

PWRBLADE® CABLE ASSEMBLIES

OVERVIEW

The PwrBlade® cable connectors are designed to mate to PwrBlade® right-angle or vertical board-mounted headers. By expanding beyond board-to-board applications, designers can now connect power supplies and power distribution subassemblies in a wider range of applications. The combination of cable connection capability with FCI's proven PwrBlade board-to-board system provides a universal power distribution connector system.

FCI's PwrBlade® connectors are available in squeeze-to-release form factors for applications that require active latching and in panel-mount configurations for modular installation of large power distribution systems.

The PwrBlade® power distribution connector system provides both power and signal contacts to enable power distribution and power control in a single connector. Initially developed to enable the implementation of Server System Infrastructure (SSI) Standards for Distributed Power Supplies (DPS), Mid-range Power Supplies (MPS) and High-end Power Supplies (HPS), PwrBlade connectors are also available in wide variety of other configurations. The connectors can also be customized to address unique application requirements.



FEATURES & BENEFITS

- 48A/individual power contact; 30A/contact for 10 adjacent contacts at 30°C temperature rise in still air
- Right angle board connector enables front I/O applications
- Vertical board connector enables power distribution to mid-board components
- Panel-mount option or squeeze-to release latches are available to accommodate various system configurations
- Supports multiple wire sizes including 8 - 14 AWG wire for power contacts and 22 - 26 AWG for signal contacts
- Power contact spacing options exist for AC (300V max) or DC (200V max) power
- Provides power contacts for power distribution and signal contacts for power control
- Number and placement of power and signal contacts are highly configurable for custom power needs



TECHNICAL INFORMATION

MATERIALS

- Housings: High-temperature thermoplastic (UL94V-0), black
- Contact base material:
 - Power – high-conductivity copper alloy
 - Signal – copper alloy
- Contact finish:
 - Separable interface: 30µin. (0.76µm) performance-based plating over nickel
 - Board termination area: Matte tin over nickel

ELECTRICAL PERFORMANCE

- Insulation resistance: 20MΩ min.
- Withstanding voltage: 1,200V RMS
- Current rating: 48A for single powered contact; de-rated to 30A for 10 powered contacts at 30°C temperature rise with zero airflow
- Current rating: 60A for 10 contacts when tested to UL guidelines
- Power contact resistance: 2.0mΩ after environmental exposure

MECHANICAL PERFORMANCE

- Mating force: 12 lbs. typical for 11 power, 24 signal configuration

SPECIFICATIONS

- Product specification: GS-12-474
- Application specification: GS-20-092

APPROVALS AND CERTIFICATIONS

- UL, CSA and TUV approved

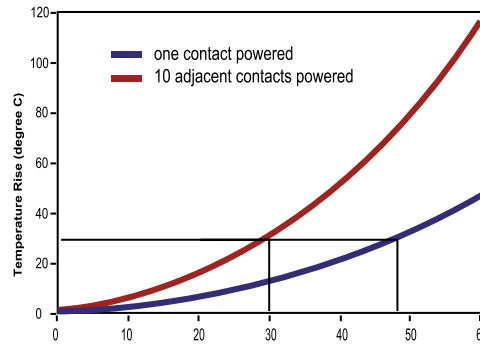
ORIENTATION

- Squeeze-to-release latching
- Floating blind-mate panel-mount

TERMINATION

- Power wire sizes: 8 AWG, 10 AWG, 12 AWG & 14 AWG
- Signal wire sizes: 22 AWG, 24 AWG, 26 AWG

TEMPERATURE RISE CURVE



Current rating information is in still air (no air flow) with multiple contacts energized unless otherwise noted

PART NUMBERS

Description	Part Numbers
2P Right Angle Board Mount Header	51939-193LF
2P Cable Receptacle w/Squeeze-To-Release Latches (8 AWG wire: 1 cable length)	10080594-1AD0078LF
24S +6p Right Angle Board Mount Header	51721-10002406AALF
24S +6P Cable Receptacle For Panel-Mount (10 AWG wire: 1m cable length)	10080594-1AD0078LF

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