

70 SERIES CABLES CAT6A SMALL OD UTP CMP

PDS-0225



DESCRIPTION

Wirewerks 70 Series Cables are small OD, 4-Pair, UTP, 23 AWG, solid copper conductor, CMP-rated indoor Category 6A premise cables with a mylar screen and an internal crossweb spline to control pair positioning and separation.

Wirewerks 70 Series Small OD UTP Cables exceed ANSI/TIA-568-C.2 (Category 6A) and ISO/IEC 11801 (Class E_A) specifications for use in IEEE 10GBASE-T (10-gigabit Ethernet) network applications. Electrical specifications exceeding 500 MHz have been independently verified by ETL and are fully guaranteed by Wirewerks.

Wirewerks 70 Series Small OD Cables are precision engineered and manufactured to provide additional headroom (margin) over industry-standard specifications for complete confidence in high-performance, mission-critical 10-gigabit Ethernet (10GbE) applications.

FEATURES and BENEFITS

- Small OD design means more cables in less space; relieves over-fill/congestion in conduits, plenums spaces, cable trays and underfloor spaces in data centers
- ETL Verified performance specifications; demanding '6-around-1' test configuration
- 1000'/305m Reel packaging
- Descending length markings on jacket – always know how much is left before you start pulling
- Low memory jacket adapts/responds quickly during installation
- Ultra-stable and reliable performance regardless of installation environment/conditions
- Backward compatible with CAT6 and CAT5/5e connectivity

APPLICATIONS

Environments

- Commercial Building/Enterprise LANs
- Data Centers and SANs
- Healthcare Facilities
- Education Facilities
- Any application requiring 10GbE Category 6A U/UTP cabling

Network Applications

- 10GBASE-T Ethernet (10GbE) (CAT6A)
- 10/100/1000/10GBASE-T Ethernet (CAT3/CAT5/CAT5e/CAT6/CAT6A)
- 100BASE-TX, 100VG-AnyLAN
- 155 ATM, 622ATM
- NTSC/PAL Component or Composite Video
- Digital video; broadband and baseband analog video
- AES/EBU Digital Audio
- Power-over-Ethernet (Type 1, 2, 3, 4)
- Industry Standards Compliance

ORDERING INFORMATION

Part Number	Description
7043-2PWH-L305	CAT6A Small OD UTP 4P/23AWG Solid CMP, White, REEL, 305m (1000ft)
7043-2PBL-L305	CAT6A Small OD UTP 4P/23AWG Solid CMP, Blue, REEL, 305m (1000ft)

CERTIFICATION and COMPLIANCE

ANSI/TIA-568-C.2 (Category 6A)

Balanced Twisted-Pair Telecommunication Cabling and Components Standard

ISO/IEC 11801 Edition 2.2 (Class EA)

Information Technology — Generic Cabling for Customer Premises

ANSI/TIA-942-B

Telecommunications Infrastructure Standard for Data Centers

IEEE 802.3an/802.3-2015

10GBASE-T 10 Gbit/s Ethernet Over Copper Twisted Pair Cable

ANSI/TIA-1179-A

Healthcare Facility Telecommunications Infrastructure

IEEE 802.3af/802.3at/802.3bt

Power-over-Ethernet

ANSI/TIA-4966

Telecommunications Infrastructure Standard for Educational Facilities

RoHS 2 (2011/65/EU)

Directive on the Restriction of the Use of Certain Hazardous Substances

**PACKAGING
and SHIPPING**

Packaging	Reel, 305m (1000ft)
Shipping Weight including reel	22.92kg (50.53lbs)
Reel OD	40cm (15.75in)
Reel Height	33cm (13in)

**MECHANICAL
SPECIFICATIONS**

Nominal OD	6.30mm (0.248in)
Bulk Cable Weight	19.02kg/305m (41.93lbs/1000ft)
Max Pulling Tension	110N (25lbf)
Min Bend Radius	4 x OD

**PHYSICAL
SPECIFICATIONS**

Conductors

Material	Bare solid copper	
Gauge	23 AWG	
Insulation Material	FEP - Fluorinated Ethylene Propylene	
Insulation Color	Pair 1	Blue-White/Blue
	Pair 2	Orange-White/Orange
	Pair 3	Green-White/Green
	Pair 4	Brown-White/Brown

Outer Jacket & Spine

Outer Jacket Material	LSFRPVC - Low Smoke Flame Retardant Polyvinyl Chloride
Spline Material	Fluorinated Ethylene Propylene (FEP)
Standard Jacket Colors	Blue, White
Other Jacket Colors	Contact Wirewerks

PHYSICAL SPECIFICATIONS

Safety & Flammability

NEC Articles	800
NEC/(UL) Specification	CMP
CEC/C(UL) Specification	CMP
C(UL) Flammability	FT6
UL Flammability	NFPA 262 Plenum (UL 910)
CSA Flammability	FT6
Plenum Use	Required
Riser Use	Allowed

Temperature Range

Operating Temp	-20°C (-4°F) ~ 60°C (140°F)
Storage Temp	-20°C (-4°F) ~ 75°C (167°F)
Installation Temp	+0°C (32°F) ~ +60°C (140°F)

ELECTRICAL SPECIFICATIONS

Characteristic	Parameter	Value
DC Resistance	Max Conductor DCR	9.38Ω/100m
	Max DCR Unbalance	≤4%
Capacitance	Pair-to-Ground Cap. Unbalance	≤ 330pF/100m
	Mutual Capacitance	≤ 5.6nF/100m
Delay	Nom. Velocity of Propagation	4 ≤ 5ns/m
	Max Propagation Delay	570ns/100m@1MHz
	Max Delay Skew	45ns/100m
Impedance		1~500MHz: 100±15Ω
Voltage Rating		300V RMS
Spark Test		2.5KV DC
AC Leakage Current Through Overall Jacket		≤ 10mA (1.5KV AC)
Dielectric Strength		1.5 KV ac for 2 s
Insulation Resistance		≥ 5000 MΩ•km

PERFORMANCE SPECIFICATIONS

Transmission Performance (at 20°C)

Freq. (MHz)	IL	NEXT	PS. NEXT	ACR	PS. ACR	ACRF	PS. ACRF	RL	PROP. DELAY	DELAY SKEW
	MAX. dB/100m	MIN. dB/100m	MIN. dB/100m	MIN. dB/100m	MIN. dB/100m	MIN. dB/100m	MIN. dB/100m	MIN. dB/100m	MAX. dB/100m	MAX. dB/100m
1	2.08	74.30	72.30	72.22	70.22	67.80	64.80	20.00	570.00	45.00
4	3.80	65.27	63.27	61.47	59.47	55.76	52.76	23.01	552.00	
8	5.31	60.75	58.75	55.44	53.44	49.74	46.74	24.52	546.73	
10	5.93	59.30	57.30	53.37	51.37	47.80	44.80	25.00	545.38	
16	7.49	56.24	54.24	48.75	46.75	43.72	40.72	25.00	543.00	
20	8.38	54.78	52.78	46.41	44.41	41.78	38.78	25.00	542.05	
25	9.38	53.33	51.33	43.95	41.95	39.84	36.84	24.32	541.20	
31.25	10.50	51.88	49.88	41.37	39.37	37.90	34.90	23.64	540.44	
62.5	14.99	47.36	45.36	32.37	30.37	31.88	28.88	21.54	538.55	
100	19.14	44.30	42.30	25.17	23.17	27.80	24.80	20.11	537.60	
150	23.68	41.66	39.66	17.98	15.98	24.28	21.28	18.87	536.94	
200	27.58	39.78	37.78	12.21	10.21	21.78	18.78	18.00	536.55	
250	31.07	38.33	36.33	7.26	5.26	19.84	16.84	17.32	536.28	
300	34.27	37.14	35.14	2.88	0.88	18.26	15.26	16.77	536.08	
350	37.25	36.14	34.14	N.A.	N.A.	16.92	13.92	16.30	535.92	
400	40.05	35.27	33.27	N.A.	N.A.	15.76	12.76	15.89	535.80	
450	42.71	34.50	32.50	N.A.	N.A.	14.74	11.74	15.53	535.70	
500	45.26	33.82	31.82	N.A.	N.A.	13.82	10.82	15.21	535.61	
550	47.70	33.19	31.19	N.A.	N.A.	12.99	9.99	14.92	535.54	
600	50.05	32.63	30.63	N.A.	N.A.	12.24	9.24	14.66	535.47	
650	52.33	32.11	30.11	N.A.	N.A.	11.54	8.54	14.42	535.41	
660	52.77	32.01	30.01	N.A.	N.A.	11.41	8.41	14.37	535.40	

Values above 500 MHz are for informational purposes only