

SafeGear™ MCC

7.2kV, 50 kA arc-resistant Motor Control Center

ABB has released an upgraded version of its ANSI SafeGear™ MCC. In this new release, safety is our number one priority. With features like a 50 kA@ 0.5 second arc withstand time, Metal-Clad construction, arc resistance accessibility type 2B and one or two-high configuration, personnel working around this MCC can be confident of continuous operation with exceptional safety features.



Product highlights

- Fully compliant to CSA & UL 347 5th edition for Motor Control Centers
- Meets the IEEE C37.20.2 for metal-clad switchgear construction
- Type 2B arc resistance accessibility
- One and two-high construction
- No transition section required for coupling to ABB SafeGear® SwitchGear
- Dead front that avoids access to live parts
- Automatic secondary disconnects
- Closed door PT racking
- SmartRack™ remote racking system for contactors as well as PTs
- Optional ground studs for safety during maintenance
- Optional infrared windows available for temperature monitoring
- Optional surge arresters for lightning protection

Available configuration / competitive footprint

For a compact footprint, SafeGear MCC is available in two-high configurations. When coupling the MCC to SafeGear SwitchGear no transition section is required. Each MCC frame is 30 inches wide, 68 inches deep and 95 inches high regardless of one or two-high options. Each cubicle includes a separate isolated low voltage compartment that can be used for relays, meters and other instruments. All frames use grounded metal barriers to protect personnel from exposure to high voltage elements.

Galvanized steel construction

The SafeGear MCC is built using galvanized steel to increase rust protection, scratches and corrosion. Galvanized steel is also used inside low and medium voltage compartments to increase illumination properties providing a better instrument viewing.

MCC accessories

- Racking Crank
- Test Cabinet
- Test Jumper
- SmartRack™ remote racking device
- Lift Truck

MCC options

- Voltage Transformers
- Infrared monitoring windows
- Arc-flash protection relay (REA)
- Thermal sensors
- Ground CTs
- Surge arresters
- Ground studs



Contactor



Current transformers



Potential Transformers



Distribution protection and control

Contactor

ABB uses vacuum technology for its medium voltage contactor. The MV contactor used in the SafeGear MCC has been tested to meet and exceed the mechanical operations required by UL.

The medium voltage controllers are general purpose, Class E2, designed and built in accordance with the latest applicable provisions of UL 347 fifth edition, CSA-C22.2 No. 253 and the National Electrical Code.

Instrument transformers

Current transformers – The SafeGear MCC uses ABB CTs type SAB or SCG depending on the application. A maximum of 3 CTs (SAB type) per phase in standard accuracy can be applied. Additionally, zero sequence protection can be provided using a BYZ current transformer.

Power transformers – ABB PTs are used as voltage sensors, generally using VIY-60 depending on the application.

Distribution protection and control

The relay models REM615 and REM620 are dedicated motor IED (Intelligent Electronic Device) designed for protection, control, measurement and supervision of utility substations and industrial power systems. REM615 and rem620 are members of ABB's Relion® product family. The 615 and 620 series IEDs are characterized by compact and withdrawable design.

Applications of SafeGear MCC

- Industry
- Infrastructure
- Utilities and power plants
- Transportation

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