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## Trailing Cables

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# Trailing Cables

Trailing cables are used for high mechanical stress, especially for applications with frequent winding and unwinding with simultaneous tensile and torsional stress.

Trailing cables are frequently used in building machinery, conveyors and lifting systems, and cranes.

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# TROMM-PUR-H trailing, halogen-free



## Technical data

- Trailing cable acc. to UL AWM Style 20235 CSA/AWM
- **Temperature range**  
flexing -40°C to +80°C  
fixed installation -50°C to +80°C
- **Nominal voltage**  
acc. to VDE 600/1000 V  
acc. to UL 1000 V
- **A.c. test voltage**, 50 Hz  
core/core 4000 V
- **Insulation resistance**  
min. 20 MΩm x km
- **Tensile strength** s. table
- **Speed of motion**  
up to 250 m/min
- **Minimum bending radius**  
approx. 6x cable Ø

## Cable structure

- Bare copper, extra fine wire conductor to VDE 0295 cl. 6 and IEC 60228 cl. 6
- TPE core insulation
- Core colours up to 5 cores acc. to DIN VDE 0293, 6 or more cores black with white numbers + gnye
- Cores stranded around support element
- Polyester fleece wrapping
- High-tensile PUR double sheath with integrated support braiding
- Sheath colour yellow

## Properties

- PUR outer sheath, low adhesion, abrasion resistant, halogen-free, resistant to UV, oil, hydrolysis and microbial attack
- PUR sheath: 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)
- Due to the PUR outer jacket, the cable is resistant against ozone and radiation, as well as oils, greases and petrol

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## Application

Significantly smaller external diameters, smaller bending radii and reduced weights compared to NSHTÖU cables enable the use of smaller drive motors and drums, thus providing significant cost savings.

> Trailing cables are used for high mechanical stress, especially for applications with frequent winding and unwinding with simultaneous tensile and torsional stress, for building machinery, conveyors and lifting systems, and cranes. They are used as robust and all-weather resistant cables in the harshest operating environments in mining and in flexible handling equipment and railway motors. The cables are suitable for installation in dry, damp and wet environments, as well as outdoors.

## Notes

- During installation and operation the tensile stress on the cable must not exceed 15 N/mm<sup>2</sup>
- Acceleration must not exceed 0,4 m/sec<sup>2</sup>
- 1 to 2 turns should remain on the drum during operation

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

Part No.	No. cores x cross-sec. mm <sup>2</sup>	Outer ø ca. mm	Cop. weight kg / km	Weight ca. kg / km	Part No.	No. cores x cross-sec. mm <sup>2</sup>	Outer ø ca. mm	Cop. weight kg / km	Weight ca. kg / km
77144	4 G 1,5	10,2	58,0	157,0	77161	4 G 4	12,5	154,0	270,0
77145	5 G 1,5	10,8	72,0	176,0	77172	5 G 4	14,3	192,0	362,0
77146	7 G 1,5	12,9	101,0	245,0	77162	4 G 6	16,9	230,0	409,0
77147	12 G 1,5	18,4	173,0	337,0	77173	5 G 6	17,8	288,0	511,0
77148	18 G 1,5	18,6	259,0	526,0	77163	4 G 10	19,6	384,0	633,0
77149	24 G 1,5	21,3	345,6	662,0	77174	5 G 10	20,9	480,0	766,0
77150	30 G 1,5	24,6	432,0	901,0	77164	4 G 16	23,8	614,0	936,0
77151	42 G 1,5	26,5	604,8	1056,0	77175	5 G 16	25,3	768,0	1170,0
77152	4 G 2,5	11,7	96,0	208,0	77165	4 G 25	27,7	960,0	1485,0
77153	5 G 2,5	12,7	120,0	263,0	77166	4 G 35	30,1	1344,0	2115,0
77154	7 G 2,5	14,8	168,0	327,0	77167	4 G 50	35,2	1920,0	2600,0
77155	12 G 2,5	20,4	288,0	533,0	77168	4 G 70	40,3	2688,0	3700,0
77156	18 G 2,5	21,1	432,0	725,0	77169	4 G 95	50,6	3648,0	4800,0
77157	24 G 2,5	24,8	576,0	988,0	77170	4 G 120	53,0	4608,0	5900,0
77158	30 G 2,5	27,6	720,0	1242,0	77171	4 G 150	56,0	5760,0	7100,0
77159	40 G 2,5	30,0	960,0	1500,0					
77160	50 G 2,5	34,3	1200,0	1800,0					

Dimensions and specifications may be changed without prior notice.

# TROMM-PUR PUR trailing and control cable, halogen-free



## Technical data

- Special PUR insulation and jacket
- Adapted to DIN VDE 0250
- Strain bearing support strand
- **Temperature range**  
-40°C to +80°C  
(up to +100°C for short periods)
- **Nominal voltage**  
up to 1 mm<sup>2</sup> U<sub>0</sub>/U 300/500 V  
as of 1,5 mm<sup>2</sup> U<sub>0</sub>/U 450/750 V
- **Test voltage**  
up to 1 mm<sup>2</sup> = 2000 V  
as of 1,5 mm<sup>2</sup> = 2500 V
- **Breakdown voltage**  
up to 1 mm<sup>2</sup> = 4000 V  
as of 1,5 mm<sup>2</sup> = 5000 V
- **Insulation resistance**  
min. 20 MΩm x km
- **Minimum bending radius**  
approx. 10x cable Ø
- **Radiation resistance**  
up to 100x10<sup>6</sup> cJ/kg (up to 100 Mrad)

## Cable structure

- Bare copper, fine wire conductors, bunch stranded to DIN VDE 0295 cl. 6, col. 4, BS 6360 cl. 6 and IEC 60228 cl. 6
- Special core insulation, PUR
- Support core
- Core coding to DIN VDE 0293 (flexible cables)
- Cores stranded in layers with optimal lay-length
- Core wrapping with fleece
- Support braiding of synthetic fibres
- Halogen-free outer jacket PUR
- colour orange

## Properties

- High flexibility at low temperatures
- Usable for foodstuffs
- Abrasion and tear resistant
- Loadable under torsional stress

### Resistant to

- Oils and fats
- Non-alcoholic fuels and kerosene
- Atmospheric influences
- UV-radiation
- Oxygen and ozone
- Microbes and rotting
- Sea and waste water
- Vibrations

## Note

- G = with green-yellow earth core.
- AWG sizes are approximate equivalent values. The actual cross-section is in mm<sup>2</sup>.

## Application

TROMM-PUR has taken the development of the neoprene type cables one step further. It is a robust, all-weather cable, halogen-free, tear and abrasion resistant and suitable for use in drag-chains, in ship docks, on building sites, for conveyor systems, in mining, for tunnels and roadbuilding.

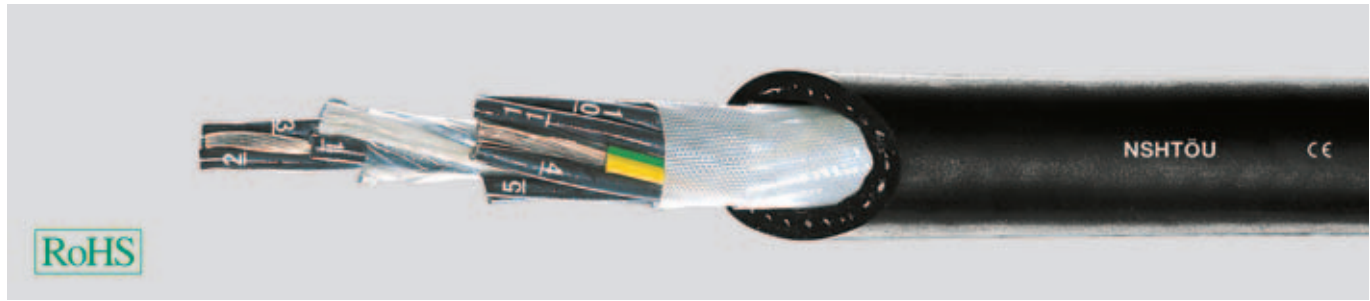
For the connecting the ski lift terminal positions to the control unit, surveillance of the joining rods in ski lift cables, as feeder cables for very high currents as for example in pump engineering, mining, locomotive and rail-carriage construction, for oil rig platforms, emergency power generators etc.

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

Part No.	No. cores x cross-sec. mm <sup>2</sup>	Outer ø ca. mm	Cop. weight kg / km	Weight ca. kg / km	Breaking strain ca. kp	AWG-No.
26035	14 G 0,75	16,5	154,0	320,0	250	18
26036	12 G 1	17,5	115,0	300,0	500	17
26037	18 G 1	23,0	173,0	480,0	500	17
26038	3 G 1,5	9,5	43,0	110,0	200	16
26039	5 G 1,5	12,5	72,0	220,0	200	16
26040	7 G 1,5	15,5	101,0	270,0	250	16
26041	12 G 1,5	21,0	173,0	450,0	750	16
26042	18 G 1,5	27,0	259,0	620,0	750	16
26043	24 G 1,5	30,0	346,0	850,0	750	16
26044	30 G 1,5	34,0	533,0	1100,0	750	16
26045	42 G 1,5	40,0	605,0	1600,0	750	16
26046	4 G 2,5	14,0	96,0	250,0	200	14
26047	5 G 2,5	15,0	120,0	280,0	250	14
26048	7 G 2,5	18,0	168,0	360,0	300	14
26049	12 G 2,5	25,0	288,0	740,0	750	14
26050	24 G 2,5	36,0	576,0	1400,0	750	14
26051	30 G 2,5	40,0	864,0	1740,0	750	14
26052	36 G 2,5	44,0	998,0	2050,0	750	14
26053	7 G 4	22,0	269,0	600,0	500	12
26054	4 G 10	22,0	384,0	650,0	500	8
26055	4 G 16	27,0	614,0	1100,0	500	6
26059	5 G 16	34,0	768,0	1600,0	750	6
26056	4 G 25	30,0	960,0	1600,0	500	4
26057	4 G 35	36,0	1344,0	2050,0	1000	2
26058	4 G 50	42,0	1920,0	2800,0	1000	1

Dimensions and specifications may be changed without prior notice. (RG01)

# NSHTÖU drum cable, VDE approved



## Technical data

- Special-crane-drum cable to DIN VDE 0250 part 814
- **Temperature range**  
flexing -35°C to +70°C  
fixed installation -40°C to +70°C
- Max. **conductor temperature**  
under load +60°C  
circuit conditions +200°C
- **Nominal voltage**  $U_0/U$  0,6/1 kV
- Max. **permissible nominal voltages**  
for three phase and one phase a.c.  
current installation  $U_0/U$  0,7/1,2 kV  
for direct current  $U_0/U$  0,9/1,8 kV
- **Test voltage** 2500 V
- **Insulation resistance**  
min. 10 MΩm x km
- **Minimum bending radius**  
7,5x cable Ø
- **Radiation resistance**  
up to  $20 \times 10^6$  cJ/kg (up to 20 Mrad)

## Cable structure

- Tinned copper fine wire conductors, bunch stranded to DIN VDE 0295 cl. 5, BS 6360 cl. 5 and IEC 60228 cl. 5
- Rubber core insulation GI1 to DIN VDE 0207 part 20
- Core identification to DIN VDE 0293, 6 cores and above with numbering
- Cores stranded (without elongated central core) with max. lay-length of  $8 \times \text{Ø}$  over the stranding layers
- Suspension strains as strain relieving elements
- Textile tape
- Textile braiding as protection against torsion, embedded in inner filling sheath
- Neoprene outer jacket, type 5GM2 to DIN VDE 0207 part 21
- Jacket colour black

## Properties

- Designed and developed for trailing use
- Permissible running speed up to 120 m/min max.
- Polychloroprene-rubber (neoprene)-jacket, extremely cold resistant
- **Behaviour in fire**  
Test according to 0482-332-1-2, DIN EN 60332-1-2/ IEC 60332-1 (equivalent DIN VDE 0472 part 804 test method B)
- **Oil resistant**  
Test according to VDE 0472 part 803, test method A
- Due to the neoprene outer jacket, the cables is **resistant against** ozone and radiation, oils, acids, fats, gasoline, solvents and chemicals
- During the installation and operation the tensile stress on conductor may not increase 15 N/mm<sup>2</sup>
- Acceleration not more than 0,4 m/sec<sup>2</sup>
- While using 1 to 2 convolutions should remain on the operated drum
- In case of high mechanical stress, especially of high dynamic tensile stress result high acceleration, the permissible stress must be defined in each case

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## Note

- G = with green-yellow earth core.
- AWG sizes are approximate equivalent values. The actual cross-section is in mm<sup>2</sup>.

## Application

Trailing cables are used for high mechanical stress, especially for applications with frequent winding and unwinding with simultaneous tensile and torsional stress, for building machinery, conveyors, shifts and cranes.

They are used as robust and all weather resistant cables of roughest operations in mining and in flexible handling equipment and railway motors. The cables are suitable for outdoor installation in dry, damp and wet places.

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

Part No.	No. cores x cross-sec. mm <sup>2</sup>	Outer ø ca. mm	Cop. weight kg / km	Weight ca. kg / km	AWG-No.
26001	3 G 1,5	13,6	47,0	236,0	16
26029	4 G 1,5	14,0	58,0	274,0	16
26002	5 G 1,5	14,5	81,0	316,0	16
26003	7 G 1,5	18,8	115,0	440,0	16
26004	12 G 1,5	21,0	196,0	606,0	16
26005	16 G 1,5	24,5	259,0	696,0	16
26006	18 G 1,5	25,5	271,0	750,0	16
26007	24 G 1,5	27,5	390,0	1150,0	16
26008	30 G 1,5	29,5	432,0	1325,0	16
26009	3 G 2,5	15,3	74,0	305,0	14
26010	4 G 2,5	16,5	98,0	350,0	14
26011	5 G 2,5	17,5	124,0	465,0	14
26012	7 G 2,5	20,0	168,0	576,0	14
26013	12 G 2,5	23,5	308,0	850,0	14
26014	18 G 2,5	28,0	451,0	1181,0	14
26015	24 G 2,5	32,5	615,0	1550,0	14
26016	30 G 2,5	34,0	770,0	1810,0	14
26017	40 G 2,5	42,5	1080,0	3110,0	14
26018	50 G 2,5	46,5	1200,0	3200,0	14
26019	4 G 4	18,5	158,0	510,0	12
26030	5 G 4	21,5	220,0	635,0	12

Part No.	No. cores x cross-sec. mm <sup>2</sup>	Outer ø ca. mm	Cop. weight kg / km	Weight ca. kg / km	AWG-No.
26020	4 G 6	21,0	241,0	650,0	10
26031	5 G 6	23,5	317,0	800,0	10
26021	4 G 10	26,0	404,0	1010,0	8
26022	5 G 10	28,0	508,0	1200,0	8
26023	4 G 16	29,0	642,0	1300,0	6
26032	5 G 16	31,5	768,0	1700,0	6
26024	4 G 25	35,0	1005,0	2000,0	4
26025	4 G 35	37,5	1344,0	2610,0	2
26026	4 G 50	44,5	2010,0	3500,0	1
26027	4 G 70	49,0	2688,0	4600,0	2/0
26028	4 G 95	56,0	3648,0	6100,0	3/0

Dimensions and specifications may be changed without prior notice. (RG01)