



## Features and Benefits

The PowerCat 6A Shielded Cable is a key component of the PowerCat 6A end-to-end solution.

Molex PowerCat 6A U/FTP Cable is specifically designed to support high speed data network applications such as 10-Gigabit Ethernet (10GBASE-T). The cable is constructed of 4 screened pairs and a drain wire. This cable minimises alien crosstalk, provides excellent signal isolation and provides superior electromagnetic interference (EMI) protection.

Molex recommends that the full range of PowerCat 6A Shielded products be used in a system to maximise cabling performance. This system is compliant with ISO/IEC 11801 amendment 1 and TIA/EIA 56B.2-10 for the support of 10GBASE-T.

- Outstanding signal isolation
- The cable is compliant with ISO/IEC 11801 amendment 2 and TIA/EIA 568-C.2
- Enhanced performance 4 pair U/FTP LSOH cable
- Resistant to alien crosstalk
- Colour coded for ease of termination
- Reaction to Fire Euroclass: Cca - s1a,d1,a1

## Commercial Standards

ISO/IEC 11801 amendment 2:2010  
TIA/EIA-568-C.2 Category 6A  
IEC 61156-5  
Intertek ETL verified  
RoHS compliant

## Fire Propagation Tests

EU Regulation 305/2011 (CPR)  
EN 50575:2014+A:2016  
Euroclass Cca-s1a,d1,a1  
DoP No: MLXCES-2017-C-022 located on web  
<http://www.molexces.co.uk/about-us/our-compliance/cpr/dop-certificates/>

## Applications

Category 6A U/FTP Cable is intended for high speed data applications up to 500MHz including:  
IEEE 802.3 10GBASE-T 10Gb/s  
IEEE 802.3 1000BASE-T 1Gb/s  
TIA/EIA-854 1000BASE-TX 1Gb/s  
ATM 155Mb/s 155Mb/s

## Technical Information

### Mechanical Characteristics

Conductor Size: 23AWG  
Primary Insulation: Polyolefin  
Screen material: Laminated Aluminium  
Sheath Type: LSOH  
Nominal OD: 7.2mm nom.  
NVP: 75-77%  
Screen: Each pair enclosed in laminated aluminium foil  
Drain Wire: tin-coated copper  
Pulling Force: 100N maximum  
Short term bend radius: 8 x OD mm  
Long Term bend radius: 4 x OD mm  
Operating Temperature  
Storage: -20°C to +75°C  
Operation: 0°C to +60°C  
Sheath Colour: Violet RAL 4005

### Electrical/Optical Characteristics

Capacitance: 40 pF/m nom. @1 KHz.  
DC Resistance: 77 Ω/Km max.  
Propagation Delay: 514 + 36f<sup>1/2</sup> nS/100m max @1-500 MHz  
Propagation Delay Skew: 45 nS/100 max @ 1-500 MHz  
Mean Impedance: 100Ω ± 6 @ 1-500 MHz  
Voltage Rating: 72V dc maximum  
Resistance Unbalance: 2% max.  
Coupling Attenuation: IEC 61156-5 Type Ib

Weight per 500m reel: 26.5kg nom

## MOLEX CONNECTED ENTERPRISE SOLUTIONS

**Americas**  
Tel: 630 969 4550  
[www.molexces.com](http://www.molexces.com)

**EMEA**  
Tel: 44 (0)2392 205800  
[www.molexces.co.uk](http://www.molexces.co.uk)

**APAC**  
Tel: 61 3 9971 7111  
[www.molexces.com](http://www.molexces.com)

**Transmission Properties and Electrical Specifications**

FREQ MHz	Insertion Loss dB/100m Max.	NEXT dB Min.	PS NEXT dB Min.	EL FEXT dB/100m Min.	PS ELFEXT dB/100m Min.	RL dB Min.	DELAY nS/100m Max.	TCL dB Min.	EL-TCL dB Min.	PS AN- EXT dB Min.	PS AACRF dB Min.
1	2.0	74.3	72.3	67.8	64.8	20.0	570	40.0	35.0	67.0	67.0
10	5.9	59.3	57.3	47.8	44.8	25.0	545	40.0	15.0	67.0	58.2
20	8.3	54.8	52.8	41.8	38.8	25.0	542	37.0	9.0	67.0	52.2
25	9.3	53.3	51.3	39.8	36.8	24.3	541	36.0	7.0	67.0	48.7
30	10.2	52.1	50.1	38.3	35.3	23.8	541	35.2	5.5	67.0	48.7
62.5	14.9	47.4	45.4	31.9	28.9	21.5	539	32.0	NS	65.6	42.3
100	19.0	44.3	42.3	27.8	24.8	20.1	538	30.0	NS	62.5	38.2
200	27.5	39.8	37.8	21.8	18.8	18.0	537	27.0	NS	58.0	32.2
250	31.0	38.3	36.3	19.8	16.8	17.3	536	26.0	NS	56.5	30.2
300	34.2	37.1	35.1	18.3	15.3	16.8	536	25.2	NS	55.3	28.7
400	40.0	35.3	33.3	15.8	12.8	15.9	536	24.0	NS	53.5	26.2
500	45.3	33.8	31.8	13.8	10.8	15.2	536	23.0	NS	52.0	24.2

**ORDERING INFORMATION**

Order No.	SAP No.	Description
CAA-0334-VL	183020023	PowerCat 6A U/FTP LS0H Cable Cca-s1a,d1,a1 violet 500m reel


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**Declaration of Performance****DoP No:****MLXCES-2017-C-022****Unique Identification code & description of the product type:****CAA-0334-VL****183020023****U/FTP C6A LSZH****Intended use:**

Data communications cable for use in construction works subject to reaction to fire requirements.

**Manufacturer:**

Molex Connected Enterprise Solutions Sp. z.o.o.

83-112 Lubiszewo

ul. Tczewska 2 Rokitki

Poland

**Assessment and Verification of Consistency of Performance (AVCP) system:**

AVCP:1

**Harmonised Standard**

EN 50575:2014+A1:2016

**Notified Product Certification Body Name and Reference No.**

AENOR:0099

**Declared Performance:**

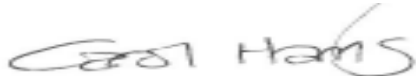
Reaction to Fire Euroclass:

**Cca,s1a,d1,a1**

Dangerous Substances: No Performance Declared.

The performance of the product identified above is in conformity with the set of declared performances. This declaration of performance is issued, in accordance with Regulation (EU) No. 305/2011, under the sole responsibility of the manufacturer identified above.

Signed for and on behalf of the manufacturer by:



Name: Carol Harris  
Position: Product Manager  
Place: UK  
Date: 1-6-2017

Web address of the DoP : <http://www.molexc.es.com/about-us/our-compliance/cpr/>

English