

# PowerPlane Open Compute Project (OCP) Open Rack Version (ORV3) Cable Assemblies >

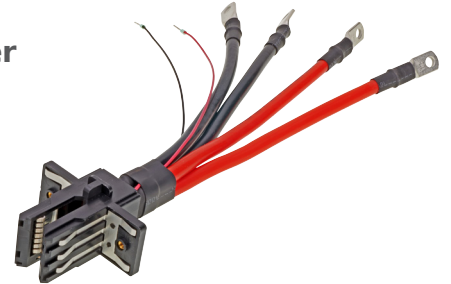
Molex's PowerPlane ORV3 Cable Assemblies are OCP compliant and meet the demand for more efficient and flexible data center power distribution architectures to deliver reliable interconnect solutions for hardware applications.

## FEATURES AND ADVANTAGES

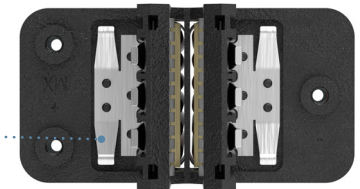
### ORV3 Power Shelf Cable Assemblies



ORV3 Power Shelf Cable Assemblies

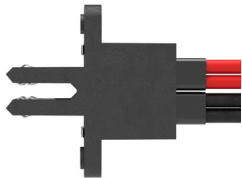


ORV3 IT Gear Cable Assemblies



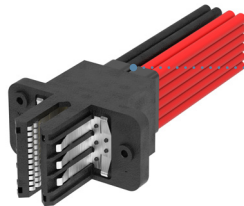
#### Optional integrated chassis ground contacts

Helps eliminate the need for a separate, secondary ground connection



#### A +/- 3.00mm float in vertical and horizontal directions

Provides ample gatherability to compensate for misalignment



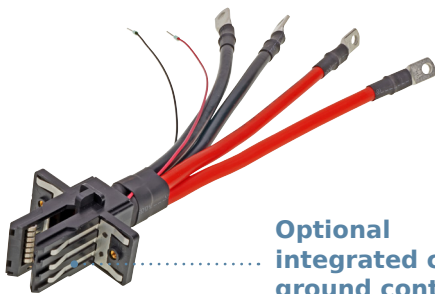
#### Welded terminals

Offer a highly reliable wire termination method, allowing for flexibility to terminate different wire bundles; also provide low voltage drop for excellent electrical performance

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## FEATURES AND ADVANTAGES

### ORV3 IT Cable Assemblies



Screw-Mount Option

#### Optional integrated chassis ground contacts

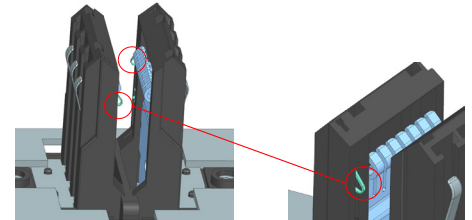
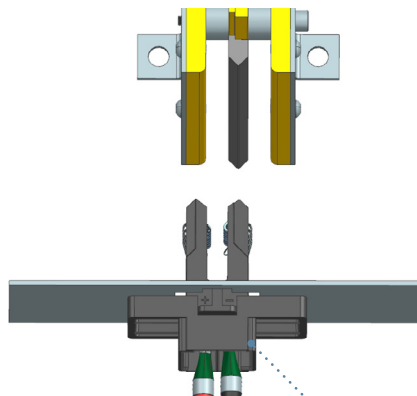
Helps eliminate the need for a separate, secondary ground connection

Float:  $\pm 3.00\text{mm}$



**A +/- 3.00mm float in vertical and horizontal directions**  
Provides ample gatherability to compensate for misalignment

Side-to-Side Gatherability:  $\pm 6.40\text{mm}$



Current Sense (2 places)

#### Optional sense contacts on both sides

Enables hot-swap controllers for system protection

#### Welded terminals

Offer a highly reliable wire termination method, allowing for flexibility to terminate different wire bundles

## MARKETS AND APPLICATIONS

### Data Center Solutions

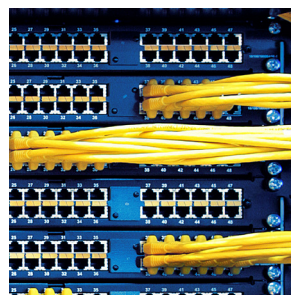
- Routers
- Servers
- Data storage equipment

### Networking

- Network interfaces
- Networking equipment
- Power supplies
- Rack-mount servers

### Telecommunications

- Base stations
- Routers
- Switches



Switches Rack



Server Rack



Data Storage Equipment

# PowerPlane Open Compute Project (OCP) Open Rack Version (ORV3) Cable Assemblies >

## SPECIFICATIONS—ORV3 POWER SHELF CABLE ASSEMBLIES

### Reference Information

UL File No.: E29179  
 CSA File No.: TBD  
 Mates With: OCP ORV3 busbar  
 Designed In: mm  
 RoHS: Yes  
 Halogen Free: Yes  
 Glow Wire Capable: No

### Electrical

Voltage (max.): 52V  
 Current: 360.0A (still air); 500.0A (300LFM@45°C airflow)  
 Contact Resistance:  
     0.50 milliohm max. at rated current  
 Dielectric Withstanding Voltage: 1000V

### Mechanical

Insertion Force to PCB: N/A  
 Mating Force (max.): 120N  
 Unmating Force (min.): 15N  
 Durability: 50 cycles

### Physical

Housing: Polymer  
 Contact: High-conductivity Copper Alloy  
 Plating: Silver  
 Contact Area: Silver  
     Solder Tail Area—N/A  
     Underplating—Nickel  
 Operating Temperatures: +15 to +70°C  
 Storage Temperatures: -40 to +65°C

## SPECIFICATIONS—ORV3 IT GEAR CABLE ASSEMBLIES

### Reference Information

UL File No.: E29179  
 CSA File No.: TBD  
 Mates With: OCP ORV3 busbar  
 Designed In: mm  
 RoHS: Yes  
 Halogen Free: Yes  
 Glow Wire Capable: No

### Electrical

Voltage (max.): 52V  
 Current: 100.0A (@30°C rise)  
 Contact Resistance:  
     0.55 milliohm max. at rated current  
 Dielectric Withstanding Voltage: 1000V

### Mechanical

Insertion Force to PCB: N/A  
 Mating Force (max.): 100N  
 Unmating Force (min.): 12N  
 Durability: 50 cycles

### Physical

Housing: Polymer  
 Contact: High-conductivity Copper Alloy  
 Plating: Silver  
 Contact Area: Silver  
     Solder Tail Area—N/A  
     Underplating—Nickel  
 Operating Temperatures: +15 to +70°C  
 Storage Temperatures: -40 to +65°C

[www.molex.com/link/powerplaneocp.html](http://www.molex.com/link/powerplaneocp.html)