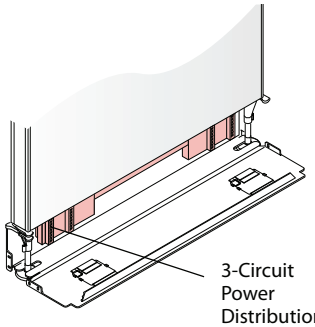
Electrical and Cable Management: Overview

The Power Base Electrical Distribution System

The Power Base is a pre-wired electrical distribution system available in the panel base raceway.

3-Circuit Power Base



3-Circuit Power Distribution Assembly

- As many as three separate 20-amp rated circuits from one power feed module
- 8-Wire system enclosed in one power distribution assembly
  - 3 Hot wires
  - 3 Neutral wires
  - 1 Common ground wire
  - 1 Isolated ground wire
- Separate neutrals, one dedicated to each circuit, are capable of carrying computer-quality power
- Four receptacle sites (two on each side of the panel), except on 12" wide panels.

Tips

- **Hot wires carry electrical current from the power source to the equipment.**
- **Neutral wires are always used with hot wires to complete a circuit, carrying electrical current back to the power source.**
- **A common ground wire is attached to the earth through a ground rod.**
- **An isolated ground wire is electrically and mechanically separated from the common ground until connected to the ground rod.**
- **All circuits can access either common or isolated grounds.**

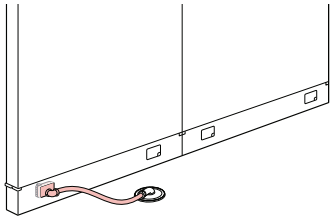
Electrical and Cable Management: Overview

Power Base electrical components are designed to address four power distribution functions:

1. Building-to-Panel
2. Within the Panel
3. Panel-to-Panel
4. Panel-to-Electrical Equipment

Electrical Distribution: Building-to-Panel

There are two ways of distributing power from the building power source to panels. Base feed modules supply building power from the floor, wall, or column. Top feed modules supply power from the space above a 10' (3.05m) or lower ceiling.



3-Circuit Base Feed Module
EC-BFM-1

Base Feed Modules

- Carry power from the building distribution grid into straight or ported

Base Feed Module Examples

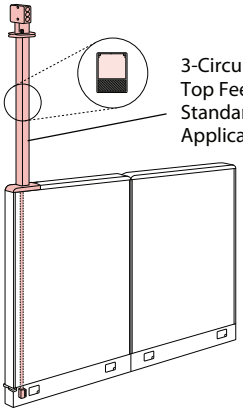
BASE FEEDS	DESCRIPTION
EC-BFM-1	3-Circuit, hardwire connection (liquid-tight conduit)

Tips

- **Minimum panel widths are 18" (457mm) for 3-Circuit Power Base applications**
- **3-Circuit concealed base feeds can be installed on 36" (914mm)-wide or wider panels.**
- **For single- and 3-Circuit base feeds, panels offer four entry sites: two base raceway receptacle locations on each side of the panel.**
- **The number of base feed modules needed for a workstation cluster will depend on the amperage load.**
- **3-Circuit base feed can be rotated 180° right to left.**

Electrical and Cable Management: UniGroup Too and UniGroup

Top Feed Modules



3-Circuit
Top Feed Module,
Standard Panel
Application

Top Feed Modules: UniGroup Too/UniGroup

- Carry power from the ceiling into powered panels (power access is not available in doors)
- Feature a pre-wired vertical aluminum raceway with a separate channel for routing communication cable
- 3-Circuit **Top Feed designed for use with ceilings 10'** (3048mm) or

Tips

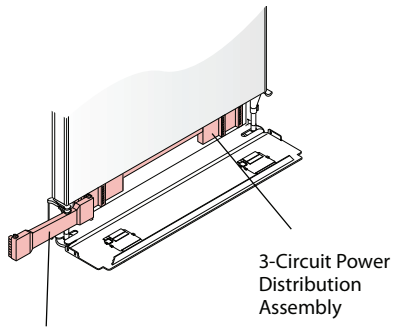
- **Minimum panel widths are 18" for 3-Circuit Power Base applications**
- **UniGroup top feed module minimum panel height is 44" (1118mm).**
- **Refer to the Price List to specify the appropriate top feed module length for the intended application.**
- **The number of top feed modules needed for a workstation cluster will depend on the amperage load.**
- **Top feed modules cannot be used with open-frame or glazed panels.**

Electrical and Cable Management: Electrical Distribution

Electrical Distribution within the Panel

Base Raceway

- Raceway retrofit kits are available to convert non-powered panels to powered

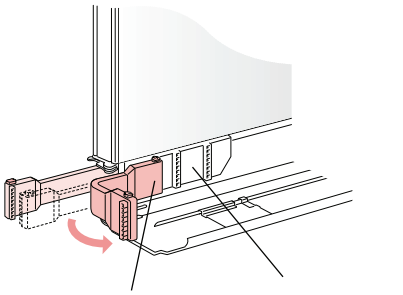


Tip **All powered panels are shipped with one Power Base PDA and 1 Flexible Power Connector for 3-Circuit**

Electrical and Cable Management: Electrical Distribution

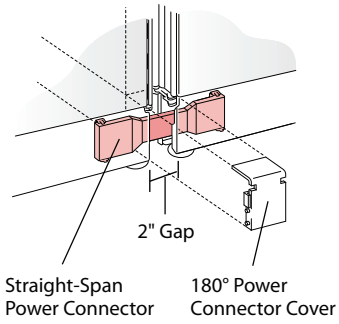
Electrical Distribution: Panel-to-Panel

Power is distributed between connected panels with three types of power connectors:



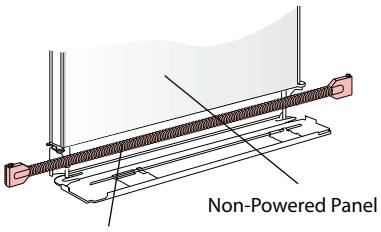
Flexible Power Connectors

- All powered panels are shipped with one Power Base 1 Flexible Power Connector for 3-Circuit
- Completes electrical circuit between adjacent powered panels in straight or angled conditions
- Inserts into either end of the power distribution assembly on either side of the raceway



Straight-Span Power Connectors

- Specified separately
- Continues power in a straight panel run, through the 2" gap created by the intersection of a non-powered panel(s) in a 3-Way or 4-Way panel configuration
- Inserts into either end of the power distribution assembly on either side of the raceway



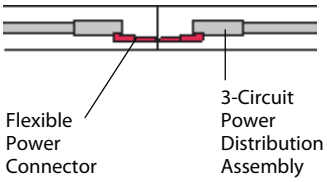
Tip **For 12" Wide powered panel, extended power connector ships with the panel (pass-through).**

Electrical and Cable Management: Electrical Distribution

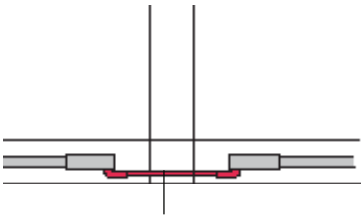
Flexible and Straight-Span Power Connector Applications: 3-Circuit Power Base

These top view illustrations show how flexible and straight-span power connectors are used to continue power between 3-Circuit Power Base power distribution assemblies in adjacent panels:

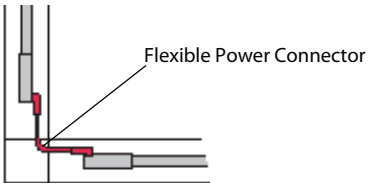
Straight Condition



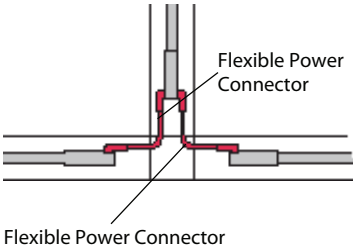
Straight Condition



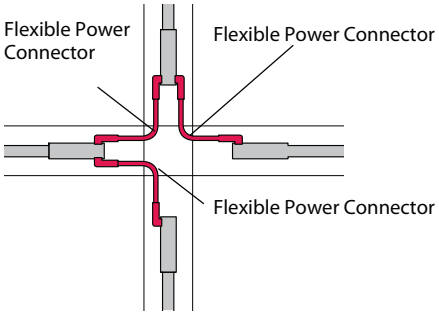
90° Corner Condition



3-Way Condition



4-Way Condition

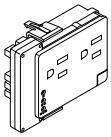


Electrical and Cable Management: Electrical Distribution

Electrical Distribution: Panel-to-Electrical Equipment

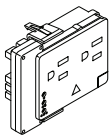
Panel-based power is accessed using 15 amp-rated power receptacles. Receptacles easily snap into openings located in the panel's base raceway, beltline raceway, and ported panel cover plate.

Common Ground



PRD - 3 - B

Isolated Ground



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Power Receptacle Types

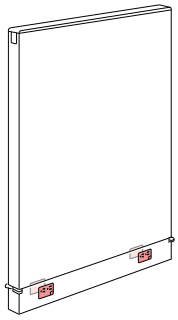
UniGroup Too, UniGroup, and PLACES offers three types of receptacles:

15 amp duplex, common or isolated ground:

- Two outlets with field-programmed access to any one of three circuits; typically specified for general electrical use

20 amp simplex, common or isolated ground:

- One outlet with field-programmed access to any one of the three circuits; specified for heavy amp draw equipment



Power Receptacle Sites:
Base Raceway
(4 per powered panel)