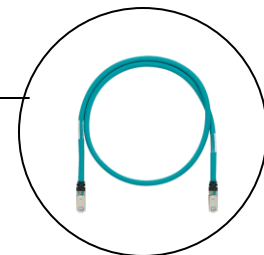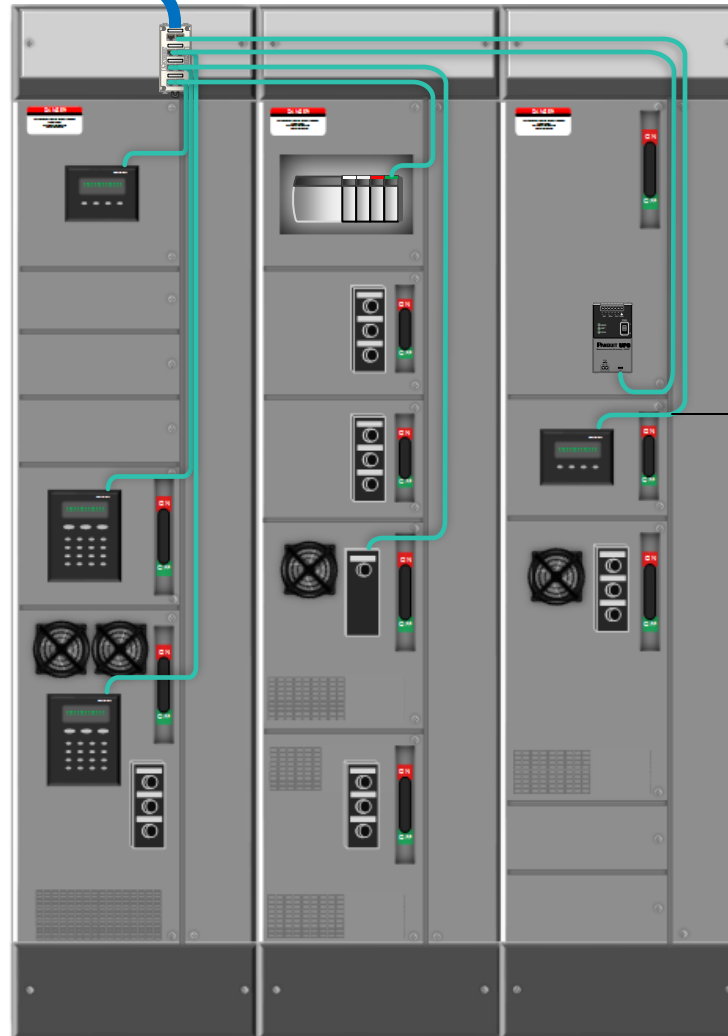# Motor Control Center (MCC) with DIN Rail Industrial Patch Panel Mounted in Pathway, Enabling Ethernet Devices Across Multiple Sections

D

To Zone / IDF / MDC, see separate pages for more.

C

- MCC's were Ethernet-enabled by means of industrial switches.
- Due to the high noise and voltage environment of the MCC, Panduit presents the industrial DIN rail-mounted 8 port patch panel assembled with two loomed pre-terminated cable bundles.
- This innovative solution removes the consideration for noise and voltage by centrally locating the switch in an Integrated Network Zone System, Industrial Distribution Frame or Micro Data center and enables a structured infrastructure deployment.

IndustrialNet Category 5e Shielded 600V-Rated Patch Cord

B

A

Use this drawing when:
- Deploying Motor Control Centers in an existing structured network to provide simplicity and robustness.

PCD0012-JUNE18-ENG

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Motor Control Center
(Cabling Subsystems 3-0)

This page presents a Motor Control Center (MCC) deployment that is routed back to a Industrial Distribution Frame (IDF), while also presenting three options of cable routing.
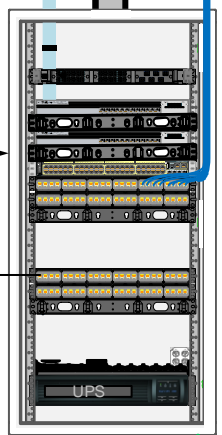
Options for Cable Routing

Wyr-Grid

J-Pro Hooks

Conduit

OM3 Indoor Fiber Cable

Wyr-Grid,
Electro Zinc plated

Pre-Configured Industrial Distribution Frame (IDF) is engineered to deploy and protect rack mount switches in industrial applications, providing faster installation times.
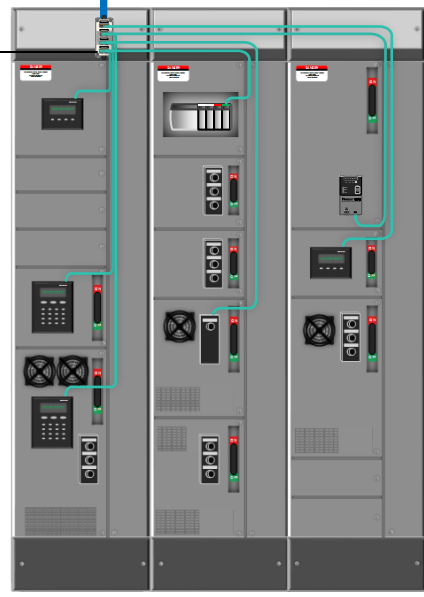
UPS
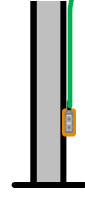
Mini-Com TX6A 10Gig
Shielded Jack Modules

IndustrialNet
8-Port DIN Mount
Copper Patch Panel

Pre-configured MCC cable bundle pre-terminated w/ RJ45 jack modules
(Recommendation: If bundle will be in close proximity to power cables select a 600V rated cable option.)

Grounding and
Bonding

Use this drawing when:
- Deploying Motor Control Centers in an existing structured network to provide simplicity and robustness.

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Motor Control Center
(Cabling Subsystems 2-0)

This page presents a Motor Control Center (MCC) deployment that is routed back to a Network Zone System with two industrial switches, while also presenting three options of cable routing.

Options for Cable Routing

Wyr-Grid

J-Pro Hooks

Conduit

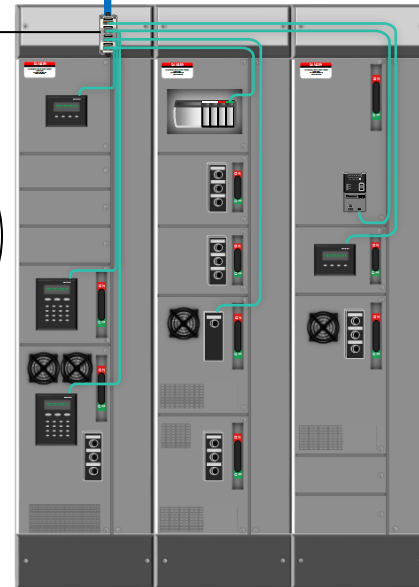OM3 Indoor Fiber Cable

Wyr-Grid, Electro Zinc plated

24" x 36" Network Zone System with industrial switches each with 2 1Gb MM fiber optic uplinks, redundant 100-250Vac power supply input and UPS pre-installed.

IndustrialNet™ 8-Port DIN Mount Copper Patch Panel

Pre-configured MCC cable bundle pre-terminated w/ RJ45 jack modules
(Recommendation: If bundle will be in close proximity to power cables select a 600V rated cable option.)

Mini-Com TX6A 10Gig Shielded Jack Modules

Grounding and Bonding

Use this drawing when:
- Deploying Motor Control Centers in an existing structured network to provide simplicity and robustness.

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Motor Control Center
(Cabling Subsystems 2-0)

This page presents a Motor Control Center (MCC) deployment that is routed back to a Micro Data Center (MDC), while also presenting three options of cable routing.

Options for Cable Routing

Wyr-Grid

J-Pro Hooks

Conduit

OM3 Indoor Fiber Cable

Panduit Wyr-Grid, Electro Zinc plated

Pre-configured Micro Data Center, 24 RU, includes two side panels, network cabling, patch panels, cable management, grounding, casters, shock pallet and ramp

IndustrialNet 8-Port DIN Mount Copper Patch Panel

Pre-configured MCC cable bundle pre-terminated w/ RJ45 jack modules
(Recommendation: If bundle will be in close proximity to power cables select a 600V rated cable option.)

Mini-Com TX6A 10Gig Shielded Jack Modules
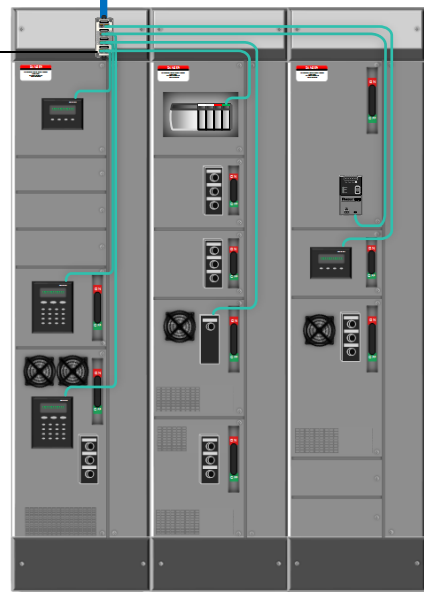
Grounding and Bonding products

Use this drawing when:
- Deploying Motor Control Centers in an existing structured network to provide simplicity and robustness.

PANDUIT™

Motor Control Center
(Cabling Subsystems 3-0)

Bill of Materials

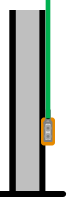| Part Number	Description
Motor Control Center	
I4JPBJLU*	Category 6A, plenum motor control center cabling bundle system
I4KOTJLUX*	Category 6A, outdoor motor control center cabling bundle system
CDPP8RG	IndustrialNet, 8-port DIN rail mount patch panel. Includes screws to attach faceplate and Ultimate ID labels and clear label covers.
CADIN1IG	Mini-Com DIN Rail Mount Adapter mounts to standard 35mm DIN rail and accepts any single port Mini-Com Module, international gray. Includes a label and label cover.
ISFCH6X04ATL-UG	Copper Cable, Industrial, Cat 6A 4-pair, 24/7 AWG Stranded, SF/UTP, CMR, 600V rated, Oil Res., UV Res.,Tea
Cabling, Connectors and Pathways	
FOPPX12Y	50um OM3 12 Fiber Indoor Armored Cable, Plenum (OFCP), 900um buffered fibers
ISTPHCH2MTL	Patch cord, IndustrialNet, category 5e, shielded, 600V, RJ45 plug to RJ45 plug, teal, 2 meter.
CJS6X88TGY	Category 6A, RJ45, 10 Gb/s, 8-position, 8-wire universal shielded black module with integral shield.
JP2SBC50-L20	J-Pro Cable support system, with screw-on beam clamp for use with flanges up to 1/2 (12.7mm) thick, 2.00 (50.8mm) max. bundle capacity, nylon 6.6 with metal attachments, black.
WG12BL10	12" W x 10' L Wyr-Grid pathway section
HLB2S-C0	Tak-Ty hook & loop stacked strip cable tie, 7.0 (178mm) length, 0.75 (19.1mm) width, nylon loop, polyethylene hook, black
Network Zone System, Industrial Distribution Center and Micro Data Center	
Z23**	Pre-Configured Network Zone System, 24" x 36", mild steel enclosure, for two industrial switches, includes (16) Cat 6 UTP copper patch cords and jacks, (4) MM LC fiber patch cords with (6) adaptors, backplane and cable management.
ZDF48-RA	Pre-configured Industrial Distribution Frame enclosure ready for two access and two distribution switches.
MDC***	Pre-Configured Micro Data Center, includes two side panels, network cabling, patch panels, cable management, grounding, casters, shock pallet and ramp.

*Motor Control Center Cable Bundles available in a variety of loom options, termination ends and overwrap options.

**Network Zone Enclosures available in mild steel, stainless steel or sloped versions and various levels of integration.

***Micro Data Centers available in 24 and 42 RU versions with various add-on kits.

For an expanded product offering visit panduit.com/networkpartsamerica or the online catalog at panduit.com.

About this Configuration

Before the advent of optimized network architectures, Motor Control Centers (MCCs) were standalone enclosures. Now with the Internet of Things growing faster than ever, industrial equipment needs to be connected in a robust and smarter way. With Panduit, the deployment of this architecture becomes much easier. From shielded cable and connectivity to cable management and grounding solutions; Panduit has all the products needed to make your industrial network more secure and future ready.

Industrial Distribution Frame

Using rack mount access switches, an IDF is intended for high-density industrial star networks that are connected to numerous HMIs, PLCs, Drives, or I/O blocks in harsh environments to keep traffic local. An IDF can also house distribution switches to efficiently route traffic between access switches that are often DIN-mounted switches in a control panel.

Purpose

The MCC is a poor location for low voltage switching devices due to the noise created by high current and voltage found in an MCC. Panduit's IndustrialNet 8-Port Din Rail patch panel allows you to replace the switch and remove these considerations while maintaining a structured cabling topology in your MCC deployment.

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