



Application

IEC 11801-1:	Class E _A
EN 50173-1:	Class E _A
IEEE 802.3:	10Base-T; 100Base-T; 1000Base-T; 2.5GBase-T; 5GBase-T; 10GBase-T
IEEE 802.3:	Power over Ethernet PoE; PoE+

Applicable Standards

Design specification:	EN 50288-10-1, EN 50174-2, IEC 14763-2, IEC 61156-5; EN 50575+A1
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Fire behaviour

Euroclass:	Dca
Smoke production:	s1
Flaming droplets:	d2
Acidity:	a1
Flame retardant:	IEC 60332-1-2
Halogen free:	IEC 60754-2
Smoke density:	IEC 61034

Construction

Construction:	U/UTP
Conductor:	Bare copper wire, Ø 0.57 mm (AWG23/1)
Insulation:	Polyethylene, Ø 1.10 mm
Twisting:	2 cores to the pair
Cable lay up:	4 pairs and a non metallic cross separator (spline)
Outer jacket:	LSZH, blue RAL 5015
Cable marking blue:	Telegärtner UMJ 500 U/UTP 4x2xAWG23/1 Cat.6A LSZH Dca-s1,d2,a1 NVP 67% ETL verified to ISO/IEC 11801 Cat.6A „production batch no“ „sequential length in meters“

Mechanical properties

Outer diameter:	8.2 ± 0.2 mm
Bending radius:	during operation: ≥ 33 mm during installation: ≥ 66 mm
Tensile force:	max. 100 N
Weight:	54.5 kg/km

Environment and Security

Temperature range:	during operation: -20 °C to +60 °C during installation: 0 °C to +50 °C
Fire load:	max. 1035 MJ/km

Installation Cable

UMJ 500 U/UTP AWG23/1 Cat.6A LSZH Dca-s1,d2,a1



Electrical properties (typical at 20°C)

Characteristic impedance Z (1-100 MHz):	100 ± 15 Ω
Nominal velocity of propagation NVP:	ca. 67%
Propagation delay:	≤ 498 ns/100m
Delay skew:	≤ 45 ns/100m
Loop resistance:	≤ 19 Ω/100m
Resistance unbalance:	pair: ≤ 2% between the pairs: ≤ 4%
Insulation resistance (500V):	≥ 500 MΩx100m
Nominal capacity (at 1000 Hz):	< 5.6 nF/100m
Capacitance unbalance (pair/ground):	≤ 160 pF/100m
Test voltage (DC, 60 sec.) (core/core):	1000 V
Transfer impedance (mΩ/m):	-
TCL:	Level 1
Segregation classification:	a

Transmission properties (at 20°C)

Has been verified as being compliant with the standards.

Order No.	Standard designation	Scope of delivery	Copper content kg/km
L02002A0176	J-2YH 4x2x0,57 LSZH	305m (1000ft) wooden drum (plywood) Palette ISPM15 compliant	20.5

Drum dimensions:	L02002A0176
Drum Type:	wooden drum (plywood)
Flange outer diameter d1:	400 mm
Flange inner diameter d2:	150 mm
Central hole / core hole:	55 mm
Overall width:	260 mm
Winding width:	240 mm

The editions of the afore mentioned standards by the time of 3.11.2017 are valid.