

What is a 5 mA Ground Fault Protection System

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Two base models are offered:

AG Ground Fault Relay
for wire bundle diameter sizes up to 0.75" diameter

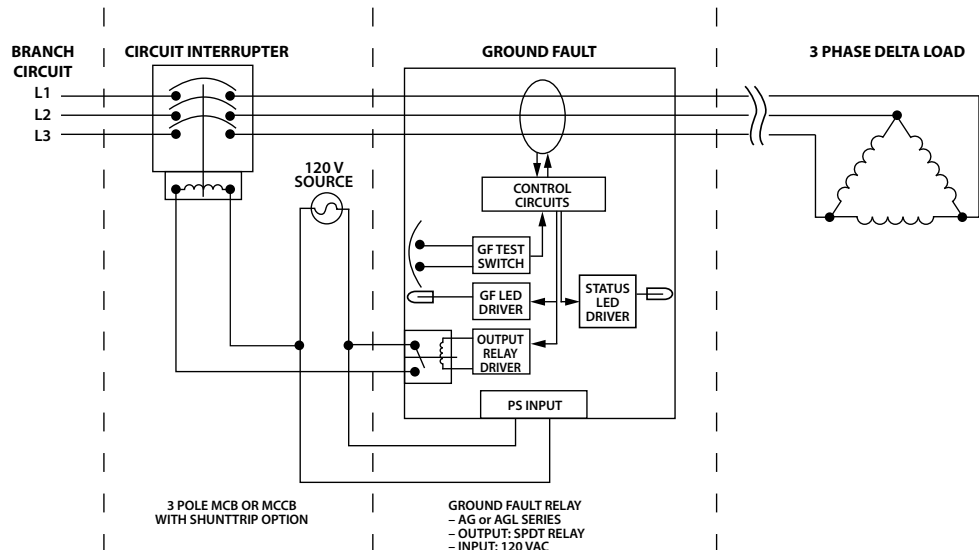


AGL Ground Fault Relay
for wire bundle diameter sizes up to 1.82" diameter



A ground fault circuit interrupter solution that meets intent of 2020 & 2023 National Electric Code (NEC) Article 210.8 (B) through (F), ground fault protection for branch circuits within wet locations. The system includes an AC ground fault relay that trips at 5 mA and separate circuit interrupter device.

A shunt-trip breaker with a ground fault relay is a common configuration widely adopted across multiple market segments and decades of reliable operation. The [ground fault circuit interrupter](#) solution is suitable for single or three phase, 15 A to 100 A branch circuits that protects against both overload current and ground fault currents greater than 5 mA.

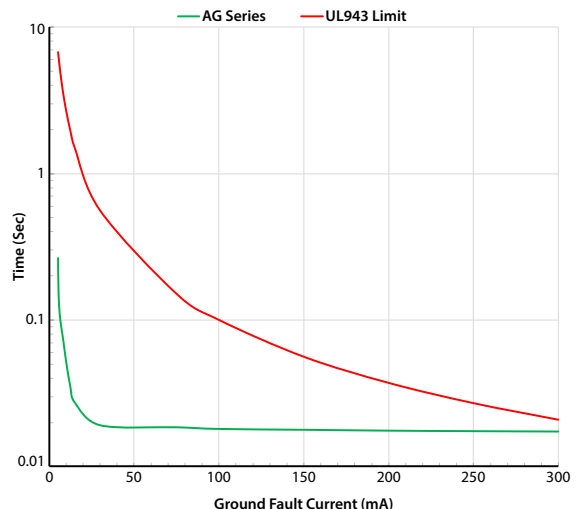


A cost effective, compact ground fault circuit interrupter solution installed in the existing panelboard. Installation does not require special hardware, no special tools, easy installation, easy setup and compatible across all OEM panel boards. Can service 30 A to 50 A 120 VAC to 240 VAC single phase or 15 A to 100 A, 208 VAC to 240 VAC three phase branch circuit. Need help selecting an AC ground fault relay for the branch circuit and appliance. [Click Here to Review our Ground Fault Relay Selection Guide.](#)

When a ground fault current exceeds 5 mA NK Technologies AG, or AGL, ground fault current relay will respond "within an established period of time", refer to figure 1. When circuit interrupter (CI) receives a fault signal from the relay, CI will de-energize the branch circuit or portion thereof.

When a shunt-trip breaker is manually reset and the ground fault current incidence has not been cleared, then the ground fault relay will command CI to de-energize the branch circuit. It is necessary to energize the branch circuit removing the ground fault defect.

**ESTABLISHED PERIOD OF TIME
AG SERIES -VS- UL943**



APPLICATION NOTE

5 mA Ground Fault Circuit Interrupter Solutions for Single or Three Phase Circuits up to 100 Amps

Cost Effective, Readily Available, Designed and Assembled in the USA



NK Technologies 5 mA Ground Fault Circuit Interrupter Solution Benefits

- Meets intent of 2020 NEC 210.8 defined term ground fault circuit interrupter.
- Compact relay size allows for multiple mounting opportunities anywhere from the breaker to the appliance.
- Inventory and unrivaled in-house expertise within the USA.
- When you call, chat or email our application support team will answer promptly.
- Industry leading 5-year warranty.

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