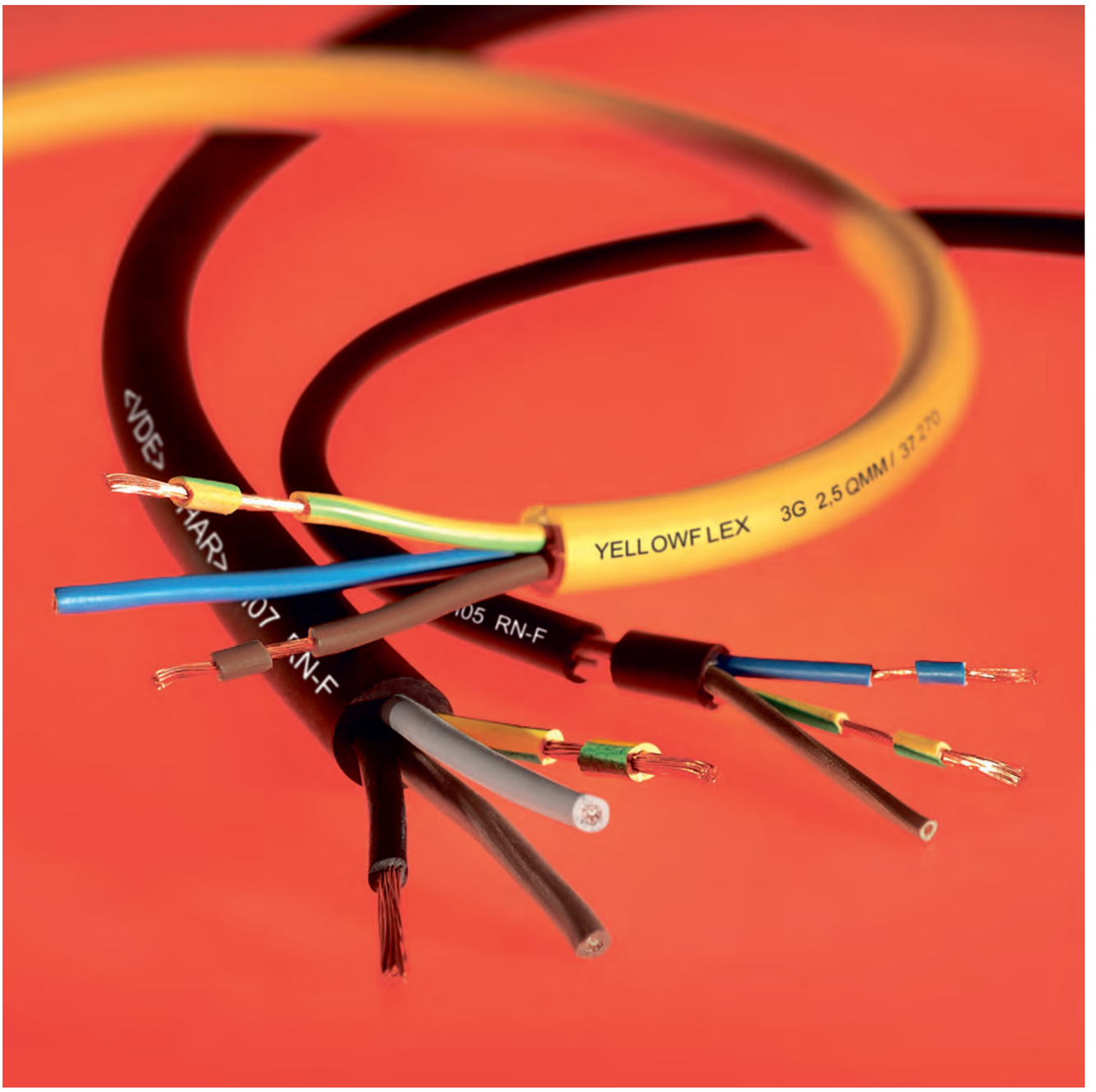

Photo: HELUKABEL®

Allweather and Rubber Cables

HELUKABEL Products are available from MARYLAND METRICS P.O. Box 261 Owings Mills, MD 21117 USA web: http://mdmetric.com
ph: (410)358-3130 (800)638-1830 fx: (410)358-3142 (800)872-9329 email: sales@mdmetric.com RFQ form: http://mdmetric.com/rfq.htm
How to order: Please preface each HELUKABEL part number with 'R955K-' Example (using the part number): R955K-14078

Allweather and Rubber Cables

HELUKABEL® supply mainly from stock light, middle and heavy rubber cables, drum cables with polyurethane or neoprene outer jacket, elevator control cables with central or external support cores, connecting cables for submersible pumps and other special cables.
One of the biggest stocks of special cables in Germany makes this possible with a fast delivery time.

Our well trained sales team with long term experience and the latest technology know how to solve your cable problems.
Because of the permanent developments and tests it is possible for HELUKABEL® to manufacture cables with the newest and proven materials.
We would like to construct and manufacture “your” cable.

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Contents

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YELLOWFLEX cold flexible, robust, meter marking

Technical data

- Rubber sheathed cable acc. to DIN VDE 0282 Part 4, HD 22.4 S4
- **Temperature range**
  flexing -25 °C to +60 °C
  fixed installation -30 °C to +60 °C
- Permissible **operating temperature** at conductor +60 °C
- **Nominal voltage** U_0/U 450/750 V with protected fixed installation U_0/U 600/1000 V
- Highest permissible **operating voltage** in three-phase and one-phase a.c. systems U_0/U 476/825 V in d.c. systems U_0/U 619/1238 V
- **Test voltage** 2500 V
- **Minimum bending radius**
  for fixed installation 4x cable ø
  for guiding over roller 7,5x cable ø
  during winding on drums 5-7x cable ø

Cable structure

- Bare copper conductor, fine wire to DIN VDE 0295 cl. 5, BS 6360 cl. 5, IEC 60228 cl. 5 and/or HD 383
- Rubber core insulation, EI4 to DIN VDE 0282 part 1
- Core colours according DIN VDE 0293-308
  Core colour
  - up to 5 cores one-coloured
  - up 6 and more cores, black with white numbering
  - 3 and above, with green-yellow earth core
  - 2 cores without green-yellow earth core
- Cores stranded in layers with optimal lay-length
- Special outer sheath, EM2 to DIN VDE 0282 part 1
- Sheath colour Yellow (RAL 1021)
- with meter marking, change-over in 2011
- **Individual printing:**
- **Article numbers** for individual printing:
  Art.No. 37359 for 3G1,5 mm²
  Art.No. 37360 for 3G2,5 mm²
  Art.No. 37361 for 5G1,5 mm²
  Art.No. 37362 for 5G2,5 mm²
- **Usual length:**
  500m or 1000m drum
- **Minimum quantity**
  500m drum
- price for 500m drum 102,25 Euro
  price for 1000m drum 153,40 Euro

Properties

- **Tests**
  Flame-retardant acc. to VDE 0482-332-1-2, DIN EN 60332-1-2/ IEC 60332-1 (equivalent DIN VDE 0472 part 804 test method B)
- Increased stability
- Tear-resistant
- **Resistant to**
  Atmospheric influences
  Hydrolysis
  UV-radiation
- **Largely resistant to**
  Oils and fats
- The materials used in manufacture are cadmium-free and contain no silicone and free from substances harmful to the wetting properties of lacquers

Note

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

Application

These robust rubber sheathed cables can be used where high demands are placed flexibility and mechanical stress. For application on construction sites, in steel works and rolling mills in heating and air-conditioning systems, in the bottling industry, in machinery and plant construction, in the chemical industry and painting systems, as well as for the professional and the hobby enthusiast. The choice of yellow as the sheath colour ensures additional safety. Can be used in potentially explosive areas acc. to DIN VDE 0165.

CE= The product is conformed with the EC Low-Voltage Directive 2006/95/EG.

Part no.	No.cores x cross-sec. mm²	Outer Ø approx. mm	Cop. weight kg / km	Weight approx. kg / km	AWG-No.
37259	2 x 1	8,4	19,0	98,0	17
37260	3 G 1	9,2	29,0	131,0	17
37261	4 G 1	9,7	38,0	150,0	17
37262	5 G 1	11,0	48,0	220,0	17
37263	2 x 1,5	9,2	29,0	135,0	16
37264	3 G 1,5	9,8	43,0	165,0	16
37265	4 G 1,5	11,5	58,0	200,0	16
37266	5 G 1,5	12,0	72,0	241,0	16
37267	7 G 1,5	16,5	101,0	375,0	16
37268	12 G 1,5	18,3	175,0	460,0	16
37269	2 x 2,5	11,0	48,0	194,0	14
37270	3 G 2,5	11,8	72,0	235,0	14
37271	4 G 2,5	12,7	96,0	290,0	14
37272	5 G 2,5	14,1	120,0	347,0	14

Part no.	No.cores x cross-sec. mm²	Outer Ø approx. mm	Cop. weight kg / km	Weight approx. kg / km	AWG-No.
37273	2 x 4	13,0	77,0	282,0	12
37274	3 G 4	14,1	115,0	322,0	12
37275	4 G 4	15,8	154,0	397,0	12
37276	5 G 4	17,1	192,0	486,0	12
37277	4 G 6	18,2	230,0	541,0	10
37278	5 G 6	19,1	288,0	652,0	10
37279	4 G 10	23,0	384,0	952,0	8
37280	5 G 10	25,8	480,0	1203,0	8
37281	4 G 16	26,3	614,0	1260,0	6
37282	5 G 16	29,1	768,0	1550,0	6
37283	4 G 25	31,7	960,0	1860,0	4
37284	5 G 25	35,2	1200,0	2250,0	4
37285	4 G 35	36,8	1344,0	2374,0	2
37286	5 G 35	40,6	1680,0	2752,0	2

Dimensions and specifications may be changed without prior notice. (RF01)

Also available as pre-assembled cable - see page U 52.

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How to order: Please preface each HELUKABEL part number with 'R955K-' Example (using the part number): R955K-14078

H05 RR-F / H05 RN-F rubber-sheathed cable

Technical data

- To DIN VDE 0282 part 4, HD 22.4 S4 ≙ IEC 60245-4
- H05 RR-F zusätzlich nach BS 6500
- **Temperature range** -30 °C to +60 °C
- Permissible **operating temperature** at conductor +60 °C
- **Nominal voltage** U_0/U 300/500 V
- Max. **operating voltage** three-phase and one-phase a.c. U_0/U 318/550 V for direct current U_0/U 413/825 V
- **Test voltage** 2000 V
- **Minimum bending radius** approx. 7,5x cable ø

Cable structure

- Bare copper conductors, fine stranded to DIN VDE 0295 cl. 5, BS 6360 cl. 5, IEC 60228 cl. 5 and HD 383
- Rubber core insulation EI4 to DIN VDE 0282 part 1
- Cores laid up
- Cores colour coded to DIN VDE 0293-308
- Outer jacket black: RR-F = Rubber, EM 3 to DIN VDE 0282 part 1 RN-F = EM 2 to DIN VDE 0282 part 1

Properties

- Oils and fats are allowed to come in touch
- **Tests** Behaviour on fire according to VDE 0482-332-1-2, DIN EN 60332-1-2/ IEC 60332-1 (equivalent DIN VDE 0472 part 804 test method B)

Note

- G = with green-yellow earth core; x = without green-yellow earth core.
- AWG sizes are approximate equivalent values. The actual cross-section is in mm².
- H05 RR-F is replaced the former type NLH and NMH up to 2,5 mm².
- H05 RN-F is replaced to former type NMHÖU up to 1 mm². at 1,5 mm² - not in VDE; adapted to VDE (H)05 RN-F
  Art.no. 36008 = national type: A-05 RN-F
  Art-no. 36007 = (A)05 RN-F, outer jacket colour grey, for window shades manufacturer

Application

H05 RR-F

These cables are suitable for connecting electrical appliances, for example vacuum cleaner, flat irons, soldering irons, kitchen appliances, toaster, stoves etc. They were also used for medium mechanical stress in households and offices. These cables are suitable for fixed installation in partition walls, furniture, decoration covering and in hollow spaces of prefabricated building parts.
They are not suitable for use in open air, in industries (also permitted to tailor workshops and of that kind) or in agriculture plants and for connecting commercial electrical tools.

H05 RN-F

These cables are suitable for connecting electrical equipment with low mechanical stress in dry, damp and wet places as well in open air, for example as connection cable for horticulture tools. These cables can be used in contact with fats and oils (for example deep fryer).
They are also suitable for fixed installation, for example in furniture, decoration covering, partition walls and in hollow spaces of prefabricated building parts. The installation in hazardous areas is allowed.

CE = The product is conformed with the EC Low-Voltage Directive 2006/95/EG.

H05 RR-F

Part no.	No.cores x cross-sec. mm²	Outer Ø min. - max. mm	Cop. weight kg / km	Weight approx. kg / km	AWG-No.
35001	2 x 0,75	5,7 - 7,4	14,4	60,0	18
35005	3 G 0,75	6,2 - 8,1	21,6	74,0	18
35009	4 G 0,75	6,8 - 8,8	29,0	78,0	18
35019	5 G 0,75	7,6 - 9,9	36,0	99,0	18
35002	2 x 1	6,1 - 8,0	19,0	72,0	17
35006	3 G 1	6,5 - 8,5	29,0	85,0	17
35010	4 G 1	7,1 - 9,3	38,0	98,0	17
35020	5 G 1	8,0 - 10,3	48,0	134,0	17
35003	2 x 1,5	7,6 - 9,8	29,0	98,0	16
35007	3 G 1,5	8,0 - 10,4	43,0	120,0	16
35011	4 G 1,5	9,0 - 11,6	58,0	150,0	16
35013	5 G 1,5	9,8 - 12,7	72,0	180,0	16
35004	2 x 2,5	9,0 - 11,6	48,0	145,0	14
35008	3 G 2,5	9,6 - 12,4	72,0	170,0	14
35012	4 G 2,5	10,7 - 13,8	96,0	220,0	14
35014	5 G 2,5	11,9 - 15,3	120,0	270,0	14
35015	3 G 4	11,3 - 14,5	115,0	260,0	12
35017	4 G 4	12,7 - 16,2	154,0	340,0	12
35016	3 G 6	12,8 - 16,3	173,0	361,0	10
35018	4 G 6	14,2 - 18,1	230,0	462,0	10

H05 RN-F

Part no.	No.cores x cross-sec. mm²	Outer Ø min. - max. mm	Cop. weight kg / km	Weight approx. kg / km	AWG-No.
36001	2 x 0,75	5,7 - 7,4	14,4	78,0	18
36003	3 G 0,75	6,2 - 8,1	21,6	94,0	18
36007	4 G 0,75	6,8 - 8,8	29,0	90,0	18
36008	4 G 0,75	6,8 - 8,8	29,0	90,0	18
36002	2 x 1	6,1 - 8,0	19,0	94,0	17
36004	3 G 1	6,5 - 8,5	29,0	114,0	17
36005	3 G 1,5	8,6 - 11,0	43,0	157,0	16
36006	5 G 1,5	10,5 - 13,5	72,0	228,0	16

Dimensions and specifications may be changed without prior notice. (RF01)

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How to order: Please preface each HELUKABEL part number with 'R955K-' Example (using the part number): R955K-14078

H07 RN-F rubber-sheathed cable, harmonized type

Technical data

- Rubber sheathed cable H07 RN-F to DIN VDE 0282 part 4, HD 22.4 S4, BS7919 ≙IEC 60245-4
- **Temperature range** -30 °C to +60 °C
- Permissible **operating temperature** at conductor +60 °C
- **Nominal voltage** U_0/U 450/750 V in case of protected and fixed installation U_0/U 600/1000 V
- Max. permissible **operating voltage** in three phase and one phase a.c. system U_0/U 476/825 V direct current-system U_0/U 619/1238 V
- **Test voltage** 2500 V
- **Permanent tensile load** max. 15 N/mm²
- **Minimum bending radius** for fixed installation 4x cable ø for guiding over roller 7,5x cable ø during winding on drums 5-7x cable ø

Cable structure

- Copper conductor fine wire stranded, bare to DIN VDE 0295 cl. 5, BS 6360 cl. 5, IEC 60228 cl. 5 and HD 383
- Rubber core insulation EI4 to DIN VDE 0282 part 1
- Insulation thickness to DIN VDE 0282 part 4
- Core identification to DIN VDE 0293-308
- 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 of rubber black, rubber compound to DIN VDE 0282 part 1
- Sheath thickness to DIN VDE 0282 part 4

Properties

- **Resistant to** Weather
- **Test** Test according to VDE 0482-332-1-2, DIN EN 60332-1-2/ 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
- Oil resistant Test according to EN 60811-2-1

Note

- G = with green-yellow earth core; x = without green-yellow earth core.
- AWG sizes are approximate equivalent values. The actual cross-section is in mm².
- Further dimensions and cross-sections available on request.
- H07 RN-F = harmonized rubber-sheathed cable, working voltage 750 V, fine stranded.
- 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

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 2006/95/EG.

Part no.	No.cores x cross-sec. mm²	Outer Ø min. - max. mm	Cop. weight kg / km	Weight approx. kg / km	AWG-No.
37001	1 x 1,5	5,7 - 7,1	14,4	58,0	16
37002	1 x 2,5	6,3 - 7,9	24,0	71,0	14
37003	1 x 4	7,2 - 9,0	38,0	100,0	12
37004	1 x 6	7,9 - 9,8	58,0	130,0	10
37005	1 x 10	9,5 - 11,9	96,0	230,0	8
37006	1 x 16	10,8 - 13,4	154,0	290,0	6
37007	1 x 25	12,7 - 15,8	240,0	420,0	4
37008	1 x 35	14,3 - 17,9	336,0	530,0	2
37009	1 x 50	16,5 - 20,6	480,0	750,0	1
37010	1 x 70	18,6 - 23,3	672,0	960,0	2/0
37011	1 x 95	20,8 - 26,0	912,0	1250,0	3/0
37012	1 x 120	22,8 - 28,6	1152,0	1560,0	4/0
37013	1 x 150	25,2 - 31,4	1440,0	1900,0	300 kcmil
37014	1 x 185	27,6 - 34,4	1776,0	2300,0	350 kcmil
37015	1 x 240	30,6 - 38,3	2304,0	2950,0	500 kcmil
37016	1 x 300	33,5 - 41,9	2880,0	3600,0	600 kcmil
37017	1 x 400	37,4 - 46,8	3840,0	4600,0	750 kcmil
37018	1 x 500	41,3 - 52,0	4800,0	6000,0	1000 kcmil
37019	2 x 1	7,7 - 10,0	19,0	98,0	17
37020	2 x 1,5	8,5 - 11,0	29,0	135,0	16

Part no.	No.cores x cross-sec. mm²	Outer Ø min. - max. mm	Cop. weight kg / km	Weight approx. kg / km	AWG-No.
37021	2 x 2,5	10,2 - 13,1	48,0	193,0	14
37022	2 x 4	11,8 - 15,1	77,0	280,0	12
37023	2 x 6	13,1 - 16,8	115,0	330,0	10
37024	2 x 10	17,7 - 22,6	192,0	586,0	8
37025	2 x 16	20,2 - 25,7	307,0	810,0	6
37026	2 x 25	24,3 - 30,7	480,0	1160,0	4
37027	3 G 1	8,3 - 10,7	29,0	130,0	17
37028	3 G 1,5	9,2 - 11,9	43,0	165,0	16

Continuation ▸

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How to order: Please preface each HELUKABEL part number with 'R955K-' Example (using the part number): R955K-14078

H07 RN-F rubber-sheathed cable, harmonized type

Part no.	No.cores x cross-sec. mm²	Outer Ø min. - max. mm	Cop. weight kg / km	Weight approx. kg / km	AWG-No.
37029	3 G 2,5	10,9 - 14,0	72,0	235,0	14
37030	3 G 4	12,7 - 16,2	115,0	320,0	12
37031	3 G 6	14,1 - 18,0	173,0	420,0	10
37032	3 G 10	19,1 - 24,2	288,0	810,0	8
37033	3 G 16	21,8 - 27,6	461,0	1050,0	6
37034	3 G 25	26,1 - 33,0	720,0	1250,0	4
37035	3 G 35	29,3 - 37,1	1008,0	1900,0	2
37036	3 G 50	34,1 - 42,9	1440,0	2600,0	1
37037	3 G 70	38,4 - 48,3	2016,0	3400,0	2/0
37038	3 G 95	43,3 - 54,0	2736,0	4450,0	3/0
37039	3 G 120	47,4 - 60,0	3456,0	5180,0	4/0
37040	3 G 150	52,0 - 66,0	4320,0	6500,0	300 kcmil
37041	3 G 185	57,0 - 72,0	5328,0	7860,0	350 kcmil
37042	3 G 240	65,0 - 82,0	6192,0	10224,0	500 kcmil
37043	3 G 300	72,0 - 90,0	8640,0	12620,0	600 kcmil
37044	4 G 1	9,2 - 11,9	38,0	150,0	17
37045	4 G 1,5	10,2 - 13,1	58,0	200,0	16
37046	4 G 2,5	12,1 - 15,5	96,0	290,0	14
37047	4 G 4	14,0 - 17,9	154,0	395,0	12
37048	4 G 6	15,7 - 20,0	230,0	540,0	10
37049	4 G 10	20,9 - 26,5	384,0	950,0	8
37050	4 G 16	23,8 - 30,1	614,0	1260,0	6
37051	4 G 25	28,9 - 36,6	960,0	1860,0	4
37052	4 G 35	32,5 - 41,1	1344,0	2380,0	2
37053	4 G 50	37,7 - 47,5	1920,0	3190,0	1
37054	4 G 70	42,7 - 54,0	2688,0	4260,0	2/0
37055	4 G 95	48,4 - 61,0	3648,0	5600,0	3/0
37056	4 G 120	53,0 - 66,0	4608,0	6830,0	4/0
37057	4 G 150	58,0 - 73,0	5760,0	8320,0	300 kcmil
37058	4 G 185	64,0 - 80,0	7104,0	9800,0	350 kcmil
37059	4 G 240	72,0 - 91,0	9216,0	12100,0	500 kcmil
37060	4 G 300	80,0 - 101,0	11520,0	15200,0	600 kcmil
37061	5 G 1,5	11,2 - 14,4	72,0	240,0	16
37062	5 G 2,5	13,3 - 17,0	120,0	345,0	14
37063	5 G 4	15,6 - 19,9	192,0	485,0	12
37064	5 G 6	17,5 - 22,2	288,0	650,0	10
37065	5 G 10	22,9 - 29,1	480,0	1200,0	8
37066	5 G 16	26,4 - 33,3	768,0	1550,0	6
37067	5 G 25	32,0 - 40,4	1200,0	2250,0	4
37068	5 G 35	36,8 - 45,8	1680,0	2750,0	2
37091	5 G 50	40,0 - 50,8	2400,0	3950,0	1
37154	5 G 70	43,8 - 54,0	3360,0	4740,0	1
34090	5 G 95	51,7 - 60,7	4560,0	6600,0	14
34349	5 G 120	59,6 - 68,6	5760,0	8180,0	14
37092	7 G 1,5	14,5 - 17,5	101,0	375,0	16
37079	7 G 2,5	16,5 - 20,0	168,0	520,0	14
37093	12 G 1,5	17,6 - 22,4	175,0	460,0	16
37096	12 G 2,5	20,6 - 26,2	288,0	760,0	14
37097	18 G 2,5	24,4 - 30,9	432,0	850,0	14
37094	19 G 1,5	20,7 - 26,3	274,0	810,0	16
37098	19 G 2,5	25,5 - 31,0	456,0	1075,0	14
37095	24 G 1,5	24,3 - 30,7	346,0	1015,0	16
37099	24 G 2,5	28,8 - 36,4	576,0	1390,0	14

Dimensions and specifications may be changed without prior notice. (RF01)

Current ratings for H07 RN F for current supply in industrial application

Operating temperature at conductor 60°C; Ambient temperature 30°C (Air)

Number of cores	1-core		2-cores	3-cores	3-cores	4-cores	5-cores
Number of loaded cores	2 cores loaded	3 cores loaded	2 cores loaded	2 cores loaded	3 cores loaded	3 cores loaded	3 cores loaded
Cross-section, mm²	Current ratings in Ampere (A)						
4	34	30	34	35	29	30	30
6	43	38	43	44	36	37	38
10	60	53	60	62	51	52	54
16	79	71	79	82	67	69	71
25	104	94	105	109	89	92	94
35	129	117	–	135	110	114	–
50	162	148	–	169	138	143	–
70	202	185	–	211	172	178	–
95	240	222	–	250	204	210	–
120	280	260	–	292	238	246	–
150	321	300	–	335	273	282	–
185	363	341	–	378	309	319	–
240	433	407	–	447	365	377	–
300	497	468	–	509	415	430	–
400	586	553	–	–	–	–	–
500	670	634	–	–	–	–	–
630	784	742	–	–	–	–	–

Note

For the method of installation

• Single core cables are bunched (unit-form) • 2 cores cables laid parallel with contact • 3 cores cables are in triangle-form

Conversion factores for deviating ambient temperature

Ambient temperature at air °C	30	35	40	45	50	55
Factor	1,0	0,91	0,82	0,71	0,58	0,41

HELUKABEL Products are available from MARYLAND METRICS P.O. Box 261 Owings Mills, MD 21117 USA web: http://mdmetric.com
ph: (410)358-3130 (800)638-1830 fx: (410)358-3142 (800)872-9329 email: sales@mdmetric.com RFQ form: http://mdmetric.com/rfq.htm
How to order: Please preface each HELUKABEL part number with 'R955K-' Example (using the part number): R955K-14078

A07 RN-F rubber-sheathed cable, authorised national type

Technical data

- Rubber sheathed cable A07 RN-F to DIN VDE 0282 part 4
- **Temperature range** -30 °C to +60 °C
- Permissible **operating temperature** at conductor +60 °C
- **Nominal voltage** U_0/U 450/750 V in case of protected and fixed installation U_0/U 600/1000 V
- max. permissible **operating voltage** in three phase and one phase a.c. system U_0/U 476/825 V direct current-system U_0/U 619/1238 V
- **Test voltage** 2500 V
- **Permanent tensile load** max. 15 N/mm² under consideration of total copper cross-sections
- **Minimum bending radius** for fixed installation 4x cable ø for guiding over roller 7,5x cable ø during winding on drums 5-7x cable ø

Cable structure

- Copper conductor fine wire stranded, bare to DIN VDE 0295 cl. 5, BS 6360 cl. 5 and IEC 60228 cl. 5
- Rubber core insulation EI4 to DIN VDE 0281 part 1
- Insulation thickness to DIN VDE 0282 part 4
- Core identification to DIN VDE 0293-308
- Core colours: 6 and more cores green-yellow and the other cores black with numbering
- Cores stranded in layers in optimal lay-length
- Outer jacket of rubber black, rubber compound to DIN VDE 0281 part 1
- Sheath thickness to DIN VDE 0282 part 4

Properties

- **Resistant to** Weather
- **Test** Behaviour in fire 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

Note

- G = with green-yellow earth core; x = without green-yellow earth core.
- AWG sizes are approximate equivalent values. The actual cross-section is in mm².
- A07 RN-F = Authorized national rubber-sheathed cable, nominal voltage 750 V, fine wire stranded.
- Valid for design with central core + 7 cores.
- 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.

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 2006/95/EG.

A07 RN-F (with green-yellow protective conductor)

Part no.	No.cores x cross-sec. mm²	Outer Ø min. - max. mm	Cop. weight kg / km	Weight approx. kg / km	AWG-No.
37069	7 G 1,5	14,0 - 17,5	101,0	370,0	16
37070	7 G 2,5	16,5 - 20,0	168,0	500,0	14
37071	12 G 1,5	17,6 - 22,4	173,0	520,0	16
37072	12 G 2,5	20,6 - 26,2	288,0	720,0	14
37078	19 G 1,5	25,0 - 29,5	274,0	1100,0	14
37073	19 G 2,5	21,5 - 25,5	456,0	800,0	16
37074	24 G 2,5	28,8 - 36,4	576,0	1350,0	14
37075	27 G 1,5	25,5 - 31,5	385,0	1100,0	16
37076	27 G 2,5	30,0 - 37,0	640,0	1521,0	14
37077	37 G 2,5	34,0 - 37,5	720,0	1940,0	14

A07 RN-F (without green-yellow protective conductor)

Part no.	No.cores x cross-sec. mm²	Outer Ø min. - max. mm	Cop. weight kg / km	Weight approx. kg / km	AWG-No.
37080	3 x 1,5	9,2 - 11,9	43,0	165,0	16
37081	3 x 2,5	10,9 - 14,0	72,0	235,0	14
37082	3 x 4	12,7 - 16,2	115,0	320,0	12
37083	3 x 6	14,1 - 18,0	173,0	495,0	10
37084	3 x 10	19,1 - 24,2	288,0	880,0	8
37085	3 x 16	21,8 - 27,6	461,0	1095,0	6
37086	3 x 25	26,1 - 33,0	720,0	1450,0	4
37087	3 x 35	29,3 - 37,1	1008,0	1900,0	2
37088	3 x 50	34,1 - 42,9	1440,0	2600,0	1
37089	4 x 10	20,9 - 26,5	384,0	1065,0	8
37090	4 x 25	28,9 - 36,6	960,0	1995,0	4

Dimensions and specifications may be changed without prior notice. (RF01)

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How to order: Please preface each HELUKABEL part number with 'R955K-' Example (using the part number): R955K-14078

NEOPREN Command Cable flexible, colour or number coded with support organ

Technical data

- Special neoprene cable adapted to DIN VDE 0250 part 807 and DIN VDE 0282 part 807 and 808
- With strain bearing support strand
- **Temperature range** flexing -25 °C to +60 °C fixed installation -40 °C to +80 °C
- **Nominal voltage** U_0/U 300/500 V
- **Test voltage** 3000 V
- **Minimum bending radius** for continuous bending without forced guiding operation 12,5x cable ø for flexing with forced guiding operation 20x cable ø

Cable structure

- Bare copper, fine wire conductors, bunch stranded to DIN VDE 0295, cl. 6, col. 4, BS 6360 cl. 6 and IEC 60228
- Core insulation of rubber
- Black cores with continuous white numbering according to DIN VDE 0293
- Green-yellow earth core
- Cores stranded in layers with optimal lay-length
- Support organ (hemp or sisal-string etc.), and/or taping with load carrying thread as construction permits
- Neoprene outer jacket, colour black
- A further selection of sizes and dimensions is available on request.

Properties

- Generally oil, flat and alkali resistant

Note

- G = with green-yellow earth core; x = without green-yellow earth core.
- Not suitable for a winding up and an unwinding on spring or motor cable reels.
- Break resistance must be taken into consideration.
- By the assembly the cables must be installed without torsion. The mobility of the stranded core is not be affected by using of clamps.
- The occuring pulling forces are to be carried by the support organ.

Application

As robust and weather resistant cable for machines, equipment and appliances, which are constantly exposed to the outdoor weather conditions (e.g. building machinery, conveyor and hoist systems, dry docks etc.). They are ideal for use as control cable in trailing cables. They are also suitable in dry, damp and wet areas for wall- and push-button panels and as power cable.
The core insulation is ozone resistant and the outer jacket made of chloroprene is hardly flammable and abrasion resistant.
CE= The product is conformed with the EC Low-Voltage Directive 2006/95/EG.

Part no.	No.cores x cross-sec. mm²	Outer Ø approx. mm	Tensile strength of susp. strand in N	Cop. weight kg / km	Weight approx. kg / km	AWG-No.
25001	2 x 1	7,5	300	19,0	90,0	17
25002	3 G 1	8,5	150	29,0	111,0	17
25003	4 G 1	9,7	300	38,0	141,0	17
25004	5 G 1	11,5	300	48,0	170,0	17
25005	6 G 1	13,4	-	58,0	187,0	17
25006	7 G 1	13,8	2290	67,0	204,0	17
25007	9 G 1	15,8	2890	86,0	274,0	17
25008	12 G 1	17,5	6740	115,0	389,0	17
25009	16 G 1	19,2	570	154,0	432,0	17
25010	18 G 1	21,5	960	173,0	471,0	17
25011	19 G 1	22,0	-	182,0	565,0	17
25012	20 G 1	22,4	600	192,0	590,0	17
25013	24 G 1	23,6	2890	230,0	650,0	17
25074	30 G 1	24,6	-	290,0	785,0	17
25014	36 G 1	29,0	960	346,0	910,0	17
25015	37 G 1	30,5	-	355,0	936,0	17
25016	48 G 1	31,4	1440	461,0	1244,0	17
25017	50 G 1	32,6	-	480,0	1296,0	17
25018	54 G 1	32,9	2500	518,0	1399,0	17
25019	61 G 1	37,2	2290	586,0	1495,0	17
25020	2 x 1,5	8,5	300	29,0	95,0	16
25021	3 G 1,5	9,3	150	43,0	113,0	16
25022	4 G 1,5	10,5	570	58,0	150,0	16
25023	5 G 1,5	12,5	870	72,0	180,0	16
25024	6 G 1,5	14,3	-	86,0	245,0	16
25025	7 G 1,5	14,8	2600	101,0	309,0	16
25026	8 G 1,5	15,8	3460	115,0	333,0	16
25027	9 G 1,5	17,7	3850	130,0	360,0	16
25028	10 G 1,5	18,5	450	144,0	405,0	16
25029	11 G 1,5	20,1	-	158,0	458,0	16
25030	12 G 1,5	21,6	7710	173,0	516,0	16
25031	13 G 1,5	22,1	-	187,0	571,0	16
25032	15 G 1,5	22,8	680	216,0	590,0	16
25033	18 G 1,5	23,6	960	259,0	620,0	16
25034	19 G 1,5	24,1	860	274,0	670,0	16
25035	24 G 1,5	27,0	3850	346,0	817,0	16
25036	37 G 1,5	31,0	-	533,0	1220,0	16
25037	42 G 1,5	33,0	3460	605,0	1380,0	16
25038	48 G 1,5	34,9	-	691,0	1510,0	16
25039	50 G 1,5	36,7	-	720,0	1642,0	16
25040	61 G 1,5	41,8	-	878,0	1950,0	16

Part no.	No.cores x cross-sec. mm²	Outer Ø approx. mm	Tensile strength of susp. strand in N	Cop. weight kg / km	Weight approx. kg / km	AWG-No.
25041	2 x 2,5	10,0	300	48,0	142,0	14
25042	3 G 2,5	10,5	300	72,0	172,0	14
25043	4 G 2,5	11,6	570	96,0	210,0	14
25044	5 G 2,5	12,9	380	120,0	255,0	14
25045	6 G 2,5	14,5	-	144,0	318,0	14
25046	7 G 2,5	16,2	3460	168,0	383,0	14
25075	8 G 2,5	16,8	3850	192,0	450,0	14
25047	9 G 2,5	21,5	680	216,0	541,0	14
25048	11 G 2,5	23,3	-	264,0	638,0	14
25049	12 G 2,5	25,4	6060	288,0	690,0	14
25050	16 G 2,5	24,4	-	383,0	813,0	14
25051	18 G 2,5	26,3	2290	432,0	891,0	14
25052	19 G 2,5	27,5	-	456,0	946,0	14
25053	24 G 2,5	30,5	6060	576,0	1221,0	14
25054	36 G 2,5	33,3	-	864,0	1737,0	14
25055	37 G 2,5	40,8	2500	888,0	1784,0	14
25056	48 G 2,5	41,9	-	1152,0	2500,0	14
25057	50 G 2,5	43,3	-	1200,0	2630,0	14
25058	61 G 2,5	49,3	-	1464,0	8100,0	14
25059	3 G 4	13,6	-	115,0	372,0	12
25060	4 G 4	15,0	1000	154,0	407,0	12
25061	5 G 4	17,1	600	192,0	432,0	12
25062	7 G 4	21,5	-	269,0	495,0	12
25063	3 G 6	13,9	-	173,0	380,0	10
25064	4 G 6	15,2	1000	230,0	445,0	10
25065	5 G 6	19,2	900	288,0	569,0	10
25066	7 G 6	21,1	-	403,0	702,0	10
25067	3 G 10	18,1	-	288,0	530,0	8
25068	4 G 10	20,6	1200	384,0	724,0	8
25069	5 G 10	22,6	1500	480,0	923,0	8
25070	7 G 10	27,4	-	672,0	1288,0	8
25071	3 G 16	21,3	-	461,0	865,0	6
25072	4 G 16	25,2	1920	614,0	1028,0	6
25073	5 G 16	26,5	2400	768,0	1260,0	6

Dimensions and specifications may be changed without prior notice. (RF01)

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How to order: Please preface each HELUKABEL part number with 'R955K-' Example (using the part number): R955K-14078

LIFT-TRAGO-30 / -60 lift hoist control cable, pendal length 30m resp. 60m

Technical data

- Lift hoist control cables with strain bearing element to IEC 60227-6 edition 2001-06 and adapted to DIN VDE 0281 part 13
- **Temperature range**
  flexing -5 °C to +50 °C
  fixed installation -40 °C to +70 °C
- **Max. conductor temperature**
  under load +70 °C
  circuit conditions +150 °C
- **Nominal voltage**
  U_0/U 300/500 V
- **Test voltage** 3000 V
- **Breakdown voltage**
  min. 6000 V
- **Minimum bending radius**
  approx. 20x cable ø
- **Insulation resistance**
  min. 20 MOhm x km
- **Radiation resistance**
  up to 80x10^6 cJ/kg (up to 80 Mrad)

Cable structure

- Bare copper, fine wire conductors, bunch stranded to DIN VDE 0295 cl. 5, BS 6360 cl. 5 and IEC 60228 cl. 5
- Special PVC core insulation, TI2 to DIN VDE 0281 part 1
- Black cores with continuous white numbering according to DIN VDE 0293
- Green-yellow earth core in the outer layer
- Cores stranded with optimal lay-length according to the number of cores in one or two layers, over a central suspension strand of textile.
  LIFT-TRAGO-30 - Fleece wrapping
  LIFT-TRAGO-60 - Support braiding of textile suspension strands
- Outer sheath of special PVC, TM2 to DIN VDE 0281 part 1
- Colour black (RAL 9005)

Properties

- Extensively oil resistant
  Chemical Resistance - see table Technical Informations
- The PVC-outer sheath is oil resistant according to DIN VDE 0281 part 1
- PVC self-extinguishing and flame retardant according to VDE 0482-332-1-2, DIN EN 60332-1-2/ IEC 60332-1 (equivalent DIN VDE 0472 part 804 test method B)
- The materials used in manufacture are cadmium-free and contain no silicone and free from substances harmful to the wetting properties of lacquers

Note

- G = with green-yellow earth core.
- AWG sizes are approximate equivalent values. The actual cross-section is in mm².
- Cable for pendal length 60 m and above available on request.

Application

These cables are used as control or feeder cables in lifts and hoists.

- 30 m pendal length - LIFT-TRAGO-30
- 60 m pendal length - LIFT-TRAGO-60

Suspension height for medium mechanical stresses in dry and moist rooms.
CE = The product is conformed with the EC Low-Voltage Directive 2006/95/EG.

LIFT-TRAGO-30

Part no.	No.cores x cross-sec. mm²	Outer Ø approx. mm	Cop. weight kg / km	Weight approx. kg / km	Support core	Pendal length app. m	AWG-No.
25259	7 G 1	11,5	67,0	170,0	Textile	30	17
25260	12 G 1	15,7	115,0	325,0	Textile	30	17
25261	18 G 1	16,1	173,0	390,0	Textile	30	17
25262	24 G 1	19,2	230,0	530,0	Textile	30	17

LIFT-TRAGO-60

Part no.	No.cores x cross-sec. mm²	Outer Ø approx. mm	Cop. weight kg / km	Weight approx. kg / km	Support core	Pendal length app. m	AWG-No.
25263	7 G 1	12,3	67,0	185,0	Textile	60	17
25264	12 G 1	16,2	115,0	335,0	Textile	60	17
25265	18 G 1	16,7	173,0	400,0	Textile	60	17
25266	24 G 1	19,8	230,0	540,0	Textile	60	17
25267	30 G 1	22,5	288,0	690,0	Textile	60	17
25268	36 G 1	28,2	346,0	930,0	Steel	60	17

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How to order: Please preface each HELUKABEL part number with 'R955K-' Example (using the part number): R955K-14078

TRAGO / Lift-2S Lift and Hoist Control Cables 300/500V

Technical data

- Lift hoist control cables with strain bearing element
- Special PVC-compound for core and jacket, adapted to DIN VDE 0250
- **Temperature range**
  flexing -15 °C to +40 °C
  fixed installation -40 °C to +70 °C
- **Max. conductor temperature**
  under load +70 °C
  circuit conditions +150 °C
- **Nominal voltage**
  U_0/U 300/500 V
- **Test voltage** 3000 V
- **Breakdown voltage** min. 6000 V
- **Free suspension height** max. 50 m
- **Minimum bending radius**
  approx. 20x cable ø

Cable structure

- Bare copper, fine wire conductors, bunch stranded to DIN VDE 0295 cl. 6, BS 6360 cl. 6 and IEC 60228 cl. 6
- Special PVC core insulation, YI3 to DIN VDE 0207 part 4
- Core coding to DIN VDE 0293
- Green-yellow earth core
- Special hemp support braid
  for **Trago** type with central support core of hemp
  for **Lift-2S** type with 2 outer steel support wires
- Cores stranded in layers with optimal lay-length
- Multi-layer wrapping functioning as a support braid
- Special PVC outer jacket YM2 to DIN VDE 0207 part 5
- Colour black (RAL 9005)

Properties

- PVC self-extinguishing and flame retardant according to VDE 0482-332-1-2, DIN EN 60332-1-2/ IEC 60332-1 (equivalent DIN VDE 0472 part 804 test method B)
- The materials used in manufacture are cadmium-free and contain no silicone and free from substances harmful to the wetting properties of lacquers

Note

- Art.no. 25090 - C = 2 cores 0,5 mm² with copper braiding.
- Art.no. 25101 = 7G1 + 17x0,75 mm².
- G = with green-yellow earth core.
- AWG sizes are approximate equivalent values. The actual cross-section is in mm².

Application

These cables are used as control or feeder cables in lifts and hoists. The special attention given to both production and material quality for these cables has made them ideal even for use under extreme conditions.
HELUKABEL®-Lift-2S has also proven itself to be ideally suited for installation in conveyor systems and manual control units.
The external steel support wires can be dismounted without damaging the cable insulation.
CE = The product is conformed with the EC Low-Voltage Directive 2006/95/EG.

TRAGO with central support

Part no.	No.cores x cross-sec. mm²	Outer Ø approx. mm	Cop. weight kg / km	Weight approx. kg / km	Support core	Pendal length app. m	AWG-No.
25080	7 G 0,75	15,4	50,0	290,0	Hemp	250	18
25081	12 G 0,75	19,2	86,0	360,0	Hemp	220	18
25082	18 G 0,75	21,0	130,0	455,0	Hemp	110	18
25083	24 G 0,75	23,0	173,0	535,0	Hemp	90	18
25101	7 G 1	21,5	190,0	595,0	Hemp	90	17
25084	7 G 1	14,9	67,0	222,0	Hemp	80	17
25085	12 G 1	20,0	115,0	415,0	Hemp	80	17
25086	18 G 1	21,4	173,0	450,0	Hemp	70	17
25087	20 G 1	21,6	192,0	490,0	Hemp	70	17
25088	24 G 1	23,2	230,0	605,0	Hemp	60	17
25090	28 G 1	26,0	293,0	760,0	Hemp	90	17
25089	36 G 1	26,1	346,0	950,0	Hemp	90	17

Lift-2S with 2 external support cores

Part no.	No.cores x cross-sec. mm²	Outer Ø approx. mm	Cop. weight kg / km	Weight approx. kg / km	Support core	Pendal length app. m	AWG-No.
25091	12 G 1	13,5	115,2	446,0	Steel	-	17
25092	18 G 1	16,2	172,8	528,0	Steel	-	17
25093	25 G 1	19,0	240,0	660,0	Steel	-	17
25094	30 G 1	21,9	288,0	760,0	Steel	-	17
25095	8 G 1,5	14,7	115,0	425,0	Steel	-	16
25096	12 G 1,5	16,0	172,8	505,0	Steel	-	16
25097	15 G 1,5	19,5	230,0	575,0	Steel	-	16
25098	18 G 1,5	19,3	259,0	640,0	Steel	-	16
25099	20 G 1,5	19,5	288,0	715,0	Steel	-	16
25100	24 G 1,5	22,5	346,0	820,0	Steel	-	16

Dimensions and specifications may be changed without prior notice. (RF01)

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How to order: Please preface each HELUKABEL part number with 'R955K-' Example (using the part number): R955K-14078

H07 ZZ-F control cable, cross linked, halogen-free

Technical data

- halogen-free cross-linked control cable to DIN VDE 0282 part 13, HD 22.13 S1+A1
- **Temperature range**
  flexing -5 °C to +70 °C
  fixed installation -20 °C to +70 °C
- Permissible **operating temperature**
  at conductor +70C
- **Nominal voltage**
  fixed installation U_0/U 06/1 kV
  flexing U_0/U 450/750 V
- **Test voltage** 2500 V
- **Permanent tensile load**
  max. 15 N/mm² under consideration of total copper cross-sections
- **Minimum bending radius**
  for fixed installation 4x cable ø
  flexing10x cable ø

Cable structure

- Bare copper, fine wire stranded conductor to DIN VDE 0295 cl. 5, BS 6360 cl. 5, and IEC 60228 cl. 5 and HD 383
- Core insulation cross-linked, halogen-free, EI8 to DIN VDE 0282 part 1 (HD 22.1 S3)
- Core colours to DIN VDE 0293-308
- Cores stranded in layers with optimal lay-lengt
- Outer jacket, cross-linked halogen-free EM8 to DIN VDE 0282 part 1 (HD 22.1 S3)
- Sheath colour black

Properties

- **Test**
  Behaviour in fire to EN 50265-2-1 (VDE 0472 part 804) and HD 405.3 cat. C
- Corrosiveness of combustion gases to EN 50267-2-2
  Smoke density to HD 606
- Ozone resistant of single corethe insulation to EN 60811-2-1, HD 22.2

Note

- G = with green-yellow earth core;
  x = without green-yellow earth core.
- AWG sizes are approximate equivalent values. The actual cross-section is in mm².

Application

Single and multicore sheathed cable, with low smoke and corrosive gas production in case of fire for interior use.
Not suitable for continuous outside use. In this case, cable with a special tested covering should be used.
Skin contact should be avoided when the cable is used in high temperatures.
CE = The product is conformed with the EC Low-Voltage Directive 2006/95/EG.

Part no.	No.cores x cross-sec. mm²	Outer Ø min. - max. mm	Cop. weight kg / km	Weight approx. kg / km	AWG-No.
37176	1 x 1,5	5,7 - 7,1	14,4	58,0	16
37177	1 x 2,5	6,3 - 7,9	24,0	71,0	14
37178	1 x 4	7,2 - 9,0	38,0	100,0	12
37179	1 x 6	7,9 - 9,8	58,0	130,0	10
37180	1 x 10	9,5 - 11,9	96,0	230,0	8
37181	1 x 16	10,8 - 13,4	154,0	290,0	6
37182	1 x 25	12,7 - 15,8	240,0	420,0	4
37183	1 x 35	14,3 - 17,9	336,0	530,0	2
37184	1 x 50	16,5 - 20,6	480,0	750,0	1
37185	1 x 70	18,6 - 23,3	672,0	960,0	2/0
37186	1 x 95	20,8 - 26,0	912,0	1250,0	3/0
37187	1 x 120	22,8 - 28,6	1152,0	1560,0	4/0
37188	1 x 150	25,2 - 31,4	1440,0	1900,0	300 kcmil
37189	1 x 185	27,6 - 34,4	1776,0	2300,0	350 kcmil
37190	1 x 240	30,6 - 38,3	2304,0	2950,0	500 kcmil
37191	1 x 300	33,5 - 41,9	2880,0	3600,0	600 kcmil
37192	1 x 400	37,4 - 46,8	3840,0	4600,0	750 kcmil
37193	1 x 500	41,3 - 52,0	4800,0	6000,0	1000 kcmil
37194	2 x 1	7,7 - 10,0	19,0	95,0	17
37195	2 x 1,5	8,5 - 11,0	29,0	119,0	16
37196	2 x 2,5	10,2 - 13,1	48,0	172,0	14
37197	2 x 4	11,8 - 15,1	77,0	239,0	12
37198	2 x 6	13,1 - 16,8	115,0	319,0	10
37199	2 x 10	17,7 - 22,6	192,0	572,0	8
37200	2 x 16	20,2 - 25,7	307,0	767,0	6
37201	2 x 25	24,3 - 30,7	480,0	1154,0	4

Part no.	No.cores x cross-sec. mm²	Outer Ø min. - max. mm	Cop. weight kg / km	Weight approx. kg / km	AWG-No.
37202	3 G 1	8,3 - 10,7	29,0	115,0	17
37203	3 G 1,5	9,2 - 11,9	43,0	144,0	16
37204	3 G 2,5	10,9 - 14,0	72,0	211,0	14
37205	3 G 4	12,7 - 16,2	115,0	290,0	12
37206	3 G 6	14,1 - 18,0	173,0	391,0	10
37207	3 G 10	19,1 - 24,2	288,0	706,0	8
37208	3 G 16	21,8 - 27,6	461,0	961,0	6
37209	3 G 25	26,1 - 33,0	720,0	1438,0	4
37210	3 G 35	29,3 - 37,1	1008,0	1814,0	2
37211	3 G 50	34,1 - 42,9	1440,0	2550,0	1
37212	3 G 70	38,4 - 48,3	2016,0	3210,0	2/0
37213	3 G 95	43,3 - 54,0	2736,0	4423,0	3/0
37214	3 G 120	47,4 - 60,0	3456,0	5405,0	4/0
37215	3 G 150	52,0 - 66,0	4320,0	6725,0	300 kcmil
37216	3 G 185	57,0 - 72,0	5328,0	8222,0	350 kcmil
37217	3 G 240	65,0 - 82,0	6192,0	10224,0	500 kcmil
37218	3 G 300	72,0 - 90,0	8640,0	12620,0	600 kcmil

Continuation ▸

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How to order: Please preface each HELUKABEL part number with 'R955K-' Example (using the part number): R955K-14078

H07 ZZ-F control cable, cross linked, halogen-free

Part no.	No.cores x cross-sec. mm²	Outer Ø min. - max. mm	Cop. weight kg / km	Weight approx. kg / km	AWG-No.
37219	4 G 1	9,2 - 11,9	38,0	141,0	17
37220	4 G 1,5	10,2 - 13,1	58,0	176,0	16
37221	4 G 2,5	12,1 - 15,5	96,0	235,0	14
37222	4 G 4	14,0 - 17,9	154,0	365,0	12
37223	4 G 6	15,7 - 20,0	230,0	501,0	10
37224	4 G 10	20,9 - 26,5	384,0	872,0	8
37225	4 G 16	23,8 - 30,1	614,0	1194,0	6
37226	4 G 25	28,9 - 36,6	960,0	1822,0	4
37227	4 G 35	32,5 - 41,1	1344,0	2307,0	2
37228	4 G 50	37,7 - 47,5	1920,0	3253,0	1
37229	4 G 70	42,7 - 54,0	2688,0	4130,0	2/0
37230	4 G 95	48,4 - 61,0	3648,0	5720,0	3/0
37231	4 G 120	53,0 - 66,0	4608,0	6965,0	4/0
37232	4 G 150	58,0 - 73,0	5760,0	8644,0	300 kcmil
37233	4 G 185	64,0 - 80,0	7104,0	10598,0	350 kcmil
37234	4 G 240	72,0 - 91,0	9216,0	12100,0	500 kcmil
37235	4 G 300	80,0 - 101,0	11520,0	15200,0	600 kcmil
37236	5 G 1	10,2 - 13,1	48,0	170,0	17
37237	5 G 1,5	11,2 - 14,4	72,0	214,0	16
37238	5 G 2,5	13,3 - 17,0	120,0	316,0	14
37239	5 G 4	15,6 - 19,9	192,0	448,0	12
37240	5 G 6	17,5 - 22,2	288,0	607,0	10
37241	5 G 10	22,9 - 29,1	480,0	1075,0	8
37242	5 G 16	26,4 - 33,3	768,0	1480,0	6
37243	5 G 25	32,0 - 40,4	1200,0	2255,0	4

Part no.	No.cores x cross-sec. mm²	Outer Ø min. - max. mm	Cop. weight kg / km	Weight approx. kg / km	AWG-No.
37244	6 G 1,5	13,4 - 17,2	84,0	287,0	16
37245	6 G 2,5	15,7 - 20,0	144,0	420,0	14
37246	6 G 4	18,2 - 23,2	230,0	583,0	12
37247	7 G 1,5	11,4 - 14,4	101,0	303,0	16
37248	7 G 2,5	13,4 - 17,0	168,0	448,0	14
37249	12 G 1,5	17,6 - 22,4	173,0	496,0	16
37250	12 G 2,5	20,6 - 26,2	288,0	724,0	14
37251	12 G 4	24,4 - 30,9	461,0	1042,0	12
37252	18 G 1,5	20,7 - 26,3	259,0	702,0	16
37253	18 G 2,5	24,4 - 30,9	432,0	1045,0	14
37254	18 G 4	28,8 - 36,4	691,0	1430,0	12
37255	24 G 1,5	24,3 - 30,7	346,0	935,0	16
37256	24 G 2,5	28,8 - 36,4	576,0	1325,0	14
37257	36 G 1,5	27,8 - 35,2	518,0	1297,0	16
37258	36 G 2,5	33,2 - 41,8	864,0	1949,0	14

Dimensions and specifications may be changed without prior notice. (RF01)

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NSSHÖU heavy duty rubber cable for mining working, 0,6/1kV

Technical data

- Rubber sheath cable to DIN VDE 0250 part 812
- **Temperature range**
  flexing -25 °C to +80 °C
  fixed installation -40 °C to +80 °C
- Permissible **operating temperature** at conductor +90 °C
- **Nominal voltage** U_0/U 0,6/1 kV
- **Operating voltage**
  three-phase and one-phase a.c.
  U_0/U 0,7/1,2 kV
  direct current system
  U_0/U 0,9/1,8 kV
- **Test voltage** 3000 V
- **Insulation resistance**
  min. 20 MOhm x km
- **Tensile strength**
  statical load:
  total cross-section x15 N/mm²
- **Minimum bending radius**
  fixed installation 4x cable ø
  flexing 10x cable ø
  without forced operation 15x cable ø

Cable structure

- Tinned copper conductor, fine wire stranded to DIN VDE 0295 cl. 5, BS 6360 cl. 5 and IEC 60228 cl. 5
- Rubber insulation 3GI3 (EPR), to DIN VDE 0207 part 20
- Green-yellow earth-core for 3-cores and above
- Core identification: one green-yellow earth core and others black cores with continuous white numbering to DIN VDE 0293-308. The basic-line prohibits confusion to recognise the individual cores.
- Cores stranded (multi cores)
- Rubber inner sheath, GM1b, rubber-compound to DIN VDE 0207 part 21
- Outer jacket, rubber-compound 5GM5 to DIN VDE 0207 part 21
- Colour yellow

Properties

- Ozone resistance
- High insulation resistance
- Resistant against hot penetration
- Low abrasion
- High notch resistant
- **Resistant against**
  oils, fats and chemicals
- **Test of oil resistant** to DIN VDE 0472 part 803, test method A
- **Behaviour in fire**
  according to VDE 0482-332-1-2, DIN EN 60332-1-2/ IEC 60332-1 (equivalent DIN VDE 0472 part 804 test method B)
- The code 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 grenn-yellow and the middle conductor with light blue.

Note

- G = with green-yellow earth core;
  x = without green-yellow earth core.
- AWG sizes are approximate equivalent values. The actual cross-section is in mm².

Application

Are suited as a connecting cable for very high mechanical stress in underground mining and tools for use in industries and outdoor use. They are also used for mining industry, surface mining, stone-pits, on building sites, outdoors as well as indoors. Suitable for fixed installation on plaster in dry, damp and wet areas. A long duration of life is guaranteed under extreme operating conditions. Not suitable for drumming and use in all types of machinery, such as robots, handling units and energy transfer units, where constant mobility is essential. The insulation of a plastic-rubber compound on EPR basis improves the resistance to ozone in order to avoid the formation of cracks due to ozone and insulation damages in switch-boards.

CE= The product is conformed with the EC Low-Voltage Directive 2006/95/EG.

Part no.	No.cores x cross-sec. mm²	Outer Ø approx. mm	Cop. weight kg / km	Weight approx. kg / km	AWG-No.
38001	1 x 16	11,5	154,0	336,0	6
38002	1 x 25	14,5	240,0	473,0	4
38003	1 x 35	15,5	336,0	635,0	2
38004	1 x 50	18,0	480,0	866,0	1
38005	1 x 70	20,5	672,0	1145,0	2/0
38006	1 x 95	23,0	912,0	1475,0	3/0
38007	1 x 120	25,0	1152,0	1832,0	4/0
38008	1 x 150	28,0	1440,0	2000,0	300 kcmil
38009	1 x 185	30,0	1776,0	2450,0	350 kcmil
38010	1 x 240	33,0	2304,0	3190,0	500 kcmil
38011	2 x 2,5	13,2	48,0	205,0	14
38012	3 G 1,5	12,5	43,0	173,0	16
38013	3 G 2,5	14,0	72,0	247,0	14
38014	3 G 4	16,8	115,0	336,0	12
38015	3 G 6	18,1	173,0	520,0	10
38016	4 G 1,5	16,0	58,0	210,0	16
38017	4 G 2,5	19,0	96,0	305,0	14
38018	4 G 4	21,5	154,0	415,0	12
38019	4 G 6	23,0	230,0	641,0	10
38020	4 G 10	27,5	384,0	1113,0	8
38021	4 G 16	37,0	614,0	1412,0	6
38022	4 G 25	39,0	960,0	2095,0	4

Part no.	No.cores x cross-sec. mm²	Outer Ø approx. mm	Cop. weight kg / km	Weight approx. kg / km	AWG-No.
38023	4 G 35	42,5	1344,0	2777,0	2
38024	4 G 50	49,0	1920,0	3817,0	1
38025	4 G 70	53,5	2688,0	5071,0	2/0
38026	4 G 95	61,5	3648,0	6636,0	3/0
38027	4 G 120	68,0	4608,0	7000,0	4/0
38028	5 G 1,5	17,0	72,0	252,0	16
38029	5 G 2,5	20,0	120,0	362,0	14
38030	5 G 4	23,0	192,0	509,0	12
38031	5 G 6	26,5	288,0	798,0	10
38035	5 G 10	30,0	480,0	1120,0	8
38036	5 G 16	34,0	768,0	1680,0	6
38037	5 G 25	42,0	1200,0	2430,0	4
38038	7 G 1,5	19,5	101,0	470,0	16
38032	7 G 2,5	21,5	168,0	546,0	14
38039	10 G 1,5	19,8	144,0	560,0	16
38033	12 G 2,5	28,0	288,0	851,0	14
38040	18 G 2,5	33,0	432,0	1230,0	14
38034	19 G 2,5	29,2	466,0	1260,0	14

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