

HELUKAT® 100T CAT.5 SF/UTP PUR TORSION

flame-retardant



TECHNICAL DATA

Industrial Ethernet cable / Cat. 5 acc. to ISO/IEC 11801, DIN EN 50173, IEC 61156-6, DIN EN 50288-2-2, UL-Std. 758 (AWM) Style 21161

Temperature range	flexible -30°C to +70°C fixed installation -40°C to +80°C
Peak operating voltage	UL (AWM) to +80°C 125 V (not for high power current installation purposes)
Test voltage core/core	2000 V
Conductor resistance at 20°C	max. 140.0 Ohm/km
Loop resistance at 20°C	max. 280.0 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. 67%
Characteristic impedance	at 1 to 100 MHz, 100 Ohm ± 15 Ohm
Caloric load	approx. 1.23 MJ/m
Minimum bending radius	flexible 8x Outer-Ø fixed installation 4x Outer-Ø

CABLE STRUCTURE

- Copper wire bare, AWG sizes
- Core insulation: PP
- 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
- Pairs stranded in layers with optimal lay lengths
- 1. Screen: plastic-coated aluminium foil (St)
- 2. Screen: braided screen of tinned copper wires

- Outer sheath: PUR
- Sheath colour: green
- Length marking: in metres

PROPERTIES

- resistant to: oil, UV radiation
- abrasion-resistant, notch-resistant, tear-resistant, cut-resistant, wear-resistant, low adhesion
- torsion rated
- 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
- certifications and approvals: EAC

APPLICATION

HELUKAT 100T CAT.5 SF/UTP PUR TORSION is designed for applications with torsion loads, e.g. in robots, and characterized by high reserve capacity and outstanding performance, even after exposure to extreme conditions. Thanks to the clever structure, it is also possible to achieve a long service life mechanically.

NOTES

- Conductor sizes are based on the AWG measurement system, metric conductor sizes (mm²) are approximated and are for reference only

TYPICAL VALUES

Frequency (MHz)	10	16	62.5	100
Attenuation (dB/100m)	9.5	12.1	17.1	32.0
NEXT (dB)	50.3	47.2	38.4	35.3
ACR (dB/100m)	40.8	35.1	21.3	3.3

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.
800067	4 x 2 x AWG 26 / 19	0.15	0.48	1.04	7.5	29.5	74.0