

HELUKAT 500S CAT.6A SF/FTP PUR CHAIN

halogen-free, highly flame-retardant



TECHNICAL DATA

Industrial Ethernet cable / Cat. 6A acc. to ISO/IEC 11801, DIN EN 50173, IEC 61156-6, DIN EN 50288-10-2, UL-Std. 444 (CMX), CSA-Std. C22.2 No. 214 - CMX, UL-Std. 758 (AWM) Style 21576

Temperature range	flexible -20°C to +60°C fixed installation -40°C to +80°C UL (CMX) to +75°C UL (AWM) to +80°C
Peak operating voltage	125 V (not for high power current installation purposes)
Test voltage core/core	3000 V
Conductor resistance at 20°C	max. 87.6 Ohm/km
Loop resistance at 20°C	max. 175.2 Ohm/km
Insulation resistance	min. 5.0 GOhm x km
Mutual capacitance core/core	at 800 Hz, approx. 50 pF/m
Rel. Velocity of Propagation	approx. 75%
Characteristic impedance	at 1 to 100 MHz, 100 Ohm ± 15 Ohm at 101 to 500 MHz, 100 Ohm ± 20 Ohm
Caloric load	approx. 1.69 MJ/m
Minimum bending radius	flexible 8x Outer-Ø fixed installation 4x Outer-Ø

■ CABLE STRUCTURE

- Copper wire tinned, AWG sizes
- Core insulation: Foam PE
- Core identification: colour coded, pairs:
 - No. 1: white / blue
 - No. 2: white / orange
 - No. 3: white / green
 - No. 4: white / brown
- Cores stranded in pairs with optimal lay lengths

- Screening element: pairs, plastic-coated aluminium foil (St)
- Pairs with optimal lay lengths stranded around a central cross-shaped filler
- 1. Screen: metallised conductive fleece
- 2. Screen: braided screen of tinned copper wires
- Outer sheath: PUR
- Sheath colour: green
- Length marking: in metres

■ PROPERTIES

- resistant to: oil, UV radiation, hydrolysis, microbes, coolants, greases
- abrasion-resistant, notch-resistant, tear-resistant, cut-resistant, wear-resistant, low adhesion
- suitable for use in drag chains
- halogen-free
- flame-retardant

■ TESTS

- halogen-free acc. to DIN VDE 0482-754-1 / DIN EN 60754-1 / IEC 60754-1
- flame-retardant acc. to DIN VDE 0482-332-1-2 / DIN EN 60332-1-2 / IEC 60332-1-2, CSA FT2

■ APPLICATION

HELUKAT® 500S CAT.6A SF/FTP PUR CHAIN was designed specially for extreme industrial applications for drag chain moving. The copper data cable is especially well-suited for Category 6A Ethernet applications. It guarantees excellent transmission characteristics and may be used even under the harshest conditions.

■ NOTES

- Conductor sizes are based on the AWG measurement system, metric conductor sizes (mm²) are approximated and are for reference only
- UL Voltage Rating: 1000 V

■ TYPICAL VALUES

Frequency (MHz)	10	16	62.5	100	200	300	500
Attenuation (dB/100m)	6.6	8.4	17.3	22.0	31.4	38.9	51.2
NEXT (dB)	72.8	73.0	74.1	74.4	74.4	72.2	69.2
ACR (dB/100m)	66.2	64.6	56.8	52.4	43.0	33.8	18.0

Part no.	No. cores x AWG-No.	Cross-sec. mm ² , approx.	Conductor Ø mm, approx.	Core Ø mm, approx.	Outer Ø mm, approx.	Cu-weight kg/km	Weight kg/km, approx.
805703	4 x 2 x AWG 24 /7	0.22	0.6	1.3	8.7	44.0	90.0