

PowerCat 6 Slim 28 AWG PVC Patch Cords >

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

Molex PowerCat 6 Slim Patch Cords are designed to support high-speed 10/100 BASE-T/1000 BASE-T networks and offer a 40% space saving compared with standard Molex 24 AWG C6 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. The patch cords include Molex high performance Category 6 RJ45 plugs with anti-snag latch protection and low-profile, strain-relief boots.

FEATURES AND ADVANTAGES

Low 3.8mm outer diameter reduces patching congestion

Offers 40% space saving compared with standard 24 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 6 performance

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

4 Pair 28 AWG stranded copper wire

PVC sheath

High performance C6 plugs

Anti-snag plug latch protection

Low profile, strain-relief boots

Supports 10/100 BASE-T & 1000 BASE-T networks when installed as a complete PowerCat 6 solution

ANSI/TIA-568.2-D:2018 compliant



www.molexces.com/products/copper/cat6/

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INSTALLATION CONSIDERATIONS

- A maximum of 10m (33ft) of 28AWG patch cordage can be installed in a channel length of 92.5m (303ft) (de-rating factor 1.95).
- 28AWG 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. 28AWG patch cord bundles should not be placed in conduit or space-confined areas where heat build-up could occur.
- Molex 28AWG patch cords both offer reliable, efficient performance. If using 28AWG, please follow Molex's guidelines to maintain long-term system integrity. For compliance and optimal results, Molex recommends using patch cords with a minimum length of 0.5 meters (500mm) within communication channels. To support safe, effective PoE installations, Molex offers an innovative PoE calculator, available via the Customer Support Portal. Projects using the tool may qualify for Molex's 25-year System Performance and Application Warranty.
- 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/UTP

Sheath: PVC

Bend Radius: >8 x Outer diameter

Outer Diameter: 3.8 +/- 0.2mm

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 (-4°F to 167°F)

Electrical

Max Voltage: 150 VAC

Max Current: 1.5A @ 25°C (77°F)

Commercial Standards

ANSI/TIA-568.2-D:2018

ISO 11801:2017

CAN/CSA C22.2 No.233-17 (Pending)

IEEE 802.3af, 802.3at, 802.3bt

AS/CA S008:2020

PoE

Our PowerCat 6 system is suitable for PoE applications as defined below:
IEEE 802.3bt from Type 1 to Type 4, and
CISCO UPoE+

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 6 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-0240A-0E	181993513	PowerCat 6 Slim 28 AWG U/UTP Patch Cord PVC Gray 0.5m
PCD-02401-0E	181993514	PowerCat 6 Slim 28 AWG U/UTP Patch Cord PVC Gray 1m
PCD-0240B-0E	181993515	PowerCat 6 Slim 28 AWG U/UTP Patch Cord PVC Gray 1.5m
PCD-02402-0E	181993516	PowerCat 6 Slim 28 AWG U/UTP Patch Cord PVC Gray 2m
PCD-02403-0E	181993517	PowerCat 6 Slim 28 AWG U/UTP Patch Cord PVC Gray 3m
PCD-02405-0E	181993518	PowerCat 6 Slim 28 AWG U/UTP Patch Cord PVC Gray 5m
PCD-02410-0E	181993519	PowerCat 6 Slim 28 AWG U/UTP Patch Cord PVC Gray 10m

Please Note: All Patch and Equipment cords manufactured by Molex are tested for mechanical and continuity compliance. All cord lengths from 1m to 20m are tested for transmission performance compliance. Cords which are shorter than 1m, and longer than 20m, are outside of the scope of international cabling standards and may not meet the transmission performance requirements of those standards unless otherwise stated.

- Other lengths are available, please contact Molex for details.
- Other colors available on request.
- Replace "0E" in part number with color option: 0C=Red, 0H=Blue, 0J=Green, 0K=Yellow, 0W=White, 0P=Purple, 0N=Orange, BK=Black.

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