

## Application

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




## Applicable Standards

Design specification:	EN 50288-6-1, EN 50174-2, IEC 14763-2, IEC 61156-5; EN 50575+A1
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## Fire behaviour

Euroclass:	Dca
Smoke production:	s2
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 0.56 mm (AWG23/1)
Insulation:	Polyethylene, Ø 0.99 mm
Twisting:	2 cores to the pair
Cable lay up:	4 pairs and a non metallic cross separator (spline)
Outer jacket:	LSZH
Cable marking blue:	Telegärtner UMJ 300 U/UTP 4x2xAWG23/1 Cat.6 LSZH Dca-s2,d2,a1 NVP 67% ETL verified to ISO/IEC 11801 „production batch no“ „sequential length in meters“   

## Mechanical properties

Outer diameter:	6.0 ± 0.2 mm	
Bending radius:	during operation:	≥ 24 mm
	during installation:	≥ 48 mm
Tensile force:	max. 100 N	
Weight:	41.3 kg/km	

## Environment and Security

Temperature range:	during operation:	-20 °C to +60 °C
	during installation:	0 °C to +50 °C
Fire load:	614 MJ/km	

### 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:	15.44 Ω/100m max. 17.8 Ω/100m	
Resistance unbalance:	pair:	≤ 2%
	between the pairs:	≤ 4%
Insulation resistance (500V):	≥ 500 MΩx100m	
Mutual capacitance (at 1000 Hz):	< 5.1nF/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. old / new	Standard designation	Scope of delivery	Copper content kg/km
L02002A0216 / 100013144 blue RAL 5012	J-2YH 4x2x0.56 LSZH	305m (1000ft) easy reel box	18.8
L02002A0228 / 100013150 green PANTONE 360 C	J-2YH 4x2x0.56 LSZH	305m (1000ft) easy reel box	18.8
L02002A0229 / 100013151 grey RAL 7035	J-2YH 4x2x0.56 LSZH	305m (1000ft) easy reel box	18.8
L02002A0230 / 100013152 yellow RAL 1018	J-2YH 4x2x0.56 LSZH	305m (1000ft) easy reel box	18.8
L02002A0231 / 100013153 white RAL 9003	J-2YH 4x2x0.56 LSZH	305m (1000ft) easy reel box	18.8
L02002A0232 / 100013154 purple RAL 4005	J-2YH 4x2x0.56 LSZH	305m (1000ft) easy reel box	18.8

The editions of the afore mentioned standards by the time of 13.04.2021 are valid.