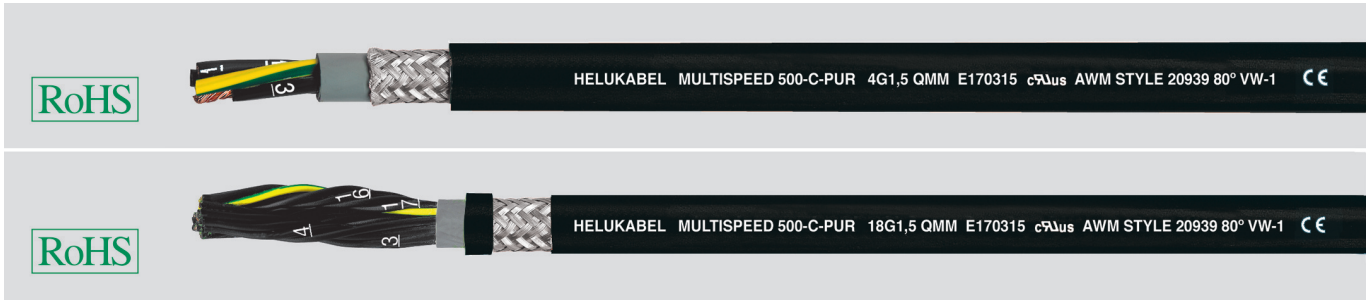
MULTISPEED® 500-C-PUR UL/CSA safety against

high bending in drag chain systems, low torsion, halogen-free, EMC-preferred type, meter marking



Technical data

- Special drag chain cables for high mechanical stress in adapted to DIN VDE 0285-525-2-51/ DIN EN 50525-2-51, DIN VDE 0285-525-2-21/ DIN EN 50525-2-21 and UL-Std.758 AWM Style 20939
- **Temperature range**
  flexing -30°C to +80°C
  fixed installation -40°C to +80°C
  Nominal voltage
  VDE U_0/U 300/500 V
  UL 600 V
- **Test voltage** 3000 V
- **Insulation resistance**
  min. 100 MOhm x km
- **Minimum bending radius**
  flexing 7,5x cable Ø
  fixed installation 4x cable Ø
- **Coupling resistant**
  max. 250 Ohm/km
- **Radiation resistance**
  up to 100x10⁶ cJ/kg (up to 100 Mrad)

Cable structure

- Bare copper, fine wire conductors, Unilay with short pitch length
- Core insulation of special PP
- Core identification to DIN VDE 0293 black cores with continuous white numbering
- GN-YE conductor, 3 cores and above
- Stranding:
  <7 cores: cores stranded in a layer with optimal lay-length around a filler as pe construction
  ⩾7 cores: cores stranded with optimal lay-length to bunch-construction with low torsion strength, optimal selected short lay-length around a filler
- Special-TPE-O inner sheath, extruded as filler with pressure, grey RAL 7001
- Tinned copper braided screen, coverage 85% max., with optimal pitch
- Outer sheath of special PUR
- Sheath colour black (RAL 9005)
- with meter marking

Properties

- The materials used in manufacture are cadmium-free and contain no silicone and free from substances harmful to the wetting properties of lacquers

Tests

- PUR-sheath flame retardant acc. to DIN VDE 0482-332-1-2, DIN EN 60332-1-2 / IEC 60332-1 (equivalent DIN VDE 0472 part 804 test method B), UL VW-1, CSA FT1
- Low adhesion
- High property of alternating bending strength
- Longer service life due to low frictional resistance
- High tensile, abrasion and impact resistance even at low temperatures
- Higher notch toughness
- Higher stability
- Oil resistance
- Better chemical resistance
- UV and ozone resistance
- Higher economical solution
- Reduced Ø, therefore less moving masses

Note

- G = with green-yellow conductor
  x = without green-yellow conductor (OZ)
- AWG sizes are approximate equivalent values. The actual cross-section is in mm².
- unscreened analogue type:
  MULTISPEED® 500-PUR UL/CSA

Application

UL/CSA approved HELUKABEL® MULTISPEED® 500-C-PUR is used in applications where extreme requirements placed on the line. Designed for the export-orientated machinery manufacturer, specifically for USA and Canada. The selected materials and lay-up technique permit these high flexible cables for permanent application in drag chains for long distances, high an slow speed of movements. These cables are installed in dry, moist and wet rooms and in open air with free movement without tensile stress or forced movements. These robust and abrasion resistant special control cables are installed there, where the problems appear for the application in permanent stresses e. g. in energy drag chains, industry robotics, production lines, automatic control systems and permanent movable machinery parts for multi-shift operation. These cables are installed everywhere, where high requirements for the flexibility, abrasion, oxygen and chemical resistance are necessary. These screened cables are particularly suitable for the interference-free transmission in instrumentation and control engineering applications. Before installation in cable trays please read the instructions. Further technical details see selection table for drag chain cables, see lead text.

EMC = Electromagnetic compatibillity

To optimize the EMC features we recommend a large round contact of the copper braiding on both ends.

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

Part no.	No.cores x cross-sec. mm²	AWG-No.	Outer Ø app. mm	Cop. weight kg / km	Weight app. kg / km
24410	2 x 0,5	20	6,6	30,0	90,0
24411	3 G 0,5	20	6,9	36,0	104,0
24412	4 G 0,5	20	7,3	42,0	118,0
24413	5 G 0,5	20	7,8	48,0	148,0
24414	7 G 0,5	20	11,3	64,0	184,0
24415	9 G 0,5	20	11,4	80,0	219,0
24416	12 G 0,5	20	12,6	105,0	276,0
24417	18 G 0,5	20	15,0	137,0	378,0
24418	25 G 0,5	20	17,5	210,0	547,0

Part no.	No.cores x cross-sec. mm²	AWG-No.	Outer Ø app. mm	Cop. weight kg / km	Weight app. kg / km
24419	2 x 0,75	19	6,8	40,0	100,0
24420	3 G 0,75	19	7,4	48,0	117,0
24421	4 G 0,75	19	8,0	55,0	143,0
24422	5 G 0,75	19	8,5	66,0	167,0
24423	7 G 0,75	19	12,9	85,0	229,0
24424	12 G 0,75	19	14,4	135,0	319,0
24425	18 G 0,75	19	17,5	190,0	492,0
24426	25 G 0,75	19	19,9	275,0	659,0

Continuation ▸

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Part no.	No.cores x cross-sec. mm²	AWG-No.	Outer Ø app. mm	Cop. weight kg / km	Weight app. kg / km
24427	2 x 1	18	7,1	50,0	120,0
24428	3 G 1	18	7,7	59,0	140,0
24429	4 G 1	18	8,3	70,0	167,0
24430	5 G 1	18	9,1	84,0	201,0
24431	7 G 1	18	14,0	106,0	256,0
24432	12 G 1	18	15,0	174,0	417,0
24433	18 G 1	18	18,7	240,0	557,0
24434	25 G 1	18	21,4	332,0	766,0
24333	36 G 1	18	26,1	436,0	840,0
24435	3 G 1,5	16	8,6	75,0	170,0
24436	4 G 1,5	16	9,4	90,0	204,0
24437	5 G 1,5	16	10,4	108,0	236,0
24438	7 G 1,5	16	16,0	157,0	309,0
24439	12 G 1,5	16	17,6	240,0	509,0
24440	18 G 1,5	16	21,3	355,0	718,0
24441	25 G 1,5	16	24,8	448,0	944,0
24334	36 G 1,5	16	30,3	592,0	1070,0
24442	4 G 2,5	14	11,3	134,0	280,0
24443	5 G 2,5	14	12,3	175,0	346,0
24444	7 G 2,5	14	19,9	229,0	410,0

Dimensions and specifications may be changed without prior notice. (RN05)