

PwrBlade+[®] Connectors

NEXT GENERATION AC/ DC POWER DISTRIBUTION CONNECTOR SYSTEM

The PwrBlade+[®] connector is a next generation AC/DC power distribution connector system for demanding applications requiring higher linear current density and low power loss. It is capable of 192A/linear inch with eight adjacent high power contacts energized simultaneously and 0.7m power contact resistance after environmental exposure.

The PwrBlade+[®] connector builds on the PwrBlade[®] connector's proven technology but includes enhancements to achieve increased performance and density. It is rated up to 58A per power contact without exceeding a 30°C temperature rise in still air. This product features an innovative high power contact design and housing that allows higher current carrying capability in a more compact package.

The high power contact features an optimized beam design and material property enhancements that significantly increase linear current density making it ideal for next generation 1U/2U servers, storage enclosures, telecommunications equipment and datacom/networking equipment.

The PwrBlade+[®] connector also features a highly vented housing design, a low power contact option for applications with multiple voltages and lower power requirements and half-bullet guides for a reduced connector footprint.

The PwrBlade+[®] connector is available with power and signal contacts integrated into a single molded housing for power distribution and power control. Similar to other FCI power solutions, it is modularly tooled making the product highly configurable in terms of the number and placement of the power and signal contacts for custom power needs. Right angle and co-planar options are available to accommodate various system architectures.

- Up to 58A per contact
- Suitable for 1U or 2U power supplies
- Press-fit options are available



TARGET MARKETS



FEATURES

- High power contact option up to 58A per contact, at 30°C temperature rise in still air
- Low power contact option up to 40A per contact, at 30°C temperature rise in still air
- Highly vented housing design
- Half-bullet guides
- Large operating temperature range from -40°C to +125°C
- Right angle and coplanar options available with both power and signal contacts
- Number and placement of power and signal contacts
- Solder or press-fit tails are available

BENEFITS

- Cost-effective power delivery in 1U and 2U power supplies or power distribution applications
- Supports applications with multiple voltages and lower power requirements
- Maximizes heat dissipation for effective system cooling
- Reduced connector footprint
- Suitable for extreme environments
- Aids power distribution and power control
- Highly configurable for custom power needs
- Enhanced termination flexibility

TECHNICAL INFORMATION

MATERIAL

- Housing: High Temperature Thermoplastic (UL 94 V-0, halogen free), Black
- Power Contact: High Conductivity Copper Alloy
- Contact Finish:
 - Separable interface: 30µin. (0.76µm) performance based plating over nickel (per the GS-12-658 product specification)
 - Board connector solder tail area: Matte Tin over Nickel

ELECTRICAL PERFORMANCE

- Current Rating (30°C T-rise in still air)
 - High Power Contacts: Up to 58A per contact
 - Low Power Contacts: Up to 40A per contact
- Operating Voltage (fully loaded)
 - High Power Contacts: 912V max.
 - Low Power & Signal contacts: 124V max.
- Dielectric Withstanding Voltage
 - High Power Contacts: 2500V
 - Low Power & Signal contacts: 1000V
- Insulation Resistance (initially and after environmental exposure)
 - High & Low Power Contacts: >1,000MΩ
 - Signal Contacts: >500MΩ
- Contact Resistance (initially and after environmental exposure)
 - High Power Contacts: ≤0.7mΩ
 - Low Power Contacts: ≤1.5mΩ
 - Signal Contacts: ≤20mΩ

MECHANICAL PERFORMANCE

- Contact Wipe Distance:
 - High Power Contacts: 5.08mm
 - Low Power Contacts: 3.81mm
 - Signal Contacts: 3.81mm
- Durability: 500 mating cycles

ENVIRONMENTAL

- Operating Temperature Range: -40°C to +125°C
- RoHS Information: This product is compatible according to the European Union Directive 2011/65/EU

SPECIFICATIONS

- Product Specification: GS-12-658
- Application Specification: GS-20-141

APPROVALS AND CERTIFICATIONS

- UL E66906
- TUV 14 09 34414 019

PACKAGING

- Tray

TARGET MARKETS/APPLICATIONS



AC/DC Pluggable Power Supplies
Networking Equipment



Industrial PCs
Industrial Controls & Instrumentation



Medical

PART NUMBERS

Description	Part Numbers
PwrBlade+® 2P+16S+2P Right Angle Header	10106124-4004001LF
PwrBlade+® 2P+16S+2P Right Angle Receptacle	10106126-4004001LF
PwrBlade+® 10HDP+32S Right Angle Header	10106132-A008001LF
PwrBlade+® 10HDP+32S Vertical Receptacle	10106139-A008001LF