

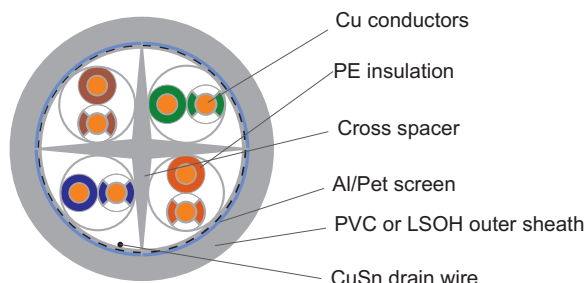
# BiTLAN F/UTP cat. 6 350MHz

Data transmission cable

BITNER BiTLAN F/UTP cat. 6

RoHS 2011/65/UE

LVD 2006/95/WE



## Technical data:

### Temperature range:

Operating temperature: -30°C to +70°C

Installation temperature: -10°C to +50°C

Bending radius: 6xO.D.

DC loop resistance at 20°C (max):

165 Ω/km

Insulation resistance (min): 5GΩ x km

Resistance unbalance: ≤ 2%

Capacitance at 1 kHz: 50 ± 5 nF/km

Capacitance unbalance at 1kHz (max):

1600 pF/km

Nominal voltage: 150V

Test voltage:

AC 50 Hz: 700V

DC: 1000V

Characteristic impedance: 100 ± 5Ω

NVP value: 69%

Return loss (min):

f = 4 ÷ 10 MHz: 20 + 5lg(f)

f = 10 ÷ 20 MHz: 25

f = 20 ÷ 350 MHz: 25 - 7lg(f/20)

Coupling attenuation within the range of 30 ÷ 350 MHz (min.): 50 dB

Transfer impedance at 10 MHz (max):

100 mΩ/m

## Construction:

**Conductors:** solid round copper conductors

**Insulation:** special polyolefin compound

**Core identification:** wh/bu-bu, wh/or-or, wh/gn-gn, wh/bn-bn

**Core arrangement:** cores twisted in pairs, pairs twisted together with a cross spacer

**Screen:** Al/Pet screen with tinned copper drain wire

**Outer sheath:** PVC or special LSOH compound

**Outer sheath colour:** grey RAL 7035 for PVC or orange RAL 2003 for LSOH; other colours available on customer's request

## Application:

BiTLAN F/UTP cat.6 cables are applicable to computer networks with operating frequency band up to 350MHz. Suitable for transmission of data, audio and video signals, with bitrate up to 1 Gb/s. Additional collective Al/Pet screen with CuSn drain wire acts as a protection against external electromagnetic interferences.

Dedicated for fixed installations within indoor structured cabling systems as per EN 50173-1:2011, ISO/IEC 11801 2<sup>nd</sup> ed., ANSI/TIA/EIA 568-C.2 standards, as well as within industrial networks exposed to external electromagnetic interferences.

Cables with flame retardant LSOH outer sheath ensuring low smoke emission acc. to EN 50268-2, IEC 61034-2 and limited emission of corrosive gases acc. to EN 50267-2-3 and IEC 60754-2 should be installed in places with increased fire safety requirements.



internal application



EN 60332-1



data transmission



halogen-free\*



low smoke\*  
emission

\*applicable to cables with LSOH outer sheath

ID	Construction	Cu wire	O.D. [mm]	Cu [kg/km]	Cable weight [kg]	Bandwidth [MHz]
TI0048	F/UTP cat.6	23AWG (0,54)	6,8	20	48	350

Cable Factory BITNER reserves the right to modify the specifications without prior notice

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## Performance test charts and data:

Frequency MHz	1	4	10	16	20	30	45	60	80	100	120	150	180	200	220	250	280	300	320	350
Attenuation ≤ dB/100m	2,1	3,8	6,0	7,6	8,5	10,5	13,0	15,1	17,7	19,9	22,0	24,8	27,5	29,1	30,7	33,0	35,2	36,6	38,0	40,0
NEXT ≥ dB/100m	66,0	65,3	59,3	56,2	54,8	52,1	49,5	47,6	45,8	44,3	43,1	41,7	40,5	39,8	39,2	38,3	37,6	37,1	36,7	36,1
PS NEXT ≥ dB/100m	64,0	63,3	57,3	54,2	52,8	50,1	47,5	45,6	43,8	42,3	41,1	39,7	38,5	37,8	37,2	36,3	35,6	35,1	34,7	34,1
ELFEXT ≥ dB/100m	66,0	58,0	50,0	45,9	44,0	40,5	36,9	34,5	32,0	30,0	28,4	26,5	24,9	24,0	23,1	22,0	21,0	20,5	19,9	19,1
PS ELFEXT ≥ dB/100m	64,0	55,0	47,0	42,9	41,0	37,5	33,9	31,4	28,9	27,0	25,4	23,5	21,9	21,0	20,1	19,0	18,0	17,5	16,9	16,1
RL ≥ dB	20,0	23,0	25,0	25,0	25,0	23,8	22,5	21,7	20,8	20,1	19,5	18,9	18,3	18,0	17,7	17,3	17,0	16,8	16,6	16,3

