

EXTreme EnergetiC High-Current Connector System >

Delivering up to 100.0A per blade, the EXTreme EnergetiC High-Current Connector System is ideal for next-generation computing applications

FEATURES AND ADVANTAGES

Low-power-loss interface design

Ensures optimized power savings while preserving the power-loss budget

Non-modular and modular power blades rated up to 100.0A per blade bay at a 30°C T-rise

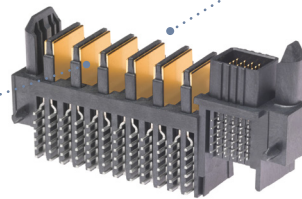
Provides 185.0A per linear inch (60% more than the competition), ensuring maximum current-to-length ratio

2.00 by 1.65mm pitch signal spacing

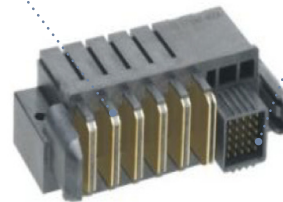
Frees up real estate for space-constrained applications

Modular split blades rated up to 63V, AC or DC; bay-to-bay rated up to 320V, AC or DC

Meets voltage requirements for power supply designs



EnergetiC Modular Connector



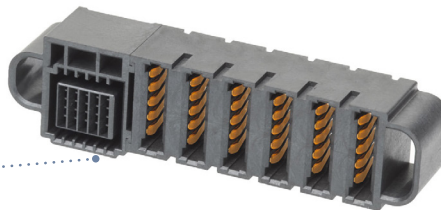
Non modular Vertical Press-Fit Receptacle

Modular, dovetail construction

Allows parts to be arranged in virtually any signal and/or power configuration; enables fast-to-market, cost-effective production; no special tooling is required

Multiple mating levels available on power and signal contacts

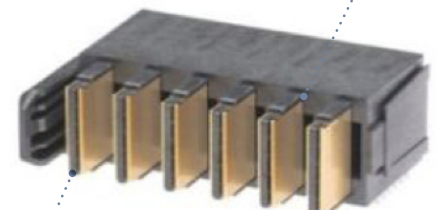
Provides grounding safety first-mate-last-break (FMLB) pin configuration



Modular Hybrid Power and Signal Right-Angle Plug and Vertical Receptacle

Modular version offers isolated contacts with dielectric LCP plastic (each power split-blade terminal carries a 50.0A current rating at 30°C T-rise)

- Shortens the distance between energized power contacts, resulting in faster response times, lower overall impedance and more capacitance benefits
- Increases power contact granularity if the customer does not need the non-modular, full 100.0A current rating for all power contacts



Modular Right-Angle Plug Components with Dovetail Construction

Available with 1- and 6-power bay blades and end-mount guidance; modular design offers 10- to 60-circuit signal bays

Provides design flexibility to fit industry-standard mechanical form factors

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MARKETS AND APPLICATIONS

Data/Computing

1U / 2U servers
Power distribution circuit boards
Storage
High-end computers

Industrial

Power supplies
UPS/battery storage

Telecommunications/Networking

Servers
Storage
Routers



Servers



Super Computer



Telecommunication

SPECIFICATIONS

Reference Information

Packaging: Tray
UL File No.: E29179
Modular version mating:
Right-Angle Plug (Series: 172185) mates With
Vertical Receptacle (Series:172186)
Right-Angle Receptacles (Series: 204900)
Non modular version mating:
Right-Angle Plug (Series: 171097) mates With
Vertical Receptacle (Series:171098)
Designed In: Millimeters
RoHS: Yes
Halogen Free: Yes
Glow Wire Compliant: No

Electrical

Voltage (max.): 600V AC or DC
Current (max.): 100.0A per circuit
Contact Resistance:
Power: 0.35 milliohms initial (including bulk)
Signal: 20 milliohms initial

Mechanical

Insertion Force to Compliant Pin:
Power: 8.5kg per pin
Signal: 3.9kg per pin
Mating Force (max. per circuit):
Power: 900g
Signal: 55g
Unmating Force (min. per circuit):
Power: 325g
Signal: 10g
Durability (max.): 200 cycles

Physical

Housing: LCP UL 94V-0
Contact: High-Conductivity Copper Alloy
Plating:
Contact Area —30 μ m selective
Gold at contact area
Solder Tail Area —100 μ m Tin on PCB tails
Underplating — 50 μ m Nickel
Overall PCB Thickness (min.): 1.58mm
Operating Temperature: -40 to +105°C

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ORDERING INFORMATION

Application-specific customization available with [EXTreme EnergetiC Custom Design Configurator](#)

Series No.	Component	Style	Pitch (Power Bay)	Orientation	Mounting Style
172185	Plug	Modular	7.65mm	Right-angle	Press-fit and through hole
172186	Receptacle			Vertical	
204900				Right-angle	
171097	Plug	Non modular	6.50mm	Right-angle	Press-fit
171098	Receptacle			Vertical	

www.molex.com/link/energetic.html