

CABLES FOR INDOOR INSTALLATIONS

S/FTP Category 7

APPLICATION

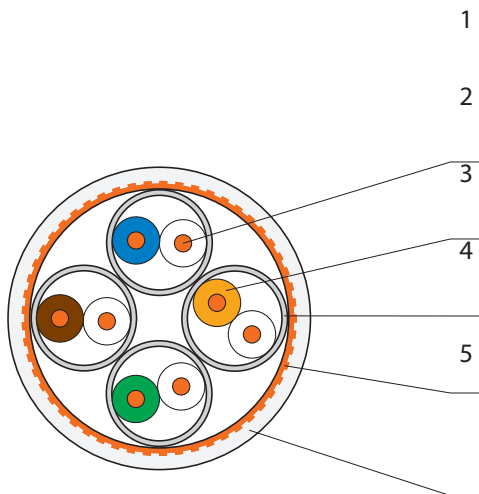
PBX, V.11, X.21, ISDN, Ethernet (10Base-T), ATM-25/52/155 Mbit/s, 100VG-AnyLAN, Fast Ethernet (100BASE-TX), Token Ring 16/100 Mbit/s, Gigabit Ethernet (1000BASE-T), Firewire 100 Mbit/s, 10 Gigabit Ethernet (10GBASE-T), ATM LAN 1,2 Gbit/s, FC-100-TP

COMPLIANCE WITH THE REQUIREMENTS

ISO/IEC 11801:2002
EN 50173-1:2002
IEC 61156-5:2002
TU U 31.3-05758730-031-2003

DESIGN

- 1) Conductor: soft copper wire
Diameter: 0.57 mm (23 AWG)
- 2) Insulation: foam-skin polyethylene
Conductor diameter: 1.50 mm
Pair: two conductors twisted together
Colour identification of pairs:
pair 1: white / blue
pair 2: white / orange
pair 3: white / green
pair 4: white / brown
- 3) Pair shield: aluminum polymer foil (metal outside).
Core: 4 pairs twisted together
- 4) Core shield: tinned copper wire braid
Coverage: at least 50%
- 5) Sheath: polyvinylchloride (PVC) or LS0H compound
Sheath colour: white (PVC), orange or blue (LS0H)
Maximum cable diameter: 9.2 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 600 MHz.

ELECTRICAL CHARACTERISTICS AT 20 °C

Direct current resistance	≤ 84 Ohm/km
Insulation resistance	≥ 5 GOhm/km
Capacitance	≤ 56 pF/m
Signal propagation velocity	≥ 0.76 s
Propagation delay	≤ 534+36/√f ns/100 m
Delay shift on the frequency: 100 MHz	≤ 5 ns/100 m
Characteristic impedance in the frequency range of:	
1-100 MHz	100±15 Ohm
100-250 MHz	100±22 Ohm
250-600 MHz	100±25 Ohm
Screening attenuation on: 30-600 MHz	≥ 60 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

КПнВО-ВПЭ (600) 4x2x0,57 (S-STP - cat.7) cable type:
OK-net <year of production> S-STP CAT.7 600 MHz 4Pr
AWG23 NVP 76% ISO/IEC 11801 100
OHM K-29 <metric mark>

КПнВонг-НФО-ВПЭ (600) 4x2x0,57
(S-STP - cat.7 LS0H) cable type:
OK-net <year of production> S-STP CAT.7 LS0H 600
MHz 4Pr AWG23 NVP 76% 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**	2,0	2,0	78,0	98,5	75,0	98,0	78,0	86,3	75,0	80,4	20,0	26,90
4	3,7	3,7	78,0	98,0	75,0	97,0	78,0	85,4	75,0	80,1	23,0	33,80
10	5,9	5,6	78,0	97,8	75,0	96,5	74,0	85,0	71,0	79,9	25,0	39,50
16	7,4	7,1	78,0	97,3	75,0	95,3	69,9	84,9	66,9	79,0	25,0	44,20
20	8,3	7,8	78,0	97,1	75,0	92,3	68,0	84,4	65,0	78,8	25,0	43,30
31,25	10,4	9,7	78,0	96,9	75,0	92,0	64,1	84,2	61,1	78,5	23,6	45,20
62,50	14,9	13,8	72,5	96,8	72,5	91,7	58,1	83,9	55,1	75,3	21,5	37,60
100	19,0	17,7	72,4	96,8	69,4	91,4	54,0	76,2	51,0	68,1	20,1	32,10
125	21,4	20,0	70,9	96,8	67,9	91,2	52,1	73,4	49,1	65,2	19,4	31,60
200	27,5	25,6	67,9	96,8	64,9	91,0	48,0	72,7	45,0	63,0	18,0	32,00
250	31,0	28,8	66,4	96,4	63,4	90,7	46,0	70,1	43,0	63,0	17,3	29,60
300	34,2	31,7	65,2	95,7	62,2	89,1	44,5	68,7	41,5	62,3	17,3	26,90
400	40,0	36,7	63,4	94,3	60,4	87,2	42,0	63,4	39,0	57,9	17,3	27,20
550	47,7	43,3	61,3	95,8	58,3	85,3	39,2	59,8	36,2	53,4	17,3	26,60
600	50,1	45,4	60,7	92,2	57,7	82,1	38,4	52,1	35,4	45,6	17,3	23,50

*IEC 61156-5:2002

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

ORDER INFORMATION

Code	Cable type	Sheath	Packing	Weight, kg/km
49502	КПнВО-ВПЭ (600) 4x2x0,57 (S-STP - cat.7)	PVC	Coil 500 m	70.8
49505	КПнВонг-НФО-ВПЭ (600) 4x2x0,57 (S-STP - cat.7 LS0H)	LS0H	Coil 500 m	72.7