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Circuit Breaker Arc-Fault Circuit Interrupters (AFCIs) – Myth vs. Fact

Cost

Myth: AFCI circuit breakers required in new home construction can cost $3,000+ per home making them unaffordable.

Fact: The average cost for an AFCI circuit breaker is $38 (according to a NEMA blind survey for 2017 HUD Manufactured Housing Construction Safety Standards), or approx. $300 to protect a new 2,000-square-foot, four-bedroom home from electrical fires caused by electrical arcing. That's about 83 cents per month to protect a family from electrical fires over a 30-year mortgage. In contrast, material and hefty labor costs associated with installing a home builder upgrade like granite countertops averages around $4,500, or $12.50 per month over the same period. The National League of Cities indicates home builder "labor and costs are by far the biggest construction expenses nationwide," resulting in rapidly rising home prices.

Appliance Compatibility

Myth: AFCI circuit breakers are not compatible with common household appliances.

Fact: AFCI circuit breakers work extremely well with new appliances that meet U.S. product safety standards. Some older appliances may incorporate components that pre-date current product safety standards or have operational characteristics that are not compatible with AFCI protection. Counterfeit appliances or those not certified by a Nationally Recognized Testing Laboratory (NRTL) may also be incompatible with AFCI circuit breakers.

AFCI/GFCI Compatibility

Myth: AFCI circuit breakers and Ground Fault Circuit Interrupters (GFCIs) won't work together**.**

Fact: AFCI circuit breakers and GFCIs complement and function very well together in providing electrical safety and fire protection throughout the home. Both devices are required by the 2026 National Electrical Code® because they provide different but critically important protection. AFCI circuit breakers detect dangerous arcing in a home's wiring and stop electrical fires before they can start. GFCIs are required in rooms like kitchens,

bathrooms and laundry rooms where water is present and help prevent possible shock and electrocution. There are dual function AFIC/GFCI circuit breakers on the market today that provide both types of protection in one device.

Product Availability

Myth: AFCI circuit breakers are hard to find.

Fact: Several companies manufacture AFCI circuit breakers for consumers to choose from. AFCI circuit breakers can be purchased at electrical supply houses, home improvement stores, and online.

AFCI Lifespan

Myth: AFCI circuit breakers only last one year or need frequent replacement.

Fact: AFCI circuit breakers are tested and certified to extremely rigorous U.S. product safety standards. When installed correctly, AFCI circuit breakers are expected to last the life of a standard circuit breaker under normal operating conditions. AFCI circuit breakers also carry a manufacturer's warranty.

NEMA Position

The National Electrical Manufacturers Association actively supports and promotes the installation and use of AFCI technology in accordance with the National Electrical Code in residential and commercial buildings as an important electrical safety device to protect persons and property

About NEMA

The National Electrical Manufacturers Association (NEMA) represents over 300 electrical equipment manufacturers that make safe, reliable, and efficient products and technologies that power, connect, and light our world. Together, our members contribute a full 1% of U.S. GDP and directly provide over 590,000 American jobs, adding more than $375 billion to the U.S. economy. Learn more at makeitelectric.org