

	DATA SHEET ST-638-001-E	
	TRISECUR® R.F. FTG10M1 0,6/1 kV TRISECUR® R.F. FTG10OM1 0,6/1 kV Fire resistant LOW VOLTAGE	Rev. 3 13/01/2009

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DESCRIPTION

Conductor: plain copper wire, flexible, class 5

Wrapping: mica tape

Insulation: rubber, type G10

Outer sheath: polyolefin LS0H, type M1

Colour: blue

LS0H = Low Smoke Zero Halogen

FUNCTIONAL CHARACTERISTICS

Rated voltage U_0/U : 0,6/1 kV

Max. operating temperature: 90°C

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

Max. short circuit temperature: 250°C

SPECIAL FEATURES

Good resistance to oils and industrial greases. Good resistance to low temperatures.

In case of fire and mechanical shocks, the operation is assured for at least 90 min. at 830°C.

INSTALLATION CONDITIONS

Minimum installation temperature: 0°C

Recommended minimum bending radius: 14 times the cable diameter

Recommended maximum tensile stress: 50 N/mm² of the cross-section of the copper

USE AND INSTALLATION METHOD

Particularly recommended for energy transmission in electrical installations where maximum security in case of fire is required, such as emergency and alarm lights, automatic fire detection, automatic fire extinguishing devices, automatic door opening, ventilation and air conditioning systems.

or fixed applications inside dry or humid environments, or outdoors on buildings and metallic structures, in pipes or in cable trenches.

Can be laid underground (CEI 20-67).

Cables with 7 or more cores are suitable for signal and command transmission.



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Fire resistant
LOW VOLTAGE

Rev. 3
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Formation	Approx. conductor diameter	Average insulation thickness	Average sheath thickness	Max. external diameter	Max. electrical resistance at 20°C	Approx. cable weight	Current carrying					
							in air at 30°C	in pipe in air at 30°C	buried at 20°C		buried pipe at 20°C	
									K=1	K=1,5	K=1	K=1,5
n° x mm ²	mm	mm	mm	mm	Ω/km	kg/km	A	A	A	A	A	A
1 x 1,5	1,5	1,0	1,4	7,7	13,3	70	24	20	26	24	23	21
1 x 2,5	2,0	1,0	1,4	8,2	7,98	80	33	28	34	31	29	27
1 x 4	2,5	1,0	1,4	8,8	4,95	100	45	37	43	40	38	35
1 x 6	3,0	1,0	1,4	9,4	3,30	125	58	48	55	51	48	44
1 x 10	4,0	1,0	1,4	10,3	1,91	170	80	66	73	68	64	59
1 x 16	5,0	1,0	1,4	11,4	1,21	235	107	88	96	89	83	77
1 x 25	6,2	1,2	1,4	13,2	0,780	335	141	117	124	115	108	100
1 x 35	7,4	1,2	1,4	14,5	0,554	425	176	144	150	139	131	121
1 x 50	8,9	1,4	1,6	17,0	0,386	580	216	175	186	173	162	150
1 x 70	10,5	1,4	1,6	18,7	0,272	785	279	222	229	212	199	184
1 x 95	12,2	1,6	1,8	21,6	0,206	1010	342	269	270	250	234	217
1 x 120	13,8	1,6	2,0	23,8	0,161	1265	400	312	312	289	271	251
1 x 150	15,4	1,8	2,0	25,0	0,129	1585	464	355	356	330	310	287
1 x 185	16,9	2,0	2,0	28,2	0,106	1885	533	417	401	371	343	323
1 x 240	19,5	2,2	2,0	31,3	0,0801	2445	634	490	471	436	409	379
1 x 300	22,0	2,4	2,0	34,2	0,0641	3065	736	-	533	493	463	429
2 x 1,5	1,5	1,0	1,8	13,4	13,3	175	26	22	28	26	25	23
2 x 2,5	2,0	1,0	1,8	14,4	7,98	215	36	30	37	35	32	30
2 x 4	2,5	1,0	1,8	16,1	4,95	265	49	40	48	45	41	39
2 x 6	3,0	1,0	1,8	17,3	3,30	330	63	51	60	56	52	49
2 x 10	4,0	1,0	1,8	19,2	1,91	450	86	69	80	76	70	66
2 x 16	5,0	1,0	1,8	21,8	1,21	620	115	91	105	99	91	86
2 x 25	6,2	1,2	2,0	25,9	0,780	890	149	119	135	128	118	111
2 x 35	7,4	1,2	2,0	28,6	0,554	1135	185	140	166	156	144	136

Note Current carryings refer to following conditions:

- 3 loaded cores for single-core cables
- 2 loaded cores for two-core cables
- depth of laying 0,8 m for buried cables

Note K = 1: Thermal resistivity of soil 1,0 K.m/W
K = 1,5: Thermal resistivity of soil 1,5 K.m/W

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							in air at 30°C	in pipe in air at 30°C	buried at 20°C		buried pipe at 20°C	
									K=1	K=1,5	K=1	K=1,5
n° x mm ²	mm	mm	mm	mm	Ω/km	kg/km	A	A	A	A	A	A
3 x 1,5	1,5	1,0	1,8	14,1	13,3	210	23	19	23	22	20	19
3 x 2,5	2,0	1,0	1,8	15,2	7,98	250	32	26	30	29	27	25
3 x 4	2,5	1,0	1,8	16,9	4,95	315	42	35	39	37	34	32
3 x 6	3,0	1,0	1,8	18,2	3,30	400	54	44	50	47	43	41
3 x 10	4,0	1,0	1,8	20,8	1,91	555	75	60	67	63	58	55
3 x 16	5,0	1,0	2,0	23,6	1,21	775	100	80	88	83	76	72
3 x 25	6,2	1,2	2,0	27,5	0,780	1120	127	105	113	107	99	93
3 x 35	7,4	1,2	2,0	30,4	0,554	1440	158	128	139	131	121	114
4 x 1,5	1,5	1,0	1,8	15,3	13,3	245	23	19	23	22	20	19
4 x 2,5	2,0	1,0	1,8	16,9	7,98	300	32	26	30	29	27	25
4 x 4	2,5	1,0	1,8	18,4	4,95	380	42	35	39	37	34	32
4 x 6	3,0	1,0	1,8	20,3	3,30	490	54	44	50	47	43	41
4 x 10	4,0	1,0	2,0	23,1	1,91	685	75	60	67	63	58	55
4 x 16	5,0	1,0	2,0	25,7	1,21	965	100	80	88	83	76	72
4 x 25	6,2	1,2	2,0	30,1	0,780	1400	127	105	113	107	99	93
3x35+25	7,4/6,2	1,2	2,0	32,3	0,554	1720	158	128	139	131	121	114

* available also with green/yellow core

Note Current carryings refer to following conditions:
 - 3 loaded cores
 - depth of laying 0,8 m for buried cables

Note K = 1: Thermal resistivity of soil 1,0 K.m/W
 K = 1,5: Thermal resistivity of soil 1,5 K.m/W

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							in air at 30°C	in pipe in air at 30°C	buried at 20°C		buried pipe at 20°C	
									K=1	K=1,5	K=1	K=1,5
n° x mm ²	mm	mm	mm	mm	Ω/km	kg/km	A	A	A	A	A	A
5 G 1,5	1,5	1,0	1,8	16,9	13,3	295	23	19	23	22	20	19
5 G 2,5	2,0	1,0	1,8	18,2	7,98	360	32	26	30	29	27	25
5 G 4	2,5	1,0	1,8	20,3	4,95	460	42	35	39	37	34	32
5 G 6	3,0	1,0	1,8	22,0	3,30	595	54	44	50	47	43	41
5 G 10	4,0	1,0	2,0	25,0	1,91	840	75	60	67	63	58	55
5 G 16	5,0	1,0	2,0	28,0	1,21	1195	100	80	88	83	76	72
5 G 25	6,2	1,2	2,2	32,8	0,780	1730	127	105	113	107	99	93
5 G 35	7,4	1,2	2,2	36,9	0,554	2255	158	128	139	131	121	114

* available also without green/yellow core

Note Current carryings refer to following conditions:
- 3 loaded cores
- depth of laying 0,8 m for buried cables

Note K = 1: Thermal resistivity of soil 1,0 K.m/W
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n° x mm²	mm	mm	mm	mm	Ω/km	kg/km	A	A	K=1 A	K=1,5 A
7 G1,5	1,5	1,0	1,8	18,2	13,3	355	13	11,5	18,5	16
10 G 1,5	1,5	1,0	2,0	23,5	13,4	485	13	11,5	18,5	16
12 G1,5	1,5	1,0	2,0	24,2	13,4	555	11	9,5	14,5	12,5
16 G1,5	1,5	1,0	2,0	26,5	13,4	700	11	9,5	14,5	12,5
19 G 1,5	1,5	1,0	2,0	27,8	13,4	785	9	8	13	11,5
24 G 1,5	1,5	1,0	2,0	32,2	13,5	975	9	8	13	11,5
7 G2,5	2,0	1,0	1,8	19,7	7,98	445	17,5	15,5	24	21
10 G 2,5	2,0	1,0	2,0	25,4	8,06	610	17,5	15,5	24	21
12 G2,5	2,0	1,0	2,0	26,2	8,06	700	13,5	12	20	17,5
16 G 2,5	2,0	1,0	2,0	28,8	8,06	885	13,5	12	20	17,5
19 G 2,5	2,0	1,0	2,0	30,2	8,06	1005	12	10,5	16	14
24 G 2,5	2,0	1,0	2,2	35,5	8,10	1265	12	10,5	16	14

* available also without green/yellow core

Note Current carryings refer to following conditions:
- all cores loaded (except for the green/yellow)
- depth of laying 0,8 m for buried cables

Note K = 1: Thermal resistivity of soil 1,0 K.m/W
K = 1,5: Thermal resistivity of soil 1,5 K.m/W

REVISION LEVEL

3	13/01/2009	Data update	Generic application	S3	R&D	QA	R&D
Rev.	Date	Reason	Application	Units	Red.	Ver.	App.

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