

Application

IEC 11801-1:	Class E _A
EN 50173-1:	Class E _A
IEEE 802.3:	10Base-T; 100Base-T; 1000Base-T; 10GBase-T
IEEE 802.3:	Power over Ethernet PoE; PoE+; 4PPoE




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:	s2
Flaming droplets:	d1
Acidity:	a1
Flame retardant:	IEC 60332-1
Halogen free:	IEC 60754-2
Smoke density:	IEC 61034

Construction

Construction:	U/FTP
Conductor:	Bare copper wire, Ø 0.56 mm (AWG23/1)
Insulation:	Foam skin Polyethylene, Ø 1.32 mm
Twisting:	2 cores to the pair
Pair screen:	Aluminium-laminated plastic foil, conducting side outward
Cable lay up:	4 pairs (PiMF)
Drain wire:	Copper wire, tinned Ø 0.4 mm (AWG26/1)
Outer jacket:	LSZH, blue RAL 5015
Ripcord:	Nylon ripcord under jacket
Cable marking black:	Telegärtner AMJ 500 U/FTP 4x2xAWG23/1 Cat.6A LSZH Dca-s2,d1,a1 NVP 77% „production batch no“ „sequential length in meters“   

Mechanical properties

Outer diameter:	7,0 ± 0,3 mm
Bending radius:	during operation: ≥ 29 mm during installation: ≥ 57 mm
Tensile force:	max. 80 N
Weight:	45 kg/km

Environment and Security

Temperature range:	during operation: -30 °C to +60 °C during installation: 0 °C to +50 °C
Fire load:	515 MJ/km

Installation Cable

AMJ 500 U/FTP AWG23/1 Cat.6A LSZH Dca-s2,d1,a1



Electrical properties (typical at 20°C)

Characteristic impedance Z_c (1-100 MHz):	100 ± 15 Ω
Nominal velocity of propagation NVP:	ca. 77%
Propagation delay:	≤ 500 ns/100m
Delay skew:	≤ 20 ns/100m
Loop resistance:	14.1 Ω/100m max. 19 Ω/100m
Resistance unbalance:	pair: ≤ 2% between the pairs: ≤ 4%
Insulation resistance (500V):	≥ 500 MΩx100m
Mutual capacitance (at 800 Hz):	< 4.4 nF/100m
Capacitance unbalance (pair/ground):	≤ 120 pF/100m
Test voltage (DC, 2 sec.) (core/core und core/screen):	2500 V
Transfer impedance (mΩ/m):	Grade 2
Coupling attenuation:	Type 2
Segregation classification:	c

Transmission properties (at 20°C)

Has been verified as being compliant with the standards.

Transmission properties

Typical values

Frequency	1*	4	10	16	31.2	62.5	100	125	200	250	300	500	625*	MHz
Attenuation	1.9	3.6	5.5	7.1	9.9	14.1	17.9	20.2	25.9	29.2	32.2	42.6	48.1	dB/100m
NEXT	103	100	98	97	95	94	93	92	91	90	90	89	88	dB/100m
PS NEXT	100	97	95	94	92	91	90	89	88	87	87	86	85	dB/100m
ACR	101	96	92	90	85	80	75	72	65	61	58	46	40	dB/100m
PS ACR	98	93	89	87	82	77	72	69	62	58	55	43	37	dB/100m
ACR-F	95	94	93	91	90	87	85	83	77	74	74	60	50	dB/100m
PS ACR-F	92	91	92	88	87	84	82	80	74	71	71	57	47	dB/100m
Return Loss	27	30	32	32	32	32	32	31	30	25	25	23	21	dB/100m

* Values are for information only.

Order No. old / new	Standard designation	Scope of delivery	Copper content kg/km
L02002A0198B / 100027785	J-2YH 4x2x0,56 PiMF LSZH	500 m disposable wooden drum	20
L02002A0200B / 100027787	J-2YH 4x2x0,56 PiMF LSZH	1000 m disposable wooden drum	20

Drum dimensions for: L02002A0198B / 100027785

Drum type:	wooden drum (disposable)
Flange diameter d1:	390 mm
Core diameter d2:	160 mm
Central hole:	60 mm
Overall width:	336 mm
Winding width:	320 mm
Drum/EPAL:	18

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