

FG16M16 - FG16OM16 0,6/1 kV

Bassa emissione di fumi, gas tossici e corrosivi, non propaganti la fiamma, zero alogeni
 Low emissions of smoke, flame retardant, zero halogen,



NON PROPAGANTE
LA FIAMMA
FLAME RETARDANT



BASSA EMISSIONE
FUMI, GAS TOSSICI E
CORROSI
LOW EMISSION OF
SMOKE, TOXIC AND
CORROSIVE GASES



RESISTENTE AGLI OLI
OIL RESISTANT



ZERO ALOGENI
HALOGEN-FREE

RIFERIMENTO NORMATIVO/STANDARD REFERENCE

Costruzione e requisiti / Construction and specifications

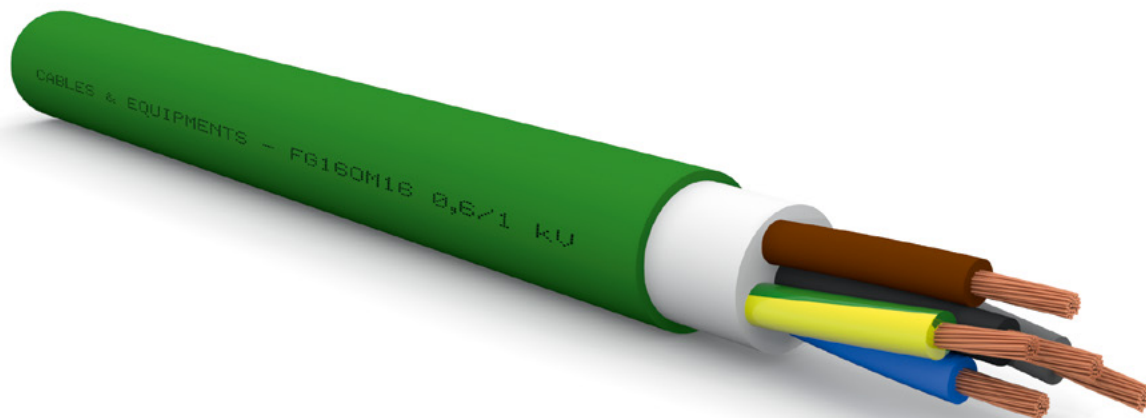
CEI 20-13, CEI 20-38 p.q.a.
CEI UNEL 35324 (energia)
CEI UNEL 35328 (Segnalamento)

Direttiva Bassa Tensione/Low Voltage Directive

2014/35/UE

Direttiva RoHS/RoHS Directive

2011/65/UE



Scarica la scheda tecnica completa

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REAZIONE AL FUOCO/REACTION TO FIRE

REGOLAMENTO/REGULATION 305/2011/UE

Norma/Standard	EN 50575:2014+A1:2016
Classe/Class	C_{ca}-s1b, d1, a1
Classificazione/Classification (CEI UNEL 35016)	EN 13501-6
Emissione di calore e fumi durante lo sviluppo della fiamma/Heat and smoke emission and flame development	EN 50399
Propagazione della fiamma verticale/Flame propagation	EN 60332-1-2
Gas corrosivi e alogenidrici/Corrosive gases or halogens	EN 60754-2
Densità dei fumi/Smoke density	EN 61034-2
Organismo notificato/Notified body	L.A.P.I. - 0987
CE	2021

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DESCRIZIONE:

Cavo con isolamento in gomma di qualità G16, sotto guaina termoplastica LSZH, qualità M16 a ridotta emissione di gas corrosivi. Buona resistenza agli oli e ai grassi industriali. Buon comportamento alle basse temperature.

CARATTERISTICHE FUNZIONALI:

- Tensione nominale U_0/U : 600/1000 V c.a.
- 1500 V c.c.
- Tensione Massima U_m : 1200 V c.a.
- 1800 V c.a.
- Tensione di prova industriale: 4000 V
- Temperatura massima di esercizio: 90°C
- Temperatura minima di esercizio: -15°C (in assenza di sollecitazioni meccaniche)
- Temperatura minima di posa: 0°C
- Temperatura massima di corto circuito: 250°C
- Sforzo massimo di trazione (consigliato): 50 N/mm² di sezione del rame.
- Raggio minimo di curvatura: 4 volte il diametro del cavo.

CONDIZIONI DI IMPIEGO:

Riferimento Guida CEI 20-67:

Il cavo è adatto per l'alimentazione di energia nei luoghi con pericolo d'incendio e con elevata presenza di persone come scuole, uffici, cinema, teatri, mostre, biblioteche, ospedali, musei, alberghi. Per posa fissa all'interno, all'esterno; per posa interrata diretta e indiretta. Adatto all'installazione su murature e strutture metalliche, su passerelle, tubazioni, canalette e sistemi similari.

Riferimento Regolamento Prodotti da Costruzione 305/2011 EU e Norma EN 50575:

Date le proprietà di limitare lo sviluppo del fuoco e fumi nocivi, il cavo è adatto per l'alimentazione di energia elettrica nelle costruzioni ed altre opere di ingegneria civile.

DESCRIPTION:

Cable insulated with rubber G16 quality, with sheath LSZH thermoplastic M16 quality, with reduced corrosive gas emission. Good resistance to grease and mineral oils. Good flexibility and behaviour at low temperatures.

FUNCTIONAL CHARACTERISTICS

- Rated voltage U_m : 600/1000 V a.c.
- 1500 V c.c.
- Max. rated voltage U_m : 1200 V a.c.
- 1800 V c.c. also earthwards
- Rated voltage test: 4000 V
- Maximum operating temperature: 90°C
- Minimum operating temperature: -15°C (without mechanical stress)
- Minimum installation temperature: 0°C
- Maximum short circuit temperature: 250°C
- Maximum tensile stress (recommended): 50 N/mm² of the cross-section of the copper.
- Minimum bending radius: 4 x cable diameter.

USE AND INSTALLATION

Reference Guidance CEI 20-67:

Cable suitable for energy supply in public places of fire hazard such as schools, offices, theatres, exhibitions, libraries, hospitals, museums and hotels. For fixed wiring indoors and outdoors; for direct and indirect underground wiring. Suitable for installation on walls, metal structures, cable trays, pipes, wiring holders and similar devices.

Reference Construction Products Regulation 305/2011 EU and Standard EN 50575:

Given its properties of limiting the development of fire and heat emission, the cable is suitable for the supply of electricity in buildings and other civil engineering works.

COSTRUZIONE DEL CAVO / CABLE CONSTRUCTION



CONDUTTORE

Materiale: Rame rosso, formazione flessibile, classe 5

CONDUCTOR

Material: Copper flexible wire, class 5

ISOLAMENTO

Materiale: Gomma, qualità G16

INSULATION

Material: Rubber compound, G16 quality

CORDATURA TOTALE

Tipo: i conduttori isolati sono cordati insieme

TOTAL CABLING

Type: The cores are stranded together in concentric lay

RIEMPITIVO

Materiale: termoplastico LSZH (Low Smoke Zero Halogen), penetrante tra le anime (solo nei cavi multipolari)

FILLER

Material: Thermoplastic LSZH, penetrating between the cores (only in multi-core cables)

GUAINA

Materiale: Termoplastico LSZH, qualità M16
Colore: Verde o grigio

SHEATH

Material: LSZH thermoplastic, M16 quality
Colour: Green or grey

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Unipolari/Single core



Formazione Size	Ø indicativo conduttore	Spessore medio isolante	Spessore medio guaina	Ø esterno massimo	Peso indicativo cavo	Resistenza elettrica max a Max electrical resistance at 20° C	Portata di corrente Current rating A					
	Approx. conduct. Ø	Average insulation thickness	Average sheath thickness	Max outer Ø	Indicative cable weight		in aria a <i>in air at</i>	in tubo in aria a <i>in pipe in air at</i>	interrato a Underground at 20° C		in tubo interrato a In underground pipe at 20° C	
n° x mm ²	mm	mm	mm	mm	kg/km	Ω/km	30° C	30°C	K=1	K=1,5	K=1	K=1,5
1 x 10	4,0	0,7	1,4	10,9	175	1,91	80,0	66,0	73,0	68,0	64,0	59,0
1 x 16	5,0	0,7	1,4	11,4	245	1,21	107,0	88,0	96,0	89,0	83,0	77,0
1 x 25	6,2	0,9	1,4	13,2	340	0,798	141,0	117,0	124,0	115,0	108,0	100,0
1 x 35	7,4	0,9	1,4	14,6	440	0,554	176,0	144,0	150,0	139,0	131,0	121,0
1 x 50	8,9	1,0	1,4	16,4	590	0,386	216,0	175,0	186,0	173,0	162,0	150,0
1 x 70	10,5	1,1	1,4	18,3	795	0,272	279,0	222,0	229,0	212,0	199,0	184,0
1 x 95	12,2	1,1	1,5	20,4	995	0,206	342,0	269,0	270,0	250,0	234,0	217,0
1 x 120	13,8	1,2	1,5	22,4	1.340	0,161	400,0	312,0	312,0	289,0	271,0	251,0
1 x 150	15,4	1,4	1,6	24,8	1.635	0,129	464,0	355,0	356,0	330,0	310,0	287,0
1 x 185	16,9	1,6	1,6	27,0	1.955	0,106	533,0	417,0	401,0	371,0	349,0	323,0
1 x 240	19,5	1,7	1,7	30,2	2.495	0,0801	634,0	490,0	471,0	436,0	409,0	379,0
1 x 300	22,0	1,8	1,8	33,0	3.040	0,0641	736,0	-	533,0	493,0	463,0	429,0
1 x 400(*)	25,1	2,0	1,9	35,5	4.010	0,0486	868,0	-	621,0	575,0	540,0	500,0
1 x 500(*)	28,5	2,2	2,1	-	4.960	0,0384	998,0	-	705,0	650,0	540,0	565,0
1 x 630(*)	32,8	2,4	2,3	-	6.645	0,0287	1.151,0	-	785,0	741,0	683,0	645,0

(*) = Questa formazione non rientra nelle tabelle CEI UNEL

N.B. I valori di portata di corrente sono riferiti a:

- n°3 conduttori attivi

- profondità di posa 0,8 m per i cavi interrati

Permissible current rating values are according to:

- three-phase circuit

- laying depth of 0,8 m for buried cables

-N.B. K=1: resistività termica del terreno 1,0 K.m/W

K=1,5: resistività termica del terreno 1,5 K.m/W

N.B. K=1: thermal resistivity 1,0 K.m/W

K=1,5: thermal resistivity 1,5 K.m/W

Bipolari/2 cores



2 x 1,5	1,5	0,7	1,8	12,0	140	13,30	26,0	22,0	28,0	26,0	25,0	23,0
2 x 2,5	2,0	0,7	1,8	13,0	175	7,98	36,0	30,0	37,0	35,0	32,0	30,0
2 x 4	2,5	0,7	1,8	14,2	220	4,95	49,0	40,0	48,0	45,0	41,0	39,0
2 x 6	3,0	0,7	1,8	15,4	180	3,30	63,0	51,0	60,0	56,0	52,0	49,0
2 x 10	4,0	0,7	1,8	17,3	390	1,91	86,0	69,0	80,0	76,0	70,0	66,0
2 x 16	5,0	0,7	1,8	19,4	610	1,21	115,0	91,0	105,0	99,0	91,0	86,0
2 x 25	6,2	0,9	1,8	23,0	880	0,798	149,0	119,0	135,0	128,0	118,0	111,0
2 x 35	8,9	1,0	1,8	27,7	1180	0,554	185,0	140,0	166,0	156,0	144,0	136,0
2 x 50	10,5	1,1	1,8	29,3	1590	0,386	225,0	175,0	205,0	193,0	178,0	168,0
2 x 70	12,2	1,1	1,8	33,1	2140	0,272	289,0	221,0	252,0	238,0	219,0	207,0

N.B. I valori di portata di corrente sono riferiti a:

- n°2 conduttori attivi

- profondità di posa 0,8 m per i cavi interrati

Permissible current rating values are according to:

- two-phase circuit

- laying depth of 0,8 m for buried cables

N.B. K=1: resistività termica del terreno 1,0 K.m/W

K=1,5: resistività termica del terreno 1,5 K.m/W

N.B. K=1: thermal resistivity 1,0 K.m/W

K=1,5: thermal resistivity 1,5 K.m/W

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Tripolari/2 cores



Formazione Size	Ø indicativo conduttore	Spessore medio isolante	Spessore medio guaina	Ø esterno massimo	Peso indicativo cavo	Resistenza elettrica max a	Portata di corrente					
	Approx. conduct. Ø	Average insulation thickness	Average sheath thickness	Max outer Ø	Indicative cable weight	Max electrical resistance at 20° C	Current rating A					
n° x mm ²	mm	mm	mm	mm	kg/km	Ω/km	in aria a in air at	in tubo in aria a in pipe in air at	interrato a Underground at 20° C		in tubo interrato a In underground pipe at 20° C	
							30° C	30°C	K=1	K=1,5	K=1	K=1,5
3 x 1,5	1,5	0,7	1,8	12,5	160	13,30	23,0	19,0	23,0	22,0	20,0	19,0
3 x 2,5	2,0	0,7	1,8	13,6	200	7,98	32,0	26,0	30,0	29,0	27,0	25,0
3 x 4	2,5	0,7	1,8	14,9	260	4,95	42,0	35,0	39,0	37,0	34,0	32,0
3 x 6	3,0	0,7	1,8	16,2	330	3,30	54,0	44,0	50,0	47,0	43,0	41,0
3 x 10	4,0	0,7	1,8	18,2	480	1,91	75,0	60,0	67,0	63,0	58,0	55,0
3 x 16	5,0	0,7	1,8	20,6	745	1,21	100,0	80,0	88,0	83,0	76,0	72,0
3 x 25	6,2	0,9	1,8	24,5	1.080	0,798	127,0	105,0	113,0	107,0	99,0	93,0
3 x 35	7,4	0,9	1,8	27,3	1.465	0,554	158,0	128,0	139,0	131,0	121,0	114,0
3 x 50	8,9	1,0	1,8	31,2	1.990	0,386	192,0	154,0	172,0	162,0	149,0	141,0
3 x 70	10,5	1,1	1,9	35,6	2.720	0,272	246,0	194,0	212,0	200,0	184,0	174,0
3 x 95	12,2	1,1	2,0	40,0	3.430	0,206	298,0	233,0	251,0	237,0	218,0	206,0
3 x 120	13,8	1,2	2,1	44,4	4.360	0,161	346,0	268,0	290,0	274,0	252,0	238,0
3 x 150	15,4	1,4	2,3	49,5	5.420	0,129	399,0	300,0	332,0	313,0	288,0	272,0
3 x 185	16,9	1,6	2,4	55,2	6.570	0,106	456,0	340,0	373,0	352,0	324,0	306,0
3 x 240	19,5	1,7	2,6	61,9	8.495	0,0801	538,0	398,0	439,0	414,0	382,0	360,0



Quadripolari/4 cores



4 x 1,5	1,5	0,7	1,8	13,4	185	13,30	23,0	19,0	23,0	22,0	20,0	19,0
4 x 2,5	2,0	0,7	1,8	14,6	240	7,98	32,0	26,0	30,0	29,0	27,0	25,0
4 x 4	2,5	0,7	1,8	16,0	280	4,95	42,0	35,0	39,0	37,0	34,0	32,0
4 x 6	3,0	0,7	1,8	17,5	405	3,30	54,0	44,0	50,0	47,0	43,0	41,0
4 x 10	4,0	0,7	1,8	19,8	600	1,91	75,0	60,0	67,0	63,0	58,0	55,0
4 x 16	5,0	0,7	1,8	22,4	910	1,21	100,0	80,0	88,0	83,0	76,0	72,0
4 x 25	6,2	0,9	1,8	26,8	1.300	0,780	127,0	105,0	113,0	107,0	99,0	93,0
3 x 35 + 25	7,4/6,2	0,9/0,9	1,8	29,2	1.730	0,554/0,780	158,0	128,0	139,0	131,0	121,0	114,0
3 x 50 + 25	8,9/6,2	1,0/0,9	1,8	32,4	2.230	0,386/0,780	192,0	154,0	172,0	162,0	149,0	141,0
3 x 70 + 35	10,5/7,4	1,1/0,9	1,9	37,0	3.045	0,272/0,554	246,0	194,0	212,0	200,0	184,0	174,0
3 x 95 + 50	12,2/8,9	1,1/1,0	2,1	42,0	3.930	0,206/0,386	298,0	233,0	251,0	237,0	218,0	206,0
3 x 120 + 70	13,8/10,5	1,2/1,1	2,2	46,9	5.060	0,161/0,272	346,0	268,0	290,0	274,0	252,0	238,0
3 x 150 + 95	15,4/12,2	1,4/1,1	2,4	52,5	6.320	0,129/0,206	399,0	300,0	332,0	313,0	288,0	272,0
3 x 185 + 95	16,9/12,2	1,6/1,1	2,5	57,3	7.430	0,106/0,206	456,0	340,0	373,0	352,0	324,0	306,0
3 x 240 + 150	19,5/15,4	1,7/1,4	2,7	65,5	9.950	0,0801/0,129	538,0	398,0	439,0	414,0	382,0	360,0

N.B. I valori di portata di corrente sono riferiti a:

- n°2 conduttori attivi
- profondità di posa 0,8 m per i cavi interrati

Permissible current rating values are according to:

- two-phase circuit
- laying depth of 0,8 m for buried cables

N.B. K=1: resistività termica del terreno 1,0 K.m/W

K=1,5: resistività termica del terreno 1,5 K.m/W

N.B. K=1: thermal resistivity 1,0 K.m/W

K=1,5: thermal resistivity 1,5 K.m/W

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Pentapolari/5 cores



Formazione Size	Ø indicativo conducente	Spessore medio isolante	Spessore medio guaina	Ø esterno massimo	Peso indicativo cavo	Resistenza elettrica max a Max electrical resistance at 20° C	Portata di corrente Current rating A					
	Approx. conduct. Ø	Average insulation thickness	Average sheath thickness	Max outer Ø	Indicative cable weight		in aria a in air at	in tubo in aria a in pipe in air at	interrato a Underground at 20° C		in tubo interrato a In underground pipe at 20° C	
n° x mm ²	mm	mm	mm	mm	kg/km	Ω/km	30° C	30° C	K=1	K=1,5	K=1	K=1,5
5G1,5	1,5	0,7	1,8	14,4	225	13,30	23,0	19,0	23,0	22,0	20,0	19,0
5G2,5	2,0	0,7	1,8	15,6	290	7,98	32,0	26,0	30,0	29,0	27,0	25,0
5G4	2,5	0,7	1,8	17,3	385	4,95	42,0	35,0	39,0	37,0	34,0	32,0
5G6	3,0	0,7	1,8	18,9	500	3,30	54,0	44,0	50,0	47,0	43,0	41,0
5G10	4,0	0,7	1,8	21,5	750	1,91	75,0	60,0	67,0	63,0	58,0	55,0
5G16	5,0	0,7	1,8	24,4	1.100	1,21	100,0	80,0	88,0	83,0	76,0	72,0
5G25	6,2	0,9	1,8	29,3	1.630	0,780	127,0	105,0	113,0	107,0	99,0	93,0
5G35	7,4	0,9	1,8	32,8	2.205	0,554	158,0	128,0	139,0	131,0	121,0	114,0
5G50	8,9	1,0	2,0	38,2	3.055	0,386	192,0	154,0	172,0	162,0	149,0	141,0
5G70(**)	10,5	1,1	2,1	-	4.215	0,272	246,0	194,0	212,0	200,0	184,0	174,0
5G95(**)	12,2	1,1	2,3	-	5.375	0,206	298,0	233,0	251,0	237,0	218,0	206,0
5G120(**)	13,8	1,2	2,4	-	6.800	0,161	346,0	268,0	290,0	274,0	252,0	238,0
5G150(**)	15,4	1,4	2,6	-	8.400	0,129	399,0	300,0	332,0	313,0	288,0	272,0

(**) = Questa formazione non rientra nelle tabelle CEI UNEL
Disponibile anche senza conduttore giallo/verde - N.B. I valori di portata di corrente sono riferiti a: tutti i conduttori attivi (eccetto il conduttore giallo/verde) - Profondità di posa 0,8 m per i cavi interrati

Available without yellow/green conductor - N.B. Current rating values are referred to: All loaded conductors - Installation depth for underground cables 0,8 m

N.B. K=1: resistività termica del terreno 1,0 K.m/W - K=1,5: resistività termica del terreno 1,5 K.m/W
N.B. K=1: thermal resistivity 1,0 K.m/W - K=1,5: thermal resistivity 1,5 K.m/W



Multipli, Segnalamento e comando/Multi-cores, Signal and control



21x1(**)	1,2	0,4	0,9	14,2	500	19,50	-	-	-	-	-	-
5G1,5	1,5	0,7	1,8	14,4	230	13,30	16,0	14,0	26,0	23,0	-	-
7G1,5	1,5	0,7	1,8	15,4	275	13,30	13,0	11,5	18,5	16,0	-	-
10G1,5	1,5	0,7	1,8	18,7	365	13,40	13,0	11,5	18,5	16,0	-	-
12G1,5	1,5	0,7	1,8	19,3	410	13,40	11,0	9,5	14,5	12,5	-	-
16G1,5	1,5	0,7	1,8	21,1	510	13,40	11,0	9,5	14,5	12,5	-	-
19G1,5	1,5	0,7	1,8	22,1	580	13,40	9,0	8,0	13,0	11,5	-	-
24G1,5	1,5	0,7	1,8	25,4	700	13,50	9,0	8,0	13,0	11,5	-	-
7G2,5	2,0	0,7	1,8	16,8	310	7,98	17,5	15,5	24,0	21,0	-	-
10G2,5	2,0	0,7	1,8	20,6	395	8,06	17,5	15,5	24,0	21,0	-	-
12G2,5	2,0	0,7	1,8	21,3	445	8,06	13,5	12,0	20,0	17,5	-	-
16G2,5	2,0	0,7	1,8	23,3	545	8,06	13,5	12,0	20,0	17,5	-	-
19G2,5	2,0	0,7	1,8	24,5	615	8,06	12,0	10,5	16,0	14,0	-	-
24G2,5	2,0	0,7	1,8	28,3	750	8,10	12,0	10,5	16,0	14,0	-	-

(**) = Questa formazione non rientra nelle tabelle CEI UNEL
*Disponibile anche senza conduttore giallo/verde - N.B. I valori di portata di corrente sono riferiti a: tutti i conduttori attivi (eccetto il conduttore giallo/verde) - Profondità di posa 0,8 m per i cavi interrati

*Available without yellow/green conductor - N.B. Current rating values are referred to: All loaded conductors - Installation depth for underground cables 0,8 m

N.B. K=1: resistività termica del terreno 1,0 K.m/W - K=1,5: resistività termica del terreno 1,5 K.m/W
N.B. K=1: thermal resistivity 1,0 K.m/W - K=1,5: thermal resistivity 1,5 K.m/W