

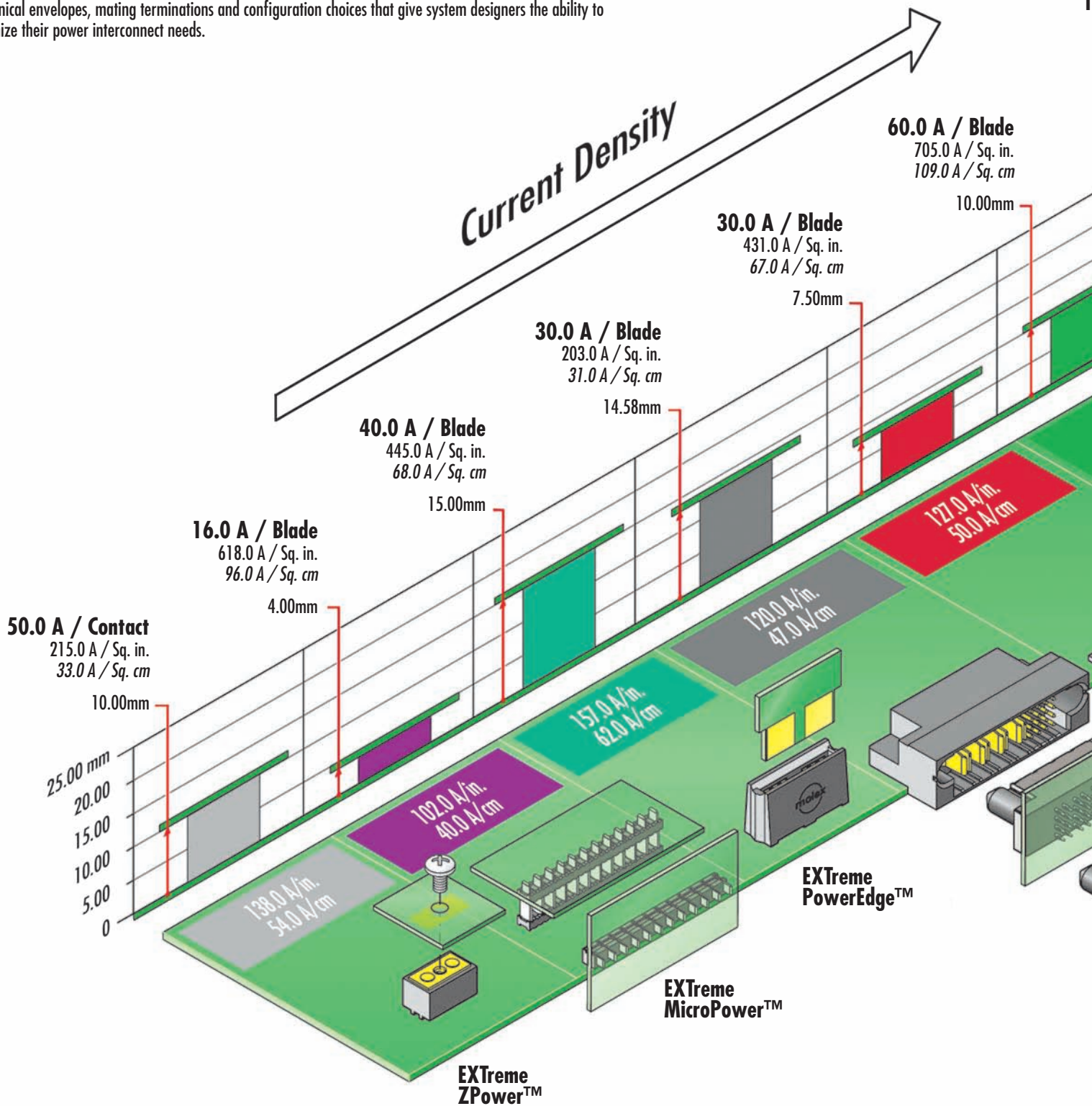
EXTreme™ Power Products



FEATURES AND SPECIFICATIONS

EXTreme Power™ Products

The need for high-current power interconnect solutions in increasingly smaller space continues to rise rapidly. Solving this power equation on new architectures and system platforms has been a major focus for Molex product development teams. The new Molex EXTreme Power™ family of products is the direct result of listening intently to our customers' electrical and mechanical design challenges. Since no two applications are the same, the Molex EXTreme Power™ offering is comprised of several product families that cover a wide range of current densities, mechanical envelopes, mating terminations and configuration choices that give system designers the ability to maximize their power interconnect needs.





150.0 A / Blade
372.0 A / Sq. in.
58.0 A / Sq. cm

25.00mm

380.0 A/in.
150.0 A/cm

278.0 A/in.
109.0 A/cm

EXTreme
PowerMass™

EXTreme
Ten60Power™

EXTreme
LPHPower™

EXTreme
PowerPlus™
(SSI)

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FEATURES AND SPECIFICATIONS



EXTreme LPHPower™ Low-Profile Hybrid Power Connector

**45984 Right Angle
Receptacle**

46114 Vertical Receptacle

45985 Right Angle Plug

The **EXTreme LPHPower™ Connector** is a mixed, high-current power and signal connector system that picks up where traditional connectors leave off. Designed with power blades parallel to the PC board, its extremely low-profile height of only 7.50mm (.295") allows greater system airflow while taking up 53% less space than traditional connectors with the same current rating. Designed as a new generation of power interconnect, Molex's EXTreme LPHPower™ connector provides up to 127.0A per linear inch of space, has two isolated power blades in each housing bay and can be mated in a right angle, co-planar or vertical orientation. EXTreme LPHPower™ can be mated in a traditional two-piece connector system, or as a one-piece receptacle-to-cardedge / bus bar application.

Features and Benefits

- Low-profile design, 7.50mm height enhances system airflow and provides 127.0A per linear inch
- Receptacle sides mates to either our standard LPH plug or an industry standard 1.57mm PBC gold finger card edge
- Rated for current interruption hot-plugging requirements
- Rugged signal and power contacts reduce the potential for stubbing or damage
- Two isolated power contacts per housing bay (top and bottom)
- Tested per EIA-364-1000.01
- Last-mate/first-break available on power contacts



SPECIFICATIONS

Reference Information

Packaging: Tray or Tube
UL File No.: E29179
CSA File No.: LR19980
TUV: 30683046.001
Designed In: Millimeters

Electrical

Voltage: 250V max
Current (at 30° C Temperature rise):
Power – 30.0A max.
Signal – 1.0A max.
Contact Resistance (per contact):

	Initial	End of Life
Power (milliohms)	0.50	0.64
Signal (milliohms)	6.24	8.34

Dielectric Withstanding Voltage: 1500V
Insulation Resistance: 5000 Megohms min.

Current interruption:

Power – 30.0A and 48V DC
Signal – 1.0A at 30V

Mechanical

Mating Force (max. per circuit):
Power Contacts – 6.87N (1.54 lb)
Signal Contacts – 1.08N (0.24 lb)
Un-mating Force (max per circuit):
Power Contacts – 5.88N (1.32 lb)
Signal Contacts – 0.02N (0.03 lb)
Durability: 250 cycles
(Receptacle and Plug)

Physical

Housing: LCP
Contact:
Power Contacts - Copper (Cu) Alloy
Signal Contacts – Phosphor Bronze

Plating:

Contact Area — Select Gold
Solder Tail Area — Tin
Underplating — Nickel
Flammability Rating: UL-94V-0

Documents

Sales Drawings: SD-45984-XXX, SD-45985-XXX,
SD-46114-XXX, SD-46112-XXX, SD-46113-XXX
Product Specs:
Right Angle — PS-45984-001
Vertical — PS-46114-001
Application Tooling:
Vertical ATS — 62100-6300, 62201-8671,
62201-8672

ORDERING INFORMATION

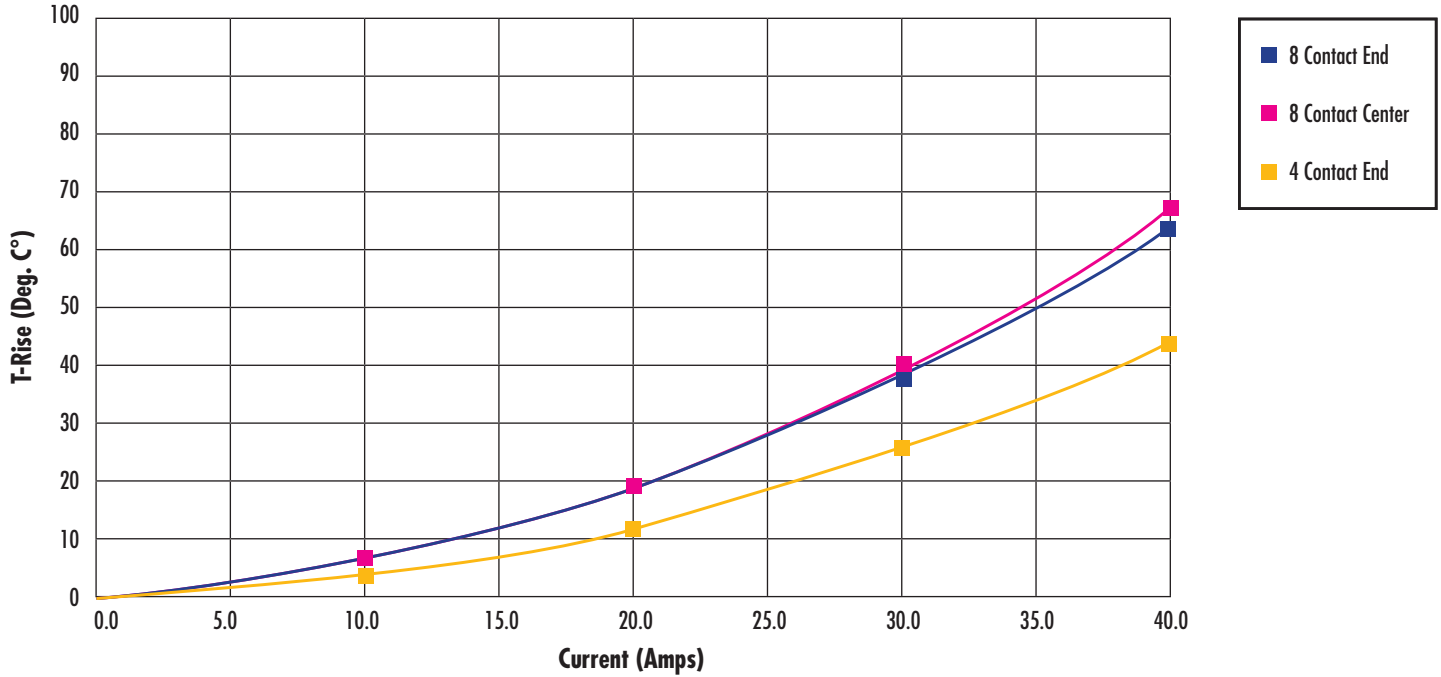
Series*	Description	Power Circuit	Signal Circuit	Guide	Board Peg	PCB Thickness
45984	Right Angle Receptacle	4 to 10	12 to 40	Optional	Optional	1.57, 2.36, 6.35mm (.062, .093, .250")
46114, 46112, 46113	Vertical Receptacle	2 to 14	12 to 40	Optional	N/A	1.57mm min. (.062")
45985	Right Angle Plug	4 to 10	12 to 40	Optional	Optional	1.57, 2.36, 6.35mm (.062, .093, .250")

*Complete part numbers can be found at www.molex.com/link/ext-power.html



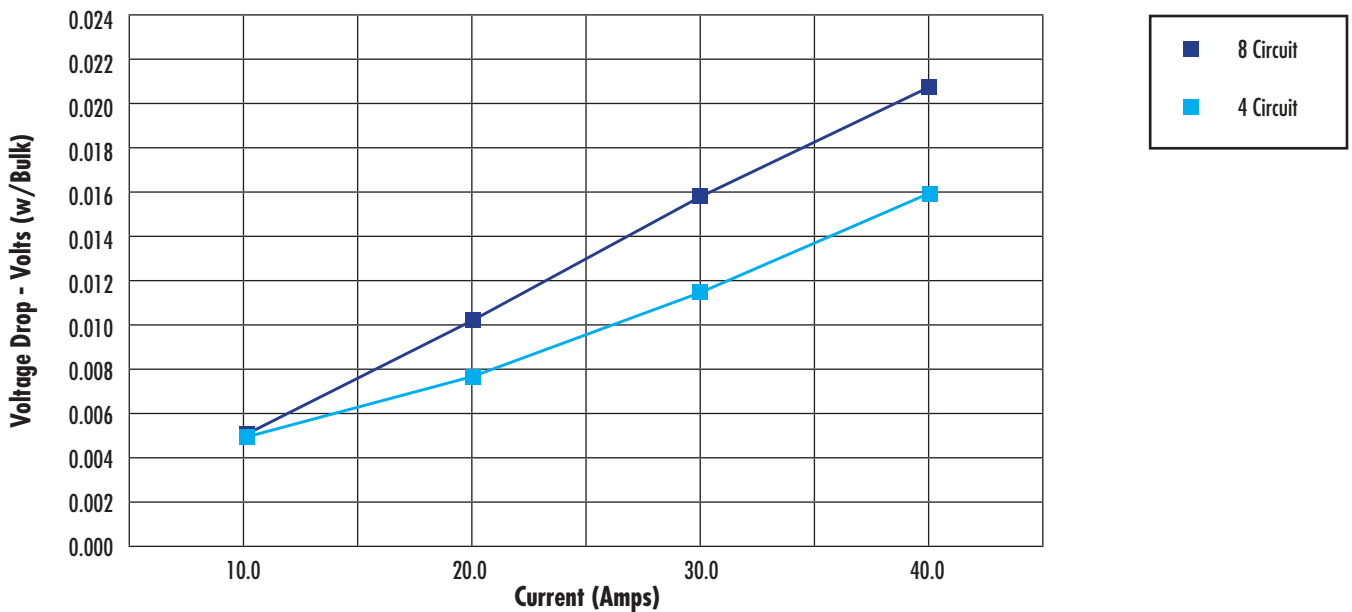
EXTreme LPHPower™
Low-Profile Hybrid
Power Connector

EXTreme LPHPower™
8 Contact and 4 Contact T-Rise Current Chart



EXTreme LPHPower™

Voltage Drop Vs. Current
8 Circuit and 4 Circuit



FEATURES AND SPECIFICATIONS



EXTreme PowerPlus™ (SSI) Power Connector

Right Angle Receptacle Vertical Receptacle Right Angle Plug Vertical Plug



The **EXTreme PowerPlus™ (SSI) Connector** is an expandable power and signal connector that conforms to the Server System Infrastructure (SSI) open specification as well as many other power and signal combinations beyond the configurations covered in the SSI standard. EXTreme PowerPlus™ (SSI) is a connector system rated at 30.0 A per power blade and can be specified in power and signal combinations to suit the application.

Features and Benefits

- Industry standard (SSI) power interconnect
- AC blade pitch 7.62mm, DC blade pitch 6.35mm and 5.08mm, Signal pin pitch 2.54 mm
- Rated for current interruption hot-plugging requirements
- Many AC, DC, and signal configurations available, plus many more upon request
- Fully shrouded plug and receptacle contacts
- Solder and press-fit PCB mounting available
- Last-mate/first-break available on both power and signal contacts

SPECIFICATIONS

Reference Information

Packaging: Tray
 UL File No.: E29179
 CSA File No.: LR19980
 TUV: R50078473
 Designed In: Millimeters

Electrical

Voltage: 250 and 600V max. based on spacing
 Current (at 30°C Temperature rise):
 Power – 50.0A (Single powered blade)
 30.0A (Each of 6 fully powered blades)
 Signal – 2.5A
 Contact Resistance (Initial per contact)
 Power (milliohms): < 0.50
 Signal (milliohms): < 20
 Dielectric Withstanding Voltage: 2500V AC
 Insulation Resistance:
 Power 20,000 Megohms min.
 Signal 5000 Megohms min.
 Current interruption:
 Power – 48V DC at 30.0A
 Signal – 12V DC at 2.5A

Mechanical

Mating Force (max per circuit):
 Power Contacts – 0.709kg (1.56 lb)
 Signal Contacts – 0.102kg (0.22 lb)
 Un-mating Force (max per circuit):
 Power Contacts – 0.227kg (0.50 lb)
 Signal Contacts – 0.010kg (0.023 lb)
 Durability: 100 cycles

Physical

Housing: LCP
 Contact:
 Power Contacts - Copper Alloy
 Signal Contacts – Copper Alloy
 Plating:
 Contact Area — Select Gold
 Solder Tail Area — Tin
 Underplating — Nickel
 Flammability Rating: UL 94V-0

Documents

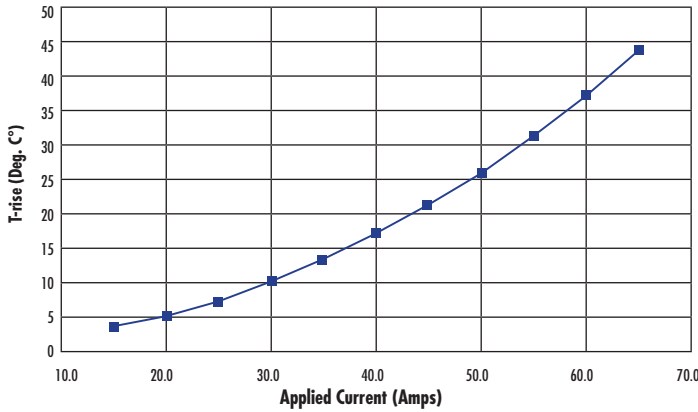
Sales Drawings: SD-(series no.)-XXX
 Product Specs:
 PS-87805-006
 PS-87631-006
 Application Specs:
 AS-87633-007
 AS-87631-018

ORDERING INFORMATION

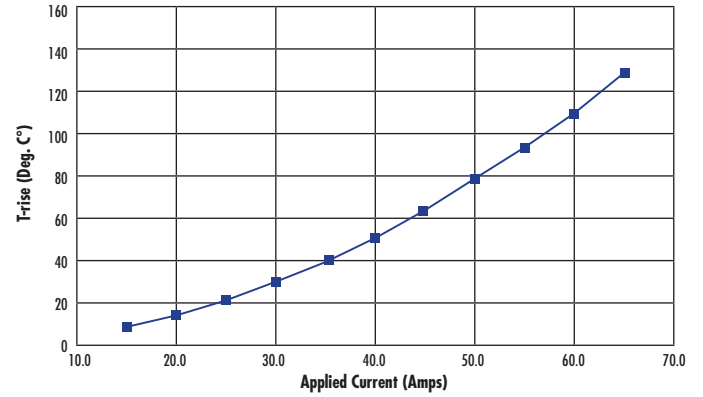
Series*	Power Blade Pitch	Signal Pin Pitch	Board Mounting Styles	Configurations
See Series Selector	7.62mm (.030")	2.54mm (.100")	Solder Tail, Press-Fit	Many power/signal combinations are currently standard offerings. If a desired configuration is not listed, please contact Molex.
	6.35mm (.250")			
	5.08mm (.200")			

*Complete part numbers can be found at www.molex.com/link/ext-power.html

Single Circuit T-Rise Testing



6 Circuit T-Rise Test Results



Molex EXTreme PowerPlus Selection Chart

Power/Signal Configurations	SSI Standards	6.35mm Power Pitch	5.08 Power Pitch	No Guide Features
Pa - S - Pb	<p>MPS (Mid-Range Power Supply) 87615 – Right Angle Through Hole Header 87616 – Right Angle Through Hole Receptacle 87665 – Vertical Press-Fit Receptacle 87747 – Vertical Through Hole Receptacle</p> <p>DPS (Distributed Power Supply) 87606 – Right Angle Through Hole Header 87607 – Right Angle Through Hole Receptacle 87687 – Vertical Through Hole Receptacle 87695 – Vertical Press-Fit Receptacle</p>	<p>87631 – Right Angle Through Hole Header 87632 – Right Angle Through Hole Receptacle 87622 – Vertical Through Hole Receptacle 87633 – Vertical Press-Fit Receptacle</p>	<p>87805 – Right Angle Through Hole Header 87806 – Right Angle Through Hole Receptacle 87876 – Vertical Press-Fit Receptacle 87877 – Vertical Through Hole Receptacle</p>	Contact Molex for Design Options
Power Only	Contact Molex for Design Options	<p>87658 – Right Angle Through Hole Header (DC) 87691 – Vertical Press-Fit Receptacle(DC)</p>	Contact Molex for Design Options	<p>87682 – Right Angle Press-Fit Header 87684 – Right Angle Through Hole Header 87680 – Vertical Press-Fit Receptacle 87887 – Right Angle Press-Fit Receptacle 87986 – Right Angle Through Hole Receptacle 87987 – Vertical Press-Fit Header 78041 – Vertical Through Hole Header 78042 – Vertical Through Hole Receptacle</p>
Pa - S	Contact Molex for Design Options	<p>87696 – Right Angle Through Hole Header 87735 – Vert Press-Fit Header 87700 – Right Angle Through Hole Receptacle 87749 – Vertical Through Hole Receptacle 87697 – Vertical Press-Fit Receptacle</p>	<p>87874 – Right Angle Through Hole Header 87925 – Vertical Press-Fit Receptacle</p>	Contact Molex for Design Options
S - Pb	Contact Molex for Design Options	<p>87667 – Right Angle Through Hole Header 87668 – Right Angle Through Hole Receptacle 87710 – Vertical Press-Fit Receptacle 87745 – Vertical Through Hole Receptacle</p>	<p>87807 – Right Angle Through Hole Header 87808 – Right Angle Through Hole Receptacle</p>	Contact Molex for Design Options
A/C - S - D/C	Contact Molex for Design Options	<p>87663 – Right Angle Through Hole Header 87664 – Right Angle Through Hole Receptacle 87744 – Vertical Press-Fit Receptacle 87734 – Vertical Through Hole Receptacle</p>	Contact Molex for Design Options	Contact Molex for Design Options

FEATURES AND SPECIFICATIONS



EXTreme Ten60Power™ High-Current Connector Board-to-Board

**46436 Right Angle
Receptacle**

46562 Vertical Receptacle

46437 Right Angle Plug

The **EXTreme Ten60 Power™ Connector** features the highest square-inch current density of any power connector system that Molex has developed. A low 10.00mm (.394") profile, coupled with high-capacity power blades, allows this interconnect to target smaller power supply architectures that deliver very high current in limited spaces where airflow can otherwise be restricted by larger connectors. Optional guides can be placed on each end at traditional side locations, or on top of the connector to save valuable PC board real estate. Power and signal modules can be placed in any location.

Features and Benefits

- Low-profile design of 10.00mm height enhances system airflow and provides 278.0A per linear inch
- Modular assembly for virtually any design configuration including wire-to-board options
- Right-angle and vertical mounting available for either coplanar or perpendicular applications
- Robust, high-current contact blades for DC (5.50mm pitch) and AC (7.50mm pitch) spacing options
- Rated for current interruption
- Connectors comply to EIA-364-1001.01 and MFG test procedures
- Last-mate/first-break available on both power and signal contacts
- 60.0A per power blade



SPECIFICATIONS

Reference Information

Packaging: Tray
UL File No.: E29179
CSA File No.: LR19880
TUV: R 72081037
Designed In: Millimeters

Electrical

Voltage:
Power - 600V max.
Current (at 30°C Temperature rise):
Power - 60.0A max.
Signal - 2.5A max.
Contact Resistance (per contact):

	Initial	End of Life
Power (milliohms) -	0.50	0.75 max change
Signal (milliohms) -	6.50	15.00 max change

Dielectric Withstanding Voltage: 1500V
Insulation Resistance: 5000 Megohms min.
Current interruptions rating:
Power - Contact Molex
Signal - Contact Molex

Mechanical

Pitch:
Power - 5.50 or 7.50mm
Signal - 2.54 by 2.45mm
Mating Force (max. per circuit):
Power Contacts - 500g (1.102 lb)
Signal Contacts - 102g (.225 lb)
Un-mating Force (min. per circuit):
Power Contacts - 400g (.882 lb)
Signal Contacts - 30g (.066 lb)
Durability: 100 cycles

Physical

Housing: 30% glass filled LCP
Contact:
Power Contacts - Copper Alloy
Signal Contacts - Copper Alloy
Plating:
Contact Area - Select Gold
Solder Tail Area - Tin
Underplating - Nickel
Flammability Rating: UL 94V-0
RoHS compliant

Documents

Sales Drawings: SD-46436-XXX, SD-46562-XXX
SD-46437-XXX
Product Specs: PS-46436-100

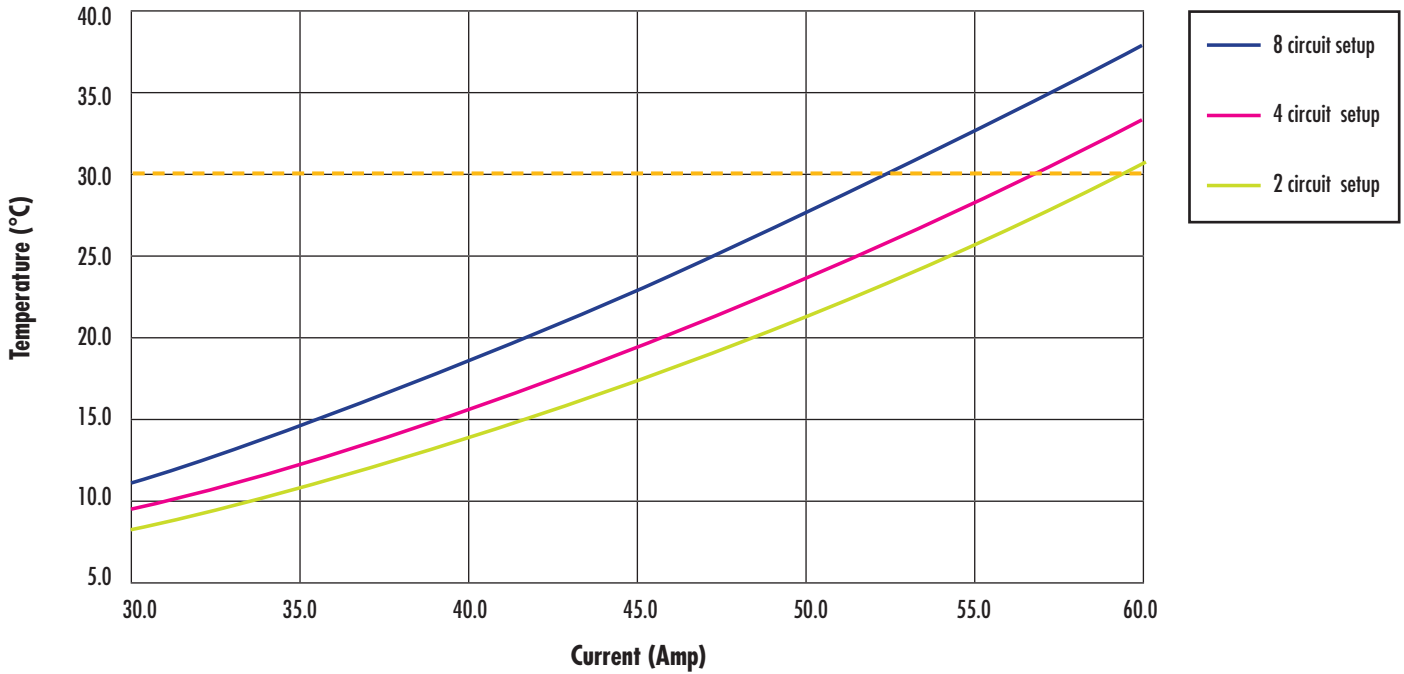
ORDERING INFORMATION

Series*	Description	Power Circuits	Signal Circuits	Guide	Board Peg	PCB Thickness
46436	Right Angle Receptacle	1 to 10	6 to 36	Side or Top Options available	Optional	1.57 to 3.81mm (.062 to .150")
46562	Vertical Receptacle					
46437	Plug					

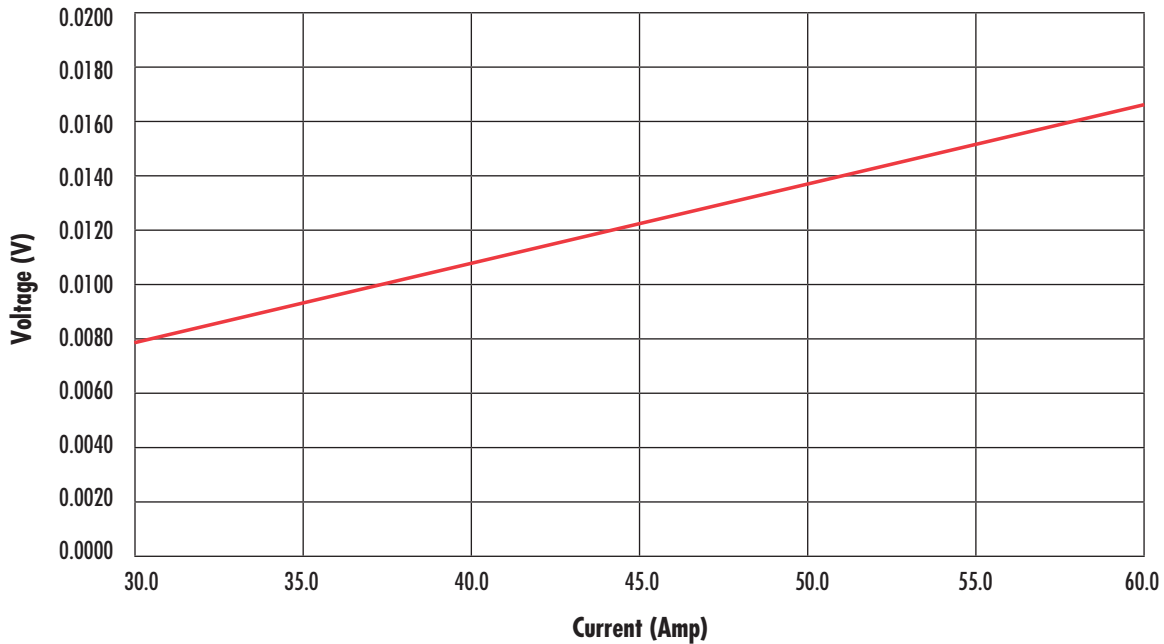
*Complete part numbers can be found at www.molex.com/link/ext-power.html



Temperature Rise vs. Current per EIA-364-70



V-drop (max) vs. Current per EIA-364-70



FEATURES AND SPECIFICATIONS



EXTreme PowerMass™ High-Current Assembly Board-to-Board

75541 Vertical Receptacle
75555 Right Angle Plug
45840 Right Receptacle



The **EXTreme PowerMass™ Connector** is the ultimate high-current power interconnect system. Designed as a modular, stiffener based system, EXTreme PowerMass™ is like no other power connector in the industry. Multiple capacity power modules and wide signal count capability allows EXTreme PowerMass™ to put big power where you need it without wasting board space. Robust 150.0, 80.0 and 40.0A, power modules cater to mixed current levels yielding optimal sizing of the connector system. EXTreme PowerMass™ offers up to 380.0 A per inch of PCB real estate while signal modules range from 24 to 64 circuits and hefty, die-cast guidance modules round out the design options. Since EXTreme PowerMass™ can be assembled on a metal stiffener backbone, modules can be placed in any position and just about any centerline spacing giving you complete freedom to pack your design as tightly as possible, or open the spacing between any or all of the modules to enhance system airflow. If your application calls for only one or two modules, EXTreme PowerMass™ modules can be mounted individually without the use of the stiffener.

Features and Benefits

- Up to 380.0A per linear inch at only 25.00mm tall
- Individual modules available with board-mount pegs and sequential mating
- Flexible modular design can accommodate connectors of various lengths
- Rugged stiffener based assembly allows variable pitch module-to-module for maximum airflow considerations
- Durable die-cast aligner guides
- Right-angle receptacles available for 150.0A, 24-circuit signal and aligner guides for co-planer applications

SPECIFICATIONS

Reference Information

Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980
Designed In: Millimeters

Electrical

Voltage:
Signal Module: 250V
150.0A Module: 600V
Multi-Path:
80.0A Module: 450V
40.0A Module: 600V
Current (at 30°C Temperature rise):
Signal Module: 3.0A per circuit (24 to 64 circuits)
150.0A Module: 150.0A
Multi-Path: 40.0A per circuit (4 circuits)
80.0A Module: 40.0A per circuit (2 circuits)
40.0A Module: 40.0A

Contact Resistance (milliohms per blade):

	Initial	End of Life
Signal Module —	10.0	20.0
Multi-Path —	0.55	1.30
150.0A Module —	0.16	0.41
80.0A Module —	0.55	1.30
40.0A Module —	0.55	1.30

Dielectric Withstanding Voltage: No breakdown
Insulation Resistance: 5000 Megohms min.

Mechanical

Mating Force:
Signal Module: 120g (.264 lb) per pin
150.0A Module: 2600g (5.732 lb)
Multi-Path: 2920g (6.437 lb)
80.0A Module: 1460g (3.218 lb)
40.0A Module: 730g (1.609 lb)
Un-mating Force :
Signal Module: 65g (.143 lb)
150.0A Module: 1720g (3.791 lb)
Multi-Path: 1600g (3.527 lb)
80.0A Module: 800g (1.763 lb)
40.0A Module: 400g (.881 lb)
Contact Retention: 225g (.496 lb)
Durability: 50 cycles

Physical

Housing: LCP
Contact: Copper (Cu) Alloy
Plating:
Contact Area — 30µ" Gold min.
Solder Tail Area — 150µ" Tin min.
Underplating — 50µ" Nickel min.
Flammability Rating: UL 94V-0

Documents

Sales Drawings: SD-75555-XXXX,
SD-75541-XXXX, SD-45840-XXXX
Product Specs: PS-75431-999
Application Spec: AS-75541-100

ORDERING INFORMATION

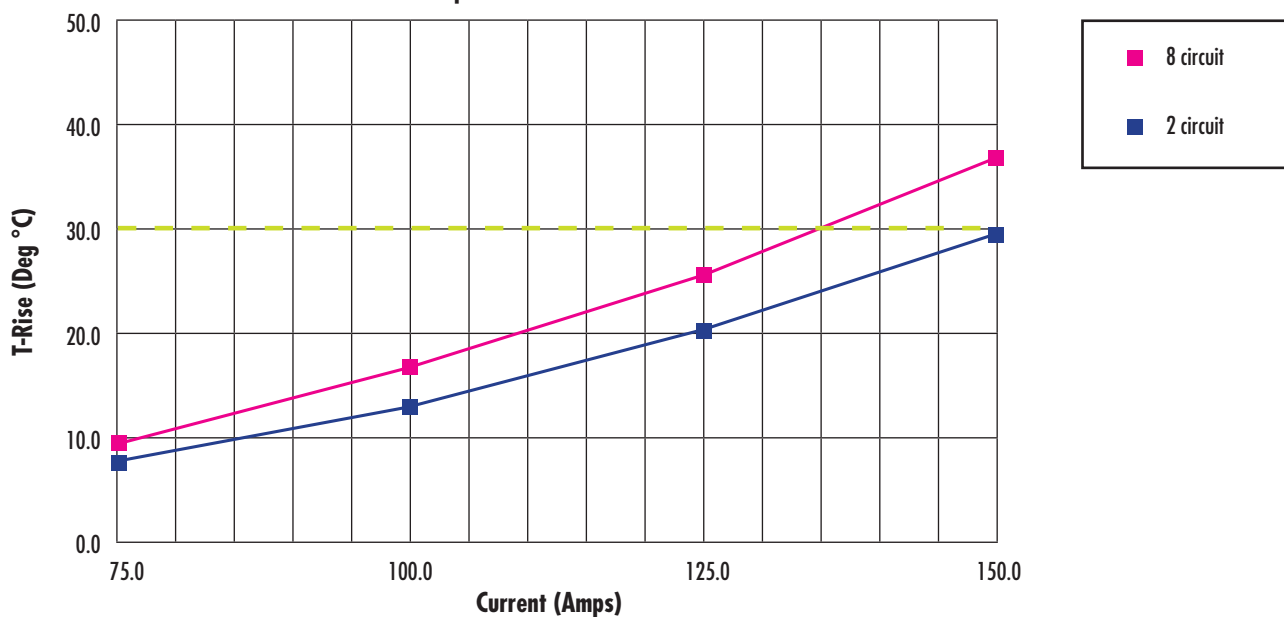
Series*	Description	Modules	PCB Tails
75555	Plug	Signal, 150.0, 80.0 and 40.0A Multi-Path and Die-Cast Aligners	Solder Tail
75541	Vertical Receptacle	Signal, 150.0, 80.0 and 40.0A Multi-Path and Die-Cast Aligners	Press-Fit
45840	Right Angle Receptacle	24-circuit Signal, 150.0A and Plastic Aligners	Solder
46081, 46079, 75542, 75545, 75548, 75556, 75561, 75568	Individual Modules	40.0A, 80.0A, 150.0A, Multi-Path, Signal	Solder Tail, Press-Fit

*Complete part numbers can be found at www.molex.com/link/ext-power.html



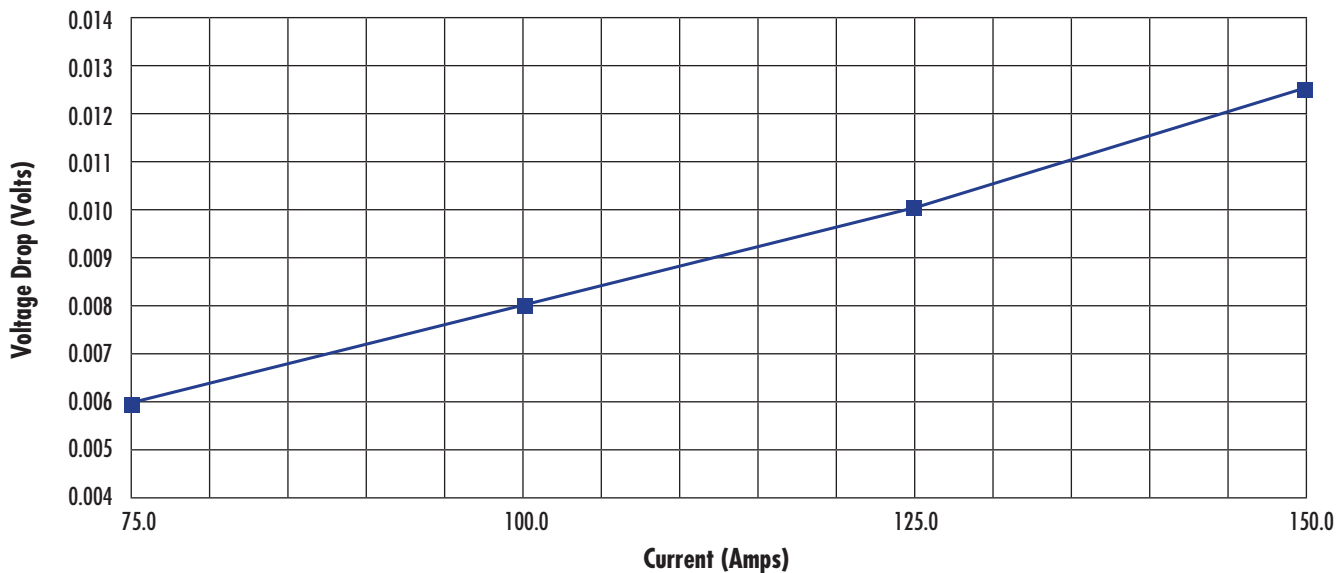
EXTreme PowerMass™ - 150.0 Amp Module

Temperature Rise vs. Current



EXTreme PowerMass™ - 150.0 Amp Module

Voltage Drop vs. Current



FEATURES AND SPECIFICATIONS

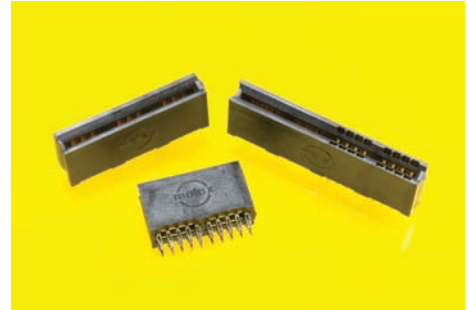


EXTreme PowerEdge™ Card Edge Hybrid Power Connector

**45911, 45912 Power and
Signal**

45719, 45714 Power Only

45845, 45844 Signal Only



The **EXTreme PowerEdge™ Connector** incorporates proven Molex design elements of high-performance terminal contacts with redundant interface points for optimum mating of double-sided card edge gold fingers. EXTreme PowerEdge™ offers 40.0A rating per contact, and 157.0 A per inch of PC board real estate. It is an excellent low profile power card edge interface for applications where rugged single piece mating to a cardedge or bus bar is needed and where space is at a premium. EXTreme PowerEdge™ is available in power only, signal only, and power/signal combinations for design flexibility.

Features and Benefits

- Low-profile design allows high current transfer in narrow spaces
- Mates to a 1.57mm (0.62") PCB card edge or bus bar
- Rated for current interruption hot-plugging requirements
- Rugged power and signal contacts reduce the potential for stubbing or damage
- 2 isolated power contacts or 8 signal contacts per housing segment
- Available in 2, 3, and 4 segment versions
- Press-fit or solder tail PCB mounting
- End-to-end stackable to accommodate additional circuit counts on card edge

SPECIFICATIONS

Reference Information

Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980
TUV: R 72042763
Designed In: Millimeters

Electrical

Voltage: 250V max in standard contact loading
(Higher voltages may be accommodated through special contact loading — contact Molex)

Current (at 30°C Temperature rise):

Power — 40.0A max.
Signal — 3.0A max.

Contact Resistance (per contact):

	Initial	End of Life
Power (milliohms) —	0.5	0.6 max change
Signal (milliohms) —	6.24	15 max change

Dielectric Withstanding Voltage: 1500V

Insulation Resistance: 5000 Megohms min.

Current interruption:

Power — 40.0A and 50V DC

Mechanical

Mating Force (max per contact):

Power Contacts — 8.87N (2.0 lb)

Signal Contacts — 1.4N (0.31 lb)

Un-mating Force (max per circuit):

Power Contacts — 4.4N (1.0 lb)

Signal Contacts — 0.14N (0.031 lb)

Durability: 50 cycles

Physical

Housing: LCP

Contact:

Power Contacts - Copper Alloy

Signal Contacts — Copper Alloy

Plating:

Contact Area — Select Gold

Solder Tail Area — Tin

Underplating — Nickel

Flammability Rating: UL 94V-0

Documents

Sales Drawings: SD-45714-XXXX, SD-45719-XXXX,
SD-45844-XXXX, SD-45845-XXXX, SD-45911-XXXX,
SD-45912-XXXX

Product Specs: PS-45719-001

ORDERING INFORMATION

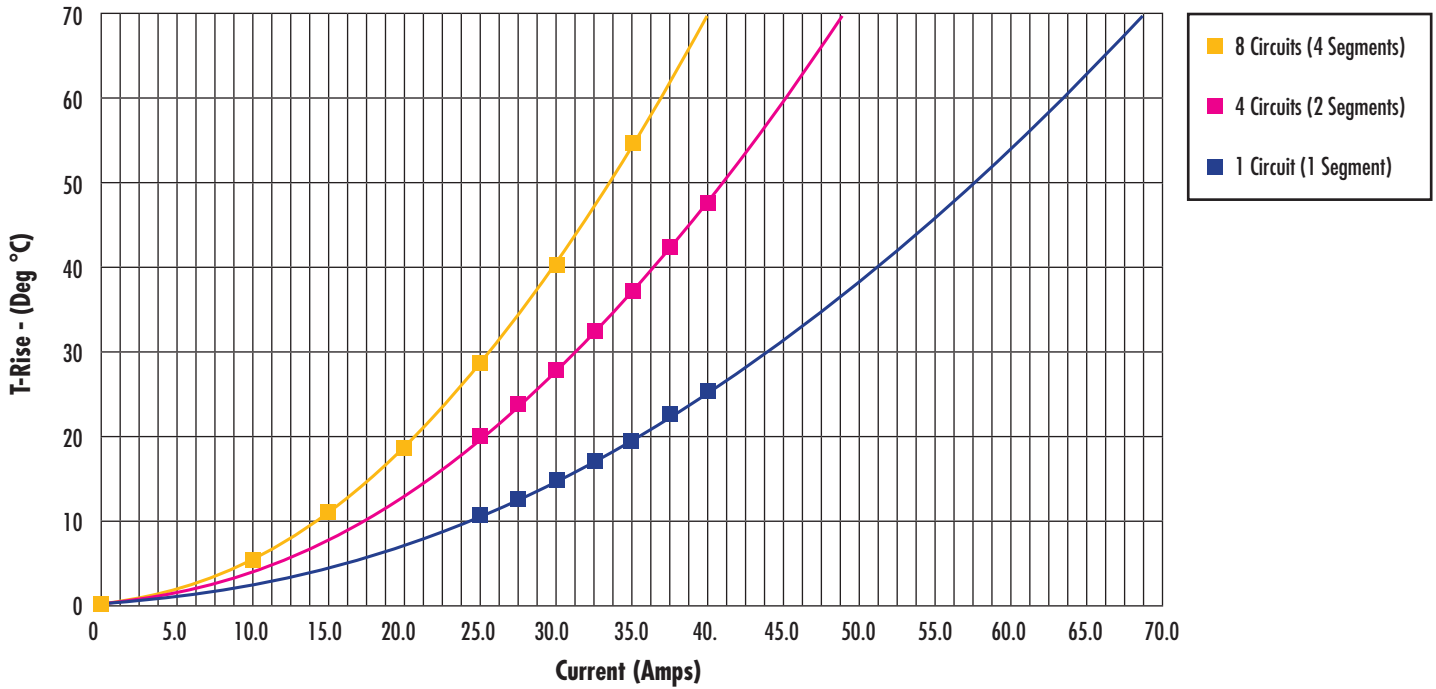
Connector Series Description	Press-Fit Series*	Solder Tail Series*	Number of Segments	Number of Contacts per Segment	Solder Tail Pin Lengths
Power only	45714	45719	2 to 4	2	3.19 and 4.33mm
Signal only	45845	45844	2 to 4	8	3.19 and 4.33mm
Power and Signal	45912	45911	2 to 4	2 Power or 8 Signal	3.19 and 4.33mm

*Complete part numbers can be found at www.molex.com/link/ext-power.html

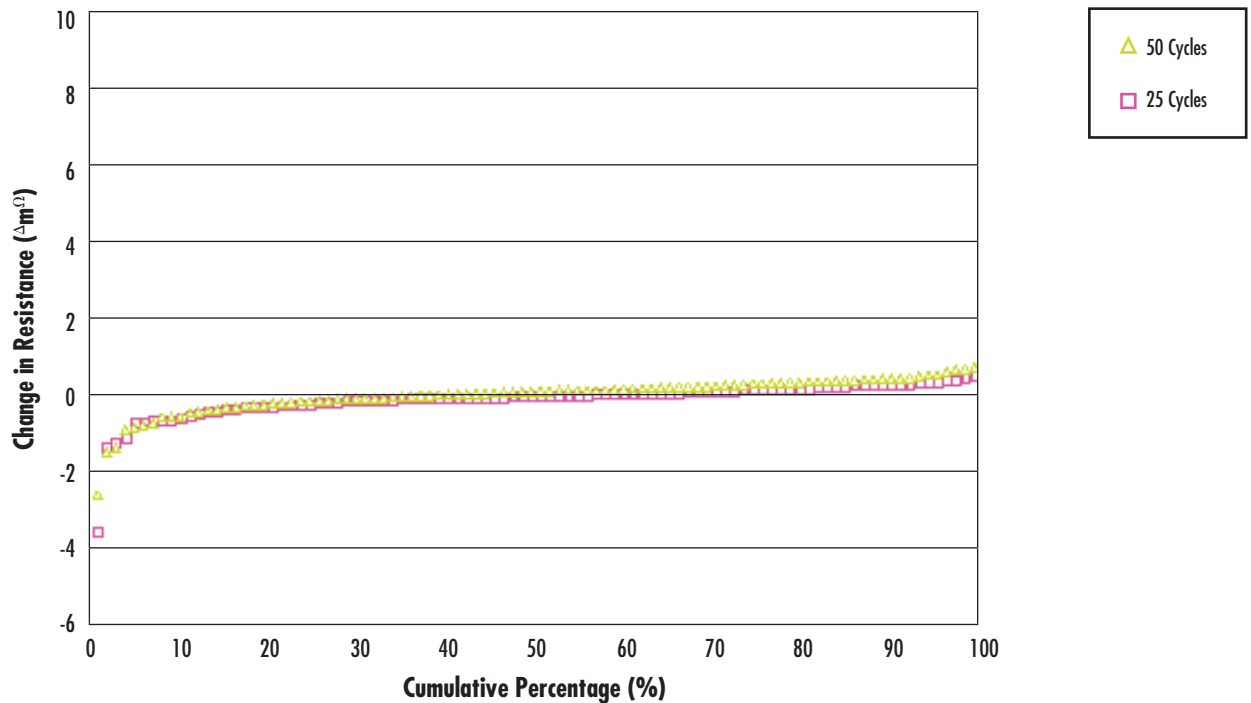


EXTreme PowerEdge™, Dual Sided

T-Rise Current Chart



EXTreme PowerEdge™ Connector System, Durability



FEATURES AND SPECIFICATIONS



EXTreme MicroPower™ 4.00mm (0.157") Pitch Board-to-Board Connector

75730 Right Angle
78094 Vertical



The **EXTreme MicroPower™ High-Current Header** can be used in VRM / DC-DC converters or any board-to-board application where power transfer is needed through a non-separable interface in a compact design. EXTreme MicroPower™ offers extremely high current density, rated at 16.0A per blade at 30°C T-rise on a 4.00mm pitch, its low profile design of 4.17mm (.164") off the PCB enhances system airflow. EXTreme MicroPower™ is available in both right angle and vertical (mezzanine) mounting configurations, and is an excellent choice to replace old fashioned, low capacity stick headers.

Features and Benefits

- Compact, direct solder high current power blades for VRM, and other point of load applications
- 16.0A per blade at 30°C temperature rise (22 circuits loaded)
- 4.00mm pitch standard (optional voided circuits available)
- 4 to 24 circuits, single inline row configuration
- Very low 4.17mm x 4.00mm right angle profile
- 7.00 and 10.00mm stack heights on vertical version
- Slotted via for maximum current transfer

SPECIFICATIONS

Reference Information

Packaging: Tray
UL File No.: E29179
Designed In: Millimeters

Electrical

Voltage:
250V max (Right Angle)
350V max (Vertical)

Current (@ 30°C Temperature rise):
22 Circuit – 16.0A max. (per blade)

Dielectric Withstanding Voltage:
1500V DC (Right Angle)
1750V AC (Vertical)

Insulation Resistance:
5000 Megaohms min. (Right Angle)
1000 Megaohms min. (Vertical)

Physical

Housing: LCP
Contact: Copper Alloy
Plating:
Overall: 100µ" Select Matte Tin min.
Underplating — 50µ" Nickel min.
Flammability Rating: UL 94V-0

Documents

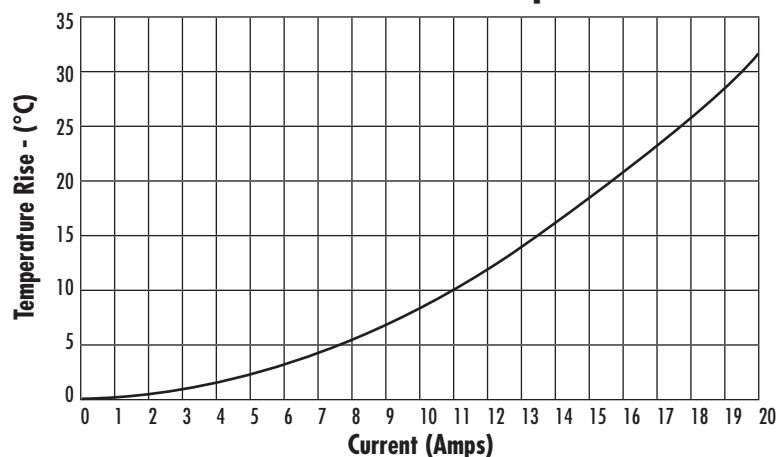
Sales Drawings: SD-75730-118
SD-87094-100
Product Specs: PS-75730-999
PS-87094-010

ORDERING INFORMATION

Series*	Description	Circuits	Stack Heights	Solder tail lengths
75730	Right Angle	4 to 24	N/A	Riser card side 2.60mm / Motherboard side 3.06 or 3.81mm
78094	Vertical	2 to 22	7.00 and 10.00mm	Mezzanine card side 2.60mm / Motherboard side 3.70mm

*Complete part numbers can be found at www.molex.com/link/ext-power.html

EXTreme MicroPower™ Temperature Rise



FEATURES AND SPECIFICATIONS



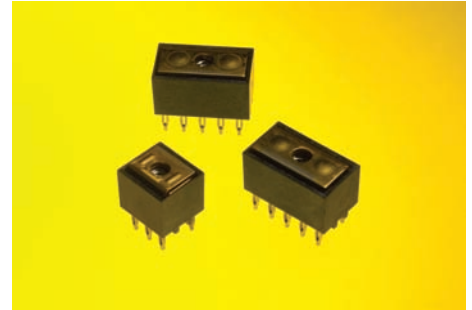
EXTreme ZPower™ Connector 10.30mm (.405") Parallel Board Spacing

76001 Series

The **EXTreme ZPower™ Connector** utilizes a unique, interface for mezzanine style power connections. Anchored to the base board with press-fit power pins, the top board is screwed securely down from the top. EXTreme ZPower™ not only transfers power between boards, but can double as an effective stand-off. Available with both 30.0 and 50.0A versions, EXTreme ZPower™ can be used in a variety of applications and industries where power connection between parallel boards or bus bars is necessary in a condensed space.

Features and Benefits

- Patented internal terminal design allows a rigid, secure interface while helping to isolate press-fit pins from the load of shock and vibration
- Screw-contact interface can accept standard wire-crimp, ring-lug terminals for wire-to-board applications (Tin plating for use with ring lug terminal connection)
- Captured internal nut for ease of assembly
- High normal force, high-reliability interface
- One piece ridged board-to-board high current interconnect
- Hertzian (high-pressure) contact areas create a reliable (gas-tight) mating surface



SPECIFICATIONS

Reference Information

Packaging: Tray
 CSA/CUS File No.: 1792321
 Designed In: Millimeters

Electrical

Voltage: 250V max
 Current (@ 30°C Temperature rise):
 10 Circuit – 50.0A max.
 6 Circuit – 30.0A max.
 Contact Resistance (per blade):

	<u>Initial</u>	<u>End of Life</u>
Power (milliohms) –	0.15	0.10 max. Change
Dielectric Withstanding Voltage: 1500V DC		
Insulation Resistance: 5000 Megaohms min.		

Mechanical

Insertion Force to PCB: 9.07N (20lbf) per tail
 Recommended Torque: 0.75 N-m (6.6 inch-lbs)
 Durability: 5 cycles mate/un-mate (separable interface)

Physical

Housing: LCP
 Contact: Copper (Cu) Alloy
 Plating:
 Contact Area — 30µ" Gold min.
 or 100µ" Select Matte Tin min.
 Solder Tail Area — 100µ" Select Matte Tin min.
 Underplating — 50µ" Nickel min.
 Flammability Rating: UL 94V-0

Documents

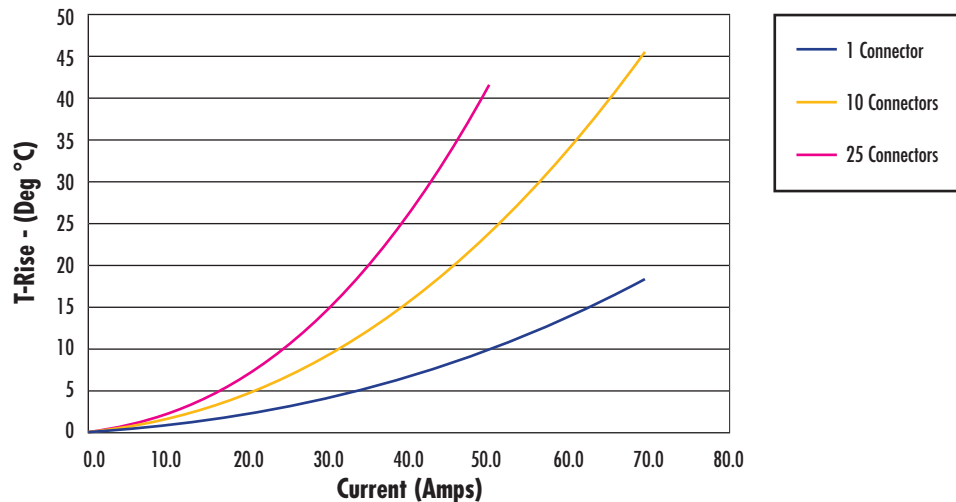
Sales Drawings:
 50 ampere: SD-76001-001
 30 ampere: SD-76001-002
 Product Spec: PS-76001-999
 Application Spec: AS-76001-001

ORDERING INFORMATION








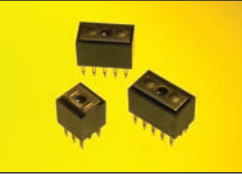
Series*	Description	Current	Plating	Mating PCB Thickness	Press-Fit PCB Thickness
76001	10 Tail Connector	50.0A	Gold or Tin	0.063"	0.093" min.
76001	6 Tail Connector	30.0A		0.093" 0.125"	

*Complete part numbers can be found at www.molex.com/link/ext-power.html

EXTreme ZPower 10 Tail T-Rise



Molex EXTreme Power™ Density Chart

EXTreme Power™ Family	Image	UL/CSA Current Rating/Power Blade (Amps)	Amperes per Linear Board Edge Inches (cm)	Connector Face Height Inches (mm)	Amperes per Sq. Face Area Inches (cm)
EXTreme LPHPower™		30.0	127 50.00	.295 (7.50)	431 (67.00)
EXTreme PowerEdge™		40.0	157 62.00	.354 (9.00)	445 (68.00)
EXTreme Ten50Power™		60.0	278 109.00	.394 (10.00)	705 (109.00)
EXTreme PowerDock™		45.0	153 60.00	.550 (14.00)	277 (43.00)
EXTreme PowerPlus™ (SSI)		30.0	120 47.00	.590 (15.00)	203 (31.00)
EXTreme PowerMass™		150.0	380 150.00	1.02 (25.90)	372 (58.00)
EXTreme MicroPower™		16.0	102 40.00	.165 (4.20)	618 (96.00)
EXTreme ZPower™		50.0	138 54.00	.641 (16.30)	215 (33.00)

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