

POWERWIZE INTERCONNECTS

Adding: high-voltage, high-current 3.40mm pin and socket assemblies to the PowerWize Interconnect Family

PowerWize 3.40mm interconnects have two mechanically-keyed color options to help prevent mismatching cable assemblies. The right-angle and vertical headers are pin-in-paste SMT reflow capable, providing processing flexibility and are touch-proof per UL 60950 to prevent electrical shock if handled while energized. These connectors also feature low-halogen-compliant housings that meet evolving environmental and legislative trends.

NPI ENHANCEMENT

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PowerWize Interconnects

Leveraging our Coeur socket technology, PowerWize Interconnects offer a 3.40mm size to deliver the power efficiency that is critical for cost management.

Available in right-angle and vertical pin-in-paste reflow SMT capable headers, these high-power connectors are designed for manufacturing flexibility and exceptional electrical performance.

Key Product Information

Category: High-Power Solutions
Current: 75.0A
Pitch: 3.40mm
Operating Temperatures: -40 to +125°C



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Series

221888	3.40mm PowerWize Vertical Header
221887	3.40mm PowerWize Right-Angle Header
221597	3.40mm PowerWize Receptacle
221616	3.40mm PowerWize Crimp Contact

Vital Product Information

PowerWize Interconnects

What makes this product different from the competition?

PowerWize 3.40mm connectors are touch-proof/finger-safe to prevent accidental shocks. Offered in two colors (black and white/natural), the mechanically keyed connectors help ensure accurate mating when two cable assemblies are used in the same application. Also, the black and white headers are polarized to the PCB so they cannot be mis-mounted during assembly.

How does this product/solution create value for our customers?

PowerWize 3.40mm connectors address customers' high-current needs (up to 75.0A) for applications requiring positive locking wire-to-board configurations.

What is the Molex advantage?

PowerWize 3.40mm connectors vertical and right-angle headers are designed for pin-in-paste SMT reflow processing to minimize PCB assembly costs.



Markets and Applications

PowerWize Interconnects



Servers



Factory Equipment



5G/6G Base Stations

NETWORKING

- Circuit breakers
- Data storage units
- Enterprise switches
- Power distribution units (PDUs)
- Routers
- Servers
- UPS/battery storage units

INDUSTRIAL AUTOMATION

- Battery farms
- Factory equipment
- Robotics

INDUSTRIAL AUTOMATION

- 5G/6G Base Stations
- Data storage units
- Power distribution units (PDUs)
- Digital cross connect switches
- Network routers
- Servers
- Uninterruptable power supplies (UPSs)

Product Advantages and Features

PowerWize Interconnects

Provides optimal current-carrying capacity

Multiple contact beams help ensure low contact resistance, low voltage drop and minimal heat generation at the contact interface.



Offers finger touch-safe headers and receptacles

These connectors are designed per UL 60950 to isolate the crimp contacts and to prevent accidental contact with an energized circuit.



Helps ensure secure mating and helps prevent cable assemblies from disengaging headers due to shock, vibration, or mishandling

Positive-locking headers and receptacles afford Operators tactile and audible feedback during system integration.



Allows for manufacturing flexibility

The product headers are designed for pin-in-paste SMT reflow processing and/or wave solder processing.



Key Specifications

Current	75.0A
Voltage	600V
Durability (min.)	200 mating cycles
Operating Temperatures	-40 to +125°C

Product Advantages and Features Cont.

PowerWize Interconnects

Helps prevent mounting black headers in PCB locations designed for white/natural headers and the reverse

Unique polarizing peg locations on the color-coded headers help ensure the headers are not mis-mounted; ideal when multiple headers are used in the same application.

Helps prevent mismatching white/natural receptacles to black headers and the reverse

These color-coded headers and receptacles are mechanically keyed to help ensure cable assemblies are not mis-mated; ideal when multiple cable assemblies are used in the same application.

Offers design/manufacturing flexibility

Crimp contacts are offered in two wire gauges so customers can match their application's current carrying need with the optimal wire size to minimize cable assembly cost and still deliver the required power.



Specifications

PowerWize Interconnects

Reference Information

Packaging:
Female Crimp Contact: Tray
Receptacle Housing: Bag
Header: Tray or tape-and-reel
Use With: Printed circuit boards
Designed In: Millimeters
RoHS: Compliant
REACH: Compliant
Low-halogen: Compliant
Flammability: UL 94V-0

Physical

Receptacle Housing: PBT
Header Housing: LCP
Contact: Copper alloy
Plating:
 Socket contact area—gold
 Pin—silver
PCB Thickness (min.): 1.58mm
Operating Temperatures: -40 to +125°C

Electrical (3.40mm size)

Voltage (max.): 600V
Current (max.): 75.0A
Contact Resistance (max.): 0.25 milliohms

Mechanical (3.40mm size)

Whole Connector Mating Force (max.): 45N
Whole Connector Unmating Force (min.): 10N
Durability (min.): 200 mating cycles



Electrical (6.00mm Size)

Voltage (max.): 1,000V
Current (max.): 120.0A
Contact Resistance (max.): 0.25 milliohms

Mechanical (6.00mm Size)

Whole Connector Mating Force (max.): 75N
Whole Connector Unmating Force (min.): 10N
Durability (min.): 200 mating cycles

Electrical (8.00mm Size)

Voltage (max.): 1,000V
Current (max.): 190.0A
Contact Resistance (max.): 0.20 milliohms

Mechanical (8.00mm Size)

Whole Connector Mating Force (max.): 110N
Whole Connector Unmating Force (min.): 20N
Durability (min.): 200 mating cycles



THANK YOU

creating connections for life

molex