

BarKlip® BK450 Connector

HIGH POWER AND LOW RESISTANCE 3.18MM BUSBAR CONNECTOR

Amphenol’s BarKlip® BK450 connector is designed to mate directly with a 3.18mm single pole busbar and provides a convenient method of distributing up to 450A between busbars. The connector system features 36 independent points of gold-plated contact beams ensuring high current carrying capability and low contact resistance. BarKlip® BK450’s increased current carrying capacity is ideal for evolving high-density hyperscale computing architectures such as GPU servers, power supply units (PSU), and battery backup units (BBU).

- Distributes up to 450A
- 36 independent points of contact for high current carrying capability
- Ultra-low end-of-life contact resistance of 0.2mΩ
- Low mating force
- ±3.5mm of gatherability for blind mate applications



TARGET MARKETS



FEATURES

- 36 independent points of contact
- Gold plating technology
- Mates directly with single pole busbars
- Low-halogen housing
- High temperature thermoplastic housing

BENEFITS

- Ultra-low contact resistance of 0.2mΩ
- High current-carrying capability of up to 450A/Contact
- Allows for high-density, simple system architecture designs
- Meets JEDEC JS709 Electronic Industry Standard
- Wide operating temperature from -40°C to +125°C

TECHNICAL INFORMATION

MATERIAL

- Power Contacts – High Conductivity Copper Alloy
- Housing – Thermoplastic, UL 94V-0
- TPA – Thermoplastic, UL 94V-0
- Finish:
 - Contact Area: Gold plated over Nickel
 - Tail Area: Tin plated over Nickel

MECHANICAL PERFORMANCE

- Mating Busbar Thickness: 3.18mm
- Mating/Un-mating Force: Mating force shall not exceed 21.56N and un-mating shall not be less than 10N
- Durability: 50 Mating/Un-mating Cycles

ELECTRICAL PERFORMANCE

- Operating Current Range:
 - Up to 650A at USR
 - Up to 550A at CNR (30°C temperature-rise over ambient, still air)
- Operating Voltage Rating:
 - 12VDC (The voltage rating is also dependent on the application)
- Contact Resistance
 - End-of-life contact resistance of 0.2mΩ

ENVIRONMENTAL

- Operating Temperature Range: -40°C to +125°C

APPROVALS & CERTIFICATION

- UL/CSA File #: E66906-Vol1-Sec152
- TUV File #: 72185566-000

PACKAGING

- Trays

SPECIFICATIONS

- Product Specification: GS-12-1740
- Application Specification: GS-20-0773

TARGET MARKETS/APPLICATIONS



Servers
Storage
Power Supplies / BBU's (Battery Backup Units)
Hyperscale Computing Architectures

PART NUMBERS

Description	Part Numbers
Open side walls with nut retention (single pole)	10159416-S01LF