

**HEPR insulated flexible cable with braided shield of red copper wires and plastic sheath of halogen-free flame retardant and without emission of corrosive gases. The cable keeps the electrical characteristics for at least 90 minutes when subjected to fire (830 ° C)**

# FTG100M1

## CEI 20-45

**CEI 20-45 - CEI 20-22/3**  
**EN 50266-2-4 - EN 50200**  
**EN 50362 - EN 50267-2-1 - EN 61034-2**  
**CEI 20-37/4**  
**Low voltage directive 2006/95/CE**  
**RoHS 2011/65/CE directive**



### Manufacturing characteristics

Conductor stranded bare copper covered with tape wrapped helically vetromica, ethylene-propylene rubber insulation G10 quality, thermoplastic sheath special quality M1.

### Marking

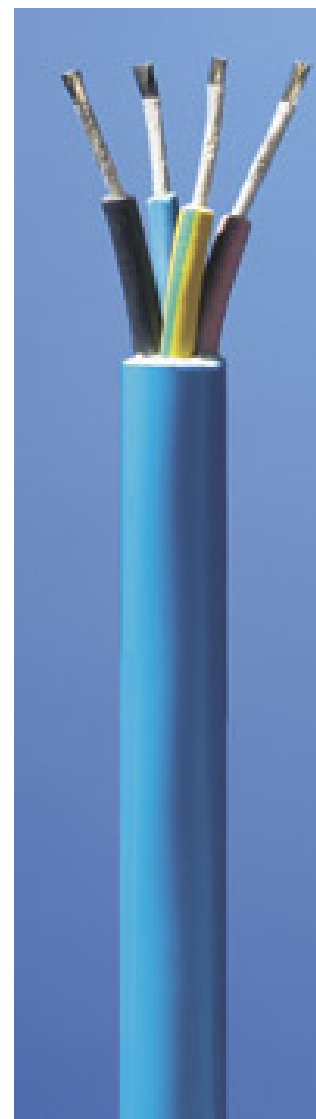
Marking on the external insulation with special ink:  
 IRCE CAVI IEMMEQU CEI 20-45 PH90 CEI 20-22 III CAT C FTG100M1 0,6/1 kV  
 <nr. conductors x section><year><metric marking>

### 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 current carrying capacities of single wires are calculated for three not spaced cables. 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:**  
 14 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

Number of conductors nom. cross section area n° x mm <sup>2</sup>	Approx. conductor diameter mm	Average insulation thickness mm	Maximum external cable 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
1 x 1,5	1,5	1,00	7,4	66	13,3	25	20	30	22
1 x 2,5	2,0	1,00	7,9	80	7,98	33	28	38	29
1 x 4,0	2,5	1,00	8,3	98	4,95	43	37	50	37
1 x 6,0	3,0	1,00	8,8	120	3,30	55	48	63	46
1 x 10	3,9	1,00	9,8	166	1,91	77	66	84	65
1 x 16	5,0	1,00	10,8	230	1,21	100	89	106	85
1 x 25	6,4	1,20	12,6	330	0,780	135	117	136	110
1 x 35	7,7	1,20	13,8	430	0,554	170	147	165	137
1 x 50	9,2	1,40	15,8	590	0,386	209	176	192	164
1 x 70	11,0	1,40	18,0	800	0,272	268	222	233	201
1 x 95	12,5	1,60	20,2	1060	0,206	328	269	278	247
1 x 120	14,2	1,60	21,9	1300	0,161	385	312	317	283
1 x 150	15,8	1,80	23,9	1600	0,129	446	355	353	323
1 x 185	17,5	2,00	26,6	1960	0,106	511	417	400	368
1 x 240	20,1	2,20	29,5	2500	0,0801	610	490	459	430

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Number of conductors nom. cross section area n° x mm2	Approx. conductor diameter mm	Average insulation thickness mm	Maximum external cable 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
2 x 1,5	1,5	1,00	13,2	218	13,3	26	22	35	24
2 x 2,5	2,0	1,00	14,2	260	7,98	36	30	46	31
2 x 4,0	2,5	1,00	15,2	318	4,95	50	41	57	41
2 x 6,0	3,0	1,00	16,2	385	3,30	64	52	74	52
2 x 10	3,9	1,00	18,1	518	1,91	86	69	96	71
2 x 16	5,0	1,00	20,2	690	1,21	115	90	122	92
2 x 25	6,4	1,20	23,6	995	0,780	150	120	161	124
2 x 35	7,7	1,20	26,0	1275	0,554	186	147	193	150
2 x 50	9,2	1,40	30,2	1760	0,386	225	175	224	180
3 x 1,5	1,5	1,00	13,8	240	13,3	23	20	29	20
3 x 2,5	2,0	1,00	14,8	295	7,98	32	25	36	26
3 x 4,0	2,5	1,00	15,9	365	4,95	43	35	48	34
3 x 6,0	3,0	1,00	17,1	445	3,30	55	45	60	44
3 x 10	3,9	1,00	19,1	615	1,91	75	61	78	60
3 x 16	5,0	1,00	21,2	830	1,21	100	80	105	78
3 x 25	6,4	1,20	25,0	1215	0,780	128	106	135	104
3 x 35	7,7	1,20	27,7	1575	0,554	159	130	160	126
3 x 50	9,2	1,40	32,4	2200	0,386	195	155	186	150
4 x 1,5	1,5	1,00	15,0	280	13,3	24	20	29	20
4 x 2,5	2,0	1,00	16,0	345	7,98	32	26	37	26
4 x 4,0	2,5	1,00	17,2	430	4,95	42	35	48	34
4 x 6,0	3,0	1,00	18,6	535	3,30	54	45	60	44
4 x 10	3,9	1,00	20,8	745	1,91	75	60	79	60
4 x 16	5,0	1,00	23,3	1020	1,21	100	80	105	78
4 x 25	6,4	1,20	27,6	1500	0,780	128	106	135	104
5 x 1,5	1,5	1,00	16,2	335	13,3	24	20	29	20
5 x 2,5	2,0	1,00	17,4	415	7,98	32	26	37	26
5 x 4,0	2,5	1,00	18,8	520	4,95	42	35	48	34
5 x 6,0	3,0	1,00	20,2	650	3,30	54	45	60	43
5 x 10	3,9	1,00	22,8	915	1,91	75	60	79	60
5 x 16	5,0	1,00	25,5	1250	1,21	100	80	105	78
5 x 25	6,4	1,20	30,4	1860	0,780	128	106	135	104
(IRCE CAVI CEI 20-45 PH90 FTG100M1...)									
7 x 1,5	1,5	1,00	17,5	390	13,3	13	11	18	
7 x 2,5	2,0	1,00	18,8	495	7,98	18	16	24	
12 x 1,5	1,5	1,00	22,5	600	13,4	11	10	15	
12 x 2,5	2,0	1,00	24,0	760	8,06	14	12	20	
19 x 1,5	1,5	1,00	25,8	850	13,4	9	8	13	
19 x 2,5	2,0	1,00	28,2	1100	8,06	12	11	16	

NOTA:

Other formations with and without yellow / green are available on request.