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To: Inspectors and Contractors using Eaton Advanced Circuit Breakers

From: Sergio R. Pérez, Associate Product Manager, Miniature Circuit Breakers

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Subject: Hand-held GFCI testers may take longer than expected to trip Eaton GFCI breakers

Eaton's Dual Function and Ground Fault Circuit Breakers were recently re-engineered to reduce nuisance trips in the field—especially in environments with fast transient currents caused by variable frequency drives or motor controllers. To achieve this, these breakers are designed to "ride through" transient currents on the equipment grounding conductor (EGC), which can sometimes be misinterpreted as faults.

The breaker's response to handheld GFCI testers has changed as a result. These testers typically simulate a ground fault by applying a between 7-10mA of current between hot and ground. Because our breakers are tuned to avoid false trips, they may not trip immediately when tested this way.

According to UL 943 standards, the breaker has up to 2.7 seconds to interrupt a 10mA ground fault. With a 7mA ground fault, we have nearly 4.5s to interrupt. This performance has been tested and approved by UL and ensures better performance in real-world conditions. **If your handheld GFCI tested is not tripping Eaton GFCI breakers, hold the button down longer,** and you should see better results.

Table 1: Example Catalog Numbers

1 Pole Breakers		
Catalog Number	Catalog Number	Catalog Number
BRP115GF	CHFP115GF	CLDF115
BRP120GF	CHFP120GF	CLDF120
BRP115DF	CHFN115DF	CLGF115
BRP120DF	CHFN120DF	CLGF120
BRN115DF	CHFN115GF	CLGF125
BRN115GF	CHFN120GF	CLGF130
BRN120DF	CHFN125GF	
BRN120GF	CHFN130GF	
BRN125GF		
BRN130GF		

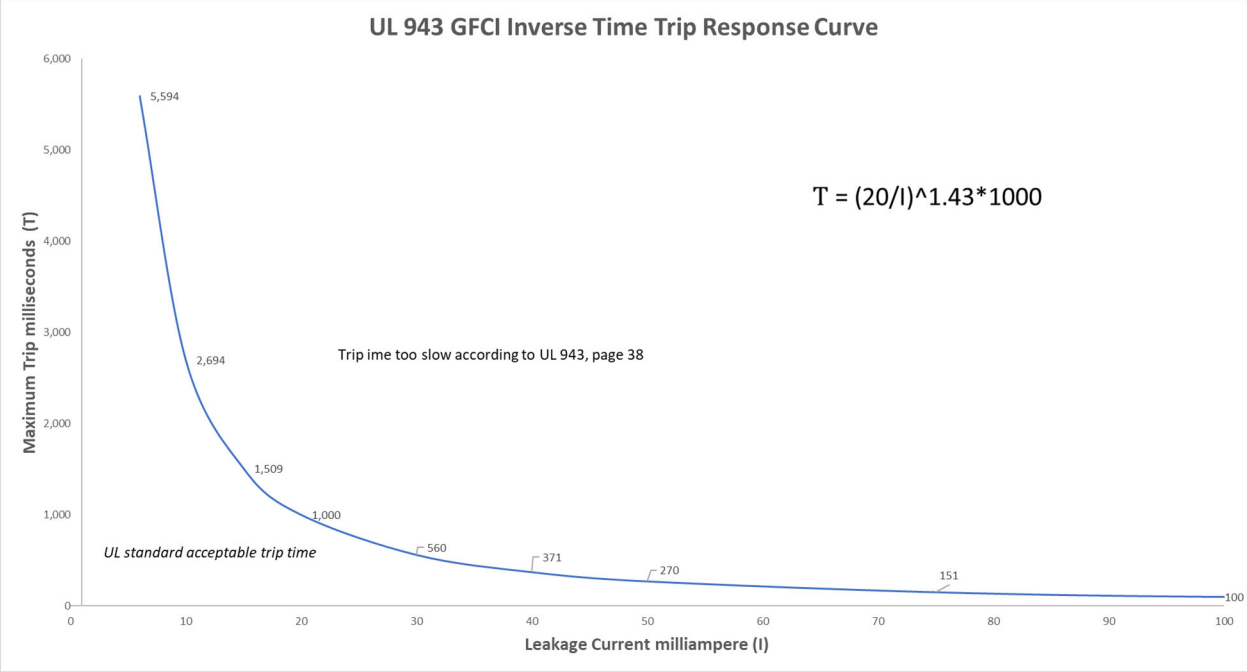


Figure 1 - Leakage Current vs. Trip Time

Please feel free to call me or email me with any questions.

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Sergio R. Pérez
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