

Description

Local Area Network Cable

Cat. 6 F/UTP 4x2xAWG23/1 PVC

Coaxial Cables

CAVEL[®]

since 1968

Data Sheet**LAN641**

∅	∅	0,57	1,10	7,60
		(Cu)	(PE)	(PVC)

Application

Primary (Campus), Secondary (Riser), Tertiary (Horizontal)

IEEE 802.3: 10Base-T; 100Base-T; 1000Base-T

IEEE 802.5; ATM

Power over Ethernet (PoE)/PoE+

Standards

EIA-TIA 568B.2

ISO/IEC 11801

IEC 61156-5

EN 50173-1

EN 50288-5-1

Fire-Resistance Rating

IEC 60332-1

Construction data

4 pairs with conductor of bare copper wires		(Cu)	∅ 0,57	mm
Insulation of solid Polyethylene	0,00	(PE)	∅ 1,10	mm
Polyester film spirally wrapped		(Pet)		

Composition

Twisted pairs, coloured by Standard TIA-568A

Drain wire of tinned copper	(CuSn)	∅ 0,40	mm
Cross separator in Polyethylene	(PE)		
External Aluminium/Polyester tape	(Al/Pet)	27 x 30/19	mm/μm
Outer sheath of Polyvinylchloride - white (PVC) - lead-free	(PVC)	∅ 7,60	mm

Printed each meter by blue ink-jet :

CAVEL LAN 641 MADE IN ITALY ss/aa F/UTP 4x2xAWG23 - CATEGORY 6 ISO-IEC 11801 EN50173
CEI-UNEL 36762 C-4 (U0 =400V) - m

(ss=week, aa=year) (m=meter marking)

ITALIANA CONDUTTORI s.r.l.

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 Tel +39-382.815150 Fax +39-0382.814212

Date**29/02/2016****Responsible****Giuseppe Guastella**

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LAN641**Physical data**

Weight of copper conductors	19,92	kg/km
Total weight of cable	52,56	kg/km
Minimum bending radius x1/n	35/70	mm
Maximum tensile strength during the installation	100	N
Minimum installation temperature	0 / +50	°C
Operating temperature	-20 / +60	°C
Fire Load	955 MJ/km	265 kWh/km

Electrical data

Characteristic impedance	100 MHz	100 ± 5	Ohm
Capacitance of Twisted Pair (@800Hz)		48	pF/m
Velocity Ratio		67 %	
DC Conductor Resistance		80	Ohm/km
Loop resistance		160	Ohm/km
Insulation resistance		> 5000	MOhm/km
Sheath Insulation Voltage (DC, 1 min)		1	kV
Coupling Attenuation		> 45	dB

Screening Attenuation (SA)

30 - 250 MHz	> 50 dB
250 - 1000 MHz	> 45 dB

Shield Transfer Impedance (Zt)

1 MHz	< 35 mOhm/m
10 MHz	< 41 mOhm/m
30 MHz	< 110 mOhm/m
100 MHz	< 150 mOhm/m

Transmission-Characteristic (at 20°C)

Frequency [MHz]	Attenuation [dB/100m]	RL [dB]	NEXT [dB]	ACR [dB]	FEXT [dB]
1	1,80	25,00	100,00	98,20	90,00
10	5,40	25,00	80,00	74,60	70,00
20	7,70	25,00	70,00	62,30	60,00
31,2	9,60	25,00	65,00	55,40	53,00
62,5	13,70	25,00	60,00	46,30	50,00
100	17,40	25,00	60,00	42,60	48,00
155,5	21,90	25,00	55,00	33,10	46,00
200	25,00	20,00	55,00	30,00	44,00
250	28,10	20,00	50,00	21,90	40,00
300	30,80	20,00	45,00	14,20	

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