

# Compact and safe HVAC/R circuit protection



# The power of one.

Eaton and Cooper have united to provide ultimate leadership in circuit protection. What's more, our comprehensive portfolio of AC and DC circuit protection solutions is backed by an even broader range of products and services for HVAC/R applications, including:

- Overcurrent protection
- Overvoltage protection
- Disconnects
- Fuse blocks, power distribution blocks, terminal blocks
- Contactors, motor starters, relays
- Motor control centers
- Medium voltage motor control

**More solutions. More expertise. Expect more.**

## Problem solver

### Challenge

An industry-leading manufacturer and distributor of HVAC systems was designing a new panel that did not pass testing due to thermal considerations. In order to increase airflow through the panel, engineers were considering implementing additional fans into the panel design.

### Solution

Eaton's Bussmann business proposed to use our 600V/60A Class R fuse block with our energy efficient Fusetron fuses. After testing, our solution ran cooler in the same footprint and allowed the additional cooling fans to be removed from the panel design. This change reduced the overall operating temperature in the panel, eliminated the cost of the additional fans and reduced the required assembly labor of the panel.



# Benefits of Eaton's circuit protection solutions

## Compact products

Eaton offers a comprehensive portfolio of overcurrent and overvoltage products that protect HVAC/R equipment. Because space is critical in the panel, our products are engineered to save space, which translates into significant cost savings, greater flexibility and easier installation.

## Innovative solutions

Our team of experts continually introduces innovative solutions that enable your equipment to operate more safely and efficiently. Our products save space in the panel, have lower watts loss and quicker product installation while reducing maintenance time and inventory.

## Enhanced safety

For more than 100 years, Eaton has protected equipment and businesses from electrical hazards. As the experts in safe system design and application, our products are UL Listed or Recognized for enhanced safety and many products offer IP20 finger-safe protection.



## Compact. Innovative. Safe.

Eaton offers HVAC/R OEMs a comprehensive portfolio of overcurrent and overvoltage circuit protection products. Our leading solutions offer protection of electrical and electronic system components within the control panels that power HVAC/R equipment. For safe and reliable circuit protection, partner with a company with more than 100 years of innovation and proven technical expertise.

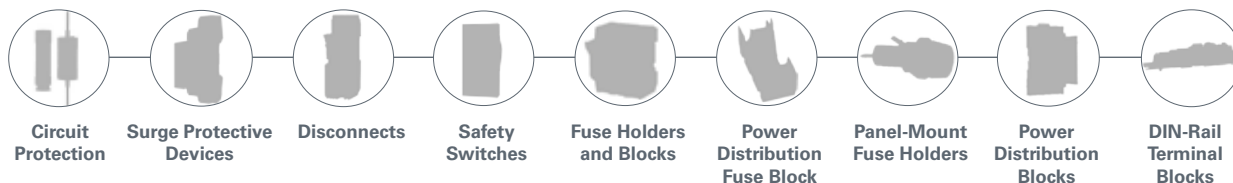
Our team of experts designs each product to not only enhance safety and reliability, but also reduce the footprint of the panel. We understand the challenge of saving space in the panel and address it with innovative products. For example, our power distribution fuse block

uses up to 50 percent less panel space when compared with traditional power distribution block/fuse block solutions.

What's more, our team of Application Engineers and Sales Engineers can recommend solutions for reducing footprint and saving installation time, all while providing the industry's best protection. They can also guide you in the selection of cost effective products to further drive down costs for your customers.

Learn more at [www.cooperbussmann.com/HVAC](http://www.cooperbussmann.com/HVAC).

Eaton has a complete portfolio of HVAC/R solutions to meet your needs







## Portfolio spotlight: circuit protection solutions that exceed expectations



### Circuit Protection

- Fusetron™ Class RK5 fuses are on average 23% more energy efficient\*
- Low-Peak™ fuses offer superior current limitation to help increase panel Short-Circuit Current Rating (SCCR)
- Molded case circuit breakers designed for the HVAC/R industry



### Fuse Holders and Blocks

- Power distribution fuse blocks use 50% less panel space and reduce installation time by 33% compared with traditional solutions
- Up to 200kA withstand rating helps achieve high SCCR
- IP20 finger-safe covers with lock-out/tag-out capability enhance the overall safety of the panel



### Power Distribution Blocks

- High SCCR, up to 200kA, helps achieve high assembly SCCR
- UL 1953 listed products available that meet feeder circuit spacing requirements per UL 508A
- Both open-style and finger-safe products offered for application versatility



### Disconnects

- Full range of open and enclosed disconnect switches and operators
- Finger-safe, fusible compact circuit protector disconnect is 1/3 the size of traditional solutions and is horsepower rated for protecting motor circuits
- Local and remote open fuse indication speeds troubleshooting



\* Test results are based on weighted sales volume of FUSETRON and Ferraz Shawmut (Mersen) fuses by selected amp and volt rating combination.





**Air handling unit** (A)



**Chiller** (B)



**Parallel refrigeration rack** (C)



**Cooling tower** (D)



**Condenser/fluid cooler** (E)

# HVAC/R product applications: where the pieces connect

Eaton offers a portfolio of solutions that is specifically tailored for HVAC/R equipment panels.

	Air handling unit	Chiller/parallel refrigeration rack	Cooling tower	Condenser/fluid cooler
UL branch circuit and supplemental fuses	✓	✓	✓	✓
Definite purpose molded case circuit breakers	✓	✓	✓	✓
High speed fuses	✓	✓	✓	✓
Surge protective devices	✓	✓	✓	✓
Disconnect switches	✓	✓	✓	✓
Safety switches	✓			
Fuse holders and blocks	✓	✓	✓	✓
Power distribution fuse blocks	✓	✓	✓	✓
Power distribution blocks	✓	✓	✓	✓
DIN-Rail terminal blocks	✓	✓	✓	✓

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