

Industrial flexible cable, insulation and outer sheath in elastomer.
Oil resistant, flame retardant according to IEC/EN 60332-1-2 standard.

DESCRIPTION

Application

TITANEX flexible cable is intended for installations with moving equipment, electric appliances and for building sites. The cable may be rated 0,6/1 kV where the installation has built-in protection and for motors in lifting appliances - machine tools - etc.

This cable can be used in refrigerating installations.

Installation

This cable can be installed in open air or be buried but with extra mechanical protection.

Conductors laid up

Assembled conductors.

Nota

Max continuous operating conductor temperature in normal use :

+60°C (in every case of mobile installation)

+90°C (fixed protected installation)

+250°C (in short circuit)

Permissible current rating is measured for an ambient temperature of 30°C and a maximum operating and conductor temperature of 90°C according IEE 4F2A table. For other temperature please refer to correction factors .



STANDARDS

International EN 50525-2-21;
IEC 60228



Lead free
Yes



Rated Voltage Uo/U
(Um)
450 / 750 V



Cable flexibility
Flexible



Chemical
resistance
Accidental



Water proof
Good



Operating temp.
-25 .. 55 °C



Oil resistance
Yes



Max. conductor
temp.in service
90 °C

CHARACTERISTICS

Construction characteristics

Sheath colour	Black
Lead free	Yes

Electrical characteristics

Rated Voltage U ₀ /U (U _m)	450 / 750 V
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Mechanical characteristics

Cable flexibility	Flexible
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Usage characteristics

Chemical resistance	Accidental
Water proof	Good
Short-circuit max. conductor temperature	250 °C
Operating temperature, range	-25 .. 55 °C
Oil resistance	Yes
Max. conductor temperature in service	90 °C

SINGLE CORE

Cross section [mm²]	Perm. current rating open air [A]	Voltage drop, single phase [V/A.km]	Max. outer diam. [mm]	Min. outer diam. [mm]	Approx. weight [kg/km]
35	200	1.04	17.9	14.3	482
50	250	0.75	20.6	16.5	662
70	310	0.56	23.3	18.6	895
95	369	0.44	26.0	20.8	1144
120	432	0.36	28.6	22.8	1430
150	497	0.31	31.4	25.2	1740
185	564	0.28	34.4	27.6	2160
240	673	0.23	38.3	30.6	2730
300	773	0.2	41.9	33.5	3480
400	924	0.18	46.8	37.4	4510
500	1062	0.16	52.0	41.3	5700



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TWO CORES

Cross section [mm²]	Perm. current rating open air [A]	Voltage drop, single phase [V/A.km]	Max. outer diam. [mm]	Min. outer diam. [mm]	Approx. weight [kg/km]
4	42	10.1	15.1	11.8	238
6	55	6.7	16.8	13.1	279
10	76	3.8	22.6	17.7	538
16	103	2.5	25.7	20.2	744
25	136	1.68	30.7	24.3	1074

THREE CORES

Cross section [mm²]	Perm. current rating open air [A]	Voltage drop, single phase [V/A.km]	Max. outer diam. [mm]	Min. outer diam. [mm]	Approx. weight [kg/km]
4	42	10.1	16.2	12.7	290
6	55	7.0	18.0	14.1	346
10	76	4.0	24.2	19.1	663
16	103	2.5	27.6	21.8	924
25	136	1.7	33.0	26.1	1345

FOUR CORES

Cross section [mm²]	Perm. current rating open air [A]	Voltage drop, single phase [V/A.km]	Max. outer diam. [mm]	Min. outer diam. [mm]	Approx. weight [kg/km]
4	37	8.71	18.0	14.0	357
6	49	5.84	20.0	15.7	443
10	66	3.42	26.5	20.8	818
16	89	2.2	30.1	23.8	1150
25	119	1.44	36.6	28.9	1700
35	146	1.04	41.1	32.5	2180
50	177	0.75	47.5	37.7	3030
70	225	0.56	54.0	42.7	3990
95	273	0.44	61.0	48.4	5360
120	316	0.36	66.0	53.0	6500
150	363	0.31	73.0	58.0	7990
185	414	0.28	80.0	64.0	9910



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Cross section [mm²]	Perm. current rating open air [A]	Voltage drop, single phase [V/A.km]	Max. outer diam. [mm]	Min. outer diam. [mm]	Approx. weight [kg/km]
240	487	0.23	91.0	72.0	13120

FIVE CORES

Cross section [mm²]	Perm. current rating open air [A]	Voltage drop, single phase [V/A.km]	Max. outer diam. [mm]	Min. outer diam. [mm]	Approx. weight [kg/km]
4	37	8.72	19.9	15.6	453
6	49	5.84	22.2	17.5	557
10	66	3.43	29.1	22.9	1001
16	89	2.2	33.3	26.4	1430
25	119	1.44	40.4	32.0	2096
35	146	1.04	45.1	35.6	2690
50	177	1.04	53.0	41.8	3840
70	225	0.56	60.0	47.5	4996
95	273	0.44	67.0	54.0	6640
120	316	0.37	73.0	58.0	7900
150	363	0.31	83.0	66.0	9960

NEW CORES IDENTIFICATION

Core identification in accordance with HD 308 S2 - Identification of cores in cables and flexible cords.

Number of cores	HD 308 S2 since january 2004	
	G (earth core)	X (without earth core)
1		Black (preferential)
2		Blue + Brown
3*	Green - Yellow + Blue + Brown	Brown + Black + Grey
3**		Blue + Brown + Black
4	Green - Yellow + Brown + Black + Grey	Blue + Brown + Black + Grey
5	Green - Yellow + Blue + Brown + Black + Grey	Blue + Brown + Black + Grey + Black
> 5	White printed numbers + 1 Green - Yellow	White printed numbers
* For the cables without Green/Yellow with a cross-section >4mm²		
** For the cables without Green/Yellow with a cross-section of 1,5mm² & 2,5mm²		



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DERATING TABLE

Mobile application: 60°C maximum on core												
Temperature of air ambient °C	30	35	40	45	50	55						
Corrective factor	1	0.91	0.82	0.71	0.58	0.41						
Fixed application: 90°C maximum on core												
Temperature of air ambient °C	30	35	40	45	50	55	60	65	70	75	80	85
Corrective factor	1	0.95	0.91	0.87	0.82	0.76	0.71	0.65	0.58	0.5	0.41	0.29

SELLING INFORMATION

Marking

USE <HAR> H07RN-FN (x or G) S TITANEX

- N = number of cores
- G = with Green-Yellow
- x = without Green-Yellow
- S = section in mm²



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