

Arc Fault Protection of Branch Circuits for Dwelling Units

Did You Know?

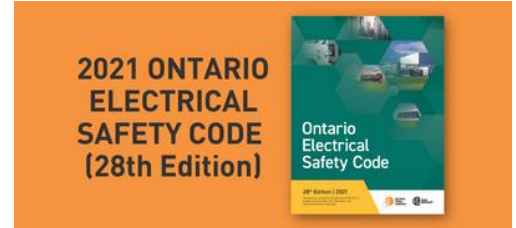
Arc faults are the leading cause of fires in homes.

They are also one of the top five defects identified by ESA Inspectors.

In fact, reports estimate that 50 to 75 per cent of all electrical house fires in the United States are caused by arc fault conditions.^{*1,2} Arcing can occur in milliseconds or over decades prior to a fire developing, due to factors such as current level or duration.

Arc fault protection is a means of recognizing characteristics unique to both series and parallel arc-faults and de-energizing the circuit when arc-fault is detected. This protection is achieved by a combination type arc-fault circuit interrupters, which are breakers that provides both series and parallel arc-fault protection to the entire branch circuit wiring.

AFCIs are required to be marked “ARC FAULT CIRCUIT INTERRUPTER” or “AFCI”; and type of AFCI, whether combination type AFCI (which shall be marked, “Combination”) or outlet branch-circuit-type AFCIs (which shall be marked “OBC” or “Outlet Branch-Circuit”).



Ontario Electrical Safety Code Rule Pertaining to AFCI Protection

26-658 Arc-fault protection of branch circuits for dwelling units

1. *On the Safety Circuit: A Fact Sheet on Home Electrical Fire Prevention United States Fire Administration (2006).*
2. *Oct.1, 2002 CPSC–NFPA Technical Committee Document Proposal Form.*

For more information on Ontario Electrical Safety Code requirements related to AFCI protection in dwelling units, refer to bulletin 26-18-* (https://esasafe.com/assets/files/esasafe/pdf/Electrical_Safety_Products/Bulletins/26-18-13.pdf)

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