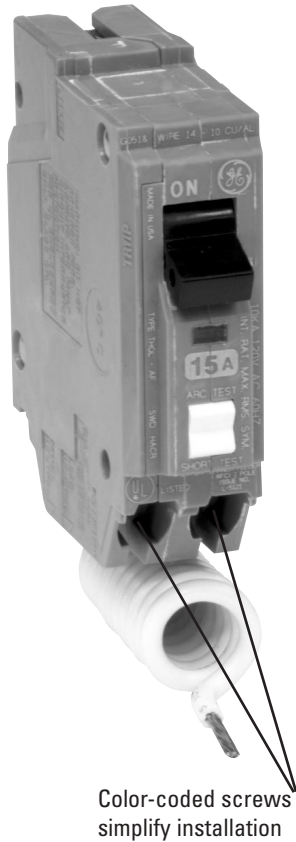




## Arc Fault Circuit Interrupters

THQL1115AF



THQL2115AF



- **Industry first:** the only available AFI breaker with a dual-function test button, providing two safety tests
- **Locate tripped breakers fast** with trip notification flag and distinctive gray housing
- **2-pole breaker solution** for shared neutral wiring
- **Protects the entire circuit** with an easy plug-in breaker design
- **Fulfills 2002 National Electrical Code** requirements for dwelling unit bedrooms

**The Problem:** Electrical fires in homes break out more than 40,000 times each year in the U.S. alone. A significant portion of these fires result from arc faults, which are unintended electrical arcs – caused by damaged, aged or improperly used electrical wires – that may cause the ignition of combustible materials in the home.

**The GE Solution:** In addition to protecting against short circuits and overloads, an AFI electronically identifies unique current and voltage characteristics of arcing faults and de-energizes the entire circuit when the fault occurs.

# Arc Fault Circuit Interrupters

## Product specifications

- Wire size 14-10 AWG 60/75°C Cu/Al
- 1" module per pole – for use in all GE PowerMark™ Load Centers and A-Series™ Type AL Panelboards

Poles	Amperage	Voltage	10kAIC	22kAIC
1	15	120	THQL1115AF	THHQL1115AF
	20	120	THQL1120AF	THHQL1120AF
2	15	120/240	THQL2115AF	THHQL2115AF
	20	120/240	THQL2120AF	THHQL2120AF

## Standards and Approvals

- UL Listed (Molded Case Circuit Breakers) UL 489
- UL Listed (Arc Fault Circuit Interrupters) UL 1699
- CSA Listed (Molded Case Circuit Breakers) CAN/CSA-C22.2 No. 5.1, 1 Pole Only
- CSA Listed (Interim Requirements for Arc Fault Circuit Interrupters) TIL No. M-02, 1 Pole Only

## GE AFCI breakers deliver 5 kinds of protection

1. Parallel Protection— direct contact of two wires with opposite polarity (example: damaged extension cords)
2. Ground Protection – arc between a single conductor and ground (example: improperly installed wall receptacles)
3. Series Protection – arc across the break in a single conductor, which progresses to a ground or parallel arc (example: cable pierced by a nail from a wall hanger)
4. Overload Protection
5. Short Circuit Protection

## Typical causes of arc faults

- Damaged wires
- Receptacle leakage
- Neutral leads pinched to grounded metal box
- Worn electrical insulation
- Wet connections or conduit
- Loose electrical connections
- Shorted wires
- Wires or cords in contact with vibrating metal
- Overheated or stressed electrical cords and wires
- Misapplied/damaged appliances

## Wiring Diagrams

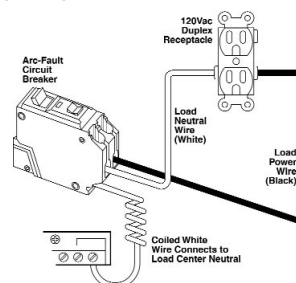


Diagram A. 1-pole 120Vac 2-wire branch circuit

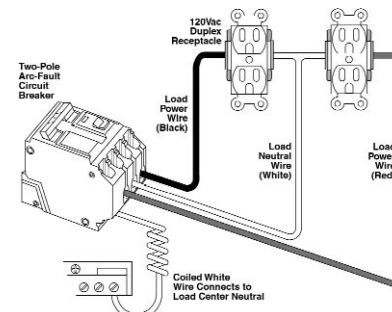


Diagram B. 1-pole shared neutral with multi-duplex receptacle application

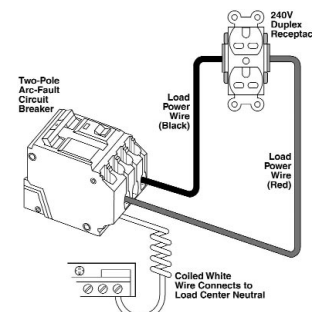


Diagram C. 2-pole shared neutral with duplex receptacle

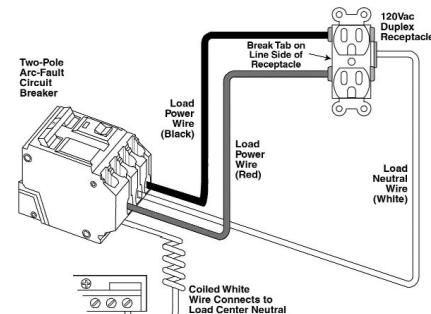


Diagram D. 2-pole 240Vac load application derived from 120/240Vac



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