

UC300 S24 Cat.5e

F/UTP AWG24/1 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

EN 50173-1; EN 50288-2-1
ISO/IEC 11801; IEC 61156-5
TIA/EIA-568-C.2
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 0.51 mm (AWG24/1)	
Insulation	PE, Ø 1.1 mm	
Twisting	2 cores to the pair	
Cable lay up	4 pairs to the core	
Screen	Al-laminated plastic foil, Drain wire AWG26 tinned	
Sheath	PVC alt. LSHF(LSOH), grey RAL 7035 Duplex sheath: two cables parallel, separable	

Mechanical properties

Bending radius	without load	4 x D
	with load	8 x D
Temperature range	during operation	-20°C to + 60°C
	during installation	0°C to + 50°C

UC300 S24 Cat.5e

Electrical properties

at 20°C ± 5°C

Loop resistance		≤ 190 Ω/km
Resistance unbalance		≤ 2%
Insulation resistance	(500 V)	≥ 2000 MΩxkm
Mutual capacitance	at 800 Hz	Nom. 48 nF/km
Capacitance unbalance	(pair/ground)	≤ 1500 pF/km
Mean characteristic impedance	100 MHz	100 ± 5 Ω
Nominal velocity of propagation		ca. 67%
Propagation delay		≤ 535 ns/100 m
Delay skew		≤ 20 ns/100 m
Test voltage	(DC, 1 min) core/core and core/screen	1000 V
Transfer impedance	at 1 MHz	≤ 50 mΩ /m
	at 10 MHz	≤ 100 mΩ /m
	at 30 MHz	≤ 200 mΩ /m
Coupling attenuation		≥ 55 dB
Segregation class		"c"

Electrical data (nominal)

acc. to Cat.5e (at 20°C)

F (MHZ)	Attenuation (dB/100m)	NEXT (dB)	PS-NEXT (dB)	ACR (dB/100m)	PS-ACR (dB/100m)	ACRF (dB/100m)	PS-ACRF (dB/100m)	Return loss (dB)
1.0	1.9	71	68	69.1	66.1	68	65	20
4.0	3.7	62	59	58.3	55.3	56	53	23
10.0	6.0	56	53	50.0	47.0	48	45	25
16.0	7.6	53	50	45.4	42.4	44	41	25
20.0	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
100.0	19.8	41	38	21.2	18.2	28	25	20
125.0	22.3	40	37	17.7	14.7	26	23	19
155.5	24.2	38	35	13.8	10.8	24	21	
175.0	25.7	37	34	11.3	8.3	23	20	
200.0	27.5	36	33	8.5	5.5	22	19	
250.0	29.2	35	32	5.8	2.8	20	17	
300.0	32.0	34	31	2.0	-1.0	16	13	

UC300 S24 Cat.5e

Product order data

Product Reference Code	Cable type	Brand name	Outer diameter	Euro Class	Fire load		Weight	Copper content	Tensile force
					MJ/km	kWh/m			
			mm				kg/km		N
60013161	J-2Y(St)Y 4x2x0.51	UC300 S24 Cat.5e F/UTP 4P	5.9	Eca	430	0.119	36	19.8	100
60011537	J-2Y(St)H 4x2x0.51	UC300 S24 Cat.5e F/UTP 4P LSHF		Eca	396	0.110	37		
60017483	J-2Y(St)Y 2x(4x2x0.51)	UC300 S24 Cat.5e F/UTP 2x4P	5.9/11.8	Eca	860	0.238	72	39.6	200
60016039	J-2Y(St)H 2x(4x2x0.51)	UC300 S24 Cat.5e F/UTP 2x4P LSHF		Eca	792	0.220	74		

Product Code Table

Product Description	PG Reference Code	PG Part Number
UC300 S24 C5e F/UTP 4P PVC	60013161	60013161
UC300 S24 Cat.5e F/UTP 4P PVC	60013161	60013162
UC300 S24 C5e F/UTP 4P PVC 305BR	60013161	60011026
UC300 S24 C5e F/UTP 4P PVC 500DW	60013161	60011258
UC300 S24 C5e F/UTP 4P PVC 500DP	60013161	60017466
UC300 S24 C5e F/UTP 4P PVC 500DP	60013161	60017466
UC300 S24 C5e F/UTP 4P PVC 1000DW	60013161	60011257
UC300 S24 C5e F/UTP 4P LSHF	60011537	60011537
UC300 S24 C5e F/UTP 4P LSHF 100RW	60011537	60013227
UC300 S24 C5e F/UTP 4P LSHF 305BR	60011537	60011534
UC300 S24 Cat.5e F/UTP 4P LSHF 500DW	60011537	60011536
UC300 S24 C5e F/UTP 4P LSHF 1000DW	60011537	60011535
UC300 S24 C5e F/UTP 4P LSHF BU 305BR	60011704	60011704
UC300 S24 C5e F/UTP 4P LSHF BU 1000DW	60011704	60011709
UC300 S24 C5e F/UTP 2x4P PVC	60017483	60017483
UC300 S24 C5e F/UTP 2x4P PVC 500DP	60017483	60017484
UC300 S24 C5e F/UTP 2x4P PVC 500DW	60017483	60017485
UC300 S24 C5e F/UTP 2x4P PVC 1000DP	60017483	60017486
UC300 S24 C5e F/U 2X4P LSHF	60016039	60016039
UC300 S24 C5e F/U 2X4P LSHF 100DW	60016039	60016042
UC300 S24 C5e F/UTP 2x4P LSHF 500DW	60016039	60017488
UC300 S24 C5e F/UTP 2x4P LSHF 1000DP	60016039	60017489

© PRYSMIAN GROUP 2011, All Rights Reserved

All sizes and values without tolerances are reference values. Specifications are for product as supplied by Prysmian Group: any modification or alteration afterwards of product may give different result.

The information contained within this document must not be copied, reprinted or reproduced in any form, either wholly or in part, without the written consent of Prysmian Group. The information is believed to be correct at the time of issue. Prysmian Group reserves the right to amend this specification without prior notice. This specification is not contractually valid unless specifically authorised by Prysmian Group.