

# Ultra-Fit Power Connectors

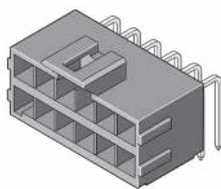
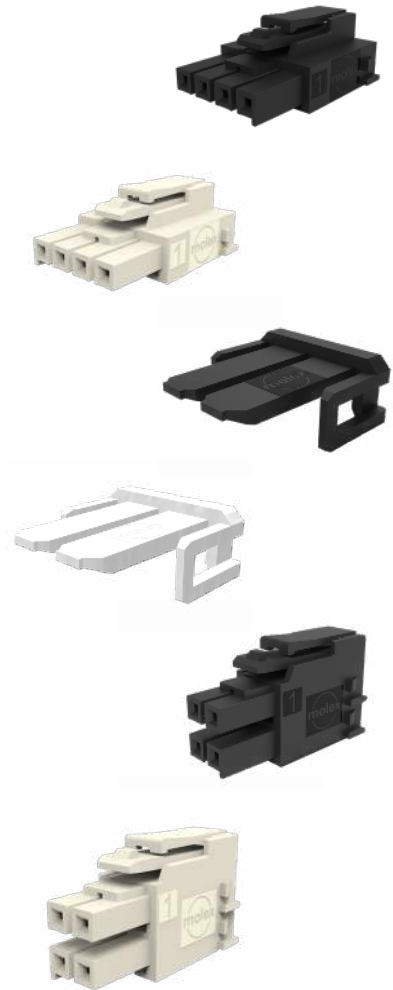
## 3.50mm Pitch



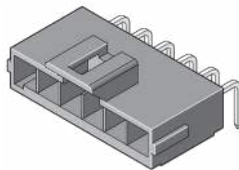
**Ultra-Fit Tangless connector is a wire-to-board system that offers a 3.50mm pitch, a higher-current rating of 14.0A, and superior design options for flexibility and efficient assembly**

### Features and Advantages

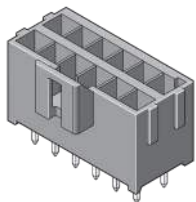
Multiple mechanical keying and color-coded options	Allow same-circuit, multiple connector use with virtually no chance of cross mating. Color coding provides visual indication of the proper mating connector — enabling faster assembly
17% reduction in pitch over similar power connectors	Current-dense design saves PCB space. Allows for smaller packaging without sacrificing current-carrying capabilities
Optional TPA (Terminal Position Assurance) retainer	Guarantees the terminal is fully seated in the housing to reduce terminal back-out. Retains terminal if main retention feature fails
Ultra low mating force terminal	Reduces operator fatigue and improves assembly compliance for high-circuit applications
Positive-lock housing with anti-snag design	Ensures mated connector assemblies will not accidentally disengage. Provides an audible click while mating. Protects latch from damage due to wire snags
Fully isolated terminals	Protect against potential damage of the header and receptacle terminals during handling and mating
Terminal interface with six independent points of contact (split-box terminal design)	Offers redundant, secondary current paths for long-term performance and reliability



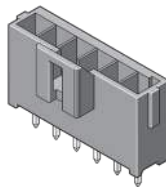
Dual-Row  
Right-Angle Header  
172316 Series



Single-Row  
Right-Angle Header  
172310 Series



Dual-Row  
Vertical Header  
172298 and  
172299 Series



Single-Row  
Vertical Header  
172286 and  
172287 Series



Ultra-Fit Tangless Connector

# Ultra-Fit Power Connectors

## 3.50mm Pitch

### Applications

#### Consumer / Home Appliance

Washers  
Refrigerators

#### Telecommunications/Networking

Hubs  
Servers

#### Transportation

Infotainment  
Interior

#### Lighting

Ballasts  
Home Lighting Fixtures

#### Aerospace and Defense

C4ISR

#### Industrial

Food and Beverage  
Assembly Line Equipment

#### Medical

Patient Care Equipment  
Healthcare IT



### Specifications

#### REFERENCE INFORMATION

Packaging: Bag, Tray, Reel  
UL File No.: E29179  
CSA File No.: LR19980  
Mates With:  
Series: 172258 Series: 172298  
Series: 172256 Series: 172286

#### Use With:

Series: 172253 Series: 172258, 172256  
Series: 172264 Series: 172258, 172256

#### Terminal Used:

Series: 172253

Designed In: Millimeters

RoHS: Yes

Halogen Free: Yes

Glow Wire Capable: Yes

#### ELECTRICAL

Voltage (max.): 600V AC (RMS) or DC  
Current (max.): 14.0A  
Contact Resistance (max.): 7 milliohms  
Dielectric Withstanding Voltage: 1800 VAC  
Insulation Resistance (min.): 1000 Megohms

#### MECHANICAL

Pitch: 3.50mm  
Contact Insertion Force (max.): 14.7 N (3.3 lbf)  
Contact Retention to Housing: 24.5N  
Insertion Force to PCB: 35N MAX  
Mating Force: 4.5N MAX  
Un-mating Force: 7 milliohms  
Durability (min.): Mate connectors up to 25 cycles at  
a maximum rate of 10 cycles per minute

#### PHYSICAL

Housing: 94 V-/Glow Wire Combo  
Contact: High copper alloy  
Plating: Tin over nickel overall  
PCB Thickness: Standard 1.57mm  
Operating Temperature: -40 to +105°C

### Ordering Information

Series No.	Component	Orientation	Rows	Termination Style
<a href="#">172253</a>	Crimp Terminal	---	---	---
<a href="#">172256</a>	Receptacle Housing		Single	
<a href="#">172258</a>			Dual	
<a href="#">172286</a>	Header	Vertical	Single	Kinked Pin
<a href="#">172287</a>			Single	Solder Clip
<a href="#">172298</a>			Dual	Kinked Pin
<a href="#">172299</a>				Solder Clip
<a href="#">172310</a>		Right-Angle	Single	Through Hole
<a href="#">172316</a>			Dual	

#### TPA

Series	Description	Circuit	Color
<a href="#">172264</a>	TPA	2 to 8	Black and Natural

[www.molex.com/link/ultrafit.html](http://www.molex.com/link/ultrafit.html)

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