

OCP 48V BarKlip® BK220 I/O

OCP-COMPATIBLE ORV3 POWER ASSEMBLY CONNECTOR FOR IT GEAR POWER DISTRIBUTION ARCHITECTURE

Amphenol's OCP 48V compliant BarKlip® BK220 power cable assemblies are designed to meet OCP V3 IT Gear power distribution architecture standards. The connector system supports up to 220A per contact between busbars, cables, and circuit boards. The BK220 I/O design includes individual power circuits, secondary chassis ground contacts that provide supplemental grounding for system fault protection, and sense contacts that enable hot-swap circuitry for connector and system protection. Additionally, BK220 I/O features Amphenol's proprietary GCS® silver-based plating technology, ensures best-in-class current carrying capabilities and ultra-low end-of-life contact resistance of 0.05mΩ. With its high current capacity and modular design, the BK220 I/O is ideal for a variety of emerging Data Center applications, including AI/ML servers, Storage Sleds, and Power Shelves.

- Distributes up to 220A per contact
- Ultra-low end-of-life contact resistance of 0.05mΩ
- Floating panel mount design supports ± 3mm by ± 2mm horizontal and vertical
- Fully compliant ORv3 IT Gear Power Input Solution specifications
- Safety-oriented secondary chassis grounding contacts



TARGET MARKETS



FEATURES

- Contacts with high-conductivity Copper Alloy
- 22 independent conducting beams and silver-based plating
- Floating panel design mount
- Sense pin contacts
- Secondary chassis grounding contacts
- Ultrasonically welded between wire and contact

BENEFITS

- Carries up to 220A per contact
- Permits ultra-low end-of-life contact resistance of 0.05mΩ
- Supports ± 3mm by ±2mm horizontal and vertical
- Enables mate last-first break capability
- Safely provides supplemental grounding to the rack for system fault protection
- Provides low voltage drop and high reliability

TECHNICAL INFORMATION

MATERIAL

- Power Contacts: High conductivity Copper Alloy
- Housing: High temperature thermoplastic, UL 94V-0 compliant
- Finish: Contact: AGT® Silver plating over Nickel

MECHANICAL PERFORMANCE

- Durability: 50 mating cycles
- Mating Busbar's Thickness: 6.00±0.20mm
- Floating Panel Mount: ±3mm, ±2mm
- Misalignment Gatherability: ±4.4mm

ELECTRICAL PERFORMANCE

- Operating Voltage Rating: 480VDC
- Operating Current Rating:
 - 220A – 6AWG (4x) *Still Air*
 - 190A – 6AWG (3x) *Still Air*
 - 200A – 8AWG (4x) *Still Air*
- Insulation Resistance: >1000MΩ max. at end of life
- Ground Contacts: 64A total max. for 2-minute duration (32A/contact)
- Contact Resistance: End-of-life resistance of 0.5mΩ max.

ENVIRONMENTAL

- Operating Temperature Range: Between -40°C and +105°C

APPROVALS AND CERTIFICATIONS

- UL Approved File # E66906
- IEC 62368-1

SPECIFICATIONS

- Product Specification:
 - GS-20-0868
 - GS-12-1914

TARGET MARKETS/APPLICATIONS



AI/ML Servers
Server / Storage Sleds
Power Shelves

PART NUMBERS

Description	Part Numbers
ORv3 BarKlip® BK220 I/O with ground contacts + Sense pins	10174690-*

Find part number details using the search box on www.amphenol-cs.com