

MULTISPEED® 500-PUR UL/CSA safety against high bending in drag chain systems, low torsion, halogen-free, meter marking



HELUKABEL MULTISPEED 500-PUR 4G1 QMM E170315 c93us AWM STYLE 20939 80° VW-1 CE



HELUKABEL MULTISPEED 500-PUR 18G1 QMM E170315 c93us AWM STYLE 20939 80° VW-1 CE

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**
DIN VDE U₀/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
- **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 per construction
- ≥7 cores: cores stranded with optimal lay-length to bunch-construction with low torsion strength, optimal selected short lay-length around a filler
- Outer sheath of special-PUR
- extruded as filler with pressure
- 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
 - halogen-free
 - Higher economical solution
 - High resistant to mechanical strain
 - Long life durability due to low friction-resistance
 - High tensile strength, abrasion- and impact resistance at low temperature
 - Tear resistance
 - High stability
 - Oil resistance
 - Better chemical resistance
 - UV and ozone resistance
 - Increased economic efficiency
 - 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.
- screened analogue type:
MULTISPEED® 500-C-PUR UL/CSA

Application

UL/CSA approved HELUKABEL® MULTISPEED® 500-PUR are installed there, where the extreme requirements for the cables are necessary. The selected materials and lay-up technique permit these high flexible cables for permanent application in drag chains for long distances, high and 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. For applications which go beyond standard solutions (for example for composting appliances or high shelf conveyors with extremely high processing speeds etc.) we recommend for our especially developed enquiry sheet for energy guiding systems. Before installation in cable trays please read the instructions. Further technical details see selection table for drag chain cables, see lead text.

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

Part no.	No. cores x cross-sec. mm ²	AWG-No.	Outer Ø app. mm	Cop. weight kg / km	Weight app. kg / km
24370	2 x 0,5	20	4,8	9,6	41,0
24371	3 G 0,5	20	5,1	14,4	48,0
24372	4 G 0,5	20	5,5	19,0	62,0
24373	5 G 0,5	20	6,0	24,0	70,0
24374	7 G 0,5	20	9,1	33,6	88,0
24375	12 G 0,5	20	10,0	58,0	131,0
24376	18 G 0,5	20	12,2	86,0	204,0
24377	25 G 0,5	20	14,3	120,0	266,0

Part no.	No. cores x cross-sec. mm ²	AWG-No.	Outer Ø app. mm	Cop. weight kg / km	Weight app. kg / km
24378	3 G 0,75	19	5,2	21,6	51,0
24379	4 G 0,75	19	6,1	29,0	68,0
24380	5 G 0,75	19	6,6	36,0	73,0
24381	7 G 0,75	19	10,5	50,0	92,0
24382	12 G 0,75	19	11,4	86,0	170,0
24383	18 G 0,75	19	14,2	130,0	257,0
24384	25 G 0,75	19	16,3	180,0	280,0
24385	36 G 0,75	19	20,1	260,0	411,0
24386	42 G 0,75	19	22,2	302,0	608,0

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
24387	3 G 1	18	5,9	29,0	59,0
24388	4 G 1	18	6,4	38,0	71,0
24389	5 G 1	18	7,0	48,0	84,0
24390	7 G 1	18	11,2	67,0	111,0
24391	12 G 1	18	12,3	115,0	200,0
24392	18 G 1	18	15,1	173,0	286,0
24393	25 G 1	18	17,6	240,0	370,0
24331	36 G 1	18	21,6	346,0	485,0
24394	3 G 1,5	16	6,7	43,0	81,0
24395	4 G 1,5	16	7,3	58,0	102,0
24396	5 G 1,5	16	8,0	72,0	121,0
24397	7 G 1,5	16	13,2	101,0	164,0
24398	12 G 1,5	16	15,0	173,0	293,0
24399	18 G 1,5	16	17,7	259,0	450,0
24400	25 G 1,5	16	20,5	360,0	631,0
24332	36 G 1,5	16	25,6	518,0	779,0

Part no.	No. cores x cross-sec. mm²	AWG-No.	Outer Ø app. mm	Cop. weight kg / km	Weight app. kg / km
24401	4 G 2,5	14	8,9	86,0	173,0
24402	5 G 2,5	14	9,8	120,0	220,0
24403	7 G 2,5	14	16,1	168,0	290,0
24404	12 G 2,5	14	17,8	288,0	504,0
24405	18 G 2,5	14	21,8	432,0	719,0
24406	25 G 2,5	14	24,4	600,0	940,0

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