



Application

Primary (Campus), Secondary (Riser), Tertiary (Horizontal)
IEEE 802.5; IEEE 802.3: 10Base-T; 100Base-T; 1000Base-T; 10GBase-T
ISDN; TPDDI; ATM; CATV; Broadband Video; SOHO-Cabling

Standards

EN 50173-1; EN 50288-4-1
ISO/IEC 11801;
IEC 61156-5

Flame resistance

LSHF (LSOH): IEC 60332-1; IEC 60754-2; IEC 61034

Construction

Conductor	bare copper wire, \varnothing 0.57 mm (AWG23)
Insulation	Foamskin Polyethylene, \varnothing 1.4 mm
Twisting	2 cores to the pair
Pair screen	Al-laminated plastic foil
Cable lay up	4 pairs to the core
Screen	Copper braid, tinned
Sheath	LSHF (LSOH), grey RAL 7035

Mechanical properties

Bending radius

Without load	≥ 35 mm
With load	≥ 70 mm
during operation	-20°C upto + 60°C
during installation	0°C upto + 50°C

Temperature range

KELine® Cable	S/FTP 4x2x0.57(AWG23) CAT.7E 1200 MHz LSOH 100Ω Data Cable ISO/IEC 11801	S/FTP
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Electrical properties

at 20°C±5°C

Loop resistance		≤ 135 Ω/km
Resistance unbalance		≤ 2%
Insulation resistance	(500 V)	≥ 2000 MΩxkm
Mutual capacitance	at 800 Hz	nom. 43 nF/km
Capacitance unbalance	(pair/ground)	≤ 1500 pF/km
Characteristic impedance	(1 – 100 MHz)	(100 ± 15) Ω
Nominal velocity of propagation		ca. 79%
Propagation delay		≤ 427 ns/100 m
Delay skew		≤ 12 ns/100 m
Test voltage	(DC, 1 min) core/core; core/screen	1000 V
Transfer impedance	at 1 MHz	≤ 20 mΩ/m
	at 10 MHz	≤ 30 mΩ/m
	at 30 MHz	≤ 40 mΩ/m
	at 100 MHz	≤ 200 mΩ/m

Electrical data (nominal)

acc. to Cat.7 (at 20°)

F (MHZ)	Attenuation (dB/100m)	NEXT (dB)	PS-NEXT (dB)	ACR (dB/100m)	PS-ACR (dB/100m)	ELFEXT (dB/100m)	PS-ELFEXT (dB/100m)	Return loss (dB)
1.0	1.8	100	97	98	95	105	103	20
4.0	3.4	100	97	97	94	93	91	23
10.0	5.4	100	97	95	92	85	83	25
16.0	6.8	100	97	93	90	81	79	25
20.0	7.7	100	97	92	89	79	77	25
31.2	9.6	100	97	90	87	75	73	24
62.5	13.7	100	97	86	83	69	67	22
100.0	17.4	100	97	83	80	65	63	20
125.0	18.6	95	92	76	73	63	61	19
155.5	19.5	95	92	75	69	61	59	19
175.0	22.1	92	89	70	67	60	58	18
200.0	25.0	92	89	67	64	59	57	18
250.0	28.1	90	87	62	59	57	55	17
300.0	30.9	89	86	58	55	55	53	17
450.0	37.4	87	84	50	47	52	50	17
600.0	44.8	85	82	40	37	49	47	17
1000.0	58.4	82	79	24	21	45	43	
1200.0	65.2	82	79	17	17	43	41	

Technical data

Product code	Designation	Brand name	Outer diameter mm	Fire load		Weight	Copper content	Tensile force
				MJ/km	kWh/m			
KE1200S23LSOH	S/FTP 4x2x0.57AWG23	KELine	7.5	642	0.178	66	28	110N