

Motorized remote racking (MR2) Metal-clad switchgear



Motorized remote racking for breaker and auxiliary compartments with breaker controls

Eaton's MR2 motorized remote racking system provides a means to remotely rack any VCP-W drawout circuit breakers and/or auxiliary drawers used in metal-clad switchgear. The MR2 system can also be utilized to open and close the breaker remotely, using the pendant. The addition of the MR2 system helps mitigate arc flash exposure and improve productivity for the user.



Metal-clad switchgear with breaker in withdrawn position

Enhance safety and productivity

Using a single remote pendant, the MR2 permits the operator to safely move a VCP-W breaker or auxiliary drawer between pre-determined positions within the compartments and open/close the breaker. Standing outside the arc flash boundary of the switchgear, an operator can use the pendant to select Disconnect, Test or Connect positions for the circuit breaker, Disconnect or Connect positions for the auxiliary drawer or open/close the breaker.

Arc flash protection required

Arcing faults create a violent explosion, resulting in an inferno of ionized gases, molten debris, metal shrapnel and a flash of light (an arc flash). Inside a switchgear system, an arc event can dislodge compartment doors and turn hardware into high-speed projectiles.

There is a rising demand to protect personnel from the dangers of potential arc flash occurrences by increasing the distance between an operator and the front of a switchgear lineup during changes to the switchgear.

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Available outside the arc flash zone

- Available for all VCP-W breakers in metal-clad medium-voltage switchgear at 5, 15, 27 and 38 kV
- Available for auxiliary drawers at 5 and 15 kV
- Operator can use the MR2 pendant to open and close the breaker remotely
- 30 ft cord length between pendant and switchgear system
- All circuit breaker and auxiliary compartment safety interlocks remain intact per IEEE® C37.20.2
- Per NFPA-70E® standard, working outside the arc flash zone allows for PPE reduction

Highly reliable and efficient

- Powered from an internal CPT, when available, or a customer supplied external 120 Vac power source
- Motor, logic controller and safety interlocks are built into the compartments
- Dynamic break and torque limiter have been incorporated to improve reliability
- Factory installed and tested as a complete racking system incorporating the circuit breakers and auxiliary compartments
- MR2 pendant can be used interchangeably to rack both breakers and auxiliary compartments
- Permanently installed system eliminates the need to lift, manipulate and align heavy, bulky equipment that is stored between service intervals
- Maintains the ability to manually rack circuit breakers and auxiliary drawers

Intelligently designed

- Built-in logic to detect interference, provide suggested corrective actions and prevent operation until the error has been cleared
- Can be integrated into switchgear secondary control circuits, (SCADA) systems, Modbus® interface or discrete wiring
- Intelligent input/output (I/O) controls allow users to connect or disconnect individual auxiliary compartments
- Pendant will override remote communication system controls when plugged into a specific circuit breaker or auxiliary MR2 port
- The MR2 system tracks and logs racking records to simplify the scheduling of equipment maintenance
- Available as a field retrofit



Auxiliary compartment in withdrawn position



Eaton
1000 Eaton Boulevard
Cleveland, OH 44122
United States
Eaton.com

Eaton
Electrical Sector
5050 Mainway
Burlington, ON L7L 5Z1
Canada
EatonCanada.ca

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Printed in USA
Publication No. PA02200004E / Z19018
March 2017

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