

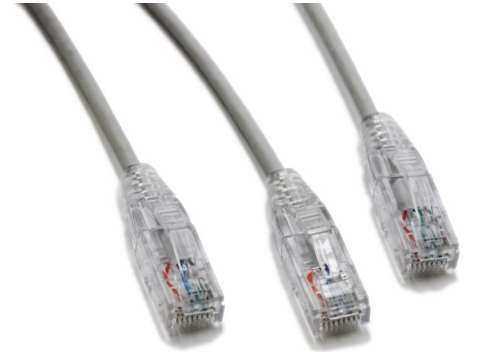
# PowerCat 6 Slim 28 AWG PVC Patch Cords >

**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

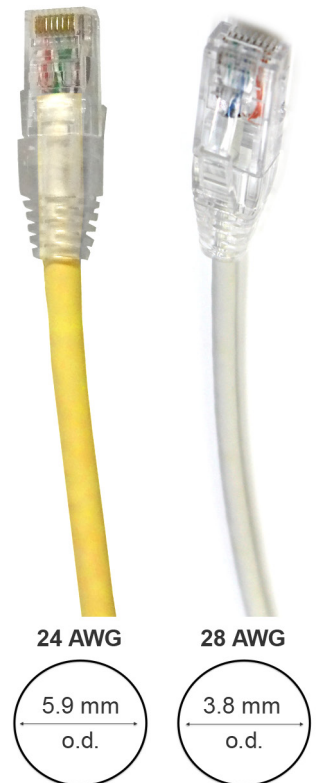
Anti-snag plug latch protection

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

Available in metric and imperial units of measurement



[www.molex.com/products/copper/cat6/](http://www.molex.com/products/copper/cat6/)

# PowerCat 6 Slim 28 AWG PVC Patch Cords

## INSTALLATION CONSIDERATIONS

- A maximum of 10m (33ft) of 28 AWG patch cordage can be installed in a channel length of 92.5m (303ft) (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 (2ft) length is not feasible, patch cords shorter than 0.5m (2ft) 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/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/>

[www.molexces.com/products/copper/cat6/](http://www.molexces.com/products/copper/cat6/)

# PowerCat 6 Slim 28 AWG PVC Patch Cords >

## ORDERING INFORMATION

Order No.	SAP No.	Description
Patch cords in metric units		
PCD-0240A-0E	Consult Molex	PowerCat 6 Slim 28 AWG U/UTP Patch Cord PVC Gray 0.5m
PCD-02401-0E	Consult Molex	PowerCat 6 Slim 28 AWG U/UTP Patch Cord PVC Gray 1m
PCD-0240B-0E	Consult Molex	PowerCat 6 Slim 28 AWG U/UTP Patch Cord PVC Gray 1.5m
PCD-02402-0E	Consult Molex	PowerCat 6 Slim 28 AWG U/UTP Patch Cord PVC Gray 2m
PCD-02403-0E	Consult Molex	PowerCat 6 Slim 28 AWG U/UTP Patch Cord PVC Gray 3m
PCD-02405-0E	Consult Molex	PowerCat 6 Slim 28 AWG U/UTP Patch Cord PVC Gray 5m
PCD-02410-0E	Consult Molex	PowerCat 6 Slim 28 AWG U/UTP Patch Cord PVC Gray 10m
Patch cords in imperial units		
PCD-02502-0E	Consult Molex	PowerCat 6 Slim 28 AWG U/UTP Patch Cord PVC Gray 2ft
PCD-02503-0E	Consult Molex	PowerCat 6 Slim 28 AWG U/UTP Patch Cord PVC Gray 3ft
PCD-02505-0E	Consult Molex	PowerCat 6 Slim 28 AWG U/UTP Patch Cord PVC Gray 5ft
PCD-02507-0E	Consult Molex	PowerCat 6 Slim 28 AWG U/UTP Patch Cord PVC Gray 7ft
PCD-02510-0E	Consult Molex	PowerCat 6 Slim 28 AWG U/UTP Patch Cord PVC Gray 10ft
PCD-02512-0E	Consult Molex	PowerCat 6 Slim 28 AWG U/UTP Patch Cord PVC Gray 12ft

Other lengths are available, please contact Molex for details.

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

[www.molex.com/products/copper/cat6/](http://www.molex.com/products/copper/cat6/)