

**HEPR insulated flexible cable with braided shield of red copper wires and PVC sheath of halogen-free flame retardant and without emission of corrosive gases**

**CEI 20-13 - CEI 20-22/2  
EN 50267-2-1 - EN 50414  
CEI UNEL 35375  
CEI UNEL 35377**

**Low voltage directive 2006/95/CE  
RoHS 2011/65/CE directive**



## FG70H2R

### Manufacturing characteristics

Conductor stranded bare copper, rubber insulated  
Ethylene high quality module G7, braid of copper wires, sheathed in special PVC  
Rz quality unleaded.

### Marking

Marking on the external insulation with special ink:  
IRCE CAVI CEI 20-22 II Pb free FG70H2R 0,6/1 kV  
<nr. conductors x section><year><metric marking>

### Application – intended use

Flexible cables suitable for power transmission and power control and signals in industry and construction. Suitable for use in environments with risk of fire and with a lot of people such as metropolitan schools, offices, hotels, etc.. Suitable for fixed installation inside and outside can be installed in open air, on bridges, in pipes or ducts. Can be directly buried. The screen offers excellent protection against electromagnetic interference.

### Warning

The capacities of four and five core cables are calculated for three active conductors.

The capacities for underground installed cables has been calculated with embedment depth of 0.8 m.



**Nominal voltage:**  
 $U_0/U = 600/1000V$



**Minimum bending radius:**  
8 x ext. diameter



**Operating temperature:**  
90° C



**Traction force during laying:**  
50 N/mm<sup>2</sup> of copper section max  
for fixed layings



**Short circuit temperature:**  
250° C



**Laying temperature:**  
minimum 0° C



# FG70H2R

Number of conductors nom. cross section area n° x mm <sup>2</sup>	Approx. conductor diameter mm	Average insulation thickness mm	Maximum External diameter mm	Cable nominal weight kg / km	Max conductor resistance at 20° C Ohm / km	Current carrying (A) at			
						30° C air	30° C pipe	20° C undergr.	20° C undergr. pipe
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2 x 1,5	1,5	0,70	12,7	155	13,3	26	22	35	24
2 x 2,5	2,0	0,70	13,7	220	7,98	36	30	46	31
2 x 4,0	2,5	0,70	14,9	275	4,95	50	41	57	41
2 x 6,0	3,0	0,70	16,1	358	3,30	64	52	74	52
2 x 10	3,9	0,70	18,2	495	1,91	86	69	96	71
2 x 16	5,0	0,70	20,4	690	1,21	115	90	122	92
2 x 25	6,4	0,90	24,0	985	0,780	150	120	161	124
2 x 35	7,7	0,90	26,6	1260	0,554	186	147	193	150
2 x 50	9,2	1,00	30,5	1700	0,386	225	175	224	180

3 x 1,5	1,5	0,70	13,3	200	13,3	23	20	29	20
3 x 2,5	2,0	0,70	14,3	245	7,98	32	25	36	26
3 x 4,0	2,5	0,70	15,6	335	4,95	43	35	48	34
3 x 6,0	3,0	0,70	16,9	410	3,30	55	45	60	44
3 x 10	3,9	0,70	19,2	615	1,91	77	61	78	60
3 x 16	5,0	0,70	21,5	830	1,21	100	80	105	78
3 x 25	6,4	0,90	25,4	1195	0,780	128	106	135	104
3 x 35	7,7	0,90	28,3	1560	0,554	159	130	160	126

4 x 1,5	1,5	0,70	14,1	225	13,3	24	20	29	20
4 x 2,5	2,0	0,70	15,3	300	7,98	32	26	37	26
4 x 4,0	2,5	0,70	16,7	390	4,95	42	35	48	34
4 x 6,0	3,0	0,70	18,4	500	3,30	54	45	60	44
4 x 10	3,9	0,70	20,8	730	1,91	75	60	79	60
4 x 16	5,0	0,70	23,4	1010	1,21	100	80	105	78
4 x 25	6,4	0,90	27,7	1470	0,780	128	106	135	105
3x35+1x 25	7,7	0,90	30,4	1830	0,554	159	130	160	126

5 x 1,5	1,5	0,70	15,1	260	13,3	24	20	29	20
5 x 2,5	2,0	0,70	16,4	350	7,98	32	26	37	26
5 x 4,0	2,5	0,70	18,2	470	4,95	42	35	48	34
5 x 6,0	3,0	0,70	19,8	615	3,30	54	45	60	43
5 x 10	3,9	0,70	22,4	880	1,91	75	60	79	60
5 x 16	5,0	0,70	25,4	1210	1,21	100	80	105	78
5 x 25	6,4	0,90	30,5	1810	0,780	128	106	134	105

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7 x 1,5	1,5	0,70	16,1	335	13,3	13	11	18	
7 x 2,5	2,0	0,70	17,8	450	7,98	18	16	24	
10 x 1,5	1,5	0,70	19,7	490	13,3	13	12	19	
10 x 2,5	2,0	0,70	21,6	625	7,98	18	16	24	
12 x 1,5	1,5	0,70	20,2	535	13,3	11	10	15	
12 x 2,5	2,0	0,70	22,2	690	7,98	14	12	20	
16 x 1,5	1,5	0,70	22,0	650	13,3	11	10	15	
16 x 2,5	2,0	0,70	24,3	855	7,98	14	12	20	
19 x 1,5	1,5	0,70	23,0	730	13,3	9	8	13	
19 x 2,5	2,0	0,70	25,4	955	7,98	12	11	16	
24 x 1,5	1,5	0,70	26,4	870	13,3	9	8	13	
24 x 2,5	2,0	0,70	29,3	1170	7,98	12	11	16	

### NOTE:

A version FG70H1R screened with ribbons of red copper is available.