SIEMENS Q115DFP Dual Function Afci-Gfci Circuit Breaker Instruction Manual

Contents

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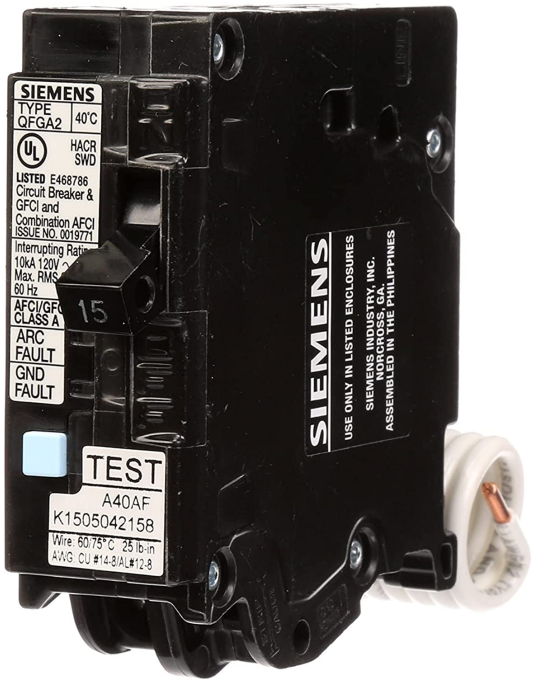


SAFETY INSTRUCTIONS

DANGER
Hazardous voltage.
Will cause death or serious injury.
Turn off and lock out power-supplying equipment before installing AFCI/GFCI.

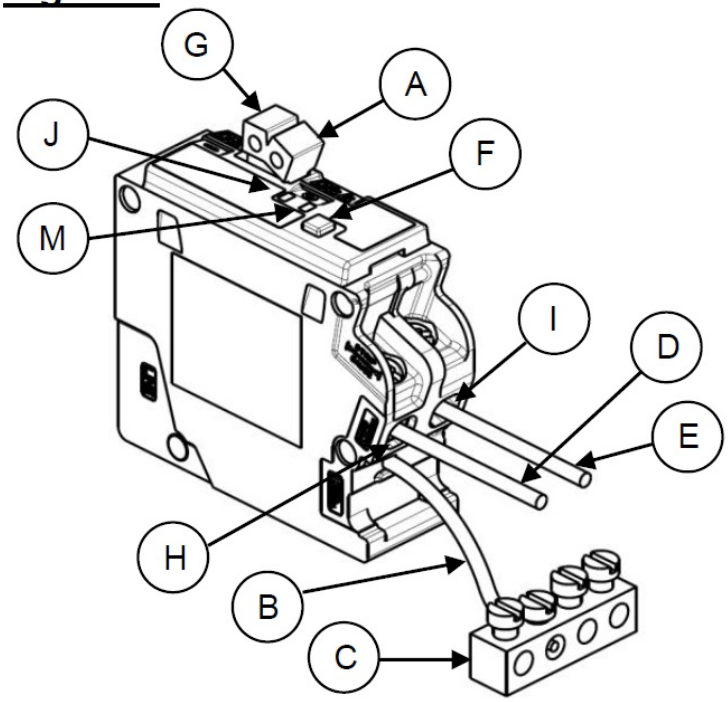
1. AFCI/GFCI circuit breakers must be installed and serviced by a qualified electrician only.
2. To be installed only on a single phase 120VAC grounded system.
3. To prevent severe shock or electrocution, always turn the power off before working on or inside the equipment.
4. Replace all doors and covers before turning on power to this equipment.

CAUTION
Hazard of Equipment Damage.
Will cause Damage to the AFCI/GFCI Module.
Do not reverse-feed or back-wire. Do not subject to megger, high voltage, or hi-pot test. Remove the breaker before high-potting occurs on the system or on the circuit.

INSTALLATION INSTRUCTIONS

See Figure 1

Figure 1



1. Turn “OFF” and lock out the power to the equipment in which the AFCI/GFCI is to be installed.
2. Move the handle of the breaker (A) to the “OFF” position.
3. Engage the back of the AFCI/GFCI with the mounting tabs in the panelboard. For the plug-in type, push down firmly on the front end to engage the line terminal stab. For the bolt-in type, securely fasten the line terminal to the panelboard load bus.
4. Connect the panelboard neutral (pig-tail) (B) wire to a load center or panel neutral bar (C) as shown in Fig.1. Torque per specifications on the wiring diagram or equipment label.
5. Strip insulation offload wires to a length of 3/8 in.
6. Connect load neutral wire (D) into the terminal (H) and load power wire (E) to the terminal (I) as shown in Fig.1.

Ensure that wire connectors are properly torqued to 25 lb in.

TESTING INSTRUCTIONS

1. Turn on power to load center or panelboard.
2. Turn “ON” the AFCI/GFCI handle.
3. Press blue test button (F) as shown in **Fig.1**.

The AFCI/GFCI breaker is functioning properly when:

1. The circuit is interrupted.
2. The handle moves to the tripped center position (G) as shown in **Fig.**1.
   LEDs (J, M) are used to indicate the last know trip condition.
   Note: Test every month

TROUBLESHOOTING

Problem: ***AFCI/GFCI does not trip after pressing the test button.***	
Possible Cause	***Solution***
Panelboard is not energized	Check to ensure that the panelboard is energized.
The circuit breaker handle is in the “ OFF” position	The circuit breaker handle must be in the “ON” position.
The circuit breaker is in the tripped p osition	Reset the circuit breaker by switching the handle to the “OFF” position a nd then to the “ON” position.
Panel neutral (pigtail) is not connected to the neutral bus bar	Check that the load power wire, panel neutral (pig- tail) wire and load ne utral wire are properly connected.
Problem: ***AFCI/GFCI trips immediately after the AFCI/GFCI or a connected device has been turned on.***	
Possible Cause	***Solution***
The arc-fault circuit interrupter is not wired properly.	Check that the load power wire, panel neutral (pig- tail) wire and load ne utral wire are properly connected. A qualified electrician should make th e repairs.
Short-circuit	If the AFCI/GFCI trips when a device is turned on, remove the device fro m the circuit and turn the AFCI/GFCI on. If the AFCI/GFCI does not trip t his would indicate a short in the device. A qualified electrician should make the repairs.
AFCI/GFCI does not have a dedicated neutral	Check wiring to ensure that there are no shared neutral connections.
AFCI/GFCI does not have the correc t neutral	Check wiring to ensure the load power wire and load neutral wire are fro m the same branch circuit

A ground-fault condition exists	A quick way to check for ground-fault conditions is to substitute a GFCI circuit breaker in place of the AFCI/GFCI. If the GFCI trips, then you hav e a ground-fault condition. A common ground fault is a grounded neutral, which may only cause a trip under load. This occurs when the neutral conductor contacts a grounded conductor, so c heck your junction box and fixture connections.
An arc-fault condition exists	Reset the circuit breaker by switching the handle to the “OFF” position a nd then to the “ON” position. If the AFCI/GFCI trips again, call a qualified electrician to make the repairs.
Problem: ***AFCI/GFCI trips after it has been turned on, but not immediately***	
Possible Cause	***Solution***
The arc-fault circuit interrupter is not wired properly.	Check that the load power wire, panel neutral (pig- tail) wire and load ne utral wire are properly connected. A qualified electrician should make th e repairs.
Overloaded circuit	There are probably too many devices plugged into the circuits and overl oading the AFCI/GFCI.
An arc-fault condition exists	Reset the circuit breaker by switching the handle to the “OFF” position a nd then to the “ON” position. If the AFCI/GFCI trips again, call a qualified electrician to make the repairs.
If solutions do not work, the AFCI/GFCI circuit breaker must be replaced.	
AFCI/GFCI will need to be replaced if the following conditions are displayed by the yellow LEDs	
LED (J): Blinking LED(M): Blinking	
LED Indication Guide (after recent trip has occurred)	

Turn AFCI/GFCI to “ON” position

Observe LED indications and compare to chart at right:

LED indications will appear for 5 seconds each time the AFCI/GFCI is turned “ON” LED display will appear each time the AFCI/GFCI is reset up to 30 days after last trip.

LED INDICATOR		**LAST KNOWN TRIP CONDITION**
LED (J)	**LED (M)**	
OFF	OFF	OVERCURRENT
ON	OFF	ARC FAULT or PTT Passed
ON	ON	ARC FAULT TO GROUND
ON	ON	GROUND FAULT

The last known trip condition can be cleared by the following process:

1. Turn the AFCI/GFCI to the “OFF” position.
2. Press and hold the PTT button.
3. Turn the AFCI/GFCI to the “ON” position.
4. Release the PTT button after 3 seconds.

Documents / Resources

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