

Magnum remote racking device (MRR1000)



Eaton's MRR1000 remote racking device provides a means of remotely inserting or removing any drawout circuit breaker in the Magnum™ DS family of air circuit breakers (ACBs), to help mitigate arc flash exposure.

The MRR1000 permits the operator to remotely open and close a breaker from up to 25 feet away during the rack-in or rack-out process, a distance well beyond the arc flash boundary for traditional LV switchgear.

The danger

Electric arcs result from thermal ionization that occurs when current flow is interrupted by the separation of conductors. Thermal ionization can generate temperatures as high as 35,000°F. Conductor materials melt into metal vapor and the surrounding air is ionized.

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

Increased safety precautions and the need to protect personnel from the dangers of potential arc flash occurrences suggest the need to increase the distance between an operator and the front of a switchgear lineup during racking operations.

Features

- 120 Vac power supply (with plug)
- Works with all breakers in the Magnum DS family (MDS, MDN, SBS, SBN, and CM52)
- Locking fixture mounts directly to Magnum DS breaker escutcheon (see **Figure 3** and **Figure 4**)

- 25-foot umbilical cord between operator and device
- Hand-held pendant with OPEN/CLOSE and IN/OUT pushbuttons, with ENABLE button (see **Figure 2**)
- Ready lights indicating power to the unit and pendant
- Safety interlock prevents operation of unit until it is safely locked in place
- Complete racking in 25 seconds or less
- Handles for ease of installation

Benefits

- Device gets operator outside the arc flash boundary
- Racking/operation of breakers can be done without having to wear cumbersome or restrictive PPE apparel
- Mounts to existing Magnum DS breakers without the need for any modifications to doors, breakers, or structures
- Allows for manual operation of breaker (OPEN/CLOSE) as well as racking
- ENABLE button on pendant requires two hands for safe operation of device, preventing accidental operation
- Lightweight construction makes it easy to move from breaker-to-breaker, and compact design allows for easy storage



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Figure 1. MRR1000 connected to Magnum DS breaker



Figure 2. MRR1000 hand-held pendant



Figure 3. MRR1000 neoprene locking fixture



Figure 4. MRR1000 fixture locking handle

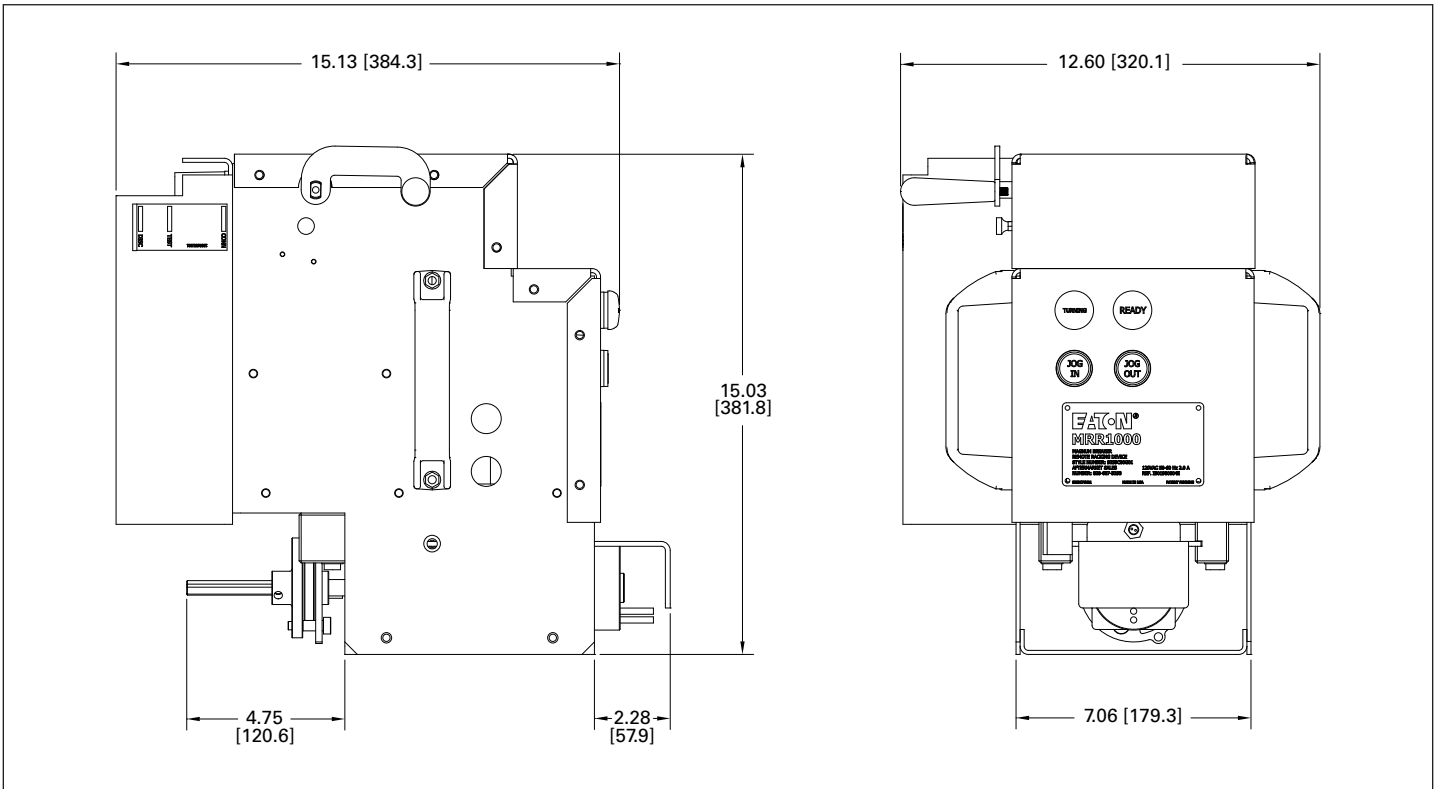


Figure 5. MRR1000 drawing dimensions

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