molex

Mega-Fit® Power Connectors deliver cutting-edge current density at 23.0A per circuit; terminals provide six independent contact points for long-term reliability in virtually every industry and application

Feature and Benefits

| Power-dense design with high- current terminals, tight pitch and row spacing | Provides one of the highest current- density options compared to existing mid-range power connectors |
|---|--|
| Terminal interface with six independent points of contact (split-box terminal design) | Offers redundant, secondary current paths for long-term performance and reliability |
| Extended barrel conductor crimp | Provides extremely strong terminal-to- wire retention for long-term reliability |
| Sacrificial contacts | Allows system to be "hot plugged" at 48V/23.0A up to 30 cycles |
| Fully isolated header pins and receptacle terminals | Protects against potential damage during handling and mating |
| Positive locking housing | Ensures secure retention when receptacle and header are mated. Delivers an audible click to provide feedback that connector is fully mated |

Mega-Fit® Power Connectors 5.70mm Pitch

172063 Crimp Terminals, Gold

171692 Receptacle, 94 V-0

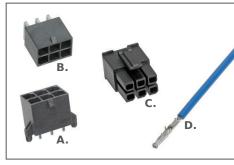
170001 Receptacle, Glow-Wire

172064 Right-Angle

Headers, Gold

172065 Vertical Headers,

Gold



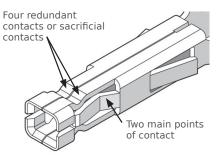
Mega-Fit Power Connector Family

- A. Vertical Header, Gold
- B. Right-Angle Header, Gold
- C. Receptacle
- D. Female Crimp Terminal, Gold

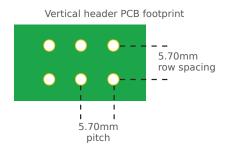
Product Features

Premium housing features Positive lock Fully isolated terminals Polarizing and retention pegs

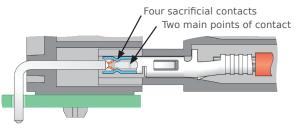
Six independent points of contact



Power Density — 23.0A per contact



Hot pluggable



The female terminal has four sacrificial contacts to attract arcing and protect the two main points of contact when unmating the connector while the system is under full power

Current interupt rating at UL for 48V at 23.0A



Specifications

Reference Information

UL File No.: E29179 CSA File No.: LR19980

IEC: 1400024 RoHS: Yes

Halogen Free: Headers only Glow Wire Compliant: Yes, some options

Electrical

Voltage (max.): 600V Current (max.): 23.0A

Contact Resistance (max. change):

6 milliohms

Current Interrupt Rating: 48V AC/DC, 23.0A max. up to 30 mate and un-mate cycles

Mechanical

Contact Retention to Housing: 30N

Mating Force (max.):

5.6N per circuit, Gold (Au)
Unmating Force (max.):
5.6N per circuit, Gold (Au)

Durability (max.):

200 mating cycles, Gold (Au) Wire Pull-Out Force (min.): 12 AWG / 4.00mm²: 220N

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Physical

Header:

UL 94 V-0, glow-wire

Contact:

High-conductivity copper

Plating:

Contact Area —

Gold (Au) 30u" and 15u" options

Solder Tail Area — Tin (Sn) Underplating — Nickel (Ni)

PCB Thickness:

1.60 and 2.40mm (.062 and .093") Operating Temperature (max.):

-40 to +120°C

Applications

Consumer / Home Appliance

- Washers and dryers
- Heaters and air conditioners

Networking and Telecommunication

- Hubs and servers
- Power supplies and distribution

Industrial

- Machinery and heavy equipment
- Lighting and automation

Commercial Vehicle

- Unsealed electronic control modules
- Power converters

Ordering Information

Receptacles

| Series No. | Circuit Identification | Packaging | Flammability Rating |
|---------------|------------------------|-----------|---------------------|
| <u>171692</u> | Vos | Don | UL 94 V-0 |
| 170001 Yes | | Bag | Glow-Wire |

Headers

| Series No. | Orientation | Packaging | Flammability Rating |
|---------------|-------------|-----------|---------------------|
| 172064 | Right-Angle | Trav | UL 94 V-0 |
| <u>172065</u> | Vertical | Tray | Glow-Wire |

Terminals

| Series No. | Base Material | Plating | Wire Size (AWG Metric) | Packaging |
|------------|---------------|---------|---|-----------|
| 172063 | Copper Alloy | Gold | 12, 14 or 16 1.50, 2.50 or 4.00mm² | Reel |

Application Tooling

| Terminal | Wire Size | FineAdjust™ Applicator | Hand Crimp Tool | Terminal Extraction Tool |
|-------------|-------------------------------------|---------------------------|------------------------|-----------------------------|
| 172063-0312 | 12 AWG 2.50 & 4.0mm ² | 63902-3400 | 63825-7100 AWG only | 63824-0800 |
| 172063-1312 | | | | |
| 172063-0311 | 14 to 16 AWG 1.5mm² | 63902-3300 | | |
| 172063-1311 | | | | |

Documentation

| Product Specification | PS-76823-100 |
|--------------------------------------|----------------------------------|
| Application Specification | AS-76823-100 |
| Application Tooling Specification | ATS-63902-3400 ATS-63902-3300 |
| Test Summary | TS-76823-100 |

www.molex.com/link/megafit.html