Mega-Fit Power Connectors, 5.70mm Pitch

Mega-Fit Power Connectors deliver 30.0A per circuit through fully protected header pins and receptacle terminals while offering unique keying options to ensure proper mating during termination.

FEATURES AND ADVANTAGES

Power-dense design with high-current terminals, tight pitch and row spacing

Provides more power per linear and square millimeter than other midrange power products in the industry

Positive locking housing

Ensures secure retention when receptacle and header are mated. Delivers an audible click to provide feedback that connector is fully mated

Tin-planted contacts available

Enhances design flexibility. Provides significant cost savings

Sacrificial contacts

Allows system to be "hot plugged" at 48V/30.0A up to 30 cycles

Tangless

terminal design Reduces the risk of handling/transit damage

Terminal interface with six independent points of contact (splitbox terminal design)

Offers redundant, secondary current paths for long-term performance and reliability



Crush peg removal Delivers a smaller footprint on the PCB

Flexible wire gauge options 10-16 AWG offers superior design options for reliable connections

Fully isolated header pins and receptacle terminals Protects against potential damage during handling and mating



Polarization peg to engage with PCB

Replaces the crush pegs to provide stability without taking up room on the PCB. Aids assembly by ensuring correct orientation Mega-Fit Power Connector Family A. Vertical Header (Series 172065, 76829) B. Right-Angle Header (Series 172064, 76825) C. Receptacle (Series 171692) D. Female Crimp Terminal (Series 172063, 76823)

C

D





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FEATURES AND ADVANTAGES

Dual-Row W-to-W and Single-Row Systems



Polarizing and unique keying features

- Provides protection of the terminals in the receptacle
- Allows for compatibility with all current Mega-Fit Dual-Row headers
- Prevents electrical arcing when charged
- Avoids mis-mating of receptacles to header housings







TPA Prevents terminal backout

Provides superior retention when

mated to the header and allows for low-

New latch design

mating force

New housing material Meets V0 and glow-wire European standards



FEATURES AND ADVANTAGES

Single Row

Fully isolated terminals

Protects against potential damage of header terminals during mating



Provides superior retention when mated to the header and allows

for low-mating

force

Inertia latch



Internal receptacle locking mechanism Supports the tangless locking terminal with low insertion force



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APPLICATIONS

Home Appliance Washers and dryers Heaters and air conditioners

Telecommunications/Networking Hubs and servers Power supplies and distribution

Industrial Machinery and heavy equipment Lighting and automation

Commercial Vehicle Unsealed electronic control modules Power converters



Consumer Appliances



Industrial Automation



Commercial Vehicles

SPECIFICATION

Reference Information

Packaging: Bag, Reel, Tray UL File No.: Refer to Product Specification CSA File No.: Refer to Product Specification Mates With: Mega-Fit Receptacles, Plugs Use With: Mega-Fit Receptacles, Plugs Terminal Used: Series 172063, 076823, 105418, 105417 Designed In: Millimeters RoHS: Yes, Compliant Materials Halogen Free: Yes or No Glow Wire Capable: Yes

Dual-Row Wire-to-Wire and Single-Row Systems Mates With:

Single-Row HDR: 200456 Single-Row REC: 200241 TPA: 200456, 171692, 105412 Dual-Row Plug: 171692 Dual-Row HDR: 171692 Dual-Row REC: 105412, 76825, 76829, 172064, 172065 Male Terminal: 76823, 172063 Female Terminal: 105418, 105417 Use With: Male Terminal: 105412 Female Terminal: 171692, 200456 TPA: 200456, 171692 Single-Row Receptacle: 76823, 105415 Dual-Row Receptacle: 76823, 105415 Single-Row Receptacle: 76823, 105415

Electrical

Voltage (max.): 600V Current (max.): 30.0A Contact Resistance: 6 milliohms Dielectric Withstanding Voltage: No Breakdown Current leakage: <5mA Insulation Resistance (min.): 1,000 Megohms

Mechanical

Contact Insertion Force (max.): 6.8N Contact Retention to Housing: 30N Insertion Force to PCB (max.): 85N Mating Force: Tin plated (max.): 6.8N initial mating force per circuit 0.38 or 0.76μ (15 or 30μ") Gold plated (max.): 6.0N per circuit

Unmating Force: Tin plated (max.): 6.5N initial unmating force per circuit

0.38 or 0.76µ (15 or 30µ") Gold plated (max.): 5.6N per circuit

Durability (min.): Maximum change from initial: Tin: 2 Megohms; Gold: 2 Megohms Header Pin Retention Force in Housing Vertical Header: 89N min per pin

Physical

Housing: UL 94 V-0, Glow Wire Combination Contact: High-Conductivity Copper Plating: Contact Area: Gold (Au) 0.38 or 0.76µ (15 or 30µ") options or Tin (Sn) Solder Tail Area: Tin (Sn) Underplating — Nickel (Ni) PCB Thickness: 1.60 and 2.40mm (.062 and .093") Operating Temperature: -40 to +150°C

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ORDERING INFORMATION

Header

Series No.	Component	Row	Circuits	Plating
76825	Right Angle	Dual	2 to 12	Tin
76829	Vertical			
172064	Right Angle			Gold
172065	Vertical Right Angle			
200241-11XX		Single	2 to 8	Tin/Gold
200241-12XX				

Terminal

Series No.	Туре	AWG	Plating
76825	Female	10 to 16	Tin
76829			Gold
172064	Male		Tin
172065			Gold

Receptacle

Series No.	Row	Circuits
171692	Dual	1 to 12
200456	Single	2 to 8

Plug

Series No.	Row	Circuits	Panel Mount
105411-01XX	Dual	2 to 12	No
105411-11XX			Yes
213814	Single	2 to 8	Yes
213815			No

Receptacle

Series No.	Row
105415	2 to 8

www.molex.com/link/megafit.html