

OCP 48V Barklip® BK500 IO

OCP 48V COMPATIBLE POWER CABLE ASSEMBLY FOR OPEN COMPUTE POWER DISTRIBUTION ARCHITECTURE

Amphenol's OCP 48V compliant Barklip® BK500 IO power cable assemblies are designed to meet OCP V3 power distribution architecture standards and provide a convenient method of distributing up to 500A per contact between busbars, cables, and circuit boards. The connector system features two individual power circuits and two newly added secondary chassis grounding contacts. Barklip® BK500 IO's high current carrying capabilities and customizable features enable the solution to be used in a variety of power-dense data centers applications such as Power shelves, BBU's & server/storage sleds, and other high-current applications.

- Distributes up to 500A per contact
- Supports 48V Power Rack Architecture
- Simple configurable plug-and-play solutions
- Ultra-low end-of-life contact resistance of 0.5mΩ
- Fully compliant with ORv3 Power Output specifications (IT Gear Input)



TARGET MARKETS



FEATURES

- Contacts with high conductivity copper alloy
- Ultrasonically welded between wire and contact
- 18 independent conducting beams and silver plating
- Floating panel mount design
- New secondary chassis grounding contacts

BENEFITS

- Carries up to 500A/contact (45°C/300LFM airflow)
- Low voltage drop and high reliability
- Ultra-low end-of-life contact resistance of 0.5mΩ
- 6.4mm side-to-side gatherability
- Supports ±3mm float horizontally and vertically
- Provides additional grounding functionality for safety

TECHNICAL INFORMATION

MATERIAL

- Power Contacts: High conductivity Copper Alloy
- Housing & TPA: Thermoplastic, UL 94V-0, Halogen-free

MECHANICAL PERFORMANCE

- Mating Busbar Thickness: 6.00±0.20mm (see product spec busbar recommendations)
- Mating/Un-mating Force: Mating force shall not exceed 120N and un-mating shall not be less than 15N
- Durability: 50 mating cycles

ELECTRICAL PERFORMANCE

- Power Contacts:
 - 360A (30°C temperature-rise over ambient, still air, 8AWG x 12)
 - 520A (45°C temperature-rise over ambient, 300LFM airflow, 8AWG x 12)
- Ground Contacts: 64A total max. for 2-minute duration (32A/Contact)
- Operating Voltage Rating: 60VDC (The voltage rating is also dependent on the application)
- Contact Resistance: End-of-life contact resistance of 0.5mΩ

ENVIRONMENTAL

- Operating Temperature Range: -40°C to +105°C
- RoHS Information: This product is compatible according to the European Union Directive 2011/65/EU

APPROVALS & CERTIFICATION

- UL/CSA File #: E66906

PACKAGING

- Carton

SPECIFICATIONS

- Product Specification: GS-12-1587
- Application Specification: GS-20-0628

TARGET MARKETS/APPLICATIONS



Hyperscale Computing Architectures



Server/Storage Sleds



Industrial Energy Storage



EV Charging

PART NUMBERS

Description	Part Numbers
ORv3 Barklip® BK500, with Ground Contacts	10156914-*