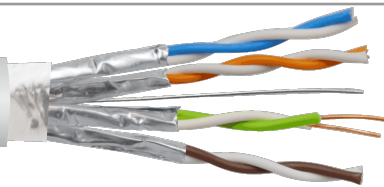


# BiTLAN<sup>®</sup> F/FTP cat.6A 500 MHz



Data transmission cable, screened

BITNER BiTLAN F/FTP 4P cat. 6A 500MHz



internal application



EN 60332-1-2



data transmission

## Technical data:

### Thermal parameters:

#### Temperature range:

operating temperature: -30 °C to 70 °C  
min. installation temp: -10 °C

### Electrical parameters:

**Conductor diameter:** 0,57 ± 0,015 mm

**Insulated core diameter:** 1,29 ± 0,03 mm

**DC loop resistance at 20 °C (max):**  
145 Ω/km

**Insulation resistance (min):** 2 GΩ x km

**Resistance unbalance within a pair:** ≤ 2 %

**Mutual capacitance at 1 kHz:** 45 ± 5 nF/km

**Capacitance unbalance pair to ground**

at 1 kHz (max): 1600 pF/km

**Nominal voltage:** 150 V

**Test voltage at 1 min:**

AC 50 Hz: 700 V

DC: 1000 V

**Characteristic impedance at 100 MHz:**

100 ± 5 Ω

**NVP value:** 77 %

**Return loss dB (min):**

f = 4 + 10 MHz: 20 + 5 x log<sub>10</sub>(f)

f = 10 + 20 MHz: 25

f = 20 + 250 MHz: 25 - 7 x log<sub>10</sub>(f/20)

f = 250 + 500 MHz: 17,3

**Coupling attenuation within the range**

of 30 + 100 MHz (min.): 70 dB

**Transfer impedance at 10 MHz (max):**

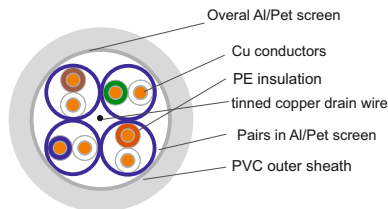
100 mΩ/m

### Mechanical parameters:

#### Bending radius:

during operation: ≥ 6 x Ø

during installation: ≥ 8 x Ø



## Design:

### 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, screened pairs twisted together

### Screen 1:

aluminium backed polyester tape on every pair

### Screen 2:

aluminium backed polyester tape, tinned

copper drain wire

### Outer sheath:

PVC compound

### Outer sheath colour:

grey RAL 7035, other colours available on customer's

request

**Marking:** BITNER BiTLAN F/FTP 4P cat.6A 500MHz EN 50173-1 ISO/IEC 11801 ANSI/TIA 568-C.2 ID no. CE RoHS [www.bitner.com.pl](http://www.bitner.com.pl) meters

## Application:

BiTLAN F/FTP cat.6A 500MHz cables are applicable to computer networks with operating frequency band up to 500MHz. Suitable for transmission of data, audio and video signals, with bitrate up to 10Gb/s. Additional individual and collective Al/Pet screens with tinned copper drain wire acts as a protection against external electromagnetic interferences. Dedicated for fixed installations within indoor structured cabling systems as per EN 50173-1, ISO/IEC 11801, ANSI/TIA 568-C.2 standards, as well as within industrial networks exposed to external electromagnetic interferences. Cables classified according to EN 50575 (CPR).

## Packaging:



plywood reel  
500m



plywood reel/  
drum  
1000m

Cat. no.	Construction	Cu wire	Outer diameter* [mm]	CPR classification EN 50575	Cable weight [kg]	Bandwidth [MHz]
TI0075	F/FTP cat.6A	23AWG	8,0	Eca	63	500

\*Outer diameter tolerance: +/-5%

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

# BiTLAN<sup>®</sup> F/FTP cat.6A 500 MHz

Data transmission cable, screened

## Requirements of teletransmission data:

Frequency MHz	1	4	10	16	20	31,25	62,5	100	125	155	175	200	250	300	500
Attenuation $\leq$ dB/100m	2,1	3,8	5,9	7,5	8,4	10,5	15,0	19,1	21,5	24,1	25,7	27,6	31,1	34,3	45,3
NEXT $\geq$ dB	75,3	66,3	60,3	57,2	55,8	52,9	48,4	45,3	43,8	42,4	41,7	40,8	39,3	38,1	34,8
PS NEXT $\geq$ dB	72,3	63,3	57,3	54,2	52,8	49,9	45,4	42,3	40,8	39,4	38,7	37,8	36,3	35,1	31,8
ELFEXT $\geq$ dB/100m	68,0	56,0	48,0	43,9	42,0	38,1	32,1	28,0	26,1	24,2	23,1	22,0	20,0	18,5	14,0
PS ELFEXT $\geq$ dB/100m	65,0	53,0	45,0	41,9	39,0	35,1	29,1	25,0	23,1	21,2	20,1	19,0	17,0	15,5	11,0
RL $\geq$ dB	20,0	23,0	25,0	25,0	25,0	23,6	21,5	20,1	19,4	18,8	18,4	18,0	17,3	17,3	17,3

## Transmission parameters graphs - examples of measurement results

