



## Application

Primary (Campus), Secondary (Riser), Tertiary (Horizontal)  
IEEE 802.3: 10Base-T; 100Base-T; 1000Base-T; 10GBase-T  
IEEE 802.5 16 MB; ISDN; TPDDI; ATM

## 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, $\varnothing$ 0.56 mm (AWG23)
Insulation	Foamskin Polyethylene, $\varnothing$ 1.35 mm
Twisting	2 cores to the pair
Pair screen	Al-laminated plastic foil
Cable lay up	4 pairs (PiMF) to the core
Screen	Copper braid, tinned (ca. 40% coverage)
Sheath	LSHF (LSOH), grey RAL 7035

## Mechanical properties

Bending radius

Without load	$\geq 40$ mm
With load	$\geq 80$ mm
during operation	-20°C upto + 60°C
during installation	0°C upto + 50°C

Temperature range

<b>KELine®</b> <b>Cable</b>	<b>S/FTP 4x2x0.56(AWG23) CAT.7 900 MHz LSOH</b> <b>100Ω Data Cable ISO/IEC 11801</b>	<b>S/FTP</b>
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## Electrical properties

at 20°C±5°C

Loop resistance		≤ 165 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
	(100 – 250 MHz)	(100 ± 18) Ω
	(250 – 600 MHz)	(100 ± 25) 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°C)

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	102	-
4.0	3.4	100	97	97	94	105	102	27
10.0	5.4	100	97	95	92	97	94	30
16.0	6.8	100	97	93	90	93	90	30
20.0	7.7	100	97	92	89	91	88	30
31.2	9.6	100	97	90	87	87	84	30
62.5	13.7	100	97	86	83	81	78	30
100.0	17.4	100	97	83	80	77	74	30
125.0	19.5	95	92	75	72	75	72	26
155.5	21.9	94	91	72	69	73	70	26
175.0	23.3	93	90	70	67	72	69	25
200.0	25.0	92	89	67	64	71	68	25
250.0	28.1	90	87	62	59	69	66	24
300.0	30.9	89	86	58	55	67	64	24
450.0	38.3	87	84	48	45	64	61	23
600.0	44.8	85	82	40	37	61	58	22
750.0	52.0	83	80	31	28	59	56	21
900.0	59.4	82	79	23	20	58	55	20

## Technical data

Product code	Designation	Brand name	Outer diameter mm	Fire load		Weight	Copper content	Tensile force
				MJ/km	kWh/m			
<b>KE900HS23</b>	<b>S/FTP</b> <b>4x2x0.56AWG23</b>	<b>KELine</b>	<b>7.0</b>	<b>590</b>	<b>0.170</b>	<b>65</b>	<b>26</b>	<b>110N</b>