

OCP 48V BarKlip® BK350 I/O

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

Amphenol’s OCP 48V compliant BarKlip® BK350 I/O power cable assemblies are designed to meet OCP V3 IT Gear power distribution architecture standards. The connector system supports up to 360A per contact between busbars, cables, and circuit boards. The BK350 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, BK350 I/O features Amphenol’s proprietary GCS® silver-based plating technology, which 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 BK350 I/O is ideal for a variety of emerging Data Center applications, including AI/ML servers, Storage Sleds, and Power Shelves.

- Distributes up to 360A per contact
- Ultra-low end-of-life contact resistance of 0.05mΩ
- Floating panel mount design supports ± 3mm by ± 1.9mm horizontal and vertical
- Fully compliant Orv3 IT Gear Power Input Solution specifications
- Secondary chassis grounding contacts redirects fluctuating electricity and provides supplemental grounding to the rack for system fault protection



TARGET MARKETS



FEATURES

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

BENEFITS

- Carries up to 360A per contact
- Permits ultra-low end-of-life contact resistance of 0.05mΩ
- Supports ± 3mm by ± 1.9mm 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
- Contact: AGT® Silver Plating over Nickel

MECHANICAL PERFORMANCE

- Durability: 50 mating cycles
- Mating Busbar Thickness: 6.00±0.20mm
- Floating Panel Mount: ±3mm, ±1.90mm
- Misalignment Gatherability: ±4.4mm

ELECTRICAL PERFORMANCE

- Operating Voltage Rating: 480VDC
- Operating Current Rating:
 - 360A – 8AWG (12x) *Still Air*
 - 500A – 8AWG (12x) * 45°C ambient, 300LFM airflow*
- 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.

PACKAGING

- Carton

PART NUMBERS

Description	Part Numbers
ORv3 BarKlip® BK350 I/O with ground contacts + Sense pins	10156914-*

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

ENVIRONMENTAL

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

APPROVALS AND CERTIFICATIONS

- UL Approved File # E66906
- IEC 62368-1

SPECIFICATIONS

- Product Specification:
 - GS-20-0865
 - GS-12-1911

TARGET MARKETS/APPLICATIONS



AI/ML Servers
Server / Storage Sleds
Power Shelves