

## UC300 24 Cat.5e

### U/UTP AWG23/1 Installation Cable



## Application

Primary (Campus), Secondary (Riser), Tertiary (Horizontal)  
IEEE 802.3: 10Base-T; 100Base-T; 1000Base-T;  
IEEE 802.5 16 MB; ISDN; TPDDI; ATM  
Power over Ethernet (PoE) / PoE+.

## Standards

EIA/TIA 568 C.2  
ISO/IEC 11801.; IEC 61156-5  
EN 50173; EN 50288-3-1  
IEEE 802.3at

## Flame resistance

PVC: IEC 60332-1; Class Eca  
LSHF(LSOH): IEC 60332-1; IEC 60754-2; IEC 61034; Class Eca

## Construction

Conductor	bare copper wire Ø 0.5 mm (AWG24/1)
Insulation	Polyethylene, Ø 0.9 mm
Twisting	2 cores to the pair
Cable lay up	4 pairs to the core
Sheath	PVC alt. LSHF (FRNC, LSOH), grey RAL 7035 Duplex sheath: two cables parallel, separable

## Mechanical properties

Minimum bending radius	Installation	8 x D
	Installed	4 x D
Temperature range	during operation	-20°C up to + 60°C
	during installation	0°C up to + 50°C

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### Electrical properties

at 20°C

DC loop resistance	≤ 190 Ω /km
Resistance unbalance	≤ 2%
Insulation resistance (500 V)	≥ 2000 MΩ *km
Capacitance at 800 Hz	nom. 48 nF/km
Capacitance unbalance (pair to ground)	≤ 1500 pF/km
Mean characteristic impedance 100 MHz	100 ± 5 Ω
Nominal velocity of propagation	approx. 67 %
Propagation delay	Nominal ≤ 535 ns/100m
Delay skew	Nominal ≤ 20 ns/100m
Test voltage (DC, 1 min)	1000 V
Core/Core	
Coupling attenuation	≥ 40 dB

### Nominal transmission characteristics

acc. Cat.5e at 20°C

f	Attenuation	NEXT	PS-NEXT	ACR	PS-ACR	ACRF	PS-ACRF	Return loss
(MHz)	(dB/100m)	(dB)	(dB)	(dB/100m)	(dB/100m)	(dB/100m)	(dB/100m)	(dB)
1	1,9	71	68	69,1	66,1	68	65	20
4	3,7	62	59	58,3	55,3	56	53	23
10	6	56	53	50	47,0	48	45	25
16	7,6	53	50	45,4	42,4	44	41	25
20	8,5	51	48	42,5	39,5	42	39	25
31,2	10,7	49	46	38,3	35,3	38	35	24
62,5	15,7	44	41	28,3	25,3	32	29	22
100	19,8	41	38	21,2	18,2	28	25	20
125	22,3	40	37	17,7	14,7	26	23	19
155,5	24,2	38	35	13,8	10,8	24	21	
175	25,7	37	34	11,3	8,3	23	20	
200	27,5	36	33	8,5	5,5	22	19	
250	29,2	35	32	5,8	2,8	20	17	
300	32,0	34	31	2,0	-1,0	16	13	

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### Product order data

Product Reference Code	Designation	Product name	Outer diameter	Euro Class	Fire load		Weight	Copper content	Tensile force
			Mm		MJ/km	kWh/m	kg/km		
60011254	J-2YY 4x2x0.5	UC300 24 Cat.5e U/UTP 4P PVC	5.0	Eca	365	0.101	35	17.5	100N
60026275	J-2YH 4x2x0.5	UC300 24 Cat.5e U/UTP 4P LSHF			336	0.093	36		
60017480	J-2YY 2x(4x2x0.5)	UC300 24 Cat.5e U/UTP 2x4P PVC	5.0/10.0	Eca	730	0.202	70	35	200N
60017487	J-2YH 2x(4x2x0.5)	UC300 24 Cat.5e U/UTP 2x4P LSHF			672	0.186	72		

### Product Code Table

Product Description	PG Reference Code	PG Part Number
UC300 24 C5e U/UTP 4P PVC	60011254	60011254
UC300 24 C5e U/UTP 4P PVC 100RW	60011254	60016130
UC300 24 C5e U/UTP 4P PVC 305BR	60011254	60011062
UC300 24 C5e U/UTP 4P PVC 500DW	60011254	60011253
UC300 24 C5e U/UTP 4P PVC 1000DW	60011254	60011255
UC300 24 C5e U/UTP 4P PVC 500DP	60011254	60017476
UC300 24 C5e U/UTP 4P PVC 1000DP	60011254	60017477
UC300 24 C5e U/UTP 4P PVC 2000DP	60011254	60017478
UC300 24 C5e U/UTP 4P PVC 5000DW	60011254	60016135
UC300 24 C5E U/UTP LSHF	60026275	60026275
UC300 24 C5e U/UTP LSHF 305BR	60026275	60011512
UC300 24 C5e U/UTP LSHF 500DW	60026275	60011514
UC300 24 C5e U/UTP LSHF 500DP	60026275	60017464
UC300 24 C5e U/UTP LSHF 1000DW	60026275	60011513
UC300 24 C5e U/UTP LSHF 1000DP	60011515	60017465
UC300 24 C5e U/UTP LSHF BU 305BR	60011703	60011703
UC300 24 C5e U/UTP 2x4P PVC	60017480	60017480
UC300 24 C5e U/UTP 2x4P PVC 500DP	60017480	60017481
UC300 24 C5e U/UTP 2x4P PVC 500DW	60017480	60017482
UC300 24 C5e U/UTP 2x4P LSHF 500DP	60017487	60017487

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