

Pwr TwinBlade® CABLE SYSTEM

OVERVIEW

The Pwr TwinBlade® cable system is designed to support applications that demand the supply of high power. The Pwr TwinBlade® connectors employ a proven contact system in a touch-proof design that is capable of supporting currents of up to 100A per contact. The new sensing contacts can be used to eliminate the potential for damage from hot-plug conditions.

The new sensing contacts function as an “electrical” coding to ensure proper mating. Several other features also ensure proper mating such as; an active latch, four different coding options, and polarization. This design provides capability for termination of various cable diameters and wire sizes of 2 x 6mm², 10mm², 16mm² and 25mm².

The system consists of cable connectors in orientations of straight or right angle cable exits mating to a right angle board connector.

Cable assemblies terminated with Pwr TwinBlade® connectors are now available and can be customized to any length.



FEATURES

- Up to 100A per twin power contact without exceeding 30°C temperature rise in still air
- New sensing contact added for hot-swap functionality
- Integrated latching design
- Polarized housing and coding design
- Straight and right angle cable exit options
- Recessed touch-proof contacts on both mating halves
- High voltage contact spacing
 - 300V with sensing contacts
 - 600V without sensing contacts

BENEFITS

- Serves mid and high current applications, supporting >140A per linear inch
- Eliminates potential damage from hot-plug conditions
- Minimizes connector and cable footprint
- Ensures proper mating
- Supports various customized needs at customers' end
- No risk in handling while energized
- Meets safety agency requirements
- Overall small size for a 600V connector





TECHNICAL INFORMATION

MATERIALS

- Power Contact Base Material
 - High Conductivity Copper Alloy
- Board Connector and Cable Connector Housings
 - High Temperature Nylon
- Plating
 - Separable Interface: 0.76µm (30µin.)
 - Performance-based plating over Nickel

ELECTRICAL PERFORMANCES

- 100A per contact at 30°C T-rise in still air
- Maximum Operating Voltage: 600V
- Short Circuit Capacity: 5 operations carrying 3000A for 10ms
- Insulation Resistance: 1GΩ when measured in accordance with EIA 364 TP 21

ENVIRONMENTAL

- Operating Temperature Range: -20°C to +75°C

MECHANICAL PERFORMANCE

- Insertion Force: ≤40 N
- Withdrawal Force: ≥15 N
- Durability: 50 cycles

TERMINATION

- Power Wire Sizes:
 - 2 x 6mm²
 - 10mm²
 - 16mm²
 - 25mm²

SPECIFICATIONS

- Product Specifications
 - GS-12-1162
 - GS-12-1246

CERTIFICATIONS & APPROVAL

- UL 1977
- Touch-proof per IEC 60998-1 and IEC60668-2

PACKAGING

- Trays

TARGET MARKETS/APPLICATIONS

- Data
 - Server
 - Data Storage
- Communications
 - Telecom & Datacom
- Industrial & Instrumentation
 - Industrial Controls

PART NUMBERS

Description	Power Wire Size	Part Number
Right angle PCB plug	N.A	51939-732LF
Right angle PCB plug with sensing contacts	N.A	51939-901SLF
Kits* with sensing contacts	25mm ² wire	10130796-001NELF
Kits* with sensing contacts	16mm ² wire	10130796-002NELF
Kits* with sensing contacts	10mm ² wire	10130796-003NELF
Right angle receptacle cable assembly	25mm ² wire; 1m cable length	10080068-4HEL100LF
Vertical receptacle cable assembly	25mm ² wire	10126974-001LF

Reference product drawings for detailed dimensions and complete part numbers.

*Kits consist of the following items: Ejector, Terminal housing, Strain Relief, Nut, Screw, Locking Spring, Cover Top, Cover Bottom, Jumper Assembly, Short assembly terminal, Long assembly terminal

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