

CABLES FOR INDOOR INSTALLATIONS

F/UTP Category 5e

APPLICATION

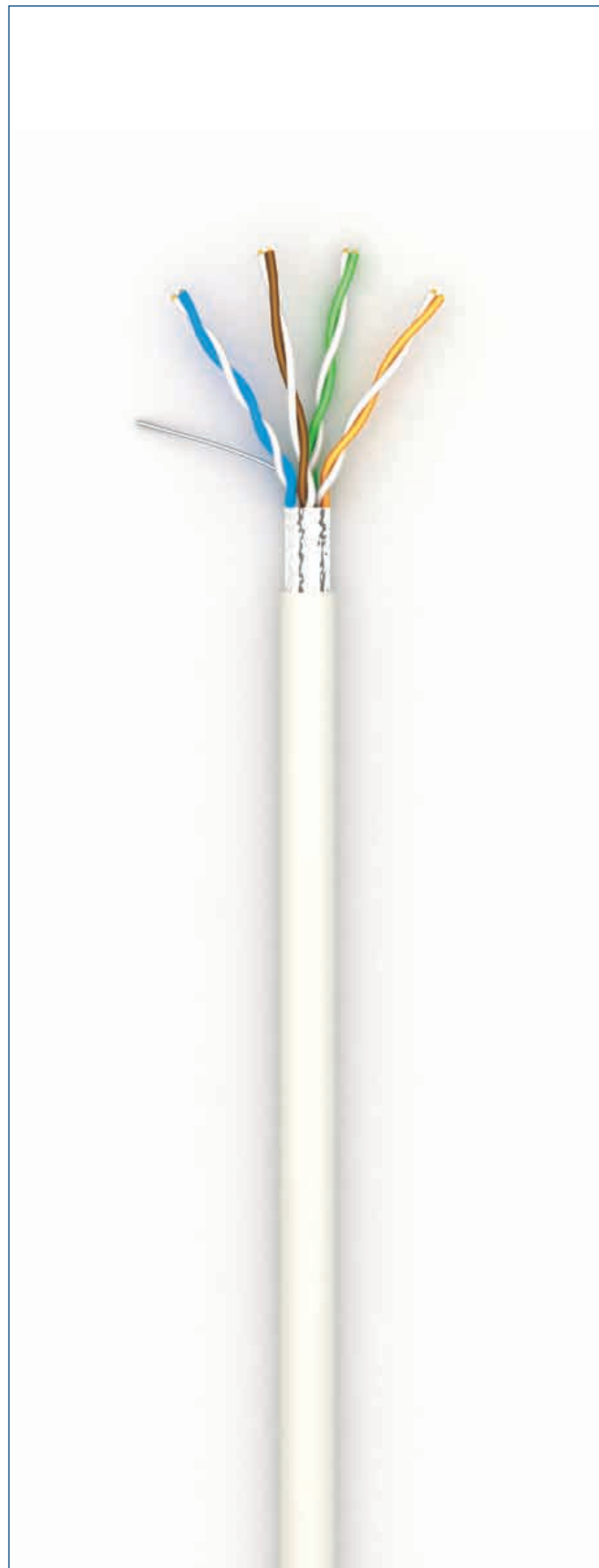
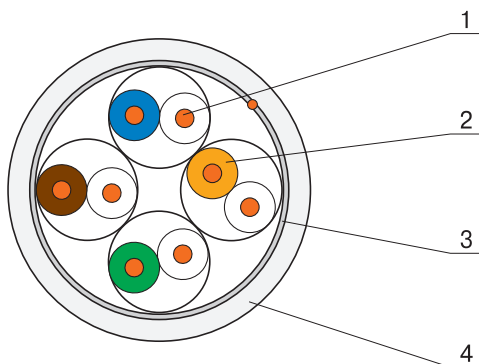
PBX, V.11, X.21, ISDN, Ethernet (10Base-T), ATM-25/52/155 Mbit/s, 100VG-AnyLAN, Fast Ethernet (100BASE-TX), Token Ring 16/100 Mbit/s, Gigabit Ethernet (1000BASE-T), Firewire 100 Mbit/s

COMPLIANCE WITH THE REQUIREMENTS

ISO/IEC 11801:2002
EN 50173-1:2002
ANSI/TIA/EIA-568-B.2-2001
IEC 61156-5:2002
TU U 31.3-05758730-020-2002

DESIGN

- 1) Conductor: soft copper wire
Diameter: 0.51 mm (24 AWG)
- 2) Insulation: polyethylene
Conductor diameter: 1.07 mm
Pair: two conductors twisted together
Colour identification of pairs:
pair 1: white-blue / blue
pair 2: white-orange / orange
pair 3: white-green / green
pair 4: white-brown / brown
Core: 4 pairs twisted together with a string
- 3) Pair shield: aluminum polymer foil (metal inside).
Copper tinned contact wire \varnothing 0.4 mm is applied longitudinally under the shield.
- 4) Sheath: PVC or LSOH compound
Sheath colour: white (PVC), orange or blue (LSOH)
Maximum cable diameter: 6.6 mm



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INSTALLATION AND OPERATION CONDITIONS

For stationary installation inside buildings, stations, structures and equipment in conditions of heightened electromagnetic impacts.
Operated on frequencies up to 200 MHz.

ELECTRICAL CHARACTERISTICS AT 20 °C

Direct current resistance	≤ 96 Ohm/km
Insulation resistance	≥ 5 GOhm/km
Capacitance	≤ 56 pF/m
Signal propagation velocity	≥ 0,68 s
Propagation delay	≤ 534+36/√f ns/100 m
Delay shift on frequency: 100 MHz	≤ 45 ns/100 m
Characteristic impedance in the frequency range:	
1-100 MHz	100±10 Ohm
100-200 MHz	100±15 Ohm
Screening attenuation on: 30-200 MHz	≥ 40 dB
Test voltage between cores, cores and shield (DC, 2 s)	2,5 kV
Working voltage (DC)	72 V

MECHANICAL CHARACTERISTICS

Temperature range:	
During installation	-10 °C ... +60 °C
After installation	-20 °C ... +60 °C
Bending radius:	
During installation	≥ 8 cable diameters
After installation	≥ 4 cable diameters
Tensile stress	≤ 85 N

MARKING

On the КПВЭ-ВП (200) 4x2x0,51 (FTP cat.5e) cable type:
OK-net <year of production> FTP CAT.5e 200 MHz 4Pr AWG24
NVP 68% ISO/IEC 11801 100 OHM K-29 <metric mark>

On the КПВонг-HFЭ-ВП (200) 4x2x0,51
(FTP cat.5e LS0H) cable type:
OK-net <year of production> FTP CAT.5e LS0H 200 MHz 4Pr
AWG24 NVP 68% ISO/IEC 11801 100 OHM K-29
<metric mark>

SIGNAL TRANSMISSION PERFORMANCE AT 20 °C

Frequency (MHz)	Attenuation (dB/100 m)		NEXT (dB)		PS-NEXT (dB)		EL-FEXT (dB)		PS-ELFEXT (dB/100 m)		RL (dB)	
	max.*	nom.	min.*	nom.	min.*	nom.	min.*	nom.	min.*	nom.	min.*	nom.
1**	2,1	1,9	65,3	78,0	62,3	75,0	64,0	70,0	61,0	67,0	20,0	25,00
4	4,1	3,8	56,3	76,0	53,3	73,0	52,0	58,0	49,0	55,0	23,0	30,00
10	6,5	6,0	50,3	74,0	47,3	71,0	44,0	52,0	41,0	49,0	25,0	37,00
16	8,3	7,7	47,2	70,0	44,2	67,0	39,9	48,0	36,9	45,0	25,0	34,00
20	9,3	8,6	45,8	69,0	42,8	66,0	38,0	46,0	35,0	43,0	25,0	34,00
31,25	11,7	10,9	42,9	63,0	39,9	60,0	34,1	40,0	31,1	37,0	23,6	33,00
62,50	17,0	15,8	38,4	60,0	35,4	57,0	28,1	36,0	25,1	33,0	21,5	28,00
100	22,0	20,5	35,3	58,0	32,3	55,0	24,0	32,0	21,0	29,0	20,1	24,00
125	24,9	23,2	33,8	54,0	30,8	51,0	22,1	30,0	19,1	27,0	19,4	23,50
200	32,4	30,3	30,8	48,0	27,8	45,0	18,0	26,0	15,0	23,0	18,0	21,00

*IEC 61156-5:2002

**Values lower than 4 MHz are given for information only

ORDER INFORMATION

Code	Cable type	Sheath	Packing	Weight, kg/km
49352	КПВЭ-ВП (200) 4x2x0,51 (FTP cat.5e)	PVC	Box 305 m	45.2
49357	КПВонг-HFЭ-ВП (200) 4x2x0,51 (FTP cat.5e LS0H)	LS0H	Box 305 m	46.0