on request only

							
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