TITANEX® rubber-sheathed cable, harmonized type

TITANEX®

TITANEX® exclusively imported by HELUKABEL B.V. in the Netherlands is the trademark for flexible cables with an elastomeric type insulation and jacket. The TITANEX® Brand is written on the jacket of these cables.

Applications

TITANEX®

The robustness of **TITANEX®** cables is due to the exceptional quality of their synthetic elastomeric jacket forming filler material, thus making them suitable for all heavy duty usages (public works construction sites or the steel industry).

The insulating protection made of special elastomer can support difficult conditions of use in an industrial enviroment, without damage.

They can also be used for fixed wiring on machines in wich vibrations could break conductors at connections.

The **TITANEX®** cable is now the flexible cable that behaves best in industrial and construction enviroments.

However, a **study** should be carried out on the conditions of operation of **cable recovery** devices, winders, **chains** before using them for this type of equipment.

Special **constructions measures** frequently have to be taken for the cable to be able to resist these exeptional constraints, for example such as whiplash.

The **TITANEX®** cables can be used for flexible connections and power supply to equipment that is required to operate in water, particularly submerged pumps.

Please call us for information about contact with liquids other than water.

The maximum tension force of the cable is 1 kg per mm^2 of the sum of the cross section of all conductors.

The entire range of **TITANEX®** can be made with coloured jackets (for example yellow, orange, blue...)

Cable marking can be customized.

Please call us for information about these products.

Conductor marking

Number of conductors	With green - yellow conductor	Without green - yellow conductor
1		black
2		brown + blue
3	green-yellow + brown + blue	brown + black + grey
4	green-yellow + brown + black + grey	blue + brown + black + grey
5	green-yellow + blue + brown + black + grey	blue + brown + black + grey + black
more than 5	by number with digits printed in white on conductors + one green-yellow protection	by number with digits printed in white on conductors
cable marking	G	X

Standardization

TITANEX® cables are conform with:

- The Harmonization document HD-22-4 published by the C.E.N.E.L.E.C. (European Electrotechnical Standardization Committee),
- The IEC International Publication 60 245-4 (cables type 245 IEC 66), modified,
- All standards National Standard VDE and BS equivalent to HD22-4

The USE ◁HAR▷ marking on the jackets of our **TITANEX®** cables allows them to be used without any formality in the following countries:

Austria, Germany, Belgium, Denmark, Spain, Finland, France, Greece, Iceland, Ireland, Italy, Luxemburg, Norway, Netherlands, Portugal, United Kingdom, Sweden and Switzerland.

Guide to use CENELEC HD 526:

- Duty: heavy
- Presence of water: AD1 to AD6 (AD7) for AD8 H07RN8-F is recommended
- Corrosive or polluting substance AF3
- Impact: AG2
- Vibration: AH3
- Out door use: temporary/permanent
- Frequent flexible: suitable
- Frequent torsion: suitable

(Logistic Centre Hemmingen, Stuttgart)

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Technical data

- Special elastomer sheathed cable H07 RN-F to DIN VDE 0282 part 4, HD 22-4, IEC 60245-4
- **Temperature range**
  static use: -60°C to +85°C
  dynamic use: -25°C to +25°C
- Permissible **maximum operating temperature** of conductor core +85°C
- **Nominal voltage** U0/U 450/750 V in case of protected and fixed installation U_0/U 600/1000 V and for motor supplies
- **Test voltage** 2500 V
- **Minimum bending radius**
  for fixed installation 3x cable Ø
  for dynamic use 6x cable Ø

Cable construction

- Copper conductor fine wire stranded, bare to DIN VDE 0295 cl. 5, BS 6360 cl. 5, IEC 60228 cl. 5 and HD 383
- Special cross-linked elastomer core insulation EI4 to DIN VDE 0282 part 1
- Insulation thickness to DIN VDE 0282 part 4
- Core identification to DIN VDE 0293-308 and HD 186
- Core colours
  up to 5 cores one-coloured
  6 and more cores, black with numbering
  3 and above, with green-yellow earth core
  2 cores without green-yellow earth core
- Cores stranded in layers with optimal lay-length
- Outer jacket cross-linked elastomer wit high mechanical properties: EM2
- Sheath thickness to DIN VDE 0282 part 4

Properties

- **Resistant to**
  Ozone
  Weather
- **Oil resistant**
  Test according to EN 60811-2-1
- **Test of behaviour compared to environmental influences**
  Test according to DIN VDE 0482 part 265-2-1/ EN 50265-2-1/ IEC 60332-1 (equivalent DIN VDE 0472 part 804 test method B)
  Ozone resistant of the insulation to DIN VDE 0472 part 805, test method A or part 805 A1, test method C
- The core identification of a single core jacketed, of an insulated wire is black. For application as a protective core, the ends are to be identified with green-yellow and the middle conductor with light blue

Note

G = with green-yellow earth core;
x = without green-yellow earth core.

- Further dimensions and cross-sections available on request.
- H07 RN-F = harmonized rubber-sheathed cable, working voltage 750 V, fine stranded.
- Also national standards equiv as VDE 0282, NFC 32-102, BS. 6007 table 4, etc...

Application

Heavy duty rubber-sheathed flexible cables are suited for use for medium mechanical stress in dry, damp and wet areas as well as in open air and in agriculture plants.
They are used for equipment in industry works such as boilers, heating plates, hand lamps, electric tools such as drills, circular saws and homework tools as well as for transportable motors or machines at site.
These cables are also suitable for fixed installation on plaster, in temporary buildings and residential barracks. They are suitable for direct laying on components and mechanical parts of machines, for example lifts and cranes.
They can be used in case of protected and fixed installation in tubes or in equipment as well as rotor connecting cable of motors with a working voltage up to 1000 V alternating voltage or a direct voltage up to 750 V against ground. The operating direct voltage is permitted up to 900 V against ground when they are used in rail-coaches. Installation in hazardous areas according to DIN VDE 0165 is allowed.
CE = The product is conformed with the EC Low-Voltage Directive 73/23/EEC and 93/68/EEC.

Part No.	No. cores x cross-sec. mm²	Outer ø min - max	Cop. weight kg / km	Weight ca. kg / km	Maximum current A
937006	1 X 16	10,8 - 13,4	153,6	256	102
937007	1 X 25	12,7 - 15,8	240,0	369	136
937008	1 X 35	14,3 - 17,9	336,0	482	168
937009	1 X 50	16,5 - 20,6	480,0	662	203
937010	1 X 70	18,6 - 23,3	672,0	895	254
937011	1 X 95	20,8 - 26,0	912,0	1164	315
937012	1 X 120	22,8 - 28,6	1152,0	1430	363
937013	1 X 150	25,2 - 31,4	1440,0	1739	416
937014	1 X 185	27,6 - 34,4	1776,0	2160	475
937015	1 X 240	30,6 - 38,3	2304,0	2732	559
937019	2 X 1	7,7 - 10,0	19,2	99	18
937020	2 X 1,5	8,5 - 11,0	28,8	111	23
937021	2 X 2,5	10,2 - 13,1	48,0	161	32
937022	2 X 4	11,8 - 15,1	76,8	238	43
937023	2 X 6	13,1 - 16,8	115,2	279	56
937024	2 X 10	17,7 - 22,6	192,0	538	77
937027	3 G 1	8,3 - 10,7	28,8	117	18
937028	3 G 1,5	9,2 - 11,9	43,2	134	23
937029	3 G 2,5	10,9 - 14,0	72,0	195	32
937030	3 G 4	12,7 - 16,2	115,2	290	43
937031	3 G 6	14,1 - 18,0	172,8	346	56
937032	3 G 10	19,1 - 24,2	288,0	663	77
937033	3 G 16	21,8 - 27,6	460,8	924	102
937034	3 G 25	26,1 - 33,0	720,0	1345	136
937035	3 G 35	29,3 - 37,1	1008,0	1760	168
937036	3 G 50	34,1 - 42,9	1440,0	2392	203

Indicated maximum allowable current in steady state mode.
Dimensions and specifications may be changed without prior notice.

Continuation ▸

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Part No.	No. cores x cross-sec. mm²	Outer ø min - max	Cop. weight kg / km	Weight ca. kg / km	Maximum current A
937037	3 G 70	38,4 - 48,3	2016,0	3107	239
937044	4 G 1	9,2 - 11,9	38,4	144	16
937045	4 G 1,5	10,2 - 13,1	57,6	165	21
937046	4 G 2,5	12,1 - 15,5	96,0	245	29
937047	4 G 4	14,0 - 17,9	153,6	357	38
937048	4 G 6	15,7 - 20,0	230,4	443	50
937049	4 G 10	20,9 - 26,5	384,0	818	68
937050	4 G 16	23,8 - 30,1	614,4	1150	92
937051	4 G 25	28,9 - 36,6	960,0	1700	122
937052	4 G 35	32,5 - 41,1	1344,0	2175	150
937053	4 G 50	37,7 - 47,5	1920,0	3030	182
937054	4 G 70	42,7 - 54,0	2688,0	3995	232
937055	4 G 95	48,4 - 61,0	3648,0	5365	281
937056	4 G 120	53,0 - 66,0	4608,0	6500	325
937061	5 G 1,5	11,2 - 14,4	72,0	238	21
937062	5 G 2,5	13,3 - 17,0	120,0	297	29
937063	5 G 4	15,6 - 19,9	192,0	453	38
937064	5 G 6	17,5 - 22,2	288,0	557	50
937065	5 G 10	22,9 - 29,1	480,0	1001	68
937066	5 G 16	26,4 - 33,3	768,0	1430	92
937067	5 G 25	32,0 - 40,4	1200,0	2096	122
937068	5 G 35	36,8 - 45,8	1680,0	2600	-
937091	5 G 50	ca 44,5	2400,0	3680	-
937069	7 G 1,5	ca. 14,5	100,8	370	15
937070	7 G 2,5	ca. 18,0	168,0	515	20,5
937071	12 G 1,5	ca. 18,3	172,8	450	11
937096	12 G 2,5	ca. 19,0	288,0	750	15
937078	19 G 1,5	ca. 23,5	273,6	795	8,5
937073	19 G 2,5	ca. 27,0	456,0	1060	12

Dimensions and specifications may be changed without prior notice.
Indicated maximum allowable current in steady state mode.

Other sizes on request

Conversion factores for deviating ambient temperature

Ambient temperature at air °C	10	15	20	25	30	35	40	45	50	55	60	65	70	75
Factor	1,17	1,13	1,09	1,04	1	0,95	0,90	0,85	0,80	0,74	0,67	0,60	0,52	0,43