



**CATALOG  
2021**

**NRG**  **CABLES**  
Special & Customized



## **NRG CABLES**

### **ABOUT US**

NRG Cables is a dynamic and innovative company, specialized in the marketing and distribution of special electrical cables for different applications, ensuring the availability of a wide range of products. NRG Cables is also able to provide customized cables with special sheath and insulation, shielding and armour to meet specific customer needs.

### **MISSION**

NRG Cables aims at offering high quality and technologically advanced products, in order to guarantee a high standard of service and satisfy promptly the market needs.

### **VISION**

Thanks to the consolidated experience of operators in this field, NRG Cables wants to be a leading player in the market for special electrical cables, thus contributing to the development and growth of the energy transport sectors.



# LEGEND

## SECTORS



RESIDENTIAL BUILDING



COMMERCIAL,  
INDUSTRIAL, PUBLIC  
BUILDING



RAILWAY



PORT, MARITIME



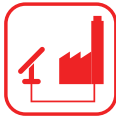
ROAD INFRASTRUCTURES,  
TUNNELS



OIL&GAS, HEAVY INDUSTRY,  
MINES



TELECOMMUNICATIONS



ENERGY INFRASTRUCTURES

## CHARACTERISTICS OF THE CABLE



HALOGEN FREE



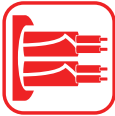
BRAID SHIELD



TAPE SHIELD



DOUBLE SHIELD



SHIELDED PAIR



TAPE ARMOUR



BRAID ARMOUR



CONDUCTOR



INSULATION



ARMOUR



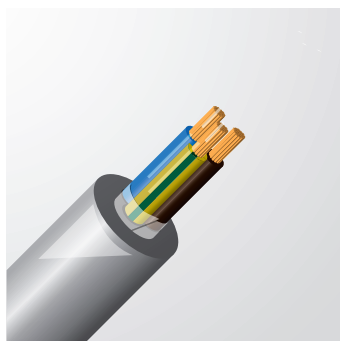
SHIELD



INSULATION



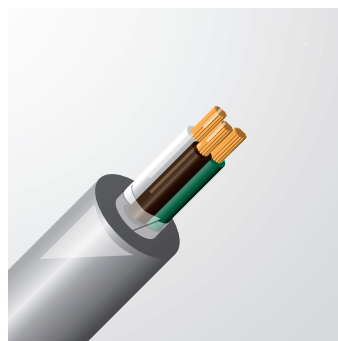
# INDEX



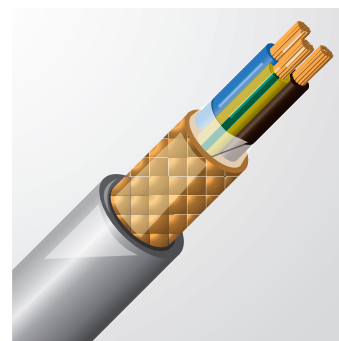
**FLEX 450/750 V**  
Cca-s3,d1,a3  
p. 6



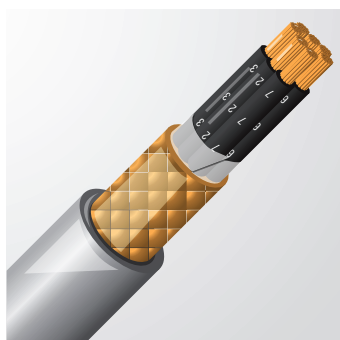
**FLEX 300/500 V**  
SIG. CON.  
Cca-s3,d1,a3  
p. 8



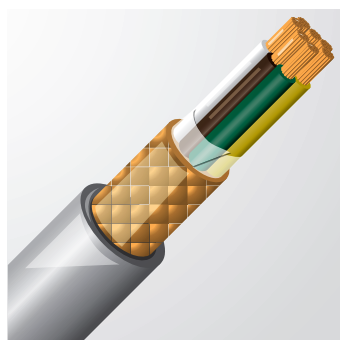
**FLEX 300/500 V**  
DIN 47100  
SIG. CON.  
Cca-s3,d1,a3  
p. 10



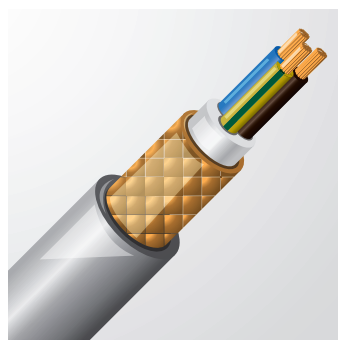
**FLEX-H2 450/750 V**  
Cca-s3,d1,a3  
p. 12



**FLEX-H2 300/500 V**  
SIG. CON.  
Cca-s3,d1,a3  
p. 14



**FLEX-H2 300/500 V**  
DIN 47100  
SIG. CON.  
Cca-s3,d1,a3  
p. 16

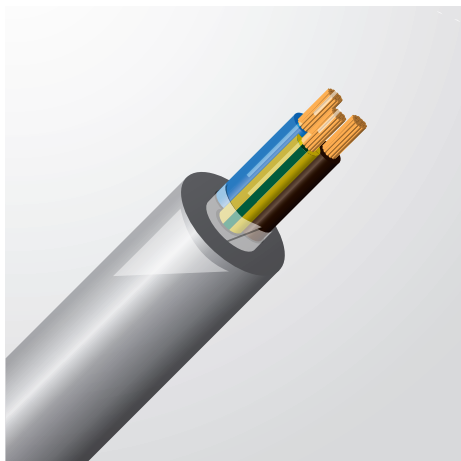


**FG160H2R16-0,6/1 KV**  
Cca-s3,d1,a3  
p. 18



**FG160H2R16-0,6/1 KV**  
SIG. CON.  
Cca-s3,d1,a3  
p. 20

**NRG Cables is also able to provide customized cables with special sheath and insulation, shielding and armour to meet specific customer needs.**



## FLEX 450/750 V

**CPR Cca-s3,d1,a3**



### STANDARDS

- CEI EN 50525-2-11 (as applicable);;
  - CEI EN 50363 (as applicable);;
  - CEI EN/IEC 60228;
  - CEI EN/IEC 60332-1-2.
- CEI EN 50575:2014+A1:2016

### USE



Residential building



Commercial, industrial, public building

## CONSTRUCTION FEATURES



### CONDUCTOR

Flexible annealed copper, class 5.  
CEI EN/IEC 60228.



### INSULATION

PVC type T12.

### CORES COLOUR

Yellow/green-blue-brown-black-grey.



### SHEATH

PVC type TM2.

### SHEATH COLOUR

Light grey.

## TECHNICAL FEATURES

### RATED VOLTAGE

U<sub>o</sub>/U 450/750 V

### TENSILE

5 Kg/mm<sup>2</sup>

### RADIUS

3 ÷ 8 x Øe.

### INSTALLATION MIN. TEMPERATURE

0°C

### MIN. USAGE TEMPERATURE

-15°C

### TEMPERATURE ON THE CONDUCTOR

70°C

### SHORT CIRCUIT TEMPERATURE

150°C

### USE AND INSTALLATION METHOD

Flexible multipolar cables for energy with PVC insulation and sheath with the characteristic of limiting the spread of fire according to the CPR class envisaged. Used for mobile connections and where required for fixed installation. Suitable for indoor installation, in dry or humid rooms, and outdoors for intermittent or temporary use; for connections and electrical equipment, electrical panels. They can be used in all industrial environments. Not suitable for underground installation.

### MARKING

Progressive metric marking.

NRG CABLES FLEX 450/750 V N. cores x/G section mm<sup>2</sup> dd.mm.yy Made in Italy Cca-s3,d1,a3.

## EUROPEAN DIRECTIVES

### RoSH

2011/65/UE (RoHS)  
2015/863/UE

### REACH

CE n° 1907/2006

### LVD

Directive 2014/35/UE

### CPR

305/2011 EU

## FLEX 450/750 V Cca-s3,d1,a3

N. x mm <sup>2</sup>		Outer diameter	Approx. Cable weight	Max. Eletrical resistance (20°C)
		mm	g/m	ohm/km
2 x	1	6,01	58	19,5
2 x	1,5	6,71	75	13,3
2 x	2,5	7,81	107	7,98
2 x	4	9,61	164	4,95
2 x	6	10,71	214	3,30
3 G	1	6,53	72	19,5
3 G	1,5	7,07	89	13,3
3 G	2,5	8,46	146	7,98
3 G	4	10,19	216	4,95
3 G	6	11,38	237	3,30
4 G	1	7,06	82	19,5
4 G	1,5	7,87	111	13,3
4 G	2,5	9,20	150	7,98
4 G	4	11,13	224	4,95
4 G	6	13,07	320	3,30
5 G	1	7,63	99	19,5
5 G	1,5	8,51	128	13,3
5 G	2,5	9,99	185	7,98
5 G	4	12,15	277	4,95
5 G	6	14,24	396	3,30

*If explicitly requested, and for agreed quantities, a version of the cables without the protective conductor (green/yellow) can be supplied.*



## FLEX 300/500 V - SIG. CON.

**CPR** Cca-s3,d1,a3



### STANDARDS

- CEI EN 50525-2-11 (as applicable);;
  - CEI EN 50363 (as applicable);;
  - CEI EN/IEC 60228;
  - CEI EN/IEC 60332-1-2.
- CEI EN 50575:2014+A1:2016

### USE



Residential building



Commercial, industrial, public building

## CONSTRUCTION FEATURES



**CONDUCTOR**  
Flexible annealed copper, class 5.  
CEI EN/IEC 60228.



**INSULATION**  
PVC type T12.

**CORES COLOUR**  
Black, with white progressive numbers, with or without the green/yellow earth core.



**SHEATH**  
PVC type TM2.

**SHEATH COLOUR**  
Light grey.

## TECHNICAL FEATURES

**RATED VOLTAGE**  
U<sub>0</sub>/U 300/500 V

**TENSILE**  
5 Kg/mm<sup>2</sup>

**RADIUS**  
3 ÷ 8 x Øe.

**INSTALLATION MIN. TEMPERATURE**  
0°C

**MIN. USAGE TEMPERATURE**  
-15°C

**TEMPERATURE ON THE CONDUCTOR**  
70°C

**SHORT CIRCUIT TEMPERATURE**  
150°C

### USE AND INSTALLATION METHOD

Flexible multipolar cables for control and signaling systems with PVC insulation and sheath with the characteristic of limiting the spread of fire according to the CPR class envisaged. They are suitable for the transmission of signals and commands between instrumentation equipment and control systems with the transmission of digital and analog signals. Used for mobile connections and where required for fixed installation. Suitable for indoor installation, in dry or humid rooms, and outdoors for intermittent or temporary use. They can be used in all industrial environments. Not suitable for underground installation.

### MARKING

Progressive metric marking.  
NRG CABLES FLEX 300/500 V N. cores x/G section mm<sup>2</sup> dd.mm.yy Made in Italy Cca-s3,d1,a3.

## EUROPEAN DIRECTIVES

**RoSH**  
2011/65/UE (RoHS)  
2015/863/UE

**REACH**  
CE n° 1907/2006

**LVD**  
Directive 2014/35/UE

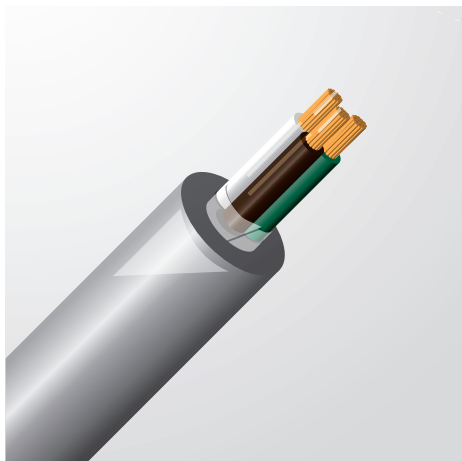
**CPR**  
305/2011 EU



## FLEX 300/500 V - SIG. CON. Cca-s3,d1,a3

N. x mm <sup>2</sup>		Outer diameter	Approx. Cable weight	Max. Electrical resistance (20°C)
		mm	g/m	ohm/km
3 G	0,5	5,78	53	19,5
3 G	0,75	6,21	73	13,3
3 G	1	6,53	83	7,98
3 G	1,5	7,07	103	4,95
3 G	2,5	8,46	146	3,30
4 G	0,5	6,22	56	19,5
4 G	0,75	6,70	71	13,3
4 G	1	7,06	82	7,98
4 G	1,5	7,87	106	4,95
4 G	2,5	9,20	150	3,30
5 G	0,5	6,69	72	19,5
5 G	0,75	7,23	85	13,3
5 G	1	7,63	99	7,98
5 G	1,5	8,51	128	4,95
5 G	2,5	9,99	185	3,30
7 G	0,5	7,19	81	19,5
7 G	0,75	7,79	105	13,3
7 G	1	8,44	128	7,98
7 G	1,5	9,19	160	4,95
7 G	2,5	10,84	245	3,30
10 G	0,5	9,07	125	19,5
10 G	0,75	9,87	156	13,3
10 G	1	10,47	184	7,98
10 G	1,5	11,47	233	4,95
10 G	2,5	13,67	429	3,30
12 G	0,5	9,07	129	19,5
12 G	0,75	9,87	166	13,3
12 G	1	10,47	198	7,98
12 G	1,5	11,47	251	4,95
12 G	2,5	13,67	376	3,30
16 G	0,5	10,25	164	19,5
16 G	0,75	11,19	213	13,3
16 G	1	11,89	254	7,98
16 G	1,5	13,07	347	4,95
16 G	2,5	16,25	516	3,30
24 G	0,5	12,43	253	19,5
24 G	0,75	13,63	299	13,3
24 G	1	14,93	374	7,98
24 G	1,5	16,43	498	4,95
24 G	2,5	20,13	725	3,30

If explicitly requested, and for agreed quantities, a version of the cables without the protective conductor (green/yellow) can be supplied.



## FLEX 300/500 V - DIN 47100 - SIG. CON.

**CPR Cca-s3,d1,a3**



### STANDARDS

- CEI EN 50525-2-11 (as applicable);;
- CEI EN 50363 (as applicable);;
- CEI EN/IEC 60228;
- CEI EN/IEC 60332-1-2.
- CEI EN 50575:2014+A1:2016
- DIN 47100 p.q.a.

### USE



Residential building



Commercial, industrial, public building

## CONSTRUCTION FEATURES



### CONDUCTOR

Flexible annealed copper, class 5.  
CEI EN/IEC 60228.



### INSULATION

PVC type T12.

### CORES COLOUR

White, brown, black, purple, green, yellow, gray, pink, blue, red.



### SHEATH

PVC type TM2.

### SHEATH COLOUR

Light grey.

## TECHNICAL FEATURES

### RATED VOLTAGE

U<sub>0</sub>/U 300/500 V

### TENSILE

5 Kg/mm<sup>2</sup>

### RADIUS

3 ÷ 8 x Øe.

### INSTALLATION MIN. TEMPERATURE

0°C

### MIN. USAGE TEMPERATURE

-15°C

### TEMPERATURE ON THE CONDUCTOR

70°C

### SHORT CIRCUIT TEMPERATURE

150°C

### USE AND INSTALLATION METHOD

flexible multipolar cables for energy with PVC insulation and sheath with the characteristic of limiting the spread of fire according to the CPR class envisaged. Used for mobile connections and where required for fixed installation. Suitable for indoor installation, in dry or humid rooms, and outdoors for intermittent or temporary use; for connections and electrical equipment, electrical panels. They can be used in all industrial environments. Not suitable for underground installation.

### MARKING

Progressive metric marking.

NRG CABLES FLEX 300/500 V DIN47100 N. cores x section mm<sup>2</sup> dd.mm.yy Made in Italy Cca-s3,d1,a3.

## EUROPEAN DIRECTIVES

### RoSH

2011/65/UE (RoHS)  
2015/863/UE

### REACH

CE n° 1907/2006

### LVD

Directive 2014/35/UE

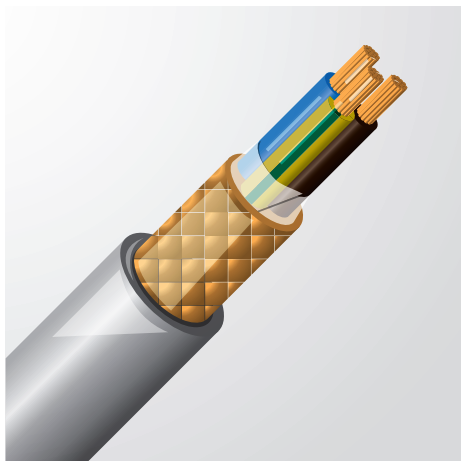
### CPR

305/2011 EU



## FLEX 300/500 V - DIN 47100 - SIG. CON. Cca-s3,d1,a3

N. x mm <sup>2</sup>		Outer diameter	Approx. Cable weight	Max. Electrical resistance (20°C)
		mm	g/m	ohm/km
2 x	0,5	5,31	42	19,5
2 x	0,75	5,71	51	13,3
3 x	0,5	5,78	51	19,5
3 x	0,75	6,21	63	13,3
4 x	0,5	6,22	56	19,5
4 x	0,75	6,21	74	13,3
5 x	0,5	6,69	72	19,5
5 x	0,75	7,23	85	13,3
6 x	0,5	7,19	81	19,5
6 x	0,75	7,79	108	13,3
7 x	0,5	7,19	81	19,5
7 x	0,75	7,79	105	13,3
8 x	0,5	8,37	96	19,5
8 x	0,75	9,31	128	13,3
10 x	0,5	6,89	126	19,5
10 x	0,75	10,65		13,3



## FLEX-H2 450/750 V

**CPR** Cca-s3,d1,a3



Braid Shield



### STANDARDS

- CEI EN 50525-2-11 (as applicable);;
  - CEI EN 50363 (as applicable);;
  - CEI EN/IEC 60228;
  - CEI EN/IEC 60332-1-2.
- CEI EN 50575:2014+A1:2016

### USE



Residential building



Commercial, industrial, public building

## CONSTRUCTION FEATURES



### CONDUCTOR

Flexible annealed copper, class 5.  
CEI EN/IEC 60228.



### INSULATION

PVC type T12.

### CORES COLOUR

Yellow/green-blue-brown-black-grey.



### SHIELD

Shield annealed copper braid.



### SHEATH

PVC type TM2.

### SHEATH COLOUR

Light grey.

## TECHNICAL FEATURES

### RATED VOLTAGE

U<sub>o</sub>/U 450/750 V

### TENSILE

5 Kg/mm<sup>2</sup>

### RADIUS

8 ÷ 10 x Ø<sub>e</sub>

### INSTALLATION MIN. TEMPERATURE

0°C

### MIN. USAGE TEMPERATURE

-15°C

### TEMPERATURE ON THE CONDUCTOR

70°C

### SHORT CIRCUIT TEMPERATURE

150°C

### USE AND INSTALLATION METHOD

Flexible multipolar cables for energy with PVC insulation and sheath with the characteristic of limiting the spread of fire according to the CPR class envisaged. Used for mobile connections and where foreseen for fixed installation and where a certain degree of protection against electromagnetic interference is required (Copper braid). Suitable for indoor installation, in dry or humid rooms, and outdoors for intermittent or temporary use; for connections and electrical equipment, electrical panels. They can be used in all industrial environments. Not suitable for underground installation.

### MARKING

Progressive metric marking.

NRG CABLES FLEX-H2 450/750 V N. cores x/G section mm<sup>2</sup> dd.mm.yy Made in Italy Cca-s3,d1,a3.

## EUROPEAN DIRECTIVES

### RoSH

2011/65/UE (RoHS)  
2015/863/UE

### REACH

CE n° 1907/2006

### LVD

Directive 2014/35/UE

### CPR

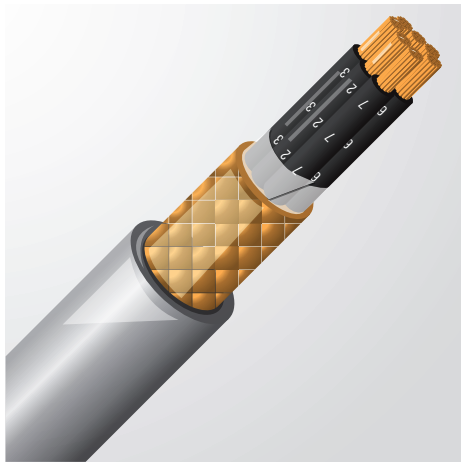
305/2011 EU



## FLEX-H2 450/750 V Cca-s3,d1,a3

N. x mm <sup>2</sup>		Outer diameter	Approx. Cable weight	Max. Eletrical resistance (20°C)
		mm	g/m	ohm/km
2 x	1	6,41	58	19,5
2 x	1,5	7,11	73	13,3
2 x	2,5	8,21	96	7,98
2 x	4	10,01	172	4,95
2 x	6	11,11	221	3,30
3 G	1	6,93	76	19,5
3 G	1,5	7,47	91	13,3
3 G	2,5	8,86	133	7,98
3 G	4	10,67	193	4,95
3 G	6	11,86	254	3,30
4 G	1	7,46	91	19,5
4 G	1,5	8,27	114	13,3
4 G	2,5	9,60	162	7,98
4 G	4	11,81	242	4,95
4 G	6	13,55	341	3,30
5 G	1	8,03	108	19,5
5 G	1,5	8,91	139	13,3
5 G	2,5	10,47	202	7,98
5 G	4	13,03	381	4,95
5 G	6	14,52	503	3,30

*If explicitly requested, and for agreed quantities, a version of the cables without the protective conductor (green/yellow) can be supplied.*



## FLEX-H2 300/500 V - SIG. CON.

**CPR Cca-s3,d1,a3**



Braid Shield



### STANDARDS

- CEI EN 50525-2-11 (as applicable);;
  - CEI EN 50363 (as applicable);;
  - CEI EN/IEC 60228;
  - CEI EN/IEC 60332-1-2.
- CEI EN 50575:2014+A1:2016

### USE



Residential building



Commercial, industrial, public building

## CONSTRUCTION FEATURES



**CONDUCTOR**  
Flexible annealed copper, class 5.  
CEI EN/IEC 60228.



**INSULATION**  
PVC type T12.

**CORES COLOUR**  
Black, with white progressive numbers, with or without the green/yellow earth core.



**SHIELD**  
Shield annealed copper braid.



**SHEATH**  
PVC type TM2.

**SHEATH COLOUR**  
Light grey.

## TECHNICAL FEATURES

**RATED VOLTAGE**  
U<sub>0</sub>/U 300/500 V

**TENSILE**  
5 Kg/mm<sup>2</sup>

**RADIUS**  
8 ÷ 10 x Ø<sub>e</sub>

**INSTALLATION MIN. TEMPERATURE**  
0°C

**MIN. USAGE TEMPERATURE**  
-15°C

**TEMPERATURE ON THE CONDUCTOR**  
70°C

**SHORT CIRCUIT TEMPERATURE**  
150°C

### USE AND INSTALLATION METHOD

Flexible multipolar cables for control and signaling systems with PVC insulation and sheath with the characteristic of limiting the spread of fire according to the CPR class envisaged. They are suitable for the transmission of signals and commands between instrumentation equipment and control systems with the transmission of digital and analog signals. Used for mobile connections and where foreseen for fixed installation and where a certain degree of protection against electromagnetic interference is required (Copper braid). Suitable for indoor installation, in dry or humid rooms, and outdoors for intermittent or temporary use. They can be used in all industrial environments. Not suitable for underground installation.

### MARKING

Progressive metric marking.  
NRG CABLES FLEX-H2 300/500 V N. cores G section mm<sup>2</sup> dd.mm.yy Made in Italy Cca-s3,d1,a3.

## EUROPEAN DIRECTIVES

**RoSH**  
2011/65/UE (RoHS)  
2015/863/UE

**REACH**  
CE n° 1907/2006

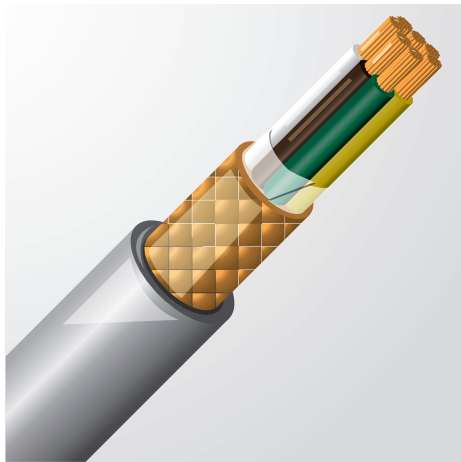
**LVD**  
Directive 2014/35/UE

**CPR**  
305/2011 EU

## FLEX-H2 300/500 V - SIG. CON. Cca-s3,d1,a3

N. x mm <sup>2</sup>		Outer diameter	Approx. Cable weight	Max. Eletrical resistance (20°C)
		mm	g/m	ohm/km
3 G	0,5	6,18	56	19,5
3 G	0,75	6,61	66	13,3
3 G	1	6,93	76	7,98
3 G	1,5	7,47	91	13,3
3 G	2,5	8,86	103	7,98
3 G	4	10,67	193	4,95
3 G	6	11,86	254	3,30
4 G	0,5	6,62	65	19,5
4 G	0,75	7,10	79	13,3
4 G	1	7,46	91	7,98
4 G	1,5	8,27	114	13,3
4 G	2,5	9,60	162	7,98
4 G	4	11,81	242	4,95
4 G	6	13,55	341	3,30
5 G	0,5	7,09	78	19,5
5 G	0,75	7,63	94	13,3
5 G	1	8,03	106	7,98
5 G	1,5	8,91	139	13,3
5 G	2,5	10,47	202	7,98
7 G	0,5	7,59	92	19,5
7 G	0,75	8,19	113	13,3
7 G	1	8,84	136	7,98
7 G	1,5	9,59	171	13,3
7 G	2,5	11,32	286	7,98
8 G	0,5	8,77	107	19,5
8 G	0,75	9,71	139	13,3
8 G	1	10,34	167	7,98
8 G	1,5	11,27	203	13,3
8 G	2,5	13,30	417	7,98
10 G	0,5	9,47	133	19,5
10 G	0,75	10,35	171	13,3
10 G	1	11,05	198	7,98
10 G	1,5	11,95	250	13,3
10 G	2,5	14,75	416	7,98
12 G	0,5	9,47	141	19,5
12 G	0,75	10,35	181	13,3
12 G	1	11,05	212	7,98
12 G	1,5	11,95	269	13,3
12 G	2,5	14,75	448	7,98
16 G	0,5	10,73	182	19,5
16 G	0,75	11,67	230	13,3
16 G	1	12,37	271	7,98
16 G	1,5	14,35	364	13,3
16 G	2,5	16,73	606	7,98
24 G	0,5	12,91	261	19,5
24 G	0,75	14,31	320	13,3
24 G	1	15,41	395	7,98
24 G	1,5	17,31	523	13,3
24 G	2,5	20,61	872	7,98

If explicitly requested, and for agreed quantities, a version of the cables without the protective conductor (green/yellow) can be supplied.



## FLEX-H2 300/500 V - DIN 47100 - SIG. CON.

### CPR Cca-s3,d1,a3



Braid Shield



#### STANDARDS

- CEI EN 50525-2-11 (as applicable);;
- CEI EN 50363 (as applicable);;
- CEI EN/IEC 60228;
- CEI EN/IEC 60332-1-2.
- CEI EN 50575:2014+A1:2016
- DIN 47100 p.q.a.

#### USE



Residential building



Commercial, industrial, public building

### CONSTRUCTION FEATURES



**CONDUCTOR**  
Flexible annealed copper, class 5.  
CEI EN/IEC 60228.



**INSULATION**  
PVC type T12.

**CORES COLOUR**  
White, brown, black, purple, green, yellow, gray, pink, blue, red.



**SHIELD**  
Shield annealed copper braid.



**SHEATH**  
PVC type TM2.

**SHEATH COLOUR**  
Light grey.

### TECHNICAL FEATURES

**RATED VOLTAGE**  
U<sub>0</sub>/U 300/500 V

**TENSILE**  
5 Kg/mm<sup>2</sup>

**RADIUS**  
8 ÷ 10 x Ø<sub>e</sub>

**INSTALLATION MIN. TEMPERATURE**  
0°C

**MIN. USAGE TEMPERATURE**  
-15°C

**TEMPERATURE ON THE CONDUCTOR**  
70°C

**SHORT CIRCUIT TEMPERATURE**  
150°C

#### USE AND INSTALLATION METHOD

Flexible multipolar cables for control and signaling systems with PVC insulation and sheath with the characteristic of limiting the spread of fire according to the CPR class envisaged. They are suitable for the transmission of signals and commands between instrumentation equipment and control systems with the transmission of digital and analog signals. Used for mobile connections and where foreseen for fixed installation and where a certain degree of protection against electromagnetic interference is required (Copper braid). Suitable for indoor installation, in dry or humid rooms, and outdoors for intermittent or temporary use. They can be used in all industrial environments. Not suitable for underground installation.

#### MARKING

Progressive metric marking.  
NRG CABLES FLEX-H2 300/500 V DIN47100 N. cores x section mm<sup>2</sup> dd.mm.yy Made in Italy Cca-s3,d1,a3.

### EUROPEAN DIRECTIVES

**RoSH**  
2011/65/UE (RoHS)  
2015/863/UE

**REACH**  
CE n° 1907/2006

**LVD**  
Directive 2014/35/UE

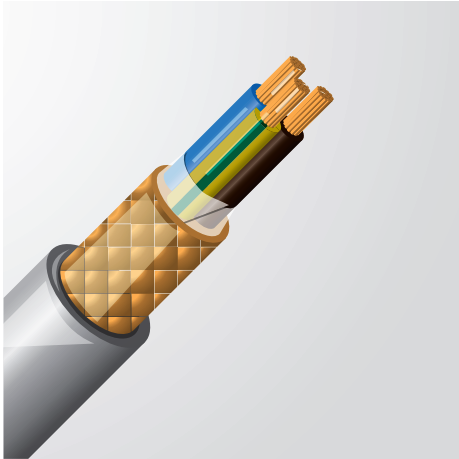
**CPR**  
305/2011 EU





## FLEX-H2 300/500 V - DIN 47100 - SIG. CON. Cca-s3,d1,a3

N. x mm <sup>2</sup>		Outer diameter	Approx. Cable weight	Max. Electrical resistance (20°C)
		mm	g/m	ohm/km
2 x	0,5	5,71	45	39,4
2 x	0,75	6,11	52	26,0
3 x	0,5	6,18	56	39,4
3 x	0,75	6,61	66	26,0
4 x	0,5	6,62	65	39,4
4 x	0,75	7,10	79	26,0
5 x	0,5	7,09	77	39,4
5 x	0,75	7,63	94	26,0
6 x	0,5	7,59	89	39,4
6 x	0,75	8,19	111	26,0
7 x	0,5	7,59	92,53	39,4
7 x	0,75	8,19	113	26,0
8 x	0,5	8,77	125	39,4
8 x	0,75	9,51	139	26,0
10 x	0,5	9,69	139	39,4
10 x	0,75	10,57	178	26,0



## FG16OH2R16-0,6/1 kV

**CPR** Cca-s3,d1,a3



Braid Shield



### STANDARDS

- CEI 20-13
- CEI UNEL 35318
- CEI 20-11
- CEI EN/IEC 60228
- CEI EN 50399
- CEI EN 60754-2
- CEI EN/IEC 60332-1-2
- CEI EN 50575:2014+A1:2016

### USE



Commercial,  
industrial, public  
building

## CONSTRUCTION FEATURES



### CONDUCTOR

Flexible annealed copper, class 5.  
CEI EN/IEC 60228.



### INSULATION

Hard ethylene propylene rubber (HEPR) compound, of  
type G16.

### CORES COLOUR

Yellow/green-blue-brown-black-grey



### SHIELD

Shield annealed copper braid.



### SHEATH

PVC type R16 with reduced emission of halogen  
(corrosive gases).

### SHEATH COLOUR

Light grey.

## TECHNICAL FEATURES

### RATED VOLTAGE

U<sub>0</sub>/U 600/1000 V

### TENSILE

5 Kg/mm<sup>2</sup>

### RADIUS

10 x Øe.

### INSTALLATION MIN. TEMPERATURE

0°C

### MIN. USAGE TEMPERATURE

-15°C

### TEMPERATURE ON THE CONDUCTOR

90°C

### SHORT CIRCUIT TEMPERATURE

250°C

### USE AND INSTALLATION METHOD

Flexible multipolar cables for control and signaling systems with PVC insulation and sheath with the characteristic of limiting the spread of fire according to the CPR class envisaged. They are suitable for the transmission of signals and commands between instrumentation equipment and control systems with the transmission of digital and analog signals. Used for mobile connections and where foreseen for fixed installation and where a certain degree of protection against electromagnetic interference is required (Copper braid). Suitable for indoor installation, in dry or humid rooms, and outdoors for intermittent or temporary use. They can be used in all industrial environments. Not suitable for underground installation.

### MARKING

Progressive metric marking.

NRG CABLES FG16OH2R16-0,6/1 kV N. cores x section mm<sup>2</sup> dd.mm.yy Made in Italy Cca-s3,d1,a3.

## EUROPEAN DIRECTIVES

### RoSH

2011/65/UE (RoHS)  
2015/863/UE

### REACH

CE n° 1907/2006

### LVD

Directive 2014/35/UE

### CPR

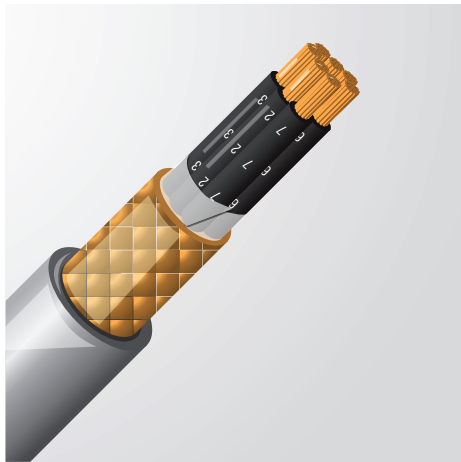
305/2011 EU



## FG160H2R16-0,6/1 kV Cca-s3,d1,a3

N. x mm <sup>2</sup>		Outer diameter	Approx. Cable weight	Max. Eletrical resistance (20°C)	
		mm	g/m	ohm/km	
2 x	1,5	9,67	120	13,3	
2 x	2,5	10,59	148	7,98	
2 x	4	11,69	185	4,95	
2 x	6	12,79	231	3,30	
2 x	10	14,79	329	1,91	
2 x	16	16,91	469	1,21	
2 x	25	20,31	652	0,780	
2 x	35	22,51	845	0,554	
3 G	1,5	10,12	142	13,3	
3 G	2,5	11,11	180	7,98	
3 G	4	12,30	233	4,95	
3 G	6	13,49	298	3,30	
3 G	10	15,65	431	1,91	
3 G	16	17,93	614	1,21	
3 G	25	21,60	887	0,780	
3 G	35	23,98	1164	0,554	
3 G	50	27,65	1823	0,386	
3 x	1,5	10,24	144	13,3	
4 G	1,5	10,85	169	13,3	
4 G	2,5	11,97	216	7,98	
4 G	4	13,30	284	4,95	
4 G	6	14,63	369	3,30	
4 G	10	17,17	548	1,91	
4 G	16	19,59	782	1,21	
4 G	25	23,70	1136	0,780	
3 x	+ 1G 25	25,70	1750	0,554	0,780
3 x	+ 1G 25	28,79	2275	0,386	0,780
4 x	1,5	10,85	169	13,3	
5 G	1,5	11,64	200	11,64	
5 G	2,5	12,89	261	12,89	
5 G	4	14,37	346	14,37	
5 G	6	15,86	450	15,86	
5 G	10	18,68	679	18,68	
5 G	16	21,38	959	21,38	
5 G	25	25,97	1428	25,97	
5 G	35	29,14	1850	29,14	
5 G	50	33,93	2300	33,93	

If explicitly requested, and for agreed quantities, a version of the cables without the protective conductor (green/yellow) can be supplied.



## FG160H2R16-0,6/1 kV - SIG. CON.

### CPR Cca-s3,d1,a3



Braid Shield



#### STANDARDS

- CEI 20-13
- CEI UNEL 35318
- CEI 20-11
- CEI EN/IEC 60228
- CEI EN 50399
- CEI EN 60754-2
- CEI EN/IEC 60332-1-2
- CEI EN 50575:2014+A1:2016

#### USE



Commercial,  
industrial, public  
building

## CONSTRUCTION FEATURES



#### CONDUCTOR

Flexible annealed copper, class 5.  
CEI EN/IEC 60228.



#### INSULATION

Hard ethylene propylene rubber (HEPR) compound, of  
type G16.

#### CORES COLOUR

Black, with white progressive numbers, with or without  
the green/yellow earth core.



#### SHIELD

Shield annealed copper braid.



#### SHEATH

PVC type R16 with reduced emission of halogen  
(corrosive gases).

#### SHEATH COLOUR

Light grey.

## TECHNICAL FEATURES

#### RATED VOLTAGE

U<sub>0</sub>/U 600/1000 V

#### TENSILE

5 Kg/mm<sup>2</sup>

#### RADIUS

10 x Øe.

#### INSTALLATION MIN. TEMPERATURE

0°C

#### MIN. USAGE TEMPERATURE

-15°C

#### TEMPERATURE ON THE CONDUCTOR

90°C

#### SHORT CIRCUIT TEMPERATURE

250°C

#### USE AND INSTALLATION METHOD

Flexible multipolar cables for signal transmission with G16 insulation and PVC sheath with the characteristic of limiting the spread of fire according to the CPR class envisaged. Used for mobile connections and where foreseen for fixed installation and where a certain degree of protection against electromagnetic interference is required (Copper braid). Suitable for indoor installation, even in wet environments, and outdoors; fixed installation on masonry and metal structures; protected underground installation allowed. Normally intended for the interconnection between parts of construction machinery, including machine tools and in applications for industrial automation

#### MARKING

Progressive metric marking.

NRG CABLES FG160H2R16-0,6/1 kV N. cores x section mm<sup>2</sup> dd.mm.yy Made in Italy Cca-s3,d1,a3.

## EUROPEAN DIRECTIVES

#### RoSH

2011/65/UE (RoHS)  
2015/863/UE

#### REACH

CE n° 1907/2006

#### LVD

Directive 2014/35/UE

#### CPR

305/2011 EU

## FG160H2R16-0,6/1 kV - SIG. CON. Cca-s3,d1,a3

N. x mm <sup>2</sup>		Outer diameter	Approx. Cable weight	Max. Electrical resistance (20°C)
		mm	g/m	ohm/km
7 G	1,5	12,49	246	13,3
7 G	2,5	13,87	321	7,98
10 G	1,5	15,43	349	13,3
10 G	2,5	17,15	471	7,98
12 G	1,5	15,43	374	13,3
12 G	2,5	17,15	498	7,98
16 G	35	17,40	475	13,3
16 G	2,5	19,57	632	7,98
19 G	1,5	18,25	537	13,3
19 G	2,5	20,55	724	7,98
24 G	1,5	21,07	667	13,3
24 G	2,5	23,83	949	7,98

*If explicitly requested, and for agreed quantities, a version of the cables without the protective conductor (green/yellow) can be supplied.*

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