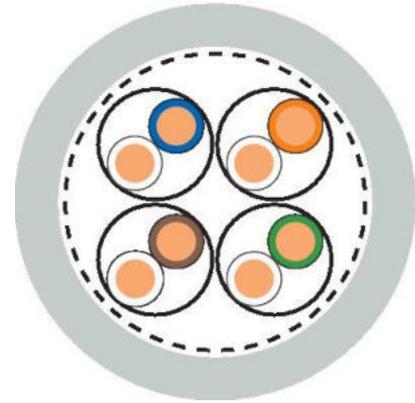


2170960	DATA SHEET	
Valid from: 01.05.2018	ETHERLINE® LAN 500 Cat.6A S/FTP	

Description

ETHERLINE® LAN 500 Cat.6A S/FTP is an installation cable for structured horizontal cabling. These cables are ideal for LAN data transmission in all Ethernet (IEEE 802.3) applications up to 10GBase-T and higher. The copper braid overall screen offers protection against electromagnetic interference as well as mechanical reinforcement. IEC 61156-5/ISO/IEC 11801, EN 50173-1, EIA/TIA 568C.2



General characteristics

Conductor	Solid bare copper wire, AWG 23/1
Insulation	solid polyethylene
Core identification code	Pair 1: white – blue Pair 2: white – orange Pair 3: white – green Pair 4: white – brown
Stranding	two cores stranded to pairs,
Pair screening	aluminum laminated polyester foil
Stranding	Pairs stranded to bundle
Screening	Braiding of tinned copper wires
Outer sheath	PVC compound outer Ø: approx. 7.3 mm color: grey, similar to RAL 7035

Mechanical characteristics

Minimum bending radius	at installation: 4 x cable Ø fixed installation: 8 x cable Ø
Permissible temperature range	at installation: 0 °C up to +50 °C fixed installation: -20 °C up to +60 °C
Flame propagation	flame retardant acc. to IEC 60332-1-2
Classification of fire behaviour acc. to EU Regulation 305/2011 (CPR)	Eca (acc. to EN13501-6 and EN50575)

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2170960	DATA SHEET	
Valid from: 01.05.2018	ETHERLINE® LAN 500 Cat.6_A S/FTP	

Electrical characteristics

DC-Resistance (loop)	max. 150.0 Ω/km
Insulation resistance	min. 5 GΩ x km
Mutual capacitance	nom. 43 nF/km at 1 kHz
Characteristic impedance	nom. 100 Ω acc. to IEC 61156-5
Operating peak voltage	100 V (not for power purposes)
velocity of propagation	approx. 0.79 c
Test voltage	core/core: 1000 V

Transmission properties

Transmission properties acc. to IEC 61156-5 for Category Cat.6_A:

f [MHz]	Attenuation [dB/100m]		PS NEXT [dB]		EL FEXT [dB]		Return Loss [dB]	
	standard	typical	standard	typical	standard	typical	standard	typical
1*	2.1	1.8	75	100	68	105	20.0	-
4	3.8	3.4	66	100	56	105	23.0	27
10	6.0	5.4	60	100	48	97	25.0	30
16	7.6	6.8	57	100	44	93	25.0	30
31,25	10.7	9.6	53	100	38	87	23.6	30
62,5	15.5	13.7	48	100	32	81	21.5	30
100	19.9	17.4	45	100	28	77	20.1	30
200	29.1	25.0	41	92	22	71	18.0	25
250	33.0	28.1	39	90	20	69	17.3	24
300	36.4	32.1	37	89	18	67	16.8	23
500	48.9	46.6	34	86	14	65	15.2	23

* Extract of normative minimum requirements

Standard

EU-Directive	Dangerous and forbidden substances acc. to RoHS directive (2011/65/EU) are not allowed to the manufacturing.
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