

# Essential-6 Cable

ESSCAT6U/UTPCM4P23AWGVM 305

## Contact

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**Nexans Ref.:** RJ-N100.962430

**Country Ref.:** 17484

**EAN 13:** 7899907130056

Construction U/UTP Compliancy with the latest Cat6 standards Application Class E, bandwidth up to 250 MHz

## DESCRIPTION

The Nexans Essential-6 cable line is the 250MHz bandwidth offer for Class E applications up to 1Gbits. Nexans ESSENTIAL Cat6 U/UTP cables are designed for horizontal and vertical applications in structured cabling networks to connect the user outlet to the administration panel or to interconnect administration panels. Their application is focused on today's Gigabit Ethernet data networks operating at 250MHz, Class E.

## APPLICATION

- FAST ETHERNET 100BASE-TX
- GIGABIT ETHERNET 1000BASE-T
- TOKEN RING (100 Mbps)
- ATM LAN (155 & 622 Mbps)
- ISDN
- POE - POWER OVER ETHERNET
- POE+ - POWER OVER ETHERNET PLUS
- ANALOG AND DIGITAL COMMUNICATION FOR VIDEO AND VOICE

## CONSTRUCTION

- Category 6 U/UTP;
- PVC CM or LSZH;
- 4 pairs twisted according to the blue/light blue, orange/ white, green/light green, brown/light brown color pattern;
- 23 AWG;
- Composed by bare copper conductors, insulated in high density thermoplastic polyethylene;
- Available in 7 standard colors Blue, Red, Gray, Black, White, Yellow and Green (other colors upon request);
- Cable with crossfiler which maintains the equidistance of the pairs and reduces the loss of performance in the curves;

## INSTALLATION

**Environment:** Indoor - non aggressive

## APPLICABLE STANDARDS



Ambient dynamic operating temperature, range  
-20... 60°C



Bending factor installed  
4 (xD)



Electro magnetic interference resistance  
No



Fire retardant  
IEC 60332-3



Inst. temp. range  
0 ... 50 °C



U.V resistance  
No

All drawings, designs, specifications, plans and particulars of weights, size and dimensions contained in the technical or commercial documentation of Nexans is indicative only and shall not be binding on Nexans or be treated as constituting a representation on the part of Nexans.

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## Internacional:

- RoHS Directive

The product complies with the RoHS Directive restricting the use of heavy metals in product manufacturing and environmental preservation.

## Nacional:

- ABNT NBR 14565
- ABNT NBR 14703
- ABNT NBR 14705

## CERTIFICATIONS

- UL Listed
- ANATEL

## PACKAGING

- Box (305m)

## CABLE LABEL

NEXANS ESSENTIAL CABLE CATEGORY 6 U/UTP 23AWG 4PAIRSx  
RoHS COMPLIANT 75C ANSI/TIA 568.2-D "SEMANA/ANO" "1 a 305 m"  
ANATEL yyyyyy-yy-yyyyy

x:CM | LSZH

yyyyyy-yy-yyyyy: CM : 02081-11-05519

yyyyyy-yy-yyyyy: LSZH : 02088-11-05519

## WARRANTY

- 02 years (Consult our 25 years extended warranty programme).



Ambient dynamic operating temperature, range  
-20 ... 60 °C



Bending factor installed  
4 (xD)



Electro magnetic interference resistance  
No



Fire retardant  
IEC 60332-3



Inst. temp. range  
0 ... 50 °C



U.V resistance  
No

## CHARACTERISTICS

### Construction characteristics

Type of cable	U/UTP
Outer sheath	PVC - CM
Colour	Red
Screen	Unshielded

### Dimensional characteristics

Approximate weight	41.3 kg/km
Conductor cross-section (AWG/KCMIL)	23
Diameter over insulation	1.0 mm
Nominal outer diameter	6.3 mm
Number of pairs	4

### Electrical characteristics

Capacitance unbalance pair to ground at 1kHz	330 pF/100m
Characteristic impedance	100 Ohm
Max. DC resistance of the conductor at 20°C	93.8 Ohm/km
Mutual capacitance at 1kHz	5.6 nF/100m
Nominal velocity propagation	69 %
Resistance unbalance DC max % of loop resistance	5 %

### Transmission characteristics

Propagation delay, max. 100 MHz	545 ns/100m
Skew	45 ns/100m

### Mechanical characteristics

Maximum operating pulling force	110 N
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### Usage characteristics

Length	305 m
Packaging	Box
Installation type	Indoor
Ambient dynamic operating temperature, range	-20 ... 60 °C
Bending factor when installed	4 (xD)
Category	Cat. 6
Electro magnetic interference resistance	No
Fire retardant	IEC 60332-3
Installation temperature, range	0 ... 50 °C
U.V resistance	No

## NOMENCLATURA CABOS CAT. 6 U/UTP

N100.66xx0

