

PowerCat C6A S/FTP LS0H Cable B2ca-s1a,d1,a1

The PowerCat 6A Shielded Cable is a key component of the PowerCat 6A end-to-end solution. Molex PowerCat 6A S/FTP Cable is specifically designed to support high speed data network applications such as 10-Gigabit Ethernet (10GBASE-T).

The cable is constructed of four screened pairs enclosed in a tin/copper braid, designed to minimize alien crosstalk, and provide excellent signal isolation and electromagnetic interference (EMI) protection. The cable provides high class reaction to fire performance, in accordance with the EN 50575:2014 + A1:2016 EuroClass classification of B2ca-s1a,d1, a1. Molex recommends that the full range of PowerCat 6A Shielded products be used in a system to maximize cabling performance. This system is compliant with ISO/IEC 11801 for the support of 10GBASE-T.



FEATURES AND ADVANTAGES

Outstanding signal isolation

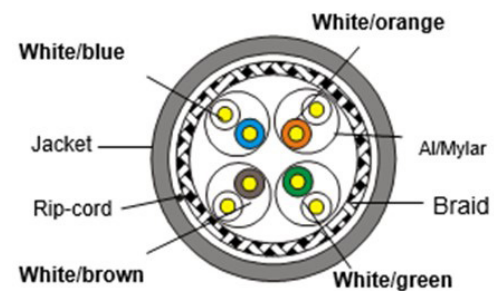
Compliant with TIA/EIA 568.2-D

Enhanced performance 4 pair S/FTP foil and braid screened cable

Resistant to alien crosstalk

Color coded for ease of termination

Reaction to Fire Euroclass: B2ca-s1a, d1, a1



SPECIFICATIONS

Commercial Standards

TIA/EIA-568-C.2-D Category 6A
IEC 61156-5

RoHS Compliant

Reaction to Fire

EU Regulation 305/2011 (CPR)
EN 50575:2014+A:2016
Euroclass: B2ca-s2,d1,a1

Fire Propagation Tests

IEC 60332-1-2, IEC 60754-2, IEC 61034-2, EN 50399

Mechanical

Conductor o.d.: 0.560 ± 0.005mm
Conductor material: Solid Bare Copper
Pair Number: 4
Outer diameter: 7.8 ± 0.5mm
Shield: Al/Mylar
Braid: Tinned copper

Temperature Range

Installation: -10°C to + 50°C
Operation: -40°C to + 75°C
Storage: -20°C to +50°C
Bend radius installation: 8 x o.d.
Bend radius operation: 6 x o.d.
Pulling force: ≥9.0 Mpa
Sheath: LS0H
Sheath color: Violet RAL 4005
Shipping weight 500m reel: 29.4kg
Cable length tolerance: +/- 5%

Electrical

Characteristic Impedance Ohm:
1-250 MHz: 100 +/- 15 Ohm
250-500 MHz: 100 +/- 22 Ohm
DC Resistance Ohm/100m max: 9.38
DC Loop Resistance Ohm/100m: 19
Resistance unbalance % max: 5.0
Unbalanced to ground capacitance pf/100m max: 330
Voltage rating (Vdc): <80
NVP nominal: 74%
Delay skew 1-500 OMHz ns/100m max: <45

www.molex.com/products/copper/cat6a/

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SPECIFICATIONS (CONT)

PoE

Our PowerCat 6A system is suitable for the most demanding PoE applications:

IEEE 802.3bt from Type 1 to Type 4, and CISCO UPoE+

HD Base-T PoH up to 100W

RP3 compliant as defined by EN 50174-2:2018, ISO/IEC 14763-2:2019 and AS/NZS 14763.2:2020

Notes:

For new installations of PoE Type 3 / Class 5 and above that wish to be eligible for the Molex 25 year Application Assurance Warranty, we require Category 6A cable to be used throughout.

To confirm your PoE / RP3 cabling design is eligible for the Molex 25 year Application Assurance Warranty, your design must be verified and validated with the Molex

PoE Calculator. Read more <https://www.molex.com/poe-calculator>

Molex recommends that the PoE feature on an individual switch port are power disabled prior to unplugging the associated powered Device.

Molex recommends that the full range of PowerCat 6A products be used in a system to maximize cabling and PoE performance

Details on Molex requirements for Warranty can be found at <https://www.molex.com/about-us/our-warranty/>

TRANSMISSION PROPERTIES

Freq.	RL	ATT	NEXT	DELAY	PSNEXT	PSELFEXT
MHz	>dB	<dB	>dB	<ns	>dB	>dB
1	20.0	-	74.3	570.00	72.3	64.8
4	23.0	3.8	65.3	552.00	63.3	52.8
8	24.5	5.3	60.8	546.70	58.8	46.7
10	25.0	5.9	59.3	545.40	57.3	44.8
16	25.0	7.5	56.2	543.00	54.2	40.7
20	25.0	8.4	54.8	542.10	52.8	38.8
25	24.3	9.4	53.3	541.20	51.3	36.8
31.25	23.6	10.5	51.9	540.40	49.9	34.9
62.5	21.5	15.0	47.4	538.60	45.4	28.9
100	20.1	19.1	44.3	537.60	42.3	24.8
200	18.0	27.6	39.8	536.50	37.8	18.8
250	17.3	31.1	38.3	536.30	36.3	16.8
300	16.8	34.3	37.1	536.10	35.1	15.3
500	15.2	45.3	33.8	535.60	31.8	10.8

ORDERING INFORMATION

Order No.	SAP No.	Description
CAA-00437-VL	183020058	Category 6A S/FTP Cable LS0H 4 500m reel

www.molex.com/products/copper/cat6a/