

## Cat 6SF/UTP

CU/HDPE/OSC/TWB/PVC(HFFR)



LAN cable with 4 pairs, category 6, with Overall Al-foil screen and Tinned Copper braid

### Construction

Conductor:	copper (bare, single wired/solid), diameter 0,57mm, AWG23
Insulation:	polyethylene (PE), foam skin (foamed PE with a thin layer of solid PE), external diameter 1,4 mm, per two conductors twisted in pairs
overall Screen:	aluminum-laminated plastic foil
Common screen:	braid of Tinned copper wires, covering min. 65%
Sheath	PVC; halogen-free (LSHF, LSOH, FRNC); resistant to flame propagation acc. to IEC 60332-3 (LSHF-FR, LSFROH, FRNC-C)
sheath Color	Orange Ral 2000
external diameter	7.3-7.9 mm
<b>Conductor colour marking:</b>	
	1. pair: blue / white
	2. pair: orange / white
	3. pair: green / white
	4. pair: brown / white

### Technical data

Temperature range:	
During installation :	-5 °C up to +50 °C
maximum operation temperature :	+60 °C
Nominal voltage:	250V
Test voltage:	1200V
Minimal inner bending radius:	8 X D
DC Resistance( $\Omega$ /100m):	$\leq 9.5$
Capacitance(nf/100m)	$\leq 5.6$
Capacitance Unbalance	2%
Propagation Velocity	67-69%
Behavior in fire:	IEC 60332-1
Maximal tensile strength:	Max 100N
Cable Weight(approx.)	
	PVC: 55kg/km
	LSHF: 65 kg/km

### APPLICATION

Cable applied in structured local networks of class E for high speed data and voice transmission, at primary, secondary (vertical) and tertiary (horizontal) level. Standardized for application up to 250 MHz (in certain configurations even up to 500 MHz).

Length of this cable in 1000BASE-T networks is restricted at max. 100 m (ordinarily installed cables max. 90 m, with connecting cables of up to 5 m at both ends). Applicable in 10GBASE-T networks too, but with max. length of 55 m.

### DESIGN STANDARDS

**ISO/IEC 11801**  
**IEC 61156-5**  
**EN 50173**  
**EN 50288-5-1**  
**TIA/EIA-568-B**

### Nominal characteristics of signal transmission (at 20 °C)

Frequency	IL	NEXT	PS.NEXT	ACR	PS.ACR	ACRF	PS.ACRF	RL	Propagation Delay	Delay Skew
(MHz)	Max. dB/100 m	Min. dB/100m	Min. dB/100m	Min. dB/100m	Min. dB/100m	Min. dB/100m	Min. dB/100m	Min. dB/100 m	Max. ns/100m	Max. ns/100m
1	2.03	74.3	72.30	72.28	70.28	67.8	64.8	20	570	
4	3.78	65.27	63.27	61.49	59.49	55.76	52.76	23.01	552	
8	5.32	60.75	58.75	55.43	53.43	49.74	46.74	24.52	546.73	
10	5.95	59.3	57.3	53.35	51.35	47.8	44.8	25	545.38	
16	7.55	56.24	53.24	48.68	46.68	43.72	40.72	25	543	
20	8.47	54.78	52.78	46.31	44.31	41.78	38.78	25	542.05	
25	9.51	53.33	51.33	43.83	41.83	39.84	36.84	24.32	541.2	45
31.25	10.67	51.88	49.88	41.2	39.2	37.9	34.9	23.64	540.44	
62.5	15.38	47.36	45.36	31.98	29.98	31.88	29.88	21.54	538.55	
100	19.8	44.3	42.3	24.5	22.5	27.8	24.8	20.11	537.6	
150	24.71	41.66	39.66	16.95	14.95	24.28	21.28	18.87	536.94	
200	28.98	39.78	47.78	10.8	8.8	21.78	18.78	18	536.55	
250	32.85	38.33	36.33	5.48	3.48	19.84	16.84	17.32	536.28	