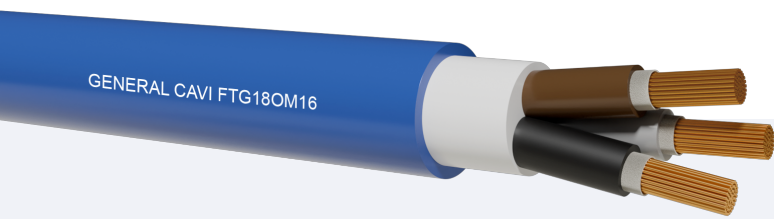


# FTG180M16 0,6/1kV PH/F120 CEI 20-45 V2

CPR B2ca-s1a,d1,a1

Model Product: A20-A21 - 20200407



Class 5 flexible copper conductor.  
Mica tape.  
Elastomeric mixture insulation (G18 quality).  
Not fibrous and not hygroscopic filler  
LSZH thermoplastic sheath, M16.

## STANDARDS

CEI 20-45 V2 IEC 60502-1 pqa CEI EN 50200 CEI EN 50362  
CEI 20-36/4-0 /5-0 EN/IEC 60331 pqa  
EN 50575:2014 + EN 50575/A1:2016 EN/IEC 60332-1-2

Accordingly to the standards BT 2014/35/UE- 2011/65/EU (RoHS 3)

Power cables, rubber insulated (G18), thermoplastic or elastomeric sheath, with special requirements of reaction to fire performance according to the Construction Products Regulation (CPR). Cables with additional characteristics of operation in the presence of fire and mechanical shocks for at least 120 minutes at a temperature of 830 ° C.

Nominal voltage U0: 600V(AC) 1800V(DC)

Nominal voltage U: 1kV(AC)1,8kV(DC)

Test voltage: 4000 V

Maximum voltage Um: 1,2kV(AC)1,8kV(DC)

Maximum operating temperature: 90°C

Maximum short circuit temperature for sections up to 240mm²: +250°C

Maximum short circuit temperature for sections over 240mm²: +220°C

Minimum installation and laying temperature: 0°C

Min. operating temperature (without mechanical shocks): -15°C

Minimum installation and laying temperature: 0°C

## COMMON FEATURES

For electrical power system in constructions and other civil engineering buildings, in order to limit fire and smoke production and spread, in accordance with the CPR. Power and control use outdoor and indoor applications, even wet. Suitable for fixed installations at open air, in tube or canals, masonry, metals structures, overhead wire and for direct or indirect underground wiring. The most important property of this kind of cable is its protection against smokes, toxic and corrosive gases in case of fire. Power and control use outdoor applications, even wet AD6. Particularly suitable for installation in tunnels.

## EMPLOYMENT

Minimum bending radius per D cable diameter (in mm):  
Power flexible cables, class 5 = 12D Control = 14D  
Maximum pulling stress: During installation = 50 N/mm² Static stress = 15 N/mm²

## PACKING

Drums to agree.

## CORE COLOURS

Two cores: blue-brown

Three cores: brown-black-gray (or blue-brown-Y/G)

Four cores: blue-brown-black-gray (or Y/G instead blue)

Five cores: Y/G-blue-brown-black-gray (or black instead Y/G)

Multicores: black with numbers

## SHEATH COLOUR

Blue

## INK MARKING

GENERALCAVI -B2ca-s1a,d1,a1 - IEMMEQU EFP - year - FTG180M16-0,6/1 kV-CEI 20-45- form x sect. -PH 120(Diameter >20 F120) inner work order - progressive length



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## FTG180M16 0,6/1kV PH/F120

Cores number (N°)	Cross section (mm²)	Approx conductor diameter (mm)	Insulation medium thickness (mm)	Approx External production diameter (mm)	Approx cable weight (kg/km)	Electric resistance at 20°C (Ohm/km)	Current carrying capacities	
							30° In pipe (A)	20°C In ground (A)
Single core								
1x	1,5	1.6	1.0	7.88	83	13.3	20	21
1x	2,5	2	1.0	8.27	97	7.98	28	27
1x	4	2.6	1.0	8.97	120	4.95	37	35
1x	6	3.4	1.0	9.31	141	3.30	48	44
1x	10	4.4	1.0	10.95	201	1.91	66	59
1x	16	5.7	1.0	12.10	268	1.21	88	77
1x	25	6.9	1.2	13.51	363	0.78	117	100
1x	35	8.1	1.2	14.5	460	0.554	144	121
1x	50	9.8	1.4	17.15	650	0.386	175	150
1x	70	11.6	1.4	19.65	870	0.272	222	184
1x	95	13.3	1.6	21.60	1112	0.206	269	217
1x	120	15.1	1.6	23.5	1358	0.161	312	259
1x	150	16.8	1.8	25.40	1656	0.129	355	287
1x	185	18.6	2.0	27.10	1967	0.106	417	323
1x	240	21.4	2.2	32.10	2568	0.0801	490	379
1x	300	23.9	2.4	34.58	3184	0.0641	-	429
Two cores								
2x	1.5	1.6	1.0	12.70	186	13.3	22	23
2x	2.5	2.0	1.0	13.30	232	7.98	30	30
2x	4	2.6	1.0	14.90	287	4.95	40	39
2x	6	3.4	1.0	16.15	356	3.3	51	49
2x	10	4.4	1.0	18.40	421	1.91	69	66
2x	16	5.7	1.0	20.00	669	1.21	91	85
2x	25	6.9	1.2	23.00	959	0.78	119	111
2x	35	8.1	1.2	24.93	1218	0.554	146	136
2x	50	9.8	1.4	28.62	1663	0.386	175	168
2x	70	11.6	1.4	33.73	2543	0.272	221	207
2x	95	13.3	1.6	37.64	3277	0.206	265	245
2x	120	15.1	1.6	41.72	4061	0.161	305	284
2x	150	16.8	1.8	46.45	5615	0.129	-	324
2x	185	18.6	2.0	49.42	6560	0.106	-	359
2x	240	21.4	2.2	56.47	8636	0.0801	-	400
Three cores								



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Cores number (N°)	Cross section (mm²)	Approx conductor diameter (mm)	Insulation medium thickness (mm)	Approx External production diameter (mm)	Approx cable weight (kg/km)	Electric resistance at 20°C (Ohm/km)	Current carrying capacities	
							30° In pipe (A)	20°C In ground (A)
3x	1.5	1.6	1.0	13.8	212	13.3	19.5	19
3x	2.5	2.0	1.0	14.26	350	7.98	26	25
3x	4	2.6	1.0	15.63	327	4.95	35	32
3x	6	3.4	1.0	16.94	431	3.3	44	41
3x	10	4.4	1.0	19.98	600	1.91	60	55
3x	16	5.7	1.0	21.77	812	1.21	80	72
3x	25	6.9	1.2	25.19	1215	0.78	105	93
3x	35	8.1	1.2	28.15	1587	0.554	128	114
3x	50	9.8	1.4	32.98	2203	0.386	154	141
3x	70	11.6	1.4	37.12	2957	0.272	194	174
3x	95	13.3	1.6	42.09	3930	0.206	233	206
3x	120	15.1	1.6	46.70	4813	0.161	268	238
3x	150	16.8	1.8	51.29	5950	0.129	300	272
3x	185	18.6	2.0	56.24	7204	0.106	340	306
3x	240	21.4	2.2	64.77	9438	0.0801	398	360
Four cores								
4x	1.5	1.6	1.0	14.20	250	13.3	19.5	19
4x	2.5	2.0	1.0	15.21	309	7.98	26	25
4x	4	2.6	1.0	16.78	387	4.95	35	32
4x	6	3.4	1.0	18.15	526	3.3	44	41
4x	10	4.4	1.0	21.40	744	1.91	60	55
4x	16	5.7	1.0	25.12	1042	1.21	80	72
4x	25	6.9	1.2	29.10	1486	0.78	105	93
4x	3x35+1x25	8.1	1.2	31.40	1886	0.554	130	114
4x	3x50+1x25	9.8	1.4	34.90	2493	0.386	155	141
4x	3x70+1x35	11.6	1.4	39.27	3404	0.272	194	174
4x	3x95+1x50	13.3	1.6	45.08	4549	0.206	235	206
4x	3x120+1x70	15.1	1.6	51.44	5841	0.161	267	238
4x	3x150+1x95	16.8	1.8	56.48	7256	0.129	-	272
4x	3x185+1x95	18.6	2.0	60.09	8398	0.106	-	306
4x	3x240+1x150	21.4	2.2	69.90	11290	0.0801	-	360
Five cores								
5G	1.5	1.6	1.0	15.47	304	13.3	19.5	19
5G	2.5	2.0	1.0	16.69	377	7.98	26	25
5G	4	2.6	1.0	18.20	480	4.95	35	32

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Cores number (N°)	Cross section (mm <sup>2</sup> )	Approx conductor diameter (mm)	Insulation medium thickness (mm)	Approx External production diameter (mm)	Approx cable weight (kg/km)	Electric resistance at 20°C (Ohm/km)	Current carrying capacities	
							30° In pipe (A)	20°C In ground (A)
5G	6	3.4	1.0	19.90	660	3.3	44	41
5G	10	4.4	1.0	24.10	954	1.91	60	55
5G	16	5.7	1.0	28.30	1304	1.21	80	72
5G	25	6.9	1.2	32.20	1952	0.78	105	93
5G	35	8.1	1.2	36.40	2577	0.554	130	114
5G	50	9.8	1.4	41.00	3508	0.386	155	141
5G	70	11.6	1.4	49.10	4907	0.272	194	174
Multicores								
7G	1.5	1.6	1.0	17.50	401	13.3	19.5	19
7G	2.5	2.0	1.0	18.31	502	7.98	26	25
10G	1.5	1.6	1.0	19.83	534	13.3	19.5	19
10G	2.5	2.0	1.0	21.50	673	7.98	26	25
12G	1.5	1.6	1.0	21.87	618	13.3	19.5	19
12G	2.5	2.0	1.0	23.79	782	7.98	26	25
16G	1.5	1.6	1.0	24.28	837	13.3	19.5	19
16G	2.5	2.0	1.0	27.53	1087	7.98	26	25
19G	1.5	1.6	1.0	25.50	942	13.3	19.5	19
19G	2.5	2.0	1.0	28.89	1228	7.98	26	25
24G	1.5	1.6	1.0	29.78	1163	13.3	19.5	19
24G	2.5	2.0	1.0	33.15	1533	7.98	26	25

Three, four, five and multicores cables can be produced also with Y/G core. Current carrying capacities for single core cables are calculated on 3 close cables, for two core cables with two charged conductors and for three core cables with three charged conductors. . Outer diameters are approximates and they can have variations of max +/- 3%.

Current Carrying capacities according to UNEL 35026 with underground laying standard CEI 64-8-61 (ground temp=20°C, depth=0.8m, ground resistivity=1.5 k m/W.).

Special features on request:RI (Hydrocarbon Resistant) CEI 20-34 / 0-1 and PQA to OIL & GAS specifications