

# HELUKAT® 250S CAT.6 CMG SF/UTP PVC CHAIN



highly flame-retardant



## TECHNICAL DATA

Industrial Ethernet cable / Cat. 6 acc. to ISO/IEC 11801, DIN EN 50173, IEC 61156-6, DIN EN 50288-5-2, UL-Std. 444 (CMG), CSA-Std. C22.2 No. 214 - CMG

<b>Temperature range</b>	flexible -25°C to +80°C fixed installation -40°C to +80°C UL (CMG) to +75°C
<b>Peak operating voltage</b>	125 V (not for high power current installation purposes)
<b>Test voltage core/core</b>	1500 V
<b>Conductor resistance at 20°C</b>	max. 90.0 Ohm/km
<b>Loop resistance at 20°C</b>	max. 180.0 Ohm/km
<b>Insulation resistance</b>	min. 0.5 GOhm x km
<b>Mutual capacitance core/core</b>	at 800 Hz, approx. 50 pF/m
<b>Rel. Velocity of Propagation</b>	approx. 67%
<b>Characteristic impedance</b>	at 1 to 100 MHz, 100 Ohm ± 15 Ohm at 101 to 250 MHz, 100 Ohm ± 20 Ohm
<b>Caloric load</b>	approx. 1.69 MJ/m
<b>Minimum bending radius</b>	flexible 20x Outer-Ø fixed installation 3x Outer-Ø

- Foil wrapping
- Pairs with optimal lay lengths stranded around a central cross-shaped filler
- Inner sheath: halogen-free, flame retardant compound (FRNC)
- 1. Screen: plastic-coated aluminium foil (St)
- 2. Screen: braided screen of tinned copper wires
- Outer sheath: PVC
- Sheath colour: green
- Length marking: in metres

## PROPERTIES

- resistant to: UV radiation
- suitable for use in drag chains
- flame-retardant

## TESTS

- flame-retardant acc. to CSA FT4
- bundle fire test acc. to DIN VDE 0482-332-3-24 / DIN EN 60332-3-24 / IEC 60332-3-24 (Cat. C)

## APPLICATION

HELUKAT® 250S CAT.6 CMG SF/UTP PVC CHAIN was designed specially for extreme industrial applications. The copper data cable is especially well-suited for Category 6 Ethernet applications. It guarantees excellent transmission characteristics and may be used even under the harshest conditions. This version with PVC jacket and stranded conductor is designed specifically for trailing use under difficult industrial conditions.

## NOTES

- Conductor sizes are based on the AWG measurement system, metric conductor sizes (mm<sup>2</sup>) are approximated and are for reference only

## CABLE STRUCTURE

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

## TYPICAL VALUES

Frequency (MHz)	10	16	62.5	100	200	250
Attenuation (dB/100m)	9.0	11.4	23.2	29.9	43.7	49.5
NEXT (dB)	59.3	56.2	47.4	44.3	39.8	38.3
ACR (dB/100m)	50.3	44.8	24.2	13.4	-3.9	-11.2

Part no.	No. cores x AWG-No.	Cross-sec. mm <sup>2</sup> , approx.	Conductor Ø mm, approx.	Core Ø mm, approx.	Outer Ø mm, approx.	Cu-weight kg/km	Weight kg/km, approx.
805658	4 x 2 x AWG 24 /7	0.22	0.6	1.1	8.0	39.0	72.0