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# PowerCat 6A Slim 28 AWG Shielded LS0H Patch Cords ❯

**Molex slim shielded LS0H patch cords support Category 6A systems utilizing 28 AWG low diameter cable to reduce patch cord congestion in high density installations.**

Molex PowerCat 6A Slim Patch Cords are designed to support high-speed 10GBASE-T networks and offer a 35% space saving compared with standard Molex 26 AWG C6A Patch Cords.

The Slim version allows for easier management and improved airflow between patched ports in high-density patching installations. The lower diameter cord makes visibility of individual plugs and ports clearer and provide improved access for patching.

Manufactured from high quality, flexible four pair 28 AWG stranded copper wire. Each pair is shielded in aluminium/mylar foil and enclosed in a LS0H sheath. The patch cords include Molex high performance Category 6A shielded RJ45 plugs with anti-snag latch protection and low-profile, strain-relief boots.

## FEATURES AND ADVANTAGES

Low 5.2mm outer diameter reduces patching congestion

Offers 35% space saving compared with standard 26 AWG cords

Better port number visibility

Improved access to patch plugs

Improved airflow

Ideal for high-density patching areas in data centers where long channel lengths are not a requirement

Category 6A performance

Supports IEEE 802.3 type 1,2,3 & 4 (follow installation guidance)

4 Pair 28 AWG stranded copper wire foil shielded

LS0H sheath

High performance C6A shielded plugs

Anti-snag plug latch protection

Low profile, strain-relief boots

Supports 10GBASE-T networks when installed as a complete PowerCat 6A solution

ANSI/TIA-568.2-D:2018 compliant

**26 AWG**

6.5 mm o.d.

**28 AWG**

5.2 mm o.d.

**www.molexces.com/products/copper/cat6a/**

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## INSTALLATION CONSIDERATIONS

- A maximum of 10m of 28 AWG patch cordage can be installed in a channel length of 92.5m (de-rating factor 1.95).

- 28 AWG patch cord bundles must be controlled when used to support PoE devices IEEE 802.3bt to prevent heat build-up which degrades signal performance. Vertical or horizontal managers should not exceed 12 cords, to avoid temperature rise above recommended levels. 28 AWG patch cord bundles should not be placed in conduit or space-confined areas where heat build-up could occur.

- Molex recommends the use of 26AWG patch cords for PoE applications to ensure reliable operation as they are an efficient choice to mitigate risks. However if 28AWG cords are required, certain considerations must be taken into account and Molex recommendations must be observed. As compliance testing of patch cords below 0.5m meter length is not feasible, patch cords shorter than 0.5m (500mm) should not be installed in a communication channel as Molex cannot guarantee the performance of very short patch cords.

- Consult Molex Connected Enterprise Solutions Technical Support for installation guidance.

## SPECIFICATIONS

### Mechanical
**Cable**
**Conductor Size:** 28AWG 7 x 0.12mm stranded bare copper wire
**Construction:** U/FTP
**Screen Material:** Aluminium/Mylar
**Drain Wire:** Tinned copper wire
**Sheath:** LS0H IEC 60332-1
**Bend Radius:** >8 x Outer diameter
**Outer Diameter:** 5.2 +/- 0.4mm
**Rated Voltage:** 30V
**Tensile Strength before aging:** >8.3MPa
**Insertion Loss de-rating factor:** 1.95 (as per ANSI/TIA-568.2-D:2018)
**Plug**
**Durability:** >750 mating cycles
**Housing Material:** Polycarbonate UL94V-0 or 94V-2 (plug & boot)
**Color:** Clear
**Contact Material:** Phosphor Bronze
**Contact Plating:** 50 micro inches gold
RJ45 plug dimensions compliant with IEC 60603-7
**Contact Resistance:** <20MΩ
**Insulation Resistance:** <500MΩ, 1000V DC/min

**Dielectric Withstand Voltage:** 1000 VDC/min, <0.5A
**Current:** 250V AC max @ 2A
**Cable to plug tensile strength:** 89N min.
**Patch Cord Assembly**
**Operating Temperature:** -20°C to 75°C

### Commercial Standards
**ANSI/TIA-568.2-D:2018**
**ISO 11801:2017**
**UL 1863 (Pending)**
**CAN/CSA C22.2 No.233-17 (Pending)**
**IEEE 802.3af, 802.3at, 802.3bt**
**IEC 60603-7**
**IEC 60332-1**
**IEC 60754**
**AS/CA S008:2020**

### 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.molexces.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.molexces.com/about-us/our-warranty/

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## ORDERING INFORMATION

| Order No. | SAP No. | Description |
|---|---|---|
| PCD-7030A-** | Consult Molex | PowerCat 6A Slim 28 AWG Shielded Patch Cord LS0H 0.5m |
| PCD-70301-** | Consult Molex | PowerCat 6A Slim 28 AWG Shielded Patch Cord LS0H 1m |
| PCD-7030B-** | Consult Molex | PowerCat 6A Slim 28 AWG Shielded Patch Cord LS0H 1.5m |
| PCD-70302-** | Consult Molex | PowerCat 6A Slim 28 AWG Shielded Patch Cord LS0H 2m |
| PCD-7030C-** | Consult Molex | PowerCat 6A Slim 28 AWG Shielded Patch Cord LS0H 2.5m |
| PCD-70303-** | Consult Molex | PowerCat 6A Slim 28 AWG Shielded Patch Cord LS0H 3m |
| PCD-70305-** | Consult Molex | PowerCat 6A Slim 28 AWG Shielded Patch Cord LS0H 5m |
| PCD-70307-** | Consult Molex | PowerCat 6A Slim 28 AWG Shielded Patch Cord LS0H 7m |
| PCD-70310-** | Consult Molex | PowerCat 6A Slim 28 AWG Shielded Patch Cord LS0H 10m |

*Insert color code in place of ** in part number when ordering patch cords:*
*0C = Red, 0E = Gray, 0H = Blue, 0K = Yellow, 0J = Green, 0W = White, 0P = Purple, BK = Black*

*Note: Conditions apply when installing these cords in a 4-connector channel with EU cable part no CAA-00413-VL. Contact Molex Technical Support for installation design guidance.*

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