

Make your life easier and plant more productive

CENTERLINE® 2100 motor control centers link people, machines and data across your entire business



Allen-Bradley

by ROCKWELL AUTOMATION



Motor control technology designed to be scalable, smart, safe and secure

You need a partner you can depend on.

We engineer power and motor control solutions for the most demanding industries. Food and beverage to oil and gas. And customers agree, the results include increased productivity, safety and reliability.

Integrating control and power into one centralized package, CENTERLINE 2100 motor control centers (MCCs) have been the smart choice for smart manufacturing and processing for more than 50 years.

With many intelligent components and custom options available, we deliver tailored solutions to meet the most demanding power, control and information needs. It's all built on a common platform. And it delivers the maximum in safety, meeting all UL and NEMA standards.

The CENTERLINE 2100 MCC is ideal for customers who want to leverage the same architecture, components, programming language and networking, regardless of location. And they're reassured, knowing they'll receive unparalleled support from the industry-leading single source provider.

Increase your productivity

CENTERLINE 2100 motor control centers are designed to be:

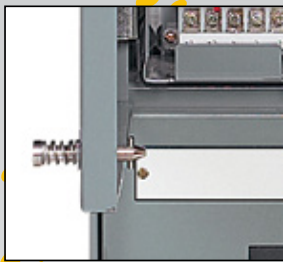
Scalable – Integrate all of your motor, power and control needs into one centralized package. The CENTERLINE 2100 MCC is designed and built with standard features to provide years of dependable performance.

Smart – To increase the return on investment on your MCC, specify IntelliCENTER® technology, a configuration and remote monitoring software package. This allows you to control, monitor and maintain operations from any location.

Safe – In combination with the standard safety options built into every CENTERLINE 2100 MCC, additional safety features including ArcShield™ and SecureConnect™ options allow you to design a CENTERLINE 2100 MCC that best satisfies the needs of your individual safety program.

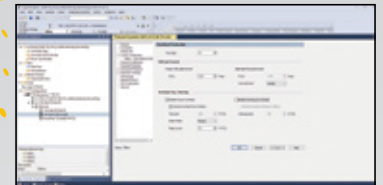
Secure – A centralized motor control solution allows tighter control of your sensitive assets. In addition, CENTERLINE motor control centers are designed to meet the newest ISA/IEC 62443-3-3 standard, allowing greater peace of mind that we are with you in the fight against threats – physical and cyber.

CENTERLINE MCCs efficiently package your motor control needs



ArcShield technology

helps to reduce arc flash hazards while providing increased protection against internal electrical arcing faults.



IntelliCENTER technology

provides a window into your MCC and remote access to real-time data, operating conditions and troubleshooting - reducing the need to approach the MCC.



SecureConnect units

allow users to disconnect power from a MCC plug-in unit without opening the enclosure door.

Improve productivity and uptime

Our IntelliCENTER technology features built-in EtherNet/IP, intelligent motor controls and advanced monitoring software all preconfigured and tested at the factory.

With IntelliCENTER software, you can access, monitor and diagnose your MCC and intelligent motor control devices from almost anywhere.

BUILT-IN NETWORK

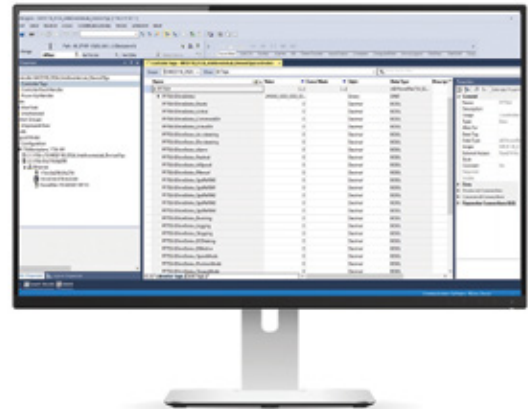
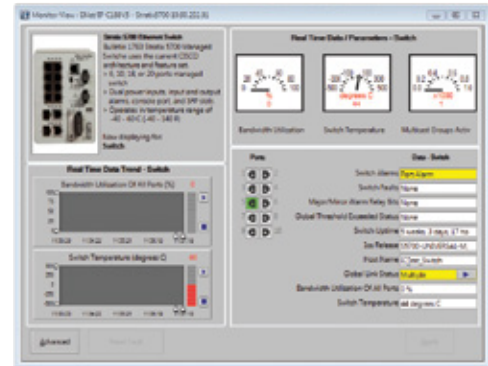
Your startup is fast. Complex inter-wiring is reduced to a single 600V-rated Ethernet cable. Because the network is preconfigured and validated, device connections, IP addresses, subnet masks, custom parameter settings for PowerFlex® drives and E300™ electronic overload relay, and advanced port settings are set.

INTELLICENTER SOFTWARE

IntelliCENTER software provides the ultimate window into your MCC. It provides real-time diagnostics and MCC documentation to maximize MCC and related equipment performance.

A NEW CLOUD-BASED CONNECTION

Now you can configure your MCC devices in the FactoryTalk® Design Studio™ environment with a new IntelliCENTER integration. The functionality includes visibility into your MCC lineup and access to equipment documentation. Get access to FactoryTalk Design Studio with IntelliCENTER technology today.



IntelliCENTER technology provides remote access to data and troubleshooting.



Connect your entire enterprise

More information – where you need it and when you need it for advanced plant asset management. EtherNet/IP helps enhance integration, reduces your MCC setup time and allows you to quickly monitor, troubleshoot and diagnose your MCC using a network that communicates with your entire enterprise.

Easily integrate your manufacturing operations network with the corporate network, helping reduce maintenance cost by reusing existing network resources and tools.

Seamlessly integrate production data and business systems by removing a network layer between devices and higher level networks without sacrificing network security. Modbus TCP/IP options are available to provide easier integration with third-party control systems.

FAST INTEGRATION

For even greater control over your operations, CENTERLINE MCCs networked with EtherNet/IP can be easily integrated into a Logix-based PlantPAx® distributed control system. The Integration Assistant within IntelliCENTER software provides:

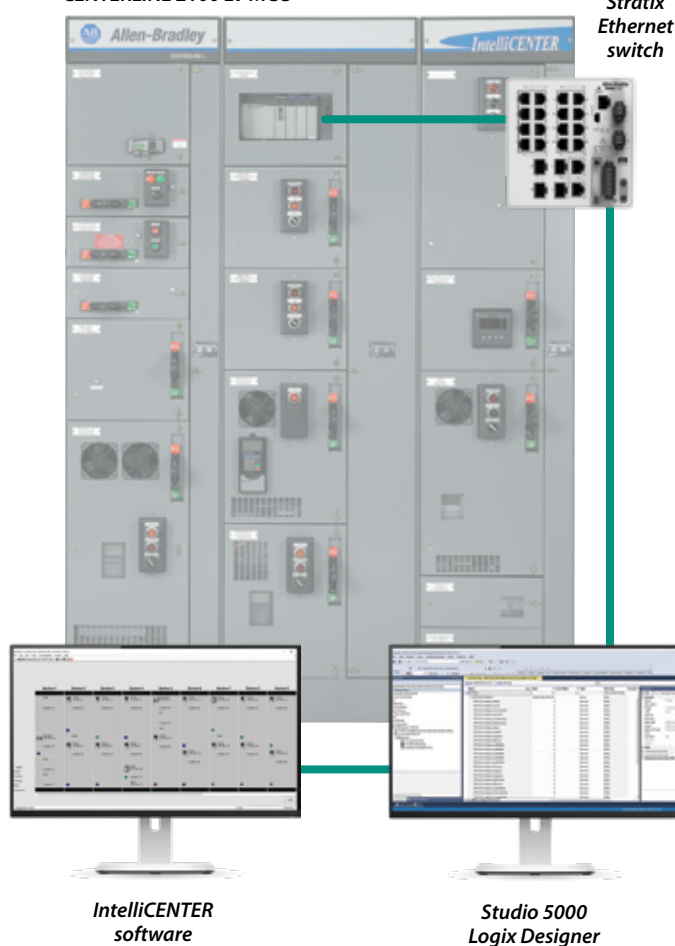
- Quick addition of intelligent motor control devices into the Studio 5000 Automation Engineering & Design Environment®.
- Reduced programming time by automatically adding intelligent devices to the Studio 5000 Logix Designer® I/O tree with appropriate EtherNet/IP network configuration
- Simplified integration by automatically creating device controller tags using the device add-on profiles

CONNECTED TECHNOLOGY

From installation to configuration to operation – IntelliCENTER technology saves time at every step.

- Save up to 90% on your wiring installation time with a pre-configured and pre-tested CENTERLINE MCC with IntelliCENTER technology.
- With IP addresses and subnet masks pre-configured for your MCC, you are ready to immediately communicate with your intelligent motor control devices and configure device parameters over the network.
- Use Studio 5000® software to leverage a single programming environment for all intelligent motor control devices.

CENTERLINE 2100 LV MCC

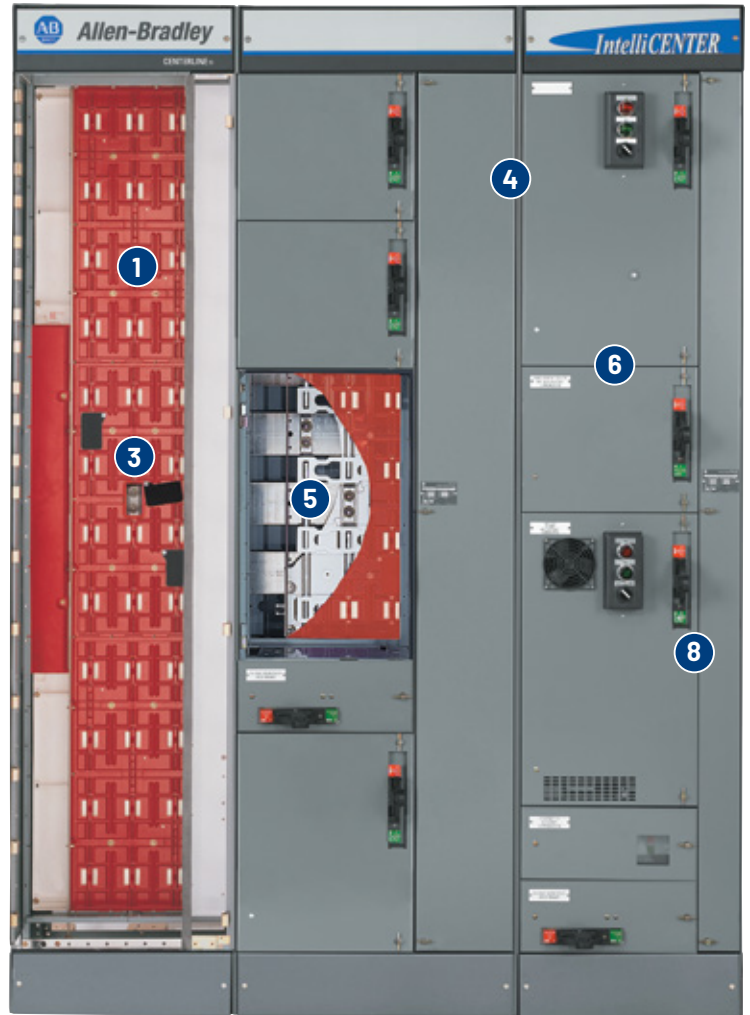


For more information visit rok.auto/intellicenter

Safety by design

CENTERLINE 2100 MCCs are engineered to increase industrial safety and mitigate risk – while increasing performance and reliability. For over 50 years, these MCCs have been the industry leaders in helping customers with motor and power control while meeting industry standards. Every CENTERLINE MCC is built with a structural foundation of standard high quality design and materials that provide the first level of protection.

- 1 Automatic Shutters** – Immediately isolates and minimizes exposure to energized vertical power bus when unit is removed, enhancing personnel safety.
- 2 Sheet metal thickness**
 - Major structural components: 10–16 gauge steel
 - Covers & plates: 14–16 gauge steel
 - Units doors: 12–14 gauge steel
 - Unit wrap & support pans: 14 gauge steel
- 3 Horizontal & vertical bus** – Machine-torqued, two-bolt fastening system, used for the horizontal to vertical bus connection, reducing periodic maintenance and minimizing exposure to hazardous voltages.
- 4 Structural isolation** – Two side sheets per section provide isolation between sections, helping prevent faults from propagating to adjacent sections.
- 5 Standard vertical power bus** – 300 A above and 300 A below the horizontal bus for an effective 600 A capacity per section.
- 6 Unit isolation** – Solid top and bottom unit support pans provide exceptional unit isolation to help prevent a single fault from cascading throughout the enclosure, and limit equipment damage.
- 7 NEMA components** – Allen-Bradley® push buttons, pilot lights, selector switches, contactors and starters deliver proven and predictable performance over the full life of the product, to help maximize the efficiency and performance of your MCC.
- 8 Interlocks** – With versatile interlock mechanism, the unit cannot be inserted or withdrawn when the disconnect handle is ON.



ArcShield technology

ArcShield helps to reduce arc flash hazards while providing you with increased protection against internal electrical arcing faults.

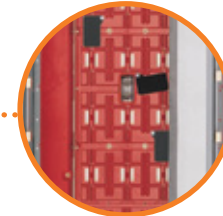
You can't predict when an arc blast will occur, which makes arc resistant designs an important topic. Greater emphasis has been placed on acknowledging arc flash dangers in standards such as the National Electrical Code (NEC), Standard for Electrical Safety in the Workplace National

Fire Protection Agency (NFPA), and the Institute of Electrical and Electronics Engineers (IEEE).

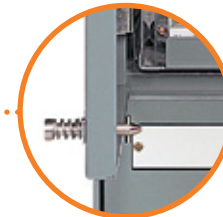
An arc blast can result from many factors, including dropped tools, accidental contact with electrical systems, buildup of conductive dust, corrosion, rodents or improper work procedures. When this occurs, ArcShield can help mitigate and protect from an arc flash incident.



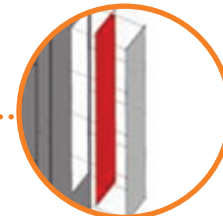
Pressure relief system



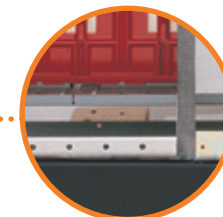
Automatic shutters



Arc-resistant latches on all doors



Reinforced back plates



Horizontal ground buses at top and/or bottom

Specify arc flash protection

Passing IEEE C37.20.7 Testing

Any manufacturer that can not provide documentation that they meet this criteria does not have arc resistant equipment.

1. Doors and covers do not open (bowing is allowed)
2. No parts are ejected from the equipment
3. The arc does not burn any holes in the exterior of the tested structure (in the applicable planes for the accessibility level)
4. Untreated cotton test indicators must not ignite or be perforated (equivalent to typical industrial work clothes)
5. The grounding connections remain effective

Increased protection from arc flash hazards

The CENTERLINE 2100 MCC with ArcShield offers industry-leading arc resistant features and has been tested in accordance with the IEEE C37.20.7 standard for Type 2 accessibility.

Type 2 accessibility allows personnel to be shielded at the front, rear and sides of the enclosure in the unlikely event of an arcing fault. Special door latches help to provide additional protection by allowing pressure to release while the door remains closed during an arcing event. The pressure relief system at the top of the CENTERLINE MCC with ArcShield vents and redirects arc blasts out the top and away from personnel, adding additional protection.

TWO VERSIONS OF ARCSHIELD TECHNOLOGY:

1. **Device Limited** – The ArcShield MCC is designed to contain an arcing fault for the time it takes a pre-tested main protective device to clear the fault. The mains are chosen to limit the amount of available incident energy. Recommended for applications needing a wider variety of structural or unit options.
2. **Duration Rated (100 ms)** – The ArcShield MCC is designed to contain an arcing fault for up to 100 ms in duration. Any main protective device, either in the MCC itself or upstream through the use of main lugs, may be used. Recommended for applications needing high bus currents or specific main devices, typically external to the MCC.

CENTERLINE 2100 with ArcShield technology

| ARC RESISTANT RATING | DEVICE LIMITED | | DURATION RATED (100 MS) |
|---|----------------|---------------|-------------------------|
| Horizontal Bus Current Rating | 600...1200 A | 1600...3000 A | 600...3000 A |
| Rated Voltage | Up to 600V | Up to 600V | Up to 480V |
| Available Fault Current | Up to 65 kA | Up to 65 kA | Up to 65 kA |
| Top-plate Pressure Relief System | Not Required | Required | Required |
| Vertical Wireway Baffle | Not Required | Required | Required |
| Arc Containment Latches | 2 Latches/Door | All Latches | All Latches |
| Unit Support Pans | Bolted | Bolted | Bolted |
| Vented Units (Arc Resistant Baffles) | Yes | No | No |
| Door Mounted Devices Allowed (Control stations, HIMs, viewing windows, etc.) | Yes | Yes | Yes |

SecureConnect units

SecureConnect technology helps reduce exposure to electrical hazards by allowing a unit to be disconnected from the vertical power bus with the enclosure door still closed. Its “snap action” retractable stab mechanism helps to reduce exposure to electrical shock and hazards by quickly disconnecting the stabs and isolating them behind shutters while the unit is still installed.

With a multi-point validation system, SecureConnect provides both electrical and mechanical indications that the unit is disconnected from the vertical power bus.

SecureConnect units have an extra lock-out/tag-out location to help prevent any three-phase power from being supplied to the unit. The integrated lock-out mechanism, which is standard on all SecureConnect units, consists of an unobtrusive arm that can be pulled out and locked when desired.



Multi-point validation port helps electrically verify that the stabs are withdrawn and the unit shutters closed.



Lock-out mechanism

Help reduce electrical shock hazards and exposure to harmful voltages with SecureConnect

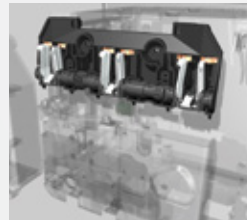


SecureConnect allows users to disconnect power from a MCC plug-in unit without opening the enclosure door.



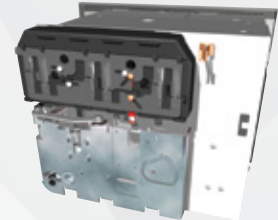
POWER STABS

The power stabs, located on the back of the unit, connect the individual unit to the MCC vertical bus to establish power.



POWER STAB WITHDRAWAL

When the stabs are disconnected, they are withdrawn into the power stab housing. The withdrawn stabs complete a continuity circuit that can be tested with a standard meter using the multi-point validation port. Continuity is measured directly through the withdrawn stabs.



STAB HOUSING SHUTTERS

Shutters on the back of the unit close when the stabs are disconnected and withdrawn inside the unit for increased electrical isolation.

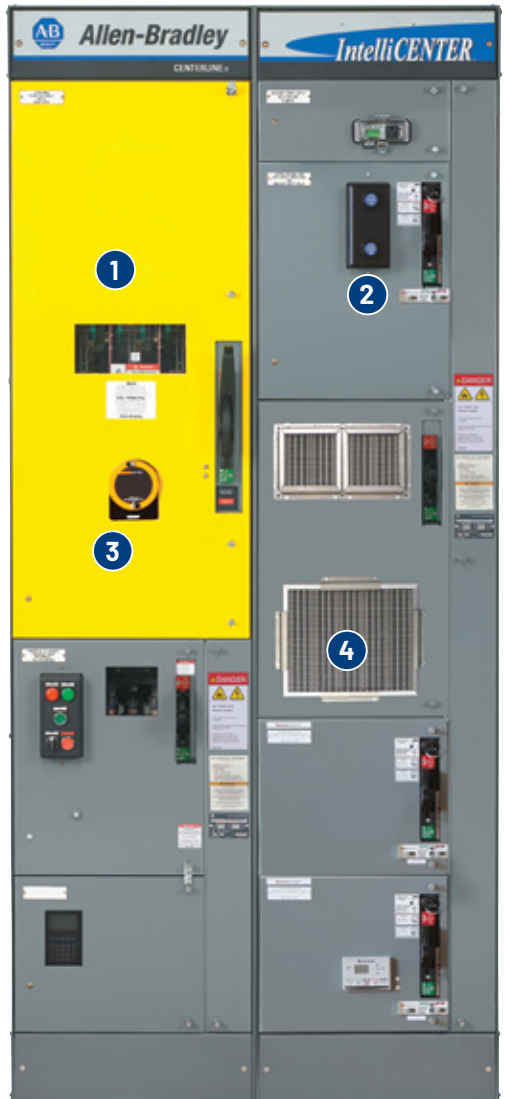
Patented “snap action” mechanism makes and breaks the connection to the horizontal bus in less than one second, with just a quarter-turn of a standard hex head tool.

ADDED SAFETY

CENTERLINE 2100 MCCs are designed to enhance safe operation by helping isolate you from potentially hazardous voltages and offering a solid grounding system. Additional options such as IntelliCENTER technology, blown fuse indicators, exterior windows on unit doors, infrared inspection ports and fingersafe component barriers can help you create a safer working environment by reducing your potential chances of making contact with energized components.

KEY INTERLOCK

Lock out mains or feeder units with provisions for customer-mounted key interlocks from Superior or Kirk.



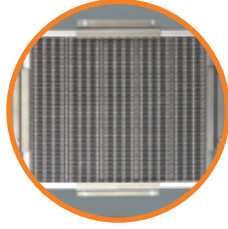
1 Yellow door – helps identify main disconnect for MCC lineup



2 Voltage indicator – visibly verifies voltage has been disconnected without opening the door



3 Infrared viewing window – allows you to perform thermograph scans of equipment without opening the door



4 Patented arc resistant baffles – allow ventilation of units such as drives and SMCs while still providing arc resistance





Certifications

UL 845 FOR MOTOR CONTROL CENTERS

UL is a global independent safety science company offering expertise across five key strategic businesses: Product Safety, Environment, Life & Health, Knowledge Services and Verification Services. When you see the UL symbol on a product, it indicates that UL has tested and evaluated representative samples of that product and has determined that it meets UL requirements. The UL standard for Motor Control Centers is UL 845 which includes the following:

- Motor control centers for use on circuits having available short-circuit currents not more than 200,000 A rms symmetrical or 200,000 A DC.
- Applies to single- and three-phase 50 and 60 Hz and DC motor control centers rated not more than 600V AC or 1000V DC.

The CENTERLINE 2100 meets the following standards:

- ABS Type Certified (Marine & Coast Guard)
- International Building Code - IBC and California Building Code - CBC (Seismic)
- UL 845/cUL
- NMX-353-ANCE
- ISO 9001 Certification

For more information about product certification, visit: rok.auto/certifications



CENTERLINE motor control centers

Allen-Bradley CENTERLINE low and medium voltage motor control centers offer optimal safety, performance and reliability to meet your global needs.

If you are looking for a solution that leverages the same architecture, components, programming language and networking – look to the entire portfolio of CENTERLINE motor control centers. Regardless of where you do business, you will receive unparalleled support from a single-source provider to meet all of your motor control needs.



CENTERLINE 2500 motor control centers

Designed to address the wide range of IEC application requirements found throughout the world, CENTERLINE 2500 MCCs offer fixed or withdrawable units, high density columns, and fully type tested standard designs.



CENTERLINE 1500 motor control centers

Available in a wide range of configurations from across-the-line to solid-state SMC™ starters, medium voltage NEMA CENTERLINE 1500 MCCs provide the flexibility to select the best match for your application.

Learn more at rockwellautomation.com



DIGITAL THREAD

Connect business processes, systems, equipment and products with data

- Digital strategy & organizational change management
- Data science & artificial intelligence
- Manufacturing execution systems (MES)
- Product lifecycle management (PLM)
- Extended reality (AR/VR/MR)
- Supply chain management (SCM)
- Enterprise resource planning (ERP)



PRODUCTION AUTOMATION

Automate manufacturing and production operations

- Industrial automation control systems
- Distributed control systems (DCS)
- Power systems
- Drive systems
- Safety systems
- Custom/configured panel solutions



CYBERSECURITY & NETWORK INFRASTRUCTURE

Enable and secure industrial network connectivity

- Industrial automation control systems
- Industrial cybersecurity
- Industrial network infrastructure & remote support
- Industrial data centers



ASSET OPTIMIZATION & WORKFORCE

Optimize performance of machines, equipment, systems and people

- Equipment repair & remanufacturing
- Asset & equipment inventory management
- Remote support & monitoring
- On-site & field services
- Safety solutions
- Training & learning







Product & application lifecycle support

On-demand support | Integrated support | Managed support



For more information about how we can help you solve your unique business challenges, contact your local authorized Allen-Bradley distributor or Rockwell Automation sales office, or visit: rok.auto/services



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